

# JACKETED BALL VALVES

Jacketed ball valves to handle highly viscous materials or materials that solidify at ambient temperatures, are available from Metso Automation for use with steam or other heat transfer media. These valves ensure free flow through the valve and prevent clogging when the valve is closed.

## AVAILABLE TYPES

### Two-Piece Bolted Jacket

A two-piece removable jacket that is bolted securely in position around the valve is offered for maximum flexibility.

This design offers three advantages. First, the jacket can be retained and reused if the basic valve needs to be replaced. Second, if the valve should be removed for repair, the jacket can remain connected to keep the heat transfer media flowing. The bolted jacket also eliminates the need for oversized flanges normally required with full welded jackets to provide the advantage of full jacketing at no increase in cost over partial jackets.

This type of jacket is available on nearly all Jamesbury flanged valves. It is especially well-suited for split body valves like the 8" (DN 200) and larger Series 7000 and the 2" (DN 50) and larger Series 9000.

### Single-Piece Welded Jacket

A second type of jacket is the full jacket. Integral to the valve, this jacket extends from one flange to the other, with oversize flanges (generally one size larger than the valve size), and with a face-to-face dimension corresponding to the basic valve. A 3" (DN 80) valve assembly, for example, has 4" (DN 100) flanges to allow enough bolting clearance outside the jacket while maintaining the face-to-face dimension of the standard 3" (DN 80) valve.

Both types of jackets are rated for heat transfer media pressures up to 150 psi (10.3 bar). Standard arrangement for jacket connections are shown in the drawings here and on page 2. Jacket connections are threaded half couplings with sizes shown in the following table. Other connection arrangements and styles, such as socket weld and weld nipple stubs are also available.

Two-Piece Removable Jackets			
Valve Size		Connection Size (NPT)	
inches	DN	inches	mm
1/2 – 2	15 – 50	1/2	N/A
3 – 6	80 – 150	3/4	
8 – 12	200 – 300	1	

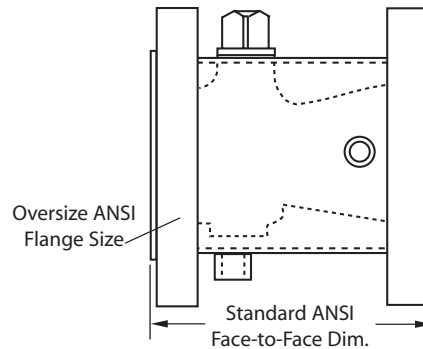


**Bolted Jacket**



**Fabricated Jacket**

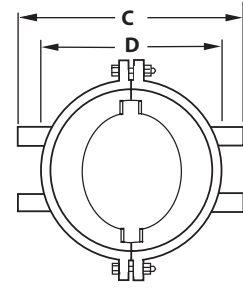
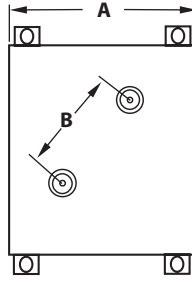
## FABRICATED JACKETS FLANGE SIZE



Valve Size		Flange Size	
inches	DN	inches	mm
1/2	15	1-1/2	38
3/4	20	1-1/2	38
1	25	2	50
1-1/2	40	3	76
2	50	3	76
3	80	4	102
4	100	6	152

## BOLTED JACKETS

The table below provides approximate dimensions, weights, and surface areas of the bolt-on jackets for 5000, 6000, 7000, and 9000 Series ball valves in sizes 1/2" – 4" (DN 15 – 100). For data on larger valves, please consult factory.



**Approximate Dimensions, Weights, and Surface Areas of Bolt-On Jackets For Series 5000 & 6000 Flanged Ball Valves, ANSI Class 150 and 300**

Valve Size	ANSI Class	Valve Series	A Face-to-Face		B Coupling Clearance		C Distance Between Couplings		D Overall Diameter		3000# Coupling Size (NPT)		Weight of Bolt-On Jacket		External Surface Area of Bolt-On Jacket		
			inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	lb	kg	sq ft	sq cm	
1/2	15	150	5150	4-1/4	108	2	51	7	178	4-1/2	114	1/2	4	102	0.25	232	
		300	530S	4-1/2	114	2-1/2	57	7-1/2	191	4-1/2	114	1/2	5	7	0.38	353	
3/4	20	150	5150	4-3/4	121	2	51	7-1/2	191	4-1/2	114	1/2	6	152	0.35	325	
		300	530S	4-3/4	121	2-1/2	57	8-1/2	216	5-1/2	140	1/2	8	203	0.47	437	
1	25	150	5150	5	127	2	51	8-1/2	216	5-1/2	140	1/2	10	254	0.41	380	
		300	530S	5	127	2-1/2	57	8-1/2	216	5-1/2	140	1/2	12	305	0.69	641	
1-1/2	40	150	5150	6-1/2	165	2-1/2	57	9-1/2	241	6-1/2	165	1/2	13	330	0.92	855	
		300	530S	6-1/2	165	3	96	9-1/2	241	7-1/2	191	1/2	16	406	1.1	1022	
			5300	7-1/2	191	3	96	9-1/2	241	7-1/2	191	1/2	18	457	1.5	1394	
2	50	150	5150	7	178	4	102	10	254	7-1/2	191	1/2	N/A	22	559	1.4	1301
			9150														
		300	530S	7	178	4-1/2	114	11-1/2	292	8-1/2	216	1/2		26	660	1.6	1486
			5300														
9300	8-1/2	216	4-1/2	114	11-1/2	292	8-1/2	216	1/2	30	762	1.9	1765				
3	80	150	7150	8	203	4-1/2	114	12	305	9	229	3/4	N/A	34	864	2.0	1858
			9150														
		300	730S	8	203	5	127	12-1/2	318	9-1/2	241	3/4		44	1118	2.3	2137
			7300														
9300	11-1/2	292	5	127	12-1/2	318	9-1/2	241	3/4	56	1473	2.8	2601				
4	100	150	7150	9	229	6-1/2	165	13-1/2	343	10-1/2	267	3/4	N/A	58	1473	2.5	2323
			9150														
		300	730S	9	229	7	178	14-1/2	368	11-1/2	292	3/4		68	1727	3.3	3066
			7300														
9300	12	305	7	178	14-1/2	368	11-1/2	292	3/4	77	1956	4.7	4366				

## Installation Instructions, Maintenance and Operation

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, 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](http://www.jamesbury.com)

