

# DOUBLE-SEAL® BALL VALVES FOR CHLORINE SERVICE

Unique design features make Jamesbury *DOUBLE-SEAL* ball valves ideal for handling liquid or gaseous chlorine. These valves are filling application requirements of both producers and users of chlorine.

Most important of all is the unique sealing design of the valves. The flexible-lip valve seats not only provide tight shutoff, but in the event of pressure build-up in the body, they flex and vent chlorine safely toward the high pressure (upstream) side of the valve.

Additional features prevent leakage of chlorine to the atmosphere. Corner-sealing PTFE stem seals stop leakage past the stem, while other potential leak paths are eliminated by the highly effective PTFE body seals between the body and body cap or body insert.

The valves are specifically cleaned and prepared to preclude possible reaction of chlorine with foreign material. This procedure calls for use of a chlorine compatible lubricant for valve assembly. Valves are individually packaged (with desiccant) after assembly and testing. "Chlorine" tagging identifies valves prepared in this manner.

A full range of key materials is available to permit selection of the Jamesbury valve best suited for the moisture content of the chlorine being handled. The recommended valve materials are:

Moisture Content (parts per million of water)	Valve Material(s)
0 – 50	Carbon steel body with Monel® or Hastelloy C® ball and stem
50 ppm & up	Monel body with Monel or Hastelloy C ball and stem

Monel is a registered trademark of INCO.  
Hastelloy C is a registered trademark of Hayes international.

A216-WCB Carbon steel is not recommended for service below -20°F (-29°C). For applications involving lower temperatures, *MONEL* is used. 316 stainless steel may be subject to stress corrosion cracking and is not recommended.

Valves applied in loading and unloading operations should have a *HASTELLOY C* ball and stem. Atmospheric moisture may enter the valve in this operation, resulting in increased moisture content of the chlorine.

PTFE, filled PTFE and *XTREME™* are both suitable as seat materials in chlorine valves, although *XTREME* and filled PTFE are recommended to resist the abrasive effects of metallic chlorides.

Valves cleaned and prepared for chlorine service are available as standard in the following styles: Eliminator® threaded-end valves and Series 5000, 6000, 7000, and 9000 flanged-end valves. *DOUBLE-SEAL* ball valves for chlorine service have the letter "C" following the body style designation, for example, 9FBC or 7150C.

Chlorine valves in the above styles can be furnished in Fire-Tite® design when specifications require. Refer to the following bulletins for dimensions, bills of material, and other specifications of Jamesbury ball valves for chlorine service:

Valve Type	Bulletin
<i>ELIMINATOR</i> threaded-end valves	B101-2
Series 5000, 6000, 7000, & 9000 flanged valves	B107-1

## 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.

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