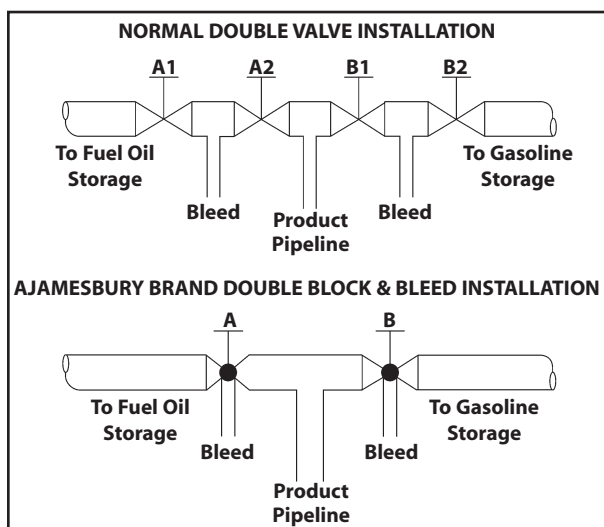


DOUBLE BLOCK AND BLEED VALVES

DESIGN

Double block and bleed ball valves are specifically developed to take full advantage of the positive sealing design of JAMESBURY® DOUBLE-SEAL® valves. While the seats in our standard valves are engineered to prevent through-leakage, our double block and bleed valves offer the additional advantage of preventing pressurized media on both sides of the valve from leaking through the valve and becoming mixed.



APPLICATIONS

A single double block and bleed valve can do the job of two conventional single-seated valves. As shown above, two pairs of conventional valves must be used for block and bleed service in a fuel oil and gasoline storage system. A single double block and bleed valve replaces each pair of these valves. The pipe tees are eliminated since the valves have a drain hole in their base for verification of positive sealing if desired.

Standard Series 5000, 6000, 7000, and 9000 valves are fire-tested to API 607 for flow through the valve in either direction. To meet requirements of this specification, ball valves of floating-ball design (Class 150 and 300 valves) rely on upstream pressure forcing the ball downstream for effective shutoff. In double block and bleed applications with pressurized media on both sides of the valve, shutoff in the event of a fire can be expected only if there is significant differential pressure across the valve. Further, the body cavity must be protected against fluid thermal expansion (as required by ANSI B16.34), which can be done by commercially available fire-tested relief devices.

AVAILABLE VALVES

JAMESBURY DOUBLE-SEAL ball valves available as double block and bleed valves include:

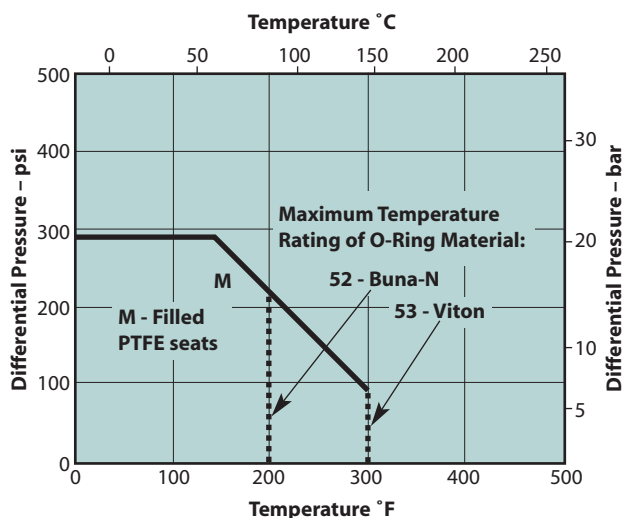
Series 6000 & 9000 Full-Bore and
Series 5000 & 7000 Standard-Bore
Polymeric-Seated Flanged Ball Valves B107-1

Specifications of standard valves shown in the bulletin generally apply to double block and bleed valves with two exceptions: (1) Use seat rating charts shown in this bulletin, rather than those for standard valves, and (2) Use valve torque charts shown in this bulletin, rather than those for standard valves.

SEAT MATERIALS AND RATINGS

Double block and bleed valve seats have an integral elastomer O-ring that maintains upstream sealing over an extremely wide range of conditions. Standard seat material is filled PTFE (M). Standard O-ring materials are Buna-N (N-Compound), providing ideal combination of chemical resistance and temperature up to +200°F (+93°C), and Viton® or V-Compound, with temperatures to +300°F (+149°C). Refer to Bulletin T101-3 for polymer and elastomer chemical resistance.

**2" & 12" – 20" (DN 50 & DN 300 – 500) Series 5000,
14" – 24" (DN 350 – 600) Series 6000,
3" – 10" (DN 80 – 250) Series 7000,
2" – 12" (DN 50 – 300) Series 9000**

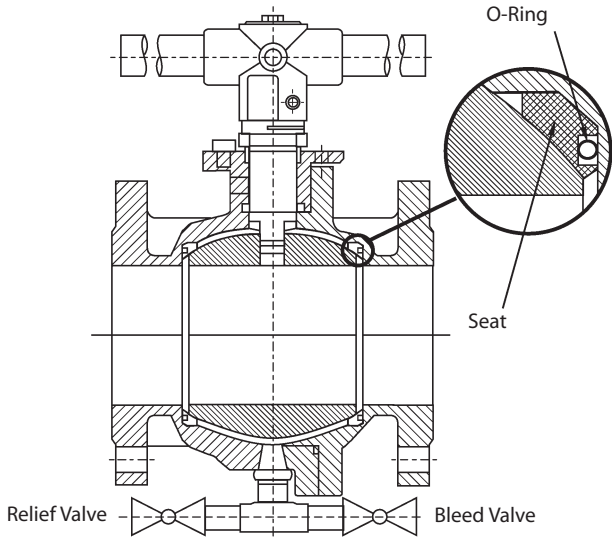


BLEED HOLE

Valve bodies are available drilled and tapped to allow for flow out of the body cavity. Standard sizes for the bleed port are shown at right. The port is supplied with a plug to prevent flow when the valve is being opened or is in the full open position. If a bleed valve is required, the FIRE-TITE® Series 3000 ball valve is recommended.

Sizes of Tapped Bleed Hole		
Valve Size		
inches	DN	Hole
2 – 4	50 – 100	1/2" NPT
6 – 8	150 – 200	3/4" NPT
10 – 12	250 – 300	1" NPT

In cases where fluctuations in temperature occur, the bleed line should be equipped with a relief valve to guard against excessive pressure build-up of fluid trapped in the body cavity of the valve.

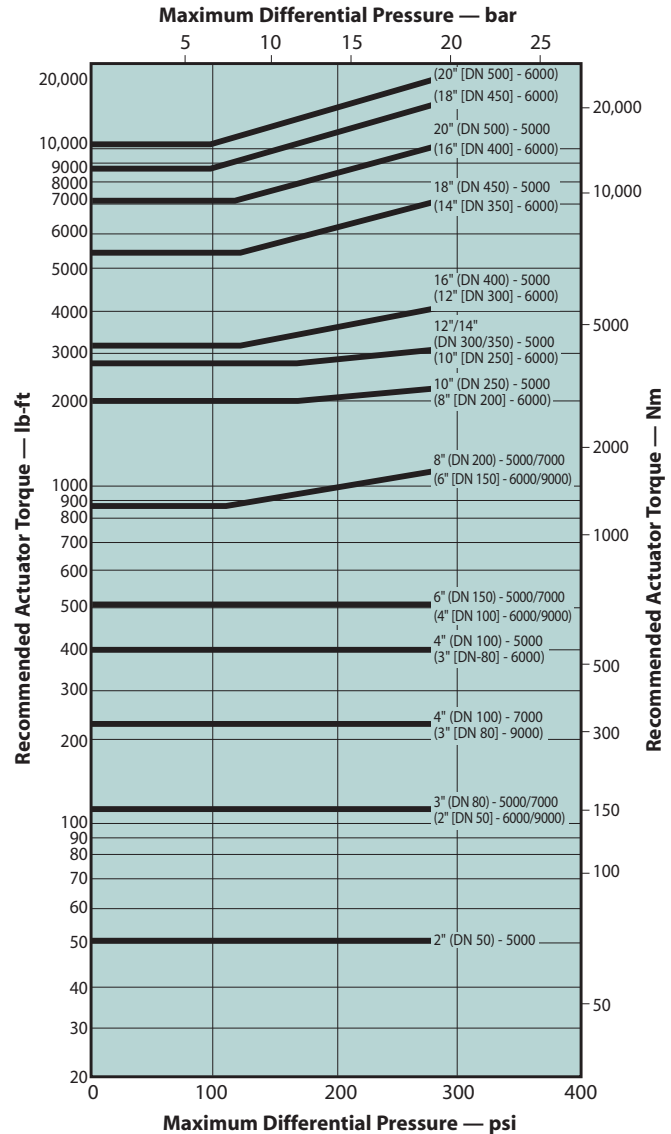


HOW TO ORDER

Example: A 2" (DN 50) ANSI Class 150 full-port valve (9150) in double-block-and-bleed construction (DBB) with raised-face flanges and FIRE-TITE design (31), carbon-steel body (22), 316 stainless-steel trim (36) with filled-PTFE seats and seals (M), and Buna-N O-rings (52). **2" 9150DBB312236MT52**

Torques for Series 5000, 6000, 7000, & 9000 Valves

(Series 6000 & 9000 valves in parentheses)



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

