



CLIENT: TAMOIL Raffinazione S.p.A.
PROJECT: MINIMUM INVESTMENT PROJECT
UNIT: UNIT 400 - LER


CONTRACT: 1-BD-0381A


Equipment List

Drawing no.: BD0381A-01-400-101
TAMOIL doc no.:

Revision: C01

Date: 21/11/2007

Issued by: A. Dolfini


Checked by: R. Grigoletto


Approved by: F. Croce



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EQUIPMENT LIST

General Notes

(A): P&ID Number 400-1-50-xxx
(B): Requisition BD0381A-xxx

(C): Insulation Type
HC = Heat Conservation
NI = Not Insulated
PP = Personnel Protection
ST = Steam Tracing
ET = Electrical Tracing
WW = Winterized
AI = Acoustic Insulation

(D): PED Category
Category from SEP to IV (to be defined by Vendors)

Type Of Service field is indicating the service: continous, stand-by, intermittend, spare...



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EQUIPMENT LIST

Equipment Number	Equipment Name	Equipment Type	P&ID N° (A)	Requisition (B)	Weight	Size		Electrical Power	Voltage	Material	Duty	Design		Insulation		PED Cat (D)	TOS	Type Of Service	Remarks	Revision
						DIAMETER	LENGTH					Press	Temp	Type (C)	Thick					
						kg	mm					mm	kW	V	MMKcal/h					
E-482	NAPHTHA SPLITTER REBOILER	THERMOSYPHON	HOLD	HOLD	HOLD	HOLD	HOLD	-	-	SHELL: CS TUBES: CS 14 BWG	5,2	SHELL: 15 TUBES: 11,6	SHELL: 260 TUBES: 343	HC	HOLD	HOLD	HOLD	HOLD	surface 320 m ²	C01
E-483	NAPHTHA SPLITTER OVHD TRIM COOLER	S&T	HOLD	HOLD	HOLD	HOLD	HOLD	-	-	SHELL: CS + 3 mm TUBES: CS 12 BWG	1,1	SHELL: 4,13 + FV TUBES: 5	SHELL: 121 TUBES: 80	HC	HOLD	HOLD	HOLD	HOLD	surface 130 m ²	C01
E-484	DEETHANIZER REBOILER	THERMOSYPHON	42	HOLD	HOLD	HOLD	HOLD	-	-	SHELL: CS + 3 mm TUBES: CS 14 BWG	0,81	SHELL: 31,7 TUBES: 24,4	SHELL: 180 TUBES: 270	HC	HOLD	HOLD	HOLD	HOLD	surface 75 m ²	C01
E-485	STABILIZER REBOILER	THERMOSYPHON	43	HOLD	HOLD	shell ID=1500	Tube L=4880	-	-	SHELL: CS TUBES: 5%Cr 14 BWG	6,8	SHELL: 11,4 TUBES: 9,5	SHELL: 274 TUBES: 305	HC	HOLD	HOLD	HOLD	HOLD	surface 495m ²	C01
3-E-3B	NAPHTHA SPLITTER REBOILER	TO BE DISMANTED. REPLACED BY E-482																		C00
E-403	DEBUTANIZER REBOILER	TO BE DISMANTED. REPLACED BY E-484																		C00
E-405	DEETHANIZER REBOILER	TO BE DISMANTED. REPLACED BY E-485																		C00
E-481	DEBUTANIZER OVHD CONDENSER	AIR FIN	HOLD	HOLD	HOLD	TUBE LENGHT 9144, TOTAL WIDTH 7000		4x13	HOLD	HEADERS: KCS+6mm TUBES: KCS 12BWG	2.16 (Gcal/h)	11.4 + FV	120	HOLD	HOLD	HOLD	HOLD	HOLD	estimate plot area: 10m x 9m	C01
E-413	RERUN TOWER REBOILER	EQUIPMENT TO BE DISMANTLED																		C00



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						DIAMETE R	LENGTH					Press	Temp	Type (C)	Thick					
						kg	mm					mm	kW	V	MW					
3-P1 A/B	HEAVY NAPHTHA PUMP	CENTRIFUGAL	HOLD	-	-	-	-	HOLD	HOLD	CASING: CS IMPELLER: CS	HOLD	HOLD	HOLD	HOLD	HOLD	HOLD	HOLD	HOLD	Existing pumps. New impellers	C00
3-P2 A/B	NAPHTHA SPLITTER REFLUX PUMP	CENTRIFUGAL	HOLD	-	-	-	-	HOLD	HOLD	CASING: CS IMPELLER: CS	HOLD	HOLD	HOLD	HOLD	HOLD	HOLD	HOLD	HOLD	Existing pumps. New impellers	C00



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						DIAMETER mm	LENGTH mm					Press Kg/cm2g	Temp °C	Type (C)	Thick					
C-401	STABILIZER	VERTICAL	42	-	HOLD	RECTIFYING SECTION 1520 STRIPPING SECTION 2440	24600	-	-	INTERNAL: 16 trays SS410S	-	-	-	-	-	-	-	-	Existing column. Replacement of stripping section existing trays (diameter 2440 mm) with 16 new two pass trays.	C00
C-404	RERUN TOWER	EQUIPMENT TO BE DISMANTLED																		C00
3-C-1	NAPHTHA SPLITTER	VERTICAL	HOLD	-	HOLD	2300	23200	-	-	INTERNAL: 30 trays CS + 4mm ca	-	-	-	-	-	-	-	-	Existing column. Replacement of existing trays with: - 13 two pass trays (rectifying section) - 17 high capacity trays, Ultrafac type (stripping section)	C00