FLANGED BALL VALVES ANSI CLASS 150 & 300

STANDARD BORE:

1/2" – 10" (DN 15 – 250) SERIES 7000
12" – 20" (DN 300 – 500) AND LARGER SERIES 5000

The JAMESBURY® polymeric-seated flanged ball valves offer a patented flexible-lip seat design that provides positive bi-directional shut-off for a variety of applications in industries ranging from chemical and petrochemical to refining, pulp and paper, and power.

Polymeric-seated flanged ball valves are available in sizes 1/2" – 24" (DN 15 – 600) in both full-bore and standard-bore designs that fully conform to ASME B16.34 requirements.

A choice of body, trim, and seat materials is available to suit an extensive range of applications. As an option, valves can be prepared for special services, such as chlorine, oxygen, high-vacuum, hydrogen peroxide or NACE.

FIRE-TITE® Valves

Standard body and trim materials for FIRE-TITE valves are carbon steel with 316 stainless steel trim and all 316 stainless steel. Seat material options are PTFE (T) and XTREME® (X) for applications involving chemicals, petrochemicals, acids, caustics, and steam. PFA (B) seats are available to resist the effects of polymerizing monomers such as butadiene and styrene.

Non FIRE-TITE Valves

Non FIRE-TITE valves are available with UHMW (U) polyethylene and Peek® (L) seats.

CE Marked

CE marked and documented valves 7180, 7380, 5180 and 5380 which meet the European Pressure Equipment Directive (PED) 97/23/EC are available in ANSI Class 150/300. CE marked products also meet the requirements of BS 5351. Operating torques, construction options and valve dimensions are exactly the same as the standard ANSI 150/300 offering. (See page 18) for ordering instructions.

FEATURES AND BENEFITS

- XTREME seat provides longer life, industry leading expanded performance boundaries, and greater value.
- Polymeric flexible lip-seat design offers tight shut-off in either direction and extended cycle life with minimum maintenance.
- FIRE-TITE version with non-metallic seats meets API 607, Edition 4, and BS6755-Part 2 requirements.
- Superior control characteristics, coupled with tight shut-off capabilities, make these valves ideal for a variety of on-off and control applications.
- API 608 compliance to serve refineries and related chemical and petrochemical industries.
- NACE MR0103 compliance available.
- Meets 23 standard and 7 optional industry standards and specifications. For details (see page 19).

NEW FEATURES AND BENEFITS
For 1/2" – 2" (DN 15 – 50) Series 7000

- New stem seal system is live loaded and engineered to assure long sealing life - patent pending.
- ISO 5211 Bonnet for global conformity.
- New stainless steel linkage for VPVL, ERV, ER and EU actuators has a guided coupling to align topworks during assembly and eliminate side load stress on stem seals for long life, clean environment and reduced maintenance.

Single-Source Responsibility

- Valves, actuators and accessories may be purchased completely mounted from one source.

metso
Expect results

SPECIFICATIONS

Flow Data

The table at right provides flow coefficients for JAMESBURY valves covered in this bulletin. C_v values represent the flow of water at +60˚F through the valve in U.S. gallons per minute at a pressure drop of 1 psi. The metric equivalent, K_v, is the flow of water at 16˚C through the valve in cubic meters per hour at a pressure drop of 1 kg/cm^2. To convert C_v to K_v, multiply by 0.8569.

Valve Size		Cv
Inches	DN	Standard Bore
1/2	15	9
3/4	20	19
1	25	45
1-1/2	40	125
2	50	165
3	80	350
4	100	550
6	150	765
8	200	1890
10	250	3900
12	300	6700
14	350	5100/5400*
16	400	8100/8500*
18	450	11,000/9800*
20	500	16,000/13,000*

* Class 300 long pattern

Valve Body Ratings

These are the maximum working pressure ratings of the valve body only. The seat ratings, shown on the next page, determine the practical temperature and pressure limitations according to actual service conditions. Test pressures are recommended pressures for hydrostatic test with ball half open.

Maximum Working Pressure, psi						
Temp ˚F	Class 150				Class 300	
	Carbon steel*	316 Stainless steel*	Alloy 20*	Monel®	Carbon steel*	316 Stainless steel*
-20 to 100	285	275	230	230	740	720
200	260	235	200	200	675	620
300	230	215	190	190	655	560
400	200	195	190	185	635	515
500	170	170	170	170	600	480
Test Pressure	450	425	350	350	1125	1100

Maximum Working Pressure, bar						
Temp ˚C	Class 150				Class 300	
	Carbon steel*	316 Stainless steel*	Alloy 20*	Monel	Carbon steel*	316 Stainless steel*
-29 to 38	19.6	19.0	15.9	15.9	51.1	49.6
100	17.7	16.2	13.5	13.5	46.6	42.2
150	15.8	14.8	13.1	13.1	45.1	38.5
200	13.8	13.7	13.1	13.1	43.8	35.7
250	11.7	11.7	11.7	11.7	41.9	33.4
Test Pressure	30	29	24	24	77	75

* In accordance with ASME B16-34-2004

Valve Seat Ratings

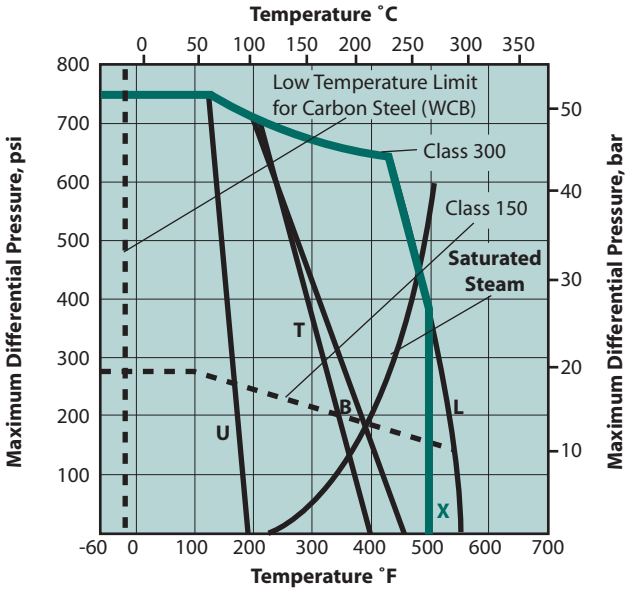
Seat ratings, indicated by solid lines in the charts on the next page, are based on differential pressure with the valve ball in the fully closed position and refer to seats only. The dotted lines indicate maximum working pressures for *WCB carbon steel* valve bodies. (Maximum working pressures of other body materials are shown in the tables above.) The combination of dotted and solid lines indicates the maximum valve rating at specific pressure and temperature conditions. Valves with PTFE, XTREME, PEEK®, PFA, and UHMW polyethylene seats can be used in service to -60˚F (-51˚C) provided that the valve body material is suitable for such a temperature. Carbon steel valves are rated to -20˚F (-29˚C).

On saturated steam service, stainless steel trim is recommended at all pressures and is required above 200 psi (14 bar). See Bulletin B150-1. Peek seats require 17-4 PH stainless steel stems. For more application information on seat materials, refer to Bulletin T140-1.

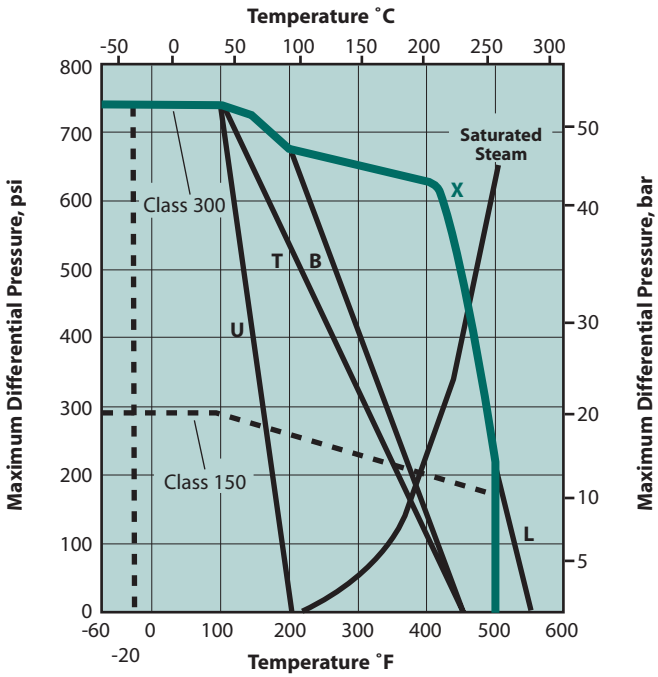
XTREME Performance and Value

XTREME seats provide longer life, expanded performance boundaries, and the greatest possible value. XTREME is a unique material that resulted from a technological breakthrough in our polymer research lab. The material is a fluoropolymer-based blend proprietary to JAMESBURY that provides superior quarter-turn performance.

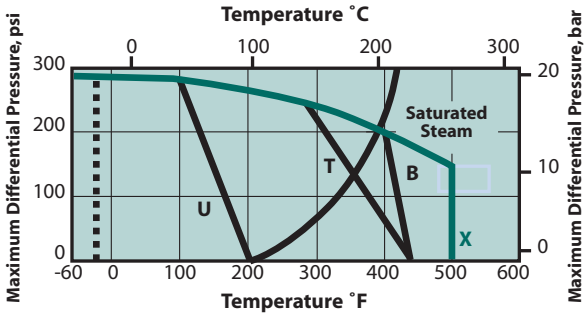
1/2" – 2" (DN 15 – 50) Standard Bore



3" – 6" (DN 80 – 150) Standard Bore

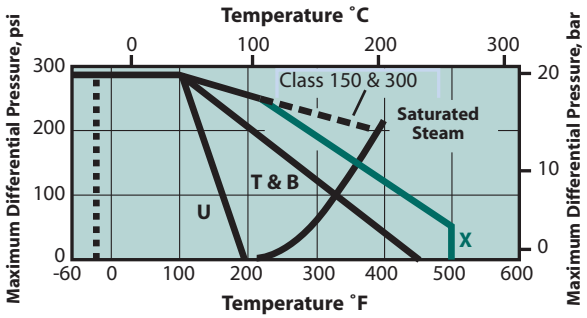


8" (DN 200) Standard Bore Non-Trunnion



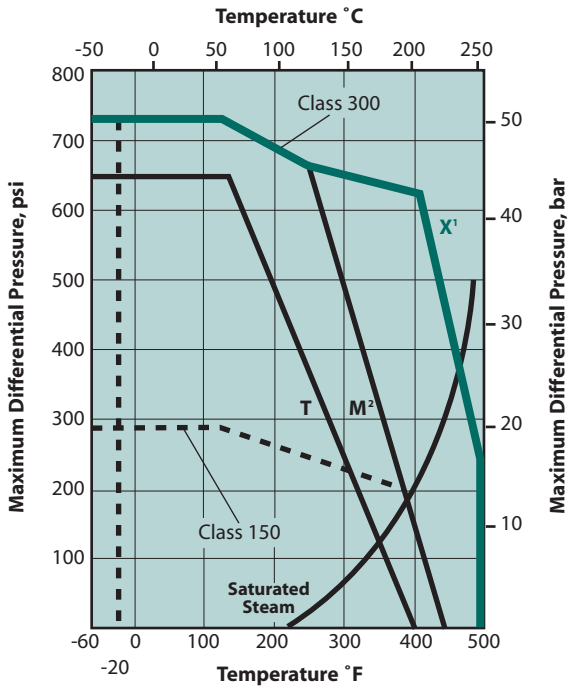
*** ANSI Class 300 Non-Trunnion is 275 psi (19 bar) max.**

10" (DN 250) Standard Bore Non-Trunnion



*** ANSI Class 300 Non-Trunnion is 275 psi (19 bar) max.**

Trunnion Valves
8" – 20" (DN 200 – 500) Standard Bore



X¹ 6" – 12" (DN 150 – 300) Only
M² 6" – 24" (DN 150 – 600)

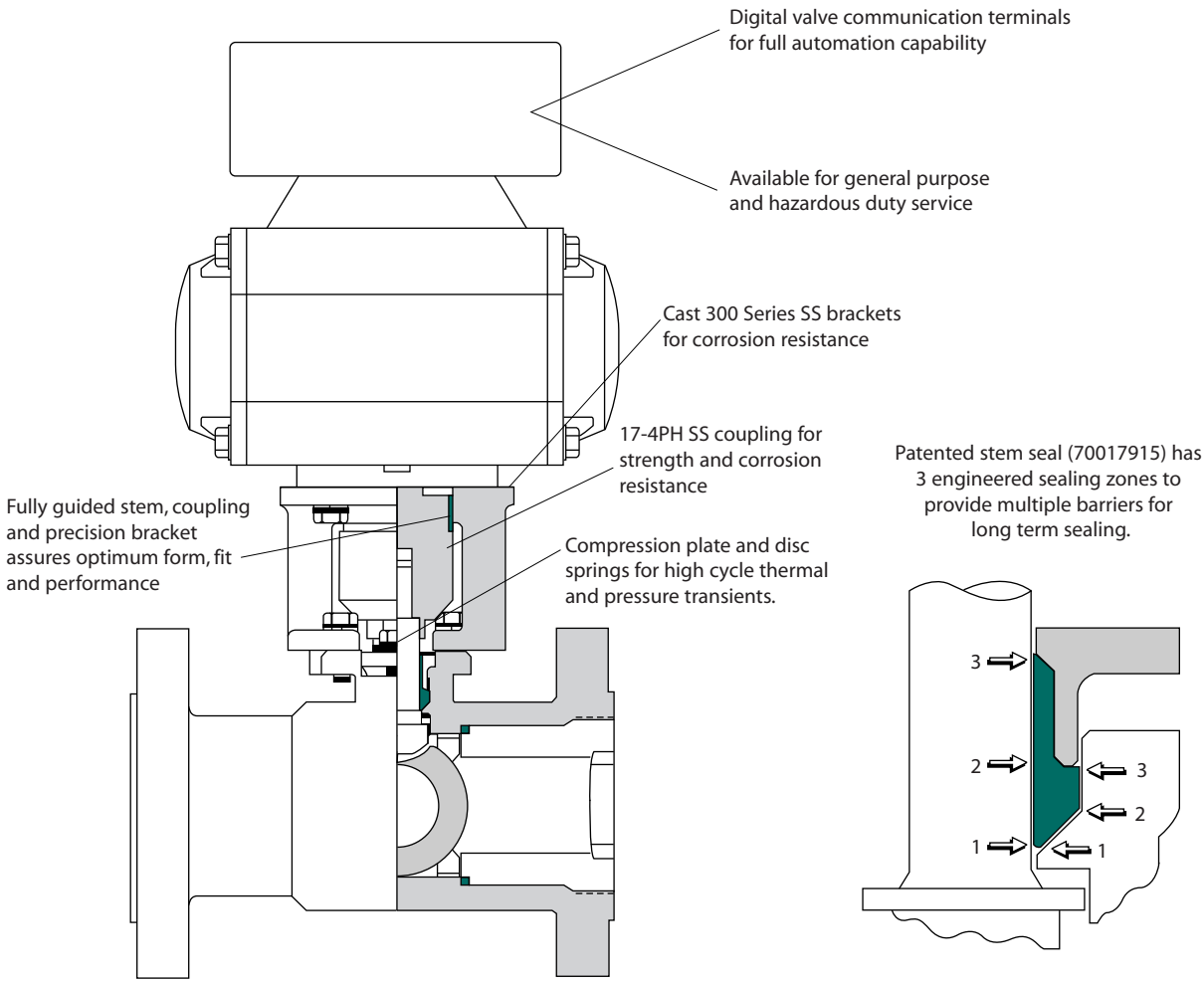
NOTE 1: For series 7000 **NOTE 2:** For series 5000

LEGEND:

T = PTFE	M = Filled PTFE	B = PFA
L = Peek	U = UHMW	X = XTREME

JAMESBURY 'The Ultimate Process Automation Package'
for VPVL Pneumatic Actuators, V-Series and ADC-Series Electric Actuators

For 1/2" – 2" (DN 15 – 50) Standard Port Series 7000

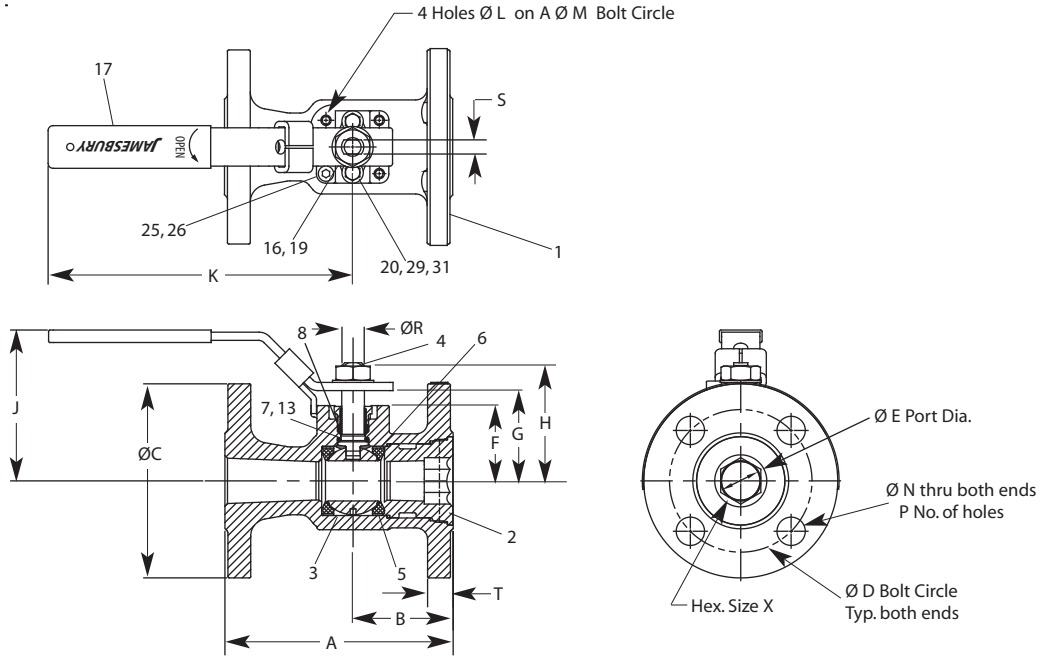


Automation Performance and Value

Valves combined with JAMESBURY actuators, network capable valve monitors and communication devices offer a total value and performance package. Available with pneumatic VALV-POWR VPVL actuators, V-Series and ADC-Series electric actuators and with STONEL® QUARTZ®, ECLIPSE®, and HAWKEYE® digital monitors or VCTs, the packages have a wide range of applications. Visit our website at **www.metso.com/automation**.

DIMENSIONS

Series 7150 ANSI Class 150 and Series 7300 & 730S ANSI Class 300 Flanged Valves



Valve Size inches	Series 7150 ANSI Class 150 Approximate Dimensions - inches																		ISO Bonnet	Approx Weight lb
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	X		
1/2	4.25	1.94	3.50	2.38	0.50	1.06	1.33	1.63	3.38	5.00	M5	1.42	0.62	4	0.31	0.18	0.50	0.50	F03	3.5
3/4	4.63	2.00	3.88	2.75	0.69	1.22	1.49	1.79	3.50	5.00	M5	1.42	0.62	4	0.31	0.18	0.50	0.69	F03	4.5
1	5.00	2.19	4.25	3.12	0.88	1.65	2.04	2.58	3.69	6.50	M5	1.65	0.62	4	0.50	0.31	0.56	0.88	F04	7.5
1-1/2	6.50	2.65	5.00	3.88	1.25	2.08	2.59	3.30	4.27	8.00	M6	1.97	0.62	4	0.62	0.37	0.69	1.25	F05	11.5
2	7.00	2.64	6.00	4.75	1.50	2.26	2.78	3.49	4.46	8.00	M6	1.97	0.75	4	0.62	0.37	0.75	1.50	F05	16.0

Valve Size DN	Series 7150 ANSI Class 150 Approximate Dimensions - mm																		ISO Bonnet	Approx Weight kg
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	X		
15	108	49	89	60	13	27	34	41	86	127	M5	36	16	4	8	5	13	13	F03	1.6
20	118	51	99	70	18	31	38	45	89	127	M5	36	16	4	8	5	13	18	F03	2.0
25	127	56	108	79	22	42	52	66	94	165	M5	42	16	4	13	8	14	22	F04	3.4
40	165	67	127	99	32	53	66	84	108	203	M6	50	16	4	16	9	18	32	F05	5.2
50	178	67	152	121	38	57	71	89	113	203	M6	50	19	4	16	9	19	38	F05	7.3

Valve Size inches	Series 7300 & 730S ANSI Class 300 Approximate Dimensions - inches																			ISO Bonnet	Approx Weight lb	
	7300 A	730s A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	X		730S	7300
1/2	5.50	4.25	1.94	3.75	2.62	0.50	1.06	1.33	1.63	3.38	5.00	M5	1.42	0.62	4	0.31	0.18	0.56	0.50	F03	5.0	6.0
3/4	6.00	4.63	2.00	4.62	3.25	0.69	1.22	1.49	1.79	3.50	5.00	M5	1.42	0.75	4	0.31	0.18	0.62	0.69	F03	8.0	8.0
1	6.50	5.00	2.19	4.88	3.50	0.88	1.65	2.04	2.58	3.69	6.50	M5	1.65	0.75	4	0.50	0.31	0.69	0.88	F04	9.5	9.5
1-1/2	7.50	6.50	2.65	6.12	4.50	1.25	2.08	2.59	3.30	4.27	8.00	M6	1.97	0.88	4	0.62	0.37	0.81	1.25	F05	17.5	16.0
2	8.50	7.00	2.64	6.50	5.00	1.50	2.26	2.78	3.49	4.46	8.00	M6	1.97	0.75	8	0.62	0.37	0.88	1.50	F05	21.0	22.0

Valve Size DN	Series 7300 & 730S ANSI Class 300 Approximate Dimensions - mm																			ISO Bonnet	Approx Weight kg	
	730S A	730S A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	X		730S	7300
15	140	108	49	95	67	13	27	34	41	86	127	M5	36	16	4	8	5	14	13	F03	2.3	2.7
20	152	118	51	117	83	18	31	38	45	89	127	M5	36	19	4	8	5	16	18	F03	3.6	3.6
25	165	127	56	124	89	22	42	52	66	94	165	M5	42	19	4	12	8	18	22	F04	4.3	4.3
40	191	165	67	155	114	32	53	66	84	108	203	M6	50	22	4	16	9	21	32	F05	7.9	7.3
50	216	178	67	165	127	38	57	71	89	113	203	M6	50	19	8	16	9	22	38	F05	9.5	10.0

BILLS OF MATERIALS AND PARTS LIST

FIRE-TITE 1/2" – 2" (DN 15 – 50) Standard Port Series 7000 Valves

Part No.	Part Name	Body Material			
		Carbon Steel (22)	316 Stainless Steel (36)	Alloy 20 (35)	Monel (71)
1	Body	Carbon steel ASTM A216 Type WCB	316 Stainless steel ASTM A351 Type CF8M	Alloy 20 ASTM A351 Type CN7M	Monel ASTM A494 Type M35-1
2	Insert	Carbon steel ASTM A216 Type WCB	316L Stainless steel ASTM A351 Type CF8M	Alloy 20 ASTM A351 Type CN7M	Monel ASTM A494 Type M35-1
3	Ball	316 Stainless steel +, Monel, Hastelloy C		Alloy 20	Monel, Hastelloy C as specified
4	Stem	316 Stainless steel +, Monel, Hastelloy C		Alloy 20	Monel, Hastelloy C as specified
5	Seat	PTFE, XTREME, PFA			
6	Body Seal	TFM			
7	Secondary Stem Seal	Graphite			
8	Primary Stem Seal	PTFE, TFM® (XTREME-Seated Valves)			
13	Stem Bearing	Filled PTFE			
16	Hex Nut	Carbon steel (zinc plated)	300 Series Stainless steel		
17	Handle	Carbon steel (zinc plated)	300 Series Stainless steel		
19	Lock Washer	Carbon steel (zinc plated)	300 Series Stainless steel		
20	Compression Plate	316 Stainless steel			Monel
25	Socket Cap Screw	300 Series Stainless steel			
26	Handle Stop Spacer	300 Series Stainless steel			
29	Hex Cap Screw	300 Series Stainless steel (Monel if Chlorine or NACE)			Monel
31	Disc Springs	Inconel			

Non FIRE-TITE 1/2" – 2" (DN 15 – 50) Standard Port Series 7000 Valves

Part No.	Part Name	Body Material			
		Carbon Steel (22)	316 Stainless Steel (36)	Alloy 20 (35)	Monel (71)
1	Body	Carbon steel ASTM A216 Type WCB	316 Stainless steel ASTM A351 Type CF8M	Alloy 20 ASTM A351 Type CN7M	Monel ASTM A494 Type M35-1
2	Insert	Carbon steel ASTM A216 Type WCB	316L Stainless steel ASTM A351 Type CF8M	Alloy 20 ASTM A351 Type CN7M	Monel ASTM A494 Type M35-1
3	Ball	316 Stainless steel +, Monel, Hastelloy C		Alloy 20	Monel, Hastelloy C as specified
4	Stem	316 Stainless steel +, 17-4 PH Stainless steel 2, Monel, Hastelloy C		Alloy 20	Monel, Hastelloy C as specified
5	Seat	PTFE, Peek # & UHMWPE			
6	Body Seal	UHMWPE (w/UHMWPE seats), Graphite (w/Peek seats)			
8	Primary Stem Seal	Graphite (w/Peek seats), UHMWPE (w/UHMWPE seats)			
10	Stem Guide	Peek (Peek seated valves)			
16	Hex Nut	Carbon steel (zinc plated)	300 Series Stainless steel		
17	Handle	Carbon steel (zinc plated)	300 Series Stainless steel		
19	Lock Washer	Carbon steel (zinc plated)	300 Series Stainless steel		
20	Compression Plate	316 Stainless steel (Monel if Chlorine)			Monel
24	Stem Bearing	Filled PTFE (Peek when Peek-seated), (UHMWPE when UHMWPE-seated)			
25	Socket Cap Screw	300 Series Stainless steel			
26	Handle Stop Spacer	300 Series Stainless steel			
29	Hex Cap Screw	300 Series Stainless steel (Monel if Chlorine)			Monel
31	Disc Springs	Inconel			

Requires 17-4 PH stem

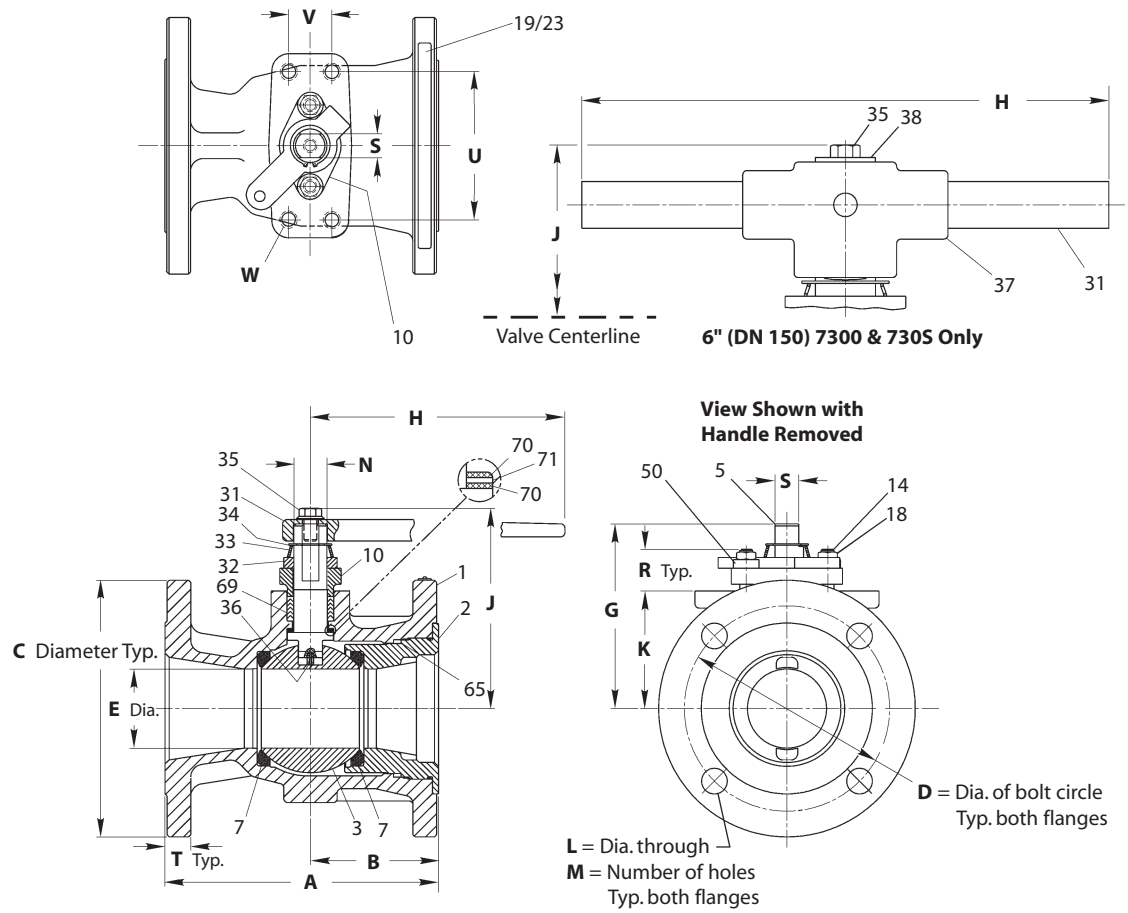
Note 1: When investment castings are used, chemical and physical properties are determined from a master heat in accordance with ASME/ANSI B16.34-1996 Sect. 5.1.2.

Note 2: 17-4 PH stems required with Peek seats

\+ Furnished with valves for NACE MR0103 service.

DIMENSIONS

3" – 6" (DN 80 – 150) Series 7150, 3" – 6" (DN 80 – 150) Series 7300 & 730S (Non-Trunnion)



Valve Size inches	Series 7150 ANSI Class 150 Approximate Dimensions - inches																		Weight lb
	A	B	C	D	E	G	H	J	K	L	M	N	R	S	T	U	V	W	
3	8.00	3.75	7.50	6.00	2.31	5.40	14.00	5.85	3.44	0.75	4	0.97	1.24	0.69	0.81	4.33	1.26	1/2-13	39
4	9.00	4.00	9.00	7.50	3.00	5.89	14.00	6.32	3.93	0.75	8	0.97	1.24	0.69	1.00	4.33	1.26	1/2-13	63
6	10.50	4.25	11.00	9.50	4.00	8.32	19.94	8.78	5.51	0.88	8	1.36	1.78	0.97	106	5.10	1.26	1/2-13	124

Valve Size DN	Series 7150 ANSI Class 150 Approximate Dimensions - mm																		Weight kg
	A	B	C	D	E	G	H	J	K	L	M	N	R	S	T	U	V	W*	
80	203	95	191	152	59	137	356	149	87	19	4	25	32	18	21	110	32	1/2-13	18
100	229	102	229	191	76	150	356	161	100	19	8	25	32	18	25	110	32	1/2-13	29
150	267	108	279	341	102	211	506	223	140	22	8	35	45	25	27	130	32	1/2-13	56

Valve Size inches	Series 7300 ANSI Class 300 Approximate Dimensions - inches																		Weight lb
	A	B	C	D	E	G	H	J	K	L	M	N	R	S	T	U	V	W	
3	11.12	3.75	8.25	6.63	2.31	5.40	14.00	5.85	3.44	0.88	8	0.97	1.24	0.69	1.19	4.33	1.26	1/2-13	59
4	12.00	4.00	10.00	7.88	3.00	7.50	19.94	7.95	4.68	0.88	8	1.36	1.78	0.97	1.31	5.10	1.26	1/2-13	96
6	15.88	4.68	12.50	10.63	4.00	9.08	30.00	10.03	5.66	0.88	12	1.75	1.78	1.25	1.50	6.30	1.58	5/8-11	194

Valve Size DN	Series 7300 ANSI Class 300 Approximate Dimensions - mm																		Weight kg
	A	B	C	D	E	G	H	J	K	L	M	N	R	S	T	U	V	W*	
80	282	95	210	168	59	137	356	149	87	22	8	25	32	18	30	110	32	1/2-13	27
100	305	102	254	200	76	191	506	202	119	22	8	35	45	25	33	130	32	1/2-13	44
150	403	119	318	270	102	231	762	255	144	22	12	44	45	32	38	160	40	5/8-11	88

* Screw-thread dimensions are in inches

Valve Size inches	Series 730S ANSI Class 300 Approximate Dimensions - inches																		Weight lb
	A	B	C	D	E	G	H	J	K	L	M	N	R	S	T	U	V	W	
3	8.00	3.75	8.25	6.63	2.31	5.40	14.00	5.85	3.44	0.88	8	0.97	1.24	0.69	1.19	4.33	1.26	1/2-13	52
4	9.00	4.00	10.00	7.88	3.00	7.50	14.00	7.95	4.68	0.88	8	1.36	1.78	0.97	1.31	5.10	1.26	1/2-13	87
6	10.50	4.68	12.50	10.63	4.00	9.08	30.00	10.03	5.66	0.88	12	1.75	1.78	1.25	1.50	6.30	1.58	5/8-11	160

Valve Size DN	Series 730S ANSI Class 300 Approximate Dimensions - mm																		Weight kg
	A	B	C	D	E	G	H	J	K	L	M	N	R	S	T	U	V	W*	
80	203	95	210	168	59	137	356	149	87	22	8	25	32	18	30	110	32	1/2-13	24
100	229	102	254	200	76	191	356	202	119	22	8	35	45	25	33	130	32	1/2-13	40
150	267	119	318	270	102	231	762	255	144	22	12	44	45	32	38	160	40	5/8-11	73

* Screw-thread dimensions are in inches

BILLS OF MATERIALS AND PARTS LIST

3" – 6" (DN 80 – 150) Series 7150, 7300, & 730S

Part No.	Part Name	Body Material	
		Carbon Steel	316 Stainless Steel
1	Body	Carbon steel ASTM A216 Gr WCB	316 Stainless steel ASTM A351 Gr CF8M
2	Insert/Body Cap	Carbon Steel	316 Stainless steel
3	Ball	+316 Stainless steel, Alloy 20 Monel [1], Hastelloy C [1] - as specified	
5	Stem [3]	+316 Stainless steel, Monel [1], Hastelloy C [1], 17-4 PH Stainless steel - as specified	
7	Seat	XTREME, PTFE, PFA, Peek [3], UHMW Polyethylene - as specified	
10	Compression Plate [1]	Stainless steel, Monel [1]	
14	Stud	ASTM A193 Gr B7; +Gr B7M; Gr B8, B8C, B8T or B8M	
18	Nut	ASTM A194 Gr 2H; +Gr 2HM; Gr 8B, 8CB, 8MB, 8TB, 8FB	
19	Identification Tag	Stainless steel	
23	Rivet	Stainless steel	
31	Handle	Carbon steel	
32	Indicator Stop	Carbon steel	
33	Conical Spring	Inconel	
34	Retainer Ring	Stainless steel	
35	Cap Screw	Carbon steel	
36	Grounding Spring	Inconel	
37	T Handle Adapter [2]	Ductile Iron	
38	Washer [2]	Carbon steel	
50	Stop Bushing [1]	316 Stainless steel, Monel [1]	
65	Body Gasket	PTFE	
69	Packing	PTFE, molecularly enhanced PTFE (XTREME-seated valves)	
70	Stem Bearing	Filled PTFE	
71	Secondary Stem Seal	Graphite	

Note 1: Compression plate and stop bushing are Monel for valves with Monel, Hastelloy C, or Alloy 20 trim.

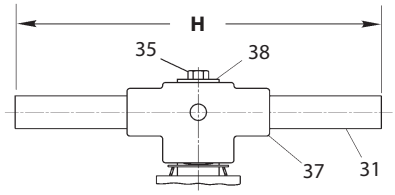
Note 2: 6" (DN 150) 730S and 7300 only.

Note 3: 17-4 PH stems are required with Peek seats.

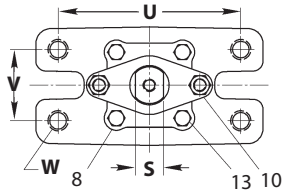
\+ Furnished with valves for NACE MR0103 service

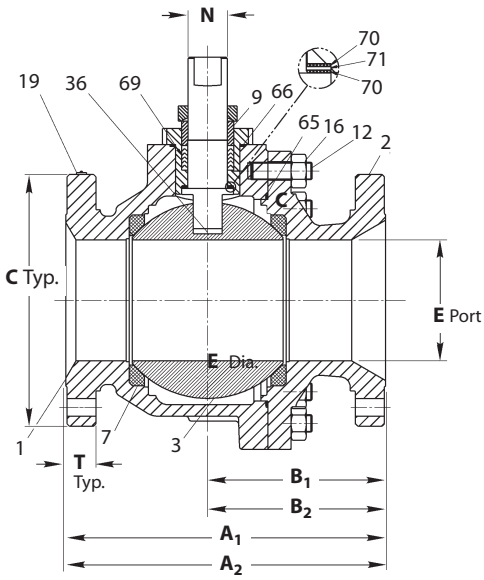
DIMENSIONS

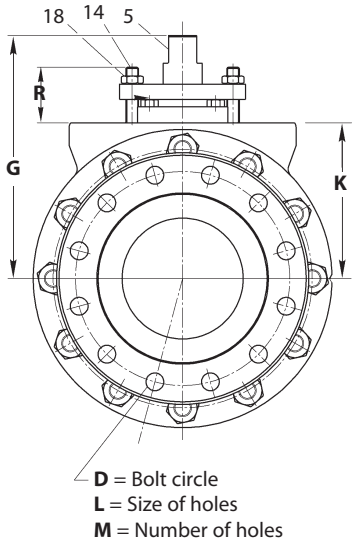
8" (DN 200) Series 7150



8" (DN 200) 7150 only







D = Bolt circle
L = Size of holes
M = Number of holes

Valve Size inches	Series 7150 ANSI Class 150 Approximate Dimensions - inches																		Weight lb
	A	B	C	D	E	G	H	J	K	L	M	N	R	S	T	U	V	W	
8	11.50	6.41	13.50	11.75	6.00	10.69	30.00	11.64	7.27	0.88	8	1.75	1.78	1.25	1.15	6.30	1.56	5/8-11	250

Valve Size DN	Series 7150 ANSI Class 150 Approximate Dimensions - mm																		Weight kg
	A	B	C	D	E	G	H	J	K	L	M	N	R	S	T	U	V	W*	
200	292	163	343	298	152	272	762	296	185	22	8	44	45	32	29	160	40	5/8-11	113

* Screw-thread dimensions are in inches

BILLS OF MATERIALS AND PARTS LIST			
8" (DN 200) Series 7150			
Part No.	Part Name	Body Material	
		Carbon Steel	316 Stainless Steel
1	Body	Carbon steel ASTM A216 Type WCB	316 Stainless steel ASTM A351 Type CF8M
2	Body Cap	Carbon steel ASTM A216 Type WCB	316 Stainless steel ASTM A351 Type CF8M
3	Ball	+316 Stainless steel, Monel[1], Hastelloy C[1] - as specified	
5	Stem[3]	+316 Stainless steel, Monel[1], Hastelloy C[1], 17-4 PH Stainless steel - as specified	
7	Seat	XTREME, PTFE, PFA, Peek[3,4] , UHMW Polyethylene - as specified	
10	Compression Plate[1]	Stainless steel Monel[1]	
12	Body Stud	ASTM A193 Gr. B7; +Gr B7M; B8, B8C, B8T or B8M	
14	Bonnet Stud	ASTM A193 Gr. B7; +Gr B7M; B8, B8C, B8T or B8M	
16	Body Stud Nut	ASTM A194 Gr. 2H; +Gr 2HM; Gr 8B, 8CB, 8MB, 8TB, 8FB	
18	Bonnet Stud Nut	ASTM A194 Gr. 2H; +Gr 2HM; Gr 8B, 8CB, 8MB, 8TB, 8FB	
19	Identification Tag	Stainless steel	
23	Rivet	Stainless steel	
31	Handle	Ductile iron[2] or carbon steel	
32	Indicator Stop	Carbon steel	
33	Spring	Stainless steel	
34	Retaining Ring	Stainless steel	
35	Handle Screw	Carbon steel	
36	Grounding Spring	Inconel	
37	"T" Handle Adapter[2]	Ductile iron	
38	Flat Washer[2]	Carbon steel	
39	Stop Bushing[1]	316 Stainless steel	
65	Body Gasket[1]	Spiral wound PTFE/316 Stainless steel[1]	
69	Packing	PTFE, molecularly enhanced PTFE (XTREME-seated valves)	
70	Stem Bearing	Filled PTFE	
71	Secondary Stem Seal	Graphite	

Note 1: Compression plate, body gasket, and stop bushing are Monel for valves with Monel or Hastelloy C trim.

Note 2: 8" (DN 200) Series 7150.

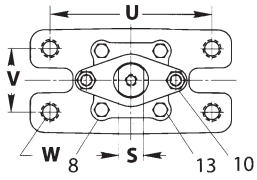
Note 3: 17-4 PH stems are required with Peek seats.

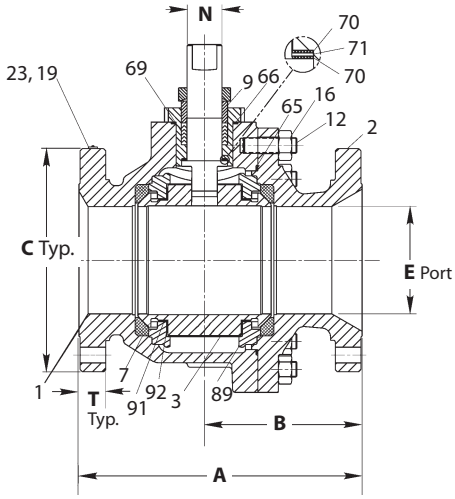
Note 4: Not available 8" (DN 200) 7150

\+ Furnished with valves for NACE MR0103 service.

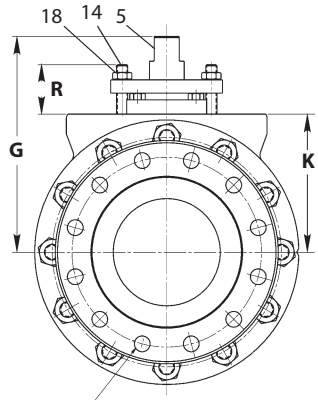
DIMENSIONS

10" (DN 250) Series 7150, 8" & 10" (DN 200 & 250) Series 7300 & 730S





Cap Style for
8" (DN 200) 730S[2]
10" (DN 250) 150 &
10" (DN 250) 730S



D = Bolt circle
L = Size of holes
M = Number of holes

Valve Size	Series 7150 ANSI Class 150 Approximate Dimensions – inches																	Weight
inches	A	B	C	D	E	G	K	L**	M	N	R	S	T	U	V	W	X	lb
10	13.00	5.85	16.00	14.25	8.00	15.60	10.22	1.00	12	2.54	2.88	1.82	1.19	9.06	3.54	1-8	N/A	465

Valve Size	Series 7150 ANSI Class 150 Approximate Dimensions – mm																	Weight
DN	A	B	C	D	E	G	K	L**	M	N	R	S	T	U	V	W	X	kg
250	330	149	406	362	203	396	260	25	12	65	73	46	30	230	90	1-8	N/A	211

Valve Size	Series 7300 & 730S ANSI Class 300 Approximate Dimensions – inches																			Weight lb	
inches	7300 A	730S A	7300 B	730S B	C	D	E	G	K	L**	M	N	R	S	T	U	V	W	X	7300	730S
8	16.50	11.50	10.12	5.12	15.00	13.00	6.00	12.07	7.74	1.00	12	1.95	2.76	1.39	1.68	9.06	3.54	1-8	N/A	340	327
10	18.00	13.00	10.85	5.85	17.50	15.25	8.00	15.60	10.22	1.13	16	2.54	2.88	1.82	1.88	9.06	3.54	1-8	N/A	695	576

Valve Size	Series 7300 & 730S ANSI Class 300 Approximate Dimensions – inches																			Weight lb	
DN	7300 A	730S A	7300 B	730S B	C	D	E	G	K	L**	M	N	R	S	T	U	V	W	X	7300	730S
200	419	282	257	130	381	330	152	307	147	25	12	50	70	35	43	230	90	1-8	N/A	154	148
250	457	330	276	149	445	387	203	396	260	29	16	65	73	46	48	230	90	1-8	N/A	315	261

* Screw-thread dimensions are in inches.
** Holes in the body cap are threaded: 8" (DN 200) 730S (7/8-9 x 1.25 deep), 10" (DN 250) 7150 (7/8-9 x 1.13 deep), 10" (DN 250) 730S (1-8 x 1.38 deep)
1 The ball only protrudes from the flange face (in the closed position) on the 10" (DN 250) 7150 and 10" (DN 250) 730S. This is because they have the same F-F dimension and the same ball. Each of these also has the special insert with tapped pipe flange bolt holes.
2 The 8" (DN 200) 730S also has a special insert with tapped pipe flange bolt holes, but the ball does not protrude.

BILLS OF MATERIALS AND PARTS LIST			
10" (DN 250) Series 7150, 8" & 10" (DN 200 & 250) Series 7300 & 730S			
Part No.	Part Name	Body Material	
		Carbon Steel (22) All Series	316 Stainless Steel (36) All Series
1	Body	Carbon steel ASTM A216 Gr WCB	316 Stainless steel ASTM A351 Gr CF8M
2	Body Cap	Carbon steel ASTM A216 Gr WCB	316 Stainless steel ASTM A351 Gr CF8M
3	Ball	+316 Stainless steel, Alloy 20, Monel[1], Hastelloy C[1] - as specified	
5	Stem	+316 Stainless steel, Monel[1], Hastelloy C[1], 17-4 PH - as specified	
7	Seat	XTREME, PTFE - as specified	
8	Stem Retainer	Carbon steel ASTM A216 Gr WCB	Stainless steel ASTM A351 Gr CF8M
9	Gland Follower[1]	Carbon Steel, Stainless steel, Monel[1]	
10	Compression Plate[1]	Stainless steel, Monel[1]	
12	Body Stud	ASTM A193 Gr B7; +Gr B7M; Gr B8, B8C, B8T or B8M	
13	Stem Retainer Bolt	ASTM A193 Gr B7; +Gr B7M; Gr B8, B8C, B8T or B8M	
14	Stud	ASTM A193 Gr B7; +Gr B7M; Gr B8, B8C, B8T or B8M	
16	Nut	ASTM A194 Gr 2H; +Gr2HM; Gr 8B, 8CB, 8MB, 8TB, 8FB	
18	Nut	ASTM A194 Gr 2H; +Gr 2HM; Gr 8B, 8CB, 8MB, 8TB, 8FB	
19	Identification Tag	Stainless steel	
23	Rivet	Stainless steel	
36	Grounding Spring[2]	Inconel	
65	Body Gasket[1]	Spiral Wound PTFE / 316 Stainless steel[1]	
66	Stem Retainer Seal[1]	Spiral Wound PTFE / 316 Stainless steel[1]	
69	Packing	PTFE, molecularly enhanced PTFE (XTREME-seated valves)	
70	Stem Bearing	Filled PTFE	
71	Secondary Stem Seal	Graphite	
89	Trunnion[3]	Carbon Steel	Stainless steel
91	Bearing Spacer[3]	Filled PTFE	
92	Trunnion Bearing[3]	316 Stainless steel	

Note 1: Compression plate, body gasket, stem retainer gasket, and gland follower are Monel for valves with Monel or Hastelloy C trim.

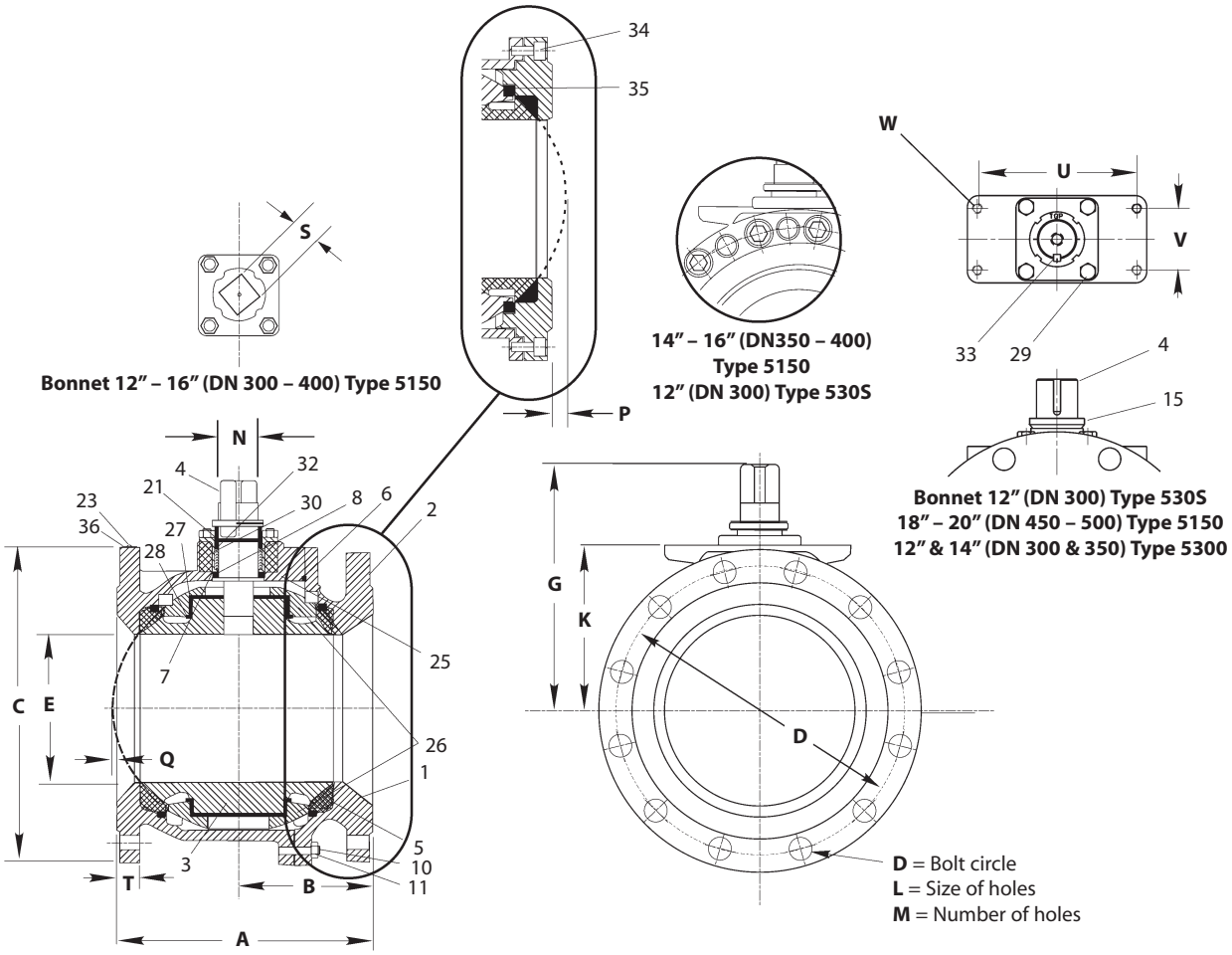
Note 2: For grounding valves only.

Note 3: Parts 89, 91 and 92 are removed from values without trunnions.

\+ Furnished with valves for NACE MR0103.

DIMENSIONS

12" – 20" (DN 300 – 500) Series 5150, 12" – 20" (DN 300 – 500) Series 5300, and 12" (DN 300) Series 530S



Valve Size inches	Series 5150 ANSI Class 150 Approximate Dimensions - inches																	Weight lb
	A	B	C	D	E	G	K	L**	M	N	P	Q	S	T	U	V	W	
12	14.00	7.13	19.00	17.00	10.00	13.63	10.25	1.00	12	1.97	0.84	1.00	1.63	1.25	8.00	3.25	1/2-13	620
14	15.00	6.75	21.00	18.75	10.00	13.63	10.25	1.13	12	1.97	–	1.18	1.63	1.38	8.00	3.25	1/2-13	850
16	16.00	8.00	23.50	21.25	12.00	16.75	12.00	1.13	16	2.48	1.50	1.50	2.00	1.44	10.00	3.25	3/4-10	1220
18	34.00	22.00	25.00	22.75	13.25	20.25	13.75	1.25	16	3.00	–	–	–	1.56	11.13	5.30	3/4-10	1665
20	36.00	22.75	27.50	25.00	15.25	21.75	15.25	1.25	20	3.00	–	–	–	1.69	11.13	5.30	3/4-10	2600

Valve Size DN	Series 5150 ANSI Class 150 Approximate Dimensions - mm																	Weight kg
	A	B	C	D	E	G	K	L**	M	N	P	Q	S	T	U	V	W*	
300	356	181	483	432	254	346	260	25	12	50	21	25	41	32	203	83	1/2-13	281
350	381	171	533	476	254	346	260	29*	12	50	–	30	41	35	203	83	1/2-13	386
400	406	203	597	540	305	425	305	29*	16	63	38	38	51	37	254	83	3/4-10	553
450	864	559	635	578	337	514	349	32	16	76	–	–	–	40	283	135	3/4-10	755
500	914	578	699	635	387	552	387	32	20	76	–	–	–	43	283	135	3/4-10	1179

* Screw-thread dimensions are in inches

** Holes in the body cap are threaded: 12" (DN 300) 530S (1-8 x 1.44 deep), 14" (DN 350) 5150 (1-8 x 1.31 deep), 16" (DN 400) 5150 (1-1/8-8 x 1.69 deep)

Valve Size	Series 530S & 5300 ANSI Class 300 Approximate Dimensions – inches																			Weight lb	
inches	A530S	A5300†	B530S	B5300†	C	D	E	G	K	L**	M	N	P	Q	S	T	U	V	W	530S	5300
12	14.00	19.75	6.88	12.63	20.50	17.75	10.00	17.63	11.13	1.25	16	3.00	0.71	–	–	2.00	11.13	5.30	1/2-13	740	970
14	–	22.50	–	13.00	23.00	20.25	10.00	17.63	11.13	1.25	20	3.00	–	–	–	2.13	11.13	5.30	1/2-13	—	1130
16	–	24.00	–	14.00	25.50	22.50	12.00	19.13	12.63	1.38	20	3.50	–	–	–	2.25	13.00	7.00	3/4-10	—	1700
18	–	36.00	–	20.81	28.00	24.75	13.25	20.50	14.00	1.38	24	3.50	–	–	–	2.38	13.00	7.00	3/4-10	—	2000
20	–	28.00	–	16.00	30.50	27.00	15.25	22.00	15.25	1.38	24	3.50	–	–	–	2.50	13.00	7.00	3/4-10	—	3000

Valve Size	Series 530S & 5300 ANSI Class 300 Approximate Dimensions – mm																			Weight kg	
DN	A530S	A5300†	B530S	B5300†	C	D	E	G	K	L**	M	N	P	Q	S	T	U	V	W*	530S	5300
300	356	502	175	321	521	451	254	448	283	32	16	76	18	–	–	51	283	135	1/2-13	336	417
350	–	572	–	330	584	514	254	448	283	32	20	76	–	–	–	54	283	135	1/2-13	—	513
400	–	610	–	356	648	572	305	486	321	35	20	89	–	–	–	57	330	178	3/4-10	—	771
450	–	914	–	529	711	623	337	521	356	35	24	89	–	–	–	60	330	178	3/4-10	—	907
500	–	711	–	406	775	686	387	559	387	35	24	89	–	–	–	64	330	178	3/4-10	—	1361

* Screw-thread dimensions are in inches.
** Holes in the body cap are threaded: 12" (DN 300) 530S (1-8 x 1.44 deep), 14" (DN 350) 5150 (1-8 x 1.31 deep), 16" (DN 400) 5150 (1-1/8-8 x 1.69 deep).
† 18-inch (DN 450) valve is designated 53LO.

BILLS OF MATERIALS AND PARTS LIST

12" – 20" (DN 300 – 500) Series 5150, 12" – 20" (DN 300 – 500) Series 5300, 18" (DN 450) Series 53LO, and 12" (DN 300) Series 530S (Trunnion)

Part No.	Part Name	Body Material	
		Carbon Steel (22) All Series	316 Stainless Steel (36) All Series
1	Body	Carbon steel ASTM A216 Type WCB	316 Stainless steel ASTM A351 Type CF8M
2	Body Cap	Carbon steel ASTM A216 Type WCB	316 Stainless steel - ASTM A351 Type CF8M
3	Ball	+316 Stainless steel, Alloy 20, Monel[1], Hastelloy C[1] - as specified	
4	Stem	Alloy 20, +316 Stainless steel, 17-4PH Stainless steel, Monel[1], Hastelloy C[1] - as specified	
5	Seat	PTFE, filled PTFE, - as specified	
6	Body Seal[1]	Spiral-wound PTFE/316 Stainless steel[1]	
7	Secondary Stem Seal	Graphite	
8	Stem Bearing	Filled PTFE	
10	Body Stud	ASTM A193 Gr. B7; Gr. B7M; Gr. B8, B8C, B8T or B8M	
11	Nut	ASTM A194 Gr. 2H, 2HB, or Gr. 2HM; Gr. 8B, 8CB, 8MB, or 8TB	
15	Stem Nut	Carbon steel	
21	Compression Ring[3]	Stainless steel	
22	Identification Tag	Stainless steel	
23	Drive Screw	Stainless steel	
25	Stem Retainer Seal	Graphite	
26	Trunnion Plate	Carbon steel, Type WCB	316 Stainless steel[1], Type CF8M
27	Trunnion Bearing	316 Stainless-steel-backed glass-filled PTFE	
28	Bearing Spacer	Filled PTFE	
29	Hex. Hd. Cap Screw	Carbon steel ASTM A193 Gr. B7 or B7M	
30	Stem Retainer	Carbon steel Type WCB	316 Stainless steel type CF8M
32	Upper Stem Seal	PTFE	
33	Key	Carbon steel	
34	Sc. Hd. Cap Screw[3]	ASTM A193 Gr. B7; Gr. B7M; Gr. B8, B8C, or B8T	
35	Trunnion Ring	Carbon steel	Stainless steel
36	Tag: Trunnion Ball	Stainless steel	
37	Caution Tag[4]	Stainless steel	

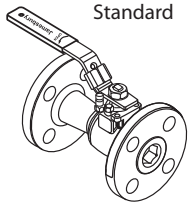
Note 1: When trim is Alloy 20 or Monel, body seal is PTFE Monel, when trim is Hastelloy C, seal is PTFE Hastelloy C.
Note 2: When trim is Alloy 20, Monel, or Hastelloy C, compression ring is Monel.
Note 3: For 14" & 16" (DN 350 & 400) 5150 and 12" (DN 300) 530S only.
Note 4: For 12", 14", & 16" (DN 300, 350, & 400) 5150 and 12" (DN 300) 530S& 5300 only.
\+ Furnished with valves for NACE MR0103.

ACCESSORIES

Locking Devices

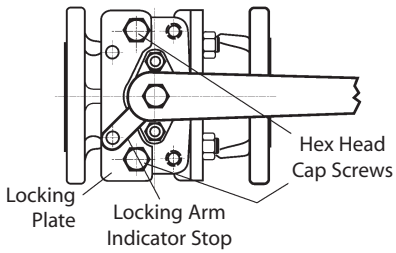
When safety measures are necessary, a reliable locking plate is available to allow the valve to be padlocked in either the open or closed position. Proper figure numbers are shown in the Accessory Table below.

Slide Lock
Standard



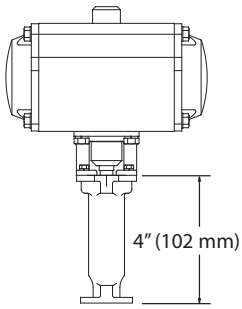
1/2" – 2" (DN 15 – 50)
Series 7000

3" – 8" (DN 80 – 200) Series 7150
3" – 6" (DN 80 – 150) Series 730S & 7300
LD56, 57 & 58



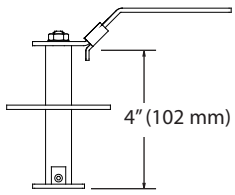
Bonnet/Stem Extensions SE-096, 097 & 098

4" (102 mm) bonnet/stem extensions are available for applications that require insulated pipe, particularly useful for automated products, extension can also be used to prevent interference between actuators and companion pipelines and equipment. They are ideal as extension that require locking lever or locking oval handle capability. Stainless steel construction offers the option of using the extension to complement the carbon steel stem extension (SE-093, 094 & 095) offerings.



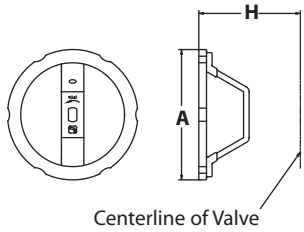
Stem Extensions SE-093, 094 & 095

A standard 4" (102 mm) stem extension is offered for Series 7000 valves (1/2 – 2") for improved accessibility, particularly when used in insulated pipelines. Stem extension kits can be ordered factory-mounted or shipped separately for field mounting



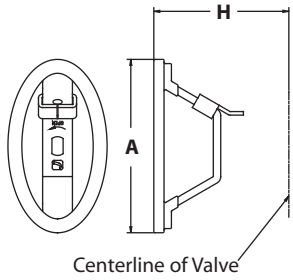
Round Handles

Series 7000 ball valves have optional round handles available. To order handles separately, specify the part number shown in the accessories table below.



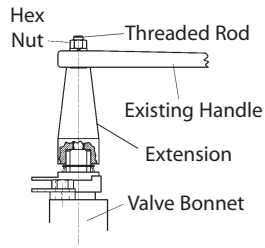
Oval handles with slide-lock

Optional oval handle saves space and may be padlocked to retain the valve in the open or closed position.



Stem Extensions SE-60, 61 & 62

A standard 4" (102 mm) stem extension is offered for Series 7000 valves (3 – 8") for improved accessibility, particularly when used in insulated pipelines. Stem extension kits can be ordered factory-mounted or shipped separately for field mounting



3" – 8" (DN 80 – 200) Series 7150
3" – 6" (DN 80 – 150) Series 730S & 7300

Accessory Table – inches (DN)									
Valve Size Standard Bore	Locking Device	Stem Ext.	*Bonnet Ext.	Locking Oval	Round	Round/Oval Handle		Allowable Max. Torque FT•LBS (N•m)	
						Dimension A	Dimension H	Round	Oval
1/2 (15)	Standard Equipment	SE-093	SE-096	112-0108-30	112-0105-30	4.00 (101.6)	2.96 (75.2)	9 (12)	9 (12)
3/4 (20)		SE-093	SE-096	112-0108-30	112-0105-30	4.00 (101.6)	3.11 (79.0)	9 (12)	9 (12)
1 (25)		SE-094	SE-097	112-0109-30	112-0106-30	4.50 (114.3)	3.70 (94.0)	18 (24)	18 (24)
1-1/2 (40)		SE-095	SE-098	112-0110-30	112-0107-30	5.75 (146.0)	4.75 (120.7)	25 (34)	25 (34)
2 (50)		SE-095	SE-098	112-0110-30	112-0107-30	5.75 (146.0)	4.94 (125.5)	25 (34)	25 (34)
3 (80)	LD56	SE-60	NA						
4 (100) 7150	LD56	SE-60							
4 (100) 730S & 7300	LD57	SE-61							
6 (150) 7150	LD57	SE-61							
6 (150) 730S & 7300	LD58	SE-62							
8 (200) 7150	LD58	SE-62							

* For valves with PEEK(L) seats use bonnet extension SE-096, 097 or 098.

VALVE TORQUE DATA

Use these torque charts as a guide for actuator selection. Additional requirements may be imposed by media characteristics, trim, and frequency of valve operation. For clean lubricating fluid service, required torque for PTFE (T), XTREME (X) and filled PTFE (M) seated valves only may be reduced 20% when the valve is equipped with corrosion resistant trim. For difficult services such as slurries and semi-solids, and for oxygen, increase values by 50%. If in doubt, err on the side of safety by using a larger actuator than would normally be selected.

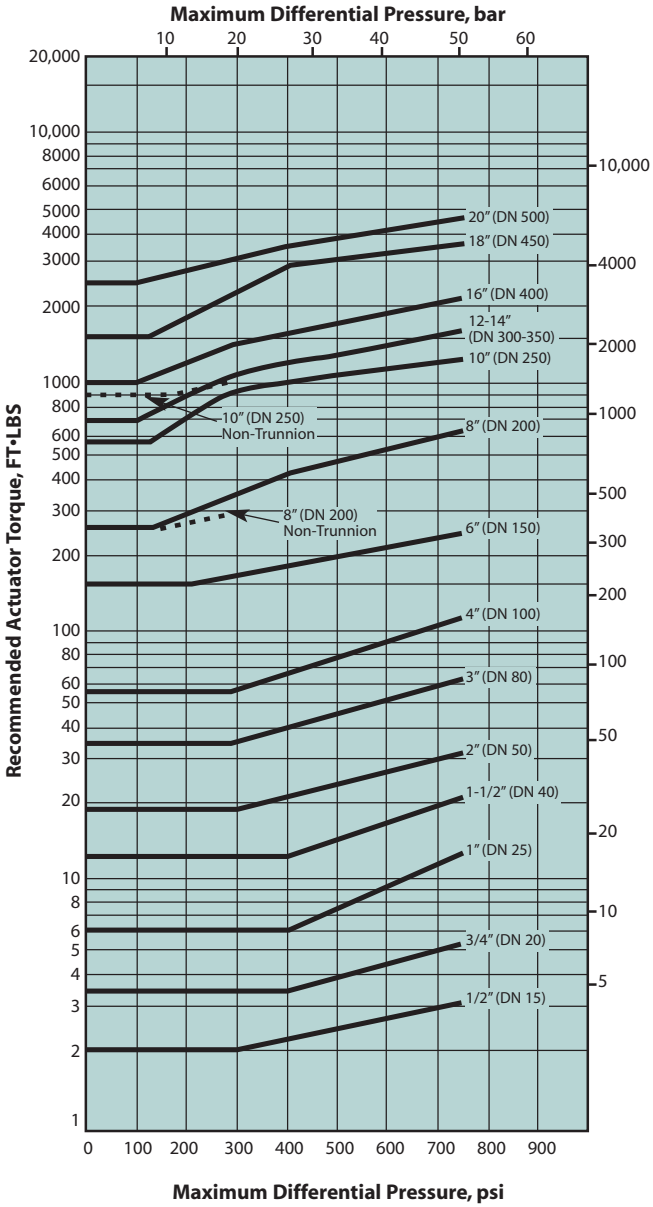
Valves with E-PAK® require an increase in operating torque. Refer to Bulletin B115-4 for additional information.

Torque output values and actuator selection tables for the different types of JAMESBURY actuators are contained in the bulletins listed below.

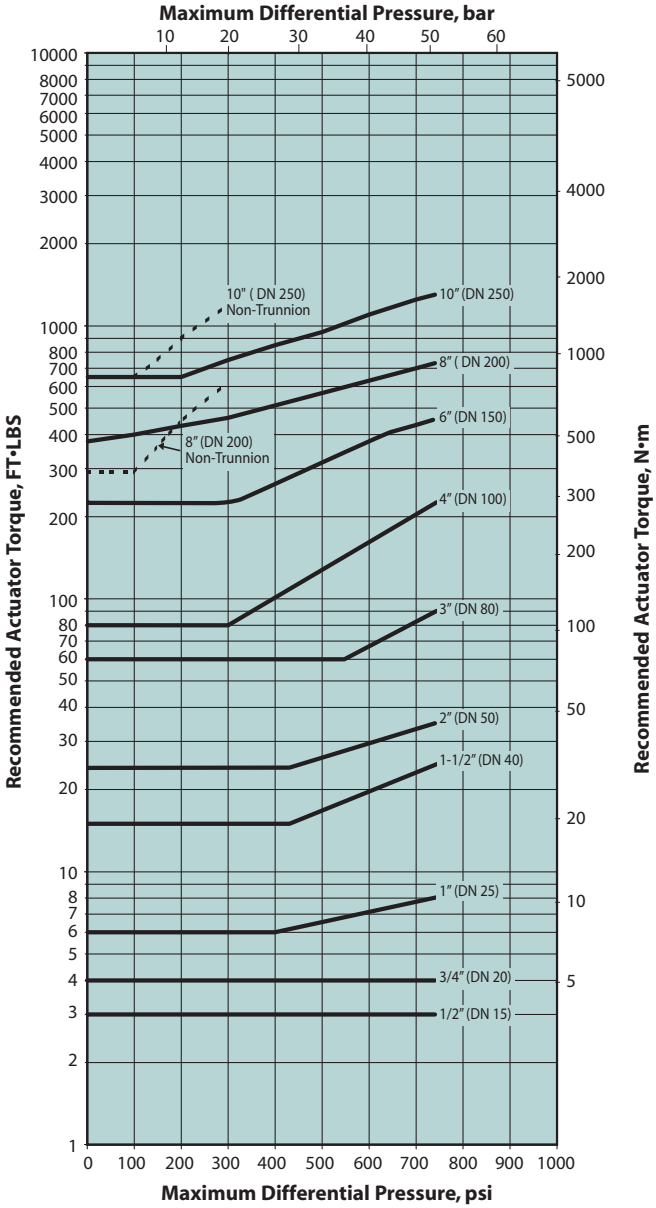
Manual Gear Actuators	A100-1
B-Series Piston Actuators	6B20
QUADRA-POWR® X Spring Diaphragm Rotary Actuators	A110-4
VALV-POWR® Series VPVL	A111-3
VPVL Stainless Steel	A111-4
V-Series Electric Actuators	A200-1
ADC Electric Actuators	A201-1

ANSI Class 150 and 300 Valve Torque Data

PTFE (T) Seated Valves



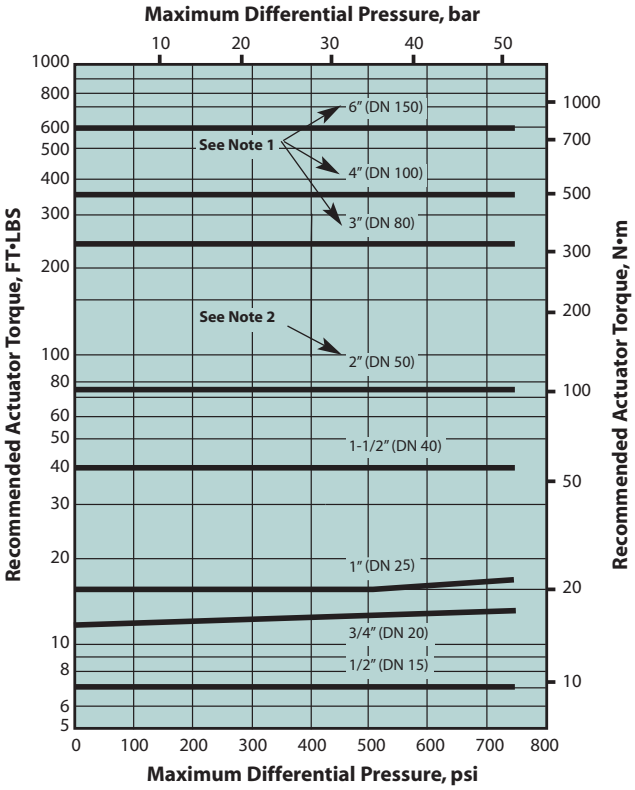
XTREME (X) Seated Valves 1/2" – 10" (DN 15 – 250)



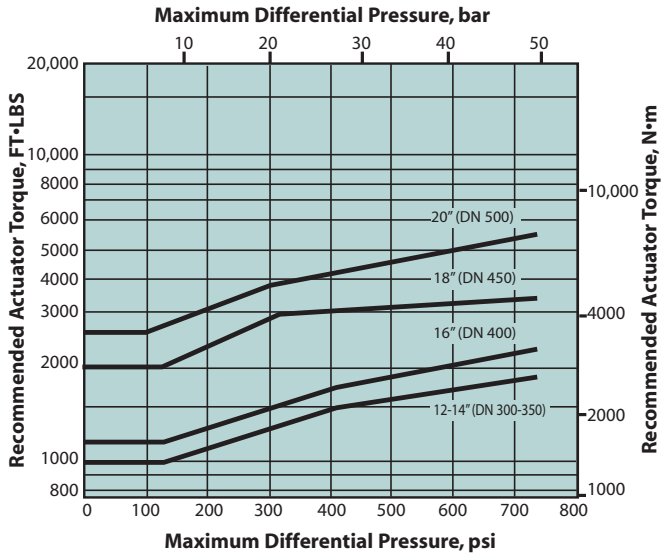
VALVE TORQUE DATA

ANSI Class 150 and 300 Valves

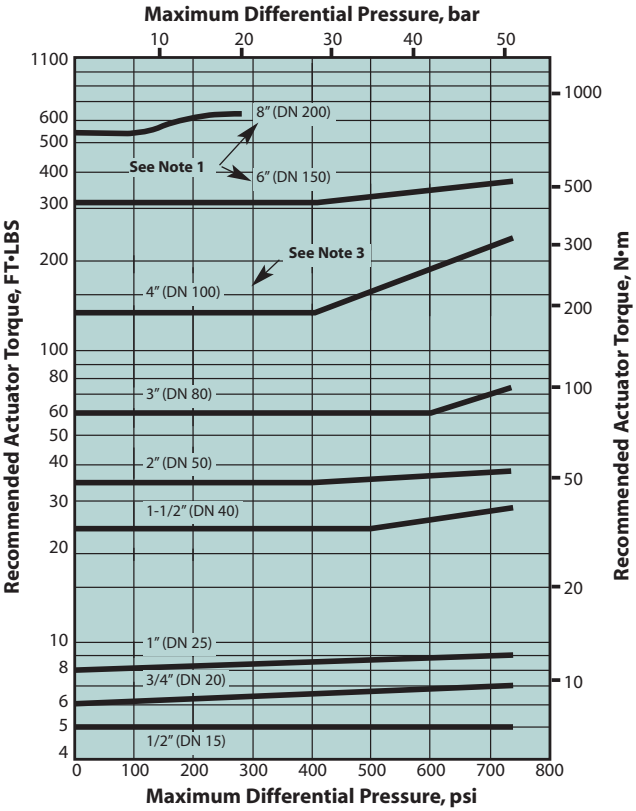
Peek (L) Seated Valves 1/2" – 6" (DN 15 – 150)



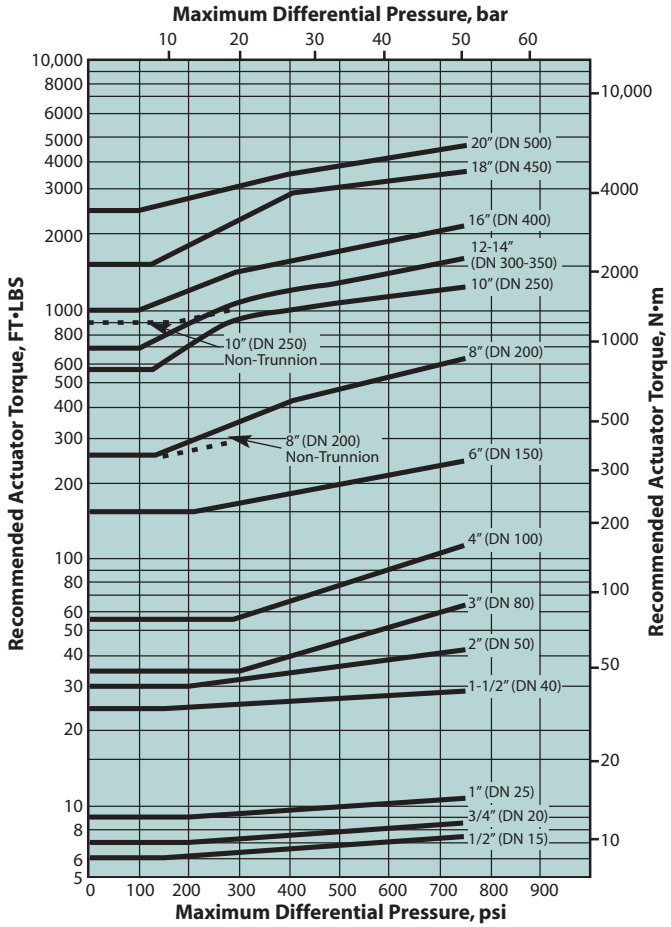
Filled PTFE (M) Seated Valves



PFA (B) Seated Valves 1/2" – 8" (DN 15 – 200)



UHMW Polyethylene (U) Seated Valves



Note 1: Actuator is required;
Note 2: Actuator is required for difficult service;
Note 3: Actuator is required for difficult service and pressure greater than 500 psi.

HOW TO ORDER

EXAMPLE: A 2" ANSI Class 300 short design valve (730S) in FIRE-TITE design with raised-face flanges (31), carbon steel body (22), and 316 stainless steel trim (36), with XTREME seats (XTZ) and molecularly enhanced PTFE stem seals is written: 2" 730S-31-2236XTZ1.

1	2	3	—	4	—	5	6	7	8
2"	730S	–		31		22	36	XTZ	1

1	Size		
1/2" to 20"	1/2" (DN 15)	3" (DN 80)	12" (DN 300)
	3/4" (DN 20)	4" (DN 100)	14" (DN 350)
	1" (DN 25)	6" (DN 150)	16" (DN 400)
	1-1/2" (DN 40)	8" (DN 200)	18" (DN 450)
	2" (DN 50)	10" (DN 250)	20" (DN 500)

2	Valve Series & Style	Size Range
7150	Standard Bore Class 150	1/2 – 10" (DN 15 – 250)
7180	Standard Bore Class 150*	1/2 – 10" (DN 15 – 250)
730S	Standard Bore Class 300 (Short)	1/2 – 10" (DN 15 – 250)
7300	Standard Bore Class 300	1/2 – 10" (DN 15 – 250)
7380	Standard Bore Class 300*	1/2 – 10" (DN 15 – 250)
5150	Standard Bore Class 150	12 – 20" (DN 300 – 500)
5180	Standard Bore Class 150*	12 – 20" (DN 300 – 500)
530S	Standard Bore Class 300 (Short)	12" (DN 300)
5300**	Standard Bore Class 300	12 – 20" (DN 300 – 500)
5380	Standard Bore Class 300*	12 – 20" (DN 300 – 500)

* Metric units on nameplate. Valves larger than 1" (DN 25) are CE marked. Includes static grounding per BS 5351.
** 18" Only available as 53LO.

3	Special Construction
—	Standard (no entry)
C	Chlorine
N	NACE MR0103
O	Oxygen
TG	Top Grounded (1/2" – 2" 7000)
STG	Grounded 7000 Series
STGR	Grounded 5000 Series
V	High Vacuum
VC	High Vacuum Certified
DT	125 RMS Flange Finish
DBB	Double Block and Bleed (See Bulletin B151-1)

4	End Connection Construction	Size Range
11	Raised Face Non-FIRE-TITE Non-Trunnion	1/2 – 10" (DN 15 – 250) Standard Bore
31	Raised Face FIRE-TITE Non-Trunnion	1/2 – 10" (DN 15 – 250) Standard Bore
71	Raised Face FIRE-TITE Trunnion	10 – 20" (DN 250 – 500) Class 150 Std Bore 8 – 20" (DN 200 – 500) Class 300 Std Bore

5	Body Material*	Size Range
22	Carbon Steel (WCB)	All
35	Alloy 20 (CN7M)	1/2 – 10" (DN 15 – 250) Std Bore Class 150
36	Stainless Steel (CF8M)	All
71	Monel	Optional in all sizes
28	Carbon Steel (LCC)	Optional in all sizes

* Other materials available on application

6	Ball & Stem Materials*	Size Range
35	Alloy 20	1/2 – 10" (DN 15 – 250) Std Bore,
36	316 Stainless Steel	All
71	Monel	1/2 – 8" (DN 15 – 200) Std Bore, optional in all others
73	Hastelloy	Optional in all sizes
HB	316 SS, 17-4 PH	Req'd for seat & seal code LGG
00	Same as body	All (Carbon steel not available)

* Other materials available on application

7	Seat / Body Seal / Stem Seal Material*	Size Range
XTZ	XTREME/PTFE[2]/TFM	1/2 – 10" (DN 20 – 250) Std Bore
TTT	PTFE/PTFE[2]/PTFE[2]	All
MTT	Filled PTFE/PTFE/PTFE	12 – 20" (DN 300 – 500) Std Bore
BTT	PFA/PTFE[2]/PTFE[2]	1/2 – 8" (DN 15 – 200) Std Bore
LGG †[13]	Peek/Graphite/Graphite	1/2 – 6" (DN 15 – 150) Std Bore
UUU [1]	UHMW/UHMW/UHMW	1/2 – 10" (DN 15 – 250) Std Bore
MBT [1]	Barrier-filled PTFE	4 – 12" (DN 100 – 300) Std Bore
ZTT	TFM/PTFE[2]/PTFE[2]	1/2" – 10" (DN 15 – 250) Full Bore

* Use first two letters only for Series 5000 valves
† Requires 17-4PH Stem
1 Non-FIRE-TITE only
2 TFM on sizes 1-1/2" (DN 40) and smaller
3 Not a self relieving seat design

8	Bolts	Nuts	Application
1*	ASTM A193 Gr B7	ASTM A194 Gr 2H	Carbon Steel Monel
2	ASTM A193 Gr B8, B8C, B8M or B8T (Class 2)	ASTM A194 Gr 8B, 8CB, 8MB, 8TB, or 8FB	316 St. Stl. Alloy 20
5**[4]	ASTM A193 Gr B7M	ASTM A194 Gr 2HM	All NACE
4**	Monel		Monel All NACE All Cl_2

Bolts and nuts for 2" and smaller valves apply to bonnet hardware only. For 3" and larger, bolts and nuts pertain to bonnet hardware and body and cap fasteners.

* Not available on 2" Standard Bore and smaller
** Required for compliance to NACE MR0103-2003 3" and larger.
4 2" (DN 50) and smaller use Monel bonnet hardware for NACE MR0103-2003 compatibility.

Hastelloy is a registered trademark of Haynes International, Inc. Monel is a registered trademark of Inco. Delrin is a registered trademark of Dupont Co.

STANDARDS AND SPECIFICATIONS

The Company

ISO 9001 – 2000 ANSI/150/ASQ Q9001 – 2000
Pressure Equipment Directive 97/23/EC

The Product - Standard

API 598	American Petroleum Institute - Valve Inspection and testing
API 607 Edition 4	American Petroleum Institute - Fire Test for Soft Seated Valves (Division of refining)
API 608	Metal Ball Valves Used in On-Off Service that have Buttwelded or Flanged Ends for Size 1/2 – 2" (DN 15 – 50) NPS
ANSI/ASME B16.10	American National Standard - Face-to-Face and End-to-End Dimensions of Ferrous Valves
ANSI/ASME B16.5	American National Standard - Steel Pipe Flanges and Flanged Fittings
ANSI/ASME B16.34	American National Standard - Steel Valves - Flanged and Buttwelded End
ANSI/ASME B31.1	American National Standard - Power Piping
ANSI/ASME B31.3	American National Standard - Chemical Plant and Petroleum Refinery Piping
ANSI/FCI 70-2-1991	American National Standard - For Control Valve Seat Leakage
BS2080:1989	British Standards Institute - Specification for Face-to-Face Dimensions of Flanged and Buttwelded Steel Valves
BS 6755-2: 1987	Testing of Valves. Specification for Fire Type-Testing Requirements
ISO 15848-1	Industrial Valves - Fugitive Emissions - Measurement, Test & Qualification Procedures
ISO 5752:1982	International Standard for Organization Metal Valves for use in Flanged Piping Systems
ISA 75.02	Valve Sizing Coefficient Cv, Piping Geometry Factor Fp and Pressure Drop Limitation XT
ISA S75.19	Hydrostatic Testing of Control Valves
ISO 5211	Dimensions for Attachment of Actuators/Gear Boxes to Valves (ISO Mounting)
MSS SP-25	Manufacturers Standardization Society - Standard Marking System for Valves
MSS-SP-55	Manufacturers Standardization Society - Quality Standards for Steel Castings
MSS-SP-6-1996	Standard Finishes for Contact Faces of Pipe Flanges and Connecting-End Flanges of Valves and Fittings
MSS-SP-44-1996	Steel Pipe Line Flanges
MSS-SP-61-1992	Pressure Testing of Steel Valves
MSS SP-72-1992	Flanged or Butt and Weld End Ball Valves Having Full or Reduced Bores for General Liquid and Gas Service
MSS SP-96-1996	Terminology for Valves and Fittings

The Product - Optional

BS 5351	Steel Ball Valves for the Petroleum, Petrochemical and Allied Industries
97 / 23 / EC	European Pressure Equipment Directive
MSS SP-53-1995 (R-1990)	Quality Standard For Steel Castings and Forgings for Valves, Flanges and Fittings and Other Piping Components-Magnetic Particle Examination Method
MSS SP-93-1987 (R-1992)	Quality Standard For Steel Castings and Forgings for Valves, Flanges and Fittings and Other Piping Components-Liquid Penetrant Method
NACE Standard MR0103	National Association of Corrosion Engineers-Engineers - Materials Resistant to Sulfide Stress Cracking in Corrosive Petroleum Refining Environments
Factory Mutual (FM)	Figure 1052 Gas and Oil Shutoff Valves.
Underwriter Laboratory (UL)	Categories MHKZ, YQAR, YRBX, YRPV, YSDT.

Subject to change without prior notice.

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