

**T-17**  
CATALOG

**Vogt®**



**Ball**  
**Valves**



## *Vogt Valves*

### *A History in the Making*

In the late 1890s, Vogt pioneered the early development of ammonia absorption refrigeration systems that made artificial ice. This business, plus Vogt's fledgling boiler business, created an internal need for quality valves that initiated Vogt's early entry into the valve manufacturing business.

The early reputation of Vogt's quality valves and rapidly growing petroleum processing industry created an outside demand that would firmly establish Vogt in the mass production of high-quality forged steel valves.

For more than 100 years, Vogt's leadership has been evident in the production of forged steel gate, globe, angle and check valves in most popular materials, trims and bonnet configurations.

Today, Vogt valves support a worldwide network of distributors with access to the world's largest capability for manufacturing of forged steel valves.

Vogt Valves introduces a new line of Floating and Trunnion Ball Valves

**RANGE**

We offer Trunnion Mounted ball valves from 1/2" to 60"  
We complete our offer with Floating ball valves from 1/4" to 6".  
All available in ASME class 150, 300, 600, 900, 1500 and 2500.

**CONSTRUCTION**

Vogt Ball valves are designed in full compliance with the requirements set forth by API 6D and API 608.

**FUGITIVE EMISSION**

Vogt Floating Ball Valves are tested and certified to API641.  
Vogt Trunnion Mounted Ball valves are available certified to ISO15848

**FIRE SAFE**

Vogt Ball Valves have been fully tested and certified fire safe according to API 607 and API6FA

**MATERIALS**

**BODY**

We offer a wide range of forged material for the body.  
All components are made from USA or European materials only

**TRIM**

From SS316 to Alloy625, we can supply trim components to meet standard or severe service applications.  
All components are made from USA or European materials only

**SEAT AND SEAL**

Vogt Ball Valves are available in a wide range of Thermoplastic Seats and Elastomeric and Thermoplastic Seal

**TESTING TO API 598 and API6D**

All our Ball valves are tested either to API598 or API6D at our facilities in Stafford, TX and Settimo Milanese, Italy.  
We are able to perform special tests such as High Pressure Gas, Cryogenic, High Temperature



# Product Range

Floating and Trunnion

	FLOATING						TRUNNION					
	FORGED						FORGED					
	RB-FB						RB-FB					
	#150	#300	#600	#900	#1500	#2500	#150	#300	#600	#900	#1500	#2500
1/2"	Orange	Orange	Orange	Orange	Orange	Orange						
3/4"	Orange	Orange	Orange	Orange	Orange	Orange						
1"	Orange	Orange	Orange	Orange	Orange	Orange						
1.1/2"	Orange	Orange	Orange	Orange	Orange	Orange						
2"	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green
3"	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green
4"	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green
6"	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green
8"							Green	Green	Green	Green	Green	Green
10"							Green	Green	Green	Green	Green	Green
12"							Green	Green	Green	Green	Green	Green
14"							Green	Green	Green	Green	Green	Green
16"							Green	Green	Green	Green	Green	Green
18"							Green	Green	Green	Green	Green	Green
20"							Green	Green	Green	Green	Green	Green
22"							Green	Green	Green	Green	Green	Green
24"							Green	Green	Green	Green	Green	Green
26"							Green	Green	Green	Green	Green	Green
28"							Green	Green	Green	Green	Green	Green
30"							Green	Green	Green	Green	Green	Green
32"							Green	Green	Green	Green	Green	Green
34"							Green	Green	Green	Green	Green	Green
36"							Green	Green	Green	Green	Green	Green
40"							Green	Green	Green	Green	Green	Green
42"							Green	Green	Green	Green	Green	Green
48"							Green	Green	Green	Green	Green	Green
56"-60"							Green	Green	Green	Green	Green	Green

	FLOATING	TRUNNION
<b>Body design</b>	Closed Dye Forging Forged bar	Ring Forgings
<b>Valve construction</b>	2 or 3 Pieces	3 Pieces
<b>Size range</b>	size 1/2" to 6"	1.1/2" to 60"
<b>ASME classes</b>	150, 300, 600, 800, 1500	150, 300, 600, 1500, 2500
<b>Specification reference</b>	API608 - ISO17292	API6D - ISO 14313
<b>Seat Design</b>	Soft and Metal Seated	Soft and Metal Seated
<b>Fire Safe</b>	Certified	Certified
<b>Bore dimension</b>	Full and Standard Bore	Full and Standard Bore

*Trunnion*  
*SERIE BSE & BSH*



**SIDE ENTRY**

- 3 pieces
- Size 1" to 60"
- Soft and Metal Seated
- Class 150, 300, 600, 1500, 2500
- Full and Standard Bore
- Fire safe certified
- Reference API6D  
ISO 14313

## Trunnion Mounted Ball Valves

### API 6D

- Size 1" to 60"
- Full & Conventional Port
- Fire Safe certified
- 3 pieces body construction
- Soft or Metal Seated



<b>Design Standards</b>	API6D - API608
<b>ASME Class</b>	150, 300, 600, 900, 1500, 2500
<b>Body Construction</b>	3 pieces, bolted
<b>Fire Safe</b>	API608, API6FA
<b>Design</b>	BSE: TM with external trunion on small OD, BHE: TM with bearing plates on large OD
<b>Bore</b>	Reduced and Full Bore, Venturi on request
<b>Vent and Drain</b>	Vent and Drain plugs per API6D
<b>Stem</b>	Anti blowout, Antistatic with triple seal, Seal injection on request
<b>Seat</b>	Soft or Metal Seat, Seal injection on request
<b>Seal</b>	Elastomer O-Ring + Graphite
<b>Valve Ends</b>	Flanged
<b>End-to-End dimensions</b>	ASME standard
<b>Operator</b>	Actuator: Electric, Pneumatic or Hydraulic on request

## Trunnion

Product Range

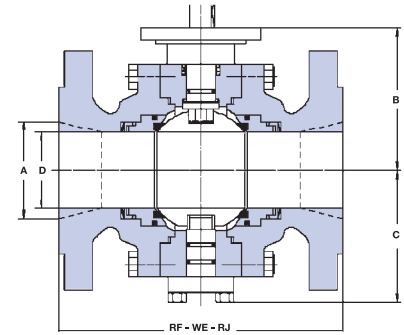
SIZE	150	300	600	900	1500	2500
½"-2"						
2'-6"						
8"-12"						
16 - 24"						
26"+						

### Series (Full bore)

BODY	TRIM	SEAL	150	300	600	900	1500	2500
A105N	316+RPTFE	FKM AED	BSE1-F1F-1	BSE1-F3F-1	BSE1-F6F-1	BSE1-F9F-1	BSE1-F5F-1	BSE1-F2F-1
LF2	316+RPTFE	FKM GLT	BSE1-F1F-2	BSE1-F3F-2	BSE1-F6F-2	BSE1-F9F-2	BSE1-F5F-2	BSE1-F2F-2
F316	316+RPTFE	FKM AED	BSE1-F1F-3	BSE1-F3F-3	BSE1-F6F-3	BSE1-F9F-3	BSE1-F5F-3	BSE1-F2F-3

COMPONENT	A105/316	LF2/316	F316/316
NAMEPLATE	Stainless steel	Stainless steel	Stainless steel
TOP FLANGE	A105N	A350 LF2	A182 F316
VENT	A105N	A350 LF2	A182 F316
BOLT	A193 B7	A320 L7	A193 B8
NUT	2H	4H	GR.8
STEM	st/st 316	st/st 316	st/st 316
STEM SEAL	FKM*	FKM*	FKM*
STEM PACKING	Graphite	Graphite	Graphite
TRUNNION	st/st 316	st/st 316	st/st 316
BALL	st/st 316	st/st 316	st/st 316
SEAT	st/st 316	st/st 316	st/st 316
SEAT INSERT	PTFE+15% Glass	PTFE+15% Glass	PTFE+15% Glass
SEAT ORING	FKM*	FKM*	FKM*
CLOSURE	A105N	A350 LF2	A182 F316
BODY	A105N	A350 LF2	A182 F316
BODY PRIMARY SEAL	FKM*	FKM*	FKM*
BODY FIRE SEAL	Graphite	Graphite	Graphite

## Trunnion CLASS 150



### BSE1-F1F

**FULL BORE, SIDE ENTRY, 3 PIECES, TRUNNION TO API6D**  
End-to-End According to ASME 16.10 - Long pattern

SIZE	D	RF	WE	B	C	E	
2	in.	2.00	7.00	8.50	5.51	3.54	5.90
50	mm	51	178	216	140	90	150
3	in.	3.00	8.00	11.13	7.48	4.13	7.48
80	mm	76	203	283	190	105	190
4	in.	4.00	9.00	12.00	9.72	5.55	9.00
100	mm	102	229	305	247	141	230
6	in.	6.00	15.50	18.00	11.61	6.88	12.20
150	mm	152	394	457	295	175	310
8	in.	8.00	18.00	20.50	12.99	8.26	15.35
200	mm	203	457	521	330	210	390
10	in.	10.00	21.00	22.00	15.74	9.84	18.11
250	mm	254	533	559	400	250	460
12	in.	12.00	24.00	25.00	18.11	12.20	21.45
300	mm	305	610	635	460	310	545
14	in.	14.00	27.00	30.00	18.89	13.38	24.00
350	mm	356	686	762	480	340	610
16	in.	16.00	30.00	33.00	21.25	15.15	26.37
400	mm	406	762	838	540	385	670
18	in.	18.00	34.00	36.00	22.83	16.85	24.80
450	mm	457	864	914	580	428	630
20	in.	20.00	36.00	39.00	23.00	21.45	33.43
500	mm	508	914	991	584	545	849
22	in.	22.00	40.00	43.00	24.00	23.00	36.81
550	mm	559	991	1092	610	584	935
24	in.	24.00	42.00	45.00	24.10	25.87	39.57
600	mm	610	1067	1143	612	655	1005
26	in.	26.00	45.00	49.00	24.69	22.20	41.73
650	mm	660	1143	1245	627	564	1060
28	in.	28.00	49.00	53.00	25.35	25.91	44.88
700	mm	711	1245	1346	644	658	1140
30	in.	30.00	51.00	55.00	27.20	27.70	47.24
750	mm	762	1295	1397	691	705	1200
32	in.	32.00	54.00	60.00	29.21	29.37	51.18
800	mm	813	1372	1524	742	746	1300
34	in.	34.00	58.00	64.00	29.88	30.51	53.94
850	mm	864	1473	1626	759	775	1370
36	in.	36.00	60.00	68.00	31.97	31.77	56.30
900	mm	914	1524	1727	812	807	1430
40	in.	40.00	69.00	77.00	35.43	35.35	63.00
1000	mm	1016	1753	1956	900	898	1600
42	in.	42.00	72.00	82.00	37.13	37.00	64.96
1050	mm	1067	1855	2083	943	940	1656
48	in.	48.00	80.00	94.00	43.19	41.73	75.59
1200	mm	1219	2134	2388	1097	1060	1920
56	in.	53.54	98.00	98.00	52.00	50.00	89.00
1400	mm	1360	2490	2490	13.21	1270	2260

### BSE1-F1R

**REDUCED BORE, SIDE ENTRY, 3 PIECES, TRUNNION TO API6D**  
End-to-End According to ASME 16.10 - Long pattern

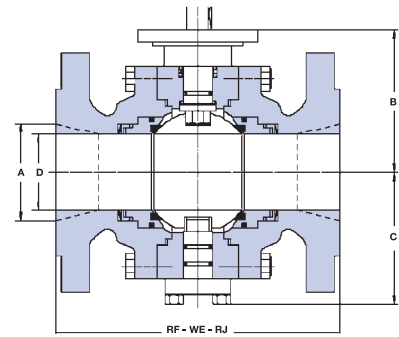
SIZE	A	D	RF	WE	B	C	E	
2 x 1 <sup>1/2</sup>	in.	2.00	1.50	7.00	8.50	4.00	3.00	5.90
50 x 40	mm	51	38	178	216	101	76	150
3 x 2	in.	3.00	2.00	8.00	11.13	5.51	3.54	7.48
80 x 50	mm	76	51	203	283	140	90	190
4 x 3	in.	4.00	3.00	9.00	12.00	7.48	4.13	9.00
100 x 80	mm	102	76	229	305	190	105	230
6 x 4	in.	6.00	4.00	15.50	18.00	11.02	6.53	12.20
150 x 100	mm	152	102	394	457	280	166	310
8 x 6	in.	8.00	6.00	18.00	20.50	11.61	6.88	15.35
200 x 150	mm	203	152	457	521	295	175	395
10 x 8	in.	10.00	8.00	21.00	22.00	12.99	8.26	15.98
250 x 200	mm	254	203	533	559	330	210	406
12 x 10	in.	12.00	10.00	24.00	25.00	15.74	9.84	19.02
300 x 250	mm	305	254	610	635	400	250	483
14 x 10	in.	14.00	10.00	27.00	30.00	18.11	12.30	21.06
350 x 250	mm	356	254	686	762	460	310	535
14 x 12	in.	14.00	12.00	27.00	30.00	18.11	12.20	21.06
350 x 300	mm	356	305	686	762	460	310	535
16 x 12	in.	16.00	12.00	30.00	33.00	18.89	13.38	23.43
400 x 300	mm	406	305	762	838	480	340	595
16 x 14	in.	16.00	14.00	30.00	33.00	18.89	13.38	23.43
400 x 350	mm	406	356	762	838	480	340	595
18 x 16	in.	18.00	16.00	34.00	36.00	21.25	15.15	24.80
450 x 400	mm	457	406	864	914	540	385	630
20 x 16	in.	20.00	16.00	36.00	39.00	22.83	16.85	27.56
500 x 400	mm	508	406	914	991	580	428	700
20 x 18	in.	20.00	18.00	36.00	39.00	22.83	16.85	27.56
500 x 450	mm	508	457	914	991	580	428	700
24 x 20	in.	24.00	20.00	42.00	45.00	23.00	18.00	32.28
600 x 500	mm	610	508	1067	1143	584	457	820
28 x 24	in.	28.00	24.00	49.00	53.00	24.50	19.49	37.40
700 x 600	mm	711	610	1245	1346	622	495	950
30 x 24	in.	30.00	24.00	51.00	55.00	25.15	20.28	38.78
750 x 600	mm	762	610	1295	1397	638	515	985
36 x 30	in.	36.00	30.00	60.00	68.00	27.17	27.56	46.06
900 x 750	mm	914	762	1524	1727	690	700	1170

Other dimension on request

- Flanges in accordance with ASME B16.5
- Bore size according to API 6D
- Butt welding ends according to ASME B16.25
- End-to-end dimension to API 6D



Trunnion  
CLASS 300



BSE1-F3F

FULL BORE, SIDE ENTRY, 3 PIECES, TRUNNION TO API6D  
End-to-End According to ASME 16.10 - Long pattern

SIZE	D	RF	WE	B	C	E
2	in. 2.00	8.50	8.50	7.87	4.72	6.50
50	mm 51	216	216	200	120	165
3	in. 3.00	11.10	11.10	9.44	5.11	8.50
80	mm 76	283	283	240	130	218
4	in. 4.00	12.00	12.00	9.72	5.55	10.00
100	mm 102	305	305	247	141	254
6	in. 6.00	15.90	18.00	11.61	6.88	12.20
150	mm 152	457	457	295	175	310
8	in. 8.00	19.80	20.50	12.99	8.26	15.40
200	mm 203	502	521	330	210	390
10	in. 10.00	22.40	22.00	16.53	10.62	18.50
250	mm 254	568	559	420	270	470
12	in. 12.00	25.50	25.00	18.30	12.79	21.30
300	mm 305	648	635	465	325	545
14	in. 14.00	30.00	30.00	21.45	16.92	24.80
350	mm 356	762	762	545	430	630
16	in. 16.00	33.00	33.00	23.62	18.50	27.20
400	mm 406	838	838	600	470	690
18	in. 18.00	36.00	36.00	23.10	20.07	30.30
450	mm 457	914	914	586	510	770
20	in. 20.00	39.00	39.00	23.90	19.68	33.50
500	mm 508	991	991	607	500	850
22	in. 22.00	43.00	43.00	24.10	21.00	37.00
550	mm 559	1092	1092	612	533	940
24	in. 24.00	45.00	45.00	24.50	23.62	39.70
600	mm 610	1143	1143	622	600	1010
26	in. 26.00	49.00	49.00	24.80	22.80	42.50
650	mm 660	1245	1245	630	580	1080
28	in. 28.00	53.00	53.00	25.20	26.60	45.30
700	mm 711	1346	1346	640	675	1150
30	in. 30.00	55.00	55.00	27.60	28.70	48.40
750	mm 762	1397	1397	700	730	1230
32	in. 32.00	60.00	60.00	29.30	29.90	52.00
800	mm 813	1524	1524	745	760	1320
34	in. 34.00	64.00	64.00	29.90	31.50	54.50
850	mm 864	1626	1626	760	800	1380
36	in. 36.00	68.00	68.00	31.70	32.5	56.9
900	mm 914	1727	1727	805	825	1445
40	in. 40.00	77.00	77.00	35.40	36.2	64.10
1000	mm 1016	1956	1956	900	920	1630
42	in. 42.00	82.00	82.00	38.10	38.40	66.90
1050	mm 1067	2083	2083	968	980	1700
48	in. 48.00	85.40	85.40	43.30	45.60	74.80
1200	mm 1219	2170	2170	1100	1160	1960
56	in. 53.54	108.00	108.00	50.00	50.00	89.00
1400	mm 1360	2743	2743	1270	1270	2260

BSE1-F3R

REDUCED BORE, SIDE ENTRY, 3 PIECES, TRUNNION TO API6D  
End-to-End According to ASME 16.10 - Long pattern

SIZE	A	D	RF	WE	B	C	E
2 x 1 1/2	in. 2.00	1.50	8.50	8.50	6.88	3.14	6.50
50 x 40	mm 51	38	216	216	175	80	165
3 x 2	in. 3.00	2.00	11.10	11.10	7.87	4.72	8.50
80 x 50	mm 76	51	283	283	200	120	218
4 x 3	in. 4.00	3.00	12.00	12.00	9.44	5.11	10.00
100 x 80	mm 102	76	305	305	240	130	254
6 x 4	in. 6.00	4.00	15.90	18.00	11.02	5.90	12.20
150 x 100	mm 152	102	457	457	280	150	310
8 x 6	in. 8.00	6.00	19.80	20.50	11.61	6.88	15.40
200 x 150	mm 203	152	502	521	295	175	390
10 x 8	in. 10.00	8.00	22.40	22.00	12.99	8.26	17.50
250 x 200	mm 254	203	568	559	330	210	445
12 x 10	in. 12.00	10.00	25.50	25.00	16.53	10.62	20.50
300 x 250	mm 305	254	648	635	420	270	520
14 x 10	in. 14.00	10.00	30.00	30.00	18.30	12.79	23.00
350 x 250	mm 356	254	762	762	465	325	585
14 x 12	in. 14.00	12.00	30.00	30.00	18.30	12.79	23.00
350 x 250	mm 356	305	762	762	465	325	585
16 x 12	in. 16.00	12.00	33.00	33.00	21.45	16.92	25.60
400 x 300	mm 406	305	838	838	545	430	650
16 x 14	in. 16.00	14.00	33.00	33.00	21.45	16.92	25.60
400 x 350	mm 406	356	838	838	545	430	650
18 x 16	in. 18.00	16.00	36.00	36.00	23.62	18.50	28.00
450 x 400	mm 457	406	914	914	600	470	710
20 x 16	in. 20.00	16.00	39.00	39.00	24.40	20.07	30.70
500 x 400	mm 508	406	991	991	620	510	780
20 x 18	in. 20.00	18.00	39.00	39.00	24.40	20.07	30.40
500 x 450	mm 508	457	991	991	620	510	780
24 x 20	in. 24.00	20.00	45.00	45.00	25.10	19.68	36.00
600 x 500	mm 610	508	1143	1143	637	500	915
30 x 24	in. 30.00	24.00	55.00	55.00	25.80	21.20	42.90
750 x 600	mm 762	610	1397	1397	655	540	1090
36 x 30	in. 36.00	30.00	68.00	68.00	27.60	28.70	50.00
900 x 750	mm 914	762	1727	1727	700	730	1270

Other dimension on request

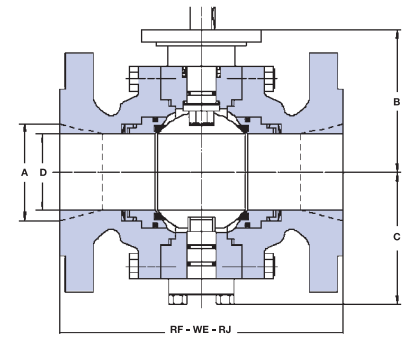
- Flanges in accordance with ASME B16.5
- Bore size according to API 6D
- Butt welding ends according to ASME B16.25
- End-to-end dimension to API 6D

## Trunnion CLASS 600

### BSE1-F6F

**FULL BORE, SIDE ENTRY, 3 PIECES, TRUNNION TO API6D**  
End-to-End According to ASME 16.10 - Long pattern

SIZE	D	RF	RJ	WE	B	C	E	
2	in.	2.00	11.50	11.63	11.50	7.67	4.33	6.50
50	mm	51	292	295	292	195	110	165
3	in.	3.00	14.00	14.13	14.00	9.44	4.33	8.50
80	mm	76	356	359	356	240	110	218
4	in.	4.00	17.00	17.13	17.00	11.02	6.88	10.70
100	mm	102	432	435	432	280	175	273
6	in.	6.00	22.00	22.13	22.00	12.00	7.67	14.10
150	mm	152	559	562	559	305	195	360
8	in.	8.00	26.00	26.13	26.00	15.74	11.02	16.50
200	mm	203	660	664	660	400	280	419
10	in.	10.00	31.00	31.13	31.00	17.12	11.22	20.40
250	mm	254	787	791	787	435	285	520
12	in.	12.00	33.00	33.13	33.00	17.32	12.59	22.60
300	mm	305	838	841	838	440	320	575
14	in.	14.00	35.00	35.13	35.00	19.88	13.38	24.70
350	mm	356	889	892	889	505	340	628
16	in.	16.00	39.00	39.13	39.00	23.22	16.14	27.60
400	mm	406	991	994	991	590	410	700
18	in.	18.00	43.00	43.13	43.00	23.55	17.51	30.50
450	mm	457	1092	1095	1092	589	445	775
20	in.	20.00	47.00	47.25	47.00	23.80	20.07	34.10
500	mm	508	1194	1200	1194	604	510	865
22	in.	22.00	51.00	51.38	51.00	24.00	20.35	37.40
550	mm	559	1295	1305	1295	609	571	950
24	in.	24.00	55.00	55.38	55.00	24.50	25.19	40.50
600	mm	610	1397	1407	1397	622	640	1028
26	in.	26.00	57.00	57.50	57.00	24.80	24.30	40.10
650	mm	660	1448	1461	1448	630	618	1020
28	in.	28.00	61.00	61.50	61.00	26.20	27.20	46.10
700	mm	711	1549	1562	1549	665	692	1172
30	in.	30.00	66.30	66.50	66.30	29.20	31.50	50.80
750	mm	762	1651	1664	1651	741	800	1290
32	in.	32.00	70.00	70.72	70.00	29.80	31.70	52.40
800	mm	813	1778	1794	1778	756	804	1330
34	in.	34.00	76.00	76.52	76.00	30.80	32.20	57.10
850	mm	864	1930	1946	1930	782	817	1450
36	in.	36.00	82.00	82.63	82.00	34.20	37.20	60.90
900	mm	914	2083	2099	2083	869	945	1546
40	in.	40.00	85.40	85.43	85.40	36.10	38.60	64.80
1000	mm	1016	2170	2170	2170	916	980	1645
42	in.	42.00	85.60	85.63	85.60	39.20	43.70	70.80
1050	mm	1067	2175	2175	2175	995	1110	1800
48	in.	48.00	95.90	95.87	95.90	44.60	49.80	81.50
1200	mm	1219	2435	2435	2435	1132	1265	2070
56	in.	53.54	106.70	106.70	106.70	51.00	57.50	94.00
1400	mm	1360	2710	2710	2710	1295	1460	2390



### BSE1-F6R

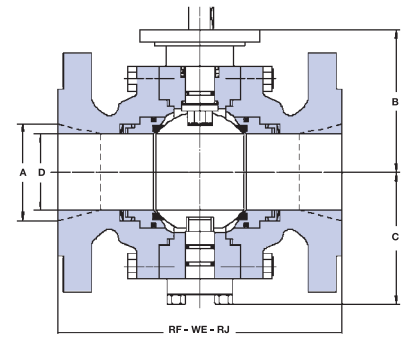
**REDUCED BORE, SIDE ENTRY, 3 PIECES, TRUNNION TO API6D**  
End-to-End According to ASME 16.10 - Long pattern

SIZE	A	D	RF	RJ	WE	B	C	E	
2 x 1 <sup>1/2</sup>	in.	2.00	1.50	11.50	11.63	11.50	7.48	3.54	6.50
50 x 40	mm	51	38	292	295	292	190	90	165
3 x 2	in.	3.00	2.00	14.00	14.13	14.00	14.01	4.33	8.30
80 x 50	mm	76	51	356	359	356	356	110	210
4 x 3	in.	4.00	3.00	17.00	17.13	17.00	9.44	4.33	14.70
100 x 80	mm	102	76	432	435	432	240	110	373
6 x 4	in.	6.00	4.00	22.00	22.13	22.00	11.02	6.88	14.00
150 x 100	mm	152	102	559	562	559	280	175	356
8 x 6	in.	8.00	6.00	26.00	26.13	26.00	12.00	7.67	16.50
200 x 150	mm	203	152	660	664	660	305	195	419
10 x 8	in.	10.00	8.00	31.00	31.13	31.00	15.74	11.02	20.10
250 x 200	mm	254	203	787	791	787	400	280	510
12 x 10	in.	12.00	10.00	33.00	33.13	33.00	17.12	11.22	22.00
300 x 250	mm	305	254	838	841	838	435	285	560
14 x 10	in.	14.00	10.00	35.00	35.13	35.00	17.32	12.59	23.80
350 x 250	mm	356	254	889	892	889	440	320	605
14 x 12	in.	14.00	12.00	35.00	35.13	35.00	17.32	12.59	23.80
350 x 250	mm	356	305	889	892	889	440	320	605
16 x 12	in.	16.00	12.00	39.00	39.13	39.00	19.88	13.38	27.00
400 x 300	mm	406	305	991	994	991	505	340	685
16 x 14	in.	16.00	14.00	39.00	39.13	39.00	19.88	13.38	24.70
400 x 350	mm	406	356	991	994	991	505	340	628
18 x 16	in.	18.00	16.00	43.00	43.13	43.00	23.22	16.10	29.30
450 x 400	mm	457	406	1092	1095	1092	590	410	745
20 x 16	in.	20.00	16.00	47.00	47.25	47.00	23.80	17.51	32.10
500 x 400	mm	508	406	1194	1200	1194	604	445	815
20 x 18	in.	20.00	18.00	47.00	47.25	47.00	24.00	17.51	32.10
500 x 450	mm	508	457	1194	1200	1194	609	445	815
24 x 20	in.	24.00	20.00	55.00	55.38	55.00	24.50	20.07	37.00
600 x 500	mm	610	508	1397	1407	1397	622	510	940
30 x 24	in.	30.00	24.00	66.30	66.50	66.30	24.80	22.40	44.50
750 x 600	mm	762	610	1651	1664	1651	629	570	1130
36 x 30	in.	36.00	30.00	82.00	82.63	82.00	27.90	29.90	51.80
900 x 750	mm	914	762	2083	2099	2083	708	760	1315

Other dimension on request

- Flanges in accordance with ASME B16.5
- Bore size according to API 6D
- Butt welding ends according to ASME B16.25
- End-to-end dimension to API 6D

Trunnion  
CLASS 900



BSE1F-F9F

FULL BORE, SIDE ENTRY, 3 PIECES, TRUNNION TO API6D  
End-to-End According to ASME 16.10

SIZE		D	RF	RJ	WE	B	C	E
2	in.	2.00	14.49	14.61	14.49	7.87	4.72	8.50
50	mm	51	368	371	368	200	120	220
3	in.	3.00	15.00	15.12	15.00	9.44	5.11	9.49
80	mm	76	381	384	381	240	130	241
4	in.	4.00	17.99	18.11	17.99	11.02	6.88	11.50
100	mm	102	457	460	457	280	175	290
6	in.	6.00	24.02	24.13	24.02	13.77	8.66	15.00
150	mm	152	610	613	610	350	220	381
8	in.	8.00	29.02	29.13	29.02	15.35	10.23	18.50
200	mm	203	737	740	737	390	260	470
10	in.	10.00	32.99	33.11	32.99	18.89	14.20	21.46
250	mm	254	838	841	838	480	310	545
12	in.	12.00	37.99	38.11	37.99	17.24	16.14	24.02
300	mm	305	965	968	965	438	410	610
14	in.	14.00	40.51	40.87	40.51	21.45	14.56	25.50
350	mm	356	1029	1038	1029	545	370	650
16	in.	16.00	44.49	44.88	44.49	24.59	16.53	27.95
400	mm	406	1130	1140	1130	624	420	710
18	in.	18.00	47.99	48.50	47.99	24.80	24.29	31.50
450	mm	457	1219	1232	1219	630	617	800
20	in.	20.00	52.01	52.48	52.01	25.00	28.54	35.04
500	mm	508	1321	1334	1321	635	725	890
24	in.	24.00	60.98	61.73	60.98	26.00	32.71	41.69
600	mm	610	1549	1568	1549	660	831	1059
28	in.	28.00	69.02	69.88	69.02	26.54	27.80	48.58
700	mm	711	1753	1775	1753	674	706	1234
30	in.	30.00	74.02	74.88	74.02	28.50	30.59	51.18
750	mm	762	1880	1902	1880	725	777	1300
32	in.	32.00	80.00	80.87	80.00	30.87	31.90	53.43
800	mm	813	2032	2054	2032	784	810	1357
34	in.	34.00	85.00	86.14	85.00	31.77	33.54	57.80
850	mm	864	2159	2188	2159	807	852	1468
36	in.	36.00	90.00	91.14	90.00	33.39	35.35	60.31
900	mm	914	2286	2315	2286	848	898	1532

Other dimension on request

BSE1-F9R

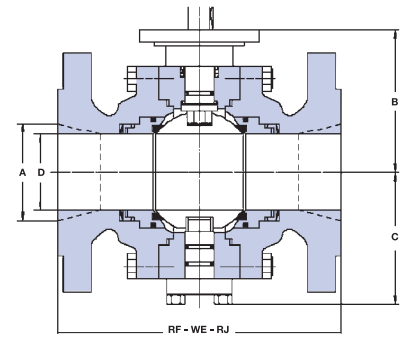
REDUCED BORE, SIDE ENTRY, 3 PIECES, TRUNNION TO API6D  
End-to-End According to ASME 16.10

SIZE		A	D	RF	RJ	WE	B	C	E
2 x 1 <sup>1/2</sup>	in.	2.00	1.50	14.49	14.61	14.49	6.10	4.25	8.60
50 x 40	mm	51	38	368	371	368	155	108	220
3 x 2	in.	3.00	2.00	15.00	15.12	15.00	7.87	4.72	9.49
80 x 50	mm	76	51	381	384	381	200	120	241
4 x 3	in.	4.00	3.00	17.99	18.11	17.99	9.44	5.11	11.50
100 x 80	mm	102	76	457	460	457	240	130	290
6 x 4	in.	6.00	4.00	24.02	24.13	24.02	11.02	6.88	14.90
150 x 100	mm	152	102	610	613	610	280	175	380
8 x 6	in.	8.00	6.00	29.02	29.13	29.02	13.77	8.66	18.50
200 x 150	mm	203	152	737	740	737	350	220	470
10 x 8	in.	10.00	8.00	32.99	33.11	32.99	15.35	10.23	21.46
250 x 200	mm	254	203	838	841	838	390	260	545
12 x 10	in.	12.00	10.00	37.99	38.11	37.99	18.89	12.20	24.02
300 x 250	mm	305	254	965	968	965	480	310	610
14 x 10	in.	14.00	10.00	40.51	40.87	40.51	17.24	16.14	25.50
350 x 250	mm	356	254	1029	1038	1029	438	410	650
14 x 12	in.	14.00	12.00	40.51	40.87	40.51	17.24	16.14	27.90
350 x 300	mm	356	305	1029	1038	1029	438	410	710
16 x 12	in.	16.00	12.00	44.49	44.88	44.49	21.45	14.56	29.50
400 x 300	mm	406	305	1130	1140	1130	545	370	750
16 x 14	in.	16.00	14.00	44.49	44.88	44.49	21.45	14.56	31.10
400 x 350	mm	406	356	1130	1140	1130	545	370	790
18 x 16	in.	18.00	16.00	47.99	48.50	47.99	24.59	16.53	31.50
450 x 400	mm	457	406	1219	1232	1219	624	420	800
20 x 16	in.	20.00	16.00	52.01	52.48	52.01	25.00	24.29	31.10
500 x 400	mm	508	406	1321	1334	1321	630	617	790
20 x 18	in.	20.00	18.00	52.01	52.48	52.01	25.57	24.29	35.04
500 x 450	mm	508	457	1321	1334	1321	649	617	890
24 x 20	in.	24.00	20.00	60.98	61.73	60.98	25.70	28.54	40.94
600 x 500	mm	610	508	1549	1568	1549	652	725	1040
30 x 24	in.	30.00	24.00	74.02	74.88	74.02	28.00	24.88	48.43
750 x 600	mm	762	610	1880	1902	1880	711	632	1230
36 x 30	in.	36.00	30.00	90.00	91.14	90.00	31.70	30.87	57.48
900 x 750	mm	914	762	2286	2315	2286	807	784	1460

Other dimension on request

- Flanges in accordance with ASME B16.5
- Bore size according to API 6D
- Butt welding ends according to ASME B16.25
- End-to-end dimension to API 6D

Trunnion  
CLASS 1500



BSE1-F5F

FULL BORE, SIDE ENTRY, 3 PIECES, TRUNNION TO API6D  
End-to-End According to ASME 16.10

SIZE		D	RF	RJ	WE	B	C	E
2	in.	2.00	14.49	14.61	14.49	8.07	4.72	8.60
50	mm	51	368	371	368	205	120	220
3	in.	3.00	18.50	18.62	18.50	8.26	4.92	10.51
80	mm	76	470	473	470	210	125	267
4	in.	4.00	21.50	21.61	21.50	9.64	6.29	12.20
100	mm	102	546	549	546	245	160	310
6	in.	6.00	27.76	27.99	27.76	13.18	10.03	15.51
150	mm	152	705	711	705	335	255	394
8	in.	8.00	32.76	33.11	32.76	17.20	13.38	19.09
200	mm	203	832	841	832	437	340	485
10	in.	10.00	39.02	39.37	39.02	19.76	15.00	23.03
250	mm	254	991	1000	991	502	381	585
12	in.	12.00	44.49	44.61	44.49	20.98	17.24	27.95
300	mm	305	1130	1146	1130	533	438	710
14	in.	14.00	49.49	50.24	49.49	24.64	19.60	30.12
350	mm	356	1257	1276	1257	626	498	765
16	in.	16.00	54.49	55.35	54.49	28.54	18.11	33.39
400	mm	406	1384	1407	1384	725	460	848
18	in.	18.00	60.51	61.38	60.51	29.00	23.90	38.58
450	mm	457	1537	1559	1537	736	607	980
20	in.	20.00	65.51	66.38	66.51	30.00	25.40	39.96
500	mm	508	1664	1686	1664	762	644	1015
24	in.	24.00	80.43	81.54	80.43	32.00	28.50	50.91
600	mm	610	2043	1972	2043	813	725	1295

Other dimension on request

BSE1-F5R

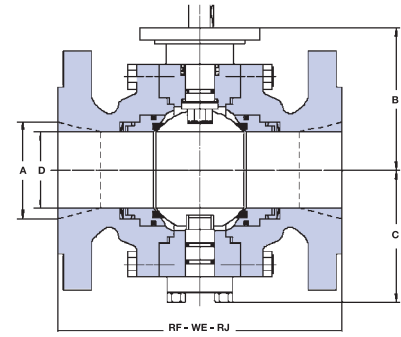
REDUCED BORE, SIDE ENTRY, 3 PIECES, TRUNNION TO API6D  
End-to-End According to ASME 16.10

SIZE		A	D	RF	RJ	WE	B	C	E
2 x 1 <sup>1/2</sup>	in.	2.00	1.50	14.49	14.61	14.49	7.48	4.33	8.66
50 x 40	mm	51	38	368	371	368	190	110	220
3 x 2	in.	3.00	2.00	18.50	18.62	18.50	8.07	4.72	10.51
80 x 50	mm	76	51	470	473	470	205	120	267
4 x 3	in.	4.00	3.00	21.50	21.61	21.50	8.26	4.92	12.20
100 x 80	mm	102	76	546	549	546	210	125	310
6 x 4	in.	6.00	4.00	27.76	27.99	27.76	9.64	6.29	15.51
150 x 100	mm	152	102	705	711	705	245	160	394
8 x 6	in.	8.00	6.00	32.76	33.11	32.76	13.18	10.03	19.09
200 x 150	mm	203	152	832	841	832	335	255	485
10 x 8	in.	10.00	8.00	39.02	39.37	39.02	16.14	11.41	23.03
250 x 200	mm	254	203	991	1000	991	410	290	585
12 x 10	in.	12.00	10.00	44.49	44.61	44.49	18.30	13.18	26.57
300 x 250	mm	305	254	1130	1146	1130	465	335	675
14 x 10	in.	14.00	10.00	49.49	50.24	49.49	21.77	17.24	27.95
350 x 250	mm	356	254	1257	1276	1257	553	439	710
14 x 12	in.	14.00	12.00	49.49	50.24	49.49	21.77	17.24	29.92
350 x 300	mm	356	305	1257	1276	1257	553	438	760
16 x 12	in.	16.00	12.00	54.49	55.35	54.49	24.64	19.60	32.48
400 x 300	mm	406	305	1384	1407	1384	626	498	825
16 x 14	in.	16.00	14.00	54.49	55.35	54.49	24.64	19.60	32.48
400 x 350	mm	406	356	1384	1407	1384	626	498	825
18 x 16	in.	18.00	16.00	60.51	61.38	60.51	25.00	20.00	36.22
450 x 400	mm	457	406	1537	1559	1537	630	508	920
20 x 16	in.	20.00	16.00	65.51	66.38	66.51	26.00	20.00	38.97
500 x 400	mm	508	406	1664	1686	1664	660	508	990
20 x 18	in.	20.00	18.00	65.51	66.38	66.51	28.00	23.00	38.97
500 x 450	mm	508	457	1664	1686	1664	711	542	990
24 x 20	in.	24.00	20.00	80.43	81.54	80.43	30.00	25.00	46.06
600 x 500	mm	610	508	2043	1972	2043	762	635	1170

Other dimension on request

- Flanges in accordance with ASME B16.5
- Bore size according to API 6D
- Butt welding ends according to ASME B16.25
- End-to-end dimension to API 6D

**Trunnion**  
CLASS 2500



**BSE1-F2F**

**FULL BORE, SIDE ENTRY, 2 PIECES, TRUNNION TO API6D**  
End-to-End According to ASME 16.10

SIZE	D	RF	RJ	WE	B	C	E	
2	in.	2.00	17.76	17.87	17.76	8.46	5.11	9.05
50	mm	51	451	454	451	215	130	230
3	in.	3.00	22.76	22.99	22.76	8.66	5.31	11.08
80	mm	76	578	584	578	220	135	300
4	in.	4.00	26.50	26.89	26.50	10.03	6.96	14.02
100	mm	102	673	683	673	255	170	356
6	in.	6.00	35.98	36.50	35.98	16.92	10.43	19.09
150	mm	152	914	927	914	430	265	485
8	in.	8.00	40.24	40.87	40.24	16.92	13.30	24.41
200	mm	203	1022	1038	1022	430	340	620
10	in.	10.00	50.00	50.87	50.00	17.50	16.60	29.33
250	mm	254	1270	1292	1270	444	421	745
12	in.	12.00	55.98	56.89	55.98	18.00	18.90	34.44
300	mm	305	1422	1445	1422	457	480	875

Other dimension on request

**BSE1-F2R**

**REDUCED BORE, SIDE ENTRY, 2 PIECES, TRUNNION TO API6D**  
End-to-End According to ASME 16.10

SIZE	A	D	RF	RJ	WE	B	C	E	
2 x 1 <sup>1/2</sup>	in.	2.00	1.50	17.76	17.87	17.76	7.78	4.72	9.25
50 x 40	mm	51	38	451	454	451	200	120	230
3 x 2	in.	3.00	2.00	22.76	22.99	22.76	8.46	5.11	11.01
80 x 50	mm	76	51	578	584	578	215	130	300
4 x 3	in.	4.00	3.00	26.50	26.89	26.50	8.66	5.31	14.02
100 x 80	mm	102	76	673	683	673	220	135	356
6 x 4	in.	6.00	4.00	35.98	36.50	35.98	10.03	6.96	19.09
150 x 100	mm	152	102	914	927	914	255	170	485
8 x 6	in.	8.00	6.00	40.24	40.87	40.24	12.00	9.00	22.05
200 x 150	mm	203	152	1022	1038	1022	348	228	560
10 x 8	in.	10.00	8.00	50.00	50.87	50.00	14.00	13.00	26.57
250 x 200	mm	254	203	1270	1292	1270	355	330	670
12 x 10	in.	12.00	10.00	55.98	56.89	55.98	16.00	18.00	30.70
300 x 250	mm	305	254	1422	1445	1422	406	475	780

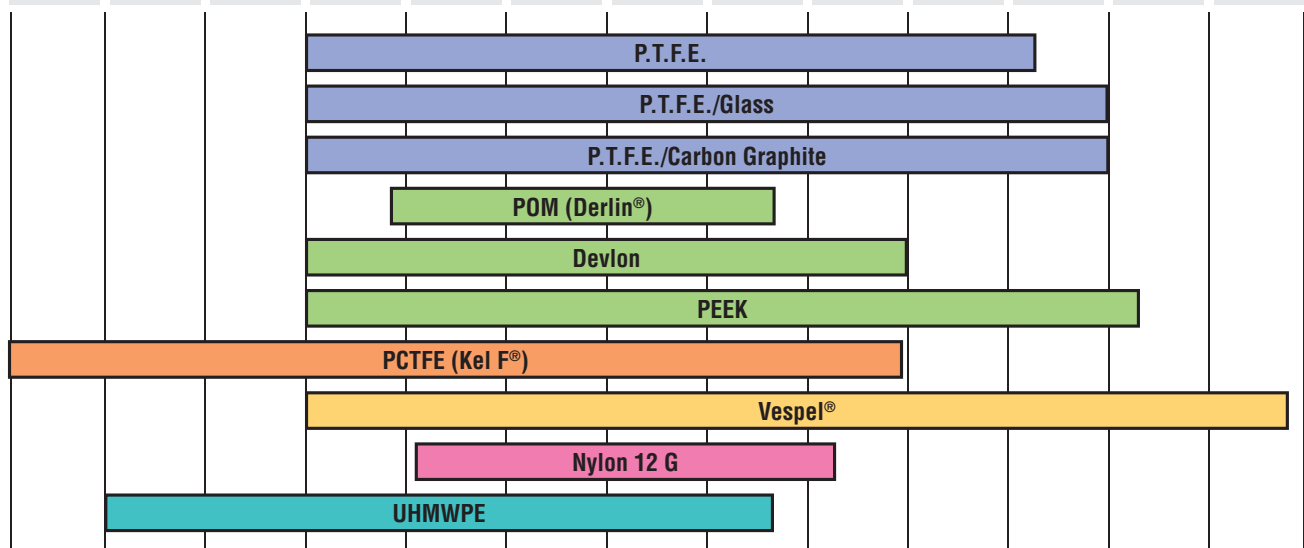
Other dimension on request

- Flanges in accordance with ASME B16.5
- Bore size according to API 6D
- Butt welding ends according to ASME B16.25
- End-to-end dimension to API 6D

## Seat Materials

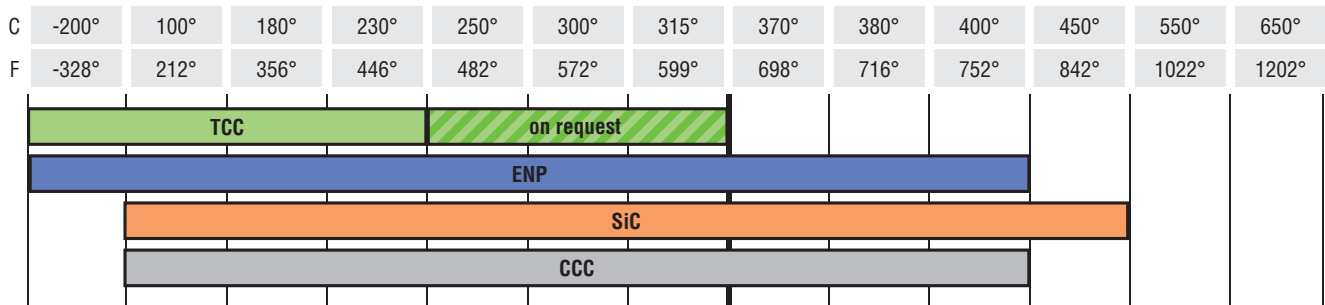
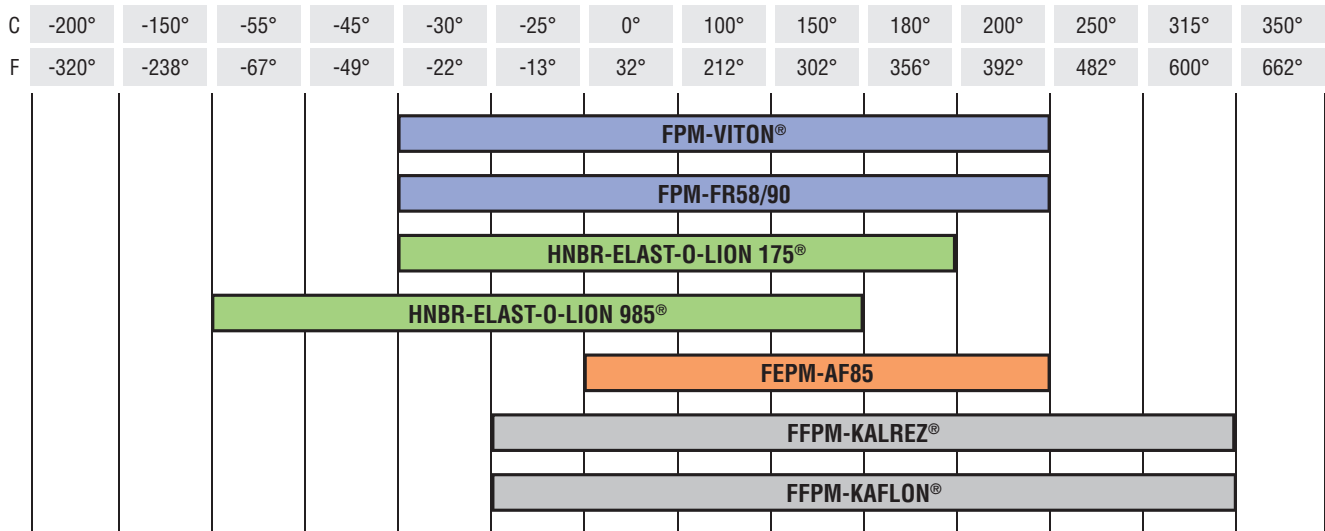
	VOGT DESIGNATION	CHEMICAL NAME/DESIGNATION	TEMPERATURE RANGE	APPLICATION	TRADEMARK
THERMOPLASTIC	P.T.F.E	Polytetrafluoroethylene	-100° to + 180°/220°C	Virgin PTFE is used as a standard material for its high lubricity and superior sealing up to 180°C. It is white in colour.	DuPont™ Teflon®
	R.P.T.F.E/Glass	Polytetrafluoroethylene glass filled	-100° to + 200°/250°C	Reinforced PTFE seats are made with glass filled PTFE (20%). They are harder than virgin PTFE. White in colour with green or blue speckles.	DuPont™ Teflon®
	R.P.T.F.E/Carbon Graphite	Polytetrafluoroethylene carbon-graphite filled	-100° to + 200°/250°C	Reinforced PTFE with 20% carbon and 5% Graphite. These seats are black in colour.	-
	POM (Delrin®)	Polyoxymethylene acetal resin	-57°C to 82°C	This material is very rigid it has a combination of strength, stiffness, hardness dimensional stability, toughness, fatigue resistance, abrasion resistance low wear and low friction. It can withstand pressure up to 5000 PSIG depending on valve size. Do not use on oxygen service.	DuPont™ Delrin®
	Devlon® V	Polyamide	-100° to +150°C	Devlon® V is similar to Nylon 12G, but with a wider range of temperature application (lower and higher).	Devol Eng. Ltd.
	PEEK	Polyetheretherketone	-100° to 260°C	Peek is recommended for high temperature (up to 260°C) but it is very hard compared to other non metallic materials. Not applicable for concentrated sulphuric acid.	-
	PCTFE (Kel F®)	Polychlorotrifluoroethylene	-250° + 150°C	PCTFE is specifically recommended for cryogenic service.	3-M™ KEL-F® Daikin™ Neoflon®
	VespeI® Sp21	15% Graphite Filled Polyimide	-100° to 340°C	15% Graphite filler. Performs well in a variety of chemical environments and a variety of industrial fluids at elevated temperatures.	DuPont™ VespeI®
	Nylon 12 G	Polyamide	-50° to + 120°C	Nylon 12G is more suitable than PTFE for higher pressure, but has a limited range in temperature.	-
	UHMWPE	Ultra High Molecular Weight Polyethylene	-200°C to 80°C	UHMWPE (05) is a common substitute where PTFE is not permitted and has excellent abrasion resistance.	-

C	-250°	-200°	-150°	-100°	-50	0	50°	100°	150°	200°	250°	300°	350°
F	-148	-328	+238	-148	-58	32	122	212	302	392	482	572	662



## Seal Materials

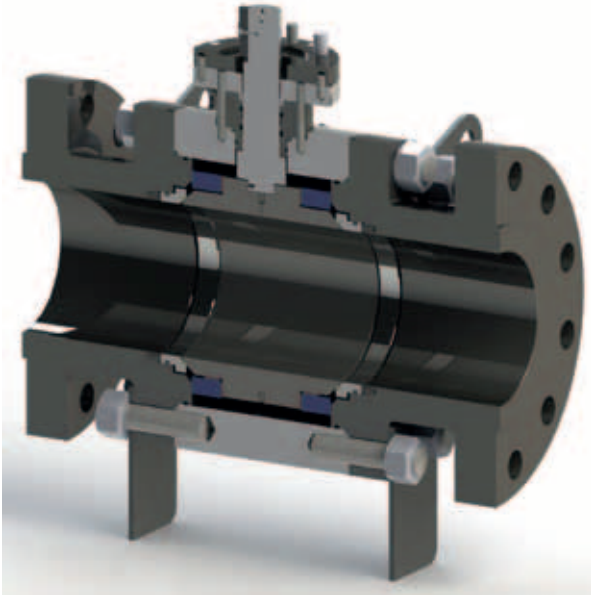
SEAL TYPE	DEFINITION/BRAND	MAKER	AED GRADE	MIN	MAX T
<b>FPM (FKM ASTM grade)</b>	<b>Fluoroelastomer</b>				
FPM (FKM ASTM grade)	Viton®	® DuPont	AED	-30C	200C
FPM (FKM ASTM grade)	FR58/90	® J Walker	AED	-30C	200C
<b>HNBR</b>	<b>Hydrogenated Nitrile</b>				
HNBR	ELAST-O-LION®101	® J Walker		-29C	160C
HNBR	ELAST-O-LION®985	® J Walker	AED	-55C	150C
<b>TFE/P (FEPM ASTM grade)</b>	<b>Tetrafluoroethylene/Propylene</b>				
FEPM (Atlas®)	AF 85/90	® Asahi Chem	AED	0	200C
<b>FFPM (FFKM ASTM grade)</b>	<b>Perfluoroelastomer</b>				
FFPM (FFKM ASTM grade)	Kalrez® 1050 LF	® DuPont		5C	365C
FFPM (FFKM ASTM grade)	Kaflon 72B	TM GMI		-25C	315C



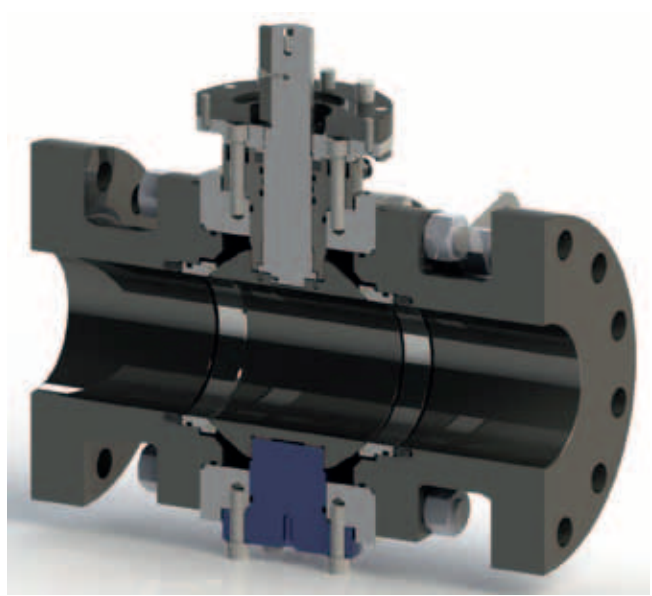
Upper limit of KAFLON/KALREZ® | Graphite seat seal - Special design/torque

## Valves Design

Trunnion		Features
<b>B</b>	Bearing Plate	Bearing plates are used on large size valves as standard
<b>T</b>	Trunnion	External trunnion is used on small size valves



*B type: bearing plate construction  
BSE type: Bearing Plate construction*



*T type: external trunnion construction  
BSH type: External Trunnion construction*

End to End		Features	
<b>L</b>	Long pattern	End to end to ASME B1610 Long Pattern is standard	
<b>S</b>	Short pattern	End to end to ASME B1610 Short Pattern is available	on request
<b>A</b>	Special	Special lengths to customer specification are available on request	on request



*Short Pattern*



*Lugged*



*Special lengths*

Vogt Ball valves can be supplied in the following configurations

- Flanged to ASME/ANSI standards
- Flanged to DIN and GOST standards
- Compact Flanges to Norsok L005 or special design
- Butt Weld Ends with or without transitions pups
- Hub connectors



## Seat Design & Materials

We offer a number of different seats sealing configurations according to service conditions

### THERMOPLASTIC SEAT INSERTS with ORING

This configuration is standard and used for most applications. We offer a wide selection of Elastomer oring seals. Please see following page for seal selection and properties

### THERMOPLASTIC SEAT INSERT with LIP SEALS

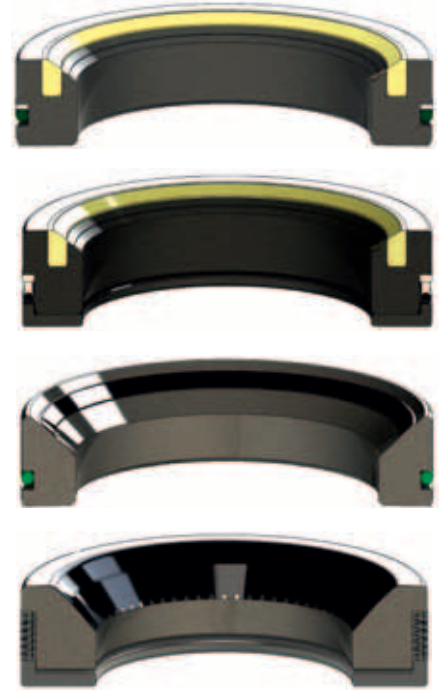
In low temperature and cryogenic services we offer as a standard a Thermoplastic insert with LIP SEAL Single or Double Lip Seals sealing are available according to service requirements

### METAL SEAT with ORING

In severe service we offer a seat configuration with metal sealing in either Tungsten Carbide, Chrome Carbide or Silicon Carbide and

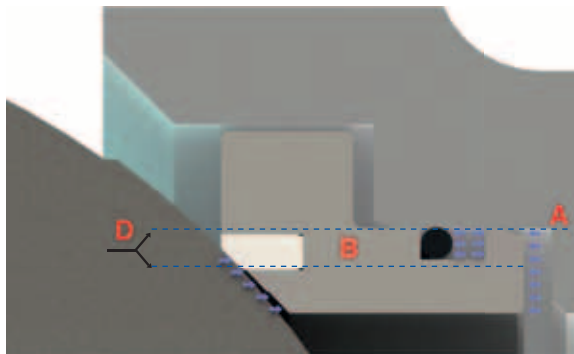
### METAL SEAT with GRAPHITE SEAL

In high temperature configuration we offer a metal sealing in Chrome Carbide or Silicon Carbide with graphite seals Seat Type

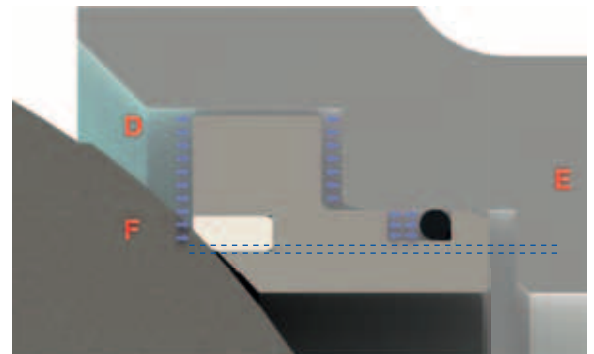


Seat Type		Features	
SS	SPE x SPE	A dual set of Single Piston Effect seat is Vogt standard offer	
DD	DPE x DPE	Double piston effect on both seats are available on request	on request
SD	SPE x DPE	Combination Single and Double Piston Effect are available on request	on request
DS	DPE x SPE	Combination Single and Double Piston Effect are available on request	on request

### SINGLE PISTON EFFECT



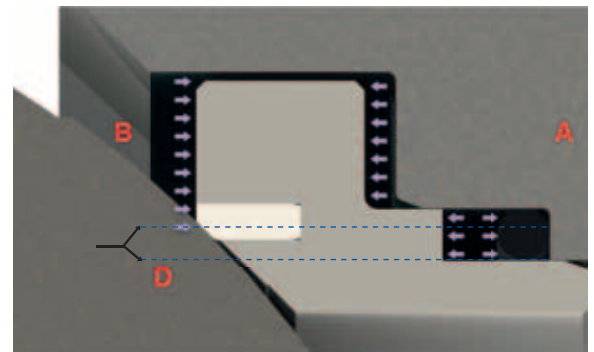
As line pressure increases, the seat differential area  $D = A - B$  creates a piston effect forcing the seat on the ball: higher the line pressure, tighter the piston action.



If pressure grows up into the cavity, it relieves to the line as differential area  $F = D - E$  has greater force than the spring load.

### DOUBLE PISTON EFFECT

Seat seal may be designed to provide additional sealing capability: the cavity pressure enhances the contact pressure between seat and ball, as differential area  $D = A - B$  creates a piston effect forcing the seat on the ball (a pressure relief valve is installed to protect the cavity by excess pressure).



## Operators

Vogt standards design offer levers or gear operators in accordance to the below tables

Operator			
<b>L</b>	Lever	Standard application for low torque valves	
<b>G</b>	Gear	Standard application for high torque valves	
<b>B</b>	Bare stem	On request valves can be supplied bare stem	on request
<b>S</b>	Spring return	Spring return (either standard or pneumatically assisted) are available	on request
<b>A</b>	Lever+lock device	Locking devices are available	on request
<b>B</b>	Lever+padlock	Padlock are available	on request
<b>C</b>	Gear+lock device	Locking devices are available	on request
<b>D</b>	Gear+padlock	Padlock are available	on request
<b>E</b>	Gear+chain	Chain operated gear are available	on request
<b>R</b>	ROV	SubSea valves can be equipped with ROV operator	on request

Lever heads are in forged material with lever made from 3/4" Sch 160 CS pipe



L - Lever: standard design



B - Lever + padlock: on request

### Floating - soft seated

	150	300	600	900	1500	2500
1/2"	Lever	Lever	Lever	Lever	Lever	Lever
3/4"	Lever	Lever	Lever	Lever	Lever	Lever
1"	Lever	Lever	Lever	Lever	Lever	Lever
1.1/2"	Lever	Lever	Lever	Lever	Lever	Gear
2"	Lever	Lever	Lever	Lever	Lever	Gear
3"	Lever	Lever	Gear			
4"	Lever	Gear	Gear			
6"	Gear	Gear	Gear			

### Trunnion mounted - soft seated

	150	300	600	900	1500	2500
3/4"	Lever	Lever	Lever	Lever	Lever	Lever
1"	Lever	Lever	Lever	Lever	Lever	Lever
1.1/2"	Lever	Lever	Lever	Lever	Gear	Gear
2"	Lever	Lever	Lever	Lever	Gear	Gear
3"	Lever	Lever	Gear	Gear	Gear	Gear
4"	Lever	Lever	Gear	Gear	Gear	Gear
6"	Lever	Lever	Gear	Gear	Gear	Gear
>8"	Gear	Gear	Gear	Gear	Gear	Gear

### Floating - metal seated

	150	300	600	900	1500	2500
1/2"	Lever	Lever	Lever	Gear	Gear	Gear
3/4"	Lever	Lever	Lever	Gear	Gear	Gear
1"	Lever	Lever	Lever	Gear	Gear	Gear
1.1/2"	Lever	Lever	Lever	Gear	Gear	Gear
2"	Lever	Lever	Gear	Gear	Gear	Gear
3"	Gear	Gear	Gear			
4"	Gear	Gear	Gear			
6"	Gear	Gear	Gear			

### Trunnion mounted - metal seated

	150	300	600	900	1500	2500
3/4"	Gear	Gear	Gear	Gear	Gear	Gear
1"	Gear	Gear	Gear	Gear	Gear	Gear
1.1/2"	Gear	Gear	Gear	Gear	Gear	Gear
2"	Gear	Gear	Gear	Gear	Gear	Gear
3"	Gear	Gear	Gear	Gear	Gear	Gear
4"	Gear	Gear	Gear	Gear	Gear	Gear
6"	Gear	Gear	Gear	Gear	Gear	Gear
>8"	Gear	Gear	Gear	Gear	Gear	Gear

## Vent and Drain

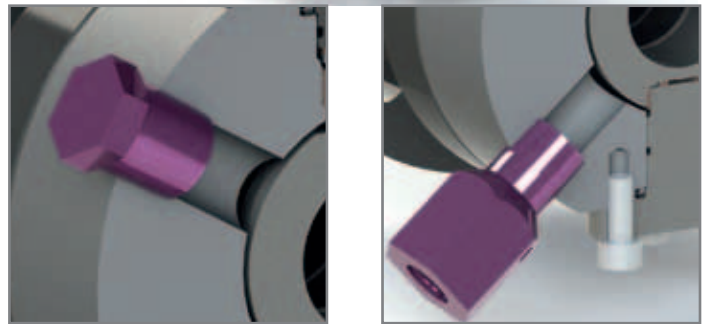
Vogt offer as standard vent and drain with hole size according to the below table. Vent and drain material same as body.

Vent: as standard: Blind plug Threaded NPT, other option on request  
 Drain: as standard Check valve Threaded NPT, other option on request



Vent and Drain	
<b>A</b>	Vent + Drain separated
<b>C</b>	Vent + Drain combined
<b>V</b>	Vent (only)
<b>D</b>	Drain (only)
<b>X</b>	None

Design	Vent	Drain
	Blind NPT pulg	NPT check
<1"	1/4"	1/4"
1.1/2"	1/2"	1/2"
2"	1/2"	1/2"
3"	1/2"	1/2"
4"	3/4"	3/4"
6"	3/4"	3/4"
>8"	1"	1"



## Sealant Injectors

Emergency sealant injection is available on request to restore sealing integrity in case of damaged sealing surfaces

### Stem Sealant injectors

Vogt offer as standard a stem sealant injector

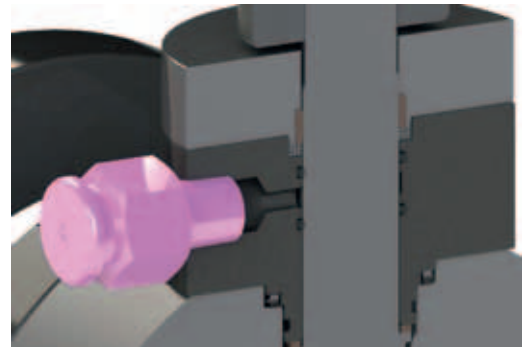
### Seat Sealant injectors

An emergency sealant injection system through the seat up to the ball contact circle may provide temporary sealing until the time when it is possible to restore the primary seal.

Vogt offer seat injection on request.

Grease injectors	
<b>S</b>	Steam
<b>T</b>	Seat
<b>A</b>	Steam + Seat
<b>X</b>	None

Design	Injector	Injector
	on stem	on seats
<1"	no	on request
1.1/2"	yes	on request
2"	yes	on request
3"	yes	on request
4"	yes	on request
6"	yes	on request
>8"	yes	on request



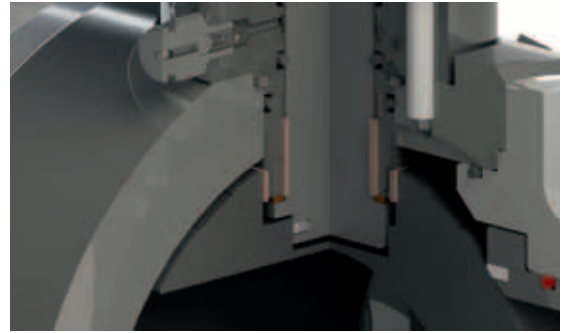
Stem Sealant injector



Seat Sealant injector

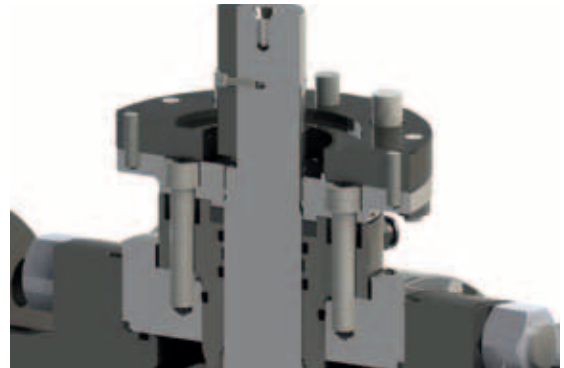
### Antistatic

Internal parts that are insulated from the body may build up a static electric charge.  
 When service conditions require electrical continuity to prevent static discharge, this is ensured by the adoption of coil springs between body, ball and stem.  
 This feature is standard on both Trunnion and Floating type valves



### Anti-Blowout

The design of the valve ensures that the stem cannot be blown out of the body, in the event of the gland being removed while the valve is under pressure.  
 This feature is standard on both Trunnion and Floating type valves



### Supports

#### Cradle / Feet

Vogt valves are equipped with Cradle/feet as per below table

Design	Feet	Cradle
<1"	no	no
1.1/2"	no	no
2"	no	no
3"	no	no
4"	no	no
6"	no	no
>8"	standard	on request



### Lifting Lugs

#### Lifting Lugs

All valves above 8" have lifting lugs as per API6D requirements  
 Vogt offer as standard lifting lugs on valves above 500 Lbs

Design	Lifting Lugs
<1"	no
1.1/2"	no
2"	no
3"	no
4"	no
6"	no
>8"	standard



# Trunnion

## EXAMPLE

<i>B</i>		<i>S</i>		<i>E</i>		<i>1</i>	
Trunnion		Side Entry		Internal Saddle		3 pieces	
TYPE		BODY DESIGN		TYPE		CONSTRUCTION	
<b>B</b>	Trunnion	<b>S</b>	Side Entry	<b>E</b>	Internal Saddle	<b>1</b>	2 Piece
		<b>T</b>	Top Entry	<b>H</b>	External Trunnion	<b>2</b>	3 pieces
		<b>W</b>	Welded				

<i>F</i>	
Raised Face Flanged	
ENDS	
<b>F</b>	Raised Face Flanged
<b>B</b>	Butt Weld
<b>J</b>	Ring Joint Flanged
<b>H</b>	Hub Ends

	<i>1</i>	<i>R</i>
	150	Reduced
	<b>CLASS</b>	<b>PORT</b>
<b>1</b>	150	<b>R</b> Reduced
<b>2</b>	300	<b>F</b> Full
<b>3</b>	600	
<b>8</b>	800	
<b>5</b>	1500	
<b>2</b>	2500	

	<i>1</i>	<i>N</i>
	Reduced	NACE Trim
	<b>BODY MATERIAL</b>	<b>SPECIAL SERVICE / FEATURES</b>
<b>1</b>	A105N Carbon Steel, 316 trim	<b>N</b> NACE Trim
<b>2</b>	LF2 Low Temp Carbon Steel, 316 trim	<b>CRY</b> Cryogenic Service
<b>3</b>	F316 Stainless Steel, 316 trim	<b>EXT</b> Extended Bonnet (Non-Cryo)
<b>5</b>	F51 Duplex Steel, Duplex trim	<b>M2M</b> M2M = Metal Seated
		<b>G</b> Gear operated
		<b>MO</b> Motor operated
		<b>AO</b> Air (Pneumatic) Operated

