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TECHNICAL DATASHEET
KROMBACH[®] Soft Seated Ball Valves
According to ASME Standard
Type KH 1027 - 1037



Class 150 & 300 With Hand Lever Dimensions and Weights

Soft-Seated Ball Valves According to ASME Standards

Ball valves as per ASME B16.34, split body design, with full-port, maintenance-free, gland packing and hand lever with locking possibility or with side-mounted operating gear and hand wheel.

Features include:

- face-to-face dimension ASME B16.10 design
- full bore
- fire-safe-design
- anti-static conductance
- stem blow-off proof,
- mounting flange for actuators according to DIN ISO 5211
- standard design maintenance-free stem sealing
- flanged ASME B16.5 RF
- TA-Luft design



Standard hand lever with locking device.

Scope of Supply

Order No.	Class	Face-to-face dimension	Body Material
KH 1027	150	ASME B16.10 Table 11-Column 18	Stainless steel casting A351 Grade CF8M
KH 1027	300	ASME B16.10 Table 12-Column 7	Stainless steel casting A351 Grade CF8M
KH 1037	150	ASME B16.10 Table 11-Column 18	Steel casting A216 Grade WCB
KH 1037	300	ASME B16.10 Table 12-Column 7	Steel casting A216 Grade WCB

Class 150 with Hand Lever - Dimensions and Weights

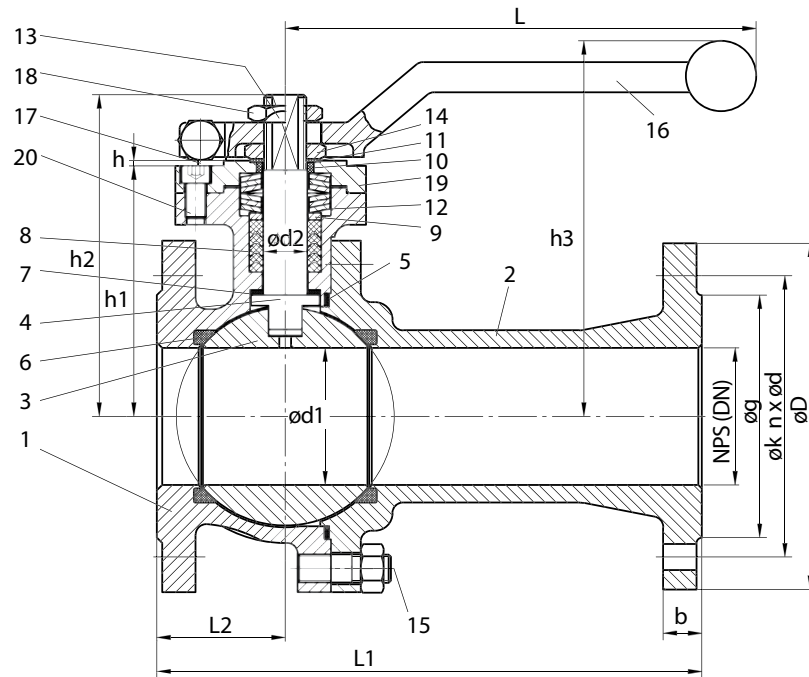
NPS	Build Measurement		Flange Connection					Ball	Stem	DIN ISO 5211		Extension Measurement					Wt lbs.
	L1	L2	b	D	k	n x d	g			F	Thread UNC	h	h1	h2	h3	L	
1/2"	108	46	11.2	90	60.3	4x15.8	34.9	15	14	F05	1/4-20	2	56	78	107	197	7.28
3/4"	117	50	12.7	100	69.9	4x15.8	42.9	20	14	F05	1/4-20	2	61	86	112	197	9.26
1"	127	52	14.3	110	79.4	4x15.8	50.8	25	14	F05	1/4-20	2	66	90	117	197	10.8
1 1/2"	165	71	17.5	125	98.4	4x15.8	73.0	38	18	F07	5/16-18	3	91	131	159	304	21.0
2"	178	74	19.1	150	120.7	4x19	92.1	50	18	F07	5/16-18	3	99	141	169	304	26.0
3"	203	86	23.9	190	152.4	4x19	127.0	78	25	F10	3/8-16	3	142.5	183	225	424	57.3
4"	229	97	23.9	230	190.5	8x19	157.2	100	25	F10	3/8-16	3	162.5	203	244	514	84.0
6"	394	197	25.5	279	241.3	8x22.2	215.9	150	39	F14	5/8-11	3	244	244	319	700	231.5

Class 300 with Hand Lever - Dimensions and Weights

NPS	Build Measurement		Flange Connection					Ball	Stem	DIN ISO 5211		Extension Measurement					Wt lbs.
	L1	L2	b	D	k	n x d	g			F	Thread UNC	h	h1	h2	h3	L	
1/2"	140	51.5	14.3	95	66.7	4x15.8	34.9	15	14	F05	1/4-20	2	56	78	107	197	9.26
3/4"	152	53.5	15.9	115	82.6	4x19	42.9	20	14	F05	1/4-20	2	61	86	112	197	11.7
1"	165	58	17.5	125	88.9	4x19	50.8	25	14	F05	1/4-20	2	66	90	117	197	13.7
1 1/2"	190	76	20.7	155	114.3	4x22.2	73.0	38	18	F07	5/16-18	3	91	131	159	304	26.2
2"	216	81	22.3	165	127	8x19	92.1	50	18	F07	5/16-18	3	99	141	169	304	31.1
3"	282	99	28.6	210	168.3	8x22.2	127.0	78	25	F10	3/8-16	3	142.5	183	225	424	63.5
4"	305	112	31.8	255	200	8x22.2	157.2	100	25	F10	3/8-16	3	162.5	203	244	514	93.7
6"	403	201.5	36.6	320	269.9	12x22.2	215.9	269.9	150	F14	5/8-11	3	244	244	319	700	308.6

Standard Design Materials of Construction

KH 1027/B-C NPS ½" - 4"
 KH 1037/B-C NPS ½" - 4"
 KH 1027/A-C NPS 6"
 KH 1037/A-C NPS 6"

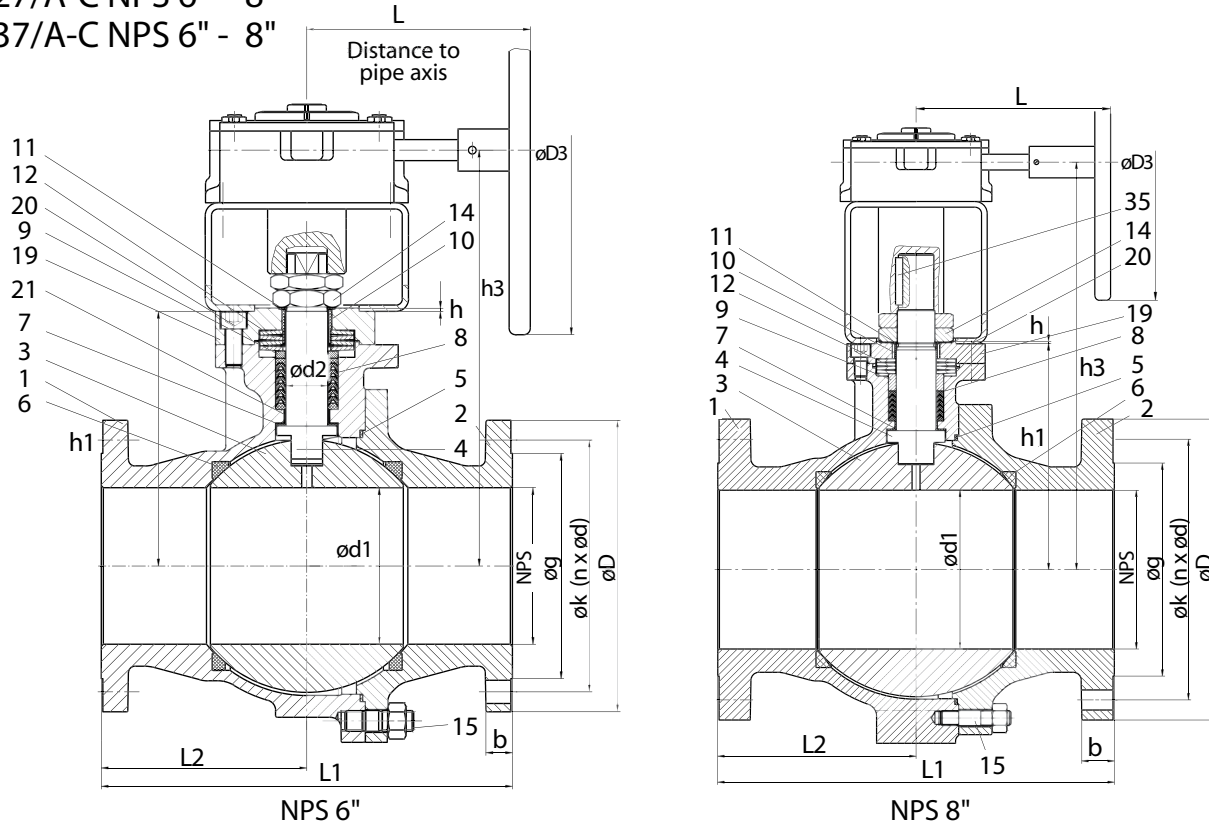


Materials of Construction

Item	Designation	KH 1027 Material	KH 1037 Material
1	Body	CF8M	WCB
2	Flange Part	CF8M	WCB
3	Ball	316 Ti / CF8M	
4	Stem	F51	
5	Body Sealing	PTFE	
6	Seat	TFM	
7	Stem Sealing	PTFE	
8	Sealing	PTFE / TFM 4220 Conductive	
9	Pressure Ring	316 Ti	
10	Guide Bush	PTFE, PTFE / GFK	
11	Sliding Ring	PTFE / Coal	
12	Cup Spring	301	
13	Locking Plate	321	
14	Stem Nut	A4-50 / 316	
15	Stud Bolt with Nut	A193 Grade B8M CL2 / A194 Grade 8M	
16	Hand Lever	316Ti / CF8M	
17	Stop Screw	B8M / A4-70	
18	Hand Lever Nut	316 Ti	
19	Flange	316Ti / 1.4571	
20	Cheese-Head Screw	B8M / A4-70	
21	Guide Sleeve	IGLIDUR	

Class 150 & 300 With Gear Dimensions and Weights

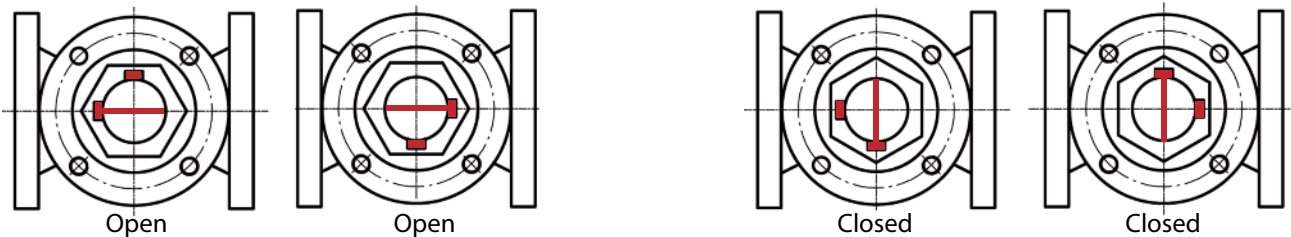
KH 1027/A-C NPS 6" - 8"
KH 1037/A-C NPS 6" - 8"



With Gear - Dimensions and Weights

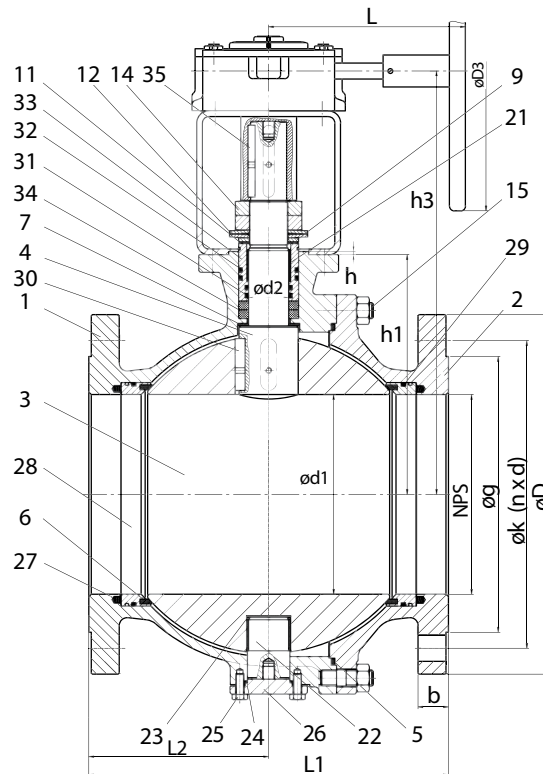
Class	NPS	Build Measurement												Wt	DIN ISO 5211		Gearbox
		L1	L	b	L2	D	k	n x d	g	h	h1	h3	D3	lbs.	F	Thread UNC	Pro-Gear
150	6"	394	309	25.4	197	279	241.3	8x22.2	215.9	3	244	379	400	254	F14	5/8-11	Q-1500S/F14
300	6"	403	309	36.6	201.5	320	269.9	12x22.2	215.9	3	244	379	400	331	F14	5/8-11	Q-1500S/F14
150	8"	457	321	28.6	228	343	298.5	8x22.2	269.9	3	286	456	400	430	F14	5/8-11	Q-2000S/F14
300	8"	502	321	41.3	251	380	330.2	12x25.4	269.9	3	286	516	400	558	F14	5/8-11	Q-2000S/F14
150	10"	533	363	30.2	222	406	362	12x25.4	323.8	4	303	528.5	500	659	F14	5/8-11	Q-3000S/F16
300	10"	568	363	47.6	238	444	387	16x28.6	323.8	5	285	553.5	500	902	F16	3/4-10	Q-3000S/F16
150	12"	610	408	31.8	305	483	431.8	12x25.4	381	5	335	609.5	500	1095	F16	3/4-10	Q-4000S/F16
300	12"	648	440	50.8	324	521	450.8	16x31.8	381	5	335	659.5	500	1408	F25	5/8-11	Q-6500S/F25

Possible Key Fitting Positions (Standard Option)



Trunion Mounted Design **Materials of Construction**

KH 1027 NPS 10" - 12"
KH 1037 NPS 10" - 12"



Materials of Construction

Item	Designation	KH 1027 Material	KH 1037 Material	Item	Designation	Material
1	Body	CF8M	WCB	21	Guide Sleeve	IGLIDUR
2	Flange Part	CF8M	WCB	22	Pin	316Ti / 1.4571
3	Ball	316 Ti / CF8M		23	Slip Ring	PTFE / GFK
4	Stem	F51		24	Sealing	PTFE
5	Body Sealing	PTFE		25	Stud Bolt with Nut	A193 Gr. B8M CL2 / A194 Gr. 8M
6	Seat	TFM		26	Cover	316Ti / 1.4571
7	Stem Sealing	PTFE		27	Pressure Spring	1.4310 / 301
8	Sealing	PTFE / TFM 4220 Conductive		28	Retaining Ring	316Ti / 1.4571
9	Pressure Ring	316 Ti		29	O-Ring	Viton®
10	Guide Bush	PTFE, PTFE / GFK		30	Fitting Key	316Ti / 1.4571
11	Sliding Ring	PTFE / Coal		31	O-Ring	Viton®
12	Cup Spring	6150 galv.		32	O-Ring	Viton®
14	Stem Nut	A4-50 / 316		33	Stuffing Box	316Ti / 1.4571
15	Stud Bolt with Nut	A193 Gr. B8M CL2 / A194 Gr. 8M		34	Stuffing Box-Ring	PTFE
19	Flange	316Ti / 1.4571		35	Fitting Key	Stainless Steel
20	Cheese-Head Screw	B8M / A4-70				

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Top Flange Dimensions

Figure 1.0

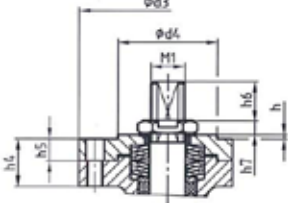


Figure 1.1

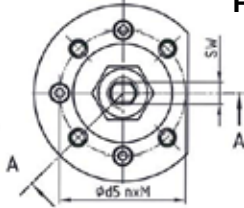


Figure 1.2

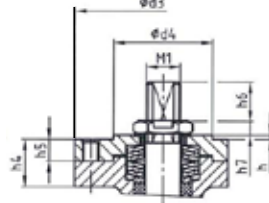


Figure 1.3

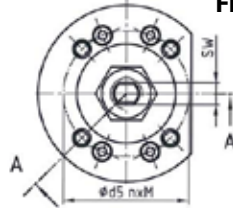


Figure 2

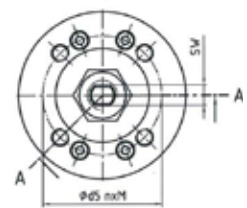
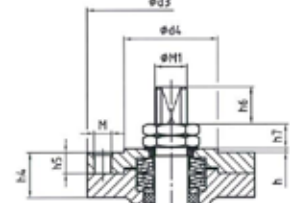


Figure 3

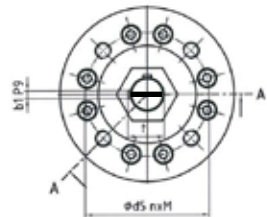
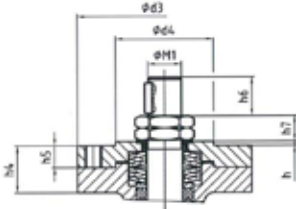


Figure 4

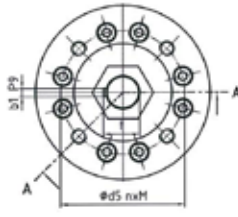
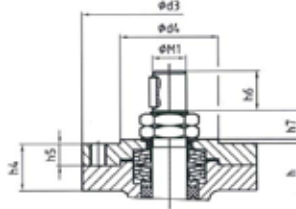


Figure 5

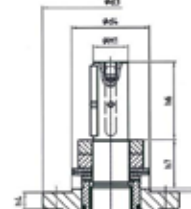
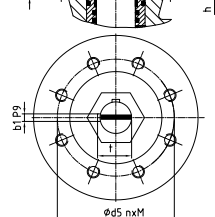
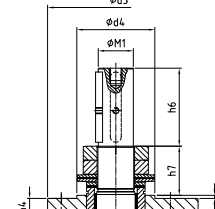


Figure 6

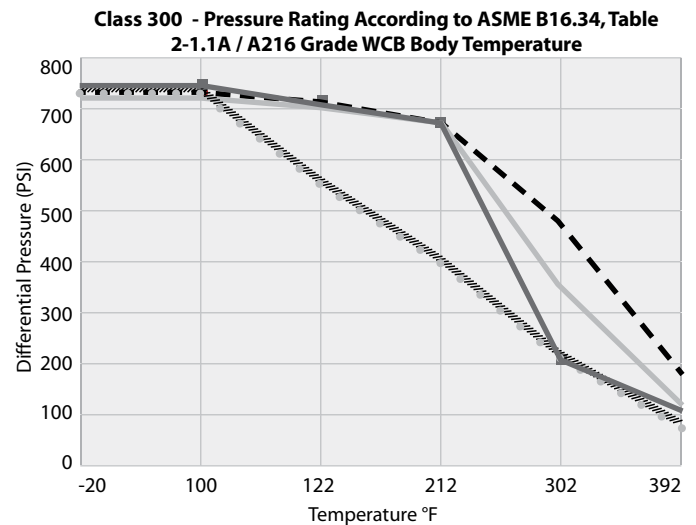
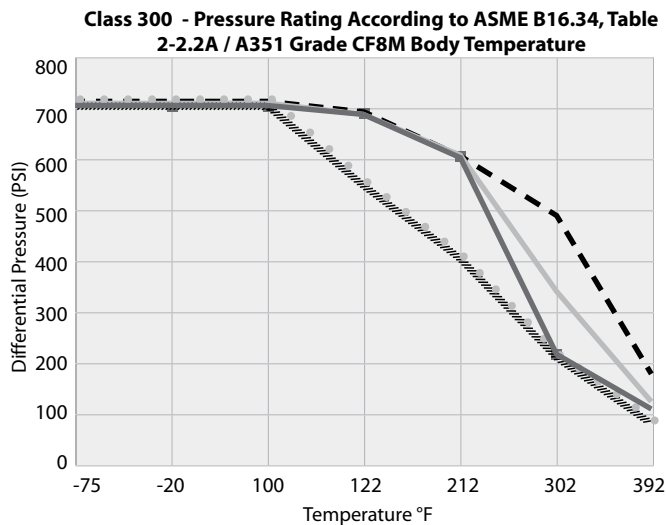
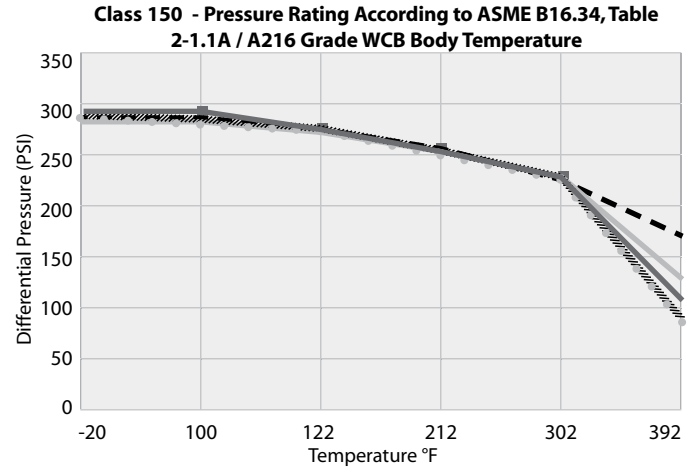
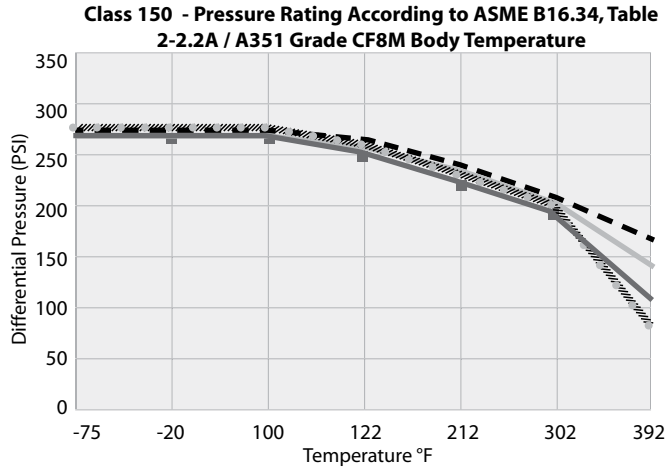


Top Flange Dimensions

NPS	1/2", 3/4", 1"	1 1/2", 2"	3", 4"	6"	6"	8"	8"	10"	10"	12"	12"	
Class	150/300	150/300	150/300	150	300	150	300	150	300	150	300	
Figure	1.0 and 1.1	1.0 and 1.3	1.2 and 1.3	2	2	3	4	5	5	5	6	
DIN ISO 5211	F05	F07	F10	F14	F14	F14	F14	F14	F16	F16	F25	
d3	65	90	125	175	175	175	175	175	210	210	300	
d5	50	70	102	140	140	140	140	140	165	165	254	
nxM (UNC)	4x1/4-20	4x5/16-18	4x3/8-16	4x5/8-11	4x5/8-11	4x5/8-11	4x5/8-11	4x5/8-11	4x3/4-10	4x3/4-10	8x5/8-11	
d4	35 ^{-0.025} / _{-0.064}	55 ^{-0.030} / _{-0.076}	70 ^{-0.030} / _{-0.076}	100 ^{-0.036} / _{-0.09}	100 ^{-0.036} / _{-0.09}	100 ^{-0.036} / _{-0.09}	100 ^{-0.036} / _{-0.09}	100 ^{-0.036} / _{-0.09}	100 ^{-0.036} / _{-0.09}	100 ^{-0.043} / _{-0.106}	130 ^{-0.043} / _{-0.106}	200 ^{-0.05} / _{-0.122}
SW	10	14	19	32	32							
M1	M14x1.5	M18x1.5	M24x2	M39x3	M39x3	40	45	45	60	60	72	
h	2	3	3	3	3	3	3	4	5	5	5	
h5	8	9	16.5	32	32	25	25					
h4	17	19	34	54	61	46	46	22	21	21	30	
h6	11-13	20-22	31-33	20-22	20-22	63	71	100	120	90	119	
h7	11-9	12-9	14-11	33	33	35	40	63	67	69.5	70.5	
b1	-	-	-	-	-	12 ^{-0.018} / _{-0.061}	14 ^{-0.018} / _{-0.061}	14 ^{-0.018} / _{-0.061}	18 ^{-0.018} / _{-0.061}	18 ^{-0.018} / _{-0.061}	20 ^{-0.022} / _{-0.074}	
t	-	-	-	-	-	43	48.5	48.5	64	64	76.5	
Stem ends with	Double D	Double D	Double D	Double D	Double D	2 Parallel Key	1 Parallel Key	2 Parallel Key	2 Parallel Key	2 Parallel Key	2 Parallel Key	

Pressure / Temperature Range and Torque Values

Maximum allowable pressure (PSI) on seats of TFM at listed temperatures.



½" - 1"
 1½" - 2"
 3" - 4"
 6" - 8"
 10" - 12"

Torque Values

DN mm	NPS inches	ΔP Up To:		ΔP Up To:		ΔP Up To:		Max. Allowable Stem Torque	
		10 Bar Nm	145 PSI ft lb(f)	25 Bar Nm	363 PSI ft lb(f)	40 Bar Nm	571 PSI ft lb(f)	Nm	ft lb(f)
15	½"	13	10	15	11	16	12	44	32
20	¾"	16	12	17	13	18	13	62	46
25	1"	20	15	21	15	22	16	62	46
40	1½"	43	32	50	37	52	38	115	85
50	2"	65	48	72	53	75	55	115	85
80	3"	91	67	100	74	105	77	450	332
100	4"	130	96	143	105	150	111	450	332
125	5"	220	162	285	210	330	243	450	332
150	6"	450	332	720	531	820	605	1300	959
200	8"	1000	738	1200	885	1450	1069	3770	2781
250	10"	1700	1254	1950	1438	2360	1741	5368	3959
300	12"	2400	177	2800	2065	3400	2508	12723	9384

These standard torque values are valid for lubricating fluids (i.e water, oil at 100°F)

IMPORTANT! If Non-Lubrication medias (i.e. Gases, Benzine) or adhesive medias are used, increasing torque values have to be considered.



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