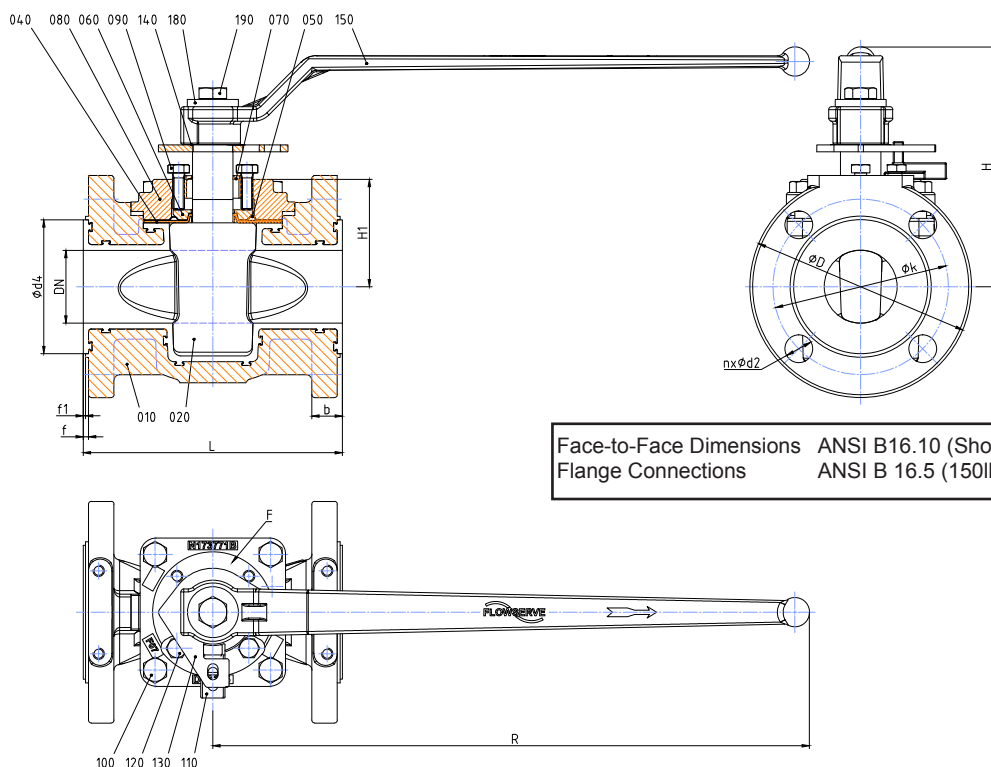


Register 18 Contents - T4E

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Technical Data T4E-1 DN½" to DN6"



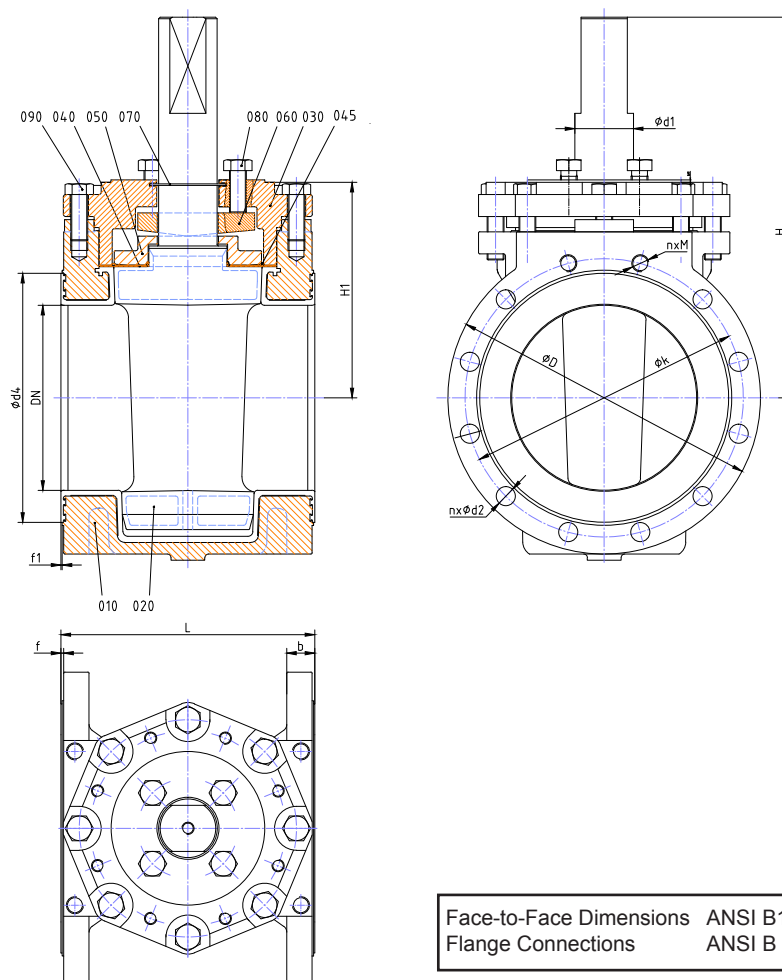
Face-to-Face Dimensions ANSI B16.10 (Short Pattern)
 Flange Connections ANSI B 16.5 (150lbs)

DN / ANSI		L	f1	f	b	H1	H	Ød4
½"	mm	108	1,5	3	14	53,8	139	36
	inch	4,25	0,06	0,12	0,55	2,12	5,47	1,42
¾"	mm	117,5	1,5	3	15,5	53,8	139	43
	inch	4,6	0,06	0,12	0,61	2,12	5,47	1,69
1"	mm	127	1,5	3	15,6	53,8	139	51
	inch	5	0,06	0,12	0,61	2,12	5,47	2,01
1½"	mm	165	2	4	20	62,9	145	73
	inch	6,5	0,08	0,16	0,79	2,48	5,71	2,87
2"	mm	178	1,5	3,5	21	73,8	165	92
	inch	7	0,06	0,14	0,83	2,91	6,5	3,62
3"	mm	203	1,5	3	25,5	86,4	179	127
	inch	8	0,06	0,12	1	3,4	7,05	5
4"	mm	229	2	4	26,5	106,9	222	157
	inch	9	0,08	0,16	1,04	4,21	8,74	6,18
6"	mm	267	2	4	28	141,4	-	208
	inch	10,5	0,08	0,16	1,1	5,57	-	8,19

DN / ANSI		ØD	R	ØK	nxØd2	weight
½"	mm	88,9	260	60,5	4x16	kg 3,7
	inch	3,5	10,24	2,38	4x0,63	lbs 8,2
¾"	mm	98,6	260	69,9	4x16	kg 4,1
	inch	3,88	10,24	2,75	4x0,63	lbs 9,0
1"	mm	107,9	260	79,2	4x16	kg 4,9
	inch	4,25	10,24	3,12	4x0,63	lbs 10,8
1½"	mm	127	260	98,6	4x16	kg 7,4
	inch	5	10,24	3,88	4x0,63	lbs 16,3
2"	mm	152,4	410	120,7	4x19	kg 11,3
	inch	6	16,14	4,75	4x0,75	lbs 24,9
3"	mm	190,5	410	152,4	4x19	kg 17,5
	inch	7,5	16,14	6	4x0,75	lbs 38,6
4"	mm	228,6	674	190,5	8x19	kg 31,1
	inch	9	26,54	7,5	8x0,75	lbs 68,5
6"	mm	282	-	240,5	8x23	kg 43,2
	inch	11,1	-	9,5	8x0,91	lbs 95,2

* Gear operated

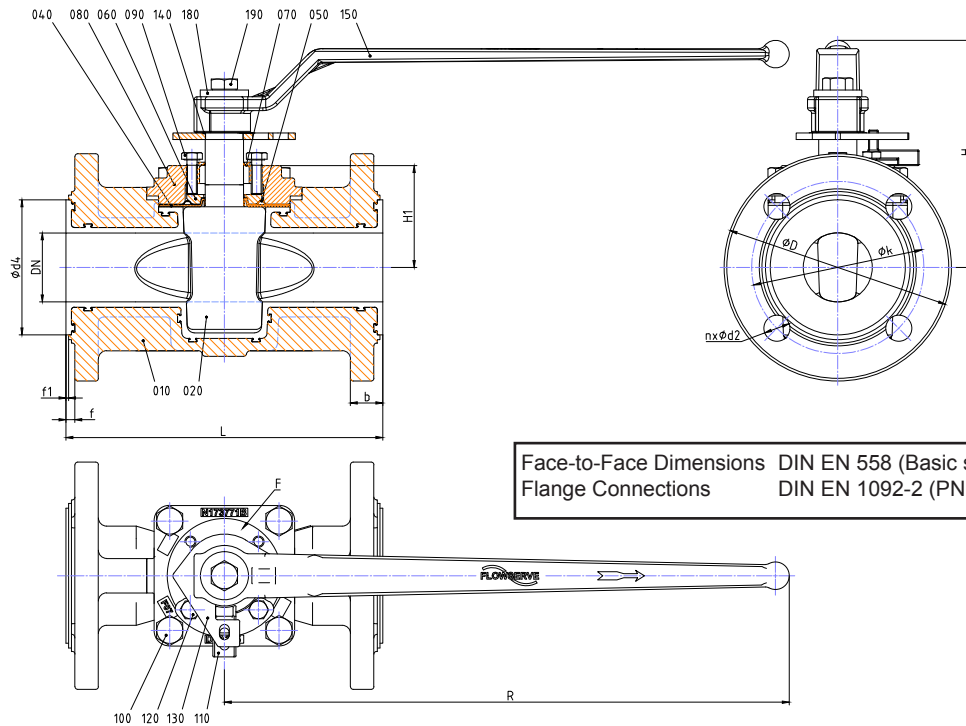
Technical Data T4E-1 DN8" to DN12"



DN / ANSI		L	f1	f	b	H1	H	Ød4
8"	mm	292,1	2	4	27,5	235,4	402	262
	inch	11,5	0,08	0,16	1,08	9,27	15,83	10,31
10"	mm	330,2	2	4	37	280,2	495,0	316
	inch	13	0,08	0,16	1,46	11	19	12,44
12"	mm	355,6	2	4	40	301,6	517	381
	inch	14	0,08	0,16	1,57	11,87	20,35	15

DN / ANSI		ØD	Øk	nxd2	Ød1	nxM	weight	
8"	mm	342,9	298,5	6x22	63,4	2xUNC 3/4"	kg	157,0
	inch	13,5	11,75	6x0,87	2,5		lbs	346,1
10"	mm	406,4	362	10x25	76,2	2xUNC 7/8"	kg	190,0
	inch	16	14,25	10x0,98	3		lbs	418,9
12"	mm	482,6	432	10x25	76,2	2xUNC 7/8"	kg	220,0
	inch	19	17,01	10x0,98	3		lbs	485,0

Technical Data T4E-2 DN15 to DN150

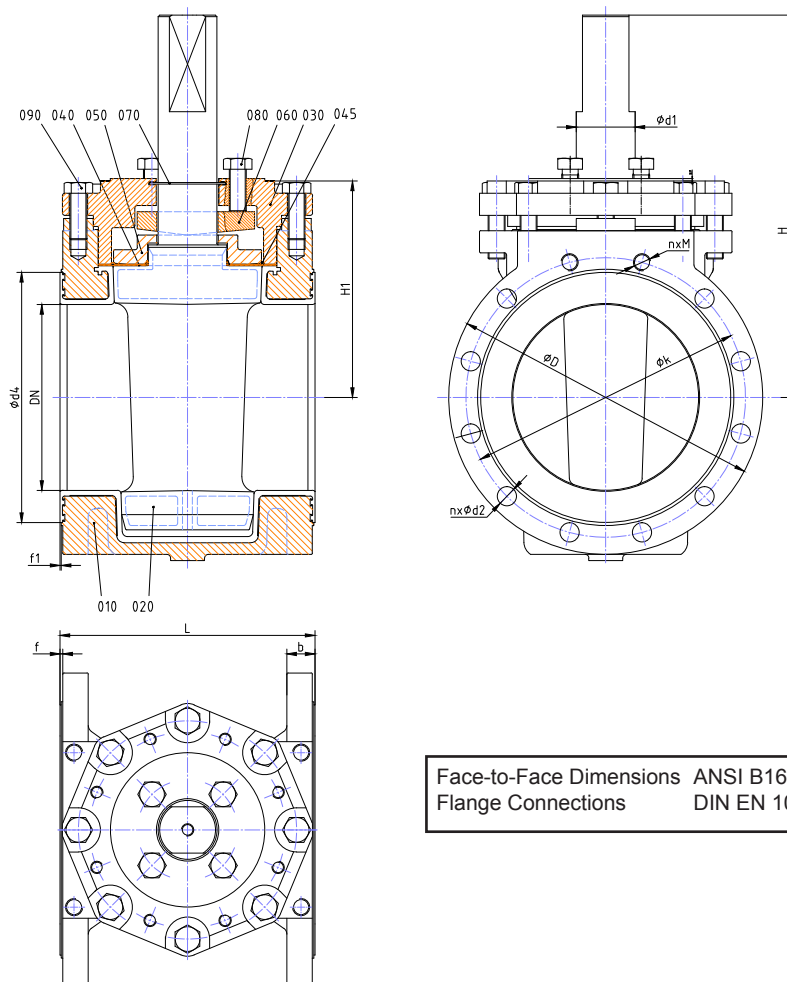


DN / DIN		L	f1	f	b	H1	H	Ød4
015	mm	130	2	6	18	53,8	139	42
	inch	5,12	0,08	0,24	0,71	2,12	5,47	1,65
020	mm	150	2	6	22	53,8	139	56
	inch	5,91	0,08	0,24	0,87	2,12	5,47	2,2
025	mm	160	2	6,5	20,5	53,8	139	65
	inch	6,3	0,08	0,26	0,81	2,12	5,47	2,56
040	mm	200	2	6,5	21,5	62,9	145	85
	inch	7,87	0,08	0,26	0,85	2,48	5,71	3,35
050	mm	230	2	6,5	23,5	73,8	165	98
	inch	9,06	0,08	0,26	0,93	2,91	6,5	3,86
080	mm	310	2,0	7	26	86,4	179	133
	inch	12,2	0,08	0,28	1,02	3,4	7,05	5,24
100	mm	350	2	7	28	106,9	222	152
	inch	13,78	0,08	0,28	1,1	4,21	8,74	5,98
150 *	mm	267	2	4	28	141,4	-	208
	inch	10,51	0,08	0,16	1,1	5,57	-	8,19

DN / DIN		ØD	R	Øk	nxd2	weight	
015	mm	95	260	65	4x14	kg	4,2
	inch	3,74	10,24	2,56	4x0,55	lbs	9,3
020	mm	105	260	75	4x14	kg	4,9
	inch	4,13	10,24	2,95	4x0,55	lbs	10,8
025	mm	115	260	85	4x14	kg	5,8
	inch	4,53	10,24	3,35	4x0,55	lbs	12,8
040	mm	150	260	110	4x19	kg	9,1
	inch	5,91	10,24	4,33	4x0,75	lbs	20,1
050	mm	165	410	125	4x19	kg	13,2
	inch	6,5	16,14	4,92	4x0,75	lbs	29,1
080	mm	200	410	160	8x19	kg	20,8
	inch	7,87	16,14	6,3	8x0,75	lbs	45,8
100	mm	220	674	180	8x19	kg	34,7
	inch	8,66	26,54	7,09	8x0,75	lbs	76,5
150 *	mm	282	-	240,5	8x23	kg	43,2
	inch	11,1	-	9,47	8x0,91	lbs	95,2

* Face-to-Face Dimensions acc. ANSI B 16.10 (Short Pattern) & Gear operated

Technical Data T4E-2 DN200 to DN300

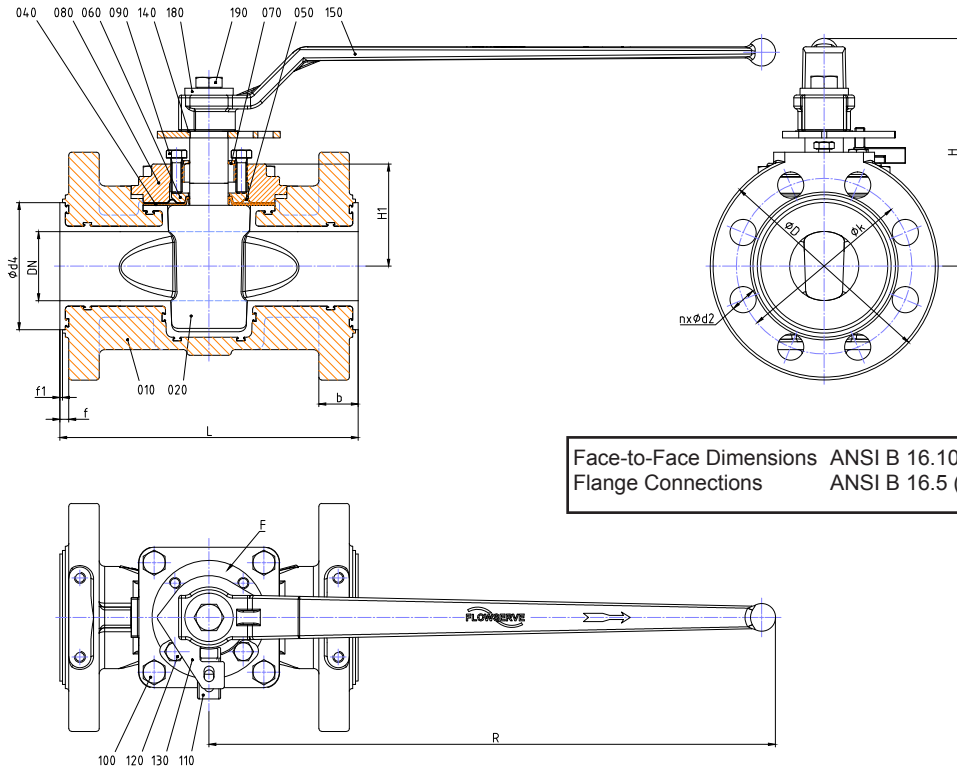


Face-to-Face Dimensions ANSI B16.10 (Short Pattern)
 Flange Connections DIN EN 1092-2 (PN10)

DN / DIN		L	f1	f	b	H1	H	Ød4
200	mm	292,1	2	4	27,5	235,4	402	262
	inch	11,5	0,08	0,16	1,08	9,27	15,83	10,31
250	mm	330,2	2	4	37	280,2	495,0	316
	inch	13	0,08	0,16	1,46	11	19	12,44
300	mm	355,6	2	4	40	301,6	517	381
	inch	14	0,08	0,16	1,57	11,87	20,35	15

DN / DIN		ØD	Øk	nxd2	Ød1	nxM	weight	
200	mm	342,9	295	6x22	63,4	2xM20	kg	157,0
	inch	13,5	11,61	6x0,87	2,5		lbs	346,1
250	mm	406,4	350	10x22	76,2	2xM20	kg	190,0
	inch	16	13,78	10x0,87	3		lbs	418,9
300	mm	482,6	400	10x22	76,2	2xM20	kg	220,0
	inch	19	15,75	10x0,87	3		lbs	485,0

Technical Data T4E-3 DN½" to DN6"



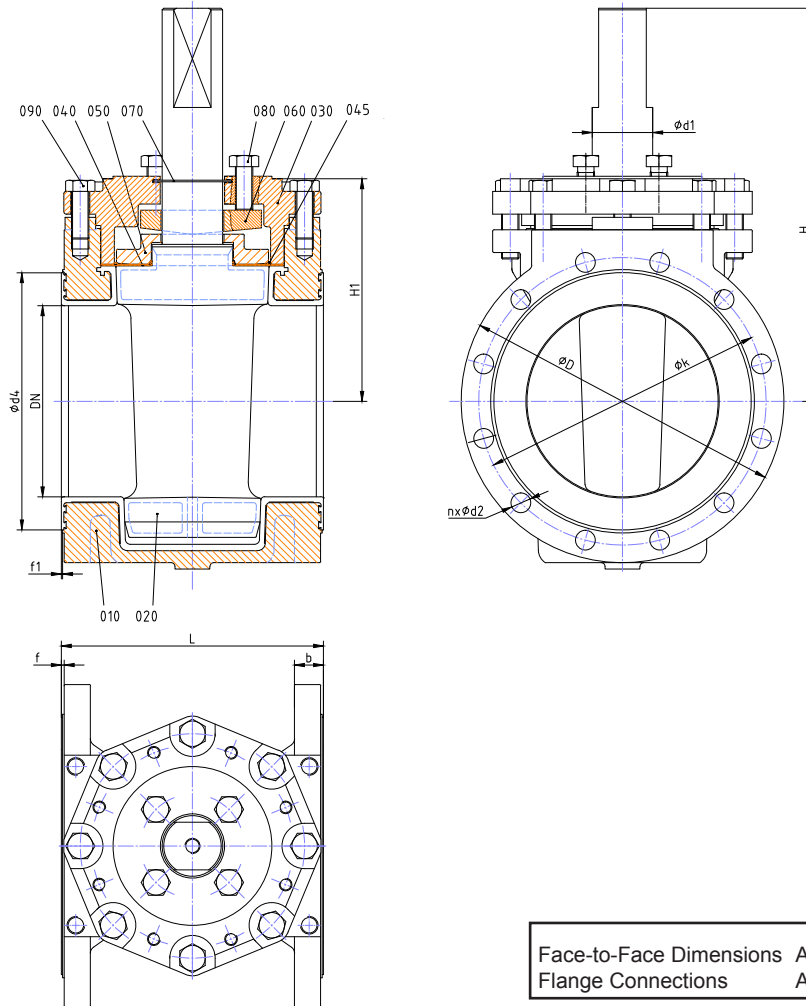
Face-to-Face Dimensions ANSI B 16.10
 Flange Connections ANSI B 16.5 (300lbs)

DN / ANSI		L	f1	f	b	H1	H	Ød4
½"	mm	139,5	2	4	17	53,8	139	36
	inch	5,5	0,08	0,16	0,67	2,12	5,47	1,42
¾"	mm	152,5	2	6	21,5	53,8	139	43
	inch	6	0,08	0,24	0,85	2,12	5,47	1,69
1"	mm	165	2	6,5	22,5	53,8	139	51
	inch	6,5	0,08	0,26	0,89	2,12	5,47	2,01
1½"	mm	190,5	2	6,5	25,5	62,9	145	73
	inch	7,5	0,08	0,26	1	2,48	5,71	2,87
2"	mm	216	2	6,5	28,5	73,8	165	92
	inch	8,5	0,08	0,26	1,12	2,91	6,5	3,62
3"	mm	282,5	2	7	34	86,4	179	127
	inch	11,12	0,08	0,28	1,34	3,4	7,05	5,00
4"	mm	305	2	7	37	106,9	222	157
	inch	12	0,08	0,28	1,46	4,21	8,74	6,18
6" *	mm	403,5	2	7	42	141,4	-	208
	inch	15,88	0,08	0,28	1,65	5,57	-	8,19

DN / ANSI		ØD	R	Øk	nxØ2	weight
½"	mm	95	260	66,5	4x16	kg 4,5
	inch	3,74	10,24	2,6	4x0,63	lbs 9,9
¾"	mm	117,3	260	82,5	4x19	kg 5,6
	inch	4,62	10,24	3,25	4x0,75	lbs 12,3
1"	mm	123,9	260	88,9	4x19	kg 6,5
	inch	4,88	10,24	3,5	4x0,75	lbs 14,3
1½"	mm	155,4	260	114,3	4x22,5	kg 10,1
	inch	6,12	10,24	4,5	4x0,89	lbs 22,3
2"	mm	165	410	127	8x19	kg 14,0
	inch	6,5	16,14	5	8x0,75	lbs 30,9
3"	mm	209,5	410	168	8x22,5	kg 23,7
	inch	8,25	16,14	6,61	8x0,89	lbs 52,2
4"	mm	254	674	200	8x22,5	kg 42,4
	inch	10	26,54	7,87	8x0,89	lbs 93,4
6" *	mm	317,5	-	269,7	12x22,5	kg 69,2
	inch	12,5	-	10,62	12x0,89	lbs 152,5

* Gear operated

Technical Data T4E-3 DN8“, 10“



DN / ANSI		L	f1	f	b	H	H1	Ød4
8"	mm	419	2	4	43	402	235,4	262
	inch	16,5	0,08	0,16	1,69	15,83	9,27	10,31
10"	mm	457	2	4	50	495	280,3	316
	inch	18	0,08	0,16	1,97	19,49	11,04	12,44
12"	mm	502	2	4	53	518	301,6	381
	inch	19,8	0,08	0,16	2,09	20,39	11,87	15

DN / ANSI		ØD	Øk	nxd2	Ød1	weight	
8"	mm	381	330,2	12x25,4	63,4	kg	156,0
	inch	15	13	12x1	2,5	lbs	343,9
10"	mm	445	387,5	16x28,5	76,2	kg	216,0
	inch	17,5	15,26	16x1,12	3	lbs	476,2
12"	mm	521	451	16x32	76,2	kg	285,0
	inch	20,51	17,76	16x1,26	3	lbs	628,3

Material specification T4E-1 DN $\frac{1}{2}$ " to DN6"

No.	Designation	Pieces	Material	Material-No. / DIN
010	body	1	DCI ASTM A395 / PFA lined	0.7043 / DIN EN 1563
020	plug	1	DCI ASTM A395 / PFA lined	0.7043 / DIN EN 1563
040	diaphragm	1	TFM (PFA*)	
050*	metal diaphragm	1	302 SS	1.4310
060	thrust gland	1	machining steel	1.0718
070	grounding spring	1	302 SS	1.4310
080	top cap	1	DCI ASTM A395	0.7043 / DIN EN 1563
090	adjuster bolt	1 set	ASTM A193 GRADE B7	
100	top cap bolt	1 set	ASTM A193 GRADE B7	
110	stop	1	ASTM A351/A744 Grade CF-8M (316 SS)	1.4408 / DIN EN 10213-4
120	stop fastener	1 set	Stainless Steel	1.4301 / DIN EN 10088-3
130	stop collar	1	carbon steel, protective plated	
140	stop collar retainer	1	302 SS	1.4310
150	wrench	1	EN-JS1082 (GGG-50)	0.7050 / DIN EN 1563
180	washer	1	Stainless Steel	1.4301 / DIN EN 10088-3
190	hexagon bolt	1	Stainless Steel	1.4301 / DIN EN 10088-3

* optional

Material specification T4E-1 DN8" to DN12"

► Ductile Cast Iron

No.	Designation	Pieces	Material	Material-No. / DIN
010	body	1	DCI ASTM A395 / PFA lined	0.7043 / DIN EN 1563
020	plug	1	DCI ASTM A395 / PFA lined	0.7043 / DIN EN 1563
030	top cap	1	DCI ASTM A395	0.7043 / DIN EN 1563
040	diaphragm	1	DN8" TFM (PFA*), DN10" - DN12" PFA	
050	thrust gland	1	ASTM A995 Gr CD4MCuN	
060	adjuster	1	ASTM A995 Gr CD4MCuN	
070	grounding spring	1	302 SS	1.4310
080	adjuster bolt	1 set	Stainless Steel	1.4301 / DIN EN 10088-3
090	hexagon bolt	1 set	Stainless Steel	1.4301 / DIN EN 10088-3

* optional

► Stainless Steel

No.	Designation	Pieces	Material	Material-No. / DIN
010	body	1	ASTM A744 Gr. CF-8M / PFA lined	1.4408 / DIN EN 10213-4
020	plug	1	ASTM A995 Gr CD4MCuN / PFA lined	
030	top cap	1	ASTM A995 Gr CD4MCuN	
040	diaphragm	1	DN8" TFM (PFA*), DN10" - DN12" PFA	
045*	metal diaphragm	1	C276 Hastelloy	
050	thrust gland	1	ASTM A995 Gr CD4MCuN	
060	adjuster	1	ASTM A995 Gr CD4MCuN	
070	grounding spring	1	302 SS	1.4310
080	adjuster bolt	1 set	Stainless Steel	1.4301 / DIN EN 10088-3
090	hexagon bolt	1 set	Stainless Steel	1.4301 / DIN EN 10088-3

* optional

Material specification T4E-2 DN15 to DN150

No.	Designation	Pieces	Material	Material-No. / DIN
010	body	1	DCI ASTM A395 / PFA lined	0.7043 / DIN EN 1563
020	plug	1	DCI ASTM A395 / PFA lined	0.7043 / DIN EN 1563
040	diaphragm	1	TFM (PFA*)	
050*	metal diaphragm	1	302 SS	1.4310
060	thrust gland	1	machining steel	1.0718
070	grounding spring	1	302 SS	1.4310
080	top cap	1	DCI ASTM A395	0.7043 / DIN EN 1563
090	adjuster bolt	1 set	Stainless Steel	1.4301 / DIN EN 10088-3
100	top cap bolt	1 set	Stainless Steel	1.4301 / DIN EN 10088-3
110	stop	1	ASTM A351/A744 Grade CF-8M (316 SS)	1.4408 / DIN EN 10213-4
120	stop fastener	1 set	Stainless Steel	1.4301 / DIN EN 10088-3
130	stop collar	1	carbon steel, protective plated	
140	stop collar retainer	1	302 SS	1.4310
150	wrench	1	EN-JS1082 (GGG-50)	0.7050 / DIN EN 1563
180	washer	1	Stainless Steel	1.4301 / DIN EN 10088-3
190	hexagon bolt	1	Stainless Steel	1.4301 / DIN EN 10088-3

* optional

Material specification T4E-2 DN200 to DN300

► Ductile Cast Iron

No.	Designation	Pieces	Material	Material-No. / DIN
010	body	1	DCI ASTM A395 / PFA lined	0.7043 / DIN EN 1563
020	plug	1	DCI ASTM A395 / PFA lined	0.7043 / DIN EN 1563
030	top cap	1	DCI ASTM A395	0.7043 / DIN EN 1563
040	diaphragm	1	DN200 TFM (PFA*), DN250 - DN300 PFA	
050	thrust gland	1	ASTM A995 Gr CD4MCuN	
060	Adjuster	1	ASTM A995 Gr CD4MCuN	
070	grounding spring	1	302 SS	1.4310
080	adjuster bolt	1 set	Stainless Steel	1.4301 / DIN EN 10088-3
090	hexagon bolt	1 set	Stainless Steel	1.4301 / DIN EN 10088-3

* optional

► Stainless Steel

No.	Designation	Pieces	Material	Material-No. / DIN
010	body	1	ASTM A744 Gr. CF-8M / PFA lined	1.4408 / DIN EN 10213-4
020	plug	1	ASTM A995 Gr CD4MCuN / PFA lined	
030	top cap	1	ASTM A995 Gr CD4MCuN	
040	diaphragm	1	DN200 TFM (PFA*), DN250 - DN300 PFA	
045*	metal diaphragm	1	C276 Hastelloy	
050	thrust gland	1	ASTM A995 Gr CD4MCuN	
060	adjuster	1	ASTM A995 Gr CD4MCuN	
070	grounding spring	1	302 SS	1.4310
080	adjuster bolt	1 set	Stainless Steel	1.4301 / DIN EN 10088-3
090	hexagon bolt	1 set	Stainless Steel	1.4301 / DIN EN 10088-3

* optional

Material specification T4E-3 DN1½“ to DN6“

No.	Designation	Pieces	Material	Material-No. / DIN
010	body	1	ASTM A216 Grade WCB / PFA lined	~1.0619 / DIN EN 10213-2
020	plug	1	DCI ASTM A395 / PFA lined	0.7043 / DIN EN 1563
040	diaphragm	1	PFA	
050*	metal diaphragm	1	302 SS	1.4310
060	thrust gland	1	machining steel	1.0718
070	grounding spring	1	302 SS	1.4310
080	top cap	1	ASTM A351 Gr CD4MCuN	
090	adjuster bolt	1 set	ASTM A193 GRADE B7	~1.7225 / DIN EN 10083-1
100	top cap bolt	1 set	ASTM A193 GRADE B7	~1.7225 / DIN EN 10083-1
110	stop	1	ASTM A351/A744 Grade CF-8M (316 SS)	1.4408 / DIN EN 10213-4
120	stop fastener	1 set	stainless steel	1.4301 / DIN EN 10088-3
130	stop collar	1	carbon steel, protective plated	
140	stop collar retainer	1	302 SS	1.4310
150	wrench	1	EN-JS1082 (GGG-50)	0.7050 / DIN EN 1563
180	washer	1	stainless steel	1.4301 / DIN EN 10088-3
190	hexagon bolt	1	stainless steel	1.4301 / DIN EN 10088-3

* optional

Material specification T4E-3 DN8“, 10“

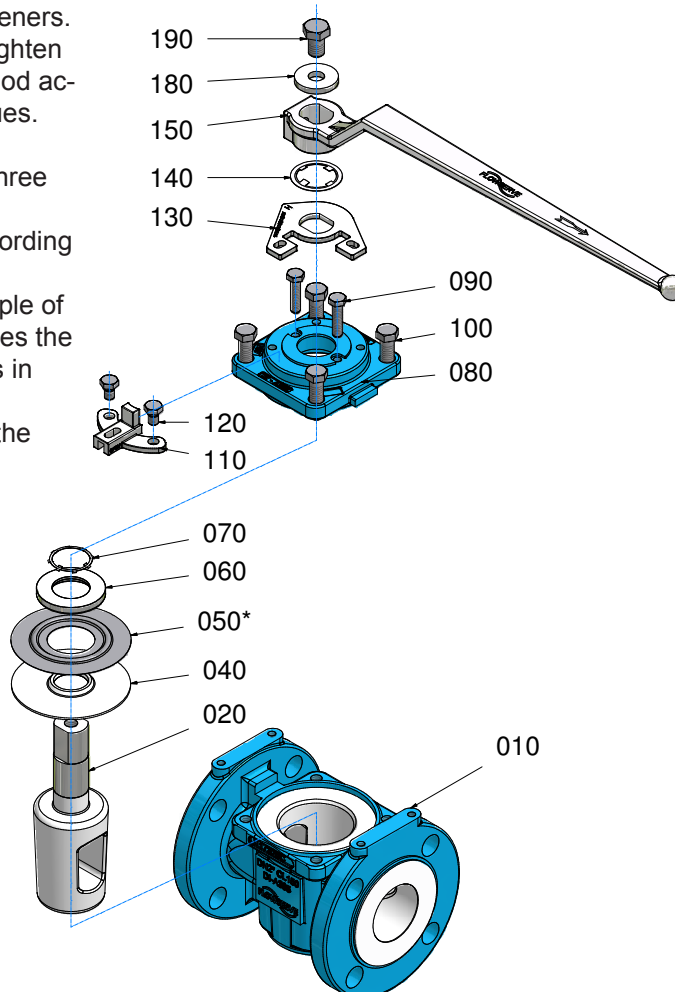
No.	Designation	Pieces	Material	Material-No. / DIN
010	body	1	ASTM A216 Grade WCB / PFA lined	~1.0619 / DIN EN 10213-2
020	plug	1	DCI ASTM A395 / PFA lined	0.7043 / DIN EN 1563
030	top cap	1	ASTM A995 Gr CD4MCuN	
040	diaphragm	1	PFA	
045*	metal diaphragm	1	C276 Hastelloy	
050	thrust gland	1	ASTM A995 Gr CD4MCuN	
060	adjuster	1	ASTM A995 Gr CD4MCuN	
070	grounding spring	1	302 SS	1.4310
080	adjuster bolt	1 set	Class 8.8 (yellow chromated)	
090	hexagon bolt	1 set	Class 8.8 (yellow chromated)	

* optional

Assembly instructions T4E

The general installation and maintenance instructions must be observed.

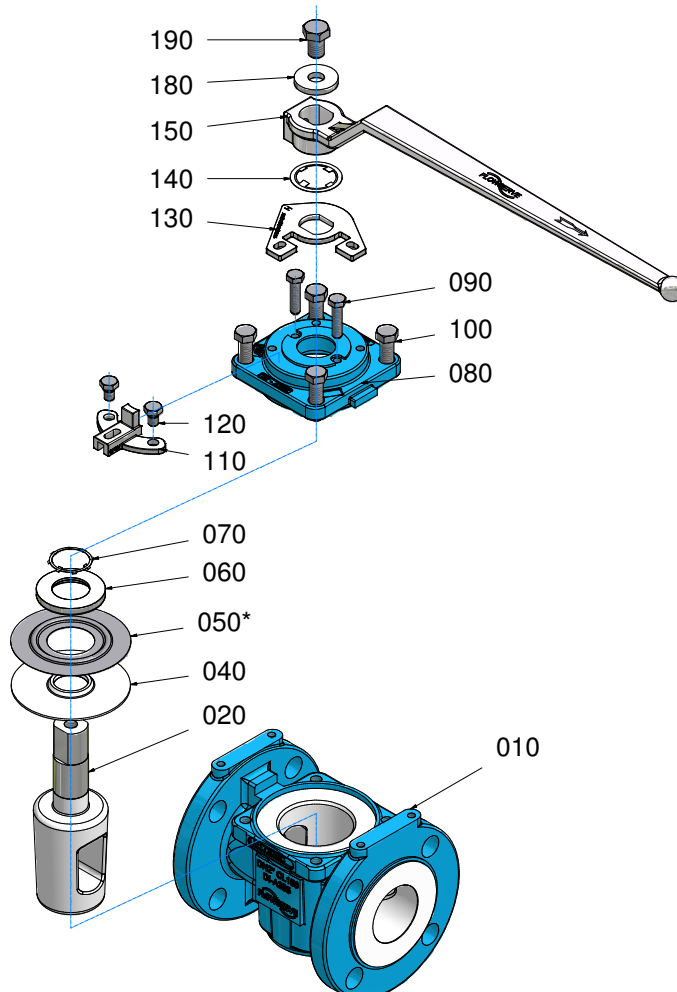
1. Plug Subassembly:
 - 1.1 Assemble diaphragm (040) over the plug stem (020) with the aid of diaphragm guide.
 - 1.2 Place metal diaphragm (050) (optional) and thrust gland (060) over the plug stem and slide it down to the diaphragm.
 - 1.3 Remove the guide.
2. Top Cap Subassembly:
 - 2.1 Adjusting the hexagon bolts (090) so the bottom of the thrust gland is flush with the bottom face of the top cap (080).
 - 2.2 Assemble the stop (110) using the hexagon bolts (120).
 - 2.3 Place the grounding spring (070) into the top cap (080).
3. Apply a thin, even film of silicone to the entire outside surface of the plug.
4. Place the pre-assembled plug into the body. The plug ports shall be lined up in the open position.
5. Slide the pre-assembled top cap over the plug stem down until it rests on the thrust gland.
6. Apply Loctite to the top cap fasteners. Place the four bolts (100) and tighten them using the criss-cross method according the recommended torques.
7. Loosen the adjuster bolts ($\frac{1}{4}$ - $\frac{1}{2}$ turn) and rotate the plug three times to make it move upward.
8. Retighten the adjuster bolts according to the recommended torques.
9. Open and close the valve a couple of times to make sure the stops lines the plug ports properly with the runs in the body.
10. Slide the stop collar (130) over the stem afterwards place the stop collar retainer (140).
11. Place the wrench (150) and fasten it by using the washer (180) and the bolt (190).
12. All valves shall be seat tested in both flow directions.



Disassembly instructions T4E

For all jobs which are to be carried out on an installed valve, the works safety requirements and the general accident prevention instructions must be observed. Moreover, the general installation and maintenance instructions for atomac fluorocarbon resin lined valves must be considered.

1. Prior to disassembly, the valve must be cleaned of all fluid according to the above-mentioned instructions. Particular care must be taken that during rinsing and draining of the piping, the valve is opened and closed repeatedly. These cycles (opening and closing) are to be repeated during draining of the piping. Only when following this procedure, it is ensured that all remaining pressure inside the body is eliminated.
2. For disassemble the valve put the body on a work bench with a soft cover (rubber mat).
3. Disassemble the wrench by removing the bolt (190) and washer (180).
4. By pushing up the stop collar (130) the stop collar retainer (140) can easily be removed.
5. Unscrew the top cap bolts (100) and remove the top cap (080) from the body (010).
6. Turn the plug (020) several timer to make it move upwards.
7. Remove the grounding spring (070), thrust gland (060), metal diaphragm (050) (optional) and the diaphragm (040).
8. If necessary the stop (110) can be removed by unscrew the stop fasteners (120).



T4E-1 & T4E-2 - recommended Tightening Torques for Top Cap and Adjuster Boltings* (150lbs & PN16)

DN		top cap bolts			adjuster bolts		
		(100)			(090)		
		quantity	Nm	in.lbs	quantity	Nm	in.lbs
015	½"	4	10	89	2	4	35
020	¾"	4	10	89	2	4	35
025	1"	4	30	266	2	4	35
040	1½"	4	30	266	2	4	35
050	2"	4	40	354	2	4	35
080	3"	4	55	487	2	6	53
100	4"	4	85	752	2	8	71
150	6"	4	160	1416	2	17	150
200	8"	6	110	974	2	20	177
250	10"	8	140	1239	4	30	266
300	12"	8	150	1328	4	30	266

* maximum values

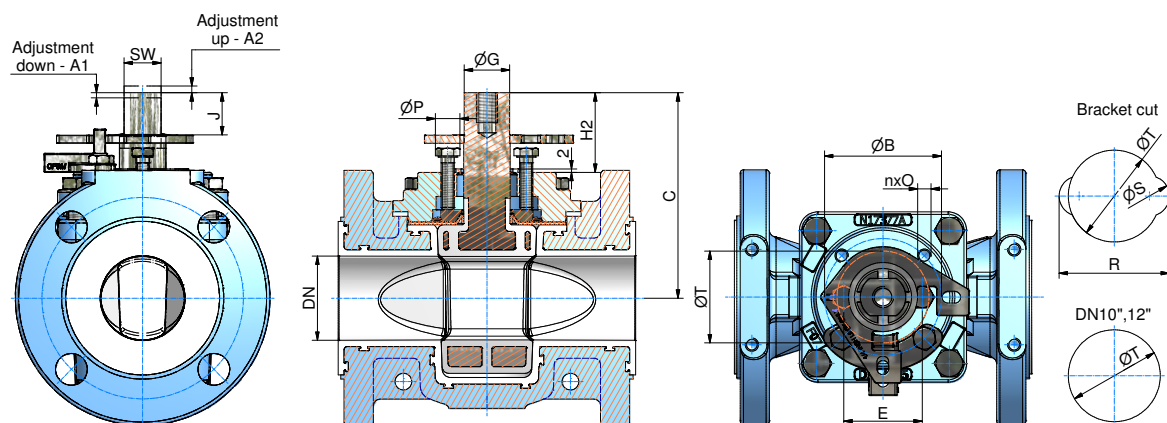
T4E-3 - recommended Tightening Torques for Top Cap and Adjuster Boltings* (300lbs)

DN	top cap bolts			adjuster bolts		
	(100)			(090)		
	quantity	Nm	in.lbs	quantity	Nm	in.lbs
½"	4	15	133	2	4	35
¾"	4	15	133	2	4	35
1"	4	35	310	2	4	35
1½"	4	40	354	2	4	35
2"	4	55	487	2	4	35
3"	4	85	752	2	6	53
4"	4	125	1106	2	8	71
6"	4	245	2168	2	17	150
8"	6	165	1460	2	20	177
10"	8	210	1859	4	30	266
12"	8	225	1991	4	30	266

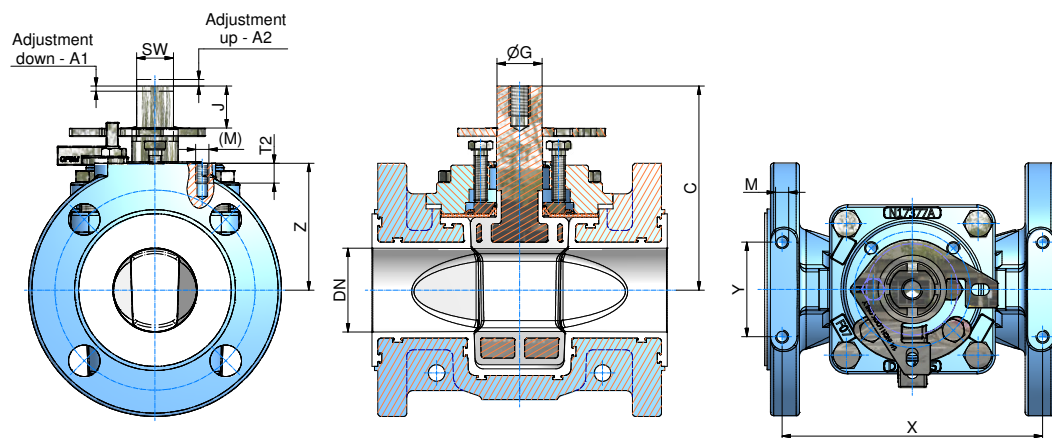
* maximum values

T4E-1 & T4E-3 - Dimension sheet for actuator mounting

Top cap mounting acc. to DIN EN ISO 5211



Flange top mounting

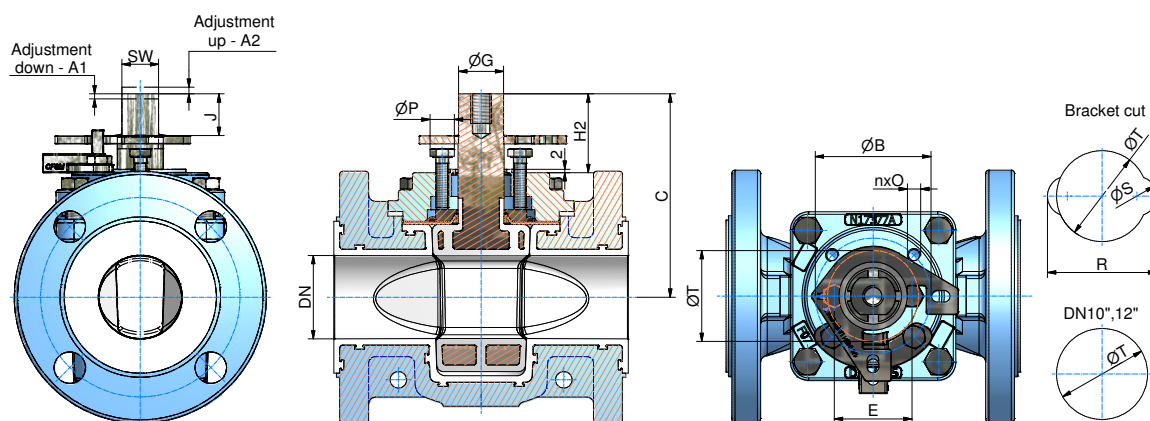


		SW	ØG	J	H2	C	Adjustment		F-Size DIN/ ISO 5211	ØB	nxO	E	ØP	R	ØS	ØT	M (M)	T2	X		Z		Y	
							A1	A2											T4E1	T4E3	T4E1	T4E3	T4E1	T4E3
1/2"	mm	16,6	20	15,5	38,5	92,5	2	2	F05	50	4xM6	38	13	54	16	35	UNC 1/4-20	9	90,5	118	46,5	50	50,8	50,8
	inch	0,65	0,79	0,61	1,52	3,64	0,08	0,08		1,97	- 8deep	1,5	0,51	2,13	0,63	1,38		0,35	3,56	4,65	1,83	1,97	2	2
3/4"	mm	16,6	20	15,5	38,5	92,5	2	2	F05	50	4xM6	38	13	54	16	35	UNC 1/4-20	9	99,6	127	51,5	61	50,8	50,8
	inch	0,65	0,79	0,61	1,52	3,64	0,08	0,08		1,97	- 8deep	1,5	0,51	2,13	0,63	1,38		0,35	3,92	5	2,03	2,4	2	2
1"	mm	16,6	20	15,5	38,7	92,5	2	2	F05	50	4xM6	38	15	58	20	35	UNC 5/16-18	12	106,4	136	59,5	62	44,5	44,5
	inch	0,65	0,79	0,61	1,52	3,64	0,08	0,08		1,97	- 8deep	1,5	0,59	2,28	0,79	1,38		0,47	4,19	5,35	2,34	2,44	1,75	1,75
1 1/4"	mm	16,6	20	19	37,7	102	2	2	F05	50	4xM6	38	15	58	20	35	UNC 5/16-18	12	142,9	162	63,5	78	44,5	44,5
	inch	0,65	0,79	0,75	1,48	4,02	0,08	0,08		1,97	- 8deep	1,5	0,59	2,28	0,79	1,38		0,47	5,63	6,38	2,500	3,07	1,75	1,75
2"	mm	22,2	27,2	25,2	49	123	2	2	F07	70	4xM8	47	15	67	20	55	UNC 5/16-18	12	157,2	187	76,5	82,5	57,2	57,2
	inch	0,87	1,07	0,99	1,93	4,84	0,08	0,08		2,76	- 12deep	1,85	0,59	2,64	0,79	2,17		0,47	6,19	7,36	3,01	3,25	2,25	2,25
3"	mm	22,2	27,2	25,2	50,6	137	3	3	F07	70	4xM8	54	22	80	26	55	UNC 3/8-16	14	181	250,8	95,5	105	88,9	88,9
	inch	0,87	1,07	0,99	1,99	5,39	0,12	0,12		2,76	- 12deep	2,13	0,87	3,15	1,02	2,17		0,55	7,13	9,87	3,76	4,13	3,5	3,5
4"	mm	36	42,8	40,4	70,2	177	3	3	F10	102	4xM10	73	22	99	26	70	UNC 7/16-14	16	203,2	269,9	114,5	127	101,6	101,6
	inch	1,42	1,69	1,59	2,76	6,97	0,12	0,12		4,02	- 16deep	2,87	0,87	3,90	1,02	2,76		0,63	8	10,63	4,51	5,000	4	4
6"	mm	36	42,8	40,4	67,7	209	4	4	F12	125	4xM12	86	35	126	40	85	UNC 7/16-14	16	239,7	362	139	159	101,6	101,6
	inch	1,42	1,69	1,59	2,67	8,23	0,16	0,16		4,92	- 21deep	3,39	1,38	4,96	1,57	3,35		0,63	9,44	14,25	5,47	6,26	4	4
8"	mm	50	63,5	100	166,6	402	5	5	---	190,5	8xM16	133,4	53	190	56	130	M16	36	260,4	376,4	173,5	190,5	195,2	193,6
	inch	1,97	2,5	3,94	6,6	15,8	0,2	0,2		7,5	- 28deep	5,25	2,1	7,48	2,20	5,12		1,42	10,25	14,82	6,83	7,50	7,69	7,62
10"	mm	60	76,2	125	214,8	495	5	5	F25	254	8xM16	130,2	37	---	---	200	M20	39	294	*	214	*	200	*
	inch	2,36	3	4,92	8,46	19,49	0,2	0,2		10	- 26deep	5,13	1,46	---	---	7,87		1,54	11,57	*	8,43	*	7,87	*
12"	mm	60	76,2	125	215,4	517	5	5	F25	254	8xM16	130,2	37	---	---	200	M20	40	312	233,5	268	200	152,4	152,4
	inch	2,36	3	4,92	8,48	20,35	0,2	0,2		10	- 26deep	5,13	1,46	---	---	7,87		1,57	12,28	17,69	9,19	10,55	7,87	6,00

* no actuator mounting on the flange

T4E-2 - Dimension sheet for actuator mounting

Top cap mounting acc. to DIN EN ISO 5211



DN	SW	ØG	J	H2	C	Adjustment		F-Size DIN/ISO 521	ØB	nxO	E	ØP	R	ØS	ØT
						A1	A2								
15	mm	16,6	20	15,5	38,5	2	2	F05	50	4xM6	38	13	54	16	35
	inch	0,65	0,79	0,61	1,52	0,08	0,08		1,97	- 8 deep	1,5	0,51	2,13	0,63	1,38
20	mm	16,6	20	15,5	38,5	2	2	F05	50	4xM6	38	13	54	16	35
	inch	0,65	0,79	0,61	1,52	0,08	0,08		1,97	- 8 deep	1,5	0,51	2,13	0,63	1,38
25	mm	16,6	20	15,5	38,7	2	2	F05	50	4xM6	38	15	58	20	35
	inch	0,65	0,79	0,61	1,52	0,08	0,08		1,97	- 8 deep	1,5	0,59	2,28	0,79	1,38
40	mm	16,6	20	19	37,7	2	2	F05	50	4xM6	38	15	58	20	35
	inch	0,65	0,79	0,75	1,48	0,08	0,08		1,97	- 8 deep	1,5	0,59	2,28	0,79	1,38
50	mm	22,2	27,2	25,2	49	2	2	F07	70	4xM8	47	15	67	20	55
	inch	0,87	1,07	0,99	1,93	0,08	0,08		2,76	- 12 deep	1,85	0,59	2,64	0,79	2,17
80	mm	22,1	27,2	25,2	50,6	3	3	F07	70	4xM8	54	22	80	26	55
	inch	0,87	1,07	0,99	1,99	0,12	0,12		2,76	- 12 deep	2,13	0,87	3,15	1,02	2,17
100	mm	36	42,8	40,4	70,2	3	3	F10	102	4xM10	73	22	99	26	70
	inch	1,42	1,69	1,59	2,76	0,12	0,12		4,02	- 16 deep	2,87	0,87	3,9	1,02	2,76
150	mm	36	42,8	40,4	67,7	4	4	F12	125	4xM12	86	35	126	40	85
	inch	1,42	1,69	1,59	2,67	0,16	0,16		4,92	- 21 deep	3,39	1,38	4,96	1,57	3,35
200	mm	50	63,5	100	166,6	5	5	-	190,5	8xM16	133,4	53	190	56	130
	inch	1,97	2,50	3,94	6,56	0,2	0,2		7,50	- 26 deep	5,25	2,09	7,48	2,2	5,12
250	mm	60	76,2	125	214,8	5	5	F25	254	8xM16	130,2	37	-	-	200
	inch	2,36	3,00	4,92	8,46	0,2	0,2		10	- 26 deep	5,13	1,46	-	-	7,87
300	mm	60	76,2	125	215,4	5	5	F25	254	8xM16	130,2	37	-	-	200
	inch	2,36	3,00	4,92	8,48	0,2	0,2		10	- 26 deep	5,13	1,46	-	-	7,87

T4E - Actuator Sizing Torques

- for clean and clear application

Size	Nm	in/lbs	MAST	
			Nm	in/lbs
015 1/2"	45	398	155	1372
020 3/4"	45	398	155	1372
025 1"	45	398	155	1372
040 1 1/2"	57	504	155	1372
050 2"	90	797	410	3629
080 3"	125	1106	410	3629
100 4"	237	2098	1655	14648
150 6"	645	5709	1655	14648
200 8"	1685	14914	3500	30978
250 10"	2640	23366	10750	95146
300 12"	3300	29207	10750	95146

- for dry and slurry application

Size	Nm	in/lbs	MAST	
			Nm	in/lbs
015 1/2"	61	538	155	1372
020 3/4"	61	538	155	1372
025 1"	61	538	155	1372
040 1 1/2"	77	681	155	1372
050 2"	122	1075	410	3629
080 3"	169	1494	410	3629
100 4"	320	2832	1655	14648
150 6"	871	7707	1655	14648
200 8"	2205	19516	3500	30978
250 10"	3459	30615	10750	95146
300 12"	4315	38191	10750	95146

- Stated torques are sizing torques. No further safety factors are to be applied against these torques.
- The use of V-Plugs does not result in change in sizing torques.
- Stated sizing torques are „Break-Open“ and „Re-Seating“ torques. Running torques are typically 35% below sizing torques.
- The stated „MAST“ value is the Maximum Allowable Stem Torque. Beyond this value permanent deformation / destruction of liner is to be expected.
- Please note the service conditions of the pressure- / vacuum-temperature-diagrams: register 1, page 13.

T4E - K_V Data and C_V Data (DIN EN 60534-2-3)

DIN	ANSI	K _V m³/h	C _V gal/min
015	1/2"	12,6	14,6
020	3/4"	15,3	17,8
025	1"	26,1	30,3
040	1 1/2"	67,1	78,0
050	2"	156,0	181,3
080	3"	235,0	273,1
100	4"	404,0	469,6
150	6"	667,0	775,3
200	8"	1564,0	1817,8
250	10"	2120,0	2464,1
300	12"	-	-

ET4E - K_V Data and C_V Data (DIN EN 60534-2-3)

V - Plug

DIN	ANSI	K _V m³/h	C _V gal/min
025	1"	7,2	8,4
025	1"	11,4	13,3
025	1"	21,4	24,9
040	1 1/2"	25,5	29,6
050	2"	46,1	53,6
080	3"	76,3	88,7
100	4"	161,0	187,1



S - Plug

DIN	ANSI	K _V m³/h	C _V gal/min
025	1"	0,7	0,8
025	1"	2,6	3,0

