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METANODOTTO
INTERCONNESSIONE TAP DN 1400(56"), DP 75 bar
TERMINALE SRG DI MELENDUGNO (LE)

RELAZIONE DI CALCOLO STRESS ANALYSIS

2	Emissione per appalto	A. PIERRO	M.BEGINI	H.D. AIUDI F. FERRINI	11/08/17
1	Revisione generale - Emissione per commenti	A. PIERRO	M.BEGINI	H.D. AIUDI F. FERRINI	12/05/17
0	Emissione per commenti	A. PIERRO	M.BEGINI	H.D. AIUDI F. FERRINI	11/08/16
Rev.	Descrizione	Elaborato	Verificato	Approvato Autorizzato	Data

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1. GENERALE

1.1. Introduzione

La relazione di stress analysis cui si riferisce il presente documento, rientra nell'ambito del progetto per la realizzazione del terminale di ricezione della condotta Trans Adriatic Pipeline (TAP), in località Melendugno (LE).

1.2. Scopo

Scopo della relazione è la verifica delle sollecitazioni a stress dei componenti meccanici (tubazioni, fittings, valvole) all'interno dell'impianto di Melendugno. Nel caso i componenti meccanici non verificassero, saranno rifatti i calcoli in seguito ad azioni correttive.

La verifica è stata eseguita con il programma di calcolo Caesar II sulla base delle indicazioni riportate nella ASME B31.8 "Gas Transmission and Distribution Piping Systems".

1.3. Abbreviazioni

ANSI	American National Standard Institute
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers

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2. DOCUMENTI DI RIFERIMENTO

2.1. Documenti di progetto

/1/ IPR01-URS-000-Q-TRG-0001 Studio geotecnico e geofisico nell'area del Terminale di Ricezione del Gasdotto

Documentazione meccanica

/2/ 13167-MEC-103 Montaggio tubazioni
 /3/ 13167-MEC-110 Schizzi assonometrici
 /4/ 13167-SPC-MEC-108 Specifica di linea

Altri documenti di riferimento sono individuabili all'interno dei file sopracitati.

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2.2. Normativa di riferimento

LEGGI

Decreto Ministeriale 17/04/2008: Regola tecnica per la progettazione, costruzione, collaudo, esercizio e sorveglianza delle opere e degli impianti di trasporto di gas naturale con densità non superiore a 0.8.

ANSI/ASME

ASME B31.8 Gas transmission and distribution piping system

API

API 5L Specification for line pipe

GASD

A.05.70.01 Trappola bidirezionale (Tipo B)

A.02.23.xx Valvole a sfera

A.02.13.xx Valvole a rubinetto

A.03.01.xx Fittings (Curve, tee, ecc)

A.04.01.01 Flange

A.01.01.xx Tubi di acciaio per gasdotti

A.01.20.01.03 Curve di acciaio per gasdotti - Raggio di curvatura R=7D

C.04.01.00 Manuale di progettazione gasdotti

Altre specifiche Snam Rete Gas e documentazione contrattuale.

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3. DATI BASE

3.1. Temperatura e pressione di calcolo

I calcoli di stress analysis sono stati effettuati utilizzando le seguenti condizioni di pressione e temperatura di progetto:

- Temperatura di progetto: 60°C
- Temperatura di installazione: 15°C
- ΔT (progetto – installazione): 45°C
- Pressione di progetto “area 1” (vedi par. 5.1): 75 bar
- Pressione di progetto “area 2” (vedi par. 5.1): 10 bar
- Pressione di prova idraulica degli impianti concentrati: 124.7bar

3.2. Caratteristiche meccaniche tubazioni

Nell’impianto in progetto si possono individuare tubazioni di diversi diametri. In questo paragrafo saranno descritte le proprietà meccaniche di queste tubazioni.

DN		Spessore (mm)	Materiale	Lim. Snerv. (MPa)	Lim. Rottura (MPa)
(in)	(mm)				
56"	1400	21.8	L450 NB/MB	450	535
36"	900	14.2	L450 NB/MB	450	535
26"	650	11.1	L415 NB/MB	415	520
24"	600	11.1	L415 NB/MB	415	520
20"	500	11.1	L415 NB/MB	415	520
8"	200	7.0	L360 NB/MB	360	460
4"	100	5.2	L360 NB/MB	360	460
2"	50	3.9	L245 NB/MB	245	415

Tab. 3.2.1 – Caratteristiche meccaniche tubazioni in progetto

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3.3. Coefficienti di attrito

Per i coefficienti di attrito sono stati assunti i seguenti valori:

- Metallo – Neoprene 0,35
- Metallo – Cemento 0,45
- Metallo – Teflon 0,10
- Metallo – Terreno 0,50

3.4. Caratteristiche del suolo

Dalla relazione generale sulle indagini geognostiche /1/, sono stati ricavati i parametri geotecnici del terreno relativi all'impianto in oggetto.

Tali parametri sono stati impiegati per determinare le caratteristiche di resistenza del terreno (rigidezza e carico ultimo), necessarie per procedere alla stress analysis.

Per la modellazione del terreno si è utilizzato il "Caesar II Basic Model" basato sulle teorie di Peng. I valori inseriti nel modello sono stati presi come media di quelli ottenuti dai sondaggi geologici nella zona del terminale.

3.4.1 Terminale di Ricezione del Gasdotto in località Melendugno: Soil model N°2

Parametri geotecnici: Soil model N°2		
Peso specifico	kg/m ³	1950
Angolo di attrito interno	gradi	32,5
Coesione non drenata (Cu)	kg/cm ²	0,00
Profondità min. di interrimento del tubo	mm	2089

Tab. 3.4.1 – Soil model N°2: caratteristiche geotecniche del terreno

La profondità minima di interrimento si riferisce alla distanza dalla quota 0.00 impianto al top of pipe.

Caratteristiche di resistenza: Soil model N°2			
Resistenza longitudinale		Resistenza trasversale	
Rigidezza N/mm/mm	Carico ultimo N/mm	Rigidezza N/mm/mm	Carico ultimo N/mm
1,15	55	36	1800

Tab. 3.4.2 – Soil model N°2: caratteristiche di resistenza del terreno

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4. METODOLOGIA

4.1. Criteri generali di stress analysis

La verifica è stata effettuata mediante l'impiego del software di stress analysis CAESAR II (COADE-USA), in accordo alla norma ASME B31.8, ed ha incluso l'analisi dei carichi, il calcolo delle sollecitazioni e delle deformazioni sulla condotta per temperatura e pressione di progetto ed il loro confronto con i valori ammissibili. In particolare, l'analisi è stata condotta attraverso le seguenti fasi:

- calcolo degli spostamenti della tubazione in corrispondenza delle sezioni più critiche;
- calcolo delle sollecitazioni lungo il metanodotto;
- confronto delle sollecitazioni calcolate con i valori ammissibili, ed implementazioni delle eventuali azioni correttive (se necessario)
- rifacimento del calcolo con l'implementazione delle eventuali azioni correttive (se necessario)

Secondo quanto prescritto dalla normativa ASME B.31.8, l'analisi delle sollecitazioni e deformazioni è stata eseguita considerando queste tre differenti condizioni di carico:

- espansione termica (T): in cui si considera l'effetto della differenza tra la temperatura di progetto e quella di posa;
- condizione operativa (T+P+W): in cui si considera l'effetto combinato della espansione termica, della pressione di progetto e del peso della condotta e del suo contenuto;
- carico esercitato sulla condotta dalla pressione di progetto e dal peso della condotta e del suo contenuto (P+W).

Un'ulteriore verifica ha riguardato il valore dello stress (3D max intensity) calcolato secondo il metodo di Tresca. Tale sollecitazione è stata confrontata, per ciascuno dei tre casi in oggetto di verifica, con il limite di snervamento dell'acciaio, dovendo risultare inferiore al 90% di quest'ultimo al fine di garantire l'integrità strutturale della condotta.

4.2. Verifica tenuta degli accoppiamenti flangiati

Il software Caesar II permette la verifica di tenuta degli accoppiamenti flangiati. Tale verifica viene realizzata con il metodo della pressione equivalente di Kellog. L'equazione di verifica è la seguente:

$$P_{eq} = \frac{16M}{\pi G^3} + \frac{4F}{\pi G^2} + P_D \leq \text{Pressure rating della flangia}$$

dove P_{eq} è la pressione equivalente di Kellog, M è il momento flettente agente sulla flangia, F è la forza assiale agente sulla flangia, P_D è la pressione di progetto e G è il diametro effettivo di reazione della guarnizione.

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Nel caso in cui il software restituisca valori non accettabili col metodo di Kellog, verrà realizzata una verifica più accurata tramite la metodologia proposta nell'ASME VIII Div.1 ed implementata in un apposito modulo di Caesar II.

4.3. Modellazione Tie-in

Per modellare correttamente un tie-in in Caesar II è necessario modellare la rigidità della linea a cui ci si connette.

In corrispondenza del tie-in TP1 sono stati forniti i valori degli spostamenti derivanti dai risultati di stress analisi della stazione di compressione TAP di Melendugno. In questa analisi sono stati considerati gli spostamenti massimi e minimi calcolati al punto di consegna, come riportato in Tab. 4.3.1.

Tie-in	D _x [N]	D _y [N]	D _z [N]	R _x [N*m]	R _y [N*m]	R _z [N*m]
TP1	26.559	-0.002	0.023	0.115	0.000	0.0002
	-11.624	0.001	-0.014	-0.1036	-0.0001	-0.0002

Tab. 4.3.1 – Spostamenti all'interfaccia del punto di consegna TP1

Il sistema di riferimento con cui sono stati ottenuti questi spostamenti è mostrato in Fig. 4.3.1.

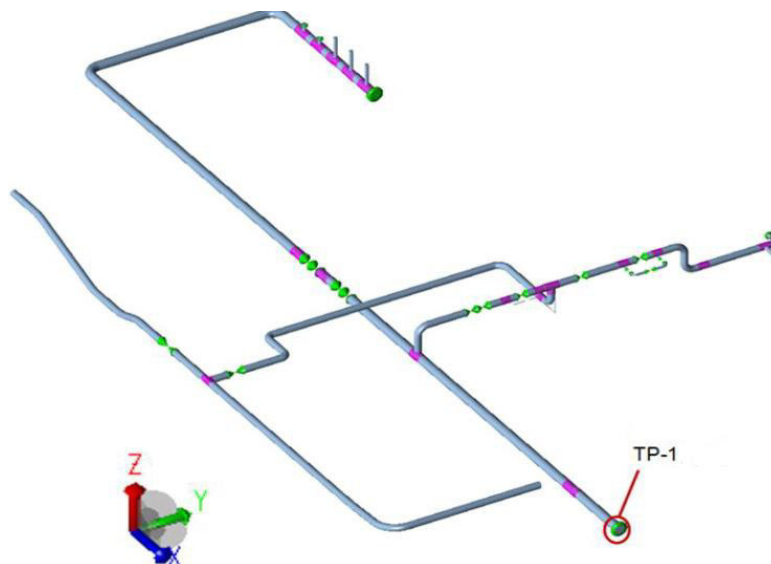


Fig. 4.3.1 – Terminale di Melendugno: modello di calcolo piping lato TAP al tie-in TP-1

Agli altri tie-in, per ottenere una modellazione più realistica possibile, sono stati inseriti circa 30 metri di tubo lineare a valle. Al termine di questo tratto lineare è stato posto un punto fisso che serve a simulare la rigidità della tubazione a valle.

Allo stesso modo un punto fisso è stato inserito al termine del tratto di Metanodotto Interconnessione TAP interno all'area impiantistica in esame, così da modellare la rigidità della tubazione completa.

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4.4. Modellazione connessione a equipment

Le connessioni in ingresso e uscita ai filtri e la connessione all'armadio di odorizzazione sono stati considerate come punti fissi, così da modellare al meglio la rigidità dell'equipment.

5. STRESS ANALYSIS

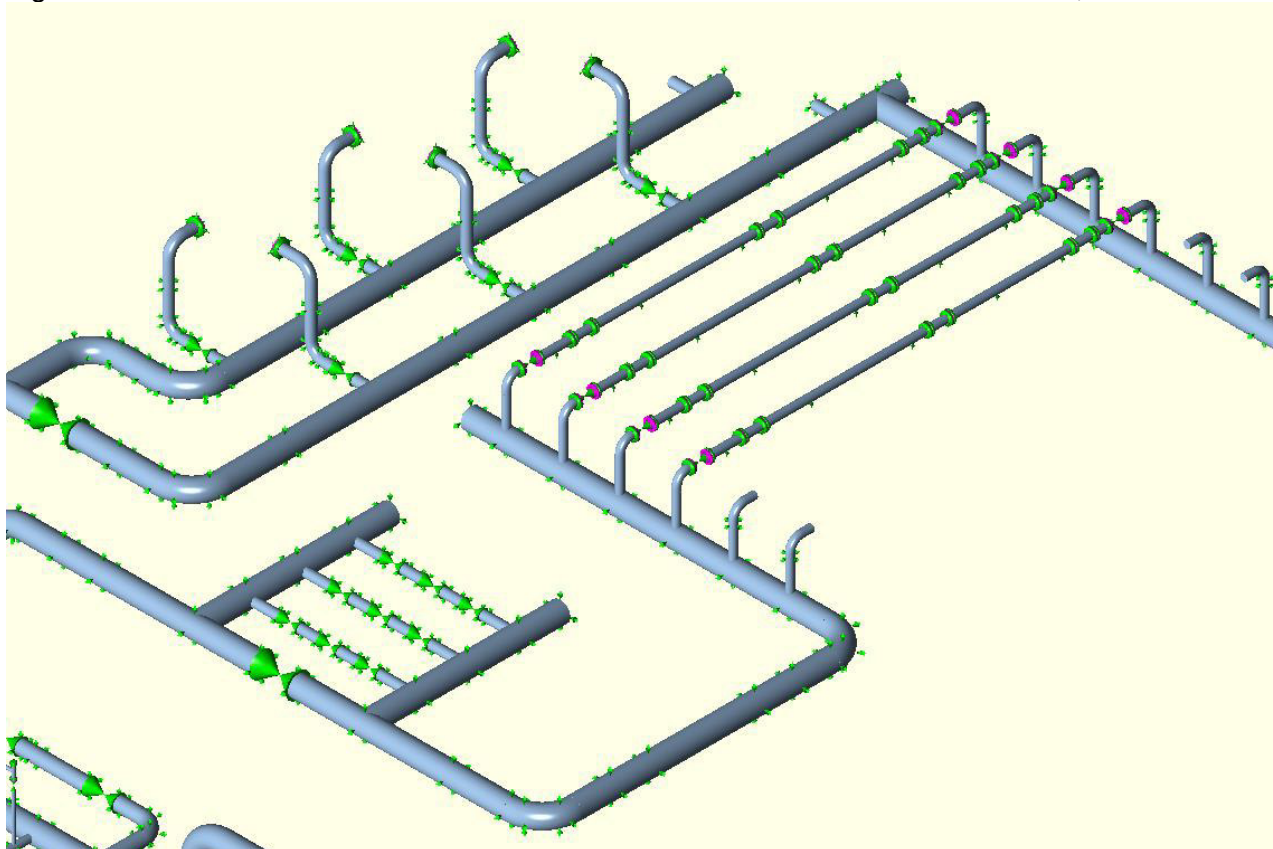
5.1. Modello di calcolo

Il modello di calcolo assunto definisce l'entità delle sollecitazioni e degli spostamenti cui sono sottoposte le tubazioni all'interno del Terminale di Ricezione del gasdotto TAP.

Vista la complessità dell'impianto, questo è stato suddiviso in due modelli:

- Area trappola, sistema di regolazione della portata, sistema di misura e sistema di filtraggio (area 1);
- Sistema di odorizzazione e misura fuel gas proveniente da impianto di riduzione TAP (area 2).

Per la visualizzazione del modello riguardante l'area 1 si rimanda alle Fig. 5.1.1, Fig. 5.1.2,



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Fig. 5.1.3 e Fig. 5.1.4. Mentre per la visualizzazione del modello di calcolo per l'area 2" si rimanda alle Fig. 5.1.5 e Fig. 5.1.6.

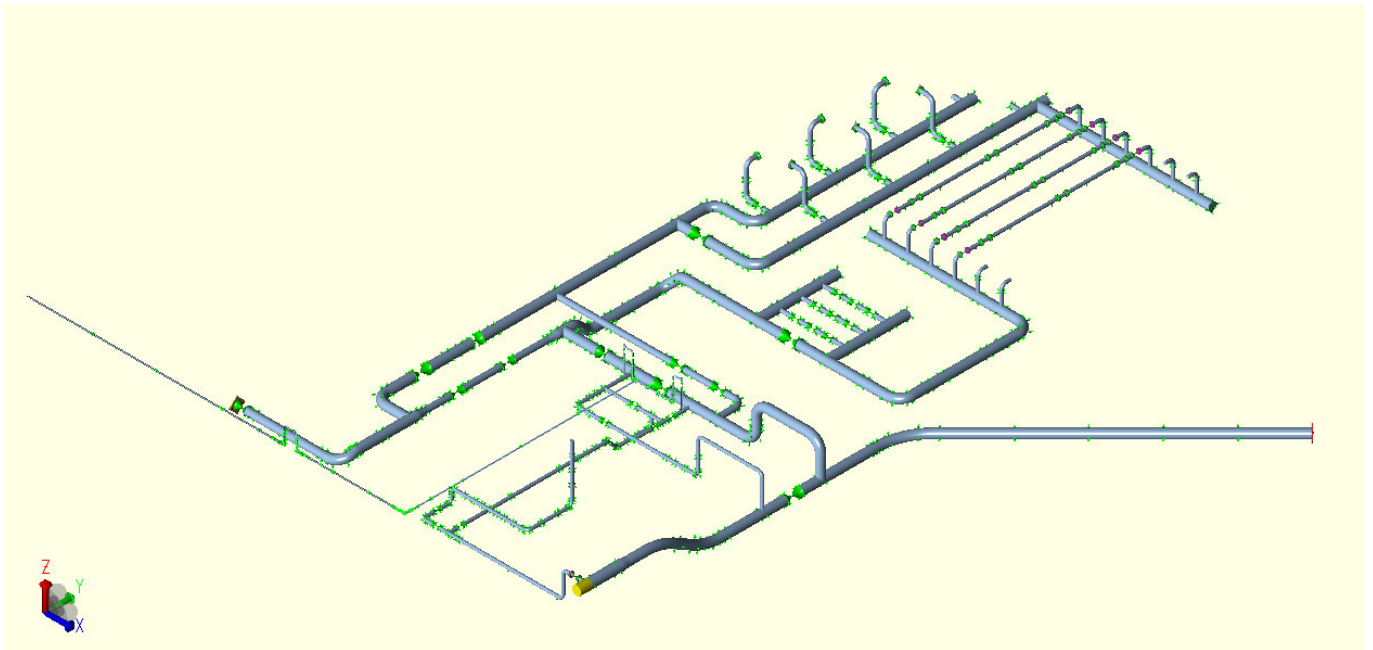


Fig. 5.1.1 – Terminale di Melendugno: modello di calcolo "area 1"

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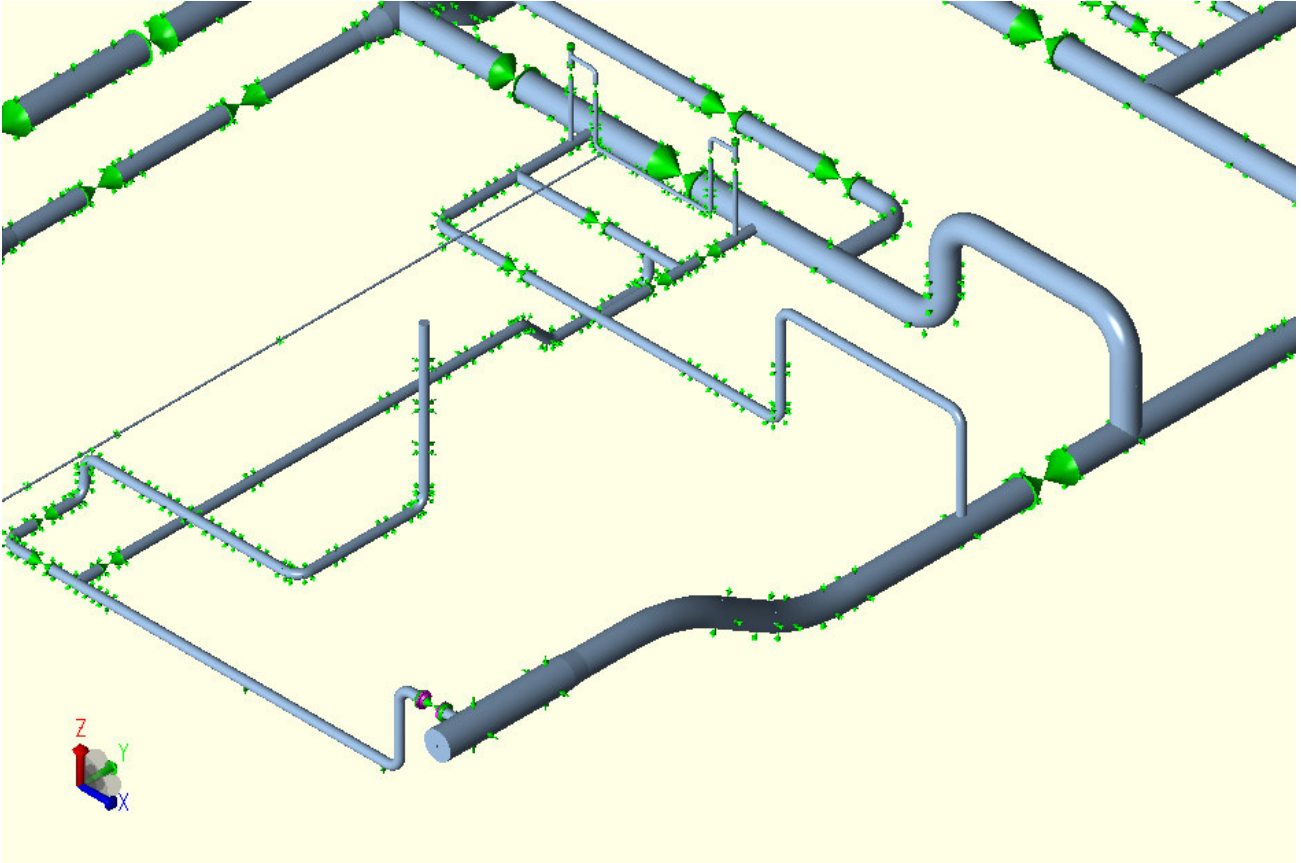


Fig. 5.1.2 – Terminale di Melendugno: dettaglio zona trappola e vent (area 1)

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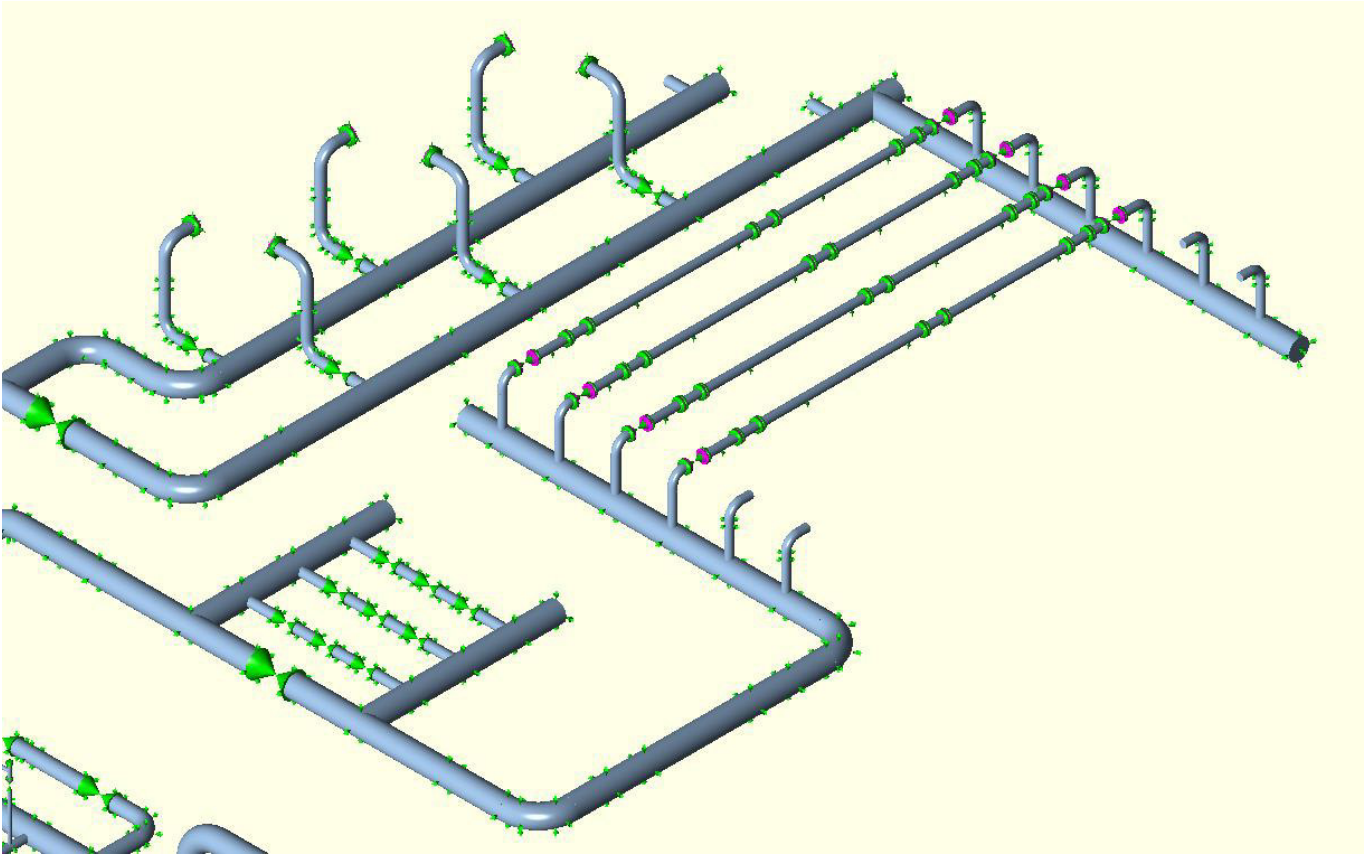


Fig. 5.1.3 – Terminale di Melendugno: dettaglio zona di regolazione, misura e filtraggio (area 1)

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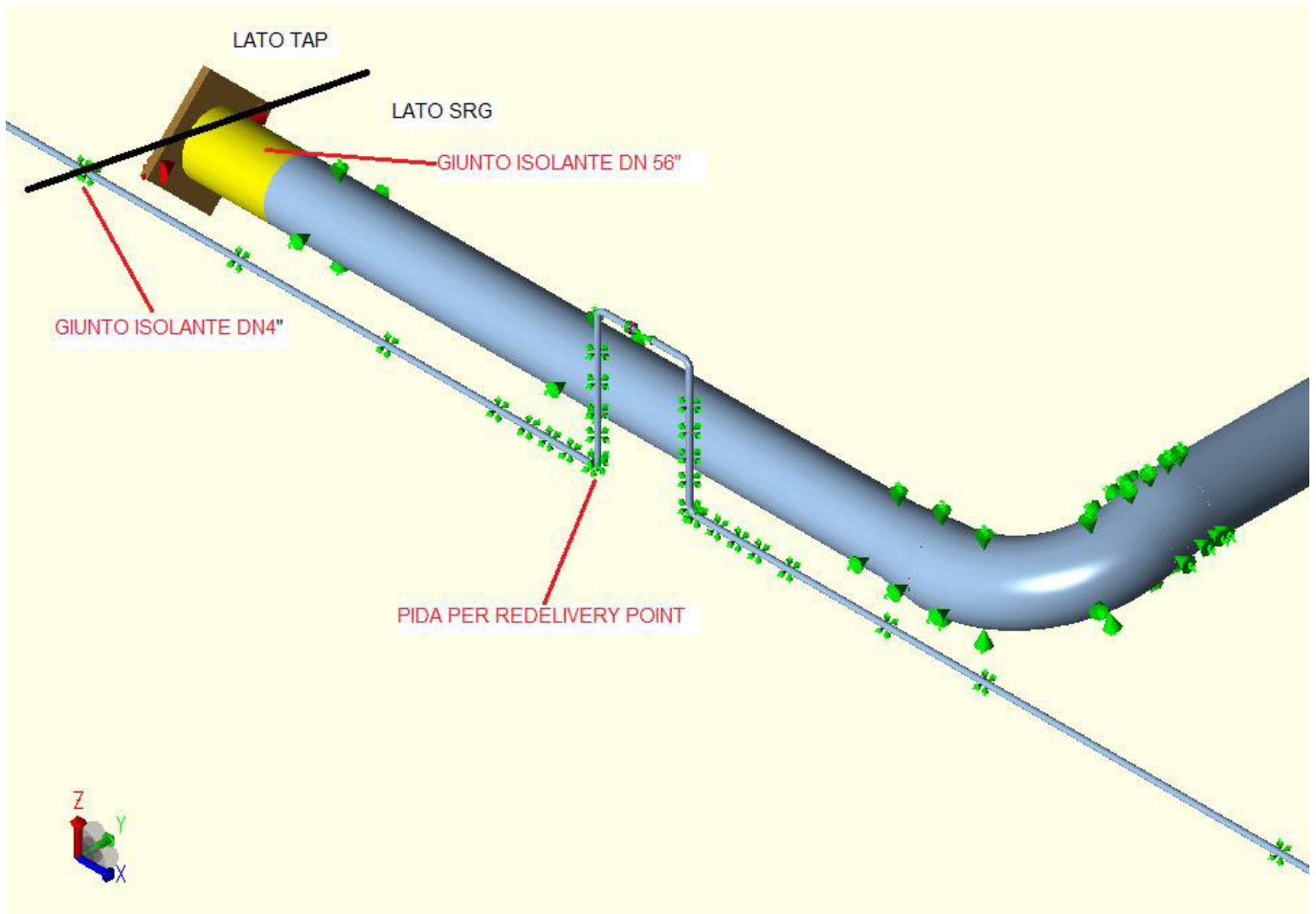


Fig. 5.1.4 – Terminale di Melendugno: dettaglio PIDA per redelivery point e tie-in con impianto di riduzione TAP (area 1)

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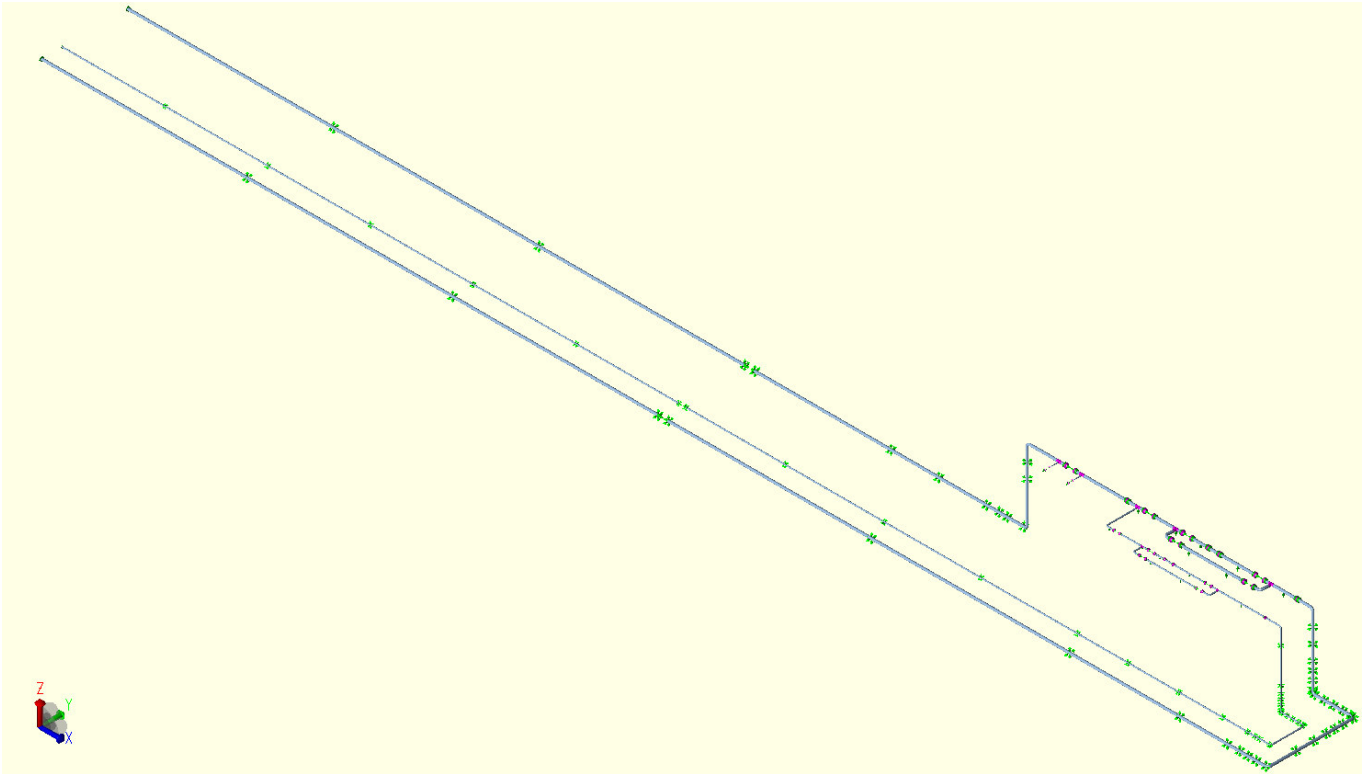


Fig. 5.1.5 – Terminale di Melendugno: modello di calcolo "area 2"

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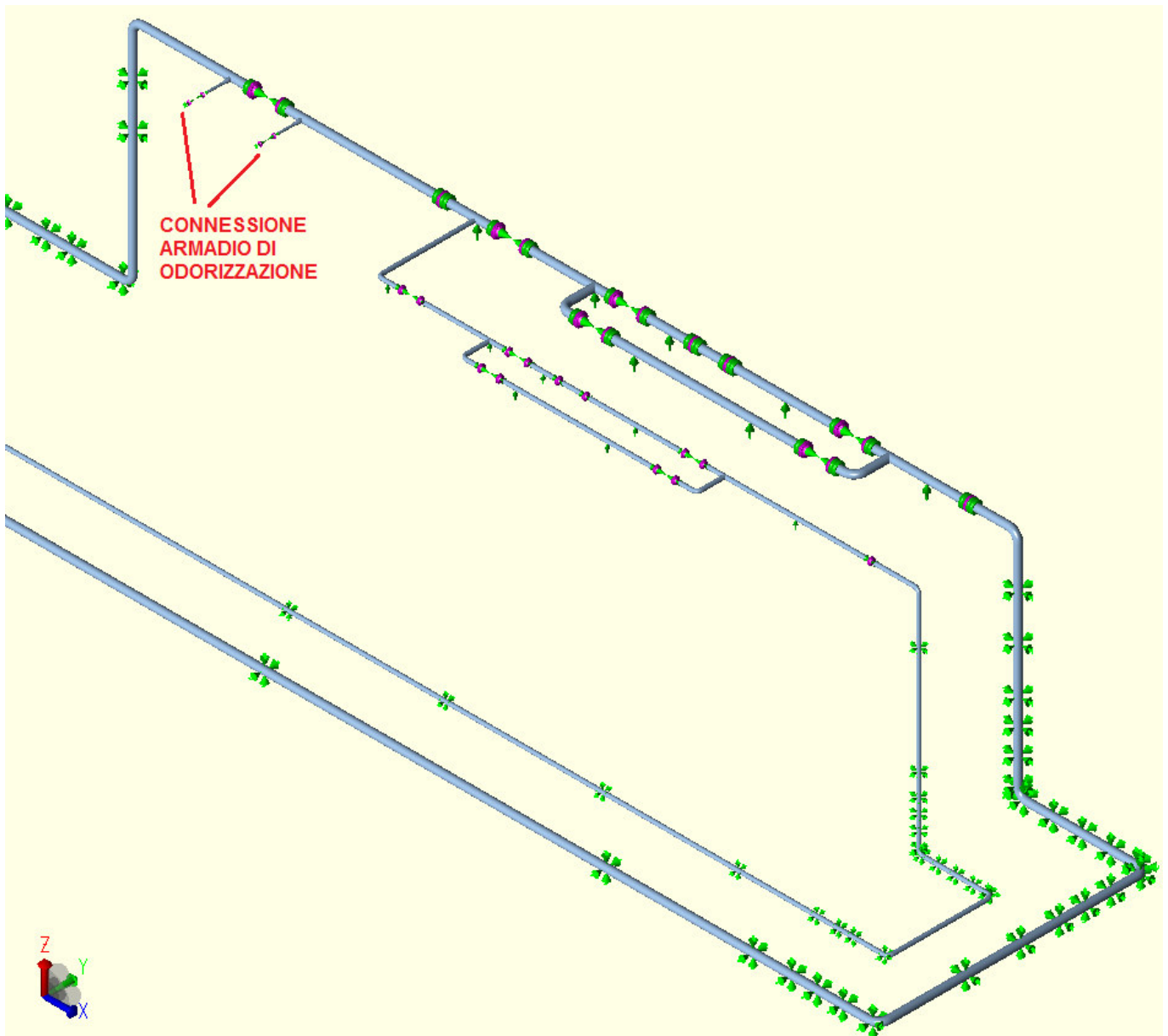


Fig. 5.1.6 – Terminale di Melendugno: dettaglio connessione armadio di odorizzazione e sistema di misura fuel gas (area 2)

Come riportato in /2/ le dimensioni dello skid di odorizzazione e dell'impianto di misura del fuel gas sono ancora da confermare, per cui il sistema è stato modellato in linea con l'attuale progettazione.

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5.2. Definizione "LOAD CASES"

Sono stati analizzati i seguenti "LOAD CASES":

- L1 (HYD) WW+HP (test idrostatico);
- L2 (OPE) W+T1+P1+D1 (condizione operativa con spostamento massimo al punto di consegna TP1);
- L3 (OPE) W+T1+P1+D2 (condizione operativa con spostamento minimo al punto di consegna TP1);
- L4 (SUS) W+P1 (condizione sostenuta);
- L5 (EXP) L2–L4 (condizione di espansione termica);
- L6 (EXP) L3–L4 (condizione di espansione termica);

Dove:

WW = peso della tubazione piena d'acqua;
 HP = pressione idrostatica;
 W = peso della tubazione;
 T1 = temperatura di progetto;
 P1 = pressione di progetto;
 D1 = massimo spostamento al punto di consegna TP1;
 D2 = minimo spostamento al punto di consegna TP1.

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5.3. Risultati

5.3.1 Analisi delle sollecitazioni "area 1"

Di seguito sono riportate le sollecitazioni massime (o stress massimi) calcolate nell'"area 1", comprendente l'area trappola, il sistema di regolazione della portata, il sistema di misura e il sistema di filtraggio, per ognuna delle condizioni di carico indicate al paragrafo 5.2 e prescritte dalla ASME B31.8.

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 1 (HYD) WW+HP

LOAD CASE DEFINITION KEY

CASE 1 (HYD) WW+HP

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

*** CODE COMPLIANCE EVALUATION PASSED ***

Highest Stresses: (KPa)		
Ratio (%):	92.9	@Node 2800 LOADCASE: 1 (HYD) WW+HP
Code Stress:	416382.2	Allowable Stress: 448159.2
Axial Stress:	121953.4	@Node 17419 LOADCASE: 1 (HYD) WW+HP
Bending Stress:	159402.8	@Node 14800 LOADCASE: 1 (HYD) WW+HP
Torsion Stress:	0.0	@Node 50 LOADCASE: 1 (HYD) WW+HP
Hoop Stress:	470610.8	@Node 2260 LOADCASE: 1 (HYD) WW+HP
Max Stress Intensity:	476929.6	@Node 2260 LOADCASE: 1 (HYD) WW+HP

Fig. 5.3.1 – Stress massimi caso test idrostatico (HYD)

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 2 (OPE) W+D1+T1+P1

LOAD CASE DEFINITION KEY

CASE 2 (OPE) W+D1+T1+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

*** CODE COMPLIANCE EVALUATION PASSED ***

Highest Stresses: (KPa)		
Ratio (%):	97.9	@Node 14800 LOADCASE: 2 (OPE) W+D1+T1+P1
Code Stress:	364497.0	Allowable Stress: 372316.9
Axial Stress:	73281.5	@Node 1548 LOADCASE: 2 (OPE) W+D1+T1+P1
Bending Stress:	322768.3	@Node 1850 LOADCASE: 2 (OPE) W+D1+T1+P1
Torsion Stress:	0.0	@Node 50 LOADCASE: 2 (OPE) W+D1+T1+P1
Hoop Stress:	283045.8	@Node 2260 LOADCASE: 2 (OPE) W+D1+T1+P1
Max Stress Intensity:	551443.4	@Node 1850 LOADCASE: 2 (OPE) W+D1+T1+P1

Fig. 5.3.2 – Stress massimi condizione operativa (OPE) con spostamento massimo al punto di consegna TP1

 SNAM RETE GAS	PROGETTISTA 	COMMESSA NR/13167	COD.TECNICO 16153
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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 3 (OPE) W+D2+T1+P1

LOAD CASE DEFINITION KEY

CASE 3 (OPE) W+D2+T1+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

*** CODE COMPLIANCE EVALUATION PASSED ***

Highest Stresses: (KPa)		
Ratio (%):	97.8	@Node 14800 LOADCASE: 3 (OPE) W+D2+T1+P1
Code Stress:	364095.5	Allowable Stress: 372316.9
Axial Stress:	73279.4	@Node 1548 LOADCASE: 3 (OPE) W+D2+T1+P1
Bending Stress:	319388.1	@Node 1850 LOADCASE: 3 (OPE) W+D2+T1+P1
Torsion Stress:	0.0	@Node 50 LOADCASE: 3 (OPE) W+D2+T1+P1
Hoop Stress:	283045.8	@Node 2260 LOADCASE: 3 (OPE) W+D2+T1+P1
Max Stress Intensity:	546777.9	@Node 1850 LOADCASE: 3 (OPE) W+D2+T1+P1

Fig. 5.3.3 – Stress massimi condizione operativa (OPE) con spostamento minimo al punto di consegna TP1

 SNAM RETE GAS	PROGETTISTA 	COMMESSA NR/13167	COD.TECNICO 16153
	LOCALITA' REGIONE PUGLIA	RE-MEC-112	
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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 4 (SUS) W+P1

LOAD CASE DEFINITION KEY

CASE 4 (SUS) W+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

*** CODE COMPLIANCE EVALUATION PASSED ***

Highest Stresses: (KPa)

Ratio (%):	62.1	@Node 2800	LOADCASE: 4 (SUS) W+P1
Code Stress:	250430.3	Allowable Stress:	403343.3
Axial Stress:	73348.1	@Node 17419	LOADCASE: 4 (SUS) W+P1
Bending Stress:	96632.6	@Node 11350	LOADCASE: 4 (SUS) W+P1
Torsion Stress:	0.0	@Node 50	LOADCASE: 4 (SUS) W+P1
Hoop Stress:	283045.8	@Node 2260	LOADCASE: 4 (SUS) W+P1
Max Stress Intensity:	286846.2	@Node 2260	LOADCASE: 4 (SUS) W+P1

Fig. 5.3.4 – Stress massimi condizione sostenuta (SUS)

 SNAM RETE GAS	PROGETTISTA 	COMMESSA NR/13167	COD.TECNICO 16153
	LOCALITA' REGIONE PUGLIA	RE-MEC-112	
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 CODE COMPLIANCE REPORT: Code Stresses on Elements
 CASE 5 (EXP) L5=L2-L4
 LOAD CASE DEFINITION KEY

CASE 5 (EXP) L5=L2-L4

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

*** NO CODE COMPLIANCE EVALUATION DONE ***

Highest Stresses: (KPa)			
Ratio:		""	
Code Stress:	0.0	Allowable Stress:	0.0
Axial Stress:	65482.3	@Node 2560	LOADCASE: 5 (EXP) L5=L2-L4
Bending Stress:	336559.5	@Node 25250	LOADCASE: 5 (EXP) L5=L2-L4
Torsion Stress:	52738.7	@Node 20449	LOADCASE: 5 (EXP) L5=L2-L4
Hoop Stress:	0.0	@Node 50	LOADCASE: 5 (EXP) L5=L2-L4
Max Stress Intensity:	380765.3	@Node 25250	LOADCASE: 5 (EXP) L5=L2-L4

Fig. 5.3.5 – Stress massimi condizione di espansione termica (EXP)

 SNAM RETE GAS	PROGETTISTA 	COMMESSA NR/13167	COD.TECNICO 16153
	LOCALITA' REGIONE PUGLIA	RE-MEC-112	
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Licensed To: TECHFEM SPA
 CODE COMPLIANCE REPORT: Code Stresses on Elements
 CASE 6 (EXP) L6=L3-L4
 LOAD CASE DEFINITION KEY

CASE 6 (EXP) L6=L3-L4

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

*** NO CODE COMPLIANCE EVALUATION DONE ***

Highest Stresses: (KPa)			
Ratio:		""	
Code Stress:	0.0	Allowable Stress:	0.0
Axial Stress:	61893.8	@Node 25449	LOADCASE: 6 (EXP) L6=L3-L4
Bending Stress:	336559.5	@Node 25250	LOADCASE: 6 (EXP) L6=L3-L4
Torsion Stress:	52750.0	@Node 20449	LOADCASE: 6 (EXP) L6=L3-L4
Hoop Stress:	0.0	@Node 50	LOADCASE: 6 (EXP) L6=L3-L4
Max Stress Intensity:	380765.3	@Node 25250	LOADCASE: 6 (EXP) L6=L3-L4

Fig. 5.3.6 – Stress massimi condizione di espansione termica (EXP)

Da notare che il caso di espansione termica (EXP) per una tubazione interrata, considerata in condizione "restrained", non è previsto dalla normativa ASME B31.8. Il caso è stato comunque analizzato per completezza.

 SNAM RETE GAS	PROGETTISTA 	COMMESSA NR/13167	COD.TECNICO 16153
	LOCALITA' REGIONE PUGLIA	RE-MEC-112	
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5.3.2 Analisi delle sollecitazioni "area 2"

Di seguito sono riportate le sollecitazioni massime (o stress massimi) calcolate nell'"area 2", comprendente il sistema di odorizzazione e il sistema di misura del fuel gas proveniente dall'impianto di riduzione TAP, per ognuna delle condizioni di carico indicate al paragrafo 5.2 e prescritte dalla ASME B31.8.

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 1 (HYD) WW+HP

LOAD CASE DEFINITION KEY

CASE 1 (HYD) WW+HP

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

*** CODE COMPLIANCE EVALUATION PASSED ***

Highest Stresses: (KPa)			
Ratio (%):	41.1	@Node 6206	LOADCASE: 1 (HYD) WW+HP
Code Stress:	147414.1	Allowable Stress:	358527.3
Axial Stress:	40932.3	@Node 3250	LOADCASE: 1 (HYD) WW+HP
Bending Stress:	59546.3	@Node 1200	LOADCASE: 1 (HYD) WW+HP
Torsion Stress:	0.0	@Node 100	LOADCASE: 1 (HYD) WW+HP
Hoop Stress:	136690.4	@Node 100	LOADCASE: 1 (HYD) WW+HP
Max Stress Intensity:	143223.4	@Node 100	LOADCASE: 1 (HYD) WW+HP

Fig. 5.3.7 – Stress massimi caso test idrostatico (HYD)

 SNAM RETE GAS	PROGETTISTA 	COMMESSA NR/13167	COD.TECNICO 16153
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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 2 (OPE) W+T1+P1

LOAD CASE DEFINITION KEY

CASE 2 (OPE) W+T1+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

*** CODE COMPLIANCE EVALUATION PASSED ***

Highest Stresses: (KPa)

Ratio (%):	75.8	@Node	6206	LOADCASE: 2 (OPE) W+T1+P1
Code Stress:	244493.7	Allowable Stress:	322674.6	
Axial Stress:	54123.1	@Node	7599	LOADCASE: 2 (OPE) W+T1+P1
Bending Stress:	226063.7	@Node	6206	LOADCASE: 2 (OPE) W+T1+P1
Torsion Stress:	0.0	@Node	100	LOADCASE: 2 (OPE) W+T1+P1
Hoop Stress:	10961.5	@Node	100	LOADCASE: 2 (OPE) W+T1+P1
Max Stress Intensity:	278406.0	@Node	6210	LOADCASE: 2 (OPE) W+T1+P1

Fig. 5.3.8 – Stress massimi condizione operativa (OPE)

 SNAM RETE GAS	PROGETTISTA 	COMMESSA NR/13167	COD.TECNICO 16153
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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 3 (SUS) W+P1

LOAD CASE DEFINITION KEY

CASE 3 (SUS) W+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

*** CODE COMPLIANCE EVALUATION PASSED ***

Highest Stresses: (KPa)

Ratio (‰):	27.9	@Node	1200	LOADCASE: 3 (SUS) W+P1
Code Stress:	60595.9	Allowable Stress:	217184.8	
Axial Stress:	3285.1	@Node	3250	LOADCASE: 3 (SUS) W+P1
Bending Stress:	57874.1	@Node	1200	LOADCASE: 3 (SUS) W+P1
Torsion Stress:	0.0	@Node	100	LOADCASE: 3 (SUS) W+P1
Hoop Stress:	10961.5	@Node	100	LOADCASE: 3 (SUS) W+P1
Max Stress Intensity:	59142.6	@Node	1200	LOADCASE: 3 (SUS) W+P1

Fig. 5.3.9 – Stress massimi condizione sostenuta (SUS)

 SNAM RETE GAS	PROGETTISTA 	COMMESSA NR/13167	COD.TECNICO 16153
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 CODE COMPLIANCE REPORT: Code Stresses on Elements
 CASE 4 (EXP) L4=L2-L3
 LOAD CASE DEFINITION KEY

CASE 4 (EXP) L4=L2-L3

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

*** NO CODE COMPLIANCE EVALUATION DONE ***

Highest Stresses: (KPa)			
Ratio:		""	
Code Stress:	0.0	Allowable Stress:	0.0
Axial Stress:	55788.0	@Node 7599	LOADCASE: 4 (EXP) L4=L2-L3
Bending Stress:	255792.0	@Node 6210	LOADCASE: 4 (EXP) L4=L2-L3
Torsion Stress:	4263.7	@Node 450	LOADCASE: 4 (EXP) L4=L2-L3
Hoop Stress:	0.0	@Node 100	LOADCASE: 4 (EXP) L4=L2-L3
Max Stress Intensity:	268271.3	@Node 6210	LOADCASE: 4 (EXP) L4=L2-L3

Fig. 5.3.10 – Stress massimi condizione di espansione termica (EXP)

Da notare che il caso di espansione termica (EXP) per una tubazione interrata, considerata in condizione "restrained", non è previsto dalla normativa ASME B31.8. Il caso è stato comunque analizzato per completezza.

 SNAM RETE GAS	PROGETTISTA 	COMMESSA NR/13167	COD.TECNICO 16153
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5.3.3 Analisi degli spostamenti

Nella Tab. 5.3.1 sono indicati gli spostamenti calcolati in corrispondenza della trappola e nei punti di connessione con l'impianto di riduzione TAP. Per il sistema di riferimento utilizzato per le aree in analisi si rimanda alle Fig. 5.1.1 e Fig. 5.1.5.

Elemento	Spostamenti (mm)			
	Δx	Δy	Δz	ΔS
Trappola	-0.019	-49.503	0.211	49.503
Punto di consegna linea DN100-50-P07-CA032	8.738	0.000	0.000	8.738
Punto di consegna linea DN100-50-P27-CA032	11.893	0.000	0.000	11.893
Punto di consegna linea DN100-50-P28-CA032	8.815	0.000	0.000	8.815
Punto di consegna linea DN50-50-P29-CA032	8.140	0.000	0.000	8.140

Tab. 5.3.1 – Spostamenti calcolati

Gli spostamenti calcolati risultano accettabili.

5.3.4 Analisi delle forze

Nella Tab. 5.3.2 sono indicate le forze che si generano in corrispondenza dei punti di consegna.

Elemento	Load Case	F_x [N]	F_y [N]	F_z [N]	M_x [N*m]	M_y [N*m]	M_z [N*m]
Punto di consegna linea DN100-50-P07-CA032	OPE	6897	0	-20	0	0	0
Punto di consegna linea DN100-50-P27-CA032	OPE	8822	0	-2	0	0	0
Punto di consegna linea DN100-50-P28-CA032	OPE	6539	0	0	0	0	0
Punto di consegna linea DN50-50-P29-CA032	OPE	1632	0	0	0	0	0

Tab. 5.3.2 – Forze calcolate in corrispondenza dei punti di consegna

 SNAM RETE GAS	PROGETTISTA 	COMMESSA NR/13167	COD.TECNICO 16153
	LOCALITA' REGIONE PUGLIA	RE-MEC-112	
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5.3.5 *Verifica tenuta degli accoppiamenti flangiati*

La tenuta delle flange è stata verificata in accordo al metodo della pressione equivalente di Kellog, come mostrato al paragrafo 4.2.

Tutti gli accoppiamenti flangiati danno risultati inferiori rispetto al valore ammissibile, come riassunto nell' "Allegato 1".

5.4. **Analisi dei risultati**

Le sollecitazioni calcolate non risultano eccedere i valori ammissibili, e gli spostamenti calcolati non risultano eccessivamente ampi.

Una descrizione dettagliata dei dati di INPUT / OUTPUT è riportata nell' "Allegato 1".

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6. CONCLUSIONI

Dalla verifica delle sollecitazioni a stress dei componenti meccanici (tubazioni, fittings, valvole) del Terminale di Ricezione della condotta Trans Adriatic Pipeline, in località Melendugno (LE), non sono state individuate evidenti criticità e pertanto si considera verificata la progettazione eseguita.

 SNAM RETE GAS	PROGETTISTA 	COMMESSA NR/13167	COD.TECNICO 16153
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7. ALLEGATO 1

Output di calcolo: Terminale di Ricezione della condotta Trans Adriatic Pipeline, località Melendugno (LE). (SOLO FILE)

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 Allegato 1 - Area 1

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Impianto di Melendugno
Allegato 1 - Area 1

LISTING OF STATIC LOAD CASES FOR THIS ANALYSIS

- 1 (HYD) WW+HP
- 2 (OPE) W+D1+T1+P1
- 3 (OPE) W+D2+T1+P1
- 4 (SUS) W+P1
- 5 (EXP) L5=L2-L4
- 6 (EXP) L6=L3-L4

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Impianto di Melendugno
 Allegato 1 - Area 1
 INPUT LISTING

PIPE DATA

 From 10 To 50 DY= 2,000.000 mm.

PIPE

Dia= 1,600.000 mm. Wall= 31.500 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (306)API-5L X65
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.

SIF's & TEE's

Node 50 Weldolet Use Notes 6,9,10 = ---

ALLOWABLE STRESSES

B31.8 (2014) Restrained = ON Sh1= 448,159 KPa Sh2= 448,159 KPa
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

 From 50 To 21500 DX= -1,444.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

 From 21500 To 21550 DX= -190.500 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 21550 To 21600 DX= -1,194.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight=26,300.00 N.

FLANGES

Location= Both Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C

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Impianto di Melendugno

Allegato 1 - Area 1

INPUT LISTING

-> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 50 To 100 DY= 200.000 mm.

PIPE

Dia= 1,600.000 mm. Wall= 31.500 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RESTRAINTS

Node 100 Z Mu = .35
 Node 100 Guide Mu = .35

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

 From 100 To 150 DY= 4,400.000 mm.

PIPE

Dia= 1,600.000 mm. Wall= 31.500 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RESTRAINTS

Node 150 Z Mu = .35
 Node 150 Guide Mu = .35

 From 150 To 200 DY= 1,000.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 200 To 250 DY= 900.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

REDUCER

Diam2= 1,422.000 mm. Wall2= 21.800 mm.

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 From 250 To 300 DY= 1,300.000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

 From 300 To 350 DY= 4,655.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 29.996 Angle/Node @1= 15.00 349
 Angle/Node @2= .00 348

 From 350 To 400 DY= 2,815.000 mm. DZ= -1,625.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 400 To 401 DX= .000 mm. DY= 2,538.949 mm. DZ= -1,466.087 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 400 X2 K= 16,855 N./cm. Yield K= 1 N./cm.
 Yield Force= 88,766 N. Dir Vec= .0000 .8660 -.5001
 Node 400 X2 K= 545,009 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,870,290 N.
 Node 400 X2 K= 545,009 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,870,290 N. Dir Vec= .0000 .5001 .8660

 From 401 To 402 DX= .000 mm. DY= 1,135.001 mm. DZ= -655.393 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 15.002

RESTRAINTS

Node 401 X2 K= 31,838 N./cm. Yield K= 1 N./cm.
 Yield Force= 167,675 N. Dir Vec= .0000 .8660 -.5001
 Node 401 X2 K= 1,029,499 N./cm. Yield K= 1 N./cm.

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Yield Force= 5,421,856 N.
 Node 401 X2 K= 1,029,499 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,421,856 N. Dir Vec= .0000 .5001 .8660

 From 402 To 450 DX= .000 mm. DY= 2,531.933 mm. DZ= -678.519 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 15.002

RESTRAINTS

Node 402 X2 K= 29,966 N./cm. Yield K= 1 N./cm.
 Yield Force= 157,819 N. Dir Vec= .0000 .9659 -.2589
 Node 402 X2 K= 968,980 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,103,134 N.
 Node 402 X2 K= 968,980 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,103,134 N. Dir Vec= .0000 .2589 .9659

 From 450 To 500 DX= .000 mm. DY= 1,910.117 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 450 Y2 K= 18,430 N./cm. Yield K= 1 N./cm.
 Yield Force= 97,060 N.
 Node 450 X2 K= 595,930 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,138,463 N.
 Node 450 Z2 K= 595,930 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,138,463 N.

 From 500 To 549 DX= .000 mm. DY= 3,243.500 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 500 Y2 K= 40,739 N./cm. Yield K= 1 N./cm.
 Yield Force= 214,554 N.
 Node 500 X2 K= 1,317,329 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,937,715 N.
 Node 500 Z2 K= 1,317,329 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,937,715 N.

 From 549 To 550 DX= .000 mm. DY= 3,243.500 mm. DZ= .000 mm.

RESTRAINTS

Node 550 Y2 K= 37,293 N./cm. Yield K= 1 N./cm.
 Yield Force= 196,404 N.
 Node 550 X2 K= 1,205,890 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,350,818 N.

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INPUT LISTING

Node 550 Z2 K= 1,205,890 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,350,818 N.

SIF's & TEE's

Node 550 Welding Tee Use Notes 6,9,10 = ---

 From 550 To 570 DX= .000 mm. DY= .000 mm. DZ= 806.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 550 Z2 K= 2,170 N./cm. Yield K= 1 N./cm. Yield Force= 8,453 N.
 Node 550 X2 K= 110,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 431,721 N.
 Node 550 Y2 K= 110,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 431,721 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

 From 570 To 19999 DX= .000 mm. DY= .000 mm. DZ= 997.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 19999 To 20000 DX= .000 mm. DY= .000 mm. DZ= 997.000 mm.

 From 20000 To 20050 DZ= 3,200.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 20049
 Angle/Node @2= .00 20048

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INPUT LISTING

From 20050 To 20100 DX= -5,500.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 20100 To 20150 DX= -5,500.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 20149
 Angle/Node @2= .00 20148

 From 20150 To 20200 DZ= -3,200.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 20200 To 20201 DX= .000 mm. DY= .000 mm. DZ= -2,038.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 20200 Z2 K= 5,487 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,373 N.
 Node 20200 X2 K= 280,226 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,091,622 N.
 Node 20200 Y2 K= 280,226 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,091,622 N.

 From 20201 To 20202 DX= .000 mm. DY= .000 mm. DZ= -315.631 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 20201 Z2 K= 7,098 N./cm. Yield K= 1 N./cm.
 Yield Force= 27,650 N.
 Node 20201 X2 K= 362,517 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,412,184 N.
 Node 20201 Y2 K= 362,517 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,412,184 N.

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INPUT LISTING

From 20202 To 20250 DX= -446.369 mm. DY= .000 mm. DZ= -446.369 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 20202 X2 K= 3,222 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,553 N. Dir Vec= -.7071 .0000 -.7071
 Node 20202 Y2 K= 164,581 N./cm. Yield K= 1 N./cm.
 Yield Force= 641,125 N.
 Node 20202 X2 K= 164,581 N./cm. Yield K= 1 N./cm.
 Yield Force= 641,125 N. Dir Vec= -.7071 .0000 .7071

 From 20250 To 20251 DX= -1,886.198 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 20250 X2 K= 5,839 N./cm. Yield K= 1 N./cm.
 Yield Force= 22,748 N.
 Node 20250 Y2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.
 Node 20250 Z2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.

 From 20251 To 20252 DX= -1,570.568 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 20251 X2 K= 8,457 N./cm. Yield K= 1 N./cm.
 Yield Force= 32,942 N.
 Node 20251 Y2 K= 431,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,682,499 N.
 Node 20251 Z2 K= 431,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,682,499 N.

 From 20252 To 20270 DX= -1,596.865 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 20252 X2 K= 8,527 N./cm. Yield K= 1 N./cm.
 Yield Force= 33,218 N.
 Node 20252 Y2 K= 435,524 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,696,584 N.
 Node 20252 Z2 K= 435,524 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,696,584 N.

 From 20270 To 20300 DX= -5,500.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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INPUT LISTING

RESTRAINTS

Node 20270 X2 K= 19,106 N./cm. Yield K= 1 N./cm.
 Yield Force= 74,428 N.
 Node 20270 Y2 K= 975,824 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,801,321 N.
 Node 20270 Z2 K= 975,824 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,801,321 N.

SIF's & TEE's

Node 20300 Welding Tee Use Notes 6,9,10 = ---

 From 20300 To 20650 DX= -4,403.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 20300 X2 K= 26,661 N./cm. Yield K= 1 N./cm.
 Yield Force= 103,857 N.
 Node 20300 Y2 K= 1,361,669 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,304,382 N.
 Node 20300 Z2 K= 1,361,669 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,304,382 N.

 From 20650 To 20700 DX= -1,194.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 20650 X2 K= 15,068 N./cm. Yield K= 1 N./cm.
 Yield Force= 58,698 N.
 Node 20650 Y2 K= 769,591 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,997,943 N.
 Node 20650 Z2 K= 769,591 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,997,943 N.

 From 20700 To 20701 DX= -2,070.432 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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Node 20700 X2 K= 8,788 N./cm. Yield K= 1 N./cm.
 Yield Force= 34,235 N.
 Node 20700 Y2 K= 448,862 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,748,540 N.
 Node 20700 Z2 K= 448,862 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,748,540 N.

 From 20701 To 20702 DX= -1,570.568 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 20701 X2 K= 9,802 N./cm. Yield K= 1 N./cm.
 Yield Force= 38,185 N.
 Node 20701 Y2 K= 500,640 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,950,243 N.
 Node 20701 Z2 K= 500,640 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,950,243 N.

 From 20702 To 20703 DX= -315.631 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 20702 X2 K= 5,839 N./cm. Yield K= 1 N./cm.
 Yield Force= 22,748 N.
 Node 20702 Y2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.
 Node 20702 Z2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.

 From 20703 To 20750 DX= -446.369 mm. DY= 446.369 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 20703 X2 K= 3,222 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,553 N. Dir Vec= -.7071 .7071 .0000
 Node 20703 X2 K= 164,581 N./cm. Yield K= 1 N./cm.
 Yield Force= 641,125 N. Dir Vec= .7071 .7071 .0000
 Node 20703 Z2 K= 164,581 N./cm. Yield K= 1 N./cm.
 Yield Force= 641,125 N.

 From 20750 To 20751 DX= .000 mm. DY= 1,886.198 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 20750 Y2 K= 5,839 N./cm. Yield K= 1 N./cm.
 Yield Force= 22,748 N.
 Node 20750 X2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.
 Node 20750 Z2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.

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INPUT LISTING

From 20751 To 20752 DX= .000 mm. DY= 1,322.716 mm. DZ= .000 mm.

RESTRAINTS

Node 20751 Y2 K= 7,789 N./cm. Yield K= 1 N./cm.
 Yield Force= 30,343 N.
 Node 20751 X2 K= 397,828 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,549,741 N.
 Node 20751 Z2 K= 397,828 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,549,741 N.

 From 20752 To 20799 DX= .000 mm. DY= 661.358 mm. DZ= .000 mm.

RESTRAINTS

Node 20752 Y2 K= 7,122 N./cm. Yield K= 1 N./cm.
 Yield Force= 27,744 N.
 Node 20752 X2 K= 363,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,416,983 N.
 Node 20752 Z2 K= 363,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,416,983 N.

 From 20799 To 20800 DX= .000 mm. DY= 661.358 mm. DZ= .000 mm.

RESTRAINTS

Node 20800 Y2 K= 3,561 N./cm. Yield K= 1 N./cm.
 Yield Force= 13,872 N.
 Node 20800 X2 K= 181,874 N./cm. Yield K= 1 N./cm.
 Yield Force= 708,492 N.
 Node 20800 Z2 K= 181,874 N./cm. Yield K= 1 N./cm.
 Yield Force= 708,492 N.

SIF's & TEE's

Node 20800 Welding Tee Use Notes 6,9,10 = ---

 From 20800 To 20900 DX= 4,403.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 20800 X2 K= 11,854 N./cm. Yield K= 1 N./cm.
 Yield Force= 46,176 N.
 Node 20800 Y2 K= 605,415 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,358,396 N.
 Node 20800 Z2 K= 605,415 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,358,396 N.

 From 20900 To 20950 DX= 1,194.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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INPUT LISTING

RIGID Weight= .01 N.

RESTRAINTS

Node 20900 X2 K= 15,068 N./cm. Yield K= 1 N./cm.
 Yield Force= 58,698 N.
 Node 20900 Y2 K= 769,591 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,997,943 N.
 Node 20900 Z2 K= 769,591 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,997,943 N.

 From 20950 To 21000 DX= 2,403.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 20950 X2 K= 9,684 N./cm. Yield K= 1 N./cm.
 Yield Force= 37,723 N.
 Node 20950 Y2 K= 494,590 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,926,675 N.
 Node 20950 Z2 K= 494,590 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,926,675 N.

SIF's & TEE's

Node 21000 Welding Tee Use Notes 6,9,10 = ---

 From 21000 To 20449 DX= 1,000.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 21000 X2 K= 11,854 N./cm. Yield K= 1 N./cm.
 Yield Force= 46,176 N.
 Node 21000 Y2 K= 605,416 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,358,396 N.
 Node 21000 Z2 K= 605,416 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,358,396 N.

 From 20449 To 20450 DX= 1,000.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 20450 X2 K= 5,384 N./cm. Yield K= 1 N./cm.
 Yield Force= 20,975 N.
 Node 20450 Y2 K= 275,001 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,071,268 N.
 Node 20450 Z2 K= 275,001 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,071,268 N.

 From 20800 To 23999 DX= .000 mm. DY= 1,636.000 mm. DZ= .000 mm.

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INPUT LISTING

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 20800 Y2 K= 8,809 N./cm. Yield K= 1 N./cm.
 Yield Force= 34,315 N.
 Node 20800 X2 K= 449,902 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,752,594 N.
 Node 20800 Z2 K= 449,902 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,752,594 N.

 From 23999 To 24000 DX= .000 mm. DY= 1,636.000 mm. DZ= .000 mm.

RESTRAINTS

Node 24000 Y2 K= 8,809 N./cm. Yield K= 1 N./cm.
 Yield Force= 34,315 N.
 Node 24000 X2 K= 449,902 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,752,594 N.
 Node 24000 Z2 K= 449,902 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,752,594 N.

SIF's & TEE's

Node 24000 Welding Tee Use Notes 6,9,10 = ---

 From 24000 To 24049 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

PIPE

Dia= 219.000 mm. Wall= 7.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24000 Z2 K= 3,613 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,507 N.
 Node 24000 X2 K= 342,158 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,184,551 N.
 Node 24000 Y2 K= 342,158 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,184,551 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 358,527 KPa Sh2= 358,527 KPa
 Sh3= 358,527 KPa Sh4= 358,527 KPa Sh5= 358,527 KPa Sh6= 358,527 KPa
 Sh7= 358,527 KPa Sh8= 358,527 KPa Sh9= 358,527 KPa Sy= 358,527 KPa

 From 24049 To 24050 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

RESTRAINTS

Node 24050 Z2 K= 3,613 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,507 N.

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INPUT LISTING

Node 24050 X2 K= 342,158 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,184,551 N.
 Node 24050 Y2 K= 342,158 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,184,551 N.

 From 24050 To 24100 DZ= 670.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 24100 To 24150 DZ= 660.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 3,610.00 N.

FLANGES

Location= To Method= Peq G/C= 255.850 mm.

 From 24150 To 24170 DZ= 133.400 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 544.00 N.

 From 24170 To 24200 DZ= 378.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

SIF's & TEE's

Node 24200 Welding Tee Use Notes 6,9,10 = ---

 From 24200 To 24300 DX= 1,508.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 304.800 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 24299
 Angle/Node @2= .00 24298

 From 24300 To 24320 DZ= -635.000 mm.

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INPUT LISTING

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 24320 To 24350 DZ= -660.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 3,800.00 N.

 From 24350 To 24370 DZ= -784.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 24370 To 24371 DX= .000 mm. DY= .000 mm. DZ= -884.132 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24370 Z2 K= 1,141 N./cm. Yield K= 1 N./cm. Yield Force= 3,949 N.
 Node 24370 X2 K= 108,040 N./cm. Yield K= 1 N./cm.
 Yield Force= 374,035 N.
 Node 24370 Y2 K= 108,040 N./cm. Yield K= 1 N./cm.
 Yield Force= 374,035 N.

 From 24371 To 24372 DX= .000 mm. DY= .000 mm. DZ= -761.069 mm.

RESTRAINTS

Node 24371 Z2 K= 2,123 N./cm. Yield K= 1 N./cm. Yield Force= 7,349 N.
 Node 24371 X2 K= 201,042 N./cm. Yield K= 1 N./cm.
 Yield Force= 696,008 N.
 Node 24371 Y2 K= 201,042 N./cm. Yield K= 1 N./cm.
 Yield Force= 696,008 N.

 From 24372 To 24373 DX= .000 mm. DY= .000 mm. DZ= -126.252 mm.

BEND at "TO" end

Radius= 304.800 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 24372 Z2 K= 1,291 N./cm. Yield K= 1 N./cm. Yield Force= 4,469 N.
 Node 24372 X2 K= 122,255 N./cm. Yield K= 1 N./cm.
 Yield Force= 423,248 N.

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INPUT LISTING

Node 24372 Y2 K= 122,255 N./cm. Yield K= 1 N./cm.
 Yield Force= 423,248 N.

 From 24373 To 24400 DX= 178.548 mm. DY= .000 mm. DZ= -178.548 mm.
 BEND at "TO" end
 Radius= 304.800 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 24373 X2 K= 618 N./cm. Yield K= 1 N./cm. Yield Force= 2,139 N.
 Dir Vec= .7071 .0000 -.7071
 Node 24373 Y2 K= 58,506 N./cm. Yield K= 1 N./cm.
 Yield Force= 202,549 N.
 Node 24373 X2 K= 58,506 N./cm. Yield K= 1 N./cm.
 Yield Force= 202,549 N. Dir Vec= .7071 .0000 .7071

 From 24400 To 24419 DX= 189.226 mm. DY= .000 mm. DZ= .000 mm.
 GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24400 X2 K= 634 N./cm. Yield K= 1 N./cm. Yield Force= 2,196 N.
 Node 24400 Y2 K= 60,072 N./cm. Yield K= 1 N./cm.
 Yield Force= 207,969 N.
 Node 24400 Z2 K= 60,072 N./cm. Yield K= 1 N./cm.
 Yield Force= 207,969 N.

 From 24419 To 24420 DX= 189.226 mm. DY= .000 mm. DZ= .000 mm.
 RESTRAINTS

Node 24420 X2 K= 325 N./cm. Yield K= 1 N./cm. Yield Force= 1,127 N.
 Node 24420 Y2 K= 30,819 N./cm. Yield K= 1 N./cm.
 Yield Force= 106,694 N.
 Node 24420 Z2 K= 30,819 N./cm. Yield K= 1 N./cm.
 Yield Force= 106,694 N.

SIF's & TEE's

Node 24420 Welding Tee Use Notes 6,9,10 = ---

 From 24420 To 24536 DX= .000 mm. DY= -9,891.500 mm. DZ= .000 mm.
 PIPE

Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24420 Y2 K= 6,923 N./cm. Yield K= 1 N./cm.
 Yield Force= 22,877 N.

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INPUT LISTING

Node 24420 X2 K= 1,153,744 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,812,548 N.
 Node 24420 Z2 K= 1,153,744 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,812,548 N.

 From 24536 To 24652 DX= .000 mm. DY= -9,891.500 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24536 Y2 K= 13,846 N./cm. Yield K= 1 N./cm.
 Yield Force= 45,754 N.
 Node 24536 X2 K= 2,307,488 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,625,096 N.
 Node 24536 Z2 K= 2,307,488 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,625,096 N.

 From 24652 To 24768 DX= .000 mm. DY= -9,891.500 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24652 Y2 K= 13,846 N./cm. Yield K= 1 N./cm.
 Yield Force= 45,754 N.
 Node 24652 X2 K= 2,307,488 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,625,096 N.
 Node 24652 Z2 K= 2,307,488 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,625,096 N.

 From 24768 To 24769 DX= .000 mm. DY= -5,454.490 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24768 Y2 K= 10,741 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,492 N.
 Node 24768 X2 K= 1,789,956 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,914,909 N.
 Node 24768 Z2 K= 1,789,956 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,914,909 N.

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 From 24769 To 24770 DX= .000 mm. DY= -2,333.565 mm. DZ= .000 mm.

RESTRAINTS

Node 24769 Y2 K= 5,451 N./cm. Yield K= 1 N./cm.
 Yield Force= 18,012 N.
 Node 24769 X2 K= 908,399 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,001,803 N.
 Node 24769 Z2 K= 908,399 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,001,803 N.

 From 24770 To 24771 DX= .000 mm. DY= -650.348 mm. DZ= .000 mm.

RESTRAINTS

Node 24770 Y2 K= 2,088 N./cm. Yield K= 1 N./cm. Yield Force= 6,901 N.
 Node 24770 X2 K= 348,044 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,150,110 N.
 Node 24770 Z2 K= 348,044 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,150,110 N.

 From 24771 To 24772 DX= .000 mm. DY= -433.565 mm. DZ= .000 mm.

RESTRAINTS

Node 24771 Y2 K= 759 N./cm. Yield K= 1 N./cm. Yield Force= 2,507 N.
 Node 24771 X2 K= 126,428 N./cm. Yield K= 1 N./cm.
 Yield Force= 417,780 N.
 Node 24771 Z2 K= 126,428 N./cm. Yield K= 1 N./cm.
 Yield Force= 417,780 N.

 From 24772 To 24773 DX= .000 mm. DY= -433.565 mm. DZ= .000 mm.

RESTRAINTS

Node 24772 Y2 K= 607 N./cm. Yield K= 1 N./cm. Yield Force= 2,006 N.
 Node 24772 X2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.
 Node 24772 Z2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.

 From 24773 To 24774 DX= .000 mm. DY= -433.565 mm. DZ= .000 mm.

RESTRAINTS

Node 24773 Y2 K= 607 N./cm. Yield K= 1 N./cm. Yield Force= 2,006 N.
 Node 24773 X2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.
 Node 24773 Z2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.

 From 24774 To 24775 DX= .000 mm. DY= -63.126 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 24774 Y2 K= 387 N./cm. Yield K= 1 N./cm. Yield Force= 1,280 N.
 Node 24774 X2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.
 Node 24774 Z2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.

 From 24775 To 25000 DX= -89.274 mm. DY= -89.274 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

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INPUT LISTING

RESTRAINTS

Node 24775 X2 K= 168 N./cm. Yield K= 1 N./cm. Yield Force= 554 N.
 Dir Vec= -.7071 -.7071 .0000
 Node 24775 X2 K= 27,922 N./cm. Yield K= 1 N./cm.
 Yield Force= 92,269 N. Dir Vec= -.7071 .7071 .0000
 Node 24775 Z2 K= 27,922 N./cm. Yield K= 1 N./cm.
 Yield Force= 92,269 N.

 From 25000 To 25001 DX= -496.691 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 25000 X2 K= 387 N./cm. Yield K= 1 N./cm. Yield Force= 1,280 N.
 Node 25000 Y2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.
 Node 25000 Z2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.

 From 25001 To 25002 DX= -433.565 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25001 X2 K= 607 N./cm. Yield K= 1 N./cm. Yield Force= 2,006 N.
 Node 25001 Y2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.
 Node 25001 Z2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.

 From 25002 To 25003 DX= -433.565 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25002 X2 K= 607 N./cm. Yield K= 1 N./cm. Yield Force= 2,006 N.
 Node 25002 Y2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.
 Node 25002 Z2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.

 From 25003 To 25004 DX= -650.348 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25003 X2 K= 759 N./cm. Yield K= 1 N./cm. Yield Force= 2,507 N.
 Node 25003 Y2 K= 126,428 N./cm. Yield K= 1 N./cm.
 Yield Force= 417,780 N.
 Node 25003 Z2 K= 126,428 N./cm. Yield K= 1 N./cm.
 Yield Force= 417,780 N.

 From 25004 To 25005 DX= -2,061.278 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25004 X2 K= 1,898 N./cm. Yield K= 1 N./cm. Yield Force= 6,271 N.
 Node 25004 Y2 K= 316,284 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,045,160 N.
 Node 25004 Z2 K= 316,284 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,045,160 N.

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INPUT LISTING

 From 25005 To 25020 DX= -2,061.278 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25005 X2 K= 2,885 N./cm. Yield K= 1 N./cm. Yield Force= 9,535 N.
 Node 25005 Y2 K= 480,855 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,588,985 N.
 Node 25005 Z2 K= 480,855 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,588,985 N.

 From 25020 To 25050 DX= -6,226.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 25020 X2 K= 5,800 N./cm. Yield K= 1 N./cm.
 Yield Force= 19,167 N.
 Node 25020 Y2 K= 966,628 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,194,222 N.
 Node 25020 Z2 K= 966,628 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,194,222 N.

 From 25050 To 25051 DX= -2,061.278 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 25050 X2 K= 5,800 N./cm. Yield K= 1 N./cm.
 Yield Force= 19,167 N.
 Node 25050 Y2 K= 966,628 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,194,222 N.
 Node 25050 Z2 K= 966,628 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,194,222 N.

 From 25051 To 25052 DX= -2,061.278 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25051 X2 K= 2,885 N./cm. Yield K= 1 N./cm. Yield Force= 9,535 N.
 Node 25051 Y2 K= 480,855 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,588,985 N.
 Node 25051 Z2 K= 480,855 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,588,985 N.

 From 25052 To 25053 DX= -650.348 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25052 X2 K= 1,898 N./cm. Yield K= 1 N./cm. Yield Force= 6,271 N.
 Node 25052 Y2 K= 316,284 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 1,045,160 N.
 Node 25052 Z2 K= 316,284 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,045,160 N.

 From 25053 To 25054 DX= -433.565 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25053 X2 K= 759 N./cm. Yield K= 1 N./cm. Yield Force= 2,507 N.
 Node 25053 Y2 K= 126,428 N./cm. Yield K= 1 N./cm.
 Yield Force= 417,780 N.
 Node 25053 Z2 K= 126,428 N./cm. Yield K= 1 N./cm.
 Yield Force= 417,780 N.

 From 25054 To 25055 DX= -433.565 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25054 X2 K= 607 N./cm. Yield K= 1 N./cm. Yield Force= 2,006 N.
 Node 25054 Y2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.
 Node 25054 Z2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.

 From 25055 To 25056 DX= -433.565 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25055 X2 K= 607 N./cm. Yield K= 1 N./cm. Yield Force= 2,006 N.
 Node 25055 Y2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.
 Node 25055 Z2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.

 From 25056 To 25057 DX= -63.126 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 25056 X2 K= 387 N./cm. Yield K= 1 N./cm. Yield Force= 1,280 N.
 Node 25056 Y2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.
 Node 25056 Z2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.

 From 25057 To 25070 DX= -89.274 mm. DY= .000 mm. DZ= 89.274 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 25057 X2 K= 168 N./cm. Yield K= 1 N./cm. Yield Force= 554 N.
 Dir Vec= -.7071 .0000 .7071
 Node 25057 Y2 K= 27,922 N./cm. Yield K= 1 N./cm.
 Yield Force= 92,269 N.
 Node 25057 X2 K= 27,922 N./cm. Yield K= 1 N./cm.
 Yield Force= 92,269 N. Dir Vec= .7071 .0000 .7071

 From 25070 To 25071 DX= .000 mm. DY= .000 mm. DZ= 496.691 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 25070 Z2 K= 387 N./cm. Yield K= 1 N./cm. Yield Force= 1,280 N.
 Node 25070 X2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.
 Node 25070 Y2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.

 From 25071 To 25072 DX= .000 mm. DY= .000 mm. DZ= 433.565 mm.

RESTRAINTS

Node 25071 Z2 K= 607 N./cm. Yield K= 1 N./cm. Yield Force= 2,006 N.
 Node 25071 X2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.
 Node 25071 Y2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.

 From 25072 To 25073 DX= .000 mm. DY= .000 mm. DZ= 465.235 mm.

RESTRAINTS

Node 25072 Z2 K= 629 N./cm. Yield K= 1 N./cm. Yield Force= 2,079 N.
 Node 25072 X2 K= 104,836 N./cm. Yield K= 1 N./cm.
 Yield Force= 346,431 N.
 Node 25072 Y2 K= 104,836 N./cm. Yield K= 1 N./cm.
 Yield Force= 346,431 N.

 From 25073 To 25079 DX= .000 mm. DY= .000 mm. DZ= 232.617 mm.

RESTRAINTS

Node 25073 Z2 K= 651 N./cm. Yield K= 1 N./cm. Yield Force= 2,152 N.
 Node 25073 X2 K= 108,530 N./cm. Yield K= 1 N./cm.
 Yield Force= 358,637 N.
 Node 25073 Y2 K= 108,530 N./cm. Yield K= 1 N./cm.
 Yield Force= 358,637 N.

 From 25079 To 25080 DX= .000 mm. DY= .000 mm. DZ= 232.617 mm.

RESTRAINTS

Node 25080 Z2 K= 326 N./cm. Yield K= 1 N./cm. Yield Force= 1,076 N.
 Node 25080 X2 K= 54,265 N./cm. Yield K= 1 N./cm.
 Yield Force= 179,319 N.
 Node 25080 Y2 K= 54,265 N./cm. Yield K= 1 N./cm.
 Yield Force= 179,319 N.

 From 25080 To 25100 DZ= 795.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 25099
 Angle/Node @2= .00 25098

 From 25100 To 25120 DX= -768.600 mm.

GENERAL

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INPUT LISTING

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 25120 To 25150 DX= -432.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 1,050.00 N.

FLANGES

Location= To Method= Peq G/C= 144.600 mm.

 From 25150 To 25170 DX= -101.600 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 191.00 N.

 From 25170 To 25200 DX= -636.200 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 25199
 Angle/Node @2= .00 25198

 From 25200 To 25220 DZ= -795.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 25220 To 25221 DX= .000 mm. DY= .000 mm. DZ= -540.235 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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INPUT LISTING

Node 25220 Z2 K= 378 N./cm. Yield K= 1 N./cm. Yield Force= 1,249 N.
 Node 25220 X2 K= 63,013 N./cm. Yield K= 1 N./cm.
 Yield Force= 208,226 N.
 Node 25220 Y2 K= 63,013 N./cm. Yield K= 1 N./cm.
 Yield Force= 208,226 N.

 From 25221 To 25222 DX= .000 mm. DY= .000 mm. DZ= -540.235 mm.

RESTRAINTS

Node 25221 Z2 K= 756 N./cm. Yield K= 1 N./cm. Yield Force= 2,499 N.
 Node 25221 X2 K= 126,026 N./cm. Yield K= 1 N./cm.
 Yield Force= 416,453 N.
 Node 25221 Y2 K= 126,026 N./cm. Yield K= 1 N./cm.
 Yield Force= 416,453 N.

 From 25222 To 25223 DX= .000 mm. DY= .000 mm. DZ= -433.565 mm.

RESTRAINTS

Node 25222 Z2 K= 682 N./cm. Yield K= 1 N./cm. Yield Force= 2,252 N.
 Node 25222 X2 K= 113,584 N./cm. Yield K= 1 N./cm.
 Yield Force= 375,338 N.
 Node 25222 Y2 K= 113,584 N./cm. Yield K= 1 N./cm.
 Yield Force= 375,338 N.

 From 25223 To 25224 DX= .000 mm. DY= .000 mm. DZ= -433.565 mm.

RESTRAINTS

Node 25223 Z2 K= 607 N./cm. Yield K= 1 N./cm. Yield Force= 2,006 N.
 Node 25223 X2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.
 Node 25223 Y2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.

 From 25224 To 25225 DX= .000 mm. DY= .000 mm. DZ= -63.126 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 25224 Z2 K= 387 N./cm. Yield K= 1 N./cm. Yield Force= 1,280 N.
 Node 25224 X2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.
 Node 25224 Y2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.

 From 25225 To 25250 DX= -89.274 mm. DY= .000 mm. DZ= -89.274 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 25225 X2 K= 168 N./cm. Yield K= 1 N./cm. Yield Force= 554 N.
 Dir Vec= -.7071 .0000 -.7071
 Node 25225 Y2 K= 27,922 N./cm. Yield K= 1 N./cm.
 Yield Force= 92,269 N.
 Node 25225 X2 K= 27,922 N./cm. Yield K= 1 N./cm.
 Yield Force= 92,269 N. Dir Vec= -.7071 .0000 .7071

 From 25250 To 25251 DX= -496.691 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 25250 X2 K= 387 N./cm. Yield K= 1 N./cm. Yield Force= 1,280 N.
 Node 25250 Y2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.
 Node 25250 Z2 K= 64,532 N./cm. Yield K= 1 N./cm.
 Yield Force= 213,247 N.

 From 25251 To 25252 DX= -433.565 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25251 X2 K= 607 N./cm. Yield K= 1 N./cm. Yield Force= 2,006 N.
 Node 25251 Y2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.
 Node 25251 Z2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.

 From 25252 To 25253 DX= -433.565 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25252 X2 K= 607 N./cm. Yield K= 1 N./cm. Yield Force= 2,006 N.
 Node 25252 Y2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.
 Node 25252 Z2 K= 101,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 334,224 N.

 From 25253 To 25254 DX= -650.348 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25253 X2 K= 759 N./cm. Yield K= 1 N./cm. Yield Force= 2,507 N.
 Node 25253 Y2 K= 126,428 N./cm. Yield K= 1 N./cm.
 Yield Force= 417,780 N.
 Node 25253 Z2 K= 126,428 N./cm. Yield K= 1 N./cm.
 Yield Force= 417,780 N.

 From 25254 To 25255 DX= -2,333.565 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25254 X2 K= 2,088 N./cm. Yield K= 1 N./cm. Yield Force= 6,901 N.
 Node 25254 Y2 K= 348,044 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,150,110 N.
 Node 25254 Z2 K= 348,044 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,150,110 N.

 From 25255 To 25256 DX= -3,135.995 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25255 X2 K= 3,828 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,650 N.
 Node 25255 Y2 K= 637,969 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,108,170 N.
 Node 25255 Z2 K= 637,969 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,108,170 N.

 From 25256 To 25270 DX= -3,135.995 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

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INPUT LISTING

Node 25256 X2 K= 4,390 N./cm. Yield K= 1 N./cm.
 Yield Force= 14,506 N.
 Node 25256 Y2 K= 731,565 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,417,456 N.
 Node 25256 Z2 K= 731,565 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,417,456 N.

 From 25270 To 25300 DX= -200.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 25270 X2 K= 2,335 N./cm. Yield K= 1 N./cm. Yield Force= 7,716 N.
 Node 25270 Y2 K= 389,110 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,285,815 N.
 Node 25270 Z2 K= 389,110 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,285,815 N.

 From 25300 To 25350 DX= -11,078.334 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 25300 X2 K= 7,894 N./cm. Yield K= 1 N./cm.
 Yield Force= 26,085 N.
 Node 25300 Y2 K= 1,315,505 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,347,085 N.
 Node 25300 Z2 K= 1,315,505 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,347,085 N.

 From 25350 To 25400 DX= -11,078.334 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 25350 X2 K= 15,507 N./cm. Yield K= 1 N./cm.
 Yield Force= 51,244 N.
 Node 25350 Y2 K= 2,584,353 N./cm. Yield K= 1 N./cm.
 Yield Force= 8,539,994 N.

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INPUT LISTING

Node 25350 Z2 K= 2,584,353 N./cm. Yield K= 1 N./cm.
 Yield Force= 8,539,994 N.

 From 25400 To 25449 DX= -5,539.167 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 25400 X2 K= 15,507 N./cm. Yield K= 1 N./cm.
 Yield Force= 51,244 N.
 Node 25400 Y2 K= 2,584,353 N./cm. Yield K= 1 N./cm.
 Yield Force= 8,539,994 N.
 Node 25400 Z2 K= 2,584,353 N./cm. Yield K= 1 N./cm.
 Yield Force= 8,539,994 N.

 From 25449 To 25450 DX= -5,539.167 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 25450 ANC

 From 24420 To 24421 DX= 1,919.497 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 219.000 mm. Wall= 7.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24420 X2 K= 2,477 N./cm. Yield K= 1 N./cm. Yield Force= 8,574 N.
 Node 24420 Y2 K= 234,561 N./cm. Yield K= 1 N./cm.
 Yield Force= 812,051 N.
 Node 24420 Z2 K= 234,561 N./cm. Yield K= 1 N./cm.
 Yield Force= 812,051 N.

 From 24421 To 24422 DX= 1,919.497 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 24421 X2 K= 4,953 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,148 N.
 Node 24421 Y2 K= 469,122 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,624,102 N.
 Node 24421 Z2 K= 469,122 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,624,102 N.

 From 24422 To 24423 DX= 761.069 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 24422 X2 K= 3,459 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 11,974 N.
 Node 24422 Y2 K= 327,563 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,134,024 N.
 Node 24422 Z2 K= 327,563 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,134,024 N.

 From 24423 To 24424 DX= 761.069 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 24423 X2 K= 1,964 N./cm. Yield K= 1 N./cm. Yield Force= 6,799 N.
 Node 24423 Y2 K= 186,004 N./cm. Yield K= 1 N./cm.
 Yield Force= 643,946 N.
 Node 24423 Z2 K= 186,004 N./cm. Yield K= 1 N./cm.
 Yield Force= 643,946 N.

 From 24424 To 24425 DX= 761.069 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 24424 X2 K= 1,964 N./cm. Yield K= 1 N./cm. Yield Force= 6,799 N.
 Node 24424 Y2 K= 186,004 N./cm. Yield K= 1 N./cm.
 Yield Force= 643,946 N.
 Node 24424 Z2 K= 186,004 N./cm. Yield K= 1 N./cm.
 Yield Force= 643,946 N.

 From 24425 To 24426 DX= 126.252 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 304.800 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 24425 X2 K= 1,291 N./cm. Yield K= 1 N./cm. Yield Force= 4,469 N.
 Node 24425 Y2 K= 122,255 N./cm. Yield K= 1 N./cm.
 Yield Force= 423,248 N.
 Node 24425 Z2 K= 122,255 N./cm. Yield K= 1 N./cm.
 Yield Force= 423,248 N.

 From 24426 To 24450 DX= 178.548 mm. DY= .000 mm. DZ= 178.548 mm.

BEND at "TO" end

Radius= 304.800 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 24426 X2 K= 618 N./cm. Yield K= 1 N./cm. Yield Force= 2,139 N.
 Dir Vec= .7071 .0000 .7071
 Node 24426 Y2 K= 58,506 N./cm. Yield K= 1 N./cm.
 Yield Force= 202,549 N.
 Node 24426 X2 K= 58,506 N./cm. Yield K= 1 N./cm.
 Yield Force= 202,549 N. Dir Vec= -.7071 .0000 .7071

 From 24450 To 24451 DX= .000 mm. DY= .000 mm. DZ= 887.321 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24450 Z2 K= 1,291 N./cm. Yield K= 1 N./cm. Yield Force= 4,469 N.
 Node 24450 X2 K= 122,255 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 423,248 N.
 Node 24450 Y2 K= 122,255 N./cm. Yield K= 1 N./cm.
 Yield Force= 423,248 N.

 From 24451 To 24469 DX= .000 mm. DY= .000 mm. DZ= 442.066 mm.

RESTRAINTS

Node 24451 Z2 K= 2,123 N./cm. Yield K= 1 N./cm. Yield Force= 7,349 N.
 Node 24451 X2 K= 201,042 N./cm. Yield K= 1 N./cm.
 Yield Force= 696,008 N.
 Node 24451 Y2 K= 201,042 N./cm. Yield K= 1 N./cm.
 Yield Force= 696,008 N.

 From 24469 To 24470 DX= .000 mm. DY= .000 mm. DZ= 442.066 mm.

RESTRAINTS

Node 24470 Z2 K= 1,141 N./cm. Yield K= 1 N./cm. Yield Force= 3,949 N.
 Node 24470 X2 K= 108,040 N./cm. Yield K= 1 N./cm.
 Yield Force= 374,035 N.
 Node 24470 Y2 K= 108,040 N./cm. Yield K= 1 N./cm.
 Yield Force= 374,035 N.

 From 24470 To 24500 DZ= 784.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 24200 To 24220 DZ= 378.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 24220 To 24250 DZ= 133.400 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 544.00 N.

FLANGES

Location= To Method= Peq G/C= 255.850 mm.

 From 24250 To 24270 DZ= 87.900 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 590.00 N.

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 INPUT LISTING

 From 24000 To 1999 DX= .000 mm. DY= 875.000 mm. DZ= .000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm.

GENERAL

Phyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24000 Y2 K= 4,711 N./cm. Yield K= 1 N./cm.
 Yield Force= 18,353 N.
 Node 24000 X2 K= 240,626 N./cm. Yield K= 1 N./cm.
 Yield Force= 937,359 N.
 Node 24000 Z2 K= 240,626 N./cm. Yield K= 1 N./cm.
 Yield Force= 937,359 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 1999 To 2000 DX= .000 mm. DY= 875.000 mm. DZ= .000 mm.

RESTRAINTS

Node 2000 Y2 K= 4,711 N./cm. Yield K= 1 N./cm.
 Yield Force= 18,353 N.
 Node 2000 X2 K= 240,626 N./cm. Yield K= 1 N./cm.
 Yield Force= 937,359 N.
 Node 2000 Z2 K= 240,626 N./cm. Yield K= 1 N./cm.
 Yield Force= 937,359 N.

 From 20300 To 20350 DX= .000 mm. DY= 2,881.000 mm. DZ= .000 mm.

GENERAL

Phyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 20300 Y2 K= 7,756 N./cm. Yield K= 1 N./cm.
 Yield Force= 30,214 N.
 Node 20300 X2 K= 396,139 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,543,161 N.
 Node 20300 Z2 K= 396,139 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,543,161 N.

 From 20350 To 20400 DX= .000 mm. DY= 1,194.000 mm. DZ= .000 mm.

GENERAL

Phyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.
 RIGID Weight= .01 N.

RESTRAINTS

Node 20350 Y2 K= 10,971 N./cm. Yield K= 1 N./cm.
 Yield Force= 42,736 N.
 Node 20350 X2 K= 560,315 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,182,708 N.
 Node 20350 Z2 K= 560,315 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,182,708 N.

 From 20400 To 20450 DX= .000 mm. DY= 903.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 20400 Y2 K= 5,646 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,992 N.
 Node 20400 X2 K= 288,339 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,123,224 N.
 Node 20400 Z2 K= 288,339 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,123,224 N.

SIF's & TEE's

Node 20450 Sweepolet Use Notes 6,9,10 = ---

 From 20450 To 20499 DX= .000 mm. DY= 451.500 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 20450 Y2 K= 4,862 N./cm. Yield K= 1 N./cm.
 Yield Force= 18,940 N.
 Node 20450 X2 K= 248,326 N./cm. Yield K= 1 N./cm.
 Yield Force= 967,355 N.
 Node 20450 Z2 K= 248,326 N./cm. Yield K= 1 N./cm.
 Yield Force= 967,355 N.

 From 20499 To 20500 DX= .000 mm. DY= 451.500 mm. DZ= .000 mm.

RESTRAINTS

Node 20500 Y2 K= 2,431 N./cm. Yield K= 1 N./cm. Yield Force= 9,470 N.
 Node 20500 X2 K= 124,163 N./cm. Yield K= 1 N./cm.
 Yield Force= 483,677 N.

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INPUT LISTING

Node 20500 Z2 K= 124,163 N./cm. Yield K= 1 N./cm.
 Yield Force= 483,677 N.

 From 550 To 600 DX= .000 mm. DY= 3,712.500 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 550 Y2 K= 21,343 N./cm. Yield K= 1 N./cm.
 Yield Force= 112,402 N.
 Node 550 X2 K= 690,129 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,634,563 N.
 Node 550 Z2 K= 690,129 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,634,563 N.

 From 600 To 650 DX= .000 mm. DY= 2,575.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 600 Y2 K= 36,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 190,364 N.
 Node 600 X2 K= 1,168,804 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,155,506 N.
 Node 600 Z2 K= 1,168,804 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,155,506 N.

 From 650 To 699 DX= .000 mm. DY= 1,856.250 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 650 Y2 K= 36,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 190,364 N.
 Node 650 X2 K= 1,168,804 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,155,506 N.

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INPUT LISTING

Node 650 Z2 K= 1,168,804 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,155,506 N.

 From 699 To 700 DX= .000 mm. DY= 1,856.250 mm. DZ= .000 mm.

RESTRAINTS

Node 700 Y2 K= 21,343 N./cm. Yield K= 1 N./cm.
 Yield Force= 112,402 N.
 Node 700 X2 K= 690,129 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,634,563 N.
 Node 700 Z2 K= 690,129 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,634,563 N.

SIF's & TEE's

Node 700 Welding Tee Use Notes 6,9,10 = ---

 From 700 To 1499 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 700 Z2 K= 16,097 N./cm. Yield K= 1 N./cm.
 Yield Force= 84,774 N.
 Node 700 X2 K= 520,501 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,741,220 N.
 Node 700 Y2 K= 520,501 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,741,220 N.

 From 1499 To 1500 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

 From 1500 To 1550 DZ= 3,200.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
 1549 Angle/Node @2= .00 1548

 From 1550 To 1600 DX= -5,500.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 1600 To 1650 DX= -5,500.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
 1649 Angle/Node @2= .00 1648

 From 1650 To 1700 DZ= -3,200.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 1700 To 1701 DX= .000 mm. DY= .000 mm. DZ= -667.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1700 Z2 K= 3,835 N./cm. Yield K= 1 N./cm.
 Yield Force= 20,194 N.
 Node 1700 X2 K= 123,991 N./cm. Yield K= 1 N./cm.
 Yield Force= 652,998 N.
 Node 1700 Y2 K= 123,991 N./cm. Yield K= 1 N./cm.
 Yield Force= 652,998 N.

 From 1701 To 1702 DX= .000 mm. DY= .000 mm. DZ= -883.517 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 1701 Z2 K= 13,465 N./cm. Yield K= 1 N./cm.
 Yield Force= 70,915 N.
 Node 1701 X2 K= 435,409 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,293,084 N.
 Node 1701 Y2 K= 435,409 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,293,084 N.

 From 1702 To 1750 DX= -1,249.482 mm. DY= .000 mm. DZ= -1,249.482 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 1702 X2 K= 19,262 N./cm. Yield K= 1 N./cm.
 Yield Force= 101,442 N. Dir Vec= -.7071 .0000 -.7071
 Node 1702 Y2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N.
 Node 1702 X2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N. Dir Vec= -.7071 .0000 .7071

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INPUT LISTING

From 1750 To 1799 DX= -2,875.259 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1750 X2 K= 37,611 N./cm. Yield K= 1 N./cm.
 Yield Force= 198,077 N.
 Node 1750 Y2 K= 1,216,161 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,404,913 N.
 Node 1750 Z2 K= 1,216,161 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,404,913 N.

 From 1799 To 1800 DX= -2,875.259 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 1800 X2 K= 27,980 N./cm. Yield K= 1 N./cm.
 Yield Force= 147,356 N.
 Node 1800 Y2 K= 904,743 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,764,827 N.
 Node 1800 Z2 K= 904,743 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,764,827 N.

SIF's & TEE's

Node 1800 Welding Tee Use Notes 6,9,10 = ---

 From 1800 To 1801 DX= .000 mm. DY= 3,288.900 mm. DZ= .000 mm.

PIPE

Dia= 916.400 mm. Wall= 14.200 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1800 Y2 K= 13,928 N./cm. Yield K= 1 N./cm.
 Yield Force= 62,787 N.
 Node 1800 X2 K= 523,342 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,359,279 N.
 Node 1800 Z2 K= 523,342 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,359,279 N.

 From 1801 To 1802 DX= .000 mm. DY= 569.378 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 1,374.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 1801 Y2 K= 18,499 N./cm. Yield K= 1 N./cm.
 Yield Force= 83,398 N.
 Node 1801 X2 K= 695,134 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 3,133,732 N.
 Node 1801 Z2 K= 695,134 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,133,732 N.

 From 1802 To 14100 DX= -805.222 mm. DY= 805.222 mm. DZ= .000 mm.
 BEND at "TO" end

Radius= 1,374.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 1802 X2 K= 9,144 N./cm. Yield K= 1 N./cm.
 Yield Force= 41,221 N. Dir Vec= -.7071 .7071 .0000
 Node 1802 X2 K= 343,583 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,548,906 N. Dir Vec= .7071 .7071 .0000
 Node 1802 Z2 K= 343,583 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,548,906 N.

 From 14100 To 14150 DX= -2,153.378 mm. DY= .000 mm. DZ= .000 mm.
 GENERAL

Phyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 14100 X2 K= 11,280 N./cm. Yield K= 1 N./cm.
 Yield Force= 50,850 N.
 Node 14100 Y2 K= 423,844 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,910,729 N.
 Node 14100 Z2 K= 423,844 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,910,729 N.

 From 14150 To 14200 DX= -2,083.000 mm. DY= .000 mm. DZ= .000 mm.
 GENERAL

Phyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 14150 X2 K= 15,529 N./cm. Yield K= 1 N./cm.
 Yield Force= 70,005 N.
 Node 14150 Y2 K= 583,507 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,630,508 N.
 Node 14150 Z2 K= 583,507 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,630,508 N.

 From 14200 To 14250 DX= -3,795.000 mm. DY= .000 mm. DZ= .000 mm.
 GENERAL

Phyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 14200 X2 K= 24,892 N./cm. Yield K= 1 N./cm.
 Yield Force= 112,215 N.
 Node 14200 Y2 K= 935,330 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,216,560 N.
 Node 14200 Z2 K= 935,330 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,216,560 N.

 From 14250 To 14300 DX= -1,054.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 14250 X2 K= 20,534 N./cm. Yield K= 1 N./cm.
 Yield Force= 92,570 N.
 Node 14250 Y2 K= 771,591 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,478,411 N.
 Node 14250 Z2 K= 771,591 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,478,411 N.

 From 14300 To 14350 DX= -2,083.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 14300 X2 K= 13,284 N./cm. Yield K= 1 N./cm.
 Yield Force= 59,887 N.
 Node 14300 Y2 K= 499,171 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,250,315 N.
 Node 14300 Z2 K= 499,171 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,250,315 N.

 From 14350 To 14400 DX= -1,064.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

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INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 14350 X2 K= 13,327 N./cm. Yield K= 1 N./cm.

Yield Force= 60,078 N.

Node 14350 Y2 K= 500,763 N./cm. Yield K= 1 N./cm.

Yield Force= 2,257,488 N.

Node 14350 Z2 K= 500,763 N./cm. Yield K= 1 N./cm.

Yield Force= 2,257,488 N.

 From 14400 To 14420 DX= -9,592.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 14400 X2 K= 45,125 N./cm. Yield K= 1 N./cm.

Yield Force= 203,430 N.

Node 14400 Y2 K= 1,695,623 N./cm. Yield K= 1 N./cm.

Yield Force= 7,644,039 N.

Node 14400 Z2 K= 1,695,623 N./cm. Yield K= 1 N./cm.

Yield Force= 7,644,039 N.

 From 14420 To 13549 DX= -4,796.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 14420 X2 K= 81,239 N./cm. Yield K= 1 N./cm.

Yield Force= 366,234 N.

Node 14420 Y2 K= 3,052,631 N./cm. Yield K= 1 N./cm.

Yield Force= 13,761,566 N.

Node 14420 Z2 K= 3,052,631 N./cm. Yield K= 1 N./cm.

Yield Force= 13,761,566 N.

 From 13549 To 13550 DX= -4,796.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 13550 X2 K= 40,620 N./cm. Yield K= 1 N./cm.

Yield Force= 183,117 N.

Node 13550 Y2 K= 1,526,316 N./cm. Yield K= 1 N./cm.

Yield Force= 6,880,783 N.

Node 13550 Z2 K= 1,526,316 N./cm. Yield K= 1 N./cm.

Yield Force= 6,880,783 N.

 From 1800 To 1850 DX= -4,000.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

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GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1800 X2 K= 22,996 N./cm. Yield K= 1 N./cm.
 Yield Force= 121,106 N.
 Node 1800 Y2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.
 Node 1800 Z2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.

SIF's & TEE's

Node 1850 Welding Tee Use Notes 6,9,10 = ---

 From 1850 To 1900 DX= -3,712.500 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1850 X2 K= 44,338 N./cm. Yield K= 1 N./cm.
 Yield Force= 233,508 N.
 Node 1850 Y2 K= 1,433,702 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,550,591 N.
 Node 1850 Z2 K= 1,433,702 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,550,591 N.

 From 1900 To 1950 DX= -2,575.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 1900 X2 K= 36,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 190,364 N.
 Node 1900 Y2 K= 1,168,804 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,155,506 N.
 Node 1900 Z2 K= 1,168,804 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,155,506 N.

 From 1950 To 2000 DX= -3,712.500 mm. DY= .000 mm. DZ= .000 mm.

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INPUT LISTING

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1950 X2 K= 36,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 190,364 N.
 Node 1950 Y2 K= 1,168,804 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,155,506 N.
 Node 1950 Z2 K= 1,168,804 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,155,506 N.

SIF's & TEE's

Node 2000 Welding Tee Use Notes 6,9,10 = ---

 From 2000 To 2050 DX= -1,981.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2000 X2 K= 32,731 N./cm. Yield K= 1 N./cm.
 Yield Force= 172,380 N.
 Node 2000 Y2 K= 1,058,383 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,573,976 N.
 Node 2000 Z2 K= 1,058,383 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,573,976 N.

 From 2050 To 2100 DX= -2,451.500 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2050 X2 K= 25,482 N./cm. Yield K= 1 N./cm.
 Yield Force= 134,201 N.
 Node 2050 Y2 K= 823,972 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,339,448 N.
 Node 2050 Z2 K= 823,972 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,339,448 N.

 From 2100 To 2149 DX= -1,498.500 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 2100 X2 K= 31,323 N./cm. Yield K= 1 N./cm.
 Yield Force= 164,962 N.
 Node 2100 Y2 K= 1,012,840 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,334,119 N.
 Node 2100 Z2 K= 1,012,840 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,334,119 N.

 From 2149 To 2150 DX= -1,498.500 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 2150 X2 K= 17,229 N./cm. Yield K= 1 N./cm.
 Yield Force= 90,739 N.
 Node 2150 Y2 K= 557,122 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,934,084 N.
 Node 2150 Z2 K= 557,122 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,934,084 N.

 From 700 To 750 DX= .000 mm. DY= 9,011.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 700 Y2 K= 51,803 N./cm. Yield K= 1 N./cm.
 Yield Force= 272,822 N.
 Node 700 X2 K= 1,675,084 N./cm. Yield K= 1 N./cm.
 Yield Force= 8,821,832 N.
 Node 700 Z2 K= 1,675,084 N./cm. Yield K= 1 N./cm.
 Yield Force= 8,821,832 N.

 From 750 To 751 DX= .000 mm. DY= 599.918 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 750 Y2 K= 55,252 N./cm. Yield K= 1 N./cm.
 Yield Force= 290,986 N.
 Node 750 X2 K= 1,786,605 N./cm. Yield K= 1 N./cm.
 Yield Force= 9,409,156 N.

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INPUT LISTING

Node 750 Z2 K= 1,786,605 N./cm. Yield K= 1 N./cm.
 Yield Force= 9,409,156 N.

 From 751 To 752 DX= .000 mm. DY= 1,979.974 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 22.500

RESTRAINTS

Node 751 Y2 K= 25,921 N./cm. Yield K= 1 N./cm.
 Yield Force= 136,512 N.

Node 751 X2 K= 838,164 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,414,191 N.

Node 751 Z2 K= 838,164 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,414,191 N.

 From 752 To 800 DX= 1,515.406 mm. DY= 3,658.514 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 22.500

RESTRAINTS

Node 752 X2 K= 44,944 N./cm. Yield K= 1 N./cm.
 Yield Force= 236,698 N. Dir Vec= .3827 .9239 .0000

Node 752 X2 K= 1,453,286 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,653,733 N. Dir Vec= .9239 -.3827 .0000

Node 752 Z2 K= 1,453,286 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,653,733 N.

 From 800 To 850 DX= 1,824.594 mm. DY= 1,824.594 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 800 X2 K= 25,924 N./cm. Yield K= 1 N./cm.
 Yield Force= 136,527 N. Dir Vec= .7071 .7071 .0000

Node 800 X2 K= 838,252 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,414,654 N. Dir Vec= .7071 -.7071 .0000

Node 800 Z2 K= 838,252 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,414,654 N.

 From 850 To 900 DX= 6,400.000 mm. DY= 6,400.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 850 X2 K= 55,485 N./cm. Yield K= 1 N./cm.
 Yield Force= 292,210 N. Dir Vec= .7071 .7071 .0000

Node 850 X2 K= 1,794,123 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 9,448,746 N. Dir Vec= .7071 -.7071 .0000
 Node 850 Z2 K= 1,794,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 9,448,746 N.

 From 900 To 950 DX= 6,400.000 mm. DY= 6,400.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 900 X2 K= 104,066 N./cm. Yield K= 1 N./cm.
 Yield Force= 548,065 N. Dir Vec= .7071 .7071 .0000
 Node 900 X2 K= 3,365,028 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,721,918 N. Dir Vec= .7071 -.7071 .0000
 Node 900 Z2 K= 3,365,028 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,721,918 N.

 From 950 To 1000 DX= 6,400.000 mm. DY= 6,400.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 950 X2 K= 104,066 N./cm. Yield K= 1 N./cm.
 Yield Force= 548,065 N. Dir Vec= .7071 .7071 .0000
 Node 950 X2 K= 3,365,028 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,721,918 N. Dir Vec= .7071 -.7071 .0000
 Node 950 Z2 K= 3,365,028 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,721,918 N.

 From 1000 To 1050 DX= 6,400.000 mm. DY= 6,400.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1000 X2 K= 104,066 N./cm. Yield K= 1 N./cm.
 Yield Force= 548,065 N. Dir Vec= .7071 .7071 .0000
 Node 1000 X2 K= 3,365,028 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,721,918 N. Dir Vec= .7071 -.7071 .0000
 Node 1000 Z2 K= 3,365,028 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,721,918 N.

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INPUT LISTING

From 1050 To 1099 DX= 3,200.000 mm. DY= 3,200.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1050 X2 K= 104,066 N./cm. Yield K= 1 N./cm.
 Yield Force= 548,065 N. Dir Vec= .7071 .7071 .0000
 Node 1050 X2 K= 3,365,028 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,721,918 N. Dir Vec= .7071 -.7071 .0000
 Node 1050 Z2 K= 3,365,028 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,721,918 N.

 From 1099 To 1100 DX= 3,200.000 mm. DY= 3,200.000 mm. DZ= .000 mm.

RESTRAINTS

Node 1100 ANC

 From 2150 To 2200 DX= -2,451.500 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (306)API-5L X65
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2150 X2 K= 14,093 N./cm. Yield K= 1 N./cm.
 Yield Force= 74,223 N.
 Node 2150 Y2 K= 455,717 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,400,036 N.
 Node 2150 Z2 K= 455,717 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,400,036 N.

 From 2200 To 2249 DX= -1,137.500 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2200 X2 K= 27,172 N./cm. Yield K= 1 N./cm.
 Yield Force= 143,102 N.
 Node 2200 Y2 K= 878,625 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,627,276 N.

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INPUT LISTING

Node 2200 Z2 K= 878,625 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,627,276 N.

 From 2249 To 2250 DX= -1,137.500 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 2250 X2 K= 13,079 N./cm. Yield K= 1 N./cm.
 Yield Force= 68,879 N.

Node 2250 Y2 K= 422,907 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,227,241 N.

Node 2250 Z2 K= 422,907 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,227,241 N.

SIF's & TEE's

Node 2250 Welding Tee Use Notes 6,9,10 = ---

 From 2250 To 2251 DX= .000 mm. DY= 1,118.483 mm. DZ= .000 mm.

GENERAL

Phyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2250 Y2 K= 6,430 N./cm. Yield K= 1 N./cm.
 Yield Force= 33,864 N.

Node 2250 X2 K= 207,918 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,095,002 N.

Node 2250 Z2 K= 207,918 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,095,002 N.

 From 2251 To 2252 DX= .000 mm. DY= 424.280 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 22.500

RESTRAINTS

Node 2251 Y2 K= 11,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 59,224 N.

Node 2251 X2 K= 363,628 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,915,045 N.

Node 2251 Z2 K= 363,628 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,915,045 N.

 From 2252 To 3500 DX= .000 mm. DY= 783.967 mm. DZ= -324.730 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 22.500

RESTRAINTS

Node 2252 X2 K= 9,631 N./cm. Yield K= 1 N./cm.
 Yield Force= 50,721 N. Dir Vec= .0000 .9239 -.3827

Node 2252 X2 K= 311,419 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,640,086 N.

Node 2252 X2 K= 311,419 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,640,086 N. Dir Vec= .0000 .3827 .9239

 From 3500 To 3501 DX= .000 mm. DY= 1,184.529 mm. DZ= -1,184.529 mm.

GENERAL

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INPUT LISTING

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3500 X2 K= 12,007 N./cm. Yield K= 1 N./cm.
 Yield Force= 63,233 N. Dir Vec= .0000 .7071 -.7071
 Node 3500 X2 K= 388,243 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,044,680 N.
 Node 3500 X2 K= 388,243 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,044,680 N. Dir Vec= .0000 .7071 .7071

 From 3501 To 3502 DX= .000 mm. DY= 300.011 mm. DZ= -300.011 mm.
 BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 22.500

RESTRAINTS

Node 3501 X2 K= 12,007 N./cm. Yield K= 1 N./cm.
 Yield Force= 63,233 N. Dir Vec= .0000 .7071 -.7071
 Node 3501 X2 K= 388,243 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,044,680 N.
 Node 3501 X2 K= 388,243 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,044,680 N. Dir Vec= .0000 .7071 .7071

 From 3502 To 3550 DX= .000 mm. DY= 783.967 mm. DZ= -324.730 mm.
 BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 22.500

RESTRAINTS

Node 3502 X2 K= 9,631 N./cm. Yield K= 1 N./cm.
 Yield Force= 50,721 N. Dir Vec= .0000 .9239 -.3827
 Node 3502 X2 K= 311,419 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,640,086 N.
 Node 3502 X2 K= 311,419 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,640,086 N. Dir Vec= .0000 .3827 .9239

 From 3550 To 3551 DX= .000 mm. DY= 3,488.521 mm. DZ= .000 mm.
 GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3550 Y2 K= 22,431 N./cm. Yield K= 1 N./cm.
 Yield Force= 118,135 N.
 Node 3550 X2 K= 725,331 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,819,956 N.
 Node 3550 Z2 K= 725,331 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,819,956 N.

 From 3551 To 3600 DX= .000 mm. DY= 3,064.241 mm. DZ= .000 mm.

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RESTRAINTS

Node 3551 Y2 K= 35,232 N./cm. Yield K= 1 N./cm.
 Yield Force= 185,550 N.
 Node 3551 X2 K= 1,139,244 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,999,827 N.
 Node 3551 Z2 K= 1,139,244 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,999,827 N.

 From 3600 To 3601 DX= .000 mm. DY= 4,879.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3600 Y2 K= 45,665 N./cm. Yield K= 1 N./cm.
 Yield Force= 240,494 N.
 Node 3600 X2 K= 1,476,595 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,776,489 N.
 Node 3600 Z2 K= 1,476,595 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,776,489 N.

 From 3601 To 3602 DX= .000 mm. DY= 883.517 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 3601 Y2 K= 37,680 N./cm. Yield K= 1 N./cm.
 Yield Force= 198,440 N.
 Node 3601 X2 K= 1,218,392 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,416,661 N.
 Node 3601 Z2 K= 1,218,392 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,416,661 N.

 From 3602 To 3650 DX= 883.517 mm. DY= 1,249.482 mm. DZ= 883.517 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 3602 X2 K= 19,262 N./cm. Yield K= 1 N./cm.
 Yield Force= 101,442 N. Dir Vec= .5000 .7071 .5000
 Node 3602 X2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N. Dir Vec= .8165 -.5774 .0000
 Node 3602 X2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N. Dir Vec= -.2887 -.4082 .8660

 From 3650 To 3651 DX= 924.753 mm. DY= .000 mm. DZ= 924.753 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

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INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 22.500

RESTRAINTS

Node 3650 X2 K= 14,446 N./cm. Yield K= 1 N./cm.

Yield Force= 76,081 N. Dir Vec= .7071 .0000 .7071

Node 3650 Y2 K= 467,128 N./cm. Yield K= 1 N./cm.

Yield Force= 2,460,128 N.

Node 3650 X2 K= 467,128 N./cm. Yield K= 1 N./cm.

Yield Force= 2,460,128 N. Dir Vec= -.7071 .0000 .7071

 From 3651 To 3700 DX= 783.967 mm. DY= .000 mm. DZ= 324.730 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 22.500

RESTRAINTS

Node 3651 X2 K= 9,631 N./cm. Yield K= 1 N./cm.

Yield Force= 50,721 N. Dir Vec= .9239 .0000 .3827

Node 3651 Y2 K= 311,419 N./cm. Yield K= 1 N./cm.

Yield Force= 1,640,086 N.

Node 3651 X2 K= 311,419 N./cm. Yield K= 1 N./cm.

Yield Force= 1,640,086 N. Dir Vec= -.3827 .0000 .9239

 From 3700 To 3701 DX= 3,206.271 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3700 X2 K= 20,809 N./cm. Yield K= 1 N./cm.

Yield Force= 109,590 N.

Node 3700 Y2 K= 672,863 N./cm. Yield K= 1 N./cm.

Yield Force= 3,543,632 N.

Node 3700 Z2 K= 672,863 N./cm. Yield K= 1 N./cm.

Yield Force= 3,543,632 N.

 From 3701 To 3750 DX= 2,781.991 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 3701 X2 K= 31,987 N./cm. Yield K= 1 N./cm.

Yield Force= 168,458 N.

Node 3701 Y2 K= 1,034,307 N./cm. Yield K= 1 N./cm.

Yield Force= 5,447,178 N.

Node 3701 Z2 K= 1,034,307 N./cm. Yield K= 1 N./cm.

Yield Force= 5,447,178 N.

 From 3750 To 3799 DX= 3,223.750 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3750 X2 K= 53,059 N./cm. Yield K= 1 N./cm.
 Yield Force= 279,437 N.
 Node 3750 Y2 K= 1,715,700 N./cm. Yield K= 1 N./cm.
 Yield Force= 9,035,736 N.
 Node 3750 Z2 K= 1,715,700 N./cm. Yield K= 1 N./cm.
 Yield Force= 9,035,736 N.

 From 3799 To 3800 DX= 3,223.750 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 3800 X2 K= 37,066 N./cm. Yield K= 1 N./cm.
 Yield Force= 195,208 N.
 Node 3800 Y2 K= 1,198,547 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,312,148 N.
 Node 3800 Z2 K= 1,198,547 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,312,148 N.

SIF's & TEE's

Node 3800 Welding Tee Use Notes 6,9,10 = ---

 From 3800 To 17699 DX= .000 mm. DY= 1,786.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3800 Y2 K= 20,535 N./cm. Yield K= 1 N./cm.
 Yield Force= 108,148 N.
 Node 3800 X2 K= 664,011 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,497,013 N.
 Node 3800 Z2 K= 664,011 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,497,013 N.

 From 17699 To 17700 DX= .000 mm. DY= 1,786.000 mm. DZ= .000 mm.

RESTRAINTS

Node 17700 Y2 K= 20,535 N./cm. Yield K= 1 N./cm.
 Yield Force= 108,148 N.
 Node 17700 X2 K= 664,011 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,497,013 N.
 Node 17700 Z2 K= 664,011 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,497,013 N.

SIF's & TEE's

Node 17700 Welding Tee Use Notes 6,9,10 = ---

 From 17700 To 18100 DX= 2,501.500 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 610.000 mm. Wall= 11.100 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17700 X2 K= 7,781 N./cm. Yield K= 1 N./cm.
 Yield Force= 31,502 N.
 Node 17700 Y2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.
 Node 17700 Z2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 18100 To 18150 DX= 1,397.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 18100 X2 K= 12,127 N./cm. Yield K= 1 N./cm.
 Yield Force= 49,095 N.
 Node 18100 Y2 K= 557,100 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,255,420 N.
 Node 18100 Z2 K= 557,100 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,255,420 N.

 From 18150 To 18199 DX= 701.500 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 18150 X2 K= 8,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,261 N.
 Node 18150 Y2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.
 Node 18150 Z2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.

 From 18199 To 18200 DX= 701.500 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

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INPUT LISTING

Node 18200 X2 K= 4,364 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,668 N.
 Node 18200 Y2 K= 200,490 N./cm. Yield K= 1 N./cm.
 Yield Force= 811,685 N.
 Node 18200 Z2 K= 200,490 N./cm. Yield K= 1 N./cm.
 Yield Force= 811,685 N.

 From 17700 To 17749 DX= .000 mm. DY= 1,818.000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17700 Y2 K= 20,903 N./cm. Yield K= 1 N./cm.
 Yield Force= 110,086 N.
 Node 17700 X2 K= 675,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,559,669 N.
 Node 17700 Z2 K= 675,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,559,669 N.

 From 17749 To 17750 DX= .000 mm. DY= 1,818.000 mm. DZ= .000 mm.

RESTRAINTS

Node 17750 Y2 K= 20,903 N./cm. Yield K= 1 N./cm.
 Yield Force= 110,086 N.
 Node 17750 X2 K= 675,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,559,669 N.
 Node 17750 Z2 K= 675,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,559,669 N.

SIF's & TEE's

Node 17750 Welding Tee Use Notes 6,9,10 = ---

 From 17750 To 18399 DX= 1,250.750 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 610.000 mm. Wall= 11.100 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17750 X2 K= 7,781 N./cm. Yield K= 1 N./cm.
 Yield Force= 31,502 N.
 Node 17750 Y2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.

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INPUT LISTING

Node 17750 Z2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 18399 To 18400 DX= 1,250.750 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 18400 X2 K= 7,781 N./cm. Yield K= 1 N./cm.
 Yield Force= 31,502 N.
 Node 18400 Y2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.
 Node 18400 Z2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.

 From 17750 To 17799 DX= .000 mm. DY= 1,818.000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17750 Y2 K= 20,903 N./cm. Yield K= 1 N./cm.
 Yield Force= 110,086 N.
 Node 17750 X2 K= 675,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,559,669 N.
 Node 17750 Z2 K= 675,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,559,669 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

 From 17799 To 17800 DX= .000 mm. DY= 1,818.000 mm. DZ= .000 mm.

RESTRAINTS

Node 17800 Y2 K= 20,903 N./cm. Yield K= 1 N./cm.
 Yield Force= 110,086 N.
 Node 17800 X2 K= 675,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,559,669 N.
 Node 17800 Z2 K= 675,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,559,669 N.

SIF's & TEE's

Node 17800 Welding Tee Use Notes 6,9,10 = ---

 From 17800 To 18699 DX= 1,250.750 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 610.000 mm. Wall= 11.100 mm.

GENERAL

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INPUT LISTING

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17800 X2 K= 7,781 N./cm. Yield K= 1 N./cm.
 Yield Force= 31,502 N.
 Node 17800 Y2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.
 Node 17800 Z2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.

 From 18699 To 18700 DX= 1,250.750 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 18700 X2 K= 7,781 N./cm. Yield K= 1 N./cm.
 Yield Force= 31,502 N.
 Node 18700 Y2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.
 Node 18700 Z2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.

 From 17800 To 17849 DX= .000 mm. DY= 1,468.500 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17800 Y2 K= 16,885 N./cm. Yield K= 1 N./cm.
 Yield Force= 88,922 N.
 Node 17800 X2 K= 545,969 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,875,344 N.
 Node 17800 Z2 K= 545,969 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,875,344 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

 From 17849 To 17850 DX= .000 mm. DY= 1,468.500 mm. DZ= .000 mm.

RESTRAINTS

Node 17850 Y2 K= 16,885 N./cm. Yield K= 1 N./cm.
 Yield Force= 88,922 N.
 Node 17850 X2 K= 545,969 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,875,344 N.

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INPUT LISTING

Node 17850 Z2 K= 545,969 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,875,344 N.

 From 3800 To 3850 DX= 4,712.500 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3800 X2 K= 27,092 N./cm. Yield K= 1 N./cm.
 Yield Force= 142,678 N.
 Node 3800 Y2 K= 876,022 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,613,571 N.
 Node 3800 Z2 K= 876,022 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,613,571 N.

 From 3850 To 3900 DX= 2,575.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 3850 X2 K= 41,895 N./cm. Yield K= 1 N./cm.
 Yield Force= 220,641 N.
 Node 3850 Y2 K= 1,354,697 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,134,514 N.
 Node 3850 Z2 K= 1,354,697 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,134,514 N.

 From 3900 To 3949 DX= 2,356.250 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3900 X2 K= 41,895 N./cm. Yield K= 1 N./cm.
 Yield Force= 220,641 N.
 Node 3900 Y2 K= 1,354,697 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,134,514 N.

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INPUT LISTING

Node 3900 Z2 K= 1,354,697 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,134,514 N.

 From 3949 To 3950 DX= 2,356.250 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 3950 X2 K= 27,092 N./cm. Yield K= 1 N./cm.
 Yield Force= 142,678 N.

Node 3950 Y2 K= 876,022 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,613,571 N.

Node 3950 Z2 K= 876,022 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,613,571 N.

SIF's & TEE's

Node 3950 Welding Tee Use Notes 6,9,10 = ---

 From 3950 To 17900 DX= .000 mm. DY= 3,572.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3950 Y2 K= 20,535 N./cm. Yield K= 1 N./cm.
 Yield Force= 108,148 N.

Node 3950 X2 K= 664,011 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,497,013 N.

Node 3950 Z2 K= 664,011 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,497,013 N.

SIF's & TEE's

Node 17900 Welding Tee Use Notes 6,9,10 = ---

 From 17900 To 17950 DX= .000 mm. DY= 3,636.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17900 Y2 K= 41,438 N./cm. Yield K= 1 N./cm.
 Yield Force= 218,234 N.

Node 17900 X2 K= 1,339,919 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,056,682 N.

Node 17900 Z2 K= 1,339,919 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,056,682 N.

SIF's & TEE's

Node 17950 Welding Tee Use Notes 6,9,10 = ---

 From 17950 To 18000 DX= .000 mm. DY= 3,636.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17950 Y2 K= 41,806 N./cm. Yield K= 1 N./cm.
 Yield Force= 220,171 N.
 Node 17950 X2 K= 1,351,816 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,119,339 N.
 Node 17950 Z2 K= 1,351,816 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,119,339 N.

SIF's & TEE's

Node 18000 Welding Tee Use Notes 6,9,10 = ---

 From 18000 To 18049 DX= .000 mm. DY= 1,468.500 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 18000 Y2 K= 37,788 N./cm. Yield K= 1 N./cm.
 Yield Force= 199,008 N.
 Node 18000 X2 K= 1,221,877 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,435,013 N.
 Node 18000 Z2 K= 1,221,877 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,435,013 N.

 From 18049 To 18050 DX= .000 mm. DY= 1,468.500 mm. DZ= .000 mm.

RESTRAINTS

Node 18050 Y2 K= 16,885 N./cm. Yield K= 1 N./cm.
 Yield Force= 88,922 N.
 Node 18050 X2 K= 545,969 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,875,344 N.
 Node 18050 Z2 K= 545,969 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,875,344 N.

 From 3950 To 4000 DX= 6,250.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3950 X2 K= 35,931 N./cm. Yield K= 1 N./cm.
 Yield Force= 189,229 N.
 Node 3950 Y2 K= 1,161,833 N./cm. Yield K= 1 N./cm.

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Yield Force= 6,118,794 N.
 Node 3950 Z2 K= 1,161,833 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,118,794 N.

 From 4000 To 4001 DX= 4,117.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4000 X2 K= 59,599 N./cm. Yield K= 1 N./cm.
 Yield Force= 313,877 N.
 Node 4000 Y2 K= 1,927,156 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,149,365 N.
 Node 4000 Z2 K= 1,927,156 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,149,365 N.

 From 4001 To 4002 DX= 883.517 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 4001 X2 K= 33,299 N./cm. Yield K= 1 N./cm.
 Yield Force= 175,370 N.
 Node 4001 Y2 K= 1,076,741 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,670,657 N.
 Node 4001 Z2 K= 1,076,741 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,670,657 N.

 From 4002 To 4050 DX= 1,249.482 mm. DY= 1,249.482 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 4002 X2 K= 19,262 N./cm. Yield K= 1 N./cm.
 Yield Force= 101,442 N. Dir Vec= .7071 .7071 .0000
 Node 4002 X2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N. Dir Vec= .7071 -.7071 .0000
 Node 4002 Z2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N.

 From 4050 To 4051 DX= .000 mm. DY= 3,557.518 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4050 Y2 K= 25,003 N./cm. Yield K= 1 N./cm.
 Yield Force= 131,681 N.

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INPUT LISTING

Node 4050 X2 K= 808,497 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,257,950 N.
 Node 4050 Z2 K= 808,497 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,257,950 N.

 From 4051 To 4100 DX= .000 mm. DY= 2,674.000 mm. DZ= .000 mm.

RESTRAINTS

Node 4051 Y2 K= 30,745 N./cm. Yield K= 1 N./cm.
 Yield Force= 161,919 N.
 Node 4051 X2 K= 994,157 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,235,729 N.
 Node 4051 Z2 K= 994,157 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,235,729 N.

 From 4100 To 4150 DX= .000 mm. DY= 7,481.000 mm. DZ= .000 mm.

GENERAL

Phyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4100 Y2 K= 58,380 N./cm. Yield K= 1 N./cm.
 Yield Force= 307,459 N.
 Node 4100 X2 K= 1,887,746 N./cm. Yield K= 1 N./cm.
 Yield Force= 9,941,816 N.
 Node 4100 Z2 K= 1,887,746 N./cm. Yield K= 1 N./cm.
 Yield Force= 9,941,816 N.

 From 4150 To 4151 DX= .000 mm. DY= 2,674.000 mm. DZ= .000 mm.

GENERAL

Phyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4150 Y2 K= 58,380 N./cm. Yield K= 1 N./cm.
 Yield Force= 307,459 N.
 Node 4150 X2 K= 1,887,746 N./cm. Yield K= 1 N./cm.
 Yield Force= 9,941,816 N.
 Node 4150 Z2 K= 1,887,746 N./cm. Yield K= 1 N./cm.
 Yield Force= 9,941,816 N.

 From 4151 To 4152 DX= .000 mm. DY= 2,674.000 mm. DZ= .000 mm.

RESTRAINTS

Node 4151 Y2 K= 30,745 N./cm. Yield K= 1 N./cm.
 Yield Force= 161,919 N.
 Node 4151 X2 K= 994,157 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,235,729 N.
 Node 4151 Z2 K= 994,157 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 5,235,729 N.

 From 4152 To 4153 DX= .000 mm. DY= 883.517 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 4152 Y2 K= 25,003 N./cm. Yield K= 1 N./cm.

Yield Force= 131,681 N.

Node 4152 X2 K= 808,497 N./cm. Yield K= 1 N./cm.

Yield Force= 4,257,950 N.

Node 4152 Z2 K= 808,497 N./cm. Yield K= 1 N./cm.

Yield Force= 4,257,950 N.

 From 4153 To 4200 DX= -1,249.482 mm. DY= 1,249.482 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 4153 X2 K= 19,262 N./cm. Yield K= 1 N./cm.

Yield Force= 101,442 N. Dir Vec= -.7071 .7071 .0000

Node 4153 X2 K= 622,837 N./cm. Yield K= 1 N./cm.

Yield Force= 3,280,171 N. Dir Vec= .7071 .7071 .0000

Node 4153 Z2 K= 622,837 N./cm. Yield K= 1 N./cm.

Yield Force= 3,280,171 N.

 From 4200 To 4249 DX= -1,855.259 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4200 X2 K= 25,883 N./cm. Yield K= 1 N./cm.

Yield Force= 136,313 N.

Node 4200 Y2 K= 836,939 N./cm. Yield K= 1 N./cm.

Yield Force= 4,407,738 N.

Node 4200 Z2 K= 836,939 N./cm. Yield K= 1 N./cm.

Yield Force= 4,407,738 N.

 From 4249 To 4250 DX= -1,855.259 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 4250 X2 K= 16,252 N./cm. Yield K= 1 N./cm.

Yield Force= 85,592 N.

Node 4250 Y2 K= 525,520 N./cm. Yield K= 1 N./cm.

Yield Force= 2,767,653 N.

Node 4250 Z2 K= 525,520 N./cm. Yield K= 1 N./cm.

Yield Force= 2,767,653 N.

SIF's & TEE's

Node 4250 Welding Tee Use Notes 6,9,10 = ---

 From 4250 To 4699 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm.

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INPUT LISTING

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4250 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 4250 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 4250 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = ON Sh1= 413,685 KPa Sh2= 413,685 KPa
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 4699 To 4700 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

RESTRAINTS

Node 4700 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 4700 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 4700 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 4700 To 4750 DZ= 1,000.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 4749
 Angle/Node @2= .00 4748

 From 4750 To 4800 DY= 1,491.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 4250 To 4300 DX= -4,000.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4250 X2 K= 22,996 N./cm. Yield K= 1 N./cm.
 Yield Force= 121,106 N.
 Node 4250 Y2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.
 Node 4250 Z2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.

SIF's & TEE's

Node 4300 Welding Tee Use Notes 6,9,10 = ---

 From 4300 To 4349 DX= -2,000.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4300 X2 K= 45,991 N./cm. Yield K= 1 N./cm.
 Yield Force= 242,213 N.
 Node 4300 Y2 K= 1,487,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,832,056 N.
 Node 4300 Z2 K= 1,487,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,832,056 N.

 From 4349 To 4350 DX= -2,000.000 mm. DY= .000 mm. DZ= .000 mm.

SIF's & TEE's

Node 4350 Welding Tee Use Notes 6,9,10 = ---

 From 4350 To 4999 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4350 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 4350 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 4350 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 1,499,775 N.

 From 4999 To 5000 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

 From 5000 To 5050 DZ= 1,000.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= 50.000 mm. Insul Den= .0000650 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 5049
 Angle/Node @2= .00 5048 Seam= NO

 From 5050 To 5100 DY= 762.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5100 To 5150 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 5150 To 5200 DY= 1,194.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight=26,300.00 N.

FLANGES

Location= Both Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C

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INPUT LISTING

-> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 2250 To 2255 DX= .000 mm. DY= -1,118.000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2250 Y2 K= 6,689 N./cm. Yield K= 1 N./cm.
 Yield Force= 36,230 N.
 Node 2250 X2 K= 213,748 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,157,766 N.
 Node 2250 Z2 K= 213,748 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,157,766 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

 From 2255 To 2260 DX= .000 mm. DY= -914.000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2255 Y2 K= 12,157 N./cm. Yield K= 1 N./cm.
 Yield Force= 65,848 N.
 Node 2255 X2 K= 388,494 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,104,277 N.
 Node 2255 Z2 K= 388,494 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,104,277 N.

REDUCER

Diam2= 1,071.800 mm. Wall2= 14.200 mm.

 From 2260 To 2280 DX= .000 mm. DY= -610.000 mm. DZ= .000 mm.

PIPE

Dia= 1,071.800 mm. Wall= 16.600 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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 Allegato 1 - Area 1

INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2260 Y2 K= 8,534 N./cm. Yield K= 1 N./cm.
 Yield Force= 44,613 N.
 Node 2260 X2 K= 280,060 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,461,623 N.
 Node 2260 Z2 K= 280,060 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,461,623 N.

REDUCER

Diam2= 916.400 mm. Wall2= 14.200 mm.

 From 2280 To 2300 DX= .000 mm. DY= -6,034.000 mm. DZ= .000 mm.

PIPE

Dia= 916.400 mm. Wall= 14.200 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2280 Y2 K= 30,494 N./cm. Yield K= 1 N./cm.
 Yield Force= 142,757 N.
 Node 2280 X2 K= 1,097,415 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,136,417 N.
 Node 2280 Z2 K= 1,097,415 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,136,417 N.

 From 2300 To 2350 DX= .000 mm. DY= -2,083.000 mm. DZ= .000 mm.

PIPE

Dia= 916.400 mm. Wall= 14.200 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (306)API-5L X65
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= 50.000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 2300 Y2 K= 36,897 N./cm. Yield K= 1 N./cm.
 Yield Force= 171,868 N.
 Node 2300 X2 K= 1,334,584 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,216,626 N.
 Node 2300 Z2 K= 1,334,584 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 6,216,626 N.

 From 2350 To 2400 DX= .000 mm. DY= -5,570.000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2350 Y2 K= 34,787 N./cm. Yield K= 1 N./cm.

Yield Force= 162,043 N.

Node 2350 X2 K= 1,258,294 N./cm. Yield K= 1 N./cm.

Yield Force= 5,861,259 N.

Node 2350 Z2 K= 1,258,294 N./cm. Yield K= 1 N./cm.

Yield Force= 5,861,259 N.

 From 2400 To 2450 DX= .000 mm. DY= -1,054.000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2400 Y2 K= 30,110 N./cm. Yield K= 1 N./cm.

Yield Force= 140,255 N.

Node 2400 X2 K= 1,089,107 N./cm. Yield K= 1 N./cm.

Yield Force= 5,073,171 N.

Node 2400 Z2 K= 1,089,107 N./cm. Yield K= 1 N./cm.

Yield Force= 5,073,171 N.

 From 2450 To 2500 DX= .000 mm. DY= -2,083.000 mm. DZ= .000 mm.

PIPE

Dia= 916.400 mm. Wall= 14.200 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (306)API-5L X65
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= 50.000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 2450 Y2 K= 14,260 N./cm. Yield K= 1 N./cm.

Yield Force= 66,422 N.

Node 2450 X2 K= 515,780 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 2,402,557 N.
 Node 2450 Z2 K= 515,780 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,402,557 N.

 From 2500 To 2550 DX= .000 mm. DY= -1,064.000 mm. DZ= .000 mm.
 PIPE

Dia= 916.400 mm. Wall= 14.200 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (306)API-5L X65
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= 50.000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2500 Y2 K= 14,305 N./cm. Yield K= 1 N./cm.
 Yield Force= 66,634 N.
 Node 2500 X2 K= 517,425 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,410,216 N.
 Node 2500 Z2 K= 517,425 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,410,216 N.

 From 2550 To 2560 DX= .000 mm. DY= -3,130.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2550 Y2 K= 19,064 N./cm. Yield K= 1 N./cm.
 Yield Force= 88,803 N.
 Node 2550 X2 K= 689,571 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,212,090 N.
 Node 2550 Z2 K= 689,571 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,212,090 N.

 From 2560 To 2580 DX= .000 mm. DY= -610.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2560 Y2 K= 17,001 N./cm. Yield K= 1 N./cm.
 Yield Force= 79,190 N.

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INPUT LISTING

Node 2560 X2 K= 614,925 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,864,381 N.
 Node 2560 Z2 K= 614,925 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,864,381 N.

REDUCER

Diam2= 1,071.800 mm. Wall2= 14.200 mm.

 From 2580 To 2590 DX= .000 mm. DY= -914.000 mm. DZ= .000 mm.

PIPE

Dia= 1,071.800 mm. Wall= 14.200 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2580 Y2 K= 7,334 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,228 N.
 Node 2580 X2 K= 258,094 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,239,010 N.
 Node 2580 Z2 K= 258,094 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,239,010 N.

REDUCER

Diam2= 1,422.000 mm. Wall2= 21.800 mm.

 From 2590 To 2600 DX= .000 mm. DY= -1,118.000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2590 Y2 K= 11,250 N./cm. Yield K= 1 N./cm.
 Yield Force= 58,542 N.
 Node 2590 X2 K= 371,547 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,929,591 N.
 Node 2590 Z2 K= 371,547 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,929,591 N.

SIF's & TEE's

Node 2600 Welding Tee Use Notes 6,9,10 = ---

 From 2600 To 2650 DX= .000 mm. DY= -4,706.300 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2600 Y2 K= 34,846 N./cm. Yield K= 1 N./cm.
 Yield Force= 188,741 N.
 Node 2600 X2 K= 1,113,536 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,031,466 N.
 Node 2600 Z2 K= 1,113,536 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,031,466 N.

 From 2650 To 2651 DX= .000 mm. DY= -4,425.384 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2650 Y2 K= 54,633 N./cm. Yield K= 1 N./cm.
 Yield Force= 295,919 N.
 Node 2650 X2 K= 1,745,867 N./cm. Yield K= 1 N./cm.
 Yield Force= 9,456,490 N.
 Node 2650 Z2 K= 1,745,867 N./cm. Yield K= 1 N./cm.
 Yield Force= 9,456,490 N.

 From 2651 To 2652 DX= .000 mm. DY= -139.854 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 7.503

RESTRAINTS

Node 2651 Y2 K= 28,147 N./cm. Yield K= 1 N./cm.
 Yield Force= 152,459 N.
 Node 2651 X2 K= 899,480 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,872,035 N.
 Node 2651 Z2 K= 899,480 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,872,035 N.

 From 2652 To 2660 DX= .000 mm. DY= -277.314 mm. DZ= -36.522 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 7.503

RESTRAINTS

Node 2652 X2 K= 3,342 N./cm. Yield K= 1 N./cm.
 Yield Force= 18,102 N. Dir Vec= .0000 -.9914 -.1306
 Node 2652 X2 K= 106,801 N./cm. Yield K= 1 N./cm.
 Yield Force= 578,487 N.
 Node 2652 X2 K= 106,801 N./cm. Yield K= 1 N./cm.
 Yield Force= 578,487 N. Dir Vec= .0000 -.1306 .9914

 From 2660 To 2661 DX= .000 mm. DY= -407.480 mm. DZ= -109.225 mm.

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INPUT LISTING

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2660 X2 K= 3,358 N./cm. Yield K= 1 N./cm.
 Yield Force= 18,190 N. Dir Vec= .0000 -.9659 -.2589
 Node 2660 X2 K= 107,317 N./cm. Yield K= 1 N./cm.
 Yield Force= 581,285 N.
 Node 2660 X2 K= 107,317 N./cm. Yield K= 1 N./cm.
 Yield Force= 581,285 N. Dir Vec= .0000 -.2589 .9659

 From 2661 To 2662 DX= .000 mm. DY= -853.391 mm. DZ= -228.751 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 2661 X2 K= 11,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 63,427 N. Dir Vec= .0000 -.9659 -.2589
 Node 2661 X2 K= 374,205 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,026,883 N.
 Node 2661 X2 K= 374,205 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,026,883 N. Dir Vec= .0000 -.2589 .9659

 From 2662 To 2700 DX= -1,249.482 mm. DY= -1,206.877 mm. DZ= -323.502 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 2662 X2 K= 20,045 N./cm. Yield K= 1 N./cm.
 Yield Force= 108,576 N. Dir Vec= -.7071 -.6830 -.1831
 Node 2662 X2 K= 640,577 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,469,683 N. Dir Vec= -.6947 .7193 .0000
 Node 2662 X2 K= 640,577 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,469,683 N. Dir Vec= -.1317 -.1272 .9831

 From 2700 To 2725 DX= -886.057 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2700 X2 K= 10,038 N./cm. Yield K= 1 N./cm.
 Yield Force= 54,370 N.
 Node 2700 Y2 K= 320,774 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,737,472 N.
 Node 2700 Z2 K= 320,774 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 1,737,472 N.

 From 2725 To 2750 DX= -914.000 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2725 X2 K= 5,483 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,701 N.
 Node 2725 Y2 K= 175,231 N./cm. Yield K= 1 N./cm.
 Yield Force= 949,141 N.
 Node 2725 Z2 K= 175,231 N./cm. Yield K= 1 N./cm.
 Yield Force= 949,141 N.

REDUCER

Diam2= 1,222.100 mm. Wall2= 18.900 mm.

 From 2750 To 2800 DX= -6,393.500 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 1,222.100 mm. Wall= 18.300 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2750 X2 K= 40,293 N./cm. Yield K= 1 N./cm.
 Yield Force= 207,805 N.
 Node 2750 Y2 K= 1,329,437 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,854,663 N.
 Node 2750 Z2 K= 1,329,437 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,854,663 N.

 From 2800 To 2850 DX= -5,393.500 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2800 X2 K= 69,650 N./cm. Yield K= 1 N./cm.
 Yield Force= 356,373 N.

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INPUT LISTING

Node 2800 Y2 K= 2,309,383 N./cm. Yield K= 1 N./cm.
 Yield Force= 11,816,305 N.
 Node 2800 Z2 K= 2,309,383 N./cm. Yield K= 1 N./cm.
 Yield Force= 11,816,305 N.

 From 2850 To 2899 DX= -1,000.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2850 X2 K= 45,719 N./cm. Yield K= 1 N./cm.
 Yield Force= 233,926 N.
 Node 2850 Y2 K= 1,515,900 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,756,327 N.
 Node 2850 Z2 K= 1,515,900 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,756,327 N.

 From 2899 To 2900 DX= -1,800.000 mm. DY= .000 mm. DZ= .000 mm.
 RIGID Weight= .01 N.

RESTRAINTS

Node 2900 ANC Cnode 2901

DISPLACEMENTS

Node 2901 DX1= 26.559 mm. DY1= -.002 mm. DZ1= .023 mm. RX1= .115
 RY1= .000 RZ1= .000 DX2= -11.624 mm. DY2= .001 mm. DZ2= -.014 mm.
 RX2= -.104 RY2= -.000 RZ2= -.000

 From 4350 To 4399 DX= -2,000.000 mm. DY= .000 mm. DZ= .000 mm.
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (306)API-5L X65
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4350 X2 K= 22,996 N./cm. Yield K= 1 N./cm.
 Yield Force= 121,106 N.
 Node 4350 Y2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.
 Node 4350 Z2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.

 From 4399 To 4400 DX= -2,000.000 mm. DY= .000 mm. DZ= .000 mm.
 SIF's & TEE's

Node 4400 Welding Tee Use Notes 6,9,10 = ---

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 From 4400 To 6599 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4400 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 4400 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 4400 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 6599 To 6600 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

 From 4400 To 4449 DX= -2,000.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (306)API-5L X65
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4400 X2 K= 22,996 N./cm. Yield K= 1 N./cm.
 Yield Force= 121,106 N.
 Node 4400 Y2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.
 Node 4400 Z2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.

 From 4449 To 4450 DX= -2,000.000 mm. DY= .000 mm. DZ= .000 mm.

SIF's & TEE's

Node 4450 Welding Tee Use Notes 6,9,10 = ---

 From 4450 To 8199 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4450 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 4450 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 4450 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 8199 To 8200 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

From 4450 To 4499 DX= -2,000.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (306)API-5L X65
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4450 X2 K= 22,996 N./cm. Yield K= 1 N./cm.
 Yield Force= 121,106 N.
 Node 4450 Y2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.
 Node 4450 Z2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.

 From 4499 To 4500 DX= -2,000.000 mm. DY= .000 mm. DZ= .000 mm.

SIF's & TEE's

Node 4500 Welding Tee Use Notes 6,9,10 = ---

From 4500 To 9799 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4500 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 4500 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

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INPUT LISTING

Node 4500 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 9799 To 9800 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

 From 4500 To 4549 DX= -1,264.500 mm. DY= .000 mm. DZ= .000 mm.
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4500 X2 K= 14,539 N./cm. Yield K= 1 N./cm.
 Yield Force= 76,569 N.
 Node 4500 Y2 K= 470,124 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,475,909 N.
 Node 4500 Z2 K= 470,124 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,475,909 N.

 From 4549 To 4550 DX= -1,264.500 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 4550 X2 K= 14,539 N./cm. Yield K= 1 N./cm.
 Yield Force= 76,569 N.
 Node 4550 Y2 K= 470,124 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,475,909 N.
 Node 4550 Z2 K= 470,124 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,475,909 N.

 From 4300 To 4849 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4300 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 4300 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 4300 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa

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INPUT LISTING

Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 4849 To 4850 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

RESTRAINTS

Node 4850 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 4850 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 4850 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 4850 To 4900 DZ= 1,000.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 4899
 Angle/Node @2= .00 4898

 From 4900 To 4950 DY= 1,491.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.

 From 5200 To 5250 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 5250 To 5300 DY= 1,205.950 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 5300 +Z Mu = .35

 From 5300 To 5310 DY= 794.050 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5310 To 5320 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 5320 To 5330 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 5330 To 5350 DY= 1,106.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5350 To 5400 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 5400 To 5450 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 5450 To 5500 DY= 1,137.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5500 To 5550 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

 From 5550 To 5600 DY= 190.500 mm.

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INPUT LISTING

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

 From 5600 To 5650 DY= 1,787.750 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 5650 +Z Mu = .35

 From 5650 To 5660 DY= 1,450.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5660 To 5670 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5670 To 5680 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5680 To 5685 DY= 3,556.000 mm.

Seam= NO WI Factor= 1.000

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INPUT LISTING

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5685 To 5690 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5690 To 5695 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5695 To 5700 DY= 1,382.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 5700 +Z Mu = .35

 From 5700 To 5750 DY= 794.050 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5750 To 5800 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

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INPUT LISTING

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 5800 To 5850 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 5850 To 5900 DY= 1,106.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 5900 To 5950 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 5950 To 6000 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

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INPUT LISTING

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.
 RIGID Weight= 2,676.00 N.

 From 6000 To 6005 DY= 3,305.750 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 6005 +Z Mu = .30

 From 6005 To 6007 DY= 4,600.000 mm.

RESTRAINTS

Node 6007 +Z Mu = .30

 From 6007 To 6010 DY= 394.350 mm.

 From 6010 To 6030 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 6030 To 6050 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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Impianto di Melendugno
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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 6050 To 6100 DY= 353.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 6100 To 6112 DY= 753.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 6112 To 6125 DY= 190.500 mm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 6125 To 6137 DY= 190.500 mm.

RIGID Weight= 2,676.00 N.

 From 6137 To 6150 DY= 655.600 mm.

 From 6150 To 6200 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 6200 To 6250 DY= 1,194.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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Impianto di Melendugno
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INPUT LISTING

v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight=26,300.00 N.

FLANGES

Location= Both Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 6250 To 6300 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 6300 To 6350 DY= 1,762.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 6349
 Angle/Node @2= .00 6348 Seam= NO

 From 6350 To 6400 DZ= -1,000.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 6400 To 6449 DX= .000 mm. DY= .000 mm. DZ= -1,400.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

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Impianto di Melendugno
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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6400 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 6400 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 6400 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 6449 To 6450 DX= .000 mm. DY= .000 mm. DZ= -1,400.000 mm.

RESTRAINTS

Node 6450 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 6450 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 6450 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 6600 To 6650 DZ= 1,000.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 6649
 Angle/Node @2= .00 6648 Seam= NO

 From 6650 To 6700 DY= 762.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

 From 6700 To 6750 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

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 Licensed To:: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.
 RIGID Weight= 2,676.00 N.

 From 6750 To 6800 DY= 1,194.000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight=26,300.00 N.

FLANGES

Location= Both Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 6800 To 6850 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 6850 To 6900 DY= 1,205.950 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 6900 +Z Mu = .35

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Impianto di Melendugno
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INPUT LISTING

From 6900 To 6910 DY= 794.050 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

From 6910 To 6920 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

From 6920 To 6930 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

From 6930 To 6950 DY= 1,106.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

From 6950 To 7000 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 7000 To 7050 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 7050 To 7100 DY= 1,137.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 7100 To 7150 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

 From 7150 To 7200 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

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Impianto di Melendugno
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INPUT LISTING

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

 From 7200 To 7250 DY= 1,787.750 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 7250 +Z Mu = .35

 From 7250 To 7260 DY= 1,450.000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 7260 To 7270 DY= 190.500 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 7270 To 7280 DY= 190.500 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 7280 To 7285 DY= 3,556.000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

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Impianto di Melendugno
 Allegato 1 - Area 1
 INPUT LISTING

 From 7285 To 7290 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 7290 To 7295 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 7295 To 7300 DY= 1,382.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 7300 +Z Mu = .35

 From 7300 To 7350 DY= 794.050 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 7350 To 7400 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 7400 To 7450 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.

Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 7450 To 7500 DY= 1,106.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

Insul Den= .0000650 kg./cu.cm.

 From 7500 To 7550 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.

Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa

Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa

Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 7550 To 7600 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 7600 To 7605 DY= 3,305.750 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 7605 +Z Mu = .30

 From 7605 To 7607 DY= 4,600.000 mm.

RESTRAINTS

Node 7607 +Z Mu = .30

 From 7607 To 7610 DY= 394.350 mm.

 From 7610 To 7620 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 7620 To 7650 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

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 INPUT LISTING
 RIGID Weight= 2,676.00 N.

 From 7650 To 7700 DY= 353.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 7700 To 7712 DY= 753.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 7712 To 7725 DY= 190.500 mm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 7725 To 7737 DY= 190.500 mm.

RIGID Weight= 2,676.00 N.

 From 7737 To 7750 DY= 655.600 mm.

 From 7750 To 7800 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 7800 To 7850 DY= 1,194.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight=26,300.00 N.

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INPUT LISTING

FLANGES

Location= Both Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 7850 To 7900 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.
 RIGID Weight= 2,676.00 N.

 From 7900 To 7950 DY= 1,762.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 7949
 Angle/Node @2= .00 7948 Seam= NO

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 7950 To 8000 DZ= -1,000.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 8000 To 8049 DX= .000 mm. DY= .000 mm. DZ= -1,400.000 mm.

PIPE

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INPUT LISTING

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8000 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 8000 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 8000 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 8049 To 8050 DX= .000 mm. DY= .000 mm. DZ= -1,400.000 mm.

RESTRAINTS

Node 8050 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 8050 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 8050 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 8200 To 8250 DZ= 1,000.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 8249
 Angle/Node @2= .00 8248 Seam= NO

 From 8250 To 8300 DY= 762.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

 From 8300 To 8350 DY= 190.500 mm.

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INPUT LISTING

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 8350 To 8400 DY= 1,194.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight=26,300.00 N.

FLANGES

Location= Both Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 8400 To 8450 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 8450 To 8500 DY= 1,205.950 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 8500 +Z Mu = .35

 From 8500 To 8510 DY= 794.050 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 8510 To 8520 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 8520 To 8530 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 8530 To 8550 DY= 1,106.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 8550 To 8600 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

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INPUT LISTING

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.
 RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 8600 To 8650 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.
 RIGID Weight= 2,676.00 N.

 From 8650 To 8700 DY= 1,137.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 8700 To 8750 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

 From 8750 To 8800 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

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INPUT LISTING

Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

 From 8800 To 8850 DY= 1,787.750 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 8850 +Z Mu = .35

 From 8850 To 8860 DY= 1,450.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 8860 To 8870 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 8870 To 8880 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 8880 To 8885 DY= 3,556.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

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INPUT LISTING

From 8885 To 8890 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

From 8890 To 8895 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

From 8895 To 8900 DY= 1,382.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 8900 +Z Mu = .35

From 8900 To 8950 DY= 794.050 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

From 8950 To 9000 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

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INPUT LISTING

Location= To Method= Peq G/C= 566.380 mm.

 From 9000 To 9050 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.

Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 9050 To 9100 DY= 1,106.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

Insul Den= .0000650 kg./cu.cm.

 From 9100 To 9150 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.

Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 9150 To 9200 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.

Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 9200 To 9205 DY= 3,305.750 mm.

Seam= NO WI Factor= 1.000

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INPUT LISTING

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 9205 +Z Mu = .30

 From 9205 To 9207 DY= 4,600.000 mm.

RESTRAINTS

Node 9207 +Z Mu = .30

 From 9207 To 9210 DY= 394.350 mm.

 From 9210 To 9230 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 9230 To 9250 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 9250 To 9300 DY= 353.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 9300 To 9312 DY= 753.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 9312 To 9325 DY= 190.500 mm.
 RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 9325 To 9337 DY= 190.500 mm.
 RIGID Weight= 2,676.00 N.

 From 9337 To 9350 DY= 655.600 mm.

 From 9350 To 9400 DY= 190.500 mm.
 PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 9400 To 9450 DY= 1,194.000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight=26,300.00 N.

FLANGES

Location= Both Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 9450 To 9500 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

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INPUT LISTING

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.
 RIGID Weight= 2,676.00 N.

 From 9500 To 9550 DY= 1,762.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 9549
 Angle/Node @2= .00 9548 Seam= NO

 From 9550 To 9600 DZ= -1,000.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 9600 To 9649 DX= .000 mm. DY= .000 mm. DZ= -1,400.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 9600 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 9600 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 9600 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 9649 To 9650 DX= .000 mm. DY= .000 mm. DZ= -1,400.000 mm.

RESTRAINTS

Node 9650 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 29,365 N.
 Node 9650 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 9650 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 9800 To 9850 DZ= 1,000.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 9849
 Angle/Node @2= .00 9848 Seam= NO

 From 9850 To 9900 DY= 762.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

 From 9900 To 9950 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 9950 To 10000 DY= 1,194.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

RIGID Weight=26,300.00 N.

FLANGES

Location= Both Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 10000 To 10050 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 10050 To 10100 DY= 1,205.950 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 10100 +Z Mu = .35

 From 10100 To 10110 DY= 794.050 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 10110 To 10120 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

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INPUT LISTING

Insul Den= .0000650 kg./cu.cm.
 RIGID Weight= 2,676.00 N.
 FLANGES
 Location= To Method= Peq G/C= 566.380 mm.

 From 10120 To 10130 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.
 RIGID Weight= 2,676.00 N.

 From 10130 To 10150 DY= 1,106.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 10150 To 10200 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.
 RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 10200 To 10250 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.
 RIGID Weight= 2,676.00 N.

 From 10250 To 10300 DY= 1,137.000 mm.

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INPUT LISTING

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 10300 To 10350 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

 From 10350 To 10400 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

 From 10400 To 10450 DY= 1,787.750 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 10450 +Z Mu = .35

 From 10450 To 10460 DY= 1,450.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

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INPUT LISTING

From 10460 To 10470 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

From 10470 To 10480 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

From 10480 To 10485 DY= 3,556.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

From 10485 To 10490 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

From 10490 To 10495 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

From 10495 To 10500 DY= 1,382.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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Impianto di Melendugno
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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 10500 +Z Mu = .30

 From 10500 To 10550 DY= 794.050 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 10550 To 10600 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 10600 To 10650 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 10650 To 10700 DY= 1,106.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

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 Allegato 1 - Area 1

INPUT LISTING

From 10700 To 10750 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.

Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 10750 To 10800 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.

Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 10800 To 10805 DY= 3,305.750 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

Insul Den= .0000650 kg./cu.cm.

RESTRAINTS

Node 10805 +Z Mu = .30

 From 10805 To 10807 DY= 4,600.000 mm.

RESTRAINTS

Node 10807 +Z Mu = .30

 From 10807 To 10810 DY= 394.350 mm.

 From 10810 To 10820 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

Insul Den= .0000650 kg./cu.cm.

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 10820 To 10850 DY= 190.500 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 10850 To 10900 DY= 353.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 10900 To 10912 DY= 753.200 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 10912 To 10925 DY= 190.500 mm.

RIGID Weight= 2,676.00 N.

FLANGES

Location= To Method= Peq G/C= 566.380 mm.

 From 10925 To 10937 DY= 190.500 mm.

RIGID Weight= 2,676.00 N.

 From 10937 To 10950 DY= 655.600 mm.

 From 10950 To 11000 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.

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INPUT LISTING

Insul Den= .0000650 kg./cu.cm.
 RIGID Weight= 2,676.00 N.

 From 11000 To 11050 DY= 1,194.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight=26,300.00 N.

FLANGES

Location= Both Method= Peq Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

 From 11050 To 11100 DY= 190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

RIGID Weight= 2,676.00 N.

 From 11100 To 11150 DY= 1,762.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= 50.000 mm.
 Insul Den= .0000650 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 11149
 Angle/Node @2= .00 11148 Seam= NO

 From 11150 To 11200 DZ= -1,000.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

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INPUT LISTING

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000650 kg./cu.cm.

 From 11200 To 11249 DX= .000 mm. DY= .000 mm. DZ= -1,400.000 mm.
 PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 11200 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 11200 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 11200 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 11249 To 11250 DX= .000 mm. DY= .000 mm. DZ= -1,400.000 mm.
 RESTRAINTS

Node 11250 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 11250 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 11250 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 11250 To 9651 DX= 2,000.000 mm. DY= .000 mm. DZ= .000 mm.
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 11250 X2 K= 22,996 N./cm. Yield K= 1 N./cm.
 Yield Force= 121,106 N.
 Node 11250 Y2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.
 Node 11250 Z2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.

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INPUT LISTING

 From 9651 To 9650 DX= 2,000.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 9650 X2 K= 22,996 N./cm. Yield K= 1 N./cm.

Yield Force= 121,106 N.

Node 9650 Y2 K= 743,573 N./cm. Yield K= 1 N./cm.

Yield Force= 3,916,028 N.

Node 9650 Z2 K= 743,573 N./cm. Yield K= 1 N./cm.

Yield Force= 3,916,028 N.

SIF's & TEE's

Node 9650 Welding Tee Use Notes 6,9,10 = ---

 From 11250 To 17399 DX= -3,665.250 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 11250 X2 K= 42,142 N./cm. Yield K= 1 N./cm.

Yield Force= 221,943 N.

Node 11250 Y2 K= 1,362,691 N./cm. Yield K= 1 N./cm.

Yield Force= 7,176,611 N.

Node 11250 Z2 K= 1,362,691 N./cm. Yield K= 1 N./cm.

Yield Force= 7,176,611 N.

SIF's & TEE's

Node 11250 Welding Tee Use Notes 6,9,10 = ---

 From 17399 To 17400 DX= -3,665.250 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 17400 X2 K= 42,142 N./cm. Yield K= 1 N./cm.

Yield Force= 221,943 N.

Node 17400 Y2 K= 1,362,691 N./cm. Yield K= 1 N./cm.

Yield Force= 7,176,611 N.

Node 17400 Z2 K= 1,362,691 N./cm. Yield K= 1 N./cm.

Yield Force= 7,176,611 N.

 From 11800 To 11900 DX= .000 mm. DY= -1,537.000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 11800 Y2 K= 8,836 N./cm. Yield K= 1 N./cm.

Yield Force= 46,535 N.

Node 11800 X2 K= 285,718 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 1,504,734 N.
 Node 11800 Z2 K= 285,718 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,504,734 N.

 From 11900 To 12070 DX= .000 mm. DY= -5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

SIF's & TEE's

Node 11900 Welding Tee Use Notes 6,9,10 = ---

 From 12070 To 12100 DX= .000 mm. DY= -5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 12070 Y2 K= 63,238 N./cm. Yield K= 1 N./cm.
 Yield Force= 333,042 N.
 Node 12070 X2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.
 Node 12070 Z2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.

SIF's & TEE's

Node 12100 Welding Tee Use Notes 6,9,10 = ---

 From 12100 To 12500 DX= .000 mm. DY= -5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

 From 12500 To 12520 DX= .000 mm. DY= -5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 12500 Y2 K= 63,238 N./cm. Yield K= 1 N./cm.
 Yield Force= 333,042 N.
 Node 12500 X2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.
 Node 12500 Z2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.

SIF's & TEE's

Node 12520 Welding Tee Use Notes 6,9,10 = ---

 From 12520 To 12900 DX= .000 mm. DY= -5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

Phyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 12520 Y2 K= 63,238 N./cm. Yield K= 1 N./cm.
 Yield Force= 333,042 N.
 Node 12520 X2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.
 Node 12520 Z2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.

 From 12900 To 12920 DX= .000 mm. DY= -5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

Phyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 12900 Y2 K= 63,238 N./cm. Yield K= 1 N./cm.
 Yield Force= 333,042 N.
 Node 12900 X2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.
 Node 12900 Z2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.

 From 12920 To 12921 DX= .000 mm. DY= -1,119.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

Phyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

SIF's & TEE's

Node 12920 Welding Tee Use Notes 6,9,10 = ---

 From 12921 To 12922 DX= .000 mm. DY= -883.517 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 12921 Y2 K= 16,064 N./cm. Yield K= 1 N./cm.

Yield Force= 84,600 N.

Node 12921 X2 K= 519,433 N./cm. Yield K= 1 N./cm.

Yield Force= 2,735,595 N.

Node 12921 Z2 K= 519,433 N./cm. Yield K= 1 N./cm.

Yield Force= 2,735,595 N.

 From 12922 To 13300 DX= -1,249.482 mm. DY= -1,249.482 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 12922 X2 K= 19,262 N./cm. Yield K= 1 N./cm.

Yield Force= 101,442 N. Dir Vec= -.7071 -.7071 .0000

Node 12922 X2 K= 622,837 N./cm. Yield K= 1 N./cm.

Yield Force= 3,280,171 N. Dir Vec= -.7071 .7071 .0000

Node 12922 Z2 K= 622,837 N./cm. Yield K= 1 N./cm.

Yield Force= 3,280,171 N.

 From 13300 To 13400 DX= -1,519.218 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13300 X2 K= 13,285 N./cm. Yield K= 1 N./cm.

Yield Force= 69,968 N.

Node 13300 Y2 K= 429,591 N./cm. Yield K= 1 N./cm.

Yield Force= 2,262,441 N.

Node 13300 Z2 K= 429,591 N./cm. Yield K= 1 N./cm.

Yield Force= 2,262,441 N.

 From 13400 To 13401 DX= -1,901.000 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13400 X2 K= 14,583 N./cm. Yield K= 1 N./cm.
 Yield Force= 76,803 N.
 Node 13400 Y2 K= 471,556 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,483,448 N.
 Node 13400 Z2 K= 471,556 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,483,448 N.

 From 13401 To 13402 DX= -883.517 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 13401 X2 K= 20,560 N./cm. Yield K= 1 N./cm.
 Yield Force= 108,277 N.
 Node 13401 Y2 K= 664,802 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,501,178 N.
 Node 13401 Z2 K= 664,802 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,501,178 N.

 From 13402 To 13450 DX= -1,249.482 mm. DY= -1,249.482 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 13402 X2 K= 19,262 N./cm. Yield K= 1 N./cm.
 Yield Force= 101,442 N. Dir Vec= -.7071 -.7071 .0000
 Node 13402 X2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N. Dir Vec= -.7071 .7071 .0000
 Node 13402 Z2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N.

 From 13450 To 13499 DX= .000 mm. DY= -2,501.259 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13450 Y2 K= 33,311 N./cm. Yield K= 1 N./cm.
 Yield Force= 175,430 N.
 Node 13450 X2 K= 1,077,113 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,672,615 N.
 Node 13450 Z2 K= 1,077,113 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,672,615 N.

 From 13499 To 13500 DX= .000 mm. DY= -2,501.259 mm. DZ= .000 mm.

RESTRAINTS

Node 13500 Y2 K= 23,680 N./cm. Yield K= 1 N./cm.
 Yield Force= 124,709 N.
 Node 13500 X2 K= 765,694 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 4,032,530 N.
 Node 13500 Z2 K= 765,694 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,032,530 N.

SIF's & TEE's

Node 13500 Welding Tee Use Notes 6,9,10 = ---

 From 13500 To 14700 DX= 2,712.500 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13500 X2 K= 15,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 82,125 N.
 Node 13500 Y2 K= 504,236 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,655,556 N.
 Node 13500 Z2 K= 504,236 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,655,556 N.

 From 14700 To 14720 DX= 2,575.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 14700 X2 K= 30,397 N./cm. Yield K= 1 N./cm.
 Yield Force= 160,087 N.
 Node 14700 Y2 K= 982,911 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,176,499 N.
 Node 14700 Z2 K= 982,911 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,176,499 N.

 From 14720 To 14721 DX= 2,941.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 14720 X2 K= 31,711 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 167,006 N.
 Node 14720 Y2 K= 1,025,387 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,400,203 N.
 Node 14720 Z2 K= 1,025,387 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,400,203 N.

 From 14721 To 14722 DX= 2,941.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 14721 X2 K= 33,815 N./cm. Yield K= 1 N./cm.
 Yield Force= 178,087 N.
 Node 14721 Y2 K= 1,093,424 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,758,519 N.
 Node 14721 Z2 K= 1,093,424 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,758,519 N.

 From 14722 To 14723 DX= 883.517 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 14722 X2 K= 26,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 139,764 N.
 Node 14722 Y2 K= 858,131 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,519,345 N.
 Node 14722 Z2 K= 858,131 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,519,345 N.

 From 14723 To 14750 DX= 1,249.482 mm. DY= 1,249.482 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 14723 X2 K= 19,262 N./cm. Yield K= 1 N./cm.
 Yield Force= 101,442 N. Dir Vec= .7071 .7071 .0000
 Node 14723 X2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N. Dir Vec= .7071 -.7071 .0000
 Node 14723 Z2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N.

 From 14750 To 14770 DX= .000 mm. DY= 5,310.518 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 14750 Y2 K= 35,081 N./cm. Yield K= 1 N./cm.
 Yield Force= 184,755 N.
 Node 14750 X2 K= 1,134,368 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,974,150 N.
 Node 14750 Z2 K= 1,134,368 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,974,150 N.

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INPUT LISTING

From 14770 To 14800 DX= .000 mm. DY= 6,560.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 14770 Y2 K= 63,163 N./cm. Yield K= 1 N./cm.
 Yield Force= 332,649 N.
 Node 14770 X2 K= 2,042,410 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,756,350 N.
 Node 14770 Z2 K= 2,042,410 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,756,350 N.

SIF's & TEE's

Node 14800 Welding Tee Use Notes 6,9,10 = ---

 From 14800 To 15500 DX= .000 mm. DY= 5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

 From 15500 To 15550 DX= .000 mm. DY= 5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 15500 Y2 K= 63,238 N./cm. Yield K= 1 N./cm.
 Yield Force= 333,042 N.
 Node 15500 X2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.
 Node 15500 Z2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.

SIF's & TEE's

Node 15550 Welding Tee Use Notes 6,9,10 = ---

 From 15550 To 16300 DX= .000 mm. DY= 5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 15550 Y2 K= 63,238 N./cm. Yield K= 1 N./cm.
 Yield Force= 333,042 N.
 Node 15550 X2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.
 Node 15550 Z2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.

 From 16300 To 16350 DX= .000 mm. DY= 5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 16300 Y2 K= 63,238 N./cm. Yield K= 1 N./cm.
 Yield Force= 333,042 N.
 Node 16300 X2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.
 Node 16300 Z2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.

SIF's & TEE's

Node 16350 Welding Tee Use Notes 6,9,10 = ---

 From 16350 To 17100 DX= .000 mm. DY= 5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 16350 Y2 K= 63,238 N./cm. Yield K= 1 N./cm.
 Yield Force= 333,042 N.
 Node 16350 X2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.
 Node 16350 Z2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.

 From 17100 To 17150 DX= .000 mm. DY= 5,500.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

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INPUT LISTING

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17100 Y2 K= 63,238 N./cm. Yield K= 1 N./cm.
 Yield Force= 333,042 N.
 Node 17100 X2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.
 Node 17100 Z2 K= 2,044,826 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,769,077 N.

SIF's & TEE's

Node 17150 Welding Tee Use Notes 6,9,10 = ---

 From 17150 To 17400 DX= .000 mm. DY= 2,236.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17150 Y2 K= 44,473 N./cm. Yield K= 1 N./cm.
 Yield Force= 234,220 N.
 Node 17150 X2 K= 1,438,071 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,573,598 N.
 Node 17150 Z2 K= 1,438,071 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,573,598 N.

SIF's & TEE's

Node 17400 Welding Tee Use Notes 6,9,10 = ---

 From 17400 To 17419 DX= .000 mm. DY= 768.500 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17400 Y2 K= 21,691 N./cm. Yield K= 1 N./cm.
 Yield Force= 114,234 N.
 Node 17400 X2 K= 701,375 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,693,793 N.
 Node 17400 Z2 K= 701,375 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,693,793 N.

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INPUT LISTING

From 17419 To 17420 DX= .000 mm. DY= 768.500 mm. DZ= .000 mm.

RESTRAINTS

Node 17420 Y2 K= 8,836 N./cm. Yield K= 1 N./cm.
 Yield Force= 46,535 N.
 Node 17420 X2 K= 285,718 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,504,734 N.
 Node 17420 Z2 K= 285,718 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,504,734 N.

 From 17150 To 17169 DX= -1,065.500 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 17150 X2 K= 7,042 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,036 N.
 Node 17150 Y2 K= 310,164 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,278,960 N.
 Node 17150 Z2 K= 310,164 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,278,960 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

 From 17169 To 17170 DX= -1,065.500 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 17170 X2 K= 7,042 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,036 N.
 Node 17170 Y2 K= 310,164 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,278,960 N.
 Node 17170 Z2 K= 310,164 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,278,960 N.

 From 14800 To 14850 DX= -1,576.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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INPUT LISTING

Node 14800 X2 K= 5,208 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,474 N.
 Node 14800 Y2 K= 229,384 N./cm. Yield K= 1 N./cm.
 Yield Force= 945,866 N.
 Node 14800 Z2 K= 229,384 N./cm. Yield K= 1 N./cm.
 Yield Force= 945,866 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 14850 To 14900 DX= -1,448.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.
 RIGID Weight= .01 N.

 From 14900 To 14901 DX= -685.400 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 14900 X2 K= 7,050 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,069 N.
 Node 14900 Y2 K= 310,513 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,280,401 N.
 Node 14900 Z2 K= 310,513 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,280,401 N.

 From 14901 To 14902 DX= -410.320 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 14901 X2 K= 4,836 N./cm. Yield K= 1 N./cm.
 Yield Force= 19,940 N.
 Node 14901 Y2 K= 212,998 N./cm. Yield K= 1 N./cm.
 Yield Force= 878,297 N.
 Node 14901 Z2 K= 212,998 N./cm. Yield K= 1 N./cm.
 Yield Force= 878,297 N.

 From 14902 To 14950 DX= -580.280 mm. DY= .000 mm. DZ= 580.280 mm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

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INPUT LISTING

RESTRAINTS

Node 14902 X2 K= 5,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,202 N. Dir Vec= -.7071 .0000 .7071
 Node 14902 Y2 K= 226,478 N./cm. Yield K= 1 N./cm.
 Yield Force= 933,881 N.
 Node 14902 X2 K= 226,478 N./cm. Yield K= 1 N./cm.
 Yield Force= 933,881 N. Dir Vec= .7071 .0000 .7071

 From 14950 To 14999 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 14950 Z2 K= 8,550 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,255 N.
 Node 14950 X2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.
 Node 14950 Y2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.

 From 14999 To 15000 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.

RESTRAINTS

Node 15000 Z2 K= 5,979 N./cm. Yield K= 1 N./cm.
 Yield Force= 24,654 N.
 Node 15000 X2 K= 263,355 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,085,946 N.
 Node 15000 Y2 K= 263,355 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,085,946 N.

 From 13500 To 13520 DX= .000 mm. DY= -10,706.800 mm. DZ= .000 mm.
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13500 Y2 K= 59,564 N./cm. Yield K= 1 N./cm.
 Yield Force= 313,696 N.
 Node 13500 X2 K= 1,926,040 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,143,491 N.
 Node 13500 Z2 K= 1,926,040 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,143,491 N.

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INPUT LISTING

From 13520 To 13550 DX= .000 mm. DY= -10,361.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13520 Y2 K= 119,129 N./cm. Yield K= 1 N./cm.
 Yield Force= 627,391 N.
 Node 13520 X2 K= 3,852,081 N./cm. Yield K= 1 N./cm.
 Yield Force= 20,286,982 N.
 Node 13520 Z2 K= 3,852,081 N./cm. Yield K= 1 N./cm.
 Yield Force= 20,286,982 N.

SIF's & TEE's

Node 13550 Welding Tee Use Notes 6,9,10 = ---

 From 13550 To 13600 DX= .000 mm. DY= -10,554.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13550 Y2 K= 120,238 N./cm. Yield K= 1 N./cm.
 Yield Force= 633,235 N.
 Node 13550 X2 K= 3,887,958 N./cm. Yield K= 1 N./cm.
 Yield Force= 20,475,930 N.
 Node 13550 Z2 K= 3,887,958 N./cm. Yield K= 1 N./cm.
 Yield Force= 20,475,930 N.

 From 13600 To 13650 DX= .000 mm. DY= -2,451.500 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13600 Y2 K= 74,767 N./cm. Yield K= 1 N./cm.
 Yield Force= 393,762 N.
 Node 13600 X2 K= 2,417,635 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,732,474 N.
 Node 13600 Z2 K= 2,417,635 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,732,474 N.

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 INPUT LISTING

 From 13650 To 13699 DX= .000 mm. DY= -1,498.500 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 13650 Y2 K= 31,323 N./cm. Yield K= 1 N./cm.
 Yield Force= 164,962 N.
 Node 13650 X2 K= 1,012,840 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,334,119 N.
 Node 13650 Z2 K= 1,012,840 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,334,119 N.

 From 13699 To 13700 DX= .000 mm. DY= -1,498.500 mm. DZ= .000 mm.

RESTRAINTS

Node 13700 Y2 K= 17,229 N./cm. Yield K= 1 N./cm.
 Yield Force= 90,739 N.
 Node 13700 X2 K= 557,122 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,934,084 N.
 Node 13700 Z2 K= 557,122 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,934,084 N.

 From 12100 To 12150 DX= -1,576.000 mm. DY= .000 mm. DZ= .000 mm.
 PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 12100 X2 K= 5,208 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,474 N.
 Node 12100 Y2 K= 229,384 N./cm. Yield K= 1 N./cm.
 Yield Force= 945,866 N.
 Node 12100 Z2 K= 229,384 N./cm. Yield K= 1 N./cm.
 Yield Force= 945,866 N.

 From 12150 To 12200 DX= -1,448.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.
 RIGID Weight= .01 N.

 From 12200 To 12201 DX= -614.900 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 12200 X2 K= 6,817 N./cm. Yield K= 1 N./cm.
 Yield Force= 28,108 N.
 Node 12200 Y2 K= 300,252 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,238,089 N.
 Node 12200 Z2 K= 300,252 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,238,089 N.

 From 12201 To 12202 DX= -410.320 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 12201 X2 K= 4,603 N./cm. Yield K= 1 N./cm.
 Yield Force= 18,979 N.
 Node 12201 Y2 K= 202,737 N./cm. Yield K= 1 N./cm.
 Yield Force= 835,985 N.
 Node 12201 Z2 K= 202,737 N./cm. Yield K= 1 N./cm.
 Yield Force= 835,985 N.

 From 12202 To 12250 DX= -580.280 mm. DY= .000 mm. DZ= 580.280 mm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 12202 X2 K= 5,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,202 N. Dir Vec= -.7071 .0000 .7071
 Node 12202 Y2 K= 226,478 N./cm. Yield K= 1 N./cm.
 Yield Force= 933,881 N.
 Node 12202 X2 K= 226,478 N./cm. Yield K= 1 N./cm.
 Yield Force= 933,881 N. Dir Vec= .7071 .0000 .7071

 From 12250 To 12299 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

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INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 12250 Z2 K= 8,550 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,255 N.
 Node 12250 X2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.
 Node 12250 Y2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.

 From 12299 To 12300 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.

RESTRAINTS

Node 12300 Z2 K= 5,979 N./cm. Yield K= 1 N./cm.
 Yield Force= 24,654 N.
 Node 12300 X2 K= 263,355 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,085,946 N.
 Node 12300 Y2 K= 263,355 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,085,946 N.

 From 12300 To 12350 DZ= 2,620.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 12349
 Angle/Node @2= .00 12348

 From 12350 To 12400 DY= 1,784.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

 From 11900 To 11949 DX= -1,065.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 11900 X2 K= 7,038 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 29,022 N.
 Node 11900 Y2 K= 310,018 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,278,360 N.
 Node 11900 Z2 K= 310,018 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,278,360 N.

 From 11949 To 11950 DX= -1,065.000 mm. DY= .000 mm. DZ= .000 mm.

 From 9650 To 8050 DX= 4,000.000 mm. DY= .000 mm. DZ= .000 mm.
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 9650 X2 K= 22,996 N./cm. Yield K= 1 N./cm.
 Yield Force= 121,106 N.
 Node 9650 Y2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.
 Node 9650 Z2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.

SIF's & TEE's

Node 8050 Welding Tee Use Notes 6,9,10 = ---

 From 8050 To 6450 DX= 4,000.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8050 X2 K= 45,991 N./cm. Yield K= 1 N./cm.
 Yield Force= 242,213 N.
 Node 8050 Y2 K= 1,487,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,832,056 N.
 Node 8050 Z2 K= 1,487,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,832,056 N.

SIF's & TEE's

Node 6450 Welding Tee Use Notes 6,9,10 = ---

 From 6450 To 11300 DX= 4,000.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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Impianto di Melendugno
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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6450 X2 K= 45,991 N./cm. Yield K= 1 N./cm.
 Yield Force= 242,213 N.
 Node 6450 Y2 K= 1,487,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,832,056 N.
 Node 6450 Z2 K= 1,487,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,832,056 N.

SIF's & TEE's

Node 11300 Welding Tee Use Notes 6,9,10 = ---

 From 11300 To 11349 DX= 2,000.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 11300 X2 K= 45,991 N./cm. Yield K= 1 N./cm.
 Yield Force= 242,213 N.
 Node 11300 Y2 K= 1,487,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,832,056 N.
 Node 11300 Z2 K= 1,487,146 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,832,056 N.

 From 11349 To 11350 DX= 2,000.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 11350 X2 K= 22,996 N./cm. Yield K= 1 N./cm.
 Yield Force= 121,106 N.
 Node 11350 Y2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.
 Node 11350 Z2 K= 743,573 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,916,028 N.

SIF's & TEE's

Node 11350 Welding Tee Use Notes 6,9,10 = ---

 From 11350 To 11370 DX= .000 mm. DY= .000 mm. DZ= 806.000 mm.
 PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.

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INPUT LISTING

Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 11350 Z2 K= 2,170 N./cm. Yield K= 1 N./cm. Yield Force= 8,453 N.

Node 11350 X2 K= 110,826 N./cm. Yield K= 1 N./cm.

Yield Force= 431,721 N.

Node 11350 Y2 K= 110,826 N./cm. Yield K= 1 N./cm.

Yield Force= 431,721 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa

Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa

Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

 From 11370 To 11599 DX= .000 mm. DY= .000 mm. DZ= 997.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa

Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa

Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 11599 To 11600 DX= .000 mm. DY= .000 mm. DZ= 997.000 mm.

RESTRAINTS

Node 11600 Z2 K= 5,368 N./cm. Yield K= 1 N./cm.

Yield Force= 20,912 N.

Node 11600 X2 K= 274,176 N./cm. Yield K= 1 N./cm.

Yield Force= 1,068,054 N.

Node 11600 Y2 K= 274,176 N./cm. Yield K= 1 N./cm.

Yield Force= 1,068,054 N.

 From 11600 To 11650 DZ= 1,000.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 11649

Angle/Node @2= .00 11648 Seam= NO

 From 11650 To 11700 DY= -1,491.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

 From 11350 To 11399 DX= 1,354.000 mm. DY= .000 mm. DZ= .000 mm.
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm. Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 11350 X2 K= 15,568 N./cm. Yield K= 1 N./cm.
 Yield Force= 81,989 N.
 Node 11350 Y2 K= 503,399 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,651,151 N.
 Node 11350 Z2 K= 503,399 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,651,151 N.

 From 11399 To 11400 DX= 1,354.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 11400 X2 K= 15,568 N./cm. Yield K= 1 N./cm.
 Yield Force= 81,989 N.
 Node 11400 Y2 K= 503,399 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,651,151 N.
 Node 11400 Z2 K= 503,399 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,651,151 N.

 From 11300 To 11449 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.
 PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 11300 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 11300 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 11300 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 11449 To 11450 DX= .000 mm. DY= .000 mm. DZ= 1,400.000 mm.

RESTRAINTS

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INPUT LISTING

Node 11450 Z2 K= 7,538 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,365 N.
 Node 11450 X2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.
 Node 11450 Y2 K= 385,002 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,499,775 N.

 From 11450 To 11500 DZ= 1,000.000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 11899
 Angle/Node @2= .00 11898

 From 11500 To 11550 DY= -1,491.000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

 From 12400 To 12450 DY= 222.300 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.

RIGID Weight= 4,790.00 N.

RESTRAINTS

Node 12450 X
 Node 12450 Y
 Node 12450 Z

FLANGES

Location= To Method= Peq G/C= 727.500 mm.

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

From 12520 To 12570 DX= -1,576.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.

Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.

Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 12520 X2 K= 5,208 N./cm. Yield K= 1 N./cm.

Yield Force= 21,474 N.

Node 12520 Y2 K= 229,384 N./cm. Yield K= 1 N./cm.

Yield Force= 945,866 N.

Node 12520 Z2 K= 229,384 N./cm. Yield K= 1 N./cm.

Yield Force= 945,866 N.

 From 12570 To 12620 DX= -1,448.000 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 12570 X2 K= 9,992 N./cm. Yield K= 1 N./cm.

Yield Force= 41,204 N.

Node 12570 Y2 K= 440,139 N./cm. Yield K= 1 N./cm.

Yield Force= 1,814,911 N.

Node 12570 Z2 K= 440,139 N./cm. Yield K= 1 N./cm.

Yield Force= 1,814,911 N.

 From 12620 To 12621 DX= -614.900 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.

Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.

Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 12620 X2 K= 6,817 N./cm. Yield K= 1 N./cm.

Yield Force= 28,108 N.

Node 12620 Y2 K= 300,252 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 1,238,089 N.
 Node 12620 Z2 K= 300,252 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,238,089 N.

 From 12621 To 12622 DX= -410.320 mm. DY= .000 mm. DZ= .000 mm.
 BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 12621 X2 K= 4,603 N./cm. Yield K= 1 N./cm.
 Yield Force= 18,979 N.
 Node 12621 Y2 K= 202,737 N./cm. Yield K= 1 N./cm.
 Yield Force= 835,985 N.
 Node 12621 Z2 K= 202,737 N./cm. Yield K= 1 N./cm.
 Yield Force= 835,985 N.

 From 12622 To 12670 DX= -580.280 mm. DY= .000 mm. DZ= 580.280 mm.
 BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 12622 X2 K= 5,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,202 N. Dir Vec= -.7071 .0000 .7071
 Node 12622 Y2 K= 226,478 N./cm. Yield K= 1 N./cm.
 Yield Force= 933,881 N.
 Node 12622 X2 K= 226,478 N./cm. Yield K= 1 N./cm.
 Yield Force= 933,881 N. Dir Vec= .7071 .0000 .7071

 From 12670 To 12719 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 12670 Z2 K= 8,550 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,255 N.
 Node 12670 X2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.
 Node 12670 Y2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.

 From 12719 To 12720 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.
 RESTRAINTS

Node 12720 Z2 K= 5,979 N./cm. Yield K= 1 N./cm.
 Yield Force= 24,654 N.
 Node 12720 X2 K= 263,355 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,085,946 N.
 Node 12720 Y2 K= 263,355 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,085,946 N.

 From 12720 To 12770 DZ= 2,620.000 mm.
 Seam= NO WI Factor= 1.000

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 12769
 Angle/Node @2= .00 12768

 From 12770 To 12820 DY= 1,784.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

 From 12820 To 12870 DY= 222.300 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.

RIGID Weight= 4,790.00 N.

RESTRAINTS

Node 12870 X
 Node 12870 Y
 Node 12870 Z

FLANGES

Location= To Method= Peq G/C= 727.500 mm.

 From 12920 To 12970 DX= -1,576.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 12920 X2 K= 5,208 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,474 N.

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INPUT LISTING

Node 12920 Y2 K= 229,384 N./cm. Yield K= 1 N./cm.
 Yield Force= 945,866 N.
 Node 12920 Z2 K= 229,384 N./cm. Yield K= 1 N./cm.
 Yield Force= 945,866 N.

 From 12970 To 13020 DX= -1,448.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

 From 13020 To 13021 DX= -614.900 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13020 X2 K= 6,817 N./cm. Yield K= 1 N./cm.
 Yield Force= 28,108 N.
 Node 13020 Y2 K= 300,252 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,238,089 N.
 Node 13020 Z2 K= 300,252 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,238,089 N.

 From 13021 To 13022 DX= -410.320 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 13021 X2 K= 4,603 N./cm. Yield K= 1 N./cm.
 Yield Force= 18,979 N.
 Node 13021 Y2 K= 202,737 N./cm. Yield K= 1 N./cm.
 Yield Force= 835,985 N.
 Node 13021 Z2 K= 202,737 N./cm. Yield K= 1 N./cm.
 Yield Force= 835,985 N.

 From 13022 To 13070 DX= -580.280 mm. DY= .000 mm. DZ= 580.280 mm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 13022 X2 K= 5,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,202 N. Dir Vec= -.7071 .0000 .7071
 Node 13022 Y2 K= 226,478 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 933,881 N.
 Node 13022 X2 K= 226,478 N./cm. Yield K= 1 N./cm.
 Yield Force= 933,881 N. Dir Vec= .7071 .0000 .7071

 From 13070 To 13119 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13070 Z2 K= 8,550 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,255 N.
 Node 13070 X2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.
 Node 13070 Y2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.

 From 13119 To 13120 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.

RESTRAINTS

Node 13120 Z2 K= 5,979 N./cm. Yield K= 1 N./cm.
 Yield Force= 24,654 N.
 Node 13120 X2 K= 263,355 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,085,946 N.
 Node 13120 Y2 K= 263,355 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,085,946 N.

 From 13120 To 13170 DZ= 2,620.000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 13169
 Angle/Node @2= .00 13168

 From 13170 To 13220 DY= 1,784.000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

 From 13220 To 13270 DY= 222.300 mm.

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INPUT LISTING

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.

RIGID Weight= 4,790.00 N.

RESTRAINTS

Node 13270 X
 Node 13270 Y
 Node 13270 Z

FLANGES

Location= To Method= Peq G/C= 727.500 mm.

 From 13700 To 13750 DX= .000 mm. DY= -2,451.500 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (306)API-5L X65
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13700 Y2 K= 14,093 N./cm. Yield K= 1 N./cm.
 Yield Force= 74,223 N.
 Node 13700 X2 K= 455,717 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,400,036 N.
 Node 13700 Z2 K= 455,717 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,400,036 N.

 From 13750 To 13800 DX= .000 mm. DY= -3,468.500 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13750 Y2 K= 34,033 N./cm. Yield K= 1 N./cm.
 Yield Force= 179,237 N.
 Node 13750 X2 K= 1,100,488 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,795,721 N.
 Node 13750 Z2 K= 1,100,488 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,795,721 N.

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 INPUT LISTING

 From 13800 To 13850 DX= .000 mm. DY= -2,575.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 13800 Y2 K= 34,743 N./cm. Yield K= 1 N./cm.
 Yield Force= 182,977 N.
 Node 13800 X2 K= 1,123,446 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,916,629 N.
 Node 13800 Z2 K= 1,123,446 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,916,629 N.

 From 13850 To 13851 DX= .000 mm. DY= -4,335.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13850 Y2 K= 39,725 N./cm. Yield K= 1 N./cm.
 Yield Force= 209,211 N.
 Node 13850 X2 K= 1,284,523 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,764,938 N.
 Node 13850 Z2 K= 1,284,523 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,764,938 N.

 From 13851 To 13852 DX= .000 mm. DY= -883.517 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 13851 Y2 K= 34,552 N./cm. Yield K= 1 N./cm.
 Yield Force= 181,970 N.
 Node 13851 X2 K= 1,117,266 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,884,081 N.
 Node 13851 Z2 K= 1,117,266 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,884,081 N.

 From 13852 To 13900 DX= 1,249.482 mm. DY= -1,249.482 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 13852 X2 K= 19,262 N./cm. Yield K= 1 N./cm.
 Yield Force= 101,442 N. Dir Vec= .7071 -.7071 .0000

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INPUT LISTING

Node 13852 X2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N. Dir Vec= -.7071 -.7071 .0000
 Node 13852 Z2 K= 622,837 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,280,171 N.

 From 13900 To 2599 DX= 2,407.259 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 13900 X2 K= 32,230 N./cm. Yield K= 1 N./cm.
 Yield Force= 169,738 N.
 Node 13900 Y2 K= 1,042,165 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,488,562 N.
 Node 13900 Z2 K= 1,042,165 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,488,562 N.

 From 2599 To 2600 DX= 2,407.259 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 2600 X2 K= 22,599 N./cm. Yield K= 1 N./cm.
 Yield Force= 119,017 N.
 Node 2600 Y2 K= 730,747 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,848,476 N.
 Node 2600 Z2 K= 730,747 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,848,476 N.

 From 15000 To 15050 DZ= 2,620.000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 15049
 Angle/Node @2= .00 15048

 From 15050 To 15100 DX= -1,997.700 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

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INPUT LISTING

Insul Den= .0000000 kg./cu.cm.

 From 15100 To 15150 DX= -222.300 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.

Insul Den= .0000000 kg./cu.cm.

RIGID Weight= 4,790.00 N.

RESTRAINTS

Node 15150 X

Node 15150 Y

Node 15150 Z

FLANGES

Location= To Method= Peq G/C= 727.500 mm.

 From 15550 To 15600 DX= -1,576.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.

Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.

Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 15550 X2 K= 5,208 N./cm. Yield K= 1 N./cm.

Yield Force= 21,474 N.

Node 15550 Y2 K= 229,384 N./cm. Yield K= 1 N./cm.

Yield Force= 945,866 N.

Node 15550 Z2 K= 229,384 N./cm. Yield K= 1 N./cm.

Yield Force= 945,866 N.

 From 15600 To 15650 DX= -1,448.000 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 15600 X2 K= 9,992 N./cm. Yield K= 1 N./cm.

Yield Force= 41,204 N.

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INPUT LISTING

Node 15600 Y2 K= 440,139 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,814,911 N.
 Node 15600 Z2 K= 440,139 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,814,911 N.

 From 15650 To 15651 DX= -685.400 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 15650 X2 K= 7,050 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,069 N.
 Node 15650 Y2 K= 310,513 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,280,401 N.
 Node 15650 Z2 K= 310,513 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,280,401 N.

 From 15651 To 15652 DX= -410.320 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 15651 X2 K= 4,836 N./cm. Yield K= 1 N./cm.
 Yield Force= 19,940 N.
 Node 15651 Y2 K= 212,998 N./cm. Yield K= 1 N./cm.
 Yield Force= 878,297 N.
 Node 15651 Z2 K= 212,998 N./cm. Yield K= 1 N./cm.
 Yield Force= 878,297 N.

 From 15652 To 15700 DX= -580.280 mm. DY= .000 mm. DZ= 580.280 mm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 15652 X2 K= 5,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,202 N. Dir Vec= -.7071 .0000 .7071
 Node 15652 Y2 K= 226,478 N./cm. Yield K= 1 N./cm.
 Yield Force= 933,881 N.
 Node 15652 X2 K= 226,478 N./cm. Yield K= 1 N./cm.
 Yield Force= 933,881 N. Dir Vec= .7071 .0000 .7071

 From 15700 To 15749 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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INPUT LISTING

RESTRAINTS

Node 15700 Z2 K= 8,550 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,255 N.
 Node 15700 X2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.
 Node 15700 Y2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.

 From 15749 To 15750 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.

RESTRAINTS

Node 15750 Z2 K= 5,979 N./cm. Yield K= 1 N./cm.
 Yield Force= 24,654 N.
 Node 15750 X2 K= 263,355 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,085,946 N.
 Node 15750 Y2 K= 263,355 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,085,946 N.

 From 15750 To 15800 DZ= 2,620.000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 15799
 Angle/Node @2= .00 15798

 From 15800 To 15850 DX= -1,997.700 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

 From 15850 To 15900 DX= -222.300 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.

RIGID Weight= 4,790.00 N.

RESTRAINTS

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 Allegato 1 - Area 1

INPUT LISTING

Node 15900 X
 Node 15900 Y
 Node 15900 Z

FLANGES

Location= To Method= Peq G/C= 727.500 mm.

 From 16350 To 16400 DX= -1,576.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 16350 X2 K= 5,208 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,474 N.
 Node 16350 Y2 K= 229,384 N./cm. Yield K= 1 N./cm.
 Yield Force= 945,866 N.
 Node 16350 Z2 K= 229,384 N./cm. Yield K= 1 N./cm.
 Yield Force= 945,866 N.

 From 16400 To 16450 DX= -1,448.000 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 16400 X2 K= 9,992 N./cm. Yield K= 1 N./cm.
 Yield Force= 41,204 N.
 Node 16400 Y2 K= 440,139 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,814,911 N.
 Node 16400 Z2 K= 440,139 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,814,911 N.

 From 16450 To 16451 DX= -685.400 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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INPUT LISTING

RESTRAINTS

Node 16450 X2 K= 7,050 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,069 N.
 Node 16450 Y2 K= 310,513 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,280,401 N.
 Node 16450 Z2 K= 310,513 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,280,401 N.

 From 16451 To 16452 DX= -410.320 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 16451 X2 K= 4,836 N./cm. Yield K= 1 N./cm.
 Yield Force= 19,940 N.
 Node 16451 Y2 K= 212,998 N./cm. Yield K= 1 N./cm.
 Yield Force= 878,297 N.
 Node 16451 Z2 K= 212,998 N./cm. Yield K= 1 N./cm.
 Yield Force= 878,297 N.

 From 16452 To 16500 DX= -580.280 mm. DY= .000 mm. DZ= 580.280 mm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 16452 X2 K= 5,142 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,202 N. Dir Vec= -.7071 .0000 .7071
 Node 16452 Y2 K= 226,478 N./cm. Yield K= 1 N./cm.
 Yield Force= 933,881 N.
 Node 16452 X2 K= 226,478 N./cm. Yield K= 1 N./cm.
 Yield Force= 933,881 N. Dir Vec= .7071 .0000 .7071

 From 16500 To 16549 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 16500 Z2 K= 8,550 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,255 N.
 Node 16500 X2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.
 Node 16500 Y2 K= 376,594 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,552,887 N.

 From 16549 To 16550 DX= .000 mm. DY= .000 mm. DZ= 1,109.860 mm.

RESTRAINTS

Node 16550 Z2 K= 5,979 N./cm. Yield K= 1 N./cm.
 Yield Force= 24,654 N.
 Node 16550 X2 K= 263,355 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,085,946 N.
 Node 16550 Y2 K= 263,355 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 1,085,946 N.

 From 16550 To 16600 DZ= 2,620.000 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.

Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 990.600 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 16599

Angle/Node @2= .00 16598

 From 16600 To 16650 DX= -1,997.700 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

Insul Den= .0000000 kg./cu.cm.

 From 16650 To 16700 DX= -222.300 mm.

PIPE

Dia= 660.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.

Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.

Insul Den= .0000000 kg./cu.cm.

RIGID Weight= 4,790.00 N.

RESTRAINTS

Node 16700 X

Node 16700 Y

Node 16700 Z

FLANGES

Location= To Method= Peq G/C= 727.500 mm.

 From 18200 To 18250 DX= 1,397.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 610.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.

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INPUT LISTING

Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 18200 X2 K= 4,345 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,593 N.
 Node 18200 Y2 K= 199,633 N./cm. Yield K= 1 N./cm.
 Yield Force= 808,214 N.
 Node 18200 Z2 K= 199,633 N./cm. Yield K= 1 N./cm.
 Yield Force= 808,214 N.

 From 18250 To 18300 DX= 1,403.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 18250 X2 K= 8,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,261 N.
 Node 18250 Y2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.
 Node 18250 Z2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.

 From 18300 To 18350 DX= 1,397.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 610.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 18300 X2 K= 8,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,261 N.
 Node 18300 Y2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.
 Node 18300 Z2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.

 From 18350 To 17899 DX= 1,250.750 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 18350 X2 K= 12,127 N./cm. Yield K= 1 N./cm.
 Yield Force= 49,095 N.
 Node 18350 Y2 K= 557,100 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,255,420 N.
 Node 18350 Z2 K= 557,100 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,255,420 N.

 From 17899 To 17900 DX= 1,250.750 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 17900 X2 K= 7,781 N./cm. Yield K= 1 N./cm.
 Yield Force= 31,502 N.
 Node 17900 Y2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.
 Node 17900 Z2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.

 From 18400 To 18450 DX= 1,397.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 610.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 18400 X2 K= 4,345 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,593 N.
 Node 18400 Y2 K= 199,633 N./cm. Yield K= 1 N./cm.
 Yield Force= 808,214 N.
 Node 18400 Z2 K= 199,633 N./cm. Yield K= 1 N./cm.
 Yield Force= 808,214 N.

 From 18450 To 18500 DX= 1,403.000 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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INPUT LISTING

Node 18450 X2 K= 8,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,261 N.
 Node 18450 Y2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.
 Node 18450 Z2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.

 From 18500 To 18550 DX= 1,397.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 610.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 18500 X2 K= 8,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,261 N.
 Node 18500 Y2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.
 Node 18500 Z2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.

 From 18550 To 18600 DX= 1,403.000 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 18550 X2 K= 8,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,261 N.
 Node 18550 Y2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.
 Node 18550 Z2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.

 From 18600 To 18650 DX= 1,397.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 610.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.

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INPUT LISTING

Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 18600 X2 K= 8,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,261 N.
 Node 18600 Y2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.
 Node 18600 Z2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.

 From 18650 To 17949 DX= 1,250.750 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 18650 X2 K= 12,127 N./cm. Yield K= 1 N./cm.
 Yield Force= 49,095 N.
 Node 18650 Y2 K= 557,100 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,255,420 N.
 Node 18650 Z2 K= 557,100 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,255,420 N.

 From 17949 To 17950 DX= 1,250.750 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 17950 X2 K= 7,781 N./cm. Yield K= 1 N./cm.
 Yield Force= 31,502 N.
 Node 17950 Y2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.
 Node 17950 Z2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.

 From 18700 To 18750 DX= 1,397.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 610.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 18700 X2 K= 4,345 N./cm. Yield K= 1 N./cm.
 Yield Force= 17,593 N.

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INPUT LISTING

Node 18700 Y2 K= 199,633 N./cm. Yield K= 1 N./cm.
 Yield Force= 808,214 N.
 Node 18700 Z2 K= 199,633 N./cm. Yield K= 1 N./cm.
 Yield Force= 808,214 N.

 From 18750 To 18800 DX= 1,403.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 18750 X2 K= 8,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,261 N.
 Node 18750 Y2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.
 Node 18750 Z2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.

 From 18800 To 18850 DX= 1,397.000 mm. DY= .000 mm. DZ= .000 mm.
 PIPE

Dia= 610.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 18800 X2 K= 8,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,261 N.
 Node 18800 Y2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.
 Node 18800 Z2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.

 From 18850 To 18900 DX= 1,403.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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INPUT LISTING

Node 18850 X2 K= 8,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,261 N.
 Node 18850 Y2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.
 Node 18850 Z2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.

 From 18900 To 18950 DX= 1,397.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 610.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 18900 X2 K= 8,710 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,261 N.
 Node 18900 Y2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.
 Node 18900 Z2 K= 400,123 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,619,899 N.

 From 18950 To 17999 DX= 1,250.750 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 18950 X2 K= 12,127 N./cm. Yield K= 1 N./cm.
 Yield Force= 49,095 N.
 Node 18950 Y2 K= 557,100 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,255,420 N.
 Node 18950 Z2 K= 557,100 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,255,420 N.

 From 17999 To 18000 DX= 1,250.750 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 18000 X2 K= 7,781 N./cm. Yield K= 1 N./cm.
 Yield Force= 31,502 N.
 Node 18000 Y2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.
 Node 18000 Z2 K= 357,467 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,447,206 N.

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INPUT LISTING

From 20500 To 20550 DX= .000 mm. DY= 1,194.000 mm. DZ= .000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.

Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.

Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 20500 Y2 K= 3,214 N./cm. Yield K= 1 N./cm.

Yield Force= 12,522 N.

Node 20500 X2 K= 164,176 N./cm. Yield K= 1 N./cm.

Yield Force= 639,547 N.

Node 20500 Z2 K= 164,176 N./cm. Yield K= 1 N./cm.

Yield Force= 639,547 N.

 From 20550 To 24750 DX= .000 mm. DY= 1,175.000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 20550 Y2 K= 6,378 N./cm. Yield K= 1 N./cm.

Yield Force= 24,845 N.

Node 20550 X2 K= 325,739 N./cm. Yield K= 1 N./cm.

Yield Force= 1,268,917 N.

Node 20550 Z2 K= 325,739 N./cm. Yield K= 1 N./cm.

Yield Force= 1,268,917 N.

SIF's & TEE's

Node 24750 Welding Tee Use Notes 6,9,10 = ---

 From 24750 To 1849 DX= .000 mm. DY= 875.000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24750 Y2 K= 7,875 N./cm. Yield K= 1 N./cm.

Yield Force= 30,676 N.

Node 24750 X2 K= 402,189 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 1,566,729 N.
 Node 24750 Z2 K= 402,189 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,566,729 N.

 From 1849 To 1850 DX= .000 mm. DY= 875.000 mm. DZ= .000 mm.

RESTRAINTS

Node 1850 Y2 K= 4,711 N./cm. Yield K= 1 N./cm.
 Yield Force= 18,353 N.
 Node 1850 X2 K= 240,626 N./cm. Yield K= 1 N./cm.
 Yield Force= 937,359 N.
 Node 1850 Z2 K= 240,626 N./cm. Yield K= 1 N./cm.
 Yield Force= 937,359 N.

 From 21600 To 21650 DX= -190.500 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (322)API-5L X60
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.
 RIGID Weight= 2,676.00 N.

 From 21650 To 21700 DX= -1,272.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 21699
 Angle/Node @2= .00 21698

 From 21700 To 21750 DZ= -1,625.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

 From 21750 To 21800 DZ= -2,800.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 21799
 Angle/Node @2= .00 21798

 From 21800 To 21850 DX= -1,006.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 21850 +Z Mu = .35

 From 21850 To 21900 DX= -8,400.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 21900 +Z Mu = .35

 From 21900 To 21950 DX= -8,400.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 21950 +Z Mu = .35

 From 21950 To 22000 DX= -884.000 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 21950 X2 K= 2,380 N./cm. Yield K= 1 N./cm. Yield Force= 9,271 N.

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INPUT LISTING

Node 21950 Y2 K= 121,551 N./cm. Yield K= 1 N./cm.
 Yield Force= 473,500 N.
 Node 21950 Z2 K= 121,551 N./cm. Yield K= 1 N./cm.
 Yield Force= 473,500 N.

 From 22000 To 22050 DX= -1,006.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22000 X2 K= 5,088 N./cm. Yield K= 1 N./cm.
 Yield Force= 19,821 N.
 Node 22000 Y2 K= 259,876 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,012,348 N.
 Node 22000 Z2 K= 259,876 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,012,348 N.

SIF's & TEE's

Node 22050 Welding Tee Use Notes 6,9,10 = ---

 From 22050 To 22700 DX= -1,401.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22050 X2 K= 6,480 N./cm. Yield K= 1 N./cm.
 Yield Force= 25,243 N.
 Node 22050 Y2 K= 330,964 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,289,271 N.
 Node 22050 Z2 K= 330,964 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,289,271 N.

 From 22700 To 22750 DX= -1,194.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

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INPUT LISTING

Node 22700 X2 K= 6,986 N./cm. Yield K= 1 N./cm.
 Yield Force= 27,215 N.
 Node 22700 Y2 K= 356,814 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,389,970 N.
 Node 22700 Z2 K= 356,814 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,389,970 N.

 From 22750 To 22751 DX= -1,000.000 mm. DY= .000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22750 X2 K= 5,907 N./cm. Yield K= 1 N./cm.
 Yield Force= 23,009 N.
 Node 22750 Y2 K= 301,677 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,175,181 N.
 Node 22750 Z2 K= 301,677 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,175,181 N.

 From 22751 To 22752 DX= -315.631 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 22751 X2 K= 4,303 N./cm. Yield K= 1 N./cm.
 Yield Force= 16,764 N.
 Node 22751 Y2 K= 219,791 N./cm. Yield K= 1 N./cm.
 Yield Force= 856,197 N.
 Node 22751 Z2 K= 219,791 N./cm. Yield K= 1 N./cm.
 Yield Force= 856,197 N.

 From 22752 To 22800 DX= -446.369 mm. DY= 446.369 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 22752 X2 K= 3,222 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,553 N. Dir Vec= -.7071 .7071 .0000
 Node 22752 X2 K= 164,581 N./cm. Yield K= 1 N./cm.
 Yield Force= 641,125 N. Dir Vec= .7071 .7071 .0000
 Node 22752 Z2 K= 164,581 N./cm. Yield K= 1 N./cm.
 Yield Force= 641,125 N.

 From 22800 To 22850 DX= .000 mm. DY= 1,335.631 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22800 Y2 K= 4,357 N./cm. Yield K= 1 N./cm.
 Yield Force= 16,974 N.
 Node 22800 X2 K= 222,541 N./cm. Yield K= 1 N./cm.
 Yield Force= 866,909 N.
 Node 22800 Z2 K= 222,541 N./cm. Yield K= 1 N./cm.
 Yield Force= 866,909 N.

 From 22850 To 22900 DX= .000 mm. DY= 1,194.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 22850 Y2 K= 5,960 N./cm. Yield K= 1 N./cm.
 Yield Force= 23,219 N.
 Node 22850 X2 K= 304,427 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,185,893 N.
 Node 22850 Z2 K= 304,427 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,185,893 N.

 From 22900 To 22901 DX= .000 mm. DY= 1,162.000 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22900 Y2 K= 6,343 N./cm. Yield K= 1 N./cm.
 Yield Force= 24,708 N.
 Node 22900 X2 K= 323,952 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,261,953 N.
 Node 22900 Z2 K= 323,952 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,261,953 N.

 From 22901 To 22902 DX= .000 mm. DY= 315.631 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 22901 Y2 K= 4,740 N./cm. Yield K= 1 N./cm.
 Yield Force= 18,463 N.
 Node 22901 X2 K= 242,066 N./cm. Yield K= 1 N./cm.
 Yield Force= 942,969 N.

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INPUT LISTING

Node 22901 Z2 K= 242,066 N./cm. Yield K= 1 N./cm.
 Yield Force= 942,969 N.

 From 22902 To 22950 DX= .000 mm. DY= 446.369 mm. DZ= 446.369 mm.
 BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 22902 X2 K= 3,222 N./cm. Yield K= 1 N./cm.

Yield Force= 12,553 N. Dir Vec= .0000 .7071 .7071

Node 22902 X2 K= 164,581 N./cm. Yield K= 1 N./cm.

Yield Force= 641,125 N.

Node 22902 X2 K= 164,581 N./cm. Yield K= 1 N./cm.

Yield Force= 641,125 N. Dir Vec= .0000 -.7071 .7071

 From 22950 To 22951 DX= .000 mm. DY= .000 mm. DZ= 891.631 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22950 Z2 K= 3,162 N./cm. Yield K= 1 N./cm.

Yield Force= 12,317 N.

Node 22950 X2 K= 161,491 N./cm. Yield K= 1 N./cm.

Yield Force= 629,088 N.

Node 22950 Y2 K= 161,491 N./cm. Yield K= 1 N./cm.

Yield Force= 629,088 N.

 From 22951 To 22952 DX= .000 mm. DY= .000 mm. DZ= 315.631 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 22951 Z2 K= 3,162 N./cm. Yield K= 1 N./cm.

Yield Force= 12,317 N.

Node 22951 X2 K= 161,491 N./cm. Yield K= 1 N./cm.

Yield Force= 629,088 N.

Node 22951 Y2 K= 161,491 N./cm. Yield K= 1 N./cm.

Yield Force= 629,088 N.

 From 22952 To 23000 DX= 446.369 mm. DY= .000 mm. DZ= 446.369 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 22952 X2 K= 3,222 N./cm. Yield K= 1 N./cm.

Yield Force= 12,553 N. Dir Vec= .7071 .0000 .7071

Node 22952 Y2 K= 164,581 N./cm. Yield K= 1 N./cm.

Yield Force= 641,125 N.

Node 22952 X2 K= 164,581 N./cm. Yield K= 1 N./cm.

Yield Force= 641,125 N. Dir Vec= -.7071 .0000 .7071

 From 23000 To 23001 DX= 1,886.198 mm. DY= .000 mm. DZ= .000 mm.

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INPUT LISTING

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 23000 X2 K= 5,839 N./cm. Yield K= 1 N./cm.
 Yield Force= 22,748 N.
 Node 23000 Y2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.
 Node 23000 Z2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.

 From 23001 To 23002 DX= 1,570.568 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 23001 X2 K= 8,457 N./cm. Yield K= 1 N./cm.
 Yield Force= 32,942 N.
 Node 23001 Y2 K= 431,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,682,499 N.
 Node 23001 Z2 K= 431,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,682,499 N.

 From 23002 To 23003 DX= 1,281.682 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 23002 X2 K= 7,679 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,913 N.
 Node 23002 Y2 K= 392,186 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,527,762 N.
 Node 23002 Z2 K= 392,186 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,527,762 N.

 From 23003 To 23020 DX= 1,281.682 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 23003 X2 K= 6,901 N./cm. Yield K= 1 N./cm.
 Yield Force= 26,883 N.
 Node 23003 Y2 K= 352,464 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,373,025 N.
 Node 23003 Z2 K= 352,464 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,373,025 N.

 From 23020 To 23021 DX= 1,281.682 mm. DY= .000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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INPUT LISTING

Node 23020 X2 K= 6,901 N./cm. Yield K= 1 N./cm.
 Yield Force= 26,883 N.
 Node 23020 Y2 K= 352,464 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,373,025 N.
 Node 23020 Z2 K= 352,464 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,373,025 N.

 From 23021 To 23022 DX= 1,281.682 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 23021 X2 K= 6,901 N./cm. Yield K= 1 N./cm.
 Yield Force= 26,883 N.
 Node 23021 Y2 K= 352,464 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,373,025 N.
 Node 23021 Z2 K= 352,464 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,373,025 N.

 From 23022 To 23023 DX= 1,570.568 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 23022 X2 K= 7,679 N./cm. Yield K= 1 N./cm.
 Yield Force= 29,913 N.
 Node 23022 Y2 K= 392,186 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,527,762 N.
 Node 23022 Z2 K= 392,186 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,527,762 N.

 From 23023 To 23024 DX= 1,570.568 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 23023 X2 K= 8,457 N./cm. Yield K= 1 N./cm.
 Yield Force= 32,942 N.
 Node 23023 Y2 K= 431,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,682,499 N.
 Node 23023 Z2 K= 431,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,682,499 N.

 From 23024 To 23025 DX= 315.631 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 23024 X2 K= 5,839 N./cm. Yield K= 1 N./cm.
 Yield Force= 22,748 N.
 Node 23024 Y2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.
 Node 23024 Z2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.

 From 23025 To 23050 DX= 446.369 mm. DY= 446.369 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 23025 X2 K= 3,222 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,553 N. Dir Vec= .7071 .7071 .0000
 Node 23025 X2 K= 164,581 N./cm. Yield K= 1 N./cm.
 Yield Force= 641,125 N. Dir Vec= .7071 -.7071 .0000
 Node 23025 Z2 K= 164,581 N./cm. Yield K= 1 N./cm.
 Yield Force= 641,125 N.

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 From 23050 To 23051 DX= .000 mm. DY= 1,886.198 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 23050 Y2 K= 5,839 N./cm. Yield K= 1 N./cm.
 Yield Force= 22,748 N.
 Node 23050 X2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.
 Node 23050 Z2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.

 From 23051 To 23052 DX= .000 mm. DY= 3,034.865 mm. DZ= .000 mm.

RESTRAINTS

Node 23051 Y2 K= 12,399 N./cm. Yield K= 1 N./cm.
 Yield Force= 48,299 N.
 Node 23051 X2 K= 633,250 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,466,826 N.
 Node 23051 Z2 K= 633,250 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,466,826 N.

 From 23052 To 23053 DX= .000 mm. DY= 1,570.568 mm. DZ= .000 mm.

RESTRAINTS

Node 23052 Y2 K= 12,399 N./cm. Yield K= 1 N./cm.
 Yield Force= 48,299 N.
 Node 23052 X2 K= 633,250 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,466,826 N.
 Node 23052 Z2 K= 633,250 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,466,826 N.

 From 23053 To 23054 DX= .000 mm. DY= 315.631 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 23053 Y2 K= 5,839 N./cm. Yield K= 1 N./cm.
 Yield Force= 22,748 N.
 Node 23053 X2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.
 Node 23053 Z2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.

 From 23054 To 23100 DX= .000 mm. DY= 446.369 mm. DZ= 446.369 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 23054 X2 K= 3,222 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,553 N. Dir Vec= .0000 .7071 .7071
 Node 23054 X2 K= 164,581 N./cm. Yield K= 1 N./cm.

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Yield Force= 641,125 N.
 Node 23054 X2 K= 164,581 N./cm. Yield K= 1 N./cm.
 Yield Force= 641,125 N. Dir Vec= .0000 -.7071 .7071

 From 23100 To 23149 DX= .000 mm. DY= .000 mm. DZ= 331.412 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 23100 Z2 K= 1,660 N./cm. Yield K= 1 N./cm. Yield Force= 6,465 N.
 Node 23100 X2 K= 84,766 N./cm. Yield K= 1 N./cm.
 Yield Force= 330,204 N.
 Node 23100 Y2 K= 84,766 N./cm. Yield K= 1 N./cm.
 Yield Force= 330,204 N.

 From 23149 To 23150 DX= .000 mm. DY= .000 mm. DZ= 2.219 mm.

RESTRAINTS

Node 23150 Z2 K= 48 N./cm. Yield K= 1 N./cm. Yield Force= 189 N.
 Node 23150 X2 K= 2,475 N./cm. Yield K= 1 N./cm. Yield Force= 9,641 N.
 Node 23150 Y2 K= 2,475 N./cm. Yield K= 1 N./cm. Yield Force= 9,641 N.

 From 23150 To 23200 DZ= 2,200.000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 23200 Guide Mu = .35

 From 23200 To 23250 DZ= 2,200.000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 23250 Guide Mu = .35

 From 23250 To 23300 DZ= 2,200.000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 23300 Guide Mu = .35

 From 23300 To 23350 DZ= 2,200.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

 From 22050 To 22100 DX= .000 mm. DY= 1,401.000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22050 Y2 K= 3,772 N./cm. Yield K= 1 N./cm.
 Yield Force= 14,693 N.
 Node 22050 X2 K= 192,638 N./cm. Yield K= 1 N./cm.
 Yield Force= 750,423 N.
 Node 22050 Z2 K= 192,638 N./cm. Yield K= 1 N./cm.
 Yield Force= 750,423 N.

 From 22100 To 22200 DX= .000 mm. DY= 1,194.000 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 22100 Y2 K= 6,986 N./cm. Yield K= 1 N./cm.
 Yield Force= 27,215 N.
 Node 22100 X2 K= 356,814 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,389,970 N.
 Node 22100 Z2 K= 356,814 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,389,970 N.

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INPUT LISTING

From 22200 To 22250 DX= .000 mm. DY= 8,197.700 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22200 Y2 K= 25,284 N./cm. Yield K= 1 N./cm.
 Yield Force= 98,494 N.
 Node 22200 X2 K= 1,291,365 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,030,513 N.
 Node 22200 Z2 K= 1,291,365 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,030,513 N.

 From 22250 To 22270 DX= .000 mm. DY= 8,197.700 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22250 Y2 K= 44,139 N./cm. Yield K= 1 N./cm.
 Yield Force= 171,945 N.
 Node 22250 X2 K= 2,254,379 N./cm. Yield K= 1 N./cm.
 Yield Force= 8,781,931 N.
 Node 22250 Z2 K= 2,254,379 N./cm. Yield K= 1 N./cm.
 Yield Force= 8,781,931 N.

 From 22270 To 22271 DX= .000 mm. DY= 3,170.366 mm. DZ= .000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22270 Y2 K= 30,605 N./cm. Yield K= 1 N./cm.
 Yield Force= 119,221 N.
 Node 22270 X2 K= 1,563,117 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,089,121 N.
 Node 22270 Z2 K= 1,563,117 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,089,121 N.

 From 22271 To 22272 DX= .000 mm. DY= 1,570.568 mm. DZ= .000 mm.

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RESTRAINTS

Node 22271 Y2 K= 12,763 N./cm. Yield K= 1 N./cm.
 Yield Force= 49,720 N.
 Node 22271 X2 K= 651,882 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,539,405 N.
 Node 22271 Z2 K= 651,882 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,539,405 N.

 From 22272 To 22273 DX= .000 mm. DY= 1,570.568 mm. DZ= .000 mm.

RESTRAINTS

Node 22272 Y2 K= 8,457 N./cm. Yield K= 1 N./cm.
 Yield Force= 32,942 N.
 Node 22272 X2 K= 431,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,682,499 N.
 Node 22272 Z2 K= 431,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,682,499 N.

 From 22273 To 22274 DX= .000 mm. DY= 1,570.568 mm. DZ= .000 mm.

RESTRAINTS

Node 22273 Y2 K= 8,457 N./cm. Yield K= 1 N./cm.
 Yield Force= 32,942 N.
 Node 22273 X2 K= 431,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,682,499 N.
 Node 22273 Z2 K= 431,908 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,682,499 N.

 From 22274 To 22275 DX= .000 mm. DY= 151.571 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 22.500

RESTRAINTS

Node 22274 Y2 K= 5,034 N./cm. Yield K= 1 N./cm.
 Yield Force= 19,609 N.
 Node 22274 X2 K= 257,099 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,001,531 N.
 Node 22274 Z2 K= 257,099 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,001,531 N.

 From 22275 To 22300 DX= .000 mm. DY= 280.067 mm. DZ= -116.008 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 22.500

RESTRAINTS

Node 22275 X2 K= 1,611 N./cm. Yield K= 1 N./cm. Yield Force= 6,276 N.
 Dir Vec= .0000 .9239 -.3827
 Node 22275 X2 K= 82,290 N./cm. Yield K= 1 N./cm.
 Yield Force= 320,563 N.
 Node 22275 X2 K= 82,290 N./cm. Yield K= 1 N./cm.
 Yield Force= 320,563 N. Dir Vec= .0000 .3827 .9239

 From 22300 To 22301 DX= .000 mm. DY= 1,315.808 mm. DZ= -1,315.808 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22300 X2 K= 5,407 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,064 N. Dir Vec= .0000 .7071 -.7071
 Node 22300 X2 K= 276,170 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,075,820 N.
 Node 22300 X2 K= 276,170 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,075,820 N. Dir Vec= .0000 .7071 .7071

 From 22301 To 22302 DX= .000 mm. DY= 107.177 mm. DZ= -107.177 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 22.500

RESTRAINTS

Node 22301 X2 K= 5,407 N./cm. Yield K= 1 N./cm.
 Yield Force= 21,064 N. Dir Vec= .0000 .7071 -.7071
 Node 22301 X2 K= 276,170 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,075,820 N.
 Node 22301 X2 K= 276,170 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,075,820 N. Dir Vec= .0000 .7071 .7071

 From 22302 To 22350 DX= .000 mm. DY= 280.067 mm. DZ= -116.008 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 22.500

RESTRAINTS

Node 22302 X2 K= 1,611 N./cm. Yield K= 1 N./cm. Yield Force= 6,276 N.
 Dir Vec= .0000 .9239 -.3827
 Node 22302 X2 K= 82,290 N./cm. Yield K= 1 N./cm.
 Yield Force= 320,563 N.
 Node 22302 X2 K= 82,290 N./cm. Yield K= 1 N./cm.
 Yield Force= 320,563 N. Dir Vec= .0000 .3827 .9239

 From 22350 To 22351 DX= .000 mm. DY= 1,722.139 mm. DZ= .000 mm.

Seam= NO WI Factor= 1.000

GENERAL

Phyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22350 Y2 K= 5,034 N./cm. Yield K= 1 N./cm.
 Yield Force= 19,609 N.
 Node 22350 X2 K= 257,099 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,001,531 N.
 Node 22350 Z2 K= 257,099 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,001,531 N.

 From 22351 To 22352 DX= .000 mm. DY= 1,781.234 mm. DZ= .000 mm.

RESTRAINTS

Node 22351 Y2 K= 9,024 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,152 N.

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INPUT LISTING

Node 22351 X2 K= 460,875 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,795,338 N.
 Node 22351 Z2 K= 460,875 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,795,338 N.

 From 22352 To 22353 DX= .000 mm. DY= 1,570.568 mm. DZ= .000 mm.

RESTRAINTS

Node 22352 Y2 K= 9,024 N./cm. Yield K= 1 N./cm.
 Yield Force= 35,152 N.
 Node 22352 X2 K= 460,875 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,795,338 N.
 Node 22352 Z2 K= 460,875 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,795,338 N.

 From 22353 To 22354 DX= .000 mm. DY= 315.631 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 22353 Y2 K= 5,839 N./cm. Yield K= 1 N./cm.
 Yield Force= 22,748 N.
 Node 22353 X2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.
 Node 22353 Z2 K= 298,245 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,161,812 N.

 From 22354 To 22400 DX= .000 mm. DY= 446.369 mm. DZ= 446.369 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 22354 X2 K= 3,222 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,553 N. Dir Vec= .0000 .7071 .7071
 Node 22354 X2 K= 164,581 N./cm. Yield K= 1 N./cm.
 Yield Force= 641,125 N.
 Node 22354 X2 K= 164,581 N./cm. Yield K= 1 N./cm.
 Yield Force= 641,125 N. Dir Vec= .0000 -.7071 .7071

 From 22400 To 20999 DX= .000 mm. DY= .000 mm. DZ= 604.315 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 22400 Z2 K= 4,015 N./cm. Yield K= 1 N./cm.
 Yield Force= 15,642 N.
 Node 22400 X2 K= 205,079 N./cm. Yield K= 1 N./cm.
 Yield Force= 798,884 N.
 Node 22400 Y2 K= 205,079 N./cm. Yield K= 1 N./cm.
 Yield Force= 798,884 N.

 From 20999 To 21000 DX= .000 mm. DY= .000 mm. DZ= 604.315 mm.

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INPUT LISTING

RESTRAINTS

Node 21000 Z2 K= 2,404 N./cm. Yield K= 1 N./cm. Yield Force= 9,365 N.
 Node 21000 X2 K= 122,788 N./cm. Yield K= 1 N./cm.
 Yield Force= 478,321 N.
 Node 21000 Y2 K= 122,788 N./cm. Yield K= 1 N./cm.
 Yield Force= 478,321 N.

 From 24500 To 24530 DZ= 660.000 mm.

PIPE

Dia= 219.000 mm. Wall= 7.000 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (331)API-5L X52
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.
 RIGID Weight= 3,800.00 N.

 From 24530 To 24550 DZ= 635.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

BEND at "TO" end

Radius= 304.800 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 24549
 Angle/Node @2= .00 24548

 From 24550 To 24570 DX= 1,508.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

SIF's & TEE's

Node 24570 Welding Tee Use Notes 6,9,10 = ---

 From 24570 To 24670 DZ= -378.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

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INPUT LISTING

From 24570 To 24600 DZ= 378.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

 From 24600 To 24630 DZ= 133.400 mm.

PIPE

Dia= 219.000 mm. Wall= 7.000 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (331)API-5L X52
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.

RIGID Weight= 544.00 N.

FLANGES

Location= To Method= Peq G/C= 255.850 mm.

 From 24630 To 24650 DZ= 87.900 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

RIGID Weight= 590.00 N.

 From 24690 To 24700 DZ= -660.000 mm.

PIPE

Dia= 219.000 mm. Wall= 7.000 mm. Seam= NO WI Factor= 1.000

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=12,470.0000 KPa Mat= (331)API-5L X52
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0078334 kg./cu.cm.
 Fluid Den= .0000008 kg./cu.cm. Insul Thk= .000 mm.
 Insul Den= .0000000 kg./cu.cm.

RIGID Weight= 3,610.00 N.

FLANGES

Location= From Method= Peq G/C= 255.850 mm.

 From 24700 To 24720 DZ= -670.000 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

 From 24720 To 24749 DX= .000 mm. DY= .000 mm. DZ= -1,400.000 mm.
 Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 24720 Z2 K= 3,613 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,507 N.
 Node 24720 X2 K= 342,158 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,184,551 N.
 Node 24720 Y2 K= 342,158 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,184,551 N.

 From 24749 To 24750 DX= .000 mm. DY= .000 mm. DZ= -1,400.000 mm.

RESTRAINTS

Node 24750 Z2 K= 3,613 N./cm. Yield K= 1 N./cm.
 Yield Force= 12,507 N.
 Node 24750 X2 K= 342,158 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,184,551 N.
 Node 24750 Y2 K= 342,158 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,184,551 N.

 From 24670 To 24690 DZ= -133.400 mm.

Seam= NO WI Factor= 1.000

GENERAL

PHyd=12,470.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Den= .0000000 kg./cu.cm.

RIGID Weight= 544.00 N.

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MATERIAL Changes:

10	50	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
50	21500	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
21500	21550	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
21550	21600	Mat= (322)API-5L X60 E= 205,463,760 KPa

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

		v = .300 Density= .0078 kg./cu.cm.
50	100	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
100	150	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
150	200	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
200	250	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
250	300	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
300	350	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
350	400	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
400	401	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
450	500	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
500	549	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
550	570	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
570	19999	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20000	20050	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
20050	20100	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
20100	20150	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
20150	20200	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
20200	20201	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20250	20251	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20270	20300	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20300	20650	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20650	20700	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20700	20701	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20750	20751	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20800	20900	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20900	20950	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20950	21000	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
21000	20449	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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INPUT LISTING

20800	23999	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
24000	24049	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
24050	24100	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24100	24150	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24150	24170	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24170	24200	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24200	24300	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24300	24320	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24320	24350	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24350	24370	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24370	24371	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
24400	24419	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
24420	24536	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
24536	24652	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
24652	24768	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
24768	24769	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
25000	25001	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
25020	25050	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
25050	25051	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
25070	25071	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
25080	25100	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
25100	25120	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
25120	25150	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
25150	25170	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
25170	25200	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
25200	25220	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
25220	25221	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
25250	25251	Mat= (331)API-5L X52 E= 205,463,760 KPa

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Impianto di Melendugno
 Allegato 1 - Area 1
 INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
25270	25300	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
25300	25350	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
25350	25400	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
25400	25449	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
24420	24421	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
24450	24451	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
24470	24500	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
24200	24220	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
24220	24250	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
24250	24270	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
24000	1999	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20300	20350	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20350	20400	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20400	20450	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20450	20499	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
550	600	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
600	650	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
650	699	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
700	1499	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1500	1550	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1550	1600	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1600	1650	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1650	1700	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1700	1701	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1750	1799	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1800	1801	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
14100	14150	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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INPUT LISTING

14150	14200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
14200	14250	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
14250	14300	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
14300	14350	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
14350	14400	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
14400	14420	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
14420	13549	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1800	1850	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1850	1900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1900	1950	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1950	2000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2000	2050	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2050	2100	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2100	2149	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
700	750	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
750	751	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
800	850	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
850	900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
900	950	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
950	1000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1000	1050	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1050	1099	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2150	2200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2200	2249	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2250	2251	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3500	3501	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3550	3551	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3600	3601	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Impianto di Melendugno
 Allegato 1 - Area 1
 INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
3650	3651	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3700	3701	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3750	3799	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3800	17699	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
17700	18100	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
18100	18150	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
18150	18199	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
17700	17749	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
17750	18399	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
17750	17799	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
17800	18699	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
17800	17849	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3800	3850	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3850	3900	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3900	3949	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3950	17900	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
17900	17950	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
17950	18000	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
18000	18049	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3950	4000	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4000	4001	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4050	4051	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4100	4150	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4150	4151	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4200	4249	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4250	4699	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4700	4750	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.

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4750	4800	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
4250	4300	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4300	4349	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4350	4999	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5000	5050	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5050	5100	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5100	5150	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5150	5200	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2250	2255	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2255	2260	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2260	2280	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2280	2300	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2300	2350	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2350	2400	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2400	2450	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2450	2500	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2500	2550	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2550	2560	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2560	2580	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2580	2590	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2590	2600	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2600	2650	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2650	2651	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2660	2661	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2700	2725	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2725	2750	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2750	2800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2800	2850	Mat= (306)API-5L X65 E= 205,463,760 KPa

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 INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
2850	2899	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4350	4399	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4400	6599	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4400	4449	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4450	8199	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4450	4499	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4500	9799	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4500	4549	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4300	4849	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4850	4900	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4900	4950	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5200	5250	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5250	5300	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5300	5310	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5310	5320	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5320	5330	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5330	5350	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5350	5400	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5400	5450	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5450	5500	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5500	5550	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5550	5600	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5600	5650	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5650	5660	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5660	5670	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5670	5680	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5680	5685	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.

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INPUT LISTING

5685	5690	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5690	5695	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5695	5700	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5700	5750	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5750	5800	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5800	5850	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5850	5900	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5900	5950	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5950	6000	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6000	6005	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6010	6030	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6030	6050	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6050	6100	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6100	6112	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6150	6200	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6200	6250	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6250	6300	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6300	6350	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6350	6400	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6400	6449	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6600	6650	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6650	6700	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6700	6750	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6750	6800	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6800	6850	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6850	6900	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6900	6910	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6910	6920	Mat= (322)API-5L X60 E= 205,463,760 KPa

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		v = .300 Density= .0078 kg./cu.cm.
6920	6930	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
6930	6950	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
6950	7000	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7000	7050	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7050	7100	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7100	7150	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7150	7200	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7200	7250	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7250	7260	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7260	7270	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7270	7280	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7280	7285	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7285	7290	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7290	7295	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7295	7300	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7300	7350	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7350	7400	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7400	7450	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7450	7500	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7500	7550	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7550	7600	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7600	7605	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7610	7620	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7620	7650	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7650	7700	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7700	7712	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7750	7800	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.

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INPUT LISTING

7800	7850	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7850	7900	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7900	7950	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7950	8000	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8000	8049	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8200	8250	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8250	8300	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8300	8350	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8350	8400	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8400	8450	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8450	8500	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8500	8510	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8510	8520	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8520	8530	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8530	8550	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8550	8600	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8600	8650	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8650	8700	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8700	8750	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8750	8800	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8800	8850	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8850	8860	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8860	8870	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8870	8880	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8880	8885	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8885	8890	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8890	8895	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8895	8900	Mat= (322)API-5L X60 E= 205,463,760 KPa

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		v = .300 Density= .0078 kg./cu.cm.
8900	8950	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
8950	9000	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9000	9050	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9050	9100	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9100	9150	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9150	9200	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9200	9205	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9210	9230	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9230	9250	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9250	9300	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9300	9312	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9350	9400	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9400	9450	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9450	9500	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9500	9550	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9550	9600	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9600	9649	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
9800	9850	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9850	9900	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9900	9950	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
9950	10000	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
10000	10050	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
10050	10100	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
10100	10110	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
10110	10120	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
10120	10130	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
10130	10150	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.

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INPUT LISTING

10150	10200	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10200	10250	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10250	10300	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10300	10350	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10350	10400	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10400	10450	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10450	10460	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10460	10470	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10470	10480	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10480	10485	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10485	10490	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10490	10495	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10495	10500	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10500	10550	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10550	10600	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10600	10650	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10650	10700	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10700	10750	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10750	10800	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10800	10805	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10810	10820	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10820	10850	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10850	10900	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10900	10912	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
10950	11000	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
11000	11050	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
11050	11100	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
11100	11150	Mat= (322)API-5L X60 E= 205,463,760 KPa

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		v = .300 Density= .0078 kg./cu.cm.
11150	11200	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
11200	11249	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
11250	9651	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
11250	17399	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
11800	11900	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
11900	12070	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
12070	12100	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
12100	12500	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
12500	12520	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
12520	12900	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
12900	12920	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
12920	12921	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
13300	13400	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
13400	13401	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
13450	13499	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
13500	14700	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
14700	14720	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
14720	14721	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
14750	14770	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
14770	14800	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
14800	15500	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
15500	15550	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
15550	16300	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
16300	16350	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
16350	17100	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
17100	17150	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
17150	17400	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

17400	17419	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
17150	17169	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
14800	14850	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
14850	14900	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
14900	14901	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
14950	14999	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
13500	13520	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
13520	13550	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
13550	13600	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
13600	13650	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
13650	13699	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
12100	12150	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
12150	12200	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
12200	12201	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
12250	12299	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
12300	12350	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
12350	12400	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
11900	11949	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
9650	8050	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8050	6450	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6450	11300	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
11300	11349	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
11350	11370	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
11370	11599	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
11600	11650	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
11650	11700	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
11350	11399	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
11300	11449	Mat= (322)API-5L X60 E= 205,463,760 KPa

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 INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
11450	11500	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
11500	11550	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
12400	12450	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
12520	12570	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
12570	12620	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
12620	12621	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
12670	12719	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
12720	12770	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
12770	12820	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
12820	12870	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
12920	12970	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
12970	13020	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
13020	13021	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
13070	13119	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
13120	13170	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
13170	13220	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
13220	13270	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
13700	13750	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
13750	13800	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
13800	13850	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
13850	13851	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
13900	2599	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
15000	15050	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
15050	15100	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
15100	15150	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
15550	15600	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
15600	15650	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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15650	15651	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
15700	15749	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
15750	15800	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
15800	15850	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
15850	15900	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
16350	16400	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
16400	16450	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
16450	16451	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
16500	16549	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
16550	16600	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
16600	16650	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
16650	16700	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
18200	18250	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18250	18300	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18300	18350	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18350	17899	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18400	18450	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18450	18500	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18500	18550	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18550	18600	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18600	18650	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18650	17949	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18700	18750	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18750	18800	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18800	18850	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18850	18900	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18900	18950	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
18950	17999	Mat= (322)API-5L X60 E= 205,463,760 KPa

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 INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
20500	20550	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
20550	24750	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
24750	1849	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
21600	21650	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
21650	21700	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
21700	21750	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
21750	21800	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
21800	21850	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
21850	21900	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
21900	21950	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
21950	22000	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
22000	22050	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
22050	22700	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
22700	22750	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
22750	22751	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
22800	22850	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
22850	22900	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
22900	22901	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
22950	22951	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
23000	23001	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
23020	23021	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
23050	23051	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
23100	23149	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
23150	23200	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
23200	23250	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
23250	23300	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
23300	23350	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.

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INPUT LISTING

22050	22100	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
22100	22200	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
22200	22250	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
22250	22270	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
22270	22271	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
22300	22301	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
22350	22351	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
22400	20999	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
24500	24530	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24530	24550	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24550	24570	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24570	24670	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24570	24600	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24600	24630	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24630	24650	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24690	24700	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24700	24720	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
24720	24749	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
24670	24690	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.

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ALLOWABLE STRESS Changes

10	50	B31.8 (2014) Restrained = ON Sh1= 448,159 KPa Sh2= 448,159 KPa Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa
50	100	B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa
550	570	B31.8 (2014) Restrained = ---

Impianto di Melendugno
Allegato 1 - Area 1
INPUT LISTING

		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
570	19999	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
24000	24049	B31.8 (2014)	Restrained = ---
		Sh1= 358,527 KPa	Sh2= 358,527 KPa
		Sh3= 358,527 KPa	Sh4= 358,527 KPa
		Sh5= 358,527 KPa	Sh6= 358,527 KPa
		Sh7= 358,527 KPa	Sh8= 358,527 KPa
		Sh9= 358,527 KPa	Sy= 358,527 KPa
24000	1999	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
17700	18100	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
17750	18399	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
17750	17799	B31.8 (2014)	Restrained = ---
		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
17800	17849	B31.8 (2014)	Restrained = ---
		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
4250	4699	B31.8 (2014)	Restrained = ON
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
2250	2255	B31.8 (2014)	Restrained = ---
		Sh1= 448,159 KPa	Sh2= 448,159 KPa

Impianto di Melendugno
 Allegato 1 - Area 1
 INPUT LISTING

		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
4300	4849	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
5800	5850	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
7500	7550	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
7550	7600	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
7900	7950	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
8400	8450	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
17150	17169	B31.8 (2014)	Restrained = ---
		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
14800	14850	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
11350	11370	B31.8 (2014)	Restrained = ---
		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa

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Impianto di Melendugno
 Allegato 1 - Area 1
 INPUT LISTING

		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
11370	11599	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
11500	11550	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa

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BEND ELEMENTS

300	350	Radius= 9,954.000 mm. (user)
		Bend Angle= 29.996 Angle/Node @1= 15.00
		349 Angle/Node @2= .00 348
401	402	Radius= 9,954.000 mm. (user)
		Bend Angle= 15.002
402	450	Radius= 9,954.000 mm. (user)
		Bend Angle= 15.002
20000	20050	Radius= 762.000 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		20049 Angle/Node @2= .00 20048
20100	20150	Radius= 762.000 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		20149 Angle/Node @2= .00 20148
20201	20202	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
20202	20250	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
20702	20703	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
20703	20750	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
24200	24300	Radius= 304.800 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		24299 Angle/Node @2= .00 24298
24372	24373	Radius= 304.800 mm. (LONG)
		Bend Angle= 45.000
24373	24400	Radius= 304.800 mm. (LONG)
		Bend Angle= 45.000
24774	24775	Radius= 152.400 mm. (LONG)
		Bend Angle= 45.000
24775	25000	Radius= 152.400 mm. (LONG)
		Bend Angle= 45.000
25056	25057	Radius= 152.400 mm. (LONG)
		Bend Angle= 45.000
25057	25070	Radius= 152.400 mm. (LONG)

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Impianto di Melendugno
 Allegato 1 - Area 1
 INPUT LISTING

		Bend Angle= 45.000
25080	25100	Radius= 152.400 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		25099 Angle/Node @2= .00 25098
25170	25200	Radius= 152.400 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		25199 Angle/Node @2= .00 25198
25224	25225	Radius= 152.400 mm. (LONG)
		Bend Angle= 45.000
25225	25250	Radius= 152.400 mm. (LONG)
		Bend Angle= 45.000
24425	24426	Radius= 304.800 mm. (LONG)
		Bend Angle= 45.000
24426	24450	Radius= 304.800 mm. (LONG)
		Bend Angle= 45.000
1500	1550	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		1549 Angle/Node @2= .00 1548
1600	1650	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		1649 Angle/Node @2= .00 1648
1701	1702	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 45.000
1702	1750	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 45.000
1801	1802	Radius= 1,374.600 mm. (LONG)
		Bend Angle= 45.000
1802	14100	Radius= 1,374.600 mm. (LONG)
		Bend Angle= 45.000
751	752	Radius= 9,954.000 mm. (user)
		Bend Angle= 22.500
752	800	Radius= 9,954.000 mm. (user)
		Bend Angle= 22.500
2251	2252	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 22.500
2252	3500	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 22.500
3501	3502	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 22.500
3502	3550	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 22.500
3601	3602	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 45.000
3602	3650	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 45.000
3650	3651	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 22.500
3651	3700	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 22.500
4001	4002	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 45.000
4002	4050	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 45.000
4152	4153	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 45.000

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

4153	4200	Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000
4700	4750	Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
	4749	Angle/Node @2= .00 4748
5000	5050	Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
	5049	Angle/Node @2= .00 5048 Seam= NO
2651	2652	Radius= 2,133.000 mm. (LONG) Bend Angle= 7.503
2652	2660	Radius= 2,133.000 mm. (LONG) Bend Angle= 7.503
2661	2662	Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000
2662	2700	Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000
4850	4900	Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
	4899	Angle/Node @2= .00 4898
6300	6350	Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
	6349	Angle/Node @2= .00 6348 Seam= NO
6600	6650	Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
	6649	Angle/Node @2= .00 6648 Seam= NO
7900	7950	Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
	7949	Angle/Node @2= .00 7948 Seam= NO
8200	8250	Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
	8249	Angle/Node @2= .00 8248 Seam= NO
9500	9550	Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
	9549	Angle/Node @2= .00 9548 Seam= NO
9800	9850	Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
	9849	Angle/Node @2= .00 9848 Seam= NO
11100	11150	Radius= 762.000 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00
	11149	Angle/Node @2= .00 11148 Seam= NO
12921	12922	Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000
12922	13300	Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000
13401	13402	Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000
13402	13450	Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000
14722	14723	Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000
14723	14750	Radius= 2,133.000 mm. (LONG) Bend Angle= 45.000
14901	14902	Radius= 990.600 mm. (LONG) Bend Angle= 45.000
14902	14950	Radius= 990.600 mm. (LONG)

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Impianto di Melendugno
 Allegato 1 - Area 1
 INPUT LISTING

		Bend Angle= 45.000
12201	12202	Radius= 990.600 mm. (LONG)
		Bend Angle= 45.000
12202	12250	Radius= 990.600 mm. (LONG)
		Bend Angle= 45.000
12300	12350	Radius= 990.600 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		12349 Angle/Node @2= .00 12348
11600	11650	Radius= 762.000 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		11649 Angle/Node @2= .00 11648 Seam= NO
11450	11500	Radius= 762.000 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		11899 Angle/Node @2= .00 11898
12621	12622	Radius= 990.600 mm. (LONG)
		Bend Angle= 45.000
12622	12670	Radius= 990.600 mm. (LONG)
		Bend Angle= 45.000
12720	12770	Radius= 990.600 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		12769 Angle/Node @2= .00 12768
13021	13022	Radius= 990.600 mm. (LONG)
		Bend Angle= 45.000
13022	13070	Radius= 990.600 mm. (LONG)
		Bend Angle= 45.000
13120	13170	Radius= 990.600 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		13169 Angle/Node @2= .00 13168
13851	13852	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 45.000
13852	13900	Radius= 2,133.000 mm. (LONG)
		Bend Angle= 45.000
15000	15050	Radius= 990.600 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		15049 Angle/Node @2= .00 15048
15651	15652	Radius= 990.600 mm. (LONG)
		Bend Angle= 45.000
15652	15700	Radius= 990.600 mm. (LONG)
		Bend Angle= 45.000
15750	15800	Radius= 990.600 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		15799 Angle/Node @2= .00 15798
16451	16452	Radius= 990.600 mm. (LONG)
		Bend Angle= 45.000
16452	16500	Radius= 990.600 mm. (LONG)
		Bend Angle= 45.000
16550	16600	Radius= 990.600 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		16599 Angle/Node @2= .00 16598
21650	21700	Radius= 762.000 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		21699 Angle/Node @2= .00 21698
21750	21800	Radius= 762.000 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		21799 Angle/Node @2= .00 21798

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

22751	22752	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
22752	22800	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
22901	22902	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
22902	22950	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
22951	22952	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
22952	23000	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
23024	23025	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
23025	23050	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
23053	23054	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
23054	23100	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
22274	22275	Radius= 762.000 mm. (LONG)
		Bend Angle= 22.500
22275	22300	Radius= 762.000 mm. (LONG)
		Bend Angle= 22.500
22301	22302	Radius= 762.000 mm. (LONG)
		Bend Angle= 22.500
22302	22350	Radius= 762.000 mm. (LONG)
		Bend Angle= 22.500
22353	22354	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
22354	22400	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
24530	24550	Radius= 304.800 mm. (LONG)
		Bend Angle= 90.000 Angle/Node @1= 45.00
		24549 Angle/Node @2= .00 24548

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RIGIDS

21500	21550	RIGID Weight= 2,676.00 N.
21550	21600	RIGID Weight=26,300.00 N.
20650	20700	RIGID Weight= .01 N.
20900	20950	RIGID Weight= .01 N.
24100	24150	RIGID Weight= 3,610.00 N.
24150	24170	RIGID Weight= 544.00 N.
24320	24350	RIGID Weight= 3,800.00 N.
25120	25150	RIGID Weight= 1,050.00 N.
25150	25170	RIGID Weight= 191.00 N.
25270	25300	RIGID Weight= .01 N.
24220	24250	RIGID Weight= 544.00 N.
24250	24270	RIGID Weight= 590.00 N.
20350	20400	RIGID Weight= .01 N.
600	650	RIGID Weight= .01 N.
14150	14200	RIGID Weight= .01 N.

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Impianto di Melendugno
Allegato 1 - Area 1

INPUT LISTING

14300	14350	RIGID Weight= .01 N.
1900	1950	RIGID Weight= .01 N.
2100	2149	RIGID Weight= .01 N.
18100	18150	RIGID Weight= .01 N.
3850	3900	RIGID Weight= .01 N.
5100	5150	RIGID Weight= 2,676.00 N.
5150	5200	RIGID Weight=26,300.00 N.
2300	2350	RIGID Weight= .01 N.
2450	2500	RIGID Weight= .01 N.
2899	2900	RIGID Weight= .01 N.
5200	5250	RIGID Weight= 2,676.00 N.
5310	5320	RIGID Weight= 2,676.00 N.
5320	5330	RIGID Weight= 2,676.00 N.
5350	5400	RIGID Weight= 2,676.00 N.
5400	5450	RIGID Weight= 2,676.00 N.
5750	5800	RIGID Weight= 2,676.00 N.
5800	5850	RIGID Weight= 2,676.00 N.
5900	5950	RIGID Weight= 2,676.00 N.
5950	6000	RIGID Weight= 2,676.00 N.
6010	6030	RIGID Weight= 2,676.00 N.
6030	6050	RIGID Weight= 2,676.00 N.
6112	6125	RIGID Weight= 2,676.00 N.
6125	6137	RIGID Weight= 2,676.00 N.
6150	6200	RIGID Weight= 2,676.00 N.
6200	6250	RIGID Weight=26,300.00 N.
6250	6300	RIGID Weight= 2,676.00 N.
6700	6750	RIGID Weight= 2,676.00 N.
6750	6800	RIGID Weight=26,300.00 N.
6800	6850	RIGID Weight= 2,676.00 N.
6910	6920	RIGID Weight= 2,676.00 N.
6920	6930	RIGID Weight= 2,676.00 N.
6950	7000	RIGID Weight= 2,676.00 N.
7000	7050	RIGID Weight= 2,676.00 N.
7350	7400	RIGID Weight= 2,676.00 N.
7400	7450	RIGID Weight= 2,676.00 N.
7500	7550	RIGID Weight= 2,676.00 N.
7550	7600	RIGID Weight= 2,676.00 N.
7610	7620	RIGID Weight= 2,676.00 N.
7620	7650	RIGID Weight= 2,676.00 N.
7712	7725	RIGID Weight= 2,676.00 N.
7725	7737	RIGID Weight= 2,676.00 N.
7750	7800	RIGID Weight= 2,676.00 N.
7800	7850	RIGID Weight=26,300.00 N.
7850	7900	RIGID Weight= 2,676.00 N.
8300	8350	RIGID Weight= 2,676.00 N.
8350	8400	RIGID Weight=26,300.00 N.
8400	8450	RIGID Weight= 2,676.00 N.
8510	8520	RIGID Weight= 2,676.00 N.
8520	8530	RIGID Weight= 2,676.00 N.
8550	8600	RIGID Weight= 2,676.00 N.
8600	8650	RIGID Weight= 2,676.00 N.
8950	9000	RIGID Weight= 2,676.00 N.
9000	9050	RIGID Weight= 2,676.00 N.
9100	9150	RIGID Weight= 2,676.00 N.
9150	9200	RIGID Weight= 2,676.00 N.

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Impianto di Melendugno
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INPUT LISTING

9210	9230	RIGID Weight= 2,676.00 N.
9230	9250	RIGID Weight= 2,676.00 N.
9312	9325	RIGID Weight= 2,676.00 N.
9325	9337	RIGID Weight= 2,676.00 N.
9350	9400	RIGID Weight= 2,676.00 N.
9400	9450	RIGID Weight=26,300.00 N.
9450	9500	RIGID Weight= 2,676.00 N.
9900	9950	RIGID Weight= 2,676.00 N.
9950	10000	RIGID Weight=26,300.00 N.
10000	10050	RIGID Weight= 2,676.00 N.
10110	10120	RIGID Weight= 2,676.00 N.
10120	10130	RIGID Weight= 2,676.00 N.
10150	10200	RIGID Weight= 2,676.00 N.
10200	10250	RIGID Weight= 2,676.00 N.
10550	10600	RIGID Weight= 2,676.00 N.
10600	10650	RIGID Weight= 2,676.00 N.
10700	10750	RIGID Weight= 2,676.00 N.
10750	10800	RIGID Weight= 2,676.00 N.
10810	10820	RIGID Weight= 2,676.00 N.
10820	10850	RIGID Weight= 2,676.00 N.
10912	10925	RIGID Weight= 2,676.00 N.
10925	10937	RIGID Weight= 2,676.00 N.
10950	11000	RIGID Weight= 2,676.00 N.
11000	11050	RIGID Weight=26,300.00 N.
11050	11100	RIGID Weight= 2,676.00 N.
14700	14720	RIGID Weight= .01 N.
14850	14900	RIGID Weight= .01 N.
13650	13699	RIGID Weight= .01 N.
12150	12200	RIGID Weight= .01 N.
12400	12450	RIGID Weight= 4,790.00 N.
12570	12620	RIGID Weight= .01 N.
12820	12870	RIGID Weight= 4,790.00 N.
12970	13020	RIGID Weight= .01 N.
13220	13270	RIGID Weight= 4,790.00 N.
13800	13850	RIGID Weight= .01 N.
15100	15150	RIGID Weight= 4,790.00 N.
15600	15650	RIGID Weight= .01 N.
15850	15900	RIGID Weight= 4,790.00 N.
16400	16450	RIGID Weight= .01 N.
16650	16700	RIGID Weight= 4,790.00 N.
18200	18250	RIGID Weight= .01 N.
18300	18350	RIGID Weight= .01 N.
18400	18450	RIGID Weight= .01 N.
18500	18550	RIGID Weight= .01 N.
18600	18650	RIGID Weight= .01 N.
18700	18750	RIGID Weight= .01 N.
18800	18850	RIGID Weight= .01 N.
18900	18950	RIGID Weight= .01 N.
20500	20550	RIGID Weight= .01 N.
21600	21650	RIGID Weight= 2,676.00 N.
22700	22750	RIGID Weight= .01 N.
22850	22900	RIGID Weight= .01 N.
22100	22200	RIGID Weight= .01 N.
24500	24530	RIGID Weight= 3,800.00 N.
24600	24630	RIGID Weight= 544.00 N.

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

24630 24650 RIGID Weight= 590.00 N.
 24690 24700 RIGID Weight= 3,610.00 N.
 24670 24690 RIGID Weight= 544.00 N.
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SIF's & TEE's

10	50	Node 50 Weldolet
		Use Notes 6,9,10 = ---
549	550	Node 550 Welding Tee
		Use Notes 6,9,10 = ---
20270	20300	Node 20300 Welding Tee
		Use Notes 6,9,10 = ---
20799	20800	Node 20800 Welding Tee
		Use Notes 6,9,10 = ---
20950	21000	Node 21000 Welding Tee
		Use Notes 6,9,10 = ---
23999	24000	Node 24000 Welding Tee
		Use Notes 6,9,10 = ---
24170	24200	Node 24200 Welding Tee
		Use Notes 6,9,10 = ---
24419	24420	Node 24420 Welding Tee
		Use Notes 6,9,10 = ---
20400	20450	Node 20450 Sweepolet
		Use Notes 6,9,10 = ---
699	700	Node 700 Welding Tee
		Use Notes 6,9,10 = ---
1799	1800	Node 1800 Welding Tee
		Use Notes 6,9,10 = ---
1800	1850	Node 1850 Welding Tee
		Use Notes 6,9,10 = ---
1950	2000	Node 2000 Welding Tee
		Use Notes 6,9,10 = ---
2249	2250	Node 2250 Welding Tee
		Use Notes 6,9,10 = ---
3799	3800	Node 3800 Welding Tee
		Use Notes 6,9,10 = ---
17699	17700	Node 17700 Welding Tee
		Use Notes 6,9,10 = ---
17749	17750	Node 17750 Welding Tee
		Use Notes 6,9,10 = ---
17799	17800	Node 17800 Welding Tee
		Use Notes 6,9,10 = ---
3949	3950	Node 3950 Welding Tee
		Use Notes 6,9,10 = ---
3950	17900	Node 17900 Welding Tee
		Use Notes 6,9,10 = ---
17900	17950	Node 17950 Welding Tee
		Use Notes 6,9,10 = ---
17950	18000	Node 18000 Welding Tee
		Use Notes 6,9,10 = ---
4249	4250	Node 4250 Welding Tee
		Use Notes 6,9,10 = ---
4250	4300	Node 4300 Welding Tee

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Impianto di Melendugno
 Allegato 1 - Area 1
 INPUT LISTING

		Use Notes 6,9,10 = ---
4349	4350	Node 4350 Welding Tee
		Use Notes 6,9,10 = ---
2590	2600	Node 2600 Welding Tee
		Use Notes 6,9,10 = ---
4399	4400	Node 4400 Welding Tee
		Use Notes 6,9,10 = ---
4449	4450	Node 4450 Welding Tee
		Use Notes 6,9,10 = ---
4499	4500	Node 4500 Welding Tee
		Use Notes 6,9,10 = ---
9651	9650	Node 9650 Welding Tee
		Use Notes 6,9,10 = ---
11250	17399	Node 11250 Welding Tee
		Use Notes 6,9,10 = ---
11900	12070	Node 11900 Welding Tee
		Use Notes 6,9,10 = ---
12070	12100	Node 12100 Welding Tee
		Use Notes 6,9,10 = ---
12500	12520	Node 12520 Welding Tee
		Use Notes 6,9,10 = ---
12920	12921	Node 12920 Welding Tee
		Use Notes 6,9,10 = ---
13499	13500	Node 13500 Welding Tee
		Use Notes 6,9,10 = ---
14770	14800	Node 14800 Welding Tee
		Use Notes 6,9,10 = ---
15500	15550	Node 15550 Welding Tee
		Use Notes 6,9,10 = ---
16300	16350	Node 16350 Welding Tee
		Use Notes 6,9,10 = ---
17100	17150	Node 17150 Welding Tee
		Use Notes 6,9,10 = ---
17150	17400	Node 17400 Welding Tee
		Use Notes 6,9,10 = ---
13520	13550	Node 13550 Welding Tee
		Use Notes 6,9,10 = ---
9650	8050	Node 8050 Welding Tee
		Use Notes 6,9,10 = ---
8050	6450	Node 6450 Welding Tee
		Use Notes 6,9,10 = ---
6450	11300	Node 11300 Welding Tee
		Use Notes 6,9,10 = ---
11349	11350	Node 11350 Welding Tee
		Use Notes 6,9,10 = ---
20550	24750	Node 24750 Welding Tee
		Use Notes 6,9,10 = ---
22000	22050	Node 22050 Welding Tee
		Use Notes 6,9,10 = ---
24550	24570	Node 24570 Welding Tee
		Use Notes 6,9,10 = ---

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Impianto di Melendugno
 Allegato 1 - Area 1

INPUT LISTING

REDUCERS

200	250	Diam2= 1,422.000 mm. Wall2= 21.800 mm.
2255	2260	Diam2= 1,071.800 mm. Wall2= 14.200 mm.
2260	2280	Diam2= 916.400 mm. Wall2= 14.200 mm.
2560	2580	Diam2= 1,071.800 mm. Wall2= 14.200 mm.
2580	2590	Diam2= 1,422.000 mm. Wall2= 21.800 mm.
2725	2750	Diam2= 1,222.100 mm. Wall2= 18.900 mm.

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RESTRAINTS

NODE	TYPE	CNODE	GAP	Len		Dir	FORCE	Vectors
				STIF1	STIF2			
100	Z			.35	.000	.000	1.000	
100	Guide			.35	.000	.000	.000	
150	Z			.35	.000	.000	1.000	
150	Guide			.35	.000	.000	.000	
400	X2	16855	1.00	88766.03	.000	.866	-.500	
400	X2	545009	1.00	2870289.50	1.000	.000	.000	
400	X2	545009	1.00	2870289.50	.000	.500	.866	
401	X2	31838	1.00	167675.31	.000	.866	-.500	
401	X2	1029499	1.00	5421856.00	1.000	.000	.000	
401	X2	1029499	1.00	5421856.00	.000	.500	.866	
402	X2	29966	1.00	157818.55	.000	.966	-.259	
402	X2	968980	1.00	5103133.50	1.000	.000	.000	
402	X2	968980	1.00	5103133.50	.000	.259	.966	
450	Y2	18430	1.00	97059.52	.000	-1.000	.000	
450	X2	595930	1.00	3138463.00	1.000	.000	.000	
450	Z2	595930	1.00	3138463.00	.000	.000	1.000	
500	Y2	40739	1.00	214554.45	.000	-1.000	.000	
500	X2	1317329	1.00	6937714.50	1.000	.000	.000	
500	Z2	1317329	1.00	6937714.50	.000	.000	1.000	
550	Y2	37293	1.00	196404.20	.000	-1.000	.000	
550	X2	1205890	1.00	6350818.00	1.000	.000	.000	
550	Z2	1205890	1.00	6350818.00	.000	.000	1.000	
550	Z2	2170	1.00	8452.84	.000	.000	1.000	
550	X2	110826	1.00	431720.88	1.000	.000	.000	
550	Y2	110826	1.00	431720.88	.000	-1.000	.000	
20200	Z2	5487	1.00	21373.32	.000	.000	1.000	
20200	X2	280226	1.00	1091621.75	1.000	.000	.000	
20200	Y2	280226	1.00	1091621.75	.000	-1.000	.000	
20201	Z2	7098	1.00	27649.74	.000	.000	1.000	
20201	X2	362517	1.00	1412184.37	1.000	.000	.000	
20201	Y2	362517	1.00	1412184.37	.000	-1.000	.000	
20202	X2	3222	1.00	12552.86	-.707	.000	-.707	
20202	Y2	164581	1.00	641125.19	.000	-1.000	.000	
20202	X2	164581	1.00	641125.19	-.707	.000	.707	
20250	X2	5839	1.00	22747.60	1.000	.000	.000	
20250	Y2	298245	1.00	1161811.87	.000	-1.000	.000	
20250	Z2	298245	1.00	1161811.87	.000	.000	1.000	
20251	X2	8457	1.00	32942.34	1.000	.000	.000	
20251	Y2	431908	1.00	1682498.50	.000	-1.000	.000	
20251	Z2	431908	1.00	1682498.50	.000	.000	1.000	
20252	X2	8527	1.00	33218.12	1.000	.000	.000	
20252	Y2	435524	1.00	1696584.00	.000	-1.000	.000	

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20252	Z2	435524	1.00	1696584.00	.000	.000	1.000
20270	X2	19106	1.00	74427.64	1.000	.000	.000
20270	Y2	975824	1.00	3801321.00	.000	-1.000	.000
20270	Z2	975824	1.00	3801321.00	.000	.000	1.000
20300	X2	26661	1.00	103856.70	1.000	.000	.000
20300	Y2	1361669	1.00	5304382.00	.000	-1.000	.000
20300	Z2	1361669	1.00	5304382.00	.000	.000	1.000
20650	X2	15068	1.00	58697.96	1.000	.000	.000
20650	Y2	769591	1.00	2997942.50	.000	-1.000	.000
20650	Z2	769591	1.00	2997942.50	.000	.000	1.000
20700	X2	8788	1.00	34235.39	1.000	.000	.000
20700	Y2	448862	1.00	1748540.25	.000	-1.000	.000
20700	Z2	448862	1.00	1748540.25	.000	.000	1.000
20701	X2	9802	1.00	38184.61	1.000	.000	.000
20701	Y2	500640	1.00	1950242.75	.000	-1.000	.000
20701	Z2	500640	1.00	1950242.75	.000	.000	1.000
20702	X2	5839	1.00	22747.60	1.000	.000	.000
20702	Y2	298245	1.00	1161811.87	.000	-1.000	.000
20702	Z2	298245	1.00	1161811.87	.000	.000	1.000
20703	X2	3222	1.00	12552.86	-.707	.707	.000
20703	X2	164581	1.00	641125.19	.707	.707	.000
20703	Z2	164581	1.00	641125.19	.000	.000	1.000
20750	Y2	5839	1.00	22747.60	.000	-1.000	.000
20750	X2	298245	1.00	1161811.87	1.000	.000	.000
20750	Z2	298245	1.00	1161811.87	.000	.000	1.000
20751	Y2	7789	1.00	30343.02	.000	-1.000	.000
20751	X2	397828	1.00	1549740.75	1.000	.000	.000
20751	Z2	397828	1.00	1549740.75	.000	.000	1.000
20752	Y2	7122	1.00	27743.70	.000	-1.000	.000
20752	X2	363749	1.00	1416983.00	1.000	.000	.000
20752	Z2	363749	1.00	1416983.00	.000	.000	1.000
20800	Y2	3561	1.00	13871.85	.000	-1.000	.000
20800	X2	181874	1.00	708491.50	1.000	.000	.000
20800	Z2	181874	1.00	708491.50	.000	.000	1.000
20800	X2	11854	1.00	46176.01	1.000	.000	.000
20800	Y2	605415	1.00	2358395.75	.000	-1.000	.000
20800	Z2	605415	1.00	2358395.75	.000	.000	1.000
20900	X2	15068	1.00	58697.96	1.000	.000	.000
20900	Y2	769591	1.00	2997942.50	.000	-1.000	.000
20900	Z2	769591	1.00	2997942.50	.000	.000	1.000
20950	X2	9684	1.00	37723.17	1.000	.000	.000
20950	Y2	494590	1.00	1926675.00	.000	-1.000	.000
20950	Z2	494590	1.00	1926675.00	.000	.000	1.000
21000	X2	11854	1.00	46176.01	1.000	.000	.000
21000	Y2	605416	1.00	2358396.00	.000	-1.000	.000
21000	Z2	605416	1.00	2358396.00	.000	.000	1.000
20450	X2	5384	1.00	20974.79	1.000	.000	.000
20450	Y2	275001	1.00	1071267.75	.000	-1.000	.000
20450	Z2	275001	1.00	1071267.75	.000	.000	1.000
20800	Y2	8809	1.00	34314.76	.000	-1.000	.000
20800	X2	449902	1.00	1752594.00	1.000	.000	.000
20800	Z2	449902	1.00	1752594.00	.000	.000	1.000
24000	Y2	8809	1.00	34314.76	.000	-1.000	.000
24000	X2	449902	1.00	1752594.00	1.000	.000	.000
24000	Z2	449902	1.00	1752594.00	.000	.000	1.000

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Impianto di Melendugno
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INPUT LISTING

24000	Z2	3613	1.00	12507.22	.000	.000	1.000
24000	X2	342158	1.00	1184550.87	1.000	.000	.000
24000	Y2	342158	1.00	1184550.87	.000	-1.000	.000
24050	Z2	3613	1.00	12507.22	.000	.000	1.000
24050	X2	342158	1.00	1184550.87	1.000	.000	.000
24050	Y2	342158	1.00	1184550.87	.000	-1.000	.000
24370	Z2	1141	1.00	3949.30	.000	.000	1.000
24370	X2	108040	1.00	374035.28	1.000	.000	.000
24370	Y2	108040	1.00	374035.28	.000	-1.000	.000
24371	Z2	2123	1.00	7348.89	.000	.000	1.000
24371	X2	201042	1.00	696008.25	1.000	.000	.000
24371	Y2	201042	1.00	696008.25	.000	-1.000	.000
24372	Z2	1291	1.00	4468.91	.000	.000	1.000
24372	X2	122255	1.00	423247.59	1.000	.000	.000
24372	Y2	122255	1.00	423247.59	.000	-1.000	.000
24373	X2	618	1.00	2138.64	.707	.000	-.707
24373	Y2	58506	1.00	202549.19	.000	-1.000	.000
24373	X2	58506	1.00	202549.19	.707	.000	.707
24400	X2	634	1.00	2195.86	1.000	.000	.000
24400	Y2	60072	1.00	207968.81	.000	-1.000	.000
24400	Z2	60072	1.00	207968.81	.000	.000	1.000
24420	X2	325	1.00	1126.54	1.000	.000	.000
24420	Y2	30819	1.00	106694.21	.000	-1.000	.000
24420	Z2	30819	1.00	106694.21	.000	.000	1.000
24420	Y2	6923	1.00	22877.23	.000	-1.000	.000
24420	X2	1153744	1.00	3812547.75	1.000	.000	.000
24420	Z2	1153744	1.00	3812547.75	.000	.000	1.000
24536	Y2	13846	1.00	45754.46	.000	-1.000	.000
24536	X2	2307488	1.00	7625095.50	1.000	.000	.000
24536	Z2	2307488	1.00	7625095.50	.000	.000	1.000
24652	Y2	13846	1.00	45754.46	.000	-1.000	.000
24652	X2	2307488	1.00	7625095.50	1.000	.000	.000
24652	Z2	2307488	1.00	7625095.50	.000	.000	1.000
24768	Y2	10741	1.00	35492.46	.000	-1.000	.000
24768	X2	1789956	1.00	5914909.00	1.000	.000	.000
24768	Z2	1789956	1.00	5914909.00	.000	.000	1.000
24769	Y2	5451	1.00	18012.34	.000	-1.000	.000
24769	X2	908399	1.00	3001803.00	1.000	.000	.000
24769	Z2	908399	1.00	3001803.00	.000	.000	1.000
24770	Y2	2088	1.00	6901.25	.000	-1.000	.000
24770	X2	348044	1.00	1150110.00	1.000	.000	.000
24770	Z2	348044	1.00	1150110.00	.000	.000	1.000
24771	Y2	759	1.00	2506.89	.000	-1.000	.000
24771	X2	126428	1.00	417780.06	1.000	.000	.000
24771	Z2	126428	1.00	417780.06	.000	.000	1.000
24772	Y2	607	1.00	2005.51	.000	-1.000	.000
24772	X2	101142	1.00	334224.03	1.000	.000	.000
24772	Z2	101142	1.00	334224.03	.000	.000	1.000
24773	Y2	607	1.00	2005.51	.000	-1.000	.000
24773	X2	101142	1.00	334224.03	1.000	.000	.000
24773	Z2	101142	1.00	334224.03	.000	.000	1.000
24774	Y2	387	1.00	1279.59	.000	-1.000	.000
24774	X2	64532	1.00	213246.75	1.000	.000	.000
24774	Z2	64532	1.00	213246.75	.000	.000	1.000
24775	X2	168	1.00	553.66	-.707	-.707	.000

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24775	X2	27922	1.00	92269.45	-.707	.707	.000
24775	Z2	27922	1.00	92269.45	.000	.000	1.000
25000	X2	387	1.00	1279.59	1.000	.000	.000
25000	Y2	64532	1.00	213246.75	.000	-1.000	.000
25000	Z2	64532	1.00	213246.75	.000	.000	1.000
25001	X2	607	1.00	2005.51	1.000	.000	.000
25001	Y2	101142	1.00	334224.03	.000	-1.000	.000
25001	Z2	101142	1.00	334224.03	.000	.000	1.000
25002	X2	607	1.00	2005.51	1.000	.000	.000
25002	Y2	101142	1.00	334224.03	.000	-1.000	.000
25002	Z2	101142	1.00	334224.03	.000	.000	1.000
25003	X2	759	1.00	2506.89	1.000	.000	.000
25003	Y2	126428	1.00	417780.06	.000	-1.000	.000
25003	Z2	126428	1.00	417780.06	.000	.000	1.000
25004	X2	1898	1.00	6271.49	1.000	.000	.000
25004	Y2	316284	1.00	1045160.44	.000	-1.000	.000
25004	Z2	316284	1.00	1045160.44	.000	.000	1.000
25005	X2	2885	1.00	9534.72	1.000	.000	.000
25005	Y2	480855	1.00	1588984.75	.000	-1.000	.000
25005	Z2	480855	1.00	1588984.75	.000	.000	1.000
25020	X2	5800	1.00	19166.96	1.000	.000	.000
25020	Y2	966628	1.00	3194221.50	.000	-1.000	.000
25020	Z2	966628	1.00	3194221.50	.000	.000	1.000
25050	X2	5800	1.00	19166.96	1.000	.000	.000
25050	Y2	966628	1.00	3194221.50	.000	-1.000	.000
25050	Z2	966628	1.00	3194221.50	.000	.000	1.000
25051	X2	2885	1.00	9534.72	1.000	.000	.000
25051	Y2	480855	1.00	1588984.75	.000	-1.000	.000
25051	Z2	480855	1.00	1588984.75	.000	.000	1.000
25052	X2	1898	1.00	6271.49	1.000	.000	.000
25052	Y2	316284	1.00	1045160.44	.000	-1.000	.000
25052	Z2	316284	1.00	1045160.44	.000	.000	1.000
25053	X2	759	1.00	2506.89	1.000	.000	.000
25053	Y2	126428	1.00	417780.06	.000	-1.000	.000
25053	Z2	126428	1.00	417780.06	.000	.000	1.000
25054	X2	607	1.00	2005.51	1.000	.000	.000
25054	Y2	101142	1.00	334224.03	.000	-1.000	.000
25054	Z2	101142	1.00	334224.03	.000	.000	1.000
25055	X2	607	1.00	2005.51	1.000	.000	.000
25055	Y2	101142	1.00	334224.03	.000	-1.000	.000
25055	Z2	101142	1.00	334224.03	.000	.000	1.000
25056	X2	387	1.00	1279.59	1.000	.000	.000
25056	Y2	64532	1.00	213246.75	.000	-1.000	.000
25056	Z2	64532	1.00	213246.75	.000	.000	1.000
25057	X2	168	1.00	553.66	-.707	.000	.707
25057	Y2	27922	1.00	92269.45	.000	-1.000	.000
25057	X2	27922	1.00	92269.45	.707	.000	.707
25070	Z2	387	1.00	1279.59	.000	.000	1.000
25070	X2	64532	1.00	213246.75	1.000	.000	.000
25070	Y2	64532	1.00	213246.75	.000	-1.000	.000
25071	Z2	607	1.00	2005.51	.000	.000	1.000
25071	X2	101142	1.00	334224.03	1.000	.000	.000
25071	Y2	101142	1.00	334224.03	.000	-1.000	.000
25072	Z2	629	1.00	2078.76	.000	.000	1.000
25072	X2	104836	1.00	346430.56	1.000	.000	.000

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25072	Y2	104836	1.00	346430.56	.000	-1.000	.000
25073	Z2	651	1.00	2152.01	.000	.000	1.000
25073	X2	108530	1.00	358637.09	1.000	.000	.000
25073	Y2	108530	1.00	358637.09	.000	-1.000	.000
25080	Z2	326	1.00	1076.00	.000	.000	1.000
25080	X2	54265	1.00	179318.55	1.000	.000	.000
25080	Y2	54265	1.00	179318.55	.000	-1.000	.000
25220	Z2	378	1.00	1249.46	.000	.000	1.000
25220	X2	63013	1.00	208226.28	1.000	.000	.000
25220	Y2	63013	1.00	208226.28	.000	-1.000	.000
25221	Z2	756	1.00	2498.93	.000	.000	1.000
25221	X2	126026	1.00	416452.56	1.000	.000	.000
25221	Y2	126026	1.00	416452.56	.000	-1.000	.000
25222	Z2	682	1.00	2252.22	.000	.000	1.000
25222	X2	113584	1.00	375338.31	1.000	.000	.000
25222	Y2	113584	1.00	375338.31	.000	-1.000	.000
25223	Z2	607	1.00	2005.51	.000	.000	1.000
25223	X2	101142	1.00	334224.03	1.000	.000	.000
25223	Y2	101142	1.00	334224.03	.000	-1.000	.000
25224	Z2	387	1.00	1279.59	.000	.000	1.000
25224	X2	64532	1.00	213246.75	1.000	.000	.000
25224	Y2	64532	1.00	213246.75	.000	-1.000	.000
25225	X2	168	1.00	553.66	-.707	.000	-.707
25225	Y2	27922	1.00	92269.45	.000	-1.000	.000
25225	X2	27922	1.00	92269.45	-.707	.000	.707
25250	X2	387	1.00	1279.59	1.000	.000	.000
25250	Y2	64532	1.00	213246.75	.000	-1.000	.000
25250	Z2	64532	1.00	213246.75	.000	.000	1.000
25251	X2	607	1.00	2005.51	1.000	.000	.000
25251	Y2	101142	1.00	334224.03	.000	-1.000	.000
25251	Z2	101142	1.00	334224.03	.000	.000	1.000
25252	X2	607	1.00	2005.51	1.000	.000	.000
25252	Y2	101142	1.00	334224.03	.000	-1.000	.000
25252	Z2	101142	1.00	334224.03	.000	.000	1.000
25253	X2	759	1.00	2506.89	1.000	.000	.000
25253	Y2	126428	1.00	417780.06	.000	-1.000	.000
25253	Z2	126428	1.00	417780.06	.000	.000	1.000
25254	X2	2088	1.00	6901.25	1.000	.000	.000
25254	Y2	348044	1.00	1150110.00	.000	-1.000	.000
25254	Z2	348044	1.00	1150110.00	.000	.000	1.000
25255	X2	3828	1.00	12650.09	1.000	.000	.000
25255	Y2	637969	1.00	2108169.75	.000	-1.000	.000
25255	Z2	637969	1.00	2108169.75	.000	.000	1.000
25256	X2	4390	1.00	14505.97	1.000	.000	.000
25256	Y2	731565	1.00	2417455.75	.000	-1.000	.000
25256	Z2	731565	1.00	2417455.75	.000	.000	1.000
25270	X2	2335	1.00	7715.55	1.000	.000	.000
25270	Y2	389110	1.00	1285815.25	.000	-1.000	.000
25270	Z2	389110	1.00	1285815.25	.000	.000	1.000
25300	X2	7894	1.00	26084.72	1.000	.000	.000
25300	Y2	1315505	1.00	4347084.50	.000	-1.000	.000
25300	Z2	1315505	1.00	4347084.50	.000	.000	1.000
25350	X2	15507	1.00	51244.32	1.000	.000	.000
25350	Y2	2584353	1.00	8539994.00	.000	-1.000	.000
25350	Z2	2584353	1.00	8539994.00	.000	.000	1.000

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25400	X2	15507	1.00	51244.32	1.000	.000	.000
25400	Y2	2584353	1.00	8539994.00	.000	-1.000	.000
25400	Z2	2584353	1.00	8539994.00	.000	.000	1.000
25450	ANC			.000	.000	.000	
24420	X2	2477	1.00	8574.13	1.000	.000	.000
24420	Y2	234561	1.00	812050.81	.000	-1.000	.000
24420	Z2	234561	1.00	812050.81	.000	.000	1.000
24421	X2	4953	1.00	17148.27	1.000	.000	.000
24421	Y2	469122	1.00	1624101.62	.000	-1.000	.000
24421	Z2	469122	1.00	1624101.62	.000	.000	1.000
24422	X2	3459	1.00	11973.72	1.000	.000	.000
24422	Y2	327563	1.00	1134023.75	.000	-1.000	.000
24422	Z2	327563	1.00	1134023.75	.000	.000	1.000
24423	X2	1964	1.00	6799.18	1.000	.000	.000
24423	Y2	186004	1.00	643946.00	.000	-1.000	.000
24423	Z2	186004	1.00	643946.00	.000	.000	1.000
24424	X2	1964	1.00	6799.18	1.000	.000	.000
24424	Y2	186004	1.00	643946.00	.000	-1.000	.000
24424	Z2	186004	1.00	643946.00	.000	.000	1.000
24425	X2	1291	1.00	4468.91	1.000	.000	.000
24425	Y2	122255	1.00	423247.59	.000	-1.000	.000
24425	Z2	122255	1.00	423247.59	.000	.000	1.000
24426	X2	618	1.00	2138.64	.707	.000	.707
24426	Y2	58506	1.00	202549.19	.000	-1.000	.000
24426	X2	58506	1.00	202549.19	-.707	.000	.707
24450	Z2	1291	1.00	4468.91	.000	.000	1.000
24450	X2	122255	1.00	423247.59	1.000	.000	.000
24450	Y2	122255	1.00	423247.59	.000	-1.000	.000
24451	Z2	2123	1.00	7348.89	.000	.000	1.000
24451	X2	201042	1.00	696008.25	1.000	.000	.000
24451	Y2	201042	1.00	696008.25	.000	-1.000	.000
24470	Z2	1141	1.00	3949.30	.000	.000	1.000
24470	X2	108040	1.00	374035.28	1.000	.000	.000
24470	Y2	108040	1.00	374035.28	.000	-1.000	.000
24000	Y2	4711	1.00	18352.95	.000	-1.000	.000
24000	X2	240626	1.00	937359.25	1.000	.000	.000
24000	Z2	240626	1.00	937359.25	.000	.000	1.000
2000	Y2	4711	1.00	18352.95	.000	-1.000	.000
2000	X2	240626	1.00	937359.25	1.000	.000	.000
2000	Z2	240626	1.00	937359.25	.000	.000	1.000
20300	Y2	7756	1.00	30214.19	.000	-1.000	.000
20300	X2	396139	1.00	1543161.12	1.000	.000	.000
20300	Z2	396139	1.00	1543161.12	.000	.000	1.000
20350	Y2	10971	1.00	42736.14	.000	-1.000	.000
20350	X2	560315	1.00	2182708.00	1.000	.000	.000
20350	Z2	560315	1.00	2182708.00	.000	.000	1.000
20400	Y2	5646	1.00	21992.07	.000	-1.000	.000
20400	X2	288339	1.00	1123224.25	1.000	.000	.000
20400	Z2	288339	1.00	1123224.25	.000	.000	1.000
20450	Y2	4862	1.00	18940.24	.000	-1.000	.000
20450	X2	248326	1.00	967354.75	1.000	.000	.000
20450	Z2	248326	1.00	967354.75	.000	.000	1.000
20500	Y2	2431	1.00	9470.12	.000	-1.000	.000
20500	X2	124163	1.00	483677.38	1.000	.000	.000
20500	Z2	124163	1.00	483677.38	.000	.000	1.000

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550	Y2	21343	1.00	112401.82	.000	-1.000	.000
550	X2	690129	1.00	3634563.25	1.000	.000	.000
550	Z2	690129	1.00	3634563.25	.000	.000	1.000
600	Y2	36146	1.00	190364.03	.000	-1.000	.000
600	X2	1168804	1.00	6155506.00	1.000	.000	.000
600	Z2	1168804	1.00	6155506.00	.000	.000	1.000
650	Y2	36146	1.00	190364.03	.000	-1.000	.000
650	X2	1168804	1.00	6155506.00	1.000	.000	.000
650	Z2	1168804	1.00	6155506.00	.000	.000	1.000
700	Y2	21343	1.00	112401.82	.000	-1.000	.000
700	X2	690129	1.00	3634563.25	1.000	.000	.000
700	Z2	690129	1.00	3634563.25	.000	.000	1.000
700	Z2	16097	1.00	84774.44	.000	.000	1.000
700	X2	520501	1.00	2741219.50	1.000	.000	.000
700	Y2	520501	1.00	2741219.50	.000	-1.000	.000
1700	Z2	3835	1.00	20194.49	.000	.000	1.000
1700	X2	123991	1.00	652997.88	1.000	.000	.000
1700	Y2	123991	1.00	652997.88	.000	-1.000	.000
1701	Z2	13465	1.00	70915.46	.000	.000	1.000
1701	X2	435409	1.00	2293083.50	1.000	.000	.000
1701	Y2	435409	1.00	2293083.50	.000	-1.000	.000
1702	X2	19262	1.00	101441.95	-.707	.000	-.707
1702	Y2	622837	1.00	3280171.00	.000	-1.000	.000
1702	X2	622837	1.00	3280171.00	-.707	.000	.707
1750	X2	37611	1.00	198077.11	1.000	.000	.000
1750	Y2	1216161	1.00	6404912.50	.000	-1.000	.000
1750	Z2	1216161	1.00	6404912.50	.000	.000	1.000
1800	X2	27980	1.00	147356.14	1.000	.000	.000
1800	Y2	904743	1.00	4764827.00	.000	-1.000	.000
1800	Z2	904743	1.00	4764827.00	.000	.000	1.000
1800	Y2	13928	1.00	62787.12	.000	-1.000	.000
1800	X2	523342	1.00	2359279.25	1.000	.000	.000
1800	Z2	523342	1.00	2359279.25	.000	.000	1.000
1801	Y2	18499	1.00	83397.52	.000	-1.000	.000
1801	X2	695134	1.00	3133732.00	1.000	.000	.000
1801	Z2	695134	1.00	3133732.00	.000	.000	1.000
1802	X2	9144	1.00	41220.78	-.707	.707	.000
1802	X2	343583	1.00	1548905.50	.707	.707	.000
1802	Z2	343583	1.00	1548905.50	.000	.000	1.000
14100	X2	11280	1.00	50849.93	1.000	.000	.000
14100	Y2	423844	1.00	1910729.00	.000	-1.000	.000
14100	Z2	423844	1.00	1910729.00	.000	.000	1.000
14150	X2	15529	1.00	70005.30	1.000	.000	.000
14150	Y2	583507	1.00	2630508.00	.000	-1.000	.000
14150	Z2	583507	1.00	2630508.00	.000	.000	1.000
14200	X2	24892	1.00	112214.64	1.000	.000	.000
14200	Y2	935330	1.00	4216560.00	.000	-1.000	.000
14200	Z2	935330	1.00	4216560.00	.000	.000	1.000
14250	X2	20534	1.00	92570.40	1.000	.000	.000
14250	Y2	771591	1.00	3478410.75	.000	-1.000	.000
14250	Z2	771591	1.00	3478410.75	.000	.000	1.000
14300	X2	13284	1.00	59887.27	1.000	.000	.000
14300	Y2	499171	1.00	2250314.50	.000	-1.000	.000
14300	Z2	499171	1.00	2250314.50	.000	.000	1.000
14350	X2	13327	1.00	60078.17	1.000	.000	.000

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14350	Y2	500763	1.00	2257488.00	.000	-1.000	.000
14350	Z2	500763	1.00	2257488.00	.000	.000	1.000
14400	X2	45125	1.00	203429.61	1.000	.000	.000
14400	Y2	1695623	1.00	7644039.00	.000	-1.000	.000
14400	Z2	1695623	1.00	7644039.00	.000	.000	1.000
14420	X2	81239	1.00	366234.38	1.000	.000	.000
14420	Y2	3052631	1.00	13761566.00	.000	-1.000	.000
14420	Z2	3052631	1.00	13761566.00	.000	.000	1.000
13550	X2	40620	1.00	183117.19	1.000	.000	.000
13550	Y2	1526316	1.00	6880783.00	.000	-1.000	.000
13550	Z2	1526316	1.00	6880783.00	.000	.000	1.000
1800	X2	22996	1.00	121106.34	1.000	.000	.000
1800	Y2	743573	1.00	3916027.75	.000	-1.000	.000
1800	Z2	743573	1.00	3916027.75	.000	.000	1.000
1850	X2	44338	1.00	233508.16	1.000	.000	.000
1850	Y2	1433702	1.00	7550591.00	.000	-1.000	.000
1850	Z2	1433702	1.00	7550591.00	.000	.000	1.000
1900	X2	36146	1.00	190364.03	1.000	.000	.000
1900	Y2	1168804	1.00	6155506.00	.000	-1.000	.000
1900	Z2	1168804	1.00	6155506.00	.000	.000	1.000
1950	X2	36146	1.00	190364.03	1.000	.000	.000
1950	Y2	1168804	1.00	6155506.00	.000	-1.000	.000
1950	Z2	1168804	1.00	6155506.00	.000	.000	1.000
2000	X2	32731	1.00	172379.73	1.000	.000	.000
2000	Y2	1058383	1.00	5573976.00	.000	-1.000	.000
2000	Z2	1058383	1.00	5573976.00	.000	.000	1.000
2050	X2	25482	1.00	134200.97	1.000	.000	.000
2050	Y2	823972	1.00	4339448.00	.000	-1.000	.000
2050	Z2	823972	1.00	4339448.00	.000	.000	1.000
2100	X2	31323	1.00	164961.97	1.000	.000	.000
2100	Y2	1012840	1.00	5334119.00	.000	-1.000	.000
2100	Z2	1012840	1.00	5334119.00	.000	.000	1.000
2150	X2	17229	1.00	90738.92	1.000	.000	.000
2150	Y2	557122	1.00	2934083.75	.000	-1.000	.000
2150	Z2	557122	1.00	2934083.75	.000	.000	1.000
700	Y2	51803	1.00	272822.31	.000	-1.000	.000
700	X2	1675084	1.00	8821832.00	1.000	.000	.000
700	Z2	1675084	1.00	8821832.00	.000	.000	1.000
750	Y2	55252	1.00	290985.78	.000	-1.000	.000
750	X2	1786605	1.00	9409156.00	1.000	.000	.000
750	Z2	1786605	1.00	9409156.00	.000	.000	1.000
751	Y2	25921	1.00	136512.42	.000	-1.000	.000
751	X2	838164	1.00	4414190.50	1.000	.000	.000
751	Z2	838164	1.00	4414190.50	.000	.000	1.000
752	X2	44944	1.00	236697.89	.383	.924	.000
752	X2	1453286	1.00	7653732.50	.924	-.383	.000
752	Z2	1453286	1.00	7653732.50	.000	.000	1.000
800	X2	25924	1.00	136526.75	.707	.707	.000
800	X2	838252	1.00	4414653.50	.707	-.707	.000
800	Z2	838252	1.00	4414653.50	.000	.000	1.000
850	X2	55485	1.00	292210.19	.707	.707	.000
850	X2	1794123	1.00	9448746.00	.707	-.707	.000
850	Z2	1794123	1.00	9448746.00	.000	.000	1.000
900	X2	104066	1.00	548064.75	.707	.707	.000
900	X2	3365028	1.00	17721918.00	.707	-.707	.000

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900	Z2	3365028	1.0017721918.00	.000	.000	1.000
950	X2	104066	1.00 548064.75	.707	.707	.000
950	X2	3365028	1.0017721918.00	.707	-.707	.000
950	Z2	3365028	1.0017721918.00	.000	.000	1.000
1000	X2	104066	1.00 548064.75	.707	.707	.000
1000	X2	3365028	1.0017721918.00	.707	-.707	.000
1000	Z2	3365028	1.0017721918.00	.000	.000	1.000
1050	X2	104066	1.00 548064.75	.707	.707	.000
1050	X2	3365028	1.0017721918.00	.707	-.707	.000
1050	Z2	3365028	1.0017721918.00	.000	.000	1.000
1100	ANC		.000	.000	.000	
2150	X2	14093	1.00 74223.05	1.000	.000	.000
2150	Y2	455717	1.00 2400035.50	.000	-1.000	.000
2150	Z2	455717	1.00 2400035.50	.000	.000	1.000
2200	X2	27172	1.00 143102.28	1.000	.000	.000
2200	Y2	878625	1.00 4627276.00	.000	-1.000	.000
2200	Z2	878625	1.00 4627276.00	.000	.000	1.000
2250	X2	13079	1.00 68879.23	1.000	.000	.000
2250	Y2	422907	1.00 2227240.75	.000	-1.000	.000
2250	Z2	422907	1.00 2227240.75	.000	.000	1.000
2250	Y2	6430	1.00 33863.83	.000	-1.000	.000
2250	X2	207918	1.00 1095002.25	1.000	.000	.000
2250	Z2	207918	1.00 1095002.25	.000	.000	1.000
2251	Y2	11245	1.00 59224.32	.000	-1.000	.000
2251	X2	363628	1.00 1915045.00	1.000	.000	.000
2251	Z2	363628	1.00 1915045.00	.000	.000	1.000
2252	X2	9631	1.00 50720.97	.000	.924	-.383
2252	X2	311419	1.00 1640085.50	1.000	.000	.000
2252	X2	311419	1.00 1640085.50	.000	.383	.924
3500	X2	12007	1.00 63233.37	.000	.707	-.707
3500	X2	388243	1.00 2044679.50	1.000	.000	.000
3500	X2	388243	1.00 2044679.50	.000	.707	.707
3501	X2	12007	1.00 63233.37	.000	.707	-.707
3501	X2	388243	1.00 2044679.50	1.000	.000	.000
3501	X2	388243	1.00 2044679.50	.000	.707	.707
3502	X2	9631	1.00 50720.97	.000	.924	-.383
3502	X2	311419	1.00 1640085.50	1.000	.000	.000
3502	X2	311419	1.00 1640085.50	.000	.383	.924
3550	Y2	22431	1.00 118135.24	.000	-1.000	.000
3550	X2	725331	1.00 3819956.25	1.000	.000	.000
3550	Z2	725331	1.00 3819956.25	.000	.000	1.000
3551	Y2	35232	1.00 185549.52	.000	-1.000	.000
3551	X2	1139244	1.00 5999827.00	1.000	.000	.000
3551	Z2	1139244	1.00 5999827.00	.000	.000	1.000
3600	Y2	45665	1.00 240494.22	.000	-1.000	.000
3600	X2	1476595	1.00 7776488.50	1.000	.000	.000
3600	Z2	1476595	1.00 7776488.50	.000	.000	1.000
3601	Y2	37680	1.00 198440.42	.000	-1.000	.000
3601	X2	1218392	1.00 6416660.50	1.000	.000	.000
3601	Z2	1218392	1.00 6416660.50	.000	.000	1.000
3602	X2	19262	1.00 101441.95	.500	.707	.500
3602	X2	622837	1.00 3280171.00	.816	-.577	.000
3602	X2	622837	1.00 3280171.00	-.289	-.408	.866
3650	X2	14446	1.00 76081.46	.707	.000	.707
3650	Y2	467128	1.00 2460128.25	.000	-1.000	.000

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3650	X2	467128	1.00	2460128.25	-.707	.000	.707
3651	X2	9631	1.00	50720.97	.924	.000	.383
3651	Y2	311419	1.00	1640085.50	.000	-1.000	.000
3651	X2	311419	1.00	1640085.50	-.383	.000	.924
3700	X2	20809	1.00	109589.68	1.000	.000	.000
3700	Y2	672863	1.00	3543631.50	.000	-1.000	.000
3700	Z2	672863	1.00	3543631.50	.000	.000	1.000
3701	X2	31987	1.00	168458.39	1.000	.000	.000
3701	Y2	1034307	1.00	5447177.50	.000	-1.000	.000
3701	Z2	1034307	1.00	5447177.50	.000	.000	1.000
3750	X2	53059	1.00	279437.47	1.000	.000	.000
3750	Y2	1715700	1.00	9035736.00	.000	-1.000	.000
3750	Z2	1715700	1.00	9035736.00	.000	.000	1.000
3800	X2	37066	1.00	195208.28	1.000	.000	.000
3800	Y2	1198547	1.00	6312147.50	.000	-1.000	.000
3800	Z2	1198547	1.00	6312147.50	.000	.000	1.000
3800	Y2	20535	1.00	108147.96	.000	-1.000	.000
3800	X2	664011	1.00	3497012.75	1.000	.000	.000
3800	Z2	664011	1.00	3497012.75	.000	.000	1.000
17700	Y2	20535	1.00	108147.96	.000	-1.000	.000
17700	X2	664011	1.00	3497012.75	1.000	.000	.000
17700	Z2	664011	1.00	3497012.75	.000	.000	1.000
17700	X2	7781	1.00	31501.98	1.000	.000	.000
17700	Y2	357467	1.00	1447206.00	.000	-1.000	.000
17700	Z2	357467	1.00	1447206.00	.000	.000	1.000
18100	X2	12127	1.00	49094.73	1.000	.000	.000
18100	Y2	557100	1.00	2255419.75	.000	-1.000	.000
18100	Z2	557100	1.00	2255419.75	.000	.000	1.000
18150	X2	8710	1.00	35261.06	1.000	.000	.000
18150	Y2	400123	1.00	1619898.75	.000	-1.000	.000
18150	Z2	400123	1.00	1619898.75	.000	.000	1.000
18200	X2	4364	1.00	17668.31	1.000	.000	.000
18200	Y2	200490	1.00	811685.00	.000	-1.000	.000
18200	Z2	200490	1.00	811685.00	.000	.000	1.000
17700	Y2	20903	1.00	110085.66	.000	-1.000	.000
17700	X2	675908	1.00	3559669.25	1.000	.000	.000
17700	Z2	675908	1.00	3559669.25	.000	.000	1.000
17750	Y2	20903	1.00	110085.66	.000	-1.000	.000
17750	X2	675908	1.00	3559669.25	1.000	.000	.000
17750	Z2	675908	1.00	3559669.25	.000	.000	1.000
17750	X2	7781	1.00	31501.98	1.000	.000	.000
17750	Y2	357467	1.00	1447206.00	.000	-1.000	.000
17750	Z2	357467	1.00	1447206.00	.000	.000	1.000
18400	X2	7781	1.00	31501.98	1.000	.000	.000
18400	Y2	357467	1.00	1447206.00	.000	-1.000	.000
18400	Z2	357467	1.00	1447206.00	.000	.000	1.000
17750	Y2	20903	1.00	110085.66	.000	-1.000	.000
17750	X2	675908	1.00	3559669.25	1.000	.000	.000
17750	Z2	675908	1.00	3559669.25	.000	.000	1.000
17800	Y2	20903	1.00	110085.66	.000	-1.000	.000
17800	X2	675908	1.00	3559669.25	1.000	.000	.000
17800	Z2	675908	1.00	3559669.25	.000	.000	1.000
17800	X2	7781	1.00	31501.98	1.000	.000	.000
17800	Y2	357467	1.00	1447206.00	.000	-1.000	.000
17800	Z2	357467	1.00	1447206.00	.000	.000	1.000

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18700	X2	7781	1.00	31501.98	1.000	.000	.000
18700	Y2	357467	1.00	1447206.00	.000	-1.000	.000
18700	Z2	357467	1.00	1447206.00	.000	.000	1.000
17800	Y2	16885	1.00	88922.33	.000	-1.000	.000
17800	X2	545969	1.00	2875343.50	1.000	.000	.000
17800	Z2	545969	1.00	2875343.50	.000	.000	1.000
17850	Y2	16885	1.00	88922.33	.000	-1.000	.000
17850	X2	545969	1.00	2875343.50	1.000	.000	.000
17850	Z2	545969	1.00	2875343.50	.000	.000	1.000
3800	X2	27092	1.00	142678.41	1.000	.000	.000
3800	Y2	876022	1.00	4613570.50	.000	-1.000	.000
3800	Z2	876022	1.00	4613570.50	.000	.000	1.000
3850	X2	41895	1.00	220640.61	1.000	.000	.000
3850	Y2	1354697	1.00	7134513.50	.000	-1.000	.000
3850	Z2	1354697	1.00	7134513.50	.000	.000	1.000
3900	X2	41895	1.00	220640.61	1.000	.000	.000
3900	Y2	1354697	1.00	7134513.50	.000	-1.000	.000
3900	Z2	1354697	1.00	7134513.50	.000	.000	1.000
3950	X2	27092	1.00	142678.41	1.000	.000	.000
3950	Y2	876022	1.00	4613570.50	.000	-1.000	.000
3950	Z2	876022	1.00	4613570.50	.000	.000	1.000
3950	Y2	20535	1.00	108147.96	.000	-1.000	.000
3950	X2	664011	1.00	3497012.75	1.000	.000	.000
3950	Z2	664011	1.00	3497012.75	.000	.000	1.000
17900	Y2	41438	1.00	218233.63	.000	-1.000	.000
17900	X2	1339919	1.00	7056682.00	1.000	.000	.000
17900	Z2	1339919	1.00	7056682.00	.000	.000	1.000
17950	Y2	41806	1.00	220171.33	.000	-1.000	.000
17950	X2	1351816	1.00	7119338.50	1.000	.000	.000
17950	Z2	1351816	1.00	7119338.50	.000	.000	1.000
18000	Y2	37788	1.00	199008.00	.000	-1.000	.000
18000	X2	1221877	1.00	6435013.00	1.000	.000	.000
18000	Z2	1221877	1.00	6435013.00	.000	.000	1.000
18050	Y2	16885	1.00	88922.33	.000	-1.000	.000
18050	X2	545969	1.00	2875343.50	1.000	.000	.000
18050	Z2	545969	1.00	2875343.50	.000	.000	1.000
3950	X2	35931	1.00	189228.66	1.000	.000	.000
3950	Y2	1161833	1.00	6118793.50	.000	-1.000	.000
3950	Z2	1161833	1.00	6118793.50	.000	.000	1.000
4000	X2	59599	1.00	313877.34	1.000	.000	.000
4000	Y2	1927156	1.00	10149365.00	.000	-1.000	.000
4000	Z2	1927156	1.00	10149365.00	.000	.000	1.000
4001	X2	33299	1.00	175369.67	1.000	.000	.000
4001	Y2	1076741	1.00	5670657.00	.000	-1.000	.000
4001	Z2	1076741	1.00	5670657.00	.000	.000	1.000
4002	X2	19262	1.00	101441.95	.707	.707	.000
4002	X2	622837	1.00	3280171.00	.707	-.707	.000
4002	Z2	622837	1.00	3280171.00	.000	.000	1.000
4050	Y2	25003	1.00	131680.56	.000	-1.000	.000
4050	X2	808497	1.00	4257950.00	1.000	.000	.000
4050	Z2	808497	1.00	4257950.00	.000	.000	1.000
4051	Y2	30745	1.00	161919.17	.000	-1.000	.000
4051	X2	994157	1.00	5235729.00	1.000	.000	.000
4051	Z2	994157	1.00	5235729.00	.000	.000	1.000
4100	Y2	58380	1.00	307458.72	.000	-1.000	.000

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4100	X2	1887746	1.00	9941816.00	1.000	.000	.000
4100	Z2	1887746	1.00	9941816.00	.000	.000	1.000
4150	Y2	58380	1.00	307458.72	.000	-1.000	.000
4150	X2	1887746	1.00	9941816.00	1.000	.000	.000
4150	Z2	1887746	1.00	9941816.00	.000	.000	1.000
4151	Y2	30745	1.00	161919.17	.000	-1.000	.000
4151	X2	994157	1.00	5235729.00	1.000	.000	.000
4151	Z2	994157	1.00	5235729.00	.000	.000	1.000
4152	Y2	25003	1.00	131680.56	.000	-1.000	.000
4152	X2	808497	1.00	4257950.00	1.000	.000	.000
4152	Z2	808497	1.00	4257950.00	.000	.000	1.000
4153	X2	19262	1.00	101441.95	-.707	.707	.000
4153	X2	622837	1.00	3280171.00	.707	.707	.000
4153	Z2	622837	1.00	3280171.00	.000	.000	1.000
4200	X2	25883	1.00	136312.88	1.000	.000	.000
4200	Y2	836939	1.00	4407738.00	.000	-1.000	.000
4200	Z2	836939	1.00	4407738.00	.000	.000	1.000
4250	X2	16252	1.00	85591.91	1.000	.000	.000
4250	Y2	525520	1.00	2767652.75	.000	-1.000	.000
4250	Z2	525520	1.00	2767652.75	.000	.000	1.000
4250	Z2	7538	1.00	29364.71	.000	.000	1.000
4250	X2	385002	1.00	1499774.75	1.000	.000	.000
4250	Y2	385002	1.00	1499774.75	.000	-1.000	.000
4700	Z2	7538	1.00	29364.71	.000	.000	1.000
4700	X2	385002	1.00	1499774.75	1.000	.000	.000
4700	Y2	385002	1.00	1499774.75	.000	-1.000	.000
4250	X2	22996	1.00	121106.34	1.000	.000	.000
4250	Y2	743573	1.00	3916027.75	.000	-1.000	.000
4250	Z2	743573	1.00	3916027.75	.000	.000	1.000
4300	X2	45991	1.00	242212.67	1.000	.000	.000
4300	Y2	1487146	1.00	7832055.50	.000	-1.000	.000
4300	Z2	1487146	1.00	7832055.50	.000	.000	1.000
4350	Z2	7538	1.00	29364.71	.000	.000	1.000
4350	X2	385002	1.00	1499774.75	1.000	.000	.000
4350	Y2	385002	1.00	1499774.75	.000	-1.000	.000
2250	Y2	6689	1.00	36229.62	.000	-1.000	.000
2250	X2	213748	1.00	1157766.37	1.000	.000	.000
2250	Z2	213748	1.00	1157766.37	.000	.000	1.000
2255	Y2	12157	1.00	65848.47	.000	-1.000	.000
2255	X2	388494	1.00	2104276.75	1.000	.000	.000
2255	Z2	388494	1.00	2104276.75	.000	.000	1.000
2260	Y2	8534	1.00	44613.34	.000	-1.000	.000
2260	X2	280060	1.00	1461623.12	1.000	.000	.000
2260	Z2	280060	1.00	1461623.12	.000	.000	1.000
2280	Y2	30494	1.00	142757.41	.000	-1.000	.000
2280	X2	1097415	1.00	5136416.50	1.000	.000	.000
2280	Z2	1097415	1.00	5136416.50	.000	.000	1.000
2300	Y2	36897	1.00	171868.02	.000	-1.000	.000
2300	X2	1334584	1.00	6216626.00	1.000	.000	.000
2300	Z2	1334584	1.00	6216626.00	.000	.000	1.000
2350	Y2	34787	1.00	162043.36	.000	-1.000	.000
2350	X2	1258294	1.00	5861259.00	1.000	.000	.000
2350	Z2	1258294	1.00	5861259.00	.000	.000	1.000
2400	Y2	30110	1.00	140255.48	.000	-1.000	.000
2400	X2	1089107	1.00	5073171.00	1.000	.000	.000

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2400	Z2	1089107	1.00	5073171.00	.000	.000	1.000
2450	Y2	14260	1.00	66422.32	.000	-1.000	.000
2450	X2	515780	1.00	2402557.25	1.000	.000	.000
2450	Z2	515780	1.00	2402557.25	.000	.000	1.000
2500	Y2	14305	1.00	66634.05	.000	-1.000	.000
2500	X2	517425	1.00	2410216.00	1.000	.000	.000
2500	Z2	517425	1.00	2410216.00	.000	.000	1.000
2550	Y2	19064	1.00	88803.06	.000	-1.000	.000
2550	X2	689571	1.00	3212089.50	1.000	.000	.000
2550	Z2	689571	1.00	3212089.50	.000	.000	1.000
2560	Y2	17001	1.00	79190.14	.000	-1.000	.000
2560	X2	614925	1.00	2864381.25	1.000	.000	.000
2560	Z2	614925	1.00	2864381.25	.000	.000	1.000
2580	Y2	7334	1.00	35228.11	.000	-1.000	.000
2580	X2	258094	1.00	1239009.87	1.000	.000	.000
2580	Z2	258094	1.00	1239009.87	.000	.000	1.000
2590	Y2	11250	1.00	58541.69	.000	-1.000	.000
2590	X2	371547	1.00	1929591.12	1.000	.000	.000
2590	Z2	371547	1.00	1929591.12	.000	.000	1.000
2600	Y2	34846	1.00	188740.75	.000	-1.000	.000
2600	X2	1113536	1.00	6031465.50	1.000	.000	.000
2600	Z2	1113536	1.00	6031465.50	.000	.000	1.000
2650	Y2	54633	1.00	295918.94	.000	-1.000	.000
2650	X2	1745867	1.00	9456490.00	1.000	.000	.000
2650	Z2	1745867	1.00	9456490.00	.000	.000	1.000
2651	Y2	28147	1.00	152459.03	.000	-1.000	.000
2651	X2	899480	1.00	4872034.50	1.000	.000	.000
2651	Z2	899480	1.00	4872034.50	.000	.000	1.000
2652	X2	3342	1.00	18102.40	.000	-.991	-.131
2652	X2	106801	1.00	578486.69	1.000	.000	.000
2652	X2	106801	1.00	578486.69	.000	-.131	.991
2660	X2	3358	1.00	18189.96	.000	-.966	-.259
2660	X2	107317	1.00	581284.63	1.000	.000	.000
2660	X2	107317	1.00	581284.63	.000	-.259	.966
2661	X2	11710	1.00	63426.60	.000	-.966	-.259
2661	X2	374205	1.00	2026882.87	1.000	.000	.000
2661	X2	374205	1.00	2026882.87	.000	-.259	.966
2662	X2	20045	1.00	108575.70	-.707	-.683	-.183
2662	X2	640577	1.00	3469683.25	-.695	.719	.000
2662	X2	640577	1.00	3469683.25	-.132	-.127	.983
2700	X2	10038	1.00	54370.16	1.000	.000	.000
2700	Y2	320774	1.00	1737472.00	.000	-1.000	.000
2700	Z2	320774	1.00	1737472.00	.000	.000	1.000
2725	X2	5483	1.00	29701.16	1.000	.000	.000
2725	Y2	175231	1.00	949140.56	.000	-1.000	.000
2725	Z2	175231	1.00	949140.56	.000	.000	1.000
2750	X2	40293	1.00	207805.30	1.000	.000	.000
2750	Y2	1329437	1.00	6854663.00	.000	-1.000	.000
2750	Z2	1329437	1.00	6854663.00	.000	.000	1.000
2800	X2	69650	1.00	356372.91	1.000	.000	.000
2800	Y2	2309383	1.00	11816305.00	.000	-1.000	.000
2800	Z2	2309383	1.00	11816305.00	.000	.000	1.000
2850	X2	45719	1.00	233926.33	1.000	.000	.000
2850	Y2	1515900	1.00	7756327.00	.000	-1.000	.000
2850	Z2	1515900	1.00	7756327.00	.000	.000	1.000

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2900	ANC	2901		.000	.000	.000
4350	X2	22996	1.00	121106.34	1.000	.000 .000
4350	Y2	743573	1.00	3916027.75	.000	-1.000 .000
4350	Z2	743573	1.00	3916027.75	.000	.000 1.000
4400	Z2	7538	1.00	29364.71	.000	.000 1.000
4400	X2	385002	1.00	1499774.75	1.000	.000 .000
4400	Y2	385002	1.00	1499774.75	.000	-1.000 .000
4400	X2	22996	1.00	121106.34	1.000	.000 .000
4400	Y2	743573	1.00	3916027.75	.000	-1.000 .000
4400	Z2	743573	1.00	3916027.75	.000	.000 1.000
4450	Z2	7538	1.00	29364.71	.000	.000 1.000
4450	X2	385002	1.00	1499774.75	1.000	.000 .000
4450	Y2	385002	1.00	1499774.75	.000	-1.000 .000
4450	X2	22996	1.00	121106.34	1.000	.000 .000
4450	Y2	743573	1.00	3916027.75	.000	-1.000 .000
4450	Z2	743573	1.00	3916027.75	.000	.000 1.000
4500	Z2	7538	1.00	29364.71	.000	.000 1.000
4500	X2	385002	1.00	1499774.75	1.000	.000 .000
4500	Y2	385002	1.00	1499774.75	.000	-1.000 .000
4500	X2	14539	1.00	76569.48	1.000	.000 .000
4500	Y2	470124	1.00	2475908.50	.000	-1.000 .000
4500	Z2	470124	1.00	2475908.50	.000	.000 1.000
4550	X2	14539	1.00	76569.48	1.000	.000 .000
4550	Y2	470124	1.00	2475908.50	.000	-1.000 .000
4550	Z2	470124	1.00	2475908.50	.000	.000 1.000
4300	Z2	7538	1.00	29364.71	.000	.000 1.000
4300	X2	385002	1.00	1499774.75	1.000	.000 .000
4300	Y2	385002	1.00	1499774.75	.000	-1.000 .000
4850	Z2	7538	1.00	29364.71	.000	.000 1.000
4850	X2	385002	1.00	1499774.75	1.000	.000 .000
4850	Y2	385002	1.00	1499774.75	.000	-1.000 .000
5300	+Z			.35	.000	.000 1.000
5650	+Z			.35	.000	.000 1.000
5700	+Z			.35	.000	.000 1.000
6005	+Z			.30	.000	.000 1.000
6007	+Z			.30	.000	.000 1.000
6400	Z2	7538	1.00	29364.71	.000	.000 1.000
6400	X2	385002	1.00	1499774.75	1.000	.000 .000
6400	Y2	385002	1.00	1499774.75	.000	-1.000 .000
6450	Z2	7538	1.00	29364.71	.000	.000 1.000
6450	X2	385002	1.00	1499774.75	1.000	.000 .000
6450	Y2	385002	1.00	1499774.75	.000	-1.000 .000
6900	+Z			.35	.000	.000 1.000
7250	+Z			.35	.000	.000 1.000
7300	+Z			.35	.000	.000 1.000
7605	+Z			.30	.000	.000 1.000
7607	+Z			.30	.000	.000 1.000
8000	Z2	7538	1.00	29364.71	.000	.000 1.000
8000	X2	385002	1.00	1499774.75	1.000	.000 .000
8000	Y2	385002	1.00	1499774.75	.000	-1.000 .000
8050	Z2	7538	1.00	29364.71	.000	.000 1.000
8050	X2	385002	1.00	1499774.75	1.000	.000 .000
8050	Y2	385002	1.00	1499774.75	.000	-1.000 .000
8500	+Z			.35	.000	.000 1.000
8850	+Z			.35	.000	.000 1.000

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8900	+Z		.35	.000	.000	1.000		
9205	+Z		.30	.000	.000	1.000		
9207	+Z		.30	.000	.000	1.000		
9600	Z2	7538	1.00	29364.71	.000	.000	1.000	
9600	X2	385002	1.00	1499774.75	1.000	.000	.000	
9600	Y2	385002	1.00	1499774.75	.000	-1.000	.000	
9650	Z2	7538	1.00	29364.71	.000	.000	1.000	
9650	X2	385002	1.00	1499774.75	1.000	.000	.000	
9650	Y2	385002	1.00	1499774.75	.000	-1.000	.000	
10100	+Z		.35	.000	.000	1.000		
10450	+Z		.35	.000	.000	1.000		
10500	+Z		.30	.000	.000	1.000		
10805	+Z		.30	.000	.000	1.000		
10807	+Z		.30	.000	.000	1.000		
11200	Z2	7538	1.00	29364.71	.000	.000	1.000	
11200	X2	385002	1.00	1499774.75	1.000	.000	.000	
11200	Y2	385002	1.00	1499774.75	.000	-1.000	.000	
11250	Z2	7538	1.00	29364.71	.000	.000	1.000	
11250	X2	385002	1.00	1499774.75	1.000	.000	.000	
11250	Y2	385002	1.00	1499774.75	.000	-1.000	.000	
11250	X2	22996	1.00	121106.34	1.000	.000	.000	
11250	Y2	743573	1.00	3916027.75	.000	-1.000	.000	
11250	Z2	743573	1.00	3916027.75	.000	.000	1.000	
9650	X2	22996	1.00	121106.34	1.000	.000	.000	
9650	Y2	743573	1.00	3916027.75	.000	-1.000	.000	
9650	Z2	743573	1.00	3916027.75	.000	.000	1.000	
11250	X2	42142	1.00	221942.50	1.000	.000	.000	
11250	Y2	1362691	1.00	7176610.50	.000	-1.000	.000	
11250	Z2	1362691	1.00	7176610.50	.000	.000	1.000	
17400	X2	42142	1.00	221942.50	1.000	.000	.000	
17400	Y2	1362691	1.00	7176610.50	.000	-1.000	.000	
17400	Z2	1362691	1.00	7176610.50	.000	.000	1.000	
11800	Y2	8836	1.00	46535.11	.000	-1.000	.000	
11800	X2	285718	1.00	1504733.75	1.000	.000	.000	
11800	Z2	285718	1.00	1504733.75	.000	.000	1.000	
12070	Y2	63238	1.00	333042.44	.000	-1.000	.000	
12070	X2	2044826	1.00	10769077.00	1.000	.000	.000	
12070	Z2	2044826	1.00	10769077.00	.000	.000	1.000	
12500	Y2	63238	1.00	333042.44	.000	-1.000	.000	
12500	X2	2044826	1.00	10769077.00	1.000	.000	.000	
12500	Z2	2044826	1.00	10769077.00	.000	.000	1.000	
12520	Y2	63238	1.00	333042.44	.000	-1.000	.000	
12520	X2	2044826	1.00	10769077.00	1.000	.000	.000	
12520	Z2	2044826	1.00	10769077.00	.000	.000	1.000	
12900	Y2	63238	1.00	333042.44	.000	-1.000	.000	
12900	X2	2044826	1.00	10769077.00	1.000	.000	.000	
12900	Z2	2044826	1.00	10769077.00	.000	.000	1.000	
12921	Y2	16064	1.00	84600.48	.000	-1.000	.000	
12921	X2	519433	1.00	2735594.50	1.000	.000	.000	
12921	Z2	519433	1.00	2735594.50	.000	.000	1.000	
12922	X2	19262	1.00	101441.95	-.707	-.707	.000	
12922	X2	622837	1.00	3280171.00	-.707	.707	.000	
12922	Z2	622837	1.00	3280171.00	.000	.000	1.000	
13300	X2	13285	1.00	69967.80	1.000	.000	.000	
13300	Y2	429591	1.00	2262440.50	.000	-1.000	.000	

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13300	Z2	429591	1.00	2262440.50	.000	.000	1.000
13400	X2	14583	1.00	76802.63	1.000	.000	.000
13400	Y2	471556	1.00	2483447.50	.000	-1.000	.000
13400	Z2	471556	1.00	2483447.50	.000	.000	1.000
13401	X2	20560	1.00	108276.77	1.000	.000	.000
13401	Y2	664802	1.00	3501178.00	.000	-1.000	.000
13401	Z2	664802	1.00	3501178.00	.000	.000	1.000
13402	X2	19262	1.00	101441.95	-.707	-.707	.000
13402	X2	622837	1.00	3280171.00	-.707	.707	.000
13402	Z2	622837	1.00	3280171.00	.000	.000	1.000
13450	Y2	33311	1.00	175430.22	.000	-1.000	.000
13450	X2	1077113	1.00	5672615.00	1.000	.000	.000
13450	Z2	1077113	1.00	5672615.00	.000	.000	1.000
13500	Y2	23680	1.00	124709.25	.000	-1.000	.000
13500	X2	765694	1.00	4032529.75	1.000	.000	.000
13500	Z2	765694	1.00	4032529.75	.000	.000	1.000
13500	X2	15594	1.00	82125.23	1.000	.000	.000
13500	Y2	504236	1.00	2655556.25	.000	-1.000	.000
13500	Z2	504236	1.00	2655556.25	.000	.000	1.000
14700	X2	30397	1.00	160087.44	1.000	.000	.000
14700	Y2	982911	1.00	5176499.00	.000	-1.000	.000
14700	Z2	982911	1.00	5176499.00	.000	.000	1.000
14720	X2	31711	1.00	167005.64	1.000	.000	.000
14720	Y2	1025387	1.00	5400202.50	.000	-1.000	.000
14720	Z2	1025387	1.00	5400202.50	.000	.000	1.000
14721	X2	33815	1.00	178086.88	1.000	.000	.000
14721	Y2	1093424	1.00	5758519.00	.000	-1.000	.000
14721	Z2	1093424	1.00	5758519.00	.000	.000	1.000
14722	X2	26538	1.00	139764.41	1.000	.000	.000
14722	Y2	858131	1.00	4519345.00	.000	-1.000	.000
14722	Z2	858131	1.00	4519345.00	.000	.000	1.000
14723	X2	19262	1.00	101441.95	.707	.707	.000
14723	X2	622837	1.00	3280171.00	.707	-.707	.000
14723	Z2	622837	1.00	3280171.00	.000	.000	1.000
14750	Y2	35081	1.00	184755.41	.000	-1.000	.000
14750	X2	1134368	1.00	5974149.50	1.000	.000	.000
14750	Z2	1134368	1.00	5974149.50	.000	.000	1.000
14770	Y2	63163	1.00	332648.81	.000	-1.000	.000
14770	X2	2042410	1.00	10756350.00	1.000	.000	.000
14770	Z2	2042410	1.00	10756350.00	.000	.000	1.000
15500	Y2	63238	1.00	333042.44	.000	-1.000	.000
15500	X2	2044826	1.00	10769077.00	1.000	.000	.000
15500	Z2	2044826	1.00	10769077.00	.000	.000	1.000
15550	Y2	63238	1.00	333042.44	.000	-1.000	.000
15550	X2	2044826	1.00	10769077.00	1.000	.000	.000
15550	Z2	2044826	1.00	10769077.00	.000	.000	1.000
16300	Y2	63238	1.00	333042.44	.000	-1.000	.000
16300	X2	2044826	1.00	10769077.00	1.000	.000	.000
16300	Z2	2044826	1.00	10769077.00	.000	.000	1.000
16350	Y2	63238	1.00	333042.44	.000	-1.000	.000
16350	X2	2044826	1.00	10769077.00	1.000	.000	.000
16350	Z2	2044826	1.00	10769077.00	.000	.000	1.000
17100	Y2	63238	1.00	333042.44	.000	-1.000	.000
17100	X2	2044826	1.00	10769077.00	1.000	.000	.000
17100	Z2	2044826	1.00	10769077.00	.000	.000	1.000

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17150	Y2	44473	1.00	234219.66	.000	-1.000	.000
17150	X2	1438071	1.00	7573598.00	1.000	.000	.000
17150	Z2	1438071	1.00	7573598.00	.000	.000	1.000
17400	Y2	21691	1.00	114233.55	.000	-1.000	.000
17400	X2	701375	1.00	3693793.25	1.000	.000	.000
17400	Z2	701375	1.00	3693793.25	.000	.000	1.000
17420	Y2	8836	1.00	46535.11	.000	-1.000	.000
17420	X2	285718	1.00	1504733.75	1.000	.000	.000
17420	Z2	285718	1.00	1504733.75	.000	.000	1.000
17150	X2	7042	1.00	29035.99	1.000	.000	.000
17150	Y2	310164	1.00	1278960.12	.000	-1.000	.000
17150	Z2	310164	1.00	1278960.12	.000	.000	1.000
17170	X2	7042	1.00	29035.99	1.000	.000	.000
17170	Y2	310164	1.00	1278960.12	.000	-1.000	.000
17170	Z2	310164	1.00	1278960.12	.000	.000	1.000
14800	X2	5208	1.00	21473.82	1.000	.000	.000
14800	Y2	229384	1.00	945866.38	.000	-1.000	.000
14800	Z2	229384	1.00	945866.38	.000	.000	1.000
14900	X2	7050	1.00	29068.69	1.000	.000	.000
14900	Y2	310513	1.00	1280400.62	.000	-1.000	.000
14900	Z2	310513	1.00	1280400.62	.000	.000	1.000
14901	X2	4836	1.00	19939.80	1.000	.000	.000
14901	Y2	212998	1.00	878296.63	.000	-1.000	.000
14901	Z2	212998	1.00	878296.63	.000	.000	1.000
14902	X2	5142	1.00	21201.73	-.707	.000	.707
14902	Y2	226478	1.00	933881.44	.000	-1.000	.000
14902	X2	226478	1.00	933881.44	.707	.000	.707
14950	Z2	8550	1.00	35254.89	.000	.000	1.000
14950	X2	376594	1.00	1552886.62	1.000	.000	.000
14950	Y2	376594	1.00	1552886.62	.000	-1.000	.000
15000	Z2	5979	1.00	24654.02	.000	.000	1.000
15000	X2	263355	1.00	1085945.87	1.000	.000	.000
15000	Y2	263355	1.00	1085945.87	.000	-1.000	.000
13500	Y2	59564	1.00	313695.69	.000	-1.000	.000
13500	X2	1926040	1.00	10143491.00	1.000	.000	.000
13500	Z2	1926040	1.00	10143491.00	.000	.000	1.000
13520	Y2	119129	1.00	627391.38	.000	-1.000	.000
13520	X2	3852081	1.00	20286982.00	1.000	.000	.000
13520	Z2	3852081	1.00	20286982.00	.000	.000	1.000
13550	Y2	120238	1.00	633234.75	.000	-1.000	.000
13550	X2	3887958	1.00	20475930.00	1.000	.000	.000
13550	Z2	3887958	1.00	20475930.00	.000	.000	1.000
13600	Y2	74767	1.00	393762.13	.000	-1.000	.000
13600	X2	2417635	1.00	12732474.00	1.000	.000	.000
13600	Z2	2417635	1.00	12732474.00	.000	.000	1.000
13650	Y2	31323	1.00	164961.97	.000	-1.000	.000
13650	X2	1012840	1.00	5334119.00	1.000	.000	.000
13650	Z2	1012840	1.00	5334119.00	.000	.000	1.000
13700	Y2	17229	1.00	90738.92	.000	-1.000	.000
13700	X2	557122	1.00	2934083.75	1.000	.000	.000
13700	Z2	557122	1.00	2934083.75	.000	.000	1.000
12100	X2	5208	1.00	21473.82	1.000	.000	.000
12100	Y2	229384	1.00	945866.38	.000	-1.000	.000
12100	Z2	229384	1.00	945866.38	.000	.000	1.000
12200	X2	6817	1.00	28108.09	1.000	.000	.000

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12200	Y2	300252	1.00	1238088.75	.000	-1.000	.000
12200	Z2	300252	1.00	1238088.75	.000	.000	1.000
12201	X2	4603	1.00	18979.20	1.000	.000	.000
12201	Y2	202737	1.00	835984.69	.000	-1.000	.000
12201	Z2	202737	1.00	835984.69	.000	.000	1.000
12202	X2	5142	1.00	21201.73	-.707	.000	.707
12202	Y2	226478	1.00	933881.44	.000	-1.000	.000
12202	X2	226478	1.00	933881.44	.707	.000	.707
12250	Z2	8550	1.00	35254.89	.000	.000	1.000
12250	X2	376594	1.00	1552886.62	1.000	.000	.000
12250	Y2	376594	1.00	1552886.62	.000	-1.000	.000
12300	Z2	5979	1.00	24654.02	.000	.000	1.000
12300	X2	263355	1.00	1085945.87	1.000	.000	.000
12300	Y2	263355	1.00	1085945.87	.000	-1.000	.000
11900	X2	7038	1.00	29022.36	1.000	.000	.000
11900	Y2	310018	1.00	1278360.00	.000	-1.000	.000
11900	Z2	310018	1.00	1278360.00	.000	.000	1.000
9650	X2	22996	1.00	121106.34	1.000	.000	.000
9650	Y2	743573	1.00	3916027.75	.000	-1.000	.000
9650	Z2	743573	1.00	3916027.75	.000	.000	1.000
8050	X2	45991	1.00	242212.67	1.000	.000	.000
8050	Y2	1487146	1.00	7832055.50	.000	-1.000	.000
8050	Z2	1487146	1.00	7832055.50	.000	.000	1.000
6450	X2	45991	1.00	242212.67	1.000	.000	.000
6450	Y2	1487146	1.00	7832055.50	.000	-1.000	.000
6450	Z2	1487146	1.00	7832055.50	.000	.000	1.000
11300	X2	45991	1.00	242212.67	1.000	.000	.000
11300	Y2	1487146	1.00	7832055.50	.000	-1.000	.000
11300	Z2	1487146	1.00	7832055.50	.000	.000	1.000
11350	X2	22996	1.00	121106.34	1.000	.000	.000
11350	Y2	743573	1.00	3916027.75	.000	-1.000	.000
11350	Z2	743573	1.00	3916027.75	.000	.000	1.000
11350	Z2	2170	1.00	8452.84	.000	.000	1.000
11350	X2	110826	1.00	431720.88	1.000	.000	.000
11350	Y2	110826	1.00	431720.88	.000	-1.000	.000
11600	Z2	5368	1.00	20911.87	.000	.000	1.000
11600	X2	274176	1.00	1068053.87	1.000	.000	.000
11600	Y2	274176	1.00	1068053.87	.000	-1.000	.000
11350	X2	15568	1.00	81988.99	1.000	.000	.000
11350	Y2	503399	1.00	2651150.75	.000	-1.000	.000
11350	Z2	503399	1.00	2651150.75	.000	.000	1.000
11400	X2	15568	1.00	81988.99	1.000	.000	.000
11400	Y2	503399	1.00	2651150.75	.000	-1.000	.000
11400	Z2	503399	1.00	2651150.75	.000	.000	1.000
11300	Z2	7538	1.00	29364.71	.000	.000	1.000
11300	X2	385002	1.00	1499774.75	1.000	.000	.000
11300	Y2	385002	1.00	1499774.75	.000	-1.000	.000
11450	Z2	7538	1.00	29364.71	.000	.000	1.000
11450	X2	385002	1.00	1499774.75	1.000	.000	.000
11450	Y2	385002	1.00	1499774.75	.000	-1.000	.000
12450	X			1.000	.000	.000	
12450	Y			.000	-1.000	.000	
12450	Z			.000	.000	1.000	
12520	X2	5208	1.00	21473.82	1.000	.000	.000
12520	Y2	229384	1.00	945866.38	.000	-1.000	.000

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12520	Z2	229384	1.00	945866.38	.000	.000	1.000
12570	X2	9992	1.00	41203.58	1.000	.000	.000
12570	Y2	440139	1.00	1814911.12	.000	-1.000	.000
12570	Z2	440139	1.00	1814911.12	.000	.000	1.000
12620	X2	6817	1.00	28108.09	1.000	.000	.000
12620	Y2	300252	1.00	1238088.75	.000	-1.000	.000
12620	Z2	300252	1.00	1238088.75	.000	.000	1.000
12621	X2	4603	1.00	18979.20	1.000	.000	.000
12621	Y2	202737	1.00	835984.69	.000	-1.000	.000
12621	Z2	202737	1.00	835984.69	.000	.000	1.000
12622	X2	5142	1.00	21201.73	-.707	.000	.707
12622	Y2	226478	1.00	933881.44	.000	-1.000	.000
12622	X2	226478	1.00	933881.44	.707	.000	.707
12670	Z2	8550	1.00	35254.89	.000	.000	1.000
12670	X2	376594	1.00	1552886.62	1.000	.000	.000
12670	Y2	376594	1.00	1552886.62	.000	-1.000	.000
12720	Z2	5979	1.00	24654.02	.000	.000	1.000
12720	X2	263355	1.00	1085945.87	1.000	.000	.000
12720	Y2	263355	1.00	1085945.87	.000	-1.000	.000
12870	X			1.000	.000	.000	
12870	Y			.000	-1.000	.000	
12870	Z			.000	.000	1.000	
12920	X2	5208	1.00	21473.82	1.000	.000	.000
12920	Y2	229384	1.00	945866.38	.000	-1.000	.000
12920	Z2	229384	1.00	945866.38	.000	.000	1.000
13020	X2	6817	1.00	28108.09	1.000	.000	.000
13020	Y2	300252	1.00	1238088.75	.000	-1.000	.000
13020	Z2	300252	1.00	1238088.75	.000	.000	1.000
13021	X2	4603	1.00	18979.20	1.000	.000	.000
13021	Y2	202737	1.00	835984.69	.000	-1.000	.000
13021	Z2	202737	1.00	835984.69	.000	.000	1.000
13022	X2	5142	1.00	21201.73	-.707	.000	.707
13022	Y2	226478	1.00	933881.44	.000	-1.000	.000
13022	X2	226478	1.00	933881.44	.707	.000	.707
13070	Z2	8550	1.00	35254.89	.000	.000	1.000
13070	X2	376594	1.00	1552886.62	1.000	.000	.000
13070	Y2	376594	1.00	1552886.62	.000	-1.000	.000
13120	Z2	5979	1.00	24654.02	.000	.000	1.000
13120	X2	263355	1.00	1085945.87	1.000	.000	.000
13120	Y2	263355	1.00	1085945.87	.000	-1.000	.000
13270	X			1.000	.000	.000	
13270	Y			.000	-1.000	.000	
13270	Z			.000	.000	1.000	
13700	Y2	14093	1.00	74223.05	.000	-1.000	.000
13700	X2	455717	1.00	2400035.50	1.000	.000	.000
13700	Z2	455717	1.00	2400035.50	.000	.000	1.000
13750	Y2	34033	1.00	179237.38	.000	-1.000	.000
13750	X2	1100488	1.00	5795721.00	1.000	.000	.000
13750	Z2	1100488	1.00	5795721.00	.000	.000	1.000
13800	Y2	34743	1.00	182976.53	.000	-1.000	.000
13800	X2	1123446	1.00	5916629.00	1.000	.000	.000
13800	Z2	1123446	1.00	5916629.00	.000	.000	1.000
13850	Y2	39725	1.00	209211.20	.000	-1.000	.000
13850	X2	1284523	1.00	6764938.00	1.000	.000	.000
13850	Z2	1284523	1.00	6764938.00	.000	.000	1.000

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13851	Y2	34552	1.00	181969.97	.000	-1.000	.000
13851	X2	1117266	1.00	5884080.50	1.000	.000	.000
13851	Z2	1117266	1.00	5884080.50	.000	.000	1.000
13852	X2	19262	1.00	101441.95	.707	-.707	.000
13852	X2	622837	1.00	3280171.00	-.707	-.707	.000
13852	Z2	622837	1.00	3280171.00	.000	.000	1.000
13900	X2	32230	1.00	169738.23	1.000	.000	.000
13900	Y2	1042165	1.00	5488562.00	.000	-1.000	.000
13900	Z2	1042165	1.00	5488562.00	.000	.000	1.000
2600	X2	22599	1.00	119017.26	1.000	.000	.000
2600	Y2	730747	1.00	3848476.25	.000	-1.000	.000
2600	Z2	730747	1.00	3848476.25	.000	.000	1.000
15150	X			1.000	.000	.000	
15150	Y			.000	-1.000	.000	
15150	Z			.000	.000	1.000	
15550	X2	5208	1.00	21473.82	1.000	.000	.000
15550	Y2	229384	1.00	945866.38	.000	-1.000	.000
15550	Z2	229384	1.00	945866.38	.000	.000	1.000
15600	X2	9992	1.00	41203.58	1.000	.000	.000
15600	Y2	440139	1.00	1814911.12	.000	-1.000	.000
15600	Z2	440139	1.00	1814911.12	.000	.000	1.000
15650	X2	7050	1.00	29068.69	1.000	.000	.000
15650	Y2	310513	1.00	1280400.62	.000	-1.000	.000
15650	Z2	310513	1.00	1280400.62	.000	.000	1.000
15651	X2	4836	1.00	19939.80	1.000	.000	.000
15651	Y2	212998	1.00	878296.63	.000	-1.000	.000
15651	Z2	212998	1.00	878296.63	.000	.000	1.000
15652	X2	5142	1.00	21201.73	-.707	.000	.707
15652	Y2	226478	1.00	933881.44	.000	-1.000	.000
15652	X2	226478	1.00	933881.44	.707	.000	.707
15700	Z2	8550	1.00	35254.89	.000	.000	1.000
15700	X2	376594	1.00	1552886.62	1.000	.000	.000
15700	Y2	376594	1.00	1552886.62	.000	-1.000	.000
15750	Z2	5979	1.00	24654.02	.000	.000	1.000
15750	X2	263355	1.00	1085945.87	1.000	.000	.000
15750	Y2	263355	1.00	1085945.87	.000	-1.000	.000
15900	X			1.000	.000	.000	
15900	Y			.000	-1.000	.000	
15900	Z			.000	.000	1.000	
16350	X2	5208	1.00	21473.82	1.000	.000	.000
16350	Y2	229384	1.00	945866.38	.000	-1.000	.000
16350	Z2	229384	1.00	945866.38	.000	.000	1.000
16400	X2	9992	1.00	41203.58	1.000	.000	.000
16400	Y2	440139	1.00	1814911.12	.000	-1.000	.000
16400	Z2	440139	1.00	1814911.12	.000	.000	1.000
16450	X2	7050	1.00	29068.69	1.000	.000	.000
16450	Y2	310513	1.00	1280400.62	.000	-1.000	.000
16450	Z2	310513	1.00	1280400.62	.000	.000	1.000
16451	X2	4836	1.00	19939.80	1.000	.000	.000
16451	Y2	212998	1.00	878296.63	.000	-1.000	.000
16451	Z2	212998	1.00	878296.63	.000	.000	1.000
16452	X2	5142	1.00	21201.73	-.707	.000	.707
16452	Y2	226478	1.00	933881.44	.000	-1.000	.000
16452	X2	226478	1.00	933881.44	.707	.000	.707
16500	Z2	8550	1.00	35254.89	.000	.000	1.000

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16500	X2	376594	1.00	1552886.62	1.000	.000	.000
16500	Y2	376594	1.00	1552886.62	.000	-1.000	.000
16550	Z2	5979	1.00	24654.02	.000	.000	1.000
16550	X2	263355	1.00	1085945.87	1.000	.000	.000
16550	Y2	263355	1.00	1085945.87	.000	-1.000	.000
16700	X			1.000	.000	.000	
16700	Y			.000	-1.000	.000	
16700	Z			.000	.000	1.000	
18200	X2	4345	1.00	17592.75	1.000	.000	.000
18200	Y2	199633	1.00	808213.81	.000	-1.000	.000
18200	Z2	199633	1.00	808213.81	.000	.000	1.000
18250	X2	8710	1.00	35261.06	1.000	.000	.000
18250	Y2	400123	1.00	1619898.75	.000	-1.000	.000
18250	Z2	400123	1.00	1619898.75	.000	.000	1.000
18300	X2	8710	1.00	35261.06	1.000	.000	.000
18300	Y2	400123	1.00	1619898.75	.000	-1.000	.000
18300	Z2	400123	1.00	1619898.75	.000	.000	1.000
18350	X2	12127	1.00	49094.73	1.000	.000	.000
18350	Y2	557100	1.00	2255419.75	.000	-1.000	.000
18350	Z2	557100	1.00	2255419.75	.000	.000	1.000
17900	X2	7781	1.00	31501.98	1.000	.000	.000
17900	Y2	357467	1.00	1447206.00	.000	-1.000	.000
17900	Z2	357467	1.00	1447206.00	.000	.000	1.000
18400	X2	4345	1.00	17592.75	1.000	.000	.000
18400	Y2	199633	1.00	808213.81	.000	-1.000	.000
18400	Z2	199633	1.00	808213.81	.000	.000	1.000
18450	X2	8710	1.00	35261.06	1.000	.000	.000
18450	Y2	400123	1.00	1619898.75	.000	-1.000	.000
18450	Z2	400123	1.00	1619898.75	.000	.000	1.000
18500	X2	8710	1.00	35261.06	1.000	.000	.000
18500	Y2	400123	1.00	1619898.75	.000	-1.000	.000
18500	Z2	400123	1.00	1619898.75	.000	.000	1.000
18550	X2	8710	1.00	35261.06	1.000	.000	.000
18550	Y2	400123	1.00	1619898.75	.000	-1.000	.000
18550	Z2	400123	1.00	1619898.75	.000	.000	1.000
18600	X2	8710	1.00	35261.06	1.000	.000	.000
18600	Y2	400123	1.00	1619898.75	.000	-1.000	.000
18600	Z2	400123	1.00	1619898.75	.000	.000	1.000
18650	X2	12127	1.00	49094.73	1.000	.000	.000
18650	Y2	557100	1.00	2255419.75	.000	-1.000	.000
18650	Z2	557100	1.00	2255419.75	.000	.000	1.000
17950	X2	7781	1.00	31501.98	1.000	.000	.000
17950	Y2	357467	1.00	1447206.00	.000	-1.000	.000
17950	Z2	357467	1.00	1447206.00	.000	.000	1.000
18700	X2	4345	1.00	17592.75	1.000	.000	.000
18700	Y2	199633	1.00	808213.81	.000	-1.000	.000
18700	Z2	199633	1.00	808213.81	.000	.000	1.000
18750	X2	8710	1.00	35261.06	1.000	.000	.000
18750	Y2	400123	1.00	1619898.75	.000	-1.000	.000
18750	Z2	400123	1.00	1619898.75	.000	.000	1.000
18800	X2	8710	1.00	35261.06	1.000	.000	.000
18800	Y2	400123	1.00	1619898.75	.000	-1.000	.000
18800	Z2	400123	1.00	1619898.75	.000	.000	1.000
18850	X2	8710	1.00	35261.06	1.000	.000	.000
18850	Y2	400123	1.00	1619898.75	.000	-1.000	.000

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18850	Z2	400123	1.00	1619898.75	.000	.000	1.000
18900	X2	8710	1.00	35261.06	1.000	.000	.000
18900	Y2	400123	1.00	1619898.75	.000	-1.000	.000
18900	Z2	400123	1.00	1619898.75	.000	.000	1.000
18950	X2	12127	1.00	49094.73	1.000	.000	.000
18950	Y2	557100	1.00	2255419.75	.000	-1.000	.000
18950	Z2	557100	1.00	2255419.75	.000	.000	1.000
18000	X2	7781	1.00	31501.98	1.000	.000	.000
18000	Y2	357467	1.00	1447206.00	.000	-1.000	.000
18000	Z2	357467	1.00	1447206.00	.000	.000	1.000
20500	Y2	3214	1.00	12521.95	.000	-1.000	.000
20500	X2	164176	1.00	639546.81	1.000	.000	.000
20500	Z2	164176	1.00	639546.81	.000	.000	1.000
20550	Y2	6378	1.00	24844.64	.000	-1.000	.000
20550	X2	325739	1.00	1268916.50	1.000	.000	.000
20550	Z2	325739	1.00	1268916.50	.000	.000	1.000
24750	Y2	7875	1.00	30675.64	.000	-1.000	.000
24750	X2	402189	1.00	1566729.00	1.000	.000	.000
24750	Z2	402189	1.00	1566729.00	.000	.000	1.000
1850	Y2	4711	1.00	18352.95	.000	-1.000	.000
1850	X2	240626	1.00	937359.25	1.000	.000	.000
1850	Z2	240626	1.00	937359.25	.000	.000	1.000
21850	+Z			.35	.000	.000	1.000
21900	+Z			.35	.000	.000	1.000
21950	+Z			.35	.000	.000	1.000
21950	X2	2380	1.00	9270.86	1.000	.000	.000
21950	Y2	121551	1.00	473500.31	.000	-1.000	.000
21950	Z2	121551	1.00	473500.31	.000	.000	1.000
22000	X2	5088	1.00	19821.18	1.000	.000	.000
22000	Y2	259876	1.00	1012347.94	.000	-1.000	.000
22000	Z2	259876	1.00	1012347.94	.000	.000	1.000
22050	X2	6480	1.00	25243.16	1.000	.000	.000
22050	Y2	330964	1.00	1289270.62	.000	-1.000	.000
22050	Z2	330964	1.00	1289270.62	.000	.000	1.000
22700	X2	6986	1.00	27214.80	1.000	.000	.000
22700	Y2	356814	1.00	1389969.75	.000	-1.000	.000
22700	Z2	356814	1.00	1389969.75	.000	.000	1.000
22750	X2	5907	1.00	23009.35	1.000	.000	.000
22750	Y2	301677	1.00	1175180.75	.000	-1.000	.000
22750	Z2	301677	1.00	1175180.75	.000	.000	1.000
22751	X2	4303	1.00	16763.83	1.000	.000	.000
22751	Y2	219791	1.00	856196.50	.000	-1.000	.000
22751	Z2	219791	1.00	856196.50	.000	.000	1.000
22752	X2	3222	1.00	12552.86	-.707	.707	.000
22752	X2	164581	1.00	641125.19	.707	.707	.000
22752	Z2	164581	1.00	641125.19	.000	.000	1.000
22800	Y2	4357	1.00	16973.57	.000	-1.000	.000
22800	X2	222541	1.00	866909.13	1.000	.000	.000
22800	Z2	222541	1.00	866909.13	.000	.000	1.000
22850	Y2	5960	1.00	23219.10	.000	-1.000	.000
22850	X2	304427	1.00	1185893.25	1.000	.000	.000
22850	Z2	304427	1.00	1185893.25	.000	.000	1.000
22900	Y2	6343	1.00	24708.31	.000	-1.000	.000
22900	X2	323952	1.00	1261953.37	1.000	.000	.000
22900	Z2	323952	1.00	1261953.37	.000	.000	1.000

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22901	Y2	4740	1.00	18462.78	.000	-1.000	.000
22901	X2	242066	1.00	942969.13	1.000	.000	.000
22901	Z2	242066	1.00	942969.13	.000	.000	1.000
22902	X2	3222	1.00	12552.86	.000	.707	.707
22902	X2	164581	1.00	641125.19	1.000	.000	.000
22902	X2	164581	1.00	641125.19	.000	-.707	.707
22950	Z2	3162	1.00	12317.17	.000	.000	1.000
22950	X2	161491	1.00	629087.75	1.000	.000	.000
22950	Y2	161491	1.00	629087.75	.000	-1.000	.000
22951	Z2	3162	1.00	12317.17	.000	.000	1.000
22951	X2	161491	1.00	629087.75	1.000	.000	.000
22951	Y2	161491	1.00	629087.75	.000	-1.000	.000
22952	X2	3222	1.00	12552.86	.707	.000	.707
22952	Y2	164581	1.00	641125.19	.000	-1.000	.000
22952	X2	164581	1.00	641125.19	-.707	.000	.707
23000	X2	5839	1.00	22747.60	1.000	.000	.000
23000	Y2	298245	1.00	1161811.87	.000	-1.000	.000
23000	Z2	298245	1.00	1161811.87	.000	.000	1.000
23001	X2	8457	1.00	32942.34	1.000	.000	.000
23001	Y2	431908	1.00	1682498.50	.000	-1.000	.000
23001	Z2	431908	1.00	1682498.50	.000	.000	1.000
23002	X2	7679	1.00	29912.68	1.000	.000	.000
23002	Y2	392186	1.00	1527761.75	.000	-1.000	.000
23002	Z2	392186	1.00	1527761.75	.000	.000	1.000
23003	X2	6901	1.00	26883.02	1.000	.000	.000
23003	Y2	352464	1.00	1373024.87	.000	-1.000	.000
23003	Z2	352464	1.00	1373024.87	.000	.000	1.000
23020	X2	6901	1.00	26883.02	1.000	.000	.000
23020	Y2	352464	1.00	1373024.87	.000	-1.000	.000
23020	Z2	352464	1.00	1373024.87	.000	.000	1.000
23021	X2	6901	1.00	26883.02	1.000	.000	.000
23021	Y2	352464	1.00	1373024.87	.000	-1.000	.000
23021	Z2	352464	1.00	1373024.87	.000	.000	1.000
23022	X2	7679	1.00	29912.68	1.000	.000	.000
23022	Y2	392186	1.00	1527761.75	.000	-1.000	.000
23022	Z2	392186	1.00	1527761.75	.000	.000	1.000
23023	X2	8457	1.00	32942.34	1.000	.000	.000
23023	Y2	431908	1.00	1682498.50	.000	-1.000	.000
23023	Z2	431908	1.00	1682498.50	.000	.000	1.000
23024	X2	5839	1.00	22747.60	1.000	.000	.000
23024	Y2	298245	1.00	1161811.87	.000	-1.000	.000
23024	Z2	298245	1.00	1161811.87	.000	.000	1.000
23025	X2	3222	1.00	12552.86	.707	.707	.000
23025	X2	164581	1.00	641125.19	.707	-.707	.000
23025	Z2	164581	1.00	641125.19	.000	.000	1.000
23050	Y2	5839	1.00	22747.60	.000	-1.000	.000
23050	X2	298245	1.00	1161811.87	1.000	.000	.000
23050	Z2	298245	1.00	1161811.87	.000	.000	1.000
23051	Y2	12399	1.00	48299.00	.000	-1.000	.000
23051	X2	633250	1.00	2466825.50	1.000	.000	.000
23051	Z2	633250	1.00	2466825.50	.000	.000	1.000
23052	Y2	12399	1.00	48299.00	.000	-1.000	.000
23052	X2	633250	1.00	2466825.50	1.000	.000	.000
23052	Z2	633250	1.00	2466825.50	.000	.000	1.000
23053	Y2	5839	1.00	22747.60	.000	-1.000	.000

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23053	X2	298245	1.00	1161811.87	1.000	.000	.000
23053	Z2	298245	1.00	1161811.87	.000	.000	1.000
23054	X2	3222	1.00	12552.86	.000	.707	.707
23054	X2	164581	1.00	641125.19	1.000	.000	.000
23054	X2	164581	1.00	641125.19	.000	-.707	.707
23100	Z2	1660	1.00	6465.20	.000	.000	1.000
23100	X2	84766	1.00	330204.03	1.000	.000	.000
23100	Y2	84766	1.00	330204.03	.000	-1.000	.000
23150	Z2	48	1.00	188.77	.000	.000	1.000
23150	X2	2475	1.00	9641.44	1.000	.000	.000
23150	Y2	2475	1.00	9641.44	.000	-1.000	.000
23200	Guide			.35	.000	.000	.000
23250	Guide			.35	.000	.000	.000
23300	Guide			.35	.000	.000	.000
22050	Y2	3772	1.00	14692.84	.000	-1.000	.000
22050	X2	192638	1.00	750423.00	1.000	.000	.000
22050	Z2	192638	1.00	750423.00	.000	.000	1.000
22100	Y2	6986	1.00	27214.80	.000	-1.000	.000
22100	X2	356814	1.00	1389969.75	1.000	.000	.000
22100	Z2	356814	1.00	1389969.75	.000	.000	1.000
22200	Y2	25284	1.00	98494.49	.000	-1.000	.000
22200	X2	1291365	1.00	5030512.50	1.000	.000	.000
22200	Z2	1291365	1.00	5030512.50	.000	.000	1.000
22250	Y2	44139	1.00	171945.08	.000	-1.000	.000
22250	X2	2254379	1.00	8781931.00	1.000	.000	.000
22250	Z2	2254379	1.00	8781931.00	.000	.000	1.000
22270	Y2	30605	1.00	119221.43	.000	-1.000	.000
22270	X2	1563117	1.00	6089121.00	1.000	.000	.000
22270	Z2	1563117	1.00	6089121.00	.000	.000	1.000
22271	Y2	12763	1.00	49720.06	.000	-1.000	.000
22271	X2	651882	1.00	2539404.75	1.000	.000	.000
22271	Z2	651882	1.00	2539404.75	.000	.000	1.000
22272	Y2	8457	1.00	32942.34	.000	-1.000	.000
22272	X2	431908	1.00	1682498.50	1.000	.000	.000
22272	Z2	431908	1.00	1682498.50	.000	.000	1.000
22273	Y2	8457	1.00	32942.34	.000	-1.000	.000
22273	X2	431908	1.00	1682498.50	1.000	.000	.000
22273	Z2	431908	1.00	1682498.50	.000	.000	1.000
22274	Y2	5034	1.00	19609.38	.000	-1.000	.000
22274	X2	257099	1.00	1001530.56	1.000	.000	.000
22274	Z2	257099	1.00	1001530.56	.000	.000	1.000
22275	X2	1611	1.00	6276.43	.000	.924	-.383
22275	X2	82290	1.00	320562.59	1.000	.000	.000
22275	X2	82290	1.00	320562.59	.000	.383	.924
22300	X2	5407	1.00	21063.92	.000	.707	-.707
22300	X2	276170	1.00	1075819.75	1.000	.000	.000
22300	X2	276170	1.00	1075819.75	.000	.707	.707
22301	X2	5407	1.00	21063.92	.000	.707	-.707
22301	X2	276170	1.00	1075819.75	1.000	.000	.000
22301	X2	276170	1.00	1075819.75	.000	.707	.707
22302	X2	1611	1.00	6276.43	.000	.924	-.383
22302	X2	82290	1.00	320562.59	1.000	.000	.000
22302	X2	82290	1.00	320562.59	.000	.383	.924
22350	Y2	5034	1.00	19609.38	.000	-1.000	.000
22350	X2	257099	1.00	1001530.56	1.000	.000	.000

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22350	Z2	257099	1.00	1001530.56	.000	.000	1.000
22351	Y2	9024	1.00	35151.67	.000	-1.000	.000
22351	X2	460875	1.00	1795338.25	1.000	.000	.000
22351	Z2	460875	1.00	1795338.25	.000	.000	1.000
22352	Y2	9024	1.00	35151.67	.000	-1.000	.000
22352	X2	460875	1.00	1795338.25	1.000	.000	.000
22352	Z2	460875	1.00	1795338.25	.000	.000	1.000
22353	Y2	5839	1.00	22747.60	.000	-1.000	.000
22353	X2	298245	1.00	1161811.87	1.000	.000	.000
22353	Z2	298245	1.00	1161811.87	.000	.000	1.000
22354	X2	3222	1.00	12552.86	.000	.707	.707
22354	X2	164581	1.00	641125.19	1.000	.000	.000
22354	X2	164581	1.00	641125.19	.000	-.707	.707
22400	Z2	4015	1.00	15641.67	.000	.000	1.000
22400	X2	205079	1.00	798883.63	1.000	.000	.000
22400	Y2	205079	1.00	798883.63	.000	-1.000	.000
21000	Z2	2404	1.00	9365.25	.000	.000	1.000
21000	X2	122788	1.00	478321.03	1.000	.000	.000
21000	Y2	122788	1.00	478321.03	.000	-1.000	.000
24720	Z2	3613	1.00	12507.22	.000	.000	1.000
24720	X2	342158	1.00	1184550.87	1.000	.000	.000
24720	Y2	342158	1.00	1184550.87	.000	-1.000	.000
24750	Z2	3613	1.00	12507.22	.000	.000	1.000
24750	X2	342158	1.00	1184550.87	1.000	.000	.000
24750	Y2	342158	1.00	1184550.87	.000	-1.000	.000

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DISPLACEMENTS

2899 2900 Node 2901 DX1= 26.559 mm. DY1= -.002 mm.
 DZ1= .023 mm. RX1= .115 RY1= .000
 RZ1= .000 DX2= -11.624 mm. DY2= .001 mm.
 DZ2= -.014 mm. RX2= -.104 RY2= -.000
 RZ2= -.000

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FLANGES

21550 21600 Location= Both Method= Peq
 Class/Grade= ASME-2009-600-1.1
 G/C= 566.380 mm. T/P table (1)= 37.8 C
 -> 10,204.2 KPa (2)= 93.3 C
 -> 9,376.9 KPa (3)= 148.9 C
 -> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C
 -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C
 -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C
 -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C
 -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C

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-> 1,896.1 KPa (14)= 537.8 C
-> 1,172.1 KPa
24100      24150      Location= To Method= Peq
G/C= 255.850 mm.
25120      25150      Location= To Method= Peq
G/C= 144.600 mm.
24220      24250      Location= To Method= Peq
G/C= 255.850 mm.
5150       5200       Location= Both Method= Peq
Class/Grade= ASME-2009-600-1.1
G/C= 566.380 mm. T/P table ( 1)= 37.8 C
-> 10,204.2 KPa ( 2)= 93.3 C
-> 9,376.9 KPa ( 3)= 148.9 C
-> 9,032.1 KPa ( 4)= 204.4 C
-> 8,721.9 KPa ( 5)= 260.0 C
-> 8,308.2 KPa ( 6)= 315.6 C
-> 7,825.5 KPa ( 7)= 343.3 C
-> 7,584.2 KPa ( 8)= 371.1 C
-> 7,308.4 KPa ( 9)= 398.9 C
-> 6,998.2 KPa (10)= 426.7 C
-> 5,688.2 KPa (11)= 454.4 C
-> 4,412.6 KPa (12)= 482.2 C
-> 3,171.6 KPa (13)= 510.0 C
-> 1,896.1 KPa (14)= 537.8 C
-> 1,172.1 KPa
5310       5320       Location= To Method= Peq
Class/Grade= ASME-2009-600-1.1
G/C= 566.380 mm. T/P table ( 1)= 37.8 C
-> 10,204.2 KPa ( 2)= 93.3 C
-> 9,376.9 KPa ( 3)= 148.9 C
-> 9,032.1 KPa ( 4)= 204.4 C
-> 8,721.9 KPa ( 5)= 260.0 C
-> 8,308.2 KPa ( 6)= 315.6 C
-> 7,825.5 KPa ( 7)= 343.3 C
-> 7,584.2 KPa ( 8)= 371.1 C
-> 7,308.4 KPa ( 9)= 398.9 C
-> 6,998.2 KPa (10)= 426.7 C
-> 5,688.2 KPa (11)= 454.4 C
-> 4,412.6 KPa (12)= 482.2 C
-> 3,171.6 KPa (13)= 510.0 C
-> 1,896.1 KPa (14)= 537.8 C
-> 1,172.1 KPa
5350       5400       Location= To Method= Peq
G/C= 566.380 mm.
5750       5800       Location= To Method= Peq
G/C= 566.380 mm.
5900       5950       Location= To Method= Peq
G/C= 566.380 mm.
6010       6030       Location= To Method= Peq
Class/Grade= ASME-2009-600-1.1
G/C= 566.380 mm. T/P table ( 1)= 37.8 C
-> 10,204.2 KPa ( 2)= 93.3 C
-> 9,376.9 KPa ( 3)= 148.9 C
-> 9,032.1 KPa ( 4)= 204.4 C
-> 8,721.9 KPa ( 5)= 260.0 C

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-> 8,308.2 KPa ( 6)= 315.6 C
-> 7,825.5 KPa ( 7)= 343.3 C
-> 7,584.2 KPa ( 8)= 371.1 C
-> 7,308.4 KPa ( 9)= 398.9 C
-> 6,998.2 KPa (10)= 426.7 C
-> 5,688.2 KPa (11)= 454.4 C
-> 4,412.6 KPa (12)= 482.2 C
-> 3,171.6 KPa (13)= 510.0 C
-> 1,896.1 KPa (14)= 537.8 C
-> 1,172.1 KPa
6112      6125      Location= To Method= Peq
G/C= 566.380 mm.
6200      6250      Location= Both Method= Peq
Class/Grade= ASME-2009-600-1.1
G/C= 566.380 mm. T/P table ( 1)= 37.8 C
-> 10,204.2 KPa ( 2)= 93.3 C
-> 9,376.9 KPa ( 3)= 148.9 C
-> 9,032.1 KPa ( 4)= 204.4 C
-> 8,721.9 KPa ( 5)= 260.0 C
-> 8,308.2 KPa ( 6)= 315.6 C
-> 7,825.5 KPa ( 7)= 343.3 C
-> 7,584.2 KPa ( 8)= 371.1 C
-> 7,308.4 KPa ( 9)= 398.9 C
-> 6,998.2 KPa (10)= 426.7 C
-> 5,688.2 KPa (11)= 454.4 C
-> 4,412.6 KPa (12)= 482.2 C
-> 3,171.6 KPa (13)= 510.0 C
-> 1,896.1 KPa (14)= 537.8 C
-> 1,172.1 KPa
6750      6800      Location= Both Method= Peq
Class/Grade= ASME-2009-600-1.1
G/C= 566.380 mm. T/P table ( 1)= 37.8 C
-> 10,204.2 KPa ( 2)= 93.3 C
-> 9,376.9 KPa ( 3)= 148.9 C
-> 9,032.1 KPa ( 4)= 204.4 C
-> 8,721.9 KPa ( 5)= 260.0 C
-> 8,308.2 KPa ( 6)= 315.6 C
-> 7,825.5 KPa ( 7)= 343.3 C
-> 7,584.2 KPa ( 8)= 371.1 C
-> 7,308.4 KPa ( 9)= 398.9 C
-> 6,998.2 KPa (10)= 426.7 C
-> 5,688.2 KPa (11)= 454.4 C
-> 4,412.6 KPa (12)= 482.2 C
-> 3,171.6 KPa (13)= 510.0 C
-> 1,896.1 KPa (14)= 537.8 C
-> 1,172.1 KPa
6910      6920      Location= To Method= Peq
Class/Grade= ASME-2009-600-1.1
G/C= 566.380 mm. T/P table ( 1)= 37.8 C
-> 10,204.2 KPa ( 2)= 93.3 C
-> 9,376.9 KPa ( 3)= 148.9 C
-> 9,032.1 KPa ( 4)= 204.4 C
-> 8,721.9 KPa ( 5)= 260.0 C
-> 8,308.2 KPa ( 6)= 315.6 C
-> 7,825.5 KPa ( 7)= 343.3 C

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-> 7,584.2 KPa ( 8)= 371.1 C
-> 7,308.4 KPa ( 9)= 398.9 C
-> 6,998.2 KPa (10)= 426.7 C
-> 5,688.2 KPa (11)= 454.4 C
-> 4,412.6 KPa (12)= 482.2 C
-> 3,171.6 KPa (13)= 510.0 C
-> 1,896.1 KPa (14)= 537.8 C
-> 1,172.1 KPa
6950      7000      Location= To Method= Peq
G/C= 566.380 mm.
7350      7400      Location= To Method= Peq
G/C= 566.380 mm.
7500      7550      Location= To Method= Peq
G/C= 566.380 mm.
7610      7620      Location= To Method= Peq
Class/Grade= ASME-2009-600-1.1
G/C= 566.380 mm. T/P table ( 1)= 37.8 C
-> 10,204.2 KPa ( 2)= 93.3 C
-> 9,376.9 KPa ( 3)= 148.9 C
-> 9,032.1 KPa ( 4)= 204.4 C
-> 8,721.9 KPa ( 5)= 260.0 C
-> 8,308.2 KPa ( 6)= 315.6 C
-> 7,825.5 KPa ( 7)= 343.3 C
-> 7,584.2 KPa ( 8)= 371.1 C
-> 7,308.4 KPa ( 9)= 398.9 C
-> 6,998.2 KPa (10)= 426.7 C
-> 5,688.2 KPa (11)= 454.4 C
-> 4,412.6 KPa (12)= 482.2 C
-> 3,171.6 KPa (13)= 510.0 C
-> 1,896.1 KPa (14)= 537.8 C
-> 1,172.1 KPa
7712      7725      Location= To Method= Peq
G/C= 566.380 mm.
7800      7850      Location= Both Method= Peq
Class/Grade= ASME-2009-600-1.1
G/C= 566.380 mm. T/P table ( 1)= 37.8 C
-> 10,204.2 KPa ( 2)= 93.3 C
-> 9,376.9 KPa ( 3)= 148.9 C
-> 9,032.1 KPa ( 4)= 204.4 C
-> 8,721.9 KPa ( 5)= 260.0 C
-> 8,308.2 KPa ( 6)= 315.6 C
-> 7,825.5 KPa ( 7)= 343.3 C
-> 7,584.2 KPa ( 8)= 371.1 C
-> 7,308.4 KPa ( 9)= 398.9 C
-> 6,998.2 KPa (10)= 426.7 C
-> 5,688.2 KPa (11)= 454.4 C
-> 4,412.6 KPa (12)= 482.2 C
-> 3,171.6 KPa (13)= 510.0 C
-> 1,896.1 KPa (14)= 537.8 C
-> 1,172.1 KPa
8350      8400      Location= Both Method= Peq
Class/Grade= ASME-2009-600-1.1
G/C= 566.380 mm. T/P table ( 1)= 37.8 C
-> 10,204.2 KPa ( 2)= 93.3 C
-> 9,376.9 KPa ( 3)= 148.9 C

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-> 9,032.1 KPa (4)= 204.4 C
 -> 8,721.9 KPa (5)= 260.0 C
 -> 8,308.2 KPa (6)= 315.6 C
 -> 7,825.5 KPa (7)= 343.3 C
 -> 7,584.2 KPa (8)= 371.1 C
 -> 7,308.4 KPa (9)= 398.9 C
 -> 6,998.2 KPa (10)= 426.7 C
 -> 5,688.2 KPa (11)= 454.4 C
 -> 4,412.6 KPa (12)= 482.2 C
 -> 3,171.6 KPa (13)= 510.0 C
 -> 1,896.1 KPa (14)= 537.8 C
 -> 1,172.1 KPa

8510	8520	Location= To Method= Peq G/C= 566.380 mm.
8550	8600	Location= To Method= Peq G/C= 566.380 mm.
8950	9000	Location= To Method= Peq G/C= 566.380 mm.
9100	9150	Location= To Method= Peq G/C= 566.380 mm.
9210	9230	Location= To Method= Peq G/C= 566.380 mm.
9312	9325	Location= To Method= Peq G/C= 566.380 mm.
9400	9450	Location= Both Method= Peq Class/Grade= ASME-2009-600-1.1 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C -> 3,171.6 KPa (13)= 510.0 C -> 1,896.1 KPa (14)= 537.8 C -> 1,172.1 KPa
9950	10000	Location= Both Method= Peq Class/Grade= ASME-2009-600-1.1 G/C= 566.380 mm. T/P table (1)= 37.8 C -> 10,204.2 KPa (2)= 93.3 C -> 9,376.9 KPa (3)= 148.9 C -> 9,032.1 KPa (4)= 204.4 C -> 8,721.9 KPa (5)= 260.0 C -> 8,308.2 KPa (6)= 315.6 C -> 7,825.5 KPa (7)= 343.3 C -> 7,584.2 KPa (8)= 371.1 C -> 7,308.4 KPa (9)= 398.9 C -> 6,998.2 KPa (10)= 426.7 C -> 5,688.2 KPa (11)= 454.4 C -> 4,412.6 KPa (12)= 482.2 C

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Impianto di Melendugno
 Allegato 1 - Area 1
 INPUT LISTING

```

-> 3,171.6 KPa (13)= 510.0 C
-> 1,896.1 KPa (14)= 537.8 C
-> 1,172.1 KPa
10110      10120      Location= To Method= Peq
G/C= 566.380 mm.
10150      10200      Location= To Method= Peq
G/C= 566.380 mm.
10550      10600      Location= To Method= Peq
G/C= 566.380 mm.
10700      10750      Location= To Method= Peq
G/C= 566.380 mm.
10810      10820      Location= To Method= Peq
G/C= 566.380 mm.
10912      10925      Location= To Method= Peq
G/C= 566.380 mm.
11000      11050      Location= Both Method= Peq
Class/Grade= ASME-2009-600-1.1
G/C= 566.380 mm. T/P table ( 1)= 37.8 C
-> 10,204.2 KPa ( 2)= 93.3 C
-> 9,376.9 KPa ( 3)= 148.9 C
-> 9,032.1 KPa ( 4)= 204.4 C
-> 8,721.9 KPa ( 5)= 260.0 C
-> 8,308.2 KPa ( 6)= 315.6 C
-> 7,825.5 KPa ( 7)= 343.3 C
-> 7,584.2 KPa ( 8)= 371.1 C
-> 7,308.4 KPa ( 9)= 398.9 C
-> 6,998.2 KPa (10)= 426.7 C
-> 5,688.2 KPa (11)= 454.4 C
-> 4,412.6 KPa (12)= 482.2 C
-> 3,171.6 KPa (13)= 510.0 C
-> 1,896.1 KPa (14)= 537.8 C
-> 1,172.1 KPa
12400      12450      Location= To Method= Peq
G/C= 727.500 mm.
12820      12870      Location= To Method= Peq
G/C= 727.500 mm.
13220      13270      Location= To Method= Peq
G/C= 727.500 mm.
15100      15150      Location= To Method= Peq
G/C= 727.500 mm.
15850      15900      Location= To Method= Peq
G/C= 727.500 mm.
16650      16700      Location= To Method= Peq
G/C= 727.500 mm.
24600      24630      Location= To Method= Peq
G/C= 255.850 mm.
24690      24700      Location= From Method= Peq
G/C= 255.850 mm.

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INPUT UNITS USED...

UNITS= SI (m NOM/SCH INPUT= ON
 LENGTH inches x 25.400 = mm.
 FORCE pounds x 4.448 = N.

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Impianto di Melendugno

Allegato 1 - Area 1

INPUT LISTING

MASS(dynamics) pounds x 0.454 = Kg.
MOMENTS(INPUT) inch-pounds x 0.113 = N.m.
MOMENTS(OUTPUT) inch-pounds x 0.113 = N.m.
STRESS lbs./sq.in. x 6.895 = KPa
TEMP. SCALE degrees F. x 0.556 = C
PRESSURE psig x 6.895 = KPa
ELASTIC MODULUS lbs./sq.in. x 6.895 = KPa
PIPE DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.
INSULATION DENS. lbs./cu.in. x 0.028 = kg./cu.cm.
FLUID DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.
TRANSL. STIF lbs./in. x 1.751 = N./cm.
ROTATIONAL STIF in.lb./deg. x 0.113 = N.m./deg
UNIFORM LOAD lb./in. x 1.751 = N./cm.
G LOAD g's x 1.000 = g's
WIND LOAD lbs./sq.in. x 6.895 = KPa
ELEVATION inches x 0.025 = m.
COMPOUND LENGTH inches x 25.400 = mm.
DIAMETER inches x 25.400 = mm.
WALL THICKNESS inches x 25.400 = mm.

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Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

----- BEND SIF & FLEXIBILITY VALUES

BEND DATA:

SIFs IN/OUT of Plane

Flexibilities IN/OUT of plane

BEND	TYPE	SIFi	SIFo	Ki	Ko
350	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
402	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
450	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
20050	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
20150	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
20202	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
20250	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
20703	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
20750	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
24300	0 Flanges	2.235-> 2.724	1.862-> 2.270	7.359-> 8.689	7.359-> 8.689
24373	0 Flanges	2.235-> 2.724	1.862-> 2.270	7.359-> 8.689	7.359-> 8.689
24400	0 Flanges	2.235-> 2.724	1.862-> 2.270	7.359-> 8.689	7.359-> 8.689
24775	0 Flanges	1.996-> 2.166	1.663-> 1.805	5.729-> 6.162	5.729-> 6.162
25000	0 Flanges	1.996-> 2.166	1.663-> 1.805	5.729-> 6.162	5.729-> 6.162
25057	0 Flanges	1.996-> 2.166	1.663-> 1.805	5.729-> 6.162	5.729-> 6.162
25070	0 Flanges	1.996-> 2.166	1.663-> 1.805	5.729-> 6.162	5.729-> 6.162
25100	0 Flanges	1.996-> 2.166	1.663-> 1.805	5.729-> 6.162	5.729-> 6.162
25200	0 Flanges	1.996-> 2.166	1.663-> 1.805	5.729-> 6.162	5.729-> 6.162
25225	0 Flanges	1.996-> 2.166	1.663-> 1.805	5.729-> 6.162	5.729-> 6.162
25250	0 Flanges	1.996-> 2.166	1.663-> 1.805	5.729-> 6.162	5.729-> 6.162
24426	0 Flanges	2.235-> 2.724	1.862-> 2.270	7.359-> 8.689	7.359-> 8.689
24450	0 Flanges	2.235-> 2.724	1.862-> 2.270	7.359-> 8.689	7.359-> 8.689
1550	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
1650	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
1702	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
1750	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
1802	0 Flanges	1.753-> 4.295	1.461-> 3.579	8.441->17.201	8.441->17.201
14100	0 Flanges	1.753-> 4.295	1.461-> 3.579	8.441->17.201	8.441->17.201
752	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
800	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
2252	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
3500	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
3502	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
3550	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
3602	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
3650	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
3651	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
3700	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
4002	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
4050	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
4153	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
4200	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
4750	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042

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Impianto di Melendugno
Allegato 1 - Area 1
MISCELLANEOUS COMPUTED DATA

5050	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
2652	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
2660	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
2662	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
2700	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
4900	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
6350	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
6650	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
7950	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
8250	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
9550	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
9850	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
11150	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
12922	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
13300	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
13402	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
13450	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
14723	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
14750	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
14902	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
14950	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
12202	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
12250	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
12350	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
11650	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
11500	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
12622	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
12670	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
12770	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
13022	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
13070	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
13170	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
13852	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
13900	0 Flanges	1.737-> 4.327	1.448-> 3.606	8.425->17.392	8.425->17.392
15050	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
15652	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
15700	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
15800	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
16452	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
16500	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
16600	0 Flanges	1.862-> 4.058	1.552-> 3.382	8.515->15.796	8.515->15.796
21700	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
21800	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
22752	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
22800	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
22902	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
22950	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
22952	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
23000	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
23025	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
23050	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
23054	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
23100	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
22275	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042

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Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

13700 13750530896.2 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9
 15000 15050517106.8 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9
 24500 24530455053.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9

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----- INTERSECTION SIF VALUES

TYPE KEY:

- 1 - Reinforced Fabricated Tee
- 2 - Unreinforced Fabricated Tee
- 3 - Welding Tee
- 4 - Sweepolet
- 5 - Weldolet
- 6 - Extruded Welding Tee

TEE TYPE	SIFo	SIFi	THICK	SIFo	SIFi
(these values per Code) (mm.)					
50 5	3.46202	3.46202	0.00000	3.46202	3.46202
550 3	3.38644	2.78983	0.00000	3.38644	2.78983
20300 3	2.66206	2.24655	0.00000	2.66206	2.24655
20800 3	2.66206	2.24655	0.00000	2.66206	2.24655
21000 3	2.66206	2.24655	0.00000	2.66206	2.24655
20450 4	2.66206	2.24655	0.00000	2.66206	2.24655
24000 3	2.66206	2.24655	0.00000	2.66206	2.24655
24200 3	2.05154	1.78865	0.00000	2.05154	1.78865
24420 3	2.05154	1.78865	0.00000	2.05154	1.78865
2000 3	3.38644	2.78983	0.00000	3.38644	2.78983
700 3	3.38644	2.78983	0.00000	3.38644	2.78983
1800 3	3.38644	2.78983	0.00000	3.38644	2.78983
13550 3	3.38644	2.78983	0.00000	3.38644	2.78983
1850 3	3.38644	2.78983	0.00000	3.38644	2.78983
2250 3	3.38644	2.78983	0.00000	3.38644	2.78983
3800 3	3.38644	2.78983	0.00000	3.38644	2.78983
17700 3	3.38644	2.78983	0.00000	3.38644	2.78983
17750 3	3.38644	2.78983	0.00000	3.38644	2.78983
17800 3	3.38644	2.78983	0.00000	3.38644	2.78983
3950 3	3.38644	2.78983	0.00000	3.38644	2.78983
17900 3	3.38644	2.78983	0.00000	3.38644	2.78983
17950 3	3.38644	2.78983	0.00000	3.38644	2.78983
18000 3	3.38644	2.78983	0.00000	3.38644	2.78983
4250 3	3.38644	2.78983	0.00000	3.38644	2.78983
4300 3	3.38644	2.78983	0.00000	3.38644	2.78983
4350 3	3.38644	2.78983	0.00000	3.38644	2.78983
2600 3	3.38644	2.78983	0.00000	3.38644	2.78983

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Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

4400	3	3.38644	2.78983	0.00000	3.38644	2.78983
4450	3	3.38644	2.78983	0.00000	3.38644	2.78983
4500	3	3.38644	2.78983	0.00000	3.38644	2.78983
6450	3	3.38644	2.78983	0.00000	3.38644	2.78983
8050	3	3.38644	2.78983	0.00000	3.38644	2.78983
9650	3	3.38644	2.78983	0.00000	3.38644	2.78983
11250	3	3.38644	2.78983	0.00000	3.38644	2.78983
17400	3	3.38644	2.78983	0.00000	3.38644	2.78983
11900	3	3.38644	2.78983	0.00000	3.38644	2.78983
12100	3	3.38644	2.78983	0.00000	3.38644	2.78983
12520	3	3.38644	2.78983	0.00000	3.38644	2.78983
12920	3	3.38644	2.78983	0.00000	3.38644	2.78983
13500	3	3.38644	2.78983	0.00000	3.38644	2.78983
14800	3	3.38644	2.78983	0.00000	3.38644	2.78983
15550	3	3.38644	2.78983	0.00000	3.38644	2.78983
16350	3	3.38644	2.78983	0.00000	3.38644	2.78983
17150	3	3.38644	2.78983	0.00000	3.38644	2.78983
11300	3	3.38644	2.78983	0.00000	3.38644	2.78983
11350	3	3.38644	2.78983	0.00000	3.38644	2.78983
24750	3	2.66206	2.24655	0.00000	2.66206	2.24655
22050	3	2.66206	2.24655	0.00000	2.66206	2.24655
24570	3	2.05154	1.78865	0.00000	2.05154	1.78865

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CAESAR II REDUCER REPORT

FROM TO D1 T1 D2 T2 ALPHA SIFo SIFi

200	2501600.000	31.5001422.000	21.800	9.36	1.256	1.256
2255	22601422.000	21.8001071.800	14.200	17.71	2.000	2.000
2260	22801071.800	16.600 916.400	14.200	11.99	1.463	1.463
2560	2580 916.400	14.2001071.800	14.200	11.99	1.463	1.463
2580	25901071.800	14.2001422.000	21.800	17.71	2.000	2.000
2725	27501422.000	21.8001222.100	18.900	10.33	1.331	1.331

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721) Date:JUL 21,2017 @11:56 Pg: 18

----- PIPE PROPERTIES #1

FROM TO PIPE WT INSUL WT FLUID WT REFCTY WT y minT
 TB ALPHA1 TB ALPHA2 TB ALPHA3
 /-----WEIGHTS (N./mm.) -----/ mm.

10.	50.	11.924	0.000	0.015	0.000.000	33.5
10.	50.	11.924	0.000	0.015	0.000.000	33.5
50.	21500.	1.331	0.000	0.002	0.000.000	11.5
50.	21500.	1.331	0.000	0.002	0.000.000	11.5
21500.	21550.	14.047	0.000	0.002	0.000	NA NA
21500.	21550.	14.047	0.000	0.002	0.000	NA NA
21550.	21600.	22.027	0.000	0.002	0.000	NA NA
21550.	21600.	22.027	0.000	0.002	0.000	NA NA
50.	100.	11.924	0.000	0.015	0.000.000	33.5
50.	100.	11.924	0.000	0.015	0.000.000	33.5
100.	150.	11.924	0.000	0.015	0.000.000	33.5
100.	150.	11.924	0.000	0.015	0.000.000	33.5
150.	200.	11.924	0.000	0.015	0.000.000	33.5
150.	200.	11.924	0.000	0.015	0.000.000	33.5

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)
 Licensed To:: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

200.	250.	11.924	0.000	0.015	0.000.000	33.5
200.	250.	11.924	0.000	0.015	0.000.000	33.5
250.	300.	7.367	0.000	0.012	0.000.000	29.7
250.	300.	7.367	0.000	0.012	0.000.000	29.7
300.	350.	7.367	0.000	0.012	0.000.000	29.7
300.	350.	7.367	0.000	0.012	0.000.000	29.7
350.	400.	7.367	0.000	0.012	0.000.000	29.7
350.	400.	7.367	0.000	0.012	0.000.000	29.7
400.	401.	0.000	0.000	0.000	0.000.000	29.7
400.	401.	0.000	0.000	0.000	0.000.000	29.7
401.	402.	0.000	0.000	0.000	0.000.000	29.7
401.	402.	0.000	0.000	0.000	0.000.000	29.7
402.	450.	0.000	0.000	0.000	0.000.000	29.7
402.	450.	0.000	0.000	0.000	0.000.000	29.7
450.	500.	0.000	0.000	0.000	0.000.000	29.7
450.	500.	0.000	0.000	0.000	0.000.000	29.7
500.	549.	0.000	0.000	0.000	0.000.000	29.7
500.	549.	0.000	0.000	0.000	0.000.000	29.7
549.	550.	0.000	0.000	0.000	0.000.000	29.7
549.	550.	0.000	0.000	0.000	0.000.000	29.7
550.	570.	0.000	0.000	0.000	0.000.000	10.6
550.	570.	0.000	0.000	0.000	0.000.000	10.6
570.	19999.	0.000	0.000	0.000	0.000.000	11.5
570.	19999.	0.000	0.000	0.000	0.000.000	11.5
19999.	20000.	0.000	0.000	0.000	0.000.000	11.5
19999.	20000.	0.000	0.000	0.000	0.000.000	11.5
20000.	20050.	1.331	0.000	0.002	0.000.000	11.5
20000.	20050.	1.331	0.000	0.002	0.000.000	11.5
20050.	20100.	1.331	0.000	0.002	0.000.000	11.5
20050.	20100.	1.331	0.000	0.002	0.000.000	11.5
20100.	20150.	1.331	0.000	0.002	0.000.000	11.5
20100.	20150.	1.331	0.000	0.002	0.000.000	11.5
20150.	20200.	1.331	0.000	0.002	0.000.000	11.5
20150.	20200.	1.331	0.000	0.002	0.000.000	11.5
20200.	20201.	0.000	0.000	0.000	0.000.000	11.5
20200.	20201.	0.000	0.000	0.000	0.000.000	11.5
20201.	20202.	0.000	0.000	0.000	0.000.000	11.5
20201.	20202.	0.000	0.000	0.000	0.000.000	11.5
20202.	20250.	0.000	0.000	0.000	0.000.000	11.5
20202.	20250.	0.000	0.000	0.000	0.000.000	11.5
20250.	20251.	0.000	0.000	0.000	0.000.000	11.5
20250.	20251.	0.000	0.000	0.000	0.000.000	11.5
20251.	20252.	0.000	0.000	0.000	0.000.000	11.5
20251.	20252.	0.000	0.000	0.000	0.000.000	11.5
20252.	20270.	0.000	0.000	0.000	0.000.000	11.5
20252.	20270.	0.000	0.000	0.000	0.000.000	11.5
20270.	20300.	0.000	0.000	0.000	0.000.000	11.5
20270.	20300.	0.000	0.000	0.000	0.000.000	11.5
20300.	20650.	0.000	0.000	0.000	0.000.000	11.5
20300.	20650.	0.000	0.000	0.000	0.000.000	11.5
20650.	20700.	0.000	0.000	0.000	0.000 NA NA	
20650.	20700.	0.000	0.000	0.000	0.000 NA NA	
20700.	20701.	0.000	0.000	0.000	0.000.000	11.5
20700.	20701.	0.000	0.000	0.000	0.000.000	11.5

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)
 Licensed To:: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

20701.20702.	0.000	0.000	0.000	0.000.000	11.5
20701.20702.	0.000	0.000	0.000	0.000.000	11.5
20702.20703.	0.000	0.000	0.000	0.000.000	11.5
20702.20703.	0.000	0.000	0.000	0.000.000	11.5
20703.20750.	0.000	0.000	0.000	0.000.000	11.5
20703.20750.	0.000	0.000	0.000	0.000.000	11.5
20750.20751.	0.000	0.000	0.000	0.000.000	11.5
20750.20751.	0.000	0.000	0.000	0.000.000	11.5
20751.20752.	0.000	0.000	0.000	0.000.000	11.5
20751.20752.	0.000	0.000	0.000	0.000.000	11.5
20752.20799.	0.000	0.000	0.000	0.000.000	11.5
20752.20799.	0.000	0.000	0.000	0.000.000	11.5
20799.20800.	0.000	0.000	0.000	0.000.000	11.5
20799.20800.	0.000	0.000	0.000	0.000.000	11.5
20800.20900.	0.000	0.000	0.000	0.000.000	11.5
20800.20900.	0.000	0.000	0.000	0.000.000	11.5
20900.20950.	0.000	0.000	0.000	0.000 NA NA	
20900.20950.	0.000	0.000	0.000	0.000 NA NA	
20950.21000.	0.000	0.000	0.000	0.000.000	11.5
20950.21000.	0.000	0.000	0.000	0.000.000	11.5
21000.20449.	0.000	0.000	0.000	0.000.000	11.5
21000.20449.	0.000	0.000	0.000	0.000.000	11.5
20449.20450.	0.000	0.000	0.000	0.000.000	11.5
20449.20450.	0.000	0.000	0.000	0.000.000	11.5
20800.23999.	0.000	0.000	0.000	0.000.000	11.5
20800.23999.	0.000	0.000	0.000	0.000.000	11.5
23999.24000.	0.000	0.000	0.000	0.000.000	11.5
23999.24000.	0.000	0.000	0.000	0.000.000	11.5
24000.24049.	0.000	0.000	0.000	0.000.000	5.7
24000.24049.	0.000	0.000	0.000	0.000.000	5.7
24049.24050.	0.000	0.000	0.000	0.000.000	5.7
24049.24050.	0.000	0.000	0.000	0.000.000	5.7
24050.24100.	0.358	0.000	0.000	0.000.000	5.7
24050.24100.	0.358	0.000	0.000	0.000.000	5.7
24100.24150.	5.470	0.000	0.000	0.000 NA NA	
24100.24150.	5.470	0.000	0.000	0.000 NA NA	
24150.24170.	4.078	0.000	0.000	0.000 NA NA	
24150.24170.	4.078	0.000	0.000	0.000 NA NA	
24170.24200.	0.358	0.000	0.000	0.000.000	5.7
24170.24200.	0.358	0.000	0.000	0.000.000	5.7
24200.24300.	0.358	0.000	0.000	0.000.000	5.7
24200.24300.	0.358	0.000	0.000	0.000.000	5.7
24300.24320.	0.358	0.000	0.000	0.000.000	5.7
24300.24320.	0.358	0.000	0.000	0.000.000	5.7
24320.24350.	5.758	0.000	0.000	0.000 NA NA	
24320.24350.	5.758	0.000	0.000	0.000 NA NA	
24350.24370.	0.358	0.000	0.000	0.000.000	5.7
24350.24370.	0.358	0.000	0.000	0.000.000	5.7
24370.24371.	0.000	0.000	0.000	0.000.000	5.7
24370.24371.	0.000	0.000	0.000	0.000.000	5.7
24371.24372.	0.000	0.000	0.000	0.000.000	5.7
24371.24372.	0.000	0.000	0.000	0.000.000	5.7
24372.24373.	0.000	0.000	0.000	0.000.000	5.7
24372.24373.	0.000	0.000	0.000	0.000.000	5.7

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)
Licensed To:: TECHFEM SPA

Impianto di Melendugno
Allegato 1 - Area 1
MISCELLANEOUS COMPUTED DATA

24373.24400.	0.000	0.000	0.000	0.000.000	5.7
24373.24400.	0.000	0.000	0.000	0.000.000	5.7
24400.24419.	0.000	0.000	0.000	0.000.000	5.7
24400.24419.	0.000	0.000	0.000	0.000.000	5.7
24419.24420.	0.000	0.000	0.000	0.000.000	5.7
24419.24420.	0.000	0.000	0.000	0.000.000	5.7
24420.24536.	0.000	0.000	0.000	0.000.000	3.0
24420.24536.	0.000	0.000	0.000	0.000.000	3.0
24536.24652.	0.000	0.000	0.000	0.000.000	3.0
24536.24652.	0.000	0.000	0.000	0.000.000	3.0
24652.24768.	0.000	0.000	0.000	0.000.000	3.0
24652.24768.	0.000	0.000	0.000	0.000.000	3.0
24768.24769.	0.000	0.000	0.000	0.000.000	3.0
24768.24769.	0.000	0.000	0.000	0.000.000	3.0
24769.24770.	0.000	0.000	0.000	0.000.000	3.0
24769.24770.	0.000	0.000	0.000	0.000.000	3.0
24770.24771.	0.000	0.000	0.000	0.000.000	3.0
24770.24771.	0.000	0.000	0.000	0.000.000	3.0
24771.24772.	0.000	0.000	0.000	0.000.000	3.0
24771.24772.	0.000	0.000	0.000	0.000.000	3.0
24772.24773.	0.000	0.000	0.000	0.000.000	3.0
24772.24773.	0.000	0.000	0.000	0.000.000	3.0
24773.24774.	0.000	0.000	0.000	0.000.000	3.0
24773.24774.	0.000	0.000	0.000	0.000.000	3.0
24774.24775.	0.000	0.000	0.000	0.000.000	3.0
24774.24775.	0.000	0.000	0.000	0.000.000	3.0
24775.25000.	0.000	0.000	0.000	0.000.000	3.0
24775.25000.	0.000	0.000	0.000	0.000.000	3.0
25000.25001.	0.000	0.000	0.000	0.000.000	3.0
25000.25001.	0.000	0.000	0.000	0.000.000	3.0
25001.25002.	0.000	0.000	0.000	0.000.000	3.0
25001.25002.	0.000	0.000	0.000	0.000.000	3.0
25002.25003.	0.000	0.000	0.000	0.000.000	3.0
25002.25003.	0.000	0.000	0.000	0.000.000	3.0
25003.25004.	0.000	0.000	0.000	0.000.000	3.0
25003.25004.	0.000	0.000	0.000	0.000.000	3.0
25004.25005.	0.000	0.000	0.000	0.000.000	3.0
25004.25005.	0.000	0.000	0.000	0.000.000	3.0
25005.25020.	0.000	0.000	0.000	0.000.000	3.0
25005.25020.	0.000	0.000	0.000	0.000.000	3.0
25020.25050.	0.000	0.000	0.000	0.000.000	3.0
25020.25050.	0.000	0.000	0.000	0.000.000	3.0
25050.25051.	0.000	0.000	0.000	0.000.000	3.0
25050.25051.	0.000	0.000	0.000	0.000.000	3.0
25051.25052.	0.000	0.000	0.000	0.000.000	3.0
25051.25052.	0.000	0.000	0.000	0.000.000	3.0
25052.25053.	0.000	0.000	0.000	0.000.000	3.0
25052.25053.	0.000	0.000	0.000	0.000.000	3.0
25053.25054.	0.000	0.000	0.000	0.000.000	3.0
25053.25054.	0.000	0.000	0.000	0.000.000	3.0
25054.25055.	0.000	0.000	0.000	0.000.000	3.0
25054.25055.	0.000	0.000	0.000	0.000.000	3.0
25055.25056.	0.000	0.000	0.000	0.000.000	3.0
25055.25056.	0.000	0.000	0.000	0.000.000	3.0

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)
Licensed To:: TECHFEM SPA

Impianto di Melendugno
Allegato 1 - Area 1
MISCELLANEOUS COMPUTED DATA

25056.25057.	0.000	0.000	0.000	0.000.000	3.0
25056.25057.	0.000	0.000	0.000	0.000.000	3.0
25057.25070.	0.000	0.000	0.000	0.000.000	3.0
25057.25070.	0.000	0.000	0.000	0.000.000	3.0
25070.25071.	0.000	0.000	0.000	0.000.000	3.0
25070.25071.	0.000	0.000	0.000	0.000.000	3.0
25071.25072.	0.000	0.000	0.000	0.000.000	3.0
25071.25072.	0.000	0.000	0.000	0.000.000	3.0
25072.25073.	0.000	0.000	0.000	0.000.000	3.0
25072.25073.	0.000	0.000	0.000	0.000.000	3.0
25073.25079.	0.000	0.000	0.000	0.000.000	3.0
25073.25079.	0.000	0.000	0.000	0.000.000	3.0
25079.25080.	0.000	0.000	0.000	0.000.000	3.0
25079.25080.	0.000	0.000	0.000	0.000.000	3.0
25080.25100.	0.137	0.000	0.000	0.000.000	3.0
25080.25100.	0.137	0.000	0.000	0.000.000	3.0
25100.25120.	0.137	0.000	0.000	0.000.000	3.0
25100.25120.	0.137	0.000	0.000	0.000.000	3.0
25120.25150.	2.431	0.000	0.000	0.000 NA	NA
25120.25150.	2.431	0.000	0.000	0.000 NA	NA
25150.25170.	1.880	0.000	0.000	0.000 NA	NA
25150.25170.	1.880	0.000	0.000	0.000 NA	NA
25170.25200.	0.137	0.000	0.000	0.000.000	3.0
25170.25200.	0.137	0.000	0.000	0.000.000	3.0
25200.25220.	0.137	0.000	0.000	0.000.000	3.0
25200.25220.	0.137	0.000	0.000	0.000.000	3.0
25220.25221.	0.000	0.000	0.000	0.000.000	3.0
25220.25221.	0.000	0.000	0.000	0.000.000	3.0
25221.25222.	0.000	0.000	0.000	0.000.000	3.0
25221.25222.	0.000	0.000	0.000	0.000.000	3.0
25222.25223.	0.000	0.000	0.000	0.000.000	3.0
25222.25223.	0.000	0.000	0.000	0.000.000	3.0
25223.25224.	0.000	0.000	0.000	0.000.000	3.0
25223.25224.	0.000	0.000	0.000	0.000.000	3.0
25224.25225.	0.000	0.000	0.000	0.000.000	3.0
25224.25225.	0.000	0.000	0.000	0.000.000	3.0
25225.25250.	0.000	0.000	0.000	0.000.000	3.0
25225.25250.	0.000	0.000	0.000	0.000.000	3.0
25250.25251.	0.000	0.000	0.000	0.000.000	3.0
25250.25251.	0.000	0.000	0.000	0.000.000	3.0
25251.25252.	0.000	0.000	0.000	0.000.000	3.0
25251.25252.	0.000	0.000	0.000	0.000.000	3.0
25252.25253.	0.000	0.000	0.000	0.000.000	3.0
25252.25253.	0.000	0.000	0.000	0.000.000	3.0
25253.25254.	0.000	0.000	0.000	0.000.000	3.0
25253.25254.	0.000	0.000	0.000	0.000.000	3.0
25254.25255.	0.000	0.000	0.000	0.000.000	3.0
25254.25255.	0.000	0.000	0.000	0.000.000	3.0
25255.25256.	0.000	0.000	0.000	0.000.000	3.0
25255.25256.	0.000	0.000	0.000	0.000.000	3.0
25256.25270.	0.000	0.000	0.000	0.000.000	3.0
25256.25270.	0.000	0.000	0.000	0.000.000	3.0
25270.25300.	0.000	0.000	0.000	0.000 NA	NA
25270.25300.	0.000	0.000	0.000	0.000 NA	NA

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)
 Licensed To:: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

25300.25350.	0.000	0.000	0.000	0.000.000	3.0
25300.25350.	0.000	0.000	0.000	0.000.000	3.0
25350.25400.	0.000	0.000	0.000	0.000.000	3.0
25350.25400.	0.000	0.000	0.000	0.000.000	3.0
25400.25449.	0.000	0.000	0.000	0.000.000	3.0
25400.25449.	0.000	0.000	0.000	0.000.000	3.0
25449.25450.	0.000	0.000	0.000	0.000.000	3.0
25449.25450.	0.000	0.000	0.000	0.000.000	3.0
24420.24421.	0.000	0.000	0.000	0.000.000	5.7
24420.24421.	0.000	0.000	0.000	0.000.000	5.7
24421.24422.	0.000	0.000	0.000	0.000.000	5.7
24421.24422.	0.000	0.000	0.000	0.000.000	5.7
24422.24423.	0.000	0.000	0.000	0.000.000	5.7
24422.24423.	0.000	0.000	0.000	0.000.000	5.7
24423.24424.	0.000	0.000	0.000	0.000.000	5.7
24423.24424.	0.000	0.000	0.000	0.000.000	5.7
24424.24425.	0.000	0.000	0.000	0.000.000	5.7
24424.24425.	0.000	0.000	0.000	0.000.000	5.7
24425.24426.	0.000	0.000	0.000	0.000.000	5.7
24425.24426.	0.000	0.000	0.000	0.000.000	5.7
24426.24450.	0.000	0.000	0.000	0.000.000	5.7
24426.24450.	0.000	0.000	0.000	0.000.000	5.7
24450.24451.	0.000	0.000	0.000	0.000.000	5.7
24450.24451.	0.000	0.000	0.000	0.000.000	5.7
24451.24469.	0.000	0.000	0.000	0.000.000	5.7
24451.24469.	0.000	0.000	0.000	0.000.000	5.7
24469.24470.	0.000	0.000	0.000	0.000.000	5.7
24469.24470.	0.000	0.000	0.000	0.000.000	5.7
24470.24500.	0.358	0.000	0.000	0.000.000	5.7
24470.24500.	0.358	0.000	0.000	0.000.000	5.7
24200.24220.	0.358	0.000	0.000	0.000.000	5.7
24200.24220.	0.358	0.000	0.000	0.000.000	5.7
24220.24250.	4.078	0.000	0.000	0.000 NA NA	
24220.24250.	4.078	0.000	0.000	0.000 NA NA	
24250.24270.	6.712	0.000	0.000	0.000 NA NA	
24250.24270.	6.712	0.000	0.000	0.000 NA NA	
24000. 1999.	0.000	0.000	0.000	0.000.000	11.5
24000. 1999.	0.000	0.000	0.000	0.000.000	11.5
1999. 2000.	0.000	0.000	0.000	0.000.000	11.5
1999. 2000.	0.000	0.000	0.000	0.000.000	11.5
20300.20350.	0.000	0.000	0.000	0.000.000	11.5
20300.20350.	0.000	0.000	0.000	0.000.000	11.5
20350.20400.	0.000	0.000	0.000	0.000 NA NA	
20350.20400.	0.000	0.000	0.000	0.000 NA NA	
20400.20450.	0.000	0.000	0.000	0.000.000	11.5
20400.20450.	0.000	0.000	0.000	0.000.000	11.5
20450.20499.	0.000	0.000	0.000	0.000.000	11.5
20450.20499.	0.000	0.000	0.000	0.000.000	11.5
20499.20500.	0.000	0.000	0.000	0.000.000	11.5
20499.20500.	0.000	0.000	0.000	0.000.000	11.5
550. 600.	0.000	0.000	0.000	0.000.000	29.7
550. 600.	0.000	0.000	0.000	0.000.000	29.7
600. 650.	0.000	0.000	0.000	0.000 NA NA	
600. 650.	0.000	0.000	0.000	0.000 NA NA	

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)
 Licensed To:: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

650. 699.	0.000	0.000	0.000	0.000.000	29.7
650. 699.	0.000	0.000	0.000	0.000.000	29.7
699. 700.	0.000	0.000	0.000	0.000.000	29.7
699. 700.	0.000	0.000	0.000	0.000.000	29.7
700. 1499.	0.000	0.000	0.000	0.000.000	29.7
700. 1499.	0.000	0.000	0.000	0.000.000	29.7
1499. 1500.	0.000	0.000	0.000	0.000.000	29.7
1499. 1500.	0.000	0.000	0.000	0.000.000	29.7
1500. 1550.	7.367	0.000	0.012	0.000.000	29.7
1500. 1550.	7.367	0.000	0.012	0.000.000	29.7
1550. 1600.	7.367	0.000	0.012	0.000.000	29.7
1550. 1600.	7.367	0.000	0.012	0.000.000	29.7
1600. 1650.	7.367	0.000	0.012	0.000.000	29.7
1600. 1650.	7.367	0.000	0.012	0.000.000	29.7
1650. 1700.	7.367	0.000	0.012	0.000.000	29.7
1650. 1700.	7.367	0.000	0.012	0.000.000	29.7
1700. 1701.	0.000	0.000	0.000	0.000.000	29.7
1700. 1701.	0.000	0.000	0.000	0.000.000	29.7
1701. 1702.	0.000	0.000	0.000	0.000.000	29.7
1701. 1702.	0.000	0.000	0.000	0.000.000	29.7
1702. 1750.	0.000	0.000	0.000	0.000.000	29.7
1702. 1750.	0.000	0.000	0.000	0.000.000	29.7
1750. 1799.	0.000	0.000	0.000	0.000.000	29.7
1750. 1799.	0.000	0.000	0.000	0.000.000	29.7
1799. 1800.	0.000	0.000	0.000	0.000.000	29.7
1799. 1800.	0.000	0.000	0.000	0.000.000	29.7
1800. 1801.	0.000	0.000	0.000	0.000.000	19.2
1800. 1801.	0.000	0.000	0.000	0.000.000	19.2
1801. 1802.	0.000	0.000	0.000	0.000.000	19.2
1801. 1802.	0.000	0.000	0.000	0.000.000	19.2
1802.14100.	0.000	0.000	0.000	0.000.000	19.2
1802.14100.	0.000	0.000	0.000	0.000.000	19.2
14100.14150.	0.000	0.000	0.000	0.000.000	19.2
14100.14150.	0.000	0.000	0.000	0.000.000	19.2
14150.14200.	0.000	0.000	0.000	0.000 NA NA	
14150.14200.	0.000	0.000	0.000	0.000 NA NA	
14200.14250.	0.000	0.000	0.000	0.000.000	19.2
14200.14250.	0.000	0.000	0.000	0.000.000	19.2
14250.14300.	0.000	0.000	0.000	0.000.000	19.2
14250.14300.	0.000	0.000	0.000	0.000.000	19.2
14300.14350.	0.000	0.000	0.000	0.000 NA NA	
14300.14350.	0.000	0.000	0.000	0.000 NA NA	
14350.14400.	0.000	0.000	0.000	0.000.000	19.2
14350.14400.	0.000	0.000	0.000	0.000.000	19.2
14400.14420.	0.000	0.000	0.000	0.000.000	19.2
14400.14420.	0.000	0.000	0.000	0.000.000	19.2
14420.13549.	0.000	0.000	0.000	0.000.000	19.2
14420.13549.	0.000	0.000	0.000	0.000.000	19.2
13549.13550.	0.000	0.000	0.000	0.000.000	19.2
13549.13550.	0.000	0.000	0.000	0.000.000	19.2
1800. 1850.	0.000	0.000	0.000	0.000.000	29.7
1800. 1850.	0.000	0.000	0.000	0.000.000	29.7
1850. 1900.	0.000	0.000	0.000	0.000.000	29.7
1850. 1900.	0.000	0.000	0.000	0.000.000	29.7

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 Licensed To:: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

1900.	1950.	0.000	0.000	0.000	0.000	NA	NA
1900.	1950.	0.000	0.000	0.000	0.000	NA	NA
1950.	2000.	0.000	0.000	0.000	0.000.000	29.7	
1950.	2000.	0.000	0.000	0.000	0.000.000	29.7	
2000.	2050.	0.000	0.000	0.000	0.000.000	29.7	
2000.	2050.	0.000	0.000	0.000	0.000.000	29.7	
2050.	2100.	0.000	0.000	0.000	0.000.000	29.7	
2050.	2100.	0.000	0.000	0.000	0.000.000	29.7	
2100.	2149.	0.000	0.000	0.000	0.000	NA	NA
2100.	2149.	0.000	0.000	0.000	0.000	NA	NA
2149.	2150.	0.000	0.000	0.000	0.000.000	29.7	
2149.	2150.	0.000	0.000	0.000	0.000.000	29.7	
700.	750.	0.000	0.000	0.000	0.000.000	29.7	
700.	750.	0.000	0.000	0.000	0.000.000	29.7	
750.	751.	0.000	0.000	0.000	0.000.000	29.7	
750.	751.	0.000	0.000	0.000	0.000.000	29.7	
751.	752.	0.000	0.000	0.000	0.000.000	29.7	
751.	752.	0.000	0.000	0.000	0.000.000	29.7	
752.	800.	0.000	0.000	0.000	0.000.000	29.7	
752.	800.	0.000	0.000	0.000	0.000.000	29.7	
800.	850.	0.000	0.000	0.000	0.000.000	29.7	
800.	850.	0.000	0.000	0.000	0.000.000	29.7	
850.	900.	0.000	0.000	0.000	0.000.000	29.7	
850.	900.	0.000	0.000	0.000	0.000.000	29.7	
900.	950.	0.000	0.000	0.000	0.000.000	29.7	
900.	950.	0.000	0.000	0.000	0.000.000	29.7	
950.	1000.	0.000	0.000	0.000	0.000.000	29.7	
950.	1000.	0.000	0.000	0.000	0.000.000	29.7	
1000.	1050.	0.000	0.000	0.000	0.000.000	29.7	
1000.	1050.	0.000	0.000	0.000	0.000.000	29.7	
1050.	1099.	0.000	0.000	0.000	0.000.000	29.7	
1050.	1099.	0.000	0.000	0.000	0.000.000	29.7	
1099.	1100.	0.000	0.000	0.000	0.000.000	29.7	
1099.	1100.	0.000	0.000	0.000	0.000.000	29.7	
2150.	2200.	0.000	0.000	0.000	0.000.000	29.7	
2150.	2200.	0.000	0.000	0.000	0.000.000	29.7	
2200.	2249.	0.000	0.000	0.000	0.000.000	29.7	
2200.	2249.	0.000	0.000	0.000	0.000.000	29.7	
2249.	2250.	0.000	0.000	0.000	0.000.000	29.7	
2249.	2250.	0.000	0.000	0.000	0.000.000	29.7	
2250.	2251.	0.000	0.000	0.000	0.000.000	29.7	
2250.	2251.	0.000	0.000	0.000	0.000.000	29.7	
2251.	2252.	0.000	0.000	0.000	0.000.000	29.7	
2251.	2252.	0.000	0.000	0.000	0.000.000	29.7	
2252.	3500.	0.000	0.000	0.000	0.000.000	29.7	
2252.	3500.	0.000	0.000	0.000	0.000.000	29.7	
3500.	3501.	0.000	0.000	0.000	0.000.000	29.7	
3500.	3501.	0.000	0.000	0.000	0.000.000	29.7	
3501.	3502.	0.000	0.000	0.000	0.000.000	29.7	
3501.	3502.	0.000	0.000	0.000	0.000.000	29.7	
3502.	3550.	0.000	0.000	0.000	0.000.000	29.7	
3502.	3550.	0.000	0.000	0.000	0.000.000	29.7	
3550.	3551.	0.000	0.000	0.000	0.000.000	29.7	
3550.	3551.	0.000	0.000	0.000	0.000.000	29.7	

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Licensed To:: TECHFEM SPA

Impianto di Melendugno
Allegato 1 - Area 1
MISCELLANEOUS COMPUTED DATA

3551.3600.	0.000	0.000	0.000	0.000.000	29.7
3551.3600.	0.000	0.000	0.000	0.000.000	29.7
3600.3601.	0.000	0.000	0.000	0.000.000	29.7
3600.3601.	0.000	0.000	0.000	0.000.000	29.7
3601.3602.	0.000	0.000	0.000	0.000.000	29.7
3601.3602.	0.000	0.000	0.000	0.000.000	29.7
3602.3650.	0.000	0.000	0.000	0.000.000	29.7
3602.3650.	0.000	0.000	0.000	0.000.000	29.7
3650.3651.	0.000	0.000	0.000	0.000.000	29.7
3650.3651.	0.000	0.000	0.000	0.000.000	29.7
3651.3700.	0.000	0.000	0.000	0.000.000	29.7
3651.3700.	0.000	0.000	0.000	0.000.000	29.7
3700.3701.	0.000	0.000	0.000	0.000.000	29.7
3700.3701.	0.000	0.000	0.000	0.000.000	29.7
3701.3750.	0.000	0.000	0.000	0.000.000	29.7
3701.3750.	0.000	0.000	0.000	0.000.000	29.7
3750.3799.	0.000	0.000	0.000	0.000.000	29.7
3750.3799.	0.000	0.000	0.000	0.000.000	29.7
3799.3800.	0.000	0.000	0.000	0.000.000	29.7
3799.3800.	0.000	0.000	0.000	0.000.000	29.7
3800.17699.	0.000	0.000	0.000	0.000.000	29.7
3800.17699.	0.000	0.000	0.000	0.000.000	29.7
17699.17700.	0.000	0.000	0.000	0.000.000	29.7
17699.17700.	0.000	0.000	0.000	0.000.000	29.7
17700.18100.	0.000	0.000	0.000	0.000.000	13.8
17700.18100.	0.000	0.000	0.000	0.000.000	13.8
18100.18150.	0.000	0.000	0.000	0.000	NA NA
18100.18150.	0.000	0.000	0.000	0.000	NA NA
18150.18199.	0.000	0.000	0.000	0.000.000	13.8
18150.18199.	0.000	0.000	0.000	0.000.000	13.8
18199.18200.	0.000	0.000	0.000	0.000.000	13.8
18199.18200.	0.000	0.000	0.000	0.000.000	13.8
17700.17749.	0.000	0.000	0.000	0.000.000	29.7
17700.17749.	0.000	0.000	0.000	0.000.000	29.7
17749.17750.	0.000	0.000	0.000	0.000.000	29.7
17749.17750.	0.000	0.000	0.000	0.000.000	29.7
17750.18399.	0.000	0.000	0.000	0.000.000	13.8
17750.18399.	0.000	0.000	0.000	0.000.000	13.8
18399.18400.	0.000	0.000	0.000	0.000.000	13.8
18399.18400.	0.000	0.000	0.000	0.000.000	13.8
17750.17799.	0.000	0.000	0.000	0.000.000	29.7
17750.17799.	0.000	0.000	0.000	0.000.000	29.7
17799.17800.	0.000	0.000	0.000	0.000.000	29.7
17799.17800.	0.000	0.000	0.000	0.000.000	29.7
17800.18699.	0.000	0.000	0.000	0.000.000	13.8
17800.18699.	0.000	0.000	0.000	0.000.000	13.8
18699.18700.	0.000	0.000	0.000	0.000.000	13.8
18699.18700.	0.000	0.000	0.000	0.000.000	13.8
17800.17849.	0.000	0.000	0.000	0.000.000	29.7
17800.17849.	0.000	0.000	0.000	0.000.000	29.7
17849.17850.	0.000	0.000	0.000	0.000.000	29.7
17849.17850.	0.000	0.000	0.000	0.000.000	29.7
3800.3850.	0.000	0.000	0.000	0.000.000	29.7
3800.3850.	0.000	0.000	0.000	0.000.000	29.7

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 Licensed To:: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

3850.3900.	0.000	0.000	0.000	0.000	NA	NA
3850.3900.	0.000	0.000	0.000	0.000	NA	NA
3900.3949.	0.000	0.000	0.000	0.000.000	29.7	
3900.3949.	0.000	0.000	0.000	0.000.000	29.7	
3949.3950.	0.000	0.000	0.000	0.000.000	29.7	
3949.3950.	0.000	0.000	0.000	0.000.000	29.7	
3950.17900.	0.000	0.000	0.000	0.000.000	29.7	
3950.17900.	0.000	0.000	0.000	0.000.000	29.7	
17900.17950.	0.000	0.000	0.000	0.000.000	29.7	
17900.17950.	0.000	0.000	0.000	0.000.000	29.7	
17950.18000.	0.000	0.000	0.000	0.000.000	29.7	
17950.18000.	0.000	0.000	0.000	0.000.000	29.7	
18000.18049.	0.000	0.000	0.000	0.000.000	29.7	
18000.18049.	0.000	0.000	0.000	0.000.000	29.7	
18049.18050.	0.000	0.000	0.000	0.000.000	29.7	
18049.18050.	0.000	0.000	0.000	0.000.000	29.7	
3950.4000.	0.000	0.000	0.000	0.000.000	29.7	
3950.4000.	0.000	0.000	0.000	0.000.000	29.7	
4000.4001.	0.000	0.000	0.000	0.000.000	29.7	
4000.4001.	0.000	0.000	0.000	0.000.000	29.7	
4001.4002.	0.000	0.000	0.000	0.000.000	29.7	
4001.4002.	0.000	0.000	0.000	0.000.000	29.7	
4002.4050.	0.000	0.000	0.000	0.000.000	29.7	
4002.4050.	0.000	0.000	0.000	0.000.000	29.7	
4050.4051.	0.000	0.000	0.000	0.000.000	29.7	
4050.4051.	0.000	0.000	0.000	0.000.000	29.7	
4051.4100.	0.000	0.000	0.000	0.000.000	29.7	
4051.4100.	0.000	0.000	0.000	0.000.000	29.7	
4100.4150.	0.000	0.000	0.000	0.000.000	29.7	
4100.4150.	0.000	0.000	0.000	0.000.000	29.7	
4150.4151.	0.000	0.000	0.000	0.000.000	29.7	
4150.4151.	0.000	0.000	0.000	0.000.000	29.7	
4151.4152.	0.000	0.000	0.000	0.000.000	29.7	
4151.4152.	0.000	0.000	0.000	0.000.000	29.7	
4152.4153.	0.000	0.000	0.000	0.000.000	29.7	
4152.4153.	0.000	0.000	0.000	0.000.000	29.7	
4153.4200.	0.000	0.000	0.000	0.000.000	29.7	
4153.4200.	0.000	0.000	0.000	0.000.000	29.7	
4200.4249.	0.000	0.000	0.000	0.000.000	29.7	
4200.4249.	0.000	0.000	0.000	0.000.000	29.7	
4249.4250.	0.000	0.000	0.000	0.000.000	29.7	
4249.4250.	0.000	0.000	0.000	0.000.000	29.7	
4250.4699.	0.000	0.000	0.000	0.000.000	11.5	
4250.4699.	0.000	0.000	0.000	0.000.000	11.5	
4699.4700.	0.000	0.000	0.000	0.000.000	11.5	
4699.4700.	0.000	0.000	0.000	0.000.000	11.5	
4700.4750.	1.331	0.000	0.002	0.000.000	11.5	
4700.4750.	1.331	0.000	0.002	0.000.000	11.5	
4750.4800.	1.331	0.000	0.002	0.000.000	11.5	
4750.4800.	1.331	0.000	0.002	0.000.000	11.5	
4250.4300.	0.000	0.000	0.000	0.000.000	29.7	
4250.4300.	0.000	0.000	0.000	0.000.000	29.7	
4300.4349.	0.000	0.000	0.000	0.000.000	29.7	
4300.4349.	0.000	0.000	0.000	0.000.000	29.7	

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Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

4349. 4350.	0.000	0.000	0.000	0.000.000	29.7
4349. 4350.	0.000	0.000	0.000	0.000.000	29.7
4350. 4999.	0.000	0.000	0.000	0.000.000	11.5
4350. 4999.	0.000	0.000	0.000	0.000.000	11.5
4999. 5000.	0.000	0.000	0.000	0.000.000	11.5
4999. 5000.	0.000	0.000	0.000	0.000.000	11.5
5000. 5050.	1.331	0.056	0.002	0.000.000	11.5
5000. 5050.	1.331	0.056	0.002	0.000.000	11.5
5050. 5100.	1.331	0.056	0.002	0.000.000	11.5
5050. 5100.	1.331	0.056	0.002	0.000.000	11.5
5100. 5150.	14.047	0.098	0.002	0.000 NA	NA
5100. 5150.	14.047	0.098	0.002	0.000 NA	NA
5150. 5200.	22.027	0.098	0.002	0.000 NA	NA
5150. 5200.	22.027	0.098	0.002	0.000 NA	NA
2250. 2255.	0.000	0.000	0.000	0.000.000	29.7
2250. 2255.	0.000	0.000	0.000	0.000.000	29.7
2255. 2260.	0.000	0.000	0.000	0.000.000	29.7
2255. 2260.	0.000	0.000	0.000	0.000.000	29.7
2260. 2280.	0.000	0.000	0.000	0.000.000	22.4
2260. 2280.	0.000	0.000	0.000	0.000.000	22.4
2280. 2300.	0.000	0.000	0.000	0.000.000	19.2
2280. 2300.	0.000	0.000	0.000	0.000.000	19.2
2300. 2350.	0.000	0.000	0.000	0.000 NA	NA
2300. 2350.	0.000	0.000	0.000	0.000 NA	NA
2350. 2400.	0.000	0.000	0.000	0.000.000	19.2
2350. 2400.	0.000	0.000	0.000	0.000.000	19.2
2400. 2450.	0.000	0.000	0.000	0.000.000	19.2
2400. 2450.	0.000	0.000	0.000	0.000.000	19.2
2450. 2500.	0.000	0.000	0.000	0.000 NA	NA
2450. 2500.	0.000	0.000	0.000	0.000 NA	NA
2500. 2550.	0.000	0.000	0.000	0.000.000	19.2
2500. 2550.	0.000	0.000	0.000	0.000.000	19.2
2550. 2560.	0.000	0.000	0.000	0.000.000	19.2
2550. 2560.	0.000	0.000	0.000	0.000.000	19.2
2560. 2580.	0.000	0.000	0.000	0.000.000	19.2
2560. 2580.	0.000	0.000	0.000	0.000.000	19.2
2580. 2590.	0.000	0.000	0.000	0.000.000	22.4
2580. 2590.	0.000	0.000	0.000	0.000.000	22.4
2590. 2600.	0.000	0.000	0.000	0.000.000	29.7
2590. 2600.	0.000	0.000	0.000	0.000.000	29.7
2600. 2650.	0.000	0.000	0.000	0.000.000	29.7
2600. 2650.	0.000	0.000	0.000	0.000.000	29.7
2650. 2651.	0.000	0.000	0.000	0.000.000	29.7
2650. 2651.	0.000	0.000	0.000	0.000.000	29.7
2651. 2652.	0.000	0.000	0.000	0.000.000	29.7
2651. 2652.	0.000	0.000	0.000	0.000.000	29.7
2652. 2660.	0.000	0.000	0.000	0.000.000	29.7
2652. 2660.	0.000	0.000	0.000	0.000.000	29.7
2660. 2661.	0.000	0.000	0.000	0.000.000	29.7
2660. 2661.	0.000	0.000	0.000	0.000.000	29.7
2661. 2662.	0.000	0.000	0.000	0.000.000	29.7
2661. 2662.	0.000	0.000	0.000	0.000.000	29.7
2662. 2700.	0.000	0.000	0.000	0.000.000	29.7
2662. 2700.	0.000	0.000	0.000	0.000.000	29.7

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2700. 2725.	0.000	0.000	0.000	0.000.000	29.7
2700. 2725.	0.000	0.000	0.000	0.000.000	29.7
2725. 2750.	0.000	0.000	0.000	0.000.000	29.7
2725. 2750.	0.000	0.000	0.000	0.000.000	29.7
2750. 2800.	0.000	0.000	0.000	0.000.000	25.6
2750. 2800.	0.000	0.000	0.000	0.000.000	25.6
2800. 2850.	0.000	0.000	0.000	0.000.000	25.6
2800. 2850.	0.000	0.000	0.000	0.000.000	25.6
2850. 2899.	0.000	0.000	0.000	0.000.000	25.6
2850. 2899.	0.000	0.000	0.000	0.000.000	25.6
2899. 2900.	0.000	0.000	0.000	0.000	NA NA
2899. 2900.	0.000	0.000	0.000	0.000	NA NA
4350. 4399.	0.000	0.000	0.000	0.000.000	29.7
4350. 4399.	0.000	0.000	0.000	0.000.000	29.7
4399. 4400.	0.000	0.000	0.000	0.000.000	29.7
4399. 4400.	0.000	0.000	0.000	0.000.000	29.7
4400. 6599.	0.000	0.000	0.000	0.000.000	11.5
4400. 6599.	0.000	0.000	0.000	0.000.000	11.5
6599. 6600.	0.000	0.000	0.000	0.000.000	11.5
6599. 6600.	0.000	0.000	0.000	0.000.000	11.5
4400. 4449.	0.000	0.000	0.000	0.000.000	29.7
4400. 4449.	0.000	0.000	0.000	0.000.000	29.7
4449. 4450.	0.000	0.000	0.000	0.000.000	29.7
4449. 4450.	0.000	0.000	0.000	0.000.000	29.7
4450. 8199.	0.000	0.000	0.000	0.000.000	11.5
4450. 8199.	0.000	0.000	0.000	0.000.000	11.5
8199. 8200.	0.000	0.000	0.000	0.000.000	11.5
8199. 8200.	0.000	0.000	0.000	0.000.000	11.5
4450. 4499.	0.000	0.000	0.000	0.000.000	29.7
4450. 4499.	0.000	0.000	0.000	0.000.000	29.7
4499. 4500.	0.000	0.000	0.000	0.000.000	29.7
4499. 4500.	0.000	0.000	0.000	0.000.000	29.7
4500. 9799.	0.000	0.000	0.000	0.000.000	11.5
4500. 9799.	0.000	0.000	0.000	0.000.000	11.5
9799. 9800.	0.000	0.000	0.000	0.000.000	11.5
9799. 9800.	0.000	0.000	0.000	0.000.000	11.5
4500. 4549.	0.000	0.000	0.000	0.000.000	29.7
4500. 4549.	0.000	0.000	0.000	0.000.000	29.7
4549. 4550.	0.000	0.000	0.000	0.000.000	29.7
4549. 4550.	0.000	0.000	0.000	0.000.000	29.7
4300. 4849.	0.000	0.000	0.000	0.000.000	11.5
4300. 4849.	0.000	0.000	0.000	0.000.000	11.5
4849. 4850.	0.000	0.000	0.000	0.000.000	11.5
4849. 4850.	0.000	0.000	0.000	0.000.000	11.5
4850. 4900.	1.331	0.000	0.002	0.000.000	11.5
4850. 4900.	1.331	0.000	0.002	0.000.000	11.5
4900. 4950.	1.331	0.000	0.002	0.000.000	11.5
4900. 4950.	1.331	0.000	0.002	0.000.000	11.5
5200. 5250.	14.047	0.098	0.002	0.000	NA NA
5200. 5250.	14.047	0.098	0.002	0.000	NA NA
5250. 5300.	1.331	0.056	0.002	0.000.000	11.5
5250. 5300.	1.331	0.056	0.002	0.000.000	11.5
5300. 5310.	1.331	0.056	0.002	0.000.000	11.5
5300. 5310.	1.331	0.056	0.002	0.000.000	11.5

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5310. 5320.	14.047	0.098	0.002	0.000	NA	NA
5310. 5320.	14.047	0.098	0.002	0.000	NA	NA
5320. 5330.	14.047	0.098	0.002	0.000	NA	NA
5320. 5330.	14.047	0.098	0.002	0.000	NA	NA
5330. 5350.	1.331	0.056	0.002	0.000.000	11.5	
5330. 5350.	1.331	0.056	0.002	0.000.000	11.5	
5350. 5400.	14.047	0.098	0.002	0.000	NA	NA
5350. 5400.	14.047	0.098	0.002	0.000	NA	NA
5400. 5450.	14.047	0.098	0.002	0.000	NA	NA
5400. 5450.	14.047	0.098	0.002	0.000	NA	NA
5450. 5500.	1.331	0.056	0.002	0.000.000	11.5	
5450. 5500.	1.331	0.056	0.002	0.000.000	11.5	
5500. 5550.	1.331	0.056	0.002	0.000.000	11.5	
5500. 5550.	1.331	0.056	0.002	0.000.000	11.5	
5550. 5600.	1.331	0.056	0.002	0.000.000	11.5	
5550. 5600.	1.331	0.056	0.002	0.000.000	11.5	
5600. 5650.	1.331	0.056	0.002	0.000.000	11.5	
5600. 5650.	1.331	0.056	0.002	0.000.000	11.5	
5650. 5660.	1.331	0.056	0.002	0.000.000	11.5	
5650. 5660.	1.331	0.056	0.002	0.000.000	11.5	
5660. 5670.	1.331	0.056	0.002	0.000.000	11.5	
5660. 5670.	1.331	0.056	0.002	0.000.000	11.5	
5670. 5680.	1.331	0.056	0.002	0.000.000	11.5	
5670. 5680.	1.331	0.056	0.002	0.000.000	11.5	
5680. 5685.	1.331	0.056	0.002	0.000.000	11.5	
5680. 5685.	1.331	0.056	0.002	0.000.000	11.5	
5685. 5690.	1.331	0.056	0.002	0.000.000	11.5	
5685. 5690.	1.331	0.056	0.002	0.000.000	11.5	
5690. 5695.	1.331	0.056	0.002	0.000.000	11.5	
5690. 5695.	1.331	0.056	0.002	0.000.000	11.5	
5695. 5700.	1.331	0.056	0.002	0.000.000	11.5	
5695. 5700.	1.331	0.056	0.002	0.000.000	11.5	
5700. 5750.	1.331	0.056	0.002	0.000.000	11.5	
5700. 5750.	1.331	0.056	0.002	0.000.000	11.5	
5750. 5800.	14.047	0.098	0.002	0.000	NA	NA
5750. 5800.	14.047	0.098	0.002	0.000	NA	NA
5800. 5850.	14.047	0.098	0.002	0.000	NA	NA
5800. 5850.	14.047	0.098	0.002	0.000	NA	NA
5850. 5900.	1.331	0.056	0.002	0.000.000	11.5	
5850. 5900.	1.331	0.056	0.002	0.000.000	11.5	
5900. 5950.	14.047	0.098	0.002	0.000	NA	NA
5900. 5950.	14.047	0.098	0.002	0.000	NA	NA
5950. 6000.	14.047	0.098	0.002	0.000	NA	NA
5950. 6000.	14.047	0.098	0.002	0.000	NA	NA
6000. 6005.	1.331	0.056	0.002	0.000.000	11.5	
6000. 6005.	1.331	0.056	0.002	0.000.000	11.5	
6005. 6007.	1.331	0.056	0.002	0.000.000	11.5	
6005. 6007.	1.331	0.056	0.002	0.000.000	11.5	
6007. 6010.	1.331	0.056	0.002	0.000.000	11.5	
6007. 6010.	1.331	0.056	0.002	0.000.000	11.5	
6010. 6030.	14.047	0.098	0.002	0.000	NA	NA
6010. 6030.	14.047	0.098	0.002	0.000	NA	NA
6030. 6050.	14.047	0.098	0.002	0.000	NA	NA
6030. 6050.	14.047	0.098	0.002	0.000	NA	NA

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6050. 6100.	1.331	0.056	0.002	0.000.000	11.5
6050. 6100.	1.331	0.056	0.002	0.000.000	11.5
6100. 6112.	1.331	0.056	0.002	0.000.000	11.5
6100. 6112.	1.331	0.056	0.002	0.000.000	11.5
6112. 6125.	14.047	0.098	0.002	0.000	NA NA
6112. 6125.	14.047	0.098	0.002	0.000	NA NA
6125. 6137.	14.047	0.098	0.002	0.000	NA NA
6125. 6137.	14.047	0.098	0.002	0.000	NA NA
6137. 6150.	1.331	0.056	0.002	0.000.000	11.5
6137. 6150.	1.331	0.056	0.002	0.000.000	11.5
6150. 6200.	14.047	0.098	0.002	0.000	NA NA
6150. 6200.	14.047	0.098	0.002	0.000	NA NA
6200. 6250.	22.027	0.098	0.002	0.000	NA NA
6200. 6250.	22.027	0.098	0.002	0.000	NA NA
6250. 6300.	14.047	0.098	0.002	0.000	NA NA
6250. 6300.	14.047	0.098	0.002	0.000	NA NA
6300. 6350.	1.331	0.056	0.002	0.000.000	11.5
6300. 6350.	1.331	0.056	0.002	0.000.000	11.5
6350. 6400.	1.331	0.056	0.002	0.000.000	11.5
6350. 6400.	1.331	0.056	0.002	0.000.000	11.5
6400. 6449.	0.000	0.000	0.000	0.000.000	11.5
6400. 6449.	0.000	0.000	0.000	0.000.000	11.5
6449. 6450.	0.000	0.000	0.000	0.000.000	11.5
6449. 6450.	0.000	0.000	0.000	0.000.000	11.5
6600. 6650.	1.331	0.056	0.002	0.000.000	11.5
6600. 6650.	1.331	0.056	0.002	0.000.000	11.5
6650. 6700.	1.331	0.056	0.002	0.000.000	11.5
6650. 6700.	1.331	0.056	0.002	0.000.000	11.5
6700. 6750.	14.047	0.098	0.002	0.000	NA NA
6700. 6750.	14.047	0.098	0.002	0.000	NA NA
6750. 6800.	22.027	0.098	0.002	0.000	NA NA
6750. 6800.	22.027	0.098	0.002	0.000	NA NA
6800. 6850.	14.047	0.098	0.002	0.000	NA NA
6800. 6850.	14.047	0.098	0.002	0.000	NA NA
6850. 6900.	1.331	0.056	0.002	0.000.000	11.5
6850. 6900.	1.331	0.056	0.002	0.000.000	11.5
6900. 6910.	1.331	0.056	0.002	0.000.000	11.5
6900. 6910.	1.331	0.056	0.002	0.000.000	11.5
6910. 6920.	14.047	0.098	0.002	0.000	NA NA
6910. 6920.	14.047	0.098	0.002	0.000	NA NA
6920. 6930.	14.047	0.098	0.002	0.000	NA NA
6920. 6930.	14.047	0.098	0.002	0.000	NA NA
6930. 6950.	1.331	0.056	0.002	0.000.000	11.5
6930. 6950.	1.331	0.056	0.002	0.000.000	11.5
6950. 7000.	14.047	0.098	0.002	0.000	NA NA
6950. 7000.	14.047	0.098	0.002	0.000	NA NA
7000. 7050.	14.047	0.098	0.002	0.000	NA NA
7000. 7050.	14.047	0.098	0.002	0.000	NA NA
7050. 7100.	1.331	0.056	0.002	0.000.000	11.5
7050. 7100.	1.331	0.056	0.002	0.000.000	11.5
7100. 7150.	1.331	0.056	0.002	0.000.000	11.5
7100. 7150.	1.331	0.056	0.002	0.000.000	11.5
7150. 7200.	1.331	0.056	0.002	0.000.000	11.5
7150. 7200.	1.331	0.056	0.002	0.000.000	11.5

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7200.7250.	1.331	0.056	0.002	0.000.000	11.5
7200.7250.	1.331	0.056	0.002	0.000.000	11.5
7250.7260.	1.331	0.056	0.002	0.000.000	11.5
7250.7260.	1.331	0.056	0.002	0.000.000	11.5
7260.7270.	1.331	0.056	0.002	0.000.000	11.5
7260.7270.	1.331	0.056	0.002	0.000.000	11.5
7270.7280.	1.331	0.056	0.002	0.000.000	11.5
7270.7280.	1.331	0.056	0.002	0.000.000	11.5
7280.7285.	1.331	0.056	0.002	0.000.000	11.5
7280.7285.	1.331	0.056	0.002	0.000.000	11.5
7285.7290.	1.331	0.056	0.002	0.000.000	11.5
7285.7290.	1.331	0.056	0.002	0.000.000	11.5
7290.7295.	1.331	0.056	0.002	0.000.000	11.5
7290.7295.	1.331	0.056	0.002	0.000.000	11.5
7295.7300.	1.331	0.056	0.002	0.000.000	11.5
7295.7300.	1.331	0.056	0.002	0.000.000	11.5
7300.7350.	1.331	0.056	0.002	0.000.000	11.5
7300.7350.	1.331	0.056	0.002	0.000.000	11.5
7350.7400.	14.047	0.098	0.002	0.000 NA	NA
7350.7400.	14.047	0.098	0.002	0.000 NA	NA
7400.7450.	14.047	0.098	0.002	0.000 NA	NA
7400.7450.	14.047	0.098	0.002	0.000 NA	NA
7450.7500.	1.331	0.056	0.002	0.000.000	11.5
7450.7500.	1.331	0.056	0.002	0.000.000	11.5
7500.7550.	14.047	0.098	0.002	0.000 NA	NA
7500.7550.	14.047	0.098	0.002	0.000 NA	NA
7550.7600.	14.047	0.098	0.002	0.000 NA	NA
7550.7600.	14.047	0.098	0.002	0.000 NA	NA
7600.7605.	1.331	0.056	0.002	0.000.000	11.5
7600.7605.	1.331	0.056	0.002	0.000.000	11.5
7605.7607.	1.331	0.056	0.002	0.000.000	11.5
7605.7607.	1.331	0.056	0.002	0.000.000	11.5
7607.7610.	1.331	0.056	0.002	0.000.000	11.5
7607.7610.	1.331	0.056	0.002	0.000.000	11.5
7610.7620.	14.047	0.098	0.002	0.000 NA	NA
7610.7620.	14.047	0.098	0.002	0.000 NA	NA
7620.7650.	14.047	0.098	0.002	0.000 NA	NA
7620.7650.	14.047	0.098	0.002	0.000 NA	NA
7650.7700.	1.331	0.056	0.002	0.000.000	11.5
7650.7700.	1.331	0.056	0.002	0.000.000	11.5
7700.7712.	1.331	0.056	0.002	0.000.000	11.5
7700.7712.	1.331	0.056	0.002	0.000.000	11.5
7712.7725.	14.047	0.098	0.002	0.000 NA	NA
7712.7725.	14.047	0.098	0.002	0.000 NA	NA
7725.7737.	14.047	0.098	0.002	0.000 NA	NA
7725.7737.	14.047	0.098	0.002	0.000 NA	NA
7737.7750.	1.331	0.056	0.002	0.000.000	11.5
7737.7750.	1.331	0.056	0.002	0.000.000	11.5
7750.7800.	14.047	0.098	0.002	0.000 NA	NA
7750.7800.	14.047	0.098	0.002	0.000 NA	NA
7800.7850.	22.027	0.098	0.002	0.000 NA	NA
7800.7850.	22.027	0.098	0.002	0.000 NA	NA
7850.7900.	14.047	0.098	0.002	0.000 NA	NA
7850.7900.	14.047	0.098	0.002	0.000 NA	NA

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7900. 7950.	1.331	0.056	0.002	0.000.000	11.5
7900. 7950.	1.331	0.056	0.002	0.000.000	11.5
7950. 8000.	1.331	0.056	0.002	0.000.000	11.5
7950. 8000.	1.331	0.056	0.002	0.000.000	11.5
8000. 8049.	0.000	0.000	0.000	0.000.000	11.5
8000. 8049.	0.000	0.000	0.000	0.000.000	11.5
8049. 8050.	0.000	0.000	0.000	0.000.000	11.5
8049. 8050.	0.000	0.000	0.000	0.000.000	11.5
8200. 8250.	1.331	0.056	0.002	0.000.000	11.5
8200. 8250.	1.331	0.056	0.002	0.000.000	11.5
8250. 8300.	1.331	0.056	0.002	0.000.000	11.5
8250. 8300.	1.331	0.056	0.002	0.000.000	11.5
8300. 8350.	14.047	0.098	0.002	0.000 NA	NA
8300. 8350.	14.047	0.098	0.002	0.000 NA	NA
8350. 8400.	22.027	0.098	0.002	0.000 NA	NA
8350. 8400.	22.027	0.098	0.002	0.000 NA	NA
8400. 8450.	14.047	0.098	0.002	0.000 NA	NA
8400. 8450.	14.047	0.098	0.002	0.000 NA	NA
8450. 8500.	1.331	0.056	0.002	0.000.000	11.5
8450. 8500.	1.331	0.056	0.002	0.000.000	11.5
8500. 8510.	1.331	0.056	0.002	0.000.000	11.5
8500. 8510.	1.331	0.056	0.002	0.000.000	11.5
8510. 8520.	14.047	0.098	0.002	0.000 NA	NA
8510. 8520.	14.047	0.098	0.002	0.000 NA	NA
8520. 8530.	14.047	0.098	0.002	0.000 NA	NA
8520. 8530.	14.047	0.098	0.002	0.000 NA	NA
8530. 8550.	1.331	0.056	0.002	0.000.000	11.5
8530. 8550.	1.331	0.056	0.002	0.000.000	11.5
8550. 8600.	14.047	0.098	0.002	0.000 NA	NA
8550. 8600.	14.047	0.098	0.002	0.000 NA	NA
8600. 8650.	14.047	0.098	0.002	0.000 NA	NA
8600. 8650.	14.047	0.098	0.002	0.000 NA	NA
8650. 8700.	1.331	0.056	0.002	0.000.000	11.5
8650. 8700.	1.331	0.056	0.002	0.000.000	11.5
8700. 8750.	1.331	0.056	0.002	0.000.000	11.5
8700. 8750.	1.331	0.056	0.002	0.000.000	11.5
8750. 8800.	1.331	0.056	0.002	0.000.000	11.5
8750. 8800.	1.331	0.056	0.002	0.000.000	11.5
8800. 8850.	1.331	0.056	0.002	0.000.000	11.5
8800. 8850.	1.331	0.056	0.002	0.000.000	11.5
8850. 8860.	1.331	0.056	0.002	0.000.000	11.5
8850. 8860.	1.331	0.056	0.002	0.000.000	11.5
8860. 8870.	1.331	0.056	0.002	0.000.000	11.5
8860. 8870.	1.331	0.056	0.002	0.000.000	11.5
8870. 8880.	1.331	0.056	0.002	0.000.000	11.5
8870. 8880.	1.331	0.056	0.002	0.000.000	11.5
8880. 8885.	1.331	0.056	0.002	0.000.000	11.5
8880. 8885.	1.331	0.056	0.002	0.000.000	11.5
8885. 8890.	1.331	0.056	0.002	0.000.000	11.5
8885. 8890.	1.331	0.056	0.002	0.000.000	11.5
8890. 8895.	1.331	0.056	0.002	0.000.000	11.5
8890. 8895.	1.331	0.056	0.002	0.000.000	11.5
8895. 8900.	1.331	0.056	0.002	0.000.000	11.5
8895. 8900.	1.331	0.056	0.002	0.000.000	11.5

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8900.8950.	1.331	0.056	0.002	0.000.000	11.5
8900.8950.	1.331	0.056	0.002	0.000.000	11.5
8950.9000.	14.047	0.098	0.002	0.000 NA	NA
8950.9000.	14.047	0.098	0.002	0.000 NA	NA
9000.9050.	14.047	0.098	0.002	0.000 NA	NA
9000.9050.	14.047	0.098	0.002	0.000 NA	NA
9050.9100.	1.331	0.056	0.002	0.000.000	11.5
9050.9100.	1.331	0.056	0.002	0.000.000	11.5
9100.9150.	14.047	0.098	0.002	0.000 NA	NA
9100.9150.	14.047	0.098	0.002	0.000 NA	NA
9150.9200.	14.047	0.098	0.002	0.000 NA	NA
9150.9200.	14.047	0.098	0.002	0.000 NA	NA
9200.9205.	1.331	0.056	0.002	0.000.000	11.5
9200.9205.	1.331	0.056	0.002	0.000.000	11.5
9205.9207.	1.331	0.056	0.002	0.000.000	11.5
9205.9207.	1.331	0.056	0.002	0.000.000	11.5
9207.9210.	1.331	0.056	0.002	0.000.000	11.5
9207.9210.	1.331	0.056	0.002	0.000.000	11.5
9210.9230.	14.047	0.098	0.002	0.000 NA	NA
9210.9230.	14.047	0.098	0.002	0.000 NA	NA
9230.9250.	14.047	0.098	0.002	0.000 NA	NA
9230.9250.	14.047	0.098	0.002	0.000 NA	NA
9250.9300.	1.331	0.056	0.002	0.000.000	11.5
9250.9300.	1.331	0.056	0.002	0.000.000	11.5
9300.9312.	1.331	0.056	0.002	0.000.000	11.5
9300.9312.	1.331	0.056	0.002	0.000.000	11.5
9312.9325.	14.047	0.098	0.002	0.000 NA	NA
9312.9325.	14.047	0.098	0.002	0.000 NA	NA
9325.9337.	14.047	0.098	0.002	0.000 NA	NA
9325.9337.	14.047	0.098	0.002	0.000 NA	NA
9337.9350.	1.331	0.056	0.002	0.000.000	11.5
9337.9350.	1.331	0.056	0.002	0.000.000	11.5
9350.9400.	14.047	0.098	0.002	0.000 NA	NA
9350.9400.	14.047	0.098	0.002	0.000 NA	NA
9400.9450.	22.027	0.098	0.002	0.000 NA	NA
9400.9450.	22.027	0.098	0.002	0.000 NA	NA
9450.9500.	14.047	0.098	0.002	0.000 NA	NA
9450.9500.	14.047	0.098	0.002	0.000 NA	NA
9500.9550.	1.331	0.056	0.002	0.000.000	11.5
9500.9550.	1.331	0.056	0.002	0.000.000	11.5
9550.9600.	1.331	0.056	0.002	0.000.000	11.5
9550.9600.	1.331	0.056	0.002	0.000.000	11.5
9600.9649.	0.000	0.000	0.000	0.000.000	11.5
9600.9649.	0.000	0.000	0.000	0.000.000	11.5
9649.9650.	0.000	0.000	0.000	0.000.000	11.5
9649.9650.	0.000	0.000	0.000	0.000.000	11.5
9800.9850.	1.331	0.056	0.002	0.000.000	11.5
9800.9850.	1.331	0.056	0.002	0.000.000	11.5
9850.9900.	1.331	0.056	0.002	0.000.000	11.5
9850.9900.	1.331	0.056	0.002	0.000.000	11.5
9900.9950.	14.047	0.098	0.002	0.000 NA	NA
9900.9950.	14.047	0.098	0.002	0.000 NA	NA
9950.10000.	22.027	0.098	0.002	0.000 NA	NA
9950.10000.	22.027	0.098	0.002	0.000 NA	NA

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10000.10050.	14.047	0.098	0.002	0.000	NA	NA
10000.10050.	14.047	0.098	0.002	0.000	NA	NA
10050.10100.	1.331	0.056	0.002	0.000.000	11.5	
10050.10100.	1.331	0.056	0.002	0.000.000	11.5	
10100.10110.	1.331	0.056	0.002	0.000.000	11.5	
10100.10110.	1.331	0.056	0.002	0.000.000	11.5	
10110.10120.	14.047	0.098	0.002	0.000	NA	NA
10110.10120.	14.047	0.098	0.002	0.000	NA	NA
10120.10130.	14.047	0.098	0.002	0.000	NA	NA
10120.10130.	14.047	0.098	0.002	0.000	NA	NA
10130.10150.	1.331	0.056	0.002	0.000.000	11.5	
10130.10150.	1.331	0.056	0.002	0.000.000	11.5	
10150.10200.	14.047	0.098	0.002	0.000	NA	NA
10150.10200.	14.047	0.098	0.002	0.000	NA	NA
10200.10250.	14.047	0.098	0.002	0.000	NA	NA
10200.10250.	14.047	0.098	0.002	0.000	NA	NA
10250.10300.	1.331	0.056	0.002	0.000.000	11.5	
10250.10300.	1.331	0.056	0.002	0.000.000	11.5	
10300.10350.	1.331	0.056	0.002	0.000.000	11.5	
10300.10350.	1.331	0.056	0.002	0.000.000	11.5	
10350.10400.	1.331	0.056	0.002	0.000.000	11.5	
10350.10400.	1.331	0.056	0.002	0.000.000	11.5	
10400.10450.	1.331	0.056	0.002	0.000.000	11.5	
10400.10450.	1.331	0.056	0.002	0.000.000	11.5	
10450.10460.	1.331	0.056	0.002	0.000.000	11.5	
10450.10460.	1.331	0.056	0.002	0.000.000	11.5	
10460.10470.	1.331	0.056	0.002	0.000.000	11.5	
10460.10470.	1.331	0.056	0.002	0.000.000	11.5	
10470.10480.	1.331	0.056	0.002	0.000.000	11.5	
10470.10480.	1.331	0.056	0.002	0.000.000	11.5	
10480.10485.	1.331	0.056	0.002	0.000.000	11.5	
10480.10485.	1.331	0.056	0.002	0.000.000	11.5	
10485.10490.	1.331	0.056	0.002	0.000.000	11.5	
10485.10490.	1.331	0.056	0.002	0.000.000	11.5	
10490.10495.	1.331	0.056	0.002	0.000.000	11.5	
10490.10495.	1.331	0.056	0.002	0.000.000	11.5	
10495.10500.	1.331	0.056	0.002	0.000.000	11.5	
10495.10500.	1.331	0.056	0.002	0.000.000	11.5	
10500.10550.	1.331	0.056	0.002	0.000.000	11.5	
10500.10550.	1.331	0.056	0.002	0.000.000	11.5	
10550.10600.	14.047	0.098	0.002	0.000	NA	NA
10550.10600.	14.047	0.098	0.002	0.000	NA	NA
10600.10650.	14.047	0.098	0.002	0.000	NA	NA
10600.10650.	14.047	0.098	0.002	0.000	NA	NA
10650.10700.	1.331	0.056	0.002	0.000.000	11.5	
10650.10700.	1.331	0.056	0.002	0.000.000	11.5	
10700.10750.	14.047	0.098	0.002	0.000	NA	NA
10700.10750.	14.047	0.098	0.002	0.000	NA	NA
10750.10800.	14.047	0.098	0.002	0.000	NA	NA
10750.10800.	14.047	0.098	0.002	0.000	NA	NA
10800.10805.	1.331	0.056	0.002	0.000.000	11.5	
10800.10805.	1.331	0.056	0.002	0.000.000	11.5	
10805.10807.	1.331	0.056	0.002	0.000.000	11.5	
10805.10807.	1.331	0.056	0.002	0.000.000	11.5	

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10807.10810.	1.331	0.056	0.002	0.000.000	11.5
10807.10810.	1.331	0.056	0.002	0.000.000	11.5
10810.10820.	14.047	0.098	0.002	0.000 NA	NA
10810.10820.	14.047	0.098	0.002	0.000 NA	NA
10820.10850.	14.047	0.098	0.002	0.000 NA	NA
10820.10850.	14.047	0.098	0.002	0.000 NA	NA
10850.10900.	1.331	0.056	0.002	0.000.000	11.5
10850.10900.	1.331	0.056	0.002	0.000.000	11.5
10900.10912.	1.331	0.056	0.002	0.000.000	11.5
10900.10912.	1.331	0.056	0.002	0.000.000	11.5
10912.10925.	14.047	0.098	0.002	0.000 NA	NA
10912.10925.	14.047	0.098	0.002	0.000 NA	NA
10925.10937.	14.047	0.098	0.002	0.000 NA	NA
10925.10937.	14.047	0.098	0.002	0.000 NA	NA
10937.10950.	1.331	0.056	0.002	0.000.000	11.5
10937.10950.	1.331	0.056	0.002	0.000.000	11.5
10950.11000.	14.047	0.098	0.002	0.000 NA	NA
10950.11000.	14.047	0.098	0.002	0.000 NA	NA
11000.11050.	22.027	0.098	0.002	0.000 NA	NA
11000.11050.	22.027	0.098	0.002	0.000 NA	NA
11050.11100.	14.047	0.098	0.002	0.000 NA	NA
11050.11100.	14.047	0.098	0.002	0.000 NA	NA
11100.11150.	1.331	0.056	0.002	0.000.000	11.5
11100.11150.	1.331	0.056	0.002	0.000.000	11.5
11150.11200.	1.331	0.056	0.002	0.000.000	11.5
11150.11200.	1.331	0.056	0.002	0.000.000	11.5
11200.11249.	0.000	0.000	0.000	0.000.000	11.5
11200.11249.	0.000	0.000	0.000	0.000.000	11.5
11249.11250.	0.000	0.000	0.000	0.000.000	11.5
11249.11250.	0.000	0.000	0.000	0.000.000	11.5
11250.9651.	0.000	0.000	0.000	0.000.000	29.7
11250.9651.	0.000	0.000	0.000	0.000.000	29.7
9651.9650.	0.000	0.000	0.000	0.000.000	29.7
9651.9650.	0.000	0.000	0.000	0.000.000	29.7
11250.17399.	0.000	0.000	0.000	0.000.000	29.7
11250.17399.	0.000	0.000	0.000	0.000.000	29.7
17399.17400.	0.000	0.000	0.000	0.000.000	29.7
17399.17400.	0.000	0.000	0.000	0.000.000	29.7
11800.11900.	0.000	0.000	0.000	0.000.000	29.7
11800.11900.	0.000	0.000	0.000	0.000.000	29.7
11900.12070.	0.000	0.000	0.000	0.000.000	29.7
11900.12070.	0.000	0.000	0.000	0.000.000	29.7
12070.12100.	0.000	0.000	0.000	0.000.000	29.7
12070.12100.	0.000	0.000	0.000	0.000.000	29.7
12100.12500.	0.000	0.000	0.000	0.000.000	29.7
12100.12500.	0.000	0.000	0.000	0.000.000	29.7
12500.12520.	0.000	0.000	0.000	0.000.000	29.7
12500.12520.	0.000	0.000	0.000	0.000.000	29.7
12520.12900.	0.000	0.000	0.000	0.000.000	29.7
12520.12900.	0.000	0.000	0.000	0.000.000	29.7
12900.12920.	0.000	0.000	0.000	0.000.000	29.7
12900.12920.	0.000	0.000	0.000	0.000.000	29.7
12920.12921.	0.000	0.000	0.000	0.000.000	29.7
12920.12921.	0.000	0.000	0.000	0.000.000	29.7

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12921.12922.	0.000	0.000	0.000	0.000.000	29.7
12921.12922.	0.000	0.000	0.000	0.000.000	29.7
12922.13300.	0.000	0.000	0.000	0.000.000	29.7
12922.13300.	0.000	0.000	0.000	0.000.000	29.7
13300.13400.	0.000	0.000	0.000	0.000.000	29.7
13300.13400.	0.000	0.000	0.000	0.000.000	29.7
13400.13401.	0.000	0.000	0.000	0.000.000	29.7
13400.13401.	0.000	0.000	0.000	0.000.000	29.7
13401.13402.	0.000	0.000	0.000	0.000.000	29.7
13401.13402.	0.000	0.000	0.000	0.000.000	29.7
13402.13450.	0.000	0.000	0.000	0.000.000	29.7
13402.13450.	0.000	0.000	0.000	0.000.000	29.7
13450.13499.	0.000	0.000	0.000	0.000.000	29.7
13450.13499.	0.000	0.000	0.000	0.000.000	29.7
13499.13500.	0.000	0.000	0.000	0.000.000	29.7
13499.13500.	0.000	0.000	0.000	0.000.000	29.7
13500.14700.	0.000	0.000	0.000	0.000.000	29.7
13500.14700.	0.000	0.000	0.000	0.000.000	29.7
14700.14720.	0.000	0.000	0.000	0.000 NA NA	
14700.14720.	0.000	0.000	0.000	0.000 NA NA	
14720.14721.	0.000	0.000	0.000	0.000.000	29.7
14720.14721.	0.000	0.000	0.000	0.000.000	29.7
14721.14722.	0.000	0.000	0.000	0.000.000	29.7
14721.14722.	0.000	0.000	0.000	0.000.000	29.7
14722.14723.	0.000	0.000	0.000	0.000.000	29.7
14722.14723.	0.000	0.000	0.000	0.000.000	29.7
14723.14750.	0.000	0.000	0.000	0.000.000	29.7
14723.14750.	0.000	0.000	0.000	0.000.000	29.7
14750.14770.	0.000	0.000	0.000	0.000.000	29.7
14750.14770.	0.000	0.000	0.000	0.000.000	29.7
14770.14800.	0.000	0.000	0.000	0.000.000	29.7
14770.14800.	0.000	0.000	0.000	0.000.000	29.7
14800.15500.	0.000	0.000	0.000	0.000.000	29.7
14800.15500.	0.000	0.000	0.000	0.000.000	29.7
15500.15550.	0.000	0.000	0.000	0.000.000	29.7
15500.15550.	0.000	0.000	0.000	0.000.000	29.7
15550.16300.	0.000	0.000	0.000	0.000.000	29.7
15550.16300.	0.000	0.000	0.000	0.000.000	29.7
16300.16350.	0.000	0.000	0.000	0.000.000	29.7
16300.16350.	0.000	0.000	0.000	0.000.000	29.7
16350.17100.	0.000	0.000	0.000	0.000.000	29.7
16350.17100.	0.000	0.000	0.000	0.000.000	29.7
17100.17150.	0.000	0.000	0.000	0.000.000	29.7
17100.17150.	0.000	0.000	0.000	0.000.000	29.7
17150.17400.	0.000	0.000	0.000	0.000.000	29.7
17150.17400.	0.000	0.000	0.000	0.000.000	29.7
17400.17419.	0.000	0.000	0.000	0.000.000	29.7
17400.17419.	0.000	0.000	0.000	0.000.000	29.7
17419.17420.	0.000	0.000	0.000	0.000.000	29.7
17419.17420.	0.000	0.000	0.000	0.000.000	29.7
17150.17169.	0.000	0.000	0.000	0.000.000	13.8
17150.17169.	0.000	0.000	0.000	0.000.000	13.8
17169.17170.	0.000	0.000	0.000	0.000.000	13.8
17169.17170.	0.000	0.000	0.000	0.000.000	13.8

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14800.14850.	0.000	0.000	0.000	0.000.000	15.0
14800.14850.	0.000	0.000	0.000	0.000.000	15.0
14850.14900.	0.000	0.000	0.000	0.000 NA	NA
14850.14900.	0.000	0.000	0.000	0.000 NA	NA
14900.14901.	0.000	0.000	0.000	0.000.000	15.0
14900.14901.	0.000	0.000	0.000	0.000.000	15.0
14901.14902.	0.000	0.000	0.000	0.000.000	15.0
14901.14902.	0.000	0.000	0.000	0.000.000	15.0
14902.14950.	0.000	0.000	0.000	0.000.000	15.0
14902.14950.	0.000	0.000	0.000	0.000.000	15.0
14950.14999.	0.000	0.000	0.000	0.000.000	15.0
14950.14999.	0.000	0.000	0.000	0.000.000	15.0
14999.15000.	0.000	0.000	0.000	0.000.000	15.0
14999.15000.	0.000	0.000	0.000	0.000.000	15.0
13500.13520.	0.000	0.000	0.000	0.000.000	29.7
13500.13520.	0.000	0.000	0.000	0.000.000	29.7
13520.13550.	0.000	0.000	0.000	0.000.000	29.7
13520.13550.	0.000	0.000	0.000	0.000.000	29.7
13550.13600.	0.000	0.000	0.000	0.000.000	29.7
13550.13600.	0.000	0.000	0.000	0.000.000	29.7
13600.13650.	0.000	0.000	0.000	0.000.000	29.7
13600.13650.	0.000	0.000	0.000	0.000.000	29.7
13650.13699.	0.000	0.000	0.000	0.000 NA	NA
13650.13699.	0.000	0.000	0.000	0.000 NA	NA
13699.13700.	0.000	0.000	0.000	0.000.000	29.7
13699.13700.	0.000	0.000	0.000	0.000.000	29.7
12100.12150.	0.000	0.000	0.000	0.000.000	15.0
12100.12150.	0.000	0.000	0.000	0.000.000	15.0
12150.12200.	0.000	0.000	0.000	0.000 NA	NA
12150.12200.	0.000	0.000	0.000	0.000 NA	NA
12200.12201.	0.000	0.000	0.000	0.000.000	15.0
12200.12201.	0.000	0.000	0.000	0.000.000	15.0
12201.12202.	0.000	0.000	0.000	0.000.000	15.0
12201.12202.	0.000	0.000	0.000	0.000.000	15.0
12202.12250.	0.000	0.000	0.000	0.000.000	15.0
12202.12250.	0.000	0.000	0.000	0.000.000	15.0
12250.12299.	0.000	0.000	0.000	0.000.000	15.0
12250.12299.	0.000	0.000	0.000	0.000.000	15.0
12299.12300.	0.000	0.000	0.000	0.000.000	15.0
12299.12300.	0.000	0.000	0.000	0.000.000	15.0
12300.12350.	1.738	0.000	0.003	0.000.000	15.0
12300.12350.	1.738	0.000	0.003	0.000.000	15.0
12350.12400.	1.738	0.000	0.003	0.000.000	15.0
12350.12400.	1.738	0.000	0.003	0.000.000	15.0
11900.11949.	0.000	0.000	0.000	0.000.000	15.0
11900.11949.	0.000	0.000	0.000	0.000.000	15.0
11949.11950.	0.000	0.000	0.000	0.000.000	15.0
11949.11950.	0.000	0.000	0.000	0.000.000	15.0
9650.8050.	0.000	0.000	0.000	0.000.000	29.7
9650.8050.	0.000	0.000	0.000	0.000.000	29.7
8050.6450.	0.000	0.000	0.000	0.000.000	29.7
8050.6450.	0.000	0.000	0.000	0.000.000	29.7
6450.11300.	0.000	0.000	0.000	0.000.000	29.7
6450.11300.	0.000	0.000	0.000	0.000.000	29.7

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Impianto di Melendugno
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11300.11349.	0.000	0.000	0.000	0.000.000	29.7
11300.11349.	0.000	0.000	0.000	0.000.000	29.7
11349.11350.	0.000	0.000	0.000	0.000.000	29.7
11349.11350.	0.000	0.000	0.000	0.000.000	29.7
11350.11370.	0.000	0.000	0.000	0.000.000	10.6
11350.11370.	0.000	0.000	0.000	0.000.000	10.6
11370.11599.	0.000	0.000	0.000	0.000.000	11.5
11370.11599.	0.000	0.000	0.000	0.000.000	11.5
11599.11600.	0.000	0.000	0.000	0.000.000	11.5
11599.11600.	0.000	0.000	0.000	0.000.000	11.5
11600.11650.	1.331	0.000	0.002	0.000.000	11.5
11600.11650.	1.331	0.000	0.002	0.000.000	11.5
11650.11700.	1.331	0.000	0.002	0.000.000	11.5
11650.11700.	1.331	0.000	0.002	0.000.000	11.5
11350.11399.	0.000	0.000	0.000	0.000.000	29.7
11350.11399.	0.000	0.000	0.000	0.000.000	29.7
11399.11400.	0.000	0.000	0.000	0.000.000	29.7
11399.11400.	0.000	0.000	0.000	0.000.000	29.7
11300.11449.	0.000	0.000	0.000	0.000.000	11.5
11300.11449.	0.000	0.000	0.000	0.000.000	11.5
11449.11450.	0.000	0.000	0.000	0.000.000	11.5
11449.11450.	0.000	0.000	0.000	0.000.000	11.5
11450.11500.	1.331	0.000	0.002	0.000.000	11.5
11450.11500.	1.331	0.000	0.002	0.000.000	11.5
11500.11550.	1.331	0.000	0.002	0.000.000	11.5
11500.11550.	1.331	0.000	0.002	0.000.000	11.5
12400.12450.	21.547	0.000	0.003	0.000 NA NA	
12400.12450.	21.547	0.000	0.003	0.000 NA NA	
12520.12570.	0.000	0.000	0.000	0.000.000	15.0
12520.12570.	0.000	0.000	0.000	0.000.000	15.0
12570.12620.	0.000	0.000	0.000	0.000 NA NA	
12570.12620.	0.000	0.000	0.000	0.000 NA NA	
12620.12621.	0.000	0.000	0.000	0.000.000	15.0
12620.12621.	0.000	0.000	0.000	0.000.000	15.0
12621.12622.	0.000	0.000	0.000	0.000.000	15.0
12621.12622.	0.000	0.000	0.000	0.000.000	15.0
12622.12670.	0.000	0.000	0.000	0.000.000	15.0
12622.12670.	0.000	0.000	0.000	0.000.000	15.0
12670.12719.	0.000	0.000	0.000	0.000.000	15.0
12670.12719.	0.000	0.000	0.000	0.000.000	15.0
12719.12720.	0.000	0.000	0.000	0.000.000	15.0
12719.12720.	0.000	0.000	0.000	0.000.000	15.0
12720.12770.	1.738	0.000	0.003	0.000.000	15.0
12720.12770.	1.738	0.000	0.003	0.000.000	15.0
12770.12820.	1.738	0.000	0.003	0.000.000	15.0
12770.12820.	1.738	0.000	0.003	0.000.000	15.0
12820.12870.	21.547	0.000	0.003	0.000 NA NA	
12820.12870.	21.547	0.000	0.003	0.000 NA NA	
12920.12970.	0.000	0.000	0.000	0.000.000	15.0
12920.12970.	0.000	0.000	0.000	0.000.000	15.0
12970.13020.	0.000	0.000	0.000	0.000 NA NA	
12970.13020.	0.000	0.000	0.000	0.000 NA NA	
13020.13021.	0.000	0.000	0.000	0.000.000	15.0
13020.13021.	0.000	0.000	0.000	0.000.000	15.0

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Impianto di Melendugno
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13021.13022.	0.000	0.000	0.000	0.000.000	15.0
13021.13022.	0.000	0.000	0.000	0.000.000	15.0
13022.13070.	0.000	0.000	0.000	0.000.000	15.0
13022.13070.	0.000	0.000	0.000	0.000.000	15.0
13070.13119.	0.000	0.000	0.000	0.000.000	15.0
13070.13119.	0.000	0.000	0.000	0.000.000	15.0
13119.13120.	0.000	0.000	0.000	0.000.000	15.0
13119.13120.	0.000	0.000	0.000	0.000.000	15.0
13120.13170.	1.738	0.000	0.003	0.000.000	15.0
13120.13170.	1.738	0.000	0.003	0.000.000	15.0
13170.13220.	1.738	0.000	0.003	0.000.000	15.0
13170.13220.	1.738	0.000	0.003	0.000.000	15.0
13220.13270.	21.547	0.000	0.003	0.000 NA	NA
13220.13270.	21.547	0.000	0.003	0.000 NA	NA
13700.13750.	0.000	0.000	0.000	0.000.000	29.7
13700.13750.	0.000	0.000	0.000	0.000.000	29.7
13750.13800.	0.000	0.000	0.000	0.000.000	29.7
13750.13800.	0.000	0.000	0.000	0.000.000	29.7
13800.13850.	0.000	0.000	0.000	0.000 NA	NA
13800.13850.	0.000	0.000	0.000	0.000 NA	NA
13850.13851.	0.000	0.000	0.000	0.000.000	29.7
13850.13851.	0.000	0.000	0.000	0.000.000	29.7
13851.13852.	0.000	0.000	0.000	0.000.000	29.7
13851.13852.	0.000	0.000	0.000	0.000.000	29.7
13852.13900.	0.000	0.000	0.000	0.000.000	29.7
13852.13900.	0.000	0.000	0.000	0.000.000	29.7
13900.2599.	0.000	0.000	0.000	0.000.000	29.7
13900.2599.	0.000	0.000	0.000	0.000.000	29.7
2599.2600.	0.000	0.000	0.000	0.000.000	29.7
2599.2600.	0.000	0.000	0.000	0.000.000	29.7
15000.15050.	1.738	0.000	0.003	0.000.000	15.0
15000.15050.	1.738	0.000	0.003	0.000.000	15.0
15050.15100.	1.738	0.000	0.003	0.000.000	15.0
15050.15100.	1.738	0.000	0.003	0.000.000	15.0
15100.15150.	21.547	0.000	0.003	0.000 NA	NA
15100.15150.	21.547	0.000	0.003	0.000 NA	NA
15550.15600.	0.000	0.000	0.000	0.000.000	15.0
15550.15600.	0.000	0.000	0.000	0.000.000	15.0
15600.15650.	0.000	0.000	0.000	0.000 NA	NA
15600.15650.	0.000	0.000	0.000	0.000 NA	NA
15650.15651.	0.000	0.000	0.000	0.000.000	15.0
15650.15651.	0.000	0.000	0.000	0.000.000	15.0
15651.15652.	0.000	0.000	0.000	0.000.000	15.0
15651.15652.	0.000	0.000	0.000	0.000.000	15.0
15652.15700.	0.000	0.000	0.000	0.000.000	15.0
15652.15700.	0.000	0.000	0.000	0.000.000	15.0
15700.15749.	0.000	0.000	0.000	0.000.000	15.0
15700.15749.	0.000	0.000	0.000	0.000.000	15.0
15749.15750.	0.000	0.000	0.000	0.000.000	15.0
15749.15750.	0.000	0.000	0.000	0.000.000	15.0
15750.15800.	1.738	0.000	0.003	0.000.000	15.0
15750.15800.	1.738	0.000	0.003	0.000.000	15.0
15800.15850.	1.738	0.000	0.003	0.000.000	15.0
15800.15850.	1.738	0.000	0.003	0.000.000	15.0

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Impianto di Melendugno
Allegato 1 - Area 1
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15850.15900.	21.547	0.000	0.003	0.000	NA	NA
15850.15900.	21.547	0.000	0.003	0.000	NA	NA
16350.16400.	0.000	0.000	0.000	0.000.000	15.0	
16350.16400.	0.000	0.000	0.000	0.000.000	15.0	
16400.16450.	0.000	0.000	0.000	0.000	NA	NA
16400.16450.	0.000	0.000	0.000	0.000	NA	NA
16450.16451.	0.000	0.000	0.000	0.000.000	15.0	
16450.16451.	0.000	0.000	0.000	0.000.000	15.0	
16451.16452.	0.000	0.000	0.000	0.000.000	15.0	
16451.16452.	0.000	0.000	0.000	0.000.000	15.0	
16452.16500.	0.000	0.000	0.000	0.000.000	15.0	
16452.16500.	0.000	0.000	0.000	0.000.000	15.0	
16500.16549.	0.000	0.000	0.000	0.000.000	15.0	
16500.16549.	0.000	0.000	0.000	0.000.000	15.0	
16549.16550.	0.000	0.000	0.000	0.000.000	15.0	
16549.16550.	0.000	0.000	0.000	0.000.000	15.0	
16550.16600.	1.738	0.000	0.003	0.000.000	15.0	
16550.16600.	1.738	0.000	0.003	0.000.000	15.0	
16600.16650.	1.738	0.000	0.003	0.000.000	15.0	
16600.16650.	1.738	0.000	0.003	0.000.000	15.0	
16650.16700.	21.547	0.000	0.003	0.000	NA	NA
16650.16700.	21.547	0.000	0.003	0.000	NA	NA
18200.18250.	0.000	0.000	0.000	0.000	NA	NA
18200.18250.	0.000	0.000	0.000	0.000	NA	NA
18250.18300.	0.000	0.000	0.000	0.000.000	13.8	
18250.18300.	0.000	0.000	0.000	0.000.000	13.8	
18300.18350.	0.000	0.000	0.000	0.000	NA	NA
18300.18350.	0.000	0.000	0.000	0.000	NA	NA
18350.17899.	0.000	0.000	0.000	0.000.000	13.8	
18350.17899.	0.000	0.000	0.000	0.000.000	13.8	
17899.17900.	0.000	0.000	0.000	0.000.000	13.8	
17899.17900.	0.000	0.000	0.000	0.000.000	13.8	
18400.18450.	0.000	0.000	0.000	0.000	NA	NA
18400.18450.	0.000	0.000	0.000	0.000	NA	NA
18450.18500.	0.000	0.000	0.000	0.000.000	13.8	
18450.18500.	0.000	0.000	0.000	0.000.000	13.8	
18500.18550.	0.000	0.000	0.000	0.000	NA	NA
18500.18550.	0.000	0.000	0.000	0.000	NA	NA
18550.18600.	0.000	0.000	0.000	0.000.000	13.8	
18550.18600.	0.000	0.000	0.000	0.000.000	13.8	
18600.18650.	0.000	0.000	0.000	0.000	NA	NA
18600.18650.	0.000	0.000	0.000	0.000	NA	NA
18650.17949.	0.000	0.000	0.000	0.000.000	13.8	
18650.17949.	0.000	0.000	0.000	0.000.000	13.8	
17949.17950.	0.000	0.000	0.000	0.000.000	13.8	
17949.17950.	0.000	0.000	0.000	0.000.000	13.8	
18700.18750.	0.000	0.000	0.000	0.000	NA	NA
18700.18750.	0.000	0.000	0.000	0.000	NA	NA
18750.18800.	0.000	0.000	0.000	0.000.000	13.8	
18750.18800.	0.000	0.000	0.000	0.000.000	13.8	
18800.18850.	0.000	0.000	0.000	0.000	NA	NA
18800.18850.	0.000	0.000	0.000	0.000	NA	NA
18850.18900.	0.000	0.000	0.000	0.000.000	13.8	
18850.18900.	0.000	0.000	0.000	0.000.000	13.8	

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Impianto di Melendugno
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18900.18950.	0.000	0.000	0.000	0.000	NA	NA
18900.18950.	0.000	0.000	0.000	0.000	NA	NA
18950.17999.	0.000	0.000	0.000	0.000.000	13.8	
18950.17999.	0.000	0.000	0.000	0.000.000	13.8	
17999.18000.	0.000	0.000	0.000	0.000.000	13.8	
17999.18000.	0.000	0.000	0.000	0.000.000	13.8	
20500.20550.	0.000	0.000	0.000	0.000	NA	NA
20500.20550.	0.000	0.000	0.000	0.000	NA	NA
20550.24750.	0.000	0.000	0.000	0.000.000	11.5	
20550.24750.	0.000	0.000	0.000	0.000.000	11.5	
24750.1849.	0.000	0.000	0.000	0.000.000	11.5	
24750.1849.	0.000	0.000	0.000	0.000.000	11.5	
1849.1850.	0.000	0.000	0.000	0.000.000	11.5	
1849.1850.	0.000	0.000	0.000	0.000.000	11.5	
21600.21650.	14.047	0.000	0.002	0.000	NA	NA
21600.21650.	14.047	0.000	0.002	0.000	NA	NA
21650.21700.	1.331	0.000	0.002	0.000.000	11.5	
21650.21700.	1.331	0.000	0.002	0.000.000	11.5	
21700.21750.	1.331	0.000	0.002	0.000.000	11.5	
21700.21750.	1.331	0.000	0.002	0.000.000	11.5	
21750.21800.	1.331	0.000	0.002	0.000.000	11.5	
21750.21800.	1.331	0.000	0.002	0.000.000	11.5	
21800.21850.	1.331	0.000	0.002	0.000.000	11.5	
21800.21850.	1.331	0.000	0.002	0.000.000	11.5	
21850.21900.	1.331	0.000	0.002	0.000.000	11.5	
21850.21900.	1.331	0.000	0.002	0.000.000	11.5	
21900.21950.	1.331	0.000	0.002	0.000.000	11.5	
21900.21950.	1.331	0.000	0.002	0.000.000	11.5	
21950.22000.	0.000	0.000	0.000	0.000.000	11.5	
21950.22000.	0.000	0.000	0.000	0.000.000	11.5	
22000.22050.	0.000	0.000	0.000	0.000.000	11.5	
22000.22050.	0.000	0.000	0.000	0.000.000	11.5	
22050.22700.	0.000	0.000	0.000	0.000.000	11.5	
22050.22700.	0.000	0.000	0.000	0.000.000	11.5	
22700.22750.	0.000	0.000	0.000	0.000	NA	NA
22700.22750.	0.000	0.000	0.000	0.000	NA	NA
22750.22751.	0.000	0.000	0.000	0.000.000	11.5	
22750.22751.	0.000	0.000	0.000	0.000.000	11.5	
22751.22752.	0.000	0.000	0.000	0.000.000	11.5	
22751.22752.	0.000	0.000	0.000	0.000.000	11.5	
22752.22800.	0.000	0.000	0.000	0.000.000	11.5	
22752.22800.	0.000	0.000	0.000	0.000.000	11.5	
22800.22850.	0.000	0.000	0.000	0.000.000	11.5	
22800.22850.	0.000	0.000	0.000	0.000.000	11.5	
22850.22900.	0.000	0.000	0.000	0.000	NA	NA
22850.22900.	0.000	0.000	0.000	0.000	NA	NA
22900.22901.	0.000	0.000	0.000	0.000.000	11.5	
22900.22901.	0.000	0.000	0.000	0.000.000	11.5	
22901.22902.	0.000	0.000	0.000	0.000.000	11.5	
22901.22902.	0.000	0.000	0.000	0.000.000	11.5	
22902.22950.	0.000	0.000	0.000	0.000.000	11.5	
22902.22950.	0.000	0.000	0.000	0.000.000	11.5	
22950.22951.	0.000	0.000	0.000	0.000.000	11.5	
22950.22951.	0.000	0.000	0.000	0.000.000	11.5	

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Impianto di Melendugno
Allegato 1 - Area 1
MISCELLANEOUS COMPUTED DATA

22951.22952.	0.000	0.000	0.000	0.000.000	11.5
22951.22952.	0.000	0.000	0.000	0.000.000	11.5
22952.23000.	0.000	0.000	0.000	0.000.000	11.5
22952.23000.	0.000	0.000	0.000	0.000.000	11.5
23000.23001.	0.000	0.000	0.000	0.000.000	11.5
23000.23001.	0.000	0.000	0.000	0.000.000	11.5
23001.23002.	0.000	0.000	0.000	0.000.000	11.5
23001.23002.	0.000	0.000	0.000	0.000.000	11.5
23002.23003.	0.000	0.000	0.000	0.000.000	11.5
23002.23003.	0.000	0.000	0.000	0.000.000	11.5
23003.23020.	0.000	0.000	0.000	0.000.000	11.5
23003.23020.	0.000	0.000	0.000	0.000.000	11.5
23020.23021.	0.000	0.000	0.000	0.000.000	11.5
23020.23021.	0.000	0.000	0.000	0.000.000	11.5
23021.23022.	0.000	0.000	0.000	0.000.000	11.5
23021.23022.	0.000	0.000	0.000	0.000.000	11.5
23022.23023.	0.000	0.000	0.000	0.000.000	11.5
23022.23023.	0.000	0.000	0.000	0.000.000	11.5
23023.23024.	0.000	0.000	0.000	0.000.000	11.5
23023.23024.	0.000	0.000	0.000	0.000.000	11.5
23024.23025.	0.000	0.000	0.000	0.000.000	11.5
23024.23025.	0.000	0.000	0.000	0.000.000	11.5
23025.23050.	0.000	0.000	0.000	0.000.000	11.5
23025.23050.	0.000	0.000	0.000	0.000.000	11.5
23050.23051.	0.000	0.000	0.000	0.000.000	11.5
23050.23051.	0.000	0.000	0.000	0.000.000	11.5
23051.23052.	0.000	0.000	0.000	0.000.000	11.5
23051.23052.	0.000	0.000	0.000	0.000.000	11.5
23052.23053.	0.000	0.000	0.000	0.000.000	11.5
23052.23053.	0.000	0.000	0.000	0.000.000	11.5
23053.23054.	0.000	0.000	0.000	0.000.000	11.5
23053.23054.	0.000	0.000	0.000	0.000.000	11.5
23054.23100.	0.000	0.000	0.000	0.000.000	11.5
23054.23100.	0.000	0.000	0.000	0.000.000	11.5
23100.23149.	0.000	0.000	0.000	0.000.000	11.5
23100.23149.	0.000	0.000	0.000	0.000.000	11.5
23149.23150.	0.000	0.000	0.000	0.000.000	11.5
23149.23150.	0.000	0.000	0.000	0.000.000	11.5
23150.23200.	1.331	0.000	0.002	0.000.000	11.5
23150.23200.	1.331	0.000	0.002	0.000.000	11.5
23200.23250.	1.331	0.000	0.002	0.000.000	11.5
23200.23250.	1.331	0.000	0.002	0.000.000	11.5
23250.23300.	1.331	0.000	0.002	0.000.000	11.5
23250.23300.	1.331	0.000	0.002	0.000.000	11.5
23300.23350.	1.331	0.000	0.002	0.000.000	11.5
23300.23350.	1.331	0.000	0.002	0.000.000	11.5
22050.22100.	0.000	0.000	0.000	0.000.000	11.5
22050.22100.	0.000	0.000	0.000	0.000.000	11.5
22100.22200.	0.000	0.000	0.000	0.000 NA NA	
22100.22200.	0.000	0.000	0.000	0.000 NA NA	
22200.22250.	0.000	0.000	0.000	0.000.000	11.5
22200.22250.	0.000	0.000	0.000	0.000.000	11.5
22250.22270.	0.000	0.000	0.000	0.000.000	11.5
22250.22270.	0.000	0.000	0.000	0.000.000	11.5

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Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

22270.22271.	0.000	0.000	0.000	0.000.000	11.5
22270.22271.	0.000	0.000	0.000	0.000.000	11.5
22271.22272.	0.000	0.000	0.000	0.000.000	11.5
22271.22272.	0.000	0.000	0.000	0.000.000	11.5
22272.22273.	0.000	0.000	0.000	0.000.000	11.5
22272.22273.	0.000	0.000	0.000	0.000.000	11.5
22273.22274.	0.000	0.000	0.000	0.000.000	11.5
22273.22274.	0.000	0.000	0.000	0.000.000	11.5
22274.22275.	0.000	0.000	0.000	0.000.000	11.5
22274.22275.	0.000	0.000	0.000	0.000.000	11.5
22275.22300.	0.000	0.000	0.000	0.000.000	11.5
22275.22300.	0.000	0.000	0.000	0.000.000	11.5
22300.22301.	0.000	0.000	0.000	0.000.000	11.5
22300.22301.	0.000	0.000	0.000	0.000.000	11.5
22301.22302.	0.000	0.000	0.000	0.000.000	11.5
22301.22302.	0.000	0.000	0.000	0.000.000	11.5
22302.22350.	0.000	0.000	0.000	0.000.000	11.5
22302.22350.	0.000	0.000	0.000	0.000.000	11.5
22350.22351.	0.000	0.000	0.000	0.000.000	11.5
22350.22351.	0.000	0.000	0.000	0.000.000	11.5
22351.22352.	0.000	0.000	0.000	0.000.000	11.5
22351.22352.	0.000	0.000	0.000	0.000.000	11.5
22352.22353.	0.000	0.000	0.000	0.000.000	11.5
22352.22353.	0.000	0.000	0.000	0.000.000	11.5
22353.22354.	0.000	0.000	0.000	0.000.000	11.5
22353.22354.	0.000	0.000	0.000	0.000.000	11.5
22354.22400.	0.000	0.000	0.000	0.000.000	11.5
22354.22400.	0.000	0.000	0.000	0.000.000	11.5
22400.20999.	0.000	0.000	0.000	0.000.000	11.5
22400.20999.	0.000	0.000	0.000	0.000.000	11.5
20999.21000.	0.000	0.000	0.000	0.000.000	11.5
20999.21000.	0.000	0.000	0.000	0.000.000	11.5
24500.24530.	5.758	0.000	0.000	0.000 NA NA	
24500.24530.	5.758	0.000	0.000	0.000 NA NA	
24530.24550.	0.358	0.000	0.000	0.000.000	5.7
24530.24550.	0.358	0.000	0.000	0.000.000	5.7
24550.24570.	0.358	0.000	0.000	0.000.000	5.7
24550.24570.	0.358	0.000	0.000	0.000.000	5.7
24570.24670.	0.358	0.000	0.000	0.000.000	5.7
24570.24670.	0.358	0.000	0.000	0.000.000	5.7
24570.24600.	0.358	0.000	0.000	0.000.000	5.7
24570.24600.	0.358	0.000	0.000	0.000.000	5.7
24600.24630.	4.078	0.000	0.000	0.000 NA NA	
24600.24630.	4.078	0.000	0.000	0.000 NA NA	
24630.24650.	6.712	0.000	0.000	0.000 NA NA	
24630.24650.	6.712	0.000	0.000	0.000 NA NA	
24690.24700.	5.470	0.000	0.000	0.000 NA NA	
24690.24700.	5.470	0.000	0.000	0.000 NA NA	
24700.24720.	0.358	0.000	0.000	0.000.000	5.7
24700.24720.	0.358	0.000	0.000	0.000.000	5.7
24720.24749.	0.000	0.000	0.000	0.000.000	5.7
24720.24749.	0.000	0.000	0.000	0.000.000	5.7
24749.24750.	0.000	0.000	0.000	0.000.000	5.7
24749.24750.	0.000	0.000	0.000	0.000.000	5.7

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Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

24670.24690. 4.078 0.000 0.000 0.000 NA NA
 24670.24690. 4.078 0.000 0.000 0.000 NA NA

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721) Date:JUL 21,2017 @11:56 Pg: 19

----- PIPE PROPERTIES #2

FROM TO THERMAL EXPANSION COEFFICIENTS 1 THRU 9

/----- THERMAL EXPANSION (mm./mm.) -----/

10. 50. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 50.21500. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 21500.21550. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 21550.21600. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 50. 100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 100. 150. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 150. 200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 200. 250. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 250. 300. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 300. 350. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 350. 400. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 400. 401. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 401. 402. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 402. 450. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 450. 500. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 500. 549. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 549. 550. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 550. 570. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 570.19999. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 19999.20000. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20000.20050. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20050.20100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20100.20150. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20150.20200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20200.20201. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20201.20202. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20202.20250. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20250.20251. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20251.20252. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20252.20270. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20270.20300. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20300.20650. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20650.20700. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20700.20701. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20701.20702. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20702.20703. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20703.20750. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20750.20751. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20751.20752. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20752.20799. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20799.20800. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20800.20900. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20900.20950. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20950.21000. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

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Impianto di Melendugno
Allegato 1 - Area 1
MISCELLANEOUS COMPUTED DATA

3800.17699. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17699.17700. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17700.18100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
18100.18150. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
18150.18199. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
18199.18200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17700.17749. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17749.17750. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17750.18399. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
18399.18400. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17750.17799. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17799.17800. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17800.18699. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
18699.18700. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17800.17849. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17849.17850. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
3800. 3850. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
3850. 3900. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
3900. 3949. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
3949. 3950. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
3950.17900. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17900.17950. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17950.18000. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
18000.18049. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
18049.18050. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
3950. 4000. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4000. 4001. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4001. 4002. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4002. 4050. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4050. 4051. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4051. 4100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4100. 4150. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4150. 4151. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4151. 4152. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4152. 4153. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4153. 4200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4200. 4249. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4249. 4250. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4250. 4699. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4699. 4700. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4700. 4750. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4750. 4800. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4250. 4300. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4300. 4349. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4349. 4350. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4350. 4999. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4999. 5000. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
5000. 5050. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
5050. 5100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
5100. 5150. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
5150. 5200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
2250. 2255. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
2255. 2260. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
2260. 2280. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

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Impianto di Melendugno
Allegato 1 - Area 1
MISCELLANEOUS COMPUTED DATA

11050.11100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
11100.11150. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
11150.11200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
11200.11249. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
11249.11250. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
11250.9651. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
9651.9650. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
11250.17399. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17399.17400. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
11800.11900. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
11900.12070. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12070.12100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12100.12500. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12500.12520. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12520.12900. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12900.12920. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12920.12921. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12921.12922. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12922.13300. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13300.13400. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13400.13401. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13401.13402. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13402.13450. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13450.13499. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13499.13500. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13500.14700. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14700.14720. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14720.14721. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14721.14722. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14722.14723. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14723.14750. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14750.14770. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14770.14800. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14800.15500. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
15500.15550. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
15550.16300. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
16300.16350. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
16350.17100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
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17150.17400. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17400.17419. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17419.17420. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17150.17169. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
17169.17170. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14800.14850. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14850.14900. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14900.14901. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14901.14902. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14902.14950. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14950.14999. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
14999.15000. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13500.13520. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13520.13550. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13550.13600. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

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Impianto di Melendugno
Allegato 1 - Area 1
MISCELLANEOUS COMPUTED DATA

13600.13650. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13650.13699. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13699.13700. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12100.12150. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12150.12200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12200.12201. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12201.12202. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12202.12250. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12250.12299. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12299.12300. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12300.12350. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
12350.12400. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
11900.11949. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
11949.11950. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
9650. 8050. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
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13120.13170. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13170.13220. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
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13700.13750. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13750.13800. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
13800.13850. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

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Impianto di Melendugno
Allegato 1 - Area 1
MISCELLANEOUS COMPUTED DATA

21750.21800. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
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22000.22050. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22050.22700. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22700.22750. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22750.22751. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22751.22752. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22752.22800. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
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23000.23001. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
23001.23002. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
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23023.23024. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
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23054.23100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
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23149.23150. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
23150.23200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
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22050.22100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22100.22200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
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22273.22274. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22274.22275. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22275.22300. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22300.22301. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22301.22302. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22302.22350. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
22350.22351. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

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Impianto di Melendugno
 Allegato 1 - Area 1
 MISCELLANEOUS COMPUTED DATA

22351.22352. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 22352.22353. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 22353.22354. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 22354.22400. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 22400.20999. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 20999.21000. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24500.24530. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24530.24550. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24550.24570. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24570.24670. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24570.24600. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24600.24630. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24630.24650. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24690.24700. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24700.24720. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24720.24749. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24749.24750. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
 24670.24690. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

----- CENTER OF GRAVITY REPORT

	Total Wght	X cg	Y cg	Z cg
	(N.)	(mm.)	(mm.)	(mm.)
Pipe	: 1022716.3	-17663.2	67368.1	-307.1
Insulation	: 8695.2	-23588.5	99217.1	-653.1
Refractory	: 0.0	0.0	0.0	0.0
Fluid	: 817.1	-12547.0	49260.8	-101.9
Pipe+Insl+Refrty	: 1031412.1	-17713.1	67636.5	-310.0
Pipe+Fluid	: 1023534.2	-17659.1	67353.5	-306.9
Pipe+Insl+Refrty+Fluid:	1032228.8	-17709.0	67622.0	-309.8

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Impianto di Melendugno
Allegato 1 - Area 1
CAESAR II LOAD CASE REPORT

CASE 1 (HYD) WW+HP
HYDRO TEST CASE

Keep/Discard: Keep
Display: Disp/Force/Stress
Elastic Modulus: EC
Friction Mult.: 1.0000
Flg Analysis Temp: None

CASE 2 (OPE) W+D1+T1+P1
OPERATING CASE CONDITION 1

Keep/Discard: Keep
Display: Disp/Force/Stress
Elastic Modulus: EC
Friction Mult.: 1.0000
Flg Analysis Temp: T1

CASE 3 (OPE) W+D2+T1+P1
Operating Case

Keep/Discard: Keep
Display: Disp/Force/Stress
Elastic Modulus: EC
Friction Mult.: 1.0000
Flg Analysis Temp: T1

CASE 4 (SUS) W+P1
SUSTAINED CASE CONDITION 1

Keep/Discard: Keep
Display: Disp/Force/Stress
Elastic Modulus: EC
Friction Mult.: 1.0000
SUS/OCC case SH: SH_MIN
Flg Analysis Temp: None

CASE 5 (EXP) L5=L2-L4
EXPANSION CASE CONDITION 1

Keep/Discard: Keep
Display: Disp/Force/Stress
Combination Method: ALG

CASE 6 (EXP) L6=L3-L4
Expansion Case

Keep/Discard: Keep
Display: Disp/Force/Stress
Combination Method: ALG

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10	-0.012	-21.864	0.008	-0.0005	0.0235	-0.0003
50	-0.000	-21.278	0.000	-0.0007	0.0235	-0.0003
100	-0.000	-21.220	-0.000	-0.0008	0.0235	-0.0003
150	0.000	-19.947	0.000	0.0075	0.0239	-0.0009
200	0.023	-19.659	0.176	0.0113	0.0240	-0.0015
250	0.052	-19.367	0.400	0.0155	0.0241	-0.0022
300	0.118	-18.883	0.875	0.0223	0.0243	-0.0034
348	0.268	-18.144	1.839	0.0273	0.0246	-0.0050
349	0.402	-17.939	3.528	0.0390	0.0250	-0.0072
350	0.300	-17.298	5.191	0.0312	0.0257	-0.0086
400	0.247	-16.958	5.354	0.0248	0.0259	-0.0088
401	-0.017	-15.829	5.175	-0.0070	0.0274	-0.0089
402	-0.167	-16.428	3.796	-0.0428	0.0300	-0.0067
450	-0.118	-16.802	1.532	-0.0456	0.0328	-0.0035
500	-0.086	-16.593	1.068	-0.0403	0.0335	-0.0029
549	-0.001	-15.472	-0.386	-0.0148	0.0371	-0.0009
550	0.029	-14.351	-0.668	-0.0013	0.0407	-0.0009
570	0.577	-14.311	-0.463	-0.0040	0.0366	-0.0066
600	0.123	-13.115	-0.575	0.0002	0.0452	-0.0027
650	0.249	-13.040	-0.572	-0.0001	0.0455	-0.0029
699	0.371	-12.431	-0.654	-0.0035	0.0477	-0.0036
700	0.497	-11.822	-0.821	-0.0054	0.0500	-0.0031
750	-2.479	-9.208	-0.473	0.0084	0.0359	0.0472
751	-3.058	-9.035	-0.387	0.0084	0.0350	0.0507
752	-7.236	-8.630	-0.163	0.0117	0.0285	0.0517
800	-9.440	-7.782	-0.329	0.0148	0.0227	0.0167
850	-9.394	-7.594	-0.382	0.0148	0.0222	0.0121
900	-6.956	-6.536	-0.449	0.0156	0.0140	-0.0088
950	-4.991	-5.072	-0.389	0.0111	0.0111	0.0005
1000	-3.339	-3.342	-0.407	0.0073	0.0075	0.0002
1050	-1.667	-1.665	-0.343	0.0050	0.0024	-0.0000
1099	-0.833	-0.833	-0.227	0.0036	0.0001	-0.0000
1100	0.000	0.000	-0.000	0.0000	-0.0000	-0.0000
1499	1.796	-11.655	-0.300	-0.0068	0.0514	-0.0089
1500	3.088	-11.468	0.222	-0.0071	0.0494	-0.0147
1548	4.017	-11.326	0.620	-0.0067	0.0457	-0.0191
1549	5.218	-10.906	1.081	-0.0063	0.0383	-0.0280
1550	5.586	-9.765	1.858	-0.0095	0.0246	-0.0518
1600	4.326	-6.531	2.818	-0.0019	0.0102	-0.0560
1648	3.066	-3.219	3.058	0.0056	-0.0038	-0.0545
1649	3.177	-1.903	2.879	0.0055	-0.0129	-0.0402
1650	3.634	-1.300	2.713	0.0090	-0.0147	-0.0348
1700	3.981	-1.116	2.315	0.0094	-0.0179	-0.0315
1701	4.230	-1.002	2.066	0.0093	-0.0189	-0.0294
1702	5.448	-0.589	1.529	0.0003	-0.0528	-0.0194
1750	6.028	-0.414	0.407	-0.0057	-0.0247	0.0010
1799	5.322	-0.520	-0.161	-0.0044	-0.0121	0.0012

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Impianto di Melendugno
Allegato 1 - Area 1
DISPLACEMENTS REPORT: Nodal Movements
CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
1800	4.302	-0.497	-0.409	-0.0024	-0.0028	-0.0069
1801	5.425	0.621	-0.202	0.0057	-0.0010	-0.0309
1802	6.597	1.069	-0.089	0.0071	-0.0001	-0.0618
1849	2.324	0.127	-0.299	-0.0085	0.0022	-0.0461
1850	2.933	0.296	-0.411	-0.0039	0.0010	-0.0083
1900	1.699	0.411	-0.319	-0.0045	0.0015	0.0001
1950	1.624	0.402	-0.252	-0.0046	0.0015	0.0001
1999	0.261	0.244	-0.069	-0.0033	0.0027	-0.0138
2000	0.393	0.438	-0.129	-0.0052	0.0027	-0.0004
2050	-0.262	0.410	-0.022	-0.0056	0.0032	-0.0011
2100	-1.073	0.523	0.124	-0.0062	0.0035	-0.0062
2149	-1.116	0.689	0.215	-0.0063	0.0035	-0.0065
2150	-1.612	0.913	0.305	-0.0066	0.0029	-0.0105
2200	-2.424	1.515	0.406	-0.0072	-0.0002	-0.0135
2249	-2.801	1.839	0.401	-0.0075	-0.0030	-0.0115
2250	-3.178	2.089	0.328	-0.0078	-0.0072	-0.0060
2251	-2.896	2.461	0.191	-0.0128	-0.0133	-0.0114
2252	-2.524	2.364	-0.048	-0.0229	-0.0200	-0.0250
2255	-3.023	1.735	0.424	-0.0051	-0.0071	0.0056
2260	-2.743	1.446	0.464	-0.0028	-0.0071	0.0137
2280	-2.473	1.297	0.465	-0.0010	-0.0070	0.0181
2300	-0.321	-0.038	0.101	0.0027	-0.0058	0.0095
2350	0.007	-0.079	0.005	0.0025	-0.0058	0.0087
2400	0.033	-1.312	-0.023	-0.0005	-0.0047	-0.0018
2450	0.005	-1.546	-0.015	-0.0003	-0.0045	-0.0003
2500	-0.002	-1.586	-0.003	-0.0003	-0.0045	0.0000
2550	0.027	-1.823	0.000	-0.0001	-0.0043	0.0041
2560	0.648	-2.520	-0.012	0.0005	-0.0037	0.0204
2580	0.893	-2.684	-0.019	0.0006	-0.0036	0.0231
2590	1.292	-2.974	-0.030	0.0007	-0.0035	0.0242
2599	0.950	-4.871	-0.133	0.0005	-0.0017	0.0430
2600	1.793	-3.328	-0.044	0.0007	-0.0035	0.0238
2650	2.268	-4.845	-0.047	-0.0005	-0.0100	0.0103
2651	3.850	-6.277	-0.088	0.0057	-0.0161	0.0241
2652	4.006	-6.260	-0.105	0.0021	-0.0165	0.0239
2660	4.165	-6.242	-0.112	-0.0020	-0.0162	0.0205
2661	4.321	-6.329	-0.142	-0.0012	-0.0164	0.0195
2662	4.693	-6.127	-0.580	0.0161	-0.0120	-0.0221
2700	4.381	-4.740	-0.866	0.0149	-0.0001	-0.0516
2725	4.374	-4.717	-0.866	0.0149	-0.0000	-0.0516
2750	4.084	-3.751	-0.831	0.0142	0.0011	-0.0507
2800	2.064	-0.201	-0.341	0.0071	0.0050	-0.0134
2850	0.365	0.036	-0.032	0.0012	0.0017	0.0010
2899	0.050	0.007	-0.006	0.0001	0.0003	0.0003
2900	-0.000	0.000	-0.000	0.0000	0.0000	0.0000
2901	-0.000	0.000	-0.000	0.0000	0.0000	0.0000
3500	-1.947	2.093	-0.380	-0.0220	-0.0281	-0.0313
3501	-0.991	1.941	-1.132	-0.0214	-0.0319	-0.0284
3502	-0.418	1.706	-1.407	-0.0172	-0.0309	-0.0210

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
3550	-0.135	1.631	-1.545	-0.0068	-0.0302	-0.0043
3551	-0.149	2.661	-1.463	0.0014	-0.0365	0.0061
3600	-0.794	3.693	-1.430	-0.0025	-0.0428	0.0185
3601	-2.949	5.340	-1.766	0.0029	-0.0528	0.0237
3602	-4.002	5.241	-1.000	0.0297	-0.0566	0.0051
3650	-4.898	4.165	0.289	0.0391	-0.0266	-0.0224
3651	-5.170	3.364	0.619	0.0455	-0.0207	-0.0358
3700	-5.255	2.658	0.793	0.0433	-0.0056	-0.0349
3701	-4.325	1.035	0.619	0.0351	0.0063	-0.0281
3750	-3.397	-0.066	0.182	0.0268	0.0081	-0.0183
3799	-2.325	-0.819	-0.199	0.0172	0.0043	-0.0090
3800	-1.253	-1.090	-0.303	0.0077	0.0007	-0.0012
3850	0.279	-0.773	-0.242	0.0041	-0.0010	0.0010
3900	0.352	-0.737	-0.198	0.0040	-0.0009	0.0006
3949	1.118	-0.852	-0.208	0.0023	0.0010	-0.0021
3950	1.885	-0.941	-0.283	0.0005	0.0022	0.0019
4000	3.998	-1.239	-0.375	-0.0008	-0.0013	-0.0128
4001	5.395	-2.530	-0.200	-0.0016	-0.0038	-0.0110
4002	5.210	-2.529	-0.049	-0.0009	-0.0079	0.0252
4050	4.023	-2.174	0.009	-0.0021	-0.0086	0.0419
4051	1.903	-1.251	-0.104	-0.0029	-0.0098	0.0384
4100	0.425	-0.328	-0.257	-0.0034	-0.0109	0.0228
4150	0.243	2.254	-0.315	0.0027	-0.0142	-0.0153
4151	1.186	3.179	-0.185	0.0031	-0.0153	-0.0215
4152	2.266	4.104	-0.023	0.0049	-0.0165	-0.0159
4153	2.410	4.006	0.123	0.0193	-0.0123	0.0164
4200	2.162	3.132	0.137	0.0262	-0.0058	0.0301
4249	1.820	2.551	0.038	0.0283	-0.0056	0.0315
4250	1.168	1.463	-0.135	0.0323	-0.0049	0.0277
4300	-0.226	0.124	-0.349	0.0411	-0.0020	0.0125
4349	-0.925	-0.194	-0.418	0.0472	-0.0018	0.0070
4350	-1.623	-0.348	-0.475	0.0533	-0.0013	0.0031
4399	-2.329	-0.400	-0.514	0.0576	-0.0009	0.0007
4400	-3.034	-0.386	-0.536	0.0619	-0.0003	-0.0006
4449	-3.752	-0.353	-0.541	0.0647	0.0002	-0.0011
4450	-4.471	-0.305	-0.525	0.0676	0.0009	-0.0014
4499	-5.208	-0.256	-0.485	0.0691	0.0016	-0.0015
4500	-5.945	-0.199	-0.417	0.0706	0.0025	-0.0019
4549	-6.427	-0.153	-0.352	0.0706	0.0029	-0.0020
4550	-6.909	-0.106	-0.281	0.0706	0.0030	-0.0021
4699	0.829	0.703	0.230	0.0299	-0.0197	0.0277
4700	0.248	0.004	0.594	0.0273	-0.0246	0.0277
4748	0.146	-0.108	0.656	0.0268	-0.0246	0.0277
4749	-0.193	-0.527	0.856	0.0651	-0.0246	0.0277
4750	-0.549	-0.835	1.673	0.1076	-0.0246	0.0277
4800	-0.901	-0.644	3.040	0.1075	-0.0246	0.0277
4849	-0.199	-0.432	0.015	0.0105	0.0031	0.0125
4850	-0.087	-0.469	0.380	-0.0014	0.0049	0.0125
4898	-0.067	-0.462	0.442	-0.0019	0.0049	0.0125

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 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
4899	-0.069	-0.611	0.530	0.0364	0.0049	0.0125
4900	-0.168	-0.807	1.077	0.0789	0.0049	0.0125
4950	-0.326	-0.615	2.078	0.0788	0.0049	0.0125
4999	-1.637	-2.116	-0.123	0.0814	-0.0003	-0.0007
5000	-1.643	-4.201	0.229	0.0793	-0.0008	-0.0044
5048	-1.646	-4.534	0.289	0.0760	-0.0010	-0.0051
5049	-1.648	-5.073	0.467	0.0297	-0.0039	-0.0063
5050	-1.582	-5.127	0.505	-0.0100	-0.0040	-0.0112
5100	-1.581	-5.125	0.503	-0.0101	-0.0040	-0.0112
5150	-1.544	-5.121	0.469	-0.0102	-0.0041	-0.0112
5200	-1.308	-5.096	0.250	-0.0104	-0.0042	-0.0113
5250	-1.271	-5.092	0.215	-0.0104	-0.0042	-0.0113
5300	-1.032	-4.785	-0.000	-0.0107	-0.0069	-0.0110
5310	-0.884	-4.585	-0.161	-0.0096	-0.0087	-0.0103
5320	-0.849	-4.581	-0.193	-0.0095	-0.0087	-0.0103
5330	-0.815	-4.577	-0.224	-0.0095	-0.0087	-0.0103
5350	-0.625	-4.298	-0.341	-0.0016	-0.0112	-0.0093
5400	-0.593	-4.294	-0.346	-0.0015	-0.0112	-0.0093
5450	-0.562	-4.290	-0.351	-0.0014	-0.0112	-0.0093
5500	-0.388	-4.003	-0.292	0.0058	-0.0138	-0.0082
5550	-0.361	-3.955	-0.269	0.0066	-0.0142	-0.0080
5600	-0.335	-3.907	-0.244	0.0072	-0.0146	-0.0078
5650	-0.123	-3.457	-0.000	0.0033	-0.0186	-0.0058
5660	0.001	-3.095	-0.036	-0.0030	-0.0218	-0.0041
5670	0.014	-3.047	-0.048	-0.0031	-0.0223	-0.0039
5680	0.027	-2.999	-0.060	-0.0032	-0.0227	-0.0037
5685	0.154	-2.112	-0.059	0.0031	-0.0306	-0.0006
5690	0.156	-2.064	-0.047	0.0031	-0.0310	-0.0005
5695	0.158	-2.017	-0.035	0.0029	-0.0314	-0.0004
5700	0.156	-1.672	-0.000	-0.0030	-0.0345	0.0005
5750	0.147	-1.476	-0.091	-0.0065	-0.0363	0.0008
5800	0.144	-1.472	-0.113	-0.0065	-0.0363	0.0008
5850	0.141	-1.468	-0.135	-0.0065	-0.0363	0.0008
5900	0.121	-1.195	-0.242	-0.0026	-0.0388	0.0012
5950	0.117	-1.191	-0.251	-0.0026	-0.0388	0.0012
6000	0.113	-1.187	-0.259	-0.0025	-0.0389	0.0012
6005	0.042	-0.371	-0.000	0.0048	-0.0462	0.0010
6007	-0.029	0.758	-0.000	-0.0064	-0.0565	0.0014
6010	-0.040	0.855	-0.064	-0.0080	-0.0573	0.0016
6030	-0.045	0.859	-0.091	-0.0080	-0.0574	0.0016
6050	-0.050	0.863	-0.118	-0.0080	-0.0574	0.0016
6100	-0.060	0.951	-0.172	-0.0066	-0.0582	0.0017
6112	-0.086	1.137	-0.238	-0.0004	-0.0599	0.0021
6125	-0.092	1.141	-0.240	-0.0003	-0.0599	0.0021
6137	-0.099	1.145	-0.241	-0.0002	-0.0599	0.0021
6150	-0.125	1.308	-0.197	0.0090	-0.0614	0.0023
6200	-0.132	1.312	-0.167	0.0091	-0.0614	0.0023
6250	-0.181	1.336	0.035	0.0100	-0.0615	0.0024
6300	-0.189	1.340	0.069	0.0101	-0.0616	0.0024

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
6348	-0.234	1.588	0.284	0.0066	-0.0638	0.0027
6349	-0.006	1.543	0.256	-0.0201	-0.0660	0.0018
6350	0.641	1.235	0.148	-0.0300	-0.0728	-0.0000
6400	0.945	1.091	0.088	-0.0305	-0.0732	0.0001
6449	2.686	0.382	-0.265	-0.0247	-0.0569	0.0007
6450	3.571	-0.078	-0.617	-0.0101	-0.0031	0.0012
6599	-2.990	-2.267	-0.184	0.0832	0.0032	-0.0052
6600	-2.889	-4.345	0.169	0.0781	0.0043	-0.0098
6648	-2.870	-4.671	0.229	0.0746	0.0043	-0.0106
6649	-2.782	-5.191	0.400	0.0283	0.0048	-0.0133
6650	-2.604	-5.242	0.437	-0.0086	0.0058	-0.0199
6700	-2.601	-5.240	0.436	-0.0087	0.0058	-0.0199
6750	-2.535	-5.236	0.406	-0.0088	0.0057	-0.0199
6800	-2.118	-5.211	0.217	-0.0090	0.0056	-0.0200
6850	-2.052	-5.206	0.187	-0.0090	0.0056	-0.0200
6900	-1.637	-4.899	-0.000	-0.0098	0.0037	-0.0188
6910	-1.387	-4.698	-0.151	-0.0091	0.0024	-0.0174
6920	-1.329	-4.694	-0.182	-0.0090	0.0024	-0.0173
6930	-1.271	-4.690	-0.212	-0.0090	0.0024	-0.0173
6950	-0.956	-4.410	-0.325	-0.0016	0.0006	-0.0153
7000	-0.905	-4.406	-0.330	-0.0015	0.0005	-0.0153
7050	-0.854	-4.402	-0.335	-0.0014	0.0005	-0.0153
7100	-0.572	-4.114	-0.279	0.0055	-0.0013	-0.0131
7150	-0.529	-4.066	-0.257	0.0063	-0.0016	-0.0128
7200	-0.487	-4.018	-0.233	0.0069	-0.0019	-0.0124
7250	-0.153	-3.565	-0.000	0.0030	-0.0048	-0.0090
7260	0.038	-3.202	-0.041	-0.0031	-0.0072	-0.0063
7270	0.058	-3.154	-0.053	-0.0032	-0.0075	-0.0059
7280	0.077	-3.106	-0.065	-0.0032	-0.0078	-0.0056
7285	0.260	-2.216	-0.061	0.0032	-0.0135	-0.0007
7290	0.261	-2.168	-0.049	0.0032	-0.0138	-0.0005
7295	0.263	-2.120	-0.037	0.0030	-0.0141	-0.0003
7300	0.252	-1.774	-0.000	-0.0030	-0.0164	0.0010
7350	0.234	-1.577	-0.091	-0.0065	-0.0177	0.0016
7400	0.229	-1.573	-0.113	-0.0065	-0.0177	0.0016
7450	0.223	-1.569	-0.135	-0.0065	-0.0177	0.0016
7500	0.187	-1.295	-0.243	-0.0027	-0.0195	0.0021
7550	0.180	-1.291	-0.251	-0.0026	-0.0195	0.0021
7600	0.173	-1.287	-0.260	-0.0025	-0.0195	0.0021
7605	0.054	-0.468	-0.000	0.0049	-0.0249	0.0016
7607	-0.018	0.664	-0.000	-0.0068	-0.0323	0.0007
7610	-0.023	0.762	-0.067	-0.0085	-0.0329	0.0008
7620	-0.025	0.765	-0.096	-0.0085	-0.0329	0.0008
7650	-0.028	0.769	-0.124	-0.0085	-0.0330	0.0008
7700	-0.033	0.857	-0.181	-0.0072	-0.0335	0.0008
7712	-0.044	1.044	-0.256	-0.0011	-0.0347	0.0009
7725	-0.048	1.048	-0.260	-0.0010	-0.0348	0.0009
7737	-0.051	1.052	-0.263	-0.0008	-0.0348	0.0009
7750	-0.062	1.215	-0.227	0.0083	-0.0358	0.0010

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
7800	-0.066	1.219	-0.199	0.0085	-0.0359	0.0011
7850	-0.088	1.244	-0.010	0.0094	-0.0360	0.0011
7900	-0.091	1.248	0.022	0.0094	-0.0360	0.0011
7948	-0.111	1.496	0.228	0.0062	-0.0376	0.0013
7949	0.027	1.454	0.203	-0.0192	-0.0392	0.0005
7950	0.418	1.154	0.098	-0.0298	-0.0441	-0.0008
8000	0.602	1.011	0.038	-0.0304	-0.0444	-0.0007
8049	1.659	0.295	-0.314	-0.0250	-0.0341	-0.0003
8050	2.172	-0.171	-0.666	-0.0098	0.0001	0.0001
8199	-4.365	-2.287	-0.172	0.0863	0.0067	-0.0073
8200	-4.154	-4.419	0.180	0.0798	0.0095	-0.0131
8248	-4.113	-4.752	0.240	0.0761	0.0096	-0.0141
8249	-3.938	-5.277	0.413	0.0284	0.0139	-0.0186
8250	-3.657	-5.327	0.448	-0.0088	0.0164	-0.0280
8300	-3.653	-5.325	0.446	-0.0089	0.0164	-0.0280
8350	-3.560	-5.321	0.416	-0.0090	0.0164	-0.0280
8400	-2.975	-5.296	0.222	-0.0092	0.0164	-0.0281
8450	-2.881	-5.292	0.191	-0.0092	0.0164	-0.0281
8500	-2.300	-4.984	-0.000	-0.0099	0.0152	-0.0263
8510	-1.949	-4.782	-0.153	-0.0092	0.0144	-0.0243
8520	-1.868	-4.778	-0.183	-0.0091	0.0144	-0.0243
8530	-1.787	-4.774	-0.214	-0.0091	0.0144	-0.0243
8550	-1.345	-4.494	-0.327	-0.0016	0.0133	-0.0215
8600	-1.273	-4.490	-0.332	-0.0015	0.0133	-0.0215
8650	-1.202	-4.486	-0.337	-0.0014	0.0133	-0.0214
8700	-0.805	-4.198	-0.281	0.0056	0.0122	-0.0185
8750	-0.745	-4.149	-0.259	0.0063	0.0120	-0.0180
8800	-0.686	-4.101	-0.235	0.0069	0.0119	-0.0175
8850	-0.215	-3.648	-0.000	0.0030	0.0101	-0.0126
8860	0.054	-3.284	-0.040	-0.0031	0.0087	-0.0089
8870	0.083	-3.236	-0.053	-0.0032	0.0086	-0.0084
8880	0.110	-3.188	-0.065	-0.0032	0.0084	-0.0079
8885	0.370	-2.296	-0.061	0.0032	0.0049	-0.0010
8890	0.373	-2.248	-0.049	0.0032	0.0048	-0.0007
8895	0.375	-2.200	-0.037	0.0030	0.0046	-0.0004
8900	0.361	-1.854	-0.000	-0.0030	0.0033	0.0014
8950	0.335	-1.657	-0.091	-0.0065	0.0025	0.0022
9000	0.327	-1.653	-0.113	-0.0065	0.0025	0.0022
9050	0.320	-1.649	-0.135	-0.0065	0.0025	0.0023
9100	0.268	-1.374	-0.242	-0.0026	0.0014	0.0030
9150	0.258	-1.370	-0.251	-0.0026	0.0014	0.0030
9200	0.248	-1.366	-0.259	-0.0025	0.0014	0.0030
9205	0.074	-0.546	-0.000	0.0049	-0.0018	0.0024
9207	-0.025	0.588	-0.000	-0.0066	-0.0062	0.0005
9210	-0.029	0.686	-0.065	-0.0081	-0.0066	0.0004
9230	-0.030	0.690	-0.093	-0.0081	-0.0066	0.0004
9250	-0.031	0.694	-0.120	-0.0081	-0.0066	0.0004
9300	-0.034	0.782	-0.175	-0.0067	-0.0070	0.0003
9312	-0.037	0.969	-0.243	-0.0005	-0.0077	0.0001

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
9325	-0.037	0.973	-0.245	-0.0003	-0.0077	0.0001
9337	-0.038	0.977	-0.246	-0.0002	-0.0077	0.0001
9350	-0.038	1.140	-0.202	0.0092	-0.0083	-0.0001
9400	-0.037	1.144	-0.171	0.0093	-0.0084	-0.0001
9450	-0.034	1.169	0.035	0.0102	-0.0084	-0.0002
9500	-0.033	1.173	0.070	0.0103	-0.0084	-0.0002
9548	-0.026	1.422	0.295	0.0075	-0.0094	-0.0007
9549	0.038	1.390	0.292	-0.0157	-0.0114	-0.0044
9550	0.186	1.131	0.204	-0.0252	-0.0156	-0.0064
9600	0.251	1.008	0.144	-0.0259	-0.0158	-0.0066
9649	0.630	0.397	-0.209	-0.0212	-0.0120	-0.0079
9650	0.797	0.006	-0.561	-0.0079	0.0016	-0.0091
9651	0.114	0.439	-0.509	-0.0062	0.0012	-0.0184
9799	-5.777	-2.298	-0.066	0.0922	0.0101	-0.0085
9800	-5.468	-4.589	0.286	0.0863	0.0141	-0.0152
9848	-5.407	-4.950	0.346	0.0825	0.0145	-0.0163
9849	-5.158	-5.520	0.534	0.0307	0.0223	-0.0224
9850	-4.792	-5.573	0.566	-0.0113	0.0263	-0.0341
9900	-4.788	-5.571	0.564	-0.0114	0.0263	-0.0341
9950	-4.674	-5.567	0.525	-0.0115	0.0263	-0.0341
10000	-3.962	-5.542	0.279	-0.0118	0.0263	-0.0342
10050	-3.848	-5.538	0.240	-0.0118	0.0263	-0.0342
10100	-3.138	-5.231	-0.000	-0.0116	0.0262	-0.0323
10110	-2.705	-5.030	-0.169	-0.0100	0.0260	-0.0301
10120	-2.605	-5.026	-0.203	-0.0099	0.0260	-0.0301
10130	-2.505	-5.022	-0.236	-0.0099	0.0260	-0.0301
10150	-1.955	-4.741	-0.356	-0.0016	0.0259	-0.0268
10200	-1.866	-4.737	-0.361	-0.0015	0.0259	-0.0268
10250	-1.777	-4.733	-0.366	-0.0014	0.0259	-0.0267
10300	-1.282	-4.445	-0.304	0.0060	0.0257	-0.0231
10350	-1.206	-4.397	-0.280	0.0068	0.0257	-0.0224
10400	-1.133	-4.349	-0.254	0.0075	0.0257	-0.0218
10450	-0.550	-3.896	-0.000	0.0036	0.0254	-0.0154
10460	-0.227	-3.532	-0.031	-0.0028	0.0252	-0.0104
10470	-0.194	-3.484	-0.043	-0.0030	0.0252	-0.0098
10480	-0.162	-3.437	-0.055	-0.0031	0.0252	-0.0093
10485	0.142	-2.544	-0.055	0.0030	0.0246	-0.0016
10490	0.147	-2.497	-0.043	0.0030	0.0246	-0.0013
10495	0.150	-2.449	-0.032	0.0028	0.0246	-0.0011
10500	0.158	-2.102	-0.000	-0.0032	0.0244	0.0002
10550	0.152	-1.905	-0.093	-0.0067	0.0243	0.0006
10600	0.150	-1.901	-0.116	-0.0067	0.0243	0.0006
10650	0.148	-1.897	-0.138	-0.0067	0.0243	0.0006
10700	0.131	-1.622	-0.248	-0.0027	0.0241	0.0011
10750	0.128	-1.618	-0.257	-0.0027	0.0241	0.0011
10800	0.124	-1.614	-0.266	-0.0026	0.0241	0.0011
10805	0.050	-0.791	-0.000	0.0053	0.0237	0.0012
10807	-0.027	0.346	-0.000	-0.0079	0.0230	0.0008
10810	-0.033	0.445	-0.076	-0.0098	0.0229	0.0007

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10820	-0.036	0.449	-0.109	-0.0098	0.0229	0.0007
10850	-0.038	0.453	-0.142	-0.0098	0.0229	0.0007
10900	-0.042	0.542	-0.208	-0.0084	0.0229	0.0006
10912	-0.048	0.730	-0.299	-0.0020	0.0228	0.0000
10925	-0.048	0.734	-0.306	-0.0019	0.0228	0.0000
10937	-0.048	0.738	-0.312	-0.0017	0.0228	-0.0000
10950	-0.044	0.903	-0.284	0.0083	0.0227	-0.0008
11000	-0.041	0.907	-0.256	0.0085	0.0227	-0.0008
11050	-0.023	0.932	-0.065	0.0095	0.0227	-0.0009
11100	-0.020	0.936	-0.033	0.0096	0.0227	-0.0010
11148	0.016	1.186	0.202	0.0097	0.0225	-0.0033
11149	0.020	1.207	0.294	0.0025	0.0187	-0.0148
11150	-0.060	1.184	0.294	0.0038	0.0134	-0.0196
11200	-0.116	1.184	0.234	0.0034	0.0133	-0.0205
11249	-0.420	1.268	-0.119	0.0019	0.0097	-0.0258
11250	-0.569	1.256	-0.472	-0.0045	0.0007	-0.0311
11300	5.009	-0.020	-0.337	-0.0087	-0.0063	0.0005
11349	5.755	-0.008	-0.144	-0.0084	-0.0062	0.0003
11350	6.501	-0.001	0.075	-0.0081	-0.0078	0.0002
11370	5.895	0.080	0.285	-0.0040	-0.0655	0.0002
11399	7.017	0.003	0.243	-0.0081	-0.0071	0.0002
11400	7.532	0.008	0.401	-0.0081	-0.0069	0.0002
11449	3.740	0.095	0.027	-0.0017	-0.0810	0.0005
11450	1.254	0.073	0.392	0.0025	-0.1060	0.0005
11500	-0.588	0.393	1.076	-0.0778	-0.1060	0.0005
11550	-0.582	0.202	2.064	-0.0777	-0.1060	0.0005
11599	4.241	0.112	0.544	-0.0002	-0.1101	0.0002
11600	2.070	0.089	0.804	0.0023	-0.1249	0.0002
11648	1.551	0.078	0.866	0.0028	-0.1249	0.0002
11649	0.378	0.219	0.951	-0.0356	-0.1249	0.0002
11650	-0.107	0.411	1.490	-0.0780	-0.1249	0.0002
11700	-0.104	0.220	2.480	-0.0779	-0.1249	0.0002
11800	-0.107	9.618	-0.347	0.0031	0.0017	0.0006
11898	0.814	0.062	0.454	0.0029	-0.1060	0.0005
11899	-0.180	0.202	0.538	-0.0354	-0.1060	0.0005
11900	-0.092	9.033	-0.433	0.0030	0.0017	0.0006
11949	-0.461	9.021	-0.401	0.0030	0.0017	0.0006
11950	-0.830	9.010	-0.368	0.0030	0.0017	0.0006
12070	-0.005	7.016	-0.625	0.0026	0.0017	0.0015
12100	0.226	5.011	-0.869	-0.0003	0.0017	0.0037
12150	-0.306	3.706	-0.782	0.0037	0.0051	0.0729
12200	-0.349	1.829	-0.651	0.0039	0.0054	0.0743
12201	-0.556	1.013	-0.594	0.0054	0.0085	0.0740
12202	-0.533	0.158	-0.555	0.0038	0.0036	0.0619
12250	-0.464	-0.198	-0.540	0.0062	0.0046	0.0581
12299	-0.366	-0.284	-0.305	0.0066	0.0099	0.0551
12300	-0.100	-0.414	0.068	0.0052	0.0160	0.0505
12348	0.444	-0.480	0.617	-0.0051	0.0207	0.0436
12349	0.571	-0.368	0.551	-0.0158	0.0321	0.0359

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
12350	0.395	-0.278	0.319	-0.0143	0.0368	0.0232
12400	0.087	-0.007	0.068	-0.0174	0.0368	0.0224
12450	-0.000	0.000	0.000	-0.0174	0.0368	0.0224
12500	0.118	3.062	-0.558	-0.0033	0.0011	-0.0019
12520	0.128	1.118	-0.379	-0.0006	0.0005	0.0039
12570	-0.401	0.703	-0.380	0.0015	-0.0011	0.0174
12620	-0.443	0.262	-0.409	0.0017	-0.0010	0.0174
12621	-0.650	0.079	-0.422	0.0025	0.0023	0.0166
12622	-0.641	-0.099	-0.432	0.0026	0.0015	0.0118
12670	-0.597	-0.212	-0.427	0.0068	-0.0000	0.0116
12719	-0.559	-0.304	-0.192	0.0070	0.0042	0.0106
12720	-0.421	-0.439	0.181	0.0053	0.0077	0.0091
12768	-0.170	-0.507	0.730	-0.0053	0.0093	0.0067
12769	-0.058	-0.382	0.656	-0.0179	0.0132	0.0042
12770	-0.008	-0.278	0.387	-0.0180	0.0148	-0.0001
12820	-0.002	-0.007	0.083	-0.0212	0.0148	-0.0004
12870	-0.000	0.000	0.000	-0.0212	0.0148	-0.0004
12900	0.924	-0.806	-0.392	-0.0000	0.0001	0.0166
12920	2.854	-2.732	-0.296	-0.0028	-0.0003	0.0103
12921	3.056	-3.130	-0.230	-0.0031	0.0001	0.0046
12922	2.743	-2.835	-0.127	-0.0035	0.0008	-0.0419
12970	2.300	-2.192	-0.441	0.0007	-0.0099	-0.0380
13020	2.256	-1.206	-0.697	0.0010	-0.0104	-0.0392
13021	2.040	-0.766	-0.838	0.0023	-0.0124	-0.0409
13022	1.780	-0.230	-1.354	0.0026	-0.0597	-0.0477
13070	0.994	-0.036	-1.686	0.0053	-0.0596	-0.0496
13119	0.327	-0.108	-1.450	0.0053	-0.0526	-0.0516
13120	-0.597	-0.207	-1.075	0.0036	-0.0464	-0.0549
13168	-1.852	-0.234	-0.523	-0.0047	-0.0430	-0.0597
13169	-2.010	-0.234	-0.521	0.0044	-0.0351	-0.0650
13170	-1.322	-0.279	-0.379	0.0239	-0.0318	-0.0739
13220	-0.289	-0.007	-0.084	0.0218	-0.0318	-0.0745
13270	-0.000	0.000	0.000	0.0218	-0.0318	-0.0745
13300	2.124	-0.930	-0.061	-0.0031	0.0012	-0.0903
13400	1.898	0.140	-0.047	-0.0029	0.0013	-0.0937
13401	1.222	3.465	-0.004	-0.0023	0.0012	-0.0958
13402	0.226	6.132	0.034	-0.0012	-0.0002	-0.0821
13450	-1.175	6.908	0.013	0.0024	-0.0015	-0.0326
13499	-1.877	6.351	-0.059	0.0029	-0.0017	-0.0246
13500	-2.765	5.491	-0.208	0.0041	-0.0019	-0.0251
13520	-0.563	2.177	-0.404	-0.0009	-0.0026	0.0115
13549	0.173	-0.659	-0.024	0.0016	-0.0020	0.0075
13550	-1.279	-1.015	-0.298	0.0004	-0.0032	-0.0015
13600	-0.141	-4.362	-0.249	-0.0033	-0.0028	0.0053
13650	0.009	-5.143	-0.143	-0.0013	-0.0027	0.0017
13699	0.052	-5.185	-0.110	-0.0012	-0.0027	0.0016
13700	0.065	-5.664	-0.096	-0.0001	-0.0026	-0.0006
13750	-0.038	-6.450	-0.131	0.0010	-0.0026	-0.0045
13800	-0.485	-7.566	-0.194	0.0008	-0.0024	-0.0104

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
13850	-0.963	-7.639	-0.228	0.0008	-0.0024	-0.0106
13851	-1.500	-9.045	-0.232	-0.0006	-0.0023	0.0084
13852	-0.421	-8.330	-0.194	-0.0000	-0.0018	0.0733
13900	0.416	-6.176	-0.162	0.0004	-0.0013	0.0496
14100	6.984	1.551	-0.031	0.0072	0.0008	0.0040
14150	6.488	1.123	-0.007	0.0068	0.0008	0.0159
14200	6.431	0.540	0.023	0.0067	0.0008	0.0157
14250	5.255	-0.002	0.028	0.0058	-0.0013	0.0025
14300	4.929	-0.021	-0.003	0.0055	-0.0025	0.0002
14350	4.873	-0.024	-0.099	0.0055	-0.0028	0.0000
14400	4.547	-0.012	-0.170	0.0052	-0.0049	-0.0008
14420	1.626	-0.035	-0.109	0.0028	0.0054	0.0049
14700	-1.825	3.265	-0.114	0.0029	-0.0015	-0.0530
14720	-1.747	0.866	-0.047	0.0028	-0.0014	-0.0537
14721	-0.730	-2.170	-0.002	0.0014	-0.0005	-0.0674
14722	0.287	-6.038	0.004	0.0000	0.0000	-0.0748
14723	1.106	-8.322	-0.035	-0.0017	0.0023	-0.0661
14750	1.904	-8.914	-0.163	-0.0051	0.0036	-0.0013
14770	0.976	-7.459	-0.564	-0.0058	0.0036	0.0118
14800	0.379	-5.318	-1.022	0.0009	0.0036	-0.0007
14850	-0.152	-3.970	-0.877	0.0012	0.0073	-0.0775
14900	-0.194	-1.974	-0.690	0.0012	0.0075	-0.0791
14901	-0.426	-1.004	-0.600	0.0013	0.0108	-0.0794
14902	-0.387	-0.117	-0.529	0.0058	0.0070	-0.0674
14950	-0.276	0.086	-0.495	0.0138	0.0069	-0.0614
14999	-0.147	-0.083	-0.260	0.0147	0.0111	-0.0590
15000	0.120	-0.383	0.113	0.0173	0.0129	-0.0553
15048	0.435	-0.938	0.662	0.0206	0.0037	-0.0499
15049	0.421	-1.008	0.633	0.0292	-0.0101	-0.0440
15050	0.350	-0.701	0.430	0.0330	-0.0154	-0.0335
15100	0.007	-0.127	0.078	0.0330	-0.0199	-0.0327
15150	-0.000	0.000	0.000	0.0330	-0.0199	-0.0326
15500	0.169	-3.582	-0.605	0.0042	0.0029	0.0019
15550	0.175	-1.852	-0.370	0.0011	0.0022	-0.0021
15600	-0.353	-1.221	-0.356	0.0022	-0.0011	-0.0281
15650	-0.395	-0.505	-0.385	0.0023	-0.0010	-0.0283
15651	-0.625	-0.173	-0.398	0.0027	0.0030	-0.0272
15652	-0.595	0.089	-0.370	0.0053	0.0077	-0.0204
15700	-0.441	0.106	-0.323	0.0069	0.0107	-0.0188
15749	-0.266	0.024	-0.088	0.0069	0.0147	-0.0183
15750	0.068	-0.112	0.285	0.0074	0.0159	-0.0174
15798	0.454	-0.339	0.833	0.0082	0.0056	-0.0162
15799	0.438	-0.373	0.800	0.0102	-0.0123	-0.0148
15800	0.350	-0.262	0.548	0.0110	-0.0207	-0.0124
15850	0.007	-0.047	0.099	0.0110	-0.0254	-0.0122
15900	-0.000	0.000	0.000	0.0110	-0.0254	-0.0122
16300	0.244	-0.157	-0.357	-0.0002	0.0022	-0.0007
16350	0.232	1.538	-0.371	-0.0001	0.0023	0.0041
16400	-0.297	0.990	-0.357	-0.0013	-0.0012	0.0234

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
16450	-0.339	0.397	-0.389	-0.0014	-0.0011	0.0234
16451	-0.569	0.124	-0.405	-0.0019	0.0027	0.0224
16452	-0.544	-0.087	-0.387	-0.0043	0.0064	0.0162
16500	-0.407	-0.098	-0.347	-0.0058	0.0098	0.0149
16549	-0.243	-0.028	-0.112	-0.0058	0.0139	0.0145
16550	0.078	0.085	0.261	-0.0062	0.0153	0.0138
16598	0.451	0.272	0.809	-0.0068	0.0053	0.0129
16599	0.436	0.302	0.776	-0.0082	-0.0119	0.0119
16600	0.350	0.213	0.532	-0.0089	-0.0199	0.0101
16650	0.007	0.038	0.096	-0.0089	-0.0246	0.0099
16700	-0.000	-0.000	0.000	-0.0089	-0.0246	0.0099
17100	-0.543	3.260	-0.359	0.0007	0.0031	0.0151
17150	-2.475	4.989	-0.242	0.0014	0.0040	0.0181
17169	-2.843	4.169	-0.158	0.0014	0.0048	0.0543
17170	-3.211	2.901	-0.063	0.0014	0.0050	0.0664
17399	-1.827	3.913	-0.445	-0.0020	0.0020	-0.0378
17400	-3.084	5.722	-0.206	0.0005	0.0042	-0.0046
17419	-2.999	6.015	-0.198	0.0005	0.0042	-0.0055
17420	-2.906	6.308	-0.190	0.0005	0.0042	-0.0058
17699	-1.165	-0.438	-0.116	0.0049	0.0006	-0.0023
17700	-1.078	0.214	-0.007	0.0027	0.0006	-0.0012
17749	-1.091	0.879	0.044	0.0011	0.0006	0.0002
17750	-1.120	1.544	0.055	0.0002	0.0006	-0.0002
17799	-1.139	2.218	0.050	-0.0002	0.0006	-0.0013
17800	-1.076	2.893	0.036	-0.0004	0.0006	-0.0054
17849	-0.902	3.453	0.025	-0.0004	0.0006	-0.0069
17850	-0.703	4.013	0.014	-0.0004	0.0006	-0.0074
17899	1.061	0.221	-0.185	0.0006	0.0040	0.0058
17900	1.448	0.359	-0.272	0.0002	0.0028	0.0056
17949	0.877	1.289	-0.162	0.0008	0.0037	0.0228
17950	1.239	1.686	-0.246	0.0009	0.0031	0.0033
17999	0.728	2.307	-0.087	0.0016	0.0025	0.0414
18000	1.054	3.034	-0.151	0.0020	0.0030	0.0072
18049	0.839	3.594	-0.098	0.0021	0.0030	0.0085
18050	0.602	4.153	-0.043	0.0021	0.0030	0.0089
18100	-0.304	0.079	-0.002	0.0019	-0.0004	-0.0026
18150	-0.267	0.016	0.006	0.0019	-0.0004	-0.0025
18199	-0.050	-0.007	0.010	0.0017	-0.0001	-0.0013
18200	0.166	-0.016	0.010	0.0015	0.0003	-0.0001
18250	0.203	-0.016	0.001	0.0014	0.0004	0.0001
18300	0.637	0.022	-0.031	0.0010	0.0026	0.0033
18350	0.674	0.106	-0.097	0.0010	0.0028	0.0036
18399	-0.759	1.210	0.038	0.0003	0.0007	-0.0204
18400	-0.398	0.668	0.025	0.0004	0.0004	-0.0193
18450	-0.363	0.207	0.016	0.0004	0.0003	-0.0184
18500	0.042	-0.023	0.011	0.0006	0.0004	-0.0005
18550	0.077	-0.021	0.001	0.0006	0.0004	0.0006
18600	0.481	0.219	-0.028	0.0007	0.0023	0.0194
18650	0.516	0.706	-0.085	0.0007	0.0024	0.0204

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
18699	-0.750	2.214	0.023	-0.0000	0.0005	-0.0393
18700	-0.423	1.207	0.014	0.0003	0.0002	-0.0354
18750	-0.392	0.363	0.009	0.0004	0.0002	-0.0336
18800	-0.026	-0.055	0.007	0.0008	0.0001	-0.0008
18850	0.005	-0.050	0.004	0.0008	0.0002	0.0012
18900	0.371	0.383	-0.010	0.0012	0.0012	0.0348
18950	0.402	1.257	-0.041	0.0012	0.0013	0.0367
19999	1.164	-14.216	-0.209	-0.0065	0.0302	-0.0136
20000	1.628	-14.084	0.046	-0.0081	0.0223	-0.0206
20048	2.077	-13.707	0.670	-0.0084	-0.0032	-0.0377
20049	1.982	-13.466	0.617	-0.0105	-0.0163	-0.0442
20050	1.911	-12.917	0.442	-0.0149	-0.0153	-0.0629
20100	0.672	-7.050	-0.495	-0.0048	0.0078	-0.0754
20148	-0.567	-0.969	1.626	0.0052	0.0268	-0.0681
20149	-0.660	-0.383	1.870	0.0023	0.0185	-0.0539
20150	-0.727	-0.169	1.918	0.0017	-0.0044	-0.0491
20200	0.151	-0.079	1.295	0.0014	-0.0349	-0.0355
20201	1.710	-0.068	0.776	-0.0004	-0.0489	-0.0241
20202	2.354	-0.019	0.510	-0.0068	-0.0652	-0.0176
20250	2.585	0.043	0.075	-0.0110	-0.0226	-0.0037
20251	2.211	0.086	-0.181	-0.0097	-0.0021	-0.0002
20252	1.839	0.057	-0.124	-0.0084	0.0033	0.0030
20270	1.460	-0.103	-0.034	-0.0071	0.0022	0.0102
20300	0.162	-1.271	-0.007	-0.0026	0.0013	-0.0025
20350	0.340	-0.673	-0.038	0.0030	0.0096	-0.0135
20400	0.629	-0.652	0.026	0.0033	0.0097	-0.0141
20449	0.667	-0.079	0.380	0.0425	0.0135	-0.0222
20450	0.897	-0.465	0.118	0.0092	0.0123	-0.0133
20499	0.924	-0.377	0.151	0.0016	0.0104	-0.0055
20500	0.916	-0.290	0.130	-0.0045	0.0085	-0.0044
20550	1.011	-0.270	0.027	-0.0052	0.0083	-0.0055
20650	-0.856	-0.138	0.005	-0.0023	-0.0002	-0.0038
20700	-0.879	-0.069	0.001	-0.0023	-0.0002	-0.0028
20701	-1.359	-0.521	-0.002	-0.0022	0.0000	0.0271
20702	-1.724	-1.462	0.001	-0.0021	0.0003	0.0309
20703	-1.765	-1.684	-0.000	-0.0017	0.0011	0.0016
20750	-1.587	-1.656	-0.008	-0.0012	0.0015	-0.0220
20751	-0.945	-1.289	-0.038	-0.0008	0.0019	-0.0136
20752	-0.882	-0.980	-0.049	0.0004	0.0023	0.0055
20799	-1.012	-0.826	-0.040	0.0019	0.0024	0.0085
20800	-1.122	-0.672	-0.009	0.0042	0.0026	0.0021
20900	-0.128	-0.011	0.072	0.0500	-0.0095	0.0102
20950	-0.106	0.202	0.275	0.0507	-0.0098	0.0101
20999	0.349	1.248	0.441	0.0895	0.0085	-0.0124
21000	0.437	0.305	0.588	0.0757	0.0061	-0.0131
21500	-0.371	-20.830	0.523	0.0395	0.0214	-0.0310
21550	-0.375	-20.726	0.594	0.0398	0.0215	-0.0312
21600	-0.400	-20.065	1.044	0.0416	0.0215	-0.0320
21650	-0.404	-19.958	1.117	0.0419	0.0215	-0.0321

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 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
21698	-0.535	-19.651	1.310	0.0561	0.0165	-0.0348
21699	-0.513	-18.881	1.340	0.0899	-0.0208	-0.0712
21700	-0.067	-17.343	1.198	0.1661	-0.0677	-0.0957
21750	1.069	-14.729	0.980	0.1781	-0.0783	-0.0945
21798	3.915	-8.104	0.468	0.1881	-0.0705	-0.0918
21799	4.432	-6.040	0.290	0.1727	-0.0354	-0.0842
21800	4.535	-4.701	0.083	0.1594	-0.0239	-0.0593
21850	4.472	-4.448	-0.000	0.1574	-0.0232	-0.0577
21900	2.349	0.058	-0.000	0.0891	0.0044	-0.0077
21950	0.251	-1.329	-0.000	0.0208	0.0051	0.0244
22000	0.031	-1.731	0.033	0.0137	0.0010	0.0224
22050	-0.220	-2.055	0.026	0.0055	-0.0001	-0.0029
22100	-0.108	-1.764	0.055	-0.0010	0.0001	-0.0045
22200	-0.015	-1.743	0.033	-0.0010	0.0001	-0.0044
22250	0.003	-0.053	-0.000	0.0001	0.0008	0.0010
22270	-0.001	1.637	-0.009	-0.0004	0.0016	-0.0002
22271	0.000	2.295	0.022	0.0030	0.0019	0.0000
22272	-0.001	2.622	0.151	0.0064	0.0020	0.0000
22273	0.001	2.950	0.351	0.0056	0.0022	-0.0002
22274	0.009	3.279	0.357	-0.0136	0.0023	-0.0005
22275	0.011	3.228	0.211	-0.0441	0.0023	-0.0010
22300	0.009	3.040	-0.038	-0.0608	0.0022	-0.0012
22301	-0.011	1.976	-1.630	-0.0488	0.0027	-0.0014
22302	-0.015	1.874	-1.745	-0.0097	0.0032	-0.0007
22350	-0.016	1.867	-1.687	0.0194	0.0035	-0.0002
22351	-0.013	2.220	-0.930	0.0220	0.0043	-0.0002
22352	0.004	2.621	-0.565	0.0047	0.0053	-0.0013
22353	0.066	2.976	-0.454	0.0162	0.0062	-0.0035
22354	0.163	2.708	-0.002	0.0838	0.0087	-0.0104
22400	0.300	1.735	0.371	0.0915	0.0090	-0.0120
22700	-0.573	-1.418	0.033	0.0066	0.0005	-0.0300
22750	-0.599	-0.794	0.043	0.0067	0.0004	-0.0298
22751	-0.851	-0.313	0.041	0.0075	-0.0016	-0.0300
22752	-0.759	-0.098	-0.013	0.0033	-0.0153	-0.0204
22800	-0.596	-0.032	-0.090	-0.0042	-0.0222	-0.0087
22850	-0.405	0.226	-0.175	-0.0058	-0.0282	-0.0092
22900	-0.216	0.251	-0.296	-0.0058	-0.0285	-0.0089
22901	-0.083	0.546	-0.405	-0.0011	-0.0353	-0.0057
22902	-0.214	0.540	-0.419	0.0027	-0.0413	0.0003
22950	-0.654	0.478	-0.404	0.0052	-0.0477	0.0013
22951	-1.147	0.396	-0.258	0.0081	-0.0462	-0.0003
22952	-1.608	0.256	-0.082	0.0159	-0.0402	-0.0039
23000	-1.741	0.146	0.156	0.0158	-0.0116	-0.0042
23001	-1.353	0.047	0.212	0.0142	0.0021	-0.0025
23002	-0.965	0.009	0.106	0.0127	0.0038	-0.0005
23003	-0.650	0.009	0.036	0.0114	0.0023	0.0002
23020	-0.334	0.014	0.001	0.0101	0.0010	-0.0002
23021	-0.018	-0.005	-0.009	0.0088	0.0002	-0.0021
23022	0.298	-0.085	-0.008	0.0075	-0.0001	-0.0056

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
23023	0.684	-0.302	-0.004	0.0059	-0.0001	-0.0097
23024	1.072	-0.559	-0.001	0.0044	-0.0001	-0.0033
23025	1.038	-0.541	0.013	0.0032	0.0007	0.0124
23050	0.851	-0.481	0.025	0.0000	0.0016	0.0170
23051	0.319	-0.088	0.005	-0.0018	0.0015	0.0156
23052	-0.031	0.669	-0.257	-0.0093	0.0014	0.0013
23053	-0.038	1.061	-0.531	-0.0049	0.0013	-0.0002
23054	-0.028	1.049	-0.552	0.0072	0.0013	-0.0006
23100	-0.017	0.890	-0.508	0.0203	0.0006	-0.0004
23149	-0.016	0.884	-0.504	0.0204	0.0006	-0.0004
23150	-0.016	0.883	-0.504	0.0205	0.0006	-0.0004
23200	-0.000	0.000	0.048	0.0124	0.0002	-0.0004
23250	0.000	-0.000	0.609	-0.0024	-0.0000	-0.0004
23300	-0.000	0.000	1.179	0.0009	0.0000	-0.0004
23350	0.000	-0.034	1.754	0.0009	0.0000	-0.0004
23999	-0.751	-0.310	0.028	-0.0007	0.0026	-0.0215
24000	-0.035	0.051	-0.030	-0.0025	0.0026	-0.0221
24049	-0.000	0.060	0.202	0.0013	0.0004	-0.0174
24050	-0.016	0.001	0.435	0.0032	-0.0016	-0.0126
24100	-0.038	-0.038	0.547	0.0035	-0.0012	-0.0104
24150	-0.051	-0.078	0.555	0.0035	-0.0010	-0.0103
24170	-0.053	-0.086	0.557	0.0035	-0.0010	-0.0103
24200	-0.050	-0.109	0.622	0.0034	0.0023	-0.0090
24220	-0.035	-0.132	0.687	0.0034	0.0023	-0.0090
24250	-0.030	-0.140	0.689	0.0034	0.0023	-0.0090
24270	-0.026	-0.145	0.690	0.0034	0.0023	-0.0090
24298	0.158	-0.263	0.450	0.0030	0.0146	-0.0055
24299	0.143	-0.269	0.410	0.0044	0.0065	-0.0008
24300	0.133	-0.249	0.404	0.0057	-0.0011	0.0010
24320	0.128	-0.216	0.347	0.0057	0.0027	0.0025
24350	0.095	-0.151	0.339	0.0057	0.0030	0.0026
24370	0.025	-0.070	0.207	0.0061	0.0062	0.0060
24371	-0.078	0.043	0.059	0.0102	0.0065	0.0098
24372	-0.142	0.220	-0.069	0.0164	-0.0001	0.0131
24373	-0.140	0.327	-0.065	0.0244	-0.0028	0.0160
24400	-0.135	0.422	-0.049	0.0225	-0.0009	0.0082
24419	-0.125	0.433	-0.046	0.0222	-0.0016	0.0074
24420	-0.093	0.458	-0.034	0.0215	-0.0022	0.0032
24421	0.210	0.061	0.005	0.0158	-0.0007	-0.0116
24422	0.514	-0.021	-0.003	0.0101	0.0023	0.0015
24423	0.634	-0.004	-0.050	0.0079	0.0049	0.0010
24424	0.755	0.005	-0.124	0.0057	0.0049	0.0004
24425	0.875	0.006	-0.141	0.0034	-0.0077	-0.0003
24426	0.833	-0.002	-0.069	0.0027	-0.0315	-0.0010
24450	0.686	-0.009	-0.013	0.0003	-0.0350	-0.0009
24451	0.214	-0.004	0.113	-0.0011	-0.0309	-0.0023
24469	0.007	0.007	0.186	-0.0020	-0.0239	-0.0032
24470	-0.155	0.026	0.260	-0.0030	-0.0192	-0.0040
24500	-0.368	0.078	0.390	-0.0043	-0.0109	-0.0055

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
24530	-0.492	0.127	0.398	-0.0043	-0.0105	-0.0056
24536	0.000	-0.095	-0.000	-0.0059	-0.0016	-0.0004
24548	-0.537	0.152	0.455	-0.0039	-0.0045	-0.0062
24549	-0.548	0.150	0.458	-0.0006	-0.0018	-0.0079
24550	-0.551	0.112	0.465	0.0014	-0.0050	-0.0117
24570	-0.343	-0.171	0.513	0.0048	-0.0059	-0.0159
24600	-0.382	-0.203	0.578	0.0048	-0.0059	-0.0159
24630	-0.395	-0.214	0.580	0.0048	-0.0059	-0.0159
24650	-0.404	-0.221	0.581	0.0048	-0.0059	-0.0159
24652	-0.000	-0.652	0.000	0.0015	-0.0011	0.0001
24670	-0.289	-0.137	0.447	0.0054	-0.0110	-0.0183
24690	-0.263	-0.124	0.446	0.0054	-0.0111	-0.0184
24700	-0.133	-0.061	0.437	0.0055	-0.0116	-0.0185
24720	0.084	-0.000	0.324	0.0046	-0.0263	-0.0228
24749	0.958	0.064	0.089	-0.0002	-0.0357	-0.0316
24750	1.470	-0.042	-0.147	-0.0093	0.0033	-0.0404
24768	-0.000	-1.234	-0.000	-0.0003	-0.0006	-0.0001
24769	0.000	-1.575	0.000	0.0000	-0.0003	0.0002
24770	-0.011	-1.726	-0.000	-0.0000	-0.0001	-0.0014
24771	-0.003	-1.769	0.000	0.0000	-0.0001	0.0062
24772	0.092	-1.798	0.000	0.0000	-0.0001	0.0212
24773	0.315	-1.827	0.000	-0.0000	-0.0001	0.0353
24774	0.546	-1.856	0.000	-0.0000	-0.0000	0.0072
24775	0.479	-1.806	0.000	-0.0000	-0.0000	-0.0864
25000	0.393	-1.564	0.000	-0.0000	-0.0000	-0.1364
25001	0.355	-0.568	-0.000	-0.0000	-0.0000	-0.1042
25002	0.317	-0.050	-0.000	-0.0000	0.0000	-0.0390
25003	0.279	0.079	-0.000	-0.0000	0.0000	-0.0037
25004	0.222	0.025	0.000	-0.0000	0.0000	0.0066
25005	0.043	-0.001	-0.000	-0.0000	-0.0000	-0.0012
25020	-0.137	0.000	0.000	-0.0000	0.0000	0.0004
25050	-0.681	-0.000	-0.000	-0.0000	-0.0002	-0.0001
25051	-0.863	0.000	0.000	-0.0000	0.0004	0.0000
25052	-1.047	-0.000	-0.000	-0.0000	-0.0017	-0.0000
25053	-1.105	0.000	-0.030	-0.0000	-0.0036	-0.0000
25054	-1.144	0.000	-0.056	-0.0000	-0.0013	0.0000
25055	-1.183	0.000	-0.025	-0.0000	0.0141	0.0000
25056	-1.223	-0.000	0.199	-0.0000	0.0509	0.0000
25057	-1.152	-0.000	0.344	-0.0000	0.0970	0.0000
25070	-0.950	-0.000	0.426	-0.0000	0.0943	0.0000
25071	-0.314	0.000	0.476	-0.0000	0.0635	0.0000
25072	-0.007	0.000	0.525	0.0000	0.0232	0.0000
25073	0.084	0.000	0.578	0.0000	0.0057	0.0000
25079	0.103	0.000	0.604	0.0000	0.0045	0.0000
25080	0.121	0.000	0.631	0.0000	0.0049	0.0000
25098	0.167	-0.000	0.704	0.0000	-0.0002	0.0000
25099	0.171	-0.000	0.706	-0.0000	0.0047	0.0000
25100	0.176	-0.000	0.720	-0.0000	0.0114	0.0000
25120	0.105	-0.000	0.833	-0.0000	0.0148	0.0000

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
25150	0.102	-0.000	0.946	-0.0000	0.0152	-0.0000
25170	0.101	-0.000	0.973	-0.0000	0.0153	-0.0000
25198	0.045	-0.000	1.120	0.0000	0.0148	-0.0000
25199	0.032	-0.000	1.151	0.0000	0.0170	-0.0000
25200	0.001	-0.000	1.165	0.0000	0.0163	-0.0000
25220	-0.104	-0.000	1.092	0.0000	0.0059	-0.0000
25221	-0.141	-0.000	1.031	0.0000	0.0000	-0.0000
25222	-0.008	0.000	0.970	-0.0000	-0.0423	-0.0000
25223	0.579	0.000	0.921	-0.0000	-0.1236	-0.0000
25224	1.833	-0.000	0.872	-0.0000	-0.1894	-0.0000
25225	2.232	-0.000	0.709	-0.0000	-0.1914	-0.0000
25250	2.371	-0.000	0.424	-0.0000	-0.0972	-0.0000
25251	2.342	0.000	-0.020	-0.0000	-0.0298	-0.0000
25252	2.313	0.000	-0.098	-0.0000	0.0007	0.0000
25253	2.285	0.000	-0.057	-0.0000	0.0064	0.0000
25254	2.242	-0.000	-0.001	-0.0000	0.0035	0.0000
25255	2.091	-0.000	0.000	-0.0000	-0.0010	-0.0000
25256	1.895	0.000	-0.000	-0.0000	0.0003	0.0000
25270	1.707	-0.000	0.000	-0.0000	-0.0000	-0.0000
25300	1.706	0.000	-0.000	-0.0000	-0.0000	-0.0000
25350	1.094	0.000	-0.000	-0.0000	0.0000	0.0000
25400	0.535	-0.000	0.000	-0.0000	-0.0000	-0.0000
25449	0.267	0.000	-0.000	-0.0000	0.0000	0.0000
25450	-0.000	0.000	-0.000	-0.0000	0.0000	0.0000

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Impianto di Melendugno
Allegato 1 - Area 1
DISPLACEMENTS REPORT: Nodal Movements
CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10	-0.019	-49.503	0.211	-0.0056	0.0554	-0.0005
50	-0.000	-48.105	0.020	-0.0057	0.0554	-0.0005
100	-0.000	-47.966	-0.000	-0.0058	0.0554	-0.0004
150	0.000	-44.930	0.000	0.0322	0.0541	-0.0018
200	0.044	-44.254	0.797	0.0482	0.0538	-0.0029
250	0.101	-43.629	1.777	0.0647	0.0534	-0.0042
300	0.227	-42.699	3.739	0.0890	0.0526	-0.0065
348	0.516	-41.276	7.468	0.1037	0.0514	-0.0096
349	0.753	-39.412	12.164	0.0880	0.0499	-0.0136
350	0.536	-37.190	14.453	0.0282	0.0487	-0.0161
400	0.434	-36.713	14.458	0.0136	0.0486	-0.0164
401	-0.050	-35.545	12.370	-0.0554	0.0491	-0.0161
402	-0.299	-36.058	7.902	-0.1010	0.0514	-0.0119
450	-0.204	-35.543	3.134	-0.0795	0.0544	-0.0060
500	-0.148	-35.142	2.334	-0.0694	0.0551	-0.0049
549	-0.016	-32.993	-0.061	-0.0245	0.0588	-0.0012
550	0.008	-30.845	-0.562	-0.0024	0.0625	-0.0011
570	0.794	-30.764	-0.016	-0.0082	0.0502	-0.0133
600	0.122	-28.486	-0.366	0.0036	0.0684	-0.0038
650	0.298	-27.116	-0.203	0.0035	0.0687	-0.0040
699	0.482	-25.956	-0.129	0.0005	0.0717	-0.0063
700	0.721	-24.795	-0.164	-0.0033	0.0747	-0.0075
750	-5.536	-19.884	-0.023	0.0060	0.0503	0.1112
751	-6.894	-19.560	0.043	0.0068	0.0487	0.1213
752	-15.557	-16.772	0.189	0.0146	0.0379	0.1028
800	-18.278	-13.948	0.006	0.0208	0.0282	0.0115
850	-18.043	-13.744	-0.040	0.0211	0.0273	0.0050
900	-12.941	-12.306	-0.053	0.0202	0.0185	-0.0157
950	-9.335	-9.495	0.006	0.0145	0.0145	0.0013
1000	-6.251	-6.252	0.001	0.0097	0.0097	0.0003
1050	-3.120	-3.116	-0.000	0.0048	0.0048	-0.0001
1099	-1.559	-1.559	-0.000	0.0024	0.0024	-0.0000
1100	0.000	0.000	0.000	0.0000	0.0000	-0.0000
1499	2.633	-24.640	0.887	-0.0064	0.0781	-0.0198
1500	4.596	-24.435	1.939	-0.0074	0.0789	-0.0320
1548	6.088	-24.276	2.740	-0.0067	0.0777	-0.0414
1549	7.941	-23.547	4.430	-0.0077	0.0801	-0.0608
1550	7.985	-21.139	6.643	-0.0151	0.0607	-0.1117
1600	5.473	-14.169	9.745	0.0001	0.0434	-0.1207
1648	2.960	-7.031	11.707	0.0153	0.0206	-0.1175
1649	2.495	-4.156	11.009	0.0143	-0.0552	-0.0870
1650	4.660	-2.813	9.345	0.0199	-0.1245	-0.0750
1700	7.074	-2.410	8.548	0.0205	-0.1312	-0.0680
1701	8.656	-2.161	8.050	0.0204	-0.1344	-0.0636
1702	12.691	-1.279	5.443	-0.0001	-0.1595	-0.0421
1750	13.493	-0.885	2.006	-0.0130	-0.0538	0.0002
1799	12.084	-1.043	0.637	-0.0103	-0.0306	0.0004

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Impianto di Melendugno
Allegato 1 - Area 1
DISPLACEMENTS REPORT: Nodal Movements
CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
1800	10.050	-0.863	-0.197	-0.0064	-0.0095	-0.0180
1801	12.581	1.328	-0.169	0.0032	-0.0055	-0.0791
1802	14.965	2.802	-0.100	0.0072	-0.0029	-0.1287
1849	5.844	0.703	-0.152	-0.0122	0.0048	-0.1136
1850	7.349	1.123	-0.313	-0.0058	0.0010	-0.0192
1900	4.933	1.210	-0.192	-0.0041	0.0017	0.0030
1950	3.559	1.068	-0.117	-0.0040	0.0017	0.0030
1999	0.766	0.583	0.021	-0.0017	0.0034	-0.0399
2000	1.148	1.081	-0.004	-0.0023	0.0029	-0.0013
2050	-0.131	1.038	0.117	-0.0015	0.0047	-0.0053
2100	-1.714	1.497	0.378	-0.0004	0.0077	-0.0226
2149	-2.513	2.100	0.582	-0.0004	0.0078	-0.0235
2150	-3.481	2.897	0.809	0.0002	0.0085	-0.0375
2200	-5.066	5.029	1.197	0.0013	0.0048	-0.0497
2249	-5.802	6.209	1.311	0.0017	-0.0005	-0.0448
2250	-6.538	7.180	1.286	0.0022	-0.0092	-0.0286
2251	-5.684	7.889	1.408	-0.0062	-0.0224	-0.0374
2252	-4.817	8.076	0.827	-0.0713	-0.0352	-0.0562
2255	-6.476	6.531	1.150	0.0059	-0.0094	-0.0015
2260	-6.058	6.054	0.993	0.0083	-0.0096	0.0185
2280	-5.567	5.811	0.866	0.0092	-0.0099	0.0306
2300	-0.799	3.778	0.086	0.0029	-0.0142	0.0245
2350	0.050	2.724	-0.015	0.0027	-0.0143	0.0226
2400	0.097	0.862	-0.045	-0.0003	-0.0183	-0.0096
2450	-0.092	0.511	-0.042	-0.0001	-0.0190	-0.0094
2500	-0.432	-0.543	-0.039	-0.0001	-0.0191	-0.0091
2550	-0.580	-0.898	-0.037	-0.0006	-0.0199	-0.0031
2560	0.220	-1.944	0.080	-0.0051	-0.0221	0.0480
2580	0.780	-2.180	0.140	-0.0062	-0.0225	0.0610
2590	1.825	-2.654	0.247	-0.0070	-0.0227	0.0703
2599	1.632	-8.273	-0.229	-0.0046	-0.0112	0.1400
2600	3.262	-3.300	0.390	-0.0073	-0.0228	0.0764
2650	6.649	-5.965	1.278	-0.0162	-0.0624	0.0862
2651	18.671	-8.478	2.610	-0.0046	-0.0997	0.2188
2652	20.047	-8.572	2.611	0.0082	-0.1051	0.2778
2660	21.738	-8.646	2.505	0.0208	-0.1145	0.3221
2661	23.591	-8.765	2.330	0.0228	-0.1156	0.3254
2662	32.435	-11.930	-0.489	0.0723	-0.0937	0.1970
2700	33.229	-12.596	-2.457	0.0728	0.0036	-0.1010
2725	33.218	-12.549	-2.453	0.0728	0.0037	-0.1014
2750	32.781	-10.441	-2.247	0.0749	0.0092	-0.1080
2800	30.078	-0.966	-0.379	0.0948	0.0124	-0.0441
2850	27.878	0.090	0.031	0.1115	0.0003	0.0016
2899	27.480	0.022	0.025	0.1146	-0.0000	0.0008
2900	26.559	-0.002	0.023	0.1150	-0.0000	0.0002
2901	26.559	-0.002	0.023	0.1150	-0.0000	0.0002
3500	-3.659	7.466	-0.649	-0.1150	-0.0511	-0.0656
3501	-1.785	6.043	-3.217	-0.1124	-0.0601	-0.0586
3502	-0.642	5.573	-4.472	-0.0488	-0.0599	-0.0437

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Impianto di Melendugno
Allegato 1 - Area 1
DISPLACEMENTS REPORT: Nodal Movements
CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
3550	-0.071	5.849	-4.645	0.0175	-0.0594	-0.0082
3551	-0.158	7.832	-2.988	0.0227	-0.0766	0.0143
3600	-1.624	9.819	-2.314	-0.0024	-0.0939	0.0425
3601	-6.765	12.995	-3.940	-0.0168	-0.1213	0.0627
3602	-8.756	13.516	-2.293	0.0725	-0.1338	-0.0092
3650	-10.234	10.263	1.702	0.1368	-0.0953	-0.1002
3651	-10.637	7.684	2.882	0.1360	-0.0492	-0.1072
3700	-10.381	5.804	3.181	0.1252	0.0110	-0.0836
3701	-8.587	2.082	1.966	0.1002	0.0249	-0.0631
3750	-6.796	-0.324	0.771	0.0752	0.0195	-0.0393
3799	-4.728	-1.876	0.004	0.0461	0.0091	-0.0167
3800	-2.659	-2.214	-0.273	0.0171	0.0020	0.0038
3850	0.326	-1.399	-0.181	0.0098	-0.0018	0.0024
3900	1.696	-1.313	-0.102	0.0095	-0.0017	0.0015
3949	3.189	-1.536	-0.053	0.0058	-0.0008	-0.0046
3950	4.683	-1.755	-0.034	0.0021	-0.0003	0.0017
4000	8.798	-2.445	-0.052	-0.0019	0.0002	-0.0302
4001	11.520	-5.748	-0.044	-0.0045	-0.0013	-0.0408
4002	11.917	-5.542	0.056	-0.0029	-0.0098	0.0597
4050	9.309	-3.867	0.129	-0.0015	-0.0135	0.1138
4051	4.025	-2.061	0.054	-0.0016	-0.0174	0.0934
4100	0.567	-0.256	-0.017	-0.0015	-0.0213	0.0534
4150	0.139	4.794	-0.203	-0.0010	-0.0322	-0.0358
4151	2.339	6.603	-0.243	0.0011	-0.0361	-0.0538
4152	5.184	8.415	-0.105	0.0077	-0.0400	-0.0530
4153	5.355	9.032	0.306	0.0541	-0.0271	0.0370
4200	3.953	7.214	0.560	0.0750	-0.0088	0.0841
4249	3.283	5.703	0.413	0.0816	-0.0083	0.0820
4250	2.003	3.077	0.156	0.0942	-0.0073	0.0662
4300	-0.735	0.087	-0.209	0.1241	-0.0042	0.0270
4349	-2.109	-0.592	-0.359	0.1443	-0.0040	0.0149
4350	-3.482	-0.914	-0.491	0.1646	-0.0032	0.0064
4399	-4.870	-1.011	-0.585	0.1788	-0.0022	0.0011
4400	-6.258	-0.967	-0.644	0.1929	-0.0012	-0.0017
4449	-7.673	-0.879	-0.671	0.2019	-0.0003	-0.0029
4450	-9.087	-0.761	-0.663	0.2110	0.0007	-0.0035
4499	-10.539	-0.640	-0.622	0.2154	0.0017	-0.0038
4500	-11.992	-0.499	-0.543	0.2198	0.0029	-0.0046
4549	-12.941	-0.390	-0.467	0.2198	0.0034	-0.0049
4550	-13.891	-0.275	-0.383	0.2198	0.0036	-0.0051
4699	1.434	1.138	1.106	0.0697	-0.0335	0.0662
4700	0.439	-0.393	2.057	0.0607	-0.0422	0.0662
4748	0.264	-0.645	2.218	0.0606	-0.0422	0.0662
4749	-0.391	-1.205	2.798	0.0851	-0.0422	0.0662
4750	-1.178	-1.289	3.843	0.1114	-0.0422	0.0662
4800	-2.020	-0.793	5.259	0.1114	-0.0422	0.0662
4849	-0.616	-1.527	0.741	0.0288	0.0107	0.0270
4850	-0.252	-1.580	1.692	-0.0037	0.0157	0.0270
4898	-0.186	-1.564	1.853	-0.0039	0.0157	0.0270

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
4899	-0.143	-1.519	2.182	0.0206	0.0157	0.0270
4900	-0.335	-1.351	2.620	0.0469	0.0157	0.0270
4950	-0.678	-0.856	3.217	0.0469	0.0157	0.0270
4999	-3.593	-6.539	0.442	0.2688	-0.0061	0.0016
5000	-3.781	-13.712	1.376	0.2913	-0.0096	-0.0033
5048	-3.822	-14.942	1.534	0.2870	-0.0102	-0.0041
5049	-3.949	-17.039	2.616	0.1514	-0.0189	-0.0042
5050	-3.962	-17.130	3.282	-0.0186	-0.0202	-0.0106
5100	-3.960	-17.125	3.279	-0.0189	-0.0203	-0.0106
5150	-3.925	-17.024	3.214	-0.0193	-0.0203	-0.0107
5200	-3.701	-16.386	2.792	-0.0207	-0.0206	-0.0108
5250	-3.665	-16.285	2.722	-0.0208	-0.0206	-0.0108
5300	-3.414	-15.492	2.152	-0.0295	-0.0255	-0.0128
5310	-3.228	-14.969	1.722	-0.0299	-0.0286	-0.0139
5320	-3.181	-14.868	1.622	-0.0299	-0.0287	-0.0139
5330	-3.135	-14.766	1.523	-0.0299	-0.0287	-0.0139
5350	-2.855	-14.038	0.987	-0.0242	-0.0331	-0.0149
5400	-2.806	-13.937	0.906	-0.0242	-0.0332	-0.0149
5450	-2.757	-13.835	0.826	-0.0241	-0.0332	-0.0149
5500	-2.455	-13.087	0.426	-0.0167	-0.0378	-0.0153
5550	-2.404	-12.962	0.373	-0.0156	-0.0385	-0.0153
5600	-2.353	-12.837	0.324	-0.0145	-0.0393	-0.0153
5650	-1.878	-11.661	-0.000	-0.0081	-0.0465	-0.0149
5660	-1.513	-10.708	-0.169	-0.0046	-0.0523	-0.0139
5670	-1.467	-10.583	-0.184	-0.0040	-0.0530	-0.0138
5680	-1.421	-10.458	-0.197	-0.0034	-0.0538	-0.0136
5685	-0.678	-8.122	-0.097	0.0043	-0.0680	-0.0101
5690	-0.645	-7.997	-0.082	0.0042	-0.0688	-0.0098
5695	-0.613	-7.872	-0.067	0.0040	-0.0695	-0.0096
5700	-0.403	-6.964	-0.000	-0.0003	-0.0751	-0.0077
5750	-0.304	-6.444	-0.038	-0.0028	-0.0782	-0.0066
5800	-0.282	-6.342	-0.048	-0.0028	-0.0783	-0.0066
5850	-0.260	-6.240	-0.057	-0.0028	-0.0783	-0.0066
5900	-0.147	-5.516	-0.101	-0.0007	-0.0827	-0.0051
5950	-0.130	-5.414	-0.103	-0.0007	-0.0828	-0.0051
6000	-0.113	-5.312	-0.106	-0.0006	-0.0828	-0.0051
6005	0.071	-3.146	-0.000	-0.0005	-0.0961	-0.0014
6007	-0.004	-0.137	-0.000	0.0092	-0.1145	0.0031
6010	-0.027	0.120	0.066	0.0121	-0.1160	0.0035
6030	-0.039	0.222	0.106	0.0122	-0.1161	0.0035
6050	-0.050	0.323	0.147	0.0123	-0.1161	0.0035
6100	-0.073	0.554	0.231	0.0160	-0.1175	0.0038
6112	-0.128	1.046	0.494	0.0250	-0.1205	0.0045
6125	-0.143	1.148	0.577	0.0251	-0.1206	0.0045
6137	-0.158	1.249	0.661	0.0253	-0.1206	0.0045
6150	-0.212	1.678	1.000	0.0337	-0.1233	0.0050
6200	-0.229	1.779	1.112	0.0338	-0.1233	0.0050
6250	-0.333	2.416	1.826	0.0343	-0.1236	0.0050
6300	-0.350	2.518	1.941	0.0343	-0.1236	0.0050

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Impianto di Melendugno
Allegato 1 - Area 1
DISPLACEMENTS REPORT: Nodal Movements
CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
6348	-0.444	3.171	2.518	0.0229	-0.1276	0.0057
6349	0.010	3.310	2.258	-0.0583	-0.1316	0.0039
6350	1.293	2.628	1.677	-0.0779	-0.1439	0.0006
6400	1.892	2.275	1.517	-0.0757	-0.1447	0.0008
6449	5.326	0.694	0.580	-0.0512	-0.1116	0.0018
6450	7.034	-0.199	-0.357	-0.0195	-0.0034	0.0027
6599	-6.296	-7.010	0.289	0.2779	-0.0022	-0.0065
6600	-6.367	-14.249	1.223	0.2908	-0.0039	-0.0114
6648	-6.384	-15.472	1.381	0.2858	-0.0043	-0.0122
6649	-6.397	-17.522	2.442	0.1461	-0.0082	-0.0138
6650	-6.266	-17.595	3.078	-0.0187	-0.0078	-0.0215
6700	-6.263	-17.590	3.075	-0.0190	-0.0079	-0.0215
6750	-6.191	-17.488	3.010	-0.0193	-0.0079	-0.0215
6800	-5.741	-16.851	2.588	-0.0206	-0.0081	-0.0217
6850	-5.669	-16.749	2.519	-0.0207	-0.0081	-0.0217
6900	-5.192	-15.953	1.962	-0.0284	-0.0112	-0.0234
6910	-4.861	-15.428	1.552	-0.0283	-0.0132	-0.0242
6920	-4.780	-15.327	1.458	-0.0283	-0.0132	-0.0242
6930	-4.700	-15.225	1.363	-0.0282	-0.0133	-0.0242
6950	-4.226	-14.495	0.864	-0.0222	-0.0161	-0.0247
7000	-4.144	-14.393	0.790	-0.0221	-0.0161	-0.0247
7050	-4.062	-14.291	0.717	-0.0220	-0.0162	-0.0247
7100	-3.572	-13.540	0.358	-0.0146	-0.0191	-0.0244
7150	-3.491	-13.415	0.312	-0.0136	-0.0196	-0.0243
7200	-3.410	-13.289	0.270	-0.0126	-0.0200	-0.0242
7250	-2.675	-12.108	-0.000	-0.0068	-0.0246	-0.0225
7260	-2.132	-11.152	-0.148	-0.0041	-0.0283	-0.0204
7270	-2.064	-11.026	-0.161	-0.0036	-0.0288	-0.0201
7280	-1.998	-10.901	-0.172	-0.0031	-0.0293	-0.0198
7285	-0.949	-8.555	-0.084	0.0038	-0.0384	-0.0137
7290	-0.904	-8.430	-0.070	0.0037	-0.0389	-0.0134
7295	-0.860	-8.304	-0.057	0.0035	-0.0394	-0.0130
7300	-0.578	-7.392	-0.000	-0.0007	-0.0429	-0.0103
7350	-0.447	-6.870	-0.042	-0.0030	-0.0450	-0.0087
7400	-0.418	-6.768	-0.052	-0.0030	-0.0450	-0.0087
7450	-0.390	-6.667	-0.062	-0.0030	-0.0450	-0.0087
7500	-0.243	-5.939	-0.109	-0.0008	-0.0479	-0.0067
7550	-0.220	-5.837	-0.112	-0.0007	-0.0479	-0.0067
7600	-0.198	-5.736	-0.114	-0.0007	-0.0479	-0.0066
7605	0.041	-3.561	-0.000	-0.0002	-0.0564	-0.0020
7607	0.022	-0.540	-0.000	0.0082	-0.0682	0.0020
7610	0.007	-0.281	0.058	0.0108	-0.0692	0.0022
7620	0.000	-0.180	0.094	0.0109	-0.0692	0.0022
7650	-0.007	-0.078	0.130	0.0110	-0.0692	0.0022
7700	-0.021	0.153	0.205	0.0146	-0.0701	0.0024
7712	-0.056	0.647	0.448	0.0235	-0.0721	0.0028
7725	-0.065	0.749	0.527	0.0237	-0.0721	0.0028
7737	-0.074	0.851	0.606	0.0238	-0.0721	0.0028
7750	-0.107	1.281	0.929	0.0325	-0.0738	0.0030

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
7800	-0.118	1.382	1.037	0.0326	-0.0738	0.0031
7850	-0.181	2.019	1.727	0.0332	-0.0740	0.0031
7900	-0.192	2.121	1.838	0.0332	-0.0740	0.0031
7948	-0.248	2.777	2.405	0.0232	-0.0766	0.0034
7949	0.027	2.938	2.181	-0.0514	-0.0793	0.0018
7950	0.806	2.327	1.630	-0.0729	-0.0874	-0.0006
8000	1.170	1.997	1.470	-0.0713	-0.0879	-0.0005
8049	3.256	0.481	0.533	-0.0498	-0.0675	-0.0001
8050	4.278	-0.397	-0.404	-0.0191	-0.0008	0.0003
8199	-9.050	-7.109	0.271	0.2863	0.0019	-0.0092
8200	-8.997	-14.473	1.204	0.2942	0.0021	-0.0149
8248	-8.988	-15.708	1.363	0.2888	0.0020	-0.0159
8249	-8.895	-17.760	2.422	0.1453	0.0038	-0.0198
8250	-8.638	-17.828	3.050	-0.0189	0.0066	-0.0309
8300	-8.634	-17.823	3.047	-0.0191	0.0066	-0.0309
8350	-8.531	-17.722	2.982	-0.0195	0.0066	-0.0309
8400	-7.884	-17.084	2.557	-0.0208	0.0065	-0.0311
8450	-7.781	-16.982	2.487	-0.0209	0.0065	-0.0311
8500	-7.103	-16.185	1.931	-0.0282	0.0052	-0.0330
8510	-6.638	-15.659	1.523	-0.0281	0.0044	-0.0338
8520	-6.526	-15.557	1.429	-0.0281	0.0044	-0.0338
8530	-6.413	-15.456	1.336	-0.0280	0.0043	-0.0338
8550	-5.754	-14.724	0.842	-0.0219	0.0032	-0.0341
8600	-5.641	-14.622	0.769	-0.0218	0.0032	-0.0341
8650	-5.527	-14.520	0.697	-0.0217	0.0032	-0.0341
8700	-4.853	-13.768	0.346	-0.0143	0.0020	-0.0335
8750	-4.741	-13.642	0.301	-0.0132	0.0018	-0.0334
8800	-4.630	-13.516	0.260	-0.0122	0.0016	-0.0332
8850	-3.630	-12.333	-0.000	-0.0066	-0.0003	-0.0305
8860	-2.895	-11.375	-0.144	-0.0040	-0.0019	-0.0275
8870	-2.805	-11.249	-0.157	-0.0035	-0.0021	-0.0271
8880	-2.715	-11.124	-0.168	-0.0030	-0.0023	-0.0266
8885	-1.318	-8.774	-0.081	0.0038	-0.0060	-0.0181
8890	-1.259	-8.648	-0.067	0.0036	-0.0062	-0.0176
8895	-1.201	-8.522	-0.054	0.0035	-0.0064	-0.0171
8900	-0.832	-7.609	-0.000	-0.0008	-0.0079	-0.0134
8950	-0.662	-7.085	-0.043	-0.0031	-0.0087	-0.0112
9000	-0.625	-6.984	-0.053	-0.0031	-0.0087	-0.0112
9050	-0.588	-6.882	-0.064	-0.0031	-0.0087	-0.0112
9100	-0.399	-6.153	-0.112	-0.0008	-0.0099	-0.0085
9150	-0.370	-6.051	-0.114	-0.0008	-0.0099	-0.0085
9200	-0.342	-5.949	-0.117	-0.0007	-0.0099	-0.0085
9205	-0.037	-3.771	-0.000	-0.0000	-0.0134	-0.0026
9207	-0.020	-0.744	-0.000	0.0078	-0.0183	0.0012
9210	-0.029	-0.485	0.054	0.0103	-0.0187	0.0013
9230	-0.033	-0.383	0.088	0.0104	-0.0187	0.0013
9250	-0.037	-0.281	0.123	0.0104	-0.0187	0.0013
9300	-0.045	-0.049	0.194	0.0141	-0.0191	0.0012
9312	-0.061	0.445	0.430	0.0231	-0.0199	0.0011

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
9325	-0.065	0.547	0.507	0.0233	-0.0199	0.0011
9337	-0.069	0.649	0.585	0.0234	-0.0199	0.0011
9350	-0.080	1.079	0.904	0.0324	-0.0206	0.0007
9400	-0.082	1.181	1.012	0.0325	-0.0206	0.0007
9450	-0.096	1.818	1.701	0.0332	-0.0207	0.0007
9500	-0.099	1.920	1.812	0.0332	-0.0207	0.0006
9548	-0.100	2.577	2.388	0.0244	-0.0217	-0.0006
9549	0.030	2.761	2.206	-0.0437	-0.0250	-0.0080
9550	0.334	2.244	1.691	-0.0624	-0.0312	-0.0118
9600	0.465	1.958	1.531	-0.0609	-0.0315	-0.0123
9649	1.216	0.681	0.594	-0.0415	-0.0241	-0.0153
9650	1.569	-0.044	-0.344	-0.0157	0.0011	-0.0183
9651	0.223	0.826	-0.286	-0.0128	0.0019	-0.0370
9799	-11.872	-7.012	0.390	0.2914	0.0065	-0.0112
9800	-11.681	-14.469	1.324	0.2972	0.0087	-0.0179
9848	-11.644	-15.715	1.482	0.2916	0.0090	-0.0190
9849	-11.437	-17.779	2.545	0.1454	0.0173	-0.0255
9850	-11.049	-17.846	3.168	-0.0197	0.0226	-0.0403
9900	-11.044	-17.841	3.165	-0.0199	0.0226	-0.0403
9950	-10.910	-17.739	3.097	-0.0203	0.0226	-0.0403
10000	-10.067	-17.102	2.654	-0.0216	0.0227	-0.0405
10050	-9.933	-17.000	2.582	-0.0217	0.0227	-0.0405
10100	-9.055	-16.202	2.008	-0.0291	0.0235	-0.0426
10110	-8.457	-15.676	1.587	-0.0290	0.0240	-0.0434
10120	-8.313	-15.574	1.491	-0.0289	0.0240	-0.0434
10130	-8.169	-15.472	1.395	-0.0289	0.0240	-0.0434
10150	-7.326	-14.740	0.884	-0.0227	0.0247	-0.0436
10200	-7.181	-14.638	0.809	-0.0226	0.0247	-0.0435
10250	-7.036	-14.537	0.734	-0.0225	0.0247	-0.0435
10300	-6.178	-13.784	0.367	-0.0150	0.0254	-0.0426
10350	-6.037	-13.658	0.320	-0.0139	0.0256	-0.0423
10400	-5.896	-13.532	0.276	-0.0129	0.0257	-0.0421
10450	-4.633	-12.348	-0.000	-0.0069	0.0268	-0.0383
10460	-3.713	-11.389	-0.149	-0.0041	0.0278	-0.0343
10470	-3.599	-11.263	-0.162	-0.0036	0.0279	-0.0338
10480	-3.488	-11.137	-0.174	-0.0031	0.0280	-0.0332
10485	-1.756	-8.786	-0.082	0.0038	0.0303	-0.0223
10490	-1.683	-8.660	-0.069	0.0037	0.0304	-0.0216
10495	-1.612	-8.534	-0.055	0.0035	0.0305	-0.0210
10500	-1.161	-7.620	-0.000	-0.0008	0.0314	-0.0163
10550	-0.955	-7.096	-0.044	-0.0032	0.0319	-0.0136
10600	-0.910	-6.995	-0.055	-0.0032	0.0320	-0.0136
10650	-0.864	-6.893	-0.066	-0.0032	0.0320	-0.0136
10700	-0.636	-6.163	-0.116	-0.0009	0.0327	-0.0103
10750	-0.602	-6.061	-0.119	-0.0009	0.0327	-0.0102
10800	-0.568	-5.960	-0.122	-0.0008	0.0327	-0.0102
10805	-0.209	-3.779	-0.000	0.0004	0.0348	-0.0029
10807	-0.189	-0.748	-0.000	0.0060	0.0378	0.0009
10810	-0.195	-0.489	0.040	0.0081	0.0380	0.0007

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Impianto di Melendugno
Allegato 1 - Area 1
DISPLACEMENTS REPORT: Nodal Movements
CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10820	-0.198	-0.387	0.067	0.0082	0.0380	0.0007
10850	-0.200	-0.286	0.094	0.0083	0.0380	0.0007
10900	-0.205	-0.053	0.151	0.0118	0.0383	0.0004
10912	-0.205	0.442	0.356	0.0211	0.0387	-0.0008
10925	-0.202	0.544	0.426	0.0213	0.0387	-0.0008
10937	-0.199	0.645	0.497	0.0214	0.0388	-0.0008
10950	-0.183	1.076	0.797	0.0313	0.0392	-0.0025
11000	-0.175	1.178	0.902	0.0315	0.0392	-0.0025
11050	-0.121	1.815	1.570	0.0323	0.0392	-0.0027
11100	-0.112	1.917	1.678	0.0323	0.0392	-0.0028
11148	-0.025	2.575	2.269	0.0274	0.0399	-0.0076
11149	0.011	2.828	2.214	-0.0181	0.0331	-0.0301
11150	-0.122	2.666	1.829	-0.0145	0.0254	-0.0389
11200	-0.228	2.582	1.669	-0.0120	0.0253	-0.0408
11249	-0.816	2.513	0.731	-0.0006	0.0192	-0.0516
11250	-1.122	2.468	-0.208	-0.0099	0.0023	-0.0625
11300	9.867	-0.062	-0.132	-0.0169	-0.0068	0.0013
11349	11.337	-0.030	0.052	-0.0163	-0.0067	0.0008
11350	12.807	-0.010	0.296	-0.0157	-0.0102	0.0006
11370	11.665	0.150	0.843	-0.0084	-0.1263	0.0006
11399	13.823	0.004	0.509	-0.0157	-0.0090	0.0006
11400	14.840	0.017	0.704	-0.0157	-0.0087	0.0006
11449	7.440	0.169	0.819	-0.0045	-0.1584	0.0013
11450	2.544	0.189	1.769	0.0004	-0.2089	0.0013
11500	-1.085	0.019	2.742	-0.0503	-0.2089	0.0013
11550	-1.068	-0.477	3.381	-0.0502	-0.2089	0.0013
11599	8.434	0.230	1.520	-0.0025	-0.2159	0.0006
11600	4.163	0.237	2.197	0.0000	-0.2457	0.0006
11648	3.143	0.237	2.358	0.0002	-0.2457	0.0006
11649	0.834	0.226	2.701	-0.0244	-0.2457	0.0006
11650	-0.117	0.073	3.175	-0.0506	-0.2457	0.0006
11700	-0.110	-0.423	3.818	-0.0506	-0.2457	0.0006
11800	-0.230	18.876	0.018	0.0003	-0.0077	0.0015
11898	1.677	0.187	1.931	0.0006	-0.2089	0.0013
11899	-0.283	0.173	2.272	-0.0240	-0.2089	0.0013
11900	-0.192	17.722	0.011	0.0003	-0.0077	0.0016
11949	-0.970	17.693	-0.131	0.0003	-0.0077	0.0016
11950	-1.748	17.664	-0.274	0.0003	-0.0077	0.0016
12070	0.019	13.746	-0.020	0.0005	-0.0077	0.0034
12100	0.510	9.795	-0.068	0.0002	-0.0077	0.0071
12150	-0.613	7.282	-0.280	0.0061	-0.0053	0.1406
12200	-1.393	3.663	-0.411	0.0065	-0.0049	0.1433
12201	-1.831	2.092	-0.452	0.0088	0.0005	0.1432
12202	-2.049	0.398	-0.079	0.0081	0.0382	0.1285
12250	-1.560	-0.395	0.520	0.0207	0.0538	0.1271
12299	-0.885	-0.669	1.022	0.0230	0.0567	0.1242
12300	0.258	-1.145	1.820	0.0248	0.0613	0.1196
12348	2.092	-1.820	2.992	0.0137	0.0660	0.1128
12349	2.421	-1.466	3.193	-0.0567	0.0773	0.1052

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Impianto di Melendugno
Allegato 1 - Area 1
DISPLACEMENTS REPORT: Nodal Movements
CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
12350	1.627	-0.693	2.192	-0.1174	0.0820	0.0926
12400	0.356	-0.120	0.478	-0.1228	0.0820	0.0919
12450	-0.000	0.000	0.000	-0.1229	0.0820	0.0919
12500	0.247	5.950	-0.037	-0.0003	-0.0075	-0.0045
12520	0.178	2.117	-0.020	-0.0002	-0.0073	0.0065
12570	-0.937	1.374	-0.204	0.0020	-0.0048	0.0310
12620	-1.717	0.588	-0.321	0.0021	-0.0043	0.0310
12621	-2.152	0.265	-0.354	0.0029	0.0016	0.0300
12622	-2.344	-0.100	0.065	0.0058	0.0426	0.0306
12670	-1.841	-0.420	0.678	0.0218	0.0472	0.0366
12719	-1.257	-0.704	1.180	0.0237	0.0476	0.0377
12720	-0.332	-1.187	1.978	0.0250	0.0468	0.0395
12768	0.964	-1.859	3.149	0.0134	0.0450	0.0420
12769	1.266	-1.486	3.339	-0.0598	0.0407	0.0449
12770	0.886	-0.693	2.286	-0.1226	0.0390	0.0496
12820	0.194	-0.120	0.498	-0.1281	0.0390	0.0499
12870	0.000	0.000	0.000	-0.1281	0.0390	0.0499
12900	1.724	-1.679	0.015	-0.0006	-0.0073	0.0353
12920	6.349	-5.478	0.080	-0.0005	-0.0073	0.0386
12921	7.152	-6.265	0.089	-0.0005	-0.0066	0.0333
12922	6.599	-6.589	0.049	-0.0016	-0.0050	-0.0817
12970	5.176	-4.562	-0.308	0.0032	-0.0222	-0.0778
13020	4.391	-2.536	-0.883	0.0034	-0.0233	-0.0806
13021	3.934	-1.613	-1.185	0.0048	-0.0301	-0.0849
13022	3.135	-0.494	-1.907	0.0049	-0.0956	-0.0965
13070	1.764	-0.128	-2.057	0.0166	-0.0869	-0.0954
13119	0.765	-0.344	-1.552	0.0182	-0.0800	-0.0970
13120	-0.692	-0.719	-0.749	0.0197	-0.0743	-0.0995
13168	-2.757	-1.271	0.430	0.0137	-0.0718	-0.1031
13169	-3.062	-1.164	0.781	-0.0117	-0.0657	-0.1072
13170	-2.030	-0.696	0.622	-0.0315	-0.0632	-0.1140
13220	-0.444	-0.120	0.135	-0.0346	-0.0632	-0.1144
13270	-0.000	0.000	0.000	-0.0346	-0.0632	-0.1144
13300	4.477	-2.625	-0.009	-0.0025	-0.0014	-0.2272
13400	4.035	0.001	-0.022	-0.0024	-0.0012	-0.2332
13401	2.714	8.093	-0.053	-0.0020	-0.0009	-0.2390
13402	-0.226	13.710	-0.042	-0.0018	-0.0003	-0.1691
13450	-3.148	14.431	-0.015	-0.0005	-0.0004	-0.0479
13499	-4.207	13.335	-0.005	-0.0003	-0.0003	-0.0398
13500	-5.816	11.639	0.003	-0.0002	-0.0000	-0.0492
13520	-1.155	5.171	0.003	0.0000	0.0006	0.0230
13549	0.028	-0.752	-0.031	0.0015	-0.0001	0.0081
13550	-2.792	-1.055	0.001	0.0001	0.0011	-0.0039
13600	-0.301	-7.497	0.004	-0.0001	0.0026	0.0126
13650	0.078	-9.000	0.011	-0.0002	0.0030	0.0051
13699	0.208	-9.795	0.015	-0.0002	0.0030	0.0048
13700	0.275	-10.716	0.019	-0.0001	0.0032	-0.0000
13750	0.105	-12.227	0.019	0.0002	0.0036	-0.0094
13800	-0.945	-14.373	-0.018	0.0013	0.0040	-0.0279

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Impianto di Melendugno
Allegato 1 - Area 1
DISPLACEMENTS REPORT: Nodal Movements
CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
13850	-2.223	-15.740	-0.080	0.0014	0.0041	-0.0288
13851	-4.557	-18.446	-0.270	0.0032	0.0047	-0.0094
13852	-2.248	-17.745	-0.425	0.0022	0.0038	0.1673
13900	0.600	-12.528	-0.431	-0.0028	-0.0077	0.1630
14100	15.228	3.838	-0.059	0.0081	0.0005	0.0296
14150	14.265	2.555	-0.040	0.0077	0.0006	0.0413
14200	13.162	1.065	-0.017	0.0076	0.0006	0.0401
14250	10.880	-0.126	0.002	0.0065	0.0001	0.0037
14300	10.249	-0.133	0.002	0.0062	0.0000	-0.0009
14350	9.147	-0.091	0.002	0.0061	0.0000	-0.0013
14400	8.514	-0.051	0.002	0.0058	0.0000	-0.0021
14420	2.847	-0.041	-0.003	0.0029	-0.0003	0.0058
14700	-3.987	7.070	0.001	-0.0004	0.0001	-0.1099
14720	-2.607	2.092	-0.002	-0.0004	0.0001	-0.1115
14721	-0.627	-4.280	-0.005	-0.0006	-0.0000	-0.1444
14722	1.353	-12.713	-0.001	-0.0008	-0.0002	-0.1694
14723	3.732	-17.037	0.012	-0.0006	-0.0014	-0.1201
14750	5.038	-17.225	0.016	-0.0005	-0.0018	0.0272
14770	1.827	-14.378	-0.030	-0.0008	-0.0025	0.0331
14800	0.408	-10.190	-0.105	0.0001	-0.0036	-0.0029
14850	-0.709	-7.590	-0.239	0.0010	-0.0028	-0.1484
14900	-1.489	-3.768	-0.306	0.0011	-0.0023	-0.1514
14901	-1.975	-1.911	-0.313	0.0015	0.0047	-0.1519
14902	-2.137	-0.215	0.169	0.0105	0.0503	-0.1284
14950	-1.510	0.173	0.831	0.0263	0.0591	-0.1165
14999	-0.771	-0.149	1.334	0.0280	0.0592	-0.1121
15000	0.367	-0.722	2.132	0.0329	0.0551	-0.1051
15048	1.759	-1.780	3.305	0.0393	0.0363	-0.0948
15049	1.590	-1.914	3.572	0.0556	-0.0471	-0.0835
15050	0.850	-1.331	2.639	0.0628	-0.1156	-0.0636
15100	0.120	-0.240	0.478	0.0628	-0.1229	-0.0620
15150	-0.000	0.000	0.000	0.0628	-0.1230	-0.0620
15500	0.244	-6.791	-0.049	0.0005	-0.0038	0.0015
15550	0.361	-3.404	-0.029	0.0002	-0.0039	-0.0043
15600	-0.755	-2.240	-0.164	0.0026	-0.0036	-0.0517
15650	-1.535	-0.927	-0.251	0.0027	-0.0031	-0.0518
15651	-2.021	-0.319	-0.269	0.0038	0.0039	-0.0499
15652	-2.181	0.162	0.212	0.0088	0.0508	-0.0368
15700	-1.544	0.199	0.878	0.0124	0.0600	-0.0337
15749	-0.795	0.050	1.381	0.0125	0.0600	-0.0327
15750	0.358	-0.196	2.179	0.0134	0.0557	-0.0312
15798	1.765	-0.604	3.352	0.0148	0.0367	-0.0290
15799	1.595	-0.667	3.618	0.0183	-0.0478	-0.0265
15800	0.850	-0.469	2.671	0.0199	-0.1170	-0.0222
15850	0.120	-0.085	0.484	0.0199	-0.1244	-0.0219
15900	-0.000	0.000	0.000	0.0199	-0.1244	-0.0219
16300	0.497	-0.080	-0.017	-0.0000	-0.0034	-0.0014
16350	0.466	3.243	-0.024	0.0001	-0.0030	0.0084
16400	-0.652	2.091	-0.153	-0.0025	-0.0038	0.0493

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Impianto di Melendugno
Allegato 1 - Area 1
DISPLACEMENTS REPORT: Nodal Movements
CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
16450	-1.432	0.840	-0.249	-0.0026	-0.0034	0.0493
16451	-1.918	0.265	-0.272	-0.0037	0.0033	0.0473
16452	-2.089	-0.182	0.188	-0.0089	0.0485	0.0341
16500	-1.481	-0.206	0.841	-0.0121	0.0583	0.0312
16549	-0.751	-0.060	1.345	-0.0122	0.0586	0.0304
16550	0.377	0.178	2.143	-0.0130	0.0546	0.0290
16598	1.761	0.571	3.316	-0.0142	0.0361	0.0271
16599	1.591	0.633	3.582	-0.0173	-0.0473	0.0249
16600	0.850	0.446	2.647	-0.0187	-0.1159	0.0211
16650	0.120	0.081	0.479	-0.0187	-0.1233	0.0208
16700	-0.000	-0.000	0.000	-0.0187	-0.1233	0.0208
17100	-1.082	6.625	0.016	0.0005	-0.0015	0.0299
17150	-4.893	10.019	0.021	-0.0009	-0.0001	0.0355
17169	-5.671	8.387	0.017	-0.0009	-0.0002	0.1085
17170	-6.448	5.848	0.012	-0.0009	-0.0003	0.1329
17399	-3.600	7.805	-0.093	-0.0061	0.0013	-0.0760
17400	-6.077	11.461	-0.034	-0.0023	0.0005	-0.0099
17419	-5.898	12.038	-0.065	-0.0023	0.0005	-0.0116
17420	-5.704	12.615	-0.095	-0.0023	0.0005	-0.0122
17699	-2.820	-0.929	0.079	0.0085	0.0022	0.0055
17700	-3.014	0.357	0.211	0.0030	0.0023	0.0060
17749	-3.236	1.668	0.233	-0.0001	0.0024	0.0053
17750	-3.390	2.979	0.184	-0.0014	0.0024	0.0017
17799	-3.465	4.310	0.127	-0.0018	0.0023	-0.0028
17800	-3.298	5.640	0.064	-0.0019	0.0022	-0.0135
17849	-2.835	6.743	0.017	-0.0018	0.0022	-0.0183
17850	-2.289	7.846	-0.029	-0.0018	0.0022	-0.0199
17899	3.336	0.542	0.016	0.0008	-0.0005	0.0122
17900	4.123	0.804	0.026	0.0004	-0.0003	0.0083
17949	2.935	2.605	0.013	-0.0004	-0.0005	0.0464
17950	3.717	3.417	0.023	-0.0002	-0.0003	0.0076
17999	2.522	4.571	0.002	-0.0005	-0.0002	0.0837
18000	3.213	6.074	0.008	-0.0002	-0.0003	0.0188
18049	2.630	7.177	0.002	-0.0002	-0.0003	0.0229
18050	1.976	8.280	-0.004	-0.0002	-0.0003	0.0243
18100	-1.442	0.205	0.074	0.0022	0.0022	-0.0057
18150	-0.699	0.068	0.023	0.0022	0.0020	-0.0055
18199	-0.259	0.014	0.005	0.0020	0.0011	-0.0030
18200	0.182	-0.009	-0.003	0.0017	0.0003	-0.0003
18250	0.925	-0.012	-0.010	0.0017	0.0002	0.0001
18300	1.806	0.079	-0.006	0.0012	-0.0004	0.0079
18350	2.549	0.279	0.004	0.0012	-0.0004	0.0085
18399	-2.608	2.358	0.120	-0.0012	0.0028	-0.0390
18400	-1.826	1.307	0.061	-0.0011	0.0018	-0.0377
18450	-1.084	0.406	0.018	-0.0010	0.0017	-0.0359
18500	-0.208	-0.045	-0.004	-0.0008	0.0002	-0.0008
18550	0.534	-0.038	-0.009	-0.0008	0.0002	0.0014
18600	1.410	0.446	-0.005	-0.0006	-0.0003	0.0390
18650	2.152	1.426	0.003	-0.0006	-0.0004	0.0412

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Impianto di Melendugno
Allegato 1 - Area 1
DISPLACEMENTS REPORT: Nodal Movements
CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
18699	-2.608	4.282	0.026	-0.0016	0.0013	-0.0773
18700	-1.917	2.321	0.007	-0.0014	0.0004	-0.0687
18750	-1.183	0.682	-0.002	-0.0014	0.0004	-0.0652
18800	-0.409	-0.125	-0.006	-0.0011	-0.0000	-0.0013
18850	0.324	-0.110	-0.005	-0.0011	-0.0000	0.0026
18900	1.098	0.746	-0.003	-0.0008	-0.0001	0.0690
18950	1.831	2.479	-0.001	-0.0008	-0.0001	0.0728
19999	1.542	-30.567	0.660	-0.0136	0.0368	-0.0284
20000	2.074	-30.292	1.335	-0.0171	0.0253	-0.0435
20048	2.678	-29.497	2.988	-0.0178	0.0057	-0.0805
20049	2.622	-28.983	3.297	-0.0224	0.0098	-0.0945
20050	2.391	-27.805	3.560	-0.0318	0.0233	-0.1351
20100	-0.837	-15.191	5.544	-0.0103	0.0276	-0.1623
20148	-4.064	-2.093	7.567	0.0112	0.0107	-0.1468
20149	-4.309	-0.828	7.420	0.0050	-0.0229	-0.1166
20150	-3.991	-0.365	6.994	0.0037	-0.0697	-0.1064
20200	-0.120	-0.169	5.344	0.0030	-0.1148	-0.0772
20201	4.792	-0.143	3.967	-0.0010	-0.1652	-0.0528
20202	6.751	-0.036	2.809	-0.0149	-0.2151	-0.0390
20250	7.233	0.107	1.196	-0.0240	-0.0764	-0.0088
20251	6.256	0.222	-0.046	-0.0215	-0.0233	-0.0010
20252	5.281	0.155	-0.245	-0.0191	0.0005	0.0082
20270	4.292	-0.307	-0.131	-0.0165	0.0034	0.0299
20300	0.899	-3.890	-0.031	-0.0078	0.0044	-0.0043
20350	1.117	-2.410	-0.153	0.0084	0.0263	-0.0341
20400	1.851	-1.788	0.029	0.0094	0.0268	-0.0358
20449	1.964	-0.324	1.026	0.1258	0.0373	-0.0582
20450	2.554	-1.325	0.312	0.0299	0.0336	-0.0333
20499	2.600	-1.110	0.441	0.0104	0.0284	-0.0105
20500	2.538	-0.895	0.434	-0.0047	0.0231	-0.0061
20550	2.672	-0.275	0.316	-0.0061	0.0223	-0.0088
20650	-1.729	-0.420	0.017	-0.0068	-0.0007	-0.0160
20700	-2.360	-0.115	0.003	-0.0068	-0.0007	-0.0132
20701	-3.598	-1.282	-0.006	-0.0063	0.0001	0.0777
20702	-4.539	-4.123	0.003	-0.0059	0.0007	0.1049
20703	-4.957	-4.703	-0.002	-0.0050	0.0028	0.0043
20750	-4.502	-4.322	-0.028	-0.0035	0.0038	-0.0791
20751	-2.524	-3.374	-0.116	-0.0025	0.0048	-0.0385
20752	-2.417	-2.576	-0.151	0.0013	0.0056	0.0192
20799	-2.826	-2.178	-0.122	0.0058	0.0060	0.0271
20800	-3.169	-1.780	-0.027	0.0129	0.0064	0.0076
20900	-0.636	-0.026	0.208	0.1467	-0.0263	0.0255
20950	-0.007	0.503	0.766	0.1487	-0.0271	0.0252
20999	1.103	3.440	1.229	0.2640	0.0264	-0.0344
21000	1.374	0.698	1.608	0.2217	0.0185	-0.0359
21500	-0.968	-47.327	1.756	0.0576	0.0775	-0.0545
21550	-1.070	-47.145	2.014	0.0581	0.0776	-0.0549
21600	-1.708	-45.982	3.638	0.0610	0.0776	-0.0564
21650	-1.810	-45.794	3.897	0.0615	0.0775	-0.0565

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
21698	-2.152	-45.248	4.577	0.0838	0.0664	-0.0627
21699	-2.351	-43.894	4.535	0.1420	-0.0716	-0.1353
21700	-1.016	-41.338	3.775	0.2666	-0.2212	-0.1795
21750	2.537	-37.146	3.200	0.2855	-0.2419	-0.1817
21798	11.341	-26.541	1.844	0.3007	-0.2336	-0.1869
21799	12.980	-23.062	0.928	0.2800	-0.1270	-0.1801
21800	13.056	-20.403	0.134	0.2632	-0.0379	-0.1554
21850	12.893	-19.738	-0.000	0.2600	-0.0346	-0.1537
21900	7.294	-3.539	-0.000	0.1485	0.0085	-0.0573
21950	1.707	-3.679	-0.000	0.0371	0.0001	0.0545
22000	1.119	-4.611	-0.015	0.0253	-0.0007	0.0548
22050	0.451	-5.464	-0.023	0.0120	0.0013	-0.0010
22100	0.271	-4.717	0.074	-0.0005	0.0017	0.0097
22200	0.068	-4.092	0.061	-0.0006	0.0017	0.0096
22250	-0.006	0.251	0.001	0.0000	0.0040	-0.0021
22270	0.003	4.596	-0.025	-0.0014	0.0063	0.0004
22271	-0.006	6.289	0.018	0.0069	0.0072	0.0000
22272	-0.006	7.131	0.341	0.0177	0.0077	-0.0001
22273	0.002	7.976	0.952	0.0222	0.0081	-0.0007
22274	0.033	8.824	1.324	-0.0157	0.0085	-0.0017
22275	0.038	8.845	0.953	-0.1204	0.0084	-0.0036
22300	0.033	8.426	0.142	-0.1908	0.0080	-0.0046
22301	-0.040	5.046	-4.595	-0.1581	0.0097	-0.0050
22302	-0.054	4.862	-5.043	-0.0266	0.0116	-0.0028
22350	-0.057	5.004	-4.854	0.0753	0.0125	-0.0010
22351	-0.037	5.916	-2.403	0.0679	0.0155	-0.0010
22352	0.025	6.953	-1.372	0.0066	0.0189	-0.0044
22353	0.224	7.870	-1.453	0.0188	0.0219	-0.0108
22354	0.526	7.472	-0.259	0.2224	0.0290	-0.0301
22400	0.951	4.868	1.047	0.2727	0.0280	-0.0336
22700	-0.470	-3.843	0.058	0.0167	0.0041	-0.0753
22750	-1.107	-2.279	0.144	0.0169	0.0041	-0.0742
22751	-1.764	-1.206	0.190	0.0203	-0.0013	-0.0592
22752	-1.862	-0.675	0.068	0.0089	-0.0405	-0.0433
22800	-1.557	-0.238	-0.145	-0.0138	-0.0611	-0.0360
22850	-0.930	0.430	-0.422	-0.0205	-0.0793	-0.0283
22900	-0.350	1.067	-0.856	-0.0211	-0.0805	-0.0274
22901	0.082	1.829	-1.374	-0.0218	-0.1013	-0.0197
22902	-0.250	2.088	-1.336	0.0195	-0.1204	-0.0022
22950	-1.585	1.749	-0.924	0.0650	-0.1566	0.0071
22951	-3.204	1.051	-0.547	0.0681	-0.1569	0.0041
22952	-4.440	0.397	0.227	0.0691	-0.1030	0.0009
23000	-4.460	0.121	0.815	0.0670	-0.0041	-0.0020
23001	-3.453	0.056	0.533	0.0602	0.0138	-0.0018
23002	-2.447	0.028	0.182	0.0534	0.0098	-0.0002
23003	-1.626	0.038	0.029	0.0478	0.0045	0.0007
23020	-0.806	0.053	-0.024	0.0422	0.0011	-0.0001
23021	0.013	0.024	-0.027	0.0366	-0.0002	-0.0038
23022	0.833	-0.130	-0.018	0.0310	-0.0003	-0.0117

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
23023	1.838	-0.620	-0.017	0.0242	0.0004	-0.0241
23024	2.843	-1.357	-0.037	0.0174	0.0009	-0.0194
23025	3.012	-1.169	-0.003	0.0125	0.0050	0.0444
23050	2.464	-0.662	0.033	0.0008	0.0084	0.0686
23051	0.718	0.361	-0.002	-0.0031	0.0074	0.0468
23052	-0.161	2.338	-0.309	-0.0078	0.0055	0.0005
23053	-0.107	3.363	-0.468	0.0041	0.0045	-0.0028
23054	-0.062	3.456	-0.057	0.0613	0.0038	-0.0027
23100	-0.028	2.801	0.508	0.0840	0.0013	-0.0019
23149	-0.028	2.777	0.518	0.0841	0.0013	-0.0019
23150	-0.028	2.774	0.520	0.0841	0.0013	-0.0019
23200	-0.000	0.000	1.978	0.0352	0.0003	-0.0019
23250	0.000	-0.000	3.456	-0.0069	-0.0001	-0.0019
23300	-0.000	0.000	4.948	0.0025	0.0000	-0.0019
23350	0.001	-0.096	6.443	0.0025	0.0000	-0.0019
23999	-2.138	-0.848	0.119	0.0002	0.0052	-0.0609
24000	-0.092	0.084	0.047	-0.0024	0.0040	-0.0635
24049	-0.031	0.108	0.915	0.0014	0.0013	-0.0514
24050	-0.017	-0.024	1.782	0.0105	0.0001	-0.0393
24100	-0.013	-0.176	2.198	0.0147	0.0014	-0.0335
24150	0.004	-0.345	2.548	0.0147	0.0016	-0.0333
24170	0.008	-0.380	2.619	0.0147	0.0017	-0.0332
24200	0.030	-0.476	2.855	0.0140	0.0058	-0.0300
24220	0.069	-0.569	3.092	0.0140	0.0058	-0.0300
24250	0.082	-0.601	3.162	0.0140	0.0058	-0.0300
24270	0.091	-0.623	3.209	0.0140	0.0058	-0.0300
24298	0.784	-0.994	2.590	0.0093	0.0191	-0.0175
24299	0.866	-1.001	2.471	0.0146	0.0195	0.0033
24300	0.840	-0.924	2.328	0.0192	0.0185	0.0114
24320	0.724	-0.814	2.121	0.0192	0.0212	0.0182
24350	0.479	-0.593	1.771	0.0193	0.0213	0.0188
24370	0.181	-0.297	1.283	0.0250	0.0212	0.0351
24371	-0.148	0.220	0.733	0.0496	0.0241	0.0534
24372	-0.501	1.104	0.260	0.0824	0.0263	0.0692
24373	-0.564	1.649	0.106	0.1239	0.0237	0.0835
24400	-0.483	2.137	0.002	0.1139	0.0080	0.0426
24419	-0.444	2.194	-0.006	0.1127	0.0070	0.0385
24420	-0.327	2.327	-0.021	0.1090	0.0047	0.0168
24421	0.781	0.309	-0.007	0.0813	-0.0018	-0.0589
24422	1.889	-0.107	-0.040	0.0536	0.0049	0.0076
24423	2.330	-0.024	-0.119	0.0426	0.0052	0.0048
24424	2.770	0.021	-0.135	0.0316	-0.0085	0.0025
24425	3.211	0.043	0.195	0.0206	-0.0509	0.0008
24426	3.110	0.017	0.649	0.0160	-0.1549	0.0010
24450	2.491	-0.017	1.029	0.0035	-0.1557	0.0031
24451	0.645	-0.023	1.497	-0.0017	-0.1109	-0.0015
24469	-0.065	-0.002	1.770	-0.0037	-0.0791	-0.0042
24470	-0.579	0.034	2.042	-0.0056	-0.0601	-0.0069
24500	-1.250	0.128	2.525	-0.0074	-0.0377	-0.0116

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
24530	-1.679	0.214	2.875	-0.0074	-0.0369	-0.0118
24536	0.000	-0.500	-0.000	-0.0292	0.0035	-0.0030
24548	-1.864	0.254	3.080	-0.0063	-0.0271	-0.0138
24549	-1.859	0.238	3.199	0.0026	0.0043	-0.0187
24550	-1.727	0.140	3.187	0.0080	0.0189	-0.0294
24570	-0.973	-0.575	2.896	0.0164	-0.0083	-0.0400
24600	-1.027	-0.683	3.133	0.0164	-0.0083	-0.0400
24630	-1.046	-0.721	3.203	0.0164	-0.0083	-0.0400
24650	-1.059	-0.747	3.250	0.0164	-0.0083	-0.0400
24652	-0.000	-3.346	0.000	0.0077	0.0024	0.0009
24670	-0.848	-0.459	2.658	0.0181	-0.0296	-0.0457
24690	-0.779	-0.417	2.587	0.0182	-0.0299	-0.0458
24700	-0.424	-0.208	2.237	0.0182	-0.0316	-0.0462
24720	0.171	0.003	1.817	0.0172	-0.0703	-0.0562
24749	2.435	0.330	0.942	0.0074	-0.0913	-0.0772
24750	3.736	0.284	0.066	-0.0133	0.0087	-0.0982
24768	-0.000	-6.319	-0.000	-0.0014	0.0012	-0.0006
24769	0.000	-8.061	0.000	0.0002	0.0006	0.0014
24770	-0.055	-8.834	-0.000	-0.0000	0.0003	-0.0078
24771	-0.033	-9.053	0.000	0.0000	0.0002	0.0287
24772	0.426	-9.200	0.000	0.0000	0.0002	0.1040
24773	1.546	-9.347	-0.000	0.0000	0.0001	0.1818
24774	2.801	-9.495	-0.000	0.0000	0.0001	0.0616
24775	2.453	-9.300	-0.000	0.0000	0.0001	-0.4458
25000	1.946	-8.052	-0.000	0.0000	0.0000	-0.7284
25001	1.752	-2.851	0.000	0.0000	0.0000	-0.5372
25002	1.558	-0.207	0.000	0.0000	-0.0000	-0.1962
25003	1.364	0.424	0.000	0.0000	-0.0000	-0.0159
25004	1.073	0.125	0.000	0.0000	0.0000	0.0348
25005	0.152	-0.007	-0.000	0.0000	-0.0000	-0.0065
25020	-0.768	0.001	0.000	0.0000	0.0001	0.0022
25050	-3.556	-0.000	-0.000	0.0000	-0.0008	-0.0003
25051	-4.491	0.000	0.002	0.0000	0.0023	0.0001
25052	-5.433	-0.000	-0.007	0.0000	-0.0092	-0.0000
25053	-5.732	0.000	-0.155	0.0000	-0.0155	-0.0000
25054	-5.932	0.000	-0.239	0.0000	0.0037	0.0000
25055	-6.132	0.000	0.027	0.0000	0.0894	0.0000
25056	-6.333	0.000	1.282	0.0000	0.2633	0.0000
25057	-6.008	-0.000	2.089	0.0000	0.5255	-0.0000
25070	-4.935	-0.000	2.592	0.0000	0.5225	-0.0000
25071	-1.537	-0.000	2.847	-0.0000	0.3301	-0.0000
25072	0.010	-0.000	3.103	-0.0000	0.1111	-0.0000
25073	0.397	-0.000	3.377	-0.0000	0.0192	-0.0000
25079	0.458	0.000	3.515	-0.0000	0.0158	-0.0000
25080	0.528	0.000	3.652	-0.0000	0.0242	-0.0000
25098	0.960	0.000	4.032	-0.0000	0.0453	-0.0000
25099	1.034	0.000	4.130	-0.0000	0.0575	-0.0000
25100	1.026	0.000	4.271	0.0000	0.0676	-0.0000
25120	0.662	0.000	5.021	-0.0000	0.0753	0.0000

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+D1+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
25150	0.434	0.000	5.590	-0.0000	0.0757	0.0000
25170	0.381	0.000	5.724	-0.0000	0.0757	0.0000
25198	0.095	0.000	6.359	-0.0000	0.0694	0.0000
25199	-0.007	0.000	6.454	-0.0000	0.0534	0.0000
25200	-0.113	0.000	6.435	-0.0000	0.0366	0.0000
25220	-0.446	0.000	6.056	-0.0000	0.0302	0.0000
25221	-0.696	0.000	5.738	-0.0000	0.0093	0.0000
25222	-0.096	-0.000	5.420	0.0000	-0.2100	0.0000
25223	2.894	-0.000	5.166	0.0000	-0.6393	0.0000
25224	9.472	0.000	4.912	0.0000	-1.0122	0.0000
25225	11.565	0.000	3.994	0.0000	-1.0129	0.0000
25250	12.243	0.000	2.463	0.0000	-0.5038	0.0000
25251	12.094	-0.000	0.059	0.0000	-0.1719	0.0000
25252	11.946	-0.000	-0.457	0.0000	-0.0076	-0.0000
25253	11.798	-0.000	-0.298	0.0000	0.0295	-0.0000
25254	11.578	0.000	-0.011	0.0000	0.0185	-0.0000
25255	10.806	0.000	0.002	0.0000	-0.0053	0.0000
25256	9.804	-0.000	-0.000	0.0000	0.0013	-0.0000
25270	8.839	0.000	0.001	0.0000	-0.0002	0.0000
25300	8.738	-0.000	-0.000	0.0000	-0.0002	0.0000
25350	5.604	-0.000	-0.000	0.0000	0.0001	-0.0000
25400	2.737	0.000	0.000	0.0000	-0.0000	0.0000
25449	1.369	-0.000	-0.000	0.0000	0.0000	-0.0000
25450	-0.000	-0.000	-0.000	0.0000	0.0000	-0.0000

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10	-0.019	-49.503	0.211	-0.0056	0.0554	-0.0005
50	-0.000	-48.105	0.020	-0.0057	0.0554	-0.0005
100	-0.000	-47.966	-0.000	-0.0058	0.0554	-0.0004
150	0.000	-44.930	0.000	0.0322	0.0540	-0.0018
200	0.044	-44.254	0.797	0.0482	0.0538	-0.0029
250	0.101	-43.629	1.777	0.0647	0.0534	-0.0042
300	0.227	-42.699	3.739	0.0890	0.0526	-0.0065
348	0.515	-41.276	7.468	0.1037	0.0514	-0.0095
349	0.752	-39.412	12.164	0.0880	0.0499	-0.0136
350	0.535	-37.190	14.453	0.0282	0.0487	-0.0161
400	0.433	-36.713	14.458	0.0136	0.0486	-0.0164
401	-0.050	-35.545	12.370	-0.0554	0.0490	-0.0160
402	-0.299	-36.058	7.902	-0.1010	0.0514	-0.0119
450	-0.204	-35.543	3.134	-0.0795	0.0544	-0.0060
500	-0.148	-35.142	2.334	-0.0694	0.0551	-0.0049
549	-0.016	-32.993	-0.061	-0.0245	0.0587	-0.0012
550	0.008	-30.845	-0.562	-0.0024	0.0624	-0.0011
570	0.794	-30.764	-0.016	-0.0082	0.0502	-0.0133
600	0.123	-28.486	-0.367	0.0036	0.0684	-0.0038
650	0.298	-27.116	-0.203	0.0035	0.0687	-0.0040
699	0.482	-25.956	-0.129	0.0005	0.0716	-0.0063
700	0.721	-24.795	-0.164	-0.0033	0.0746	-0.0075
750	-5.536	-19.884	-0.023	0.0060	0.0503	0.1112
751	-6.894	-19.560	0.043	0.0068	0.0486	0.1213
752	-15.557	-16.772	0.189	0.0146	0.0379	0.1028
800	-18.278	-13.948	0.006	0.0208	0.0282	0.0115
850	-18.043	-13.744	-0.040	0.0211	0.0272	0.0050
900	-12.941	-12.306	-0.053	0.0201	0.0185	-0.0157
950	-9.335	-9.495	0.006	0.0145	0.0145	0.0013
1000	-6.251	-6.252	0.001	0.0096	0.0097	0.0003
1050	-3.120	-3.116	-0.000	0.0048	0.0048	-0.0001
1099	-1.559	-1.559	-0.000	0.0024	0.0024	-0.0000
1100	0.000	0.000	0.000	0.0000	0.0000	-0.0000
1499	2.632	-24.640	0.887	-0.0064	0.0780	-0.0198
1500	4.593	-24.435	1.938	-0.0073	0.0788	-0.0320
1548	6.083	-24.277	2.740	-0.0067	0.0777	-0.0414
1549	7.933	-23.550	4.428	-0.0076	0.0799	-0.0608
1550	7.975	-21.147	6.637	-0.0149	0.0605	-0.1116
1600	5.463	-14.185	9.728	0.0003	0.0432	-0.1205
1648	2.950	-7.056	11.681	0.0155	0.0205	-0.1173
1649	2.485	-4.183	10.983	0.0146	-0.0551	-0.0868
1650	4.642	-2.835	9.321	0.0202	-0.1241	-0.0748
1700	7.049	-2.426	8.524	0.0209	-0.1308	-0.0678
1701	8.627	-2.173	8.026	0.0207	-0.1340	-0.0634
1702	12.648	-1.283	5.425	0.0004	-0.1590	-0.0418
1750	13.445	-0.888	1.997	-0.0124	-0.0537	0.0003
1799	12.036	-1.049	0.632	-0.0096	-0.0306	0.0004

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
1800	10.001	-0.867	-0.200	-0.0056	-0.0095	-0.0182
1801	12.566	1.324	-0.157	0.0033	-0.0056	-0.0799
1802	14.961	2.801	-0.091	0.0070	-0.0030	-0.1291
1849	5.799	0.717	-0.162	-0.0118	0.0049	-0.1129
1850	7.298	1.137	-0.312	-0.0045	0.0011	-0.0197
1900	4.880	1.275	-0.189	-0.0022	0.0017	0.0022
1950	3.506	1.172	-0.112	-0.0021	0.0017	0.0021
1999	0.739	0.687	0.009	-0.0007	0.0035	-0.0383
2000	1.094	1.190	0.007	0.0001	0.0030	0.0007
2050	-0.187	1.044	0.132	0.0014	0.0049	0.0004
2100	-1.771	1.137	0.398	0.0030	0.0078	-0.0092
2149	-2.571	1.386	0.604	0.0030	0.0079	-0.0098
2150	-3.540	1.748	0.833	0.0040	0.0084	-0.0175
2200	-5.126	2.792	1.208	0.0055	0.0041	-0.0233
2249	-5.863	3.358	1.306	0.0063	-0.0017	-0.0194
2250	-6.600	3.781	1.255	0.0070	-0.0109	-0.0089
2251	-6.077	4.510	1.479	0.0003	-0.0250	-0.0204
2252	-5.340	4.755	1.079	-0.0535	-0.0402	-0.0505
2255	-6.223	3.087	1.047	0.0096	-0.0109	0.0144
2260	-5.609	2.556	0.848	0.0109	-0.0108	0.0306
2280	-5.032	2.261	0.704	0.0109	-0.0107	0.0391
2300	-0.639	-0.373	0.038	0.0017	-0.0092	0.0186
2350	0.000	-1.446	-0.022	0.0016	-0.0092	0.0169
2400	0.057	-3.883	-0.025	-0.0006	-0.0078	-0.0017
2450	0.042	-4.345	-0.016	-0.0005	-0.0076	0.0024
2500	0.140	-5.418	0.004	-0.0006	-0.0075	0.0033
2550	0.275	-5.887	0.016	-0.0008	-0.0073	0.0128
2560	1.787	-7.270	0.086	-0.0017	-0.0065	0.0422
2580	2.298	-7.568	0.106	-0.0018	-0.0064	0.0456
2590	3.091	-8.102	0.138	-0.0018	-0.0063	0.0457
2599	2.389	-11.631	-0.011	-0.0010	-0.0036	0.0854
2600	4.042	-8.800	0.175	-0.0016	-0.0063	0.0424
2650	3.898	-11.860	0.247	0.0014	-0.0151	-0.0068
2651	3.812	-14.752	-0.196	0.0145	-0.0233	-0.0064
2652	3.799	-14.865	-0.290	0.0185	-0.0232	-0.0178
2660	3.741	-14.959	-0.431	0.0210	-0.0211	-0.0326
2661	3.651	-15.103	-0.609	0.0218	-0.0215	-0.0351
2662	1.166	-14.223	-1.654	0.0272	0.0046	-0.1504
2700	-1.389	-9.677	-1.497	0.0143	0.0205	-0.1522
2725	-1.404	-9.615	-1.489	0.0142	0.0205	-0.1521
2750	-2.025	-7.046	-1.130	0.0084	0.0191	-0.1381
2800	-6.330	0.152	-0.014	-0.0471	0.0032	-0.0166
2850	-9.979	0.081	0.004	-0.0939	-0.0006	0.0035
2899	-10.659	0.012	-0.008	-0.1025	-0.0002	0.0005
2900	-11.624	0.001	-0.014	-0.1036	-0.0001	-0.0002
2901	-11.624	0.001	-0.014	-0.1036	-0.0001	-0.0002
3500	-4.141	4.346	-0.126	-0.0923	-0.0598	-0.0660
3501	-2.109	3.307	-2.334	-0.0910	-0.0687	-0.0599
3502	-0.869	2.967	-3.429	-0.0427	-0.0686	-0.0458

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
3550	-0.236	3.254	-3.637	0.0107	-0.0678	-0.0108
3551	-0.180	5.274	-2.439	0.0154	-0.0838	0.0118
3600	-1.516	7.296	-2.074	-0.0067	-0.0997	0.0403
3601	-6.542	10.523	-3.964	-0.0216	-0.1250	0.0636
3602	-8.793	11.286	-2.635	0.0513	-0.1366	0.0078
3650	-10.533	8.934	1.140	0.1110	-0.0984	-0.0777
3651	-10.960	6.815	2.366	0.1136	-0.0537	-0.0893
3700	-10.714	5.207	2.744	0.1054	0.0057	-0.0736
3701	-8.904	1.889	1.777	0.0843	0.0207	-0.0568
3750	-7.099	-0.308	0.740	0.0632	0.0171	-0.0365
3799	-5.013	-1.789	0.050	0.0388	0.0084	-0.0165
3800	-2.928	-2.171	-0.218	0.0143	0.0021	0.0026
3850	0.072	-1.394	-0.154	0.0081	-0.0015	0.0024
3900	1.443	-1.308	-0.088	0.0079	-0.0014	0.0015
3949	2.943	-1.530	-0.046	0.0048	-0.0007	-0.0048
3950	4.443	-1.764	-0.030	0.0017	-0.0002	0.0009
4000	8.566	-2.455	-0.051	-0.0022	0.0002	-0.0300
4001	11.293	-5.751	-0.042	-0.0047	-0.0013	-0.0410
4002	11.712	-5.581	0.056	-0.0030	-0.0099	0.0574
4050	9.171	-3.934	0.128	-0.0015	-0.0136	0.1118
4051	3.970	-2.127	0.053	-0.0016	-0.0175	0.0920
4100	0.561	-0.321	-0.018	-0.0015	-0.0214	0.0527
4150	0.148	4.732	-0.203	-0.0010	-0.0323	-0.0356
4151	2.340	6.542	-0.243	0.0011	-0.0362	-0.0537
4152	5.180	8.354	-0.104	0.0077	-0.0401	-0.0530
4153	5.359	8.977	0.307	0.0541	-0.0271	0.0365
4200	3.964	7.177	0.560	0.0750	-0.0088	0.0836
4249	3.293	5.675	0.413	0.0816	-0.0083	0.0815
4250	2.013	3.064	0.156	0.0942	-0.0073	0.0658
4300	-0.725	0.089	-0.210	0.1241	-0.0042	0.0268
4349	-2.099	-0.589	-0.359	0.1443	-0.0040	0.0149
4350	-3.473	-0.910	-0.491	0.1646	-0.0032	0.0064
4399	-4.861	-1.008	-0.585	0.1788	-0.0022	0.0012
4400	-6.249	-0.965	-0.645	0.1929	-0.0012	-0.0017
4449	-7.663	-0.878	-0.671	0.2020	-0.0003	-0.0028
4450	-9.078	-0.760	-0.663	0.2110	0.0007	-0.0034
4499	-10.530	-0.640	-0.622	0.2154	0.0017	-0.0038
4500	-11.983	-0.500	-0.543	0.2198	0.0029	-0.0046
4549	-12.932	-0.390	-0.467	0.2198	0.0034	-0.0049
4550	-13.881	-0.275	-0.383	0.2198	0.0036	-0.0050
4699	1.442	1.128	1.106	0.0695	-0.0336	0.0658
4700	0.442	-0.396	2.057	0.0605	-0.0424	0.0658
4748	0.266	-0.647	2.218	0.0603	-0.0424	0.0658
4749	-0.390	-1.205	2.797	0.0848	-0.0424	0.0658
4750	-1.174	-1.288	3.839	0.1111	-0.0424	0.0658
4800	-2.011	-0.792	5.252	0.1111	-0.0424	0.0658
4849	-0.608	-1.526	0.741	0.0288	0.0106	0.0268
4850	-0.249	-1.580	1.691	-0.0037	0.0155	0.0268
4898	-0.184	-1.564	1.853	-0.0039	0.0155	0.0268

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
4899	-0.143	-1.519	2.182	0.0207	0.0155	0.0268
4900	-0.335	-1.352	2.620	0.0470	0.0155	0.0268
4950	-0.677	-0.856	3.217	0.0469	0.0155	0.0268
4999	-3.583	-6.536	0.442	0.2689	-0.0061	0.0016
5000	-3.772	-13.711	1.375	0.2914	-0.0096	-0.0032
5048	-3.812	-14.941	1.534	0.2871	-0.0102	-0.0041
5049	-3.939	-17.038	2.616	0.1515	-0.0189	-0.0042
5050	-3.953	-17.129	3.282	-0.0186	-0.0203	-0.0106
5100	-3.951	-17.124	3.279	-0.0189	-0.0203	-0.0106
5150	-3.916	-17.023	3.214	-0.0193	-0.0203	-0.0106
5200	-3.692	-16.385	2.792	-0.0207	-0.0206	-0.0108
5250	-3.657	-16.284	2.723	-0.0208	-0.0206	-0.0108
5300	-3.406	-15.491	2.153	-0.0295	-0.0255	-0.0128
5310	-3.220	-14.968	1.723	-0.0300	-0.0286	-0.0139
5320	-3.174	-14.867	1.623	-0.0299	-0.0287	-0.0139
5330	-3.128	-14.765	1.523	-0.0299	-0.0287	-0.0139
5350	-2.849	-14.038	0.987	-0.0242	-0.0332	-0.0148
5400	-2.800	-13.936	0.906	-0.0242	-0.0332	-0.0148
5450	-2.751	-13.834	0.826	-0.0241	-0.0332	-0.0148
5500	-2.450	-13.087	0.426	-0.0167	-0.0378	-0.0153
5550	-2.399	-12.961	0.373	-0.0156	-0.0385	-0.0153
5600	-2.348	-12.836	0.324	-0.0145	-0.0393	-0.0153
5650	-1.874	-11.660	-0.000	-0.0081	-0.0465	-0.0148
5660	-1.510	-10.708	-0.170	-0.0046	-0.0523	-0.0139
5670	-1.464	-10.583	-0.184	-0.0040	-0.0530	-0.0137
5680	-1.418	-10.457	-0.197	-0.0034	-0.0538	-0.0136
5685	-0.677	-8.121	-0.097	0.0043	-0.0680	-0.0100
5690	-0.644	-7.996	-0.082	0.0042	-0.0688	-0.0098
5695	-0.611	-7.871	-0.067	0.0040	-0.0695	-0.0096
5700	-0.402	-6.963	-0.000	-0.0003	-0.0751	-0.0077
5750	-0.303	-6.443	-0.038	-0.0028	-0.0782	-0.0066
5800	-0.281	-6.341	-0.048	-0.0028	-0.0783	-0.0066
5850	-0.259	-6.240	-0.057	-0.0028	-0.0783	-0.0066
5900	-0.146	-5.515	-0.101	-0.0007	-0.0828	-0.0051
5950	-0.129	-5.413	-0.103	-0.0007	-0.0828	-0.0051
6000	-0.112	-5.311	-0.105	-0.0006	-0.0828	-0.0051
6005	0.071	-3.146	-0.000	-0.0005	-0.0961	-0.0014
6007	-0.004	-0.137	-0.000	0.0092	-0.1145	0.0031
6010	-0.027	0.121	0.066	0.0121	-0.1160	0.0035
6030	-0.039	0.223	0.106	0.0122	-0.1161	0.0035
6050	-0.050	0.324	0.147	0.0123	-0.1161	0.0035
6100	-0.073	0.555	0.231	0.0160	-0.1175	0.0038
6112	-0.128	1.047	0.494	0.0250	-0.1206	0.0045
6125	-0.143	1.148	0.577	0.0251	-0.1206	0.0045
6137	-0.158	1.250	0.661	0.0253	-0.1206	0.0045
6150	-0.212	1.678	1.000	0.0337	-0.1233	0.0050
6200	-0.229	1.780	1.112	0.0338	-0.1233	0.0050
6250	-0.333	2.417	1.827	0.0343	-0.1236	0.0050
6300	-0.350	2.518	1.942	0.0343	-0.1236	0.0050

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
6348	-0.444	3.172	2.519	0.0229	-0.1276	0.0057
6349	0.010	3.311	2.258	-0.0583	-0.1316	0.0039
6350	1.293	2.629	1.677	-0.0779	-0.1439	0.0006
6400	1.892	2.275	1.517	-0.0758	-0.1447	0.0008
6449	5.326	0.694	0.580	-0.0512	-0.1116	0.0018
6450	7.034	-0.199	-0.357	-0.0195	-0.0034	0.0027
6599	-6.287	-7.008	0.289	0.2779	-0.0022	-0.0065
6600	-6.358	-14.248	1.222	0.2908	-0.0039	-0.0113
6648	-6.375	-15.471	1.381	0.2859	-0.0043	-0.0121
6649	-6.387	-17.521	2.442	0.1462	-0.0082	-0.0138
6650	-6.257	-17.594	3.078	-0.0187	-0.0079	-0.0215
6700	-6.254	-17.589	3.075	-0.0190	-0.0079	-0.0215
6750	-6.183	-17.488	3.010	-0.0193	-0.0079	-0.0215
6800	-5.733	-16.850	2.588	-0.0206	-0.0081	-0.0216
6850	-5.661	-16.749	2.519	-0.0207	-0.0081	-0.0217
6900	-5.185	-15.952	1.962	-0.0284	-0.0112	-0.0234
6910	-4.854	-15.428	1.552	-0.0283	-0.0132	-0.0241
6920	-4.774	-15.326	1.458	-0.0283	-0.0132	-0.0242
6930	-4.693	-15.224	1.364	-0.0283	-0.0133	-0.0242
6950	-4.220	-14.494	0.864	-0.0222	-0.0161	-0.0246
7000	-4.138	-14.392	0.790	-0.0221	-0.0161	-0.0246
7050	-4.056	-14.291	0.717	-0.0220	-0.0162	-0.0246
7100	-3.567	-13.540	0.359	-0.0147	-0.0191	-0.0244
7150	-3.486	-13.414	0.313	-0.0136	-0.0196	-0.0243
7200	-3.405	-13.288	0.270	-0.0126	-0.0201	-0.0242
7250	-2.672	-12.108	-0.000	-0.0068	-0.0246	-0.0224
7260	-2.129	-11.151	-0.148	-0.0041	-0.0283	-0.0204
7270	-2.062	-11.026	-0.161	-0.0036	-0.0288	-0.0201
7280	-1.995	-10.900	-0.172	-0.0031	-0.0293	-0.0198
7285	-0.948	-8.555	-0.084	0.0038	-0.0384	-0.0137
7290	-0.903	-8.429	-0.070	0.0037	-0.0389	-0.0134
7295	-0.859	-8.304	-0.057	0.0035	-0.0394	-0.0130
7300	-0.578	-7.392	-0.000	-0.0007	-0.0429	-0.0103
7350	-0.447	-6.870	-0.042	-0.0030	-0.0450	-0.0087
7400	-0.418	-6.768	-0.052	-0.0030	-0.0450	-0.0087
7450	-0.389	-6.666	-0.062	-0.0030	-0.0450	-0.0086
7500	-0.242	-5.939	-0.109	-0.0008	-0.0479	-0.0067
7550	-0.220	-5.837	-0.112	-0.0007	-0.0479	-0.0066
7600	-0.198	-5.735	-0.114	-0.0007	-0.0479	-0.0066
7605	0.041	-3.561	-0.000	-0.0002	-0.0564	-0.0020
7607	0.022	-0.540	-0.000	0.0082	-0.0682	0.0020
7610	0.007	-0.281	0.058	0.0108	-0.0692	0.0022
7620	0.000	-0.179	0.094	0.0109	-0.0692	0.0022
7650	-0.007	-0.078	0.130	0.0110	-0.0692	0.0022
7700	-0.022	0.154	0.205	0.0146	-0.0701	0.0024
7712	-0.056	0.648	0.448	0.0235	-0.0721	0.0028
7725	-0.065	0.749	0.527	0.0237	-0.0721	0.0028
7737	-0.074	0.851	0.606	0.0238	-0.0721	0.0028
7750	-0.107	1.281	0.929	0.0325	-0.0738	0.0030

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
7800	-0.118	1.383	1.037	0.0326	-0.0738	0.0031
7850	-0.181	2.020	1.727	0.0332	-0.0740	0.0031
7900	-0.192	2.121	1.838	0.0332	-0.0740	0.0031
7948	-0.248	2.777	2.405	0.0232	-0.0766	0.0034
7949	0.027	2.938	2.181	-0.0514	-0.0793	0.0018
7950	0.806	2.327	1.630	-0.0729	-0.0874	-0.0006
8000	1.170	1.997	1.470	-0.0713	-0.0879	-0.0005
8049	3.256	0.481	0.533	-0.0498	-0.0675	-0.0001
8050	4.278	-0.398	-0.404	-0.0191	-0.0008	0.0003
8199	-9.041	-7.109	0.271	0.2863	0.0019	-0.0092
8200	-8.988	-14.473	1.204	0.2942	0.0021	-0.0149
8248	-8.979	-15.707	1.363	0.2888	0.0020	-0.0159
8249	-8.886	-17.760	2.422	0.1453	0.0038	-0.0198
8250	-8.629	-17.828	3.050	-0.0189	0.0066	-0.0309
8300	-8.625	-17.823	3.047	-0.0191	0.0066	-0.0309
8350	-8.522	-17.722	2.982	-0.0195	0.0066	-0.0309
8400	-7.876	-17.084	2.557	-0.0208	0.0065	-0.0311
8450	-7.773	-16.982	2.487	-0.0209	0.0065	-0.0311
8500	-7.095	-16.184	1.931	-0.0282	0.0052	-0.0330
8510	-6.631	-15.659	1.523	-0.0281	0.0044	-0.0338
8520	-6.519	-15.557	1.429	-0.0281	0.0044	-0.0338
8530	-6.407	-15.456	1.336	-0.0280	0.0043	-0.0338
8550	-5.749	-14.724	0.842	-0.0219	0.0032	-0.0341
8600	-5.635	-14.622	0.769	-0.0218	0.0032	-0.0341
8650	-5.522	-14.520	0.697	-0.0217	0.0032	-0.0341
8700	-4.848	-13.768	0.346	-0.0143	0.0020	-0.0335
8750	-4.737	-13.642	0.301	-0.0132	0.0018	-0.0333
8800	-4.626	-13.516	0.260	-0.0122	0.0016	-0.0332
8850	-3.626	-12.333	-0.000	-0.0066	-0.0003	-0.0305
8860	-2.893	-11.375	-0.144	-0.0040	-0.0019	-0.0274
8870	-2.802	-11.249	-0.157	-0.0035	-0.0021	-0.0270
8880	-2.713	-11.123	-0.168	-0.0030	-0.0023	-0.0266
8885	-1.317	-8.774	-0.081	0.0038	-0.0060	-0.0181
8890	-1.257	-8.648	-0.067	0.0036	-0.0062	-0.0176
8895	-1.200	-8.522	-0.054	0.0035	-0.0064	-0.0171
8900	-0.831	-7.609	-0.000	-0.0008	-0.0079	-0.0134
8950	-0.662	-7.085	-0.043	-0.0031	-0.0087	-0.0112
9000	-0.624	-6.983	-0.053	-0.0031	-0.0087	-0.0112
9050	-0.587	-6.882	-0.064	-0.0031	-0.0087	-0.0112
9100	-0.398	-6.153	-0.112	-0.0008	-0.0099	-0.0085
9150	-0.370	-6.051	-0.114	-0.0008	-0.0099	-0.0085
9200	-0.342	-5.949	-0.117	-0.0007	-0.0099	-0.0085
9205	-0.037	-3.770	-0.000	-0.0000	-0.0134	-0.0026
9207	-0.020	-0.744	-0.000	0.0078	-0.0183	0.0012
9210	-0.029	-0.485	0.054	0.0103	-0.0187	0.0013
9230	-0.033	-0.383	0.088	0.0104	-0.0187	0.0013
9250	-0.037	-0.281	0.123	0.0104	-0.0187	0.0013
9300	-0.045	-0.049	0.194	0.0141	-0.0191	0.0012
9312	-0.062	0.445	0.430	0.0231	-0.0199	0.0011

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
9325	-0.065	0.547	0.507	0.0233	-0.0199	0.0011
9337	-0.069	0.649	0.585	0.0234	-0.0199	0.0011
9350	-0.080	1.079	0.904	0.0324	-0.0206	0.0007
9400	-0.082	1.181	1.012	0.0325	-0.0206	0.0007
9450	-0.096	1.818	1.701	0.0332	-0.0207	0.0007
9500	-0.099	1.920	1.812	0.0332	-0.0207	0.0006
9548	-0.100	2.577	2.388	0.0244	-0.0217	-0.0006
9549	0.030	2.761	2.206	-0.0437	-0.0250	-0.0080
9550	0.335	2.244	1.691	-0.0625	-0.0312	-0.0118
9600	0.465	1.958	1.531	-0.0609	-0.0315	-0.0123
9649	1.216	0.681	0.594	-0.0415	-0.0241	-0.0153
9650	1.569	-0.044	-0.344	-0.0157	0.0011	-0.0183
9651	0.224	0.827	-0.286	-0.0128	0.0019	-0.0370
9799	-11.863	-7.012	0.390	0.2914	0.0065	-0.0112
9800	-11.672	-14.469	1.324	0.2972	0.0087	-0.0179
9848	-11.635	-15.715	1.482	0.2916	0.0090	-0.0190
9849	-11.428	-17.779	2.545	0.1454	0.0172	-0.0255
9850	-11.040	-17.846	3.168	-0.0197	0.0226	-0.0402
9900	-11.035	-17.841	3.165	-0.0199	0.0226	-0.0402
9950	-10.901	-17.739	3.097	-0.0203	0.0226	-0.0403
10000	-10.059	-17.102	2.654	-0.0216	0.0227	-0.0405
10050	-9.925	-17.000	2.582	-0.0217	0.0227	-0.0405
10100	-9.047	-16.202	2.007	-0.0291	0.0235	-0.0425
10110	-8.450	-15.676	1.587	-0.0290	0.0240	-0.0433
10120	-8.306	-15.574	1.491	-0.0289	0.0240	-0.0433
10130	-8.162	-15.473	1.394	-0.0289	0.0240	-0.0434
10150	-7.320	-14.740	0.884	-0.0227	0.0247	-0.0435
10200	-7.175	-14.638	0.809	-0.0226	0.0247	-0.0435
10250	-7.031	-14.537	0.734	-0.0225	0.0247	-0.0435
10300	-6.173	-13.784	0.367	-0.0150	0.0254	-0.0425
10350	-6.032	-13.658	0.320	-0.0139	0.0256	-0.0423
10400	-5.891	-13.532	0.276	-0.0129	0.0257	-0.0420
10450	-4.629	-12.348	-0.000	-0.0069	0.0268	-0.0383
10460	-3.710	-11.389	-0.149	-0.0041	0.0278	-0.0343
10470	-3.596	-11.263	-0.162	-0.0036	0.0279	-0.0338
10480	-3.485	-11.138	-0.174	-0.0031	0.0280	-0.0332
10485	-1.755	-8.786	-0.082	0.0038	0.0303	-0.0223
10490	-1.682	-8.660	-0.069	0.0037	0.0304	-0.0216
10495	-1.611	-8.534	-0.055	0.0035	0.0305	-0.0210
10500	-1.160	-7.620	-0.000	-0.0008	0.0314	-0.0163
10550	-0.954	-7.096	-0.044	-0.0032	0.0319	-0.0136
10600	-0.909	-6.995	-0.055	-0.0032	0.0320	-0.0136
10650	-0.864	-6.893	-0.066	-0.0032	0.0320	-0.0135
10700	-0.636	-6.163	-0.116	-0.0009	0.0327	-0.0102
10750	-0.602	-6.061	-0.119	-0.0009	0.0327	-0.0102
10800	-0.568	-5.960	-0.122	-0.0008	0.0327	-0.0102
10805	-0.209	-3.779	-0.000	0.0004	0.0348	-0.0029
10807	-0.189	-0.748	-0.000	0.0060	0.0378	0.0009
10810	-0.195	-0.489	0.040	0.0081	0.0380	0.0007

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10820	-0.198	-0.387	0.067	0.0082	0.0380	0.0007
10850	-0.200	-0.286	0.094	0.0083	0.0380	0.0007
10900	-0.205	-0.053	0.151	0.0118	0.0383	0.0004
10912	-0.205	0.442	0.356	0.0211	0.0387	-0.0008
10925	-0.202	0.544	0.426	0.0213	0.0388	-0.0008
10937	-0.200	0.645	0.497	0.0214	0.0388	-0.0008
10950	-0.183	1.076	0.797	0.0313	0.0392	-0.0025
11000	-0.175	1.178	0.902	0.0315	0.0392	-0.0025
11050	-0.121	1.815	1.569	0.0323	0.0392	-0.0027
11100	-0.112	1.917	1.678	0.0323	0.0392	-0.0028
11148	-0.026	2.574	2.269	0.0274	0.0399	-0.0076
11149	0.011	2.828	2.214	-0.0181	0.0331	-0.0301
11150	-0.122	2.666	1.829	-0.0144	0.0254	-0.0390
11200	-0.228	2.583	1.669	-0.0119	0.0253	-0.0408
11249	-0.815	2.514	0.731	-0.0006	0.0192	-0.0517
11250	-1.122	2.470	-0.208	-0.0099	0.0023	-0.0625
11300	9.867	-0.062	-0.132	-0.0169	-0.0068	0.0013
11349	11.337	-0.030	0.052	-0.0163	-0.0067	0.0008
11350	12.807	-0.009	0.296	-0.0157	-0.0102	0.0006
11370	11.665	0.150	0.843	-0.0084	-0.1263	0.0006
11399	13.823	0.004	0.509	-0.0157	-0.0090	0.0006
11400	14.840	0.017	0.704	-0.0157	-0.0087	0.0006
11449	7.440	0.169	0.819	-0.0045	-0.1584	0.0013
11450	2.544	0.189	1.769	0.0004	-0.2089	0.0013
11500	-1.085	0.019	2.742	-0.0503	-0.2089	0.0013
11550	-1.068	-0.477	3.381	-0.0502	-0.2089	0.0013
11599	8.434	0.230	1.520	-0.0025	-0.2159	0.0006
11600	4.163	0.237	2.197	0.0000	-0.2457	0.0006
11648	3.143	0.237	2.358	0.0002	-0.2457	0.0006
11649	0.834	0.226	2.701	-0.0244	-0.2457	0.0006
11650	-0.117	0.073	3.175	-0.0506	-0.2457	0.0006
11700	-0.110	-0.423	3.818	-0.0506	-0.2457	0.0006
11800	-0.230	18.861	0.018	0.0003	-0.0076	0.0015
11898	1.677	0.187	1.931	0.0006	-0.2089	0.0013
11899	-0.283	0.173	2.272	-0.0240	-0.2089	0.0013
11900	-0.192	17.707	0.011	0.0003	-0.0076	0.0016
11949	-0.970	17.678	-0.131	0.0003	-0.0076	0.0016
11950	-1.748	17.648	-0.273	0.0003	-0.0076	0.0016
12070	0.019	13.731	-0.020	0.0005	-0.0076	0.0034
12100	0.510	9.779	-0.068	0.0002	-0.0076	0.0071
12150	-0.612	7.270	-0.280	0.0061	-0.0053	0.1403
12200	-1.392	3.658	-0.411	0.0065	-0.0049	0.1431
12201	-1.830	2.088	-0.452	0.0088	0.0005	0.1430
12202	-2.048	0.398	-0.079	0.0081	0.0382	0.1283
12250	-1.559	-0.394	0.519	0.0208	0.0538	0.1269
12299	-0.885	-0.669	1.022	0.0230	0.0567	0.1240
12300	0.257	-1.145	1.820	0.0248	0.0613	0.1194
12348	2.089	-1.820	2.991	0.0137	0.0660	0.1127
12349	2.418	-1.466	3.192	-0.0567	0.0772	0.1051

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
12350	1.625	-0.693	2.192	-0.1174	0.0819	0.0925
12400	0.356	-0.120	0.478	-0.1228	0.0819	0.0918
12450	-0.000	0.000	0.000	-0.1228	0.0819	0.0918
12500	0.249	5.935	-0.037	-0.0003	-0.0075	-0.0045
12520	0.182	2.101	-0.020	-0.0002	-0.0073	0.0064
12570	-0.933	1.364	-0.204	0.0020	-0.0048	0.0308
12620	-1.713	0.584	-0.321	0.0021	-0.0043	0.0308
12621	-2.149	0.263	-0.355	0.0029	0.0016	0.0298
12622	-2.340	-0.099	0.064	0.0058	0.0425	0.0304
12670	-1.839	-0.419	0.676	0.0218	0.0471	0.0364
12719	-1.256	-0.703	1.179	0.0237	0.0475	0.0375
12720	-0.333	-1.186	1.976	0.0250	0.0467	0.0393
12768	0.960	-1.859	3.148	0.0134	0.0449	0.0418
12769	1.262	-1.485	3.338	-0.0597	0.0406	0.0447
12770	0.883	-0.693	2.285	-0.1225	0.0389	0.0495
12820	0.193	-0.120	0.498	-0.1281	0.0389	0.0498
12870	0.000	0.000	0.000	-0.1281	0.0389	0.0498
12900	1.711	-1.696	0.015	-0.0006	-0.0072	0.0349
12920	6.270	-5.495	0.078	-0.0005	-0.0072	0.0378
12921	7.056	-6.282	0.088	-0.0005	-0.0066	0.0324
12922	6.483	-6.601	0.049	-0.0016	-0.0050	-0.0817
12970	5.098	-4.565	-0.307	0.0031	-0.0220	-0.0781
13020	4.313	-2.532	-0.875	0.0034	-0.0231	-0.0809
13021	3.856	-1.607	-1.174	0.0048	-0.0297	-0.0851
13022	3.065	-0.489	-1.882	0.0050	-0.0939	-0.0962
13070	1.717	-0.128	-2.023	0.0167	-0.0853	-0.0949
13119	0.736	-0.346	-1.517	0.0183	-0.0786	-0.0964
13120	-0.695	-0.723	-0.714	0.0198	-0.0730	-0.0987
13168	-2.726	-1.279	0.464	0.0138	-0.0706	-0.1022
13169	-3.023	-1.168	0.814	-0.0123	-0.0649	-0.1061
13170	-2.003	-0.696	0.644	-0.0326	-0.0625	-0.1125
13220	-0.438	-0.120	0.139	-0.0358	-0.0625	-0.1129
13270	-0.000	0.000	0.000	-0.0358	-0.0625	-0.1130
13300	4.367	-2.669	-0.009	-0.0025	-0.0013	-0.2246
13400	3.925	-0.074	-0.022	-0.0024	-0.0012	-0.2304
13401	2.602	7.919	-0.053	-0.0021	-0.0009	-0.2359
13402	-0.303	13.446	-0.042	-0.0018	-0.0003	-0.1663
13450	-3.177	14.140	-0.016	-0.0005	-0.0005	-0.0471
13499	-4.221	13.042	-0.006	-0.0003	-0.0003	-0.0391
13500	-5.798	11.344	0.002	-0.0002	-0.0001	-0.0480
13520	-1.147	4.839	0.002	0.0000	0.0000	0.0226
13549	0.026	-0.970	-0.003	0.0015	-0.0000	0.0107
13550	-2.793	-1.426	-0.000	0.0001	0.0001	-0.0036
13600	-0.320	-7.940	0.000	-0.0000	0.0002	0.0121
13650	0.035	-9.460	0.003	-0.0000	0.0003	0.0047
13699	0.153	-10.256	0.004	-0.0000	0.0003	0.0044
13700	0.210	-11.188	0.005	-0.0000	0.0003	-0.0000
13750	0.059	-12.717	0.005	0.0001	0.0003	-0.0079
13800	-0.799	-14.887	-0.004	0.0003	0.0004	-0.0219

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
13850	-1.804	-16.256	-0.020	0.0004	0.0004	-0.0225
13851	-3.447	-18.995	-0.068	0.0008	0.0005	-0.0008
13852	-1.154	-18.383	-0.101	0.0007	0.0002	0.1472
13900	1.342	-14.262	-0.084	-0.0006	-0.0027	0.1066
14100	15.225	3.840	-0.054	0.0079	0.0004	0.0296
14150	14.262	2.556	-0.037	0.0075	0.0006	0.0414
14200	13.159	1.064	-0.016	0.0074	0.0006	0.0401
14250	10.877	-0.128	0.001	0.0063	0.0001	0.0037
14300	10.247	-0.134	0.002	0.0060	-0.0000	-0.0010
14350	9.145	-0.087	0.001	0.0060	-0.0000	-0.0014
14400	8.511	-0.043	0.001	0.0057	-0.0000	-0.0023
14420	2.846	-0.051	-0.000	0.0029	-0.0000	0.0075
14700	-3.969	6.879	0.002	-0.0004	0.0001	-0.1078
14720	-2.590	1.992	-0.001	-0.0004	0.0001	-0.1095
14721	-0.610	-4.305	-0.004	-0.0006	-0.0000	-0.1433
14722	1.369	-12.703	-0.000	-0.0008	-0.0002	-0.1688
14723	3.747	-17.021	0.012	-0.0006	-0.0013	-0.1201
14750	5.050	-17.209	0.016	-0.0005	-0.0018	0.0274
14770	1.830	-14.363	-0.030	-0.0008	-0.0025	0.0332
14800	0.407	-10.176	-0.105	0.0001	-0.0036	-0.0029
14850	-0.710	-7.580	-0.239	0.0010	-0.0028	-0.1482
14900	-1.490	-3.763	-0.306	0.0011	-0.0023	-0.1512
14901	-1.976	-1.909	-0.313	0.0015	0.0047	-0.1517
14902	-2.138	-0.215	0.169	0.0105	0.0503	-0.1282
14950	-1.511	0.173	0.831	0.0263	0.0591	-0.1164
14999	-0.772	-0.149	1.334	0.0279	0.0592	-0.1120
15000	0.366	-0.721	2.133	0.0329	0.0551	-0.1050
15048	1.759	-1.777	3.306	0.0393	0.0364	-0.0947
15049	1.590	-1.912	3.573	0.0555	-0.0471	-0.0834
15050	0.850	-1.329	2.640	0.0628	-0.1156	-0.0635
15100	0.120	-0.240	0.478	0.0628	-0.1230	-0.0619
15150	-0.000	0.000	0.000	0.0628	-0.1230	-0.0619
15500	0.244	-6.778	-0.049	0.0005	-0.0038	0.0015
15550	0.361	-3.392	-0.029	0.0002	-0.0039	-0.0043
15600	-0.755	-2.232	-0.164	0.0026	-0.0036	-0.0515
15650	-1.535	-0.924	-0.251	0.0027	-0.0031	-0.0516
15651	-2.021	-0.318	-0.269	0.0038	0.0039	-0.0497
15652	-2.181	0.162	0.212	0.0088	0.0508	-0.0367
15700	-1.544	0.198	0.878	0.0123	0.0600	-0.0336
15749	-0.795	0.050	1.381	0.0124	0.0600	-0.0326
15750	0.358	-0.195	2.179	0.0134	0.0557	-0.0311
15798	1.765	-0.601	3.352	0.0148	0.0367	-0.0289
15799	1.595	-0.665	3.618	0.0183	-0.0478	-0.0264
15800	0.850	-0.468	2.671	0.0198	-0.1170	-0.0221
15850	0.120	-0.084	0.484	0.0198	-0.1244	-0.0218
15900	-0.000	0.000	0.000	0.0198	-0.1244	-0.0218
16300	0.497	-0.069	-0.017	-0.0000	-0.0034	-0.0014
16350	0.466	3.253	-0.024	0.0001	-0.0030	0.0084
16400	-0.652	2.097	-0.153	-0.0025	-0.0038	0.0494

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
16450	-1.432	0.843	-0.249	-0.0026	-0.0034	0.0495
16451	-1.918	0.266	-0.272	-0.0038	0.0033	0.0474
16452	-2.090	-0.183	0.188	-0.0089	0.0485	0.0342
16500	-1.481	-0.206	0.841	-0.0122	0.0583	0.0313
16549	-0.751	-0.060	1.345	-0.0122	0.0586	0.0305
16550	0.377	0.179	2.143	-0.0130	0.0546	0.0291
16598	1.761	0.573	3.316	-0.0142	0.0361	0.0272
16599	1.591	0.635	3.582	-0.0174	-0.0473	0.0250
16600	0.850	0.447	2.647	-0.0188	-0.1159	0.0212
16650	0.120	0.081	0.479	-0.0188	-0.1233	0.0209
16700	-0.000	-0.000	0.000	-0.0188	-0.1233	0.0209
17100	-1.082	6.635	0.016	0.0005	-0.0015	0.0299
17150	-4.894	10.028	0.021	-0.0009	-0.0001	0.0355
17169	-5.671	8.395	0.017	-0.0009	-0.0002	0.1086
17170	-6.449	5.855	0.012	-0.0009	-0.0003	0.1330
17399	-3.599	7.811	-0.093	-0.0061	0.0013	-0.0761
17400	-6.077	11.470	-0.034	-0.0023	0.0005	-0.0099
17419	-5.898	12.047	-0.065	-0.0023	0.0005	-0.0117
17420	-5.703	12.624	-0.095	-0.0023	0.0005	-0.0122
17699	-3.026	-0.886	0.074	0.0071	0.0022	0.0035
17700	-3.148	0.399	0.183	0.0025	0.0023	0.0040
17749	-3.314	1.709	0.199	-0.0001	0.0023	0.0038
17750	-3.425	3.020	0.156	-0.0012	0.0022	0.0006
17799	-3.473	4.350	0.108	-0.0016	0.0022	-0.0036
17800	-3.287	5.681	0.054	-0.0016	0.0021	-0.0141
17849	-2.811	6.784	0.014	-0.0015	0.0021	-0.0188
17850	-2.253	7.887	-0.025	-0.0015	0.0021	-0.0204
17899	3.206	0.553	0.011	0.0007	-0.0004	0.0117
17900	3.994	0.795	0.019	0.0003	-0.0002	0.0067
17949	2.898	2.610	0.010	-0.0003	-0.0004	0.0460
17950	3.680	3.408	0.018	-0.0001	-0.0003	0.0065
17999	2.532	4.570	0.002	-0.0004	-0.0002	0.0835
18000	3.223	6.065	0.006	-0.0002	-0.0002	0.0182
18049	2.653	7.168	0.002	-0.0002	-0.0002	0.0224
18050	2.011	8.271	-0.003	-0.0002	-0.0002	0.0239
18100	-1.574	0.205	0.061	0.0018	0.0018	-0.0059
18150	-0.831	0.064	0.018	0.0018	0.0017	-0.0056
18199	-0.390	0.009	0.003	0.0016	0.0009	-0.0030
18200	0.051	-0.011	-0.003	0.0014	0.0003	-0.0001
18250	0.793	-0.010	-0.009	0.0014	0.0002	0.0003
18300	1.676	0.086	-0.006	0.0010	-0.0003	0.0081
18350	2.418	0.290	0.002	0.0010	-0.0003	0.0086
18399	-2.644	2.378	0.099	-0.0011	0.0025	-0.0398
18400	-1.862	1.315	0.050	-0.0009	0.0015	-0.0380
18450	-1.120	0.407	0.014	-0.0009	0.0014	-0.0362
18500	-0.244	-0.046	-0.004	-0.0007	0.0002	-0.0008
18550	0.498	-0.038	-0.008	-0.0007	0.0001	0.0014
18600	1.374	0.449	-0.005	-0.0005	-0.0003	0.0391
18650	2.116	1.432	0.002	-0.0005	-0.0003	0.0413

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
18699	-2.596	4.308	0.019	-0.0014	0.0011	-0.0779
18700	-1.906	2.334	0.004	-0.0012	0.0003	-0.0691
18750	-1.172	0.686	-0.003	-0.0011	0.0003	-0.0656
18800	-0.399	-0.125	-0.005	-0.0009	-0.0000	-0.0014
18850	0.335	-0.111	-0.004	-0.0009	-0.0000	0.0025
18900	1.108	0.746	-0.003	-0.0006	-0.0001	0.0690
18950	1.842	2.479	-0.000	-0.0006	-0.0001	0.0728
19999	1.542	-30.567	0.660	-0.0136	0.0368	-0.0284
20000	2.074	-30.291	1.335	-0.0171	0.0254	-0.0435
20048	2.682	-29.497	2.988	-0.0178	0.0057	-0.0805
20049	2.626	-28.983	3.297	-0.0224	0.0098	-0.0945
20050	2.395	-27.805	3.561	-0.0318	0.0232	-0.1351
20100	-0.832	-15.191	5.541	-0.0103	0.0276	-0.1623
20148	-4.060	-2.093	7.561	0.0112	0.0107	-0.1468
20149	-4.304	-0.828	7.414	0.0050	-0.0229	-0.1166
20150	-3.987	-0.365	6.989	0.0037	-0.0697	-0.1064
20200	-0.121	-0.169	5.338	0.0030	-0.1147	-0.0772
20201	4.784	-0.143	3.961	-0.0010	-0.1649	-0.0528
20202	6.740	-0.036	2.804	-0.0149	-0.2148	-0.0390
20250	7.221	0.107	1.194	-0.0240	-0.0763	-0.0088
20251	6.244	0.222	-0.047	-0.0215	-0.0233	-0.0010
20252	5.269	0.155	-0.245	-0.0190	0.0005	0.0082
20270	4.280	-0.307	-0.131	-0.0165	0.0034	0.0299
20300	0.886	-3.880	-0.030	-0.0078	0.0044	-0.0043
20350	1.116	-2.399	-0.153	0.0083	0.0263	-0.0343
20400	1.854	-1.776	0.028	0.0093	0.0268	-0.0360
20449	1.967	-0.318	1.025	0.1257	0.0373	-0.0579
20450	2.557	-1.313	0.310	0.0297	0.0337	-0.0331
20499	2.601	-1.098	0.438	0.0103	0.0284	-0.0101
20500	2.536	-0.882	0.430	-0.0049	0.0232	-0.0056
20550	2.660	-0.263	0.307	-0.0063	0.0224	-0.0083
20650	-1.743	-0.421	0.017	-0.0068	-0.0007	-0.0160
20700	-2.374	-0.116	0.003	-0.0067	-0.0007	-0.0132
20701	-3.613	-1.265	-0.006	-0.0062	0.0001	0.0766
20702	-4.554	-4.062	0.004	-0.0059	0.0007	0.1029
20703	-4.964	-4.620	-0.001	-0.0050	0.0028	0.0024
20750	-4.497	-4.233	-0.027	-0.0035	0.0038	-0.0793
20751	-2.521	-3.284	-0.115	-0.0026	0.0048	-0.0384
20752	-2.417	-2.485	-0.150	0.0012	0.0056	0.0191
20799	-2.826	-2.086	-0.124	0.0057	0.0060	0.0269
20800	-3.165	-1.687	-0.031	0.0126	0.0064	0.0071
20900	-0.633	-0.014	0.208	0.1465	-0.0263	0.0250
20950	-0.004	0.504	0.766	0.1485	-0.0272	0.0247
20999	1.105	3.440	1.228	0.2640	0.0265	-0.0341
21000	1.378	0.699	1.607	0.2216	0.0185	-0.0356
21500	-0.968	-47.327	1.756	0.0576	0.0775	-0.0545
21550	-1.070	-47.145	2.014	0.0581	0.0776	-0.0549
21600	-1.708	-45.982	3.638	0.0610	0.0776	-0.0564
21650	-1.810	-45.794	3.896	0.0615	0.0775	-0.0565

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
21698	-2.152	-45.248	4.577	0.0838	0.0664	-0.0627
21699	-2.351	-43.894	4.535	0.1420	-0.0716	-0.1353
21700	-1.016	-41.338	3.775	0.2666	-0.2212	-0.1795
21750	2.537	-37.146	3.200	0.2855	-0.2419	-0.1817
21798	11.341	-26.541	1.844	0.3007	-0.2336	-0.1869
21799	12.980	-23.062	0.928	0.2800	-0.1270	-0.1801
21800	13.056	-20.403	0.134	0.2632	-0.0379	-0.1554
21850	12.893	-19.738	-0.000	0.2600	-0.0346	-0.1537
21900	7.294	-3.539	-0.000	0.1485	0.0085	-0.0573
21950	1.707	-3.679	-0.000	0.0371	0.0001	0.0545
22000	1.119	-4.611	-0.015	0.0253	-0.0007	0.0548
22050	0.451	-5.465	-0.023	0.0120	0.0013	-0.0010
22100	0.271	-4.717	0.074	-0.0005	0.0017	0.0097
22200	0.068	-4.092	0.061	-0.0006	0.0017	0.0096
22250	-0.006	0.250	0.001	0.0000	0.0040	-0.0021
22270	0.003	4.596	-0.025	-0.0014	0.0064	0.0004
22271	-0.006	6.289	0.018	0.0069	0.0073	0.0000
22272	-0.006	7.131	0.341	0.0177	0.0077	-0.0001
22273	0.002	7.976	0.952	0.0222	0.0082	-0.0007
22274	0.033	8.824	1.324	-0.0157	0.0086	-0.0018
22275	0.039	8.845	0.954	-0.1204	0.0084	-0.0036
22300	0.033	8.426	0.143	-0.1908	0.0080	-0.0046
22301	-0.041	5.046	-4.595	-0.1581	0.0098	-0.0051
22302	-0.054	4.861	-5.043	-0.0266	0.0117	-0.0028
22350	-0.057	5.004	-4.854	0.0753	0.0126	-0.0010
22351	-0.037	5.915	-2.403	0.0679	0.0157	-0.0010
22352	0.026	6.952	-1.372	0.0066	0.0191	-0.0044
22353	0.224	7.869	-1.453	0.0188	0.0221	-0.0108
22354	0.527	7.471	-0.259	0.2224	0.0291	-0.0299
22400	0.953	4.868	1.047	0.2727	0.0281	-0.0334
22700	-0.470	-3.843	0.058	0.0167	0.0041	-0.0753
22750	-1.107	-2.279	0.144	0.0169	0.0041	-0.0742
22751	-1.764	-1.206	0.190	0.0203	-0.0013	-0.0592
22752	-1.862	-0.675	0.068	0.0089	-0.0405	-0.0433
22800	-1.557	-0.238	-0.145	-0.0138	-0.0611	-0.0360
22850	-0.930	0.430	-0.422	-0.0205	-0.0793	-0.0283
22900	-0.350	1.067	-0.856	-0.0211	-0.0805	-0.0274
22901	0.082	1.829	-1.374	-0.0218	-0.1013	-0.0197
22902	-0.250	2.088	-1.336	0.0195	-0.1204	-0.0022
22950	-1.585	1.749	-0.924	0.0650	-0.1566	0.0071
22951	-3.204	1.051	-0.547	0.0681	-0.1569	0.0041
22952	-4.440	0.397	0.227	0.0691	-0.1030	0.0009
23000	-4.460	0.121	0.815	0.0671	-0.0041	-0.0020
23001	-3.453	0.056	0.533	0.0602	0.0138	-0.0018
23002	-2.447	0.028	0.182	0.0534	0.0098	-0.0002
23003	-1.626	0.038	0.029	0.0478	0.0045	0.0007
23020	-0.806	0.053	-0.024	0.0422	0.0011	-0.0001
23021	0.013	0.024	-0.027	0.0366	-0.0002	-0.0038
23022	0.833	-0.130	-0.018	0.0310	-0.0003	-0.0117

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
23023	1.838	-0.620	-0.017	0.0242	0.0004	-0.0241
23024	2.843	-1.357	-0.037	0.0174	0.0009	-0.0194
23025	3.012	-1.169	-0.003	0.0125	0.0050	0.0444
23050	2.464	-0.662	0.033	0.0008	0.0084	0.0686
23051	0.718	0.361	-0.002	-0.0031	0.0074	0.0468
23052	-0.161	2.338	-0.309	-0.0078	0.0055	0.0005
23053	-0.107	3.363	-0.468	0.0041	0.0045	-0.0028
23054	-0.062	3.456	-0.057	0.0613	0.0038	-0.0027
23100	-0.028	2.801	0.508	0.0840	0.0013	-0.0019
23149	-0.028	2.777	0.518	0.0841	0.0013	-0.0019
23150	-0.028	2.774	0.520	0.0841	0.0013	-0.0019
23200	-0.000	0.000	1.978	0.0352	0.0003	-0.0019
23250	0.000	-0.000	3.456	-0.0069	-0.0001	-0.0019
23300	-0.000	0.000	4.948	0.0025	0.0000	-0.0019
23350	0.001	-0.096	6.443	0.0025	0.0000	-0.0019
23999	-2.127	-0.751	0.104	-0.0001	0.0052	-0.0608
24000	-0.097	0.185	0.029	-0.0021	0.0040	-0.0624
24049	-0.032	0.174	0.897	0.0037	0.0015	-0.0502
24050	-0.017	-0.021	1.764	0.0130	-0.0000	-0.0380
24100	-0.016	-0.200	2.180	0.0169	0.0010	-0.0322
24150	-0.004	-0.395	2.530	0.0169	0.0012	-0.0320
24170	-0.001	-0.434	2.601	0.0169	0.0013	-0.0319
24200	0.019	-0.545	2.837	0.0161	0.0053	-0.0286
24220	0.054	-0.651	3.073	0.0161	0.0053	-0.0286
24250	0.066	-0.689	3.144	0.0161	0.0053	-0.0286
24270	0.074	-0.713	3.191	0.0161	0.0053	-0.0286
24298	0.772	-1.034	2.586	0.0110	0.0184	-0.0162
24299	0.856	-1.035	2.469	0.0161	0.0189	0.0043
24300	0.831	-0.951	2.327	0.0202	0.0182	0.0122
24320	0.717	-0.837	2.120	0.0200	0.0209	0.0190
24350	0.475	-0.606	1.770	0.0201	0.0211	0.0196
24370	0.180	-0.301	1.282	0.0255	0.0210	0.0357
24371	-0.148	0.220	0.733	0.0497	0.0241	0.0538
24372	-0.501	1.104	0.259	0.0824	0.0263	0.0694
24373	-0.564	1.649	0.105	0.1238	0.0237	0.0837
24400	-0.483	2.137	0.001	0.1138	0.0080	0.0426
24419	-0.444	2.195	-0.006	0.1125	0.0069	0.0385
24420	-0.327	2.328	-0.021	0.1089	0.0046	0.0168
24421	0.781	0.309	-0.007	0.0812	-0.0018	-0.0589
24422	1.889	-0.107	-0.040	0.0535	0.0049	0.0076
24423	2.330	-0.024	-0.119	0.0425	0.0052	0.0048
24424	2.770	0.021	-0.135	0.0315	-0.0085	0.0025
24425	3.211	0.044	0.195	0.0206	-0.0509	0.0008
24426	3.110	0.017	0.649	0.0159	-0.1550	0.0010
24450	2.491	-0.016	1.029	0.0035	-0.1557	0.0031
24451	0.645	-0.023	1.498	-0.0016	-0.1109	-0.0015
24469	-0.064	-0.002	1.770	-0.0036	-0.0789	-0.0041
24470	-0.577	0.033	2.042	-0.0054	-0.0599	-0.0068
24500	-1.243	0.124	2.526	-0.0072	-0.0374	-0.0115

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
24530	-1.669	0.207	2.875	-0.0071	-0.0365	-0.0117
24536	0.000	-0.500	-0.000	-0.0292	0.0035	-0.0030
24548	-1.851	0.246	3.080	-0.0061	-0.0267	-0.0137
24549	-1.844	0.228	3.198	0.0028	0.0047	-0.0186
24550	-1.712	0.130	3.185	0.0083	0.0194	-0.0293
24570	-0.958	-0.581	2.884	0.0166	-0.0078	-0.0398
24600	-1.009	-0.691	3.121	0.0166	-0.0078	-0.0398
24630	-1.027	-0.730	3.191	0.0166	-0.0078	-0.0398
24650	-1.039	-0.755	3.238	0.0166	-0.0078	-0.0398
24652	-0.000	-3.346	0.000	0.0077	0.0023	0.0009
24670	-0.836	-0.464	2.646	0.0183	-0.0291	-0.0454
24690	-0.768	-0.422	2.575	0.0184	-0.0295	-0.0455
24700	-0.419	-0.210	2.225	0.0184	-0.0311	-0.0459
24720	0.170	0.003	1.805	0.0175	-0.0697	-0.0558
24749	2.418	0.338	0.930	0.0077	-0.0907	-0.0766
24750	3.708	0.297	0.054	-0.0133	0.0087	-0.0973
24768	-0.000	-6.319	-0.000	-0.0014	0.0012	-0.0006
24769	0.000	-8.060	0.000	0.0002	0.0006	0.0014
24770	-0.055	-8.834	-0.000	-0.0000	0.0003	-0.0078
24771	-0.033	-9.053	0.000	0.0000	0.0002	0.0287
24772	0.426	-9.200	0.000	0.0000	0.0002	0.1040
24773	1.546	-9.347	-0.000	0.0000	0.0001	0.1818
24774	2.801	-9.495	-0.000	0.0000	0.0001	0.0616
24775	2.453	-9.300	-0.000	0.0000	0.0001	-0.4458
25000	1.946	-8.052	-0.000	0.0000	0.0000	-0.7284
25001	1.752	-2.851	0.000	0.0000	0.0000	-0.5372
25002	1.558	-0.207	0.000	0.0000	-0.0000	-0.1962
25003	1.364	0.424	0.000	0.0000	-0.0000	-0.0159
25004	1.073	0.125	0.000	0.0000	0.0000	0.0348
25005	0.152	-0.007	-0.000	0.0000	-0.0000	-0.0065
25020	-0.768	0.001	0.000	0.0000	0.0001	0.0022
25050	-3.556	-0.000	-0.000	0.0000	-0.0008	-0.0003
25051	-4.490	0.000	0.002	0.0000	0.0023	0.0001
25052	-5.433	-0.000	-0.007	0.0000	-0.0092	-0.0000
25053	-5.732	0.000	-0.155	0.0000	-0.0155	-0.0000
25054	-5.932	0.000	-0.239	0.0000	0.0037	0.0000
25055	-6.132	0.000	0.027	0.0000	0.0894	0.0000
25056	-6.333	0.000	1.282	0.0000	0.2633	0.0000
25057	-6.007	-0.000	2.089	0.0000	0.5255	-0.0000
25070	-4.935	-0.000	2.592	0.0000	0.5225	-0.0000
25071	-1.537	-0.000	2.847	-0.0000	0.3301	-0.0000
25072	0.010	-0.000	3.103	-0.0000	0.1111	-0.0000
25073	0.397	-0.000	3.377	-0.0000	0.0192	-0.0000
25079	0.458	0.000	3.515	-0.0000	0.0158	-0.0000
25080	0.528	0.000	3.652	-0.0000	0.0242	-0.0000
25098	0.960	0.000	4.032	-0.0000	0.0453	-0.0000
25099	1.034	0.000	4.130	-0.0000	0.0575	-0.0000
25100	1.026	0.000	4.271	0.0000	0.0676	-0.0000
25120	0.662	0.000	5.021	-0.0000	0.0753	0.0000

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (OPE) W+D2+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
25150	0.434	0.000	5.590	-0.0000	0.0757	0.0000
25170	0.381	0.000	5.724	-0.0000	0.0757	0.0000
25198	0.095	0.000	6.359	-0.0000	0.0694	0.0000
25199	-0.007	0.000	6.454	-0.0000	0.0534	0.0000
25200	-0.113	0.000	6.435	-0.0000	0.0366	0.0000
25220	-0.446	0.000	6.056	-0.0000	0.0302	0.0000
25221	-0.696	0.000	5.738	-0.0000	0.0093	0.0000
25222	-0.096	-0.000	5.420	0.0000	-0.2100	0.0000
25223	2.894	-0.000	5.166	0.0000	-0.6393	0.0000
25224	9.472	0.000	4.912	0.0000	-1.0122	0.0000
25225	11.565	0.000	3.994	0.0000	-1.0129	0.0000
25250	12.243	0.000	2.463	0.0000	-0.5038	0.0000
25251	12.094	-0.000	0.059	0.0000	-0.1719	0.0000
25252	11.946	-0.000	-0.457	0.0000	-0.0076	-0.0000
25253	11.798	-0.000	-0.298	0.0000	0.0295	-0.0000
25254	11.578	0.000	-0.011	0.0000	0.0185	-0.0000
25255	10.806	0.000	0.002	0.0000	-0.0053	0.0000
25256	9.804	-0.000	-0.000	0.0000	0.0013	-0.0000
25270	8.839	0.000	0.001	0.0000	-0.0002	0.0000
25300	8.738	-0.000	-0.000	0.0000	-0.0002	0.0000
25350	5.604	-0.000	-0.000	0.0000	0.0001	-0.0000
25400	2.737	0.000	0.000	0.0000	-0.0000	0.0000
25449	1.369	-0.000	-0.000	0.0000	0.0000	-0.0000
25450	-0.000	-0.000	-0.000	0.0000	0.0000	-0.0000

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10	-0.008	-12.965	0.021	-0.0006	0.0115	-0.0002
50	-0.000	-12.612	0.001	-0.0007	0.0115	-0.0002
100	-0.000	-12.577	-0.000	-0.0008	0.0115	-0.0002
150	0.000	-11.811	0.000	0.0058	0.0118	-0.0005
200	0.011	-11.639	0.140	0.0086	0.0118	-0.0008
250	0.026	-11.464	0.315	0.0116	0.0119	-0.0011
300	0.060	-11.175	0.669	0.0160	0.0121	-0.0017
348	0.136	-10.733	1.346	0.0185	0.0123	-0.0025
349	0.205	-10.610	2.408	0.0231	0.0126	-0.0037
350	0.154	-10.259	3.340	0.0165	0.0131	-0.0044
400	0.127	-10.068	3.414	0.0126	0.0132	-0.0045
401	-0.008	-9.453	3.201	-0.0060	0.0141	-0.0046
402	-0.086	-9.832	2.334	-0.0258	0.0155	-0.0034
450	-0.063	-10.056	1.014	-0.0260	0.0171	-0.0018
500	-0.046	-9.930	0.753	-0.0227	0.0175	-0.0015
549	-0.003	-9.258	-0.034	-0.0082	0.0194	-0.0005
550	0.013	-8.586	-0.208	-0.0011	0.0214	-0.0005
570	0.298	-8.558	-0.084	-0.0027	0.0189	-0.0039
600	0.066	-7.845	-0.172	0.0004	0.0239	-0.0015
650	0.136	-7.800	-0.155	0.0003	0.0240	-0.0016
699	0.205	-7.435	-0.164	-0.0006	0.0253	-0.0020
700	0.278	-7.069	-0.198	-0.0012	0.0266	-0.0018
750	-1.502	-5.502	-0.033	0.0029	0.0182	0.0283
751	-1.850	-5.398	-0.002	0.0031	0.0176	0.0304
752	-4.357	-5.158	0.074	0.0055	0.0139	0.0309
800	-5.672	-4.657	0.007	0.0077	0.0104	0.0099
850	-5.643	-4.546	-0.010	0.0078	0.0101	0.0071
900	-4.172	-3.920	-0.019	0.0074	0.0069	-0.0053
950	-2.993	-3.042	0.002	0.0054	0.0054	0.0003
1000	-2.003	-2.005	0.000	0.0036	0.0036	0.0001
1050	-1.000	-0.999	-0.000	0.0018	0.0018	-0.0000
1099	-0.500	-0.500	-0.000	0.0009	0.0009	-0.0000
1100	0.000	0.000	-0.000	0.0000	0.0000	-0.0000
1499	0.970	-7.018	0.119	-0.0021	0.0274	-0.0053
1500	1.661	-6.952	0.436	-0.0024	0.0265	-0.0089
1548	2.160	-6.901	0.678	-0.0022	0.0246	-0.0115
1549	2.869	-6.691	0.964	-0.0023	0.0249	-0.0171
1550	3.121	-6.009	1.513	-0.0044	0.0174	-0.0317
1600	2.362	-4.032	2.214	-0.0000	0.0071	-0.0342
1648	1.602	-2.006	2.348	0.0044	-0.0032	-0.0333
1649	1.702	-1.190	2.169	0.0042	-0.0110	-0.0246
1650	2.051	-0.804	2.033	0.0059	-0.0111	-0.0212
1700	2.298	-0.683	1.791	0.0061	-0.0130	-0.0192
1701	2.472	-0.609	1.640	0.0061	-0.0136	-0.0180
1702	3.291	-0.351	1.272	0.0003	-0.0359	-0.0118
1750	3.684	-0.244	0.489	-0.0035	-0.0173	0.0006
1799	3.257	-0.309	0.074	-0.0028	-0.0089	0.0008

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
1800	2.640	-0.298	-0.128	-0.0017	-0.0020	-0.0041
1801	3.279	0.375	-0.076	0.0019	-0.0010	-0.0178
1802	3.973	0.640	-0.038	0.0028	-0.0004	-0.0367
1849	1.437	0.075	-0.078	-0.0029	0.0015	-0.0285
1850	1.813	0.177	-0.116	-0.0020	0.0008	-0.0050
1900	1.068	0.247	-0.062	-0.0022	0.0006	0.0001
1950	1.023	0.242	-0.034	-0.0022	0.0006	0.0001
1999	0.191	0.147	0.011	-0.0003	0.0009	-0.0091
2000	0.280	0.264	-0.001	-0.0024	0.0008	-0.0002
2050	-0.116	0.246	0.033	-0.0027	0.0012	-0.0006
2100	-0.604	0.311	0.096	-0.0030	0.0017	-0.0036
2149	-0.631	0.407	0.142	-0.0031	0.0017	-0.0038
2150	-0.930	0.538	0.190	-0.0033	0.0016	-0.0062
2200	-1.419	0.891	0.252	-0.0037	0.0000	-0.0079
2249	-1.647	1.082	0.254	-0.0038	-0.0016	-0.0068
2250	-1.874	1.228	0.215	-0.0040	-0.0040	-0.0035
2251	-1.708	1.452	0.148	-0.0070	-0.0077	-0.0067
2252	-1.488	1.395	0.017	-0.0128	-0.0116	-0.0148
2255	-1.782	1.016	0.261	-0.0025	-0.0040	0.0033
2260	-1.618	0.843	0.277	-0.0012	-0.0040	0.0081
2280	-1.458	0.753	0.273	-0.0002	-0.0040	0.0107
2300	-0.189	-0.047	0.055	0.0015	-0.0035	0.0056
2350	0.004	-0.071	0.002	0.0014	-0.0035	0.0051
2400	0.019	-0.809	-0.017	-0.0003	-0.0030	-0.0010
2450	0.003	-0.949	-0.012	-0.0002	-0.0030	-0.0002
2500	-0.001	-0.974	-0.005	-0.0002	-0.0029	0.0001
2550	0.018	-1.116	-0.001	-0.0003	-0.0029	0.0025
2560	0.392	-1.533	0.024	-0.0008	-0.0026	0.0122
2580	0.538	-1.632	0.034	-0.0009	-0.0026	0.0138
2590	0.778	-1.805	0.051	-0.0010	-0.0025	0.0145
2599	0.570	-2.940	-0.003	-0.0007	-0.0014	0.0257
2600	1.078	-2.018	0.071	-0.0010	-0.0025	0.0142
2650	1.362	-2.930	0.155	-0.0005	-0.0061	0.0062
2651	2.318	-3.791	0.079	0.0048	-0.0095	0.0146
2652	2.412	-3.780	0.061	0.0028	-0.0097	0.0145
2660	2.508	-3.768	0.049	0.0006	-0.0095	0.0124
2661	2.602	-3.818	0.022	0.0010	-0.0096	0.0118
2662	2.825	-3.685	-0.282	0.0111	-0.0066	-0.0133
2700	2.635	-2.848	-0.435	0.0100	0.0017	-0.0310
2725	2.631	-2.835	-0.434	0.0100	0.0017	-0.0310
2750	2.456	-2.254	-0.384	0.0095	0.0024	-0.0304
2800	1.241	-0.121	-0.056	0.0048	0.0019	-0.0081
2850	0.219	0.022	0.002	0.0008	0.0000	0.0006
2899	0.030	0.004	0.001	0.0001	-0.0000	0.0002
2900	-0.000	0.000	0.000	0.0000	-0.0000	0.0000
2901	-0.000	0.000	0.000	0.0000	-0.0000	0.0000
3500	-1.148	1.241	-0.170	-0.0121	-0.0165	-0.0185
3501	-0.584	1.167	-0.603	-0.0116	-0.0187	-0.0169
3502	-0.245	1.037	-0.751	-0.0088	-0.0182	-0.0124

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
3550	-0.078	0.997	-0.808	-0.0025	-0.0177	-0.0025
3551	-0.091	1.615	-0.686	0.0018	-0.0214	0.0037
3600	-0.484	2.235	-0.643	-0.0016	-0.0251	0.0112
3601	-1.788	3.224	-0.934	-0.0001	-0.0311	0.0143
3602	-2.411	3.179	-0.536	0.0160	-0.0333	0.0026
3650	-2.932	2.544	0.210	0.0222	-0.0156	-0.0144
3651	-3.093	2.062	0.406	0.0261	-0.0124	-0.0224
3700	-3.145	1.630	0.513	0.0247	-0.0039	-0.0215
3701	-2.586	0.633	0.441	0.0197	0.0029	-0.0172
3750	-2.029	-0.040	0.235	0.0148	0.0037	-0.0112
3799	-1.385	-0.497	0.062	0.0090	0.0024	-0.0054
3800	-0.741	-0.658	-0.032	0.0032	0.0009	-0.0007
3850	0.180	-0.465	-0.035	0.0018	-0.0003	0.0006
3900	0.224	-0.443	-0.022	0.0018	-0.0003	0.0004
3949	0.684	-0.513	-0.013	0.0011	-0.0002	-0.0012
3950	1.145	-0.566	-0.008	0.0004	-0.0001	0.0012
4000	2.415	-0.745	-0.011	-0.0004	0.0000	-0.0077
4001	3.255	-1.522	-0.009	-0.0010	-0.0003	-0.0066
4002	3.143	-1.519	0.012	-0.0006	-0.0021	0.0153
4050	2.426	-1.305	0.027	-0.0003	-0.0029	0.0253
4051	1.147	-0.749	0.011	-0.0003	-0.0037	0.0232
4100	0.256	-0.194	-0.004	-0.0003	-0.0045	0.0138
4150	0.146	1.358	-0.042	-0.0002	-0.0069	-0.0092
4151	0.714	1.914	-0.047	0.0003	-0.0077	-0.0130
4152	1.365	2.471	-0.013	0.0018	-0.0085	-0.0096
4153	1.453	2.412	0.078	0.0115	-0.0058	0.0098
4200	1.304	1.887	0.126	0.0158	-0.0023	0.0181
4249	1.099	1.537	0.087	0.0172	-0.0023	0.0190
4250	0.706	0.882	0.014	0.0198	-0.0023	0.0167
4300	-0.132	0.073	-0.123	0.0255	-0.0020	0.0076
4349	-0.552	-0.122	-0.202	0.0295	-0.0022	0.0043
4350	-0.972	-0.218	-0.278	0.0334	-0.0018	0.0020
4399	-1.396	-0.250	-0.334	0.0361	-0.0013	0.0005
4400	-1.820	-0.242	-0.371	0.0388	-0.0007	-0.0004
4449	-2.252	-0.222	-0.388	0.0405	-0.0002	-0.0007
4450	-2.684	-0.192	-0.383	0.0423	0.0005	-0.0009
4499	-3.128	-0.161	-0.359	0.0432	0.0011	-0.0010
4500	-3.571	-0.124	-0.310	0.0441	0.0018	-0.0012
4549	-3.861	-0.096	-0.263	0.0441	0.0021	-0.0013
4550	-4.151	-0.066	-0.212	0.0441	0.0022	-0.0013
4699	0.510	0.420	0.234	0.0182	-0.0117	0.0167
4700	0.159	-0.008	0.453	0.0169	-0.0149	0.0167
4748	0.097	-0.078	0.490	0.0167	-0.0149	0.0167
4749	-0.108	-0.342	0.618	0.0413	-0.0149	0.0167
4750	-0.323	-0.537	1.133	0.0675	-0.0149	0.0167
4800	-0.535	-0.422	1.992	0.0675	-0.0149	0.0167
4849	-0.127	-0.272	0.097	0.0066	0.0016	0.0076
4850	-0.062	-0.299	0.316	-0.0005	0.0029	0.0076
4898	-0.050	-0.296	0.353	-0.0007	0.0029	0.0076

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
4899	-0.052	-0.398	0.413	0.0239	0.0029	0.0076
4900	-0.112	-0.525	0.766	0.0502	0.0029	0.0076
4950	-0.209	-0.410	1.403	0.0501	0.0029	0.0076
4999	-1.000	-1.348	-0.069	0.0525	-0.0008	-0.0003
5000	-1.015	-2.701	0.141	0.0515	-0.0008	-0.0026
5048	-1.018	-2.918	0.176	0.0494	-0.0010	-0.0030
5049	-1.022	-3.258	0.286	0.0175	-0.0025	-0.0037
5050	-0.984	-3.285	0.295	-0.0063	-0.0026	-0.0065
5100	-0.983	-3.284	0.294	-0.0063	-0.0026	-0.0065
5150	-0.962	-3.282	0.272	-0.0064	-0.0026	-0.0065
5200	-0.826	-3.267	0.137	-0.0064	-0.0027	-0.0065
5250	-0.804	-3.264	0.116	-0.0064	-0.0027	-0.0065
5300	-0.669	-3.081	-0.000	-0.0063	-0.0043	-0.0060
5310	-0.591	-2.961	-0.102	-0.0062	-0.0054	-0.0054
5320	-0.573	-2.959	-0.123	-0.0062	-0.0054	-0.0054
5330	-0.555	-2.956	-0.144	-0.0062	-0.0054	-0.0054
5350	-0.459	-2.790	-0.224	-0.0013	-0.0069	-0.0046
5400	-0.444	-2.787	-0.228	-0.0012	-0.0069	-0.0046
5450	-0.428	-2.785	-0.232	-0.0011	-0.0069	-0.0046
5500	-0.344	-2.614	-0.197	0.0036	-0.0084	-0.0039
5550	-0.331	-2.585	-0.183	0.0041	-0.0087	-0.0038
5600	-0.318	-2.556	-0.167	0.0046	-0.0089	-0.0037
5650	-0.215	-2.287	-0.000	0.0033	-0.0113	-0.0029
5660	-0.148	-2.070	0.027	0.0001	-0.0133	-0.0024
5670	-0.140	-2.042	0.026	-0.0001	-0.0135	-0.0023
5680	-0.132	-2.013	0.025	-0.0002	-0.0138	-0.0022
5685	-0.029	-1.482	0.032	0.0002	-0.0185	-0.0011
5690	-0.025	-1.453	0.033	0.0000	-0.0187	-0.0011
5695	-0.021	-1.425	0.034	-0.0002	-0.0190	-0.0010
5700	-0.000	-1.218	-0.000	-0.0039	-0.0208	-0.0007
5750	0.008	-1.100	-0.082	-0.0054	-0.0219	-0.0005
5800	0.010	-1.098	-0.100	-0.0054	-0.0219	-0.0005
5850	0.012	-1.096	-0.118	-0.0054	-0.0219	-0.0005
5900	0.020	-0.932	-0.199	-0.0018	-0.0234	-0.0003
5950	0.021	-0.930	-0.205	-0.0017	-0.0234	-0.0003
6000	0.022	-0.927	-0.210	-0.0017	-0.0234	-0.0003
6005	0.028	-0.438	-0.000	0.0046	-0.0278	0.0001
6007	-0.003	0.239	-0.000	-0.0073	-0.0339	0.0009
6010	-0.010	0.299	-0.068	-0.0086	-0.0345	0.0010
6030	-0.014	0.301	-0.097	-0.0086	-0.0345	0.0010
6050	-0.017	0.303	-0.126	-0.0086	-0.0345	0.0010
6100	-0.024	0.356	-0.183	-0.0073	-0.0350	0.0011
6112	-0.040	0.469	-0.261	-0.0015	-0.0360	0.0013
6125	-0.044	0.471	-0.266	-0.0014	-0.0360	0.0013
6137	-0.049	0.474	-0.271	-0.0013	-0.0360	0.0013
6150	-0.065	0.572	-0.243	0.0078	-0.0369	0.0015
6200	-0.070	0.574	-0.216	0.0080	-0.0369	0.0015
6250	-0.102	0.589	-0.038	0.0089	-0.0370	0.0015
6300	-0.107	0.592	-0.008	0.0090	-0.0370	0.0015

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
6348	-0.135	0.741	0.218	0.0103	-0.0383	0.0017
6349	0.001	0.753	0.289	-0.0023	-0.0396	0.0011
6350	0.390	0.642	0.259	-0.0135	-0.0437	0.0000
6400	0.572	0.574	0.224	-0.0143	-0.0440	0.0001
6449	1.617	0.215	0.014	-0.0132	-0.0341	0.0004
6450	2.145	-0.044	-0.196	-0.0061	-0.0015	0.0007
6599	-1.796	-1.423	-0.161	0.0523	0.0021	-0.0034
6600	-1.723	-2.726	0.049	0.0489	0.0032	-0.0065
6648	-1.709	-2.931	0.085	0.0466	0.0032	-0.0070
6649	-1.644	-3.246	0.186	0.0160	0.0040	-0.0088
6650	-1.523	-3.272	0.198	-0.0042	0.0047	-0.0130
6700	-1.522	-3.271	0.198	-0.0043	0.0047	-0.0131
6750	-1.478	-3.268	0.183	-0.0043	0.0046	-0.0131
6800	-1.205	-3.253	0.090	-0.0043	0.0046	-0.0131
6850	-1.162	-3.250	0.076	-0.0043	0.0046	-0.0131
6900	-0.894	-3.066	-0.000	-0.0050	0.0034	-0.0119
6910	-0.738	-2.946	-0.089	-0.0055	0.0026	-0.0106
6920	-0.703	-2.943	-0.107	-0.0055	0.0025	-0.0106
6930	-0.668	-2.941	-0.126	-0.0055	0.0025	-0.0106
6950	-0.478	-2.774	-0.200	-0.0013	0.0014	-0.0090
7000	-0.448	-2.771	-0.204	-0.0012	0.0014	-0.0090
7050	-0.418	-2.769	-0.208	-0.0012	0.0014	-0.0090
7100	-0.255	-2.597	-0.178	0.0032	0.0003	-0.0075
7150	-0.230	-2.568	-0.166	0.0037	0.0001	-0.0073
7200	-0.207	-2.539	-0.151	0.0041	-0.0001	-0.0070
7250	-0.022	-2.269	-0.000	0.0030	-0.0019	-0.0049
7260	0.082	-2.051	0.020	-0.0001	-0.0034	-0.0034
7270	0.093	-2.022	0.019	-0.0002	-0.0036	-0.0032
7280	0.103	-1.994	0.018	-0.0003	-0.0038	-0.0030
7285	0.196	-1.460	0.028	0.0003	-0.0074	-0.0002
7290	0.196	-1.431	0.030	0.0002	-0.0076	-0.0001
7295	0.196	-1.403	0.031	-0.0001	-0.0077	0.0000
7300	0.187	-1.195	-0.000	-0.0038	-0.0091	0.0007
7350	0.174	-1.078	-0.081	-0.0054	-0.0099	0.0010
7400	0.171	-1.075	-0.099	-0.0054	-0.0099	0.0011
7450	0.167	-1.073	-0.117	-0.0054	-0.0100	0.0011
7500	0.144	-0.909	-0.198	-0.0018	-0.0111	0.0013
7550	0.139	-0.906	-0.204	-0.0017	-0.0111	0.0013
7600	0.135	-0.904	-0.209	-0.0017	-0.0111	0.0013
7605	0.056	-0.413	-0.000	0.0046	-0.0144	0.0011
7607	-0.003	0.267	-0.000	-0.0074	-0.0191	0.0006
7610	-0.008	0.326	-0.068	-0.0087	-0.0195	0.0006
7620	-0.010	0.328	-0.098	-0.0087	-0.0195	0.0006
7650	-0.012	0.330	-0.127	-0.0087	-0.0195	0.0006
7700	-0.015	0.383	-0.185	-0.0075	-0.0198	0.0006
7712	-0.024	0.496	-0.265	-0.0017	-0.0206	0.0007
7725	-0.026	0.498	-0.271	-0.0016	-0.0206	0.0007
7737	-0.028	0.501	-0.276	-0.0015	-0.0206	0.0007
7750	-0.036	0.599	-0.250	0.0075	-0.0213	0.0007

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
7800	-0.039	0.601	-0.225	0.0077	-0.0213	0.0007
7850	-0.054	0.616	-0.053	0.0086	-0.0214	0.0007
7900	-0.056	0.618	-0.023	0.0087	-0.0214	0.0007
7948	-0.070	0.768	0.196	0.0098	-0.0224	0.0008
7949	0.012	0.775	0.258	-0.0037	-0.0234	0.0003
7950	0.246	0.649	0.223	-0.0152	-0.0264	-0.0005
8000	0.356	0.574	0.187	-0.0159	-0.0266	-0.0004
8049	0.990	0.177	-0.023	-0.0143	-0.0206	-0.0002
8050	1.303	-0.099	-0.233	-0.0061	-0.0004	0.0001
8199	-2.608	-1.437	-0.173	0.0543	0.0050	-0.0047
8200	-2.451	-2.778	0.037	0.0501	0.0071	-0.0086
8248	-2.420	-2.988	0.072	0.0478	0.0073	-0.0092
8249	-2.294	-3.309	0.175	0.0164	0.0103	-0.0122
8250	-2.106	-3.336	0.190	-0.0041	0.0119	-0.0181
8300	-2.103	-3.334	0.189	-0.0041	0.0119	-0.0181
8350	-2.043	-3.332	0.175	-0.0042	0.0119	-0.0181
8400	-1.666	-3.317	0.086	-0.0041	0.0119	-0.0181
8450	-1.606	-3.314	0.073	-0.0041	0.0119	-0.0181
8500	-1.236	-3.129	-0.000	-0.0049	0.0111	-0.0164
8510	-1.021	-3.009	-0.088	-0.0055	0.0106	-0.0147
8520	-0.972	-3.007	-0.106	-0.0055	0.0106	-0.0147
8530	-0.923	-3.004	-0.124	-0.0054	0.0106	-0.0147
8550	-0.661	-2.837	-0.198	-0.0013	0.0099	-0.0125
8600	-0.620	-2.834	-0.203	-0.0012	0.0099	-0.0125
8650	-0.578	-2.832	-0.206	-0.0012	0.0099	-0.0124
8700	-0.352	-2.660	-0.177	0.0032	0.0091	-0.0104
8750	-0.319	-2.631	-0.164	0.0037	0.0090	-0.0100
8800	-0.286	-2.602	-0.150	0.0041	0.0089	-0.0097
8850	-0.030	-2.331	-0.000	0.0029	0.0077	-0.0068
8860	0.114	-2.113	0.020	-0.0001	0.0068	-0.0047
8870	0.129	-2.084	0.019	-0.0002	0.0067	-0.0044
8880	0.144	-2.056	0.017	-0.0003	0.0066	-0.0042
8885	0.272	-1.521	0.028	0.0003	0.0043	-0.0003
8890	0.273	-1.493	0.030	0.0002	0.0042	-0.0001
8895	0.273	-1.464	0.031	-0.0001	0.0040	0.0000
8900	0.259	-1.256	-0.000	-0.0038	0.0031	0.0010
8950	0.241	-1.138	-0.081	-0.0054	0.0026	0.0015
9000	0.236	-1.136	-0.099	-0.0054	0.0026	0.0015
9050	0.231	-1.133	-0.117	-0.0054	0.0026	0.0015
9100	0.198	-0.969	-0.198	-0.0018	0.0019	0.0019
9150	0.192	-0.967	-0.204	-0.0017	0.0019	0.0019
9200	0.185	-0.964	-0.210	-0.0017	0.0019	0.0019
9205	0.073	-0.473	-0.000	0.0046	-0.0002	0.0016
9207	-0.005	0.208	-0.000	-0.0075	-0.0032	0.0005
9210	-0.008	0.267	-0.069	-0.0088	-0.0034	0.0004
9230	-0.009	0.269	-0.099	-0.0088	-0.0034	0.0004
9250	-0.011	0.272	-0.129	-0.0088	-0.0034	0.0004
9300	-0.013	0.325	-0.187	-0.0076	-0.0037	0.0003
9312	-0.016	0.438	-0.269	-0.0018	-0.0042	0.0002

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
9325	-0.017	0.440	-0.275	-0.0017	-0.0042	0.0002
9337	-0.018	0.443	-0.281	-0.0015	-0.0042	0.0002
9350	-0.019	0.541	-0.255	0.0076	-0.0046	0.0000
9400	-0.019	0.543	-0.230	0.0077	-0.0046	0.0000
9450	-0.019	0.558	-0.057	0.0087	-0.0046	-0.0000
9500	-0.019	0.560	-0.027	0.0088	-0.0046	-0.0000
9548	-0.016	0.710	0.195	0.0102	-0.0053	-0.0004
9549	0.020	0.725	0.270	-0.0014	-0.0066	-0.0026
9550	0.107	0.626	0.245	-0.0121	-0.0092	-0.0039
9600	0.146	0.564	0.210	-0.0129	-0.0094	-0.0040
9649	0.372	0.238	-0.000	-0.0119	-0.0072	-0.0047
9650	0.476	0.007	-0.210	-0.0051	0.0006	-0.0055
9651	0.066	0.267	-0.180	-0.0042	0.0010	-0.0111
9799	-3.446	-1.431	-0.101	0.0572	0.0075	-0.0055
9800	-3.215	-2.849	0.109	0.0532	0.0105	-0.0099
9848	-3.170	-3.071	0.145	0.0508	0.0108	-0.0106
9849	-2.993	-3.412	0.254	0.0172	0.0161	-0.0146
9850	-2.751	-3.438	0.264	-0.0056	0.0185	-0.0217
9900	-2.748	-3.437	0.263	-0.0057	0.0185	-0.0217
9950	-2.675	-3.435	0.243	-0.0057	0.0185	-0.0218
10000	-2.221	-3.420	0.121	-0.0057	0.0185	-0.0218
10050	-2.149	-3.417	0.103	-0.0057	0.0185	-0.0218
10100	-1.703	-3.233	-0.000	-0.0059	0.0183	-0.0198
10110	-1.441	-3.112	-0.098	-0.0060	0.0182	-0.0179
10120	-1.382	-3.110	-0.118	-0.0060	0.0182	-0.0179
10130	-1.322	-3.107	-0.138	-0.0060	0.0182	-0.0179
10150	-1.003	-2.940	-0.216	-0.0013	0.0180	-0.0153
10200	-0.952	-2.937	-0.220	-0.0012	0.0180	-0.0153
10250	-0.901	-2.935	-0.224	-0.0012	0.0180	-0.0152
10300	-0.624	-2.763	-0.191	0.0035	0.0178	-0.0127
10350	-0.582	-2.734	-0.177	0.0040	0.0177	-0.0123
10400	-0.542	-2.705	-0.162	0.0044	0.0177	-0.0119
10450	-0.232	-2.434	-0.000	0.0032	0.0174	-0.0081
10460	-0.066	-2.216	0.025	0.0001	0.0172	-0.0053
10470	-0.049	-2.187	0.024	-0.0001	0.0171	-0.0050
10480	-0.033	-2.158	0.023	-0.0002	0.0171	-0.0047
10485	0.109	-1.623	0.032	0.0002	0.0165	-0.0005
10490	0.111	-1.594	0.033	0.0000	0.0165	-0.0004
10495	0.112	-1.566	0.034	-0.0002	0.0164	-0.0003
10500	0.109	-1.358	-0.000	-0.0039	0.0162	0.0003
10550	0.103	-1.239	-0.082	-0.0055	0.0161	0.0005
10600	0.101	-1.237	-0.101	-0.0055	0.0161	0.0005
10650	0.099	-1.235	-0.119	-0.0054	0.0161	0.0005
10700	0.087	-1.070	-0.201	-0.0018	0.0159	0.0007
10750	0.085	-1.067	-0.207	-0.0018	0.0159	0.0007
10800	0.083	-1.065	-0.213	-0.0017	0.0159	0.0007
10805	0.038	-0.572	-0.000	0.0048	0.0153	0.0007
10807	-0.008	0.112	-0.000	-0.0081	0.0145	0.0004
10810	-0.011	0.171	-0.074	-0.0096	0.0145	0.0004

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10820	-0.012	0.174	-0.106	-0.0096	0.0145	0.0004
10850	-0.014	0.176	-0.139	-0.0096	0.0144	0.0004
10900	-0.016	0.229	-0.202	-0.0083	0.0144	0.0003
10912	-0.018	0.343	-0.294	-0.0024	0.0143	-0.0001
10925	-0.018	0.345	-0.302	-0.0023	0.0143	-0.0001
10937	-0.018	0.347	-0.310	-0.0022	0.0143	-0.0001
10950	-0.015	0.446	-0.290	0.0074	0.0141	-0.0005
11000	-0.013	0.449	-0.265	0.0075	0.0141	-0.0006
11050	-0.001	0.464	-0.096	0.0086	0.0141	-0.0006
11100	0.001	0.466	-0.067	0.0087	0.0141	-0.0006
11148	0.023	0.617	0.165	0.0117	0.0140	-0.0020
11149	0.025	0.659	0.292	0.0086	0.0116	-0.0089
11150	-0.025	0.691	0.316	0.0043	0.0082	-0.0119
11200	-0.059	0.698	0.280	0.0037	0.0081	-0.0124
11249	-0.244	0.771	0.070	0.0014	0.0061	-0.0155
11250	-0.345	0.758	-0.140	-0.0032	0.0012	-0.0187
11300	3.009	-0.012	-0.082	-0.0053	-0.0026	0.0003
11349	3.458	-0.006	-0.009	-0.0051	-0.0025	0.0002
11350	3.907	-0.002	0.079	-0.0049	-0.0035	0.0001
11370	3.554	0.047	0.206	-0.0025	-0.0387	0.0001
11399	4.217	0.001	0.153	-0.0049	-0.0031	0.0001
11400	4.527	0.003	0.222	-0.0049	-0.0030	0.0001
11449	2.262	0.058	0.137	-0.0011	-0.0484	0.0003
11450	0.769	0.051	0.357	0.0010	-0.0637	0.0003
11500	-0.339	0.267	0.799	-0.0496	-0.0637	0.0003
11550	-0.336	0.152	1.429	-0.0496	-0.0637	0.0003
11599	2.567	0.069	0.362	-0.0004	-0.0659	0.0001
11600	1.263	0.061	0.518	0.0009	-0.0750	0.0001
11648	0.952	0.057	0.556	0.0010	-0.0750	0.0001
11649	0.247	0.155	0.614	-0.0235	-0.0750	0.0001
11650	-0.044	0.281	0.963	-0.0498	-0.0750	0.0001
11700	-0.042	0.166	1.595	-0.0498	-0.0750	0.0001
11800	-0.065	5.785	0.008	0.0001	-0.0041	0.0004
11898	0.504	0.046	0.394	0.0012	-0.0637	0.0003
11899	-0.094	0.142	0.451	-0.0233	-0.0637	0.0003
11900	-0.056	5.433	0.005	0.0001	-0.0041	0.0004
11949	-0.278	5.426	-0.071	0.0001	-0.0041	0.0004
11950	-0.499	5.419	-0.147	0.0001	-0.0041	0.0004
12070	-0.002	4.220	-0.010	0.0002	-0.0041	0.0009
12100	0.138	3.014	-0.032	0.0001	-0.0041	0.0022
12150	-0.182	2.229	-0.151	0.0024	-0.0034	0.0439
12200	-0.208	1.101	-0.235	0.0025	-0.0032	0.0447
12201	-0.332	0.610	-0.266	0.0035	-0.0007	0.0445
12202	-0.331	0.095	-0.282	0.0025	0.0008	0.0372
12250	-0.293	-0.120	-0.275	0.0039	0.0029	0.0349
12299	-0.232	-0.174	-0.133	0.0041	0.0061	0.0331
12300	-0.068	-0.254	0.092	0.0032	0.0098	0.0303
12348	0.264	-0.296	0.423	-0.0030	0.0126	0.0262
12349	0.342	-0.227	0.381	-0.0101	0.0194	0.0216

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
12350	0.238	-0.167	0.226	-0.0104	0.0223	0.0140
12400	0.052	-0.004	0.049	-0.0124	0.0223	0.0135
12450	-0.000	0.000	0.000	-0.0124	0.0223	0.0135
12500	0.071	1.842	-0.016	-0.0002	-0.0039	-0.0012
12520	0.075	0.672	-0.008	-0.0000	-0.0037	0.0023
12570	-0.243	0.423	-0.112	0.0012	-0.0034	0.0105
12620	-0.268	0.158	-0.197	0.0012	-0.0032	0.0105
12621	-0.392	0.049	-0.228	0.0017	-0.0007	0.0100
12622	-0.387	-0.059	-0.239	0.0017	0.0012	0.0071
12670	-0.357	-0.128	-0.232	0.0041	0.0001	0.0070
12719	-0.333	-0.184	-0.091	0.0043	0.0026	0.0064
12720	-0.248	-0.266	0.134	0.0032	0.0047	0.0054
12768	-0.097	-0.307	0.465	-0.0032	0.0056	0.0041
12769	-0.030	-0.232	0.421	-0.0110	0.0079	0.0026
12770	-0.002	-0.167	0.252	-0.0118	0.0088	0.0001
12820	-0.000	-0.004	0.054	-0.0138	0.0088	-0.0001
12870	-0.000	0.000	0.000	-0.0139	0.0088	-0.0001
12900	0.554	-0.485	0.001	-0.0001	-0.0034	0.0099
12920	1.713	-1.643	0.016	-0.0002	-0.0032	0.0062
12921	1.835	-1.882	0.020	-0.0002	-0.0029	0.0028
12922	1.647	-1.705	0.008	-0.0009	-0.0021	-0.0252
12970	1.380	-1.317	-0.143	0.0017	-0.0080	-0.0229
13020	1.353	-0.722	-0.349	0.0018	-0.0082	-0.0236
13021	1.223	-0.457	-0.451	0.0025	-0.0091	-0.0246
13022	1.067	-0.137	-0.765	0.0024	-0.0355	-0.0290
13070	0.599	-0.025	-0.962	0.0034	-0.0358	-0.0303
13119	0.198	-0.070	-0.819	0.0034	-0.0316	-0.0315
13120	-0.357	-0.132	-0.593	0.0022	-0.0279	-0.0334
13168	-1.114	-0.150	-0.260	-0.0028	-0.0260	-0.0362
13169	-1.210	-0.146	-0.261	0.0019	-0.0213	-0.0393
13170	-0.796	-0.168	-0.192	0.0125	-0.0194	-0.0445
13220	-0.174	-0.004	-0.043	0.0111	-0.0194	-0.0448
13270	-0.000	0.000	0.000	0.0111	-0.0194	-0.0448
13300	1.275	-0.560	-0.012	-0.0012	-0.0005	-0.0543
13400	1.139	0.084	-0.017	-0.0012	-0.0004	-0.0564
13401	0.733	2.083	-0.026	-0.0010	-0.0003	-0.0576
13402	0.134	3.687	-0.019	-0.0009	-0.0001	-0.0494
13450	-0.708	4.153	-0.007	-0.0002	-0.0002	-0.0196
13499	-1.130	3.819	-0.002	-0.0001	-0.0001	-0.0148
13500	-1.663	3.301	0.001	-0.0001	-0.0000	-0.0151
13520	-0.338	1.308	0.001	0.0000	0.0000	0.0069
13549	0.106	-0.397	-0.002	0.0005	-0.0000	0.0045
13550	-0.768	-0.612	-0.000	0.0000	0.0001	-0.0009
13600	-0.085	-2.625	0.000	-0.0000	0.0002	0.0032
13650	0.005	-3.095	0.001	-0.0000	0.0002	0.0010
13699	0.031	-3.120	0.002	-0.0000	0.0002	0.0009
13700	0.039	-3.408	0.002	-0.0000	0.0002	-0.0004
13750	-0.023	-3.881	0.002	0.0000	0.0002	-0.0027
13800	-0.291	-4.552	-0.002	0.0001	0.0003	-0.0063

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
13850	-0.578	-4.596	-0.009	0.0002	0.0003	-0.0064
13851	-0.901	-5.442	-0.028	0.0003	0.0003	0.0050
13852	-0.253	-5.013	-0.040	0.0001	0.0002	0.0440
13900	0.249	-3.721	-0.032	-0.0005	-0.0011	0.0297
14100	4.204	0.928	-0.018	0.0029	0.0002	0.0024
14150	3.905	0.672	-0.011	0.0028	0.0002	0.0095
14200	3.871	0.323	-0.004	0.0028	0.0002	0.0094
14250	3.164	-0.001	0.001	0.0023	0.0000	0.0015
14300	2.968	-0.012	0.001	0.0022	-0.0000	0.0001
14350	2.934	-0.014	0.001	0.0022	-0.0000	0.0000
14400	2.738	-0.007	0.000	0.0021	-0.0000	-0.0005
14420	0.980	-0.021	-0.000	0.0011	-0.0000	0.0030
14700	-1.098	1.963	0.000	-0.0002	0.0000	-0.0319
14720	-1.051	0.520	-0.002	-0.0002	0.0000	-0.0323
14721	-0.439	-1.305	-0.004	-0.0004	0.0000	-0.0405
14722	0.173	-3.632	-0.002	-0.0005	-0.0001	-0.0450
14723	0.665	-5.005	0.006	-0.0004	-0.0009	-0.0398
14750	1.145	-5.361	0.010	-0.0003	-0.0012	-0.0008
14770	0.588	-4.486	-0.012	-0.0003	-0.0017	0.0071
14800	0.231	-3.198	-0.046	0.0000	-0.0024	-0.0004
14850	-0.088	-2.388	-0.142	0.0003	-0.0031	-0.0466
14900	-0.114	-1.189	-0.220	0.0003	-0.0029	-0.0475
14901	-0.253	-0.605	-0.250	0.0004	-0.0002	-0.0477
14902	-0.245	-0.071	-0.255	0.0032	0.0025	-0.0404
14950	-0.182	0.052	-0.238	0.0082	0.0044	-0.0367
14999	-0.101	-0.049	-0.096	0.0087	0.0070	-0.0353
15000	0.068	-0.227	0.130	0.0103	0.0081	-0.0331
15048	0.267	-0.559	0.461	0.0123	0.0025	-0.0298
15049	0.258	-0.601	0.443	0.0175	-0.0066	-0.0262
15050	0.210	-0.417	0.305	0.0198	-0.0113	-0.0200
15100	0.004	-0.075	0.055	0.0198	-0.0141	-0.0195
15150	-0.000	0.000	0.000	0.0198	-0.0142	-0.0195
15500	0.102	-2.154	-0.021	0.0002	-0.0025	0.0012
15550	0.104	-1.114	-0.011	0.0001	-0.0025	-0.0012
15600	-0.214	-0.735	-0.101	0.0008	-0.0031	-0.0169
15650	-0.240	-0.305	-0.180	0.0009	-0.0030	-0.0170
15651	-0.378	-0.106	-0.211	0.0012	0.0000	-0.0163
15652	-0.359	0.052	-0.196	0.0029	0.0051	-0.0121
15700	-0.262	0.064	-0.164	0.0040	0.0065	-0.0111
15749	-0.156	0.016	-0.023	0.0041	0.0089	-0.0107
15750	0.046	-0.064	0.203	0.0044	0.0096	-0.0102
15798	0.276	-0.198	0.534	0.0048	0.0033	-0.0095
15799	0.266	-0.218	0.513	0.0060	-0.0076	-0.0087
15800	0.211	-0.154	0.354	0.0065	-0.0135	-0.0073
15850	0.004	-0.028	0.064	0.0065	-0.0164	-0.0072
15900	-0.000	0.000	0.000	0.0065	-0.0164	-0.0072
16300	0.145	-0.094	-0.007	-0.0000	-0.0022	-0.0004
16350	0.138	0.925	-0.010	0.0000	-0.0018	0.0025
16400	-0.181	0.596	-0.094	-0.0007	-0.0032	0.0141

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
16450	-0.206	0.239	-0.175	-0.0007	-0.0031	0.0141
16451	-0.344	0.075	-0.207	-0.0011	-0.0002	0.0135
16452	-0.329	-0.052	-0.200	-0.0025	0.0043	0.0097
16500	-0.241	-0.059	-0.172	-0.0035	0.0060	0.0089
16549	-0.141	-0.017	-0.030	-0.0035	0.0084	0.0087
16550	0.052	0.051	0.195	-0.0037	0.0092	0.0083
16598	0.276	0.163	0.526	-0.0041	0.0031	0.0077
16599	0.265	0.180	0.505	-0.0049	-0.0075	0.0071
16600	0.210	0.127	0.349	-0.0053	-0.0132	0.0060
16650	0.004	0.023	0.063	-0.0053	-0.0162	0.0059
16700	-0.000	-0.000	0.000	-0.0053	-0.0162	0.0059
17100	-0.327	1.961	0.004	0.0002	-0.0008	0.0091
17150	-1.490	3.001	0.004	-0.0003	0.0001	0.0109
17169	-1.711	2.508	0.006	-0.0003	0.0001	0.0327
17170	-1.933	1.744	0.006	-0.0003	0.0000	0.0400
17399	-1.101	2.355	-0.067	-0.0020	0.0010	-0.0227
17400	-1.858	3.442	-0.016	-0.0008	0.0006	-0.0027
17419	-1.807	3.618	-0.026	-0.0008	0.0006	-0.0033
17420	-1.751	3.794	-0.036	-0.0008	0.0006	-0.0034
17699	-0.691	-0.266	0.031	0.0015	0.0009	-0.0013
17700	-0.642	0.126	0.051	0.0004	0.0009	-0.0006
17749	-0.653	0.526	0.051	-0.0001	0.0008	0.0002
17750	-0.672	0.926	0.039	-0.0004	0.0008	-0.0001
17799	-0.685	1.332	0.026	-0.0004	0.0007	-0.0008
17800	-0.648	1.738	0.012	-0.0004	0.0007	-0.0032
17849	-0.544	2.075	0.002	-0.0004	0.0007	-0.0041
17850	-0.424	2.411	-0.007	-0.0004	0.0007	-0.0044
17899	0.644	0.132	0.002	0.0001	-0.0001	0.0035
17900	0.877	0.216	0.004	0.0001	-0.0001	0.0034
17949	0.529	0.775	0.002	-0.0001	-0.0001	0.0137
17950	0.747	1.014	0.004	-0.0000	-0.0001	0.0020
17999	0.437	1.387	0.001	-0.0001	-0.0000	0.0249
18000	0.634	1.825	0.002	-0.0000	-0.0001	0.0044
18049	0.504	2.162	0.001	-0.0000	-0.0001	0.0051
18050	0.360	2.498	-0.001	-0.0000	-0.0001	0.0054
18100	-0.177	0.047	0.015	0.0003	0.0005	-0.0016
18150	-0.155	0.010	0.004	0.0003	0.0004	-0.0015
18199	-0.024	-0.004	-0.000	0.0003	0.0002	-0.0008
18200	0.106	-0.009	-0.001	0.0003	0.0001	-0.0001
18250	0.128	-0.010	-0.003	0.0003	0.0000	0.0000
18300	0.389	0.013	-0.002	0.0002	-0.0001	0.0020
18350	0.412	0.063	0.000	0.0002	-0.0001	0.0021
18399	-0.455	0.727	0.022	-0.0003	0.0007	-0.0122
18400	-0.237	0.401	0.010	-0.0003	0.0003	-0.0116
18450	-0.217	0.124	0.002	-0.0002	0.0003	-0.0110
18500	0.027	-0.014	-0.002	-0.0002	0.0000	-0.0003
18550	0.048	-0.013	-0.002	-0.0002	0.0000	0.0004
18600	0.291	0.132	-0.001	-0.0001	-0.0001	0.0117
18650	0.312	0.425	0.000	-0.0001	-0.0001	0.0123

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
18699	-0.452	1.330	0.002	-0.0003	0.0003	-0.0236
18700	-0.255	0.725	-0.001	-0.0003	0.0000	-0.0213
18750	-0.236	0.218	-0.002	-0.0003	0.0000	-0.0202
18800	-0.016	-0.033	-0.002	-0.0002	-0.0000	-0.0005
18850	0.002	-0.030	-0.001	-0.0002	-0.0000	0.0007
18900	0.222	0.230	-0.001	-0.0002	-0.0000	0.0209
18950	0.241	0.756	-0.000	-0.0002	-0.0000	0.0221
19999	0.599	-8.497	0.070	-0.0042	0.0154	-0.0081
20000	0.833	-8.414	0.224	-0.0051	0.0111	-0.0123
20048	1.045	-8.178	0.603	-0.0053	-0.0020	-0.0225
20049	1.016	-8.032	0.587	-0.0065	-0.0039	-0.0263
20050	1.002	-7.704	0.559	-0.0091	0.0000	-0.0375
20100	0.256	-4.204	0.489	-0.0030	0.0045	-0.0450
20148	-0.490	-0.576	1.233	0.0030	0.0062	-0.0406
20149	-0.512	-0.227	1.292	0.0013	0.0037	-0.0322
20150	-0.506	-0.100	1.298	0.0010	-0.0050	-0.0293
20200	0.076	-0.047	0.921	0.0008	-0.0215	-0.0212
20201	1.024	-0.040	0.606	-0.0003	-0.0300	-0.0144
20202	1.429	-0.011	0.436	-0.0041	-0.0423	-0.0105
20250	1.581	0.026	0.141	-0.0066	-0.0165	-0.0022
20251	1.355	0.051	-0.081	-0.0058	-0.0030	-0.0001
20252	1.130	0.034	-0.075	-0.0051	0.0015	0.0018
20270	0.902	-0.062	-0.026	-0.0043	0.0013	0.0061
20300	0.118	-0.765	-0.005	-0.0017	0.0009	-0.0013
20350	0.209	-0.405	-0.027	0.0018	0.0058	-0.0079
20400	0.378	-0.393	0.011	0.0020	0.0059	-0.0083
20449	0.399	-0.048	0.227	0.0257	0.0082	-0.0133
20450	0.538	-0.280	0.068	0.0058	0.0075	-0.0081
20499	0.555	-0.228	0.091	0.0015	0.0064	-0.0035
20500	0.552	-0.175	0.083	-0.0018	0.0052	-0.0030
20550	0.618	-0.163	0.041	-0.0021	0.0051	-0.0037
20650	-0.495	-0.084	0.003	-0.0014	-0.0001	-0.0023
20700	-0.509	-0.041	0.001	-0.0014	-0.0001	-0.0017
20701	-0.798	-0.312	-0.001	-0.0013	0.0000	0.0163
20702	-1.018	-0.876	0.001	-0.0012	0.0002	0.0186
20703	-1.044	-1.012	0.000	-0.0010	0.0006	0.0013
20750	-0.941	-0.997	-0.005	-0.0007	0.0008	-0.0128
20751	-0.565	-0.776	-0.024	-0.0005	0.0010	-0.0079
20752	-0.531	-0.590	-0.032	0.0002	0.0012	0.0034
20799	-0.610	-0.497	-0.027	0.0011	0.0013	0.0051
20800	-0.676	-0.404	-0.009	0.0025	0.0014	0.0013
20900	-0.078	-0.007	0.044	0.0301	-0.0057	0.0061
20950	-0.065	0.121	0.165	0.0305	-0.0059	0.0061
20999	0.208	0.751	0.264	0.0539	0.0051	-0.0074
21000	0.261	0.183	0.353	0.0456	0.0037	-0.0079
21500	-0.223	-12.344	0.246	0.0233	0.0116	-0.0185
21550	-0.225	-12.283	0.284	0.0235	0.0117	-0.0186
21600	-0.240	-11.888	0.532	0.0246	0.0120	-0.0191
21650	-0.243	-11.824	0.572	0.0248	0.0120	-0.0191

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
21698	-0.321	-11.641	0.689	0.0332	0.0100	-0.0207
21699	-0.316	-11.183	0.725	0.0534	-0.0106	-0.0424
21700	-0.054	-10.267	0.645	0.0990	-0.0414	-0.0570
21750	0.644	-8.710	0.515	0.1062	-0.0481	-0.0563
21798	2.392	-4.760	0.209	0.1121	-0.0429	-0.0546
21799	2.691	-3.530	0.111	0.1030	-0.0181	-0.0500
21800	2.737	-2.734	0.029	0.0950	-0.0095	-0.0351
21850	2.699	-2.584	-0.000	0.0938	-0.0091	-0.0341
21900	1.425	0.043	-0.000	0.0532	0.0017	-0.0041
21950	0.161	-0.816	-0.000	0.0126	0.0020	0.0143
22000	0.028	-1.050	0.011	0.0083	0.0003	0.0131
22050	-0.123	-1.240	0.007	0.0035	0.0000	-0.0019
22100	-0.058	-1.065	0.029	-0.0004	0.0001	-0.0025
22200	-0.007	-1.053	0.020	-0.0005	0.0001	-0.0024
22250	0.002	-0.036	-0.000	0.0000	0.0005	0.0006
22270	-0.001	0.981	-0.006	-0.0002	0.0010	-0.0001
22271	-0.000	1.377	0.013	0.0018	0.0011	0.0000
22272	-0.001	1.574	0.091	0.0039	0.0012	0.0000
22273	0.000	1.771	0.211	0.0034	0.0013	-0.0001
22274	0.005	1.969	0.214	-0.0082	0.0014	-0.0003
22275	0.006	1.938	0.126	-0.0265	0.0014	-0.0006
22300	0.005	1.825	-0.023	-0.0365	0.0013	-0.0007
22301	-0.007	1.187	-0.979	-0.0293	0.0016	-0.0008
22302	-0.009	1.126	-1.048	-0.0058	0.0019	-0.0004
22350	-0.010	1.122	-1.013	0.0117	0.0021	-0.0001
22351	-0.008	1.334	-0.559	0.0132	0.0026	-0.0001
22352	0.002	1.576	-0.340	0.0028	0.0032	-0.0008
22353	0.039	1.789	-0.273	0.0097	0.0037	-0.0021
22354	0.097	1.628	-0.002	0.0503	0.0052	-0.0062
22400	0.179	1.043	0.222	0.0551	0.0054	-0.0072
22700	-0.335	-0.855	0.015	0.0041	0.0004	-0.0181
22750	-0.351	-0.478	0.023	0.0041	0.0004	-0.0180
22751	-0.502	-0.188	0.024	0.0046	-0.0008	-0.0181
22752	-0.448	-0.060	-0.007	0.0020	-0.0091	-0.0120
22800	-0.352	-0.021	-0.053	-0.0026	-0.0133	-0.0050
22850	-0.240	0.134	-0.104	-0.0035	-0.0168	-0.0054
22900	-0.129	0.150	-0.177	-0.0035	-0.0170	-0.0052
22901	-0.051	0.327	-0.242	-0.0006	-0.0211	-0.0034
22902	-0.130	0.323	-0.251	0.0016	-0.0246	0.0002
22950	-0.392	0.286	-0.242	0.0031	-0.0284	0.0008
22951	-0.686	0.237	-0.154	0.0048	-0.0275	-0.0002
22952	-0.961	0.154	-0.049	0.0095	-0.0240	-0.0024
23000	-1.040	0.088	0.093	0.0094	-0.0070	-0.0025
23001	-0.807	0.028	0.127	0.0085	0.0013	-0.0015
23002	-0.574	0.005	0.064	0.0075	0.0023	-0.0003
23003	-0.383	0.005	0.022	0.0068	0.0014	0.0001
23020	-0.193	0.007	0.001	0.0060	0.0006	-0.0002
23021	-0.004	-0.004	-0.005	0.0052	0.0001	-0.0013
23022	0.186	-0.051	-0.005	0.0044	-0.0001	-0.0032

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
23023	0.419	-0.177	-0.003	0.0035	-0.0001	-0.0055
23024	0.652	-0.319	-0.001	0.0025	-0.0001	-0.0015
23025	0.629	-0.302	0.007	0.0018	0.0004	0.0081
23050	0.513	-0.264	0.013	-0.0001	0.0010	0.0104
23051	0.191	-0.027	-0.002	-0.0011	0.0009	0.0094
23052	-0.019	0.429	-0.141	-0.0044	0.0008	0.0008
23053	-0.023	0.665	-0.260	-0.0010	0.0008	-0.0001
23054	-0.017	0.648	-0.250	0.0065	0.0008	-0.0003
23100	-0.010	0.540	-0.216	0.0127	0.0004	-0.0002
23149	-0.010	0.536	-0.214	0.0127	0.0004	-0.0002
23150	-0.010	0.535	-0.213	0.0127	0.0004	-0.0002
23200	-0.000	0.000	0.120	0.0075	0.0001	-0.0002
23250	0.000	-0.000	0.459	-0.0015	-0.0000	-0.0002
23300	-0.000	0.000	0.803	0.0005	0.0000	-0.0002
23350	0.000	-0.020	1.149	0.0005	0.0000	-0.0002
23999	-0.449	-0.187	0.016	-0.0000	0.0011	-0.0132
24000	-0.003	0.031	0.005	-0.0000	0.0009	-0.0141
24049	0.002	0.023	0.142	0.0006	-0.0003	-0.0112
24050	-0.008	-0.001	0.279	0.0013	-0.0004	-0.0082
24100	-0.010	-0.017	0.345	0.0015	0.0006	-0.0068
24150	-0.003	-0.035	0.350	0.0015	0.0007	-0.0067
24170	-0.001	-0.039	0.351	0.0015	0.0007	-0.0067
24200	0.011	-0.049	0.390	0.0015	0.0031	-0.0059
24220	0.032	-0.059	0.429	0.0015	0.0031	-0.0059
24250	0.039	-0.063	0.430	0.0015	0.0031	-0.0059
24270	0.044	-0.065	0.431	0.0015	0.0031	-0.0059
24298	0.136	-0.152	0.240	0.0014	0.0112	-0.0038
24299	0.124	-0.157	0.208	0.0023	0.0059	-0.0008
24300	0.112	-0.146	0.201	0.0033	0.0005	0.0004
24320	0.102	-0.127	0.167	0.0033	0.0027	0.0012
24350	0.070	-0.089	0.162	0.0033	0.0028	0.0013
24370	0.016	-0.042	0.084	0.0036	0.0045	0.0034
24371	-0.055	0.026	-0.004	0.0061	0.0044	0.0058
24372	-0.096	0.133	-0.080	0.0099	-0.0003	0.0078
24373	-0.089	0.197	-0.074	0.0147	-0.0045	0.0095
24400	-0.081	0.254	-0.051	0.0136	-0.0036	0.0049
24419	-0.075	0.260	-0.046	0.0134	-0.0039	0.0044
24420	-0.056	0.276	-0.029	0.0130	-0.0038	0.0019
24421	0.126	0.036	0.008	0.0096	-0.0001	-0.0070
24422	0.307	-0.012	0.001	0.0061	0.0014	0.0009
24423	0.380	-0.002	-0.031	0.0048	0.0036	0.0006
24424	0.452	0.003	-0.092	0.0034	0.0050	0.0002
24425	0.524	0.003	-0.139	0.0021	-0.0014	-0.0002
24426	0.504	-0.001	-0.109	0.0016	-0.0162	-0.0006
24450	0.421	-0.006	-0.079	0.0002	-0.0207	-0.0005
24451	0.135	-0.002	-0.004	-0.0007	-0.0191	-0.0014
24469	0.006	0.005	0.040	-0.0013	-0.0153	-0.0019
24470	-0.101	0.018	0.083	-0.0021	-0.0130	-0.0024
24500	-0.255	0.055	0.161	-0.0030	-0.0090	-0.0033

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
24530	-0.358	0.089	0.166	-0.0030	-0.0088	-0.0033
24536	0.000	-0.057	-0.000	-0.0036	-0.0029	-0.0003
24548	-0.400	0.107	0.200	-0.0028	-0.0055	-0.0037
24549	-0.420	0.108	0.208	-0.0010	-0.0054	-0.0047
24550	-0.429	0.087	0.231	0.0002	-0.0081	-0.0070
24570	-0.304	-0.083	0.360	0.0022	-0.0075	-0.0096
24600	-0.354	-0.098	0.399	0.0022	-0.0075	-0.0096
24630	-0.371	-0.103	0.400	0.0022	-0.0075	-0.0096
24650	-0.382	-0.106	0.401	0.0022	-0.0075	-0.0096
24652	-0.000	-0.392	0.000	0.0009	-0.0019	0.0001
24670	-0.248	-0.067	0.321	0.0026	-0.0098	-0.0111
24690	-0.225	-0.061	0.320	0.0026	-0.0099	-0.0112
24700	-0.111	-0.031	0.315	0.0026	-0.0101	-0.0113
24720	0.050	-0.003	0.248	0.0020	-0.0178	-0.0140
24749	0.600	0.017	0.110	-0.0004	-0.0218	-0.0196
24750	0.907	-0.026	-0.029	-0.0033	0.0021	-0.0252
24768	-0.000	-0.742	-0.000	-0.0002	-0.0010	-0.0001
24769	0.000	-0.947	0.000	0.0000	-0.0005	0.0001
24770	-0.007	-1.038	-0.000	-0.0000	-0.0003	-0.0009
24771	-0.002	-1.063	0.000	0.0000	-0.0002	0.0037
24772	0.055	-1.081	0.000	-0.0000	-0.0002	0.0128
24773	0.191	-1.098	0.000	-0.0000	-0.0001	0.0215
24774	0.332	-1.115	0.000	-0.0000	-0.0001	0.0046
24775	0.292	-1.086	0.000	-0.0000	-0.0001	-0.0517
25000	0.240	-0.940	0.000	-0.0000	-0.0000	-0.0819
25001	0.218	-0.342	-0.000	-0.0000	-0.0000	-0.0627
25002	0.195	-0.030	-0.000	-0.0000	0.0000	-0.0235
25003	0.172	0.048	-0.000	-0.0000	0.0000	-0.0022
25004	0.138	0.015	0.000	-0.0000	0.0000	0.0040
25005	0.030	-0.001	-0.000	-0.0000	-0.0000	-0.0007
25020	-0.078	0.000	0.000	-0.0000	0.0000	0.0003
25050	-0.404	-0.000	-0.000	-0.0000	-0.0001	-0.0000
25051	-0.514	0.000	0.000	-0.0000	0.0002	0.0000
25052	-0.624	-0.000	0.000	-0.0000	-0.0009	-0.0000
25053	-0.659	0.000	-0.017	-0.0000	-0.0022	-0.0000
25054	-0.682	0.000	-0.034	-0.0000	-0.0013	0.0000
25055	-0.706	0.000	-0.022	-0.0000	0.0070	0.0000
25056	-0.729	-0.000	0.097	-0.0000	0.0283	0.0000
25057	-0.688	-0.000	0.181	-0.0000	0.0563	0.0000
25070	-0.570	-0.000	0.228	-0.0000	0.0559	0.0000
25071	-0.190	0.000	0.258	-0.0000	0.0381	0.0000
25072	-0.005	0.000	0.287	0.0000	0.0142	0.0000
25073	0.052	0.000	0.319	0.0000	0.0038	0.0000
25079	0.065	0.000	0.334	0.0000	0.0032	0.0000
25080	0.078	0.000	0.350	0.0000	0.0034	0.0000
25098	0.106	-0.000	0.394	0.0000	-0.0008	0.0000
25099	0.106	-0.000	0.393	-0.0000	-0.0001	0.0000
25100	0.106	-0.000	0.394	-0.0000	0.0028	0.0000
25120	0.063	-0.000	0.432	-0.0000	0.0092	-0.0000

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
25150	0.061	-0.000	0.503	-0.0000	0.0096	-0.0000
25170	0.061	-0.000	0.520	-0.0000	0.0097	-0.0000
25198	0.027	-0.000	0.632	0.0000	0.0126	-0.0000
25199	0.017	-0.000	0.658	0.0000	0.0130	-0.0000
25200	-0.005	-0.000	0.668	0.0000	0.0105	-0.0000
25220	-0.068	-0.000	0.625	0.0000	0.0032	-0.0000
25221	-0.086	-0.000	0.588	0.0000	-0.0004	-0.0000
25222	-0.004	0.000	0.552	-0.0000	-0.0256	-0.0000
25223	0.350	0.000	0.523	-0.0000	-0.0743	-0.0000
25224	1.101	-0.000	0.493	-0.0000	-0.1131	-0.0000
25225	1.339	-0.000	0.397	-0.0000	-0.1130	-0.0000
25250	1.420	-0.000	0.230	-0.0000	-0.0560	-0.0000
25251	1.403	0.000	-0.020	-0.0000	-0.0163	-0.0000
25252	1.386	0.000	-0.059	-0.0000	0.0009	0.0000
25253	1.368	0.000	-0.033	-0.0000	0.0038	0.0000
25254	1.343	-0.000	-0.000	-0.0000	0.0020	0.0000
25255	1.253	-0.000	0.000	-0.0000	-0.0006	-0.0000
25256	1.135	0.000	-0.000	-0.0000	0.0001	0.0000
25270	1.023	-0.000	0.000	-0.0000	-0.0000	-0.0000
25300	1.022	0.000	-0.000	-0.0000	-0.0000	-0.0000
25350	0.656	0.000	-0.000	-0.0000	0.0000	0.0000
25400	0.320	-0.000	0.000	-0.0000	-0.0000	-0.0000
25449	0.160	0.000	-0.000	-0.0000	0.0000	0.0000
25450	-0.000	0.000	-0.000	-0.0000	0.0000	0.0000

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10	-0.011	-36.538	0.191	-0.0049	0.0439	-0.0003
50	-0.000	-35.493	0.018	-0.0049	0.0439	-0.0003
100	-0.000	-35.389	-0.000	-0.0050	0.0439	-0.0002
150	0.000	-33.119	0.000	0.0265	0.0423	-0.0014
200	0.032	-32.615	0.657	0.0396	0.0419	-0.0021
250	0.075	-32.165	1.462	0.0531	0.0415	-0.0031
300	0.168	-31.524	3.070	0.0729	0.0405	-0.0048
348	0.380	-30.543	6.122	0.0852	0.0391	-0.0070
349	0.548	-28.802	9.756	0.0649	0.0372	-0.0099
350	0.381	-26.932	11.113	0.0117	0.0356	-0.0117
400	0.306	-26.645	11.044	0.0010	0.0354	-0.0119
401	-0.042	-26.092	9.169	-0.0495	0.0350	-0.0115
402	-0.213	-26.225	5.568	-0.0753	0.0359	-0.0085
450	-0.141	-25.487	2.119	-0.0535	0.0373	-0.0042
500	-0.102	-25.211	1.581	-0.0467	0.0376	-0.0034
549	-0.012	-23.735	-0.027	-0.0164	0.0394	-0.0007
550	-0.005	-22.258	-0.353	-0.0014	0.0411	-0.0005
570	0.496	-22.206	0.068	-0.0055	0.0312	-0.0094
600	0.057	-20.641	-0.194	0.0032	0.0445	-0.0023
650	0.162	-19.316	-0.048	0.0032	0.0447	-0.0024
699	0.276	-18.521	0.035	0.0011	0.0464	-0.0043
700	0.444	-17.726	0.034	-0.0020	0.0481	-0.0057
750	-4.034	-14.382	0.010	0.0031	0.0321	0.0829
751	-5.044	-14.162	0.045	0.0037	0.0310	0.0909
752	-11.200	-11.615	0.115	0.0091	0.0240	0.0719
800	-12.606	-9.291	-0.001	0.0131	0.0178	0.0016
850	-12.400	-9.199	-0.030	0.0133	0.0172	-0.0021
900	-8.769	-8.386	-0.033	0.0127	0.0117	-0.0104
950	-6.342	-6.453	0.004	0.0092	0.0092	0.0010
1000	-4.248	-4.247	0.000	0.0061	0.0061	0.0002
1050	-2.120	-2.117	-0.000	0.0031	0.0031	-0.0000
1099	-1.059	-1.059	-0.000	0.0015	0.0015	-0.0000
1100	0.000	0.000	0.000	0.0000	0.0000	-0.0000
1499	1.663	-17.622	0.769	-0.0043	0.0506	-0.0144
1500	2.935	-17.483	1.503	-0.0050	0.0524	-0.0232
1548	3.928	-17.375	2.062	-0.0045	0.0532	-0.0299
1549	5.072	-16.856	3.466	-0.0054	0.0552	-0.0437
1550	4.864	-15.130	5.130	-0.0107	0.0433	-0.0801
1600	3.111	-10.137	7.531	0.0001	0.0363	-0.0864
1648	1.357	-5.025	9.359	0.0108	0.0238	-0.0842
1649	0.793	-2.966	8.840	0.0101	-0.0442	-0.0624
1650	2.609	-2.009	7.312	0.0139	-0.1135	-0.0538
1700	4.776	-1.726	6.757	0.0144	-0.1182	-0.0488
1701	6.184	-1.551	6.410	0.0143	-0.1208	-0.0457
1702	9.401	-0.928	4.171	-0.0004	-0.1236	-0.0303
1750	9.809	-0.640	1.517	-0.0095	-0.0365	-0.0004
1799	8.828	-0.734	0.563	-0.0075	-0.0217	-0.0004

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
1800	7.410	-0.565	-0.069	-0.0047	-0.0075	-0.0139
1801	9.302	0.953	-0.093	0.0014	-0.0045	-0.0613
1802	10.992	2.162	-0.062	0.0044	-0.0025	-0.0920
1849	4.407	0.628	-0.074	-0.0093	0.0034	-0.0851
1850	5.535	0.945	-0.197	-0.0038	0.0003	-0.0142
1900	3.864	0.963	-0.130	-0.0019	0.0011	0.0030
1950	2.535	0.827	-0.083	-0.0018	0.0011	0.0029
1999	0.574	0.435	0.010	-0.0015	0.0026	-0.0309
2000	0.869	0.818	-0.004	0.0001	0.0021	-0.0011
2050	-0.015	0.792	0.084	0.0012	0.0035	-0.0047
2100	-1.109	1.186	0.281	0.0026	0.0060	-0.0190
2149	-1.882	1.692	0.440	0.0027	0.0061	-0.0197
2150	-2.551	2.359	0.619	0.0035	0.0069	-0.0313
2200	-3.646	4.138	0.944	0.0049	0.0047	-0.0418
2249	-4.155	5.128	1.057	0.0056	0.0011	-0.0381
2250	-4.664	5.951	1.071	0.0062	-0.0052	-0.0251
2251	-3.976	6.437	1.260	0.0008	-0.0147	-0.0307
2252	-3.329	6.681	0.810	-0.0585	-0.0235	-0.0415
2255	-4.693	5.515	0.889	0.0084	-0.0054	-0.0048
2260	-4.441	5.211	0.717	0.0095	-0.0056	0.0104
2280	-4.109	5.058	0.593	0.0094	-0.0060	0.0199
2300	-0.610	3.824	0.031	0.0014	-0.0107	0.0188
2350	0.046	2.794	-0.017	0.0013	-0.0108	0.0175
2400	0.078	1.672	-0.029	-0.0001	-0.0152	-0.0086
2450	-0.094	1.460	-0.030	0.0001	-0.0161	-0.0093
2500	-0.431	0.431	-0.034	0.0001	-0.0162	-0.0091
2550	-0.598	0.217	-0.036	-0.0003	-0.0170	-0.0056
2560	-0.172	-0.411	0.056	-0.0043	-0.0195	0.0358
2580	0.241	-0.548	0.106	-0.0053	-0.0199	0.0471
2590	1.048	-0.848	0.197	-0.0060	-0.0201	0.0558
2599	1.062	-5.332	-0.226	-0.0039	-0.0098	0.1143
2600	2.184	-1.282	0.319	-0.0063	-0.0203	0.0622
2650	5.288	-3.035	1.123	-0.0157	-0.0563	0.0800
2651	16.353	-4.687	2.531	-0.0094	-0.0902	0.2043
2652	17.635	-4.792	2.549	0.0053	-0.0954	0.2633
2660	19.230	-4.878	2.457	0.0202	-0.1050	0.3097
2661	20.990	-4.947	2.308	0.0218	-0.1060	0.3135
2662	29.610	-8.245	-0.207	0.0611	-0.0872	0.2103
2700	30.594	-9.748	-2.022	0.0628	0.0020	-0.0701
2725	30.587	-9.714	-2.019	0.0629	0.0021	-0.0703
2750	30.325	-8.186	-1.862	0.0654	0.0068	-0.0776
2800	28.837	-0.845	-0.323	0.0900	0.0105	-0.0360
2850	27.659	0.069	0.029	0.1107	0.0003	0.0010
2899	27.450	0.017	0.025	0.1145	-0.0000	0.0006
2900	26.559	-0.002	0.023	0.1150	-0.0000	0.0002
2901	26.559	-0.002	0.023	0.1150	-0.0000	0.0002
3500	-2.511	6.225	-0.479	-0.1029	-0.0346	-0.0471
3501	-1.202	4.876	-2.614	-0.1007	-0.0414	-0.0418
3502	-0.397	4.536	-3.721	-0.0400	-0.0417	-0.0313

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
3550	0.007	4.852	-3.837	0.0200	-0.0417	-0.0057
3551	-0.067	6.216	-2.302	0.0209	-0.0552	0.0106
3600	-1.141	7.584	-1.671	-0.0008	-0.0687	0.0313
3601	-4.977	9.770	-3.006	-0.0168	-0.0902	0.0484
3602	-6.345	10.338	-1.757	0.0565	-0.1005	-0.0118
3650	-7.303	7.718	1.492	0.1146	-0.0797	-0.0858
3651	-7.544	5.622	2.476	0.1099	-0.0368	-0.0848
3700	-7.236	4.174	2.668	0.1005	0.0149	-0.0621
3701	-6.000	1.449	1.525	0.0805	0.0220	-0.0459
3750	-4.767	-0.284	0.536	0.0604	0.0158	-0.0281
3799	-3.343	-1.379	-0.058	0.0372	0.0068	-0.0113
3800	-1.918	-1.556	-0.241	0.0139	0.0011	0.0045
3850	0.146	-0.934	-0.146	0.0079	-0.0015	0.0018
3900	1.472	-0.869	-0.080	0.0077	-0.0014	0.0011
3949	2.505	-1.023	-0.040	0.0047	-0.0007	-0.0034
3950	3.538	-1.189	-0.026	0.0017	-0.0002	0.0005
4000	6.383	-1.700	-0.040	-0.0014	0.0002	-0.0225
4001	8.265	-4.227	-0.035	-0.0035	-0.0010	-0.0342
4002	8.774	-4.023	0.044	-0.0022	-0.0077	0.0444
4050	6.883	-2.563	0.101	-0.0011	-0.0106	0.0885
4051	2.878	-1.312	0.043	-0.0012	-0.0137	0.0703
4100	0.311	-0.062	-0.013	-0.0012	-0.0168	0.0397
4150	-0.007	3.436	-0.160	-0.0009	-0.0254	-0.0266
4151	1.625	4.689	-0.195	0.0008	-0.0284	-0.0409
4152	3.819	5.943	-0.092	0.0059	-0.0315	-0.0434
4153	3.902	6.620	0.228	0.0425	-0.0212	0.0272
4200	2.649	5.327	0.434	0.0592	-0.0064	0.0660
4249	2.184	4.166	0.326	0.0645	-0.0060	0.0630
4250	1.297	2.195	0.142	0.0744	-0.0050	0.0495
4300	-0.603	0.014	-0.086	0.0985	-0.0022	0.0194
4349	-1.557	-0.471	-0.157	0.1149	-0.0018	0.0106
4350	-2.510	-0.696	-0.213	0.1312	-0.0014	0.0045
4399	-3.474	-0.761	-0.251	0.1427	-0.0009	0.0007
4400	-4.438	-0.725	-0.274	0.1542	-0.0005	-0.0013
4449	-5.420	-0.658	-0.283	0.1614	-0.0001	-0.0022
4450	-6.403	-0.569	-0.279	0.1687	0.0002	-0.0026
4499	-7.412	-0.479	-0.264	0.1722	0.0007	-0.0028
4500	-8.421	-0.375	-0.233	0.1757	0.0011	-0.0034
4549	-9.080	-0.294	-0.204	0.1757	0.0013	-0.0036
4550	-9.740	-0.209	-0.172	0.1757	0.0014	-0.0037
4699	0.924	0.718	0.873	0.0515	-0.0217	0.0495
4700	0.280	-0.385	1.604	0.0439	-0.0273	0.0495
4748	0.167	-0.567	1.728	0.0439	-0.0273	0.0495
4749	-0.283	-0.863	2.180	0.0439	-0.0273	0.0495
4750	-0.855	-0.752	2.709	0.0439	-0.0273	0.0495
4800	-1.485	-0.371	3.267	0.0439	-0.0273	0.0495
4849	-0.489	-1.255	0.645	0.0222	0.0091	0.0194
4850	-0.190	-1.281	1.376	-0.0032	0.0129	0.0194
4898	-0.136	-1.268	1.500	-0.0032	0.0129	0.0194

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
4899	-0.091	-1.121	1.769	-0.0032	0.0129	0.0194
4900	-0.223	-0.827	1.855	-0.0032	0.0129	0.0194
4950	-0.469	-0.446	1.814	-0.0032	0.0129	0.0194
4999	-2.594	-5.191	0.511	0.2163	-0.0053	0.0019
5000	-2.766	-11.012	1.235	0.2398	-0.0087	-0.0007
5048	-2.804	-12.025	1.358	0.2376	-0.0093	-0.0011
5049	-2.927	-13.781	2.330	0.1340	-0.0164	-0.0005
5050	-2.978	-13.845	2.986	-0.0123	-0.0176	-0.0041
5100	-2.977	-13.841	2.985	-0.0126	-0.0177	-0.0042
5150	-2.963	-13.742	2.942	-0.0129	-0.0177	-0.0042
5200	-2.875	-13.120	2.655	-0.0143	-0.0179	-0.0043
5250	-2.861	-13.020	2.607	-0.0144	-0.0179	-0.0043
5300	-2.745	-12.411	2.152	-0.0231	-0.0211	-0.0069
5310	-2.637	-12.008	1.824	-0.0237	-0.0232	-0.0085
5320	-2.609	-11.909	1.746	-0.0237	-0.0233	-0.0085
5330	-2.580	-11.810	1.667	-0.0237	-0.0233	-0.0085
5350	-2.397	-11.249	1.210	-0.0230	-0.0262	-0.0103
5400	-2.362	-11.150	1.134	-0.0229	-0.0263	-0.0103
5450	-2.328	-11.050	1.058	-0.0229	-0.0263	-0.0103
5500	-2.112	-10.474	0.623	-0.0203	-0.0293	-0.0113
5550	-2.073	-10.377	0.556	-0.0197	-0.0298	-0.0115
5600	-2.035	-10.281	0.491	-0.0191	-0.0304	-0.0116
5650	-1.663	-9.374	0.000	-0.0114	-0.0351	-0.0119
5660	-1.365	-8.638	-0.197	-0.0047	-0.0390	-0.0115
5670	-1.327	-8.542	-0.210	-0.0040	-0.0395	-0.0114
5680	-1.289	-8.445	-0.222	-0.0033	-0.0400	-0.0114
5685	-0.649	-6.641	-0.129	0.0041	-0.0495	-0.0089
5690	-0.620	-6.544	-0.115	0.0042	-0.0500	-0.0087
5695	-0.591	-6.447	-0.101	0.0042	-0.0505	-0.0085
5700	-0.402	-5.746	-0.000	0.0036	-0.0542	-0.0070
5750	-0.312	-5.343	0.044	0.0026	-0.0563	-0.0061
5800	-0.292	-5.244	0.052	0.0026	-0.0564	-0.0061
5850	-0.271	-5.145	0.061	0.0026	-0.0564	-0.0061
5900	-0.167	-4.583	0.098	0.0011	-0.0594	-0.0048
5950	-0.151	-4.484	0.101	0.0011	-0.0594	-0.0048
6000	-0.135	-4.385	0.105	0.0011	-0.0594	-0.0048
6005	0.042	-2.708	-0.000	-0.0051	-0.0682	-0.0014
6007	-0.001	-0.377	0.000	0.0165	-0.0805	0.0022
6010	-0.017	-0.178	0.134	0.0207	-0.0816	0.0025
6030	-0.025	-0.079	0.203	0.0208	-0.0816	0.0025
6050	-0.033	0.020	0.273	0.0209	-0.0816	0.0025
6100	-0.049	0.198	0.414	0.0233	-0.0826	0.0027
6112	-0.088	0.577	0.755	0.0265	-0.0846	0.0031
6125	-0.098	0.676	0.843	0.0265	-0.0846	0.0031
6137	-0.109	0.776	0.932	0.0266	-0.0846	0.0031
6150	-0.147	1.106	1.243	0.0259	-0.0864	0.0035
6200	-0.158	1.205	1.329	0.0258	-0.0864	0.0035
6250	-0.231	1.827	1.865	0.0254	-0.0866	0.0035
6300	-0.243	1.926	1.949	0.0253	-0.0866	0.0035

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
6348	-0.309	2.429	2.301	0.0126	-0.0893	0.0039
6349	0.009	2.556	1.969	-0.0560	-0.0920	0.0028
6350	0.903	1.986	1.417	-0.0644	-0.1002	0.0006
6400	1.320	1.701	1.294	-0.0615	-0.1007	0.0007
6449	3.708	0.479	0.566	-0.0381	-0.0775	0.0014
6450	4.889	-0.155	-0.161	-0.0134	-0.0019	0.0020
6599	-4.501	-5.587	0.450	0.2256	-0.0043	-0.0031
6600	-4.644	-11.522	1.173	0.2419	-0.0071	-0.0049
6648	-4.675	-12.541	1.296	0.2392	-0.0075	-0.0052
6649	-4.752	-14.276	2.256	0.1301	-0.0122	-0.0050
6650	-4.743	-14.323	2.879	-0.0145	-0.0125	-0.0085
6700	-4.742	-14.319	2.877	-0.0147	-0.0125	-0.0085
6750	-4.713	-14.220	2.827	-0.0150	-0.0125	-0.0085
6800	-4.536	-13.598	2.497	-0.0163	-0.0126	-0.0086
6850	-4.507	-13.499	2.443	-0.0164	-0.0127	-0.0086
6900	-4.298	-12.887	1.962	-0.0234	-0.0145	-0.0115
6910	-4.122	-12.483	1.641	-0.0228	-0.0158	-0.0135
6920	-4.077	-12.383	1.565	-0.0228	-0.0158	-0.0136
6930	-4.032	-12.284	1.489	-0.0227	-0.0158	-0.0136
6950	-3.748	-11.721	1.064	-0.0209	-0.0175	-0.0156
7000	-3.696	-11.622	0.994	-0.0209	-0.0175	-0.0157
7050	-3.643	-11.522	0.925	-0.0209	-0.0176	-0.0157
7100	-3.317	-10.944	0.537	-0.0179	-0.0193	-0.0169
7150	-3.260	-10.847	0.478	-0.0173	-0.0196	-0.0171
7200	-3.203	-10.750	0.421	-0.0167	-0.0199	-0.0172
7250	-2.654	-9.840	0.000	-0.0097	-0.0227	-0.0176
7260	-2.214	-9.101	-0.168	-0.0040	-0.0249	-0.0170
7270	-2.157	-9.004	-0.180	-0.0034	-0.0252	-0.0169
7280	-2.101	-8.907	-0.190	-0.0028	-0.0255	-0.0168
7285	-1.145	-7.095	-0.112	0.0035	-0.0311	-0.0135
7290	-1.100	-6.998	-0.100	0.0036	-0.0314	-0.0133
7295	-1.056	-6.901	-0.087	0.0036	-0.0316	-0.0130
7300	-0.765	-6.197	-0.000	0.0031	-0.0338	-0.0110
7350	-0.621	-5.793	0.039	0.0024	-0.0350	-0.0097
7400	-0.589	-5.693	0.047	0.0024	-0.0350	-0.0097
7450	-0.557	-5.594	0.055	0.0024	-0.0351	-0.0097
7500	-0.386	-5.030	0.089	0.0010	-0.0368	-0.0080
7550	-0.360	-4.931	0.092	0.0010	-0.0368	-0.0080
7600	-0.333	-4.832	0.095	0.0010	-0.0368	-0.0080
7605	-0.015	-3.148	-0.000	-0.0047	-0.0419	-0.0031
7607	0.025	-0.807	0.000	0.0156	-0.0491	0.0014
7610	0.015	-0.607	0.126	0.0195	-0.0497	0.0016
7620	0.010	-0.508	0.191	0.0196	-0.0497	0.0016
7650	0.004	-0.408	0.257	0.0197	-0.0497	0.0016
7700	-0.006	-0.230	0.390	0.0221	-0.0503	0.0018
7712	-0.032	0.152	0.713	0.0253	-0.0515	0.0021
7725	-0.039	0.251	0.797	0.0253	-0.0515	0.0021
7737	-0.046	0.350	0.882	0.0253	-0.0515	0.0021
7750	-0.071	0.682	1.179	0.0249	-0.0525	0.0023

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
7800	-0.079	0.781	1.262	0.0249	-0.0525	0.0023
7850	-0.128	1.403	1.779	0.0246	-0.0526	0.0024
7900	-0.135	1.503	1.861	0.0245	-0.0526	0.0024
7948	-0.178	2.009	2.210	0.0133	-0.0542	0.0025
7949	0.015	2.162	1.923	-0.0478	-0.0559	0.0014
7950	0.560	1.679	1.407	-0.0577	-0.0610	-0.0001
8000	0.814	1.423	1.284	-0.0554	-0.0613	-0.0001
8049	2.266	0.304	0.556	-0.0354	-0.0469	0.0001
8050	2.975	-0.298	-0.172	-0.0130	-0.0004	0.0002
8199	-6.442	-5.672	0.444	0.2320	-0.0030	-0.0045
8200	-6.546	-11.695	1.168	0.2440	-0.0050	-0.0064
8248	-6.568	-12.720	1.291	0.2410	-0.0053	-0.0067
8249	-6.601	-14.451	2.247	0.1289	-0.0065	-0.0076
8250	-6.532	-14.493	2.860	-0.0148	-0.0054	-0.0128
8300	-6.530	-14.489	2.858	-0.0150	-0.0054	-0.0129
8350	-6.488	-14.390	2.807	-0.0153	-0.0054	-0.0129
8400	-6.218	-13.767	2.470	-0.0166	-0.0054	-0.0130
8450	-6.175	-13.668	2.414	-0.0168	-0.0054	-0.0130
8500	-5.867	-13.055	1.931	-0.0234	-0.0059	-0.0166
8510	-5.617	-12.650	1.610	-0.0226	-0.0062	-0.0191
8520	-5.554	-12.551	1.535	-0.0226	-0.0062	-0.0191
8530	-5.490	-12.451	1.460	-0.0226	-0.0062	-0.0191
8550	-5.093	-11.887	1.040	-0.0206	-0.0067	-0.0217
8600	-5.021	-11.788	0.972	-0.0206	-0.0067	-0.0217
8650	-4.949	-11.689	0.903	-0.0205	-0.0067	-0.0217
8700	-4.501	-11.109	0.523	-0.0175	-0.0072	-0.0232
8750	-4.423	-11.011	0.465	-0.0169	-0.0072	-0.0233
8800	-4.345	-10.914	0.410	-0.0163	-0.0073	-0.0235
8850	-3.600	-10.002	0.000	-0.0095	-0.0081	-0.0237
8860	-3.010	-9.262	-0.164	-0.0039	-0.0087	-0.0228
8870	-2.934	-9.165	-0.175	-0.0033	-0.0087	-0.0226
8880	-2.859	-9.068	-0.185	-0.0027	-0.0088	-0.0225
8885	-1.590	-7.252	-0.109	0.0034	-0.0103	-0.0178
8890	-1.531	-7.155	-0.097	0.0035	-0.0104	-0.0175
8895	-1.474	-7.058	-0.085	0.0035	-0.0104	-0.0171
8900	-1.091	-6.352	-0.000	0.0031	-0.0110	-0.0144
8950	-0.904	-5.947	0.038	0.0023	-0.0113	-0.0127
9000	-0.861	-5.848	0.046	0.0023	-0.0113	-0.0127
9050	-0.819	-5.748	0.053	0.0023	-0.0113	-0.0127
9100	-0.597	-5.184	0.086	0.0010	-0.0118	-0.0104
9150	-0.562	-5.084	0.090	0.0010	-0.0118	-0.0104
9200	-0.527	-4.985	0.093	0.0010	-0.0118	-0.0104
9205	-0.110	-3.298	-0.000	-0.0046	-0.0132	-0.0042
9207	-0.015	-0.952	0.000	0.0152	-0.0151	0.0007
9210	-0.021	-0.752	0.123	0.0191	-0.0152	0.0008
9230	-0.024	-0.653	0.187	0.0192	-0.0152	0.0008
9250	-0.027	-0.553	0.251	0.0193	-0.0152	0.0009
9300	-0.032	-0.374	0.382	0.0216	-0.0154	0.0009
9312	-0.045	0.008	0.699	0.0249	-0.0157	0.0009

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
9325	-0.048	0.107	0.782	0.0249	-0.0157	0.0009
9337	-0.051	0.206	0.865	0.0250	-0.0157	0.0009
9350	-0.061	0.539	1.160	0.0248	-0.0160	0.0007
9400	-0.063	0.638	1.242	0.0248	-0.0160	0.0007
9450	-0.077	1.260	1.757	0.0245	-0.0160	0.0007
9500	-0.079	1.359	1.839	0.0244	-0.0160	0.0007
9548	-0.084	1.866	2.193	0.0141	-0.0164	-0.0003
9549	0.010	2.036	1.936	-0.0423	-0.0185	-0.0054
9550	0.227	1.618	1.445	-0.0503	-0.0220	-0.0079
9600	0.319	1.394	1.322	-0.0480	-0.0221	-0.0083
9649	0.844	0.443	0.594	-0.0296	-0.0169	-0.0105
9650	1.093	-0.051	-0.134	-0.0107	0.0005	-0.0128
9651	0.158	0.559	-0.106	-0.0087	0.0009	-0.0259
9799	-8.426	-5.580	0.491	0.2342	-0.0010	-0.0057
9800	-8.466	-11.620	1.214	0.2440	-0.0018	-0.0080
9848	-8.474	-12.644	1.338	0.2408	-0.0018	-0.0084
9849	-8.444	-14.368	2.291	0.1282	0.0012	-0.0110
9850	-8.298	-14.408	2.905	-0.0141	0.0041	-0.0185
9900	-8.296	-14.404	2.902	-0.0143	0.0041	-0.0185
9950	-8.234	-14.305	2.854	-0.0146	0.0041	-0.0186
10000	-7.846	-13.682	2.533	-0.0159	0.0042	-0.0187
10050	-7.784	-13.583	2.480	-0.0160	0.0042	-0.0187
10100	-7.352	-12.969	2.008	-0.0232	0.0052	-0.0227
10110	-7.016	-12.564	1.685	-0.0230	0.0058	-0.0255
10120	-6.931	-12.464	1.609	-0.0230	0.0058	-0.0255
10130	-6.846	-12.365	1.532	-0.0229	0.0058	-0.0255
10150	-6.323	-11.800	1.100	-0.0214	0.0067	-0.0283
10200	-6.229	-11.701	1.029	-0.0214	0.0067	-0.0283
10250	-6.135	-11.602	0.958	-0.0214	0.0067	-0.0283
10300	-5.554	-11.021	0.558	-0.0185	0.0077	-0.0299
10350	-5.454	-10.924	0.497	-0.0179	0.0078	-0.0300
10400	-5.354	-10.827	0.438	-0.0173	0.0080	-0.0302
10450	-4.401	-9.914	0.000	-0.0101	0.0094	-0.0303
10460	-3.647	-9.174	-0.174	-0.0042	0.0106	-0.0290
10470	-3.551	-9.077	-0.187	-0.0035	0.0108	-0.0288
10480	-3.455	-8.979	-0.197	-0.0029	0.0109	-0.0286
10485	-1.865	-7.163	-0.114	0.0036	0.0138	-0.0217
10490	-1.794	-7.066	-0.101	0.0037	0.0140	-0.0212
10495	-1.724	-6.968	-0.089	0.0037	0.0141	-0.0207
10500	-1.270	-6.262	-0.000	0.0031	0.0152	-0.0166
10550	-1.058	-5.857	0.038	0.0023	0.0159	-0.0141
10600	-1.011	-5.758	0.046	0.0023	0.0159	-0.0141
10650	-0.964	-5.658	0.053	0.0023	0.0159	-0.0141
10700	-0.723	-5.094	0.085	0.0009	0.0168	-0.0110
10750	-0.687	-4.994	0.088	0.0009	0.0168	-0.0109
10800	-0.651	-4.895	0.091	0.0009	0.0168	-0.0109
10805	-0.246	-3.207	-0.000	-0.0043	0.0195	-0.0036
10807	-0.181	-0.860	0.000	0.0141	0.0232	0.0004
10810	-0.184	-0.660	0.114	0.0177	0.0236	0.0003

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10820	-0.185	-0.561	0.173	0.0178	0.0236	0.0003
10850	-0.187	-0.462	0.232	0.0179	0.0236	0.0003
10900	-0.189	-0.283	0.353	0.0201	0.0239	0.0001
10912	-0.186	0.099	0.650	0.0235	0.0245	-0.0007
10925	-0.184	0.198	0.728	0.0236	0.0245	-0.0007
10937	-0.182	0.298	0.807	0.0236	0.0245	-0.0007
10950	-0.168	0.630	1.087	0.0240	0.0250	-0.0019
11000	-0.161	0.729	1.167	0.0240	0.0250	-0.0019
11050	-0.120	1.352	1.665	0.0237	0.0251	-0.0021
11100	-0.113	1.451	1.744	0.0237	0.0251	-0.0021
11148	-0.049	1.958	2.104	0.0157	0.0259	-0.0055
11149	-0.014	2.169	1.922	-0.0267	0.0215	-0.0211
11150	-0.097	1.975	1.513	-0.0188	0.0172	-0.0271
11200	-0.168	1.884	1.389	-0.0157	0.0172	-0.0284
11249	-0.571	1.742	0.660	-0.0020	0.0131	-0.0361
11250	-0.777	1.710	-0.068	-0.0067	0.0011	-0.0438
11300	6.857	-0.050	-0.049	-0.0116	-0.0042	0.0010
11349	7.879	-0.024	0.061	-0.0112	-0.0042	0.0006
11350	8.900	-0.008	0.216	-0.0108	-0.0067	0.0005
11370	8.111	0.102	0.637	-0.0059	-0.0875	0.0005
11399	9.606	0.003	0.355	-0.0108	-0.0059	0.0005
11400	10.313	0.014	0.482	-0.0108	-0.0056	0.0005
11449	5.178	0.111	0.681	-0.0034	-0.1100	0.0010
11450	1.776	0.138	1.412	-0.0006	-0.1452	0.0010
11500	-0.746	-0.248	1.943	-0.0006	-0.1452	0.0010
11550	-0.733	-0.629	1.952	-0.0006	-0.1452	0.0010
11599	5.867	0.161	1.158	-0.0021	-0.1499	0.0005
11600	2.900	0.176	1.678	-0.0008	-0.1707	0.0005
11648	2.191	0.179	1.803	-0.0008	-0.1707	0.0005
11649	0.587	0.071	2.087	-0.0008	-0.1707	0.0005
11650	-0.074	-0.207	2.212	-0.0008	-0.1707	0.0005
11700	-0.067	-0.588	2.223	-0.0008	-0.1707	0.0005
11800	-0.165	13.091	0.009	0.0001	-0.0036	0.0011
11898	1.172	0.141	1.537	-0.0006	-0.1452	0.0010
11899	-0.189	0.030	1.821	-0.0006	-0.1452	0.0010
11900	-0.136	12.289	0.006	0.0001	-0.0036	0.0012
11949	-0.693	12.267	-0.060	0.0001	-0.0036	0.0012
11950	-1.249	12.245	-0.127	0.0001	-0.0036	0.0012
12070	0.021	9.526	-0.010	0.0002	-0.0036	0.0025
12100	0.372	6.781	-0.036	0.0001	-0.0036	0.0048
12150	-0.431	5.053	-0.129	0.0037	-0.0019	0.0967
12200	-1.185	2.563	-0.176	0.0039	-0.0017	0.0986
12201	-1.499	1.482	-0.186	0.0053	0.0013	0.0987
12202	-1.717	0.303	0.203	0.0056	0.0374	0.0913
12250	-1.267	-0.274	0.795	0.0169	0.0509	0.0922
12299	-0.653	-0.495	1.156	0.0189	0.0506	0.0911
12300	0.326	-0.891	1.728	0.0216	0.0516	0.0893
12348	1.828	-1.523	2.569	0.0168	0.0534	0.0866
12349	2.079	-1.239	2.811	-0.0466	0.0578	0.0836

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
12350	1.389	-0.526	1.966	-0.1070	0.0597	0.0787
12400	0.304	-0.116	0.429	-0.1104	0.0597	0.0784
12450	-0.000	0.000	0.000	-0.1104	0.0597	0.0784
12500	0.176	4.109	-0.021	-0.0002	-0.0036	-0.0034
12520	0.103	1.444	-0.012	-0.0001	-0.0036	0.0042
12570	-0.695	0.951	-0.092	0.0008	-0.0014	0.0206
12620	-1.449	0.430	-0.125	0.0009	-0.0011	0.0206
12621	-1.760	0.216	-0.127	0.0012	0.0023	0.0200
12622	-1.956	-0.040	0.304	0.0040	0.0414	0.0235
12670	-1.484	-0.291	0.910	0.0177	0.0471	0.0297
12719	-0.924	-0.519	1.271	0.0194	0.0450	0.0313
12720	-0.084	-0.921	1.843	0.0217	0.0421	0.0340
12768	1.061	-1.552	2.684	0.0165	0.0394	0.0379
12769	1.296	-1.254	2.918	-0.0488	0.0329	0.0423
12770	0.888	-0.526	2.034	-0.1108	0.0302	0.0495
12820	0.194	-0.116	0.444	-0.1143	0.0302	0.0500
12870	0.000	0.000	0.000	-0.1143	0.0302	0.0500
12900	1.170	-1.194	0.015	-0.0005	-0.0038	0.0254
12920	4.636	-3.835	0.064	-0.0003	-0.0041	0.0324
12921	5.317	-4.383	0.069	-0.0003	-0.0038	0.0305
12922	4.952	-4.884	0.042	-0.0007	-0.0029	-0.0565
12970	3.796	-3.245	-0.165	0.0015	-0.0142	-0.0549
13020	3.038	-1.813	-0.534	0.0016	-0.0151	-0.0570
13021	2.710	-1.157	-0.734	0.0023	-0.0210	-0.0602
13022	2.068	-0.356	-1.142	0.0025	-0.0601	-0.0675
13070	1.165	-0.103	-1.096	0.0132	-0.0511	-0.0651
13119	0.567	-0.274	-0.733	0.0148	-0.0484	-0.0655
13120	-0.335	-0.587	-0.156	0.0175	-0.0464	-0.0661
13168	-1.643	-1.122	0.690	0.0166	-0.0458	-0.0669
13169	-1.852	-1.017	1.042	-0.0135	-0.0444	-0.0679
13170	-1.234	-0.528	0.814	-0.0439	-0.0438	-0.0695
13220	-0.270	-0.116	0.178	-0.0457	-0.0438	-0.0696
13270	-0.000	0.000	0.000	-0.0457	-0.0438	-0.0696
13300	3.202	-2.066	0.003	-0.0012	-0.0009	-0.1729
13400	2.896	-0.083	-0.006	-0.0012	-0.0008	-0.1768
13401	1.981	6.010	-0.027	-0.0010	-0.0006	-0.1814
13402	-0.360	10.022	-0.023	-0.0009	-0.0002	-0.1197
13450	-2.440	10.278	-0.009	-0.0003	-0.0002	-0.0283
13499	-3.077	9.516	-0.003	-0.0002	-0.0001	-0.0250
13500	-4.152	8.338	0.002	-0.0001	0.0000	-0.0341
13520	-0.817	3.863	0.001	0.0000	0.0005	0.0162
13549	-0.079	-0.354	-0.029	0.0010	-0.0001	0.0036
13550	-2.024	-0.443	0.001	0.0001	0.0011	-0.0030
13600	-0.216	-4.872	0.004	-0.0001	0.0024	0.0094
13650	0.072	-5.905	0.010	-0.0001	0.0028	0.0041
13699	0.177	-6.675	0.014	-0.0001	0.0028	0.0039
13700	0.236	-7.308	0.017	-0.0001	0.0030	0.0004
13750	0.128	-8.346	0.018	0.0002	0.0033	-0.0067
13800	-0.654	-9.821	-0.016	0.0012	0.0038	-0.0216

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
13850	-1.645	-11.144	-0.071	0.0013	0.0038	-0.0224
13851	-3.657	-13.004	-0.242	0.0029	0.0043	-0.0145
13852	-1.995	-12.732	-0.385	0.0021	0.0037	0.1233
13900	0.351	-8.807	-0.399	-0.0023	-0.0066	0.1333
14100	11.024	2.910	-0.042	0.0052	0.0003	0.0272
14150	10.360	1.884	-0.028	0.0049	0.0004	0.0318
14200	9.291	0.741	-0.013	0.0049	0.0004	0.0307
14250	7.716	-0.125	0.001	0.0041	0.0001	0.0022
14300	7.281	-0.121	0.001	0.0039	0.0000	-0.0010
14350	6.213	-0.077	0.002	0.0039	0.0000	-0.0013
14400	5.776	-0.044	0.002	0.0037	0.0000	-0.0016
14420	1.867	-0.020	-0.003	0.0019	-0.0003	0.0029
14700	-2.889	5.107	0.000	-0.0002	0.0000	-0.0780
14720	-1.556	1.572	-0.001	-0.0002	0.0000	-0.0792
14721	-0.188	-2.975	-0.001	-0.0002	-0.0000	-0.1039
14722	1.180	-9.082	0.001	-0.0003	-0.0001	-0.1244
14723	3.067	-12.032	0.006	-0.0002	-0.0005	-0.0804
14750	3.893	-11.864	0.006	-0.0003	-0.0006	0.0280
14770	1.239	-9.892	-0.018	-0.0004	-0.0008	0.0260
14800	0.177	-6.991	-0.059	0.0000	-0.0012	-0.0025
14850	-0.621	-5.202	-0.097	0.0007	0.0003	-0.1018
14900	-1.375	-2.580	-0.086	0.0008	0.0007	-0.1039
14901	-1.722	-1.306	-0.063	0.0011	0.0049	-0.1042
14902	-1.892	-0.144	0.424	0.0073	0.0478	-0.0880
14950	-1.329	0.121	1.068	0.0181	0.0547	-0.0798
14999	-0.671	-0.101	1.429	0.0192	0.0522	-0.0768
15000	0.299	-0.494	2.003	0.0226	0.0469	-0.0720
15048	1.492	-1.221	2.845	0.0270	0.0338	-0.0650
15049	1.332	-1.314	3.130	0.0381	-0.0405	-0.0572
15050	0.639	-0.913	2.334	0.0431	-0.1043	-0.0436
15100	0.116	-0.165	0.423	0.0431	-0.1088	-0.0426
15150	-0.000	0.000	0.000	0.0431	-0.1088	-0.0425
15500	0.142	-4.637	-0.028	0.0003	-0.0013	0.0004
15550	0.258	-2.290	-0.018	0.0001	-0.0014	-0.0030
15600	-0.541	-1.506	-0.063	0.0017	-0.0004	-0.0348
15650	-1.295	-0.622	-0.071	0.0018	-0.0001	-0.0349
15651	-1.643	-0.214	-0.058	0.0025	0.0039	-0.0336
15652	-1.822	0.110	0.408	0.0060	0.0458	-0.0247
15700	-1.282	0.134	1.042	0.0083	0.0535	-0.0226
15749	-0.639	0.034	1.404	0.0084	0.0511	-0.0220
15750	0.313	-0.131	1.977	0.0090	0.0461	-0.0210
15798	1.489	-0.406	2.819	0.0100	0.0334	-0.0195
15799	1.329	-0.449	3.105	0.0123	-0.0401	-0.0178
15800	0.639	-0.316	2.317	0.0134	-0.1035	-0.0149
15850	0.116	-0.057	0.420	0.0134	-0.1080	-0.0147
15900	-0.000	0.000	0.000	0.0134	-0.1080	-0.0147
16300	0.352	0.014	-0.010	-0.0000	-0.0013	-0.0010
16350	0.328	2.318	-0.014	0.0001	-0.0011	0.0060
16400	-0.471	1.495	-0.059	-0.0018	-0.0006	0.0352

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
16450	-1.226	0.601	-0.073	-0.0019	-0.0004	0.0353
16451	-1.574	0.190	-0.065	-0.0027	0.0035	0.0338
16452	-1.760	-0.130	0.388	-0.0063	0.0442	0.0244
16500	-1.240	-0.147	1.014	-0.0087	0.0523	0.0223
16549	-0.610	-0.043	1.375	-0.0087	0.0501	0.0217
16550	0.325	0.128	1.948	-0.0093	0.0454	0.0208
16598	1.486	0.408	2.790	-0.0102	0.0330	0.0194
16599	1.326	0.453	3.077	-0.0124	-0.0397	0.0178
16600	0.639	0.319	2.298	-0.0134	-0.1026	0.0151
16650	0.116	0.058	0.416	-0.0134	-0.1071	0.0149
16700	-0.000	-0.000	0.000	-0.0134	-0.1071	0.0149
17100	-0.754	4.664	0.012	0.0003	-0.0007	0.0208
17150	-3.403	7.019	0.017	-0.0006	-0.0002	0.0246
17169	-3.959	5.879	0.011	-0.0006	-0.0003	0.0758
17170	-4.515	4.104	0.005	-0.0006	-0.0003	0.0929
17399	-2.498	5.450	-0.026	-0.0041	0.0004	-0.0533
17400	-4.220	8.019	-0.019	-0.0015	-0.0000	-0.0072
17419	-4.092	8.420	-0.039	-0.0015	-0.0000	-0.0084
17420	-3.953	8.821	-0.059	-0.0015	-0.0000	-0.0088
17699	-2.128	-0.663	0.048	0.0070	0.0013	0.0067
17700	-2.372	0.230	0.160	0.0026	0.0015	0.0066
17749	-2.583	1.142	0.182	0.0001	0.0015	0.0051
17750	-2.718	2.053	0.146	-0.0011	0.0016	0.0018
17799	-2.780	2.977	0.102	-0.0014	0.0016	-0.0020
17800	-2.651	3.902	0.051	-0.0015	0.0015	-0.0103
17849	-2.291	4.669	0.015	-0.0014	0.0015	-0.0142
17850	-1.864	5.435	-0.021	-0.0014	0.0015	-0.0155
17899	2.692	0.409	0.014	0.0007	-0.0004	0.0086
17900	3.246	0.588	0.023	0.0003	-0.0003	0.0049
17949	2.405	1.830	0.011	-0.0003	-0.0004	0.0326
17950	2.970	2.403	0.019	-0.0002	-0.0003	0.0056
17999	2.084	3.184	0.002	-0.0004	-0.0002	0.0588
18000	2.579	4.249	0.006	-0.0002	-0.0002	0.0144
18049	2.127	5.015	0.001	-0.0002	-0.0002	0.0178
18050	1.616	5.781	-0.004	-0.0002	-0.0002	0.0190
18100	-1.265	0.157	0.059	0.0019	0.0017	-0.0041
18150	-0.544	0.058	0.019	0.0019	0.0016	-0.0040
18199	-0.234	0.018	0.005	0.0017	0.0009	-0.0022
18200	0.076	0.001	-0.001	0.0015	0.0003	-0.0002
18250	0.796	-0.002	-0.007	0.0014	0.0002	0.0001
18300	1.417	0.066	-0.004	0.0010	-0.0003	0.0059
18350	2.137	0.216	0.004	0.0010	-0.0003	0.0063
18399	-2.153	1.631	0.098	-0.0009	0.0022	-0.0268
18400	-1.589	0.905	0.051	-0.0008	0.0015	-0.0261
18450	-0.867	0.281	0.016	-0.0008	0.0014	-0.0249
18500	-0.235	-0.031	-0.002	-0.0006	0.0002	-0.0005
18550	0.486	-0.026	-0.007	-0.0006	0.0002	0.0010
18600	1.119	0.314	-0.004	-0.0005	-0.0003	0.0274
18650	1.840	1.002	0.003	-0.0004	-0.0003	0.0289

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 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
18699	-2.156	2.952	0.024	-0.0013	0.0010	-0.0537
18700	-1.661	1.595	0.009	-0.0011	0.0004	-0.0475
18750	-0.947	0.464	-0.000	-0.0011	0.0004	-0.0450
18800	-0.393	-0.092	-0.004	-0.0009	0.0000	-0.0009
18850	0.322	-0.080	-0.004	-0.0008	-0.0000	0.0018
18900	0.875	0.516	-0.003	-0.0006	-0.0001	0.0480
18950	1.590	1.723	-0.001	-0.0006	-0.0001	0.0507
19999	0.943	-22.070	0.590	-0.0094	0.0214	-0.0203
20000	1.241	-21.878	1.111	-0.0120	0.0142	-0.0313
20048	1.632	-21.319	2.386	-0.0125	0.0076	-0.0580
20049	1.606	-20.951	2.710	-0.0159	0.0136	-0.0682
20050	1.389	-20.101	3.002	-0.0227	0.0232	-0.0976
20100	-1.093	-10.987	5.055	-0.0073	0.0231	-0.1173
20148	-3.575	-1.517	6.334	0.0082	0.0045	-0.1062
20149	-3.797	-0.602	6.128	0.0037	-0.0267	-0.0844
20150	-3.485	-0.265	5.696	0.0027	-0.0647	-0.0770
20200	-0.196	-0.122	4.424	0.0022	-0.0933	-0.0560
20201	3.767	-0.102	3.361	-0.0007	-0.1352	-0.0385
20202	5.322	-0.024	2.373	-0.0108	-0.1728	-0.0284
20250	5.652	0.081	1.055	-0.0175	-0.0599	-0.0066
20251	4.900	0.171	0.034	-0.0157	-0.0203	-0.0009
20252	4.151	0.121	-0.171	-0.0140	-0.0009	0.0064
20270	3.390	-0.246	-0.105	-0.0122	0.0021	0.0238
20300	0.781	-3.125	-0.026	-0.0062	0.0036	-0.0029
20350	0.908	-2.005	-0.126	0.0066	0.0205	-0.0262
20400	1.473	-1.395	0.018	0.0074	0.0209	-0.0276
20449	1.565	-0.276	0.799	0.1001	0.0291	-0.0449
20450	2.016	-1.045	0.244	0.0240	0.0261	-0.0253
20499	2.045	-0.882	0.351	0.0089	0.0220	-0.0070
20500	1.986	-0.720	0.351	-0.0029	0.0179	-0.0030
20550	2.054	-0.112	0.275	-0.0040	0.0173	-0.0051
20650	-1.234	-0.336	0.014	-0.0054	-0.0005	-0.0137
20700	-1.851	-0.074	0.003	-0.0053	-0.0005	-0.0114
20701	-2.800	-0.970	-0.005	-0.0050	0.0001	0.0614
20702	-3.522	-3.247	0.002	-0.0047	0.0005	0.0862
20703	-3.913	-3.691	-0.002	-0.0040	0.0022	0.0030
20750	-3.560	-3.326	-0.023	-0.0028	0.0030	-0.0663
20751	-1.959	-2.598	-0.093	-0.0020	0.0038	-0.0306
20752	-1.885	-1.987	-0.119	0.0012	0.0044	0.0157
20799	-2.216	-1.681	-0.095	0.0048	0.0047	0.0219
20800	-2.493	-1.375	-0.018	0.0104	0.0051	0.0063
20900	-0.558	-0.019	0.164	0.1165	-0.0205	0.0194
20950	0.058	0.382	0.601	0.1182	-0.0212	0.0191
20999	0.895	2.690	0.964	0.2102	0.0213	-0.0269
21000	1.113	0.515	1.255	0.1761	0.0147	-0.0280
21500	-0.745	-34.983	1.511	0.0343	0.0659	-0.0360
21550	-0.845	-34.863	1.730	0.0346	0.0659	-0.0362
21600	-1.468	-34.094	3.106	0.0364	0.0656	-0.0373
21650	-1.567	-33.970	3.324	0.0367	0.0655	-0.0374

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
21698	-1.830	-33.607	3.888	0.0506	0.0565	-0.0419
21699	-2.035	-32.711	3.810	0.0886	-0.0610	-0.0929
21700	-0.962	-31.070	3.130	0.1677	-0.1798	-0.1225
21750	1.893	-28.436	2.685	0.1794	-0.1938	-0.1254
21798	8.949	-21.780	1.635	0.1886	-0.1906	-0.1323
21799	10.289	-19.532	0.817	0.1770	-0.1089	-0.1301
21800	10.320	-17.669	0.106	0.1682	-0.0284	-0.1203
21850	10.194	-17.154	-0.000	0.1662	-0.0255	-0.1196
21900	5.869	-3.582	-0.000	0.0953	0.0067	-0.0532
21950	1.546	-2.864	-0.000	0.0245	-0.0019	0.0402
22000	1.091	-3.560	-0.026	0.0170	-0.0010	0.0417
22050	0.574	-4.224	-0.030	0.0085	0.0013	0.0009
22100	0.330	-3.652	0.045	-0.0000	0.0016	0.0122
22200	0.076	-3.040	0.042	-0.0002	0.0016	0.0120
22250	-0.007	0.286	0.001	0.0000	0.0035	-0.0027
22270	0.003	3.615	-0.020	-0.0012	0.0054	0.0005
22271	-0.005	4.912	0.005	0.0051	0.0061	0.0000
22272	-0.005	5.558	0.250	0.0138	0.0064	-0.0001
22273	0.002	6.205	0.741	0.0189	0.0068	-0.0006
22274	0.028	6.855	1.110	-0.0075	0.0072	-0.0015
22275	0.032	6.907	0.827	-0.0939	0.0070	-0.0030
22300	0.028	6.600	0.165	-0.1543	0.0067	-0.0039
22301	-0.034	3.860	-3.616	-0.1288	0.0081	-0.0042
22302	-0.045	3.736	-3.995	-0.0208	0.0097	-0.0024
22350	-0.047	3.883	-3.841	0.0636	0.0104	-0.0009
22351	-0.030	4.582	-1.844	0.0547	0.0129	-0.0008
22352	0.023	5.377	-1.032	0.0038	0.0157	-0.0036
22353	0.185	6.081	-1.180	0.0091	0.0182	-0.0088
22354	0.429	5.844	-0.257	0.1721	0.0238	-0.0238
22400	0.772	3.825	0.825	0.2177	0.0226	-0.0264
22700	-0.134	-2.988	0.043	0.0126	0.0037	-0.0572
22750	-0.756	-1.801	0.121	0.0128	0.0037	-0.0562
22751	-1.262	-1.018	0.166	0.0157	-0.0005	-0.0411
22752	-1.414	-0.615	0.075	0.0069	-0.0314	-0.0313
22800	-1.205	-0.217	-0.091	-0.0112	-0.0478	-0.0310
22850	-0.690	0.296	-0.318	-0.0170	-0.0625	-0.0229
22900	-0.221	0.918	-0.679	-0.0176	-0.0635	-0.0222
22901	0.133	1.502	-1.133	-0.0211	-0.0802	-0.0163
22902	-0.120	1.765	-1.086	0.0179	-0.0958	-0.0024
22950	-1.194	1.463	-0.682	0.0620	-0.1281	0.0063
22951	-2.518	0.813	-0.393	0.0633	-0.1294	0.0043
22952	-3.479	0.243	0.275	0.0596	-0.0790	0.0033
23000	-3.420	0.033	0.721	0.0576	0.0029	0.0005
23001	-2.646	0.027	0.405	0.0517	0.0125	-0.0003
23002	-1.873	0.023	0.118	0.0458	0.0075	0.0002
23003	-1.243	0.033	0.007	0.0410	0.0031	0.0006
23020	-0.613	0.045	-0.025	0.0362	0.0005	0.0001
23021	0.017	0.029	-0.022	0.0314	-0.0003	-0.0026
23022	0.647	-0.079	-0.013	0.0266	-0.0002	-0.0084

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
23023	1.418	-0.443	-0.015	0.0208	0.0004	-0.0186
23024	2.191	-1.038	-0.036	0.0149	0.0010	-0.0179
23025	2.383	-0.867	-0.010	0.0107	0.0046	0.0363
23050	1.951	-0.398	0.020	0.0009	0.0074	0.0582
23051	0.528	0.389	-0.001	-0.0019	0.0065	0.0374
23052	-0.141	1.909	-0.169	-0.0033	0.0047	-0.0003
23053	-0.084	2.697	-0.207	0.0050	0.0038	-0.0026
23054	-0.045	2.808	0.193	0.0548	0.0031	-0.0023
23100	-0.018	2.262	0.724	0.0714	0.0009	-0.0016
23149	-0.018	2.241	0.732	0.0713	0.0009	-0.0016
23150	-0.018	2.238	0.733	0.0713	0.0009	-0.0016
23200	0.000	0.000	1.858	0.0278	0.0002	-0.0016
23250	0.000	-0.000	2.997	-0.0054	-0.0000	-0.0016
23300	-0.000	0.000	4.145	0.0020	0.0000	-0.0016
23350	0.000	-0.076	5.294	0.0020	0.0000	-0.0016
23999	-1.688	-0.661	0.104	0.0003	0.0041	-0.0477
24000	-0.089	0.053	0.043	-0.0024	0.0031	-0.0494
24049	-0.033	0.085	0.773	0.0008	0.0016	-0.0402
24050	-0.008	-0.023	1.503	0.0092	0.0005	-0.0311
24100	-0.003	-0.158	1.853	0.0131	0.0008	-0.0267
24150	0.007	-0.310	2.198	0.0132	0.0009	-0.0265
24170	0.009	-0.341	2.268	0.0132	0.0009	-0.0265
24200	0.020	-0.427	2.465	0.0125	0.0027	-0.0240
24220	0.037	-0.510	2.663	0.0125	0.0027	-0.0240
24250	0.043	-0.539	2.732	0.0125	0.0027	-0.0240
24270	0.047	-0.558	2.778	0.0125	0.0027	-0.0240
24298	0.648	-0.842	2.350	0.0079	0.0079	-0.0137
24299	0.742	-0.844	2.263	0.0123	0.0136	0.0041
24300	0.728	-0.777	2.127	0.0159	0.0180	0.0110
24320	0.622	-0.687	1.954	0.0159	0.0185	0.0170
24350	0.409	-0.504	1.609	0.0159	0.0185	0.0175
24370	0.165	-0.255	1.200	0.0214	0.0167	0.0317
24371	-0.093	0.194	0.738	0.0435	0.0198	0.0477
24372	-0.405	0.971	0.340	0.0726	0.0266	0.0614
24373	-0.474	1.452	0.180	0.1092	0.0283	0.0740
24400	-0.402	1.883	0.053	0.1003	0.0117	0.0377
24419	-0.369	1.934	0.040	0.0993	0.0109	0.0341
24420	-0.272	2.052	0.008	0.0960	0.0085	0.0149
24421	0.655	0.273	-0.015	0.0717	-0.0017	-0.0520
24422	1.582	-0.095	-0.041	0.0474	0.0034	0.0067
24423	1.950	-0.022	-0.089	0.0378	0.0016	0.0042
24424	2.318	0.018	-0.042	0.0282	-0.0135	0.0022
24425	2.687	0.040	0.334	0.0185	-0.0495	0.0010
24426	2.606	0.018	0.758	0.0143	-0.1388	0.0016
24450	2.069	-0.011	1.108	0.0033	-0.1351	0.0036
24451	0.509	-0.020	1.501	-0.0010	-0.0919	-0.0001
24469	-0.071	-0.007	1.730	-0.0024	-0.0638	-0.0023
24470	-0.478	0.016	1.959	-0.0035	-0.0472	-0.0045
24500	-0.994	0.074	2.365	-0.0044	-0.0287	-0.0083

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
24530	-1.321	0.124	2.709	-0.0044	-0.0281	-0.0085
24536	0.000	-0.443	-0.000	-0.0256	0.0064	-0.0028
24548	-1.464	0.148	2.880	-0.0035	-0.0215	-0.0101
24549	-1.438	0.130	2.991	0.0035	0.0097	-0.0140
24550	-1.297	0.053	2.956	0.0078	0.0271	-0.0224
24570	-0.668	-0.492	2.536	0.0142	-0.0008	-0.0304
24600	-0.674	-0.586	2.733	0.0142	-0.0008	-0.0304
24630	-0.676	-0.619	2.803	0.0142	-0.0008	-0.0304
24650	-0.677	-0.640	2.849	0.0142	-0.0008	-0.0304
24652	-0.000	-2.954	0.000	0.0067	0.0043	0.0008
24670	-0.600	-0.393	2.337	0.0155	-0.0198	-0.0345
24690	-0.553	-0.356	2.267	0.0156	-0.0201	-0.0346
24700	-0.314	-0.177	1.922	0.0156	-0.0215	-0.0349
24720	0.121	0.006	1.569	0.0152	-0.0525	-0.0423
24749	1.835	0.312	0.832	0.0078	-0.0695	-0.0577
24750	2.828	0.310	0.095	-0.0100	0.0065	-0.0731
24768	-0.000	-5.577	-0.000	-0.0013	0.0022	-0.0005
24769	0.000	-7.114	0.000	0.0002	0.0011	0.0012
24770	-0.048	-7.797	-0.000	-0.0000	0.0006	-0.0069
24771	-0.031	-7.990	0.000	0.0000	0.0004	0.0250
24772	0.371	-8.119	0.000	0.0000	0.0004	0.0912
24773	1.355	-8.249	-0.000	0.0000	0.0003	0.1603
24774	2.469	-8.380	-0.000	0.0000	0.0002	0.0570
24775	2.161	-8.214	-0.000	0.0001	0.0001	-0.3941
25000	1.706	-7.112	-0.000	0.0001	0.0000	-0.6465
25001	1.534	-2.509	0.000	0.0001	0.0000	-0.4746
25002	1.363	-0.177	0.000	0.0001	-0.0000	-0.1727
25003	1.192	0.377	0.000	0.0001	-0.0000	-0.0137
25004	0.935	0.110	0.000	0.0001	0.0000	0.0309
25005	0.122	-0.006	-0.000	0.0001	-0.0000	-0.0058
25020	-0.690	0.000	0.000	0.0001	0.0001	0.0020
25050	-3.152	-0.000	-0.000	0.0000	-0.0007	-0.0003
25051	-3.977	0.000	0.002	0.0000	0.0021	0.0001
25052	-4.809	-0.000	-0.007	0.0000	-0.0083	-0.0000
25053	-5.073	0.000	-0.138	0.0000	-0.0133	-0.0000
25054	-5.249	0.000	-0.206	0.0000	0.0050	0.0000
25055	-5.426	0.000	0.049	0.0000	0.0824	0.0000
25056	-5.604	0.000	1.184	0.0000	0.2350	0.0000
25057	-5.319	0.000	1.908	0.0000	0.4692	-0.0000
25070	-4.365	-0.000	2.364	0.0000	0.4666	-0.0000
25071	-1.347	-0.000	2.590	-0.0000	0.2920	-0.0000
25072	0.015	-0.000	2.816	-0.0000	0.0970	-0.0000
25073	0.346	-0.000	3.059	-0.0000	0.0154	-0.0000
25079	0.392	-0.000	3.180	-0.0000	0.0126	-0.0000
25080	0.450	0.000	3.302	-0.0000	0.0208	-0.0000
25098	0.853	0.000	3.638	-0.0000	0.0461	-0.0000
25099	0.929	0.000	3.737	-0.0000	0.0576	-0.0000
25100	0.920	0.000	3.876	0.0000	0.0647	-0.0000
25120	0.599	0.000	4.588	-0.0000	0.0661	0.0000

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 5 (EXP) L5=L2-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
25150	0.373	0.000	5.087	-0.0000	0.0660	0.0000
25170	0.320	0.000	5.204	-0.0000	0.0660	0.0000
25198	0.068	0.000	5.727	-0.0000	0.0568	0.0000
25199	-0.024	0.000	5.796	-0.0000	0.0404	0.0000
25200	-0.108	0.000	5.767	-0.0000	0.0261	0.0000
25220	-0.378	0.000	5.431	-0.0000	0.0270	0.0000
25221	-0.609	0.000	5.150	-0.0000	0.0096	0.0000
25222	-0.092	-0.000	4.869	0.0000	-0.1844	0.0000
25223	2.544	-0.000	4.644	0.0000	-0.5650	0.0000
25224	8.370	0.000	4.419	0.0000	-0.8991	0.0000
25225	10.226	0.000	3.596	0.0000	-0.8999	0.0000
25250	10.823	0.000	2.233	0.0000	-0.4478	0.0000
25251	10.691	-0.000	0.079	0.0000	-0.1555	0.0000
25252	10.560	-0.000	-0.398	0.0000	-0.0085	-0.0000
25253	10.430	-0.000	-0.264	0.0000	0.0257	-0.0000
25254	10.236	0.000	-0.011	0.0000	0.0165	-0.0000
25255	9.554	0.000	0.002	0.0000	-0.0047	0.0000
25256	8.669	-0.000	-0.000	0.0000	0.0012	-0.0000
25270	7.817	0.000	0.001	0.0000	-0.0002	0.0000
25300	7.716	-0.000	-0.000	0.0000	-0.0002	0.0000
25350	4.949	-0.000	-0.000	0.0000	0.0001	-0.0000
25400	2.417	0.000	0.000	0.0000	-0.0000	0.0000
25449	1.209	-0.000	-0.000	0.0000	0.0000	-0.0000
25450	-0.000	-0.000	-0.000	0.0000	0.0000	-0.0000

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10	-0.011	-36.538	0.191	-0.0049	0.0439	-0.0003
50	-0.000	-35.493	0.018	-0.0049	0.0439	-0.0003
100	-0.000	-35.389	-0.000	-0.0050	0.0438	-0.0002
150	0.000	-33.119	0.000	0.0265	0.0423	-0.0014
200	0.032	-32.615	0.656	0.0396	0.0419	-0.0021
250	0.075	-32.165	1.462	0.0531	0.0414	-0.0031
300	0.168	-31.524	3.070	0.0729	0.0405	-0.0048
348	0.379	-30.543	6.122	0.0852	0.0391	-0.0070
349	0.547	-28.802	9.756	0.0649	0.0372	-0.0099
350	0.381	-26.932	11.113	0.0117	0.0356	-0.0117
400	0.306	-26.645	11.044	0.0010	0.0354	-0.0119
401	-0.042	-26.092	9.169	-0.0495	0.0349	-0.0115
402	-0.213	-26.225	5.568	-0.0753	0.0359	-0.0085
450	-0.141	-25.487	2.119	-0.0535	0.0373	-0.0042
500	-0.102	-25.211	1.581	-0.0467	0.0376	-0.0034
549	-0.012	-23.735	-0.027	-0.0164	0.0393	-0.0007
550	-0.005	-22.258	-0.353	-0.0014	0.0410	-0.0005
570	0.495	-22.206	0.068	-0.0055	0.0312	-0.0094
600	0.057	-20.641	-0.194	0.0032	0.0445	-0.0023
650	0.162	-19.316	-0.048	0.0032	0.0446	-0.0024
699	0.277	-18.521	0.035	0.0011	0.0463	-0.0043
700	0.444	-17.726	0.034	-0.0020	0.0480	-0.0057
750	-4.034	-14.382	0.010	0.0031	0.0321	0.0829
751	-5.044	-14.162	0.045	0.0037	0.0310	0.0909
752	-11.200	-11.615	0.115	0.0091	0.0240	0.0719
800	-12.606	-9.291	-0.001	0.0131	0.0178	0.0016
850	-12.400	-9.198	-0.030	0.0133	0.0171	-0.0021
900	-8.769	-8.386	-0.033	0.0127	0.0117	-0.0104
950	-6.342	-6.453	0.004	0.0091	0.0091	0.0010
1000	-4.248	-4.247	0.000	0.0061	0.0061	0.0002
1050	-2.120	-2.117	-0.000	0.0030	0.0030	-0.0000
1099	-1.059	-1.059	-0.000	0.0015	0.0015	-0.0000
1100	0.000	0.000	0.000	0.0000	0.0000	-0.0000
1499	1.662	-17.623	0.768	-0.0042	0.0505	-0.0144
1500	2.932	-17.483	1.502	-0.0050	0.0523	-0.0232
1548	3.923	-17.376	2.062	-0.0045	0.0531	-0.0298
1549	5.064	-16.859	3.464	-0.0052	0.0550	-0.0437
1550	4.854	-15.138	5.124	-0.0105	0.0431	-0.0799
1600	3.101	-10.153	7.514	0.0003	0.0361	-0.0863
1648	1.347	-5.050	9.333	0.0111	0.0237	-0.0840
1649	0.783	-2.993	8.814	0.0104	-0.0440	-0.0621
1650	2.592	-2.032	7.288	0.0143	-0.1131	-0.0535
1700	4.751	-1.742	6.733	0.0147	-0.1178	-0.0485
1701	6.154	-1.564	6.386	0.0146	-0.1204	-0.0454
1702	9.357	-0.932	4.153	0.0001	-0.1231	-0.0301
1750	9.761	-0.644	1.508	-0.0089	-0.0363	-0.0003
1799	8.779	-0.741	0.558	-0.0069	-0.0216	-0.0004

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
1800	7.361	-0.569	-0.072	-0.0039	-0.0075	-0.0141
1801	9.287	0.949	-0.081	0.0014	-0.0046	-0.0620
1802	10.988	2.161	-0.053	0.0042	-0.0026	-0.0924
1849	4.362	0.642	-0.085	-0.0089	0.0034	-0.0844
1850	5.485	0.960	-0.196	-0.0025	0.0003	-0.0147
1900	3.812	1.028	-0.127	-0.0001	0.0011	0.0021
1950	2.483	0.931	-0.078	0.0001	0.0011	0.0020
1999	0.548	0.540	-0.002	-0.0005	0.0027	-0.0293
2000	0.814	0.926	0.007	0.0025	0.0022	0.0010
2050	-0.071	0.797	0.099	0.0041	0.0037	0.0011
2100	-1.167	0.827	0.302	0.0060	0.0061	-0.0056
2149	-1.940	0.979	0.462	0.0061	0.0061	-0.0060
2150	-2.610	1.210	0.643	0.0073	0.0068	-0.0114
2200	-3.707	1.901	0.955	0.0092	0.0040	-0.0153
2249	-4.217	2.276	1.052	0.0101	-0.0001	-0.0126
2250	-4.726	2.553	1.040	0.0110	-0.0069	-0.0054
2251	-4.369	3.059	1.331	0.0073	-0.0173	-0.0137
2252	-3.851	3.360	1.062	-0.0407	-0.0286	-0.0357
2255	-4.441	2.071	0.786	0.0121	-0.0068	0.0111
2260	-3.991	1.713	0.571	0.0122	-0.0068	0.0225
2280	-3.574	1.508	0.432	0.0111	-0.0067	0.0284
2300	-0.450	-0.327	-0.018	0.0002	-0.0057	0.0130
2350	-0.004	-1.375	-0.024	0.0001	-0.0057	0.0118
2400	0.038	-3.073	-0.009	-0.0003	-0.0048	-0.0007
2450	0.039	-3.396	-0.004	-0.0003	-0.0046	0.0025
2500	0.140	-4.444	0.009	-0.0004	-0.0046	0.0032
2550	0.258	-4.772	0.017	-0.0006	-0.0044	0.0103
2560	1.395	-5.737	0.061	-0.0009	-0.0039	0.0300
2580	1.760	-5.936	0.072	-0.0009	-0.0038	0.0318
2590	2.313	-6.296	0.088	-0.0008	-0.0038	0.0312
2599	1.818	-8.690	-0.008	-0.0003	-0.0022	0.0596
2600	2.965	-6.781	0.104	-0.0006	-0.0038	0.0281
2650	2.536	-8.930	0.093	0.0019	-0.0089	-0.0130
2651	1.494	-10.962	-0.276	0.0097	-0.0138	-0.0210
2652	1.387	-11.085	-0.352	0.0157	-0.0135	-0.0323
2660	1.233	-11.191	-0.479	0.0204	-0.0116	-0.0450
2661	1.050	-11.285	-0.631	0.0208	-0.0119	-0.0469
2662	-1.659	-10.538	-1.372	0.0161	0.0111	-0.1372
2700	-4.024	-6.828	-1.063	0.0043	0.0188	-0.1212
2725	-4.035	-6.780	-1.055	0.0042	0.0188	-0.1211
2750	-4.481	-4.791	-0.746	-0.0011	0.0167	-0.1076
2800	-7.571	0.273	0.042	-0.0519	0.0013	-0.0085
2850	-10.198	0.059	0.002	-0.0947	-0.0006	0.0029
2899	-10.689	0.007	-0.009	-0.1026	-0.0002	0.0003
2900	-11.624	0.001	-0.014	-0.1036	-0.0001	-0.0002
2901	-11.624	0.001	-0.014	-0.1036	-0.0001	-0.0002
3500	-2.993	3.105	0.044	-0.0802	-0.0433	-0.0475
3501	-1.525	2.139	-1.730	-0.0794	-0.0500	-0.0430
3502	-0.624	1.930	-2.678	-0.0339	-0.0504	-0.0334

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
3550	-0.158	2.258	-2.828	0.0132	-0.0501	-0.0083
3551	-0.088	3.658	-1.753	0.0137	-0.0623	0.0080
3600	-1.032	5.060	-1.431	-0.0051	-0.0746	0.0291
3601	-4.754	7.299	-3.030	-0.0215	-0.0940	0.0493
3602	-6.382	8.108	-2.100	0.0353	-0.1034	0.0052
3650	-7.601	6.389	0.930	0.0888	-0.0827	-0.0633
3651	-7.866	4.753	1.961	0.0876	-0.0413	-0.0669
3700	-7.568	3.576	2.231	0.0807	0.0097	-0.0521
3701	-6.318	1.256	1.336	0.0645	0.0178	-0.0396
3750	-5.070	-0.268	0.505	0.0484	0.0134	-0.0253
3799	-3.628	-1.292	-0.012	0.0298	0.0060	-0.0111
3800	-2.187	-1.513	-0.186	0.0111	0.0012	0.0032
3850	-0.108	-0.929	-0.119	0.0063	-0.0012	0.0018
3900	1.219	-0.864	-0.066	0.0061	-0.0012	0.0011
3949	2.259	-1.017	-0.033	0.0037	-0.0006	-0.0036
3950	3.299	-1.198	-0.021	0.0013	-0.0001	-0.0003
4000	6.151	-1.710	-0.040	-0.0017	0.0002	-0.0223
4001	8.037	-4.230	-0.034	-0.0037	-0.0010	-0.0344
4002	8.569	-4.062	0.044	-0.0024	-0.0078	0.0421
4050	6.745	-2.629	0.101	-0.0012	-0.0107	0.0865
4051	2.823	-1.377	0.042	-0.0012	-0.0138	0.0689
4100	0.306	-0.126	-0.013	-0.0012	-0.0169	0.0389
4150	0.002	3.374	-0.160	-0.0009	-0.0254	-0.0264
4151	1.626	4.628	-0.195	0.0008	-0.0285	-0.0407
4152	3.815	5.883	-0.092	0.0059	-0.0315	-0.0433
4153	3.906	6.565	0.229	0.0425	-0.0213	0.0267
4200	2.660	5.290	0.434	0.0592	-0.0064	0.0655
4249	2.195	4.138	0.326	0.0645	-0.0060	0.0625
4250	1.307	2.182	0.142	0.0744	-0.0050	0.0492
4300	-0.593	0.016	-0.087	0.0985	-0.0022	0.0193
4349	-1.547	-0.467	-0.157	0.1149	-0.0018	0.0105
4350	-2.500	-0.692	-0.213	0.1312	-0.0014	0.0045
4399	-3.464	-0.758	-0.251	0.1427	-0.0009	0.0007
4400	-4.428	-0.723	-0.274	0.1542	-0.0005	-0.0013
4449	-5.411	-0.657	-0.283	0.1614	-0.0001	-0.0021
4450	-6.393	-0.569	-0.279	0.1687	0.0002	-0.0025
4499	-7.402	-0.479	-0.264	0.1722	0.0007	-0.0028
4500	-8.411	-0.375	-0.233	0.1757	0.0011	-0.0033
4549	-9.071	-0.294	-0.204	0.1757	0.0013	-0.0036
4550	-9.731	-0.210	-0.172	0.1757	0.0014	-0.0037
4699	0.932	0.708	0.873	0.0513	-0.0219	0.0492
4700	0.283	-0.388	1.603	0.0436	-0.0275	0.0492
4748	0.169	-0.569	1.728	0.0436	-0.0275	0.0492
4749	-0.282	-0.863	2.179	0.0436	-0.0275	0.0492
4750	-0.851	-0.751	2.705	0.0436	-0.0275	0.0492
4800	-1.477	-0.370	3.260	0.0436	-0.0275	0.0492
4849	-0.481	-1.254	0.644	0.0222	0.0089	0.0193
4850	-0.187	-1.281	1.375	-0.0032	0.0127	0.0193
4898	-0.135	-1.268	1.500	-0.0032	0.0127	0.0193

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
4899	-0.091	-1.121	1.769	-0.0032	0.0127	0.0193
4900	-0.223	-0.827	1.855	-0.0032	0.0127	0.0193
4950	-0.468	-0.446	1.814	-0.0032	0.0127	0.0193
4999	-2.584	-5.188	0.511	0.2164	-0.0053	0.0019
5000	-2.757	-11.010	1.235	0.2398	-0.0087	-0.0007
5048	-2.794	-12.023	1.358	0.2377	-0.0093	-0.0011
5049	-2.917	-13.780	2.330	0.1340	-0.0165	-0.0005
5050	-2.968	-13.844	2.987	-0.0123	-0.0176	-0.0041
5100	-2.968	-13.840	2.985	-0.0126	-0.0177	-0.0041
5150	-2.954	-13.741	2.942	-0.0129	-0.0177	-0.0041
5200	-2.867	-13.119	2.655	-0.0143	-0.0179	-0.0043
5250	-2.852	-13.020	2.607	-0.0144	-0.0179	-0.0043
5300	-2.737	-12.410	2.153	-0.0231	-0.0211	-0.0068
5310	-2.630	-12.007	1.825	-0.0237	-0.0232	-0.0085
5320	-2.602	-11.908	1.746	-0.0237	-0.0233	-0.0085
5330	-2.573	-11.809	1.667	-0.0237	-0.0233	-0.0085
5350	-2.390	-11.248	1.211	-0.0230	-0.0263	-0.0102
5400	-2.356	-11.149	1.134	-0.0230	-0.0263	-0.0102
5450	-2.322	-11.049	1.058	-0.0229	-0.0263	-0.0102
5500	-2.106	-10.473	0.623	-0.0203	-0.0293	-0.0113
5550	-2.068	-10.376	0.556	-0.0197	-0.0299	-0.0114
5600	-2.030	-10.280	0.491	-0.0191	-0.0304	-0.0115
5650	-1.659	-9.373	0.000	-0.0114	-0.0351	-0.0119
5660	-1.362	-8.637	-0.197	-0.0047	-0.0390	-0.0115
5670	-1.324	-8.541	-0.211	-0.0040	-0.0395	-0.0114
5680	-1.286	-8.444	-0.222	-0.0033	-0.0400	-0.0113
5685	-0.648	-6.640	-0.129	0.0041	-0.0495	-0.0089
5690	-0.619	-6.543	-0.115	0.0042	-0.0500	-0.0087
5695	-0.590	-6.446	-0.101	0.0042	-0.0505	-0.0085
5700	-0.402	-5.745	-0.000	0.0036	-0.0542	-0.0070
5750	-0.311	-5.342	0.044	0.0026	-0.0564	-0.0061
5800	-0.291	-5.243	0.052	0.0026	-0.0564	-0.0061
5850	-0.271	-5.144	0.061	0.0026	-0.0564	-0.0060
5900	-0.166	-4.583	0.098	0.0011	-0.0594	-0.0048
5950	-0.150	-4.483	0.101	0.0011	-0.0594	-0.0048
6000	-0.134	-4.384	0.105	0.0011	-0.0594	-0.0048
6005	0.042	-2.707	-0.000	-0.0051	-0.0682	-0.0014
6007	-0.001	-0.376	0.000	0.0165	-0.0805	0.0022
6010	-0.017	-0.177	0.134	0.0207	-0.0816	0.0025
6030	-0.025	-0.078	0.203	0.0208	-0.0816	0.0025
6050	-0.033	0.021	0.273	0.0209	-0.0816	0.0025
6100	-0.049	0.199	0.414	0.0233	-0.0826	0.0027
6112	-0.088	0.578	0.755	0.0265	-0.0846	0.0031
6125	-0.098	0.677	0.843	0.0265	-0.0846	0.0031
6137	-0.109	0.776	0.932	0.0266	-0.0847	0.0031
6150	-0.147	1.106	1.243	0.0259	-0.0864	0.0035
6200	-0.158	1.206	1.329	0.0258	-0.0864	0.0035
6250	-0.231	1.827	1.865	0.0254	-0.0866	0.0035
6300	-0.243	1.927	1.949	0.0253	-0.0866	0.0035

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
6348	-0.309	2.430	2.301	0.0126	-0.0893	0.0039
6349	0.008	2.557	1.969	-0.0560	-0.0920	0.0028
6350	0.903	1.986	1.417	-0.0644	-0.1002	0.0006
6400	1.320	1.701	1.294	-0.0615	-0.1007	0.0007
6449	3.709	0.479	0.566	-0.0381	-0.0775	0.0014
6450	4.889	-0.155	-0.161	-0.0134	-0.0019	0.0020
6599	-4.491	-5.586	0.450	0.2257	-0.0043	-0.0031
6600	-4.634	-11.522	1.173	0.2419	-0.0071	-0.0049
6648	-4.665	-12.540	1.296	0.2392	-0.0075	-0.0052
6649	-4.743	-14.276	2.256	0.1301	-0.0122	-0.0049
6650	-4.734	-14.323	2.879	-0.0145	-0.0125	-0.0084
6700	-4.733	-14.319	2.877	-0.0147	-0.0125	-0.0084
6750	-4.705	-14.220	2.828	-0.0150	-0.0125	-0.0084
6800	-4.528	-13.597	2.498	-0.0163	-0.0127	-0.0086
6850	-4.499	-13.498	2.443	-0.0164	-0.0127	-0.0086
6900	-4.291	-12.886	1.962	-0.0234	-0.0145	-0.0115
6910	-4.116	-12.482	1.641	-0.0228	-0.0158	-0.0135
6920	-4.071	-12.383	1.565	-0.0228	-0.0158	-0.0135
6930	-4.026	-12.284	1.489	-0.0228	-0.0158	-0.0135
6950	-3.742	-11.721	1.064	-0.0209	-0.0175	-0.0156
7000	-3.690	-11.621	0.995	-0.0209	-0.0175	-0.0156
7050	-3.638	-11.522	0.925	-0.0209	-0.0176	-0.0156
7100	-3.313	-10.943	0.537	-0.0179	-0.0193	-0.0169
7150	-3.256	-10.846	0.478	-0.0173	-0.0196	-0.0171
7200	-3.199	-10.749	0.421	-0.0167	-0.0199	-0.0172
7250	-2.650	-9.839	0.000	-0.0097	-0.0227	-0.0176
7260	-2.211	-9.100	-0.168	-0.0040	-0.0249	-0.0170
7270	-2.155	-9.003	-0.180	-0.0034	-0.0252	-0.0169
7280	-2.099	-8.906	-0.190	-0.0028	-0.0255	-0.0168
7285	-1.144	-7.095	-0.112	0.0035	-0.0311	-0.0135
7290	-1.099	-6.998	-0.100	0.0036	-0.0314	-0.0133
7295	-1.055	-6.901	-0.087	0.0036	-0.0317	-0.0130
7300	-0.764	-6.197	-0.000	0.0031	-0.0338	-0.0110
7350	-0.621	-5.792	0.039	0.0024	-0.0350	-0.0097
7400	-0.589	-5.693	0.047	0.0024	-0.0351	-0.0097
7450	-0.556	-5.593	0.055	0.0024	-0.0351	-0.0097
7500	-0.386	-5.030	0.089	0.0010	-0.0368	-0.0080
7550	-0.359	-4.931	0.092	0.0010	-0.0368	-0.0080
7600	-0.333	-4.831	0.095	0.0010	-0.0368	-0.0080
7605	-0.015	-3.148	-0.000	-0.0047	-0.0420	-0.0031
7607	0.025	-0.806	0.000	0.0156	-0.0491	0.0014
7610	0.015	-0.606	0.126	0.0195	-0.0497	0.0016
7620	0.010	-0.507	0.191	0.0196	-0.0497	0.0016
7650	0.004	-0.408	0.257	0.0197	-0.0497	0.0016
7700	-0.006	-0.229	0.390	0.0221	-0.0503	0.0018
7712	-0.032	0.152	0.713	0.0253	-0.0515	0.0021
7725	-0.039	0.251	0.797	0.0253	-0.0515	0.0021
7737	-0.046	0.350	0.882	0.0253	-0.0515	0.0021
7750	-0.071	0.682	1.179	0.0249	-0.0525	0.0023

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
7800	-0.079	0.782	1.262	0.0249	-0.0525	0.0023
7850	-0.128	1.404	1.779	0.0246	-0.0526	0.0024
7900	-0.135	1.503	1.861	0.0245	-0.0527	0.0024
7948	-0.178	2.009	2.210	0.0133	-0.0542	0.0025
7949	0.015	2.163	1.923	-0.0478	-0.0559	0.0014
7950	0.560	1.679	1.407	-0.0577	-0.0610	-0.0001
8000	0.814	1.423	1.284	-0.0554	-0.0613	-0.0001
8049	2.266	0.304	0.556	-0.0354	-0.0469	0.0001
8050	2.975	-0.298	-0.172	-0.0130	-0.0004	0.0002
8199	-6.433	-5.671	0.444	0.2320	-0.0030	-0.0044
8200	-6.537	-11.695	1.168	0.2440	-0.0051	-0.0063
8248	-6.559	-12.720	1.291	0.2410	-0.0053	-0.0066
8249	-6.592	-14.451	2.247	0.1289	-0.0065	-0.0076
8250	-6.523	-14.493	2.860	-0.0148	-0.0054	-0.0128
8300	-6.521	-14.489	2.858	-0.0150	-0.0054	-0.0128
8350	-6.479	-14.390	2.807	-0.0153	-0.0054	-0.0128
8400	-6.210	-13.767	2.470	-0.0166	-0.0054	-0.0130
8450	-6.167	-13.668	2.414	-0.0168	-0.0054	-0.0130
8500	-5.860	-13.055	1.931	-0.0234	-0.0059	-0.0166
8510	-5.611	-12.650	1.610	-0.0226	-0.0062	-0.0191
8520	-5.547	-12.551	1.535	-0.0226	-0.0062	-0.0191
8530	-5.484	-12.451	1.460	-0.0226	-0.0062	-0.0191
8550	-5.087	-11.887	1.040	-0.0206	-0.0067	-0.0216
8600	-5.015	-11.788	0.972	-0.0206	-0.0067	-0.0216
8650	-4.944	-11.688	0.903	-0.0205	-0.0067	-0.0217
8700	-4.496	-11.109	0.523	-0.0175	-0.0072	-0.0231
8750	-4.418	-11.011	0.465	-0.0169	-0.0072	-0.0233
8800	-4.340	-10.914	0.410	-0.0163	-0.0073	-0.0234
8850	-3.597	-10.002	0.000	-0.0095	-0.0081	-0.0237
8860	-3.007	-9.262	-0.164	-0.0039	-0.0087	-0.0228
8870	-2.931	-9.165	-0.175	-0.0033	-0.0087	-0.0226
8880	-2.856	-9.068	-0.185	-0.0027	-0.0088	-0.0225
8885	-1.589	-7.252	-0.109	0.0034	-0.0103	-0.0178
8890	-1.530	-7.155	-0.097	0.0035	-0.0104	-0.0175
8895	-1.473	-7.058	-0.085	0.0035	-0.0104	-0.0171
8900	-1.091	-6.352	-0.000	0.0031	-0.0110	-0.0144
8950	-0.903	-5.947	0.038	0.0023	-0.0113	-0.0127
9000	-0.861	-5.848	0.046	0.0023	-0.0113	-0.0127
9050	-0.819	-5.748	0.053	0.0023	-0.0114	-0.0127
9100	-0.596	-5.184	0.086	0.0010	-0.0118	-0.0104
9150	-0.562	-5.084	0.090	0.0010	-0.0118	-0.0104
9200	-0.527	-4.985	0.093	0.0010	-0.0118	-0.0104
9205	-0.110	-3.298	-0.000	-0.0046	-0.0132	-0.0042
9207	-0.015	-0.952	0.000	0.0152	-0.0151	0.0007
9210	-0.021	-0.752	0.123	0.0191	-0.0152	0.0008
9230	-0.024	-0.652	0.187	0.0192	-0.0152	0.0008
9250	-0.027	-0.553	0.251	0.0193	-0.0153	0.0009
9300	-0.032	-0.374	0.382	0.0216	-0.0154	0.0009
9312	-0.045	0.008	0.699	0.0249	-0.0157	0.0009

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
9325	-0.048	0.107	0.782	0.0249	-0.0157	0.0009
9337	-0.051	0.206	0.865	0.0250	-0.0157	0.0009
9350	-0.061	0.539	1.160	0.0248	-0.0160	0.0007
9400	-0.063	0.638	1.242	0.0248	-0.0160	0.0007
9450	-0.077	1.260	1.757	0.0245	-0.0160	0.0007
9500	-0.080	1.359	1.839	0.0244	-0.0160	0.0007
9548	-0.084	1.866	2.193	0.0141	-0.0164	-0.0003
9549	0.010	2.036	1.936	-0.0423	-0.0185	-0.0054
9550	0.227	1.618	1.445	-0.0503	-0.0220	-0.0079
9600	0.319	1.394	1.322	-0.0481	-0.0221	-0.0083
9649	0.844	0.443	0.594	-0.0296	-0.0169	-0.0105
9650	1.093	-0.051	-0.134	-0.0107	0.0005	-0.0128
9651	0.158	0.560	-0.106	-0.0087	0.0009	-0.0260
9799	-8.417	-5.580	0.491	0.2342	-0.0010	-0.0057
9800	-8.457	-11.620	1.214	0.2440	-0.0018	-0.0080
9848	-8.465	-12.644	1.338	0.2408	-0.0018	-0.0084
9849	-8.435	-14.368	2.291	0.1282	0.0012	-0.0109
9850	-8.289	-14.408	2.905	-0.0141	0.0041	-0.0185
9900	-8.287	-14.404	2.902	-0.0143	0.0041	-0.0185
9950	-8.225	-14.305	2.854	-0.0146	0.0041	-0.0185
10000	-7.838	-13.682	2.533	-0.0159	0.0042	-0.0187
10050	-7.776	-13.583	2.480	-0.0160	0.0042	-0.0187
10100	-7.344	-12.969	2.007	-0.0232	0.0052	-0.0227
10110	-7.009	-12.564	1.685	-0.0230	0.0058	-0.0254
10120	-6.924	-12.464	1.609	-0.0230	0.0058	-0.0255
10130	-6.840	-12.365	1.532	-0.0229	0.0058	-0.0255
10150	-6.318	-11.800	1.100	-0.0214	0.0067	-0.0282
10200	-6.224	-11.701	1.029	-0.0214	0.0067	-0.0282
10250	-6.130	-11.602	0.958	-0.0214	0.0067	-0.0283
10300	-5.549	-11.021	0.558	-0.0185	0.0077	-0.0298
10350	-5.450	-10.924	0.497	-0.0179	0.0078	-0.0300
10400	-5.349	-10.827	0.438	-0.0173	0.0080	-0.0302
10450	-4.397	-9.914	0.000	-0.0101	0.0094	-0.0303
10460	-3.644	-9.174	-0.174	-0.0042	0.0106	-0.0290
10470	-3.548	-9.077	-0.187	-0.0035	0.0108	-0.0288
10480	-3.452	-8.979	-0.197	-0.0029	0.0109	-0.0286
10485	-1.864	-7.163	-0.114	0.0036	0.0138	-0.0217
10490	-1.792	-7.066	-0.101	0.0037	0.0140	-0.0212
10495	-1.722	-6.968	-0.089	0.0037	0.0141	-0.0207
10500	-1.269	-6.263	-0.000	0.0031	0.0152	-0.0166
10550	-1.057	-5.857	0.038	0.0023	0.0159	-0.0141
10600	-1.010	-5.758	0.046	0.0023	0.0159	-0.0141
10650	-0.963	-5.658	0.053	0.0023	0.0159	-0.0141
10700	-0.723	-5.094	0.085	0.0009	0.0168	-0.0109
10750	-0.687	-4.994	0.088	0.0009	0.0168	-0.0109
10800	-0.650	-4.895	0.091	0.0009	0.0168	-0.0109
10805	-0.247	-3.207	-0.000	-0.0043	0.0195	-0.0036
10807	-0.181	-0.860	0.000	0.0141	0.0232	0.0004
10810	-0.184	-0.660	0.114	0.0177	0.0236	0.0003

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
10820	-0.186	-0.561	0.173	0.0178	0.0236	0.0003
10850	-0.187	-0.462	0.232	0.0179	0.0236	0.0003
10900	-0.189	-0.283	0.353	0.0201	0.0239	0.0001
10912	-0.187	0.099	0.650	0.0235	0.0245	-0.0007
10925	-0.184	0.198	0.728	0.0235	0.0245	-0.0007
10937	-0.182	0.298	0.807	0.0236	0.0245	-0.0007
10950	-0.168	0.630	1.087	0.0240	0.0250	-0.0019
11000	-0.162	0.729	1.167	0.0240	0.0250	-0.0019
11050	-0.120	1.351	1.665	0.0237	0.0251	-0.0021
11100	-0.113	1.451	1.744	0.0237	0.0251	-0.0021
11148	-0.049	1.958	2.103	0.0157	0.0259	-0.0055
11149	-0.014	2.169	1.922	-0.0266	0.0215	-0.0212
11150	-0.097	1.976	1.513	-0.0187	0.0172	-0.0271
11200	-0.168	1.884	1.389	-0.0157	0.0172	-0.0284
11249	-0.571	1.743	0.660	-0.0020	0.0131	-0.0361
11250	-0.777	1.712	-0.068	-0.0067	0.0011	-0.0438
11300	6.858	-0.050	-0.049	-0.0116	-0.0042	0.0010
11349	7.879	-0.024	0.061	-0.0112	-0.0042	0.0006
11350	8.900	-0.008	0.216	-0.0108	-0.0067	0.0005
11370	8.111	0.102	0.637	-0.0059	-0.0876	0.0005
11399	9.607	0.003	0.355	-0.0108	-0.0059	0.0005
11400	10.313	0.014	0.482	-0.0108	-0.0056	0.0005
11449	5.178	0.111	0.681	-0.0034	-0.1100	0.0010
11450	1.776	0.138	1.412	-0.0006	-0.1452	0.0010
11500	-0.746	-0.248	1.943	-0.0006	-0.1452	0.0010
11550	-0.733	-0.629	1.952	-0.0006	-0.1452	0.0010
11599	5.867	0.161	1.158	-0.0021	-0.1499	0.0005
11600	2.900	0.176	1.678	-0.0008	-0.1707	0.0005
11648	2.191	0.179	1.803	-0.0008	-0.1707	0.0005
11649	0.587	0.071	2.087	-0.0008	-0.1707	0.0005
11650	-0.074	-0.207	2.212	-0.0008	-0.1707	0.0005
11700	-0.067	-0.588	2.223	-0.0008	-0.1707	0.0005
11800	-0.165	13.076	0.009	0.0001	-0.0036	0.0011
11898	1.172	0.141	1.537	-0.0006	-0.1452	0.0010
11899	-0.189	0.031	1.821	-0.0006	-0.1452	0.0010
11900	-0.136	12.274	0.006	0.0001	-0.0036	0.0012
11949	-0.693	12.252	-0.060	0.0001	-0.0036	0.0012
11950	-1.249	12.230	-0.126	0.0001	-0.0036	0.0012
12070	0.021	9.511	-0.010	0.0002	-0.0036	0.0025
12100	0.373	6.765	-0.036	0.0001	-0.0036	0.0048
12150	-0.430	5.041	-0.129	0.0037	-0.0019	0.0965
12200	-1.185	2.557	-0.176	0.0039	-0.0017	0.0984
12201	-1.498	1.478	-0.186	0.0053	0.0013	0.0985
12202	-1.717	0.303	0.203	0.0056	0.0374	0.0911
12250	-1.267	-0.274	0.795	0.0169	0.0508	0.0921
12299	-0.653	-0.495	1.156	0.0189	0.0506	0.0909
12300	0.325	-0.891	1.728	0.0216	0.0515	0.0891
12348	1.825	-1.523	2.569	0.0168	0.0533	0.0865
12349	2.076	-1.239	2.811	-0.0466	0.0577	0.0835

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
12350	1.387	-0.526	1.966	-0.1070	0.0596	0.0786
12400	0.304	-0.116	0.429	-0.1104	0.0596	0.0783
12450	-0.000	0.000	0.000	-0.1104	0.0596	0.0783
12500	0.178	4.093	-0.021	-0.0002	-0.0036	-0.0033
12520	0.107	1.428	-0.012	-0.0001	-0.0036	0.0041
12570	-0.691	0.941	-0.092	0.0008	-0.0014	0.0203
12620	-1.445	0.426	-0.125	0.0009	-0.0011	0.0203
12621	-1.756	0.215	-0.127	0.0013	0.0023	0.0198
12622	-1.953	-0.040	0.303	0.0041	0.0413	0.0233
12670	-1.482	-0.290	0.909	0.0177	0.0470	0.0295
12719	-0.923	-0.519	1.270	0.0194	0.0449	0.0312
12720	-0.085	-0.921	1.842	0.0217	0.0420	0.0338
12768	1.057	-1.552	2.682	0.0165	0.0393	0.0378
12769	1.292	-1.253	2.917	-0.0488	0.0328	0.0421
12770	0.885	-0.526	2.033	-0.1107	0.0301	0.0494
12820	0.194	-0.116	0.444	-0.1142	0.0301	0.0499
12870	0.000	0.000	0.000	-0.1142	0.0301	0.0499
12900	1.157	-1.211	0.014	-0.0004	-0.0038	0.0250
12920	4.557	-3.853	0.062	-0.0003	-0.0040	0.0315
12921	5.221	-4.400	0.067	-0.0003	-0.0037	0.0296
12922	4.836	-4.896	0.041	-0.0007	-0.0029	-0.0565
12970	3.718	-3.248	-0.164	0.0015	-0.0140	-0.0551
13020	2.960	-1.809	-0.527	0.0016	-0.0148	-0.0573
13021	2.633	-1.150	-0.724	0.0023	-0.0206	-0.0604
13022	1.998	-0.352	-1.117	0.0026	-0.0584	-0.0672
13070	1.118	-0.103	-1.061	0.0133	-0.0496	-0.0646
13119	0.538	-0.276	-0.698	0.0150	-0.0470	-0.0649
13120	-0.338	-0.591	-0.122	0.0176	-0.0451	-0.0654
13168	-1.611	-1.129	0.724	0.0166	-0.0446	-0.0660
13169	-1.814	-1.022	1.074	-0.0142	-0.0435	-0.0668
13170	-1.208	-0.528	0.835	-0.0451	-0.0431	-0.0680
13220	-0.264	-0.116	0.182	-0.0469	-0.0431	-0.0681
13270	-0.000	0.000	0.000	-0.0469	-0.0431	-0.0681
13300	3.092	-2.109	0.003	-0.0012	-0.0009	-0.1703
13400	2.786	-0.157	-0.005	-0.0012	-0.0008	-0.1740
13401	1.870	5.835	-0.026	-0.0010	-0.0006	-0.1783
13402	-0.437	9.758	-0.023	-0.0009	-0.0002	-0.1169
13450	-2.469	9.987	-0.009	-0.0003	-0.0003	-0.0275
13499	-3.091	9.223	-0.004	-0.0002	-0.0002	-0.0243
13500	-4.135	8.043	0.001	-0.0001	-0.0001	-0.0329
13520	-0.808	3.530	0.001	0.0000	-0.0000	0.0157
13549	-0.080	-0.573	-0.000	0.0009	-0.0000	0.0062
13550	-2.025	-0.814	-0.000	0.0000	0.0000	-0.0027
13600	-0.235	-5.315	0.000	-0.0000	0.0001	0.0089
13650	0.029	-6.365	0.002	-0.0000	0.0001	0.0036
13699	0.122	-7.136	0.002	-0.0000	0.0001	0.0034
13700	0.171	-7.780	0.003	-0.0000	0.0001	0.0004
13750	0.082	-8.836	0.003	0.0000	0.0001	-0.0052
13800	-0.508	-10.335	-0.002	0.0002	0.0001	-0.0157

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
13850	-1.225	-11.661	-0.011	0.0002	0.0001	-0.0162
13851	-2.547	-13.553	-0.040	0.0005	0.0001	-0.0059
13852	-0.901	-13.370	-0.061	0.0006	0.0000	0.1032
13900	1.093	-10.541	-0.052	-0.0001	-0.0017	0.0770
14100	11.022	2.912	-0.037	0.0050	0.0002	0.0272
14150	10.357	1.885	-0.026	0.0047	0.0004	0.0318
14200	9.288	0.741	-0.012	0.0047	0.0004	0.0307
14250	7.714	-0.127	0.000	0.0040	0.0001	0.0022
14300	7.279	-0.122	0.001	0.0038	0.0000	-0.0012
14350	6.211	-0.073	0.001	0.0038	0.0000	-0.0014
14400	5.774	-0.036	0.001	0.0036	-0.0000	-0.0019
14420	1.865	-0.030	-0.000	0.0018	-0.0000	0.0045
14700	-2.871	4.916	0.001	-0.0002	0.0000	-0.0760
14720	-1.539	1.472	0.001	-0.0002	0.0000	-0.0772
14721	-0.171	-3.000	-0.000	-0.0002	-0.0000	-0.1028
14722	1.197	-9.071	0.001	-0.0003	-0.0001	-0.1238
14723	3.082	-12.016	0.006	-0.0002	-0.0005	-0.0803
14750	3.905	-11.848	0.006	-0.0003	-0.0006	0.0281
14770	1.241	-9.877	-0.018	-0.0004	-0.0008	0.0261
14800	0.176	-6.977	-0.059	0.0000	-0.0012	-0.0025
14850	-0.622	-5.192	-0.097	0.0007	0.0003	-0.1016
14900	-1.376	-2.575	-0.086	0.0008	0.0007	-0.1037
14901	-1.723	-1.303	-0.063	0.0011	0.0049	-0.1040
14902	-1.893	-0.143	0.424	0.0072	0.0478	-0.0878
14950	-1.329	0.121	1.069	0.0181	0.0548	-0.0797
14999	-0.671	-0.101	1.430	0.0192	0.0522	-0.0767
15000	0.299	-0.493	2.003	0.0226	0.0470	-0.0719
15048	1.492	-1.219	2.845	0.0270	0.0338	-0.0649
15049	1.332	-1.311	3.130	0.0380	-0.0405	-0.0571
15050	0.639	-0.911	2.335	0.0430	-0.1043	-0.0436
15100	0.116	-0.165	0.423	0.0430	-0.1088	-0.0425
15150	-0.000	0.000	0.000	0.0430	-0.1088	-0.0425
15500	0.142	-4.624	-0.028	0.0003	-0.0013	0.0004
15550	0.258	-2.278	-0.018	0.0001	-0.0014	-0.0030
15600	-0.541	-1.498	-0.063	0.0017	-0.0004	-0.0346
15650	-1.295	-0.619	-0.071	0.0018	-0.0001	-0.0347
15651	-1.643	-0.212	-0.058	0.0025	0.0039	-0.0334
15652	-1.822	0.110	0.408	0.0059	0.0458	-0.0246
15700	-1.282	0.134	1.042	0.0083	0.0535	-0.0225
15749	-0.639	0.034	1.404	0.0084	0.0511	-0.0219
15750	0.313	-0.131	1.977	0.0090	0.0461	-0.0209
15798	1.489	-0.404	2.819	0.0099	0.0334	-0.0194
15799	1.329	-0.446	3.105	0.0123	-0.0401	-0.0177
15800	0.639	-0.314	2.317	0.0133	-0.1035	-0.0149
15850	0.116	-0.057	0.420	0.0133	-0.1080	-0.0146
15900	-0.000	0.000	0.000	0.0133	-0.1080	-0.0146
16300	0.352	0.025	-0.010	-0.0000	-0.0013	-0.0010
16350	0.328	2.328	-0.014	0.0001	-0.0011	0.0060
16400	-0.471	1.502	-0.059	-0.0018	-0.0006	0.0354

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
16450	-1.226	0.604	-0.073	-0.0019	-0.0003	0.0354
16451	-1.574	0.191	-0.065	-0.0027	0.0035	0.0339
16452	-1.760	-0.130	0.388	-0.0064	0.0442	0.0245
16500	-1.240	-0.147	1.014	-0.0087	0.0523	0.0224
16549	-0.610	-0.043	1.375	-0.0087	0.0501	0.0218
16550	0.325	0.128	1.948	-0.0093	0.0454	0.0209
16598	1.486	0.410	2.790	-0.0102	0.0330	0.0194
16599	1.326	0.455	3.077	-0.0124	-0.0397	0.0179
16600	0.639	0.320	2.298	-0.0134	-0.1026	0.0151
16650	0.116	0.058	0.416	-0.0134	-0.1071	0.0149
16700	-0.000	-0.000	0.000	-0.0134	-0.1071	0.0149
17100	-0.755	4.674	0.012	0.0003	-0.0007	0.0208
17150	-3.404	7.028	0.017	-0.0006	-0.0002	0.0246
17169	-3.960	5.887	0.011	-0.0006	-0.0003	0.0759
17170	-4.516	4.111	0.005	-0.0006	-0.0003	0.0930
17399	-2.498	5.456	-0.026	-0.0041	0.0004	-0.0534
17400	-4.219	8.028	-0.019	-0.0015	-0.0000	-0.0072
17419	-4.091	8.429	-0.039	-0.0015	-0.0000	-0.0084
17420	-3.952	8.830	-0.059	-0.0015	-0.0000	-0.0088
17699	-2.335	-0.621	0.044	0.0056	0.0013	0.0047
17700	-2.506	0.272	0.132	0.0020	0.0014	0.0047
17749	-2.661	1.183	0.148	0.0000	0.0014	0.0035
17750	-2.753	2.094	0.118	-0.0009	0.0015	0.0007
17799	-2.788	3.018	0.082	-0.0012	0.0014	-0.0028
17800	-2.639	3.943	0.041	-0.0012	0.0014	-0.0109
17849	-2.267	4.709	0.012	-0.0012	0.0014	-0.0147
17850	-1.828	5.476	-0.017	-0.0011	0.0014	-0.0160
17899	2.562	0.421	0.009	0.0005	-0.0003	0.0082
17900	3.116	0.579	0.015	0.0002	-0.0002	0.0032
17949	2.369	1.834	0.008	-0.0002	-0.0003	0.0323
17950	2.933	2.394	0.014	-0.0001	-0.0002	0.0045
17999	2.095	3.183	0.002	-0.0003	-0.0001	0.0586
18000	2.589	4.240	0.005	-0.0001	-0.0002	0.0138
18049	2.150	5.006	0.001	-0.0001	-0.0002	0.0173
18050	1.651	5.773	-0.003	-0.0001	-0.0002	0.0185
18100	-1.397	0.157	0.046	0.0015	0.0014	-0.0043
18150	-0.676	0.054	0.014	0.0015	0.0013	-0.0041
18199	-0.366	0.013	0.003	0.0013	0.0007	-0.0022
18200	-0.055	-0.002	-0.002	0.0011	0.0002	-0.0001
18250	0.665	-0.000	-0.006	0.0011	0.0002	0.0002
18300	1.286	0.073	-0.004	0.0008	-0.0002	0.0061
18350	2.007	0.227	0.002	0.0008	-0.0003	0.0065
18399	-2.189	1.652	0.077	-0.0008	0.0018	-0.0276
18400	-1.624	0.913	0.040	-0.0006	0.0012	-0.0264
18450	-0.903	0.282	0.012	-0.0006	0.0011	-0.0251
18500	-0.271	-0.032	-0.002	-0.0005	0.0002	-0.0005
18550	0.450	-0.025	-0.006	-0.0005	0.0001	0.0011
18600	1.083	0.317	-0.004	-0.0004	-0.0002	0.0275
18650	1.804	1.008	0.002	-0.0003	-0.0002	0.0290

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
18699	-2.145	2.977	0.018	-0.0010	0.0008	-0.0543
18700	-1.650	1.609	0.006	-0.0009	0.0003	-0.0478
18750	-0.936	0.468	-0.001	-0.0009	0.0003	-0.0454
18800	-0.382	-0.092	-0.003	-0.0007	-0.0000	-0.0009
18850	0.332	-0.081	-0.003	-0.0007	-0.0000	0.0018
18900	0.886	0.516	-0.002	-0.0005	-0.0001	0.0481
18950	1.601	1.723	-0.000	-0.0005	-0.0001	0.0507
19999	0.942	-22.070	0.590	-0.0094	0.0214	-0.0203
20000	1.242	-21.877	1.111	-0.0120	0.0143	-0.0313
20048	1.636	-21.318	2.385	-0.0125	0.0077	-0.0580
20049	1.610	-20.951	2.710	-0.0159	0.0137	-0.0682
20050	1.393	-20.101	3.002	-0.0227	0.0232	-0.0976
20100	-1.089	-10.987	5.052	-0.0073	0.0230	-0.1173
20148	-3.570	-1.517	6.328	0.0082	0.0045	-0.1062
20149	-3.793	-0.602	6.122	0.0037	-0.0267	-0.0844
20150	-3.481	-0.265	5.690	0.0027	-0.0647	-0.0770
20200	-0.197	-0.122	4.418	0.0022	-0.0931	-0.0560
20201	3.760	-0.102	3.355	-0.0007	-0.1349	-0.0385
20202	5.312	-0.024	2.368	-0.0108	-0.1725	-0.0284
20250	5.640	0.081	1.053	-0.0174	-0.0598	-0.0066
20251	4.889	0.170	0.034	-0.0157	-0.0203	-0.0009
20252	4.139	0.120	-0.170	-0.0140	-0.0009	0.0064
20270	3.378	-0.245	-0.105	-0.0122	0.0021	0.0238
20300	0.768	-3.115	-0.026	-0.0061	0.0036	-0.0030
20350	0.908	-1.994	-0.125	0.0066	0.0205	-0.0263
20400	1.476	-1.383	0.017	0.0074	0.0209	-0.0277
20449	1.568	-0.270	0.798	0.1000	0.0291	-0.0446
20450	2.019	-1.033	0.242	0.0239	0.0262	-0.0251
20499	2.046	-0.870	0.348	0.0087	0.0221	-0.0067
20500	1.984	-0.707	0.347	-0.0031	0.0179	-0.0026
20550	2.042	-0.100	0.266	-0.0042	0.0173	-0.0046
20650	-1.248	-0.337	0.014	-0.0053	-0.0005	-0.0137
20700	-1.865	-0.075	0.003	-0.0053	-0.0005	-0.0114
20701	-2.815	-0.954	-0.005	-0.0049	0.0001	0.0603
20702	-3.537	-3.186	0.003	-0.0046	0.0005	0.0843
20703	-3.920	-3.609	-0.001	-0.0039	0.0022	0.0010
20750	-3.556	-3.237	-0.022	-0.0028	0.0030	-0.0665
20751	-1.957	-2.508	-0.091	-0.0020	0.0037	-0.0304
20752	-1.885	-1.895	-0.119	0.0010	0.0044	0.0157
20799	-2.216	-1.589	-0.097	0.0046	0.0047	0.0217
20800	-2.489	-1.283	-0.022	0.0101	0.0050	0.0059
20900	-0.554	-0.008	0.164	0.1164	-0.0206	0.0188
20950	0.061	0.383	0.601	0.1180	-0.0213	0.0186
20999	0.897	2.690	0.964	0.2101	0.0214	-0.0267
21000	1.117	0.516	1.255	0.1760	0.0148	-0.0277
21500	-0.745	-34.983	1.510	0.0343	0.0659	-0.0360
21550	-0.845	-34.863	1.730	0.0346	0.0659	-0.0362
21600	-1.468	-34.094	3.106	0.0364	0.0656	-0.0373
21650	-1.567	-33.970	3.324	0.0367	0.0655	-0.0374

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 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
21698	-1.830	-33.607	3.888	0.0506	0.0565	-0.0419
21699	-2.035	-32.711	3.810	0.0886	-0.0610	-0.0929
21700	-0.962	-31.070	3.130	0.1677	-0.1798	-0.1225
21750	1.893	-28.436	2.685	0.1794	-0.1938	-0.1254
21798	8.949	-21.780	1.634	0.1886	-0.1906	-0.1323
21799	10.289	-19.532	0.817	0.1770	-0.1089	-0.1301
21800	10.320	-17.669	0.106	0.1682	-0.0284	-0.1203
21850	10.194	-17.154	-0.000	0.1662	-0.0255	-0.1196
21900	5.869	-3.582	-0.000	0.0953	0.0067	-0.0532
21950	1.546	-2.864	-0.000	0.0245	-0.0019	0.0402
22000	1.091	-3.561	-0.026	0.0170	-0.0010	0.0417
22050	0.573	-4.224	-0.030	0.0085	0.0013	0.0009
22100	0.330	-3.652	0.045	-0.0000	0.0016	0.0122
22200	0.076	-3.040	0.042	-0.0002	0.0016	0.0120
22250	-0.007	0.286	0.001	0.0000	0.0035	-0.0027
22270	0.003	3.615	-0.020	-0.0012	0.0054	0.0005
22271	-0.006	4.912	0.005	0.0051	0.0061	0.0000
22272	-0.005	5.557	0.250	0.0138	0.0065	-0.0001
22273	0.002	6.205	0.742	0.0189	0.0069	-0.0006
22274	0.028	6.855	1.110	-0.0075	0.0072	-0.0015
22275	0.032	6.907	0.827	-0.0939	0.0071	-0.0030
22300	0.028	6.600	0.166	-0.1543	0.0067	-0.0039
22301	-0.034	3.859	-3.616	-0.1288	0.0082	-0.0043
22302	-0.045	3.735	-3.995	-0.0208	0.0098	-0.0024
22350	-0.047	3.882	-3.841	0.0636	0.0106	-0.0009
22351	-0.029	4.581	-1.844	0.0547	0.0131	-0.0008
22352	0.023	5.377	-1.032	0.0038	0.0159	-0.0036
22353	0.186	6.080	-1.180	0.0091	0.0184	-0.0087
22354	0.430	5.843	-0.257	0.1721	0.0240	-0.0237
22400	0.774	3.825	0.825	0.2176	0.0227	-0.0262
22700	-0.134	-2.988	0.043	0.0126	0.0037	-0.0572
22750	-0.756	-1.801	0.121	0.0128	0.0037	-0.0562
22751	-1.262	-1.018	0.166	0.0157	-0.0005	-0.0411
22752	-1.414	-0.615	0.075	0.0069	-0.0314	-0.0313
22800	-1.205	-0.217	-0.091	-0.0112	-0.0478	-0.0310
22850	-0.690	0.296	-0.318	-0.0170	-0.0625	-0.0229
22900	-0.221	0.918	-0.679	-0.0176	-0.0635	-0.0222
22901	0.133	1.502	-1.133	-0.0211	-0.0802	-0.0163
22902	-0.120	1.765	-1.086	0.0179	-0.0958	-0.0024
22950	-1.194	1.463	-0.682	0.0620	-0.1281	0.0063
22951	-2.518	0.813	-0.393	0.0633	-0.1294	0.0043
22952	-3.479	0.243	0.275	0.0596	-0.0790	0.0033
23000	-3.420	0.033	0.721	0.0576	0.0029	0.0005
23001	-2.646	0.027	0.405	0.0517	0.0125	-0.0003
23002	-1.873	0.023	0.118	0.0458	0.0075	0.0002
23003	-1.243	0.033	0.007	0.0410	0.0031	0.0006
23020	-0.613	0.045	-0.025	0.0362	0.0005	0.0001
23021	0.017	0.029	-0.022	0.0314	-0.0003	-0.0026
23022	0.647	-0.079	-0.013	0.0266	-0.0002	-0.0084

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
23023	1.418	-0.443	-0.015	0.0208	0.0004	-0.0186
23024	2.191	-1.038	-0.036	0.0149	0.0010	-0.0179
23025	2.383	-0.867	-0.010	0.0107	0.0046	0.0363
23050	1.951	-0.398	0.020	0.0009	0.0074	0.0582
23051	0.528	0.389	-0.001	-0.0019	0.0065	0.0374
23052	-0.141	1.909	-0.169	-0.0033	0.0047	-0.0003
23053	-0.084	2.697	-0.207	0.0050	0.0038	-0.0026
23054	-0.045	2.808	0.193	0.0548	0.0031	-0.0023
23100	-0.018	2.262	0.724	0.0714	0.0009	-0.0016
23149	-0.018	2.241	0.732	0.0713	0.0009	-0.0016
23150	-0.018	2.238	0.733	0.0713	0.0009	-0.0016
23200	0.000	0.000	1.858	0.0278	0.0002	-0.0016
23250	0.000	-0.000	2.997	-0.0054	-0.0000	-0.0016
23300	-0.000	0.000	4.145	0.0020	0.0000	-0.0016
23350	0.000	-0.076	5.294	0.0020	0.0000	-0.0016
23999	-1.678	-0.564	0.088	-0.0000	0.0041	-0.0476
24000	-0.094	0.155	0.024	-0.0021	0.0031	-0.0483
24049	-0.035	0.151	0.755	0.0031	0.0017	-0.0391
24050	-0.009	-0.020	1.485	0.0117	0.0004	-0.0298
24100	-0.006	-0.183	1.835	0.0153	0.0004	-0.0254
24150	-0.001	-0.360	2.180	0.0154	0.0005	-0.0252
24170	0.000	-0.396	2.250	0.0154	0.0005	-0.0252
24200	0.008	-0.496	2.447	0.0146	0.0021	-0.0227
24220	0.022	-0.592	2.644	0.0146	0.0021	-0.0227
24250	0.027	-0.626	2.714	0.0146	0.0021	-0.0227
24270	0.031	-0.648	2.760	0.0146	0.0021	-0.0227
24298	0.636	-0.883	2.346	0.0095	0.0072	-0.0124
24299	0.731	-0.878	2.261	0.0137	0.0130	0.0051
24300	0.719	-0.805	2.125	0.0169	0.0177	0.0118
24320	0.615	-0.709	1.953	0.0167	0.0182	0.0177
24350	0.405	-0.517	1.608	0.0168	0.0182	0.0182
24370	0.164	-0.259	1.199	0.0219	0.0165	0.0323
24371	-0.093	0.194	0.737	0.0436	0.0197	0.0481
24372	-0.405	0.972	0.339	0.0726	0.0266	0.0617
24373	-0.474	1.453	0.179	0.1091	0.0282	0.0741
24400	-0.402	1.884	0.052	0.1002	0.0116	0.0377
24419	-0.369	1.934	0.040	0.0991	0.0108	0.0341
24420	-0.272	2.052	0.008	0.0959	0.0084	0.0149
24421	0.655	0.273	-0.015	0.0716	-0.0017	-0.0520
24422	1.582	-0.095	-0.041	0.0474	0.0034	0.0067
24423	1.950	-0.022	-0.089	0.0377	0.0016	0.0042
24424	2.318	0.018	-0.043	0.0281	-0.0135	0.0022
24425	2.687	0.040	0.334	0.0185	-0.0495	0.0010
24426	2.606	0.019	0.758	0.0143	-0.1388	0.0016
24450	2.069	-0.010	1.108	0.0033	-0.1351	0.0037
24451	0.509	-0.020	1.501	-0.0009	-0.0918	-0.0001
24469	-0.070	-0.008	1.730	-0.0023	-0.0637	-0.0022
24470	-0.476	0.015	1.959	-0.0034	-0.0469	-0.0044
24500	-0.988	0.069	2.365	-0.0041	-0.0283	-0.0083

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
24530	-1.311	0.117	2.710	-0.0041	-0.0277	-0.0084
24536	0.000	-0.442	-0.000	-0.0256	0.0064	-0.0028
24548	-1.451	0.139	2.881	-0.0032	-0.0211	-0.0100
24549	-1.424	0.121	2.991	0.0038	0.0102	-0.0139
24550	-1.282	0.043	2.954	0.0080	0.0275	-0.0223
24570	-0.653	-0.498	2.524	0.0144	-0.0003	-0.0301
24600	-0.655	-0.593	2.721	0.0144	-0.0003	-0.0301
24630	-0.656	-0.627	2.791	0.0144	-0.0003	-0.0301
24650	-0.657	-0.649	2.837	0.0144	-0.0003	-0.0301
24652	-0.000	-2.954	0.000	0.0067	0.0043	0.0008
24670	-0.588	-0.398	2.325	0.0158	-0.0193	-0.0342
24690	-0.542	-0.361	2.255	0.0158	-0.0196	-0.0343
24700	-0.309	-0.179	1.910	0.0158	-0.0210	-0.0346
24720	0.120	0.007	1.557	0.0155	-0.0519	-0.0418
24749	1.818	0.321	0.820	0.0081	-0.0689	-0.0570
24750	2.801	0.324	0.083	-0.0100	0.0066	-0.0721
24768	-0.000	-5.577	-0.000	-0.0013	0.0022	-0.0005
24769	0.000	-7.114	0.000	0.0002	0.0011	0.0012
24770	-0.048	-7.796	-0.000	-0.0000	0.0006	-0.0069
24771	-0.031	-7.990	0.000	0.0000	0.0004	0.0250
24772	0.371	-8.119	0.000	0.0000	0.0004	0.0912
24773	1.355	-8.249	-0.000	0.0000	0.0003	0.1603
24774	2.469	-8.380	-0.000	0.0000	0.0002	0.0570
24775	2.161	-8.214	-0.000	0.0001	0.0001	-0.3941
25000	1.706	-7.112	-0.000	0.0001	0.0000	-0.6465
25001	1.534	-2.509	0.000	0.0001	0.0000	-0.4746
25002	1.363	-0.177	0.000	0.0001	-0.0000	-0.1727
25003	1.192	0.377	0.000	0.0001	-0.0000	-0.0137
25004	0.935	0.110	0.000	0.0001	0.0000	0.0309
25005	0.122	-0.006	-0.000	0.0001	-0.0000	-0.0058
25020	-0.690	0.000	0.000	0.0001	0.0001	0.0020
25050	-3.152	-0.000	-0.000	0.0000	-0.0007	-0.0003
25051	-3.977	0.000	0.002	0.0000	0.0021	0.0001
25052	-4.809	-0.000	-0.007	0.0000	-0.0083	-0.0000
25053	-5.073	0.000	-0.138	0.0000	-0.0133	-0.0000
25054	-5.249	0.000	-0.206	0.0000	0.0050	0.0000
25055	-5.426	0.000	0.049	0.0000	0.0824	0.0000
25056	-5.604	0.000	1.184	0.0000	0.2350	0.0000
25057	-5.319	0.000	1.908	0.0000	0.4692	-0.0000
25070	-4.365	-0.000	2.364	0.0000	0.4666	-0.0000
25071	-1.347	-0.000	2.590	-0.0000	0.2920	-0.0000
25072	0.015	-0.000	2.816	-0.0000	0.0970	-0.0000
25073	0.345	-0.000	3.059	-0.0000	0.0154	-0.0000
25079	0.392	-0.000	3.180	-0.0000	0.0126	-0.0000
25080	0.450	0.000	3.302	-0.0000	0.0208	-0.0000
25098	0.853	0.000	3.638	-0.0000	0.0461	-0.0000
25099	0.929	0.000	3.737	-0.0000	0.0576	-0.0000
25100	0.920	0.000	3.876	0.0000	0.0647	-0.0000
25120	0.599	0.000	4.588	-0.0000	0.0661	0.0000

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Impianto di Melendugno
 Allegato 1 - Area 1
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 6 (EXP) L6=L3-L4

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
25150	0.373	0.000	5.087	-0.0000	0.0660	0.0000
25170	0.320	0.000	5.204	-0.0000	0.0660	0.0000
25198	0.068	0.000	5.727	-0.0000	0.0568	0.0000
25199	-0.024	0.000	5.796	-0.0000	0.0404	0.0000
25200	-0.108	0.000	5.767	-0.0000	0.0261	0.0000
25220	-0.378	0.000	5.431	-0.0000	0.0270	0.0000
25221	-0.609	0.000	5.150	-0.0000	0.0096	0.0000
25222	-0.092	-0.000	4.869	0.0000	-0.1844	0.0000
25223	2.544	-0.000	4.644	0.0000	-0.5650	0.0000
25224	8.370	0.000	4.419	0.0000	-0.8991	0.0000
25225	10.226	0.000	3.596	0.0000	-0.8999	0.0000
25250	10.823	0.000	2.233	0.0000	-0.4478	0.0000
25251	10.691	-0.000	0.079	0.0000	-0.1555	0.0000
25252	10.560	-0.000	-0.398	0.0000	-0.0085	-0.0000
25253	10.430	-0.000	-0.264	0.0000	0.0257	-0.0000
25254	10.236	0.000	-0.011	0.0000	0.0165	-0.0000
25255	9.554	0.000	0.002	0.0000	-0.0047	0.0000
25256	8.669	-0.000	-0.000	0.0000	0.0012	-0.0000
25270	7.817	0.000	0.001	0.0000	-0.0002	0.0000
25300	7.716	-0.000	-0.000	0.0000	-0.0002	0.0000
25350	4.949	-0.000	-0.000	0.0000	0.0001	-0.0000
25400	2.417	0.000	0.000	0.0000	-0.0000	0.0000
25449	1.209	-0.000	-0.000	0.0000	0.0000	-0.0000
25450	-0.000	-0.000	-0.000	0.0000	0.0000	-0.0000

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Impianto di Melendugno
 Allegato 1 - Area 1
 RESTRAINT SUMMARY REPORT: Loads On Restraints
 Various Load Cases

LOAD CASE DEFINITION KEY

CASE 1 (HYD) WW+HP
 CASE 2 (OPE) W+D1+T1+P1
 CASE 3 (OPE) W+D2+T1+P1
 CASE 4 (SUS) W+P1
 CASE 5 (EXP) L5=L2-L4
 CASE 6 (EXP) L6=L3-L4

Filters Used:

Show All Restraints

Exclude bi-linear translation (soil) restraints

Node	Load Case	FX N.	FY N.	FZ N.	MX N.m.	MY N.m.	MZ N.m.
100		Rigid Z; Rigid GUI					
	1(HYD)	-11147	-116527	-321788	0	0	0
	2(OPE)	-23225	-266375	-737847	0	0	0
	3(OPE)	-23202	-266362	-737832	0	0	0
	4(SUS)	-3740	-69838	-195798	0	0	0
	5(EXP)	-19484	-196537	-542049	0	0	0
	6(EXP)	-19462	-196524	-542034	0	0	0
	MAX	-23225/L2	-266375/L2	-737847/L2			
150		Rigid Z; Rigid GUI					
	1(HYD)	39083	-70637	162737	0	0	0
	2(OPE)	73984	-450917	1214349	0	0	0
	3(OPE)	73957	-450902	1214335	0	0	0
	4(SUS)	20757	-71873	184593	0	0	0
	5(EXP)	53227	-379044	1029756	0	0	0
	6(EXP)	53200	-379030	1029742	0	0	0
	MAX	73984/L2	-450917/L2	1214349/L2			
1100		Rigid ANC					
	1(HYD)	1671347	1671296	-78809	149517	-97006	-76
	2(OPE)	3650955	3650825	0	34332	34301	-63
	3(OPE)	3650966	3650836	0	34303	34271	-63
	4(SUS)	1011164	1011132	-0	12678	12666	-45
	5(EXP)	2639791	2639693	0	21655	21635	-18
	6(EXP)	2639802	2639704	0	21625	21605	-18
	MAX	3650966/L3	3650836/L3	-78809/L1	149517/L1	-97006/L1	-76/L1
2900		Rigid ANC					
	1(HYD)	-1072652	43451	-23618	37585	117651	134030
	2(OPE)	-5051972	118775	21959	-106423	-33769	312191
	3(OPE)	-1096099	84125	14470	297206	-49822	329177
	4(SUS)	-645091	26114	4398	25140	-9164	80532

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Impianto di Melendugno
 Allegato 1 - Area 1
 RESTRAINT SUMMARY REPORT: Loads On Restraints
 Various Load Cases

Node	Load Case	FX N.	FY N.	FZ N.	MX N.m.	MY N.m.	MZ N.m.
	5(EXP)	-4406880	92661	17561	-131563	-24605	231659
	6(EXP)	-451007	58011	10072	272066	-40657	248645
	MAX	-	118775/L2	-23618/L1	297206/L3	117651/L1	329177/L3
		5051972/L2					
2901		Displ. Reaction					
	1(HYD)	-1072652	43451	-23618	37585	117651	134030
	2(OPE)	-5051972	118775	21959	-106423	-33769	312191
	3(OPE)	-1096099	84125	14470	297206	-49822	329177
	4(SUS)	-645091	26114	4398	25140	-9164	80532
	5(EXP)	-4406880	92661	17561	-131563	-24605	231659
	6(EXP)	-451007	58011	10072	272066	-40657	248645
	MAX	-	118775/L2	-23618/L1	297206/L3	117651/L1	329177/L3
		5051972/L2					
5300		Rigid +Z					
	1(HYD)	-1375	-6380	-18646	0	0	0
	2(OPE)	0	0	0	0	0	0
	3(OPE)	0	0	0	0	0	0
	4(SUS)	-1259	-5795	-16944	0	0	0
	5(EXP)	1259	5795	16944	0	0	0
	6(EXP)	1259	5795	16944	0	0	0
	MAX	-1375/L1	-6380/L1	-18646/L1			
5650		Rigid +Z					
	1(HYD)	-319	-8975	-25660	0	0	0
	2(OPE)	-460	-2859	-8274	0	0	0
	3(OPE)	-459	-2858	-8271	0	0	0
	4(SUS)	-393	-4187	-12015	0	0	0
	5(EXP)	-67	1328	3742	0	0	0
	6(EXP)	-66	1329	3744	0	0	0
	MAX	-460/L2	-8975/L1	-25660/L1			
5700		Rigid +Z					
	1(HYD)	928	-9955	-28566	0	0	0
	2(OPE)	-359	-6202	-17750	0	0	0
	3(OPE)	-358	-6202	-17751	0	0	0
	4(SUS)	-2	-5741	-16403	0	0	0
	5(EXP)	-357	-461	-1347	0	0	0
	6(EXP)	-356	-461	-1348	0	0	0
	MAX	928/L1	-9955/L1	-28566/L1			
6005		Rigid +Z					
	1(HYD)	596	-5236	-17566	0	0	0
	2(OPE)	93	-4145	-13821	0	0	0
	3(OPE)	93	-4145	-13822	0	0	0
	4(SUS)	152	-2343	-7826	0	0	0
	5(EXP)	-59	-1802	-5995	0	0	0

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 RESTRAINT SUMMARY REPORT: Loads On Restraints
 Various Load Cases

Node	Load Case	FX N.	FY N.	FZ N.	MX N.m.	MY N.m.	MZ N.m.
	6(EXP)	-59	-1803	-5996	0	0	0
	MAX	596/L1	-5236/L1	-17566/L1			
6007		Rigid +Z					
	1(HYD)	-367	9512	-31731	0	0	0
	2(OPE)	-89	-3056	-10193	0	0	0
	3(OPE)	-90	-3056	-10190	0	0	0
	4(SUS)	-109	7521	-25071	0	0	0
	5(EXP)	20	-10577	14879	0	0	0
	6(EXP)	20	-10576	14881	0	0	0
	MAX	-367/L1	-10577/L5	-31731/L1			
6900		Rigid +Z					
	1(HYD)	-2190	-6554	-19745	0	0	0
	2(OPE)	0	0	0	0	0	0
	3(OPE)	0	0	0	0	0	0
	4(SUS)	-1802	-6179	-18390	0	0	0
	5(EXP)	1802	6179	18390	0	0	0
	6(EXP)	1802	6179	18390	0	0	0
	MAX	-2190/L1	-6554/L1	-19745/L1			
7250		Rigid +Z					
	1(HYD)	-381	-8865	-25353	0	0	0
	2(OPE)	-672	-3042	-8902	0	0	0
	3(OPE)	-671	-3042	-8900	0	0	0
	4(SUS)	-39	-4056	-11588	0	0	0
	5(EXP)	-633	1014	2687	0	0	0
	6(EXP)	-632	1014	2688	0	0	0
	MAX	-672/L2	-8865/L1	-25353/L1			
7300		Rigid +Z					
	1(HYD)	1414	-9930	-28658	0	0	0
	2(OPE)	-479	-6119	-17537	0	0	0
	3(OPE)	-478	-6119	-17537	0	0	0
	4(SUS)	891	-5706	-16500	0	0	0
	5(EXP)	-1370	-414	-1038	0	0	0
	6(EXP)	-1370	-414	-1038	0	0	0
	MAX	1414/L1	-9930/L1	-28658/L1			
7605		Rigid +Z					
	1(HYD)	600	-5180	-17383	0	0	0
	2(OPE)	47	-4049	-13497	0	0	0
	3(OPE)	47	-4049	-13498	0	0	0
	4(SUS)	315	-2308	-7765	0	0	0
	5(EXP)	-268	-1741	-5733	0	0	0
	6(EXP)	-268	-1741	-5733	0	0	0
	MAX	600/L1	-5180/L1	-17383/L1			
7607		Rigid +Z					

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Impianto di Melendugno
 Allegato 1 - Area 1
 RESTRAINT SUMMARY REPORT: Loads On Restraints
 Various Load Cases

Node	Load Case	FX N.	FY N.	FZ N.	MX N.m.	MY N.m.	MZ N.m.
	1(HYD)	-256	9619	-32075	0	0	0
	2(OPE)	138	-3392	-11317	0	0	0
	3(OPE)	137	-3392	-11316	0	0	0
	4(SUS)	-96	7516	-25054	0	0	0
	5(EXP)	234	-10908	13737	0	0	0
	6(EXP)	234	-10907	13738	0	0	0
	MAX	-256/L1	-10908/L5	-32075/L1			
8500	Rigid +Z						
	1(HYD)	-2880	-6241	-19638	0	0	0
	2(OPE)	0	0	0	0	0	0
	3(OPE)	0	0	0	0	0	0
	4(SUS)	-2373	-6009	-18460	0	0	0
	5(EXP)	2373	6009	18460	0	0	0
	6(EXP)	2373	6009	18460	0	0	0
	MAX	-2880/L1	-6241/L1	-19638/L1			
8850	Rigid +Z						
	1(HYD)	-524	-8875	-25402	0	0	0
	2(OPE)	-892	-3031	-9027	0	0	0
	3(OPE)	-891	-3031	-9026	0	0	0
	4(SUS)	-51	-4043	-11553	0	0	0
	5(EXP)	-841	1012	2526	0	0	0
	6(EXP)	-840	1012	2526	0	0	0
	MAX	-892/L2	-8875/L1	-25402/L1			
8900	Rigid +Z						
	1(HYD)	1915	-9836	-28630	0	0	0
	2(OPE)	-666	-6094	-17516	0	0	0
	3(OPE)	-666	-6094	-17516	0	0	0
	4(SUS)	1168	-5661	-16514	0	0	0
	5(EXP)	-1835	-434	-1002	0	0	0
	6(EXP)	-1834	-434	-1002	0	0	0
	MAX	1915/L1	-9836/L1	-28630/L1			
9205	Rigid +Z						
	1(HYD)	707	-5200	-17492	0	0	0
	2(OPE)	-39	-4000	-13334	0	0	0
	3(OPE)	-39	-4000	-13334	0	0	0
	4(SUS)	356	-2289	-7720	0	0	0
	5(EXP)	-395	-1711	-5614	0	0	0
	6(EXP)	-395	-1711	-5614	0	0	0
	MAX	707/L1	-5200/L1	-17492/L1			
9207	Rigid +Z						
	1(HYD)	-414	9617	-32087	0	0	0
	2(OPE)	-97	-3615	-12053	0	0	0
	3(OPE)	-98	-3614	-12053	0	0	0
	4(SUS)	-168	7574	-25253	0	0	0

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Node	Load Case	FX N.	FY N.	FZ N.	MX N.m.	MY N.m.	MZ N.m.
	5(EXP)	71	-11189	13200	0	0	0
	6(EXP)	71	-11189	13201	0	0	0
	MAX	-414/L1	-11189/L5	-32087/L1			
10100	Rigid +Z						
	1(HYD)	-3213	-5356	-17846	0	0	0
	2(OPE)	0	0	0	0	0	0
	3(OPE)	0	0	0	0	0	0
	4(SUS)	-2846	-5403	-17447	0	0	0
	5(EXP)	2846	5403	17447	0	0	0
	6(EXP)	2846	5403	17447	0	0	0
	MAX	-3213/L1	-5403/L4	-17846/L1			
10450	Rigid +Z						
	1(HYD)	-1268	-8977	-25902	0	0	0
	2(OPE)	-1090	-2906	-8869	0	0	0
	3(OPE)	-1090	-2907	-8869	0	0	0
	4(SUS)	-395	-4133	-11863	0	0	0
	5(EXP)	-696	1227	2994	0	0	0
	6(EXP)	-695	1227	2994	0	0	0
	MAX	-1268/L1	-8977/L1	-25902/L1			
10500	Rigid +Z						
	1(HYD)	644	-8560	-28614	0	0	0
	2(OPE)	-801	-5258	-17730	0	0	0
	3(OPE)	-801	-5258	-17730	0	0	0
	4(SUS)	396	-4931	-16489	0	0	0
	5(EXP)	-1197	-328	-1241	0	0	0
	6(EXP)	-1196	-328	-1241	0	0	0
	MAX	-1197/L5	-8560/L1	-28614/L1			
10805	Rigid +Z						
	1(HYD)	318	-5085	-16982	0	0	0
	2(OPE)	-208	-3768	-12580	0	0	0
	3(OPE)	-208	-3768	-12579	0	0	0
	4(SUS)	147	-2244	-7497	0	0	0
	5(EXP)	-356	-1524	-5082	0	0	0
	6(EXP)	-356	-1524	-5081	0	0	0
	MAX	-356/L6	-5085/L1	-16982/L1			
10807	Rigid +Z						
	1(HYD)	-803	10167	-33996	0	0	0
	2(OPE)	-1072	-4252	-14615	0	0	0
	3(OPE)	-1073	-4252	-14617	0	0	0
	4(SUS)	-548	7840	-26198	0	0	0
	5(EXP)	-524	-12092	11583	0	0	0
	6(EXP)	-526	-12092	11581	0	0	0
	MAX	-1073/L3	-12092/L6	-33996/L1			

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Node	Load Case	FX N.	FY N.	FZ N.	MX N.m.	MY N.m.	MZ N.m.
12450		Rigid Y; Rigid Z; Rigid X					
	1(HYD)	-6830	19815	21912	0	0	0
	2(OPE)	-6751	38006	42506	0	0	0
	3(OPE)	-6737	38002	42504	0	0	0
	4(SUS)	-4097	12063	12968	0	0	0
	5(EXP)	-2654	25943	29538	0	0	0
	6(EXP)	-2639	25940	29536	0	0	0
	MAX	-6830/L1	38006/L2	42506/L2			
12870		Rigid Y; Rigid Z; Rigid X					
	1(HYD)	-2302	20156	22677	0	0	0
	2(OPE)	2547	38276	43488	0	0	0
	3(OPE)	2551	38258	43476	0	0	0
	4(SUS)	-1348	12130	13229	0	0	0
	5(EXP)	3895	26146	30259	0	0	0
	6(EXP)	3900	26128	30247	0	0	0
	MAX	3900/L6	38276/L2	43488/L2			
13270		Rigid Y; Rigid Z; Rigid X					
	1(HYD)	-4772	12965	13133	0	0	0
	2(OPE)	-3645	23268	22709	0	0	0
	3(OPE)	-3459	23414	22969	0	0	0
	4(SUS)	-2792	7882	7682	0	0	0
	5(EXP)	-854	15386	15028	0	0	0
	6(EXP)	-667	15533	15288	0	0	0
	MAX	-4772/L1	23414/L3	22969/L3			
15150		Rigid Y; Rigid Z; Rigid X					
	1(HYD)	-23784	4870	20375	0	0	0
	2(OPE)	-27818	9251	38334	0	0	0
	3(OPE)	-27814	9238	38338	0	0	0
	4(SUS)	-14496	2922	12183	0	0	0
	5(EXP)	-13322	6329	26151	0	0	0
	6(EXP)	-13318	6316	26155	0	0	0
	MAX	-27818/L2	9251/L2	38338/L3			
15900		Rigid Y; Rigid Z; Rigid X					
	1(HYD)	-23687	1114	21587	0	0	0
	2(OPE)	-27816	2009	38644	0	0	0

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Node	Load Case	FX N.	FY N.	FZ N.	MX N.m.	MY N.m.	MZ N.m.
	3(OPE)	-27816	2001	38645	0	0	0
	4(SUS)	-14170	662	12639	0	0	0
	5(EXP)	-13646	1346	26005	0	0	0
	6(EXP)	-13646	1339	26005	0	0	0
	MAX	-27816/L3	2009/L2	38645/L3			
16700		Rigid Y; Rigid Z; Rigid X					
	1(HYD)	-23879	-838	21441	0	0	0
	2(OPE)	-28208	-1771	38426	0	0	0
	3(OPE)	-28207	-1777	38426	0	0	0
	4(SUS)	-14318	-503	12594	0	0	0
	5(EXP)	-13890	-1268	25832	0	0	0
	6(EXP)	-13889	-1274	25833	0	0	0
	MAX	-28208/L2	-1777/L3	38426/L3			
21850		Rigid +Z					
	1(HYD)	13960	-13883	-56251	0	0	0
	2(OPE)	10700	-16381	-55901	0	0	0
	3(OPE)	10701	-16383	-55910	0	0	0
	4(SUS)	8694	-8324	-34389	0	0	0
	5(EXP)	2006	-8056	-21512	0	0	0
	6(EXP)	2008	-8059	-21520	0	0	0
	MAX	13960/L1	-16383/L3	-56251/L1			
21900		Rigid +Z					
	1(HYD)	10806	269	-30884	0	0	0
	2(OPE)	5243	-2544	-16649	0	0	0
	3(OPE)	5242	-2544	-16648	0	0	0
	4(SUS)	4529	136	-12947	0	0	0
	5(EXP)	713	-2679	-3702	0	0	0
	6(EXP)	713	-2679	-3702	0	0	0
	MAX	10806/L1	-2679/L5	-30884/L1			
23200		Rigid GUI; Rigid GUI					
	1(HYD)	-298	38959	8504	0	0	0
	2(OPE)	-129	90179	31608	0	0	0
	3(OPE)	-129	90179	31608	0	0	0
	4(SUS)	-175	23052	8130	0	0	0
	5(EXP)	46	67127	23478	0	0	0
	6(EXP)	46	67127	23478	0	0	0
	MAX	-298/L1	90179/L3	31608/L2			
23250		Rigid GUI; Rigid GUI					
	1(HYD)	283	-19416	6895	0	0	0
	2(OPE)	407	-55108	19430	0	0	0

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 Various Load Cases

Node	Load Case	FX N.	FY N.	FZ N.	MX N.m.	MY N.m.	MZ N.m.
	3(OPE)	407	-55108	19430	0	0	0
	4(SUS)	168	-11664	4141	0	0	0
	5(EXP)	239	-43444	15289	0	0	0
	6(EXP)	239	-43444	15289	0	0	0
	MAX	407/L2	-55108/L3	19430/L3			
23300		Rigid GUI; Rigid GUI					
	1(HYD)	-38	2592	920	0	0	0
	2(OPE)	-54	7357	2594	0	0	0
	3(OPE)	-54	7357	2594	0	0	0
	4(SUS)	-22	1557	553	0	0	0
	5(EXP)	-32	5800	2041	0	0	0
	6(EXP)	-32	5800	2041	0	0	0
	MAX	-54/L2	7357/L3	2594/L3			
25450		Rigid ANC					
	1(HYD)	-24600	0	-0	-0	0	0
	2(OPE)	-124848	-0	-0	0	0	-0
	3(OPE)	-124848	-0	-0	0	0	-0
	4(SUS)	-14838	0	-0	-0	0	0
	5(EXP)	-110009	-0	-0	0	0	-0
	6(EXP)	-110009	-0	-0	0	0	-0
	MAX	-124848/L2	-0/L5	-0/L2	0/L5	0/L2	-0/L5

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 FLANGE PEQ REPORT: Flange (Equiv Pressure Method)
 CASE 2 (OPE) W+D1+T1+P1

Node	Axial Force N.	Bending Moment N.m.	G/C mm.	P Equivalent KPa	Rating Temperature C	Allowable Pressure /Stress	Ratio %
21550	36726	56115	566.38	9218.77	60.00	9873.29	93.37
21600	36726	37528	566.38	8697.74	60.00	9873.29	88.09
24100							
24150	2278	814	255.85	7791.86	60.00	9873.29	78.92
25120							
25150	829	174	144.60	7842.91	60.00	9873.29	79.44
24220							
24250	590	0	255.85	7511.48	60.00	9873.29	76.08
5150	79211	60341	566.38	9505.84	60.00	9873.29	96.28
5200	79211	24916	566.38	8512.83	60.00	9873.29	86.22
5310							
5320	79211	5764	566.38	7975.97	60.00	9873.29	80.78
5350							
5400	79211	13107	566.38	8181.82	60.00	9873.29	82.87
5750							
5800	87882	2576	566.38	7921.02	60.00	9873.29	80.23
5900							
5950	87882	6486	566.38	8030.64	60.00	9873.29	81.34
6010							
6030	94599	17840	566.38	8375.55	60.00	9873.29	84.83
6112							
6125	94599	24948	566.38	8574.80	60.00	9873.29	86.85
6200	94599	23157	566.38	8524.59	60.00	9873.29	86.34
6250	94599	2060	566.38	7933.21	60.00	9873.29	80.35
6750	69850	57821	566.38	9398.06	60.00	9873.29	95.19
6800	69850	22883	566.38	8418.68	60.00	9873.29	85.27
6910							
6920	69850	6496	566.38	7959.33	60.00	9873.29	80.61
6950							
7000	69850	13407	566.38	8153.05	60.00	9873.29	82.58

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 FLANGE PEQ REPORT: Flange (Equiv Pressure Method)
 CASE 2 (OPE) W+D1+T1+P1

Node	Axial Force N.	Bending Moment N.m.	G/C mm.	P Equivalent KPa	Rating Temperature C	Allowable Pressure /Stress	Ratio %
7350							
7400	78641	3631	566.38	7913.93	60.00	9873.29	80.15
7500							
7550	78641	7051	566.38	8009.77	60.00	9873.29	81.13
7610							
7620	85710	16911	566.38	8314.22	60.00	9873.29	84.21
7712							
7725	85710	25209	566.38	8546.84	60.00	9873.29	86.57
7800	85710	24236	566.38	8519.56	60.00	9873.29	86.29
7850	85710	3739	566.38	7945.01	60.00	9873.29	80.47
8350	65416	57311	566.38	9366.15	60.00	9873.29	94.86
8400	65416	22496	566.38	8390.25	60.00	9873.29	84.98
8510							
8520	65416	6718	566.38	7947.95	60.00	9873.29	80.50
8550							
8600	65416	13517	566.38	8138.54	60.00	9873.29	82.43
8950							
9000	74148	4877	566.38	7931.02	60.00	9873.29	80.33
9100							
9150	74148	7621	566.38	8007.92	60.00	9873.29	81.11
9210							
9230	81576	16641	566.38	8290.26	60.00	9873.29	83.97
9312							
9325	81576	25836	566.38	8548.00	60.00	9873.29	86.58
9400	81576	25496	566.38	8538.48	60.00	9873.29	86.48
9450	81576	5973	566.38	7991.21	60.00	9873.29	80.94
9950	63888	57602	566.38	9368.25	60.00	9873.29	94.88
10000	63888	22713	566.38	8390.26	60.00	9873.29	84.98
10110							
10120	63888	6731	566.38	7942.26	60.00	9873.29	80.44
10150							
10200	63888	13671	566.38	8136.81	60.00	9873.29	82.41

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 CASE 2 (OPE) W+D1+T1+P1

Node	Axial Force N.	Bending Moment N.m.	G/C mm.	P Equivalent KPa	Rating Temperature C	Allowable Pressure /Stress	Ratio %
10550							
10600	71787	6082	566.38	7955.41	60.00	9873.29	80.58
10700							
10750	71787	8308	566.38	8017.82	60.00	9873.29	81.21
10810							
10820	79333	15484	566.38	8248.91	60.00	9873.29	83.55
10912							
10925	79333	27771	566.38	8593.33	60.00	9873.29	87.04
11000	79333	29698	566.38	8647.37	60.00	9873.29	87.58
11050	79333	14019	566.38	8207.85	60.00	9873.29	83.13
12400							
12450	38006	0	727.50	7591.43	60.00	9873.29	76.89
12820							
12870	38276	0	727.50	7592.08	60.00	9873.29	76.90
13220							
13270	23268	0	727.50	7555.98	60.00	9873.29	76.53
15100							
15150	27818	0	727.50	7566.92	60.00	9873.29	76.64
15850							
15900	27816	0	727.50	7566.92	60.00	9873.29	76.64
16650							
16700	28208	0	727.50	7567.86	60.00	9873.29	76.65
24600							
24630	590	0	255.85	7511.48	60.00	9873.29	76.08
24690	3126	5299	255.85	9172.13	60.00	9873.29	92.90
24700							

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 CASE 2 (OPE) W+D1+T1+P1

Node	Axial Force N.	Bending Moment N.m.	G/C mm.	P Equivalent KPa	Rating Temperature C	Allowable Pressure /Stress	Ratio %
21550	36727	56120	566.38	9218.92	60.00	9873.29	93.37
21600	36727	37524	566.38	8697.62	60.00	9873.29	88.09
24100							
24150	2246	781	255.85	7781.08	60.00	9873.29	78.81
25120							
25150	829	174	144.60	7842.91	60.00	9873.29	79.44
24220							
24250	590	0	255.85	7511.48	60.00	9873.29	76.08
5150	79231	60353	566.38	9506.25	60.00	9873.29	96.28
5200	79231	24925	566.38	8513.17	60.00	9873.29	86.22
5310							
5320	79231	5758	566.38	7975.88	60.00	9873.29	80.78
5350							
5400	79231	13104	566.38	8181.81	60.00	9873.29	82.87
5750							
5800	87901	2571	566.38	7920.96	60.00	9873.29	80.23
5900							
5950	87901	6484	566.38	8030.65	60.00	9873.29	81.34
6010							
6030	94616	17841	566.38	8375.66	60.00	9873.29	84.83
6112							
6125	94616	24947	566.38	8574.83	60.00	9873.29	86.85
6200	94616	23154	566.38	8524.58	60.00	9873.29	86.34
6250	94616	2056	566.38	7933.17	60.00	9873.29	80.35
6750	69860	57828	566.38	9398.29	60.00	9873.29	95.19
6800	69860	22888	566.38	8418.87	60.00	9873.29	85.27
6910							
6920	69860	6493	566.38	7959.29	60.00	9873.29	80.61
6950							
7000	69860	13405	566.38	8153.05	60.00	9873.29	82.58

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 CASE 2 (OPE) W+D1+T1+P1

Node	Axial Force N.	Bending Moment N.m.	G/C mm.	P Equivalent KPa	Rating Temperature C	Allowable Pressure /Stress	Ratio %
7350							
7400	78651	3627	566.38	7913.83	60.00	9873.29	80.15
7500							
7550	78651	7049	566.38	8009.76	60.00	9873.29	81.13
7610							
7620	85719	16912	566.38	8314.29	60.00	9873.29	84.21
7712							
7725	85719	25208	566.38	8546.85	60.00	9873.29	86.57
7800	85719	24234	566.38	8519.54	60.00	9873.29	86.29
7850	85719	3736	566.38	7944.95	60.00	9873.29	80.47
8350	65418	57312	566.38	9366.20	60.00	9873.29	94.86
8400	65418	22497	566.38	8390.29	60.00	9873.29	84.98
8510							
8520	65418	6717	566.38	7947.93	60.00	9873.29	80.50
8550							
8600	65418	13517	566.38	8138.54	60.00	9873.29	82.43
8950							
9000	74150	4873	566.38	7930.90	60.00	9873.29	80.33
9100							
9150	74150	7618	566.38	8007.87	60.00	9873.29	81.11
9210							
9230	81578	16641	566.38	8290.28	60.00	9873.29	83.97
9312							
9325	81578	25835	566.38	8548.00	60.00	9873.29	86.58
9400	81578	25496	566.38	8538.48	60.00	9873.29	86.48
9450	81578	5972	566.38	7991.21	60.00	9873.29	80.94
9950	63886	57600	566.38	9368.19	60.00	9873.29	94.88
10000	63886	22712	566.38	8390.21	60.00	9873.29	84.98
10110							
10120	63886	6732	566.38	7942.26	60.00	9873.29	80.44
10150							
10200	63886	13672	566.38	8136.81	60.00	9873.29	82.41

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Impianto di Melendugno
Allegato 1 - Area 2

LISTING OF STATIC LOAD CASES FOR THIS ANALYSIS - Area 2

- 1 (HYD) WW+HP
- 2 (OPE) W+T1+P1
- 3 (SUS) W+P1
- 4 (EXP) L4=L2-L3

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Impianto di Melendugno
 Allegato 1 - Area 2
 INPUT LISTING

Job Description: Impianto di Melendugno

PROJECT: Interconnessione TAP – Terminale SRG di Melendugno

CLIENT: Snam Rete Gas

ANALYST: Techfem S.p.a.

NOTES:

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PIPE DATA

 From 50 To 100 DX= 10,000.000 mm. DY= .000 mm. DZ= .000 mm.
 B31.8 (2014) Restrained = ON Sh1= 358,527 KPa Sh2= 358,527 KPa
 Sh3= 358,527 KPa Sh4= 358,527 KPa Sh5= 358,527 KPa Sh6= 358,527 KPa
 Sh7= 358,527 KPa Sh8= 358,527 KPa Sh9= 358,527 KPa Sy= 358,527 KPa
 Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa PHyd=12,470.0000 KPa Mat= (331)API-5L X52
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 50 ANC

ALLOWABLE STRESSES

 From 100 To 150 DX= 10,000.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 100 X2 K= 14,129 N./cm. Yield K= 1 N./cm.
 Yield Force= 61,756 N.
 Node 100 Y2 K= 3,085,691 N./cm. Yield K= 1 N./cm.
 Yield Force= 13,487,555 N.
 Node 100 Z2 K= 3,085,691 N./cm. Yield K= 1 N./cm.
 Yield Force= 13,487,555 N.

 From 150 To 200 DX= 10,000.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 150 X2 K= 14,129 N./cm. Yield K= 1 N./cm.
 Yield Force= 61,756 N.
 Node 150 Y2 K= 3,085,691 N./cm. Yield K= 1 N./cm.
 Yield Force= 13,487,555 N.
 Node 150 Z2 K= 3,085,691 N./cm. Yield K= 1 N./cm.
 Yield Force= 13,487,555 N.

 From 200 To 250 DX= 500.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 200 X2 K= 7,418 N./cm. Yield K= 1 N./cm. Yield Force= 32,422 N.
 Node 200 Y2 K= 1,619,988 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,080,967 N.
 Node 200 Z2 K= 1,619,988 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,080,967 N.

 From 250 To 300 DX= 6,623.500 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 250 X2 K= 5,032 N./cm. Yield K= 1 N./cm. Yield Force= 21,996 N.
 Node 250 Y2 K= 1,099,046 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,803,930 N.
 Node 250 Z2 K= 1,099,046 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,803,930 N.

 From 300 To 301 DX= 2,325.913 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

Node 300 X2 K= 6,322 N./cm. Yield K= 1 N./cm. Yield Force= 27,634 N.
 Node 300 Y2 K= 1,380,756 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,035,285 N.
 Node 300 Z2 K= 1,380,756 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,035,285 N.

 From 301 To 302 DX= 2,325.913 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 301 X2 K= 3,286 N./cm. Yield K= 1 N./cm. Yield Force= 14,364 N.
 Node 301 Y2 K= 717,705 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,137,088 N.
 Node 301 Z2 K= 717,705 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,137,088 N.

 From 302 To 303 DX= 606.425 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 302 X2 K= 2,071 N./cm. Yield K= 1 N./cm. Yield Force= 9,055 N.
 Node 302 Y2 K= 452,414 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,977,503 N.
 Node 302 Z2 K= 452,414 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,977,503 N.

 From 303 To 304 DX= 404.283 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 303 X2 K= 714 N./cm. Yield K= 1 N./cm. Yield Force= 3,121 N.
 Node 303 Y2 K= 155,937 N./cm. Yield K= 1 N./cm.
 Yield Force= 681,599 N.
 Node 303 Z2 K= 155,937 N./cm. Yield K= 1 N./cm.
 Yield Force= 681,599 N.

 From 304 To 305 DX= 404.283 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 304 X2 K= 571 N./cm. Yield K= 1 N./cm. Yield Force= 2,497 N.
 Node 304 Y2 K= 124,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 545,279 N.
 Node 304 Z2 K= 124,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 545,279 N.

 From 305 To 306 DX= 404.283 mm. DY= .000 mm. DZ= .000 mm.

 From 306 To 307 DX= 63.126 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 306 X2 K= 370 N./cm. Yield K= 1 N./cm. Yield Force= 1,618 N.
 Node 306 Y2 K= 80,842 N./cm. Yield K= 1 N./cm.
 Yield Force= 353,359 N.
 Node 306 Z2 K= 80,842 N./cm. Yield K= 1 N./cm.
 Yield Force= 353,359 N.

 From 307 To 350 DX= 89.274 mm. DY= .000 mm. DZ= 89.274 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

 From 350 To 351 DX= .000 mm. DY= .000 mm. DZ= 467.409 mm.

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

 From 351 To 352 DX= .000 mm. DY= .000 mm. DZ= 404.283 mm.

 From 352 To 353 DX= .000 mm. DY= .000 mm. DZ= 404.283 mm.

 From 353 To 354 DX= .000 mm. DY= .000 mm. DZ= 717.375 mm.

RESTRAINTS

Node 354 Z2 K= 507 N./cm. Yield K= 1 N./cm. Yield Force= 2,215 N.
 Node 354 X2 K= 110,680 N./cm. Yield K= 1 N./cm.
 Yield Force= 483,782 N.
 Node 354 Y2 K= 110,680 N./cm. Yield K= 1 N./cm.
 Yield Force= 483,782 N.

 From 354 To 399 DX= .000 mm. DY= .000 mm. DZ= 358.687 mm.

 From 399 To 400 DX= .000 mm. DY= .000 mm. DZ= 358.687 mm.

RESTRAINTS

Node 400 Z2 K= 507 N./cm. Yield K= 1 N./cm. Yield Force= 2,215 N.
 Node 400 X2 K= 110,680 N./cm. Yield K= 1 N./cm.
 Yield Force= 483,782 N.
 Node 400 Y2 K= 110,680 N./cm. Yield K= 1 N./cm.
 Yield Force= 483,782 N.

 From 400 To 450 DZ= 800.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 449
 Angle/Node @2= .00 448

 From 450 To 500 DX= 1,567.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

SIF's & TEE's

Node 500 Welding Tee Use Notes 6,9,10 = ---

 From 500 To 900 DX= 241.500 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 900 To 950 DX= 101.600 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 191.00 N.

 From 950 To 1000 DX= 431.800 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 1,150.00 N.

 From 500 To 550 DY= -89.000 mm.

B31.8 (2014) Restrained = --- Sh1= 241,316 KPa Sh2= 241,316 KPa
 Sh3= 241,316 KPa Sh4= 241,316 KPa Sh5= 241,316 KPa Sh6= 241,316 KPa
 Sh7= 241,316 KPa Sh8= 241,316 KPa Sh9= 241,316 KPa Sy= 241,316 KPa
 Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

ALLOWABLE STRESSES

 From 550 To 600 DY= -76.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 600 To 650 DY= -245.000 mm.

Dia= 33.400 mm. Wall= 4.500 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

From 650 To 700 DY= -62.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 RIGID Weight= 18.00 N.

 From 700 To 750 DY= -216.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 RIGID Weight= 150.00 N.

 From 750 To 800 DY= -62.000 mm.

Dia= 33.400 mm. Wall= 4.500 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 18.00 N.

RESTRAINTS

Node 800 X Mu = .35
 Node 800 Y Mu = .35
 Node 800 Z Mu = .35

 From 1000 To 1050 DX= 101.600 mm.

Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 1050 To 1100 DX= 241.500 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

SIF's & TEE's

Node 1100 Welding Tee Use Notes 6,9,10 = ---

 From 1100 To 1500 DX= 2,093.000 mm.

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 1500 To 1550 DX= 101.600 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 191.00 N.

 From 1100 To 1150 DY= -89.000 mm.

B31.8 (2014) Restrained = --- Sh1= 358,527 KPa Sh2= 358,527 KPa
 Sh3= 358,527 KPa Sh4= 358,527 KPa Sh5= 358,527 KPa Sh6= 358,527 KPa
 Sh7= 358,527 KPa Sh8= 358,527 KPa Sh9= 358,527 KPa Sy= 358,527 KPa
 Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

ALLOWABLE STRESSES

 From 1150 To 1200 DY= -76.000 mm.

GENERAL

P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 1200 To 1250 DY= -245.000 mm.

B31.8 (2014) Restrained = --- Sh1= 241,316 KPa Sh2= 241,316 KPa
 Sh3= 241,316 KPa Sh4= 241,316 KPa Sh5= 241,316 KPa Sh6= 241,316 KPa
 Sh7= 241,316 KPa Sh8= 241,316 KPa Sh9= 241,316 KPa Sy= 241,316 KPa
 Dia= 33.400 mm. Wall= 4.500 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

ALLOWABLE STRESSES

 From 1250 To 1300 DY= -62.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 18.00 N.

 From 1300 To 1350 DY= -216.000 mm.

GENERAL

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 RIGID Weight= 150.00 N.

 From 1350 To 1400 DY= -62.000 mm.
 Dia= 33.400 mm. Wall= 4.500 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 18.00 N.

RESTRAINTS

Node 1400 X Mu = .35
 Node 1400 Y Mu = .35
 Node 1400 Z Mu = .35

 From 1550 To 1600 DX= 101.600 mm.
 Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 1600 To 1650 DX= 424.000 mm.
 GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1650 +Z Mu = .35

SIF's & TEE's

Node 1650 Welding Tee Use Notes 6,9,10 = ---

 From 1650 To 3500 DY= -1,558.000 mm.
 Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

BEND at "TO" end

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Impianto di Melendugno
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INPUT LISTING

Radius= 76.200 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 3499
 Angle/Node @2= .00 3498

 From 3500 To 3520 DX= 152.500 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3520 +Z Mu = .35

 From 3520 To 3550 DX= 152.500 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 3550 To 3600 DX= 73.200 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 54.00 N.

 From 3600 To 3650 DX= 292.100 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 280.00 N.

 From 1650 To 1700 DX= 232.000 mm.

Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

 From 1700 To 1750 DX= 101.600 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

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 Allegato 1 - Area 2
 INPUT LISTING

Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 RIGID Weight= 191.00 N.

 From 1750 To 1800 DX= 431.800 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 RIGID Weight= 1,150.00 N.

 From 1800 To 1850 DX= 101.600 mm.

Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 1850 To 1900 DX= 982.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1900 +Z Mu = .35

SIF's & TEE's

Node 1900 Welding Tee Use Notes 6,9,10 = ---

 From 1900 To 2800 DY= -557.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 2799

Angle/Node @2= .00 2798

 From 2800 To 2850 DX= 232.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 1900 To 1950 DX= 232.000 mm.

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 1950 To 2000 DX= 101.600 mm.

Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 2000 To 2050 DX= 431.800 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 1,150.00 N.

 From 2050 To 2100 DX= 101.600 mm.

Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 2100 To 2120 DX= 302.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2120 +Z Mu = .35

 From 2120 To 2150 DX= 302.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

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 INPUT LISTING

 From 2150 To 2200 DX= 101.600 mm.
 Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 2200 To 2250 DX= 101.600 mm.
 Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 2250 To 2300 DX= 348.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 2300 To 2350 DX= 101.600 mm.
 Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 2350 To 2400 DX= 101.600 mm.
 Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 2400 To 2420 DX= 768.000 mm.
 GENERAL

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2420 +Z Mu = .35

 From 2420 To 2450 DX= 769.500 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 2450 To 2500 DX= 101.600 mm.

Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 2500 To 2550 DX= 431.800 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 1,150.00 N.

 From 2550 To 2600 DX= 101.600 mm.

Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 2600 To 2650 DX= 232.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

SIF's & TEE's

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

Node 2650 Welding Tee Use Notes 6,9,10 = ---

 From 2650 To 2670 DX= 582.500 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2670 +Z Mu = .35

 From 2670 To 2700 DX= 582.500 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 2700 To 2750 DX= 101.600 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 191.00 N.

 From 2750 To 6000 DX= 101.600 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 191.00 N.

 From 6000 To 6050 DX= 649.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 6049
 Angle/Node @2= .00 6048

 From 6050 To 6100 DZ= -800.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

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Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 6100 To 6101 DX= .000 mm. DY= .000 mm. DZ= -717.375 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6100 Z2 K= 507 N./cm. Yield K= 1 N./cm. Yield Force= 2,215 N.
 Node 6100 X2 K= 110,680 N./cm. Yield K= 1 N./cm.
 Yield Force= 483,782 N.
 Node 6100 Y2 K= 110,680 N./cm. Yield K= 1 N./cm.
 Yield Force= 483,782 N.

 From 6101 To 6102 DX= .000 mm. DY= .000 mm. DZ= -717.375 mm.

RESTRAINTS

Node 6101 Z2 K= 1,014 N./cm. Yield K= 1 N./cm. Yield Force= 4,430 N.
 Node 6101 X2 K= 221,360 N./cm. Yield K= 1 N./cm.
 Yield Force= 967,564 N.
 Node 6101 Y2 K= 221,360 N./cm. Yield K= 1 N./cm.
 Yield Force= 967,564 N.

 From 6102 To 6103 DX= .000 mm. DY= .000 mm. DZ= -404.283 mm.

RESTRAINTS

Node 6102 Z2 K= 792 N./cm. Yield K= 1 N./cm. Yield Force= 3,463 N.
 Node 6102 X2 K= 173,055 N./cm. Yield K= 1 N./cm.
 Yield Force= 756,422 N.
 Node 6102 Y2 K= 173,055 N./cm. Yield K= 1 N./cm.
 Yield Force= 756,422 N.

 From 6103 To 6104 DX= .000 mm. DY= .000 mm. DZ= -404.283 mm.

RESTRAINTS

Node 6103 Z2 K= 571 N./cm. Yield K= 1 N./cm. Yield Force= 2,497 N.
 Node 6103 X2 K= 124,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 545,279 N.
 Node 6103 Y2 K= 124,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 545,279 N.

 From 6104 To 6105 DX= .000 mm. DY= .000 mm. DZ= -404.283 mm.

RESTRAINTS

Node 6104 Z2 K= 571 N./cm. Yield K= 1 N./cm. Yield Force= 2,497 N.
 Node 6104 X2 K= 124,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 545,279 N.
 Node 6104 Y2 K= 124,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 545,279 N.

 From 6105 To 6106 DX= .000 mm. DY= .000 mm. DZ= -63.126 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 6105 Z2 K= 370 N./cm. Yield K= 1 N./cm. Yield Force= 1,618 N.

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Node 6105 X2 K= 80,842 N./cm. Yield K= 1 N./cm.
 Yield Force= 353,359 N.
 Node 6105 Y2 K= 80,842 N./cm. Yield K= 1 N./cm.
 Yield Force= 353,359 N.

 From 6106 To 6150 DX= 89.274 mm. DY= .000 mm. DZ= -89.274 mm.
 BEND at "TO" end
 Radius= 152.400 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 6106 X2 K= 169 N./cm. Yield K= 1 N./cm. Yield Force= 739 N.
 Dir Vec= .7071 .0000 -.7071
 Node 6106 Y2 K= 36,934 N./cm. Yield K= 1 N./cm.
 Yield Force= 161,439 N.
 Node 6106 X2 K= 36,934 N./cm. Yield K= 1 N./cm.
 Yield Force= 161,439 N. Dir Vec= .7071 .0000 .7071

 From 6150 To 6151 DX= 467.409 mm. DY= .000 mm. DZ= .000 mm.
 GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6150 X2 K= 370 N./cm. Yield K= 1 N./cm. Yield Force= 1,618 N.
 Node 6150 Y2 K= 80,842 N./cm. Yield K= 1 N./cm.
 Yield Force= 353,359 N.
 Node 6150 Z2 K= 80,842 N./cm. Yield K= 1 N./cm.
 Yield Force= 353,359 N.

 From 6151 To 6152 DX= 450.317 mm. DY= .000 mm. DZ= .000 mm.
 RESTRAINTS

Node 6151 X2 K= 604 N./cm. Yield K= 1 N./cm. Yield Force= 2,639 N.
 Node 6151 Y2 K= 131,852 N./cm. Yield K= 1 N./cm.
 Yield Force= 576,323 N.
 Node 6151 Z2 K= 131,852 N./cm. Yield K= 1 N./cm.
 Yield Force= 576,323 N.

 From 6152 To 6153 DX= 450.317 mm. DY= .000 mm. DZ= .000 mm.
 RESTRAINTS

Node 6152 X2 K= 636 N./cm. Yield K= 1 N./cm. Yield Force= 2,781 N.
 Node 6152 Y2 K= 138,954 N./cm. Yield K= 1 N./cm.
 Yield Force= 607,367 N.
 Node 6152 Z2 K= 138,954 N./cm. Yield K= 1 N./cm.
 Yield Force= 607,367 N.

 From 6153 To 6154 DX= 404.283 mm. DY= .000 mm. DZ= .000 mm.
 RESTRAINTS

Node 6153 X2 K= 604 N./cm. Yield K= 1 N./cm. Yield Force= 2,639 N.
 Node 6153 Y2 K= 131,852 N./cm. Yield K= 1 N./cm.
 Yield Force= 576,323 N.
 Node 6153 Z2 K= 131,852 N./cm. Yield K= 1 N./cm.
 Yield Force= 576,323 N.

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 INPUT LISTING

 From 6154 To 6155 DX= 63.126 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 6154 X2 K= 370 N./cm. Yield K= 1 N./cm. Yield Force= 1,618 N.

Node 6154 Y2 K= 80,842 N./cm. Yield K= 1 N./cm.

Yield Force= 353,359 N.

Node 6154 Z2 K= 80,842 N./cm. Yield K= 1 N./cm.

Yield Force= 353,359 N.

 From 6155 To 6200 DX= 89.274 mm. DY= -89.274 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 6155 X2 K= 169 N./cm. Yield K= 1 N./cm. Yield Force= 739 N.

Dir Vec= .7071 -.7071 .0000

Node 6155 X2 K= 36,934 N./cm. Yield K= 1 N./cm.

Yield Force= 161,439 N. Dir Vec= -.7071 -.7071 .0000

Node 6155 Z2 K= 36,934 N./cm. Yield K= 1 N./cm.

Yield Force= 161,439 N.

 From 6200 To 6201 DX= .000 mm. DY= -467.409 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa

EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa

EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6200 Y2 K= 370 N./cm. Yield K= 1 N./cm. Yield Force= 1,618 N.

Node 6200 X2 K= 80,842 N./cm. Yield K= 1 N./cm.

Yield Force= 353,359 N.

Node 6200 Z2 K= 80,842 N./cm. Yield K= 1 N./cm.

Yield Force= 353,359 N.

 From 6201 To 6202 DX= .000 mm. DY= -404.283 mm. DZ= .000 mm.

RESTRAINTS

Node 6201 Y2 K= 571 N./cm. Yield K= 1 N./cm. Yield Force= 2,497 N.

Node 6201 X2 K= 124,749 N./cm. Yield K= 1 N./cm.

Yield Force= 545,279 N.

Node 6201 Z2 K= 124,749 N./cm. Yield K= 1 N./cm.

Yield Force= 545,279 N.

 From 6202 To 6203 DX= .000 mm. DY= -404.283 mm. DZ= .000 mm.

RESTRAINTS

Node 6202 Y2 K= 571 N./cm. Yield K= 1 N./cm. Yield Force= 2,497 N.

Node 6202 X2 K= 124,749 N./cm. Yield K= 1 N./cm.

Yield Force= 545,279 N.

Node 6202 Z2 K= 124,749 N./cm. Yield K= 1 N./cm.

Yield Force= 545,279 N.

 From 6203 To 6204 DX= .000 mm. DY= -606.425 mm. DZ= .000 mm.

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RESTRAINTS

Node 6203 Y2 K= 714 N./cm. Yield K= 1 N./cm. Yield Force= 3,121 N.
 Node 6203 X2 K= 155,937 N./cm. Yield K= 1 N./cm.
 Yield Force= 681,599 N.
 Node 6203 Z2 K= 155,937 N./cm. Yield K= 1 N./cm.
 Yield Force= 681,599 N.

 From 6204 To 6205 DX= .000 mm. DY= -261.650 mm. DZ= .000 mm.

RESTRAINTS

Node 6204 Y2 K= 613 N./cm. Yield K= 1 N./cm. Yield Force= 2,680 N.
 Node 6204 X2 K= 133,931 N./cm. Yield K= 1 N./cm.
 Yield Force= 585,411 N.
 Node 6204 Z2 K= 133,931 N./cm. Yield K= 1 N./cm.
 Yield Force= 585,411 N.

 From 6205 To 6206 DX= .000 mm. DY= -606.425 mm. DZ= .000 mm.

 From 6206 To 6207 DX= .000 mm. DY= -404.283 mm. DZ= .000 mm.

RESTRAINTS

Node 6206 Y2 K= 714 N./cm. Yield K= 1 N./cm. Yield Force= 3,121 N.
 Node 6206 X2 K= 155,937 N./cm. Yield K= 1 N./cm.
 Yield Force= 681,599 N.
 Node 6206 Z2 K= 155,937 N./cm. Yield K= 1 N./cm.
 Yield Force= 681,599 N.

 From 6207 To 6208 DX= .000 mm. DY= -404.283 mm. DZ= .000 mm.

 From 6208 To 6209 DX= .000 mm. DY= -404.283 mm. DZ= .000 mm.

 From 6209 To 6210 DX= .000 mm. DY= -63.126 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

 From 6210 To 6250 DX= -89.274 mm. DY= -89.274 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 45.000

 From 6250 To 6251 DX= -467.409 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6250 X2 K= 370 N./cm. Yield K= 1 N./cm. Yield Force= 1,618 N.
 Node 6250 Y2 K= 80,842 N./cm. Yield K= 1 N./cm.
 Yield Force= 353,359 N.
 Node 6250 Z2 K= 80,842 N./cm. Yield K= 1 N./cm.
 Yield Force= 353,359 N.

 From 6251 To 6252 DX= -404.283 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

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INPUT LISTING

Node 6251 X2 K= 571 N./cm. Yield K= 1 N./cm. Yield Force= 2,497 N.
 Node 6251 Y2 K= 124,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 545,279 N.
 Node 6251 Z2 K= 124,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 545,279 N.

 From 6252 To 6253 DX= -404.283 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 6252 X2 K= 571 N./cm. Yield K= 1 N./cm. Yield Force= 2,497 N.
 Node 6252 Y2 K= 124,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 545,279 N.
 Node 6252 Z2 K= 124,749 N./cm. Yield K= 1 N./cm.
 Yield Force= 545,279 N.

 From 6253 To 6254 DX= -606.425 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 6253 X2 K= 714 N./cm. Yield K= 1 N./cm. Yield Force= 3,121 N.
 Node 6253 Y2 K= 155,937 N./cm. Yield K= 1 N./cm.
 Yield Force= 681,599 N.
 Node 6253 Z2 K= 155,937 N./cm. Yield K= 1 N./cm.
 Yield Force= 681,599 N.

 From 6254 To 6255 DX= -2,304.283 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 6254 X2 K= 2,056 N./cm. Yield K= 1 N./cm. Yield Force= 8,988 N.
 Node 6254 Y2 K= 449,077 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,962,917 N.
 Node 6254 Z2 K= 449,077 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,962,917 N.

 From 6255 To 6300 DX= -5,367.042 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 6255 X2 K= 5,419 N./cm. Yield K= 1 N./cm.
 Yield Force= 23,688 N.
 Node 6255 Y2 K= 1,183,567 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,173,371 N.
 Node 6255 Z2 K= 1,183,567 N./cm. Yield K= 1 N./cm.
 Yield Force= 5,173,371 N.

 From 6300 To 6350 DX= -9,643.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6300 X2 K= 10,604 N./cm. Yield K= 1 N./cm.
 Yield Force= 46,348 N.
 Node 6300 Y2 K= 2,315,818 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,122,438 N.
 Node 6300 Z2 K= 2,315,818 N./cm. Yield K= 1 N./cm.
 Yield Force= 10,122,438 N.

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 From 6350 To 6400 DX= -9,876.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6350 X2 K= 13,789 N./cm. Yield K= 1 N./cm.
 Yield Force= 60,271 N.
 Node 6350 Y2 K= 3,011,480 N./cm. Yield K= 1 N./cm.
 Yield Force= 13,163,179 N.
 Node 6350 Z2 K= 3,011,480 N./cm. Yield K= 1 N./cm.
 Yield Force= 13,163,179 N.

 From 6400 To 6450 DX= -500.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 6400 X2 K= 7,330 N./cm. Yield K= 1 N./cm.
 Yield Force= 32,039 N.
 Node 6400 Y2 K= 1,600,856 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,997,344 N.
 Node 6400 Z2 K= 1,600,856 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,997,344 N.

 From 6450 To 6500 DX= -10,000.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6450 X2 K= 7,418 N./cm. Yield K= 1 N./cm.
 Yield Force= 32,422 N.
 Node 6450 Y2 K= 1,619,988 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,080,967 N.
 Node 6450 Z2 K= 1,619,988 N./cm. Yield K= 1 N./cm.
 Yield Force= 7,080,967 N.

 From 6500 To 6550 DX= -10,000.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

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INPUT LISTING

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6500 X2 K= 14,129 N./cm. Yield K= 1 N./cm.
 Yield Force= 61,756 N.
 Node 6500 Y2 K= 3,085,691 N./cm. Yield K= 1 N./cm.
 Yield Force= 13,487,555 N.
 Node 6500 Z2 K= 3,085,691 N./cm. Yield K= 1 N./cm.
 Yield Force= 13,487,555 N.

 From 6550 To 6599 DX= -5,000.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6550 X2 K= 14,129 N./cm. Yield K= 1 N./cm.
 Yield Force= 61,756 N.
 Node 6550 Y2 K= 3,085,691 N./cm. Yield K= 1 N./cm.
 Yield Force= 13,487,555 N.
 Node 6550 Z2 K= 3,085,691 N./cm. Yield K= 1 N./cm.
 Yield Force= 13,487,555 N.

 From 6599 To 6600 DX= -5,000.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 6600 ANC

 From 2850 To 2900 DX= 101.600 mm.

Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 2900 To 2950 DX= 431.800 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 1,150.00 N.

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 INPUT LISTING

 From 2950 To 3000 DX= 101.600 mm.
 Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 3000 To 3020 DX= 302.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3020 +Z Mu = .35

 From 3020 To 3030 DX= 1,824.410 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3030 +Z Mu = .35

 From 3030 To 3050 DX= 769.500 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 3050 To 3100 DX= 101.600 mm.

Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 191.00 N.

 From 3100 To 3150 DX= 431.800 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

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INPUT LISTING

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 RIGID Weight= 1,150.00 N.

 From 3150 To 3200 DX= 101.600 mm.
 Dia= 114.000 mm. Wall= 5.200 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (331)API-5L X52 E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.
 RIGID Weight= 191.00 N.

 From 3200 To 3250 DX= 232.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 152.400 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 3249
 Angle/Node @2= .00 3248

 From 3250 To 2650 DY= 557.000 mm.

GENERAL

Mat= (331)API-5L X52 E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 3650 To 3700 DX= 73.200 mm.

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 54.00 N.

 From 3700 To 3750 DX= 1,013.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3750 +Z Mu = .35

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INPUT LISTING

SIF's & TEE's

Node 3750 Welding Tee Use Notes 6,9,10 = ---

 From 3750 To 4700 DY= -439.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 76.200 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 4699
 Angle/Node @2= .00 4698

 From 4700 To 4750 DX= 229.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 3750 To 3800 DX= 229.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 3800 To 3850 DX= 73.200 mm.

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 54.00 N.

 From 3850 To 3900 DX= 292.100 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 280.00 N.

 From 3900 To 3950 DX= 73.200 mm.

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.
 RIGID Weight= 54.00 N.

 From 3950 To 3970 DX= 172.500 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3970 +Z Mu = .35

 From 3970 To 4000 DX= 172.500 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 4000 To 4050 DX= 73.200 mm.

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 54.00 N.

 From 4050 To 4100 DX= 73.200 mm.

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 54.00 N.

 From 4100 To 4150 DX= 278.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 4150 To 4200 DX= 73.200 mm.

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Impianto di Melendugno
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INPUT LISTING

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 54.00 N.

 From 4200 To 4250 DX= 73.200 mm.

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 54.00 N.

 From 4250 To 4270 DX= 702.500 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 4270 +Z Mu = .35

 From 4270 To 4300 DX= 702.500 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 4300 To 4350 DX= 73.200 mm.

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 54.00 N.

 From 4350 To 4400 DX= 292.100 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa

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INPUT LISTING

EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 RIGID Weight= 280.00 N.

 From 4400 To 4450 DX= 73.200 mm.
 Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.
 RIGID Weight= 54.00 N.

 From 4450 To 4500 DX= 263.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

SIF's & TEE's

Node 4500 Welding Tee Use Notes 6,9,10 = ---

 From 4500 To 4520 DX= 1,113.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 4520 +Z Mu = .35

 From 4520 To 4550 DX= 1,113.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 4550 To 4600 DX= 73.200 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 54.00 N.

 From 4600 To 7000 DX= 73.200 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa

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Impianto di Melendugno
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INPUT LISTING

EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 RIGID Weight= 54.00 N.

 From 7000 To 7050 DX= 677.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 76.200 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 7049
 Angle/Node @2= .00 7048

 From 7050 To 7100 DZ= -800.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 7100 To 7101 DX= .000 mm. DY= .000 mm. DZ= -1,684.021 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7100 Z2 K= 639 N./cm. Yield K= 1 N./cm. Yield Force= 2,743 N.
 Node 7100 X2 K= 255,030 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,094,195 N.
 Node 7100 Y2 K= 255,030 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,094,195 N.

 From 7101 To 7102 DX= .000 mm. DY= .000 mm. DZ= -346.593 mm.

RESTRAINTS

Node 7101 Z2 K= 771 N./cm. Yield K= 1 N./cm. Yield Force= 3,307 N.
 Node 7101 X2 K= 307,519 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,319,395 N.
 Node 7101 Y2 K= 307,519 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,319,395 N.

 From 7102 To 7103 DX= .000 mm. DY= .000 mm. DZ= -231.062 mm.

RESTRAINTS

Node 7102 Z2 K= 219 N./cm. Yield K= 1 N./cm. Yield Force= 941 N.
 Node 7102 X2 K= 87,481 N./cm. Yield K= 1 N./cm.
 Yield Force= 375,332 N.
 Node 7102 Y2 K= 87,481 N./cm. Yield K= 1 N./cm.

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Yield Force= 375,332 N.

 From 7103 To 7104 DX= .000 mm. DY= .000 mm. DZ= -231.062 mm.

RESTRAINTS

Node 7103 Z2 K= 175 N./cm. Yield K= 1 N./cm. Yield Force= 753 N.

Node 7103 X2 K= 69,985 N./cm. Yield K= 1 N./cm.

Yield Force= 300,266 N.

Node 7103 Y2 K= 69,985 N./cm. Yield K= 1 N./cm.

Yield Force= 300,266 N.

 From 7104 To 7105 DX= .000 mm. DY= .000 mm. DZ= -231.062 mm.

RESTRAINTS

Node 7104 Z2 K= 175 N./cm. Yield K= 1 N./cm. Yield Force= 753 N.

Node 7104 X2 K= 69,985 N./cm. Yield K= 1 N./cm.

Yield Force= 300,266 N.

Node 7104 Y2 K= 69,985 N./cm. Yield K= 1 N./cm.

Yield Force= 300,266 N.

 From 7105 To 7106 DX= .000 mm. DY= .000 mm. DZ= -31.563 mm.

BEND at "TO" end

Radius= 76.200 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 7105 Z2 K= 110 N./cm. Yield K= 1 N./cm. Yield Force= 474 N.

Node 7105 X2 K= 44,056 N./cm. Yield K= 1 N./cm.

Yield Force= 189,019 N.

Node 7105 Y2 K= 44,056 N./cm. Yield K= 1 N./cm.

Yield Force= 189,019 N.

 From 7106 To 7150 DX= 44.637 mm. DY= .000 mm. DZ= -44.637 mm.

BEND at "TO" end

Radius= 76.200 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 7106 X2 K= 45 N./cm. Yield K= 1 N./cm. Yield Force= 195 N.

Dir Vec= .7071 .0000 -.7071

Node 7106 Y2 K= 18,127 N./cm. Yield K= 1 N./cm.

Yield Force= 77,772 N.

Node 7106 X2 K= 18,127 N./cm. Yield K= 1 N./cm.

Yield Force= 77,772 N. Dir Vec= .7071 .0000 .7071

 From 7150 To 7151 DX= 262.625 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa

EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa

EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7150 X2 K= 110 N./cm. Yield K= 1 N./cm. Yield Force= 474 N.

Node 7150 Y2 K= 44,056 N./cm. Yield K= 1 N./cm.

Yield Force= 189,019 N.

Node 7150 Z2 K= 44,056 N./cm. Yield K= 1 N./cm.

Yield Force= 189,019 N.

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From 7151 To 7152 DX= 271.238 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7151 X2 K= 191 N./cm. Yield K= 1 N./cm. Yield Force= 818 N.
 Node 7151 Y2 K= 76,069 N./cm. Yield K= 1 N./cm.
 Yield Force= 326,370 N.
 Node 7151 Z2 K= 76,069 N./cm. Yield K= 1 N./cm.
 Yield Force= 326,370 N.

 From 7152 To 7153 DX= 271.238 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7152 X2 K= 206 N./cm. Yield K= 1 N./cm. Yield Force= 883 N.
 Node 7152 Y2 K= 82,153 N./cm. Yield K= 1 N./cm.
 Yield Force= 352,475 N.
 Node 7152 Z2 K= 82,153 N./cm. Yield K= 1 N./cm.
 Yield Force= 352,475 N.

 From 7153 To 7154 DX= 231.062 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7153 X2 K= 191 N./cm. Yield K= 1 N./cm. Yield Force= 818 N.
 Node 7153 Y2 K= 76,069 N./cm. Yield K= 1 N./cm.
 Yield Force= 326,370 N.
 Node 7153 Z2 K= 76,069 N./cm. Yield K= 1 N./cm.
 Yield Force= 326,370 N.

 From 7154 To 7155 DX= 31.563 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 76.200 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 7154 X2 K= 110 N./cm. Yield K= 1 N./cm. Yield Force= 474 N.
 Node 7154 Y2 K= 44,056 N./cm. Yield K= 1 N./cm.
 Yield Force= 189,019 N.
 Node 7154 Z2 K= 44,056 N./cm. Yield K= 1 N./cm.
 Yield Force= 189,019 N.

 From 7155 To 7200 DX= 44.637 mm. DY= -44.637 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 76.200 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 7155 X2 K= 45 N./cm. Yield K= 1 N./cm. Yield Force= 195 N.
 Dir Vec= .7071 -.7071 .0000
 Node 7155 X2 K= 18,127 N./cm. Yield K= 1 N./cm.
 Yield Force= 77,772 N. Dir Vec= -.7071 -.7071 .0000
 Node 7155 Z2 K= 18,127 N./cm. Yield K= 1 N./cm.
 Yield Force= 77,772 N.

 From 7200 To 7201 DX= .000 mm. DY= -262.625 mm. DZ= .000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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From 7201 To 7202 DX= .000 mm. DY= -231.062 mm. DZ= .000 mm.

 From 7202 To 7203 DX= .000 mm. DY= -231.062 mm. DZ= .000 mm.

 From 7203 To 7204 DX= .000 mm. DY= -107.228 mm. DZ= .000 mm.

 From 7204 To 7205 DX= .000 mm. DY= -231.062 mm. DZ= .000 mm.

 From 7205 To 7206 DX= .000 mm. DY= -231.062 mm. DZ= .000 mm.

 From 7206 To 7207 DX= .000 mm. DY= -231.062 mm. DZ= .000 mm.

 From 7207 To 7208 DX= .000 mm. DY= -31.563 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 76.200 mm. (LONG) Bend Angle= 45.000

 From 7208 To 7250 DX= -44.637 mm. DY= -44.637 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 76.200 mm. (LONG) Bend Angle= 45.000

 From 7250 To 7251 DX= -262.625 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7250 X2 K= 110 N./cm. Yield K= 1 N./cm. Yield Force= 474 N.

Node 7250 Y2 K= 44,056 N./cm. Yield K= 1 N./cm.

Yield Force= 189,019 N.

Node 7250 Z2 K= 44,056 N./cm. Yield K= 1 N./cm.

Yield Force= 189,019 N.

 From 7251 To 7252 DX= -231.062 mm. DY= .000 mm. DZ= .000 mm.

 From 7252 To 7253 DX= -231.062 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7252 X2 K= 175 N./cm. Yield K= 1 N./cm. Yield Force= 753 N.

Node 7252 Y2 K= 69,985 N./cm. Yield K= 1 N./cm.

Yield Force= 300,266 N.

Node 7252 Z2 K= 69,985 N./cm. Yield K= 1 N./cm.

Yield Force= 300,266 N.

 From 7253 To 7254 DX= -346.593 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7253 X2 K= 219 N./cm. Yield K= 1 N./cm. Yield Force= 941 N.

Node 7253 Y2 K= 87,481 N./cm. Yield K= 1 N./cm.

Yield Force= 375,332 N.

Node 7253 Z2 K= 87,481 N./cm. Yield K= 1 N./cm.

Yield Force= 375,332 N.

 From 7254 To 7255 DX= -1,236.062 mm. DY= .000 mm. DZ= .000 mm.

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RESTRAINTS

Node 7254 X2 K= 601 N./cm. Yield K= 1 N./cm. Yield Force= 2,577 N.
 Node 7254 Y2 K= 239,679 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,028,332 N.
 Node 7254 Z2 K= 239,679 N./cm. Yield K= 1 N./cm.
 Yield Force= 1,028,332 N.

 From 7255 To 7256 DX= -2,125.531 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7255 X2 K= 1,276 N./cm. Yield K= 1 N./cm. Yield Force= 5,475 N.
 Node 7255 Y2 K= 509,084 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,184,200 N.
 Node 7255 Z2 K= 509,084 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,184,200 N.

 From 7256 To 7257 DX= -2,464.881 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7256 X2 K= 1,742 N./cm. Yield K= 1 N./cm. Yield Force= 7,476 N.
 Node 7256 Y2 K= 695,178 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,982,627 N.
 Node 7256 Z2 K= 695,178 N./cm. Yield K= 1 N./cm.
 Yield Force= 2,982,627 N.

 From 7257 To 7300 DX= -2,464.881 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7257 X2 K= 1,871 N./cm. Yield K= 1 N./cm. Yield Force= 8,028 N.
 Node 7257 Y2 K= 746,570 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,203,120 N.
 Node 7257 Z2 K= 746,570 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,203,120 N.

 From 7300 To 7301 DX= -4,703.667 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7300 X2 K= 2,721 N./cm. Yield K= 1 N./cm.
 Yield Force= 11,674 N.
 Node 7300 Y2 K= 1,085,614 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,657,775 N.
 Node 7300 Z2 K= 1,085,614 N./cm. Yield K= 1 N./cm.
 Yield Force= 4,657,775 N.

 From 7301 To 7350 DX= -4,703.667 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7301 X2 K= 3,571 N./cm. Yield K= 1 N./cm.
 Yield Force= 15,320 N.
 Node 7301 Y2 K= 1,424,659 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,112,429 N.
 Node 7301 Z2 K= 1,424,659 N./cm. Yield K= 1 N./cm.

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Yield Force= 6,112,429 N.

 From 7350 To 7351 DX= -4,819.950 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7350 X2 K= 3,615 N./cm. Yield K= 1 N./cm.
 Yield Force= 15,510 N.
 Node 7350 Y2 K= 1,442,269 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,187,984 N.
 Node 7350 Z2 K= 1,442,269 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,187,984 N.

 From 7351 To 7400 DX= -4,819.950 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7351 X2 K= 3,659 N./cm. Yield K= 1 N./cm.
 Yield Force= 15,699 N.
 Node 7351 Y2 K= 1,459,879 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,263,540 N.
 Node 7351 Z2 K= 1,459,879 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,263,540 N.

 From 7400 To 7450 DX= -350.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 7400 X2 K= 1,962 N./cm. Yield K= 1 N./cm. Yield Force= 8,420 N.
 Node 7400 Y2 K= 782,944 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,359,183 N.
 Node 7400 Z2 K= 782,944 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,359,183 N.

 From 7450 To 7451 DX= -5,000.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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INPUT LISTING

Node 7450 X2 K= 2,031 N./cm. Yield K= 1 N./cm. Yield Force= 8,713 N.
 Node 7450 Y2 K= 810,211 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,476,170 N.
 Node 7450 Z2 K= 810,211 N./cm. Yield K= 1 N./cm.
 Yield Force= 3,476,170 N.

 From 7451 To 7500 DX= -5,000.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7451 X2 K= 3,796 N./cm. Yield K= 1 N./cm.
 Yield Force= 16,286 N.
 Node 7451 Y2 K= 1,514,413 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,497,515 N.
 Node 7451 Z2 K= 1,514,413 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,497,515 N.

 From 7500 To 7501 DX= -5,000.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7500 X2 K= 3,796 N./cm. Yield K= 1 N./cm.
 Yield Force= 16,286 N.
 Node 7500 Y2 K= 1,514,413 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,497,515 N.
 Node 7500 Z2 K= 1,514,413 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,497,515 N.

 From 7501 To 7550 DX= -5,000.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7501 X2 K= 3,796 N./cm. Yield K= 1 N./cm.
 Yield Force= 16,286 N.
 Node 7501 Y2 K= 1,514,413 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,497,515 N.
 Node 7501 Z2 K= 1,514,413 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,497,515 N.

 From 7550 To 7551 DX= -5,000.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7550 X2 K= 3,796 N./cm. Yield K= 1 N./cm.
 Yield Force= 16,286 N.
 Node 7550 Y2 K= 1,514,413 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,497,515 N.

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INPUT LISTING

Node 7550 Z2 K= 1,514,413 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,497,515 N.

 From 7551 To 7599 DX= -2,500.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7551 X2 K= 3,796 N./cm. Yield K= 1 N./cm.
 Yield Force= 16,286 N.
 Node 7551 Y2 K= 1,514,413 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,497,515 N.
 Node 7551 Z2 K= 1,514,413 N./cm. Yield K= 1 N./cm.
 Yield Force= 6,497,515 N.

 From 7599 To 7600 DX= -2,500.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 7600 ANC

 From 4750 To 4800 DX= 73.200 mm.

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 54.00 N.

 From 4800 To 4850 DX= 292.100 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 280.00 N.

 From 4850 To 4900 DX= 73.200 mm.

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 54.00 N.

 From 4900 To 4920 DX= 172.500 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

CAESAR II 2016 Ver.8.00.00.5600, (Build 150930)
 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

Node 4920 +Z Mu = .35

 From 4920 To 4970 DX= 1,445.800 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 4970 +Z Mu = .35

 From 4970 To 5000 DX= 702.500 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

 From 5000 To 5050 DX= 73.200 mm.

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 54.00 N.

 From 5050 To 5100 DX= 292.100 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RIGID Weight= 280.00 N.

 From 5100 To 5150 DX= 73.200 mm.

Dia= 60.300 mm. Wall= 3.900 mm.

GENERAL

T1= 60 C P1= 1,000.0000 KPa Mat= (305)API-5L B E= 205,463,760 KPa
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 Insul Thk= .000 mm.

RIGID Weight= 54.00 N.

 From 5150 To 5200 DX= 263.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

CAESAR II 2016 Ver.8.00.00.5600, (Build 150930)
 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

BEND at "TO" end

Radius= 76.200 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 5199
 Angle/Node @2= .00 5198

 From 5200 To 4500 DY= 439.000 mm.

GENERAL

Mat= (305)API-5L B E= 205,463,760 KPa EH1= 200,913,216 KPa
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.
 CAESAR II 2016 Ver.8.00.00.5600, (Build 150930)

MATERIAL Changes:

50	100	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
100	150	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
150	200	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
200	250	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
250	300	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
300	301	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
350	351	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
400	450	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
450	500	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
500	900	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
900	950	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
950	1000	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
500	550	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
550	600	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
600	650	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
650	700	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
700	750	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
750	800	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.

Impianto di Melendugno
 Allegato 1 - Area 2
 INPUT LISTING

1000	1050	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1050	1100	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1100	1500	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1500	1550	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1150	1200	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1250	1300	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1300	1350	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1350	1400	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1550	1600	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1600	1650	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1650	3500	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3500	3520	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3520	3550	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3550	3600	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3600	3650	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1650	1700	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1700	1750	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1750	1800	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1800	1850	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1850	1900	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1900	2800	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2800	2850	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1900	1950	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1950	2000	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2000	2050	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2050	2100	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2100	2120	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2120	2150	Mat= (331)API-5L X52 E= 205,463,760 KPa

Impianto di Melendugno
 Allegato 1 - Area 2
 INPUT LISTING

		v = .300 Density= .0078 kg./cu.cm.
2150	2200	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2200	2250	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2250	2300	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2300	2350	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2350	2400	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2400	2420	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2420	2450	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2450	2500	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2500	2550	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2550	2600	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2600	2650	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2650	2670	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2670	2700	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2700	2750	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2750	6000	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
6000	6050	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
6050	6100	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
6100	6101	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6150	6151	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6200	6201	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6250	6251	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6300	6350	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6350	6400	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6400	6450	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6450	6500	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6500	6550	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6550	6599	Mat= (331)API-5L X52 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

Impianto di Melendugno
 Allegato 1 - Area 2
 INPUT LISTING

2850	2900	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2900	2950	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2950	3000	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3000	3020	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3020	3030	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3030	3050	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3050	3100	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3100	3150	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3150	3200	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3200	3250	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3250	2650	Mat= (331)API-5L X52 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3650	3700	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3700	3750	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3750	4700	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
4700	4750	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3750	3800	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3800	3850	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3850	3900	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3900	3950	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3950	3970	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3970	4000	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
4000	4050	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
4050	4100	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
4100	4150	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
4150	4200	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
4200	4250	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
4250	4270	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
4270	4300	Mat= (305)API-5L B E= 205,463,760 KPa

Impianto di Melendugno
 Allegato 1 - Area 2
 INPUT LISTING

		v = .300 Density= .0078 kg./cu.cm.
4300	4350	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4350	4400	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4400	4450	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4450	4500	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4500	4520	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4520	4550	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4550	4600	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4600	7000	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7000	7050	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7050	7100	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
7100	7101	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7150	7151	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7200	7201	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7250	7251	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7300	7301	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7350	7351	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7400	7450	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7450	7451	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7500	7501	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7550	7551	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4750	4800	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4800	4850	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4850	4900	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4900	4920	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4920	4970	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4970	5000	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5000	5050	Mat= (305)API-5L B E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.

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INPUT LISTING

5050	5100	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5100	5150	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5150	5200	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5200	4500	Mat= (305)API-5L B E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.

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ALLOWABLE STRESS Changes

50	100	B31.8 (2014) Restrained = ON Sh1= 358,527 KPa Sh2= 358,527 KPa Sh3= 358,527 KPa Sh4= 358,527 KPa Sh5= 358,527 KPa Sh6= 358,527 KPa Sh7= 358,527 KPa Sh8= 358,527 KPa Sh9= 358,527 KPa Sy= 358,527 KPa
500	550	B31.8 (2014) Restrained = --- Sh1= 241,316 KPa Sh2= 241,316 KPa Sh3= 241,316 KPa Sh4= 241,316 KPa Sh5= 241,316 KPa Sh6= 241,316 KPa Sh7= 241,316 KPa Sh8= 241,316 KPa Sh9= 241,316 KPa Sy= 241,316 KPa
1100	1150	B31.8 (2014) Restrained = --- Sh1= 358,527 KPa Sh2= 358,527 KPa Sh3= 358,527 KPa Sh4= 358,527 KPa Sh5= 358,527 KPa Sh6= 358,527 KPa Sh7= 358,527 KPa Sh8= 358,527 KPa Sh9= 358,527 KPa Sy= 358,527 KPa
1200	1250	B31.8 (2014) Restrained = --- Sh1= 241,316 KPa Sh2= 241,316 KPa Sh3= 241,316 KPa Sh4= 241,316 KPa Sh5= 241,316 KPa Sh6= 241,316 KPa Sh7= 241,316 KPa Sh8= 241,316 KPa Sh9= 241,316 KPa Sy= 241,316 KPa

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BEND ELEMENTS

306	307	Radius= 152.400 mm. (LONG) Bend Angle= 45.000
307	350	Radius= 152.400 mm. (LONG) Bend Angle= 45.000
400	450	Radius= 152.400 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 449 Angle/Node @2= .00 448
1650	3500	Radius= 76.200 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 3499 Angle/Node @2= .00 3498
1900	2800	Radius= 152.400 mm. (LONG) Bend Angle= 90.000 Angle/Node @1= 45.00 2799 Angle/Node @2= .00 2798
6000	6050	Radius= 152.400 mm. (LONG)

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		Bend Angle= 90.000	Angle/Node @1= 45.00
		6049	Angle/Node @2= .00 6048
6105	6106	Radius= 152.400 mm. (LONG)	
		Bend Angle= 45.000	
6106	6150	Radius= 152.400 mm. (LONG)	
		Bend Angle= 45.000	
6154	6155	Radius= 152.400 mm. (LONG)	
		Bend Angle= 45.000	
6155	6200	Radius= 152.400 mm. (LONG)	
		Bend Angle= 45.000	
6209	6210	Radius= 152.400 mm. (LONG)	
		Bend Angle= 45.000	
6210	6250	Radius= 152.400 mm. (LONG)	
		Bend Angle= 45.000	
3200	3250	Radius= 152.400 mm. (LONG)	
		Bend Angle= 90.000	Angle/Node @1= 45.00
		3249	Angle/Node @2= .00 3248
3750	4700	Radius= 76.200 mm. (LONG)	
		Bend Angle= 90.000	Angle/Node @1= 45.00
		4699	Angle/Node @2= .00 4698
7000	7050	Radius= 76.200 mm. (LONG)	
		Bend Angle= 90.000	Angle/Node @1= 45.00
		7049	Angle/Node @2= .00 7048
7105	7106	Radius= 76.200 mm. (LONG)	
		Bend Angle= 45.000	
7106	7150	Radius= 76.200 mm. (LONG)	
		Bend Angle= 45.000	
7154	7155	Radius= 76.200 mm. (LONG)	
		Bend Angle= 45.000	
7155	7200	Radius= 76.200 mm. (LONG)	
		Bend Angle= 45.000	
7207	7208	Radius= 76.200 mm. (LONG)	
		Bend Angle= 45.000	
7208	7250	Radius= 76.200 mm. (LONG)	
		Bend Angle= 45.000	
5150	5200	Radius= 76.200 mm. (LONG)	
		Bend Angle= 90.000	Angle/Node @1= 45.00
		5199	Angle/Node @2= .00 5198

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RIGIDS

200	250	RIGID Weight= .01 N.
900	950	RIGID Weight= 191.00 N.
950	1000	RIGID Weight= 1,150.00 N.
650	700	RIGID Weight= 18.00 N.
700	750	RIGID Weight= 150.00 N.
750	800	RIGID Weight= 18.00 N.
1000	1050	RIGID Weight= 191.00 N.
1500	1550	RIGID Weight= 191.00 N.
1250	1300	RIGID Weight= 18.00 N.
1300	1350	RIGID Weight= 150.00 N.
1350	1400	RIGID Weight= 18.00 N.
1550	1600	RIGID Weight= 191.00 N.

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Impianto di Melendugno
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INPUT LISTING

3550	3600	RIGID Weight= 54.00 N.
3600	3650	RIGID Weight= 280.00 N.
1700	1750	RIGID Weight= 191.00 N.
1750	1800	RIGID Weight= 1,150.00 N.
1800	1850	RIGID Weight= 191.00 N.
1950	2000	RIGID Weight= 191.00 N.
2000	2050	RIGID Weight= 1,150.00 N.
2050	2100	RIGID Weight= 191.00 N.
2150	2200	RIGID Weight= 191.00 N.
2200	2250	RIGID Weight= 191.00 N.
2300	2350	RIGID Weight= 191.00 N.
2350	2400	RIGID Weight= 191.00 N.
2450	2500	RIGID Weight= 191.00 N.
2500	2550	RIGID Weight= 1,150.00 N.
2550	2600	RIGID Weight= 191.00 N.
2700	2750	RIGID Weight= 191.00 N.
2750	6000	RIGID Weight= 191.00 N.
6400	6450	RIGID Weight= .01 N.
2850	2900	RIGID Weight= 191.00 N.
2900	2950	RIGID Weight= 1,150.00 N.
2950	3000	RIGID Weight= 191.00 N.
3050	3100	RIGID Weight= 191.00 N.
3100	3150	RIGID Weight= 1,150.00 N.
3150	3200	RIGID Weight= 191.00 N.
3650	3700	RIGID Weight= 54.00 N.
3800	3850	RIGID Weight= 54.00 N.
3850	3900	RIGID Weight= 280.00 N.
3900	3950	RIGID Weight= 54.00 N.
4000	4050	RIGID Weight= 54.00 N.
4050	4100	RIGID Weight= 54.00 N.
4150	4200	RIGID Weight= 54.00 N.
4200	4250	RIGID Weight= 54.00 N.
4300	4350	RIGID Weight= 54.00 N.
4350	4400	RIGID Weight= 280.00 N.
4400	4450	RIGID Weight= 54.00 N.
4550	4600	RIGID Weight= 54.00 N.
4600	7000	RIGID Weight= 54.00 N.
7400	7450	RIGID Weight= .01 N.
4750	4800	RIGID Weight= 54.00 N.
4800	4850	RIGID Weight= 280.00 N.
4850	4900	RIGID Weight= 54.00 N.
5000	5050	RIGID Weight= 54.00 N.
5050	5100	RIGID Weight= 280.00 N.
5100	5150	RIGID Weight= 54.00 N.

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SIF's & TEE's

450	500	Node 500 Welding Tee Use Notes 6,9,10 = ---
1050	1100	Node 1100 Welding Tee Use Notes 6,9,10 = ---
1600	1650	Node 1650 Welding Tee Use Notes 6,9,10 = ---

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Impianto di Melendugno
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INPUT LISTING

1850	1900	Node 1900 Welding Tee
		Use Notes 6,9,10 = ---
2600	2650	Node 2650 Welding Tee
		Use Notes 6,9,10 = ---
3700	3750	Node 3750 Welding Tee
		Use Notes 6,9,10 = ---
4450	4500	Node 4500 Welding Tee
		Use Notes 6,9,10 = ---

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REDUCERS

550	600	Diam2= 33.400 mm. Wall2= 4.500 mm.
1150	1200	Diam2= 33.400 mm. Wall2= 4.500 mm.

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RESTRAINTS

NODE	TYPE	CNODE	GAP	Len	MU	Dir	FORCE	Vectors
				YIELD	STIF1			
50	ANC			.000	.000	.000		
100	X2	14129		1.00	61756.27	1.000	.000	.000
100	Y2	3085691		1.00	13487555.00	.000	-1.000	.000
100	Z2	3085691		1.00	13487555.00	.000	.000	1.000
150	X2	14129		1.00	61756.27	1.000	.000	.000
150	Y2	3085691		1.00	13487555.00	.000	-1.000	.000
150	Z2	3085691		1.00	13487555.00	.000	.000	1.000
200	X2	7418		1.00	32422.04	1.000	.000	.000
200	Y2	1619988		1.00	7080966.50	.000	-1.000	.000
200	Z2	1619988		1.00	7080966.50	.000	.000	1.000
250	X2	5032		1.00	21996.04	1.000	.000	.000
250	Y2	1099046		1.00	4803930.00	.000	-1.000	.000
250	Z2	1099046		1.00	4803930.00	.000	.000	1.000
300	X2	6322		1.00	27634.12	1.000	.000	.000
300	Y2	1380756		1.00	6035285.00	.000	-1.000	.000
300	Z2	1380756		1.00	6035285.00	.000	.000	1.000
301	X2	3286		1.00	14363.97	1.000	.000	.000
301	Y2	717705		1.00	3137087.50	.000	-1.000	.000
301	Z2	717705		1.00	3137087.50	.000	.000	1.000
302	X2	2071		1.00	9054.51	1.000	.000	.000
302	Y2	452414		1.00	1977503.25	.000	-1.000	.000
302	Z2	452414		1.00	1977503.25	.000	.000	1.000
303	X2	714		1.00	3120.88	1.000	.000	.000
303	Y2	155937		1.00	681599.25	.000	-1.000	.000
303	Z2	155937		1.00	681599.25	.000	.000	1.000
304	X2	571		1.00	2496.70	1.000	.000	.000
304	Y2	124749		1.00	545279.38	.000	-1.000	.000
304	Z2	124749		1.00	545279.38	.000	.000	1.000
306	X2	370		1.00	1617.95	1.000	.000	.000
306	Y2	80842		1.00	353359.13	.000	-1.000	.000
306	Z2	80842		1.00	353359.13	.000	.000	1.000
354	Z2	507		1.00	2215.12	.000	.000	1.000
354	X2	110680		1.00	483781.75	1.000	.000	.000
354	Y2	110680		1.00	483781.75	.000	-1.000	.000

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400	Z2	507	1.00	2215.12	.000	.000	1.000
400	X2	110680	1.00	483781.75	1.000	.000	.000
400	Y2	110680	1.00	483781.75	.000	-1.000	.000
800	X			.35	1.000	.000	.000
800	Y			.35	.000	-1.000	.000
800	Z			.35	.000	.000	1.000
1400	X			.35	1.000	.000	.000
1400	Y			.35	.000	-1.000	.000
1400	Z			.35	.000	.000	1.000
1650	+Z			.35	.000	.000	1.000
3520	+Z			.35	.000	.000	1.000
1900	+Z			.35	.000	.000	1.000
2120	+Z			.35	.000	.000	1.000
2420	+Z			.35	.000	.000	1.000
2670	+Z			.35	.000	.000	1.000
6100	Z2	507	1.00	2215.12	.000	.000	1.000
6100	X2	110680	1.00	483781.81	1.000	.000	.000
6100	Y2	110680	1.00	483781.81	.000	-1.000	.000
6101	Z2	1014	1.00	4430.24	.000	.000	1.000
6101	X2	221360	1.00	967563.63	1.000	.000	.000
6101	Y2	221360	1.00	967563.63	.000	-1.000	.000
6102	Z2	792	1.00	3463.47	.000	.000	1.000
6102	X2	173055	1.00	756421.50	1.000	.000	.000
6102	Y2	173055	1.00	756421.50	.000	-1.000	.000
6103	Z2	571	1.00	2496.70	.000	.000	1.000
6103	X2	124749	1.00	545279.38	1.000	.000	.000
6103	Y2	124749	1.00	545279.38	.000	-1.000	.000
6104	Z2	571	1.00	2496.70	.000	.000	1.000
6104	X2	124749	1.00	545279.38	1.000	.000	.000
6104	Y2	124749	1.00	545279.38	.000	-1.000	.000
6105	Z2	370	1.00	1617.95	.000	.000	1.000
6105	X2	80842	1.00	353359.13	1.000	.000	.000
6105	Y2	80842	1.00	353359.13	.000	-1.000	.000
6106	X2	169	1.00	739.19	.707	.000	-.707
6106	Y2	36934	1.00	161438.84	.000	-1.000	.000
6106	X2	36934	1.00	161438.84	.707	.000	.707
6150	X2	370	1.00	1617.95	1.000	.000	.000
6150	Y2	80842	1.00	353359.13	.000	-1.000	.000
6150	Z2	80842	1.00	353359.13	.000	.000	1.000
6151	X2	604	1.00	2638.85	1.000	.000	.000
6151	Y2	131852	1.00	576323.25	.000	-1.000	.000
6151	Z2	131852	1.00	576323.25	.000	.000	1.000
6152	X2	636	1.00	2780.99	1.000	.000	.000
6152	Y2	138954	1.00	607367.13	.000	-1.000	.000
6152	Z2	138954	1.00	607367.13	.000	.000	1.000
6153	X2	604	1.00	2638.85	1.000	.000	.000
6153	Y2	131852	1.00	576323.25	.000	-1.000	.000
6153	Z2	131852	1.00	576323.25	.000	.000	1.000
6154	X2	370	1.00	1617.95	1.000	.000	.000
6154	Y2	80842	1.00	353359.13	.000	-1.000	.000
6154	Z2	80842	1.00	353359.13	.000	.000	1.000
6155	X2	169	1.00	739.19	.707	-.707	.000
6155	X2	36934	1.00	161438.84	-.707	-.707	.000
6155	Z2	36934	1.00	161438.84	.000	.000	1.000
6200	Y2	370	1.00	1617.95	.000	-1.000	.000

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6200	X2	80842	1.00	353359.13	1.000	.000	.000
6200	Z2	80842	1.00	353359.13	.000	.000	1.000
6201	Y2	571	1.00	2496.70	.000	-1.000	.000
6201	X2	124749	1.00	545279.38	1.000	.000	.000
6201	Z2	124749	1.00	545279.38	.000	.000	1.000
6202	Y2	571	1.00	2496.70	.000	-1.000	.000
6202	X2	124749	1.00	545279.38	1.000	.000	.000
6202	Z2	124749	1.00	545279.38	.000	.000	1.000
6203	Y2	714	1.00	3120.88	.000	-1.000	.000
6203	X2	155937	1.00	681599.25	1.000	.000	.000
6203	Z2	155937	1.00	681599.25	.000	.000	1.000
6204	Y2	613	1.00	2680.45	.000	-1.000	.000
6204	X2	133931	1.00	585410.56	1.000	.000	.000
6204	Z2	133931	1.00	585410.56	.000	.000	1.000
6206	Y2	714	1.00	3120.88	.000	-1.000	.000
6206	X2	155937	1.00	681599.25	1.000	.000	.000
6206	Z2	155937	1.00	681599.25	.000	.000	1.000
6250	X2	370	1.00	1617.95	1.000	.000	.000
6250	Y2	80842	1.00	353359.13	.000	-1.000	.000
6250	Z2	80842	1.00	353359.13	.000	.000	1.000
6251	X2	571	1.00	2496.70	1.000	.000	.000
6251	Y2	124749	1.00	545279.38	.000	-1.000	.000
6251	Z2	124749	1.00	545279.38	.000	.000	1.000
6252	X2	571	1.00	2496.70	1.000	.000	.000
6252	Y2	124749	1.00	545279.38	.000	-1.000	.000
6252	Z2	124749	1.00	545279.38	.000	.000	1.000
6253	X2	714	1.00	3120.88	1.000	.000	.000
6253	Y2	155937	1.00	681599.25	.000	-1.000	.000
6253	Z2	155937	1.00	681599.25	.000	.000	1.000
6254	X2	2056	1.00	8987.72	1.000	.000	.000
6254	Y2	449077	1.00	1962917.00	.000	-1.000	.000
6254	Z2	449077	1.00	1962917.00	.000	.000	1.000
6255	X2	5419	1.00	23687.62	1.000	.000	.000
6255	Y2	1183567	1.00	5173371.00	.000	-1.000	.000
6255	Z2	1183567	1.00	5173371.00	.000	.000	1.000
6300	X2	10604	1.00	46348.21	1.000	.000	.000
6300	Y2	2315818	1.00	10122438.00	.000	-1.000	.000
6300	Z2	2315818	1.00	10122438.00	.000	.000	1.000
6350	X2	13789	1.00	60271.04	1.000	.000	.000
6350	Y2	3011480	1.00	13163179.00	.000	-1.000	.000
6350	Z2	3011480	1.00	13163179.00	.000	.000	1.000
6400	X2	7330	1.00	32039.15	1.000	.000	.000
6400	Y2	1600856	1.00	6997343.50	.000	-1.000	.000
6400	Z2	1600856	1.00	6997343.50	.000	.000	1.000
6450	X2	7418	1.00	32422.04	1.000	.000	.000
6450	Y2	1619988	1.00	7080966.50	.000	-1.000	.000
6450	Z2	1619988	1.00	7080966.50	.000	.000	1.000
6500	X2	14129	1.00	61756.27	1.000	.000	.000
6500	Y2	3085691	1.00	13487555.00	.000	-1.000	.000
6500	Z2	3085691	1.00	13487555.00	.000	.000	1.000
6550	X2	14129	1.00	61756.27	1.000	.000	.000
6550	Y2	3085691	1.00	13487555.00	.000	-1.000	.000
6550	Z2	3085691	1.00	13487555.00	.000	.000	1.000
6600	ANC			.000	.000	.000	
3020	+Z		.35	.000	.000	1.000	

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3030	+Z		.35	.000	.000	1.000			
3750	+Z		.35	.000	.000	1.000			
3970	+Z		.35	.000	.000	1.000			
4270	+Z		.35	.000	.000	1.000			
4520	+Z		.35	.000	.000	1.000			
7100	Z2	639	1.00	2742.52	.000	.000	1.000		
7100	X2	255030	1.00	1094195.25	1.000	.000	.000		
7100	Y2	255030	1.00	1094195.25	.000	-1.000	.000		
7101	Z2	771	1.00	3306.97	.000	.000	1.000		
7101	X2	307519	1.00	1319394.50	1.000	.000	.000		
7101	Y2	307519	1.00	1319394.50	.000	-1.000	.000		
7102	Z2	219	1.00	940.74	.000	.000	1.000		
7102	X2	87481	1.00	375332.13	1.000	.000	.000		
7102	Y2	87481	1.00	375332.13	.000	-1.000	.000		
7103	Z2	175	1.00	752.59	.000	.000	1.000		
7103	X2	69985	1.00	300265.69	1.000	.000	.000		
7103	Y2	69985	1.00	300265.69	.000	-1.000	.000		
7104	Z2	175	1.00	752.59	.000	.000	1.000		
7104	X2	69985	1.00	300265.69	1.000	.000	.000		
7104	Y2	69985	1.00	300265.69	.000	-1.000	.000		
7105	Z2	110	1.00	473.76	.000	.000	1.000		
7105	X2	44056	1.00	189018.73	1.000	.000	.000		
7105	Y2	44056	1.00	189018.73	.000	-1.000	.000		
7106	X2	45	1.00	194.93	.707	.000	-.707		
7106	Y2	18127	1.00	77771.79	.000	-1.000	.000		
7106	X2	18127	1.00	77771.79	.707	.000	.707		
7150	X2	110	1.00	473.76	1.000	.000	.000		
7150	Y2	44056	1.00	189018.73	.000	-1.000	.000		
7150	Z2	44056	1.00	189018.73	.000	.000	1.000		
7151	X2	191	1.00	818.02	1.000	.000	.000		
7151	Y2	76069	1.00	326370.19	.000	-1.000	.000		
7151	Z2	76069	1.00	326370.19	.000	.000	1.000		
7152	X2	206	1.00	883.45	1.000	.000	.000		
7152	Y2	82153	1.00	352474.66	.000	-1.000	.000		
7152	Z2	82153	1.00	352474.66	.000	.000	1.000		
7153	X2	191	1.00	818.02	1.000	.000	.000		
7153	Y2	76069	1.00	326370.19	.000	-1.000	.000		
7153	Z2	76069	1.00	326370.19	.000	.000	1.000		
7154	X2	110	1.00	473.76	1.000	.000	.000		
7154	Y2	44056	1.00	189018.73	.000	-1.000	.000		
7154	Z2	44056	1.00	189018.73	.000	.000	1.000		
7155	X2	45	1.00	194.93	.707	-.707	.000		
7155	X2	18127	1.00	77771.79	-.707	-.707	.000		
7155	Z2	18127	1.00	77771.79	.000	.000	1.000		
7250	X2	110	1.00	473.76	1.000	.000	.000		
7250	Y2	44056	1.00	189018.73	.000	-1.000	.000		
7250	Z2	44056	1.00	189018.73	.000	.000	1.000		
7252	X2	175	1.00	752.59	1.000	.000	.000		
7252	Y2	69985	1.00	300265.69	.000	-1.000	.000		
7252	Z2	69985	1.00	300265.69	.000	.000	1.000		
7253	X2	219	1.00	940.74	1.000	.000	.000		
7253	Y2	87481	1.00	375332.13	.000	-1.000	.000		
7253	Z2	87481	1.00	375332.13	.000	.000	1.000		
7254	X2	601	1.00	2577.44	1.000	.000	.000		
7254	Y2	239679	1.00	1028332.25	.000	-1.000	.000		

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Impianto di Melendugno
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INPUT LISTING

7254	Z2	239679	1.00	1028332.25	.000	.000	1.000
7255	X2	1276	1.00	5474.54	1.000	.000	.000
7255	Y2	509084	1.00	2184200.00	.000	-1.000	.000
7255	Z2	509084	1.00	2184200.00	.000	.000	1.000
7256	X2	1742	1.00	7475.74	1.000	.000	.000
7256	Y2	695178	1.00	2982627.00	.000	-1.000	.000
7256	Z2	695178	1.00	2982627.00	.000	.000	1.000
7257	X2	1871	1.00	8028.39	1.000	.000	.000
7257	Y2	746570	1.00	3203120.00	.000	-1.000	.000
7257	Z2	746570	1.00	3203120.00	.000	.000	1.000
7300	X2	2721	1.00	11674.38	1.000	.000	.000
7300	Y2	1085614	1.00	4657774.50	.000	-1.000	.000
7300	Z2	1085614	1.00	4657774.50	.000	.000	1.000
7301	X2	3571	1.00	15320.37	1.000	.000	.000
7301	Y2	1424659	1.00	6112429.00	.000	-1.000	.000
7301	Z2	1424659	1.00	6112429.00	.000	.000	1.000
7350	X2	3615	1.00	15509.74	1.000	.000	.000
7350	Y2	1442269	1.00	6187984.00	.000	-1.000	.000
7350	Z2	1442269	1.00	6187984.00	.000	.000	1.000
7351	X2	3659	1.00	15699.12	1.000	.000	.000
7351	Y2	1459879	1.00	6263539.50	.000	-1.000	.000
7351	Z2	1459879	1.00	6263539.50	.000	.000	1.000
7400	X2	1962	1.00	8419.55	1.000	.000	.000
7400	Y2	782944	1.00	3359182.75	.000	-1.000	.000
7400	Z2	782944	1.00	3359182.75	.000	.000	1.000
7450	X2	2031	1.00	8712.78	1.000	.000	.000
7450	Y2	810211	1.00	3476170.25	.000	-1.000	.000
7450	Z2	810211	1.00	3476170.25	.000	.000	1.000
7451	X2	3796	1.00	16285.56	1.000	.000	.000
7451	Y2	1514413	1.00	6497514.50	.000	-1.000	.000
7451	Z2	1514413	1.00	6497514.50	.000	.000	1.000
7500	X2	3796	1.00	16285.56	1.000	.000	.000
7500	Y2	1514413	1.00	6497514.50	.000	-1.000	.000
7500	Z2	1514413	1.00	6497514.50	.000	.000	1.000
7501	X2	3796	1.00	16285.56	1.000	.000	.000
7501	Y2	1514413	1.00	6497514.50	.000	-1.000	.000
7501	Z2	1514413	1.00	6497514.50	.000	.000	1.000
7550	X2	3796	1.00	16285.56	1.000	.000	.000
7550	Y2	1514413	1.00	6497514.50	.000	-1.000	.000
7550	Z2	1514413	1.00	6497514.50	.000	.000	1.000
7551	X2	3796	1.00	16285.56	1.000	.000	.000
7551	Y2	1514413	1.00	6497514.50	.000	-1.000	.000
7551	Z2	1514413	1.00	6497514.50	.000	.000	1.000
7600	ANC			.000	.000	.000	
4920	+Z		.35	.000	.000	1.000	
4970	+Z		.35	.000	.000	1.000	

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FLANGES

950 1000 Location= Both Method= Peq
 Class/Grade= ASME-2009-600-1.1
 G/C= 144.600 mm. T/P table (1)= 37.8 C
 -> 10,204.2 KPa (2)= 93.3 C

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Impianto di Melendugno
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		-> 9,376.9 KPa (3)= 148.9 C
		-> 9,032.1 KPa (4)= 204.4 C
		-> 8,721.9 KPa (5)= 260.0 C
		-> 8,308.2 KPa (6)= 315.6 C
		-> 7,825.5 KPa (7)= 343.3 C
		-> 7,584.2 KPa (8)= 371.1 C
		-> 7,308.4 KPa (9)= 398.9 C
		-> 6,998.2 KPa (10)= 426.7 C
		-> 5,688.2 KPa (11)= 454.4 C
		-> 4,412.6 KPa (12)= 482.2 C
		-> 3,171.6 KPa (13)= 510.0 C
		-> 1,896.1 KPa (14)= 537.8 C
		-> 1,172.1 KPa
700	750	Location= Both Method= Peq
		Class/Grade= ASME-2009-600-1.1
		G/C= 43.650 mm. T/P table (1)= 37.8 C
		-> 10,204.2 KPa (2)= 93.3 C
		-> 9,376.9 KPa (3)= 148.9 C
		-> 9,032.1 KPa (4)= 204.4 C
		-> 8,721.9 KPa (5)= 260.0 C
		-> 8,308.2 KPa (6)= 315.6 C
		-> 7,825.5 KPa (7)= 343.3 C
		-> 7,584.2 KPa (8)= 371.1 C
		-> 7,308.4 KPa (9)= 398.9 C
		-> 6,998.2 KPa (10)= 426.7 C
		-> 5,688.2 KPa (11)= 454.4 C
		-> 4,412.6 KPa (12)= 482.2 C
		-> 3,171.6 KPa (13)= 510.0 C
		-> 1,896.1 KPa (14)= 537.8 C
		-> 1,172.1 KPa
1500	1550	Location= To Method= Peq
		G/C= 144.600 mm.
1300	1350	Location= Both Method= Peq
		G/C= 43.650 mm.
3600	3650	Location= Both Method= Peq
		G/C= 82.450 mm.
1750	1800	Location= Both Method= Peq
		G/C= 144.600 mm.
2000	2050	Location= Both Method= Peq
		G/C= 144.600 mm.
2150	2200	Location= To Method= Peq
		G/C= 144.600 mm.
2300	2350	Location= To Method= Peq
		G/C= 144.600 mm.
2500	2550	Location= Both Method= Peq
		G/C= 144.600 mm.
2700	2750	Location= To Method= Peq
		G/C= 144.600 mm.
2900	2950	Location= Both Method= Peq
		G/C= 144.600 mm.
3100	3150	Location= Both Method= Peq
		G/C= 144.600 mm.
3850	3900	Location= Both Method= Peq
		G/C= 82.450 mm.
4000	4050	Location= To Method= Peq G/C= 82.450 mm.

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

4150 4200 Location= To Method= Peq G/C= 82.450 mm.
 4350 4400 Location= Both Method= Peq
 G/C= 82.450 mm.
 4550 4600 Location= To Method= Peq G/C= 82.450 mm.
 4800 4850 Location= Both Method= Peq
 G/C= 82.450 mm.
 5050 5100 Location= Both Method= Peq
 G/C= 82.450 mm.

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INPUT UNITS USED...

UNITS= SI (m NOM/SCH INPUT= ON
 LENGTH inches x 25.400 = mm.
 FORCE pounds x 4.448 = N.
 MASS(dynamics) pounds x 0.454 = Kg.
 MOMENTS(INPUT) inch-pounds x 0.113 = N.m.
 MOMENTS(OUTPUT) inch-pounds x 0.113 = N.m.
 STRESS lbs./sq.in. x 6.895 = KPa
 TEMP. SCALE degrees F. x 0.556 = C
 PRESSURE psig x 6.895 = KPa
 ELASTIC MODULUS lbs./sq.in. x 6.895 = KPa
 PIPE DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.
 INSULATION DENS. lbs./cu.in. x 0.028 = kg./cu.cm.
 FLUID DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.
 TRANSL. STIF lbs./in. x 1.751 = N./cm.
 ROTATIONAL STIF in.lb./deg. x 0.113 = N.m./deg
 UNIFORM LOAD lb./in. x 1.751 = N./cm.
 G LOAD g's x 1.000 = g's
 WIND LOAD lbs./sq.in. x 6.895 = KPa
 ELEVATION inches x 0.025 = m.
 COMPOUND LENGTH inches x 25.400 = mm.
 DIAMETER inches x 25.400 = mm.
 WALL THICKNESS inches x 25.400 = mm.

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SETUP FILE PARAMETERS

 CONNECT GEOMETRY THRU CNODES = YES
 MIN ALLOWED BEND ANGLE = 5.00000
 MAX ALLOWED BEND ANGLE = 95.0000
 BEND LENGTH ATTACHMENT PERCENT = 1.00000
 MIN ANGLE TO ADJACENT BEND PT = 5.00000
 LOOP CLOSURE TOLERANCE = 25.4000 mm.
 THERMAL BOWING HORZ TOLERANCE = 0.100000E-03
 AUTO NODE NUMBER INCREMENT= 10.0000
 Z AXIS UP= YES
 USE PRESSURE STIFFENING = DEFAULT
 ALPHA TOLERANCE = 0.500000E-01
 RESLD-FORCE = NO
 HGR DEF RESWGT STIF = 0.175127E+13 N./cm.
 DECOMP SNG TOL = 0.100000E+11
 BEND AXIAL SHAPE = YES
 FRICT STIF = 0.175127E+07 N./cm.
 FRICT NORM FORCE VAR = 0.150000

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

FRICT ANGLE VAR = 15.0000
 FRICT SLIDE MULT = 1.00000
 ROD TOLERANCE = 1.00000
 ROD INC = 2.00000
 INCORE NUMERICAL CHECK = NO
 OUTCORE NUMERICAL CHECK = NO
 DEFAULT TRANS RESTRAINT STIFF= 0.175127E+13 N./cm.
 DEFAULT ROT RESTRAINT STIFF= 0.112985E+12 N.m./deg
 IGNORE SPRING HANGER STIFFNESS = NO
 MISSING MASS ZPA = EXTRACTED
 MIN WALL MILL TOLERANCE = 12.5000
 WRC-107 VERSION = MAR 79 1B1/2B1
 WRC-107 INTERPOLATION = LAST VALUE
 DEFAULT AMBIENT TEMPERATURE= 15.0000 C
 BOURDON PRESSURE= TR+ROT
 COEFFICIENT OF FRICTION (MU) = 0.000000
 INCLUDE SPRG STIF IN HGR OPE = NO
 INCLUDE INSULATION IN HYDROTEST = NO
 REDUCED INTERSECTION = B31.1(POST1980)
 USE WRC329 NO
 NO REDUCED SIF FOR RFT AND WLT NO
 B31.1 REDUCED Z FIX = YES
 CLASS 1 BRANCH FLEX NO
 ALL STRESS CASES CORRODED = NO
 ADD TORSION IN SL STRESS = DEFAULT
 ADD F/A IN STRESS = DEFAULT
 OCCASIONAL LOAD FACTOR = 0.000000
 DEFAULT CODE = B31.3
 B31.3 SUS CASE SIF FACTOR = 0.000000
 ALLOW USERS BEND SIF = NO
 USE SCHNEIDER NO
 YIELD CRITERION STRESS = MAX 3D SHEAR
 USE PD/4T NO
 BASE HOOP STRESS ON ? = ID
 EN13480 USE IN OUTPLANE SIFS= NO
 LIBERAL EXPANSION ALLOWABLE= YES
 B31.3 SEC 319.2.3C SAXIAL= Default
 B31.3 WELDING/CONTOUR TEE ISB16.9 FALSE
 PRESSURE VARIATION IN EXP CASE= DEFAULT
 IMPLEMENT B313 APP-P NO
 IMPLEMENT B313 CODE CASE 178 YES
 IGNORE B31.1/B31.3 Wc FACTOR= YES
 USE FRP SIF = YES
 USE FRP FLEX = YES
 BS 7159 Pressure Stiffening= Design Strain
 FRP Property Data File= CAESAR.FRP
 FRP Emod (axial) = 0.220632E+08 KPa
 FRP Ratio Gmod/Emod (axial) = 0.250000
 FRP Ea/Eh*Vh/a = 0.152730
 FRP Laminate Type = THREE
 FRP Alpha = 21.6000 C
 FRP Density = 0.166079E-02 kg./cu.cm.
 EXCLUDE f2 FROM UKOOA BENDING = NO
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Impianto di Melendugno
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 INPUT LISTING

EXECUTION CONTROL PARAMETERS

Rigid/ExpJt Print Flag 1.000
 Bourdon Option 2.000
 Loop Closure Flag000
 Thermal Bowing Delta Temp .. .000 C
 Liberal Allowable Flag 1.000
 Uniform Load Option000

Ambient Temperature 15.000 C
 Plastic (FRP) Alpha 21.600
 Plastic (FRP) GMOD/EMODa250
 Plastic (FRP) Laminate Type. 3.000
 Eqn Optimizer000
 Node Selection000
 Eqn Ordering000
 Collins000
 Degree Determination000
 User Eqn Control000

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COORDINATE REPORT

/------(mm.)-----/

NODE	X	Y	Z
50	.000	.000	.000
100	10000.000	.000	.000
150	20000.000	.000	.000
200	30000.000	.000	.000
250	30500.000	.000	.000
300	37123.500	.000	.000
301	39449.414	.000	.000
302	41775.328	.000	.000
303	42381.754	.000	.000
304	42786.039	.000	.000
305	43190.324	.000	.000
306	43594.609	.000	.000
307	43657.734	.000	.000
350	43747.008	.000	89.274
351	43747.008	.000	556.683
352	43747.008	.000	960.967
353	43747.008	.000	1365.250
354	43747.008	.000	2082.625
399	43747.008	.000	2441.313
400	43747.008	.000	2800.000
450	43747.008	.000	3600.000
500	45314.008	.000	3600.000
900	45555.508	.000	3600.000
950	45657.109	.000	3600.000
1000	46088.910	.000	3600.000
500	45314.008	.000	3600.000
550	45314.008	-89.000	3600.000
600	45314.008	-165.000	3600.000
650	45314.008	-410.000	3600.000

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Impianto di Melendugno
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INPUT LISTING

700	45314.008	-472.000	3600.000
750	45314.008	-688.000	3600.000
800	45314.008	-750.000	3600.000
1000	46088.910	.000	3600.000
1050	46190.512	.000	3600.000
1100	46432.012	.000	3600.000
1500	48525.012	.000	3600.000
1550	48626.613	.000	3600.000
1100	46432.012	.000	3600.000
1150	46432.012	-89.000	3600.000
1200	46432.012	-165.000	3600.000
1250	46432.012	-410.000	3600.000
1300	46432.012	-472.000	3600.000
1350	46432.012	-688.000	3600.000
1400	46432.012	-750.000	3600.000
1550	48626.613	.000	3600.000
1600	48728.215	.000	3600.000
1650	49152.215	.000	3600.000
3500	49152.215	-1558.000	3600.000
3520	49304.715	-1558.000	3600.000
3550	49457.215	-1558.000	3600.000
3600	49530.414	-1558.000	3600.000
3650	49822.516	-1558.000	3600.000
1650	49152.215	.000	3600.000
1700	49384.215	.000	3600.000
1750	49485.816	.000	3600.000
1800	49917.617	.000	3600.000
1850	50019.219	.000	3600.000
1900	51001.219	.000	3600.000
2800	51001.219	-557.000	3600.000
2850	51233.219	-557.000	3600.000
1900	51001.219	.000	3600.000
1950	51233.219	.000	3600.000
2000	51334.820	.000	3600.000
2050	51766.621	.000	3600.000
2100	51868.223	.000	3600.000
2120	52170.223	.000	3600.000
2150	52472.223	.000	3600.000
2200	52573.824	.000	3600.000
2250	52675.426	.000	3600.000
2300	53023.426	.000	3600.000
2350	53125.027	.000	3600.000
2400	53226.629	.000	3600.000
2420	53994.629	.000	3600.000
2450	54764.129	.000	3600.000
2500	54865.730	.000	3600.000
2550	55297.531	.000	3600.000
2600	55399.133	.000	3600.000
2650	55631.133	.000	3600.000
2670	56213.633	.000	3600.000
2700	56796.133	.000	3600.000
2750	56897.734	.000	3600.000
6000	56999.336	.000	3600.000
6050	57648.336	.000	3600.000
6100	57648.336	.000	2800.000

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Impianto di Melendugno
 Allegato 1 - Area 2

INPUT LISTING

6101	57648.336	.000	2082.625
6102	57648.336	.000	1365.250
6103	57648.336	.000	960.967
6104	57648.336	.000	556.683
6105	57648.336	.000	152.400
6106	57648.336	.000	89.274
6150	57737.609	.000	-.000
6151	58205.020	.000	-.000
6152	58655.336	.000	-.000
6153	59105.652	.000	-.000
6154	59509.938	.000	-.000
6155	59573.063	.000	-.000
6200	59662.336	-89.274	-.000
6201	59662.336	-556.683	-.000
6202	59662.336	-960.967	-.000
6203	59662.336	-1365.250	-.000
6204	59662.336	-1971.675	-.000
6205	59662.336	-2233.325	-.000
6206	59662.336	-2839.750	-.000
6207	59662.336	-3244.034	-.000
6208	59662.336	-3648.317	-.000
6209	59662.336	-4052.600	-.000
6210	59662.336	-4115.726	-.000
6250	59573.063	-4205.000	-.000
6251	59105.652	-4205.000	-.000
6252	58701.367	-4205.000	-.000
6253	58297.082	-4205.000	-.000
6254	57690.656	-4205.000	-.000
6255	55386.371	-4205.000	-.000
6300	50019.328	-4205.000	-.000
6350	40376.328	-4205.000	-.000
6400	30500.328	-4205.000	-.000
6450	30000.328	-4205.000	-.000
6500	20000.328	-4205.000	-.000
6550	10000.328	-4205.000	-.000
6599	5000.328	-4205.000	-.000
6600	.328	-4205.000	-.000
2850	51233.219	-557.000	3600.000
2900	51334.820	-557.000	3600.000
2950	51766.621	-557.000	3600.000
3000	51868.223	-557.000	3600.000
3020	52170.223	-557.000	3600.000
3030	53994.633	-557.000	3600.000
3050	54764.133	-557.000	3600.000
3100	54865.734	-557.000	3600.000
3150	55297.535	-557.000	3600.000
3200	55399.137	-557.000	3600.000
3250	55631.137	-557.000	3600.000
3250	55631.133	-557.000	3600.000
2650	55631.133	.000	3600.000
3650	49822.516	-1558.000	3600.000
3700	49895.715	-1558.000	3600.000
3750	50908.715	-1558.000	3600.000
4700	50908.715	-1997.000	3600.000
4750	51137.715	-1997.000	3600.000

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Impianto di Melendugno
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INPUT LISTING

3750	50908.715	-1558.000	3600.000
3800	51137.715	-1558.000	3600.000
3850	51210.914	-1558.000	3600.000
3900	51503.016	-1558.000	3600.000
3950	51576.215	-1558.000	3600.000
3970	51748.715	-1558.000	3600.000
4000	51921.215	-1558.000	3600.000
4050	51994.414	-1558.000	3600.000
4100	52067.613	-1558.000	3600.000
4150	52345.613	-1558.000	3600.000
4200	52418.813	-1558.000	3600.000
4250	52492.012	-1558.000	3600.000
4270	53194.512	-1558.000	3600.000
4300	53897.012	-1558.000	3600.000
4350	53970.211	-1558.000	3600.000
4400	54262.313	-1558.000	3600.000
4450	54335.512	-1558.000	3600.000
4500	54598.512	-1558.000	3600.000
4520	55711.512	-1558.000	3600.000
4550	56824.512	-1558.000	3600.000
4600	56897.711	-1558.000	3600.000
7000	56970.910	-1558.000	3600.000
7050	57647.910	-1558.000	3600.000
7100	57647.910	-1558.000	2800.000
7101	57647.910	-1558.000	1115.979
7102	57647.910	-1558.000	769.386
7103	57647.910	-1558.000	538.324
7104	57647.910	-1558.000	307.262
7105	57647.910	-1558.000	76.200
7106	57647.910	-1558.000	44.637
7150	57692.547	-1558.000	.000
7151	57955.172	-1558.000	.000
7152	58226.410	-1558.000	.000
7153	58497.648	-1558.000	.000
7154	58728.711	-1558.000	.000
7155	58760.273	-1558.000	.000
7200	58804.910	-1602.637	.000
7201	58804.910	-1865.262	.000
7202	58804.910	-2096.324	.000
7203	58804.910	-2327.386	.000
7204	58804.910	-2434.614	.000
7205	58804.910	-2665.676	.000
7206	58804.910	-2896.738	.000
7207	58804.910	-3127.800	.000
7208	58804.910	-3159.363	.000
7250	58760.273	-3204.000	.000
7251	58497.648	-3204.000	.000
7252	58266.586	-3204.000	.000
7253	58035.523	-3204.000	.000
7254	57688.930	-3204.000	.000
7255	56452.867	-3204.000	.000
7256	54327.336	-3204.000	.000
7257	51862.453	-3204.000	.000
7300	49397.570	-3204.000	.000
7301	44693.902	-3204.000	.000

CAESAR II 2016 Ver.8.00.00.5600, (Build 150930)
Licensed To: TECHFEM SPA

Impianto di Melendugno

Allegato 1 - Area 2

INPUT LISTING

7350	39990.234	-3204.000	.000
7351	35170.285	-3204.000	.000
7400	30350.336	-3204.000	.000
7450	30000.336	-3204.000	.000
7451	25000.336	-3204.000	.000
7500	20000.336	-3204.000	.000
7501	15000.336	-3204.000	.000
7550	10000.336	-3204.000	.000
7551	5000.336	-3204.000	.000
7599	2500.336	-3204.000	.000
7600	.336	-3204.000	.000
4750	51137.715	-1997.000	3600.000
4800	51210.914	-1997.000	3600.000
4850	51503.016	-1997.000	3600.000
4900	51576.215	-1997.000	3600.000
4920	51748.715	-1997.000	3600.000
4970	53194.516	-1997.000	3600.000
5000	53897.016	-1997.000	3600.000
5050	53970.215	-1997.000	3600.000
5100	54262.316	-1997.000	3600.000
5150	54335.516	-1997.000	3600.000
5200	54598.516	-1997.000	3600.000
5200	54598.512	-1997.000	3600.000
4500	54598.512	-1558.000	3600.000

CAESAR II 2016 Ver.8.00.00.5600, (Build 150930)
 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2
 MISCELLANEOUS COMPUTED DATA

----- BEND SIF & FLEXIBILITY VALUES

BEND DATA:

SIFs IN/OUT of Plane

Flexibilities IN/OUT of plane

BEND	TYPE	SIFi	SIFo	Ki	Ko
307	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
350	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
450	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
3500	0 Flanges	1.727-> 1.735	1.439-> 1.446	4.397-> 4.415	4.397-> 4.415
2800	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
6050	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
6106	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
6150	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
6155	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
6200	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
6210	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
6250	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
3250	0 Flanges	2.142-> 2.166	1.785-> 1.805	6.100-> 6.162	6.100-> 6.162
4700	0 Flanges	1.727-> 1.735	1.439-> 1.446	4.397-> 4.415	4.397-> 4.415
7050	0 Flanges	1.727-> 1.735	1.439-> 1.446	4.397-> 4.415	4.397-> 4.415
7106	0 Flanges	1.727-> 1.735	1.439-> 1.446	4.397-> 4.415	4.397-> 4.415
7150	0 Flanges	1.727-> 1.735	1.439-> 1.446	4.397-> 4.415	4.397-> 4.415
7155	0 Flanges	1.727-> 1.735	1.439-> 1.446	4.397-> 4.415	4.397-> 4.415
7200	0 Flanges	1.727-> 1.735	1.439-> 1.446	4.397-> 4.415	4.397-> 4.415
7208	0 Flanges	1.727-> 1.735	1.439-> 1.446	4.397-> 4.415	4.397-> 4.415
7250	0 Flanges	1.727-> 1.735	1.439-> 1.446	4.397-> 4.415	4.397-> 4.415
5200	0 Flanges	1.727-> 1.735	1.439-> 1.446	4.397-> 4.415	4.397-> 4.415

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----- MATERIAL ALLOWABLE VALUES

FROM TO SC SH1 through SH9
 (KPa)----->

50	100455053.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
500	550413685.4	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1000	1050455053.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1100	1150455053.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1150	1200413685.4	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1200	1250413685.4	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1550	1600455053.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1650	3500413685.4	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1650	1700455053.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
3650	3700413685.4	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9

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----- INTERSECTION SIF VALUES

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 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2
 MISCELLANEOUS COMPUTED DATA

TYPE KEY:

- 1 - Reinforced Fabricated Tee
- 2 - Unreinforced Fabricated Tee
- 3 - Welding Tee
- 4 - Sweepolet
- 5 - Weldolet
- 6 - Extruded Welding Tee

TEE TYPE	SIFo	SIFi	THICK	SIFo	SIFi
(these values per Code) (mm.)					

TEE TYPE	SIFo	SIFi	THICK	SIFo	SIFi
500 3	1.60326	1.45245	0.00000	1.60326	1.45245
1100 3	1.60326	1.45245	0.00000	1.60326	1.45245
1650 3	1.60326	1.45245	0.00000	1.60326	1.45245
1900 3	1.60326	1.45245	0.00000	1.60326	1.45245
2650 3	1.60326	1.45245	0.00000	1.60326	1.45245
3750 3	1.25333	1.20000	0.00000	1.25333	1.20000
4500 3	1.25333	1.20000	0.00000	1.25333	1.20000

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CAESAR II REDUCER REPORT

FROM	TO	D1	T1	D2	T2	ALPHA	SIFo	SIFi
550	600	60.300	3.900	33.400	4.500	16.43	1.000	1.000
1150	1200	60.300	3.900	33.400	4.500	16.43	1.000	1.000

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----- PIPE PROPERTIES #1

FROM TO PIPE WT INSUL WT FLUID WT REFCTY WT y minT
 TB ALPHA1 TB ALPHA2 TB ALPHA3
 /-----WEIGHTS (N./mm.) -----/ mm.

50.	100.	0.000	0.000	0.000	0.000	.000	.397
50.	100.	0.000	0.000	0.000	0.000	.000	.397
100.	150.	0.000	0.000	0.000	0.000	.000	.397
100.	150.	0.000	0.000	0.000	0.000	.000	.397
150.	200.	0.000	0.000	0.000	0.000	.000	.397
150.	200.	0.000	0.000	0.000	0.000	.000	.397
200.	250.	0.000	0.000	0.000	0.000	NA	NA
200.	250.	0.000	0.000	0.000	0.000	NA	NA
250.	300.	0.000	0.000	0.000	0.000	.000	.397
250.	300.	0.000	0.000	0.000	0.000	.000	.397
300.	301.	0.000	0.000	0.000	0.000	.000	.397
300.	301.	0.000	0.000	0.000	0.000	.000	.397
301.	302.	0.000	0.000	0.000	0.000	.000	.397

CAESAR II 2016 Ver.8.00.00.5600, (Build 150930)
 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2

MISCELLANEOUS COMPUTED DATA

301.	302.	0.000	0.000	0.000	0.000	.000	.397
302.	303.	0.000	0.000	0.000	0.000	.000	.397
302.	303.	0.000	0.000	0.000	0.000	.000	.397
303.	304.	0.000	0.000	0.000	0.000	.000	.397
303.	304.	0.000	0.000	0.000	0.000	.000	.397
304.	305.	0.000	0.000	0.000	0.000	.000	.397
304.	305.	0.000	0.000	0.000	0.000	.000	.397
305.	306.	0.000	0.000	0.000	0.000	.000	.397
305.	306.	0.000	0.000	0.000	0.000	.000	.397
306.	307.	0.000	0.000	0.000	0.000	.000	.397
306.	307.	0.000	0.000	0.000	0.000	.000	.397
307.	350.	0.000	0.000	0.000	0.000	.000	.397
307.	350.	0.000	0.000	0.000	0.000	.000	.397
350.	351.	0.000	0.000	0.000	0.000	.000	.397
350.	351.	0.000	0.000	0.000	0.000	.000	.397
351.	352.	0.000	0.000	0.000	0.000	.000	.397
351.	352.	0.000	0.000	0.000	0.000	.000	.397
352.	353.	0.000	0.000	0.000	0.000	.000	.397
352.	353.	0.000	0.000	0.000	0.000	.000	.397
353.	354.	0.000	0.000	0.000	0.000	.000	.397
353.	354.	0.000	0.000	0.000	0.000	.000	.397
354.	399.	0.000	0.000	0.000	0.000	.000	.397
354.	399.	0.000	0.000	0.000	0.000	.000	.397
399.	400.	0.000	0.000	0.000	0.000	.000	.397
399.	400.	0.000	0.000	0.000	0.000	.000	.397
400.	450.	0.137	0.000	0.000	0.000	.000	.397
400.	450.	0.137	0.000	0.000	0.000	.000	.397
450.	500.	0.137	0.000	0.000	0.000	.000	.397
450.	500.	0.137	0.000	0.000	0.000	.000	.397
500.	900.	0.137	0.000	0.000	0.000	.000	.397
500.	900.	0.137	0.000	0.000	0.000	.000	.397
900.	950.	1.880	0.000	0.000	0.000	NA	NA
900.	950.	1.880	0.000	0.000	0.000	NA	NA
950.	1000.	2.663	0.000	0.000	0.000	NA	NA
950.	1000.	2.663	0.000	0.000	0.000	NA	NA
500.	550.	0.053	0.000	0.000	0.000	.000	.312
500.	550.	0.053	0.000	0.000	0.000	.000	.312
550.	600.	0.053	0.000	0.000	0.000	.000	.312
550.	600.	0.053	0.000	0.000	0.000	.000	.312
600.	650.	0.031	0.000	0.000	0.000	.000	.173
600.	650.	0.031	0.000	0.000	0.000	.000	.173
650.	700.	0.290	0.000	0.000	0.000	NA	NA
650.	700.	0.290	0.000	0.000	0.000	NA	NA
700.	750.	0.694	0.000	0.000	0.000	NA	NA
700.	750.	0.694	0.000	0.000	0.000	NA	NA
750.	800.	0.290	0.000	0.000	0.000	NA	NA
750.	800.	0.290	0.000	0.000	0.000	NA	NA
1000.	1050.	1.880	0.000	0.000	0.000	NA	NA
1000.	1050.	1.880	0.000	0.000	0.000	NA	NA
1050.	1100.	0.137	0.000	0.000	0.000	.000	.397
1050.	1100.	0.137	0.000	0.000	0.000	.000	.397
1100.	1500.	0.137	0.000	0.000	0.000	.000	.397
1100.	1500.	0.137	0.000	0.000	0.000	.000	.397
1500.	1550.	1.880	0.000	0.000	0.000	NA	NA

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 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2

MISCELLANEOUS COMPUTED DATA

1500. 1550.	1.880	0.000	0.000	0.000	NA	NA
1100. 1150.	0.053	0.000	0.000	0.000	.000	.210
1100. 1150.	0.053	0.000	0.000	0.000	.000	.210
1150. 1200.	0.053	0.000	0.000	0.000	.000	.312
1150. 1200.	0.053	0.000	0.000	0.000	.000	.312
1200. 1250.	0.031	0.000	0.000	0.000	.000	.173
1200. 1250.	0.031	0.000	0.000	0.000	.000	.173
1250. 1300.	0.290	0.000	0.000	0.000	NA	NA
1250. 1300.	0.290	0.000	0.000	0.000	NA	NA
1300. 1350.	0.694	0.000	0.000	0.000	NA	NA
1300. 1350.	0.694	0.000	0.000	0.000	NA	NA
1350. 1400.	0.290	0.000	0.000	0.000	NA	NA
1350. 1400.	0.290	0.000	0.000	0.000	NA	NA
1550. 1600.	1.880	0.000	0.000	0.000	NA	NA
1550. 1600.	1.880	0.000	0.000	0.000	NA	NA
1600. 1650.	0.137	0.000	0.000	0.000	.000	.397
1600. 1650.	0.137	0.000	0.000	0.000	.000	.397
1650. 3500.	0.053	0.000	0.000	0.000	.000	.312
1650. 3500.	0.053	0.000	0.000	0.000	.000	.312
3500. 3520.	0.053	0.000	0.000	0.000	.000	.312
3500. 3520.	0.053	0.000	0.000	0.000	.000	.312
3520. 3550.	0.053	0.000	0.000	0.000	.000	.312
3520. 3550.	0.053	0.000	0.000	0.000	.000	.312
3550. 3600.	0.738	0.000	0.000	0.000	NA	NA
3550. 3600.	0.738	0.000	0.000	0.000	NA	NA
3600. 3650.	0.959	0.000	0.000	0.000	NA	NA
3600. 3650.	0.959	0.000	0.000	0.000	NA	NA
1650. 1700.	0.137	0.000	0.000	0.000	.000	.397
1650. 1700.	0.137	0.000	0.000	0.000	.000	.397
1700. 1750.	1.880	0.000	0.000	0.000	NA	NA
1700. 1750.	1.880	0.000	0.000	0.000	NA	NA
1750. 1800.	2.663	0.000	0.000	0.000	NA	NA
1750. 1800.	2.663	0.000	0.000	0.000	NA	NA
1800. 1850.	1.880	0.000	0.000	0.000	NA	NA
1800. 1850.	1.880	0.000	0.000	0.000	NA	NA
1850. 1900.	0.137	0.000	0.000	0.000	.000	.397
1850. 1900.	0.137	0.000	0.000	0.000	.000	.397
1900. 2800.	0.137	0.000	0.000	0.000	.000	.397
1900. 2800.	0.137	0.000	0.000	0.000	.000	.397
2800. 2850.	0.137	0.000	0.000	0.000	.000	.397
2800. 2850.	0.137	0.000	0.000	0.000	.000	.397
1900. 1950.	0.137	0.000	0.000	0.000	.000	.397
1900. 1950.	0.137	0.000	0.000	0.000	.000	.397
1950. 2000.	1.880	0.000	0.000	0.000	NA	NA
1950. 2000.	1.880	0.000	0.000	0.000	NA	NA
2000. 2050.	2.663	0.000	0.000	0.000	NA	NA
2000. 2050.	2.663	0.000	0.000	0.000	NA	NA
2050. 2100.	1.880	0.000	0.000	0.000	NA	NA
2050. 2100.	1.880	0.000	0.000	0.000	NA	NA
2100. 2120.	0.137	0.000	0.000	0.000	.000	.397
2100. 2120.	0.137	0.000	0.000	0.000	.000	.397
2120. 2150.	0.137	0.000	0.000	0.000	.000	.397
2120. 2150.	0.137	0.000	0.000	0.000	.000	.397
2150. 2200.	1.880	0.000	0.000	0.000	NA	NA

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 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2

MISCELLANEOUS COMPUTED DATA

2150. 2200.	1.880	0.000	0.000	0.000	NA	NA
2200. 2250.	1.880	0.000	0.000	0.000	NA	NA
2200. 2250.	1.880	0.000	0.000	0.000	NA	NA
2250. 2300.	0.137	0.000	0.000	0.000	.000	.397
2250. 2300.	0.137	0.000	0.000	0.000	.000	.397
2300. 2350.	1.880	0.000	0.000	0.000	NA	NA
2300. 2350.	1.880	0.000	0.000	0.000	NA	NA
2350. 2400.	1.880	0.000	0.000	0.000	NA	NA
2350. 2400.	1.880	0.000	0.000	0.000	NA	NA
2400. 2420.	0.137	0.000	0.000	0.000	.000	.397
2400. 2420.	0.137	0.000	0.000	0.000	.000	.397
2420. 2450.	0.137	0.000	0.000	0.000	.000	.397
2420. 2450.	0.137	0.000	0.000	0.000	.000	.397
2450. 2500.	1.880	0.000	0.000	0.000	NA	NA
2450. 2500.	1.880	0.000	0.000	0.000	NA	NA
2500. 2550.	2.663	0.000	0.000	0.000	NA	NA
2500. 2550.	2.663	0.000	0.000	0.000	NA	NA
2550. 2600.	1.880	0.000	0.000	0.000	NA	NA
2550. 2600.	1.880	0.000	0.000	0.000	NA	NA
2600. 2650.	0.137	0.000	0.000	0.000	.000	.397
2600. 2650.	0.137	0.000	0.000	0.000	.000	.397
2650. 2670.	0.137	0.000	0.000	0.000	.000	.397
2650. 2670.	0.137	0.000	0.000	0.000	.000	.397
2670. 2700.	0.137	0.000	0.000	0.000	.000	.397
2670. 2700.	0.137	0.000	0.000	0.000	.000	.397
2700. 2750.	1.880	0.000	0.000	0.000	NA	NA
2700. 2750.	1.880	0.000	0.000	0.000	NA	NA
2750. 6000.	1.880	0.000	0.000	0.000	NA	NA
2750. 6000.	1.880	0.000	0.000	0.000	NA	NA
6000. 6050.	0.137	0.000	0.000	0.000	.000	.397
6000. 6050.	0.137	0.000	0.000	0.000	.000	.397
6050. 6100.	0.137	0.000	0.000	0.000	.000	.397
6050. 6100.	0.137	0.000	0.000	0.000	.000	.397
6100. 6101.	0.000	0.000	0.000	0.000	.000	.397
6100. 6101.	0.000	0.000	0.000	0.000	.000	.397
6101. 6102.	0.000	0.000	0.000	0.000	.000	.397
6101. 6102.	0.000	0.000	0.000	0.000	.000	.397
6102. 6103.	0.000	0.000	0.000	0.000	.000	.397
6102. 6103.	0.000	0.000	0.000	0.000	.000	.397
6103. 6104.	0.000	0.000	0.000	0.000	.000	.397
6103. 6104.	0.000	0.000	0.000	0.000	.000	.397
6104. 6105.	0.000	0.000	0.000	0.000	.000	.397
6104. 6105.	0.000	0.000	0.000	0.000	.000	.397
6105. 6106.	0.000	0.000	0.000	0.000	.000	.397
6105. 6106.	0.000	0.000	0.000	0.000	.000	.397
6106. 6150.	0.000	0.000	0.000	0.000	.000	.397
6106. 6150.	0.000	0.000	0.000	0.000	.000	.397
6150. 6151.	0.000	0.000	0.000	0.000	.000	.397
6150. 6151.	0.000	0.000	0.000	0.000	.000	.397
6151. 6152.	0.000	0.000	0.000	0.000	.000	.397
6151. 6152.	0.000	0.000	0.000	0.000	.000	.397
6152. 6153.	0.000	0.000	0.000	0.000	.000	.397
6152. 6153.	0.000	0.000	0.000	0.000	.000	.397
6153. 6154.	0.000	0.000	0.000	0.000	.000	.397

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 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2

MISCELLANEOUS COMPUTED DATA

6153. 6154.	0.000	0.000	0.000	0.000	.000	.397
6154. 6155.	0.000	0.000	0.000	0.000	.000	.397
6154. 6155.	0.000	0.000	0.000	0.000	.000	.397
6155. 6200.	0.000	0.000	0.000	0.000	.000	.397
6155. 6200.	0.000	0.000	0.000	0.000	.000	.397
6200. 6201.	0.000	0.000	0.000	0.000	.000	.397
6200. 6201.	0.000	0.000	0.000	0.000	.000	.397
6201. 6202.	0.000	0.000	0.000	0.000	.000	.397
6201. 6202.	0.000	0.000	0.000	0.000	.000	.397
6202. 6203.	0.000	0.000	0.000	0.000	.000	.397
6202. 6203.	0.000	0.000	0.000	0.000	.000	.397
6203. 6204.	0.000	0.000	0.000	0.000	.000	.397
6203. 6204.	0.000	0.000	0.000	0.000	.000	.397
6204. 6205.	0.000	0.000	0.000	0.000	.000	.397
6204. 6205.	0.000	0.000	0.000	0.000	.000	.397
6205. 6206.	0.000	0.000	0.000	0.000	.000	.397
6205. 6206.	0.000	0.000	0.000	0.000	.000	.397
6206. 6207.	0.000	0.000	0.000	0.000	.000	.397
6206. 6207.	0.000	0.000	0.000	0.000	.000	.397
6207. 6208.	0.000	0.000	0.000	0.000	.000	.397
6207. 6208.	0.000	0.000	0.000	0.000	.000	.397
6208. 6209.	0.000	0.000	0.000	0.000	.000	.397
6208. 6209.	0.000	0.000	0.000	0.000	.000	.397
6209. 6210.	0.000	0.000	0.000	0.000	.000	.397
6209. 6210.	0.000	0.000	0.000	0.000	.000	.397
6210. 6250.	0.000	0.000	0.000	0.000	.000	.397
6210. 6250.	0.000	0.000	0.000	0.000	.000	.397
6250. 6251.	0.000	0.000	0.000	0.000	.000	.397
6250. 6251.	0.000	0.000	0.000	0.000	.000	.397
6251. 6252.	0.000	0.000	0.000	0.000	.000	.397
6251. 6252.	0.000	0.000	0.000	0.000	.000	.397
6252. 6253.	0.000	0.000	0.000	0.000	.000	.397
6252. 6253.	0.000	0.000	0.000	0.000	.000	.397
6253. 6254.	0.000	0.000	0.000	0.000	.000	.397
6253. 6254.	0.000	0.000	0.000	0.000	.000	.397
6254. 6255.	0.000	0.000	0.000	0.000	.000	.397
6254. 6255.	0.000	0.000	0.000	0.000	.000	.397
6255. 6300.	0.000	0.000	0.000	0.000	.000	.397
6255. 6300.	0.000	0.000	0.000	0.000	.000	.397
6300. 6350.	0.000	0.000	0.000	0.000	.000	.397
6300. 6350.	0.000	0.000	0.000	0.000	.000	.397
6350. 6400.	0.000	0.000	0.000	0.000	.000	.397
6350. 6400.	0.000	0.000	0.000	0.000	.000	.397
6400. 6450.	0.000	0.000	0.000	0.000	NA	NA
6400. 6450.	0.000	0.000	0.000	0.000	NA	NA
6450. 6500.	0.000	0.000	0.000	0.000	.000	.397
6450. 6500.	0.000	0.000	0.000	0.000	.000	.397
6500. 6550.	0.000	0.000	0.000	0.000	.000	.397
6500. 6550.	0.000	0.000	0.000	0.000	.000	.397
6550. 6599.	0.000	0.000	0.000	0.000	.000	.397
6550. 6599.	0.000	0.000	0.000	0.000	.000	.397
6599. 6600.	0.000	0.000	0.000	0.000	.000	.397
6599. 6600.	0.000	0.000	0.000	0.000	.000	.397
2850. 2900.	1.880	0.000	0.000	0.000	NA	NA

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Impianto di Melendugno
 Allegato 1 - Area 2

MISCELLANEOUS COMPUTED DATA

2850. 2900.	1.880	0.000	0.000	0.000	NA	NA
2900. 2950.	2.663	0.000	0.000	0.000	NA	NA
2900. 2950.	2.663	0.000	0.000	0.000	NA	NA
2950. 3000.	1.880	0.000	0.000	0.000	NA	NA
2950. 3000.	1.880	0.000	0.000	0.000	NA	NA
3000. 3020.	0.137	0.000	0.000	0.000	.000	.397
3000. 3020.	0.137	0.000	0.000	0.000	.000	.397
3020. 3030.	0.137	0.000	0.000	0.000	.000	.397
3020. 3030.	0.137	0.000	0.000	0.000	.000	.397
3030. 3050.	0.137	0.000	0.000	0.000	.000	.397
3030. 3050.	0.137	0.000	0.000	0.000	.000	.397
3050. 3100.	1.880	0.000	0.000	0.000	NA	NA
3050. 3100.	1.880	0.000	0.000	0.000	NA	NA
3100. 3150.	2.663	0.000	0.000	0.000	NA	NA
3100. 3150.	2.663	0.000	0.000	0.000	NA	NA
3150. 3200.	1.880	0.000	0.000	0.000	NA	NA
3150. 3200.	1.880	0.000	0.000	0.000	NA	NA
3200. 3250.	0.137	0.000	0.000	0.000	.000	.397
3200. 3250.	0.137	0.000	0.000	0.000	.000	.397
3250. 2650.	0.137	0.000	0.000	0.000	.000	.397
3250. 2650.	0.137	0.000	0.000	0.000	.000	.397
3650. 3700.	0.738	0.000	0.000	0.000	NA	NA
3650. 3700.	0.738	0.000	0.000	0.000	NA	NA
3700. 3750.	0.053	0.000	0.000	0.000	.000	.312
3700. 3750.	0.053	0.000	0.000	0.000	.000	.312
3750. 4700.	0.053	0.000	0.000	0.000	.000	.312
3750. 4700.	0.053	0.000	0.000	0.000	.000	.312
4700. 4750.	0.053	0.000	0.000	0.000	.000	.312
4700. 4750.	0.053	0.000	0.000	0.000	.000	.312
3750. 3800.	0.053	0.000	0.000	0.000	.000	.312
3750. 3800.	0.053	0.000	0.000	0.000	.000	.312
3800. 3850.	0.738	0.000	0.000	0.000	NA	NA
3800. 3850.	0.738	0.000	0.000	0.000	NA	NA
3850. 3900.	0.959	0.000	0.000	0.000	NA	NA
3850. 3900.	0.959	0.000	0.000	0.000	NA	NA
3900. 3950.	0.738	0.000	0.000	0.000	NA	NA
3900. 3950.	0.738	0.000	0.000	0.000	NA	NA
3950. 3970.	0.053	0.000	0.000	0.000	.000	.312
3950. 3970.	0.053	0.000	0.000	0.000	.000	.312
3970. 4000.	0.053	0.000	0.000	0.000	.000	.312
3970. 4000.	0.053	0.000	0.000	0.000	.000	.312
4000. 4050.	0.738	0.000	0.000	0.000	NA	NA
4000. 4050.	0.738	0.000	0.000	0.000	NA	NA
4050. 4100.	0.738	0.000	0.000	0.000	NA	NA
4050. 4100.	0.738	0.000	0.000	0.000	NA	NA
4100. 4150.	0.053	0.000	0.000	0.000	.000	.312
4100. 4150.	0.053	0.000	0.000	0.000	.000	.312
4150. 4200.	0.738	0.000	0.000	0.000	NA	NA
4150. 4200.	0.738	0.000	0.000	0.000	NA	NA
4200. 4250.	0.738	0.000	0.000	0.000	NA	NA
4200. 4250.	0.738	0.000	0.000	0.000	NA	NA
4250. 4270.	0.053	0.000	0.000	0.000	.000	.312
4250. 4270.	0.053	0.000	0.000	0.000	.000	.312
4270. 4300.	0.053	0.000	0.000	0.000	.000	.312

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Impianto di Melendugno
Allegato 1 - Area 2

MISCELLANEOUS COMPUTED DATA

4270. 4300.	0.053	0.000	0.000	0.000	.000	.312
4300. 4350.	0.738	0.000	0.000	0.000	NA	NA
4300. 4350.	0.738	0.000	0.000	0.000	NA	NA
4350. 4400.	0.959	0.000	0.000	0.000	NA	NA
4350. 4400.	0.959	0.000	0.000	0.000	NA	NA
4400. 4450.	0.738	0.000	0.000	0.000	NA	NA
4400. 4450.	0.738	0.000	0.000	0.000	NA	NA
4450. 4500.	0.053	0.000	0.000	0.000	.000	.312
4450. 4500.	0.053	0.000	0.000	0.000	.000	.312
4500. 4520.	0.053	0.000	0.000	0.000	.000	.312
4500. 4520.	0.053	0.000	0.000	0.000	.000	.312
4520. 4550.	0.053	0.000	0.000	0.000	.000	.312
4520. 4550.	0.053	0.000	0.000	0.000	.000	.312
4550. 4600.	0.738	0.000	0.000	0.000	NA	NA
4550. 4600.	0.738	0.000	0.000	0.000	NA	NA
4600. 7000.	0.738	0.000	0.000	0.000	NA	NA
4600. 7000.	0.738	0.000	0.000	0.000	NA	NA
7000. 7050.	0.053	0.000	0.000	0.000	.000	.312
7000. 7050.	0.053	0.000	0.000	0.000	.000	.312
7050. 7100.	0.053	0.000	0.000	0.000	.000	.312
7050. 7100.	0.053	0.000	0.000	0.000	.000	.312
7100. 7101.	0.000	0.000	0.000	0.000	.000	.312
7100. 7101.	0.000	0.000	0.000	0.000	.000	.312
7101. 7102.	0.000	0.000	0.000	0.000	.000	.312
7101. 7102.	0.000	0.000	0.000	0.000	.000	.312
7102. 7103.	0.000	0.000	0.000	0.000	.000	.312
7102. 7103.	0.000	0.000	0.000	0.000	.000	.312
7103. 7104.	0.000	0.000	0.000	0.000	.000	.312
7103. 7104.	0.000	0.000	0.000	0.000	.000	.312
7104. 7105.	0.000	0.000	0.000	0.000	.000	.312
7104. 7105.	0.000	0.000	0.000	0.000	.000	.312
7105. 7106.	0.000	0.000	0.000	0.000	.000	.312
7105. 7106.	0.000	0.000	0.000	0.000	.000	.312
7106. 7150.	0.000	0.000	0.000	0.000	.000	.312
7106. 7150.	0.000	0.000	0.000	0.000	.000	.312
7150. 7151.	0.000	0.000	0.000	0.000	.000	.312
7150. 7151.	0.000	0.000	0.000	0.000	.000	.312
7151. 7152.	0.000	0.000	0.000	0.000	.000	.312
7151. 7152.	0.000	0.000	0.000	0.000	.000	.312
7152. 7153.	0.000	0.000	0.000	0.000	.000	.312
7152. 7153.	0.000	0.000	0.000	0.000	.000	.312
7153. 7154.	0.000	0.000	0.000	0.000	.000	.312
7153. 7154.	0.000	0.000	0.000	0.000	.000	.312
7154. 7155.	0.000	0.000	0.000	0.000	.000	.312
7154. 7155.	0.000	0.000	0.000	0.000	.000	.312
7155. 7200.	0.000	0.000	0.000	0.000	.000	.312
7155. 7200.	0.000	0.000	0.000	0.000	.000	.312
7200. 7201.	0.000	0.000	0.000	0.000	.000	.312
7200. 7201.	0.000	0.000	0.000	0.000	.000	.312
7201. 7202.	0.000	0.000	0.000	0.000	.000	.312
7201. 7202.	0.000	0.000	0.000	0.000	.000	.312
7202. 7203.	0.000	0.000	0.000	0.000	.000	.312
7202. 7203.	0.000	0.000	0.000	0.000	.000	.312
7203. 7204.	0.000	0.000	0.000	0.000	.000	.312

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Impianto di Melendugno
 Allegato 1 - Area 2

MISCELLANEOUS COMPUTED DATA

7203. 7204.	0.000	0.000	0.000	0.000	.000	.312
7204. 7205.	0.000	0.000	0.000	0.000	.000	.312
7204. 7205.	0.000	0.000	0.000	0.000	.000	.312
7205. 7206.	0.000	0.000	0.000	0.000	.000	.312
7205. 7206.	0.000	0.000	0.000	0.000	.000	.312
7206. 7207.	0.000	0.000	0.000	0.000	.000	.312
7206. 7207.	0.000	0.000	0.000	0.000	.000	.312
7207. 7208.	0.000	0.000	0.000	0.000	.000	.312
7207. 7208.	0.000	0.000	0.000	0.000	.000	.312
7208. 7250.	0.000	0.000	0.000	0.000	.000	.312
7208. 7250.	0.000	0.000	0.000	0.000	.000	.312
7250. 7251.	0.000	0.000	0.000	0.000	.000	.312
7250. 7251.	0.000	0.000	0.000	0.000	.000	.312
7251. 7252.	0.000	0.000	0.000	0.000	.000	.312
7251. 7252.	0.000	0.000	0.000	0.000	.000	.312
7252. 7253.	0.000	0.000	0.000	0.000	.000	.312
7252. 7253.	0.000	0.000	0.000	0.000	.000	.312
7253. 7254.	0.000	0.000	0.000	0.000	.000	.312
7253. 7254.	0.000	0.000	0.000	0.000	.000	.312
7254. 7255.	0.000	0.000	0.000	0.000	.000	.312
7254. 7255.	0.000	0.000	0.000	0.000	.000	.312
7255. 7256.	0.000	0.000	0.000	0.000	.000	.312
7255. 7256.	0.000	0.000	0.000	0.000	.000	.312
7256. 7257.	0.000	0.000	0.000	0.000	.000	.312
7256. 7257.	0.000	0.000	0.000	0.000	.000	.312
7257. 7300.	0.000	0.000	0.000	0.000	.000	.312
7257. 7300.	0.000	0.000	0.000	0.000	.000	.312
7300. 7301.	0.000	0.000	0.000	0.000	.000	.312
7300. 7301.	0.000	0.000	0.000	0.000	.000	.312
7301. 7350.	0.000	0.000	0.000	0.000	.000	.312
7301. 7350.	0.000	0.000	0.000	0.000	.000	.312
7350. 7351.	0.000	0.000	0.000	0.000	.000	.312
7350. 7351.	0.000	0.000	0.000	0.000	.000	.312
7351. 7400.	0.000	0.000	0.000	0.000	.000	.312
7351. 7400.	0.000	0.000	0.000	0.000	.000	.312
7400. 7450.	0.000	0.000	0.000	0.000	NA	NA
7400. 7450.	0.000	0.000	0.000	0.000	NA	NA
7450. 7451.	0.000	0.000	0.000	0.000	.000	.312
7450. 7451.	0.000	0.000	0.000	0.000	.000	.312
7451. 7500.	0.000	0.000	0.000	0.000	.000	.312
7451. 7500.	0.000	0.000	0.000	0.000	.000	.312
7500. 7501.	0.000	0.000	0.000	0.000	.000	.312
7500. 7501.	0.000	0.000	0.000	0.000	.000	.312
7501. 7550.	0.000	0.000	0.000	0.000	.000	.312
7501. 7550.	0.000	0.000	0.000	0.000	.000	.312
7550. 7551.	0.000	0.000	0.000	0.000	.000	.312
7550. 7551.	0.000	0.000	0.000	0.000	.000	.312
7551. 7599.	0.000	0.000	0.000	0.000	.000	.312
7551. 7599.	0.000	0.000	0.000	0.000	.000	.312
7599. 7600.	0.000	0.000	0.000	0.000	.000	.312
7599. 7600.	0.000	0.000	0.000	0.000	.000	.312
4750. 4800.	0.738	0.000	0.000	0.000	NA	NA
4750. 4800.	0.738	0.000	0.000	0.000	NA	NA
4800. 4850.	0.959	0.000	0.000	0.000	NA	NA

CAESAR II 2016 Ver.8.00.00.5600, (Build 150930)
 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2

MISCELLANEOUS COMPUTED DATA

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7500. 7501. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
7501. 7550. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
7550. 7551. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
7551. 7599. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
7599. 7600. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4750. 4800. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4800. 4850. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4850. 4900. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4900. 4920. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4920. 4970. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
4970. 5000. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
5000. 5050. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
5050. 5100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
5100. 5150. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
5150. 5200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
5200. 4500. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
    
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----- CENTER OF GRAVITY REPORT

	Total Wght	X cg	Y cg	Z cg
	(N.)	(mm.)	(mm.)	(mm.)
Pipe	: 16293.2	51628.6	-438.2	3593.6
Insulation	: 0.0	0.0	0.0	0.0
Refractory	: 0.0	0.0	0.0	0.0
Fluid	: 1.8	51634.9	-363.6	3571.0
Pipe+Insl+Refrty	: 16293.2	51628.6	-438.2	3593.6
Pipe+Fluid	: 16295.0	51628.6	-438.2	3593.6
Pipe+Insl+Refrty+Fluid:	16295.0	51628.6	-438.2	3593.6

CAESAR II 2016 Ver.8.00.00.5600, (Build 150930)
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Impianto di Melendugno
Allegato 1 - Area 2
CAESAR II LOAD CASE REPORT

CASE 1 (HYD) WW+HP
HYDRO TEST CASE

Keep/Discard: Keep
Display: Disp/Force/Stress
Elastic Modulus: EC
Friction Mult.: 1.0000
SUS/OCC case SH: SH_MIN
Flg Analysis Temp: None

CASE 2 (OPE) W+T1+P1
OPERATING CASE CONDITION 1

Keep/Discard: Keep
Display: Disp/Force/Stress
Elastic Modulus: EC
Friction Mult.: 1.0000
SUS/OCC case SH: SH_MIN
Flg Analysis Temp: T1

CASE 3 (SUS) W+P1
SUSTAINED CASE CONDITION 1

Keep/Discard: Keep
Display: Disp/Force/Stress
Elastic Modulus: EC
Friction Mult.: 1.0000
SUS/OCC case SH: SH_MIN
Flg Analysis Temp: None

CASE 4 (EXP) L4=L2-L3
EXPANSION CASE CONDITION 1

Keep/Discard: Keep
Display: Disp/Force/Stress
Combination Method: ALG
SUS/OCC case SH: SH_MIN
Flg Analysis Temp: None

CAESAR II 2016 Ver.8.00.00.5600, (Build 150930)
 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
50	-0.000	0.000	-0.000	-0.0000	0.0000	0.0000
100	0.823	-0.000	0.000	-0.0000	-0.0000	-0.0000
150	1.678	0.000	-0.000	-0.0001	0.0000	0.0000
200	2.599	0.000	-0.000	-0.0001	-0.0000	-0.0000
250	2.602	-0.000	0.000	-0.0001	-0.0000	-0.0000
300	3.271	0.000	-0.000	-0.0002	0.0001	0.0000
301	3.519	-0.000	0.000	-0.0002	-0.0002	-0.0000
302	3.775	-0.000	0.003	-0.0002	0.0006	0.0000
303	3.843	0.000	-0.016	-0.0002	0.0043	0.0000
304	3.889	0.001	-0.060	-0.0002	0.0078	0.0000
305	3.934	0.000	-0.112	-0.0002	0.0031	-0.0001
306	3.980	-0.002	-0.078	-0.0002	-0.0166	-0.0005
307	3.950	-0.003	-0.020	0.0000	-0.0510	-0.0012
350	3.816	-0.004	0.030	0.0002	-0.0892	-0.0015
351	3.089	-0.006	0.075	0.0002	-0.1127	-0.0021
352	2.250	-0.007	0.120	0.0001	-0.1210	-0.0027
353	1.407	-0.008	0.166	0.0001	-0.1141	-0.0033
354	0.230	-0.007	0.246	-0.0001	-0.0644	-0.0044
399	-0.073	-0.006	0.286	-0.0008	-0.0391	-0.0049
400	-0.290	0.004	0.327	-0.0026	-0.0369	-0.0054
448	-0.687	0.062	0.400	-0.0079	-0.0194	-0.0064
449	-0.688	0.077	0.393	-0.0136	0.0243	-0.0049
450	-0.657	0.082	0.300	-0.0161	0.0695	-0.0035
500	-0.499	0.018	-1.869	-0.0344	0.0649	-0.0002
550	-0.496	0.011	-1.807	-0.0442	0.0649	0.0037
600	-0.487	0.007	-1.739	-0.0649	0.0649	0.0115
650	-0.333	0.000	-1.165	-0.1960	0.0649	0.0561
700	-0.272	0.000	-0.953	-0.1961	0.0649	0.0561
750	-0.061	0.000	-0.213	-0.1964	0.0649	0.0562
800	-0.000	0.000	-0.000	-0.1964	0.0649	0.0562
900	-0.472	0.017	-2.099	-0.0338	0.0417	-0.0001
950	-0.471	0.017	-2.173	-0.0338	0.0413	-0.0001
1000	-0.467	0.017	-2.478	-0.0337	0.0396	-0.0000
1050	-0.467	0.017	-2.548	-0.0337	0.0392	-0.0000
1100	-0.440	0.018	-2.651	-0.0331	0.0115	0.0007
1150	-0.436	0.011	-2.586	-0.0491	0.0115	0.0040
1200	-0.427	0.007	-2.505	-0.0823	0.0115	0.0107
1250	-0.291	0.000	-1.690	-0.2844	0.0115	0.0490
1300	-0.238	0.000	-1.382	-0.2846	0.0115	0.0491
1350	-0.053	0.000	-0.308	-0.2850	0.0115	0.0491
1400	-0.000	0.000	-0.000	-0.2850	0.0115	0.0491
1500	-0.206	0.020	-0.610	0.0261	-0.0684	-0.0001
1550	-0.205	0.019	-0.489	0.0262	-0.0683	-0.0001
1600	-0.204	0.019	-0.368	0.0262	-0.0681	-0.0001
1650	-0.157	0.020	-0.000	0.0382	-0.0248	0.0002
1700	-0.132	0.022	0.039	0.0474	0.0003	0.0008
1750	-0.131	0.024	0.039	0.0475	0.0005	0.0008

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 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
1800	-0.128	0.030	0.032	0.0481	0.0010	0.0008
1850	-0.127	0.031	0.030	0.0482	0.0010	0.0008
1900	-0.020	0.023	-0.000	0.0870	-0.0013	-0.0026
1950	0.006	0.015	-0.003	0.0889	0.0004	-0.0013
2000	0.006	0.013	-0.004	0.0890	0.0004	-0.0013
2050	0.010	0.004	-0.006	0.0891	0.0001	-0.0012
2100	0.010	0.002	-0.006	0.0891	0.0001	-0.0012
2120	0.044	-0.003	-0.000	0.0916	-0.0002	-0.0004
2150	0.077	-0.003	-0.006	0.0941	0.0008	0.0002
2200	0.078	-0.003	-0.007	0.0941	0.0008	0.0002
2250	0.079	-0.002	-0.008	0.0941	0.0007	0.0002
2300	0.118	0.001	-0.003	0.0970	-0.0026	0.0008
2350	0.118	0.002	0.002	0.0970	-0.0026	0.0008
2400	0.119	0.003	0.006	0.0971	-0.0026	0.0008
2420	0.205	0.021	-0.000	0.1034	0.0099	0.0018
2450	0.292	0.042	-0.191	0.1098	0.0056	0.0006
2500	0.292	0.043	-0.200	0.1098	0.0054	0.0006
2550	0.296	0.047	-0.238	0.1099	0.0045	0.0005
2600	0.297	0.047	-0.246	0.1099	0.0043	0.0005
2650	0.323	0.045	-0.235	0.1118	-0.0078	-0.0017
2670	0.388	-0.007	-0.000	0.0897	-0.0272	-0.0080
2700	0.454	-0.110	0.240	0.0676	-0.0199	-0.0117
2750	0.455	-0.131	0.275	0.0675	-0.0199	-0.0117
2798	-0.044	-0.024	-0.643	0.0936	-0.0170	-0.0006
2799	-0.048	-0.026	-0.805	0.0928	-0.0237	-0.0022
2800	-0.050	-0.028	-0.814	0.0882	-0.0432	-0.0010
2850	-0.041	-0.028	-0.753	0.0887	-0.0461	0.0012
2900	-0.040	-0.026	-0.671	0.0887	-0.0462	0.0013
2950	-0.036	-0.015	-0.321	0.0888	-0.0466	0.0015
3000	-0.035	-0.012	-0.238	0.0888	-0.0466	0.0015
3020	-0.001	-0.002	-0.000	0.0906	-0.0393	0.0015
3030	0.206	-0.044	-0.000	0.1016	0.0420	-0.0021
3050	0.295	-0.049	-0.703	0.1063	0.0493	0.0030
3100	0.296	-0.043	-0.790	0.1063	0.0492	0.0031
3150	0.299	-0.019	-1.158	0.1064	0.0485	0.0033
3200	0.300	-0.014	-1.244	0.1064	0.0483	0.0034
3248	0.309	-0.008	-1.308	0.1069	0.0446	0.0051
3249	0.307	-0.001	-1.279	0.1149	0.0188	0.0014
3250	0.309	-0.002	-1.065	0.1200	0.0099	-0.0044
3498	-0.218	-0.093	0.024	-0.0071	-0.0020	0.0080
3499	-0.212	-0.091	0.025	0.0059	0.0027	0.0037
3500	-0.211	-0.090	0.015	0.0136	0.0107	-0.0013
3520	-0.205	-0.090	-0.000	0.0196	0.0129	0.0005
3550	-0.194	-0.085	-0.040	0.0317	0.0143	0.0033
3600	-0.194	-0.080	-0.058	0.0318	0.0143	0.0034
3650	-0.192	-0.063	-0.130	0.0322	0.0139	0.0034
3700	-0.192	-0.059	-0.148	0.0323	0.0138	0.0034
3750	-0.115	0.008	-0.000	0.1123	-0.0113	0.0004
3800	-0.098	0.008	0.011	0.1173	0.0016	-0.0006

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
3850	-0.098	0.007	0.009	0.1173	0.0016	-0.0007
3900	-0.097	0.003	0.001	0.1174	0.0015	-0.0007
3950	-0.096	0.003	-0.001	0.1175	0.0015	-0.0007
3970	-0.083	0.000	-0.000	0.1212	-0.0011	-0.0009
4000	-0.071	-0.003	0.006	0.1250	-0.0034	-0.0010
4050	-0.070	-0.004	0.010	0.1250	-0.0035	-0.0010
4100	-0.070	-0.005	0.014	0.1251	-0.0035	-0.0010
4150	-0.049	-0.009	0.047	0.1311	-0.0091	-0.0006
4200	-0.049	-0.010	0.058	0.1312	-0.0091	-0.0006
4250	-0.049	-0.011	0.070	0.1312	-0.0091	-0.0006
4270	0.003	0.000	-0.000	0.1465	0.0369	0.0028
4300	0.056	0.052	-0.685	0.1618	0.0451	0.0046
4350	0.057	0.058	-0.743	0.1618	0.0449	0.0046
4400	0.058	0.081	-0.969	0.1620	0.0440	0.0046
4450	0.058	0.087	-1.026	0.1620	0.0438	0.0046
4500	0.078	0.103	-1.136	0.1677	0.0059	0.0024
4520	0.161	0.008	-0.000	0.1204	-0.0583	-0.0096
4550	0.246	-0.207	0.332	0.0731	0.0019	-0.0118
4600	0.246	-0.222	0.330	0.0730	0.0019	-0.0118
4698	-0.110	-0.020	-0.751	0.1229	-0.0374	0.0040
4699	-0.108	-0.019	-0.852	0.1230	-0.0428	-0.0006
4700	-0.109	-0.022	-0.853	0.1210	-0.0554	-0.0045
4750	-0.097	-0.027	-0.693	0.1234	-0.0651	-0.0000
4800	-0.097	-0.027	-0.610	0.1234	-0.0652	0.0000
4850	-0.095	-0.027	-0.277	0.1235	-0.0655	0.0001
4900	-0.095	-0.027	-0.193	0.1235	-0.0655	0.0001
4920	-0.082	-0.025	-0.000	0.1262	-0.0594	0.0009
4970	0.027	-0.005	-0.000	0.1486	0.0797	-0.0000
5000	0.080	0.009	-1.294	0.1595	0.1032	0.0044
5050	0.081	0.015	-1.426	0.1595	0.1031	0.0045
5100	0.082	0.038	-1.949	0.1596	0.1024	0.0046
5150	0.082	0.044	-2.080	0.1596	0.1022	0.0046
5198	0.096	0.067	-2.378	0.1625	0.0816	0.0098
5199	0.094	0.074	-2.379	0.1693	0.0589	0.0050
5200	0.092	0.075	-2.236	0.1760	0.0484	-0.0005
6000	0.455	-0.152	0.310	0.0674	-0.0198	-0.0117
6048	0.512	-0.256	0.425	0.0485	-0.0035	-0.0117
6049	0.506	-0.245	0.418	0.0415	0.0123	-0.0154
6050	0.468	-0.196	0.405	0.0243	0.0246	-0.0198
6100	0.137	-0.018	0.331	0.0080	0.0234	-0.0169
6101	-0.004	0.011	0.249	-0.0005	0.0030	-0.0137
6102	-0.004	0.002	0.167	-0.0005	-0.0003	-0.0105
6103	-0.012	0.000	0.121	-0.0002	0.0036	-0.0087
6104	-0.058	-0.000	0.075	-0.0000	0.0096	-0.0069
6105	-0.138	-0.001	0.029	-0.0001	0.0100	-0.0051
6106	-0.164	-0.004	0.018	0.0004	0.0132	-0.0042
6150	-0.174	-0.010	-0.003	0.0010	0.0088	-0.0021
6151	-0.129	-0.018	-0.025	0.0009	0.0002	0.0002
6152	-0.079	0.004	-0.015	0.0007	-0.0017	0.0072

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
6153	-0.030	0.108	-0.004	0.0006	-0.0010	0.0207
6154	0.015	0.290	0.002	0.0005	-0.0006	0.0255
6155	0.035	0.343	0.002	0.0005	-0.0005	0.0230
6200	0.063	0.359	0.002	0.0003	-0.0005	0.0074
6201	0.061	0.317	0.000	0.0001	-0.0005	-0.0041
6202	0.020	0.274	-0.000	0.0000	-0.0004	-0.0070
6203	-0.038	0.232	-0.000	-0.0000	-0.0004	-0.0099
6204	-0.146	0.169	-0.000	-0.0000	-0.0003	-0.0068
6205	-0.161	0.141	-0.000	-0.0000	-0.0003	0.0072
6206	0.342	0.078	0.000	-0.0000	-0.0002	0.1076
6207	1.406	0.036	0.000	-0.0000	-0.0002	0.1806
6208	2.805	-0.006	0.000	-0.0000	-0.0001	0.2026
6209	4.179	-0.049	0.000	-0.0000	-0.0001	0.1735
6210	4.432	-0.139	0.000	-0.0000	-0.0001	0.0871
6250	4.478	-0.216	0.000	-0.0000	-0.0000	0.0091
6251	4.434	-0.157	-0.000	-0.0000	-0.0000	-0.0145
6252	4.391	-0.057	-0.000	-0.0000	0.0000	-0.0112
6253	4.348	-0.005	-0.000	-0.0000	0.0000	-0.0041
6254	4.284	0.005	0.000	-0.0000	0.0000	0.0003
6255	4.046	-0.000	0.000	-0.0000	-0.0000	0.0000
6300	3.526	-0.000	-0.000	-0.0000	0.0000	-0.0000
6350	2.690	0.000	0.000	-0.0000	-0.0000	0.0000
6400	1.936	-0.000	-0.000	-0.0000	-0.0000	-0.0000
6450	1.933	0.000	-0.000	-0.0000	0.0000	-0.0000
6500	1.248	0.000	-0.000	-0.0000	-0.0000	0.0000
6550	0.612	-0.000	-0.000	-0.0000	0.0000	-0.0000
6599	0.306	0.000	-0.000	-0.0000	-0.0000	0.0000
6600	-0.000	0.000	-0.000	-0.0000	0.0000	0.0000
7000	0.247	-0.237	0.327	0.0729	0.0019	-0.0118
7048	0.292	-0.357	0.264	0.0474	0.0150	-0.0110
7049	0.286	-0.350	0.250	0.0439	0.0148	-0.0124
7050	0.272	-0.318	0.244	0.0366	0.0146	-0.0140
7100	0.006	-0.001	0.189	0.0139	0.0173	-0.0116
7101	-0.002	0.002	0.062	-0.0021	-0.0023	-0.0061
7102	0.001	-0.002	0.035	0.0001	0.0008	-0.0049
7103	-0.004	-0.001	0.018	0.0003	0.0010	-0.0041
7104	-0.006	0.000	0.001	0.0004	-0.0007	-0.0034
7105	0.006	0.002	-0.017	0.0005	-0.0063	-0.0026
7106	0.010	0.002	-0.015	0.0007	-0.0029	-0.0023
7150	0.011	-0.000	-0.014	0.0008	0.0016	-0.0019
7151	0.029	-0.007	-0.011	0.0007	-0.0017	-0.0018
7152	0.049	-0.014	-0.004	0.0005	-0.0013	-0.0003
7153	0.070	-0.000	0.000	0.0004	-0.0004	0.0087
7154	0.088	0.065	0.001	0.0003	-0.0002	0.0257
7155	0.107	0.106	0.001	0.0003	-0.0002	0.0619
7200	0.183	0.135	0.001	0.0002	-0.0002	0.0953
7201	0.597	0.117	0.000	0.0001	-0.0002	0.1085
7202	1.050	0.100	-0.000	0.0001	-0.0001	0.1147
7203	1.515	0.083	-0.000	0.0000	-0.0001	0.1139

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 1 (HYD) WW+HP

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
7204	1.726	0.075	-0.000	0.0000	-0.0001	0.1111
7205	2.155	0.058	-0.000	-0.0000	-0.0001	0.1000
7206	2.525	0.040	-0.000	-0.0000	-0.0001	0.0819
7207	2.808	0.023	-0.000	-0.0001	-0.0000	0.0568
7208	2.853	0.007	-0.000	-0.0001	-0.0000	0.0365
7250	2.864	-0.018	-0.000	-0.0001	-0.0000	0.0183
7251	2.847	-0.048	-0.000	-0.0001	0.0000	-0.0003
7252	2.829	-0.029	-0.000	-0.0001	0.0000	-0.0058
7253	2.812	-0.009	-0.000	-0.0001	0.0000	-0.0036
7254	2.786	0.001	0.000	-0.0001	0.0000	-0.0007
7255	2.695	0.000	0.000	-0.0001	-0.0000	0.0003
7256	2.544	-0.000	-0.000	-0.0001	0.0000	-0.0001
7257	2.376	0.000	0.000	-0.0001	-0.0000	0.0000
7300	2.216	-0.000	-0.000	-0.0001	0.0000	-0.0000
7301	1.931	0.000	-0.000	-0.0000	-0.0000	0.0000
7350	1.668	-0.000	-0.000	-0.0000	0.0000	-0.0000
7351	1.421	0.000	-0.000	-0.0000	-0.0000	0.0000
7400	1.190	-0.000	-0.000	-0.0000	-0.0000	-0.0000
7450	1.189	0.000	-0.000	-0.0000	0.0000	-0.0000
7451	0.968	0.000	-0.000	-0.0000	0.0000	0.0000
7500	0.759	-0.000	-0.000	-0.0000	-0.0000	-0.0000
7501	0.560	0.000	-0.000	-0.0000	0.0000	0.0000
7550	0.369	-0.000	-0.000	-0.0000	-0.0000	-0.0000
7551	0.183	0.000	-0.000	-0.0000	0.0000	0.0000
7599	0.092	-0.000	-0.000	-0.0000	0.0000	-0.0000
7600	-0.000	-0.000	-0.000	-0.0000	0.0000	-0.0000

CAESAR II 2016 Ver.8.00.00.5600, (Build 150930)
 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
50	-0.000	-0.000	-0.000	0.0000	0.0000	-0.0000
100	3.766	0.000	0.000	0.0004	-0.0000	0.0000
150	7.680	-0.000	-0.000	0.0008	0.0000	-0.0000
200	11.893	-0.000	-0.000	0.0011	-0.0000	0.0000
250	12.152	0.000	0.000	0.0011	-0.0000	0.0000
300	15.216	-0.000	-0.000	0.0014	0.0004	-0.0000
301	16.354	0.000	0.000	0.0015	-0.0011	0.0000
302	17.527	0.000	0.005	0.0016	0.0036	-0.0000
303	17.839	-0.001	-0.067	0.0016	0.0121	-0.0001
304	18.048	-0.002	-0.173	0.0016	0.0145	-0.0001
305	18.259	-0.002	-0.217	0.0016	-0.0155	0.0003
306	18.469	0.004	0.132	0.0016	-0.0968	0.0013
307	18.348	0.007	0.509	0.0011	-0.2926	0.0032
350	17.629	0.008	0.845	0.0005	-0.4792	0.0041
351	13.955	0.005	1.058	0.0004	-0.5470	0.0057
352	10.009	0.003	1.271	0.0003	-0.5561	0.0074
353	6.206	0.001	1.484	0.0001	-0.5066	0.0091
354	1.090	0.002	1.861	-0.0003	-0.2743	0.0120
399	-0.200	0.004	2.050	-0.0005	-0.1718	0.0135
400	-1.222	0.008	2.239	-0.0005	-0.1890	0.0150
448	-3.780	0.004	2.581	0.0020	-0.2198	0.0176
449	-4.089	0.010	2.758	0.0063	-0.1148	0.0169
450	-4.091	0.036	2.873	0.0081	0.0106	0.0167
500	-3.358	0.390	0.884	0.0243	0.0967	0.0083
550	-3.324	0.344	0.841	0.0300	0.0967	0.0336
600	-3.254	0.304	0.796	0.0402	0.0967	0.0844
650	-2.216	0.178	0.507	0.0854	0.0967	0.3729
700	-1.813	0.145	0.415	0.0855	0.0967	0.3732
750	-0.404	0.032	0.092	0.0854	0.0967	0.3737
800	-0.000	-0.000	-0.000	0.0854	0.0967	0.3737
900	-3.233	0.403	0.501	0.0248	0.0819	-0.0007
950	-3.180	0.401	0.356	0.0248	0.0817	-0.0008
1000	-2.955	0.395	-0.255	0.0249	0.0803	-0.0009
1050	-2.902	0.393	-0.397	0.0249	0.0800	-0.0009
1100	-2.777	0.396	-0.682	0.0253	0.0561	0.0039
1150	-2.753	0.349	-0.716	0.0187	0.0561	0.0251
1200	-2.699	0.308	-0.734	0.0042	0.0561	0.0677
1250	-1.841	0.178	-0.540	-0.0908	0.0561	0.3098
1300	-1.506	0.145	-0.442	-0.0909	0.0561	0.3100
1350	-0.336	0.032	-0.099	-0.0911	0.0561	0.3104
1400	-0.000	0.000	-0.000	-0.0911	0.0561	0.3104
1500	-1.696	0.474	-0.326	0.0514	-0.0364	-0.0023
1550	-1.643	0.470	-0.261	0.0515	-0.0363	-0.0023
1600	-1.590	0.466	-0.197	0.0515	-0.0363	-0.0023
1650	-1.371	0.437	-0.000	0.0568	-0.0118	-0.0058
1700	-1.252	0.413	0.011	0.0636	0.0025	-0.0061
1750	-1.199	0.402	0.006	0.0637	0.0026	-0.0061

CAESAR II 2016 Ver.8.00.00.5600, (Build 150930)
 Licensed To: TECHFEM SPA

Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
1800	-0.973	0.355	-0.014	0.0641	0.0027	-0.0062
1850	-0.920	0.344	-0.019	0.0642	0.0026	-0.0062
1900	-0.415	0.194	-0.000	0.0931	-0.0035	-0.0120
1950	-0.296	0.152	0.001	0.0947	0.0005	-0.0089
2000	-0.243	0.136	0.000	0.0947	0.0005	-0.0088
2050	-0.018	0.070	-0.003	0.0948	0.0003	-0.0087
2100	0.035	0.054	-0.003	0.0948	0.0002	-0.0087
2120	0.191	0.017	-0.000	0.0969	0.0004	-0.0056
2150	0.347	-0.004	-0.009	0.0990	0.0014	-0.0029
2200	0.400	-0.010	-0.011	0.0990	0.0013	-0.0029
2250	0.453	-0.015	-0.013	0.0991	0.0013	-0.0029
2300	0.632	-0.026	-0.011	0.1015	-0.0020	-0.0010
2350	0.685	-0.028	-0.008	0.1015	-0.0021	-0.0010
2400	0.738	-0.030	-0.004	0.1015	-0.0021	-0.0010
2420	1.134	-0.037	-0.000	0.1068	0.0068	-0.0008
2450	1.532	-0.066	-0.094	0.1122	-0.0070	-0.0040
2500	1.585	-0.073	-0.081	0.1122	-0.0072	-0.0040
2550	1.811	-0.103	-0.023	0.1123	-0.0084	-0.0041
2600	1.864	-0.110	-0.007	0.1123	-0.0087	-0.0041
2650	1.984	-0.131	0.069	0.1139	-0.0278	-0.0063
2670	2.285	-0.196	0.637	0.0926	-0.0750	-0.0064
2700	2.586	-0.260	1.465	0.0713	-0.0785	-0.0062
2750	2.639	-0.271	1.604	0.0712	-0.0783	-0.0062
2798	-0.520	-0.021	-0.678	0.0979	-0.0193	-0.0146
2799	-0.520	-0.086	-0.845	0.0961	-0.0263	-0.0072
2800	-0.467	-0.112	-0.852	0.0913	-0.0457	0.0031
2850	-0.424	-0.107	-0.787	0.0917	-0.0484	0.0044
2900	-0.371	-0.099	-0.701	0.0918	-0.0485	0.0044
2950	-0.145	-0.065	-0.334	0.0918	-0.0488	0.0045
3000	-0.092	-0.057	-0.247	0.0918	-0.0488	0.0045
3020	0.068	-0.035	-0.000	0.0934	-0.0403	0.0034
3030	1.037	-0.122	-0.000	0.1026	0.0378	-0.0084
3050	1.446	-0.258	-0.593	0.1064	0.0381	-0.0112
3100	1.499	-0.278	-0.661	0.1064	0.0380	-0.0112
3150	1.725	-0.362	-0.944	0.1065	0.0372	-0.0112
3200	1.778	-0.382	-1.010	0.1065	0.0370	-0.0112
3248	1.820	-0.397	-1.057	0.1069	0.0329	-0.0110
3249	1.885	-0.394	-1.002	0.1158	0.0035	-0.0106
3250	1.927	-0.346	-0.774	0.1218	-0.0069	-0.0092
3498	-2.166	-0.346	0.014	-0.0148	-0.0002	-0.0260
3499	-2.174	-0.381	0.022	-0.0024	0.0038	-0.0144
3500	-2.150	-0.401	0.015	0.0048	0.0105	-0.0026
3520	-2.110	-0.402	-0.000	0.0108	0.0123	0.0009
3550	-2.029	-0.391	-0.038	0.0227	0.0133	0.0070
3600	-1.991	-0.382	-0.055	0.0228	0.0132	0.0070
3650	-1.838	-0.345	-0.121	0.0232	0.0129	0.0072
3700	-1.800	-0.336	-0.138	0.0233	0.0128	0.0072
3750	-1.266	-0.142	-0.000	0.1022	-0.0099	0.0080
3800	-1.146	-0.115	0.009	0.1064	0.0016	0.0053

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
3850	-1.108	-0.109	0.007	0.1065	0.0016	0.0053
3900	-0.955	-0.082	-0.001	0.1066	0.0014	0.0052
3950	-0.917	-0.075	-0.003	0.1066	0.0014	0.0052
3970	-0.826	-0.062	-0.000	0.1098	-0.0024	0.0038
4000	-0.735	-0.052	0.011	0.1129	-0.0057	0.0027
4050	-0.697	-0.049	0.019	0.1129	-0.0057	0.0027
4100	-0.659	-0.045	0.026	0.1130	-0.0058	0.0027
4150	-0.513	-0.034	0.068	0.1181	-0.0105	0.0020
4200	-0.475	-0.032	0.081	0.1181	-0.0105	0.0020
4250	-0.436	-0.029	0.095	0.1181	-0.0105	0.0020
4270	-0.067	0.007	-0.000	0.1310	0.0429	0.0049
4300	0.301	0.092	-0.799	0.1439	0.0566	0.0084
4350	0.339	0.103	-0.871	0.1439	0.0565	0.0084
4400	0.492	0.146	-1.157	0.1440	0.0556	0.0084
4450	0.530	0.157	-1.228	0.1441	0.0553	0.0084
4500	0.668	0.194	-1.385	0.1489	0.0143	0.0078
4520	1.251	0.145	-0.000	0.1066	-0.1074	-0.0097
4550	1.834	-0.104	1.671	0.0644	-0.0549	-0.0149
4600	1.872	-0.123	1.741	0.0643	-0.0548	-0.0149
4698	-1.217	-0.333	-0.689	0.1130	-0.0336	0.0088
4699	-1.196	-0.358	-0.781	0.1130	-0.0386	0.0106
4700	-1.164	-0.358	-0.784	0.1110	-0.0503	0.0126
4750	-1.083	-0.322	-0.638	0.1129	-0.0596	0.0141
4800	-1.045	-0.305	-0.561	0.1129	-0.0597	0.0141
4850	-0.892	-0.233	-0.256	0.1130	-0.0600	0.0141
4900	-0.854	-0.215	-0.179	0.1130	-0.0601	0.0141
4920	-0.763	-0.174	-0.000	0.1151	-0.0559	0.0131
4970	0.000	-0.000	-0.000	0.1328	0.0804	-0.0002
5000	0.371	-0.026	-1.326	0.1414	0.1084	-0.0021
5050	0.409	-0.029	-1.465	0.1414	0.1082	-0.0021
5100	0.562	-0.039	-2.015	0.1415	0.1076	-0.0020
5150	0.600	-0.042	-2.152	0.1415	0.1074	-0.0020
5198	0.699	-0.043	-2.469	0.1438	0.0877	0.0014
5199	0.725	-0.028	-2.483	0.1502	0.0659	0.0056
5200	0.730	0.003	-2.362	0.1564	0.0557	0.0091
6000	2.693	-0.282	1.743	0.0711	-0.0782	-0.0062
6048	2.949	-0.334	2.229	0.0529	-0.0236	-0.0058
6049	2.963	-0.309	2.149	0.0458	0.0897	-0.0103
6050	2.714	-0.249	1.995	0.0285	0.1817	-0.0151
6100	0.682	-0.029	1.654	0.0105	0.1308	-0.0142
6101	-0.052	0.013	1.276	-0.0002	0.0124	-0.0131
6102	-0.008	0.004	0.899	-0.0007	-0.0058	-0.0120
6103	-0.015	0.001	0.686	-0.0005	0.0129	-0.0114
6104	-0.220	-0.004	0.473	-0.0009	0.0493	-0.0108
6105	-0.698	-0.013	0.261	-0.0016	0.0777	-0.0102
6106	-0.834	-0.025	0.142	-0.0020	0.0710	-0.0100
6150	-0.827	-0.044	0.026	-0.0015	0.0233	-0.0082
6151	-0.622	-0.088	-0.047	-0.0011	0.0027	-0.0017
6152	-0.393	-0.014	-0.034	-0.0008	-0.0032	0.0296

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
6153	-0.165	0.456	-0.011	-0.0004	-0.0023	0.1000
6154	0.040	1.389	0.002	-0.0000	-0.0014	0.1458
6155	0.199	1.641	0.003	0.0002	-0.0009	0.1079
6200	0.329	1.652	0.003	0.0004	-0.0008	0.0080
6201	0.233	1.458	0.001	0.0003	-0.0007	-0.0223
6202	0.054	1.264	0.000	0.0001	-0.0007	-0.0288
6203	-0.185	1.071	-0.000	0.0000	-0.0006	-0.0426
6204	-0.671	0.780	-0.000	-0.0000	-0.0005	-0.0319
6205	-0.745	0.655	-0.000	-0.0000	-0.0005	0.0314
6206	1.535	0.364	0.000	-0.0000	-0.0004	0.4905
6207	6.400	0.171	0.000	-0.0000	-0.0003	0.8300
6208	12.871	-0.023	0.000	-0.0000	-0.0002	0.9456
6209	19.366	-0.216	0.000	-0.0000	-0.0002	0.8371
6210	20.552	-0.700	0.000	-0.0000	-0.0001	0.4063
6250	20.700	-1.058	0.000	-0.0001	-0.0001	0.0149
6251	20.500	-0.687	-0.000	-0.0001	-0.0000	-0.0720
6252	20.302	-0.228	-0.000	-0.0001	0.0000	-0.0492
6253	20.104	-0.010	-0.000	-0.0001	0.0000	-0.0164
6254	19.811	0.022	0.000	-0.0001	0.0000	0.0021
6255	18.722	-0.000	0.000	-0.0001	-0.0000	-0.0001
6300	16.337	0.000	-0.000	-0.0001	0.0000	0.0000
6350	12.514	-0.000	0.000	-0.0000	-0.0000	-0.0000
6400	9.070	0.000	-0.000	-0.0000	0.0000	0.0000
6450	8.815	-0.000	-0.000	-0.0000	0.0000	0.0000
6500	5.692	-0.000	-0.000	-0.0000	-0.0000	-0.0000
6550	2.792	0.000	-0.000	-0.0000	0.0000	0.0000
6599	1.396	-0.000	-0.000	-0.0000	0.0000	-0.0000
6600	-0.000	-0.000	-0.000	-0.0000	0.0000	-0.0000
7000	1.911	-0.142	1.811	0.0642	-0.0546	-0.0149
7048	2.226	-0.300	1.957	0.0414	0.0397	-0.0151
7049	2.223	-0.300	1.883	0.0382	0.0969	-0.0165
7050	2.116	-0.273	1.809	0.0317	0.1498	-0.0181
7100	0.032	-0.001	1.428	0.0119	0.1229	-0.0168
7101	-0.014	0.001	0.542	-0.0019	-0.0183	-0.0138
7102	0.021	-0.002	0.360	0.0001	0.0016	-0.0131
7103	0.006	-0.001	0.239	0.0005	0.0051	-0.0127
7104	-0.020	0.002	0.117	0.0013	0.0078	-0.0123
7105	-0.054	0.009	-0.004	0.0021	0.0072	-0.0119
7106	-0.047	0.007	-0.034	0.0025	0.0015	-0.0117
7150	-0.019	-0.003	-0.043	0.0024	-0.0045	-0.0120
7151	0.103	-0.054	-0.020	0.0021	-0.0053	-0.0139
7152	0.245	-0.111	-0.002	0.0017	-0.0021	-0.0037
7153	0.388	-0.008	0.002	0.0013	-0.0003	0.0683
7154	0.509	0.511	0.002	0.0010	0.0001	0.2070
7155	0.669	0.783	0.002	0.0009	0.0000	0.4015
7200	1.150	0.937	0.001	0.0006	-0.0000	0.5765
7201	3.738	0.819	-0.001	0.0004	-0.0000	0.6950
7202	6.705	0.700	-0.002	0.0002	-0.0000	0.7646
7203	9.854	0.582	-0.003	0.0000	0.0000	0.7855

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 2 (OPE) W+T1+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
7204	11.323	0.527	-0.003	-0.0000	0.0000	0.7786
7205	14.385	0.408	-0.002	-0.0001	0.0000	0.7280
7206	17.145	0.290	-0.001	-0.0002	0.0000	0.6287
7207	19.405	0.171	-0.001	-0.0002	0.0000	0.4806
7208	19.758	0.008	-0.000	-0.0002	0.0000	0.2828
7250	19.814	-0.173	-0.000	-0.0002	0.0000	0.0994
7251	19.694	-0.315	-0.000	-0.0002	0.0000	-0.0094
7252	19.574	-0.179	-0.000	-0.0002	0.0000	-0.0386
7253	19.454	-0.051	0.000	-0.0002	0.0000	-0.0222
7254	19.275	0.009	0.000	-0.0002	-0.0000	-0.0037
7255	18.649	0.000	-0.000	-0.0002	0.0000	0.0016
7256	17.607	-0.000	0.000	-0.0002	-0.0000	-0.0005
7257	16.453	0.000	-0.000	-0.0002	0.0000	0.0001
7300	15.353	-0.000	-0.000	-0.0002	-0.0000	-0.0000
7301	13.394	0.000	-0.000	-0.0002	0.0000	0.0000
7350	11.595	-0.000	-0.000	-0.0002	-0.0000	-0.0000
7351	9.894	0.000	-0.000	-0.0001	-0.0000	0.0000
7400	8.318	-0.000	-0.000	-0.0001	-0.0000	-0.0000
7450	8.140	0.000	-0.000	-0.0001	0.0000	-0.0000
7451	6.622	0.000	-0.000	-0.0001	0.0000	0.0000
7500	5.193	-0.000	-0.000	-0.0001	-0.0000	-0.0000
7501	3.835	0.000	-0.000	-0.0001	0.0000	0.0000
7550	2.528	-0.000	-0.000	-0.0000	-0.0000	-0.0000
7551	1.256	0.000	-0.000	-0.0000	0.0000	0.0000
7599	0.628	-0.000	-0.000	-0.0000	0.0000	-0.0000
7600	-0.000	-0.000	-0.000	-0.0000	0.0000	-0.0000

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
50	-0.000	0.000	-0.000	-0.0000	0.0000	0.0000
100	0.065	-0.000	-0.000	-0.0001	0.0000	-0.0000
150	0.133	0.000	-0.000	-0.0001	-0.0000	0.0000
200	0.206	0.000	0.000	-0.0002	0.0000	-0.0000
250	0.207	-0.000	-0.000	-0.0002	0.0000	-0.0000
300	0.260	0.000	0.000	-0.0002	-0.0000	0.0000
301	0.279	-0.000	-0.000	-0.0003	0.0000	-0.0000
302	0.300	-0.000	0.002	-0.0003	-0.0003	0.0000
303	0.305	0.000	0.001	-0.0003	0.0012	0.0001
304	0.309	0.001	-0.017	-0.0003	0.0044	0.0000
305	0.312	0.001	-0.060	-0.0003	0.0075	-0.0002
306	0.316	-0.002	-0.120	-0.0003	0.0089	-0.0007
307	0.323	-0.004	-0.137	-0.0000	0.0066	-0.0016
350	0.328	-0.006	-0.141	0.0002	-0.0017	-0.0020
351	0.296	-0.007	-0.139	0.0002	-0.0067	-0.0028
352	0.235	-0.009	-0.136	0.0002	-0.0100	-0.0036
353	0.158	-0.010	-0.133	0.0001	-0.0114	-0.0043
354	0.021	-0.009	-0.129	-0.0002	-0.0094	-0.0057
399	-0.032	-0.007	-0.127	-0.0010	-0.0079	-0.0064
400	-0.081	0.005	-0.124	-0.0033	-0.0081	-0.0071
448	-0.126	0.076	-0.120	-0.0097	0.0070	-0.0084
449	-0.081	0.096	-0.145	-0.0168	0.0440	-0.0066
450	-0.037	0.099	-0.265	-0.0198	0.0797	-0.0050
500	-0.027	0.002	-2.253	-0.0423	0.0491	-0.0012
550	-0.029	0.001	-2.177	-0.0543	0.0491	-0.0009
600	-0.030	0.001	-2.093	-0.0794	0.0491	-0.0002
650	-0.022	0.000	-1.399	-0.2353	0.0491	0.0036
700	-0.018	0.000	-1.144	-0.2355	0.0491	0.0036
750	-0.004	0.000	-0.255	-0.2358	0.0491	0.0036
800	-0.000	0.000	-0.000	-0.2359	0.0491	0.0036
900	-0.025	-0.000	-2.416	-0.0415	0.0258	0.0000
950	-0.025	-0.000	-2.461	-0.0415	0.0255	0.0000
1000	-0.025	0.000	-2.647	-0.0414	0.0238	0.0001
1050	-0.025	0.000	-2.689	-0.0414	0.0235	0.0001
1100	-0.023	0.001	-2.730	-0.0406	-0.0021	0.0002
1150	-0.023	0.001	-2.654	-0.0565	-0.0021	0.0004
1200	-0.022	0.000	-2.563	-0.0895	-0.0021	0.0007
1250	-0.015	0.000	-1.721	-0.2896	-0.0021	0.0025
1300	-0.012	0.000	-1.408	-0.2898	-0.0021	0.0025
1350	-0.003	0.000	-0.314	-0.2903	-0.0021	0.0025
1400	-0.000	-0.000	-0.000	-0.2903	-0.0021	0.0025
1500	-0.008	0.001	-0.572	0.0196	-0.0644	-0.0001
1550	-0.008	0.001	-0.458	0.0196	-0.0642	-0.0001
1600	-0.008	0.001	-0.344	0.0197	-0.0640	-0.0001
1650	-0.005	0.000	-0.000	0.0319	-0.0231	-0.0000
1700	-0.004	0.001	0.037	0.0410	0.0002	0.0001
1750	-0.004	0.001	0.036	0.0411	0.0004	0.0001

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
1800	-0.004	0.001	0.030	0.0416	0.0009	0.0001
1850	-0.004	0.002	0.029	0.0417	0.0009	0.0001
1900	0.001	0.000	-0.000	0.0800	-0.0011	-0.0004
1950	0.002	-0.000	-0.003	0.0820	0.0004	-0.0000
2000	0.002	-0.000	-0.004	0.0820	0.0004	0.0000
2050	0.002	-0.000	-0.006	0.0821	0.0001	0.0000
2100	0.002	-0.000	-0.006	0.0822	0.0000	0.0000
2120	0.004	-0.000	-0.000	0.0847	-0.0000	-0.0001
2150	0.006	-0.001	-0.007	0.0873	0.0011	-0.0002
2200	0.006	-0.001	-0.009	0.0873	0.0011	-0.0002
2250	0.006	-0.002	-0.011	0.0873	0.0011	-0.0002
2300	0.008	-0.003	-0.008	0.0903	-0.0020	-0.0001
2350	0.008	-0.003	-0.005	0.0903	-0.0021	-0.0001
2400	0.008	-0.003	-0.001	0.0903	-0.0021	-0.0001
2420	0.013	0.002	-0.000	0.0968	0.0073	0.0009
2450	0.019	0.017	-0.139	0.1033	0.0028	0.0008
2500	0.019	0.018	-0.144	0.1033	0.0027	0.0008
2550	0.019	0.025	-0.162	0.1034	0.0020	0.0008
2600	0.019	0.026	-0.165	0.1035	0.0018	0.0008
2650	0.021	0.027	-0.152	0.1054	-0.0064	-0.0005
2670	0.025	-0.005	-0.000	0.0843	-0.0121	-0.0061
2700	0.030	-0.093	0.041	0.0632	0.0006	-0.0106
2750	0.030	-0.112	0.039	0.0631	0.0006	-0.0106
2798	-0.004	-0.003	-0.594	0.0866	-0.0156	-0.0006
2799	-0.005	-0.004	-0.744	0.0864	-0.0217	-0.0005
2800	-0.006	-0.004	-0.754	0.0823	-0.0399	-0.0000
2850	-0.005	-0.004	-0.697	0.0828	-0.0426	0.0002
2900	-0.005	-0.004	-0.621	0.0828	-0.0427	0.0002
2950	-0.005	-0.002	-0.298	0.0829	-0.0430	0.0002
3000	-0.005	-0.002	-0.221	0.0829	-0.0431	0.0002
3020	-0.002	-0.000	-0.000	0.0848	-0.0367	0.0002
3030	0.013	0.000	-0.000	0.0963	0.0385	0.0003
3050	0.020	0.008	-0.633	0.1011	0.0438	0.0010
3100	0.020	0.010	-0.711	0.1012	0.0437	0.0010
3150	0.020	0.017	-1.037	0.1012	0.0430	0.0010
3200	0.020	0.019	-1.113	0.1013	0.0429	0.0010
3248	0.021	0.021	-1.170	0.1018	0.0395	0.0012
3249	0.020	0.023	-1.138	0.1090	0.0166	0.0007
3250	0.020	0.023	-0.936	0.1134	0.0088	-0.0001
3498	-0.011	-0.008	0.029	-0.0036	-0.0012	0.0016
3499	-0.009	-0.007	0.026	0.0087	0.0033	0.0018
3500	-0.008	-0.006	0.015	0.0159	0.0106	0.0014
3520	-0.008	-0.004	-0.000	0.0215	0.0126	0.0012
3550	-0.007	-0.001	-0.038	0.0327	0.0135	0.0006
3600	-0.007	-0.000	-0.055	0.0328	0.0135	0.0006
3650	-0.007	0.003	-0.123	0.0333	0.0131	0.0006
3700	-0.007	0.003	-0.140	0.0334	0.0130	0.0006
3750	-0.002	0.000	-0.000	0.1079	-0.0106	-0.0004
3800	-0.001	-0.000	0.010	0.1127	0.0015	0.0000

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Impianto di Melendugno
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 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
3850	-0.001	-0.000	0.008	0.1127	0.0015	0.0000
3900	-0.001	-0.000	0.001	0.1129	0.0014	0.0000
3950	-0.001	-0.000	-0.001	0.1129	0.0014	0.0000
3970	-0.000	-0.000	-0.000	0.1165	-0.0009	-0.0001
4000	0.001	-0.001	0.005	0.1201	-0.0030	-0.0002
4050	0.001	-0.001	0.008	0.1201	-0.0030	-0.0002
4100	0.001	-0.001	0.012	0.1201	-0.0030	-0.0002
4150	0.002	-0.002	0.041	0.1259	-0.0082	-0.0002
4200	0.002	-0.003	0.051	0.1259	-0.0082	-0.0002
4250	0.002	-0.003	0.062	0.1260	-0.0082	-0.0002
4270	0.004	0.000	-0.000	0.1406	0.0332	0.0010
4300	0.008	0.018	-0.609	0.1552	0.0390	0.0015
4350	0.008	0.020	-0.659	0.1552	0.0388	0.0015
4400	0.008	0.028	-0.855	0.1554	0.0380	0.0015
4450	0.008	0.030	-0.904	0.1554	0.0378	0.0015
4500	0.009	0.034	-0.995	0.1609	0.0036	0.0005
4520	0.015	-0.001	-0.000	0.1149	-0.0448	-0.0054
4550	0.022	-0.176	0.085	0.0690	0.0099	-0.0113
4600	0.022	-0.190	0.073	0.0689	0.0098	-0.0113
4698	-0.004	-0.002	-0.721	0.1180	-0.0358	-0.0001
4699	-0.004	-0.002	-0.817	0.1181	-0.0410	-0.0002
4700	-0.004	-0.002	-0.819	0.1161	-0.0531	-0.0003
4750	-0.003	-0.002	-0.666	0.1184	-0.0625	0.0002
4800	-0.003	-0.002	-0.586	0.1184	-0.0626	0.0002
4850	-0.003	-0.001	-0.266	0.1185	-0.0629	0.0002
4900	-0.003	-0.001	-0.185	0.1185	-0.0629	0.0002
4920	-0.002	-0.000	-0.000	0.1211	-0.0571	0.0001
4970	0.005	0.000	-0.000	0.1428	0.0748	0.0006
5000	0.010	0.014	-1.200	0.1534	0.0945	0.0016
5050	0.010	0.016	-1.320	0.1534	0.0944	0.0016
5100	0.010	0.024	-1.800	0.1535	0.0938	0.0016
5150	0.010	0.026	-1.920	0.1535	0.0936	0.0016
5198	0.011	0.031	-2.191	0.1563	0.0741	0.0017
5199	0.011	0.032	-2.188	0.1627	0.0529	0.0008
5200	0.010	0.032	-2.050	0.1689	0.0431	-0.0001
6000	0.030	-0.131	0.038	0.0630	0.0006	-0.0107
6048	0.035	-0.227	0.028	0.0449	0.0017	-0.0109
6049	0.033	-0.217	0.025	0.0382	0.0018	-0.0144
6050	0.030	-0.173	0.023	0.0220	0.0018	-0.0185
6100	0.008	-0.014	0.017	0.0070	0.0015	-0.0156
6101	-0.000	0.010	0.011	-0.0005	0.0002	-0.0123
6102	-0.000	0.002	0.005	-0.0005	0.0000	-0.0091
6103	-0.001	-0.000	0.001	-0.0001	0.0003	-0.0073
6104	-0.005	0.001	-0.003	0.0002	0.0007	-0.0054
6105	-0.011	0.003	-0.006	0.0004	0.0006	-0.0036
6106	-0.012	0.002	-0.007	0.0010	0.0004	-0.0027
6150	-0.012	-0.001	-0.007	0.0015	-0.0000	-0.0009
6151	-0.008	-0.003	-0.004	0.0012	-0.0005	-0.0000
6152	-0.005	-0.001	-0.001	0.0010	-0.0003	0.0007

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
6153	-0.001	0.008	0.000	0.0007	-0.0001	0.0017
6154	0.003	0.023	0.001	0.0005	-0.0001	0.0020
6155	0.005	0.027	0.001	0.0004	-0.0001	0.0017
6200	0.007	0.028	0.000	0.0001	-0.0002	0.0004
6201	0.005	0.025	-0.000	0.0000	-0.0002	-0.0004
6202	0.002	0.022	-0.000	-0.0000	-0.0002	-0.0006
6203	-0.003	0.018	-0.000	-0.0000	-0.0002	-0.0008
6204	-0.012	0.013	0.000	-0.0000	-0.0001	-0.0005
6205	-0.013	0.011	0.000	-0.0000	-0.0001	0.0006
6206	0.027	0.006	0.000	-0.0000	-0.0001	0.0086
6207	0.113	0.003	0.000	-0.0000	-0.0001	0.0145
6208	0.225	-0.001	0.000	-0.0000	-0.0001	0.0162
6209	0.335	-0.004	0.000	-0.0000	-0.0000	0.0139
6210	0.355	-0.011	0.000	-0.0000	-0.0000	0.0070
6250	0.359	-0.018	0.000	-0.0000	-0.0000	0.0007
6251	0.356	-0.013	-0.000	-0.0000	-0.0000	-0.0012
6252	0.352	-0.005	-0.000	-0.0000	0.0000	-0.0009
6253	0.349	-0.000	-0.000	-0.0000	0.0000	-0.0003
6254	0.344	0.000	0.000	-0.0000	0.0000	0.0000
6255	0.324	-0.000	0.000	-0.0000	-0.0000	0.0000
6300	0.283	-0.000	-0.000	-0.0000	0.0000	-0.0000
6350	0.216	0.000	-0.000	-0.0000	-0.0000	0.0000
6400	0.155	-0.000	-0.000	-0.0000	-0.0000	-0.0000
6450	0.155	0.000	-0.000	-0.0000	0.0000	-0.0000
6500	0.100	0.000	-0.000	-0.0000	0.0000	0.0000
6550	0.049	-0.000	-0.000	-0.0000	-0.0000	-0.0000
6599	0.025	0.000	-0.000	-0.0000	0.0000	0.0000
6600	-0.000	0.000	-0.000	-0.0000	0.0000	0.0000
7000	0.022	-0.205	0.060	0.0689	0.0098	-0.0113
7048	0.025	-0.324	0.006	0.0441	0.0026	-0.0110
7049	0.025	-0.318	0.004	0.0407	0.0018	-0.0123
7050	0.023	-0.288	0.003	0.0336	0.0015	-0.0139
7100	0.000	-0.001	-0.001	0.0125	0.0014	-0.0112
7101	-0.000	0.001	-0.010	-0.0019	-0.0001	-0.0052
7102	-0.000	-0.002	-0.012	0.0001	0.0001	-0.0039
7103	-0.001	-0.001	-0.013	0.0003	0.0001	-0.0031
7104	-0.001	0.000	-0.015	0.0003	-0.0004	-0.0022
7105	0.003	0.001	-0.016	0.0003	-0.0016	-0.0014
7106	0.005	0.001	-0.015	0.0004	-0.0023	-0.0011
7150	0.006	0.000	-0.013	0.0006	-0.0021	-0.0005
7151	0.007	-0.001	-0.005	0.0005	-0.0016	-0.0002
7152	0.009	-0.001	0.000	0.0004	-0.0005	0.0000
7153	0.011	-0.000	0.001	0.0003	0.0000	0.0007
7154	0.012	0.005	0.000	0.0002	0.0001	0.0020
7155	0.014	0.008	0.000	0.0002	0.0001	0.0048
7200	0.020	0.010	0.000	0.0001	0.0001	0.0075
7201	0.052	0.009	-0.000	0.0001	0.0000	0.0085
7202	0.088	0.007	-0.001	0.0000	0.0000	0.0090
7203	0.124	0.006	-0.001	0.0000	0.0000	0.0089

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 3 (SUS) W+P1

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
7204	0.141	0.005	-0.001	-0.0000	0.0000	0.0087
7205	0.174	0.004	-0.001	-0.0000	0.0000	0.0078
7206	0.203	0.003	-0.000	-0.0000	0.0000	0.0064
7207	0.225	0.001	-0.000	-0.0001	0.0000	0.0044
7208	0.229	-0.000	-0.000	-0.0001	0.0000	0.0028
7250	0.230	-0.002	-0.000	-0.0001	0.0000	0.0014
7251	0.228	-0.004	-0.000	-0.0001	0.0000	-0.0001
7252	0.227	-0.002	0.000	-0.0001	0.0000	-0.0005
7253	0.226	-0.001	0.000	-0.0001	-0.0000	-0.0003
7254	0.223	0.000	0.000	-0.0001	-0.0000	-0.0001
7255	0.216	0.000	-0.000	-0.0001	0.0000	0.0000
7256	0.204	-0.000	0.000	-0.0001	-0.0000	-0.0000
7257	0.191	0.000	-0.000	-0.0000	0.0000	0.0000
7300	0.178	-0.000	-0.000	-0.0000	-0.0000	-0.0000
7301	0.155	0.000	-0.000	-0.0000	0.0000	0.0000
7350	0.134	-0.000	-0.000	-0.0000	-0.0000	-0.0000
7351	0.114	0.000	-0.000	-0.0000	-0.0000	0.0000
7400	0.095	-0.000	-0.000	-0.0000	-0.0000	-0.0000
7450	0.095	0.000	-0.000	-0.0000	0.0000	-0.0000
7451	0.078	0.000	-0.000	-0.0000	0.0000	0.0000
7500	0.061	-0.000	-0.000	-0.0000	-0.0000	-0.0000
7501	0.045	0.000	-0.000	-0.0000	0.0000	0.0000
7550	0.030	-0.000	-0.000	-0.0000	-0.0000	-0.0000
7551	0.015	0.000	-0.000	-0.0000	0.0000	0.0000
7599	0.007	-0.000	-0.000	-0.0000	0.0000	-0.0000
7600	-0.000	-0.000	-0.000	-0.0000	0.0000	-0.0000

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (EXP) L4=L2-L3

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
50	-0.000	-0.000	-0.000	0.0000	0.0000	-0.0000
100	3.701	0.000	0.000	0.0004	-0.0000	0.0000
150	7.547	-0.000	-0.000	0.0009	0.0000	-0.0000
200	11.687	-0.000	-0.000	0.0013	-0.0000	0.0000
250	11.945	0.000	0.000	0.0013	-0.0000	0.0000
300	14.957	-0.000	-0.000	0.0016	0.0004	-0.0000
301	16.075	0.000	0.001	0.0017	-0.0011	0.0000
302	17.227	0.000	0.003	0.0018	0.0039	-0.0001
303	17.534	-0.001	-0.068	0.0019	0.0109	-0.0002
304	17.740	-0.003	-0.156	0.0019	0.0102	-0.0001
305	17.946	-0.002	-0.157	0.0019	-0.0230	0.0005
306	18.153	0.006	0.252	0.0019	-0.1056	0.0019
307	18.026	0.011	0.647	0.0011	-0.2993	0.0048
350	17.301	0.014	0.986	0.0002	-0.4774	0.0060
351	13.658	0.013	1.196	0.0002	-0.5402	0.0085
352	9.774	0.011	1.407	0.0002	-0.5461	0.0110
353	6.047	0.010	1.617	0.0001	-0.4952	0.0134
354	1.069	0.011	1.990	-0.0002	-0.2649	0.0178
399	-0.168	0.011	2.177	0.0005	-0.1639	0.0199
400	-1.141	0.002	2.364	0.0028	-0.1808	0.0221
448	-3.654	-0.072	2.701	0.0117	-0.2268	0.0260
449	-4.007	-0.086	2.903	0.0231	-0.1588	0.0235
450	-4.054	-0.064	3.138	0.0279	-0.0691	0.0217
500	-3.331	0.388	3.137	0.0666	0.0477	0.0095
550	-3.295	0.342	3.019	0.0843	0.0477	0.0345
600	-3.225	0.303	2.890	0.1197	0.0477	0.0846
650	-2.195	0.177	1.906	0.3208	0.0477	0.3693
700	-1.795	0.145	1.559	0.3210	0.0477	0.3696
750	-0.400	0.032	0.348	0.3213	0.0477	0.3700
800	-0.000	-0.000	0.000	0.3213	0.0477	0.3701
900	-3.208	0.403	2.917	0.0663	0.0561	-0.0007
950	-3.155	0.402	2.817	0.0663	0.0562	-0.0008
1000	-2.929	0.395	2.392	0.0663	0.0565	-0.0010
1050	-2.876	0.393	2.292	0.0663	0.0565	-0.0009
1100	-2.753	0.395	2.048	0.0660	0.0582	0.0037
1150	-2.730	0.348	1.938	0.0752	0.0582	0.0247
1200	-2.676	0.308	1.829	0.0937	0.0582	0.0670
1250	-1.826	0.178	1.181	0.1989	0.0582	0.3072
1300	-1.493	0.145	0.966	0.1990	0.0582	0.3075
1350	-0.333	0.032	0.216	0.1991	0.0582	0.3079
1400	-0.000	0.000	0.000	0.1992	0.0582	0.3079
1500	-1.687	0.473	0.246	0.0319	0.0280	-0.0022
1550	-1.634	0.469	0.196	0.0318	0.0279	-0.0022
1600	-1.581	0.465	0.147	0.0318	0.0277	-0.0022
1650	-1.366	0.436	0.000	0.0249	0.0112	-0.0057
1700	-1.247	0.412	-0.026	0.0226	0.0023	-0.0062
1750	-1.194	0.401	-0.030	0.0226	0.0022	-0.0062

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (EXP) L4=L2-L3

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
1800	-0.969	0.354	-0.044	0.0225	0.0018	-0.0063
1850	-0.916	0.343	-0.048	0.0225	0.0017	-0.0063
1900	-0.416	0.193	-0.000	0.0131	-0.0024	-0.0116
1950	-0.298	0.152	0.004	0.0127	0.0001	-0.0089
2000	-0.245	0.136	0.004	0.0127	0.0001	-0.0088
2050	-0.020	0.070	0.003	0.0127	0.0002	-0.0087
2100	0.033	0.055	0.003	0.0127	0.0002	-0.0087
2120	0.187	0.018	0.000	0.0122	0.0005	-0.0055
2150	0.341	-0.003	-0.002	0.0118	0.0002	-0.0027
2200	0.394	-0.008	-0.002	0.0118	0.0002	-0.0027
2250	0.447	-0.013	-0.003	0.0117	0.0002	-0.0027
2300	0.624	-0.023	-0.003	0.0112	-0.0000	-0.0010
2350	0.677	-0.025	-0.003	0.0112	-0.0000	-0.0010
2400	0.730	-0.027	-0.003	0.0112	-0.0000	-0.0009
2420	1.121	-0.039	-0.000	0.0101	-0.0004	-0.0017
2450	1.514	-0.083	0.046	0.0089	-0.0099	-0.0048
2500	1.567	-0.091	0.063	0.0089	-0.0099	-0.0048
2550	1.792	-0.128	0.140	0.0089	-0.0104	-0.0049
2600	1.845	-0.136	0.158	0.0089	-0.0105	-0.0049
2650	1.963	-0.158	0.221	0.0085	-0.0214	-0.0058
2670	2.260	-0.191	0.637	0.0083	-0.0628	-0.0003
2700	2.556	-0.166	1.425	0.0081	-0.0791	0.0044
2750	2.609	-0.159	1.565	0.0081	-0.0789	0.0044
2798	-0.516	-0.018	-0.085	0.0113	-0.0037	-0.0140
2799	-0.514	-0.082	-0.101	0.0097	-0.0046	-0.0067
2800	-0.461	-0.108	-0.098	0.0091	-0.0058	0.0032
2850	-0.419	-0.102	-0.090	0.0090	-0.0058	0.0042
2900	-0.366	-0.095	-0.080	0.0090	-0.0058	0.0042
2950	-0.141	-0.063	-0.036	0.0090	-0.0058	0.0043
3000	-0.088	-0.056	-0.026	0.0090	-0.0058	0.0043
3020	0.070	-0.034	-0.000	0.0086	-0.0036	0.0032
3030	1.024	-0.122	0.000	0.0063	-0.0007	-0.0087
3050	1.426	-0.266	0.040	0.0053	-0.0057	-0.0122
3100	1.479	-0.288	0.050	0.0053	-0.0057	-0.0122
3150	1.705	-0.379	0.094	0.0053	-0.0058	-0.0122
3200	1.758	-0.401	0.104	0.0053	-0.0059	-0.0122
3248	1.799	-0.418	0.113	0.0052	-0.0067	-0.0122
3249	1.865	-0.417	0.136	0.0069	-0.0130	-0.0113
3250	1.908	-0.369	0.162	0.0084	-0.0157	-0.0090
3498	-2.155	-0.338	-0.015	-0.0112	0.0010	-0.0275
3499	-2.165	-0.374	-0.005	-0.0111	0.0005	-0.0162
3500	-2.142	-0.395	-0.000	-0.0110	-0.0001	-0.0040
3520	-2.102	-0.398	-0.000	-0.0107	-0.0002	-0.0004
3550	-2.022	-0.390	0.001	-0.0101	-0.0002	0.0064
3600	-1.984	-0.381	0.001	-0.0101	-0.0002	0.0064
3650	-1.831	-0.348	0.002	-0.0100	-0.0002	0.0066
3700	-1.793	-0.340	0.002	-0.0100	-0.0002	0.0067
3750	-1.265	-0.142	-0.000	-0.0057	0.0007	0.0084
3800	-1.145	-0.115	-0.002	-0.0063	0.0001	0.0052

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (EXP) L4=L2-L3

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
3850	-1.107	-0.108	-0.002	-0.0063	0.0001	0.0052
3900	-0.954	-0.082	-0.002	-0.0063	0.0000	0.0052
3950	-0.916	-0.075	-0.002	-0.0063	0.0000	0.0051
3970	-0.826	-0.062	0.000	-0.0067	-0.0015	0.0039
4000	-0.736	-0.052	0.007	-0.0071	-0.0027	0.0029
4050	-0.698	-0.048	0.010	-0.0071	-0.0027	0.0029
4100	-0.660	-0.044	0.014	-0.0072	-0.0027	0.0029
4150	-0.515	-0.032	0.027	-0.0078	-0.0023	0.0022
4200	-0.476	-0.029	0.030	-0.0078	-0.0023	0.0022
4250	-0.438	-0.026	0.033	-0.0078	-0.0023	0.0022
4270	-0.072	0.007	-0.000	-0.0096	0.0097	0.0039
4300	0.293	0.074	-0.189	-0.0113	0.0177	0.0069
4350	0.331	0.083	-0.212	-0.0113	0.0177	0.0069
4400	0.484	0.118	-0.302	-0.0113	0.0176	0.0069
4450	0.522	0.127	-0.324	-0.0113	0.0176	0.0069
4500	0.659	0.160	-0.391	-0.0120	0.0108	0.0073
4520	1.236	0.146	0.000	-0.0083	-0.0626	-0.0043
4550	1.812	0.072	1.586	-0.0046	-0.0647	-0.0036
4600	1.851	0.068	1.668	-0.0046	-0.0646	-0.0036
4698	-1.213	-0.331	0.032	-0.0049	0.0021	0.0088
4699	-1.192	-0.356	0.036	-0.0051	0.0024	0.0108
4700	-1.159	-0.356	0.036	-0.0051	0.0028	0.0129
4750	-1.079	-0.320	0.028	-0.0055	0.0029	0.0138
4800	-1.041	-0.302	0.024	-0.0056	0.0028	0.0139
4850	-0.889	-0.232	0.010	-0.0056	0.0028	0.0139
4900	-0.850	-0.214	0.006	-0.0056	0.0028	0.0139
4920	-0.760	-0.173	0.000	-0.0060	0.0012	0.0130
4970	-0.005	-0.000	-0.000	-0.0100	0.0056	-0.0008
5000	0.361	-0.040	-0.127	-0.0119	0.0138	-0.0036
5050	0.400	-0.045	-0.144	-0.0119	0.0138	-0.0036
5100	0.552	-0.063	-0.215	-0.0120	0.0138	-0.0036
5150	0.590	-0.067	-0.233	-0.0120	0.0138	-0.0035
5198	0.688	-0.074	-0.278	-0.0125	0.0136	-0.0003
5199	0.715	-0.060	-0.295	-0.0125	0.0130	0.0048
5200	0.719	-0.030	-0.312	-0.0126	0.0126	0.0091
6000	2.662	-0.151	1.705	0.0081	-0.0788	0.0045
6048	2.915	-0.107	2.201	0.0080	-0.0253	0.0051
6049	2.930	-0.092	2.124	0.0076	0.0879	0.0041
6050	2.684	-0.076	1.971	0.0065	0.1799	0.0034
6100	0.674	-0.015	1.636	0.0035	0.1293	0.0014
6101	-0.052	0.003	1.265	0.0003	0.0122	-0.0008
6102	-0.008	0.002	0.894	-0.0002	-0.0058	-0.0030
6103	-0.014	0.001	0.685	-0.0004	0.0126	-0.0042
6104	-0.215	-0.004	0.476	-0.0012	0.0486	-0.0054
6105	-0.688	-0.016	0.267	-0.0020	0.0771	-0.0066
6106	-0.822	-0.026	0.149	-0.0030	0.0706	-0.0073
6150	-0.815	-0.043	0.033	-0.0030	0.0233	-0.0073
6151	-0.613	-0.084	-0.043	-0.0024	0.0031	-0.0017
6152	-0.389	-0.013	-0.033	-0.0017	-0.0029	0.0288

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (EXP) L4=L2-L3

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
6153	-0.164	0.448	-0.011	-0.0011	-0.0022	0.0982
6154	0.037	1.366	0.001	-0.0005	-0.0013	0.1438
6155	0.194	1.614	0.003	-0.0002	-0.0008	0.1062
6200	0.323	1.624	0.003	0.0002	-0.0006	0.0076
6201	0.228	1.433	0.001	0.0002	-0.0005	-0.0219
6202	0.053	1.243	0.000	0.0001	-0.0005	-0.0282
6203	-0.182	1.052	-0.000	0.0000	-0.0005	-0.0419
6204	-0.660	0.767	-0.000	-0.0000	-0.0004	-0.0313
6205	-0.732	0.644	-0.000	-0.0000	-0.0003	0.0308
6206	1.508	0.359	0.000	-0.0000	-0.0003	0.4818
6207	6.287	0.168	0.000	-0.0000	-0.0002	0.8156
6208	12.646	-0.022	0.000	-0.0000	-0.0002	0.9293
6209	19.031	-0.212	0.000	-0.0000	-0.0001	0.8232
6210	20.196	-0.689	0.000	-0.0000	-0.0001	0.3993
6250	20.341	-1.041	0.000	-0.0000	-0.0000	0.0141
6251	20.144	-0.674	-0.000	-0.0000	-0.0000	-0.0708
6252	19.949	-0.223	-0.000	-0.0000	0.0000	-0.0483
6253	19.756	-0.009	-0.000	-0.0000	0.0000	-0.0161
6254	19.468	0.022	0.000	-0.0000	0.0000	0.0020
6255	18.398	-0.000	0.000	-0.0000	-0.0000	-0.0001
6300	16.055	0.000	-0.000	-0.0000	0.0000	0.0000
6350	12.298	-0.000	0.000	-0.0000	-0.0000	-0.0000
6400	8.914	0.000	-0.000	-0.0000	0.0000	0.0000
6450	8.660	-0.000	0.000	-0.0000	0.0000	0.0000
6500	5.592	-0.000	0.000	-0.0000	-0.0000	-0.0000
6550	2.742	0.000	-0.000	-0.0000	0.0000	0.0000
6599	1.371	-0.000	0.000	-0.0000	-0.0000	-0.0000
6600	-0.000	-0.000	0.000	-0.0000	-0.0000	-0.0000
7000	1.889	0.063	1.751	-0.0046	-0.0644	-0.0036
7048	2.200	0.024	1.951	-0.0026	0.0371	-0.0041
7049	2.199	0.019	1.879	-0.0024	0.0951	-0.0042
7050	2.093	0.015	1.806	-0.0019	0.1483	-0.0042
7100	0.032	-0.000	1.429	-0.0006	0.1216	-0.0055
7101	-0.014	-0.000	0.552	0.0000	-0.0181	-0.0086
7102	0.021	-0.000	0.372	-0.0000	0.0015	-0.0092
7103	0.007	-0.000	0.252	0.0003	0.0050	-0.0096
7104	-0.019	0.002	0.132	0.0010	0.0082	-0.0101
7105	-0.057	0.008	0.011	0.0018	0.0089	-0.0105
7106	-0.052	0.006	-0.019	0.0021	0.0038	-0.0106
7150	-0.025	-0.003	-0.031	0.0018	-0.0024	-0.0115
7151	0.095	-0.053	-0.015	0.0016	-0.0038	-0.0137
7152	0.236	-0.109	-0.002	0.0013	-0.0017	-0.0037
7153	0.377	-0.008	0.001	0.0010	-0.0003	0.0676
7154	0.497	0.506	0.002	0.0008	0.0000	0.2050
7155	0.655	0.775	0.001	0.0007	-0.0000	0.3967
7200	1.130	0.927	0.001	0.0005	-0.0001	0.5691
7201	3.685	0.810	-0.001	0.0003	-0.0001	0.6864
7202	6.617	0.693	-0.002	0.0001	-0.0000	0.7556
7203	9.730	0.576	-0.002	0.0000	-0.0000	0.7765

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Impianto di Melendugno
 Allegato 1 - Area 2
 DISPLACEMENTS REPORT: Nodal Movements
 CASE 4 (EXP) L4=L2-L3

Node	DX mm.	DY mm.	DZ mm.	RX deg.	RY deg.	RZ deg.
7204	11.182	0.521	-0.002	-0.0000	-0.0000	0.7699
7205	14.210	0.404	-0.002	-0.0001	-0.0000	0.7202
7206	16.941	0.287	-0.001	-0.0002	-0.0000	0.6223
7207	19.180	0.170	-0.000	-0.0002	0.0000	0.4762
7208	19.529	0.008	-0.000	-0.0002	0.0000	0.2800
7250	19.585	-0.171	-0.000	-0.0002	0.0000	0.0980
7251	19.466	-0.311	-0.000	-0.0002	0.0000	-0.0093
7252	19.347	-0.177	-0.000	-0.0002	0.0000	-0.0381
7253	19.228	-0.050	0.000	-0.0002	0.0000	-0.0219
7254	19.052	0.009	0.000	-0.0002	-0.0000	-0.0036
7255	18.433	0.000	-0.000	-0.0002	0.0000	0.0016
7256	17.403	-0.000	0.000	-0.0002	-0.0000	-0.0005
7257	16.263	0.000	-0.000	-0.0002	0.0000	0.0001
7300	15.176	-0.000	0.000	-0.0002	-0.0000	-0.0000
7301	13.239	0.000	-0.000	-0.0001	0.0000	0.0000
7350	11.461	-0.000	0.000	-0.0001	-0.0000	-0.0000
7351	9.781	0.000	-0.000	-0.0001	0.0000	0.0000
7400	8.223	-0.000	0.000	-0.0001	-0.0000	-0.0000
7450	8.045	0.000	-0.000	-0.0001	-0.0000	-0.0000
7451	6.544	0.000	-0.000	-0.0001	0.0000	0.0000
7500	5.133	-0.000	0.000	-0.0001	-0.0000	-0.0000
7501	3.790	0.000	-0.000	-0.0000	0.0000	0.0000
7550	2.499	-0.000	0.000	-0.0000	-0.0000	-0.0000
7551	1.241	0.000	-0.000	-0.0000	0.0000	0.0000
7599	0.620	-0.000	0.000	-0.0000	-0.0000	-0.0000
7600	-0.000	-0.000	0.000	-0.0000	-0.0000	-0.0000

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Impianto di Melendugno
 Allegato 1 - Area 2
 FLANGE PEQ REPORT: Flange (Equiv Pressure Method)
 CASE 2 (OPE) W+T1+P1

Errore. Il segnalibro non è definito.

Node	Axial Force N.	Bending Moment N.m.	G/C mm.	P Equivalent KPa	Rating Temperature C	Allowable Pressure /Stress	Ratio %
950	5217	851	144.60	2751.63	60.00	9873.29	27.87
1000	5217	999	144.60	3000.71	60.00	9873.29	30.39
700	705	110	43.65	8203.35	60.00	9873.29	83.09
750	705	25	43.65	2981.98	60.00	9873.29	30.20
1500							
1550	5548	235	144.60	1733.67	60.00	9873.29	17.56
1300	640	104	43.65	7800.98	60.00	9873.29	79.01
1350	640	25	43.65	2979.75	60.00	9873.29	30.18
3600	246	51	82.45	1512.51	60.00	9873.29	15.32
3650	246	77	82.45	1742.16	60.00	9873.29	17.65
1750	6383	255	144.60	1818.21	60.00	9873.29	18.42
1800	6383	82	144.60	1527.39	60.00	9873.29	15.47
2000	6156	126	144.60	1586.89	60.00	9873.29	16.07
2050	6156	166	144.60	1654.42	60.00	9873.29	16.76
2150							
2200	5829	98	144.60	1519.28	60.00	9873.29	15.39
2300							
2350	5829	88	144.60	1503.97	60.00	9873.29	15.23
2500	5261	712	144.60	2520.19	60.00	9873.29	25.53
2550	5261	860	144.60	2769.02	60.00	9873.29	28.05
2700							
2750	5155	450	144.60	2071.44	60.00	9873.29	20.98
2900	690	351	144.60	1632.41	60.00	9873.29	16.53
2950	690	75	144.60	1168.50	60.00	9873.29	11.83
3100	106	470	144.60	1797.82	60.00	9873.29	18.21
3150	106	556	144.60	1942.63	60.00	9873.29	19.68
3850	382	12	82.45	1177.87	60.00	9873.29	11.93
3900	382	36	82.45	1395.71	60.00	9873.29	14.14
4000							
4050	434	26	82.45	1322.04	60.00	9873.29	13.39

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Impianto di Melendugno
 Allegato 1 - Area 2
 FLANGE PEQ REPORT: Flange (Equiv Pressure Method)
 CASE 2 (OPE) W+T1+P1

Node	Axial Force N.	Bending Moment N.m.	G/C mm.	P Equivalent KPa	Rating Temperature C	Allowable Pressure /Stress	Ratio %	
4150								
4200	434	2	82.45	1095.24	60.00	9873.29	11.09	
4350	610	123	82.45	2236.02	60.00	9873.29	22.65	
4400	610	163	82.45	2598.22	60.00	9873.29	26.32	
4550								
4600	612	84	82.45	1882.05	60.00	9873.29	19.06	
4800	42	67	82.45	1615.08	60.00	9873.29	16.36	
4850	42	27	82.45	1255.43	60.00	9873.29	12.72	
5050	96	88	82.45	1822.14	60.00	9873.29	18.46	
5100	96	118	82.45	2092.30	60.00	9873.29	21.19	