

SMITH-COOPER[®]
INTERNATIONAL



SERIES

HP80/HP89



*HIGH PERFORMANCE HIGH PRESSURE
STANDARD / FULL PORT
3-PIECE BALL VALVE*

Design & Features

Body Material

316 Stainless Steel & Carbon Steel

Rugged Body and End Pieces

Rugged body, with higher and deeper stem packing area to allow for more stem seals. Two cast bosses for optional fugitive emission ports. Larger ISO 5211 bolt pattern for handling higher valve torques.

Heavy Duty Stem Design

Stem diameters have been increased to meet the higher torque requirements of the most demanding applications. Stem to ball contact area is wider and larger, allowing the valve to be used for higher torque applications.

Floating Ball Design

Solid stainless steel ball with wide selection of configurations for a variety of applications including; diverting, mixing, controlling, flushing, purging and more. Floating ball seals on the downstream seat, reducing torque and assuring a bubble-tight shutoff.

Tongue and Groove Design

Fully encapsulated body seals, allowing ends to be welded in-line, without time consuming and labor intensive disassembly. Design compensates for bolt expansion and reduces the chance of external leakage. Helps prevent seal ruptures in high pressure, cryogenic or steam applications.

Larger Bolt Design

Larger diameter body bolts. Encapsulated body bolts for added protection and wash down applications.

ISO 5211 Top-Works Compatibility

The top-works offer compatibility for mounting a wide range of accessories. Sharpe® actuators and accessories may be retrofitted on existing valves without disruption of line integrity.

Unique Handle

A unique cast stainless steel handle specially designed to accommodate locking devices and high operating torques. A comfortable, ergonomic, non-slip, hand grip design. Handle length according to API 608 requirements.

Tamper Proof Locking Device

All Sharpe® Valves come standard with a lockable handle. The optional, Sharpe® exclusive, tamper proof locking device cannot be removed with a lock in place. When not being used with a lock its springs ensure the locking device snaps into place in the open or closed position to prevent accidental operation.

Stem Sealing

Increased Stem Sealing Area

Allows for a range of sealing combinations for severe applications and other stringent design demands.

Live-Loaded Stem

Two pairs of concave and opposing spring washers provide additional compensation for seal wear.

Safe Design

Blowout proof stem ensures the stem cannot be blown out by accidental medium pressure rise.

Wear Resistance

The thrust washer is either metallic for higher temperatures and wear resistance, or PEEK for lower temperatures

Anti-Static

Static build-up discharges by anti-static device in stem or the metallic thrust washer.

Stem Assemblies

Various stem assemblies are available based on application requirements.

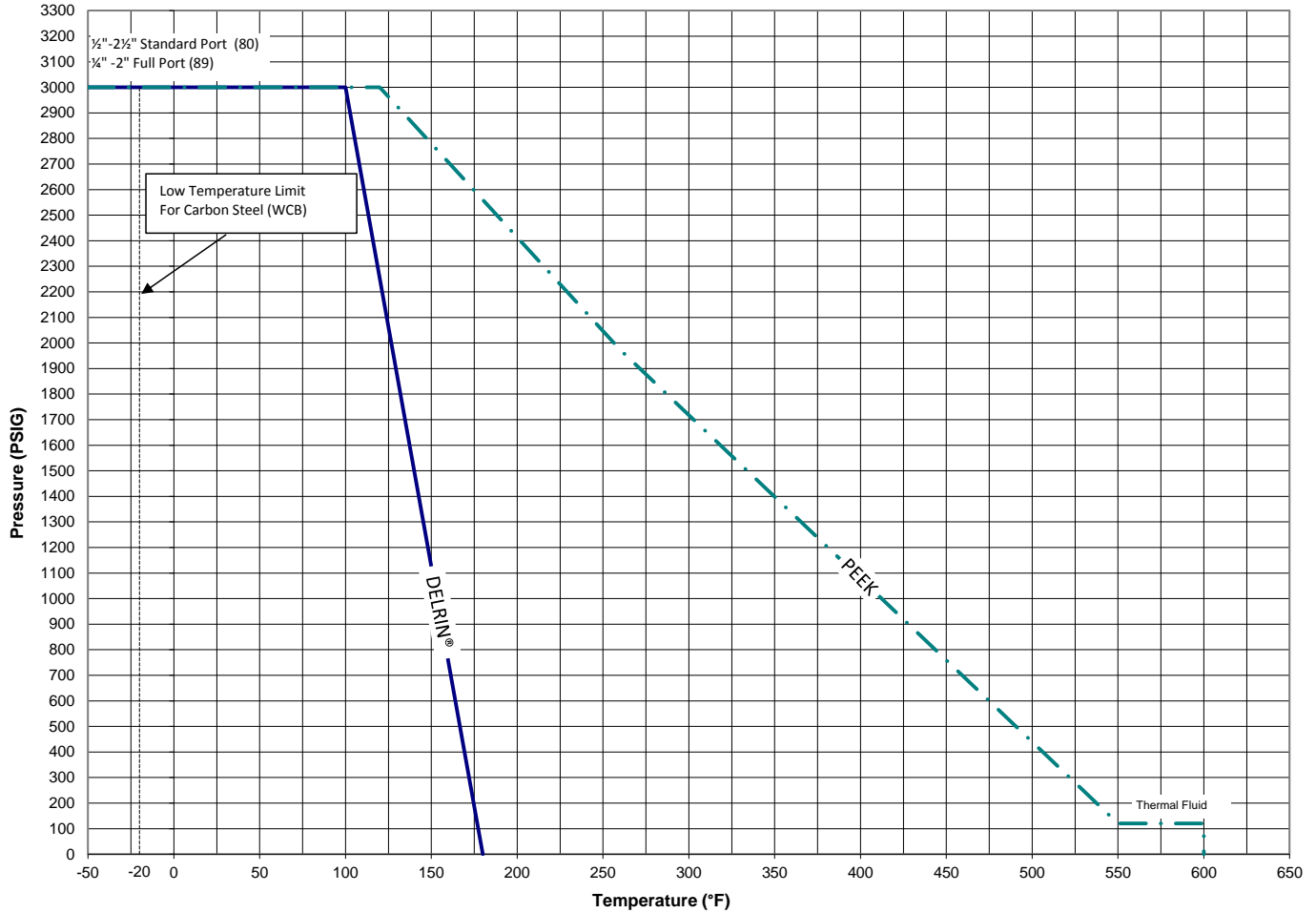
Standard – a multiple pack of Chevron “V” shaped stem seals for better sealing in TFM™ or Nova materials.

High Temperature – double pack of flexible graphite seals for sealing under high temperature conditions.

Fugitive Emission – 2-pack stem seals in PTFE or graphite, with lantern ring to allow leak detection through the emission port(s).

High Cycle – unique design for demanding high cycle applications that consist of multi-system sealing devices in the stem bonnet.

Pressure-Temperature Ratings Series HP80/89



Sharpe® Seat Materials

D - Delrin®
 This material is very rigid and does not undergo cold flow. It has a combination of strength, stiffness, hardness, dimensional stability, toughness, fatigue resistance, abrasion resistance, low wear and low friction. It can withstand pressure up to 6000 PSIG depending on valve size and class rating. Has a temperature range of -70°F to 180°F (-57°C to 82°C).

P - PEEK (Unfilled) Polyetheretherketone
 PEEK Polymer offers a unique combination of chemical, mechanical and thermal properties. Excellent for water and steam applications at elevated temperatures up to 600°F (315°C). Color - beige.

Notes
Sharpe® HP80/89 series valves 3000 CWP
 The valves are rated for their maximum cold working pressure. The graphs are based on laboratory testing and our experience in field. The maximum pressure/temperature ratings are limited to the lowest of the body or seat material.
 High tensile bolts and nuts A193-B8 CL 2 / 300 Series Stainless nuts

How To Order Series HP80/HP89

2" HP80 - 6 6 6 7 P G G - SW / TE
 Size Series Body Ends Ball Stem Seat Body Seal Stem Packing Ends

Size	
80	89
-	¼"
½"	¾"
¾"	1"
1"	¾"
1¼"	1"
1½"	1¼"
2"	1½"
2½"	2"

Series	
HP80	Standard Port
HP89	Full Port

Body	
4	Carbon Steel
6	316 Stainless Steel

Ends	
4	Carbon Steel
6	316 Stainless Steel (Welded ends will be type L)

Ball	
6	316 Stainless Steel

Stem	
7	17-4 PH

Seat	
D	Delrin®
P	Virgin PEEK

Body Seal	
G	Graphite
V	Viton®

Ends	
TE	Threaded
SW	Socketweld

Stem Packing	
N	Nova
G	Graphite

For additional materials, end pieces and options, please refer to our 80/89 series catalog. Delrin® is a registered trademark of DuPont. Viton® is a registered trademark of DuPont.