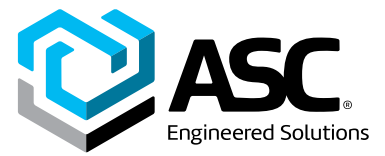


Building connections that last™



Sharpe® Series 80/89 & FS80/FS89

ASME Class 800 & 300,
3-Piece Ball Valve Datasheet



ASME Class 800 & 300, 3-Piece Ball Valves

Sharpe® Series 80/89 & FS80/FS89

Overview

A wider range of applications, functionality, and control features.

Unique Cast Stainless Steel handle for added strength and enhanced gripping power.

Optional tamper proof locking device.

Large, heavy duty stem shaft to comply with API 608.

Optional fugitive emission ports for monitoring.

Superior stem seal configuration for leakage protection and improved environmental performance.

The Series 80/FS80 Standard Port and Series 89/FS89 Full Port three-piece ball valves are designed for high performance, long cycle life and exceptional durability. The valves are fully compliant to API 608 Class 800 for sizes up to 2½" Standard Port, 2" Full Port, and Class 300 up to 4" Standard Port, 3" Full Port.



asc-es.com

Building connections that last™

ASME Class 800 & 300,
3-Piece Ball Valves
Sharpe® Series
80/89 & FS80/FS89

Features

Important Construction Components

Body Material

316 Stainless Steel, Carbon Steel, Alloy 20, or 254 SMO®.

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.

Extra thick end pieces to comply with Class 800 for sizes up to 2½"

Standard Port, 2" Full port.

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.

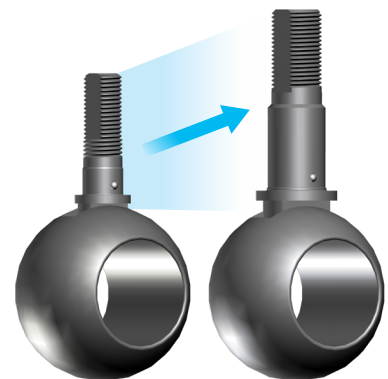
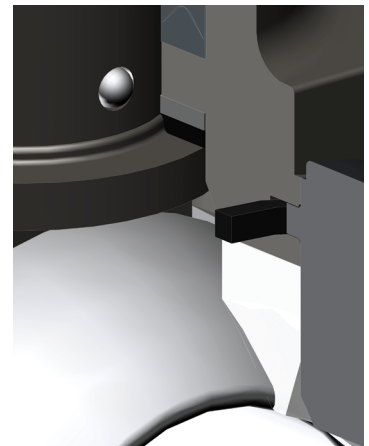
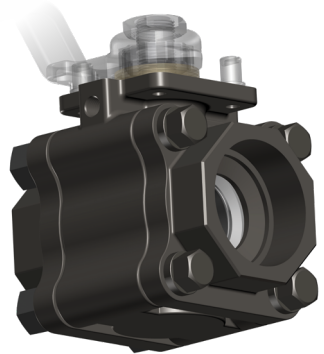
Helps prevent seal ruptures in high pressure, cryogenic or steam applications.

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.

Design allows for the use of 316 stainless steel stem material, rather than 17-4PH, for superior corrosion resistance.



asc-es.com

Building connections that last™



ASME Class 800 & 300,
3-Piece Ball Valves
Sharpe® Series
80/89 & FS80/FS89

Features

Larger Bolt Design

Larger diameter body bolts to comply with Class 800 for sizes up to 2½" Standard port, 2" Full Port.

Encapsulated body bolts for added protection and wash down applications.

Optional bolts and nuts to comply with NACE MR-0175/ISO 15156.

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.

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.

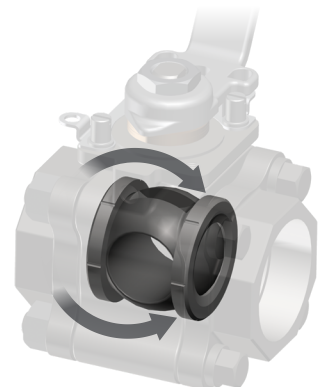
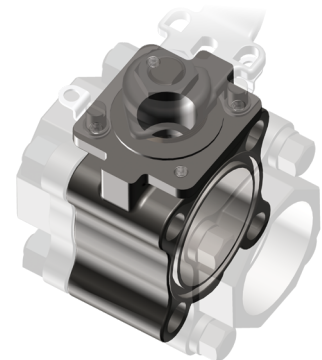
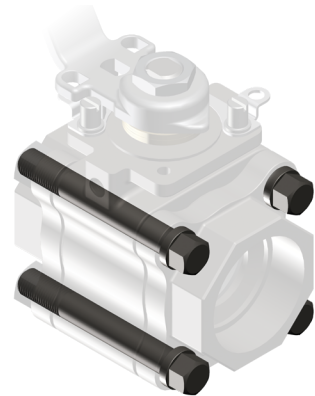
Floating ball seals on the downstream seat, reducing torque and assuring a bubble-tight shutoff.

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.



asc-es.com

Building connections that last™

ASME Class 800 & 300,
3-Piece Ball Valves
Sharpe® Series
80/89 & FS80/FS89

Valve Trim

Operational flexibility and process compatibility of stem assemblies

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®, PTFE, 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.

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.

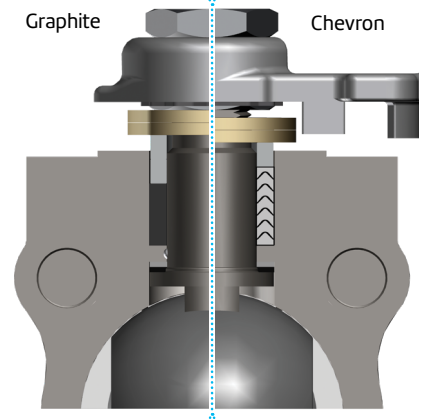
Stem Trim for Sizes Greater Than 3"

According to API 608 all valve sizes greater than 3" have an adjustable packing gland with thru bolt holes. Gland bolts pass through the holes and thread to the valve body. The position stops are bolted to the body and are not integral to the packing gland, gland flange or gland bolting.

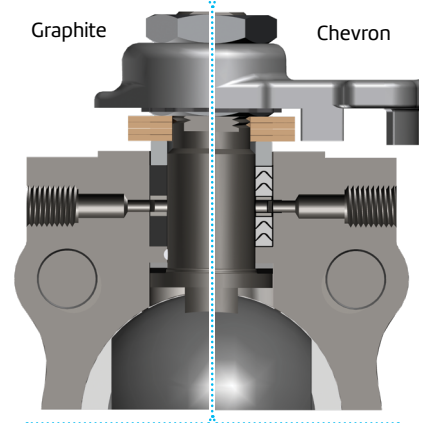
Graphite packing for Fugitive Emission service

Graphite packing (I) has been type-tested to API 641 1st Edition, fulfilling valve qualification to API 608 6th edition.

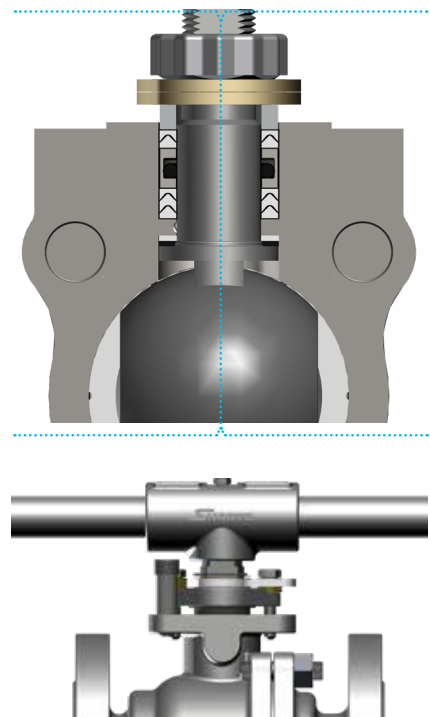
Standard Stem Assembly



Fugitive Emission Assembly



High Cycle Assembly



ASME Class 800 & 300,
3-Piece Ball Valves
Sharpe® Series
80/89 & FS80/FS89

Seat & Seal

Options for demanding design solutions

Choice of Seats and Seals

A wide variety of seat and seal materials are readily available for the most demanding applications including: TFE, RTFE, TFM®, Nova, Super Nova, Delrin®, PEEK, Buna, Graphite, Impregnated Graphite, EPDM and Viton®.

Seat Designs

All the seats are designed with circumferential relief slots to equalize body pressure and assure leak-tight sealing.

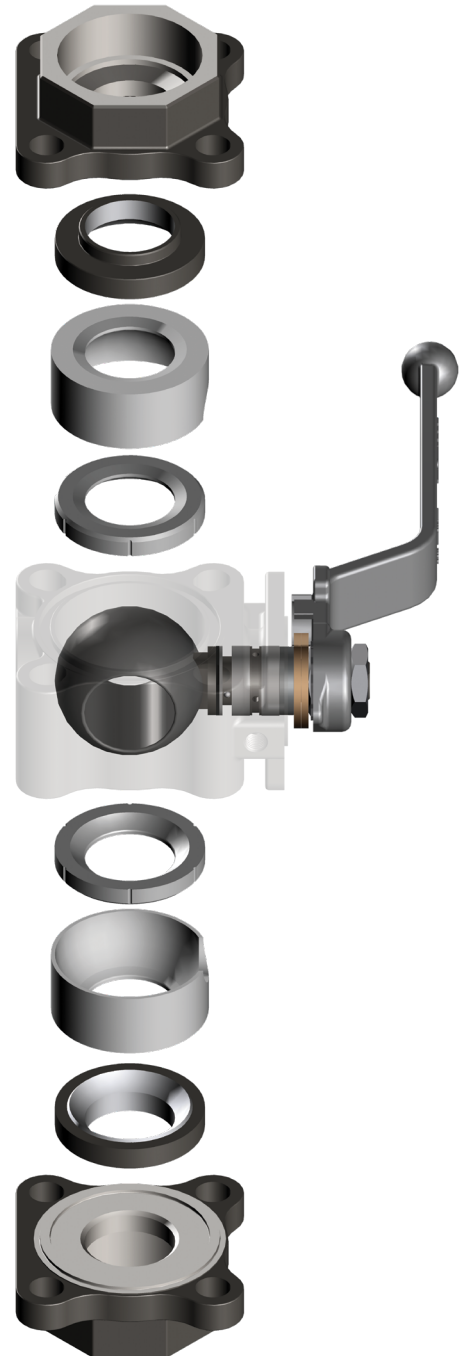
Aside from standard seats, Sharpe® also supplies seats designated for specific applications, including, but not limited to:

Cavity Filler Seats:

Seats that eliminate the voids in the valve body cavity to minimize solidification of the media.

Metal Seats:

See datasheets for Sharpe® Series M80/M89 (metal-seated, 3-piece ball valves) and Series M70/M74 (metal seated, flanged ball valves).



asc-es.com

Building connections that last™



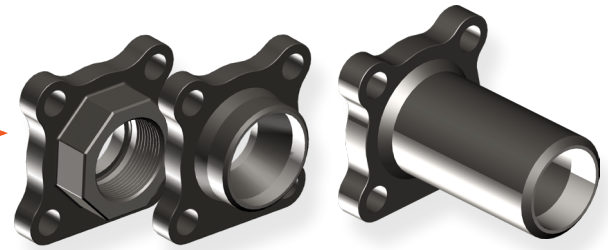
ASME Class 800 & 300, 3-Piece Ball Valves

Sharpe® Series 80/89 & FS80/FS89

Accessories

End Connection Combinations [End Style Code FB]

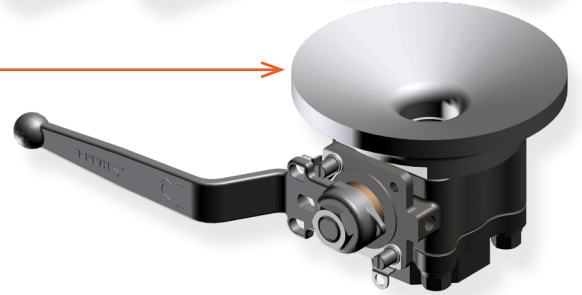
Customize your valve with the end connections of your choice including mixed ends. Threaded, socket weld, butt weld and extended butt weld ends are readily available.



Tank Bottom Valves [see End Style Codes]

Valves with special dished flanges for welding directly to tank bottoms.

Minimizes the static volume common with standard fittings.



Steam Jackets [see End Style Codes]

Steam jackets maintain a more uniform process temperature. Users can flow steam or oil between the jacket and the valve body.

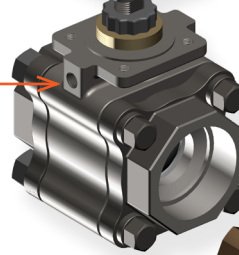
Spring Return Handle [Option Code DMH]

Spring return handle ensures that the valve cannot be left open (or closed).



Lockable Stem Extension [Option Code L]

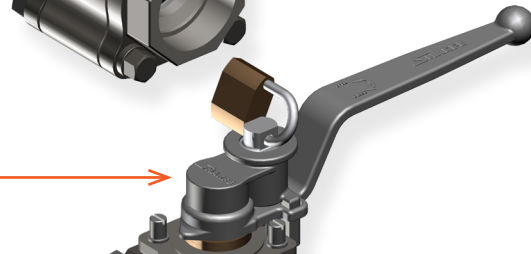
An option to move the valve top interface away from the pipeline to accommodate insulation.



Integrated Fugitive Emission Ports [Option Code F1 or F2]

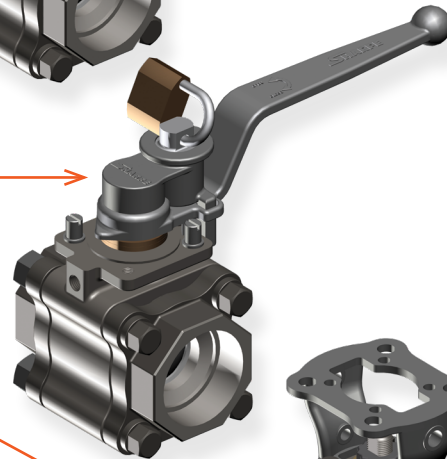
One or two ports can be drilled and tapped into our specially designed body.

Ports align with a lantern ring precisely located between an upper and lower set of stem packing to allow monitoring of emissions.



Tamper Proof Locking Device [Option Code TP]

Upgrade from the standard locking device found on all Sharpe Valves to our unique spring loaded Tamper Proof Locking Device.

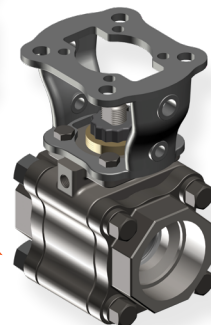


Cast Mounting Brackets [see End Style Codes]

Cast stainless steel brackets with hole patterns conforming to ISO 5211 on top and bottom for actuation mounting.

Safety locking holes for securing valves during maintenance (requires special couplers).

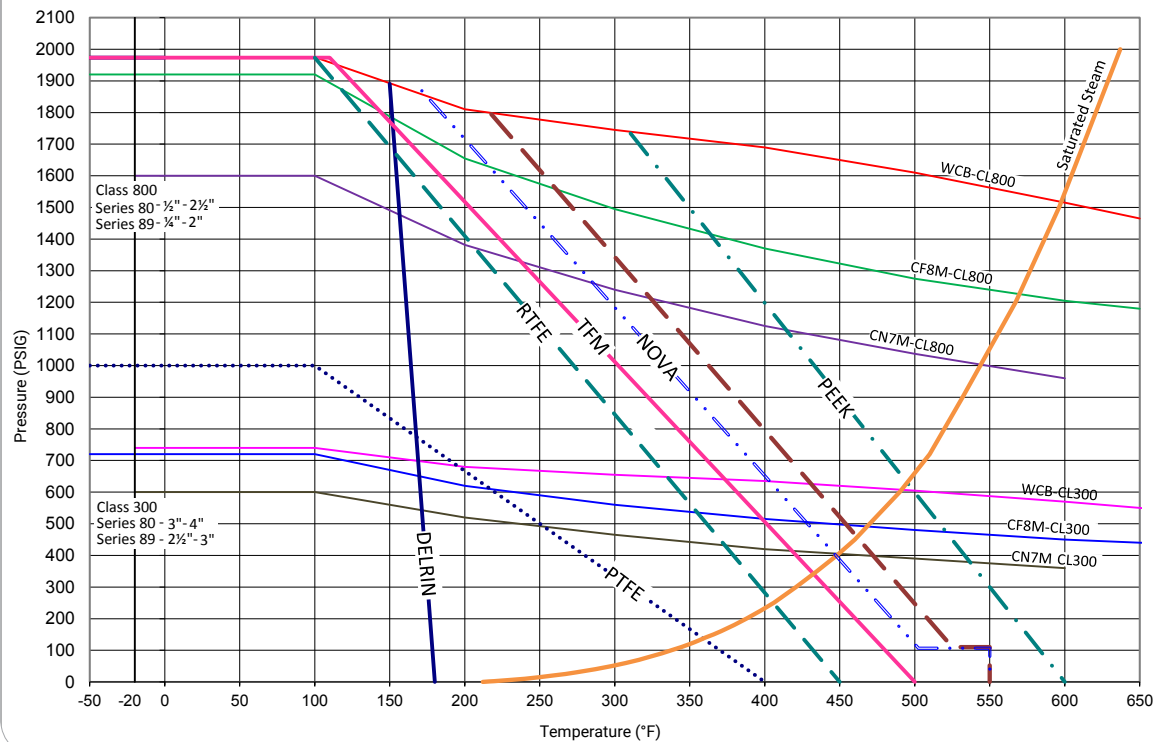
Aesthetic design offers wide tool clearance for installation and open visual.



ASME Class 800 & 300, 3-Piece Ball Valves

Sharpe® Series 80/89 & FS80/FS89

Pressure - Temperature Ratings Series 80/89



Note:

The practical pressure-temperature rating of a valve is determined by the limitations of the body material and seat/seal material. An application's maximum pressure-temperature conditions must be below the body rating curve, and left of the seat material curve. The valve body ratings are based on ASME B16.34 rating for materials. This graph is based on laboratory testing and installed field experience. The seat ratings depend on the material, design, application and function. For higher pressure rating above 2000 psig, please consult with Sharpe Valves.

Standard Port

Class 800 1/2" - 2 1/2"
Class 300 3" - 4"

Full Port

Class 800 1/4" - 2"
Class 300 2 1/2" - 3"

Sharpe® Seat Materials

T - Virgin PTFE

Polytetrafluoroethylene is a Fluorocarbon-based polymer. This seating material has excellent chemical resistance and low coefficient of friction. Its temperature range is -100°F to 400°F (-73°C to 204°C). Color - white.

M - TFM® PTFE

Dyneon® TFM PTFE is a second generation PTFE with improved chemical and heat resistant properties over first generation PTFE and exhibits better stress recovery. Its temperature range is -100°F to 500°F (-73°C to 260°C). Color - white.

R - Reinforced Polytetrafluoroethylene

(RTFE 15% Glass Filled). PTFE's mechanical properties are enhanced by adding filler material to provide improved strength, stability and wear resistance. Its temperature range is from -320°F to 450°F (-196°C to 204°C). Color-off-white.

N - Nova

A PTFE base filled with glass amorphous carbon powder and graphite. It has a lower thermal contraction / expansion than PTFE, and is ideal for steam or thermal fluid applications. Its temperature range is from -50°F to 550°F (-45°C to 288°C). Color - black.

B - Super Nova

A free-flowing compound based on TFM® containing electro-graphitized carbon. It features increased thermal dimensional stability and surface hardness, improved deformation under load, reduced friction and wear, and good chemical stability. It has a high limiting oxygen index (LOI), low coefficient of friction, very good mechanical properties and exceptional temperature resistance. It is used as a seat material in chemical processing and automotive industries. It is ideal to use with steam and thermal fluid applications up to 550°F (288°C) and as low as -40°F (-40°C). Color - black.

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

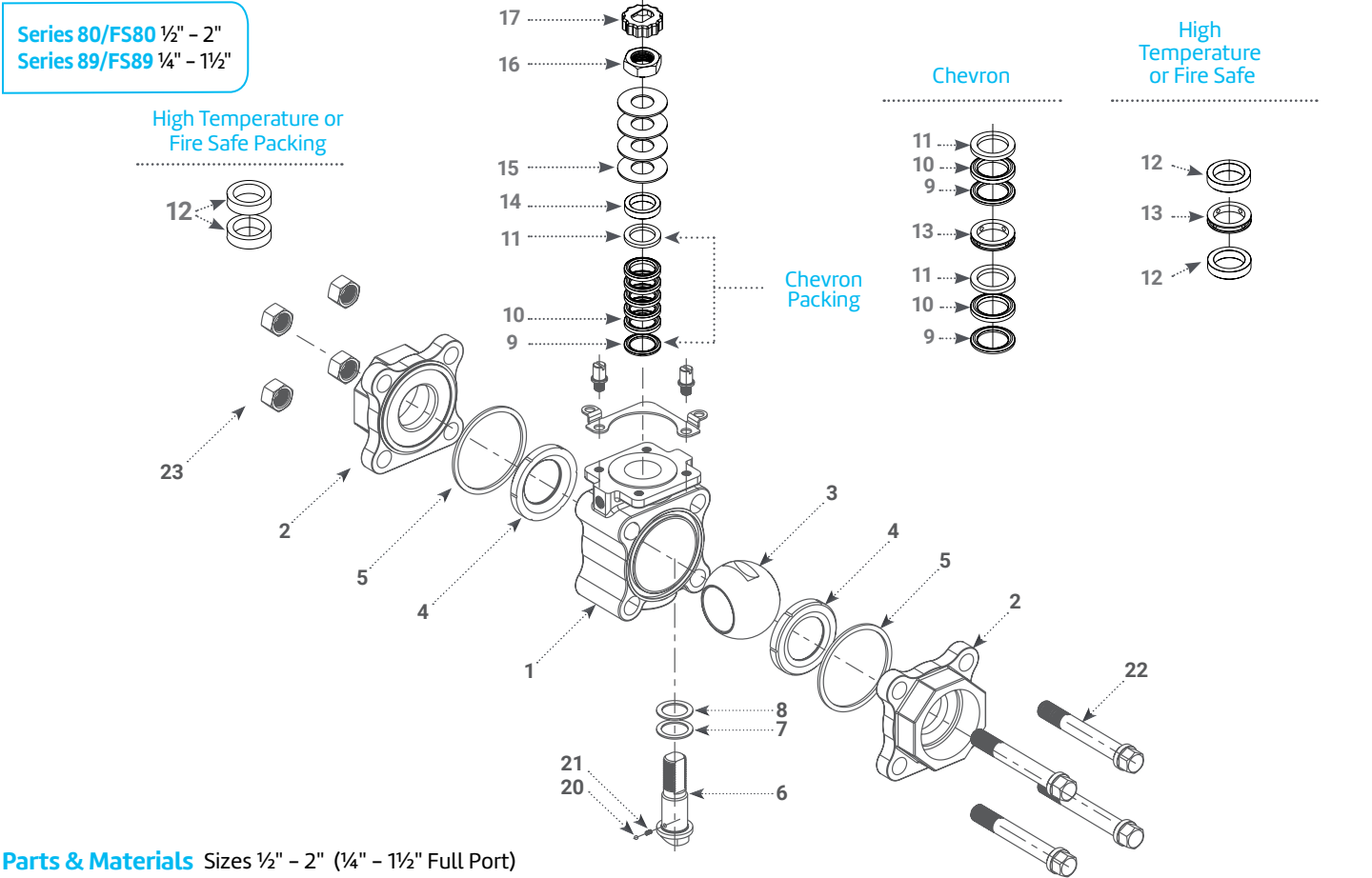
PEEK Polymer offers a unique combination of chemical, mechanical and thermal properties. Excellent for water and steam applications at elevated temperatures up to 600°F (315°C). Color - beige.

Other seat materials

Other seat material are available, please contact us with your requirements.

ASME Class 800 & 300, 3-Piece Ball Valves
Sharpe® Series 80/89 & FS80/FS89

Parts & Materials



Parts & Materials Sizes 1/2" - 2" (1/4" - 1 1/2" Full Port)

| Item | Description | Material | Qty | Item | Description | Material | Qty |
|------|-------------------------|---|--------|------|--------------------|-----------------------------------|-----|
| 1** | Body | Carbon Steel: ASTM A216 WCB 316 Stainless Steel: ASTM A351 CF8M Alloy 20: ASTM A351 CN7M SMO 254®: ASTM A351 CK3MCuN | 1 | 11* | Stem Packing - Top | PTFE, TFM®,Nova | 2 |
| 2** | End Piece | Carbon Steel: ASTM A216 WCB 316 Stainless Steel: ASTM A351 CF8M 316L Stainless Steel: ASTM A351 CF3M (used for stainless steel weld ends) Alloy 20: ASTM A351 CN7M SMO 254®: ASTM A351 CK3MCuN | 2 | 12* | Stem Packing | Graphite (FS or high temperature) | 2 |
| 3** | Ball | 316 Stainless Steel Alloy 20 SMO 254® | 1 | 13 | Lantern Ring | 300 Series Stainless Steel | 1 |
| 4* | Seat | PTFE, RTFE, TFM®, Nova, Super Nova, PEEK, DELRIN® | 2 | 14 | Gland | 300 Series Stainless Steel | 1 |
| 5* | Body Seal | Buna, EPDM, Graphite, Impregnated Graphite, PTFE, TFM, Viton® | 2 | 15* | Belleville Washer | 17-7PH | 4 |
| 6 | Stem | 316 Stainless Steel, Alloy 20, SMO 254®, 17-4PH | 1 | 16 | Packing Nut | 300 Series Stainless Steel | 1 |
| 6 | Stern | 316 Stainless Steel, Alloy 20, 17-4PH | 1 | 17 | Lock Tab | 300 Series Stainless Steel | 1 |
| 7* | Thrust Bearing - Bottom | Nova, PEEK | 1 or 2 | 18 | Handle | 304 Stainles Steel ASTM A351 CF8 | 1 |
| 8* | Thrust Bearing - Top | Nova | 1 | 19 | Handle Nut | 300 Series Stainless Steel | 1 |
| 9* | Stem Packing - Bottom | PTFE, TFM®, Nova | 2 | 20 | Anti-Static Ball | 300 Series Stainless Steel | 2 |
| 10* | Stem Packing - Middle | PTFE, TFM®, Nova | 2 | 21 | Anti-Static Spring | Hard Drawn Stainless Steel | 2 |
| | | | | 22 | Bolt | A193 Gr B8 | 4 |
| | | | | 23 | Nut | 300 Series Stainless Steel | 4 |
| | | | | 24 | Lock Plate | 300 Series Stainless Steel | 1 |
| | | | | 25 | Stop pin | 300 Series Stainless Steel | 2 |

Note:
The quantities listed in the stem arrangement are for fugitive emission assemblies. Standard stem assemblies carry more seals and no lantern rings.
* Repair Kit Item.
**Other materials available, call to discuss your requirements.

ASME Class 800 & 300, 3-Piece Ball Valves

Sharpe® Series 80/89 & FS80/FS89

Parts & Materials

Series 80/FS80 3"
Series 89/FS89 2½" - 3"

High Temperature
or Fire Safe Packing

Series 80/FS80 2½"
Series 89/FS89 2"

Series 80/FS80 4" Gland Flange Set

Fugitive Emission Monitoring
with Lantern Ring Packing

Chevron
Packing

Chevron

High Temperature
or Fire Safe

Sizes 2½" - 4" (2" - 3" Full Port)

| Item | Description | Material | Qty | Item | Description | Material | Qty |
|------|-------------------------|--|--------|------|--------------------|--|------|
| 1** | Body | Carbon Steel: ASTM A216 WCB, 316 Stainless Steel: ASTM A351 CF8M, Alloy 20: ASTM A351 CN7M | 1 | 15 | Stop Plate | 300 Series Stainless Steel | 1 |
| 2** | End Piece | Carbon Steel: ASTM A216 WCB, 316 Stainless Steel: ASTM A351 CF8M, 316L Stainless Steel: ASTM A351 CF3M (used for Stainless Steel weld ends) Alloy 20: ASTM A351 CN7M | 2 | 16* | Belleville Washer | 17-7PH | 4 |
| 3** | Ball | 316 Stainless Steel Alloy 20 | 1 | 16a | Belleville Washer | 17-7PH | 16 |
| 4* | Seat | PTFE, RTFE, TFM®, Nova, Super Nova, PEEK, DELRIN® | 2 | 16b | Washer | 300 Stainless Steel | 4 |
| 4a | Seat Ring | Carbon Steel: ASTM A216 WCB, 316 Stainless Steel: ASTM A351 CF8M | 1 | 17 | Lock Tab | 300 Stainless Steel | 1 |
| 5 | Body Seal | Buna, EPDM, Graphite, Impregnated Graphite, PTFE, TFM, Viton® | 2 | 17a | Gland Bolt | 300 Stainless Steel | 2 |
| 6 | Stem | 316 Stainless Steel, Alloy 20, 17-4PH | 1 | 18 | Packing Nut | 300 Stainless Steel | 1 |
| 7* | Thrust Bearing - Bottom | Nova, PEEK | 1 or 2 | 18a | Retainer Spring | 300 Stainless Steel | 1 |
| 8* | Thrust Bearing - Top | Nova | 1 | 19 | Packing Nut | 300 Stainless Steel | 1 |
| 9* | Stem Packing - Bottom | PTFE, TFM®, Nova | 2 | 19a | Retainer Lock | 300 Stainless Steel | 1 |
| 10* | Stem Packing - Middle | PTFE, TFM®, Nova | 2 | 20 | Wrench Block | 304 Stainless Steel ASTM A351CF8 | 1 |
| 11* | Stem Packing - Top | PTFE, TFM®, Nova | 2 | 21 | Handle Pipe | Zinc Plated Carbon Steel/Stainless Steel | 1 |
| 12* | Stem Packing | Graphite (FS or high temperature) | 4 | 22 | Wrench Bolt | 300 Series Stainless Steel | 1 |
| 12a | Gland Position Ring | 300 Stainless Steel | 1 | 23 | Anti-Static Ball | 300 Series Stainless Steel | 2 |
| 13 | Lantern Ring | 300 Stainless Steel | 1 | 24 | Anti-Static Spring | Hard Drawn Stainless Steel | 2 |
| 13a | Gland (Size 4" Only) | 316 Stainless Steel A351 CF8M | 1 | 25 | Bolt | A193 Gr B8 | 4/16 |
| 14 | Gland | 300 Series Stainless Steel | 1 | 26 | Nut | 300 Series Stainless Steel | 4/na |
| | | | | 27 | Stop Pin | 300 Series Stainless Steel | 2 |
| | | | | 28 | Stop Pin Sleeve | 300 Series Stainless Steel | 2 |

Note:

The quantities listed in the stem arrangement are for fugitive emission assemblies. Standard stem assemblies carry more seals and no lantern rings.

* Repair Kit Item.

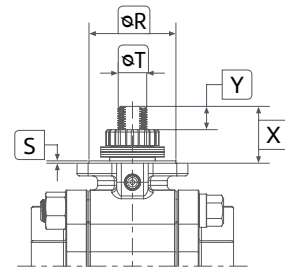
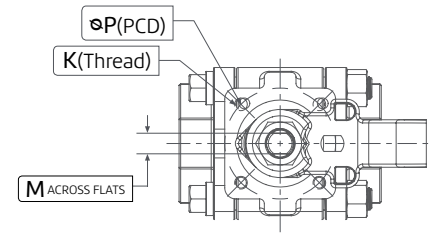
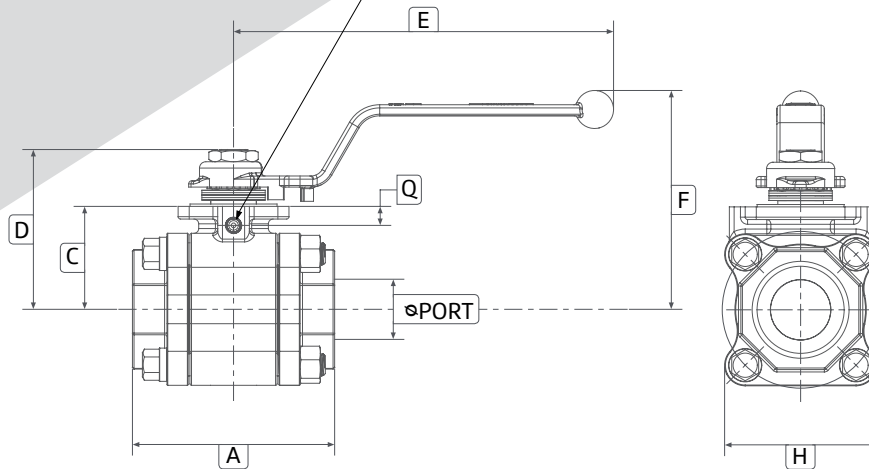
**Other materials available, call to discuss your requirements.

ASME Class 800 & 300, 3-Piece Ball Valves

Sharpe® Series 80/89 & FS80/FS89

Series 80/FS80 ½" - 2"
Series 89/FS89 ¼" - 1½"

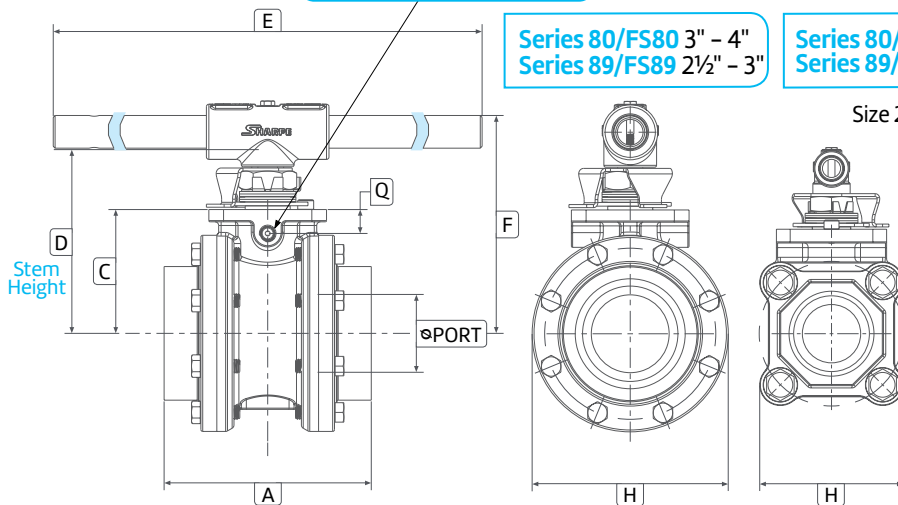
Optional
EMISSION PORT THREAD
⅛" NPT (Sizes ¾" to 2")



Dimensions
for Actuator
Mounting

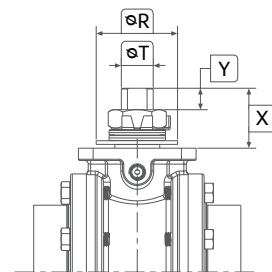
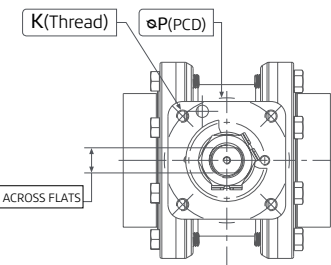
Series 80/FS80 2½" - 4"
Series 89/FS89 2" - 3"

Optional
EMISSION PORT THREAD
¼" NPT (Sizes 2½" to 4")



Stem
Height

Dimensions (Inches)



Dimensions
for Actuator
Mounting

| Standard Port | Full Port | TE/SW BW | Ext BW Full Port | | | | | | | | | | | | | | | |
|---------------|-----------|----------|------------------|-------|------|------|-------|------|------|------------|-------|------------|------|------|-------|-------|------|------|
| 80/FS80 | 89/FS89 | ØPORT | A | A | C | D | E | F | H | K (Thread) | M | ØP (PCD) | Q | ØR | S | ØT | X | Y |
| ½" | ¼", ⅜" | 0.44 | 2.91 | - | 1.27 | 2.01 | 6.42 | 3.39 | 1.81 | M5-P0.8 | 0.264 | F04 (1.65) | NA | 1.18 | 0.051 | 0.394 | 0.74 | 0.33 |
| ¾" | ½" | 0.56 | 3.07 | 13.10 | 1.42 | 2.17 | 6.42 | 3.54 | 1.95 | M5-P0.8 | 0.264 | F04 (1.65) | 0.27 | 1.18 | 0.051 | 0.394 | 0.74 | 0.33 |
| 1" | ¾" | 0.81 | 3.72 | 13.25 | 1.74 | 2.57 | 7.28 | 3.83 | 2.39 | M6-P1.0 | 0.343 | F05 (1.97) | 0.39 | 1.38 | 0.059 | 0.472 | 0.81 | 0.30 |
| 1¼" | 1" | 1.00 | 4.25 | 13.61 | 1.91 | 2.74 | 7.28 | 4.00 | 2.85 | M6-P1.0 | 0.343 | F05 (1.97) | 0.37 | 1.38 | 0.059 | 0.472 | 0.81 | 0.30 |
| 1½" | 1¼" | 1.24 | 4.57 | 13.90 | 2.40 | 3.82 | 9.45 | 5.28 | 3.15 | M8-P1.25 | 0.512 | F07 (2.76) | 0.47 | 2.17 | 0.059 | 0.709 | 1.41 | 0.48 |
| 2" | 1½" | 1.50 | 5.04 | 14.21 | 2.56 | 3.98 | 9.45 | 5.43 | 3.78 | M8-P1.25 | 0.512 | F07 (2.76) | 0.47 | 2.17 | 0.059 | 0.709 | 1.41 | 0.48 |
| 2½" | 2" | 2.00 | 6.34 | 14.87 | 3.58 | 5.28 | 15.75 | 6.34 | 4.92 | M10-P1.5 | 0.630 | F10 (4.02) | 0.76 | - | - | 0.886 | 1.92 | 0.65 |
| 3" | 2½" | 2.50 | 6.65 | - | 3.98 | 5.87 | 23.62 | 7.48 | 6.30 | M10-P1.5 | 0.807 | F10 (4.02) | 0.77 | - | - | 1.024 | 1.93 | 0.65 |
| 4" | 3" | 3.25 | 8.43 | - | 4.59 | 6.50 | 23.62 | 8.07 | 7.99 | M10-P1.5 | 0.807 | F10 (4.02) | 0.77 | - | - | 1.024 | 1.93 | 0.65 |

Note: The dimensions above are for informational purpose only. Please contact Sharpe® Valves if you need dimensions for construction.

ASME Class 800 & 300,
3-Piece Ball Valves
Sharpe® Series
80/89 & FS80/FS89



Technical Information

| Valve Size | | Flow Coeff. Cv | Approx. Weight (lbs.) |
|------------|---------|----------------------|-----------------------------|
| 80/FS80 | 89/FS89 | | |
| ½" | ¼", ¾" | 8 | 2 |
| ¾" | ½" | 12 | 2 |
| 1" | ¾" | 32 | 4 |
| 1¼" | 1" | 46 | 6 |
| 1½" | 1¼" | 80 | 9 |
| 2" | 1½" | 120 | 12 |
| 2½" | 2" | 240 | 27 |
| 3" | 2½" | 350 | 32 |
| 4" | 3" | 720 | 53 |

Applicable Standards

| | |
|----------------------|---|
| Body Wall Thickness | ASME B16.34 |
| SW & Threaded Ends | ASME B16.11 |
| Butt-Weld Ends | ASME B16.25 |
| Basic Design | ASME B16.34, API 608 6 th Ed |
| Fire Safe | API 607 6 th Ed (FS versions only) |
| Pressure Test | API 598, MSS-SP 72 |
| Mounting Dimensions | ISO 5211 |
| NACE (Option A only) | MR-0175 / ISO 15156 |
| Marking | MSS-SP 25 |
| Fugitive Emission | API 641 1 st edition (with body seal code I and stem packing code I) ISO 15848-1 (with I or N stem packing) |

Note:
Viton® and Delrin® are registered trademarks of E.I. DuPont. 3M™
Dyneon™ TFM™ are trademarks owned by 3M.
254 SMO® is a registered trademarks of Avesta.



ASME Class 800 & 300, 3-Piece Ball Valves

Sharpe® Series 80/89 & FS80/FS89



How to order Series 80/89 & FS80/FS89

| 2" | FS80 | - | 6 | 6 | 6 | 6 | R | G | G | - | SW/TE | - | X | - | OH |
|------|--------|---|------|------|------|------|------|-----------|--------------|---|-------|---|---------|---|----------------------|
| Size | Series | | Body | Ends | Ball | Stem | Seat | Body Seal | Stem Packing | | Ends | | Service | | Suffixes and Options |

| Size | | | Series (5) | | Body Material | | Seat Material | | End Style | | Suffixes & Options | |
|---------|---------|-------|------------|-------------------|---------------|---------------------------------|--------------------|-----------------------|---------------------------|--------------------------|--------------------|---|
| 80/FS80 | 89/FS89 | Class | 80 | Standard Port | 4 | Carbon Steel (WCB) | B | Super Nova | TE | Threaded | OH | Oval Handle up to 2" SP or 1½" FP |
| - | ¼" | 800 | 89 | Full Port | 6 | Stainless Steel (CF8M) ~ 316 SS | D | Delrin® | SW | Socketweld | F1 | 1 Emission Port ** |
| - | ¾" | 800 | FS80 | Fire Safe (6) | 2 | Alloy 20 (CN7M) * | M | TFM® | BW | Buttweld SCH 40 | F2 | 2 Emission Port ** |
| ½" | ½" | 800 | FS89 | Fire Safe (6) | S | 254 SMO® * | N | Nova | BW10 | Buttweld SCH 10 * | L | Lockable Stem Extension † |
| ¾" | ¾" | 800 | CF80 | Cavity Filler (7) | | | P | Virgin PEEK | FB | Flush Bottom Tank Pad | A | NACE |
| 1" | 1" | 800 | CF89 | Cavity Filler (7) | | | R | RTFE 15% Glass Filled | Additional Ends 89's Only | | VB | Vented Ball |
| 1¼" | 1¼" | 800 | | | | | T | PTFE | BW80 | Buttweld SCH 80 | SJ | Oil Jacket with 2 Ports * |
| 1½" | 1½" | 800 | | | | | Body Seal Material | | EBW | Buttweld SCH80 Extended | SJ3 | Steam Jacket With 3 Ports * |
| 2" | 2" | 800 | | | | | B | Buna | Service | | TP | Tamper Proof Locking Device (Cast handles only) |
| 2½" | - | 800 | | | | | E | EDPM | MN | Ammonia Service (1)(2) | DMH | Spring Return Handle ‡ * |
| - | 2½" | 300 | | | | | G | Graphite | SF | Silicone Free (1)(3) | HC | High Cycle Stem |
| 3" | 3" | 300 | | | | | I | Impregnate Graphite | U | Vacuum (1)(3) | PN4 | Packing Nut Design 4" Only (Not API 608) |
| 4" | - | 300 | | | | | M | TFM® | X | Oxygen Service (1)(3)(4) | | |
| | | | | | | | T | PTFE | Note: | | | |
| | | | | | | | V | Viton® | 1 | Per Sharpe Standard | | |
| | | | | | | | Stem Packing | | 2 | 80/89 or FS80/FS89 | | |
| | | | | | | | G | Graphite | 3 | 80/89 or CF80/CF89 | | |
| | | | | | | | I | Impregnated Graphite | 4 | No impregnated graphite | | |
| | | | | | | | M | TFM® | | | | |
| | | | | | | | N | Nova | | | | |
| | | | | | | | T | PTFE | | | | |

Other materials/options available, please contact us with your requirement.

Note:

* POA.

5 API 641 & API 608

Sharpe Series 80, 89, FS80, & FS89 valves with body seal code I and stem packing code I passed API 641 1st edition [American Petroleum Institute - Fugitive Emissions Test], fulfilling qualification to API 608 6th edition.

6 Fire Safe FS80 (standard port) / FS89 (full port)

Use seat code B, M, N, R, or T.
Use body seal code G or I.
Use stem packing code G or I.

7 CF80/CF89 with Cavity Filler Seats.

Use seat code T.

Note:

** ¾" and larger std port valves, ½" and larger full port valves.

† 3.25" Extension: ½"-1.25" standard port, ¼"-1 full port valves.
4" Extension: Larger valves.

‡ Contact Sharpe® Valves. 1" and smaller valves only.



asc-es.com

Building connections that last™

About ASC Engineered Solutions

ASC Engineered Solutions is defined by quality—in its products, services and support. With nearly 2,000 employees, the company's portfolio of precision-engineered piping support, valves and connections provides products to more than 4,000 customers across industries, such as mechanical, industrial, fire protection, oil and gas, and commercial and residential construction. Its portfolio of leading brands includes ABZ Valve®, AFCON®, Anvil®, Anvil EPS, Anvil Services, Basic-PSA, Beck®, Catawissa, Cooplet®, FlexHead®, FPPI®, Gruvlok®, J.B. Smith, Merit®, North Alabama Pipe, Quadrant®, SCI®, Sharpe®, SlideLOK®, SPF®, SprinkFLEX®, Trenton Pipe and VEP. With headquarters in Oak Brook, IL, ASC also has ISO 9001:2015 certified production facilities in PA, TN, IL, TX, AL, LA, KS, and RI.

Neither ASC Engineered Solutions nor any of its affiliated entities assumes responsibility for the selection, use, and maintenance of any product. Responsibility for the selection, use, and maintenance of any product remains solely with the purchaser and end user.

ASC Engineered Solutions reserves the right to modify or improve the designs or specifications of any product at any time without notice.



asc-es.com

Building connections that last™

FC-DS-SERIES-80-89-F580-F589-v04 20240325

