

FLANGED BALL VALVES ASME CLASS 150 & 300

**STANDARD BORE:
1/2" – 20" (DN 15 – 500) SERIES 7000**

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" – 20" (DN 15 – 500) in 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 compliance.

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 7180/738S which meet the European Pressure Equipment Directive (PED) 97/23/EC are available in ASME Class 150/300. Operating torques, construction options and valve dimensions are exactly the same as the standard ASME 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, 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 available to serve refineries and related chemical and petrochemical industries. Consult factory for materials of construction.
- NACE MR0103 compliance available.
- Available to meet over 30 standard and optional industry standards and specifications. (For details see page 19).

NEW FEATURES AND BENEFITS

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

- New patented stem seal system is live loaded and engineered to assure long sealing life.
- ISO 5211 Bonnet for global conformity.
- Stainless steel linkage for VPVL, V, ADC, LCR and LCU 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.

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/cm². To convert C_v to K_v , multiply by 0.8569.

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.

Valve Size		C_v
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

Temp °F	Maximum Working Pressure, psi					
	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

Temp °C	Maximum Working Pressure, bar					
	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
93	17.7	16.2	13.5	13.5	46.6	42.2
149	15.8	14.8	13.1	13.1	45.1	38.5
204	13.8	13.7	13.1	13.1	43.8	35.7
260	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

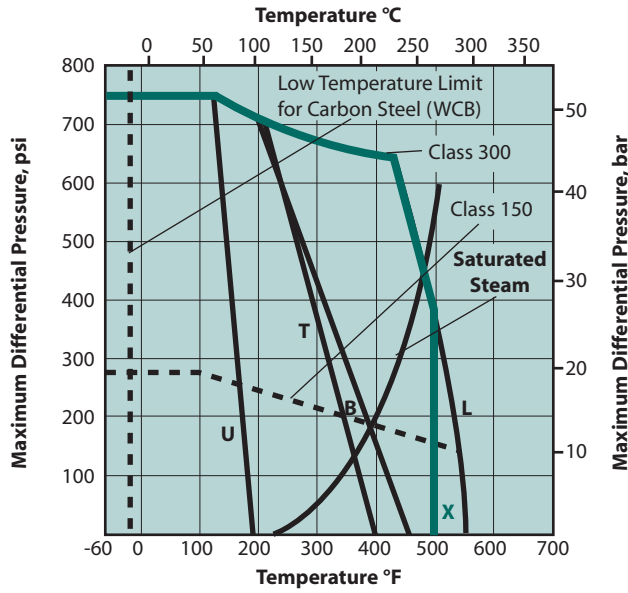
Seat ratings, indicated by solid lines in the charts on the next page, are based on differential pressure with the valve ball in the fully closed position and refer to seats only. The dotted lines indicate maximum working pressures for *WCB carbon steel* valve bodies. (Maximum working pressures of other 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.

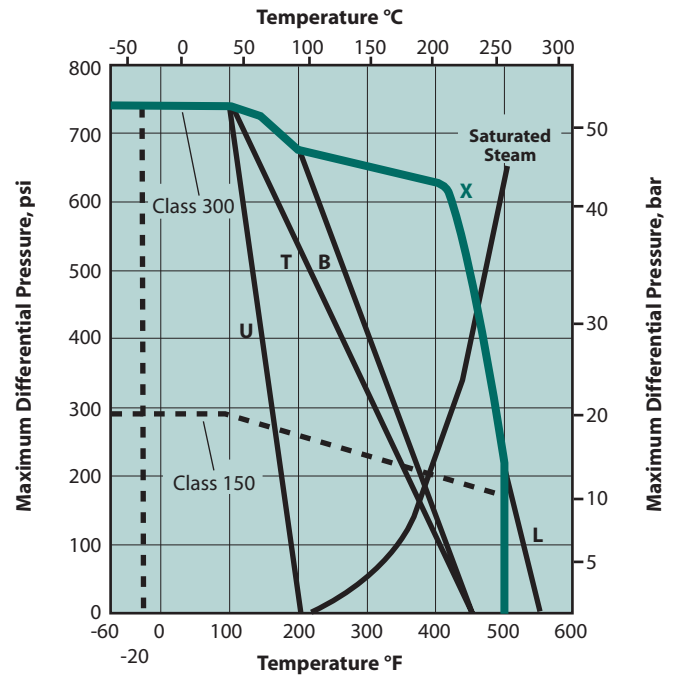
Xtreme Performance and Value

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 fluoro-polymer-based blend proprietary to *Jamesbury* that provides superior quarter-turn performance.

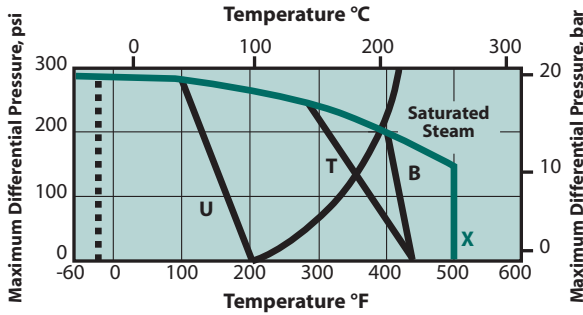
1/2" – 2" (DN 15 – 50) Standard Bore



3" – 6" (DN 80 – 150) Standard Bore

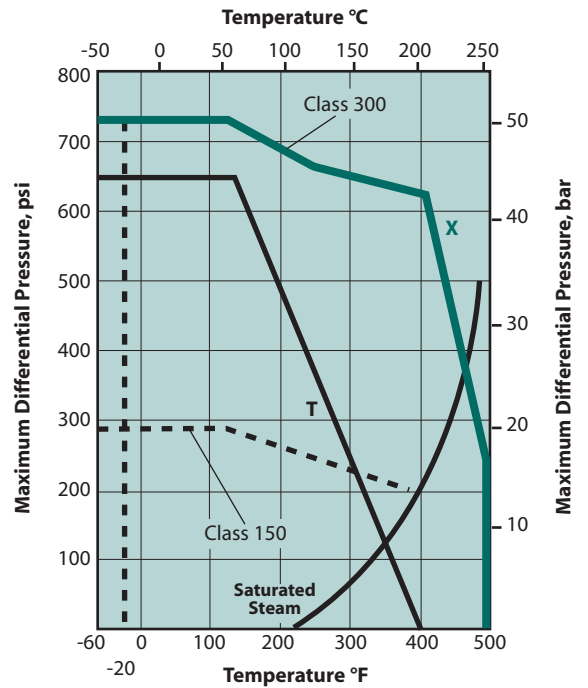


8" (DN 200) Standard Bore Non-Trunnion

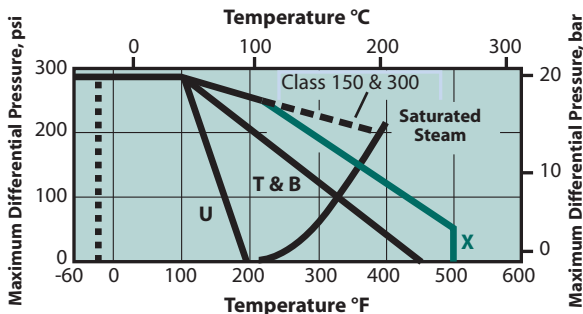


* ASME Class 300 Non-Trunnion is 275 psi (19 bar) max.

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



10" (DN 250) Standard Bore Non-Trunnion



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

LEGEND:

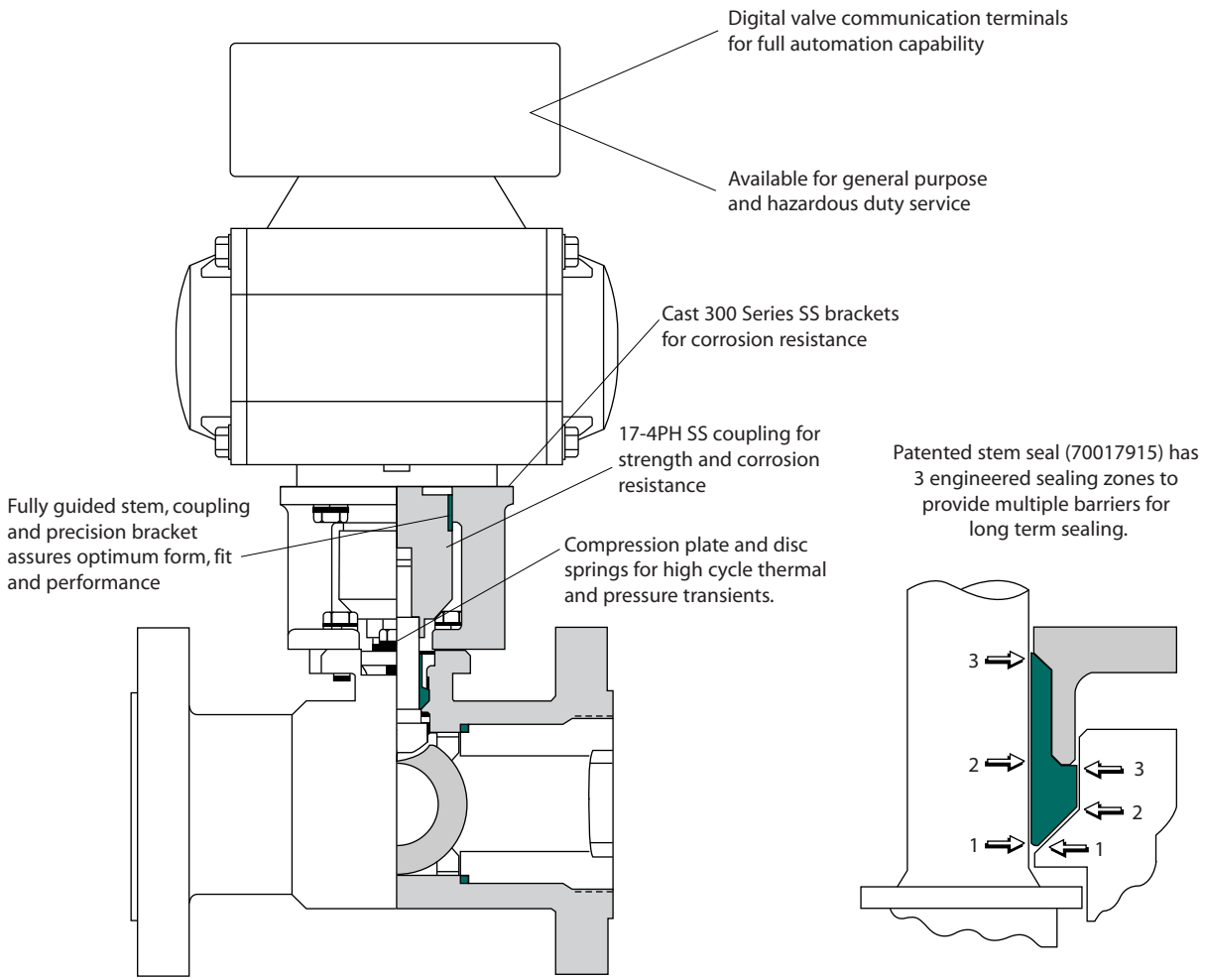
T = PTFE
L = PEEK

U = UHMW

B = PFA
X = Xtreme

Jamesbury 'The Ultimate Process Automation Package' for VPVL Pneumatic Actuators, V-Series, ADC-Series, LC Series, ESR-Series, Q6-Series and QX-Series Electric Actuators

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



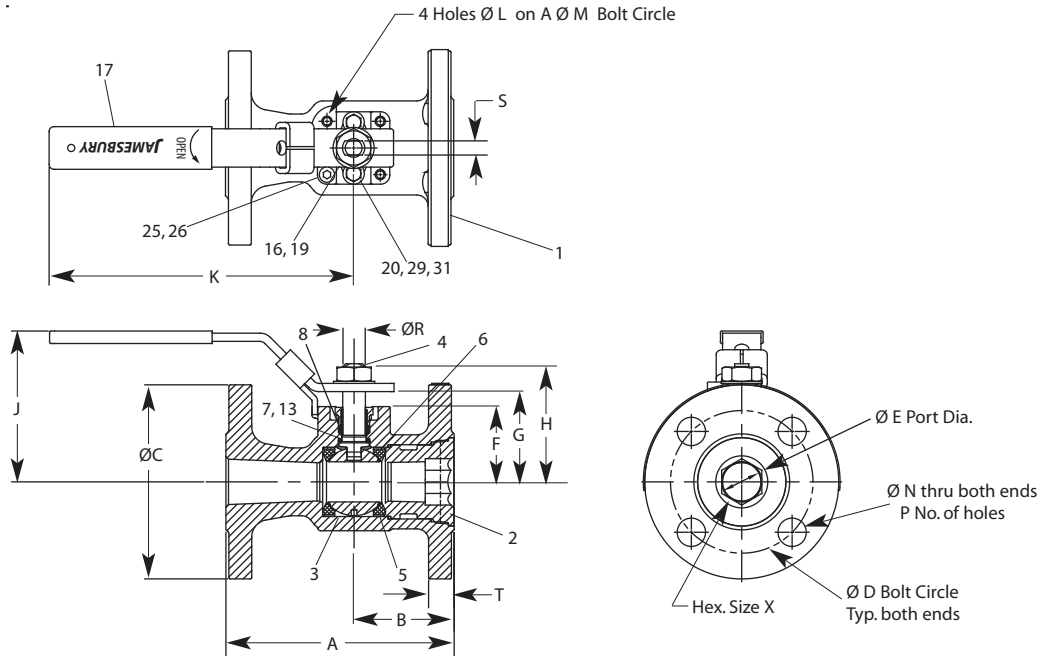
Automation Performance and Value

Valves combined with *Jamesbury* actuators offer a total value and performance package. Available with pneumatic Valv-Powr® VPVL actuators, V-Series, ADC-Series, LC Series, ESR-Series, Q6-Series and QX-Series electric actuators and

with StoneL® Quartz® and Hawkeye® digital monitors or VCTs, the packages have a wide range of applications. Visit our website at: www.metso.com/valves.

DIMENSIONS

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



Valve Size inches	Series 7150 ASME 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 ASME 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 ASME 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

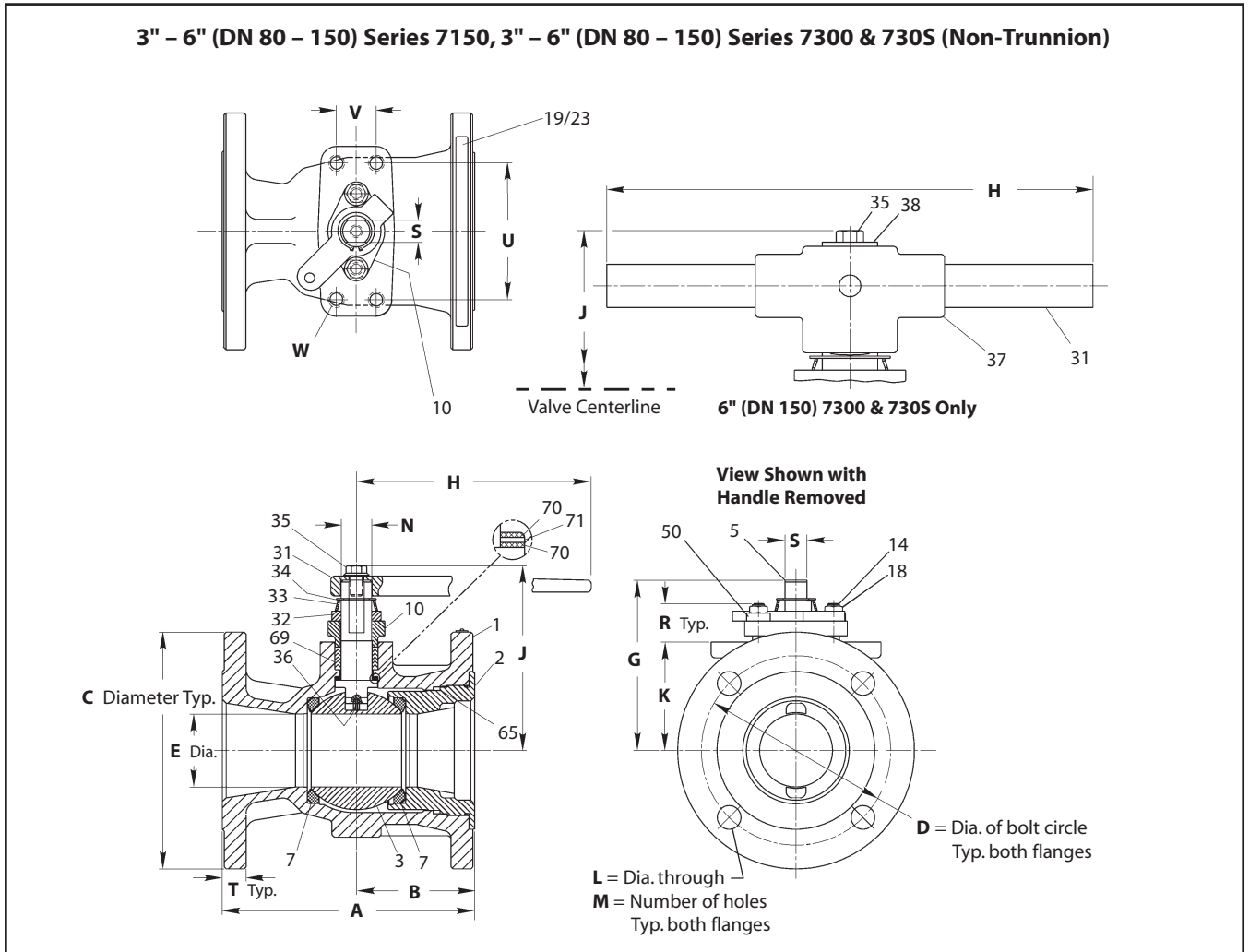
Valve Size DN	Series 7300 & 730S ASME Class 300 Approximate Dimensions - mm																		ISO Bonnet	Approx Weight kg		
	7300 A	730S A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T		X	730S	7300
15	140	108	49	95	67	13	27	34	41	86	127	M5	36	16	4	8	5	14	13	F03	2.3	2.7
20	152	118	51	117	83	18	31	38	45	89	127	M5	36	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 ¹ , Monel, Hastelloy C		Alloy 20	Monel, Hastelloy C as specified
5	Seat	PTFE, PEEK ¹ & 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			

Note 1: 17-4 PH stems required with PEEK seats

+ Furnished with valves for NACE MR0103 service.

DIMENSIONS



Valve Size inches	Series 7150 ASME 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	1.06	5.10	1.26	1/2-13	124

Valve Size DN	Series 7150 ASME 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 ASME 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 ASME 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 ASME 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 ASME 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	+316 Stainless steel, Monel ¹ , Hastelloy C ¹ , 17-4 PH Stainless steel ³ - as specified	
7	Seat	<i>Xtreme</i> , 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	Ductile Iron ²	
38	Washer	Carbon steel ²	
50	Stop Bushing	316 Stainless steel, Monel ¹	
65	Body Gasket	PTFE	
69	Packing	PTFE, molecularly enhanced PTFE (<i>Xtreme</i> -seated valves)	
70	Stem Bearing	Filled PTFE	
71	Secondary Stem Seal	Graphite	

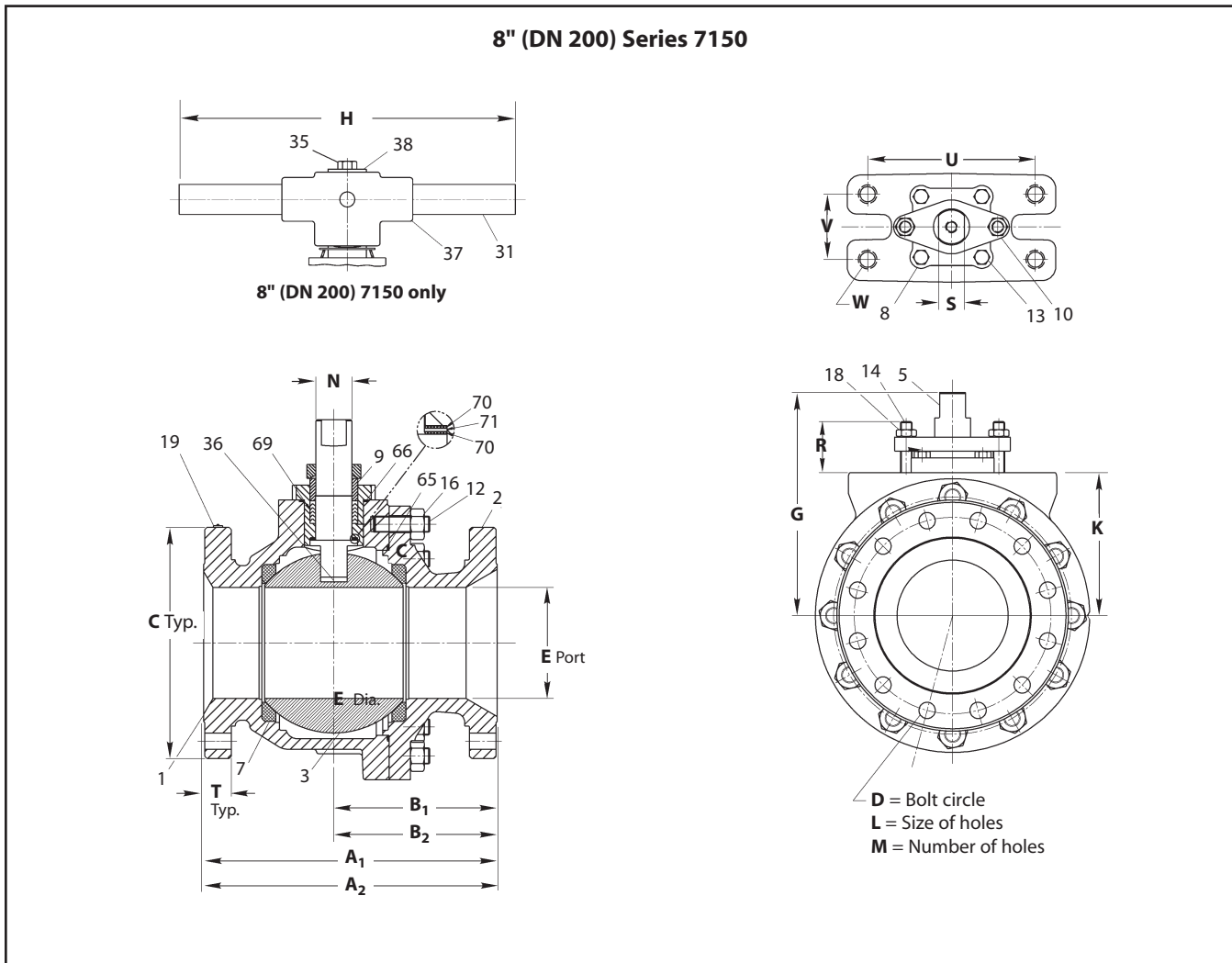
Note 1: Compression plate and stop bushing are Monel for valves with Monel, Hastelloy C, or Alloy 20 trim.

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



Valve Size inches	Series 7150 ASME 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 ASME 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	+316 Stainless steel, Monel ¹ , Hastelloy C ¹ , 17-4 PH Stainless steel - as specified	
7	Seat	Xtreme, PTFE, PFA, UHMW Polyethylene - as specified	
10	Compression Plate	Stainless steel, Monel ¹	
12	Body Stud	ASTM A193 Gr. B7; +Gr B7M; <u>B8</u> , <u>B8C</u> , <u>B8T</u> or <u>B8M</u>	
14	Bonnet Stud	ASTM A193 Gr. B7; +Gr B7M; <u>B8</u> , <u>B8C</u> , <u>B8T</u> or <u>B8M</u>	
16	Body Stud Nut	ASTM A194 Gr. 2H; +Gr 2HM; Gr <u>8B</u> , <u>8CB</u> , <u>8MB</u> , <u>8TB</u> , <u>8FB</u>	
18	Bonnet Stud Nut	ASTM A194 Gr. 2H; +Gr 2HM; Gr <u>8B</u> , <u>8CB</u> , <u>8MB</u> , <u>8TB</u> , <u>8FB</u>	
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	
37	"T" Handle Adapter	Ductile iron ²	
38	Flat Washer	Carbon steel ²	
39	Stop Bushing	316 Stainless steel ¹	
65	Body Gasket	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	

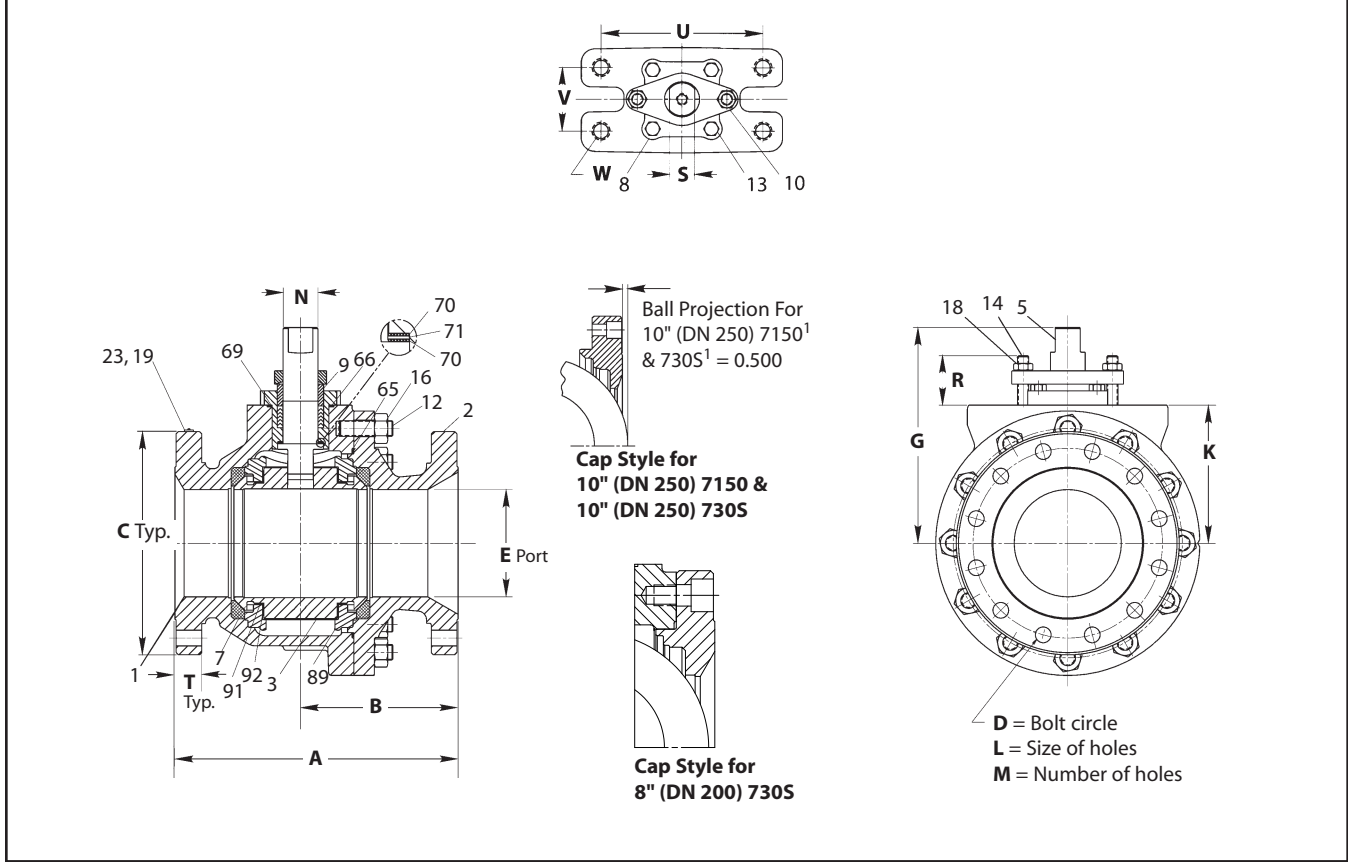
Note 1: Compression plate, body gasket, and stop bushing are Monel for valves with Monel or Hastelloy C trim.

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

+ Furnished with valves for NACE MR0103 service.

DIMENSIONS

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



Valve Size inches	Series 7150 ASME Class 150 Approximate Dimensions – inches																Weight lb		
	A	B	C	D	E	G	K	L**	M	N	R	S	T	U	V	W	X	7300	730S
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 DN	Series 7150 ASME Class 150 Approximate Dimensions – mm																Weight kg		
	A	B	C	D	E	G	K	L**	M	N	R	S	T	U	V	W*	X	7300	730S
250	330	149	406	362	203	396	260	25	12	65	73	46	30	230	90	1-8	N/A	211	

Valve Size inches	Series 7300 & 730S ASME Class 300 Approximate Dimensions – inches																Weight lb				
	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 DN	Series 7300 & 730S ASME Class 300 Approximate Dimensions – inches																Weight lb				
	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.

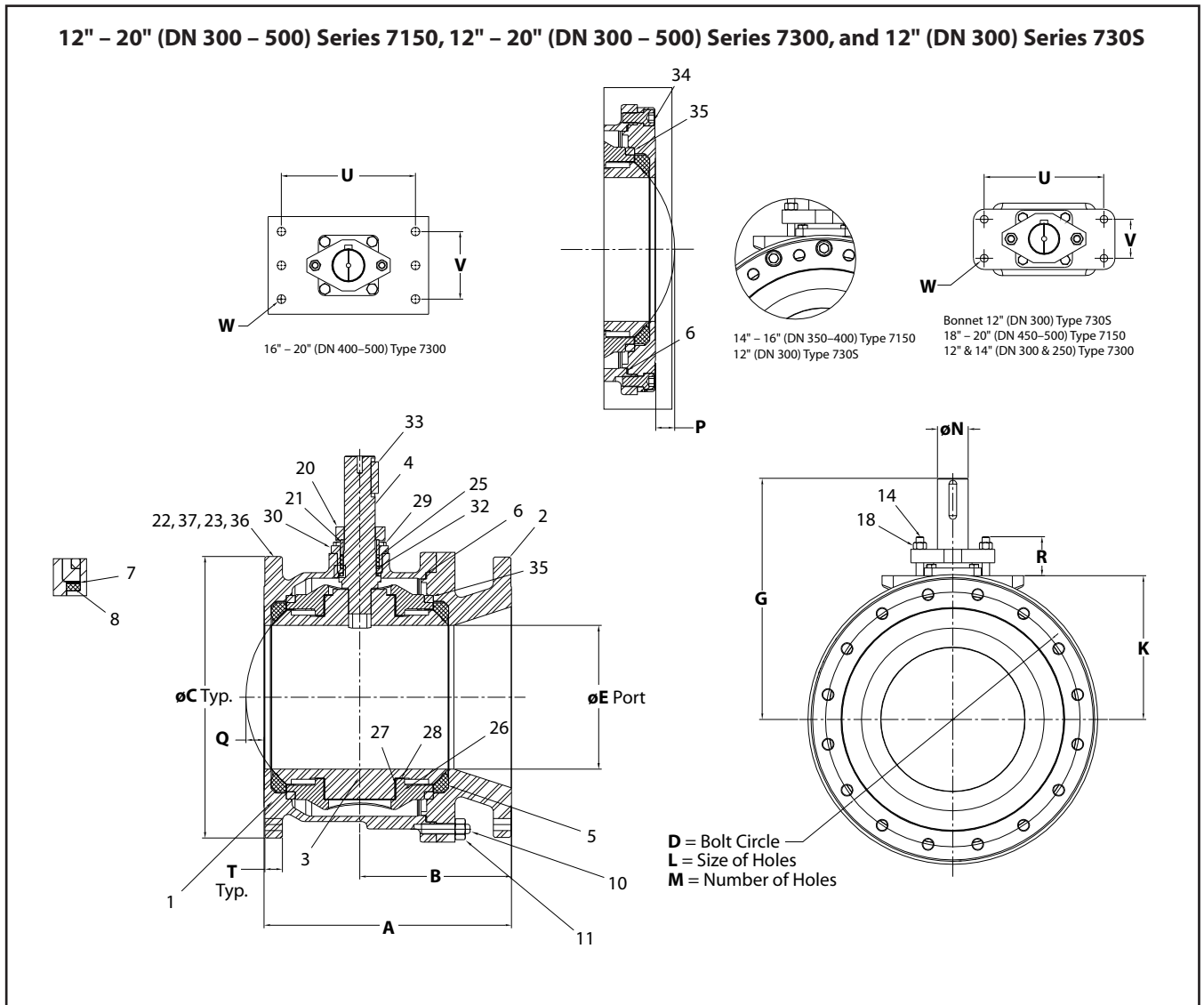
BILLS OF MATERIALS AND PARTS LIST			
10" (DN 250) Series 7150, 8" & 10" (DN 200 & 250) Series 7300 & 7305			
Part No.	Part Name	Body Material	
		Carbon Steel (22) All Series	316 Stainless Steel (36) All Series
1	Body	Carbon steel ASTM A216 Gr WCB	316 Stainless steel ASTM A351 Gr CF8M
2	Body Cap	Carbon 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	<i>Xtreme</i> , PTFE - as specified	
8	Stem Retainer	Carbon steel ASTM A216 Gr WCB	Stainless steel ASTM A351 Gr CF8M
9	Gland Follower	Carbon Steel, Stainless steel, Monel ¹	
10	Compression Plate ¹	Stainless steel, Monel ¹	
12	Body Stud	ASTM A193 Gr B7; +Gr B7M; Gr <u>B8</u> , <u>B8C</u> , <u>B8T</u> or <u>B8M</u>	
13	Stem Retainer Bolt	ASTM A193 Gr B7; +Gr B7M; Gr <u>B8</u> , <u>B8C</u> , <u>B8T</u> or <u>B8M</u>	
14	Stud	ASTM A193 Gr B7; +Gr B7M; Gr <u>B8</u> , <u>B8C</u> , <u>B8T</u> or <u>B8M</u>	
16	Nut	ASTM A194 Gr 2H; +Gr 2HM; Gr <u>8B</u> , <u>8CB</u> , <u>8MB</u> , <u>8TB</u> , <u>8FB</u>	
18	Nut	ASTM A194 Gr 2H; +Gr 2HM; Gr <u>8B</u> , <u>8CB</u> , <u>8MB</u> , <u>8TB</u> , <u>8FB</u>	
19	Identification Tag	Stainless steel	
23	Rivet	Stainless steel	
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 (<i>Xtreme</i> -seated valves)	
70	Stem Bearing	Filled PTFE	
71	Secondary Stem Seal	Graphite	
89	Trunnion ²	Carbon Steel	Stainless steel
91	Bearing Spacer ²	Filled PTFE	
92	Trunnion Bearing ²	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: Parts 89, 91 and 92 are removed from valves without trunnions.

+ Furnished with valves for NACE MR0103.

DIMENSIONS



Valve Size inches	Series 7150 ASME Class 150 Approximate Dimensions - inches																Weight lb	
	A	B	C	D	E	G	K	L**	M	N	P	Q	R	T	U	V		W
12	14.00	7.13	19.00	17.00	10.00	17.45	10.25	1.00	12	2.13	0.84	1.00	2.5	1.19	8.00	3.25	1/2-13	620
14	15.00	6.75	21.00	18.75	10.00	17.50	10.25	1.13	12	2.13	-	1.18	2.5	1.31	8.00	3.25	1/2-13	850
16	16.00	8.00	23.50	21.25	12.00	20.19	12.00	1.13	16	2.56	1.50	1.50	3.25	1.38	10.00	3.25	3/4-10	1220
18	34.00	22.00	25.00	22.75	13.25	24.38	13.75	1.25	16	3.00	-	-	3.25	1.5	11.13	5.30	3/4-10	1665
20	36.00	22.75	27.50	25.00	15.25	25.88	15.25	1.25	20	3.00	-	-	3.25	1.62	11.13	5.30	3/4-10	2600

Valve Size DN	Series 7150 ASME Class 150 Approximate Dimensions - mm																Weight kg	
	A	B	C	D	E	G	K	L**	M	N	P	Q	R	T	U	V		W*
300	356	181	483	432	254	443	260	25	12	54	21	25	64	30	203	83	1/2-13	281
350	381	171	533	476	254	445	260	29*	12	54	-	30	64	33	203	83	1/2-13	386
400	406	203	597	540	305	513	305	29*	16	65	38	38	83	35	254	83	3/4-10	553
450	864	559	635	578	337	619	349	32	16	76	-	-	83	38	283	135	3/4-10	755
500	914	578	699	635	387	657	387	32	20	76	-	-	83	41	283	135	3/4-10	1179

* Screw-thread dimensions are in inches

** Holes in the body cap are threaded: 12" (DN 300) 7305 (1-8 x 1.44 deep), 14" (DN 350) 7150 (1-8 x 1.31 deep), 16" (DN 400) 7150 (1-1/8-8 x 1.69 deep)

Valve Size inches	Series 730S & 7300 ASME Class 300 Approximate Dimensions – inches																		Weight lb		
	A730S	A7300†	B730S	B7300†	C	D	E	G	K	L**	M	N	P	Q	R	T	U	V	W	730S	7300
12	14.00	–	6.88	–	20.50	17.75	10.00	21.76	11.13	1.25	16	3.00	1.05	–	3.13	1.94	11.13	5.30	1/2-13	740	–
12	–	19.75	–	12.63	20.50	17.75	10.00	21.76	11.13	1.25	16	3.00	–	0.71	3.13	1.94	11.13	5.30	1/2-13	–	970
14	–	22.50	–	13.00	23.00	20.25	10.00	21.76	11.13	1.25	20	3.00	–	–	3.13	2.06	11.13	5.30	1/2-13	–	1130
16	–	24.00	–	14.00	25.50	22.50	12.00	23.51	12.63	1.38	20	3.50	–	–	4	2.19	13.00	7.00	3/4-10	–	1700
18	–	36.00	–	20.81	28.00	24.75	13.25	24.94	14.00	1.38	24	3.50	–	–	4	2.31	13.00	7.00	3/4-10	–	2000
20	–	28.00	–	16.00	30.50	27.00	15.25	26.12	15.25	1.38	24	3.50	–	–	4	2.44	13.00	7.00	3/4-10	–	3000

Valve Size DN	Series 730S & 7300 ASME Class 300 Approximate Dimensions – mm																		Weight kg		
	A730S	A7300†	B730S	B7300†	C	D	E	G	K	L**	M	N	P	Q	R	T	U	V	W*	730S	7300
300	356	–	175	–	521	451	254	553	283	32	16	76	25	–	80	49	283	135	1/2-13	336	–
300	–	502	–	321	521	451	254	553	283	32	16	76	–	18	80	49	283	135	1/2-13	–	417
350	–	572	–	330	584	514	254	553	283	32	20	76	–	–	80	52	283	135	1/2-13	–	513
400	–	610	–	356	648	572	305	597	321	35	20	89	–	–	102	56	330	178	3/4-10	–	771
450	–	914	–	529	711	623	337	633	356	35	24	89	–	–	102	59	330	178	3/4-10	–	907
500	–	711	–	406	775	686	387	663	387	35	24	89	–	–	102	62	330	178	3/4-10	–	1361

* Screw-thread dimensions are in inches.

** Holes in the body cap are threaded: 12" (DN 300) 730S (1-8 x 1.44 deep), 14" (DN 350) 7150 (1-8 x 1.31 deep), 16" (DN 400) 7150 (1-1/8-8 x 1.69 deep).

† 18-inch (DN 450) valve is designated 73LO.

BILLS OF MATERIALS AND PARTS LIST			
12" – 20" (DN 300 – 500) Series 7150, 12" – 20" (DN 300 – 500) Series 7300, 18" (DN 450) Series 73LO, and 12" (DN 300) Series 730S (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	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	
14	Bonnet Studs	ASTM A193 Gr. B7; Gr. B7M; Gr. B8, B8C, B8T or B8M	
18	Bonnet Stud Nut	ASTM A194 Gr. 2H, 2HB, or Gr. 2HM; Gr. 8B, 8CB, 8MB, or 8TB	
20	Compression Plate	Carbon steel	Stainless steel, Monel ²
21	Compression Ring	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 plate is Monel.

Note 3: For 14" & 16" (DN 350 & 400) 7150 and 12" (DN 300) 730S only.

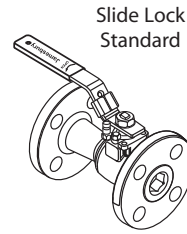
Note 4: For 12", 14", & 16" (DN 300, 350, & 400) 7150 and 12" (DN 300) 730S & 7300 only.

+ Furnished with valves for NACE MR0103.

ACCESSORIES

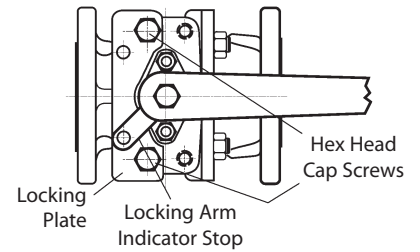
Locking Devices

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.



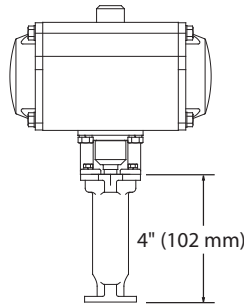
1/2" – 2" (DN 15 – 50)
Series 7000

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



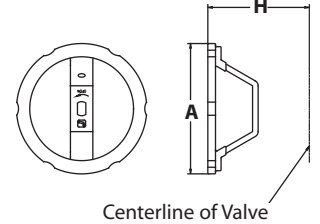
Bonnet/Stem Extensions SE-096, 097 & 098

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.



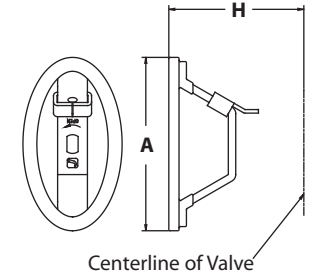
Round Handles

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



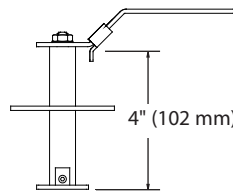
Oval handles with slide-lock

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



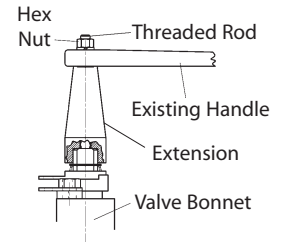
Stem Extensions SE-093, 094 & 095

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



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							
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							
						NA			

* 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.

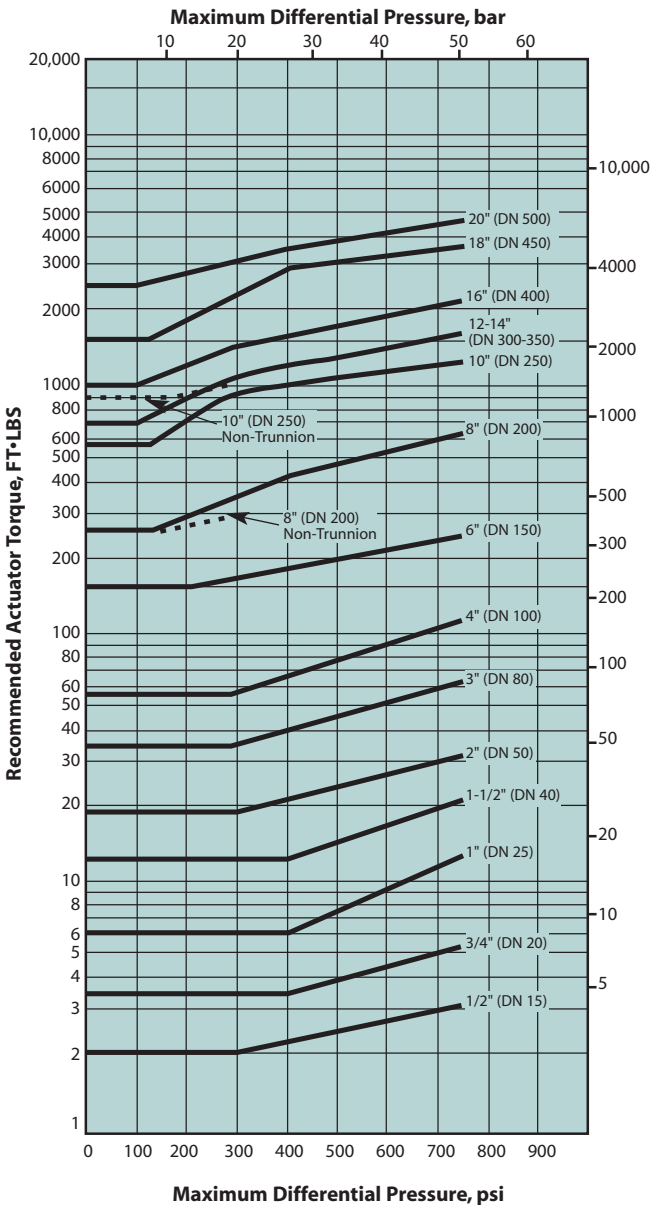
Valves with Emission-Pak® require an increase in operating torque. Refer to Bulletin B115-4 for additional information.

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

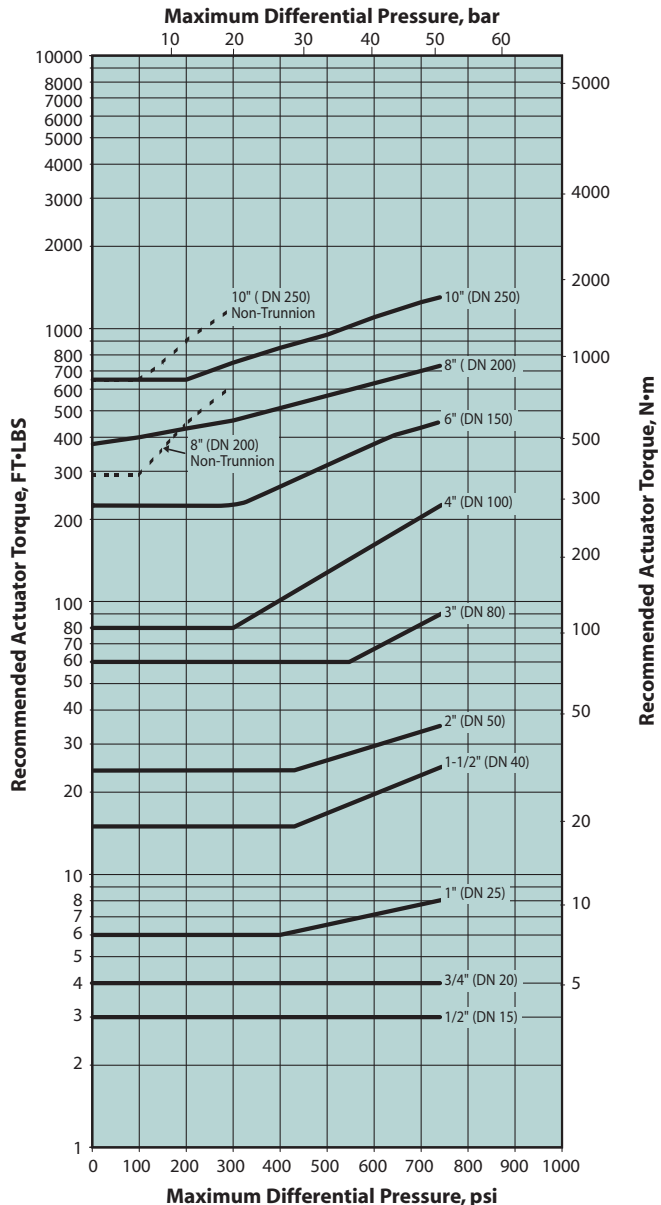
Manual Gear Actuators	A100-1
B-Series Piston Actuators	6B20
Quadra-Powr® X Spring Diaphragm Rotary Actuators	A110-4
Valv-Powr Series VPVL	A111-5
VPVL Stainless Steel	A111-4
V-Series Electric Actuators	A200-1
ADC Electric Actuators	A201-1
LC Series' Electric Actuators	A202-1 & A203-1
ESR-Series Electric Actuators	A204-1
Q6-Series Electric Actuators	A205-1
QX-Series Electric Actuators	A207-1

ASME Class 150 and 300 Valve Torque Data

PTFE (T) Seated Valves



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

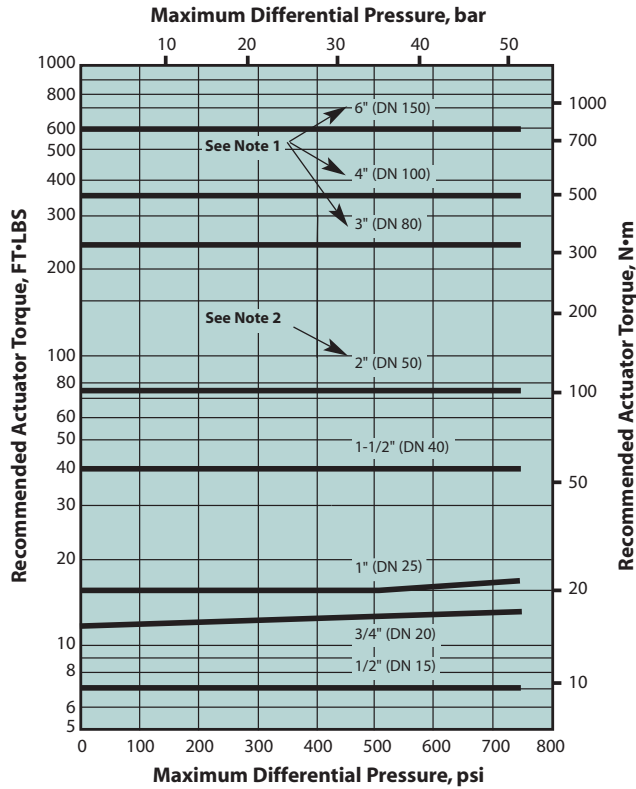


Note: See note on page 17.

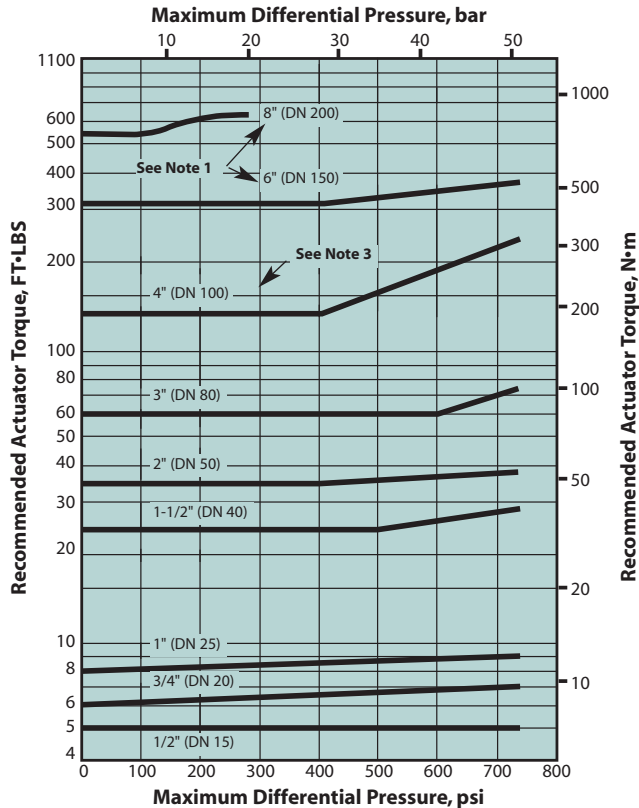
VALVE TORQUE DATA

ASME Class 150 and 300 Valves

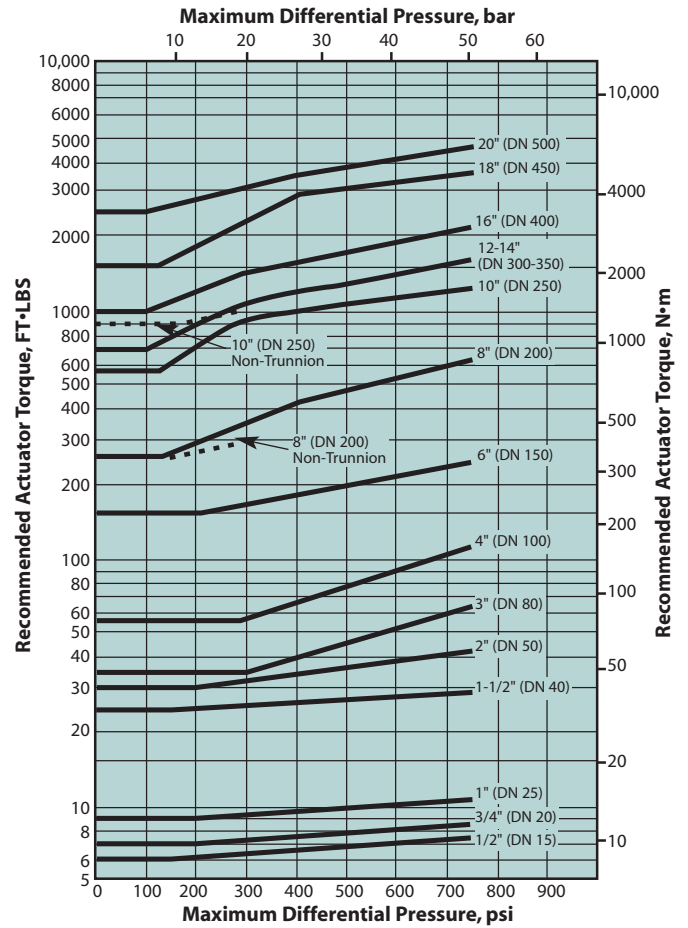
PEEK (L) Seated Valves 1/2" – 6" (DN 15 – 150)



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.
- Note 4:** Dashed line indicates Non-Trunnion and is rated to Class 150 only for seats.

HOW TO ORDER

EXAMPLE: A 2" ASME 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 – 20" (DN 15 – 500)
7180	Standard Bore Class 150*	1/2 – 20" (DN 15 – 500)
730S***	Standard Bore Class 300	1/2 – 12" (DN 15 – 300)
7300**	Standard Bore Class 300	1/2 – 20" (DN 15 – 500)
7380	Standard Bore Class 300*	1/2 – 20" (DN 15 – 500)

* Metric units on nameplate. Valves larger than 1" (DN 25) are CE marked. Includes static grounding.
 ** 18" Only available as 7300.
 ***The special short pattern for the 730S uses class 150 face to face

3	Special Construction
—	Standard (no entry)
C	Chlorine
N	NACE MR0103
O	Oxygen
TG	Top Grounded (1/2" – 2" 7000)
STG	Grounded 7000 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- <i>Fire-Tite</i> Non-Trunnion	1/2 – 10" (DN 15 – 250) Standard Bore
31	Raised Face <i>Fire-Tite</i> Non-Trunnion	1/2 – 10" (DN 15 – 250) Standard Bore
71	Raised Face <i>Fire-Tite</i> 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	<i>Xtreme</i> /PTFE ² /TFM	All
TTT	PTFE/PTFE ² /PTFE ²	All
BT	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) Std Bore

† 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 3" and larger.
 4 2" (DN 50) and smaller use Monel bonnet hardware for NACE MR0103 compatibility.

STANDARDS AND SPECIFICATIONS

The Company

ISO 9001 – 2008 ANSI/150/ASQ Q9001 – 2008
Pressure Equipment Directive 97/23/EC

Available Standards

API 598	American Petroleum Institute - Valve Inspection and testing
API 607	American Petroleum Institute - Fire Test for Soft Seated Valves (Division of refining)
API 608	Metal Ball Valves Used in On-Off Service that have Butt welded 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 Butt welded 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	American National Standard - For Control Valve Seat Leakage
ISO 15848-1	Industrial Valves - Fugitive Emissions - Measurement, Test & Qualification Procedures
ISO 17292	Metal Ball Valves for Petroleum, Petrochemical and Allied Industries
ISO 5752	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 575.19	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	Standard Finishes for Contact Faces of Pipe Flanges and Connecting-End Flanges of Valves and Fittings
MSS-SP-44	Steel Pipe Line Flanges
MSS-SP-61	Pressure Testing of Steel Valves
MSS SP-72	Flanged or Butt and Weld End Ball Valves Having Full or Reduced Bores for General Liquid and Gas Service
MSS SP-96	Terminology for Valves and Fittings
97 / 23 / EC	European Pressure Equipment Directive
MSS SP-53-1995	Quality Standard For Steel Castings and Forgings for Valves, Flanges and Fittings and Other Piping Components-Magnetic Particle Examination Method
MSS SP-93-1987	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.
CSA	Figure 1051 Supervisory Cock Valves, Electric Interlocking Fuel Gas and Fuel Oil Cocks.
CSA	Figure 1057/1056 Gas Shut-Off and Vent Valves.
CSA	Figure 1075 Emergency Shut-Off and Fire-Safe Valves.
CSA	CGA 3.16
EN 161/264	
Underwriter Laboratory (UL) Categories MHKZ, YQAR, YRBX, YRPV, YSDT.	
ULC	YSDC & MSVVC

Subject to change without prior notice.

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