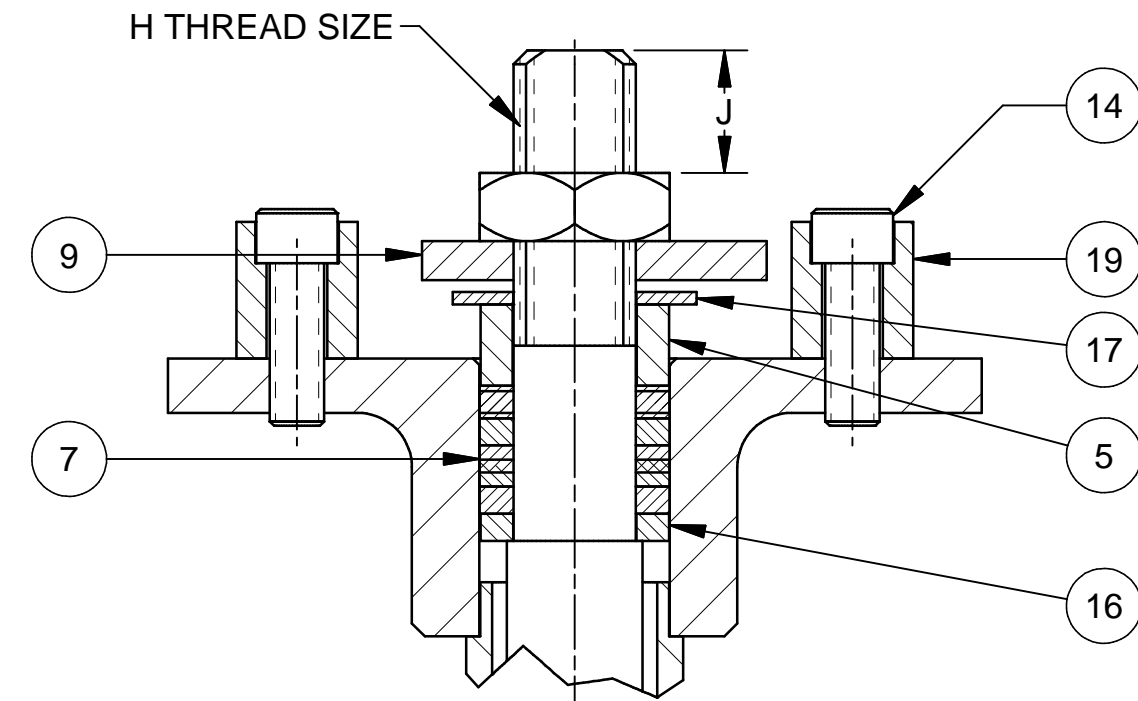
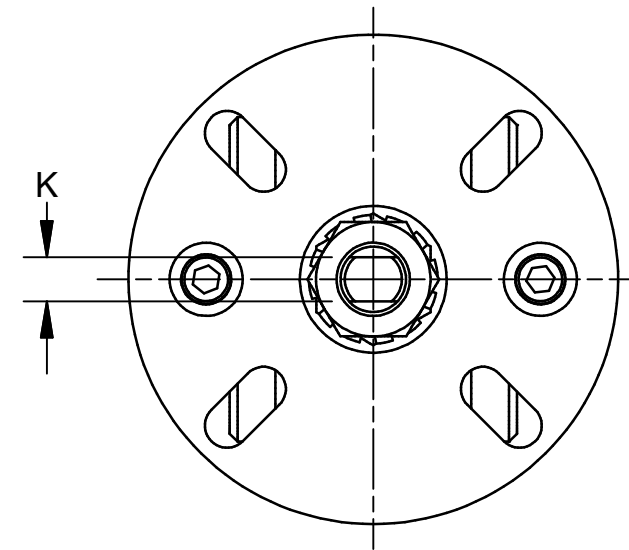
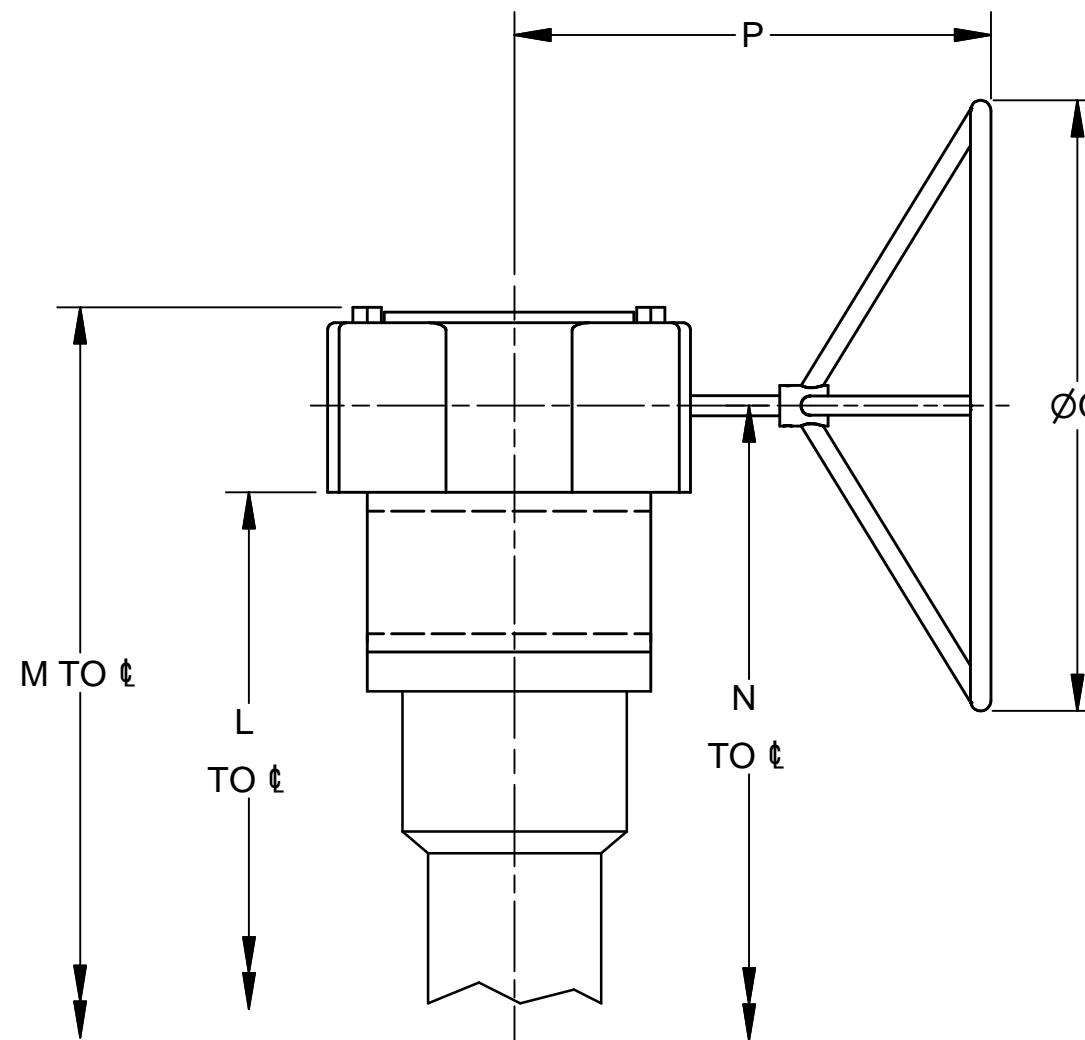
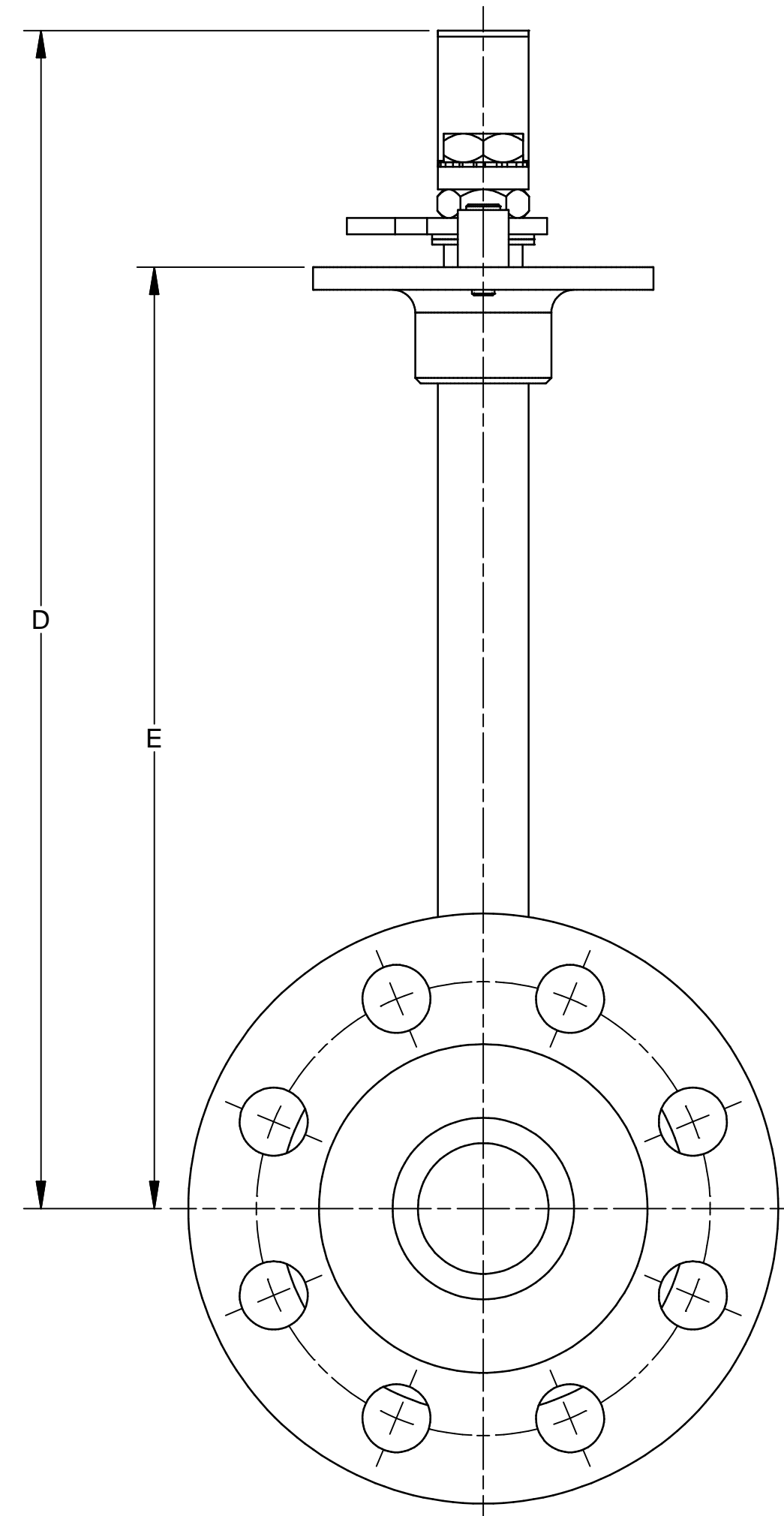
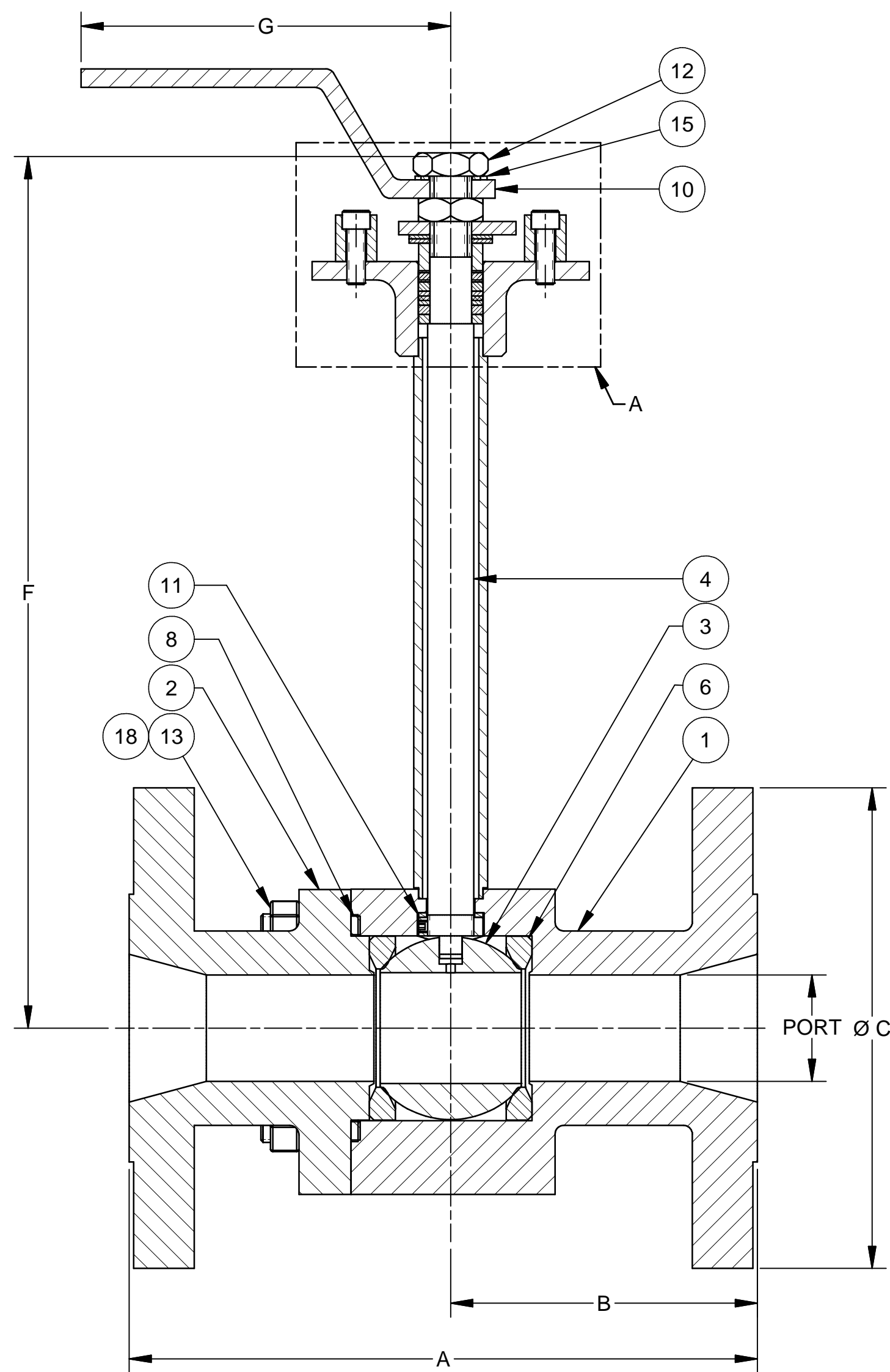
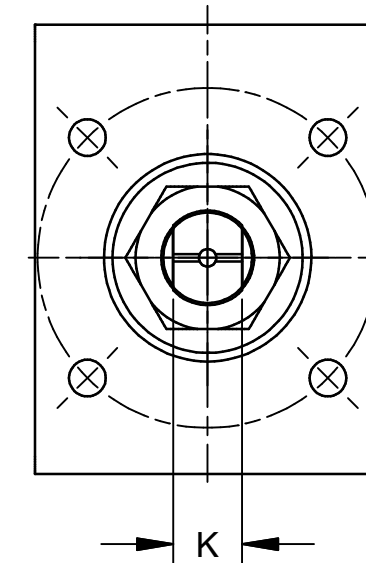


1/2" - 2" MOUNTING CONFIGURATION



DETAIL A

3" - 8" MOUNTING CONFIGURATION



GEAR OPERATOR

21/18 SERIES STD PORT CLASS 150

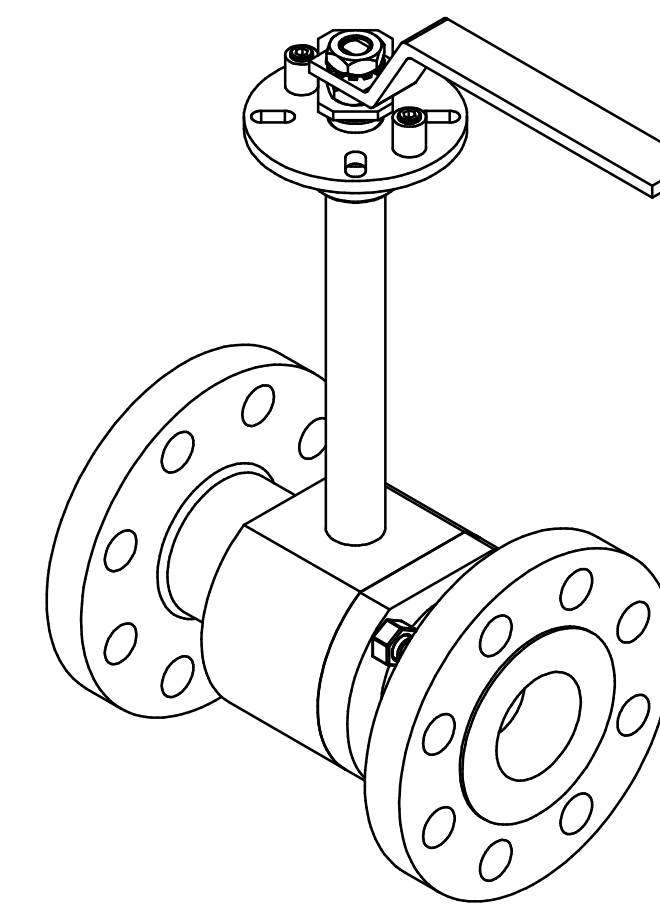
SIZE	PORT	A	B	ØC	D	E	F	G	H	J	K	L	M	N	P	ØQ
1/2"	.38 [9.7]	4.25 [107.8]	1.98 [50.3]	3.5 [88.9]	-	-	-	-	-	-	-	-	-	-	-	-
3/4"	.41 [10.4]	4.62 [117.3]	2.10 [53.3]	3.88 [98.6]	-	-	-	-	-	-	-	-	-	-	-	-
1"	.75 [19.1]	5.00 [127.7]	2.36 [59.4]	4.25 [107.8]	-	-	-	-	-	-	-	-	-	-	-	-
1 1/2"	1.18 [29.9]	6.5 [165.1]	3.02 [76.7]	5.00 [127.0]	-	-	-	-	-	-	-	-	-	-	-	-
2"	1.44 [36.6]	7.00 [177.8]	3.25 [82.6]	6.00 [152.4]	6.00 [152.4]	10.47 [265.9]	11.79 [299.5]	7.55 [191.8]	.563-18	0.52 [13.3]	0.34 [8.6]	-	-	-	-	-
3"	2.5 [63.5]	8.00 [203.2]	3.38 [85.9]	7.50 [190.5]	-	-	-	-	-	-	-	-	-	-	-	-
4"	3.25 [82.6]	9.00 [228.6]	3.63 [92.2]	9.00 [228.6]	-	-	-	-	-	-	-	-	-	-	-	-
6"	4.38 [111.3]	15.50 [393.7]	6.68 [169.7]	11.00 [279.4]	-	-	-	-	-	-	-	-	-	-	-	-
8"	6.00 [152.4]	18.00 [457.2]	8.00 [203.3]	13.50 [342.9]	-	19.91 [505.6]	23.15 [588.0]	-	2.000-16	1.67 [42.4]	1.25 [31.6]	25.91 [658.0]	29.17 [740.9]	27.50 [696.1]	15.75 [399.9]	30.00 [762.0]

21/18 SERIES STD PORT CLASS 300

SIZE	PORT	A	B	ØC	D	E	F	G	H	J	K	L	M	N	P	ØQ
1/2"	.38 [9.7]	5.50 [139.7]	2.51 [63.8]	3.75 [95.3]	9.9 [251.5]	7.88 [200.2]	8.85 [224.8]	5.50 [139.7]	.375-24	0.39 [9.9]	0.23 [5.8]	-	-	-	-	-
3/4"	.41 [10.4]	6.00 [152.4]	2.45 [62.2]	4.62 [117.3]	-	-	-	-	-	-	-	-	-	-	-	-
1"	.75 [19.1]	6.50 [165.1]	3.08 [78.2]	4.88 [123.9]	-	-	-	-	-	-	-	-	-	-	-	-
1 1/2"	1.18 [29.9]	7.32 [185.9]	3.25 [82.6]	6.12 [155.4]	12.71 [322.8]	10.26 [260.6]	11.60 [294.6]	7.55 [191.8]	.563-18	0.64 [16.3]	0.34 [8.6]	-	-	-	-	-
2"	1.44 [36.6]	8.50 [215.9]	4.15 [105.4]	6.50 [165.1]	12.98 [329.7]	10.37 [263.4]	11.79 [299.5]	7.55 [191.8]	.563-18	0.56 [14.2]	0.34 [8.6]	-	-	-	-	-
3"	2.5 [63.5]	11.12 [282.4]	4.27 [108.5]	8.25 [209.6]	-	-	-	-	-	-	-	-	-	-	-	-
4"	3.25 [82.6]	12.00 [304.8]	4.88 [123.9]	10.00 [254.0]	-	-	-	-	-	-	-	-	-	-	-	-
6"	4.38 [111.3]	15.88 [403.4]	7.06 [179.3]	12.50 [317.5]	-	18.97 [481.8]	22.12 [561.8]	-	1.750-12	1.56 [39.6]	1.25 [31.8]	-	-	-	-	-
8"	6.00 [152.4]	19.75 [501.7]	8.87 [225.3]	15.00 [381.0]	-	19.91 [505.7]	23.15 [588.0]	-	1.875-12	1.53 [38.9]	1.25 [31.8]	24.03 [610.4]	27.91 [708.9]	25.78 [654.8]	-	24.00 [609.6]

21/18 SERIES STD PORT CLASS 600

SIZE	PORT	A	B	ØC	D	E	F	G	H	J	K	L	M	N	P	ØQ
1/2"	.41 [10.4]	7.50 [190.5]	2.70 [68.6]	4.62 [117.3]	10.04 [255]	7.98 [202.7]	8.93 [226.8]	5.57 [141.5]	.375-24	0.37 [9.4]	0.23 [5.8]	-	-	-	-	-
3/4"	.75 [19.1]	8.50 [215.9]	3.33 [84.6]	4.88 [124.0]	10.13 [257.3]	8.19 [208.0]	9.34 [237.2]	-	.438-20	0.38 [9.7]	0.30 [7.6]	-	-	-	-	-
1"	1.18 [29.9]	9.50 [241.3]	4.52 [114.8]	6.12 [155.4]	12.40 [315.0]	10.24 [260.1]	11.60 [294.6]	7.55 [191.8]	.563-18	0.64 [16.2]	0.34 [8.6]	-	-	-	-	-
1 1/2"	2.5 [63.5]	14.00 [355.6]	4.61 [117.1]	8.25 [209.6]	-	15.46 [392.7]	17.91 [454.9]	-	1.375-12	0.75 [19.1]	1.00 [25.4]	19.46 [494.3]	22.64 [575.1]	20.96 [532.4]	15.75 [400.1]	30.00 [762.0]
2"	3.25 [82.6]	17.00 [431.8]	6.63 [168.4]	10.75 [273.1]	-	16.10 [408.9]	18.52 [470.4]	-	1.375-12	0.75 [19.1]	1.00 [25.4]	20.10 [510.5]	23.36 [593.3]	21.60 [548.6]	15.75 [400.1]	30.00 [762.0]
3"	4.38 [111.3]	22.00 [558.8]	8.28 [210.3]	14.00 [355.6]	-	18.67 [474.2]	21.95 [557.5]	-	1.750-12	1.30 [33.0]	1.25 [31.8]	-	-	-	16.51 [419.4]	30.00 [762.0]
4"	6.00 [152.4]	26.00 [660.4]	11.75 [298.5]	16.50 [419.1]	-	25.09 [637.3]	30.38 [771.7]	-	2.500-12	2.08 [52.8]	1.75 [44.5]	31.09 [789.7]	36.52 [927.6]	36.21 [919.7]	22.79 [578.9]	30.00 [762.0]



ITEM	DESCRIPTION	SPARES
1	BODY WELDMENT	
2	ENDPLATE	
3	BALL	
4	STEM ASSY	
5	FOLLOWER	
6	SEAT	*
7	STEM SEAL	*
8	BODY SEAL	*
9	LOCK STOP	
10	HANDLE	
11	THRUST BEARING	*
12	STEM NUT	
13	BODY NUT	
14	CAP SCREW	
15	LOCK WASHER	
16	SEAL WASHER	
17	BELLEVILLE WASHER	
18	BODY STUD	
19	STOP CAM	

NOTES:

- REFER TO TBV™ CRYOGENIC BALL VALVE BROCHURE FOR MATERIAL SPECIFICATIONS AND ADDITIONAL INFORMATION.
- CONTACT TBV ENGINEERING FOR DIMENSIONAL INFORMATION NOT LISTED ABOVE.

SURFACE TREATMENT	DO NOT SCALE			VALVES & MEASUREMENT
	DRAWN BY: VJAY	DATE: 17 Oct 14		
MATERIAL & HEAT TREAT	CHECKED BY: M.RAVI	DATE: 17 Oct 14	DIMENSIONAL DRAWING 1/2" - 8" SP CLASS 150,300,600 21/18 TBV™ CRYO BALL VALVE	
	APPROVED BY: M.GLAVIN	DATE: 17 Oct 14		
ESTIMATED WEIGHT:	33.2 LBS 15.1 KG	INITIAL USE BM:	SHEET 1 of 1	REV: 01

8M-701-2694