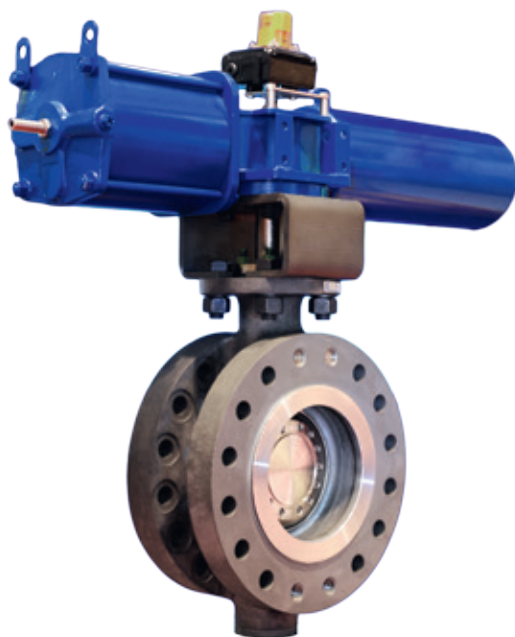


## VANESSA SERIES 30,000 TRIPLE OFFSET VALVES\*

### BASIC CONFIGURATION

With a robust integral-to-body valve seat and optimized seating angles, this valve is capable of handling isolation and process control through multiple functionalities



### FEATURES

- Robust and fire-resistant all-metal construction.
- Stellite® grade 21 seat overlays provide excellent durability.
- Resilient metal seal ring ensures perfect seating force distribution around precision-machined seat circumference.
- Easily replaceable multi-layered duplex and graphite seal rings.
- Robust one-piece shaft designed to transfer/maintain torque efficiently.
- Two-piece packing gland and graphite packing minimize external emission risk.
- Key secured shaft-to-disc connection for maximum shaft integrity.
- Heavy duty bearings withstand high pressure loads and wear.
- Braided graphite bearing protectors prevent dirt intrusion, ensuring constant running torque and valve operability.
- Internal and external shaft extrusion risk handling complies with international standards.
- Flange spot facing ensures bolting nut and washer planarity, increasing joint reliability and safety.
- Open/closed disc references and external disc position indicator simplify installation/removal procedures to API 609.
- Spiral wound gaskets, seal and packing rings replaceable with no special tools.

### GENERAL APPLICATIONS

Suitable for handling the broadest range of fluids in oil & gas, petrochemical, chemical, coal, desalination, waterworks, food & beverage industries. Also for solar, geothermal and hydro power, fossil fuels, district heating, mining, shipyards and the aerospace sectors.

#### Fluids

Series 30,000 valves are suitable for processes containing:

Crude oil; jet fuel; kerosene; gasoline; acid gas; sour gas; natural gas; syngas; carbon dioxide; flare gas; tail gas; ethylene; ethylene glycol; ethylbenzene; butadiene; styrene; hydrogen; oxygen; nitric, acrylic, sulphuric, hydrochloric, hydrofluoric, acetic acid; hydrogen peroxide; alcohols; ammonia; amines; chlorine; vinyl chloride; steam; geothermal steam; heat transfer fluids; flue gas; coke oven gas; potable water; sea water; waste water.

### TECHNICAL DATA

Sizes:	DN 80 - 3000 (NPS 3 - 120)
Pressure ratings:	ASME class 150 - 1500; EN PN 10 - 250
Temperature range:	-60°C to +450°C (-76°F to +842°F)

#### Standards

Design:	API 609, EN 593; ASME B16.34, EN 12516
Flange:	ASME B16.5/ASME B16.47; EN 1092-1; ISO 7005
Face to face:	ISO 5752; EN 558; ASME B16.10; API 609

\* Vanessa triple offset valves perform bidirectional zero leakage tightness (according to 'Leakage Rate A' of ISO 5208 and EN 12266-1 standards, and the 'Resilient Seat Valves' requirement of API 598) through non-rubbing 90-degree rotation and metal-to-metal torque seating.

**Drawings and dimensional tables published in this datasheet represent a selection from a much wider range available. For more information, please contact your nearest Emerson sales office or register on Vanessa Client Area at: [www.vanessaEmerson.com/FinalControl/client\\_area](http://www.vanessaEmerson.com/FinalControl/client_area).**

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## ASME TYPICAL MATERIAL SELECTION

### ASME TYPICAL MATERIAL SELECTION - please refer to basic configuration sectional drawing on page 3

Item	Note	Description	Body in carbon steel (gr. WCC) <sup>(1)</sup>	Body in carbon steel (gr. LCC) <sup>(1)</sup>	Body in stainless steel <sup>(2)</sup>
1		Body	ASTM A216 WCC	ASTM A352 LCC	ASTM A351 CF3M / CF8M
		Weld surfacing on seat	Stellite® gr.21	Stellite® gr.21	Stellite® gr.21
2		Cast disc	ASTM A216 WCC	ASTM A352 LCC	ASTM A351 CF3M / CF8M
	□	Forged disc	ASTM A105 / ASTM A350 LF2 (dual grade)	ASTM A105 / ASTM A350 LF2 (dual grade)	ASTM A182 UNS S31600 / UNS S31603 (F316 / F316L)
		Retainer flange	ASTM A516 gr. 70	ASTM A516 gr. 70	ASTM A240 UNS S31600 / UNS S31603 (gr.316 / gr.316L)
		Retainer flange screw	ISO 3506 A4 (ASTM F738 gr. A4)	ISO 3506 A4 (ASTM F738 gr. A4)	ISO 3506 A4 (ASTM F738 gr. A4)
4		Shaft	ASTM A479 UNS S41000 (13 Cr SS)	ASTM A479 UNS S41000 (13 Cr SS)	ASTM A479 XM19 - UNS S20910 (Nitronic 50 ®)
5	□	Packing bushing	UNS S31600 / UNS S31603 (AISI 316 / 316L)	UNS S31600 / UNS S31603 (AISI 316 / 316L)	UNS S31600 / UNS S31603 (AISI 316 / 316L)
		Stud nut	ISO 3506 A4 (ASTM F738 gr. A4)	ISO 3506 A4 (ASTM F738 gr. A4)	ISO 3506 A4 (ASTM F738 gr. A4)
		Stud bolts	ISO 3506 A4 (ASTM F738 gr. A4)	ISO 3506 A4 (ASTM F738 gr. A4)	ISO 3506 A4 (ASTM F738 gr. A4)
	□	Packing flange	UNS S31600 / UNS S31603 (AISI 316 / 316L)	UNS S31600 / UNS S31603 (AISI 316 / 316L)	UNS S31600 / UNS S31603 (AISI 316 / 316L)
6	□	Bottom flange	ASTM A516 gr. 70 or ASTM A216 WCC or ASTM A105 / A350LF2	ASTM A516 gr. 70 or ASTM A352 LCC or ASTM 350 LF2	ASTM A240 / A182 UNS S31600 / UNS S31603 (AISI 316 / 316L) or ASTM A351 CF8M / CF3M
		Screw	ISO 3506 A4 (ASTM F738 gr. A4)	ISO 3506 A4 (ASTM F738 gr. A4)	ISO 3506 A4 (ASTM F738 gr. A4)
7		Thrust bearing	UNS S31600 / UNS S31603 (AISI 316 / 316L) hard faced	UNS S31600 / UNS S31603 (AISI 316 / 316L) hard faced	UNS S31600 / UNS S31603 (AISI 316 / 316L) hard faced
8		Bearing	UNS S31600 / UNS S31603 (AISI 316 / 316L) hard faced	UNS S31600 / UNS S31603 (AISI 316 / 316L) hard faced	UNS S31600 / UNS S31603 (AISI 316 / 316L) hard faced
		Bearing protector	Graphite ring	Graphite ring	Graphite ring
S	○	Packing	Graphite	Graphite	Graphite
	○	Bottom spiral wound gasket	UNS S31600 / UNS S31603 + graphite	UNS S31600 / UNS S31603 + graphite	UNS S31600 / UNS S31603 + graphite
	○ ◆	Seal ring	UNS S31803 (duplex) + graphite or UNS S17400 (17-4 PH) hard faced	UNS S31803 (duplex) + graphite or UNS S17400 (17-4 PH) hard faced	UNS S31803 (duplex) + graphite or UNS S20910 (Nitronic 50 ®) hard faced
	○	Seal ring spiral wound gasket	UNS S31600 / UNS S31603 + graphite	UNS S31600 / UNS S31603 + graphite	UNS S31600 / UNS S31603 + graphite

### NOTES

<sup>(1)</sup> Heat treated ASTM A216 WCC (-46°C to + 426°C) can be used without any restrictions from a design temperature of -46°C.

Carbon Steel (WCC and LCC) valve material selection is compliant with the requirements of NACE MR0103 / ISO 17945 and NACE MR0175 / ISO 15156 for H2S partial pressures < 10 kPa and pH values 3.5

<sup>(2)</sup> Cast material ASTM A351 CF3M/CF8M is DUAL GRADE CERTIFIED. Forged & plate material UNS 31600/UNS S31603 (AISI 316/ AISI 316L) is DUAL GRADE CERTIFIED.

Stainless Steel (CF3M) valve material selection is compliant with the requirements of NACE MR103 / ISO 17945 and NACE MR0175 / ISO 15156

□ Materials are exclusively selected by factory depending on valve size.

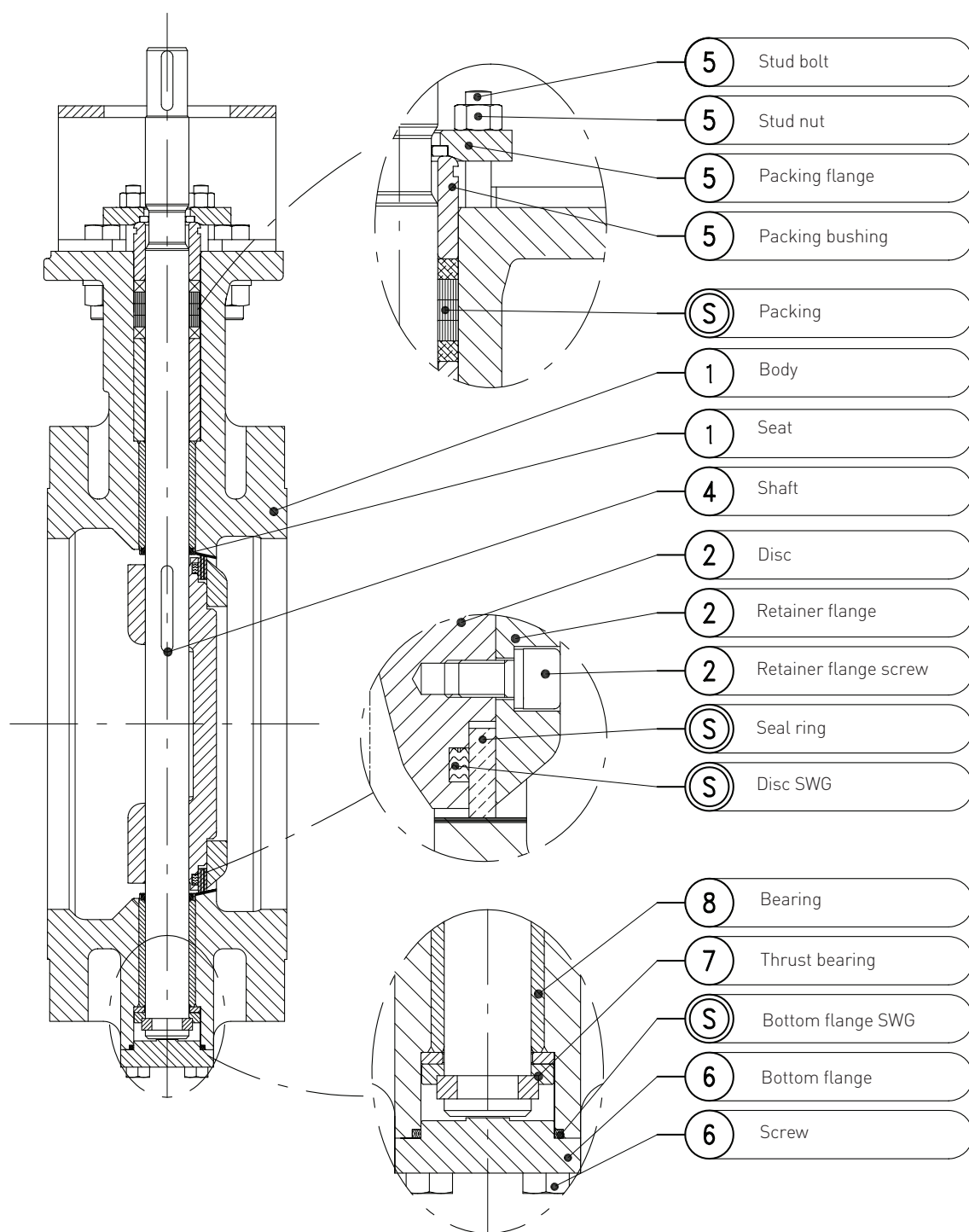
○ Suggested spare parts.

◆ Solid seal rings in UNS S17400 (17-4 PH) or UNS S20910 (Nitronic 50®) are supplied depending on applications and can be requested as an option. For ASME class 900 and above solid seal rings are standard components.

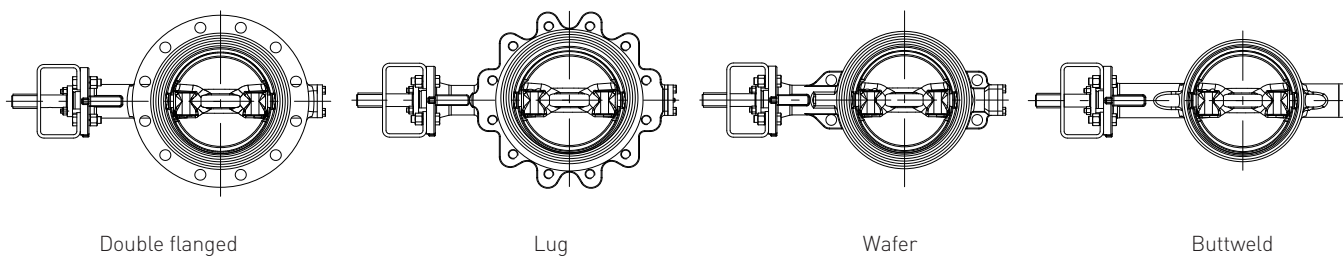
Vanessa Series 30,000 triple offset valves are also manufactured in a wide range of valve body materials, including: high temperature alloy steel e.g. WC6, WC9, C5, C12; austenitic stainless steel e.g. CF8, CF3, CF8C, CF10; Duplex and Super Duplex stainless steel e.g. CD3MN, CD3MWCuN; high alloy austenitic stainless steel e.g. 6Mo (CN3MN) and Alloy 20 (CN7M), many different nickel alloys including Monel, Incoloy, Hastelloy, Inconel; nickel aluminum bronze and titanium.

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## BASIC CONFIGURATION SECTIONAL DRAWING



Available body styles:



# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / ASME CLASS 150

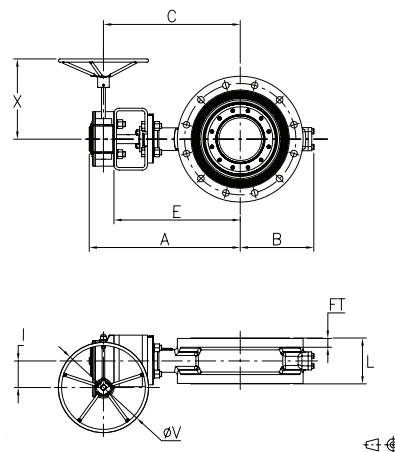
### DOUBLE FLANGED SHORT - face to face ISO 5752 Basic Series 13 (Metric)

DN	NPS	A	B	C	E	FT	L	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	333	125	294	260	22,3	114	53	204	160	30	35
100	4	363	141	324	290	22,3	127	53	204	160	45	50
150	6	403	165	364	330	23,9	140	53	204	160	55	60
200	8	476	214	428	385	27	152	69	278	300	90	99
250	10	522	243	470	425	28,6	165	84	289	300	125	137
300	12	590	286	540	490	30,2	178	97	356	600	165	181
350	14	625	312	575	525	33,4	190	97	356	600	200	216
400	16	663	350	594	545	35	216	118	379	600	260	284
450	18	708	383	635	580	38,1	222	138	447	700	315	348
500	20	768	407	695	640	41,3	229	138	447	700	395	428
600	24	818	484	745	690	46,1	267	138	456	600	570	609

### DOUBLE FLANGED SHORT - face to face ISO 5752 Basic Series 13 (Imperial)

NPS	DN	A	B	C	E	FT	L	I	X	ØV	Valve	Total
inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs
3	80	13.25	5.00	11.75	10.25	0,878	4.50	2.13	8.00	6.25	66	77
4	100	14.50	5.75	13.00	11.50	0,878	5.00	2.13	8.00	6.25	99	110
6	150	16.00	6.50	14.50	13.00	0,941	5.50	2.13	8.00	6.25	121	132
8	200	18.75	8.50	17.00	15.25	1,063	6.00	2.75	11.00	11.75	198	218
10	250	20.75	9.75	18.75	16.75	1,126	6.50	3.25	11.38	11.75	275	301
12	300	23.25	11.50	21.50	19.50	1,189	7.00	3.75	14.00	23.50	363	398
14	350	24.75	12.50	22.75	20.75	1,315	7.50	3.75	14.00	23.50	440	475
16	400	26.25	14.00	23.50	21.50	1,378	8.50	4.63	14.88	23.50	572	625
18	450	28.00	15.25	25.00	23.00	1,500	8.75	5.38	17.63	27.50	693	766
20	500	30.25	16.25	27.50	25.25	1,626	9.00	5.38	17.63	27.50	869	942
24	600	32.25	19.25	29.50	27.25	1,815	10.50	5.38	18.00	23.50	1254	1340

ASME B16.5 Class 150 - Trim B



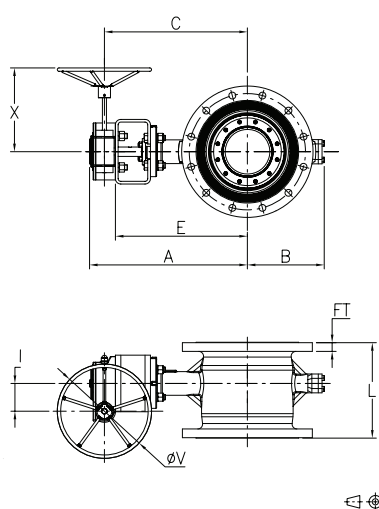
### DOUBLE FLANGED LONG - face to face API 609 long pattern - ASME B16.10 (Metric)

DN	NPS	A	B	C	E	FT	L	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	333	125	294	260	22,3	203	53	204	160	32	37
100	4	363	141	324	290	22,3	229	53	204	160	48	53
150	6	403	165	364	330	23,9	267	53	204	160	66	71
200	8	476	214	428	385	27	292	69	278	300	98	107
250	10	522	243	470	425	28,6	330	84	289	300	135	147
300	12	590	286	540	490	30,2	356	97	356	600	179	195
350	14	625	312	575	525	33,4	381	97	356	600	230	246
400	16	663	350	594	545	35	406	118	379	600	303	327
450	18	708	383	635	580	38,1	432	138	447	700	366	399
500	20	768	407	695	640	41,3	457	138	447	700	448	481
600	24	818	484	745	690	46,1	508	138	456	600	647	686

### DOUBLE FLANGED LONG - face to face API 609 long pattern - ASME B16.10 (Imperial)

NPS	DN	A	B	C	E	FT	L	I	X	ØV	Valve	Total
inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs
3	80	13.25	5.00	11.75	10.25	0,878	8.00	2.13	8.00	6.25	70	81
4	100	14.50	5.75	13.00	11.50	0,878	9.00	2.13	8.00	6.25	106	117
6	150	16.00	6.50	14.50	13.00	0,941	10.50	2.13	8.00	6.25	145	156
8	200	18.75	8.50	17.00	15.25	1,063	11.50	2.75	11.00	11.75	216	235
10	250	20.75	9.75	18.75	16.75	1,126	13.00	3.25	11.38	11.75	297	323
12	300	23.25	11.50	21.50	19.50	1,189	14.00	3.75	14.00	23.50	394	429
14	350	24.75	12.50	22.75	20.75	1,315	15.00	3.75	14.00	23.50	506	541
16	400	26.25	14.00	23.50	21.50	1,378	16.00	4.63	14.88	23.50	667	719
18	450	28.00	15.25	25.00	23.00	1,500	17.00	5.38	17.63	27.50	805	878
20	500	30.25	16.25	27.50	25.25	1,626	18.00	5.38	17.63	27.50	986	1058
24	600	32.25	19.25	29.50	27.25	1,815	20.00	5.38	18.00	23.50	1423	1509

ASME B16.5 Class 150 - Trim B



Please see notes on page 20

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / ASME CLASS 150

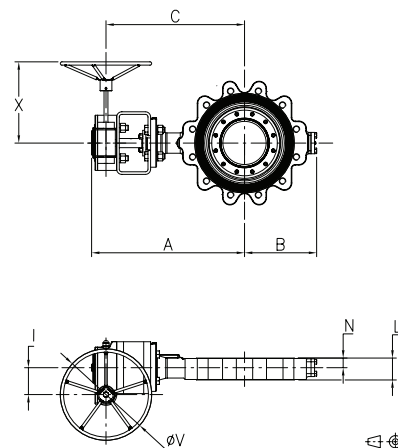
### LUG - face to face API 609 Class 150 (Metric)

DN	NPS	A	B	C	E	L	N	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	333	125	294	260	48	20	53	204	160	13	18
100	4	363	141	324	290	54	24	53	204	160	17	22
150	6	403	165	364	330	57	26	53	204	160	23	28
200	8	476	214	428	385	64	28	69	278	300	36	45
250	10	522	243	470	425	71	32	84	289	300	49	61
300	12	590	286	540	490	81	38	97	356	600	83	99
350	14	625	312	575	525	92	44	97	356	600	117	133
400	16	663	350	594	545	102	49	118	379	600	160	184
450	18	708	383	635	580	114	55	138	447	700	194	227
500	20	768	407	695	640	127	63	138	447	700	270	303
600	24	818	484	745	690	154	78	138	456	600	387	426

### LUG - face to face API 609 Class 150 (Imperial)

NPS	DN	A	B	C	E	L	N	I	X	ØV	Valve	Total
inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs
3	80	13.25	5.00	11.75	10.25	1.88	0.75	2.13	8.00	6.25	29	40
4	100	14.50	5.75	13.00	11.50	2.13	1.00	2.13	8.00	6.25	37	48
6	150	16.00	6.50	14.50	13.00	2.25	1.00	2.13	8.00	6.25	51	62
8	200	18.75	8.50	17.00	15.25	2.50	1.13	2.75	11.00	11.75	79	99
10	250	20.75	9.75	18.75	16.75	2.81	1.25	3.25	11.38	11.75	108	134
12	300	23.25	11.50	21.50	19.50	3.19	1.50	3.75	14.00	23.50	183	218
14	350	24.75	12.50	22.75	20.75	3.63	1.75	3.75	14.00	23.50	257	293
16	400	26.25	14.00	23.50	21.50	4.00	1.88	4.63	14.88	23.50	352	405
18	450	28.00	15.25	25.00	23.00	4.50	2.13	5.38	17.63	27.50	427	499
20	500	30.25	16.25	27.50	25.25	5.00	2.50	5.38	17.63	27.50	594	667
24	600	32.25	19.25	29.50	27.25	6.06	3.13	5.38	18.00	23.50	851	937

ASME B16.5 Class 150 - Trim B



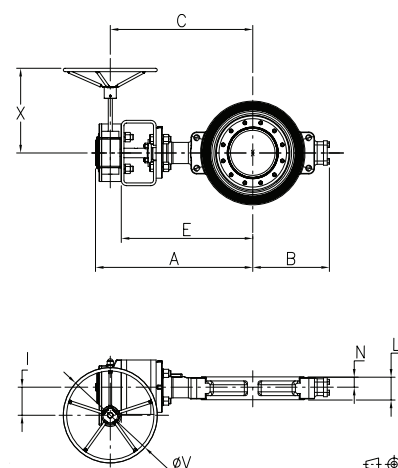
### WAFLER - face to face API 609 Class 150 (Metric)

DN	NPS	A	B	C	E	L	N	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	333	125	294	260	48	20	53	204	160	14	19
100	4	363	141	324	290	54	24	53	204	160	15	20
150	6	403	165	364	330	57	26	53	204	160	20	25
200	8	476	214	428	385	64	28	69	278	300	34	43
250	10	522	243	470	425	71	32	84	289	300	45	57
300	12	590	286	540	490	81	38	97	356	600	73	89
350	14	625	312	575	525	92	44	97	356	600	97	113
400	16	663	350	594	545	102	49	118	379	600	123	147
450	18	708	383	635	580	114	55	138	447	700	164	197
500	20	768	407	695	640	127	63	138	447	700	220	253
600	24	818	484	745	690	154	78	138	456	600	324	363

### WAFLER - face to face API 609 Class 150 (Imperial)

NPS	DN	A	B	C	E	L	N	I	X	ØV	Valve	Total
inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs
3	80	13.25	5.00	11.75	10.25	1.88	0.75	2.13	8.00	6.25	31	42
4	100	14.50	5.75	13.00	11.50	2.13	1.00	2.13	8.00	6.25	33	44
6	150	16.00	6.50	14.50	13.00	2.25	1.00	2.13	8.00	6.25	44	55
8	200	18.75	8.50	17.00	15.25	2.50	1.13	2.75	11.00	11.75	75	95
10	250	20.75	9.75	18.75	16.75	2.81	1.25	3.25	11.38	11.75	99	125
12	300	23.25	11.50	21.50	19.50	3.19	1.50	3.75	14.00	23.50	161	196
14	350	24.75	12.50	22.75	20.75	3.63	1.75	3.75	14.00	23.50	213	249
16	400	26.25	14.00	23.50	21.50	4.00	1.88	4.63	14.88	23.50	271	323
18	450	28.00	15.25	25.00	23.00	4.50	2.13	5.38	17.63	27.50	361	433
20	500	30.25	16.25	27.50	25.25	5.00	2.50	5.38	17.63	27.50	484	557
24	600	32.25	19.25	29.50	27.25	6.06	3.13	5.38	18.00	23.50	713	799

ASME B16.5 Class 150 - Trim B



Please see notes on page 20

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / ASME CLASS 150

### BUTTWELD - end to end ISO 5752 Basic Series 14 (Metric)

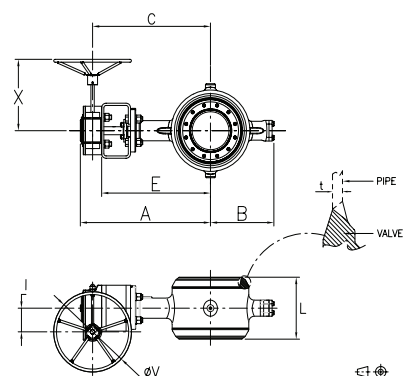
DN	NPS	A mm	B mm	C mm	E mm	L mm	t* mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	333	125	294	260	180	80	53	204	160	19	24
100	4	363	141	324	290	190	80	53	204	160	27	32
150	6	403	165	364	330	210	80	53	204	160	32	37
200	8	476	214	428	385	230	60	69	278	300	42	51
250	10	522	243	470	425	250	40	84	289	300	56	68
300	12	590	286	540	490	270	40	97	356	600	82	98
350	14	625	312	575	525	290	40	97	356	600	108	124
400	16	663	350	594	545	310	40	118	379	600	127	151
450	18	708	383	635	580	330	40	138	447	700	144	177
500	20	768	407	695	640	350	40	138	447	700	196	229
600	24	818	484	745	690	390	40	138	456	600	283	322

### BUTTWELD - end to end ISO 5752 Basic Series 14 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	L inch	t* inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
3	80	13.25	5.00	11.75	10.25	7.13	3.150	2.13	8.00	6.25	42	53
4	100	14.50	5.75	13.00	11.50	7.50	3.150	2.13	8.00	6.25	59	70
6	150	16.00	6.50	14.50	13.00	8.25	3.150	2.13	8.00	6.25	70	81
8	200	18.75	8.50	17.00	15.25	9.00	2.362	2.75	11.00	11.75	92	112
10	250	20.75	9.75	18.75	16.75	9.88	1.575	3.25	11.38	11.75	123	150
12	300	23.25	11.50	21.50	19.50	10.63	1.575	3.75	14.00	23.50	180	216
14	350	24.75	12.50	22.75	20.75	11.38	1.575	3.75	14.00	23.50	238	273
16	400	26.25	14.00	23.50	21.50	12.25	1.575	4.63	14.88	23.50	279	332
18	450	28.00	15.25	25.00	23.00	13.00	1.575	5.38	17.63	27.50	317	389
20	500	30.25	16.25	27.50	25.25	13.75	1.575	5.38	17.63	27.50	431	504
24	600	32.25	19.25	29.50	27.25	15.38	1.575	5.38	18.00	23.50	623	708

\* Maximum allowable pipe schedule.

ASME B16.34 Class 150 - Trim B



Please see notes on page 20

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / ASME CLASS 300

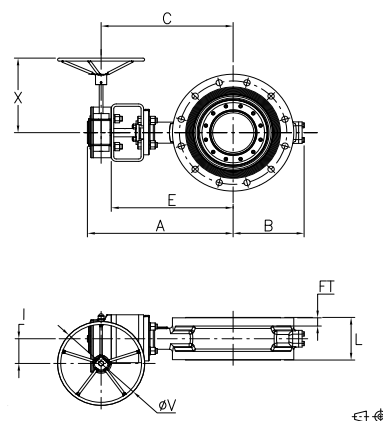
### DOUBLE FLANGED SHORT - face to face ISO 5752 Basic Series 13 (Metric)

DN	NPS	A mm	B mm	C mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	333	125	294	260	27	114	53	204	160	35	40
100	4	363	141	324	290	30.2	127	53	204	160	45	50
150	6	441	189	393	350	35	140	69	278	300	80	89
200	8	515	236	465	415	39.7	152	97	356	600	120	136
250	10	555	272	505	455	46.1	165	97	356	600	175	191
300	12	608	310	539	490	49.3	178	118	379	600	235	259
350	14	673	335	600	545	52.4	190	138	447	700	320	353
400	16	703	389	630	575	55.6	216	138	456	600	420	459
450	18	795	422	724	660	58.8	222	180	487	600	495	554
500	20	835	461	764	700	62	229	180	487	600	605	664
600	24	920	531	849	785	68.3	267	180	579	700	905	972

### DOUBLE FLANGED SHORT - face to face ISO 5752 Basic Series 13 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	FT inch	L inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
3	80	13.25	5.00	11.75	10.25	1,063	4.50	2.13	8.00	6.25	77	88
4	100	14.50	5.75	13.00	11.50	1,189	5.00	2.13	8.00	6.25	99	110
6	150	17.50	7.50	15.50	14.00	1,378	5.50	2.75	11.00	11.75	176	196
8	200	20.50	9.50	18.50	16.50	1,563	6.00	3.75	14.00	23.50	264	299
10	250	22.00	10.75	20.00	18.00	1,815	6.50	3.75	14.00	23.50	385	420
12	300	24.00	12.25	21.25	19.50	1,941	7.00	4.63	14.88	23.50	517	570
14	350	26.50	13.25	23.75	21.50	2,063	7.50	5.38	17.63	27.50	704	777
16	400	27.75	15.50	25.00	22.75	2,189	8.50	5.38	18.00	23.50	924	1010
18	450	31.50	16.75	28.50	26.00	2,315	8.75	7.13	19.13	23.50	1089	1219
20	500	33.00	18.25	30.25	27.75	2,441	9.00	7.13	19.13	23.50	1331	1461
24	600	36.25	21.00	33.50	31.00	2,689	10.50	7.13	22.75	27.50	1991	2138

ASME B16.5 Class 300 - Trim C



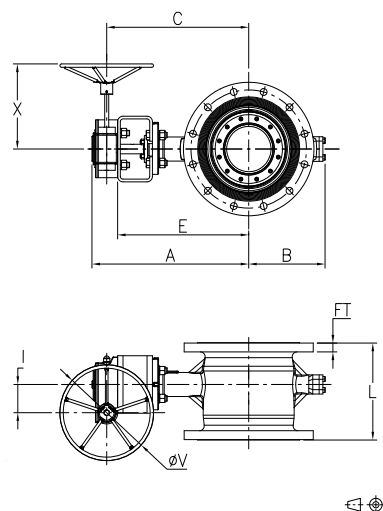
### DOUBLE FLANGED LONG - face to face API 609 long pattern - ASME B16.10 (Metric)

DN	NPS	A mm	B mm	C mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	333	125	294	260	27	282	53	204	160	40	45
100	4	363	141	324	290	30.2	305	53	204	160	57	62
150	6	441	189	393	350	35	403	69	278	300	102	111
200	8	515	236	465	415	39.7	419	97	356	600	145	161
250	10	555	272	505	455	46.1	457	97	356	600	223	239
300	12	608	310	539	490	49.3	502	118	379	600	301	325
350	14	673	335	600	545	52.4	762	138	447	700	414	447
400	16	703	389	630	575	55.6	838	138	456	600	585	624
450	18	795	422	724	660	58.8	914	180	487	600	767	826
500	20	835	461	764	700	62	991	180	487	600	897	956
600	24	920	531	849	785	68.3	1143	180	579	700	1355	1422

### DOUBLE FLANGED LONG - face to face API 609 long pattern - ASME B16.10 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	FT inch	L inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
3	80	13.25	5.00	11.75	10.25	1,063	11.13	2.13	8.00	6.25	88	99
4	100	14.50	5.75	13.00	11.50	1,189	12.00	2.13	8.00	6.25	125	136
6	150	17.50	7.50	15.50	14.00	1,378	15.88	2.75	11.00	11.75	224	244
8	200	20.50	9.50	18.50	16.50	1,563	16.50	3.75	14.00	23.50	319	354
10	250	22.00	10.75	20.00	18.00	1,815	18.00	3.75	14.00	23.50	491	526
12	300	24.00	12.25	21.25	19.50	1,941	19.75	4.63	14.88	23.50	662	715
14	350	26.50	13.25	23.75	21.50	2,063	30.00	5.38	17.63	27.50	911	983
16	400	27.75	15.50	25.00	22.75	2,189	33.00	5.38	18.00	23.50	1287	1373
18	450	31.50	16.75	28.50	26.00	2,315	36.00	7.13	19.13	23.50	1687	1817
20	500	33.00	18.25	30.25	27.75	2,441	39.00	7.13	19.13	23.50	1973	2103
24	600	36.25	21.00	33.50	31.00	2,689	45.00	7.13	22.75	27.50	2981	3128

ASME B16.5 Class 300 - Trim C



Please see notes on page 20

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / ASME CLASS 300

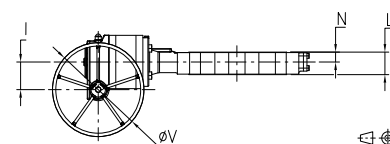
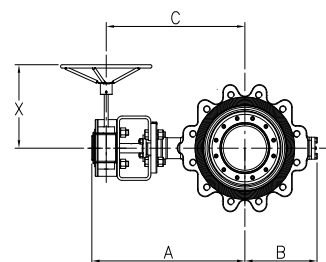
### LUG - face to face API 609 Class 300 (Metric)

DN	NPS	A mm	B mm	C mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	333	125	294	260	48	20	53	204	160	18	23
100	4	363	141	324	290	54	24	53	204	160	22	27
150	6	441	189	393	350	59	26	69	278	300	41	50
200	8	515	236	465	415	73	32	97	356	600	56	72
250	10	555	272	505	455	83	37	97	356	600	77	93
300	12	608	310	539	490	92	39	118	379	600	119	143
350	14	673	335	600	545	117	60	138	447	700	254	287
400	16	703	389	630	575	133	65	138	456	600	300	339
450	18	795	422	724	660	149	73	180	487	600	455	514
500	20	835	461	764	700	159	72	180	487	600	499	558
600	24	920	531	849	785	181	82	180	579	700	788	855

### LUG - face to face API 609 Class 300 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
3	80	13.25	5.00	11.75	10.25	1.88	0.75	2.13	8.00	6.25	40	51
4	100	14.50	5.75	13.00	11.50	2.13	1.00	2.13	8.00	6.25	48	59
6	150	17.50	7.50	15.50	14.00	2.31	1.00	2.75	11.00	11.75	90	110
8	200	20.50	9.50	18.50	16.50	2.88	1.25	3.75	14.00	23.50	123	158
10	250	22.00	10.75	20.00	18.00	3.25	1.50	3.75	14.00	23.50	169	205
12	300	24.00	12.25	21.25	19.50	3.63	1.50	4.63	14.88	23.50	262	315
14	350	26.50	13.25	23.75	21.50	4.63	2.38	5.38	17.63	27.50	559	631
16	400	27.75	15.50	25.00	22.75	5.25	2.50	5.38	18.00	23.50	660	746
18	450	31.50	16.75	28.50	26.00	5.88	2.88	7.13	19.13	23.50	1001	1131
20	500	33.00	18.25	30.25	27.75	6.25	2.88	7.13	19.13	23.50	1098	1228
24	600	36.25	21.00	33.50	31.00	7.13	3.25	7.13	22.75	27.50	1734	1881

ASME B16.5 Class 300 - Trim C



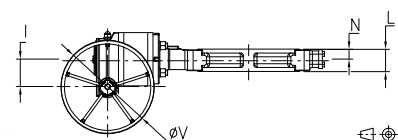
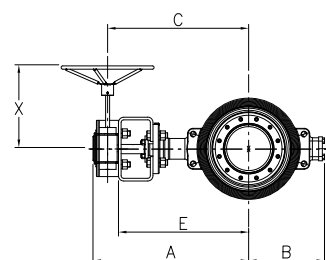
### WAFER - face to face API 609 Class 300 (Metric)

DN	NPS	A mm	B mm	C mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	333	125	294	260	48	20	53	204	160	14	19
100	4	363	141	324	290	54	24	53	204	160	15	20
150	6	441	189	393	350	59	26	69	278	300	29	38
200	8	515	236	465	415	73	32	97	356	600	50	66
250	10	555	272	505	455	83	37	97	356	600	75	91
300	12	608	310	539	490	92	39	118	379	600	109	133
350	14	673	335	600	545	117	60	138	447	700	164	197
400	16	703	389	630	575	133	65	138	456	600	228	267
450	18	795	422	724	660	149	73	180	487	600	285	344
500	20	835	461	764	700	159	72	180	487	600	343	402
600	24	920	531	849	785	181	82	180	579	700	513	580

### WAFER - face to face API 609 Class 300 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
3	80	13.25	5.00	11.75	10.25	1.88	0.75	2.13	8.00	6.25	31	42
4	100	14.50	5.75	13.00	11.50	2.13	1.00	2.13	8.00	6.25	33	44
6	150	17.50	7.50	15.50	14.00	2.31	1.00	2.75	11.00	11.75	64	84
8	200	20.50	9.50	18.50	16.50	2.88	1.25	3.75	14.00	23.50	110	145
10	250	22.00	10.75	20.00	18.00	3.25	1.50	3.75	14.00	23.50	165	200
12	300	24.00	12.25	21.25	19.50	3.63	1.50	4.63	14.88	23.50	240	293
14	350	26.50	13.25	23.75	21.50	4.63	2.38	5.38	17.63	27.50	361	433
16	400	27.75	15.50	25.00	22.75	5.25	2.50	5.38	18.00	23.50	502	587
18	450	31.50	16.75	28.50	26.00	5.88	2.88	7.13	19.13	23.50	627	757
20	500	33.00	18.25	30.25	27.75	6.25	2.88	7.13	19.13	23.50	755	884
24	600	36.25	21.00	33.50	31.00	7.13	3.25	7.13	22.75	27.50	1129	1276

ASME B16.5 Class 300 - Trim C



Please see notes on page 20



# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / ASME CLASS 300

### BUTTWELD - end to end ISO 5752 Basic Series 14 (Metric)

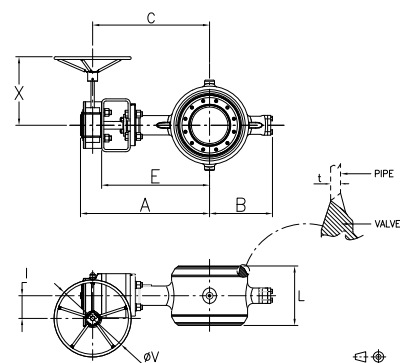
DN	NPS	A mm	B mm	C mm	E mm	L mm	t* mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	333	125	294	260	180	80	53	204	160	21	26
100	4	363	141	324	290	190	80	53	204	160	30	35
150	6	441	189	393	350	210	80	69	278	300	34	43
200	8	515	236	465	415	230	80	97	356	600	56	72
250	10	555	272	505	455	250	80	97	356	600	74	90
300	12	608	310	539	490	270	80	118	379	600	109	133
350	14	673	335	600	545	290	60	138	447	700	168	201
400	16	703	389	630	575	310	40	138	456	600	196	235
450	18	795	422	724	660	330	40	180	487	600	313	372
500	20	835	461	764	700	350	40	180	487	600	355	414
600	24	920	531	849	785	390	40	180	579	700	503	570

### BUTTWELD - end to end ISO 5752 Basic Series 14 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	L inch	t* inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
3	80	13.25	5.00	11.75	10.25	7.13	3,150	2.13	8.00	6.25	46	57
4	100	14.50	5.75	13.00	11.50	7.50	3,150	2.13	8.00	6.25	66	77
6	150	17.50	7.50	15.50	14.00	8.25	3,150	2.75	11.00	11.75	75	95
8	200	20.50	9.50	18.50	16.50	9.00	3,150	3.75	14.00	23.50	123	158
10	250	22.00	10.75	20.00	18.00	9.88	3,150	3.75	14.00	23.50	163	198
12	300	24.00	12.25	21.25	19.50	10.63	3,150	4.63	14.88	23.50	240	293
14	350	26.50	13.25	23.75	21.50	11.38	2,362	5.38	17.63	27.50	370	442
16	400	27.75	15.50	25.00	22.75	12.25	1,575	5.38	18.00	23.50	431	517
18	450	31.50	16.75	28.50	26.00	13.00	1,575	7.13	19.13	23.50	689	818
20	500	33.00	18.25	30.25	27.75	13.75	1,575	7.13	19.13	23.50	781	911
24	600	36.25	21.00	33.50	31.00	15.38	1,575	7.13	22.75	27.50	1107	1254

\* Maximum allowable pipe schedule.

ASME B16.34 Class 300 - Trim C



Please see notes on page 20

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / ASME CLASS 600

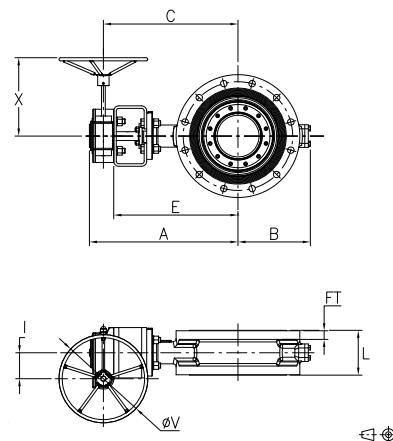
### DOUBLE FLANGED SHORT - face to face ISO 5752 Basic Series 14 (Metric)

DN	NPS	A mm	B mm	C mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	520	216	470	420	47.7	210	97	356	600	130	146
200	8	563	265	494	445	55.6	230	118	379	600	205	229
250	10	633	315	560	505	63.5	250	138	456	600	320	359
300	12	735	362	664	600	66.7	270	180	487	600	440	499
350	14	745	390	674	610	69.9	290	180	487	600	490	549
400	16	854	440	765	680	76.2	310	212	567	700	690	810
450	18	872	460	768	683	82.6	330	253	593	700	820	1025
500	20	1058	526	933	795	88.9	350	292	750	700	1100	1455
600	24	1148	623	1023	885	101.6	390	292	750	700	1620	1975

### DOUBLE FLANGED SHORT - face to face ISO 5752 Basic Series 14 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	FT inch	L inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
6	150	20.50	8.75	18.75	16.75	1.878	8.25	3.75	14.00	23.50	286	321
8	200	22.25	10.50	19.50	17.75	2.189	9.00	4.63	14.88	23.50	451	504
10	250	25.00	12.50	22.25	20.00	2.500	9.88	5.38	18.00	23.50	704	790
12	300	29.00	14.50	26.25	23.75	2.626	10.63	7.13	19.13	23.50	968	1098
14	350	29.50	15.50	26.75	24.25	2.752	11.38	7.13	19.13	23.50	1078	1208
16	400	33.75	17.50	30.25	27.00	3.000	12.25	8.38	22.38	27.50	1518	1782
18	450	34.50	18.25	30.25	27.00	3.252	13.00	10.00	23.38	27.50	1804	2255
20	500	41.75	20.75	36.75	31.50	3.500	13.75	11.50	29.50	27.50	2420	3201
24	600	45.25	24.75	40.50	35.00	4.000	15.38	11.50	29.50	27.50	3564	4345

ASME B16.5 Class 600 - Trim D



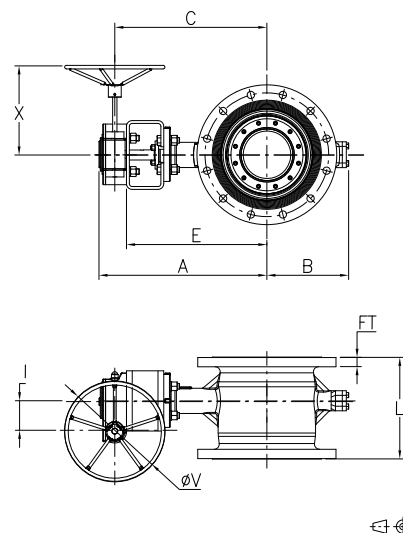
### DOUBLE FLANGED LONG - face to face API 609 long pattern - ASME B16.10 (Metric)

DN	NPS	A mm	B mm	C mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	520	216	470	420	47.7	559	97	356	600	165	181
200	8	563	265	494	445	55.6	660	118	379	600	265	289
250	10	633	315	560	505	63.5	787	138	456	600	456	495
300	12	735	362	664	600	66.7	838	180	487	600	596	655
350	14	745	390	674	610	69.9	889	180	487	600	706	765
400	16	854	440	765	680	76.2	991	212	567	700	982	1102
450	18	872	460	768	683	82.6	1092	253	593	700	1231	1436
500	20	1058	526	933	795	88.9	1194	292	750	700	1669	2024
600	24	1148	623	1023	885	101.6	1397	292	750	700	2514	2869

### DOUBLE FLANGED LONG - face to face API 609 long pattern - ASME B16.10 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	FT inch	L inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
6	150	20.50	8.75	18.75	16.75	1.878	22.00	3.75	14.00	23.50	363	398
8	200	22.25	10.50	19.50	17.75	2.189	26.00	4.63	14.88	23.50	583	636
10	250	25.00	12.50	22.25	20.00	2.500	31.00	5.38	18.00	23.50	1003	1089
12	300	29.00	14.50	26.25	23.75	2.626	33.00	7.13	19.13	23.50	1311	1441
14	350	29.50	15.50	26.75	24.25	2.752	35.00	7.13	19.13	23.50	1553	1683
16	400	33.75	17.50	30.25	27.00	3.000	39.00	8.38	22.38	27.50	2160	2424
18	450	34.50	18.25	30.25	27.00	3.252	43.00	10.00	23.38	27.50	2708	3159
20	500	41.75	20.75	36.75	31.50	3.500	47.00	11.50	29.50	27.50	3672	4453
24	600	45.25	24.75	40.50	35.00	4.000	55.00	11.50	29.50	27.50	5531	6312

ASME B16.5 Class 600 - Trim D



Please see notes on page 20

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / ASME CLASS 600

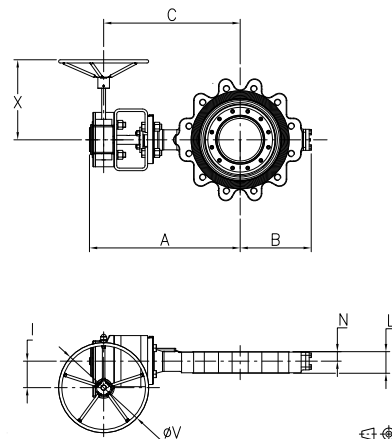
### LUG - face to face API 609 Class 600 (Metric)

DN	NPS	A mm	B mm	C mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	520	216	470	420	78	38	97	356	600	80	96
200	8	563	265	494	445	102	52.5	118	379	600	135	159
250	10	633	315	560	505	117	60	138	456	600	198	237
300	12	735	362	664	600	140	71.5	180	487	600	347	406
350	14	745	390	674	610	155	68	180	487	600	343	402
400	16	854	440	765	680	178	84	212	567	700	434	554
450	18	872	460	768	683	200	92	253	593	700	684	889
500	20	1058	526	933	795	216	101	292	750	700	824	1179
600	24	1148	623	1023	885	232	102	292	750	700	1414	1769

### LUG - face to face API 609 Class 600 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
6	150	20.50	8.75	18.75	16.75	3.06	1.50	3.75	14.00	23.50	176	211
8	200	22.25	10.50	19.50	17.75	4.00	2.13	4.63	14.88	23.50	297	350
10	250	25.00	12.50	22.25	20.00	4.63	2.38	5.38	18.00	23.50	436	521
12	300	29.00	14.50	26.25	23.75	5.50	2.88	7.13	19.13	23.50	763	893
14	350	29.50	15.50	26.75	24.25	6.13	2.63	7.13	19.13	23.50	755	884
16	400	33.75	17.50	30.25	27.00	7.00	3.25	8.38	22.38	27.50	955	1219
18	450	34.50	18.25	30.25	27.00	7.88	3.63	10.00	23.38	27.50	1505	1956
20	500	41.75	20.75	36.75	31.50	8.50	4.00	11.50	29.50	27.50	1813	2594
24	600	45.25	24.75	40.50	35.00	9.13	4.00	11.50	29.50	27.50	3111	3892

ASME B16.5 Class 600 - Trim D



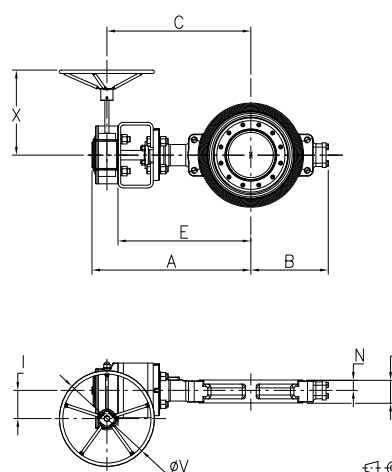
### WAFER - face to face API 609 Class 600 (Metric)

DN	NPS	A mm	B mm	C mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	520	216	470	420	78	38	97	356	600	59	75
200	8	563	265	494	445	102	52.5	118	379	600	105	129
250	10	633	315	560	505	117	60	138	456	600	196	235
300	12	735	362	664	600	140	71.5	180	487	600	220	279
350	14	745	390	674	610	155	68	180	487	600	283	342
400	16	854	440	765	680	178	84	212	567	700	340	460
450	18	872	460	768	683	200	92	253	593	700	470	675
500	20	1058	526	933	795	216	101	292	750	700	510	865
600	24	1148	623	1023	885	232	102	292	750	700	1015	1370

### WAFER - face to face API 609 Class 600 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
6	150	20.50	8.75	18.75	16.75	3.06	1.50	3.75	14.00	23.50	130	165
8	200	22.25	10.50	19.50	17.75	4.00	2.13	4.63	14.88	23.50	231	284
10	250	25.00	12.50	22.25	20.00	4.63	2.38	5.38	18.00	23.50	431	517
12	300	29.00	14.50	26.25	23.75	5.50	2.88	7.13	19.13	23.50	484	614
14	350	29.50	15.50	26.75	24.25	6.13	2.63	7.13	19.13	23.50	623	752
16	400	33.75	17.50	30.25	27.00	7.00	3.25	8.38	22.38	27.50	748	1012
18	450	34.50	18.25	30.25	27.00	7.88	3.63	10.00	23.38	27.50	1034	1485
20	500	41.75	20.75	36.75	31.50	8.50	4.00	11.50	29.50	27.50	1122	1903
24	600	45.25	24.75	40.50	35.00	9.13	4.00	11.50	29.50	27.50	2233	3014

ASME B16.5 Class 600 - Trim D



Please see notes on page 20

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / ASME CLASS 600

### BUTTWELD - end to end ISO 5752 Basic Series 14 (Metric)

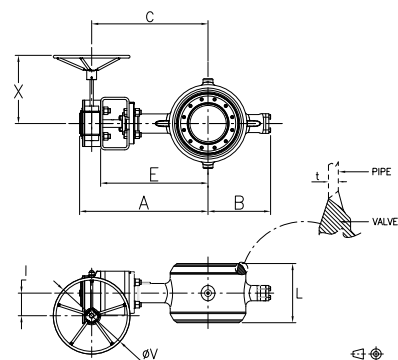
DN	NPS	A mm	B mm	C mm	E mm	L mm	t* mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	520	216	470	420	210	80	97	356	600	71	87
200	8	563	265	494	445	230	100	118	379	600	110	134
250	10	633	315	560	505	250	100	138	456	600	162	201
300	12	735	362	664	600	270	100	180	487	600	215	274
350	14	745	390	674	610	290	100	180	487	600	243	302
400	16	854	440	765	680	310	80	212	567	700	425	545
450	18	872	460	768	683	330	80	253	593	700	512	717
500	20	1058	526	933	795	350	80	292	750	700	600	955
600	24	1148	623	1023	885	390	80	292	750	700	848	1203

### BUTTWELD - end to end ISO 5752 Basic Series 14 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	L inch	t* inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
6	150	20.50	8.75	18.75	16.75	8.25	3,150	3.75	14.00	23.50	156	191
8	200	22.25	10.50	19.50	17.75	9.00	3,937	4.63	14.88	23.50	242	295
10	250	25.00	12.50	22.25	20.00	9.88	3,937	5.38	18.00	23.50	356	442
12	300	29.00	14.50	26.25	23.75	10.63	3,937	7.13	19.13	23.50	473	603
14	350	29.50	15.50	26.75	24.25	11.38	3,937	7.13	19.13	23.50	535	664
16	400	33.75	17.50	30.25	27.00	12.25	3,150	8.38	22.38	27.50	935	1199
18	450	34.50	18.25	30.25	27.00	13.00	3,150	10.00	23.38	27.50	1126	1577
20	500	41.75	20.75	36.75	31.50	13.75	3,150	11.50	29.50	27.50	1320	2101
24	600	45.25	24.75	40.50	35.00	15.38	3,150	11.50	29.50	27.50	1866	2647

\* Maximum allowable pipe schedule.

ASME B16.34 Class 600 - Trim D



Please see notes on page 20

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / ASME CLASS 900

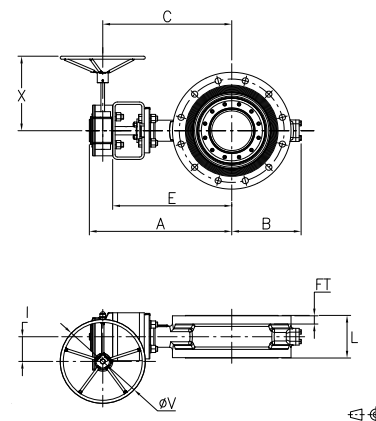
### DOUBLE FLANGED SHORT - face to face ISO 5752 Basic Series 8 (Metric)

DN	NPS	A mm	B mm	C mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	505	226	455	405	55.6	225	97	356	600	180	196
200	8	613	277	540	485	63.5	275	138	447	700	295	328
250	10	710	337	639	575	69.9	325	180	487	600	460	519
300	12	790	401	719	655	79.4	375	180	579	700	630	697
350	14	904	438	800	715	85.8	425	253	593	700	810	1007
400	16	919	492	815	730	88.9	475	253	593	700	1025	1230
450	18	1033	509	908	770	101.6	500	292	750	700	1290	1645
500	20	1133	582	1008	870	108.0	575	292	750	700	1795	2150
600	24	1293	672	1168	1030	139.7	675	292	750	700	2995	3360

### DOUBLE FLANGED SHORT - face to face ISO 5752 Basic Series 8 (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	FT inch	L inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
6	150	20.00	9.00	18.00	16.00	2.189	8.88	3.75	14.00	23.50	396	431
8	200	24.25	11.00	21.25	19.25	2.500	10.88	5.38	17.63	27.50	649	722
10	250	28.00	13.50	25.25	22.75	2.752	12.75	7.13	19.13	23.50	1012	1142
12	300	31.25	16.00	28.50	26.00	3.126	14.75	7.13	22.75	27.50	1386	1533
14	350	35.75	17.25	31.50	28.25	3.378	16.75	10.00	23.38	27.50	1782	2215
16	400	36.25	19.50	32.25	28.75	3.500	18.75	10.00	23.38	27.50	2255	2706
18	450	40.75	20.25	35.75	30.50	4.000	19.63	11.50	29.50	27.50	2838	3619
20	500	44.75	23.00	39.75	34.50	4.252	22.63	11.50	29.50	27.50	3949	4730
24	600	51.00	26.50	46.00	40.75	5.500	26.63	11.50	29.50	27.50	6589	7392

ASME B16.5 Class 900 - Trim E



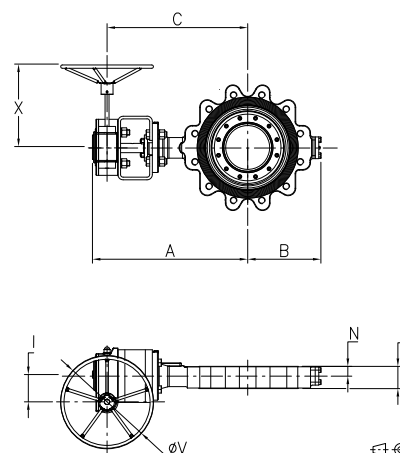
### LUG - face to face Vanessa Standard (Metric)

DN	NPS	A mm	B mm	C mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	505	226	455	405	105	52.5	97	356	600	115	131
200	8	613	277	540	485	140	70	138	447	700	260	293
250	10	710	337	639	575	155	77.5	180	487	600	327	386
300	12	790	401	719	655	178	89	180	579	700	490	557
350	14	904	438	800	715	229	114	253	593	700	670	867
400	16	919	492	815	730	241	117	253	593	700	888	1093
450	18	1033	509	908	770	244	122	292	750	700	1053	1408
500	20	1133	582	1008	870	300	150	292	750	700	1441	1796
600	24	1293	672	1168	1030	350	175	292	750	700	2238	2603

### LUG - face to face Vanessa Standard (Imperial)

NPS	DN	A inch	B inch	C inch	E inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
6	150	20.00	9.00	18.00	16.00	4.13	2.13	3.75	14.00	23.50	253	288
8	200	24.25	11.00	21.25	19.25	5.50	2.75	5.38	17.63	27.50	572	645
10	250	28.00	13.50	25.25	22.75	6.13	3.00	7.13	19.13	23.50	719	849
12	300	31.25	16.00	28.50	26.00	7.00	3.50	7.13	22.75	27.50	1078	1225
14	350	35.75	17.25	31.50	28.25	9.00	4.50	10.00	23.38	27.50	1474	1907
16	400	36.25	19.50	32.25	28.75	9.50	4.63	10.00	23.38	27.50	1954	2405
18	450	40.75	20.25	35.75	30.50	9.63	4.75	11.50	29.50	27.50	2317	3098
20	500	44.75	23.00	39.75	34.50	11.81	5.88	11.50	29.50	27.50	3170	3951
24	600	51.00	26.50	46.00	40.75	13.75	6.88	11.50	29.50	27.50	4924	5727

ASME B16.5 Class 900 - Trim E



Please see notes on page 20

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## EN TYPICAL MATERIAL SELECTION

### EN TYPICAL MATERIAL SELECTION - please refer to basic configuration sectional drawing on page 17

Item	Note	Description	Body in carbon steel <sup>(1)</sup>	Body in stainless steel <sup>(2)</sup>
1		Body	EN 10213 1.0619	EN 10213 1.4408
		Weld surfacing on seat	Stellite® gr.21	Stellite® gr.21
2	<input type="checkbox"/>	Cast disc	EN 10213 1.0619	EN 10213 1.4408
		Forged disc	EN 10222-2 P280GH 1.0426	EN 10222-5 1.4401
		Retainer flange	ASTM A516 gr. 70 [1.0425]	ASTM A240 gr.316 [1.4404]
		Retainer flange screw	ISO 3506 A4	ISO 3506 A4
4		Shaft	ASTM A479 UNS S41000 [1.4006]	ASTM A479 XM19 - UNS S20910 [Nitronic 50 ®]
5	<input type="checkbox"/>	Packing bushing	ASTM A240 / A182 / A276 UNS S31600 [1.4401]	ASTM A240 / A182 / A276 UNS S31600 [1.4404]
		Stud nut	ISO 3506 A4	ISO 3506 A4
		Stud bolts	ISO 3506 A4	ISO 3506 A4
	<input type="checkbox"/>	Packing flange	ASTM A240 / A182 / A276 UNS S31600 [1.4401]	ASTM A240 / A182 / A276 UNS S31600 [1.4404]
6	<input type="checkbox"/>	Bottom flange	EN 10213 1.0619 or EN 10028-2 1.0425 or ASTM A516 gr. 70	ASTM A240 gr. 316 or ASTM A182 F316 [1.4404] or EN 10213 1.4408
		Screw	ISO 3506 A4	ISO 3506 A4
7		Thrust bearing	UNS S31600 [1.4006] hard faced	UNS S31600 [1.4404] hard faced
8		Bearing	UNS S31600 [1.4006] hard faced	UNS S31600 [1.4404] hard faced
		Bearing protector	Graphite ring	Graphite ring
S	<input type="radio"/>	Packing	Graphite	Graphite
	<input type="radio"/>	Bottom spiral wound gasket	UNS S31600 [1.4006] + graphite	UNS S31600 [1.4404] + graphite
	<input type="radio"/> ♦	Seal ring	UNS S31803 [1.4462] (duplex) + graphite or UNS S17400 [1.4542] (17-4 PH) hard faced	UNS S31803 [1.4462] + graphite or UNS S20910 [1.3964] hard faced
	<input type="radio"/>	Seal ring spiral wound gasket	UNS S31600 [1.4006] + graphite	UNS S31600 [1.4404] + graphite

### NOTES

<sup>(1)</sup> Heat treated EN 10213 1.0619 [-46°C to + 426°C] can be used without any restrictions from -46°C to + 450°C.

Carbon Steel (1.0619) valve material selection is compliant with the requirements of NACE MR0103/ISO 17945 and NACE MR0175 / ISO 15156 for H<sub>2</sub>S partial pressures ≤ 10 kPa and pH values 3.5

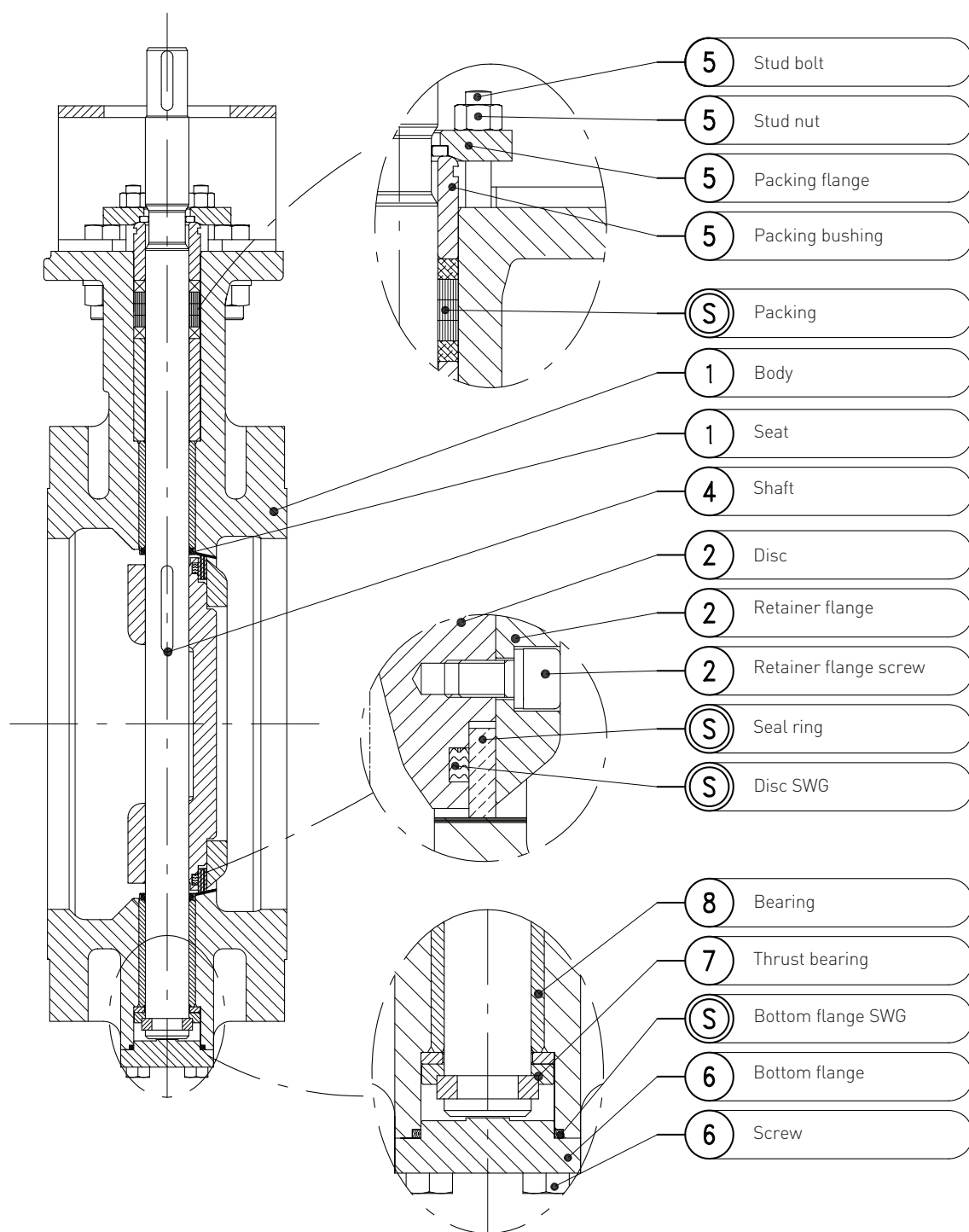
<sup>(2)</sup> Stainless steel [1.4408] valve material selection is compliant with the requirements of NACE MR103 / ISO 17945 and NACE MR0175 / ISO 15156

- ☐ Materials are exclusively selected by factory depending on valve size.
- ☐ Suggested spare parts.
- ♦ Solid seal rings in UNS S17400 (1.4542) (17-4 PH) or UNS S20910 (1.3964) are supplied depending on applications and can be requested as an option.

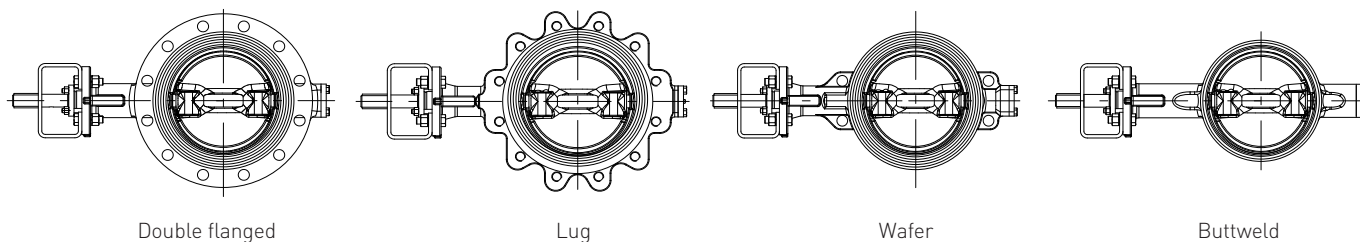
Vanessa Series 30,000 triple offset valves are also manufactured in a wide range of valve body materials, including: carbon steel and low temperature carbon steel e.g. GP280GH, G20Mo5, G17CrMo5-5; G17CrMo9-10; high temperature alloy steel e.g. 1.5419, 1.7357, 1.7379; austenitic stainless steel e.g. 1.4309, 1.4308, 1.4552, 1.4409, 1.4458.

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## BASIC CONFIGURATION SECTIONAL DRAWING



Available body styles:



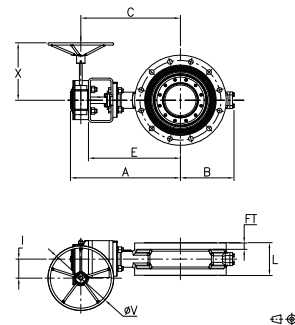
# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / EN PN 10 - 16 - 25 - 40

### DOUBLE FLANGED SHORT - face to face EN 558 Basic Series 13 (Metric) - 10

DN	NPS	A mm	B mm	C mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	333	125	294	260	24	114	53	204	160	30	35
100	4	363	141	324	290	24	127	53	204	160	45	50
150	6	403	165	364	330	25.5	140	53	204	160	55	60
200	8	476	214	428	385	30	152	69	278	300	90	99
250	10	522	243	470	425	30	165	84	289	300	125	137
300	12	590	286	540	490	32	178	97	356	600	165	181
350	14	625	312	575	525	35	190	97	356	600	200	216
400	16	663	350	594	545	37	216	118	379	600	260	284
450	18	708	383	635	580	40	222	138	447	700	315	348
500	20	768	407	695	640	48	229	138	447	700	395	428
600	24	818	484	745	690	58	267	138	456	600	570	609

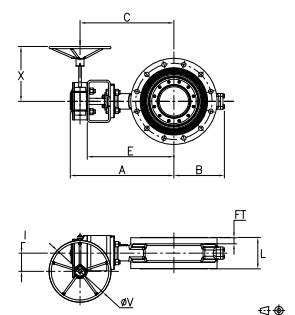
### EN 1092-1 PN 10 - Trim B



### DOUBLE FLANGED SHORT - face to face EN 558 Basic Series 13 (Metric) - 16

DN	NPS	A mm	B mm	C mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	333	125	294	260	24	114	53	204	160	30	35
100	4	363	141	324	290	24	127	53	204	160	45	50
150	6	403	165	364	330	25.5	140	53	204	160	55	60
200	8	476	214	428	385	30	152	69	278	300	90	99
250	10	522	243	470	425	30	165	84	289	300	125	137
300	12	590	286	540	490	32	178	97	356	600	165	181
350	14	625	312	575	525	35	190	97	356	600	200	216
400	16	663	350	594	545	37	216	118	379	600	260	284
450	18	708	383	635	580	40	222	138	447	700	330	363
500	20	768	407	695	640	48	229	138	447	700	420	453
600	24	818	484	745	690	58	267	138	456	600	700	739

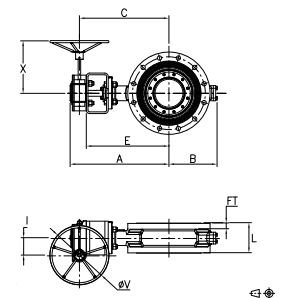
### EN 1092-1 PN 16 - Trim B



### DOUBLE FLANGED SHORT - face to face EN 558 Basic Series 13 (Metric) - 25

DN	NPS	A mm	B mm	C mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
200	8	476	214	428	385	30	152	69	278	300	90	99
250	10	522	243	470	425	32	165	84	289	300	125	137
300	12	590	286	540	490	34	178	97	356	600	165	181
350	14	625	312	575	525	38	190	97	356	600	228	244
400	16	663	350	594	545	40	216	118	379	600	283	307
450	18	708	383	635	580	46	222	138	447	700	350	383
500	20	768	407	695	640	48	229	138	447	700	420	453
600	24	818	484	745	690	58	267	138	456	600	700	739

### EN 1092-1 PN 25 - Trim B

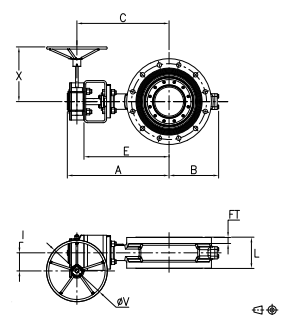


**Note:** diameters ranging from DN 80+150 are available in PN 40 only. However please note that PN 40 valve bodies can be assembled to PN 25 pipe flanges.

### DOUBLE FLANGED SHORT - face to face EN 558 Basic Series 13 (Metric)

DN	NPS	A mm	B mm	C mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	333	125	294	260	28.5	114	53	204	160	35	40
100	4	363	141	324	290	32	127	53	204	160	45	50
150	6	441	189	393	350	37	140	69	278	300	80	89
200	8	515	236	465	415	41.5	152	97	356	600	120	136
250	10	555	272	505	455	47.5	165	97	356	600	175	191
300	12	608	310	539	490	51	178	118	379	600	235	259
350	14	673	335	600	545	54	190	138	447	700	320	353
400	16	703	389	630	575	57	216	138	456	600	420	459
450	18	795	422	724	660	60	222	180	487	600	495	554
500	20	835	461	764	700	64	229	180	487	600	605	664
600	24	920	531	849	785	72	267	180	579	700	905	972

### EN 1092-1 PN 40 - Trim C



Please see notes on page 20



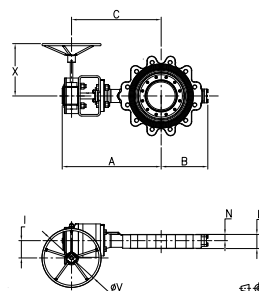
# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / EN PN 10 - 16 - 25 - 40

### LUG - FACE TO FACE EN 558 BASIC SERIES 16 (METRIC) - 10/16

DN	NPS	A	B	C	E	L	N	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	340	125	298	260	64	34			125	19	26
100	4	370	141	328	290	64	30			125	21	28
150	6	410	165	368	330	76	41			125	30	37
200	8	475	214	424	385	89	49			300	52	63
250	10	515	243	464	425	114	70			300	66	77
300	12	592	286	539	490	114	65			500	87	100
350	14	627	312	574	525	127	72			500	175	188
400	16	670	350	600	545	140	80			600	223	253
450	18	705	383	635	580	152	85			600	294	324
500	20	765	407	695	640	152	80			700	348	378
600	24	834	484	766	690	178	94			300	456	531

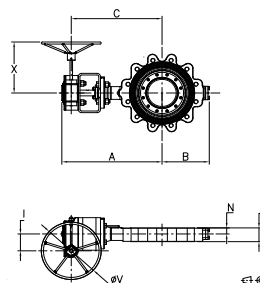
### EN 1092-1 PN 10 / PN 16 - Trim B



### LUG - FACE TO FACE EN 558 BASIC SERIES 16 (METRIC) - 25

DN	NPS	A	B	C	E	L	N	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
200	8	476	214	428	385	89	49	69	278	300	52	61
250	10	522	243	470	425	114	70	84	289	300	66	78
300	12	590	286	540	490	114	65	97	356	600	108	124
350	14	625	312	575	525	127	72	97	356	600	175	191
400	16	663	350	594	545	140	80	118	379	600	223	247
450	18	708	383	635	580	152	85	138	447	700	303	336
500	20	768	407	695	640	152	80	138	447	700	348	381
600	24	818	484	745	690	178	94	138	456	600	456	495

### EN 1092-1 PN 25 - Trim B

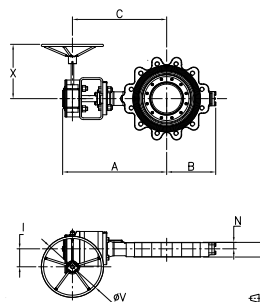


**Note:** diameters ranging from DN 80-150 are available in PN 40 only. However please note that PN 40 valve bodies can be assembled to PN 25 pipe flanges.

### LUG - FACE TO FACE EN 558 BASIC SERIES 16 (METRIC) - 40

DN	NPS	A	B	C	E	L	N	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	333	125	294	260	64	34	53	204	160	19	24
100	4	363	141	324	290	64	30	53	204	160	21	26
150	6	441	189	393	350	76	36	69	278	300	40	49
200	8	515	236	465	415	89	44	97	356	600	60	76
250	10	555	272	505	455	114	63	97	356	600	91	107
300	12	608	310	539	490	114	55	118	379	600	132	156
350	14	673	335	600	545	127	63	138	447	700	251	284
400	16	703	389	630	575	140	69	138	456	600	310	349
450	18	795	422	724	660	152	73	180	487	600	420	479
500	20	835	461	764	700	152	63	180	487	600	441	500
600	24	920	531	849	785	178	76	180	579	700	675	742

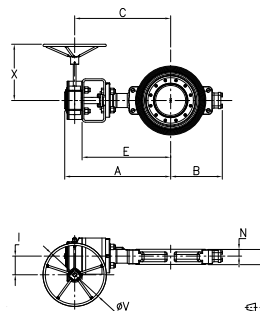
### EN 1092-1 PN 40 - Trim C



### WAFLER - FACE TO FACE EN 558 BASIC SERIES 16 (METRIC) - 10/16

DN	NPS	A	B	C	E	L	N	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	333	125	294	260	64	34	53	204	160	16	21
100	4	363	141	324	290	64	30	53	204	160	17	22
150	6	403	165	364	330	76	41	53	204	160	21	26
200	8	476	214	428	385	89	49	69	278	300	40	49
250	10	522	243	470	425	114	70	84	289	300	53	65
300	12	590	286	540	490	114	65	97	356	600	77	93
350	14	625	312	575	525	127	72	97	356	600	119	135
400	16	663	350	594	545	140	80	118	379	600	139	163
450	18	708	383	635	580	152	85	138	447	700	181	214
500	20	768	407	695	640	152	80	138	447	700	256	289
600	24	818	484	745	690	178	94	138	456	600	364	403

### EN 1092-1 PN 10 / PN 16 - Trim B



Please see notes on page 20

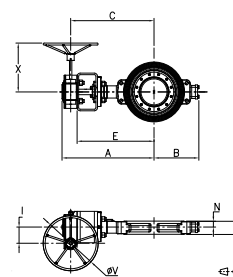
# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / EN PN 10 - 16 - 25 - 40

### WAFER - FACE TO FACE EN 558 BASIC SERIES 16 (METRIC) - 25

DN	NPS	A	B	C	E	L	N	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
200	8	476	214	428	385	89	49	69	278	300	40	49
250	10	522	243	470	425	114	70	84	289	300	53	65
300	12	590	286	540	490	114	65	97	356	600	77	93
350	14	625	312	575	525	127	72	97	356	600	119	135
400	16	663	350	594	545	140	80	118	379	600	139	163
450	18	708	383	635	580	152	85	138	447	700	181	214
500	20	768	407	695	640	152	80	138	447	700	256	289
600	24	818	484	745	690	178	94	138	456	600	364	403

### EN 1092-1 PN 25 - Trim B

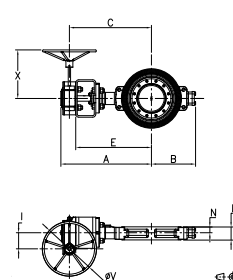


**Note:** diameters ranging from DN 80÷150 are available in PN 40 only. However please note that PN 40 valve bodies can be assembled to PN 25 pipe flanges.

### WAFER - FACE TO FACE EN 558 BASIC SERIES 16 (METRIC) - 40

DN	NPS	A	B	C	E	L	N	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	333	125	294	260	64	34	53	204	160	16	21
100	4	363	141	324	290	64	30	53	204	160	17	22
150	6	441	189	393	350	76	36	69	278	300	32	41
200	8	515	236	465	415	89	44	97	356	600	53	69
250	10	555	272	505	455	114	63	97	356	600	86	102
300	12	608	310	539	490	114	55	118	379	600	111	135
350	14	673	335	600	545	127	63	138	447	700	165	198
400	16	703	389	630	575	140	69	138	456	600	227	266
450	18	795	422	724	660	152	73	180	487	600	285	344
500	20	835	461	764	700	152	63	180	487	600	325	384
600	24	920	531	849	785	178	77	180	579	700	496	563

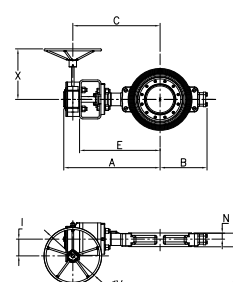
### EN 1092-1 PN 40 - Trim C



### WAFER - FACE TO FACE API 609 CATEGORY B (METRIC) - 10/16

DN	NPS	A	B	C	E	L	N	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	333	125	294	260	48	20	53	204	160	14	19
100	4	363	141	324	290	54	24	53	204	160	15	20
150	6	403	165	364	330	57	26	53	204	160	20	25
200	8	476	214	428	385	64	28	69	278	300	34	43
250	10	522	243	470	425	71	32	84	289	300	45	57
300	12	590	286	540	490	81	38	97	356	600	73	89
350	14	625	312	575	525	92	44	97	356	600	97	113
400	16	663	350	594	545	102	49	118	379	600	123	147
450	18	708	383	635	580	114	55	138	447	700	164	197
500	20	768	407	695	640	127	63	138	447	700	220	253
600	24	818	484	745	690	154	78	138	456	600	324	363

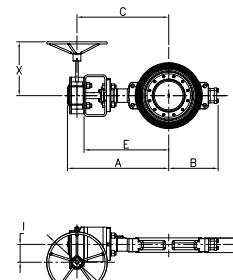
### EN 1092-1 PN 10 / PN 16 - Trim B



### WAFER - FACE TO FACE API 609 CATEGORY B (METRIC) - 25

DN	NPS	A	B	C	E	L	N	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
200	8	476	214	428	385	64	28	69	278	300	34	43
250	10	522	243	470	425	71	32	84	289	300	45	57
300	12	590	286	540	490	81	38	97	356	600	73	89
350	14	625	312	575	525	92	44	97	356	600	97	113
400	16	663	350	594	545	102	49	118	379	600	123	147
450	18	708	383	635	580	114	55	138	447	700	164	197
500	20	768	407	695	640	127	63	138	447	700	220	253
600	24	818	484	745	690	154	78	138	456	600	324	363

### EN 1092-1 PN 25 - Trim B



**Note:** diameters ranging from DN 80÷150 are available in PN 40 only. However please note that PN 40 valve bodies can be assembled to PN 25 pipe flanges.

Please see notes on page 20

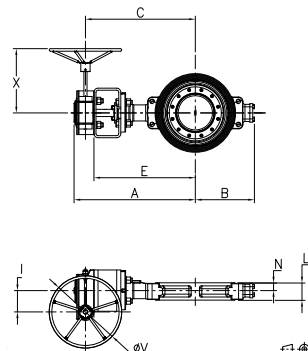
# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## DIMENSIONS AND WEIGHTS / EN PN 10 - 16 - 25 - 40

### WAFFER - face to face API 609 Category B (Metric) - 40

DN	NPS	A	B	C	E	L	N	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	333	125	294	260	48	20	53	204	160	14	19
100	4	363	141	324	290	54	24	53	204	160	15	20
150	6	441	189	393	350	59	26	69	278	300	29	38
200	8	515	236	465	415	73	32	97	356	600	50	66
250	10	555	272	505	455	83	37	97	356	600	75	91
300	12	608	310	539	490	92	39	118	379	600	109	133
350	14	673	335	600	545	117	60	138	447	700	164	197
400	16	703	389	630	575	133	65	138	456	600	228	267
450	18	795	422	724	660	149	73	180	487	600	285	344
500	20	835	461	764	700	159	72	180	487	600	343	402
600	24	920	531	849	785	181	82	180	579	700	513	580

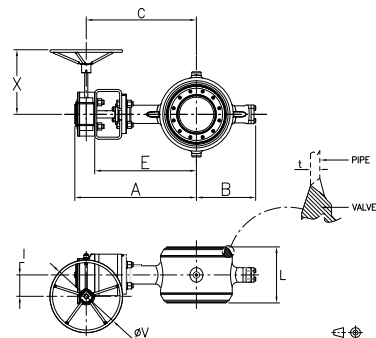
### EN 1092-1 PN 40 - Trim C



### BUTTWELD - END TO END EN 12982 BASIC SERIES 14 (METRIC) - 10-16 25

DN	NPS	A	B	C	E	L	t*	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	333	125	294	260	180	8	53	204	160	19	24
100	4	363	141	324	290	190	9	53	204	160	27	32
150	6	403	165	364	330	210	11	53	204	160	32	37
200	8	476	214	428	385	230	10.5	69	278	300	42	51
250	10	522	243	470	425	250	9.5	84	289	300	56	68
300	12	590	286	540	490	270	10.5	97	356	600	82	98
350	14	625	312	575	525	290	11.5	97	356	600	108	124
400	16	663	350	594	545	310	13	118	379	600	127	151
450	18	708	383	635	580	330	14.5	138	447	700	144	177
500	20	768	407	695	640	350	15	138	447	700	196	229
600	24	818	484	745	690	390	17.5	138	456	600	283	322

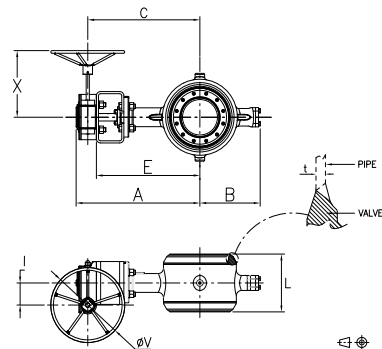
### EN 12516 PN 10 - 16 - 25 - Trim B



### BUTTWELD - END TO END EN 12982 BASIC SERIES 14 (METRIC) - 40

DN	NPS	A	B	C	E	L	t*	I	X	ØV	Valve	Total
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	333	125	294	260	180	8	53	204	160	21	26
100	4	363	141	324	290	190	9	53	204	160	30	35
150	6	441	189	393	350	210	11	69	278	300	34	43
200	8	515	236	465	415	230	13	97	356	600	56	72
250	10	555	272	505	455	250	16	97	356	600	74	90
300	12	608	310	539	490	270	18	118	379	600	109	133
350	14	673	335	600	545	290	16	138	447	700	168	201
400	16	703	389	630	575	310	12.7	138	456	600	196	235
450	18	795	422	724	660	330	14.5	180	487	600	313	372
500	20	835	461	764	700	350	15.5	180	487	600	355	414
600	24	920	531	849	785	390	17.5	180	579	700	503	570

### EN 12516-1 PN 40 - Trim C



\* Maximum allowable pipe thickness.

Please see notes on page 20

# VANESSA SERIES 30,000 TRIPLE OFFSET VALVES

## CERTIFICATION

### CERTIFICATION TABLE

<b>Quality management system</b>	ISO 9001:2015 ISO 3834-2	
<b>Regional product certification</b>	PED 2014/68/EU, Module H AD 2000 Merkblatt HP0 - AD 2000 Merkblatt A4 CRN TSG D7002:2006 CU TR	
<b>Environmental management system</b>	ISO 14001:2004	
<b>Health and safety management system</b>	OHSAS 18001:2007	
<b>Product</b>	<b>Welding</b>	EN ISO 3834-2
	<b>Fire safety</b>	API 607
	<b>Fugitive emission</b>	ISO 15848-1 EPA Method 21 TÜV TA Luft / VDI 2440
	<b>Performance</b>	SIL 3 capable
<b>Applicable product standards</b>	<b>Design</b>	Design standards: API 609 and EN 593; ASME B16.34 and EN 12516 Flange standards: ASME B16.5; ASME B16.47; EN 1092-1; ISO 7005 Buttweld ends: ASME B16.25; EN 12627 Face to face: ISO 5752; EN 558; ASME B16.10; API 609 End to end: ISO 5752; EN 12982
	<b>Testing</b>	API 598 EN 12266-1

### NOTES (relevant from page 4 to 19)

- Total weights indicates the sum of valve and manual gear weights.
- Trim A:  $\Delta p$  max. 10 bar (145 psi)  
Trim B:  $\Delta p$  max. 25 bar (363 psi)  
Trim C:  $\Delta p$  max. 52 bar (754 psi)  
Trim D:  $\Delta p$  max. 110 bar (1595 psi)  
Trim E:  $\Delta p$  max. 160 bar (2320 psi) at ambient temperature
- With reference to the face to face of double flanged short valves, note that ISO 5752 BASIC SERIES 13/14 corresponds to API 609 DOUBLE FLANGED SHORT where applicable.
- Sectional drawings and dimensional tables on this datasheet refer to valves with gears. However note that Vanessa valves are suitable for operation with all kinds of quarter turn actuators (pneumatic, hydraulic, electric, etc.).
- Suggested orientation is with the valve shaft horizontal or inclined from vertical.
- For operating temperatures above 200°C (392°F) thermal insulation of the valve body is recommended.

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