CHLORINE SERVICE BALL VALVES

Bray has specially prepared valves for use in dry chlorine service applications (less than 150 ppm water). These valves are designed to comply with recommendations from the Chlorine Institute Pamphlet 6, Piping Systems for Dry Chlorine.

BRAY BALL VALVES ARE DESIGNED AND WELL SUITED FOR HANDLING GASEOUS AND LIQUID CHLORINE IN A VARIETY OF APPLICATIONS

- Bleaching – Textiles
- Bleaching – Pulp and Paper
- Manufacture of the Basic Chemical
- Chemical Processing
- Waste Water and Potable Water Treatment
- Aluminum Production / Aluminum Fluxing

Unique design features make Bray ball valves ideal for handling dry, liquid or gaseous chlorine applications (less than 150 ppm water). Bray chlorine service valves are specially cleaned and prepared as recommended by the Chlorine Institute.

BRAY BALL VALVE DESIGN FEATURES FOR CHLORINE SERVICE

- A relief hole in the ball enables expanding chlorine to relieve harmlessly upstream while the valve is closed. This upstream relief hole in the ball allows the chlorine to bypass the upstream seat and permits the expansion pressure in the ball and body cavity of a closed valve to relieve simultaneously toward the direction of high pressure (upstream). The valve becomes a uni-directional valve that must be installed so that the relief hole is toward the pressure source.
- A stem slot relief enables expanding chlorine to exhaust from the body cavity (in to the main flow) while the valve is in the open position. This prevents seat deformation and extends the service life of the valve.
- Stem seals are externally adjustable and live loaded with the use of Belleville washers.
- A bottom entry stem for added safety.
- Positive and permanent indication on body to indicate flow direction.
- Body, ball, stem and seat materials proven compatible with chlorine.
- Testing for seat and seal tightness per API 598 performed on all valves prior to shipment.
- Thorough and complete cleaning of each valve per Bray's Lubricant Removal Procedure Work Instruction No. 125.
- Special packaging is utilized as a barrier to prevent the valve's internal from becoming contaminated during shipping.
- Certification is available stating compliance for these valves with the recommendations of the Chlorine Institute Pamphlet 6, Piping Systems for Dry Chlorine.

BALL VALVES ARE SUITED FOR SERVICE CLASSES LISTED AS SPECIFIED BY THE CHLORINE INSTITUTE

Chlorine Institute Service Class	Fluid State	Pressure	Temperature
Class I	Gas Only	Vacuum to 150 PSIG (1034 kPa)	-20°F to 300°F (-29°C to 149°C)
Class IV	Gas or Liquid	Vacuum to 300 PSIG (2068 kPa)	-20°F to 300°F (-29°C to 149°C)

CHLORINE SERVICE BALL VALVE PRODUCTS AND MATERIAL SELECTION GUIDE

	8000 Series	F15	F30
	Sizes ¼" to 2"	Sizes ½" to 2"	Sizes ½" to 2"
End Connections Types	Threaded (NPT), Socket-weld, and Butt Weld	ANSI Class 150 Raised Face	ANSI Class 300 Raised Face
Chlorine Institute Service Class	Class I and IV	Class I	Class IV
Body and End Material	A216-WCB Carbon Steel	A216-WCB Carbon Steel	A216-WCB Carbon Steel
Ball (vent hole on upstream face and stem slot)	ASTM B574-N10276 Hastelloy® C	ASTM B574-N10276 Hastelloy® C	ASTM B574-N10276 Hastelloy® C
Stem	ASTM B574-N10276 Hastelloy® C	ASTM B574-N10276 Hastelloy® C	ASTM B574-N10276 Hastelloy® C
Seats	RTFE or TFM1600	RTFE, TFM1600 or Tek-Fil®	RTFE, TFM1600 or Tek-Fil®
Body Seals	RTFE or TFM1600	RTFE or TFM1600	RTFE or TFM1600
Stem Packing	RTFE or TFM1600	RTFE or TFM1600	RTFE or TFM1600
Bolting	A193-B7 / A194-2H	A193-B7	A193-B7

Refer to the 8000 series and F15/F30 series ball valve brochures for all relevant dimensional information, weight and Cv (flow coefficient) data.