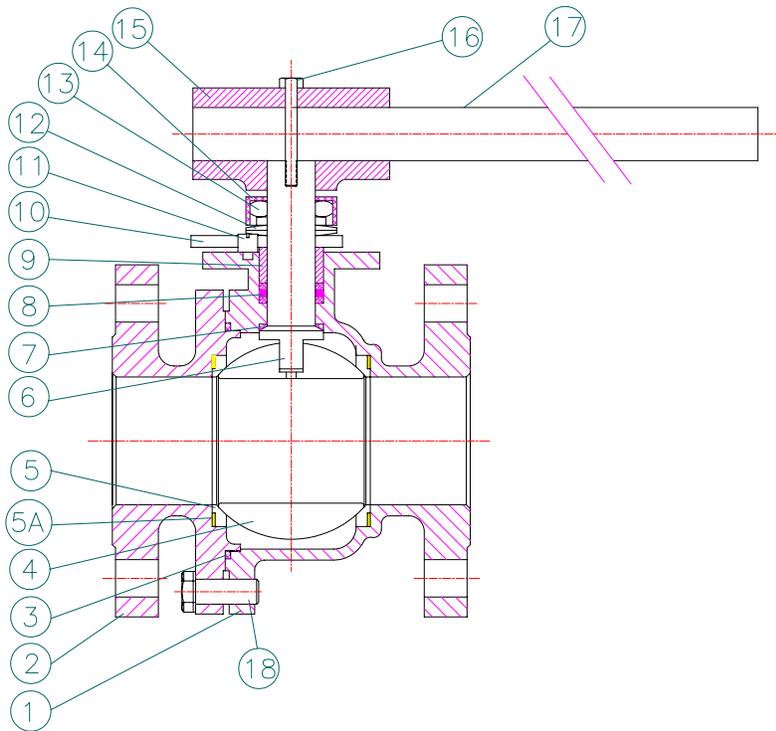


**Series 50 Metal-seated Ball Valves**



LIST OF MATERIALS

ITEM	DESCRIPTION
1	BODY
2	END CONNECTOR
3	BODY GASKET
4	BALL
5	SEAT
5A	SEAT SEAL
6	STEM
7	THRUST BEARING
8	STEM PACKING
9	GLAND BUSHING
10	STOPPER
11	STOP PIN
12	BELLVILLE WASHER
13	STEM NUT
14	LOCK TAB
15	WRENCH BLOCK
16	HEX HEAD BOLT
17	HANDLE
18	BODY BOLTS

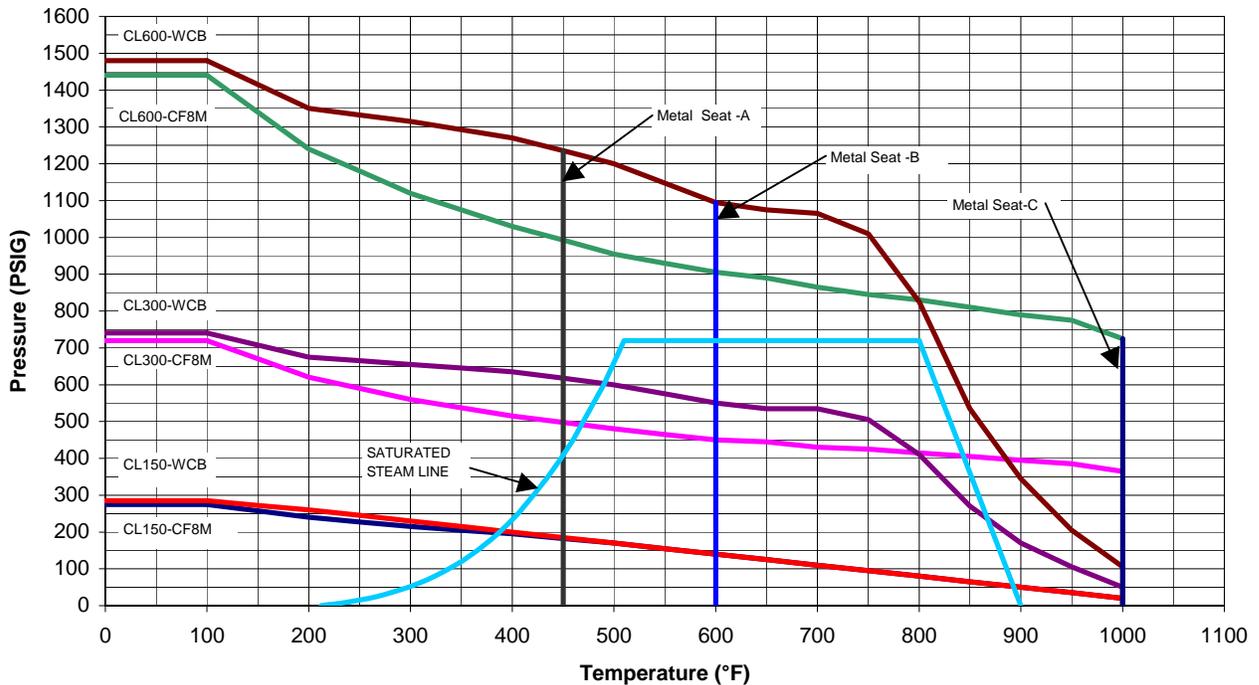
The Sharpe Series 50 full-port split body ball valve is now available with metal seats for use in applications requiring resistance to erosion, abrasion, corrosion, and high temperatures beyond the capabilities of the currently available polymeric seat materials. Different seal and seal configurations can be supplied, depending on the specific application. All configurations include the basic combination of a SS316 ball which has been electroless nickel plated (ENP) and SS316 seats hard-surfaced with Stellite 6. The ball and seats are precision machined and lapped together to provide an extremely tight fit; seat leakage rates equivalent to FCI 70-2, Class V or VI can be provided.

A high-strength SS17-4PH stem is also installed to withstand the higher torques associated with metal seats and the typical applications where they are used. The normal polymeric thrust washer is replaced by a Nitronic 60 thrust bearing.

**Type A Seat Configuration:**

This configuration includes the standard polymeric body and seat seals, and stem packing. It is intended for use in highly abrasive or erosive applications where higher temperatures are not an issue. The service temperature limit for this configuration is 450°F (232.2°C).

**Pressure/Temperature Ratings  
Metal-seated Ball Valves**



**Type B Configuration:**

In this configuration the polymeric seals are replaced with die-formed flexible graphite seat seals and stem packing. The body seal is a spiral wound SS316/flexible graphite design. This configuration extends the temperature capability of the metal seated valves to 600°F (316°C), while retaining resistance to abrasion and erosion. This configuration is suitable for On-Off saturated steam service up to 200 PSIG in Class 150 valves, and 600 PSIG in Class 300 valves (carbon steel construction).

**Type C Configuration:**

This arrangement utilizes a downstream seat with a flexible graphite seat seal, as in the Type B, with the upstream seat spring-loaded against the ball to assist in downstream sealing, and to provide compensation for thermal expansion effects at high temperatures. Type C configurations are therefore unidirectional, and a flow direction arrow is provided on the valve body. The Type C configuration is suitable for temperatures up to 1000°F (538°C), and is recommended for high temperature fluids and gases.

**Specifications and Ordering Information:**

Please contact Sharpe Valves with details of your application so the required specifications for an appropriate metal seated valve can be determined accurately.