



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

TECHNICAL DATA SHEET - LIQUID OXYGEN (LOX) CONFIGURATION

Vanessa Series 30,000 Triple Offset Valve (TOV) solution featuring the full metal construction, frictionless trim rotation and torque seating, combined with optimized material selection and minimal use of dry antifriction coating on the seal ring. This valve contributes to handle isolation and process control safely and reliably within highly oxidizing environments.



FEATURES

- Frictionless and inherently antistatic full metal construction (fire safe by design) eliminates the risk of oxygen kindling chain.
- Burn-resistant Stellite® grade 21 seat overlay provides excellent durability.
- Bolted extended bonnet protects packing from cryogenic service temperatures.
- Die formed packing rings, obtained from Sigraflex® unreinforced foil, are oxygen compatible and oxidation resistant.
- Two-piece packing gland minimizes external emission risk.
- Nitronic® 50 round solid seal ring with molybdenum disulfide dry antifriction coating tested for oxygen compatibility.
- Robust one-piece shaft is designed to transfer/maintain torque efficiently.
- Key secured shaft-to-disc connection ensures maximum shaft integrity.
- Handling of shaft extrusion risk in compliance with international standards.
- Spot-faced flanges ensure maximum joint-to-pipe integrity.

APPLICATION

Air Separation Unit (ASU)

Fluid

Liquid oxygen (LOX)

TECHNICAL DATA

Body style: Double flanged, lug, wafer
 Valve configuration: Cryogenic
 Range: NPS 3 to 36 - ASME Class 150 and 300
 DN 80 to 600 - EN PN 10/16/25/40
 NPS 6 to 36 - ASME Class 600
 DN 150 to 400 - EN PN 63
 DN 150 to 350 - EN PN 100

Lower service temperature: -196°C (-320°F)

Standards

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

MANUFACTURING

The cleaning, inspecting, assembly, testing, protection and labelling of Vanessa Series 30,000 TOV for oxygen service are executed in compliance with the relevant product specifications in a designated manufacturing location (ensuring a hydrocarbon contamination level below 65 mg/m² on the valve internal wetted surfaces). All the operations are carried out by expert personnel, specifically trained and equipped.

Vanessa Series 30,000 TOV configuration for LOX is subject to a pneumatic seat tightness test as per API 598 at 6 bar.

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GENERAL NOTES

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GENERAL NOTES

- The sectional drawings and the dimensional tables in 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.)
- "Total kg/Total lbs" in the last column of each dimensional table indicates the sum of valve and manual gear weights.
- 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.
- For liquid cryogenic applications, vertical (or inclined from vertical up to 45°) shaft installation is suggested to allow the vapor space formation inside the bonnet.
- Whenever horizontal installation is necessary, please contact your nearest Emerson Sales Office.

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LOX PRODUCT RANGE MATRIX

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NON-COLD BOX

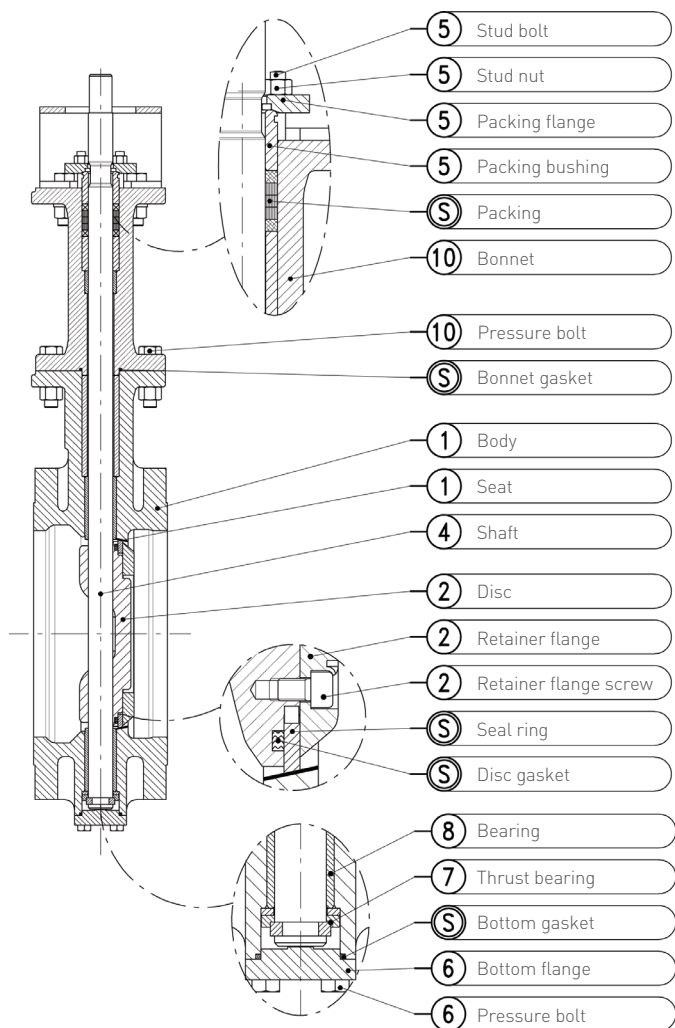
Body style	Face to face	Class	Body material	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	Page	
				80mm	100mm	150mm	200mm	250mm	300mm	350mm	400mm	450mm	500mm	600mm	750mm	900mm		
Double Flanged	Short Pattern	150	ASTM A351 CF3M/CF8M	•	•	•	•	•	•	•	•	•	•	•	•	•	6	
		300		•	•	•	•	•	•	•	•	•	•	•	•	•	•	9
		600				•	•	•	•	•	•	•	•	•	•	•	•	•
Lug	API 609	150		•	•	•	•	•	•	•	•	•	•	•	•			7
		300		•	•	•	•	•	•	•	•	•	•	•	•			10
		600				•	•	•	•	•	•	•	•	•	•			13
Wafer	EN Series 16	150 S/A														•	•	7
		300 S/A														•	•	10
		600		•	•	•	•	•	•	•	•	•	•	•	•			8
Wafer	API 609	150		•	•	•	•	•	•	•	•	•	•	•	•			8
		300		•	•	•	•	•	•	•	•	•	•	•	•			11
		600				•	•	•	•	•	•	•	•	•	•			14
Wafer	EN Series 16	150 S/A														•	•	8
		300 S/A														•	•	11

Body Style	Face to face	Class	Body material	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	Page
				80mm	100mm	150mm	200mm	250mm	300mm	350mm	400mm	450mm	500mm	600mm	
Double Flanged	Short Pattern	PN 10	EN 10213 1.4408	SEE PN 16			•	•	•	•	•	•	•	•	16
		PN 16		•	•	•	•	•	•	•	•	•	•	•	16
		PN 25		SEE PN 40			•	•	•	•	•	•	•	•	16
		PN 40		•	•	•	•	•	•	•	•	•	•	•	17
		PN 63				•	•	•	•	•	•	•	•	•	17
Lug	EN Series 16	PN 100				•	•	•	•	•	•	•	•	•	17
		PN 10		SEE PN 16			•	•	•	•	•	•	•	•	18
		PN 16		•	•	•	•	•	•	•	•	•	•	•	18
		PN 25		SEE PN 40			•	•	•	•	•	•	•	•	18
		PN 40		•	•	•	•	•	•	•	•	•	•	•	18
Wafer	EN Series 108	PN 10		SEE PN 16			•	•	•	•	•	•	•	•	19
		PN 16		•	•	•	•	•	•	•	•	•	•	•	19
		PN 25		SEE PN 40			•	•	•	•	•	•	•	•	19
		PN 40		•	•	•	•	•	•	•	•	•	•	•	19
		PN 10		SEE PN 16			•	•	•	•	•	•	•	•	20
Wafer	EN Series 110	PN 16		•	•	•	•	•	•	•	•	•	•	•	20
		PN 25		SEE PN 40			•	•	•	•	•	•	•	•	20
		PN 40		•	•	•	•	•	•	•	•	•	•	•	21
Wafer	EN Series 110	PN 63			•	•	•	•	•	•	•	•	•	21	
		PN 100			•	•	•	•	•	•	•	•	•	21	

VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

LOX VALVE CONFIGURATION FOR NON-COLD BOX APPLICATIONS - SECTIONAL DRAWING AND MATERIAL SELECTION (ACC. TO ASTM)

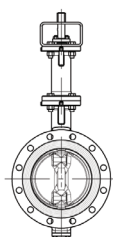
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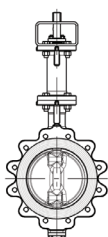
MATERIAL SELECTION

Item	Note	Description	Body in stainless steel ⁽¹⁾
1		Body Weld surfacing on seat	ASTM A351 CF3M / CF8M Stellite® gr.21
2	<input type="checkbox"/>	Cast disc Forged disc Retainer flange Retainer flange screw	ASTM A351 CF3M / CF8M ASTM A182 UNS S31600 / UNS S31603 (F316 / F316L) UNS S31600 / UNS S31603 (AISI 316 / 316L) ISO 3506 A4 (AISI 316)
4		Shaft	ASTM A479 XM19 - UNS S20910 (Nitronic® 50)
5		Packing bushing Stud nut Stud bolt Packing flange	UNS S31600 / UNS S31603 (AISI 316 / 316L) ISO 3506 A4 (AISI 316) ISO 3506 A4 (AISI 316) UNS S31600 / UNS S31603 (AISI 316 / 316L)
6		Bottom flange Pressure bolt	ASTM A240 UNS S31600 / UNS S31603 (Gr.316 / Gr.316L) ISO 3506 A4 (AISI 316)
7		Thrust bearing	UNS S31600 / UNS S31603 (AISI 316 / 316L) hard faced
8		Bearing	UNS S31600 / UNS S31603 (AISI 316 / 316L) hard faced
10	<input type="checkbox"/>	Bonnet Pressure bolt	ASTM A351 CF3M/CF8M or AISI 316/316L FABRICATED ISO 3506 A4 (AISI 316)
S	<input type="checkbox"/>	Packing	Die Formed Graphite Rings Sigraflex Foil Unreinforced - (BAM TESTED) UNS S31600 / UNS S31603 (AISI 316 / 316L) + Graphite Sigraflex Foil Unreinforced - (BAM TESTED)
	<input type="checkbox"/>	Bottom/ Bonnet gasket	UNS S20910 (Nitronic® 50) HARD FACED
	<input type="checkbox"/>	Seal ring	UNS S20910 (Nitronic® 50) HARD FACED
	<input type="checkbox"/>	Disc gasket	UNS S31600 / UNS S31603 (AISI 316 / 316L) + Graphite Sigraflex Foil Unreinforced - (BAM TESTED)

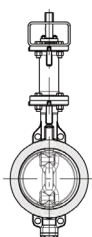
Available body styles:



Double flanged



Lug



Wafer

NOTES

⁽¹⁾ Cleaning: according to internal procedure VAP-MF-014

- Materials are exclusively selected by factory depending on valve size
- Suggested spare parts

Design temperature range: -196°C to +80°C

VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - DOUBLE FLANGED SHORT - ASME CLASS 150

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DOUBLE FLANGED SHORT - Metric

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
Face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.150															
80	3	Q-400	585	125	544	430	510	125	22.3	114	53	204	160	36	41
100	4	Q-400	615	141	574	460	540	125	22.3	127	53	204	160	52	57
150	6	Q-400	705	165	664	550	630	150	23.9	140	53	204	160	65	70
200	8	Q-800	776	214	728	585	685	150	27.0	152	69	278	300	103	112
250	10	Q-1500	872	243	820	675	775	175	28.6	165	84	289	300	143	155
300	12	Q-2000	940	286	890	710	840	175	30.2	178	97	356	600	193	209
350	14	Q-2000	1075	312	1025	845	975	180	33.4	190	97	356	600	230	246
400	16	Q-3000	1113	350	1044	865	995	180	35.0	216	118	379	600	298	322
450	18	Q-4000	1158	383	1085	900	1030	220	38.1	222	138	447	700	365	398
500	20	Q-4000	1218	407	1145	940	1090	220	41.3	229	138	447	700	451	484
600	24	Q-6500	1300	484	1195	990	1140	220	46.1	267	138	456	600	644	683
Face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.47 CL.150 SERIES A															
750	30	Q-20000	1587	611	1487	1215	1415	220	73.1	318	212	567	700	1162	1282
900	36	Q-32000	1889	736	1785	1480	1700	250	88.9	330	253	593	700	1887	2092

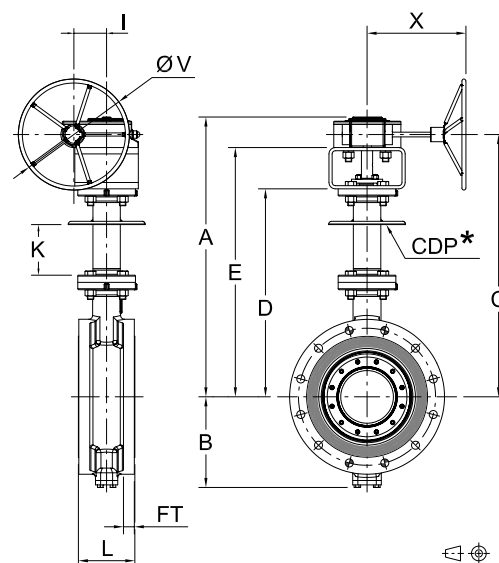
DOUBLE FLANGED SHORT - Imperial

NPS	DN	GEAR	A inch	B inch	C inch	D inch	E inch	K inch	FT inch	L inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
Face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.150															
3	80	Q-400	23.25	5.00	21.50	17.00	20.25	4.9	0.878	4.50	2.13	8.00	6.25	79	90
4	100	Q-400	24.25	5.75	22.75	18.25	21.50	4.9	0.878	5.00	2.13	8.00	6.25	114	125
6	150	Q-400	28.00	6.50	26.25	21.75	25.00	5.9	0.941	5.50	2.13	8.00	6.25	143	154
8	200	Q-800	30.75	8.50	28.75	23.25	27.00	5.9	1.063	6.00	2.75	11.00	11.75	227	246
10	250	Q-1500	34.50	9.75	32.50	26.75	30.75	6.9	1.126	6.50	3.25	11.38	11.75	315	341
12	300	Q-2000	37.25	11.50	35.25	28.00	33.25	6.9	1.189	7.00	3.75	14.00	23.50	425	460
14	350	Q-2000	42.50	12.50	40.50	33.50	38.50	7.1	1.315	7.50	3.75	14.00	23.50	506	541
16	400	Q-3000	44.00	14.00	41.25	34.25	39.25	7.1	1.378	8.50	4.63	14.88	23.50	656	708
18	450	Q-4000	45.75	15.25	42.75	35.50	40.75	8.7	1.500	8.75	5.38	17.63	27.50	803	876
20	500	Q-4000	48.00	16.25	45.25	37.25	43.00	8.7	1.626	9.00	5.38	17.63	27.50	992	1065
24	600	Q-6500	51.25	19.25	47.25	39.00	45.00	8.7	1.815	10.50	5.38	18.00	23.50	1417	1503
Face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.47 CL.150 SERIES A															
30	750	Q-20000	62.50	24.25	58.75	48.00	55.75	8.7	2.878	12.50	8.38	22.38	27.50	2556	2820
36	900	Q-32000	74.50	29.00	70.50	58.50	67.00	9.8	3.500	13.00	10.00	23.38	27.50	4151	4602

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - LUG - ASME CLASS 150

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LUG - Metric

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
Face to face EN558 Series 108 - API 609 CL.150 Category B - Drilling ASME B16.5 CL.150															
80	3	Q-400	585	125	544	430	510	125	48	20	53	204	160	19	24
100	4	Q-400	615	141	574	460	540	125	54	24	53	204	160	24	29
150	6	Q-400	705	165	664	550	630	150	57	26	53	204	160	33	38
200	8	Q-800	776	214	728	585	685	150	64	28	69	278	300	49	58
250	10	Q-1500	872	243	820	675	775	175	71	32	84	289	300	67	79
300	12	Q-2000	940	286	890	710	840	175	81	38	97	356	600	111	127
350	14	Q-2000	1075	312	1025	845	975	180	92	44	97	356	600	147	163
400	16	Q-3000	1113	350	1044	865	995	180	102	49	118	379	600	198	222
450	18	Q-4000	1158	383	1085	900	1030	220	114	55	138	447	700	244	277
500	20	Q-4000	1218	407	1145	940	1090	220	127	63	138	447	700	326	359
600	24	Q-6500	1300	484	1195	990	1140	220	154	78	138	456	600	461	500
Face to face EN558 Series 16 - Manufacturer standard - Drilling ASME B16.47 CL.150 SERIES A															
750	30	Q-20000	1587	611	1487	665	1415	220	230	109,5	212	567	700	1317	1437
900	36	Q-32000	1889	736	1785	780	1700	250	241	120,5	253	593	700	1760	1965

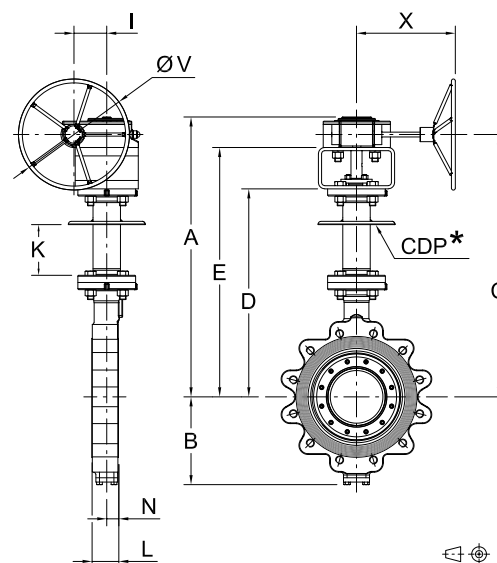
LUG - Imperial

NPS	DN	GEAR	A inch	B inch	C inch	D inch	E inch	K inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
Face to face EN558 Series 108 - API 609 CL.150 Category B - Drilling ASME B16.5 CL.150															
3	80	Q-400	23.25	5.00	21.50	17.00	20.25	4.9	1.88	0.75	2.13	8.00	6.25	42	53
4	100	Q-400	24.25	5.75	22.75	18.25	21.50	4.9	2.13	1.00	2.13	8.00	6.25	52	64
6	150	Q-400	28.00	6.50	26.25	21.75	25.00	5.9	2.25	1.00	2.13	8.00	6.25	73	84
8	200	Q-800	30.75	8.50	28.75	23.25	27.00	5.9	2.50	1.13	2.75	11.00	11.75	108	128
10	250	Q-1500	34.50	9.75	32.50	26.75	30.75	6.9	2.81	1.25	3.25	11.38	11.75	148	174
12	300	Q-2000	37.25	11.50	35.25	28.00	33.25	6.9	3.19	1.50	3.75	14.00	23.50	245	279
14	350	Q-2000	42.50	12.50	40.50	33.50	38.50	7.1	3.63	1.75	3.75	14.00	23.50	323	359
16	400	Q-3000	44.00	14.00	41.25	34.25	39.25	7.1	4.00	1.88	4.63	14.88	23.50	436	488
18	450	Q-4000	45.75	15.25	42.75	35.50	40.75	8.7	4.50	2.13	5.38	17.63	27.50	537	609
20	500	Q-4000	48.00	16.25	45.25	37.25	43.00	8.7	5.00	2.50	5.38	17.63	27.50	717	790
24	600	Q-6500	51.25	19.25	47.25	39.00	45.00	8.7	6.06	3.13	5.38	18.00	23.50	1014	1100
Face to face EN558 Series 16 - Manufacturer standard - Drilling ASME B16.47 CL.150 SERIES A															
30	750	Q-20000	62.50	24.25	58.75	26.25	55.75	8.7	9.06	4.25	8.38	22.38	27.50	2897	3161
36	900	Q-32000	74.50	29.00	70.50	30.75	67.00	9.8	9.50	4.75	10.00	23.38	27.50	3872	4323

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER - ASME CLASS 150

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WAFER - Metric

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
Face to face EN558 Series 108 - API 609 CL. 150 Category B - Drilling ASME B16.5 CL.150															
80	3	Q-400	585	125	544	430	510	125	48	20	53	204	160	20	25
100	4	Q-400	615	141	574	460	540	125	54	24	53	204	160	22	27
150	6	Q-400	705	165	664	550	630	150	57	26	53	204	160	30	35
200	8	Q-800	776	214	728	585	685	150	64	28	69	278	300	47	56
250	10	Q-1500	872	243	820	675	775	175	71	32	84	289	300	63	75
300	12	Q-2000	940	286	890	710	840	175	81	38	97	356	600	101	117
350	14	Q-2000	1075	312	1025	845	975	180	92	44	97	356	600	127	143
400	16	Q-3000	1113	350	1044	865	995	180	102	49	118	379	600	161	185
450	18	Q-4000	1158	383	1085	900	1030	220	114	55	138	447	700	214	247
500	20	Q-4000	1218	407	1145	940	1090	220	127	63	138	447	700	276	309
600	24	Q-6500	1300	484	1195	990	1140	220	154	78	138	456	600	398	437
Face to face EN558 Series 16 - Manufacturer standard - Drilling ASME B16.47 CL.150 SERIES A															
750	30	Q-20000	1587	611	1487	1215	1415	220	230	109,5	212	567	700	917	1037
900	36	Q-32000	1889	736	1785	1480	1700	250	241	120,5	253	593	700	1363	1568

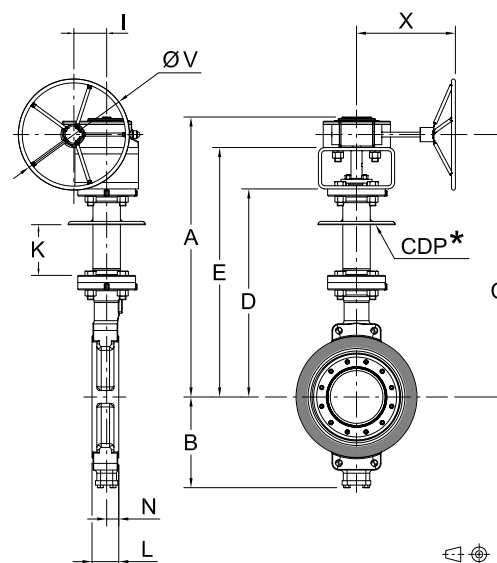
WAFER - Imperial

NPS	DN	GEAR	A inch	B inch	C inch	D inch	E inch	K inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
Face to face EN558 Series 108 - API 609 CL. 150 Category B - Drilling ASME B16.5 CL.150															
3	80	Q-400	23.25	5.00	21.50	17.00	20.25	4.9	1.88	0.75	2.13	8.00	6.25	44	55
4	100	Q-400	24.25	5.75	22.75	18.25	21.50	4.9	2.13	1.00	2.13	8.00	6.25	48	59
6	150	Q-400	28.00	6.50	26.25	21.75	25.00	5.9	2.25	1.00	2.13	8.00	6.25	66	77
8	200	Q-800	30.75	8.50	28.75	23.25	27.00	5.9	2.50	1.13	2.75	11.00	11.75	104	123
10	250	Q-1500	34.50	9.75	32.50	26.75	30.75	6.9	2.81	1.25	3.25	11.38	11.75	139	165
12	300	Q-2000	37.25	11.50	35.25	28.00	33.25	6.9	3.19	1.50	3.75	14.00	23.50	223	257
14	350	Q-2000	42.50	12.50	40.50	33.50	38.50	7.1	3.63	1.75	3.75	14.00	23.50	279	315
16	400	Q-3000	44.00	14.00	41.25	34.25	39.25	7.1	4.00	1.88	4.63	14.88	23.50	355	407
18	450	Q-4000	45.75	15.25	42.75	35.50	40.75	8.7	4.50	2.13	5.38	17.63	27.50	471	543
20	500	Q-4000	48.00	16.25	45.25	37.25	43.00	8.7	5.00	2.50	5.38	17.63	27.50	607	680
24	600	Q-6500	51.25	19.25	47.25	39.00	45.00	8.7	6.06	3.13	5.38	18.00	23.50	876	961
Face to face EN558 Series 16 - Manufacturer standard - Drilling ASME B16.47 CL.150 SERIES A															
30	750	Q-20000	62.50	24.25	58.75	48.00	55.75	8.7	9.06	4.25	8.38	22.38	27.50	2017	2281
36	900	Q-32000	74.50	29.00	70.50	58.50	67.00	9.8	9.50	4.75	10.00	23.38	27.50	2999	3450

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - DOUBLE FLANGED SHORT - ASME CLASS 300

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DOUBLE FLANGED SHORT - Metric

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
Face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.300															
80	3	Q-400	585	125	544	430	510	125	27.0	114	53	204	160	41	46
100	4	Q-400	615	141	574	460	540	125	30.2	127	53	204	160	52	57
150	6	Q-800	741	189	693	550	650	150	35.0	140	69	278	300	92	101
200	8	Q-2000	815	236	765	585	715	150	39.7	152	97	356	600	140	156
250	10	Q-2000	905	272	855	675	805	175	46.1	165	97	356	600	199	215
300	12	Q-3000	958	310	889	710	840	175	49.3	178	118	379	600	265	289
350	14	Q-4000	1123	335	1050	845	995	180	52.4	190	138	447	700	357	390
400	16	Q-6500	1185	389	1080	875	1025	180	55.6	216	138	456	600	478	517
450	18	Q-12000	1270	422	1174	910	1110	220	58.8	222	180	487	600	563	622
500	20	Q-12000	1310	461	1214	950	1150	220	62.0	229	180	487	600	694	753
600	24	Q-16000	1415	531	1299	1035	1235	220	68.3	267	180	579	700	1036	1103
Face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.47 CL.300 SERIES A															
750	30	Q-50000	1863	671	1738	1320	1600	220	90.5	318	292	747	700	2023	2378
900	36	Q-70000	2063	801	1938	1520	1800	250	103.2	330	292	747	700	2783	3148

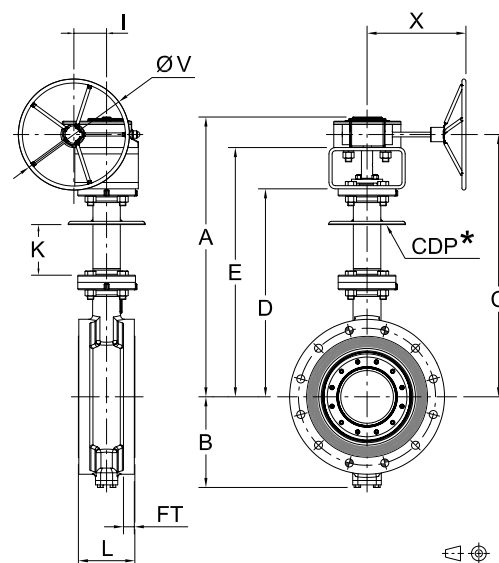
DOUBLE FLANGED SHORT - Imperial

NPS	DN	GEAR	A inch	B inch	C inch	D inch	E inch	K inch	FT inch	L inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
Face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.300															
3	80	Q-400	23.25	5.00	21.50	17.00	20.25	4.9	1.063	4.50	2.13	8.00	6.25	90	101
4	100	Q-400	24.25	5.75	22.75	18.25	21.50	4.9	1.189	5.00	2.13	8.00	6.25	114	125
6	150	Q-800	29.25	7.50	27.50	21.75	25.75	5.9	1.378	5.50	2.75	11.00	11.75	202	222
8	200	Q-2000	32.25	9.50	30.25	23.25	28.25	5.9	1.563	6.00	3.75	14.00	23.50	308	343
10	250	Q-2000	35.75	10.75	33.75	26.75	31.75	6.9	1.815	6.50	3.75	14.00	23.50	438	473
12	300	Q-3000	37.75	12.25	35.00	28.00	33.25	6.9	1.941	7.00	4.63	14.88	23.50	583	636
14	350	Q-4000	44.25	13.25	41.50	33.50	39.25	7.1	2.063	7.50	5.38	17.63	27.50	785	858
16	400	Q-6500	46.75	15.50	42.50	34.50	40.50	7.1	2.189	8.50	5.38	18.00	23.50	1052	1137
18	450	Q-12000	50.00	16.75	46.25	36.00	43.75	8.7	2.315	8.75	7.13	19.13	23.50	1239	1368
20	500	Q-12000	51.75	18.25	48.00	37.50	45.50	8.7	2.441	9.00	7.13	19.13	23.50	1527	1657
24	600	Q-16000	55.75	21.00	51.25	40.75	48.75	8.7	2.689	10.50	7.13	22.75	27.50	2279	2427
Face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.47 CL.300 SERIES A															
30	750	Q-50000	73.50	26.50	68.50	52.00	63.00	8.7	3.563	12.50	11.50	29.38	27.50	4450	5232
36	900	Q-70000	81.25	31.75	76.50	60.00	71.00	9.8	4.063	13.00	11.50	29.38	27.50	6123	6926

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - LUG - ASME CLASS 300

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LUG - Metric

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
Face to face EN558 Series 109 - API 609 CL.300 Category B - Drilling ASME B16.5 CL.300															
80	3	Q-400	585	125	544	430	510	125	48	20	53	204	160	24	29
100	4	Q-400	615	141	574	460	540	125	54	24	53	204	160	29	34
150	6	Q-800	741	189	693	550	650	150	59	26	69	278	300	53	62
200	8	Q-2000	815	236	765	585	715	150	73	32	97	356	600	76	92
250	10	Q-2000	905	272	855	675	805	175	83	37	97	356	600	101	117
300	12	Q-3000	958	310	889	710	840	175	92	39	118	379	600	149	173
350	14	Q-4000	1123	335	1050	845	995	180	117	60	138	447	700	291	324
400	16	Q-6500	1185	389	1080	875	1025	180	133	65	138	456	600	358	397
450	18	Q-12000	1270	422	1174	910	1110	220	149	73	180	487	600	523	582
500	20	Q-12000	1310	461	1214	950	1150	220	159	72	180	487	600	588	647
600	24	Q-16000	1415	531	1299	1035	1235	220	181	82	180	579	700	919	986
Face to face EN558 Series 16 - Manufacturer standard - Drilling ASME B16.47 CL.300 SERIES A															
750	30	Q-50000	1863	671	1738	1320	1600	220	230	107	292	747	700	1822	2177
900	36	Q-70000	2063	801	1938	1520	1800	250	300	150	292	747	700	2766	3131

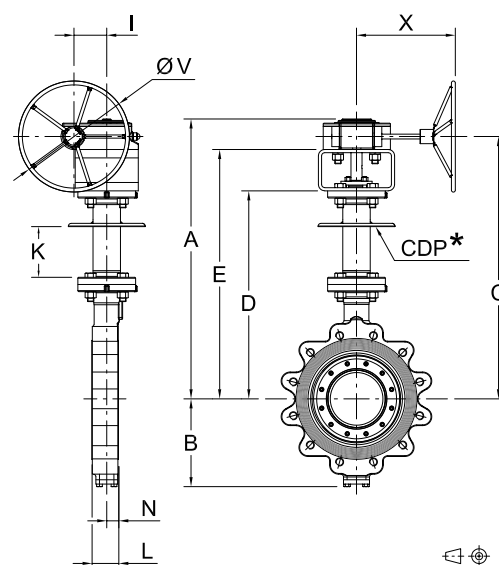
LUG - Imperial

NPS	DN	GEAR	A inch	B inch	C inch	D inch	E inch	K inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
Face to face EN558 Series 109 - API 609 CL.300 Category B - Drilling ASME B16.5 CL.300															
3	80	Q-400	23.25	5.00	21.50	17.00	20.25	4.9	1.88	0.75	2.13	8.00	6.25	53	64
4	100	Q-400	24.25	5.75	22.75	18.25	21.50	4.9	2.13	1.00	2.13	8.00	6.25	63	75
6	150	Q-800	29.25	7.50	27.50	21.75	25.75	5.9	2.31	1.00	2.75	11.00	11.75	116	136
8	200	Q-2000	32.25	9.50	30.25	23.25	28.25	5.9	2.88	1.25	3.75	14.00	23.50	167	202
10	250	Q-2000	35.75	10.75	33.75	26.75	31.75	6.9	3.25	1.50	3.75	14.00	23.50	222	257
12	300	Q-3000	37.75	12.25	35.00	28.00	33.25	6.9	3.63	1.50	4.63	14.88	23.50	328	381
14	350	Q-4000	44.25	13.25	41.50	33.50	39.25	7.1	4.63	2.38	5.38	17.63	27.50	640	713
16	400	Q-6500	46.75	15.50	42.50	34.50	40.50	7.1	5.25	2.50	5.38	18.00	23.50	788	873
18	450	Q-12000	50.00	16.75	46.25	36.00	43.75	8.7	5.88	2.88	7.13	19.13	23.50	1151	1280
20	500	Q-12000	51.75	18.25	48.00	37.50	45.50	8.7	6.25	2.88	7.13	19.13	23.50	1294	1423
24	600	Q-16000	55.75	21.00	51.25	40.75	48.75	8.7	7.13	3.25	7.13	22.75	27.50	2022	2169
Face to face EN558 Series 16 - Manufacturer standard - Drilling ASME B16.47 CL.300 SERIES A															
30	750	Q-50000	73.50	26.50	68.50	52.00	63.00	8.7	9.06	4.25	11.50	29.38	27.50	4008	4789
36	900	Q-70000	81.25	31.75	76.50	60.00	71.00	9.8	11.81	5.88	11.50	29.38	27.50	6086	6888

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER - ASME CLASS 300

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WAFER- Metric

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
Face to face EN558 Series 109 - API 609 CL. 300 Category B - Drilling ASME B16.5 CL.300															
80	3	Q-400	585	125	544	430	510	125	48	20	53	204	160	20	25
100	4	Q-400	615	141	574	460	540	125	54	24	53	204	160	22	27
150	6	Q-800	741	189	693	550	650	150	59	26	69	278	300	41	50
200	8	Q-2000	815	236	765	585	715	150	73	32	97	356	600	70	86
250	10	Q-2000	905	272	855	675	805	175	83	37	97	356	600	99	115
300	12	Q-3000	958	310	889	710	840	175	92	39	118	379	600	139	163
350	14	Q-4000	1123	335	1050	845	995	180	117	60	138	447	700	201	234
400	16	Q-6500	1185	389	1080	875	1025	180	133	65	138	456	600	286	325
450	18	Q-12000	1270	422	1174	910	1110	220	149	73	180	487	600	353	412
500	20	Q-12000	1310	461	1214	950	1150	220	159	72	180	487	600	432	491
600	24	Q-16000	1415	531	1299	1035	1235	220	181	82	180	579	700	644	711
Face to face EN558 Series 16 - Manufacturer standard - Drilling ASME B16.47 CL.300 SERIES A															
750	30	Q-50000	1863	671	1738	1320	1600	220	230	107	292	747	700	1500	1855
900	36	Q-70000	2063	801	1938	1520	1800	250	300	150	292	747	700	2033	2398

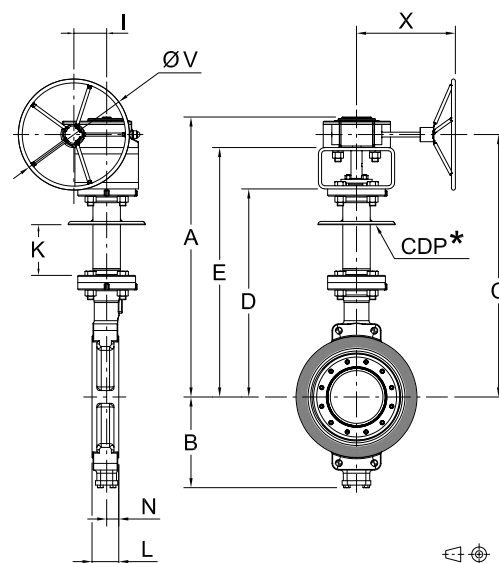
WAFER- Imperial

NPS	DN	GEAR	A inch	B inch	C inch	D inch	E inch	K inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
Face to face EN558 Series 109 - API 609 CL. 300 Category B - Drilling ASME B16.5 CL.300															
3	80	Q-400	23.25	5.00	21.50	17.00	20.25	4.9	1.88	0.75	2.13	8.00	6.25	44	55
4	100	Q-400	24.25	5.75	22.75	18.25	21.50	4.9	2.13	1.00	2.13	8.00	6.25	48	59
6	150	Q-800	29.25	7.50	27.50	21.75	25.75	5.9	2.31	1.00	2.75	11.00	11.75	90	110
8	200	Q-2000	32.25	9.50	30.25	23.25	28.25	5.9	2.88	1.25	3.75	14.00	23.50	154	189
10	250	Q-2000	35.75	10.75	33.75	26.75	31.75	6.9	3.25	1.50	3.75	14.00	23.50	218	253
12	300	Q-3000	37.75	12.25	35.00	28.00	33.25	6.9	3.63	1.50	4.63	14.88	23.50	306	359
14	350	Q-4000	44.25	13.25	41.50	33.50	39.25	7.1	4.63	2.38	5.38	17.63	27.50	442	515
16	400	Q-6500	46.75	15.50	42.50	34.50	40.50	7.1	5.25	2.50	5.38	18.00	23.50	630	715
18	450	Q-12000	50.00	16.75	46.25	36.00	43.75	8.7	5.88	2.88	7.13	19.13	23.50	777	906
20	500	Q-12000	51.75	18.25	48.00	37.50	45.50	8.7	6.25	2.88	7.13	19.13	23.50	951	1080
24	600	Q-16000	55.75	21.00	51.25	40.75	48.75	8.7	7.13	3.25	7.13	22.75	27.50	1417	1564
Face to face EN558 Series 16 - Manufacturer standard - Drilling ASME B16.47 CL.300 SERIES A															
30	750	Q-50000	73.50	26.50	68.50	52.00	63.00	8.7	9.06	4.25	11.50	29.38	27.50	3300	4081
36	900	Q-70000	81.25	31.75	76.50	60.00	71.00	9.8	11.81	5.88	11.50	29.38	27.50	4473	5276

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - DOUBLE FLANGED SHORT - ASME CLASS 600

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DOUBLE FLANGED SHORT - Metric

DN	NPS	GEAR	A	B	C	D	E	K	FT	L	I	X	ØV	Valve	Total	
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg	
Face to face EN558 Series 14 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.600																
150	6	Q-2000	820	216	770	590	720	150	47.7	210	97	356	600	146	162	
200	8	Q-3000	863	265	794	615	745	150	55.6	230	118	379	600	233	257	
250	10	Q-6500	1015	315	910	705	855	175	63.5	250	138	456	600	359	398	
300	12	Q-12000	1110	362	1014	750	950	175	66.7	270	180	487	600	504	563	
350	14	Q-12000	1220	390	1124	860	1060	180	69.9	290	180	487	600	577	636	
400	16	Q-20000	1292	440	1192	920	1120	180	76.2	310	212	567	700	740	860	
450	18	Q-32000	1374	460	1270	965	1185	220	82.6	330	253	593	700	958	1163	
500	20	Q-50000	1493	526	1368	1010	1230	220	88.9	350	292	747	700	1271	1626	
600	24	Q-50000	1673	623	1548	1130	1410	220	101.6	390	292	747	700	1817	2172	
Face to face EN558 Series 14 - API 609 DF Short Pattern - Drilling ASME B16.47 CL.600 SERIES A																
750	30	Q-105000	1903	785	1738	1350	1600	220	114.3	430	292	814	800	3257	3657	
900	36	HOW115	2052	865	1925	1525	1805	250	123.9	510	381	945	750	4222	4815	

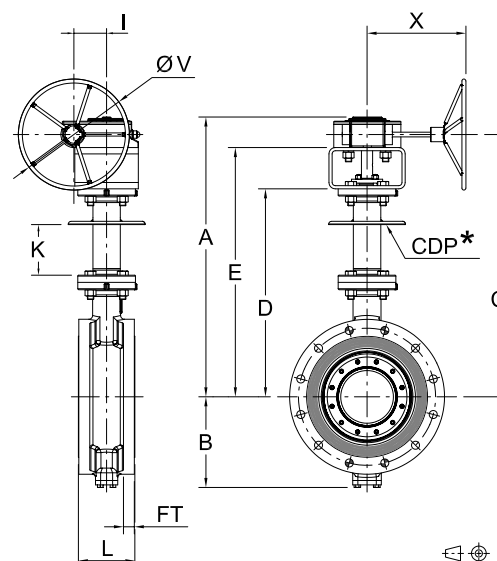
DOUBLE FLANGED SHORT - Imperial

NPS	DN	GEAR	A	B	C	D	E	K	FT	L	I	X	ØV	Valve	Total	
inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs	
Face to face EN558 Series 14 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.600																
6	150	Q-2000	32.50	8.75	30.50	23.25	28.50	5.9	1,878	8.25	3.75	14.00	23.50	321	356	
8	200	Q-3000	34.00	10.50	31.25	24.25	29.50	5.9	2,189	9.00	4.63	14.88	23.50	513	565	
10	250	Q-6500	40.00	12.50	36.00	28.00	33.75	6.9	2,500	9.88	5.38	18.00	23.50	790	876	
12	300	Q-12000	43.75	14.50	40.00	29.75	37.50	6.9	2,626	10.63	7.13	19.13	23.50	1109	1239	
14	350	Q-12000	48.25	15.50	44.25	34.00	41.75	7.1	2,752	11.38	7.13	19.13	23.50	1269	1399	
16	400	Q-20000	51.00	17.50	47.00	36.25	44.25	7.1	3,000	12.25	8.38	22.38	27.50	1628	1892	
18	450	Q-32000	54.25	18.25	50.00	38.00	46.75	8.7	3,252	13.00	10.00	23.38	27.50	2108	2559	
20	500	Q-50000	59.00	20.75	54.00	40.00	48.50	8.7	3,500	13.75	11.50	29.38	27.50	2796	3577	
24	600	Q-50000	66.00	24.75	61.00	44.50	55.75	8.7	4,000	15.38	11.50	29.38	27.50	3997	4778	
Face to face EN558 Series 14 - API 609 DF Short Pattern - Drilling ASME B16.47 CL.600 SERIES A																
30	750	Q-105000	75.00	31.00	68.50	53.25	63.00	8.7	4,500	16.88	11.50	32.00	31.50	7165	8045	
36	900	HOW115	81.00	34.25	76.00	60.25	71.25	9.8	4,878	20.13	15.00	37.25	29.50	9288	10593	

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - LUG - ASME CLASS 600

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LUG - face to face EN558 Series 110 - API 609 CL.600 Category B - Drilling ASME B16.5 CL.600 (Metric)

DN	NPS	GEAR	A	B	C	D	E	K	L	N	I	X	ØV	Valve	Total
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
150	6	Q-2000	820	216	770	590	720	150	78	38	97	356	600	96	112
200	8	Q-3000	863	265	794	615	745	150	102	52.5	118	379	600	163	187
250	10	Q-6500	1015	315	910	705	855	175	117	60	138	456	600	237	276
300	12	Q-12000	1110	362	1014	750	950	175	140	71.5	180	487	600	411	470
350	14	Q-12000	1220	390	1124	860	1060	180	155	68	180	487	600	430	489
400	16	Q-20000	1292	440	1192	920	1120	180	178	84	212	567	700	544	664
450	18	Q-32000	1374	460	1270	965	1185	220	200	92	253	593	700	822	1027
500	20	Q-50000	1493	526	1368	1010	1230	220	216	101	292	747	700	995	1350
600	24	Q-50000	1673	623	1548	1130	1410	220	232	102	292	747	700	1611	1966

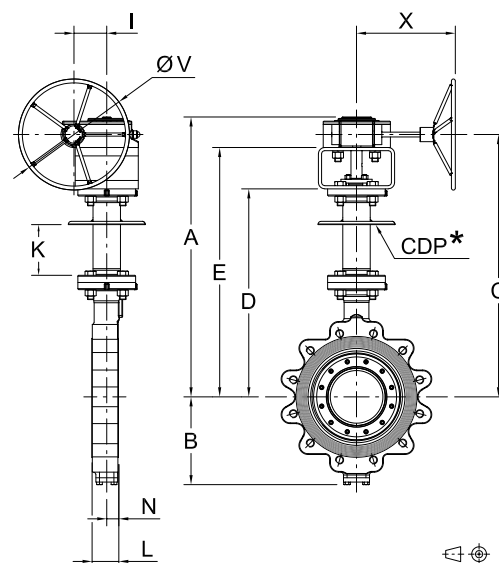
LUG - face to face EN558 Series 110 - API 609 CL.600 Category B - Drilling ASME B16.5 CL.600 (Imperial)

NPS	DN	GEAR	A	B	C	D	E	K	L	N	I	X	ØV	Valve	Total
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs
6	150	Q-2000	32.50	8.75	30.50	23.25	28.50	5.9	3.06	1.50	3.75	14.00	23.50	211	246
8	200	Q-3000	34.00	10.50	31.25	24.25	29.50	5.9	4.00	2.13	4.63	14.88	23.50	359	411
10	250	Q-6500	40.00	12.50	36.00	28.00	33.75	6.9	4.63	2.38	5.38	18.00	23.50	522	607
12	300	Q-12000	43.75	14.50	40.00	29.75	37.50	6.9	5.50	2.88	7.13	19.13	23.50	904	1034
14	350	Q-12000	48.25	15.50	44.25	34.00	41.75	7.1	6.13	2.63	7.13	19.13	23.50	946	1076
16	400	Q-20000	51.00	17.50	47.00	36.25	44.25	7.1	7.00	3.25	8.38	22.38	27.50	1197	1461
18	450	Q-32000	54.25	18.25	50.00	38.00	46.75	8.7	7.88	3.63	10.00	23.38	27.50	1809	2259
20	500	Q-50000	59.00	20.75	54.00	40.00	48.50	8.7	8.50	4.00	11.50	29.38	27.50	2189	2970
24	600	Q-50000	66.00	24.75	61.00	44.50	55.75	8.7	9.13	4.00	11.50	29.38	27.50	3544	4325

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER - ASME CLASS 600

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WAFER - face to face EN558 Series 110 - API 609 CL. 600 Category B - Drilling ASME B16.5 CL.600 (Metric)

DN	NPS	GEAR	A	B	C	D	E	K	L	N	I	X	ØV	Valve	Total
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
150	6	Q-2000	820	216	770	590	720	150	78	38	97	356	600	75	91
200	8	Q-3000	863	265	794	615	745	150	102	52.5	118	379	600	133	157
250	10	Q-6500	1015	315	910	705	855	175	117	60	138	456	600	235	274
300	12	Q-12000	1110	362	1014	750	950	175	140	71.5	180	487	600	284	343
350	14	Q-12000	1220	390	1124	860	1060	180	155	68	180	487	600	370	429
400	16	Q-20000	1292	440	1192	920	1120	180	178	84	212	567	700	450	570
450	18	Q-32000	1374	460	1270	965	1185	220	200	92	253	593	700	608	813
500	20	Q-50000	1493	526	1368	1010	1230	220	216	101	292	747	700	681	1036
600	24	Q-50000	1673	623	1548	1130	1410	220	232	102	292	747	700	1212	1567

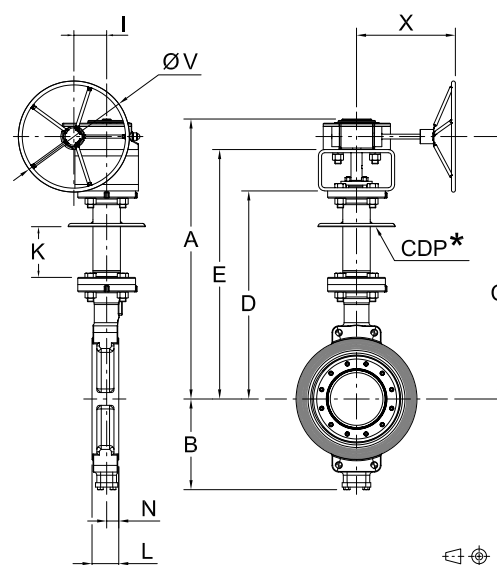
WAFER - face to face EN558 Series 110 - API 609 CL. 600 Category B - Drilling ASME B16.5 CL.600 (Imperial)

NPS	DN	GEAR	A	B	C	D	E	K	L	N	I	X	ØV	Valve	Total
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs
6	150	Q-2000	32.50	8.75	30.50	23.25	28.50	5.9	3.06	1.50	3.75	14.00	23.50	165	200
8	200	Q-3000	34.00	10.50	31.25	24.25	29.50	5.9	4.00	2.13	4.63	14.88	23.50	293	345
10	250	Q-6500	40.00	12.50	36.00	28.00	33.75	6.9	4.63	2.38	5.38	18.00	23.50	517	603
12	300	Q-12000	43.75	14.50	40.00	29.75	37.50	6.9	5.50	2.88	7.13	19.13	23.50	625	755
14	350	Q-12000	48.25	15.50	44.25	34.00	41.75	7.1	6.13	2.63	7.13	19.13	23.50	814	944
16	400	Q-20000	51.00	17.50	47.00	36.25	44.25	7.1	7.00	3.25	8.38	22.38	27.50	990	1254
18	450	Q-32000	54.25	18.25	50.00	38.00	46.75	8.7	7.88	3.63	10.00	23.38	27.50	1338	1789
20	500	Q-50000	59.00	20.75	54.00	40.00	48.50	8.7	8.50	4.00	11.50	29.38	27.50	1498	2279
24	600	Q-50000	66.00	24.75	61.00	44.50	55.75	8.7	9.13	4.00	11.50	29.38	27.50	2666	3447

NOTES

* CDP = Collar Drip Plate

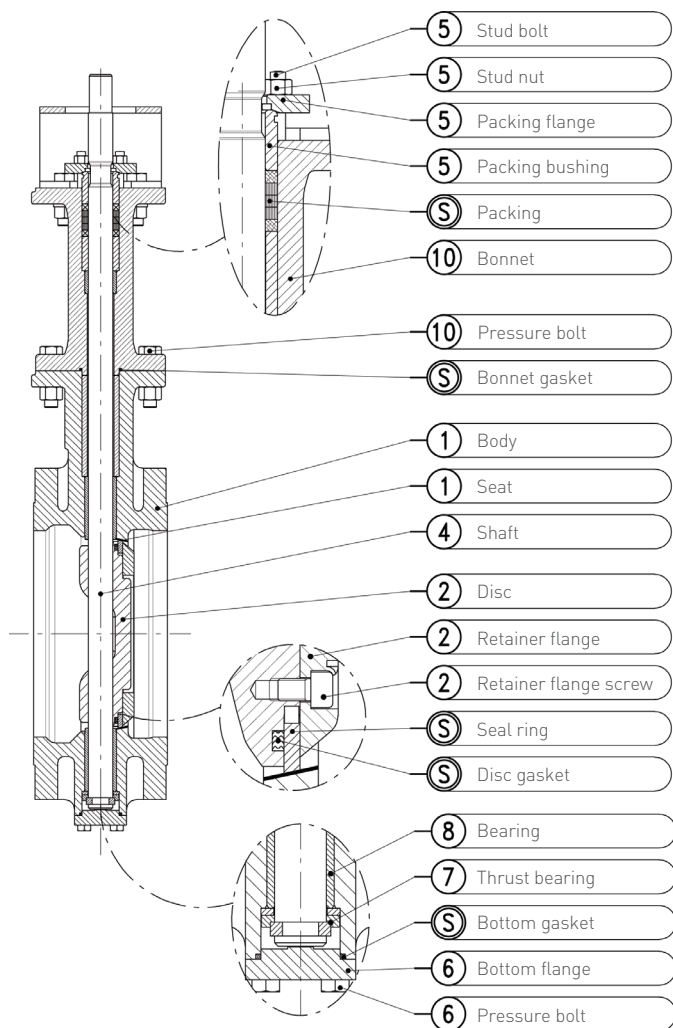
The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

LOX VALVE CONFIGURATION FOR NON-COLD BOX APPLICATIONS - SECTIONAL DRAWING AND MATERIAL SELECTION (ACC. TO EN)

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MATERIAL SELECTION

Item	Note	Description	Body in stainless steel ⁽¹⁾
1		Body Weld surfacing on seat	EN 10213 1.4408 Stellite® gr.21
2	<input type="checkbox"/>	Cast disc Forged disc	EN 10213 1.4408 EN 10222-5 1.4401
		Retainer flange Retainer flange screw	ASTM A240 Gr. 316 (1.4404) ISO 3506 A4 (AISI 316)
4		Shaft	ASTM A479 XM19 - UNS S20910 (Nitronic® 50)
5		Packing bushing Stud nut Stud bolt Packing flange	ASTM A240 / A182 / A276 UNS S31600 (1.4404) ISO 3506 A4 (AISI 316) ISO 3506 A4 (AISI 316) ASTM A240 / A182 / A276 UNS S31600 (1.4404)
6		Bottom flange Pressure bolt	ASTM A240 Gr. 316 or ASTM A182 F316 (1.4404) or EN 10213 1.4408 ISO 3506 A4 (AISI 316)
7		Thrust bearing	UNS S31600 (1.4404) HARD FACED
8		Bearing	UNS S31600 (1.4404) HARD FACED
10	<input type="checkbox"/>	Bonnet Pressure bolt	EN 10213 1.4408 or AISI 316/316L (1.4404) FABRICATED ISO 3506 A4 (AISI 316)
S	<input type="checkbox"/>	Packing	Die Formed Graphite Rings Sigraflex Foil Unreinforced - (BAM TESTED)
	<input type="checkbox"/>	Bottom/ Bonnet gasket	UNS S31600 (1.4404) + Graphite Sigraflex Foil Unreinforced - (BAM TESTED)
	<input type="checkbox"/>	Seal ring	UNS S20910 (Nitronic® 50) HARD FACED
	<input type="checkbox"/>	Disc gasket	UNS S31600 (1.4404) + Graphite Sigraflex Foil Unreinforced - (BAM TESTED)

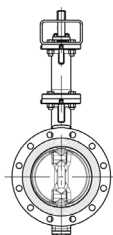
NOTES

⁽¹⁾ Cleaning: according to internal procedure VAP-MF-014

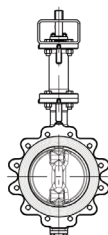
- Materials are exclusively selected by factory depending on valve size
- Suggested spare parts

Design temperature range: -196°C to +80°C

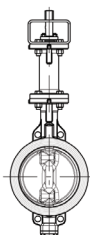
Available body styles:



Double flanged



Lug



Wafer

VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - DOUBLE FLANGED SHORT - EN PN 10, 16 AND 25

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DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern Drilling EN1092-1 PN 10 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3														
100	4														
150	6														
200	8	Q-800	776	214	728	585	685	150	30	152	69	278	300	103	112
250	10	Q-1500	872	243	820	675	775	175	30	165	84	289	300	143	155
300	12	Q-2000	940	286	890	710	840	175	32	178	97	356	600	193	209
350	14	Q-2000	1075	312	1025	845	975	180	35	190	97	356	600	230	246
400	16	Q-3000	1113	350	1044	865	995	180	37	216	118	379	600	298	322
450	18	Q-4000	1158	383	1085	900	1030	220	40	222	138	447	700	365	398
500	20	Q-4000	1218	407	1145	940	1090	220	48	229	138	447	700	451	484
600	24	Q-6500	1300	484	1195	990	1140	220	58	267	138	456	600	644	683

See EN PN 16

DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling EN1092-1 PN 16 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	585	125	544	430	510	125	24	114	53	204	160	36	41
100	4	Q-400	615	141	574	460	540	125	24	127	53	204	160	52	57
150	6	Q-400	705	165	664	550	630	150	25.5	140	53	204	160	65	70
200	8	Q-800	776	214	728	585	685	150	30	152	69	278	300	103	112
250	10	Q-1500	872	243	820	675	775	175	30	165	84	289	300	143	155
300	12	Q-2000	940	286	890	710	840	175	32	178	97	356	600	193	209
350	14	Q-2000	1075	312	1025	845	975	180	35	190	97	356	600	230	246
400	16	Q-3000	1113	350	1044	865	995	180	37	216	118	379	600	298	322
450	18	Q-4000	1158	383	1085	900	1030	220	40	222	138	447	700	380	413
500	20	Q-4000	1218	407	1145	940	1090	220	48	229	138	447	700	476	509
600	24	Q-6500	1300	484	1195	990	1140	220	58	267	138	456	600	774	813

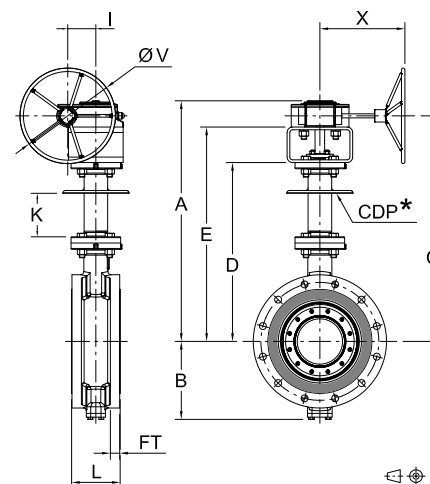
DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling EN1092-1 PN 25 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3														
100	4														
150	6														
200	8	Q-800	776	214	728	585	685	150	30	152	69	278	300	103	112
250	10	Q-1500	872	243	820	675	775	175	32	165	84	289	300	143	155
300	12	Q-2000	940	286	890	710	840	175	34	178	97	356	600	193	209
350	14	Q-2000	1075	312	1025	845	975	180	38	190	97	356	600	258	274
400	16	Q-3000	1113	350	1044	865	995	180	40	216	118	379	600	321	345
450	18	Q-4000	1158	383	1085	900	1030	220	46	222	138	447	700	400	433
500	20	Q-4000	1218	407	1145	940	1090	220	48	229	138	447	700	476	509
600	24	Q-6500	1300	484	1195	990	1140	220	58	267	138	456	600	774	813

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - DOUBLE FLANGED SHORT - EN PN 40, 63 AND 100

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DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling EN1092-1 PN 40 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	585	125	544	430	510	125	28.5	114	53	204	160	41	46
100	4	Q-400	615	141	574	460	540	125	32	127	53	204	160	52	57
150	6	Q-800	741	189	693	550	650	150	37	140	69	278	300	92	101
200	8	Q-2000	815	236	765	585	715	150	41.5	152	97	356	600	140	156
250	10	Q-2000	905	272	855	675	805	175	47.5	165	97	356	600	199	215
300	12	Q-3000	958	310	889	710	840	175	51	178	118	379	600	265	289
350	14	Q-4000	1123	335	1050	845	995	180	54	190	138	447	700	357	390
400	16	Q-6500	1185	389	1080	875	1025	180	57	216	138	456	600	478	517
450	18	Q-12000	1270	422	1174	910	1110	220	60	222	180	487	600	563	622
500	20	Q-12000	1310	461	1214	950	1150	220	64	229	180	487	600	694	753
600	24	Q-16000	1415	531	1299	1035	1235	220	72	267	180	579	700	1036	1103

DOUBLE FLANGED SHORT - face to face EN558 Series 14 - API 609 DF Short Pattern - Drilling EN1092-1 PN 63 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	Q-2000	820	216	770	590	720	150	54.7	210	97	356	600	146	162
200	8	Q-3000	863	265	794	615	745	150	62.6	230	118	379	600	233	257
250	10	Q-6500	1015	315	910	705	855	175	70.5	250	138	456	600	359	398
300	12	Q-12000	1110	362	1014	750	950	175	73.7	270	180	487	600	504	563
350	14	Q-12000	1220	390	1124	860	1060	180	76.5	290	180	487	600	577	636
400	16	Q-20000	1292	440	1192	920	1120	180	83.2	310	212	567	700	780	900

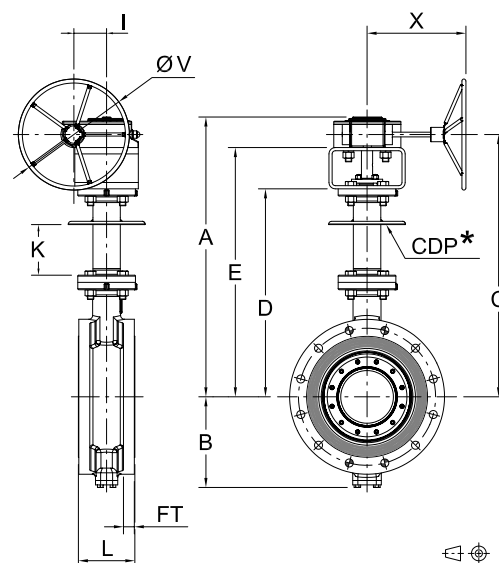
DOUBLE FLANGED SHORT - face to face EN558 Series 14 - API 609 DF Short Pattern - Drilling EN1092-1 PN 100 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	Q-2000	820	216	770	590	720	150	54.7	210	97	356	600	146	162
200	8	Q-3000	863	265	794	615	745	150	62.6	230	118	379	600	233	257
250	10	Q-6500	1015	315	910	705	855	175	70.5	250	138	456	600	359	398
300	12	Q-12000	1110	362	1014	750	950	175	73.7	270	180	487	600	504	563
350	14	Q-12000	1220	390	1124	860	1060	180	74.0	290	180	487	600	577	636

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - LUG - EN PN 10/16, 25 AND 40

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LUG - face to face EN558 Series 16 - Drilling EN1092-1 PN 10/16 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	585	125	544	430	510	125	64	34	53	204	160	25	30
100	4	Q-400	615	141	574	460	540	125	64	30	53	204	160	28	33
150	6	Q-400	705	165	664	550	630	150	76	41	53	204	160	40	45
200	8	Q-800	776	214	728	585	685	150	89	49	69	278	300	65	74
250	10	Q-1500	872	243	820	675	775	175	114	70	84	289	300	84	96
300	12	Q-2000	940	286	890	710	840	175	114	65	97	356	600	115	131
350	14	Q-2000	1075	312	1025	845	975	180	127	72	97	356	600	205	221
400	16	Q-3000	1113	350	1044	865	995	180	140	80	118	379	600	261	285
450	18	Q-4000	1158	383	1085	900	1030	220	152	85	138	447	700	344	377
500	20	Q-4000	1218	407	1145	940	1090	220	152	80	138	447	700	404	437
600	24	Q-6500	1300	484	1195	990	1140	220	178	94	138	456	600	530	569

LUG - face to face EN558 Series 16 - Drilling EN1092-1 PN 25 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3														
100	4														
150	6														
200	8	Q-800	776	214	728	585	685	150	89	49	69	278	300	65	74
250	10	Q-1500	872	243	820	675	775	175	114	70	84	289	300	84	96
300	12	Q-2000	940	286	890	710	840	175	114	65	97	356	600	136	152
350	14	Q-2000	1075	312	1025	845	975	180	127	72	97	356	600	205	221
400	16	Q-3000	1113	350	1044	865	995	180	140	80	118	379	600	261	285
450	18	Q-4000	1158	383	1085	900	1030	220	152	85	138	447	700	353	386
500	20	Q-4000	1218	407	1145	940	1090	220	152	80	138	447	700	404	437
600	24	Q-6500	1300	484	1195	990	1140	220	178	94	138	456	600	530	569

See EN PN 40

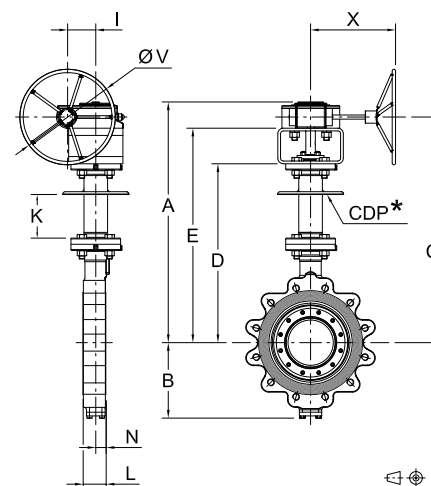
LUG - face to face EN558 Series 16 - Drilling EN1092-1 PN 40 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	585	125	544	430	510	125	64	34	53	204	160	25	30
100	4	Q-400	615	141	574	460	540	125	64	30	53	204	160	28	33
150	6	Q-800	741	189	693	550	650	150	76	36	69	278	300	52	61
200	8	Q-2000	815	236	765	585	715	150	89	44	97	356	600	80	96
250	10	Q-2000	905	272	855	675	805	175	114	63	97	356	600	115	131
300	12	Q-3000	958	310	889	710	840	175	114	55	118	379	600	162	186
350	14	Q-4000	1123	335	1050	845	995	180	127	63	138	447	700	288	321
400	16	Q-6500	1185	389	1080	875	1025	180	140	69	138	456	600	368	407
450	18	Q-12000	1270	422	1174	910	1110	220	152	73	180	487	600	488	547
500	20	Q-12000	1310	461	1214	950	1150	220	152	63	180	487	600	530	589
600	24	Q-16000	1415	531	1299	1035	1235	220	178	76	180	579	700	806	873

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER (EN558) - EN PN 10/16, 25 AND 40

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WAFER - FACE TO FACE EN558 SERIES 16 - DRILLING EN1092-1 PN 10/16 (METRIC)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	585	125	544	430	510	125	64	34	53	204	160	22	27
100	4	Q-400	615	141	574	460	540	125	64	30	53	204	160	24	29
150	6	Q-400	705	165	664	550	630	150	76	41	53	204	160	31	36
200	8	Q-800	776	214	728	585	685	150	89	49	69	278	300	53	62
250	10	Q-1500	872	243	820	675	775	175	114	70	84	289	300	71	83
300	12	Q-2000	940	286	890	710	840	175	114	65	97	356	600	105	121
350	14	Q-2000	1075	312	1025	845	975	180	127	72	97	356	600	149	165
400	16	Q-3000	1113	350	1044	865	995	180	140	80	118	379	600	177	201
450	18	Q-4000	1158	383	1085	900	1030	220	152	85	138	447	700	231	264
500	20	Q-4000	1218	407	1145	940	1090	220	152	80	138	447	700	312	345
600	24	Q-6500	1300	484	1195	990	1140	220	178	94	138	456	600	438	477

WAFER - face to face EN558 Series 16 - Drilling EN1092-1 PN 25 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3														
100	4														
150	6														
200	8	Q-800	776	214	728	585	685	150	89	49	69	278	300	53	62
250	10	Q-1500	872	243	820	675	775	175	114	70	84	289	300	71	83
300	12	Q-2000	940	286	890	710	840	175	114	65	97	356	600	105	121
350	14	Q-2000	1075	312	1025	845	975	180	127	72	97	356	600	149	165
400	16	Q-3000	1113	350	1044	865	995	180	140	80	118	379	600	177	201
450	18	Q-4000	1158	383	1085	900	1030	220	152	85	138	447	700	231	264
500	20	Q-4000	1218	407	1145	940	1090	220	152	80	138	447	700	312	345
600	24	Q-6500	1300	484	1195	990	1140	220	178	94	138	456	600	438	477

See EN PN 40

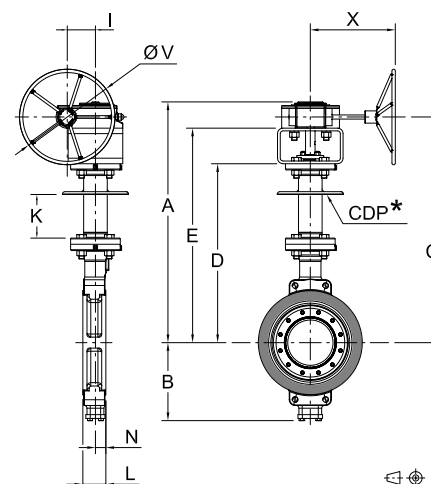
WAFER - face to face EN558 Series 16 - Drilling EN1092-1 PN 40 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	585	125	544	430	510	125	64	34	53	204	160	22	27
100	4	Q-400	615	141	574	460	540	125	64	30	53	204	160	24	29
150	6	Q-800	741	189	693	550	650	150	76	36	69	278	300	44	53
200	8	Q-2000	815	236	765	585	715	150	89	44	97	356	600	73	89
250	10	Q-2000	905	272	855	675	805	175	114	63	97	356	600	110	126
300	12	Q-3000	958	310	889	710	840	175	114	55	118	379	600	141	165
350	14	Q-4000	1123	335	1050	845	995	180	127	63	138	447	700	202	235
400	16	Q-6500	1185	389	1080	875	1025	180	140	69	138	456	600	285	324
450	18	Q-12000	1270	422	1174	910	1110	220	152	73	180	487	600	353	412
500	20	Q-12000	1310	461	1214	950	1150	220	152	63	180	487	600	414	473
600	24	Q-16000	1415	531	1299	1035	1235	220	178	77	180	579	700	627	694

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER (API 609) - EN PN 10/16 AND 25

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WAFER - face to face EN558 Series 108 - API 609 Category B - Drilling EN1092-1 PN 10/16 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	585	125	544	430	510	125	48	20	53	204	160	20	25
100	4	Q-400	615	141	574	460	540	125	54	24	53	204	160	22	27
150	6	Q-400	705	165	664	550	630	150	57	26	53	204	160	30	35
200	8	Q-800	776	214	728	585	685	150	64	28	69	278	300	47	56
250	10	Q-1500	872	243	820	675	775	175	71	32	84	289	300	63	75
300	12	Q-2000	940	286	890	710	840	175	81	38	97	356	600	101	117
350	14	Q-2000	1075	312	1025	845	975	180	92	44	97	356	600	127	143
400	16	Q-3000	1113	350	1044	865	995	180	102	49	118	379	600	161	185
450	18	Q-4000	1158	383	1085	900	1030	220	114	55	138	447	700	214	247
500	20	Q-4000	1218	407	1145	940	1090	220	127	63	138	447	700	276	309
600	24	Q-6500	1300	484	1195	990	1140	220	154	78	138	456	600	398	437

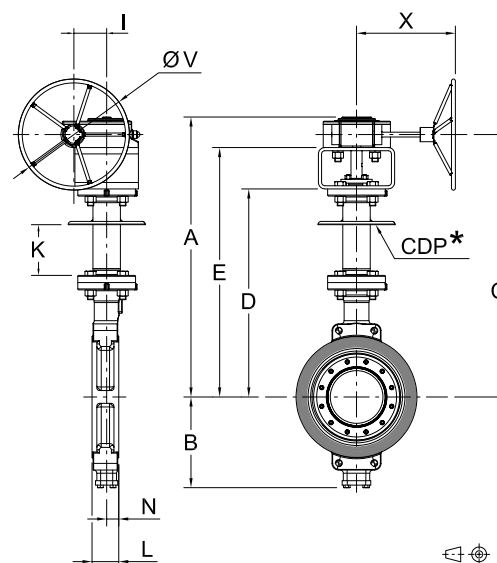
WAFER - face to face EN558 Series 108 - API 609 Category B - Drilling EN1092-1 PN 25 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3														
100	4														
150	6														
200	8	Q-800	776	214	728	585	685	150	64	28	69	278	300	47	56
250	10	Q-1500	872	243	820	675	775	175	71	32	84	289	300	63	75
300	12	Q-2000	940	286	890	710	840	175	81	38	97	356	600	101	117
350	14	Q-2000	1075	312	1025	845	975	180	92	44	97	356	600	127	143
400	16	Q-3000	1113	350	1044	865	995	180	102	49	118	379	600	161	185
450	18	Q-4000	1158	383	1085	900	1030	220	114	55	138	447	700	214	247
500	20	Q-4000	1218	407	1145	940	1090	220	127	63	138	447	700	276	309
600	24	Q-6500	1300	484	1195	990	1140	220	154	78	138	456	600	398	437

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER (API 609) - EN PN 40, 63 AND 100

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WAFER - face to face EN558 Series 109 - API 609 Category B - Drilling EN1092-1 PN 40 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	585	125	544	430	510	125	48	20	53	204	160	20	25
100	4	Q-400	615	141	574	460	540	125	54	24	53	204	160	22	27
150	6	Q-800	741	189	693	550	650	150	59	26	69	278	300	41	50
200	8	Q-2000	815	236	765	585	715	150	73	32	97	356	600	70	86
250	10	Q-2000	905	272	855	675	805	175	83	37	97	356	600	99	115
300	12	Q-3000	958	310	889	710	840	175	92	39	118	379	600	139	163
350	14	Q-4000	1123	335	1050	845	995	180	117	60	138	447	700	201	234
400	16	Q-6500	1185	389	1080	875	1025	180	133	65	138	456	600	286	325
450	18	Q-12000	1270	422	1174	910	1110	220	149	73	180	487	600	353	412
500	20	Q-12000	1310	461	1214	950	1150	220	159	72	180	487	600	432	491
600	24	Q-16000	1415	531	1299	1035	1235	220	181	82	180	579	700	644	711

WAFER - face to face EN558 Series 110 - API 609 Category B - Drilling EN1092-1 PN 63 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	Q-2000	820	216	770	590	720	150	78	38.5	97	356	600	75	91
200	8	Q-3000	862.5	265	794	615	745	150	102	52.5	118	379	600	133	157
250	10	Q-6500	1015	315	910	705	855	175	117	60.0	138	456	600	235	274
300	12	Q-12000	1110	362	1014	750	950	175	140	71.5	180	487	600	284	343
350	14	Q-12000	1220	390	1124	860	1060	180	155	67.5	180	487	600	370	429

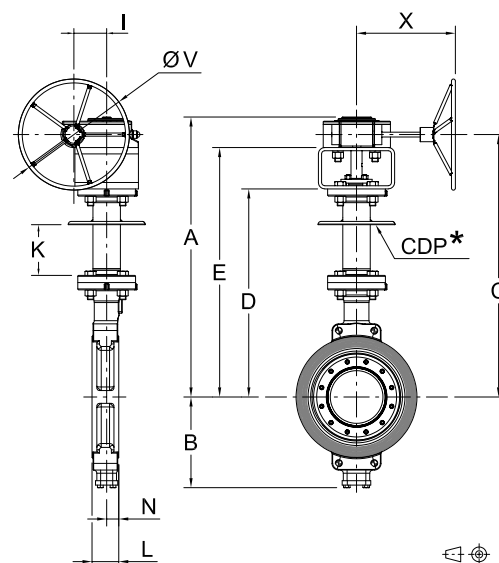
WAFER - face to face EN558 Series 110 - API 609 Category B - Drilling EN1092-1 PN 100 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	K mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	Q-2000	820	216	770	590	720	150	78	38.5	97	356	600	75	91
200	8	Q-3000	863	265	794	615	745	150	102	52.5	118	379	600	133	157
250	10	Q-6500	1015	315	910	705	855	175	117	60.0	138	456	600	235	274
300	12	Q-12000	1110	362	1014	750	950	175	140	71.5	180	487	600	284	343
350	14	Q-12000	1220	390	1124	860	1060	180	155	67.5	180	487	600	370	429

NOTES

* CDP = Collar Drip Plate

The CDP option can be selected on valves for non-cold box services and follows the dimensional drawing as published in the present document (see reference "K" in the dimensional charts and supporting drawings).



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

LOX PRODUCT RANGE MATRIX

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COLD BOX

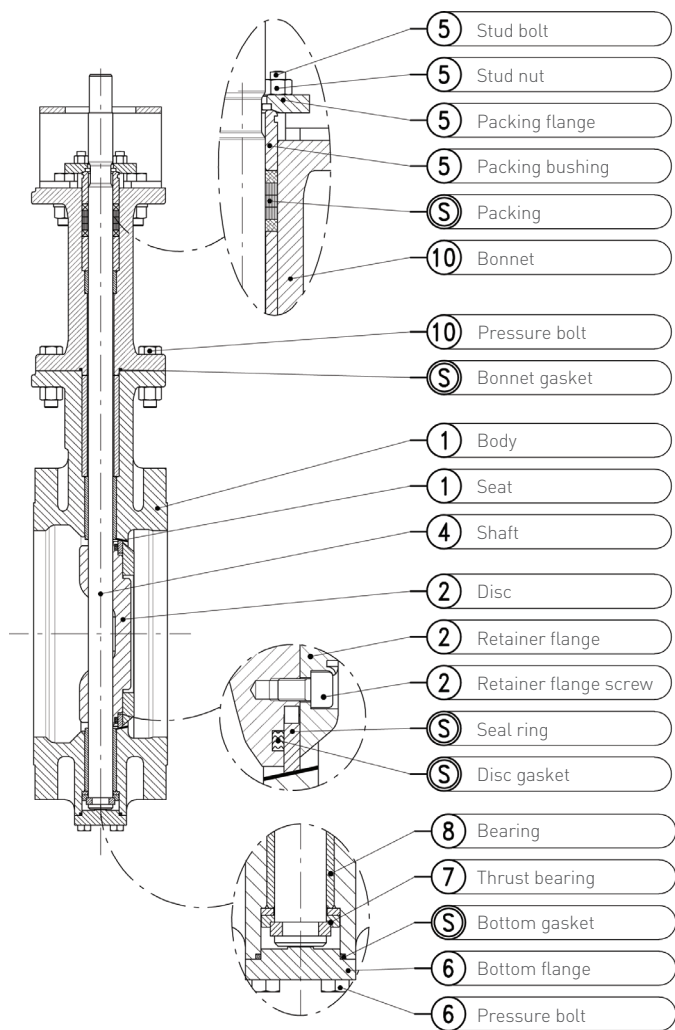
Body style	Face to face	Class	Body material	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 300mm	Page	
Double Flanged	Short Pattern Series 13	150	ASTM A351 CF3M/CF8M	•	•	•	•	•	•	24	
		300		•	•	•	•	•	•	27	
		600								30	
Lug	API 609	150		•	•	•	•	•	•	•	25
		300		•	•	•	•	•	•	28	
		600				•	•	•	•	31	
Wafer	API 609	150		•	•	•	•	•	•	•	26
		300		•	•	•	•	•	•	29	
		600				•	•	•	•	32	

Body style	Face to face	Class	Body material	3" 80mm	4" 100mm	6" 150mm	8" 200mm	10" 250mm	12" 300mm	Page
Double Flanged	Short Pattern Series 13	PN 10	EN 10213 1.4408	SEE PN 16			•	•	•	34
		PN 16		•	•	•	•	•	34	
		PN 25		SEE PN 40			•	•	•	34
		PN 40		•	•	•	•	•	•	35
		PN 63				•	•	•	•	35
		PN 100				•	•	•	•	35
Lug	EN BS Series 16	PN 10		SEE PN 16			•	•	•	36
		PN 16		•	•	•	•	•	36	
		PN 25		SEE PN 40			•	•	•	36
		PN 40		•	•	•	•	•	•	36
Wafer	EN BS Series 16	PN 10		SEE PN 16			•	•	•	37
		PN 16		•	•	•	•	•	37	
	EN BS Series 108	PN 25		SEE PN 40			•	•	•	37
		PN 40		•	•	•	•	•	•	37
	EN BS Series 109	PN 10		SEE PN 16			•	•	•	38
		PN 16		•	•	•	•	•	•	38
		PN 25		SEE PN 40			•	•	•	38
		PN 40		•	•	•	•	•	•	38
	EN BS Series 110	PN 63			•	•	•	•	39	
		PN 100			•	•	•	•	39	

VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

LOX VALVE CONFIGURATION FOR COLD BOX APPLICATIONS - SECTIONAL DRAWING AND MATERIAL SELECTION (ACC. TO ASTM)

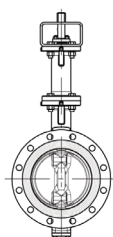
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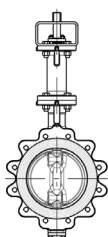
MATERIAL SELECTION

Item	Note	Description	Body in stainless steel ^[1]
1		Body Weld surfacing on seat	ASTM A351 CF3M / CF8M Stellite® gr.21
2	<input type="checkbox"/>	Cast disc Forged disc Retainer flange Retainer flange screw	ASTM A351 CF3M / CF8M ASTM A182 UNS S31600 / UNS S31603 (F316 / F316L) UNS S31600 / UNS S31603 (AISI 316 / 316L) ISO 3506 A4 (AISI 316)
4		Shaft	ASTM A479 XM19 - UNS S20910 (Nitronic® 50)
5		Packing bushing Stud nut Stud bolt Packing flange	UNS S31600 / UNS S31603 (AISI 316 / 316L) ISO 3506 A4 (AISI 316) ISO 3506 A4 (AISI 316) UNS S31600 / UNS S31603 (AISI 316 / 316L)
6		Bottom flange Pressure bolt	ASTM A240 UNS S31600 / UNS S31603 (Gr.316 / Gr.316L) ISO 3506 A4 (AISI 316)
7		Thrust bearing	UNS S31600 / UNS S31603 (AISI 316 / 316L) hard faced
8		Bearing	UNS S31600 / UNS S31603 (AISI 316 / 316L) hard faced
10	<input type="checkbox"/>	Bonnet Pressure bolt	ASTM A351 CF3M/CF8M or AISI 316/316L FABRICATED ISO 3506 A4 (AISI 316)
S	<input type="checkbox"/>	Packing	Die Formed Graphite Rings Sigraflex Foil Unreinforced - (BAM TESTED)
	<input type="checkbox"/>	Bottom/ Bonnet gasket	UNS S31600 / UNS S31603 (AISI 316 / 316L) + Graphite Sigraflex Foil Unreinforced - (BAM TESTED)
	<input type="checkbox"/>	Seal ring	UNS S20910 (Nitronic® 50) HARD FACED
	<input type="checkbox"/>	Disc gasket	UNS S31600 / UNS S31603 (AISI 316 / 316L) + Graphite Sigraflex Foil Unreinforced - (BAM TESTED)

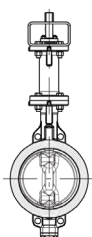
Available body styles:



Double flanged



Lug



Wafer

NOTES

^[1] Cleaning: according to internal procedure VAP-MF-014

- Materials are exclusively selected by factory depending on valve size
- Suggested spare parts

Design temperature range: -196°C to +80°C

VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - DOUBLE FLANGED SHORT - ASME CLASS 150

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DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.150 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	22.3	114	53	204	160	45	50
100	4	Q-400	1125	141	1084	970	1050	22.3	127	53	204	160	62	67
150	6	Q-400	1125	165	1084	970	1050	23.9	140	53	204	160	75	80
200	8	Q-800	1161	214	1113	970	1070	27.0	152	69	278	300	115	124
250	10	Q-1500	1182	243	1130	985	1085	28.6	165	84	289	300	155	167
300	12	Q-2000	1415	286	1365	1185	1315	30.2	178	97	356	600	210	226

DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.150 (Imperial)

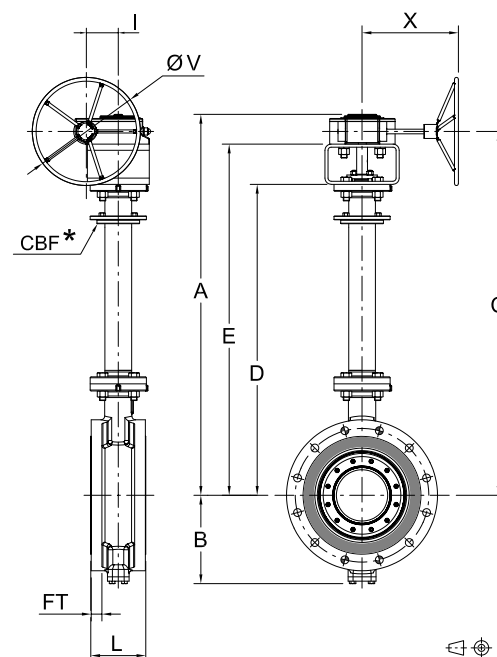
NPS	DN	GEAR	A inch	B inch	C inch	D inch	E inch	FT inch	L inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
3	80	Q-400	44.50	5.00	42.75	38.25	41.50	0.878	4.50	2.13	8.00	6.25	99	110
4	100	Q-400	44.50	5.75	42.75	38.25	41.50	0.878	5.00	2.13	8.00	6.25	136	147
6	150	Q-400	44.50	6.50	42.75	38.25	41.50	0.941	5.50	2.13	8.00	6.25	165	176
8	200	Q-800	45.75	8.50	44.00	38.25	42.25	1.063	6.00	2.75	11.00	11.75	253	273
10	250	Q-1500	46.75	9.75	44.50	39.00	42.75	1.126	6.50	3.25	11.38	11.75	341	367
12	300	Q-2000	55.75	11.50	53.75	46.75	52.00	1.189	7.00	3.75	14.00	23.50	462	497

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - LUG - ASME CLASS 150

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LUG - face to face EN558 Series 108 - API 609 CL.150 Category B - Drilling ASME B16.5 CL.150 (Metric)

DN	NPS	GEAR	A	B	C	D	E	L	N	I	X	ØV	Valve	Total
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
80	3	Q-400	1125	125	1084	970	1050	48	20	53	204	160	28	33
100	4	Q-400	1125	141	1084	970	1050	54	24	53	204	160	34	39
150	6	Q-400	1125	165	1084	970	1050	57	26	53	204	160	43	48
200	8	Q-800	1161	214	1113	970	1070	64	28	69	278	300	61	70
250	10	Q-1500	1182	243	1130	985	1085	71	32	84	289	300	79	91
300	12	Q-2000	1415	286	1365	1185	1315	81	38	97	356	600	128	144

LUG - face to face EN558 Series 108 - API 609 CL.150 Category B - Drilling ASME B16.5 CL.150 (Imperial)

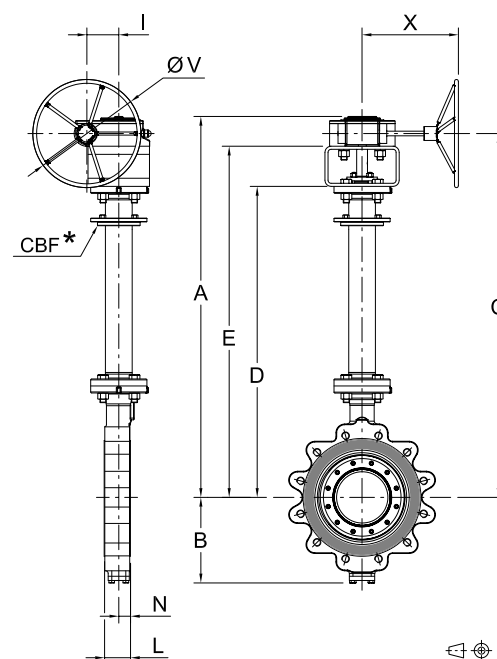
NPS	DN	GEAR	A	B	C	D	E	L	N	I	X	ØV	Valve	Total
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs
3	80	Q-400	44.50	5.00	42.75	38.25	41.50	1.88	0.75	2.13	8.00	6.25	62	73
4	100	Q-400	44.50	5.75	42.75	38.25	41.50	2.13	1.00	2.13	8.00	6.25	74	86
6	150	Q-400	44.50	6.50	42.75	38.25	41.50	2.25	1.00	2.13	8.00	6.25	95	106
8	200	Q-800	45.75	8.50	44.00	38.25	42.25	2.50	1.13	2.75	11.00	11.75	134	154
10	250	Q-1500	46.75	9.75	44.50	39.00	42.75	2.81	1.25	3.25	11.38	11.75	174	200
12	300	Q-2000	55.75	11.50	53.75	46.75	52.00	3.19	1.50	3.75	14.00	23.50	282	317

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER - ASME CLASS 150

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WAFER - face to face EN558 Series 108 - API 609 CL. 150 Category B - Drilling ASME B16.5 CL.150 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	48	20	53	204	160	29	34
100	4	Q-400	1125	141	1084	970	1050	54	24	53	204	160	32	37
150	6	Q-400	1125	165	1084	970	1050	57	26	53	204	160	40	45
200	8	Q-800	1161	214	1113	970	1070	64	28	69	278	300	59	68
250	10	Q-1500	1182	243	1130	985	1085	71	32	84	289	300	75	87
300	12	Q-2000	1415	286	1365	1185	1315	81	38	97	356	600	118	134

WAFER - face to face EN558 Series 108 - API 609 CL. 150 Category B - Drilling ASME B16.5 CL.150 (Imperial)

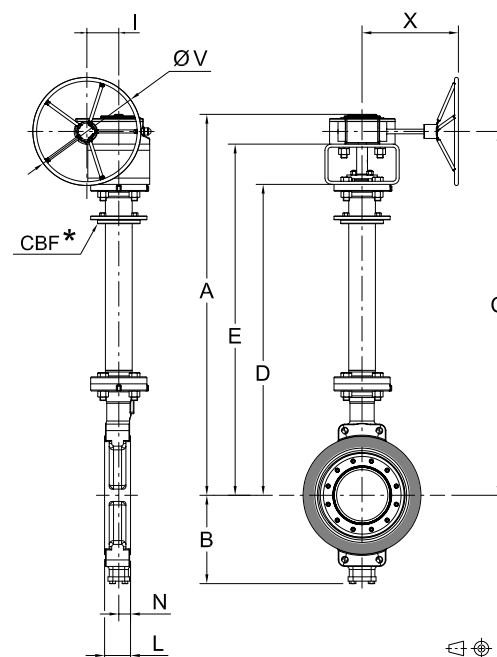
NPS	DN	GEAR	A inch	B inch	C inch	D inch	E inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
3	80	Q-400	44.50	5.00	42.75	38.25	41.50	1.88	0.75	2.13	8.00	6.25	64	75
4	100	Q-400	44.50	5.75	42.75	38.25	41.50	2.13	1.00	2.13	8.00	6.25	70	81
6	150	Q-400	44.50	6.50	42.75	38.25	41.50	2.25	1.00	2.13	8.00	6.25	88	99
8	200	Q-800	45.75	8.50	44.00	38.25	42.25	2.50	1.13	2.75	11.00	11.75	130	150
10	250	Q-1500	46.75	9.75	44.50	39.00	42.75	2.81	1.25	3.25	11.38	11.75	165	191
12	300	Q-2000	55.75	11.50	53.75	46.75	52.00	3.19	1.50	3.75	14.00	23.50	260	295

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - DOUBLE FLANGED SHORT - ASME CLASS 300

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DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.300 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	27.0	114	53	204	160	50	55
100	4	Q-400	1125	141	1084	970	1050	30.2	127	53	204	160	62	67
150	6	Q-800	1161	189	1113	970	1070	35.0	140	69	278	300	103	112
200	8	Q-2000	1255	236	1205	1025	1155	39.7	152	97	356	600	153	169
250	10	Q-2000	1255	272	1205	1025	1155	46.1	165	97	356	600	215	231
300	12	Q-3000	1473	310	1404	1225	1355	49.3	178	118	379	600	293	317

DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.300 (Imperial)

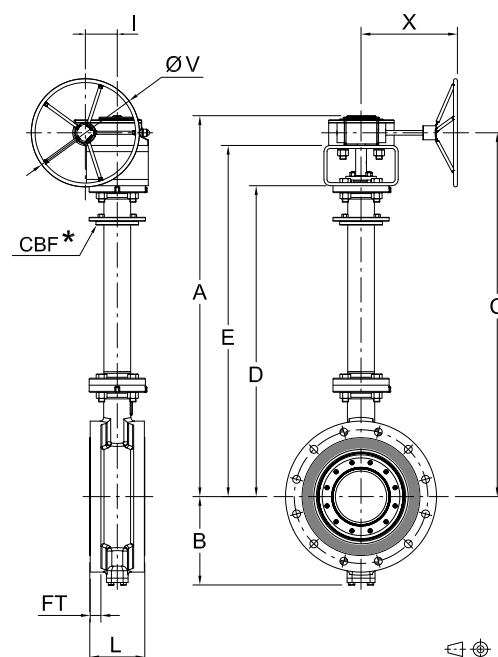
NPS	DN	GEAR	A inch	B inch	C inch	D inch	E inch	FT inch	L inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
3	80	Q-400	44.50	5.00	42.75	38.25	41.50	1.063	4.50	2.13	8.00	6.25	110	121
4	100	Q-400	44.50	5.75	42.75	38.25	41.50	1.189	5.00	2.13	8.00	6.25	136	147
6	150	Q-800	45.75	7.50	44.00	38.25	42.25	1.378	5.50	2.75	11.00	11.75	227	246
8	200	Q-2000	49.50	9.50	47.50	40.50	45.50	1.563	6.00	3.75	14.00	23.50	337	372
10	250	Q-2000	49.50	10.75	47.50	40.50	45.50	1.815	6.50	3.75	14.00	23.50	473	508
12	300	Q-3000	58.00	12.25	55.50	48.25	53.50	1.941	7.00	4.63	14.88	23.50	645	697

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - LUG - ASME CLASS 300

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LUG - face to face EN558 Series 109 - API 609 CL.300 Category B - Drilling ASME B16.5 CL.300 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	48	20	53	204	160	33	38
100	4	Q-400	1125	141	1084	970	1050	54	24	53	204	160	39	44
150	6	Q-800	1161	189	1113	970	1070	59	26	69	278	300	64	73
200	8	Q-2000	1255	236	1205	1025	1155	73	32	97	356	600	89	105
250	10	Q-2000	1255	272	1205	1025	1155	83	37	97	356	600	117	133
300	12	Q-3000	1473	310	1404	1225	1355	92	39	118	379	600	177	201

LUG - face to face EN558 Series 109 - API 609 CL.300 Category B - Drilling ASME B16.5 CL.300 (Imperial)

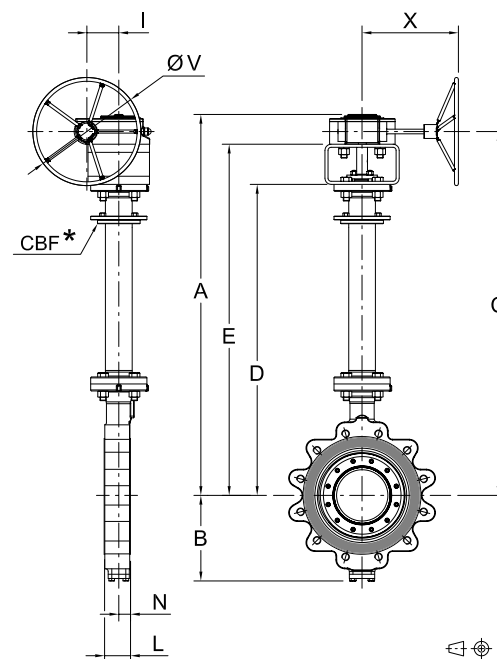
NPS	DN	GEAR	A inch	B inch	C inch	D inch	E inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
3	80	Q-400	44.50	5.00	42.75	38.25	41.50	1.88	0.75	2.13	8.00	6.25	73	84
4	100	Q-400	44.50	5.75	42.75	38.25	41.50	2.13	1.00	2.13	8.00	6.25	85	97
6	150	Q-800	45.75	7.50	44.00	38.25	42.25	2.31	1.00	2.75	11.00	11.75	141	161
8	200	Q-2000	49.50	9.50	47.50	40.50	45.50	2.88	1.25	3.75	14.00	23.50	196	231
10	250	Q-2000	49.50	10.75	47.50	40.50	45.50	3.25	1.50	3.75	14.00	23.50	257	293
12	300	Q-3000	58.00	12.25	55.50	48.25	53.50	3.63	1.50	4.63	14.88	23.50	390	442

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER - ASME CLASS 300

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WAFER - face to face EN558 Series 109 - API 609 CL. 300 Category B - Drilling ASME B16.5 CL.300 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	48	20	53	204	160	29	34
100	4	Q-400	1125	141	1084	970	1050	54	24	53	204	160	32	37
150	6	Q-800	1161	189	1113	970	1070	59	26	69	278	300	52	61
200	8	Q-2000	1255	236	1205	1025	1155	73	32	97	356	600	83	99
250	10	Q-2000	1255	272	1205	1025	1155	83	37	97	356	600	115	131
300	12	Q-3000	1473	310	1404	1225	1355	92	39	118	379	600	167	191

WAFER - face to face EN558 Series 109 - API 609 CL. 300 Category B - Drilling ASME B16.5 CL.300 (Imperial)

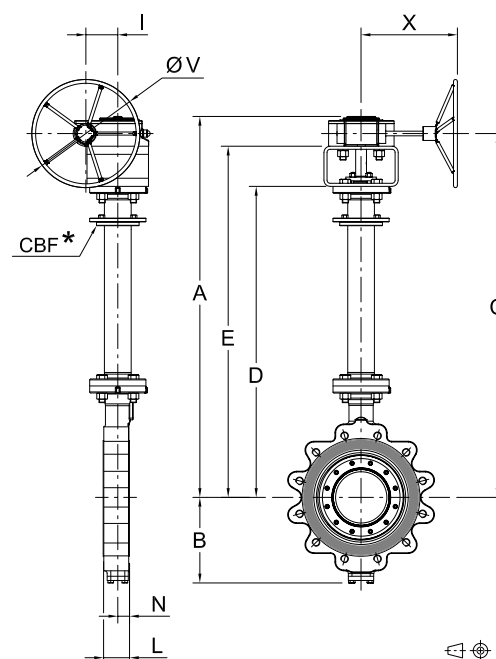
NPS	DN	GEAR	A inch	B inch	C inch	D inch	E inch	L inch	N inch	I inch	X inch	ØV inch	Valve lbs	Total lbs
3	80	Q-400	44.50	5.00	42.75	38.25	41.50	1.88	0.75	2.13	8.00	6.25	64	75
4	100	Q-400	44.50	5.75	42.75	38.25	41.50	2.13	1.00	2.13	8.00	6.25	70	81
6	150	Q-800	45.75	7.50	44.00	38.25	42.25	2.31	1.00	2.75	11.00	11.75	115	134
8	200	Q-2000	49.50	9.50	47.50	40.50	45.50	2.88	1.25	3.75	14.00	23.50	183	218
10	250	Q-2000	49.50	10.75	47.50	40.50	45.50	3.25	1.50	3.75	14.00	23.50	253	288
12	300	Q-3000	58.00	12.25	55.50	48.25	53.50	3.63	1.50	4.63	14.88	23.50	368	420

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - DOUBLE FLANGED SHORT - ASME CLASS 600

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DOUBLE FLANGED SHORT - face to face EN558 Series 14 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.600 (Metric)

DN	NPS	GEAR	A	B	C	D	E	FT	L	I	X	ØV	Valve	Total
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
150	6	Q-2000	1215	216	1165	985	1115	47.7	210	97	356	600	157	173
200	8	Q-3000	1273	265	1204	1025	1155	55.6	230	118	379	600	253	277
250	10	Q-6500	1335	315	1230	1025	1175	63.5	250	138	456	600	386	425
300	12	Q-12000	1590	362	1494	1230	1430	66.7	270	180	487	600	559	618

DOUBLE FLANGED SHORT - face to face EN558 Series 14 - API 609 DF Short Pattern - Drilling ASME B16.5 CL.600 (Imperial)

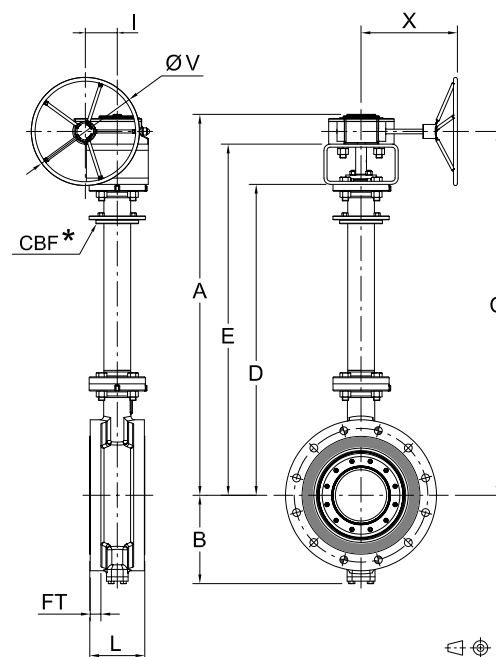
NPS	DN	GEAR	A	B	C	D	E	FT	L	I	X	ØV	Valve	Total
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs
6	150	Q-2000	48.00	8.75	46.00	39.00	44.00	1.878	8.25	3.75	14.00	23.50	345	381
8	200	Q-3000	50.25	10.50	47.50	40.50	45.50	2.189	9.00	4.63	14.88	23.50	557	609
10	250	Q-6500	52.75	12.50	48.50	40.50	46.50	2.500	9.88	5.38	18.00	23.50	849	935
12	300	Q-12000	62.75	14.50	59.00	48.50	56.50	2.626	10.63	7.13	19.13	23.50	1230	1360

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - LUG - ASME CLASS 600

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LUG - face to face EN558 Series 110 - API 609 CL.600 Category B - Drilling ASME B16.5 CL.600 (Metric)

DN	NPS	GEAR	A	B	C	D	E	L	N	I	X	ØV	Valve	Total
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
150	6	Q-2000	1215	216	1165	985	1115	78	38.0	97	356	600	107	123
200	8	Q-3000	1273	265	1204	1025	1155	102	52.5	118	379	600	183	207
250	10	Q-6500	1335	315	1230	1025	1175	117	60.0	138	456	600	264	303
300	12	Q-12000	1590	362	1494	1230	1430	140	71.5	180	487	600	466	525

LUG - face to face EN558 Series 110 - API 609 CL.600 Category B - Drilling ASME B16.5 CL.600 (Imperial)

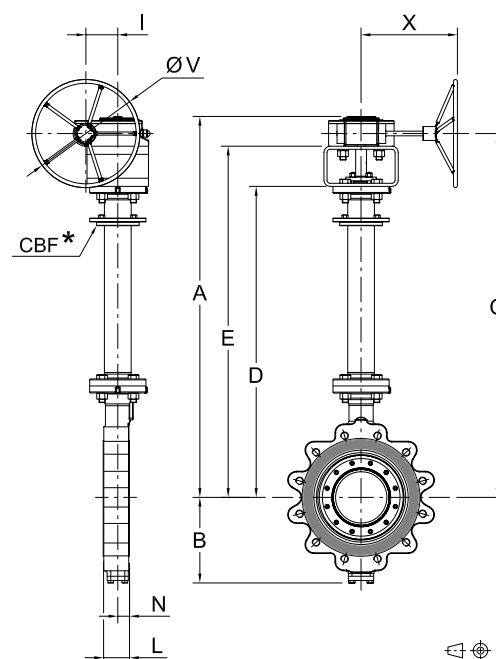
NPS	DN	GEAR	A	B	C	D	E	L	N	I	X	ØV	Valve	Total
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs
6	150	Q-2000	48.00	8.75	46.00	39.00	44.00	3.06	1.50	3.75	14.00	23.50	235	271
8	200	Q-3000	50.25	10.50	47.50	40.50	45.50	4.00	2.13	4.63	14.88	23.50	403	455
10	250	Q-6500	52.75	12.50	48.50	40.50	46.50	4.63	2.38	5.38	18.00	23.50	581	667
12	300	Q-12000	62.75	14.50	59.00	48.50	56.50	5.50	2.88	7.13	19.13	23.50	1025	1155

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER - ASME CLASS 600

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WAFER - face to face EN558 Series 110 - API 609 CL. 600 Category B - Drilling ASME B16.5 CL.600 (Metric)

DN	NPS	GEAR	A	B	C	D	E	L	N	I	X	ØV	Valve	Total
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg
150	6	Q-2000	1215	216	1165	985	1115	78	38.0	97	356	600	86	102
200	8	Q-3000	1273	265	1204	1025	1155	102	52.5	118	379	600	153	177
250	10	Q-6500	1335	315	1230	1025	1175	117	60.0	138	456	600	262	301
300	12	Q-12000	1590	362	1494	1230	1430	140	71.5	180	487	600	339	398

WAFER - face to face EN558 Series 110 - API 609 CL. 600 Category B - Drilling ASME B16.5 CL.600 (Imperial)

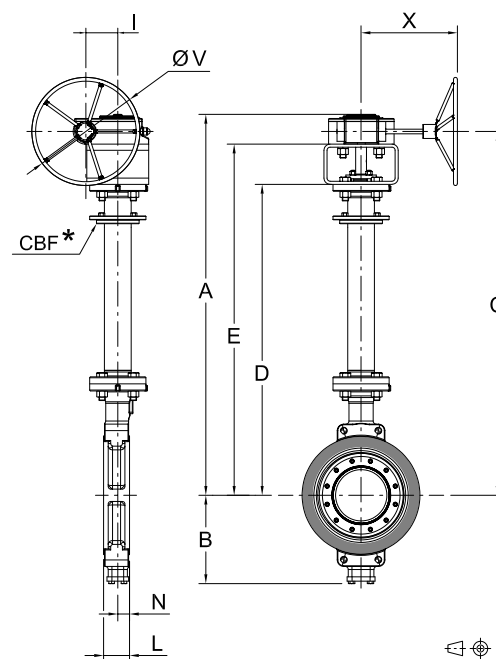
NPS	DN	GEAR	A	B	C	D	E	L	N	I	X	ØV	Valve	Total
			inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs
6	150	Q-2000	48.00	8.75	46.00	39.00	44.00	3.06	1.50	3.75	14.00	23.50	189	224
8	200	Q-3000	50.25	10.50	47.50	40.50	45.50	4.00	2.13	4.63	14.88	23.50	337	389
10	250	Q-6500	52.75	12.50	48.50	40.50	46.50	4.63	2.38	5.38	18.00	23.50	576	662
12	300	Q-12000	62.75	14.50	59.00	48.50	56.50	5.50	2.88	7.13	19.13	23.50	746	876

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

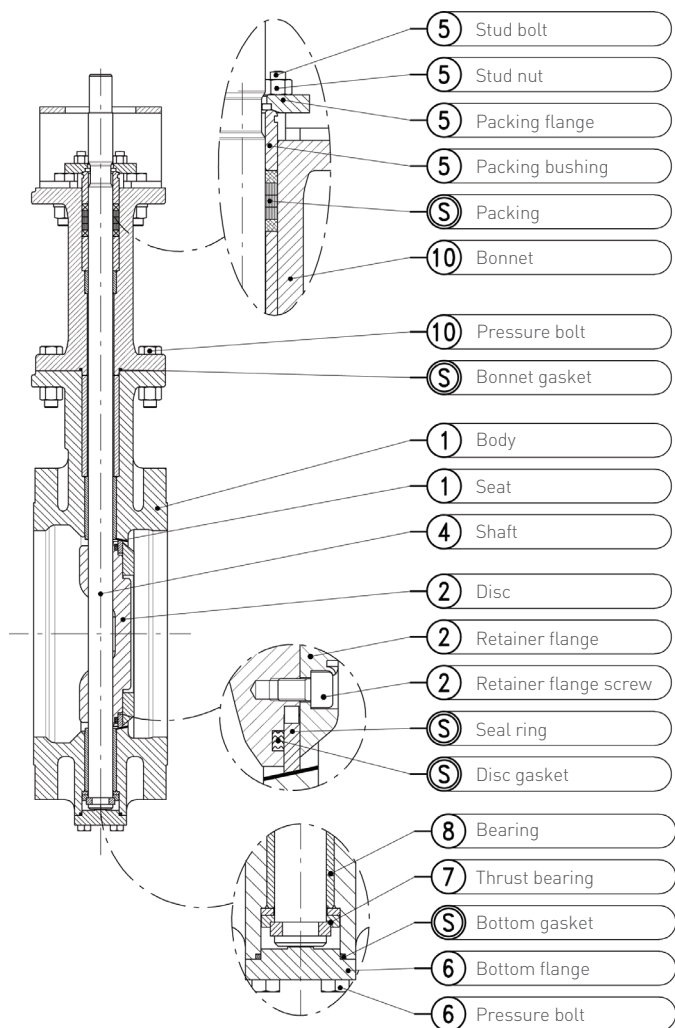
See page 40 for height limits, diameter and thickness of the cold box flange.



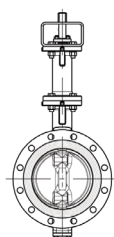
VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

LOX VALVE CONFIGURATION FOR COLD BOX APPLICATIONS - SECTIONAL DRAWING AND MATERIAL SELECTION (ACC. TO EN)

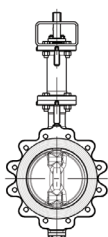
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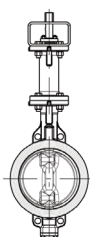
Available body styles:



Double flanged



Lug



Wafer

MATERIAL SELECTION

Item	Note	Description	Body in stainless steel ⁽¹⁾
1		Body	EN 10213 1.4408
		Weld surfacing on seat	Stellite® gr.21
2	<input type="checkbox"/>	Cast disc	EN 10213 1.4408
		Forged disc	EN 10222-5 1.4401
		Retainer flange	ASTM A240 Gr. 316 (1.4404)
		Retainer flange screw	ISO 3506 A4 (AISI 316)
4		Shaft	ASTM A479 XM19 - UNS S20910 (Nitronic® 50)
5		Packing bushing	ASTM A240 / A182 / A276 UNS S31600 (1.4404)
		Stud nut	ISO 3506 A4 (AISI 316)
		Stud bolt	ISO 3506 A4 (AISI 316)
		Packing flange	ASTM A240 / A182 / A276 UNS S31600 (1.4404)
6		Bottom flange	ASTM A240 Gr. 316 or ASTM A182 F316 (1.4404) or EN 10213 1.4408
		Pressure bolt	ISO 3506 A4 (AISI 316)
7		Thrust bearing	UNS S31600 (1.4404) HARD FACED
8		Bearing	UNS S31600 (1.4404) HARD FACED
10	<input type="checkbox"/>	Bonnet	EN 10213 1.4408 or AISI 316/316L (1.4404) FABRICATED
		Pressure bolt	ISO 3506 A4 (AISI 316)
S	<input type="radio"/>	Packing	Die Formed Graphite Rings Sigraflex Foil Unreinforced - (BAM TESTED)
	<input type="radio"/>	Bottom/ Bonnet gasket	UNS S31600 (1.4404) + Graphite Sigraflex Foil Unreinforced - (BAM TESTED)
	<input type="radio"/>	Seal ring	UNS S20910 (Nitronic® 50) HARD FACED
	<input type="radio"/>	Disc gasket	UNS S31600 (1.4404) + Graphite Sigraflex Foil Unreinforced - (BAM TESTED)

NOTES

⁽¹⁾ Cleaning: according to internal procedure VAP-MF-014

Materials are exclusively selected by factory depending on valve size

Suggested spare parts

Design temperature range: -196°C to +80°C

VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - DOUBLE FLANGED SHORT - EN PN 10, 16 AND 25

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DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling EN1092-1 PN 10 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3													
100	4													
150	6													
See EN PN 16														
200	8	Q-800	1161	214	1113	970	1070	30	152	69	278	300	115	124
250	10	Q-1500	1182	243	1130	985	1085	30	165	84	289	300	155	167
300	12	Q-2000	1415	286	1365	1185	1315	32	178	97	356	600	210	226

DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling EN1092-1 PN 16 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	24	114	53	204	160	45	50
100	4	Q-400	1125	141	1084	970	1050	24	127	53	204	160	62	67
150	6	Q-400	1125	165	1084	970	1050	25.5	140	53	204	160	75	80
200	8	Q-800	1161	214	1113	970	1070	30	152	69	278	300	115	124
250	10	Q-1500	1182	243	1130	985	1085	30	165	84	289	300	155	167
300	12	Q-2000	1415	286	1365	1185	1315	32	178	97	356	600	210	226

DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling EN1092-1 PN 25 (Metric)

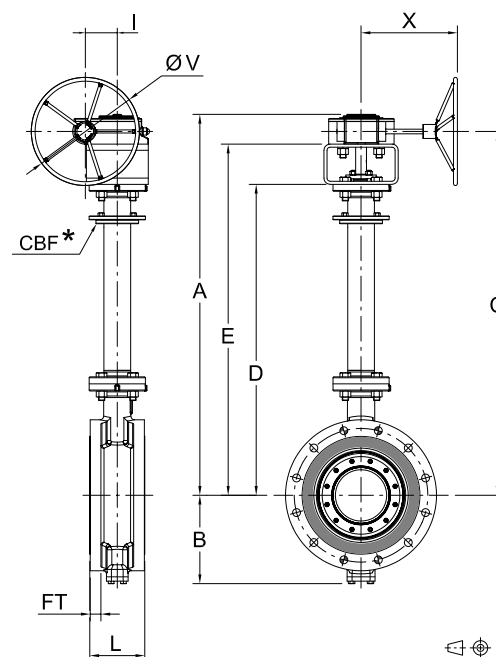
DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3													
100	4													
150	6													
See EN PN 40														
200	8	Q-800	1161	214	1113	970	1070	30	152	69	278	300	115	124
250	10	Q-1500	1182	243	1130	985	1085	32	165	84	289	300	155	167
300	12	Q-2000	1415	286	1365	1185	1315	34	178	97	356	600	210	226

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - DOUBLE FLANGED SHORT - EN PN 40, 63 AND 100

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DOUBLE FLANGED SHORT - face to face EN558 Series 13 - API 609 DF Short Pattern - Drilling EN1092-1 PN 40 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	28.5	114	53	204	160	50	55
100	4	Q-400	1125	141	1084	970	1050	32.0	127	53	204	160	62	67
150	6	Q-800	1161	189	1113	970	1070	37.0	140	69	278	300	103	112
200	8	Q-2000	1255	236	1205	1025	1155	41.5	152	97	356	600	153	169
250	10	Q-2000	1255	272	1205	1025	1155	47.5	165	97	356	600	215	231
300	12	Q-3000	1473	310	1404	1225	1355	51.0	178	118	379	600	293	317

DOUBLE FLANGED SHORT - face to face EN558 Series 14 - API 609 DF Short Pattern - Drilling EN1092-1 PN 63 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	Q-2000	1215	216	1165	985	1115	54.7	210	97	356	600	157	173
200	8	Q-3000	1273	265	1204	1025	1155	62.6	230	118	379	600	253	277
250	10	Q-6500	1335	315	1230	1025	1175	70.5	250	138	456	600	386	425
300	12	Q-12000	1590	362	1494	1230	1430	73.7	270	180	487	600	559	618

DOUBLE FLANGED SHORT - face to face EN558 Series 14 - API 609 DF Short Pattern - Drilling EN1092-1 PN 100 (Metric)

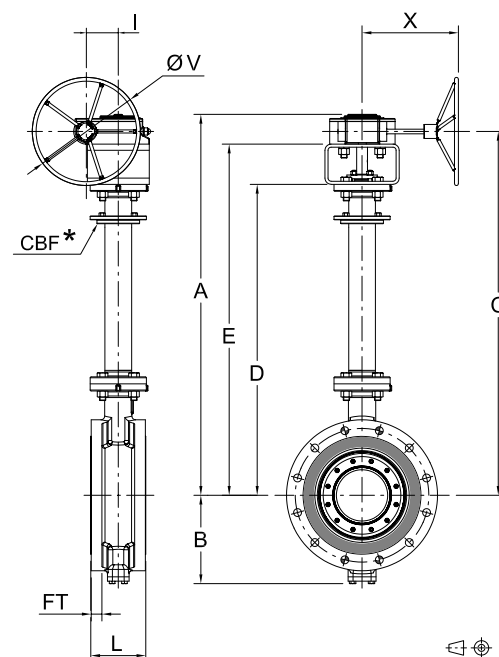
DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	FT mm	L mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	Q-2000	1215	216	1165	985	1115	54.7	210	97	356	600	157	173
200	8	Q-3000	1273	265	1204	1025	1155	62.6	230	118	379	600	253	277
250	10	Q-6500	1335	315	1230	1025	1175	70.5	250	138	456	600	386	425
300	12	Q-12000	1590	362	1494	1230	1430	73.7	270	180	487	600	559	618

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - LUG - EN PN 10/16, 25 AND 40

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LUG - face to face EN558 Series 16 - Drilling EN1092-1 PN 10/16 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	64	34	53	204	160	34	39
100	4	Q-400	1125	141	1084	970	1050	64	30	53	204	160	38	43
150	6	Q-400	1125	165	1084	970	1050	76	41	53	204	160	50	55
200	8	Q-800	1161	214	1113	970	1070	89	49	69	278	300	77	86
250	10	Q-1500	1182	243	1130	985	1085	114	70	84	289	300	96	108
300	12	Q-2000	1415	286	1365	1185	1315	114	65	97	356	600	132	148

LUG - face to face EN558 Series 16 - Drilling EN1092-1 PN 25 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3													
100	4													
150	6													
200	8	Q-800	1161	214	1113	970	1070	89	49	69	278	300	77	86
250	10	Q-1500	1182	243	1130	985	1085	114	70	84	289	300	96	108
300	12	Q-2000	1415	286	1365	1185	1315	114	65	97	356	600	153	169

See EN PN 40

LUG - face to face EN558 Series 16 - Drilling EN1092-1 PN 40 (Metric)

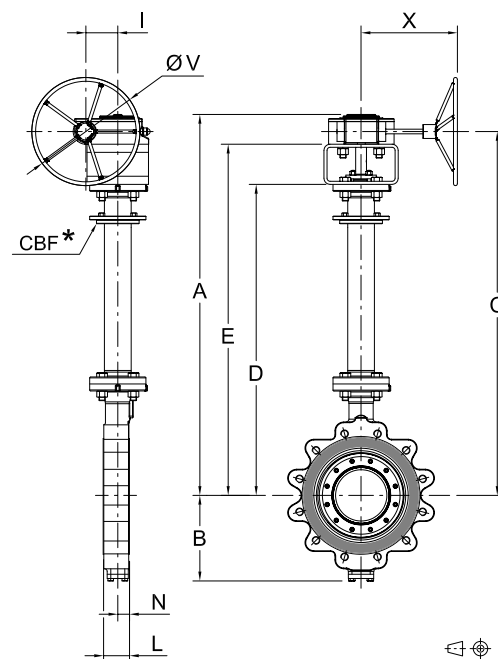
DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	64	34	53	204	160	34	39
100	4	Q-400	1125	141	1084	970	1050	64	30	53	204	160	38	43
150	6	Q-800	1161	189	1113	970	1070	76	36	69	278	300	63	72
200	8	Q-2000	1255	236	1205	1025	1155	89	44	97	356	600	93	109
250	10	Q-2000	1255	272	1205	1025	1155	114	63	97	356	600	131	147
300	12	Q-3000	1473	310	1404	1225	1355	114	55	118	379	600	190	214

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER (EN558) - EN PN 10/16, 25 AND 40

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WAFER - face to face EN558 Series 16 - Drilling EN1092-1 PN 10/16 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	64	34	53	204	160	31	36
100	4	Q-400	1125	141	1084	970	1050	64	30	53	204	160	34	39
150	6	Q-400	1125	165	1084	970	1050	76	41	53	204	160	41	46
200	8	Q-800	1161	214	1113	970	1070	89	49	69	278	300	65	74
250	10	Q-1500	1182	243	1130	985	1085	114	70	84	289	300	83	95
300	12	Q-2000	1415	286	1365	1185	1315	114	65	97	356	600	122	138

WAFER - face to face EN558 Series 16 - Drilling EN1092-1 PN 25 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3													
100	4													
150	6													
200	8	Q-800	1161	214	1113	970	1070	89	49	69	278	300	65	74
250	10	Q-1500	1182	243	1130	985	1085	114	70	84	289	300	83	95
300	12	Q-2000	1415	286	1365	1185	1315	114	65	97	356	600	122	138

See EN PN 40

WAFER - face to face EN558 Series 16 - Drilling EN1092-1 PN 40 (Metric)

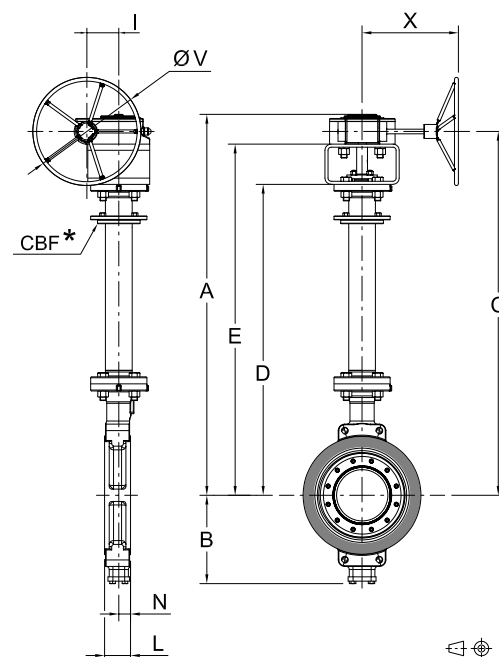
DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	64	34	53	204	160	31	36
100	4	Q-400	1125	141	1084	970	1050	64	30	53	204	160	34	39
150	6	Q-800	1161	189	1113	970	1070	76	36	69	278	300	55	64
200	8	Q-2000	1255	236	1205	1025	1155	89	44	97	356	600	86	102
250	10	Q-2000	1255	272	1205	1025	1155	114	63	97	356	600	126	142
300	12	Q-3000	1473	310	1404	1225	1355	114	55	118	379	600	169	193

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER (API 609) - EN PN 10/16, 25 AND 40

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WAFER - face to face EN558 Series 108 - API 609 Category B - Drilling EN1092-1 PN 10/16 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	48	20	53	204	160	29	34
100	4	Q-400	1125	141	1084	970	1050	54	24	53	204	160	32	37
150	6	Q-400	1125	165	1084	970	1050	57	26	53	204	160	40	45
200	8	Q-800	1161	214	1113	970	1070	64	28	69	278	300	59	68
250	10	Q-1500	1182	243	1130	985	1085	71	32	84	289	300	75	87
300	12	Q-2000	1415	286	1365	1185	1315	81	38	97	356	600	118	134

WAFER - face to face EN558 Series 108 - API 609 Category B - Drilling EN1092-1 PN 25 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3													
100	4													
150	6													
200	8	Q-800	1161	214	1113	970	1070	64	28	69	278	300	59	68
250	10	Q-1500	1182	243	1130	985	1085	71	32	84	289	300	75	87
300	12	Q-2000	1415	286	1365	1185	1315	81	38	97	356	600	118	134

See EN PN 40

WAFER - face to face EN558 Series 109 - API 609 Category B - Drilling EN1092-1 PN 40 (Metric)

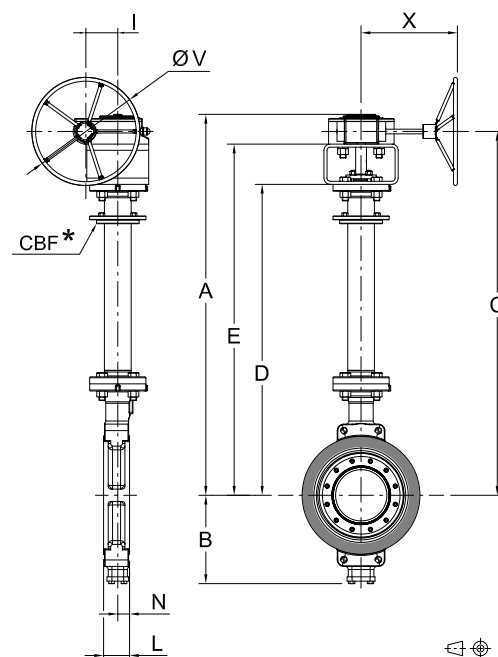
DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
80	3	Q-400	1125	125	1084	970	1050	48	20	53	204	160	29	34
100	4	Q-400	1125	141	1084	970	1050	54	24	53	204	160	32	37
150	6	Q-800	1161	189	1113	970	1070	59	26	69	278	300	52	61
200	8	Q-2000	1255	236	1205	1025	1155	73	32	97	356	600	83	99
250	10	Q-2000	1255	272	1205	1025	1155	83	37	97	356	600	115	131
300	12	Q-3000	1473	310	1404	1225	1355	92	39	118	379	600	167	191

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.



VANESSA SERIES 30,000 TRIPLE OFFSET VALVE

DIMENSIONS AND WEIGHTS - WAFER (API 609) - EN PN 63 AND 100

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WAFER - face to face EN558 Series 110 - API 609 Category B - Drilling EN1092-1 PN 63 (Metric)

DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	Q-2000	1215.0	216	1165	985	1115	78	38.5	97	356	600	86	102
200	8	Q-3000	1272.5	265	1204	1025	1155	102	52.5	118	379	600	153	177
250	10	Q-6500	1335.0	315	1230	1025	1175	117	60.0	138	456	600	262	301
300	12	Q-12000	1590.0	362	1494	1230	1430	140	71.5	180	487	600	339	398

WAFER - face to face EN558 Series 110 - API 609 Category B - Drilling EN1092-1 PN 100 (Metric)

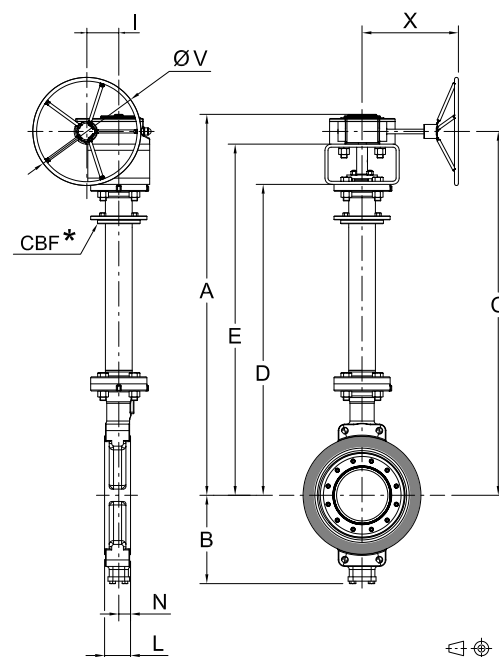
DN	NPS	GEAR	A mm	B mm	C mm	D mm	E mm	L mm	N mm	I mm	X mm	ØV mm	Valve kg	Total kg
150	6	Q-2000	1215	216	1165	985	1115	78	38.5	97	356	600	86	102
200	8	Q-3000	1273	265	1204	1025	1155	102	52.5	118	379	600	153	177
250	10	Q-6500	1335	315	1230	1025	1175	117	60.0	138	456	600	262	301
300	12	Q-12000	1590	362	1494	1230	1430	140	71.5	180	487	600	339	398

NOTES

* CBF = Cold Box Flange

Valves for cold box services feature a default height-adjustable cold box flange. The valve is supplied with the CBF clamped to the bonnet (adjustable according to the end user requirements).

See page 40 for height limits, diameter and thickness of the cold box flange.

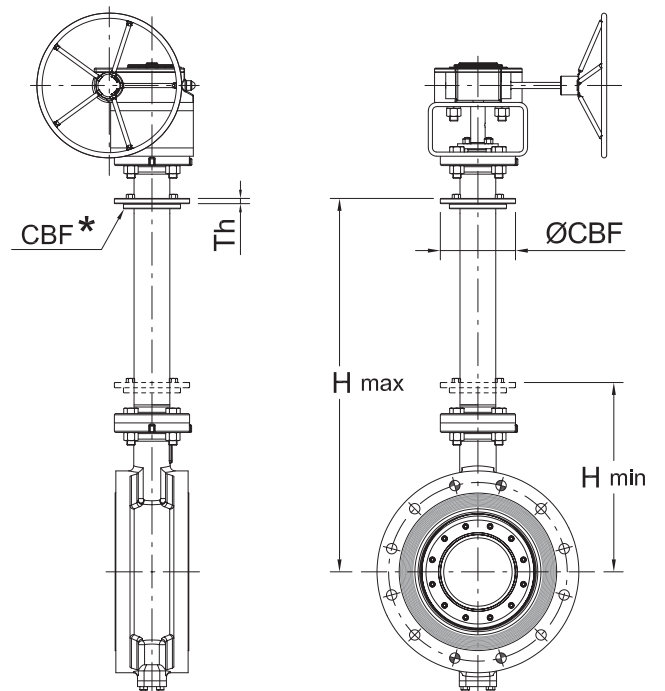


VANESSA SERIES 30,000 TRIPLE OFFSET VALVE
 COLD BOX FLANGE (CBF) POSITION AND DIMENSIONS

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COLD BOX FLANGE (CBF) POSITION AND DIMENSIONS

DN	NPS	H max		H min		Ø CBF		Th	
		mm	inch	mm	inch	mm	inch	mm	inch
80	3	880	34.75	300	12	219	8.75	25	1
100	4	880	34.75	330	13	219	8.75	25	1
150	6	880	34.75	410	16.25	219	8.75	25	1
200	8	880	34.75	440	17.5	273	10.75	25	1
250	10	890	34.75	480	19	273	10.75	25	1
300	12	1080	34.75	530	21	273	10.75	25	1



CERTIFICATION TABLE

Quality management system		ISO 9001:2015 ISO 3834-2
Regional product certification		PED Directive 2014/68/EU Module H AD 2000 Merkblatt HP 0 - Under the Directive 2014/68/EU Annex I, Para. 3.1 CRN TSGD 7002:2006 CU TR
Environmental management system		ISO 14001:2015
Health and safety management system		ISO 45001:2018
Product	Welding	EN ISO 3834-2
	Fire safety	API 607
	Fugitive emission	ISO 15848-1 EPA METHOD 21 TUV TA LUFT / VDI 2440
	Performance	SIL 3 capable
Applicable product standards	Design standards	API 609 and EN 593; ASME B16.34 and EN 12516-1
	Flange standards	ASME B16.5; ASME B16.47; EN 1092-1
	Face to face	ISO 5752; API 609; EN 558
	Testing	API 598 EN 12266-1 BS 6364, ISO 28921-1 and major O&G end users

NOTE

For more information, please contact your nearest Emerson sales office or register on Vanessa Client Area at: http://www.vanessavalves.emerson.com/client_area/

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