

VALUE-LINE® 1/2" – 3" (DN 15 – 80) SERIES 6F FULL-BORE THREADED END BALL VALVES

The JAMESBURY® VALUE-LINE Series 6F ball valve offers exceptional economy and proven performance. These valves are FIRE-TITE® and configured with threaded ends for use with NPT pipe. Its full-bore configuration and high-pressure rating (1000 psi for 1/2" – 2", 800 psi for 3" [69 bar for DN 15 – 50, 55 bar for DN 80]) make it an ideal choice for the majority of applications where tight shut-off is required.

FEATURES

Tight Shut-off

- The JAMESBURY proven self-relieving seat design incorporates a flexible lip that automatically compensates for fluctuations in pressure and temperature.

High Flow Capacity

- Full-bore design for maximum flow.

Lockable Handle

- A slide-lock handle is standard to meet the requirements of OSHA 1910.147.

Anti-Blow-Out Stem

- Internal entry stem provides positive stem retention.

Fire-Tested

- Standard valves are FIRE-TITE in accordance with API 607 Edition 4.

Excellent Corrosion Resistance

- Available in all stainless steel construction.

Full Complement of Accessories

- In addition to the locking handle that is standard for all valves, there are round handles, lockable oval handles, and stem extensions available.



SPECIFICATIONS

Valve Body Ratings

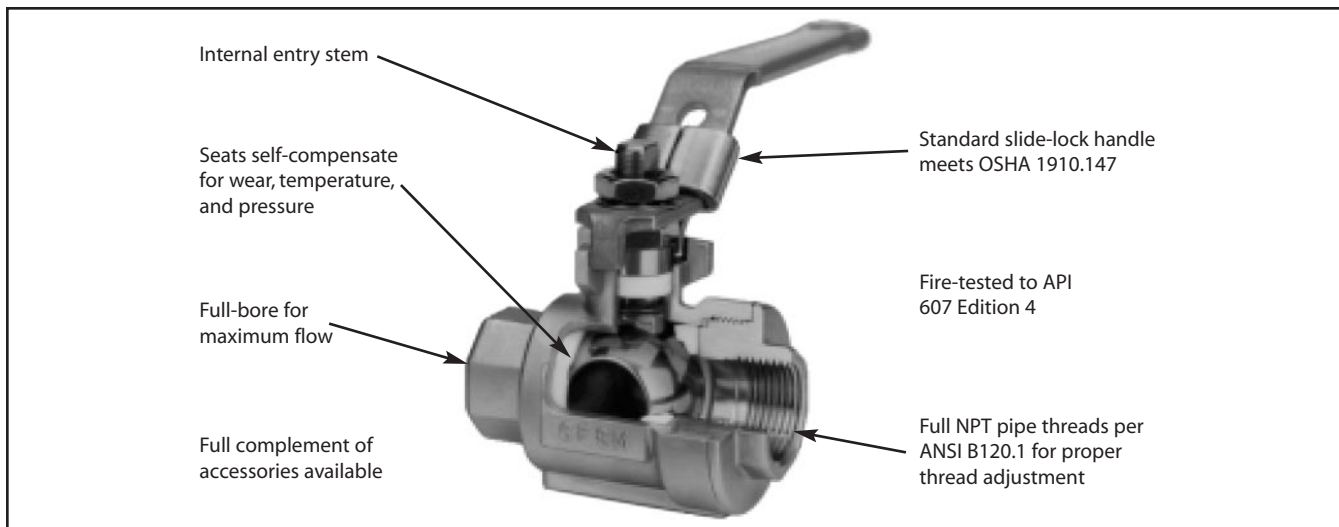
These are the maximum working pressure ratings of the valve body only. The seat ratings on page 2 determine the practical pressure limitation in actual service. Working pressure rating is at -20°F to +100°F (-29°C to +38°C) for carbon steel and -60°F to +100°F (-51°C to +38°C) for stainless steel body materials.

Valve Size		Working Pressure	
inches	DN	psi	bar
1/2 – 2	15 – 50	1000	69
3	80	800	55

Flow Data

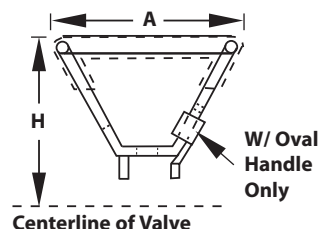
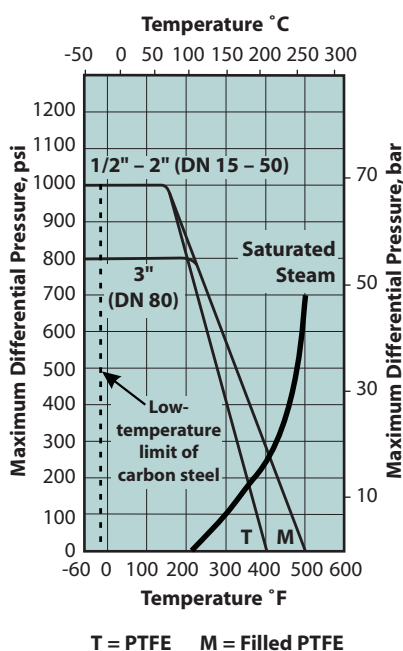
The table below provides flow coefficients for Series 6F valves. The Cv values represent the flow of water at +60°F through the valve in U.S. gallons per minute at a pressure drop of 1 psi. The metric equivalent, Kv, is the flow of water at 16°C through the valve in M³/hr at a pressure drop of 1 kg/cm². To convert Cv to Kv, multiply by 0.8569.

Valve Size		Cv
inches	DN	
1/2	15	13
3/4	20	40
1	25	65
1-1/4	30	90
1-1/2	40	135
2	50	251
3	80	1160



Valve Seat Ratings

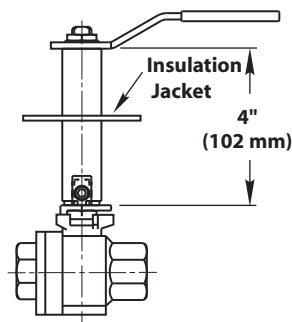
These ratings, shown in the graph at right, are based on differential pressure with the valve ball in the fully closed position and refer to seats only. Valves in carbon steel are suitable for service to -20°F (-29°C); valves in stainless steel to -60°F (-51°C).



Valve Size		Oval and Round Handle Dimensions			
inches	DN	A		H	
		inches	mm	inches	mm
1/2	15	3.35	85	2.82	72
3/4	20	4.64	118	3.49	89
1	25	4.64	118	3.62	92
1-1/4	30	5.87	149	4.20	107
1-1/2	40	5.87	149	4.38	111

Stem Extensions

A standard 4" (102mm) stem extension is offered for 1/2" – 2" (DN 15 – 50) Series 6F valves for improved accessibility, particularly when used in insulated pipelines. Stem extension kits can be ordered factory-mounted or shipped separately for field mounting.



Valve Size		Kit Number
inches	DN	
1/2	15	SE-072
3/4 - 1	20 - 25	SE-073
1-1/4 - 2	30 - 50	SE-074

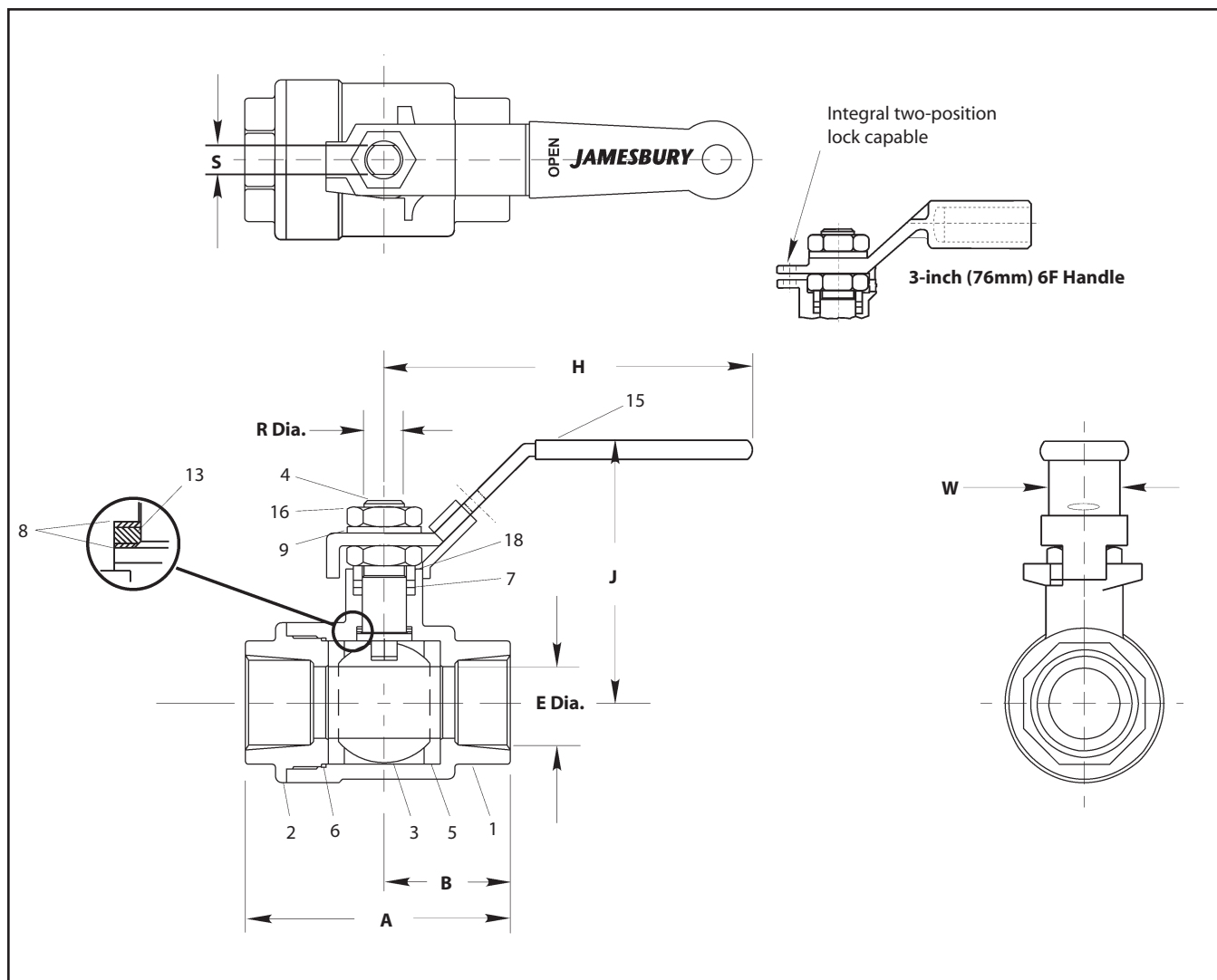
ACCESSORIES

Optional Handles

Series 6F ball valves have optional handles available: a round handle (non-locking), an oval handle, and an extra-long lever. To order handles separately, specify the following part number.

	1/2" (DN 15)	3/4" - 1" (DN 20 - 25)	1-1/4" - 1-1/2" (DN 30 - 40)	2" (DN 50)
Round Handles	012-0785-22	012-0786-22	012-0787-22	—
Lockable Oval Handles	012-0794-22	012-0795-22	012-0796-22	—
12-inch-long lockable lever handle (Stainless Steel)			012-0822-30	

DIMENSIONS



Valve Size inches	DIMENSIONS – inches								Approx. Weight lb
	A	B	E	J	H	R	S	W	
1/2	2.57	1.18	0.50	2.20	4.00	0.31	0.18	0.75	0.75
3/4	3.38	1.58	0.88	3.00	5.50	0.50	0.31	0.88	2.1
1	3.76	1.81	1.00	3.13	5.50	0.50	0.31	0.88	2.7
1-1/4	4.24	2.00	1.25	3.84	7.00 [†]	0.63	0.37	0.98	4.1
1-1/2	4.77	2.28	1.50	4.02	7.00 [†]	0.63	0.37	0.98	5.6
2	5.04	2.52	2.00	4.61	7.00 [†]	0.63	0.37	0.98	8.7
3	7.36	3.68	2.99	6.14	18.00	1.00	0.67	1.05	28.0

Valve Size DN	DIMENSIONS – mm								Approx. Weight kg
	A	B	E	J	H	R	S	W	
15	65	30	13	56	102	8	5	19	0.34
29	86	40	22	76	140	13	8	22	0.95
25	96	46	25	80	140	13	8	22	1.2
32	108	51	32	98	178 [†]	16	9	25	1.9
40	121	58	38	102	178 [†]	16	9	25	2.5
50	128	64	51	117	178 [†]	16	9	25	3.9
80	187	93	76	156	457	25	17	27	13

[†] Optional 12-inch (305 mm) handle available

BILL OF MATERIAL AND PARTS LIST				
Part Number	Quantity	Part Name	Carbon Steel	316 Stainless Steel
1	1	Body	A216-WCB-carbon steel	A351-CF8M-stainless steel
2	1	Body Cap	A216-WCB-carbon steel	A351-CF8M-stainless steel
3	1	Ball	316 stainless steel	
4	1	Stem	316 stainless steel	
5	2	Seat	PTFE/filled PTFE	
6	1	Body Seal	Graphite	
7	2	Stem Seal	PTFE	
8	2	Stem Bearing	PTFE/Filled PTFE	
9	1	Shakeproof Washer	Carbon steel	304 stainless steel
13	1	Secondary Stem Seal	Graphite	
15	1	Handle	Carbon steel	304 stainless steel
16	2	Stem Nut	304 stainless steel	
18	1	Compression Ring	304 stainless steel	

HOW TO ORDER SERIES 6F BALL VALVES

To specify Series 6F ball valves, choose the appropriate code from each of the boxes shown below.

1	2	—	3	4
2"	6F		2236	TT

EXAMPLE: The valve specified above is a 2" Series 6F full-bore threaded ball valve constructed of carbon steel body, 316 stainless steel ball and stem, and PTFE seats and seals.

1	Valve Size						
Inches	1/2	3/4	1	1-1/4	1-1/2	2	3
DN	15	20	25	30	40	50	80

2	Series
6F	Series 6F Full-bore Ball Valve

3	Body / Trim Material
2236	Carbon Steel Body / 316 Stainless Steel Ball and Stem
3600	316 Stainless Steel Body, Ball, & Stem

4	Seat / Seal Material
TT	PTFE / PTFE*
MT	Filled PTFE / PTFE*

* With graphite secondary stem seal

Subject to change without prior notice.

Metso Automation Inc.

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

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

Europe, 6-8 rue du Maine, 68271 Wittenheim Cedex, France.
Tel. +33 (0)3 89 50 64 00. Fax +33 (0)3 89 50 64 40

South America, Av. Independência, 2500- Iporanga, 18087-101, Sorocaba-São Paulo
Brazil. Tel. +55 15 2102 9700. Fax +55 15 2102 9748/49

Asia Pacific, 238A Thomson Road, #25-09 Novena Square Tower A, 307684 Singapore.
Tel. +65 6511 1011. Fax +65 6250 0830

China, 19/F, the Exchange Beijing, No. 118, Jianguo Lu Yi, Chaoyang Dist, 100022 Beijing, China.
Tel. +86-10-6566-6600. Fax +86-10-6566-2575

Middle East, Roundabout 8, Unit AB-07, P.O. Box 17175, Jebel Ali Freezone, Dubai,
United Arab Emirates. Tel. +971 4 883 6974. Fax +971 4 883 6836

www.metso.com/automation

