

VALVES FOR HYDROGEN PEROXIDE

Metso Automation has developed a complete line of Ball and Butterfly Valves designed specifically for Hydrogen Peroxide service. Materials of construction have been selected to meet the special needs of Peroxide and valve internals have been designed to eliminate stagnant cavities where decomposition may begin.

Hydrogen Peroxide Valves are offered in several configurations to accommodate all commonly employed piping styles.

Flanged End Ball Valves: The valve type and style most commonly used in Hydrogen Peroxide systems is the flanged end ball valve. This style is used in all concentrations and Jamesbury has been the leader in this technology for 40 years. These valves are available in sizes 1/2" thru 6" and ANSI 150# end connections and pressure ratings.

High Performance Butterfly Valves: The economies usually associated with Butterfly Valves make them an attractive alternative to Flanged Ball valves in the larger sizes. Jamesbury pioneered the development of this style of valve and makes it available for Hydrogen Peroxide service. These valves are available in lugged body styles with ANSI 150# rating. Sizes produced are 3" thru 6".

FEATURES

Bubble Tight Shut-off

- Jamesbury Double Seal® Ball and Wafer-Sphere® High Performance Butterfly Valves offer bubble-tight shut-off which exceeds the requirements of ANSI/FCI 70 -2 Class VI.

Cavity Pressure Relief

- In addition to their standard self-relieving seats Jamesbury Double Seal® ball Valves for Peroxide service have ball cavities vented to prevent entrapment of Peroxide fluid in the open or closed position. Wafer-Sphere High Performance Butterfly Valves have no unvented cavities in normal operation.

Simple Quarter-Turn Operation

- Ball and Butterfly valves provide simple quarter-turn operation from open to close. In addition, the handles of both styles provide quick, easily recognized position indication. Another feature of these quarter-turn valves is the ease by which they can be automated.

Peroxide Compatible Assembly and Test Procedures

- Hydrogen Peroxide service requires assembly and test procedures that ensure that the finished product is completely free from all contaminants. Jamesbury has worked with the major peroxide producers to develop assembly and packaging procedures that meet their industry requirements.



Passivation

- Jamesbury valves will be passivated and tested to ASTM A380 unless otherwise specified.

Material Availability

- Both Ball and Butterfly Valves for peroxide service are available in 316 stainless steel with PTFE seats and seals.

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SPECIFICATIONS

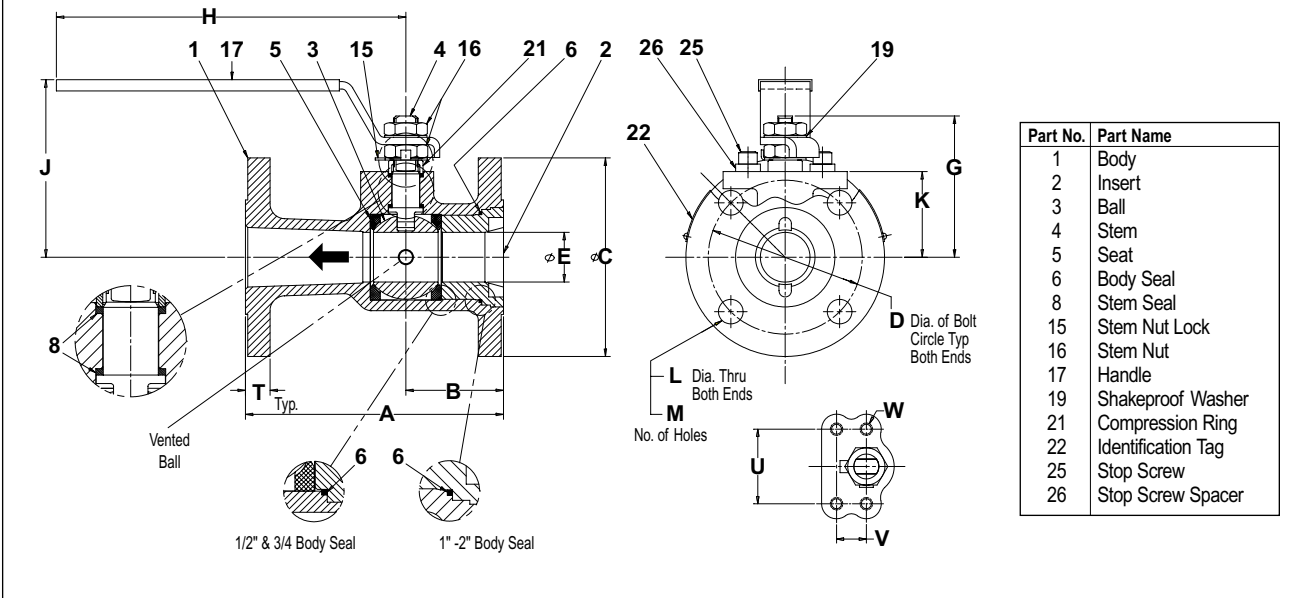
VALVE PRESSURE RATINGS				
316 Stainless Steel				
	Body Rating		Seat Rating	
Flanged Ball Valves	275 psi	19 bar	275 psi	19 bar
Lugged 150# Butterfly Valves	275 psi	19 bar	275 psi	19 bar

FLOW CAPACITY (Cv*)			
Valve Size		Flanged Ball Valves	Butterfly Valves
Inches	DN		
1/2	15	9	
3/4	20	19	
1	25	45	
1 1/4	30	n.a.	
1 1/2	40	125	
2	50	165	
3	80	350	165
4	100	550	400
6	150	765	1050

*Cv = 1.167 Kv

DIMENSIONS

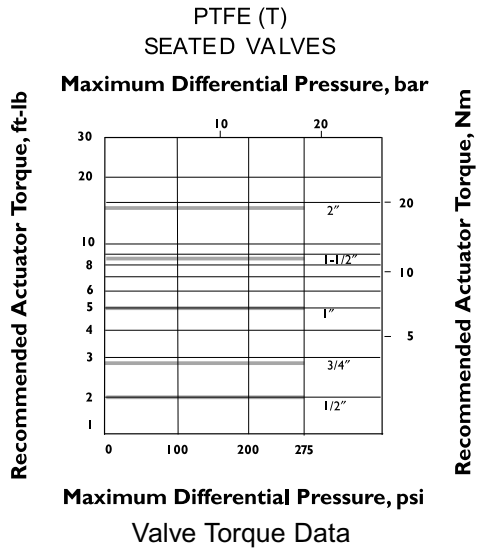
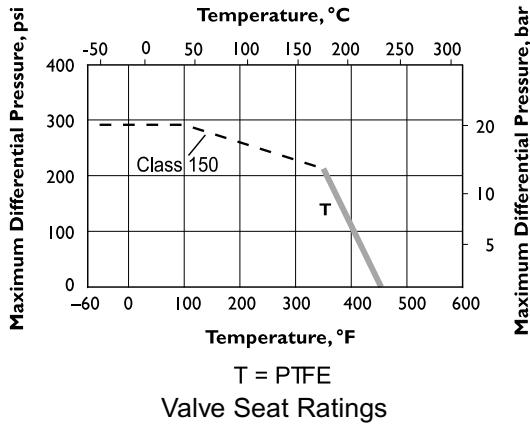
1/2" – 2" Series 5000 Standard Bore



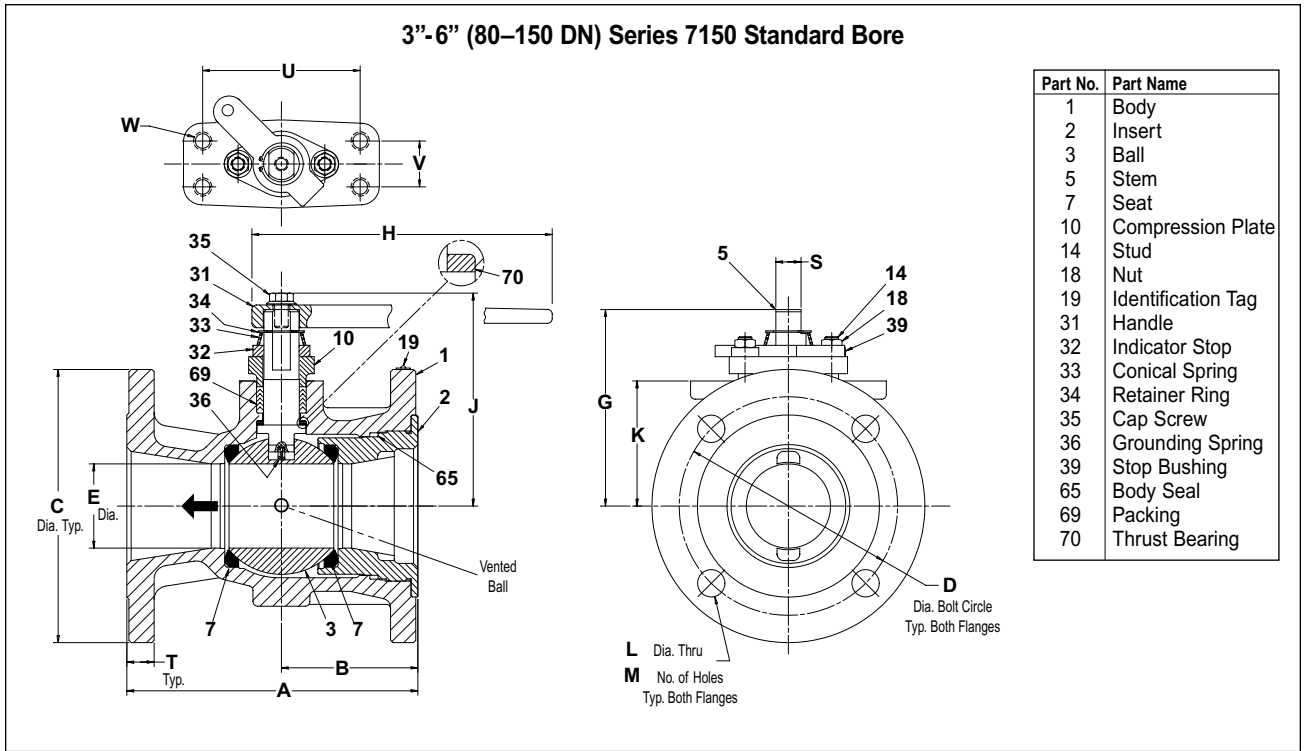
Valve Size inches	Type 5150 ANSI Class 150 Approximate Dimensions – inches															Approx Weight lbs.	
	A	B	C	D	E	G	H	J	K	L	M	S	T	U	V		W
1/2	4.25	1.81	3.50	2.37	0.50	1.68	5.06	3.50	0.87	0.62	4	0.18	0.43	1.63	0.66	1/4-20	3.6
3/4	4.62	2.00	3.87	2.75	0.68	1.87	5.06	3.50	1.00	0.62	4	0.18	0.43	1.63	0.66	1/4-20	4.6
1	5.0	2.18	4.25	3.12	0.87	2.62	6.68	3.56	1.37	0.62	4	0.31	0.62	1.88	0.75	5/16-18	7.4
1-1/2	6.50	2.44	5.00	3.87	1.25	3.62	8.81	4.18	2.18	0.62	4	0.37	0.62	1.88	0.75	5/16-18	11.5
2	7.00	2.44	6.00	4.75	1.50	3.75	8.81	4.37	2.37	0.75	4	0.37	0.68	1.88	0.75	5/16-18	16.1

Valve Size DN	Type 5150 ANSI Class 150 Approximate Dimensions – mm															Approx Weight kg	
	A	B	C	D	E	G	H	J	K	L	M	S	T	U	V		W
15	108	46	89	60	13	43	129	89	22	16	4	5	11	41	17	1/4-20	1.6
20	117	51	98	70	17	48	129	89	25	16	4	5	11	41	17	1/4-20	2.1
25	127	55	108	79	22	67	170	90	35	16	4	8	16	48	19	5/16-18	3.4
40	165	62	127	98	32	92	224	106	55	16	4	9	16	48	19	5/16-18	5.2
50	178	62	152	121	38	95	224	111	60	19	4	9	17	48	19	5/16-18	7.3

1/2" – 2" Standard Bore

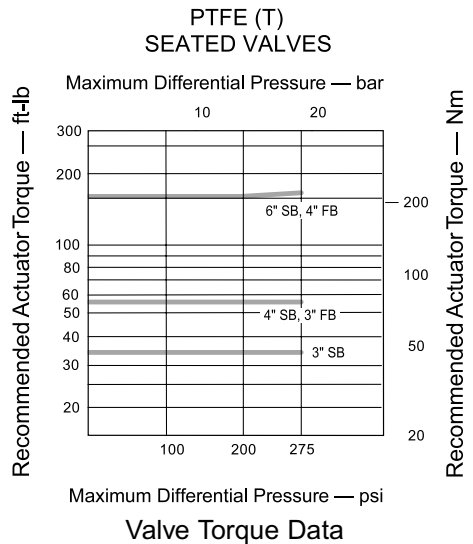
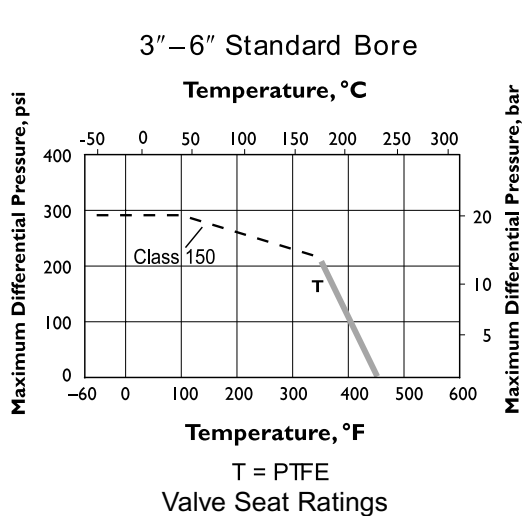


DIMENSIONS



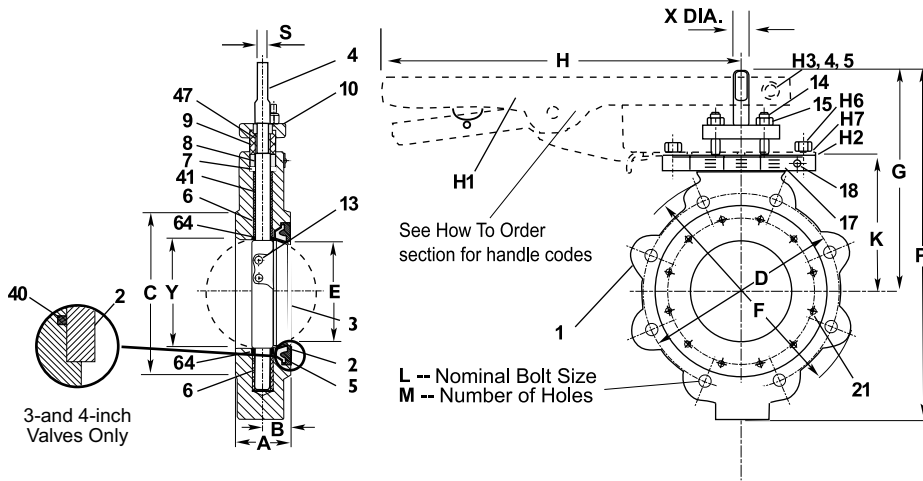
Valve Size inches	Type 7150 ANSI Class 150 Approximate Dimensions – inches															Approx Weight lbs.	
	A	B	C	D	E	G	H	J	K	L	M	S	T	U	V		W
3	8.00	3.75	7.50	6.00	2.31	5.40	14.00	5.85	3.44	0.75	4	0.69	0.81	4.33	1.26	1/2-13	39
4	9.00	4.00	9.00	7.50	3.00	5.89	14.00	6.32	3.93	0.75	8	0.69	1.00	4.33	1.26	1/2-13	63
6	10.50	4.25	11.00	9.50	4.00	8.32	19.44	8.78	5.51	0.88	8	0.97	106	5.10	1.26	1/2-13	124

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



DIMENSIONS

3"-6" Type 815L (Model C) Valves ANSI Class 150, Single Flanged Lug Design



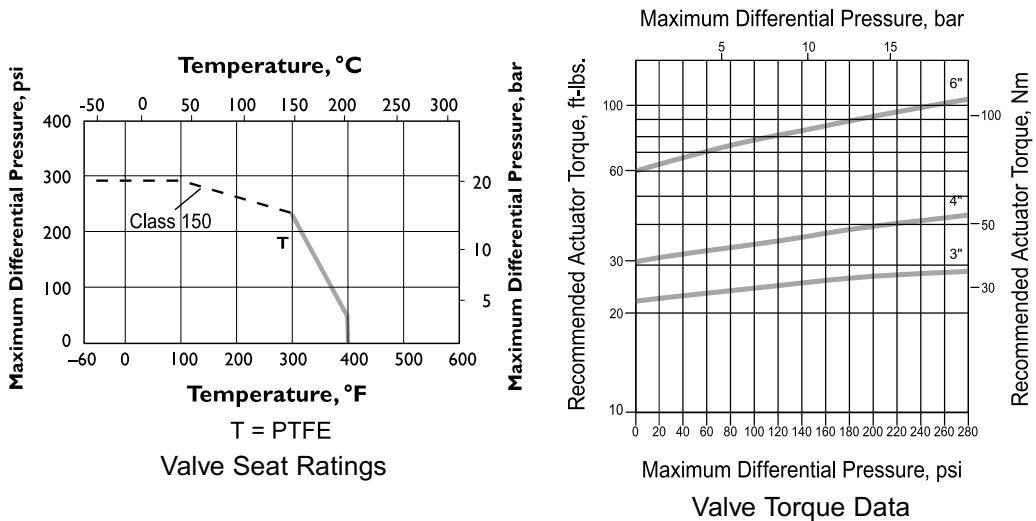
Part No.	Part Name
1	Body
2	Insert
3	Disc
4	Shaft
5	Seat
6	Shaft Bearing
7	Spacer
8	Shaft Seal
9	Compression Ring
10	Top Compression Plate
13	Disc Pin
14	Stud
15	Nut
17	Name Plate
18	Drive Screw
21	Cap Screw
40	Body Seal
41	Top Bearing Spacer
47	Retaining Ring
64	Thrust Bearing

Valve Size inches	Approximate Dimensions – inches															Approx Weight** lbs.
	A	B	C	D	E	F	G	H	K	L	M	P	S Blade	X	Y*	
3	1.94	1.06	5.19	6.00	2.88	7.50	8.00	11.00	4.75	5/8-11	4	12.44	.44	.63	2.90	17
4	2.13	1.19	6.19	7.50	3.75	9.00	8.50	11.00	5.25	5/8-11	8	13.44	.44	.63	3.83	26
6	2.25	1.31	8.50	9.50	5.59	11.00	9.25	11.00	6.00	3/4-10	8	15.13	.53	.75	5.76	43

Valve Size DN	Approximate Dimensions – mm															Approx Weight** kg
	A	B	C	D	E	F	G	H	K	L	M	P	S Blade	X	Y*	
80	49	27	132	152	73	191	203	279	121	5/8-11	4	316	11	16	74	8
100	54	30	157	191	95	229	216	279	133	5/8-11	8	341	11	16	97	12
150	57	33	216	241	142	279	235	279	152	3/4-10	8	384	13	19	146	20

*Conforms to API 609 and MSS-SP requirements for minimum clearances of pipe inside diameters for Schedule 80 pipe. **Weights do not include handles.

STANDARD TYPE 815L VALVE with PTFE (T) Seat SHAFT UPSTREAM



HOW TO ORDER JAMESBURY HYDROGEN PEROXIDE VALVES

To specify a Hydrogen Peroxide Valve select a body style, the combination of body and trim material, and the proper seat material.

Code numbers are fully descriptive of a valve. They are made up of size and a figure designation based on the following coding:

EXAMPLE: This order code calls for a 1/2" Flanged Valve for Hydrogen Peroxide, 316 Stainless Steel Body and Trim Passivated, with PTFE Seats & Seal.

1	—	2	3	4	5	6	7
1/2		5150	P1	11	36	00	TT

1	Size							
inches	1/2	3/4	1	1-1/2	2	3	4	6
DN	15	20	25	40	50	80	100	150

2	Body Style	
5150	Flanged End Ball Valve	1/2" - 2"
7150	Flanged End Ball Valve	3", 4" & 6"
815L	High Performance Wafer Sphere	3", 4" & 6"

3	Special Application/Construction or Service
P1	Peroxide Construction - Passivated to ASTM A380
P2	Peroxide Construction - Not Passivated

4	Construction Type
11	Non Fire-Tite®

5	Body Materials
36	316 s.s.

6	Trim Material
00	316 s.s.

7 [†]	Seat & Seal Materials <small>(Compression Plate Studs and Nuts for 7150)</small>
TTT2	PTFE, Bolts: ASTM A193 GR. <u>B8</u> , <u>B8C</u> OR <u>B8T</u> (CLASS 2) Nuts: ASTM A194 GR. <u>8</u> , <u>8C</u> , <u>8M</u> , <u>8T</u> OR <u>8F</u>

[†] Use first two letters only for 5150 and 815L valves.

Wafer-Sphere handles are ordered separately using the following codes;

Valve Size	Handle Code*
3" & 4"	WSH-36
6"	WSH-38

**Wafer-Sphere* handles are equipped with a lockout as standard.

Installation, Maintenance and Operation Instructions:

IMO's (Installation, Maintenance and Operating instructions) or AMI's (Assembly, Mounting and Installation Instructions) are shipped with the products. Additional copies of these instructions are available. Call your local Metso Automation Distributor, or visit our web site.

Metso Automation, Field Systems Division

Europe, Levytie 6, P.O.Box 310, 00811 Helsinki, Finland. Tel. int +358 20 483 150. Fax int. +358 20 483 151

Europe (UK), 8 Pipers Wood Industrial Park, Waterlooville, Hampshire PO7 7XU UK. Tel. int +44 (0)23 9223 8500. Fax int. +44 (0)23 9223-8510

North America, 44 Bowditch Drive, P.O.Box 8044, Shrewsbury, Massachusetts, 01545-8044 USA. Tel. int. +1 508 852 0200. Fax int. +1 508 852 8172

North America, 3100 Medlock Bridge Road, Suite 250, Norcross, GA 30071, USA. Tel. int. +1 770 446 7818. Fax int. +1 770 242 8386

Latin America, Av. Central, 181- Cháracas Reunidas, 12238-430, São Jose dos Campos. Tel. int. +55 12 335 3500. Fax int. +55 12 335 3535

Asia Pacific, 501 Orchard Road, #05-09 Wheelock Place, 238880 Singapore. Tel. int. +65 735 5200. Fax int. +65 735 2955

www.jamesbury.com

