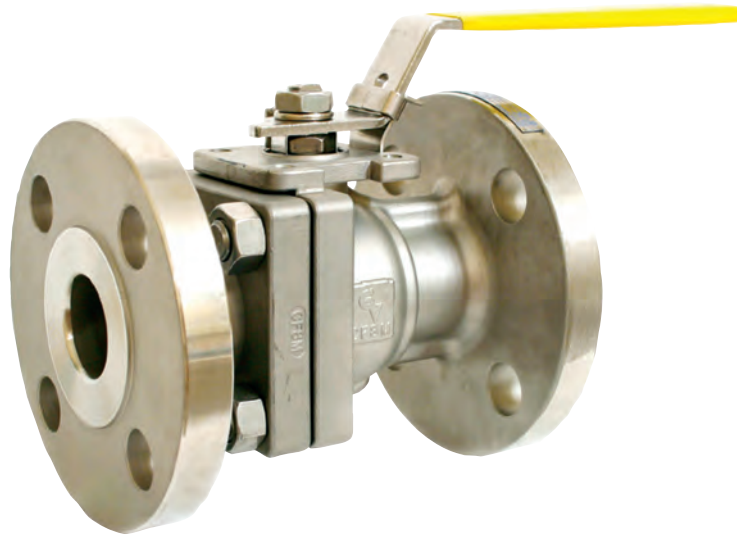




GLOBAL VALVE
& CONTROLS



SERIES FS

SERIES FS

FLANGED FULL PORT FIRE SAFE BALL VALVE ANSI 150/300/600

Carbon Steel • 316SS • Alloy 20 • Hastelloy C • Low Temp



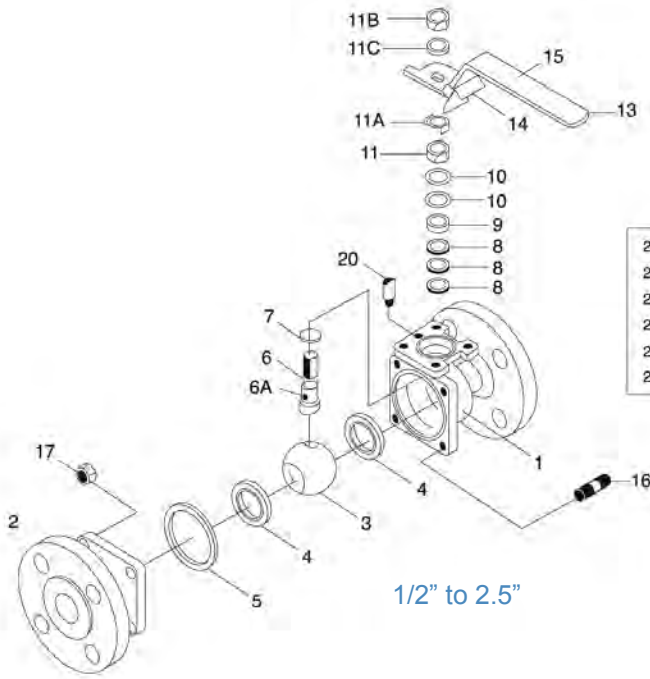
Providing Hundreds of Products. Supporting Thousands of Clients. Controlling Millions of Gallons.

Depend On Us, We Can Handle The Pressure.

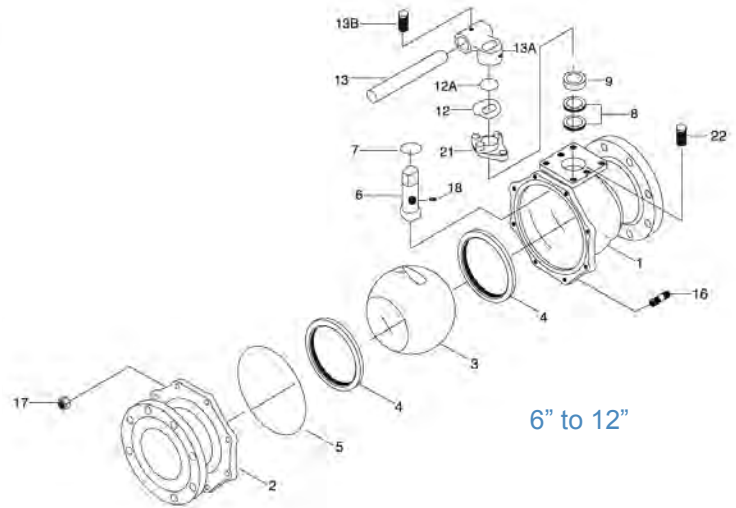


MATERIALS OF CONSTRUCTION

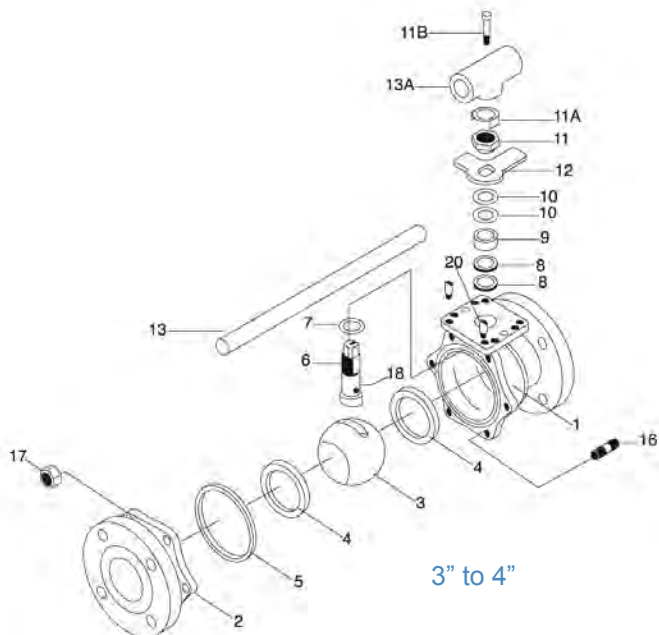
SERIES FS



1/2" to 2.5"



6" to 12"



3" to 4"

Manufacturing & Testing Standards

| | |
|---------------------|----------------------|
| Body Wall Thickness | ASME B16.34 |
| Butt Weld Ends | ASME B16.25 |
| Flanged Dimensions | ASME B16.5 |
| Face to Face Dim | ASME B16.10 |
| Basic Design | ASME B16.34, API 608 |
| Testing (Options) | ASME B16.34, API 598 |
| Firesafe | API 607 4th Edition |

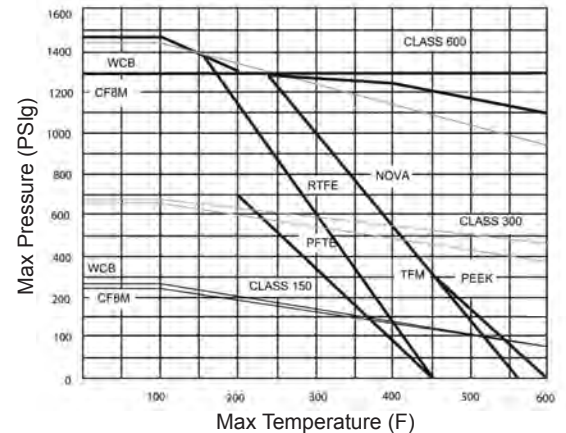
MATERIALS OF CONSTRUCTION & ENGINEERING DATA



| NO. | PART NAME | QTY | MATERIAL |
|-----|------------------------------------|------------|---|
| 1 | Body | 1 | Alloy 20 Carbon Steel Hastelloy C Monel 316 Stainless Steel |
| 2 | Flange | 1 | ASTM A351 CN7M ASTM A216 WCB ASTM A494 Gr CW-12MW ASTM A494 Gr M35-1 ASTM A351 CF8M |
| 3 | Ball | 1 | Alloy 20 / Hastelloy C / Monel / 316 Stainless Steel |
| 4 | Seat | 2 | NOVA / PEEK / RTFE / TFE / TFM / UHMWPE |
| 5 | Body Seal | 1 | NOVA / RTFE / TFE / TFM / UHMWPE |
| 6 | Stem | 1 | Alloy 20 / Hastelloy C / 14-4PH / 316 Stainless Steel |
| 6A | Anti-Static Device (1/2" to 2") | 1 | 316 Stainless Steel |
| 7 | Thrust Bearing | 2 | PEEK |
| 8 | Stem Packing | 2 | NOVA / RTFE / TFE / TFM / Grafoil |
| 9 | Gland Packing | 1 | 304 Stainless Steel |
| 10 | Belleville Washer (1/2" to 4") | 2/4 | 301 Stainless Steel / Inconel 750 |
| 11 | Packing Nut (1/2" to 4") | 1 | 304 Stainless Steel |
| 11A | Locking Tab | 1 | 304 Stainless Steel |
| 11B | Lever Nut | 1 | 304 Stainless Steel |
| 11C | Lock Washer (1/2" to 4") | 1 | 304 Stainless Steel |
| 12 | Lever Stop | 1 | 304 Stainless Steel |
| 13 | Lever | 1 | 304 Stainless Steel (1/2" to 2") Galvanized Steel (2 1/2" to 4") Ductile Iron (6" to 8") |
| 13A | Wrench Block | 1 | 304 Stainless Steel (2 1/2" to 4") Ductile Iron (6" to 8") |
| 13B | Lever Nut | 1 | 304 Stainless Steel |
| 14 | Locking Device (1/2" to 2") | 1 | 304 Stainless Steel |
| 15 | Lever Cover | 1 | Vinyl |
| 16 | Body Stud | See | B7M, B7, B8, Alloy 20 |
| 17 | Nut | Dimensions | 2HM, 2H, 8M, Alloy 20 |

| NO. | PART NAME | QTY | MATERIAL |
|-----|--|-----|-------------------------------------|
| 18 | Anti-Static Device | 2 | 316 Stainless Steel |
| 20 | Stop Pin | 1 | 304 Stainless Steel |
| | | 2 | 304 Stainless Steel |
| 21 | Gland Flange | 1 | Carbon Steel 316 Stainless Steel |
| 22 | Gland Bolt | 2 | 304 Stainless Steel |
| 23 | Ball Supporter Seat (10" to 12") 150 lb (6" to 12") 300 lb | 1 | RTFE |
| 24 | Packing (10" to 12") 150 lb (6" to 12") 300 lb | 3 | TFE / RTFE / TFM NOVA / Grafoil |
| 25 | Ball Supporter (10" to 12") 150 lb (6" to 12") 300 lb | 1 | 304 Stainless Steel |
| 26 | Bushing (10" to 12") 150 lb (6" to 12") 300 lb | 1 | 304 Stainless Steel |
| 27 | Bushing Nut (10" to 12") 150 lb (6" to 12") 300 lb | 1 | 304 Stainless Steel |
| 28 | Adjust Screw (10" to 12") 150 lb (6" to 12") 300 lb | 1 | 304 Stainless Steel |

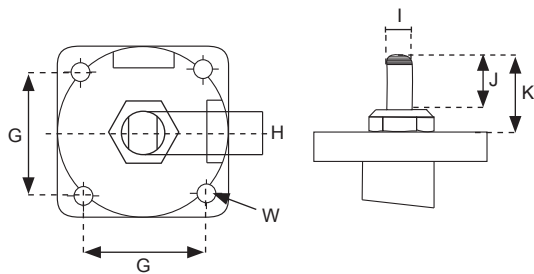
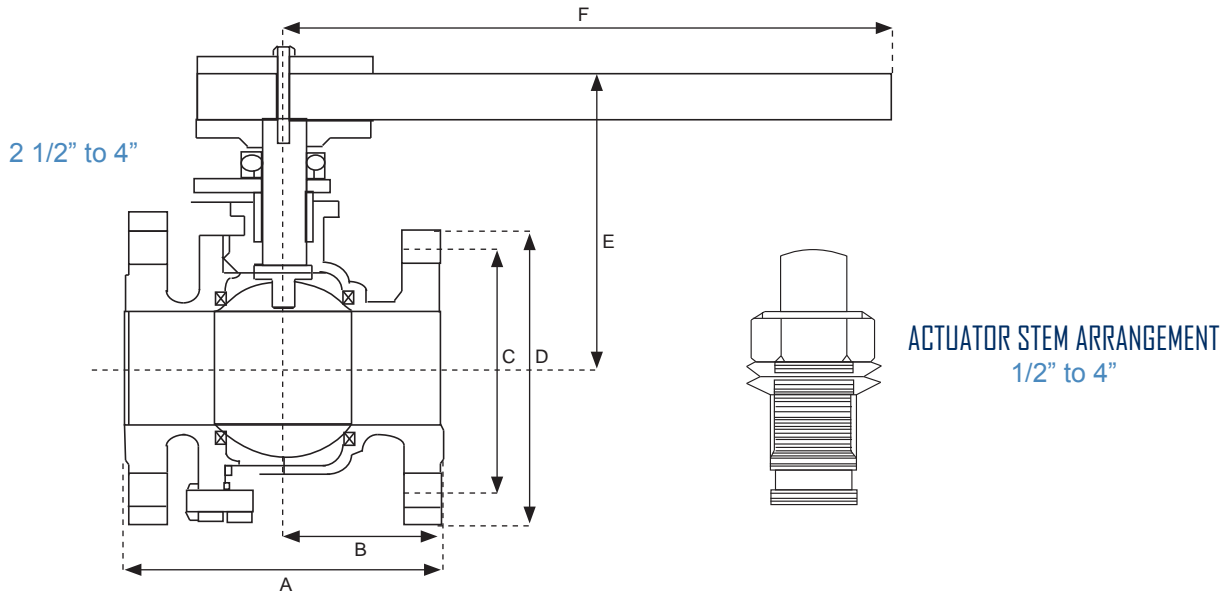
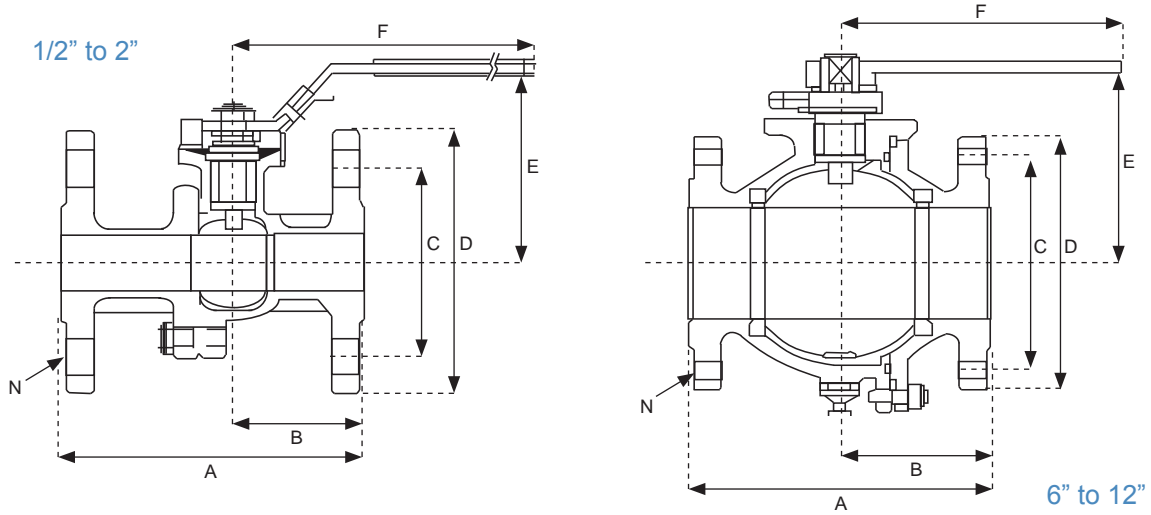
Pressure Temperature Ratings



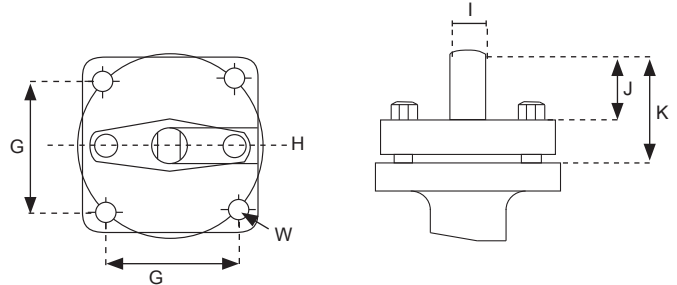


ENGINEERING DATA

SERIES FS



1/2" to 4"



6" to 12"

ENGINEERING DATA SERIES FS



| DIM | A | | | B | | | C | | | D | | | E | | |
|--------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|
| CLASS | 150 | 300 | 600 | 150 | 300 | 600 | 150 | 300 | 600 | 150 | 300 | 600 | 150 | 300 | 600 |
| 1/2" | 4.25 | 5.50 | 6.50 | 1.80 | 2.44 | 3.25 | 2.38 | 2.62 | 2.62 | 3.50 | 3.75 | 3.75 | 2.60 | 3.75 | 1.80 |
| 3/4" | 4.62 | 6.00 | 7.50 | 2.00 | 2.72 | 3.40 | 2.75 | 3.25 | 3.25 | 3.85 | 4.62 | 4.62 | 2.91 | 2.92 | 3.68 |
| 1" | 5.00 | 6.50 | 8.50 | 2.12 | 2.92 | 4.25 | 3.13 | 3.50 | 3.50 | 4.25 | 6.12 | 4.88 | 3.45 | 3.43 | 3.80 |
| 1 1/2" | 6.50 | 7.50 | 9.50 | 2.76 | 3.26 | 4.75 | 3.56 | 4.50 | 4.50 | 5.00 | 6.15 | 6.12 | 4.20 | 4.15 | 4.63 |
| 2" | 7.00 | 8.50 | 11.50 | 3.08 | 3.94 | 5.47 | 4.75 | 5.00 | 5.00 | 6.00 | 6.50 | 6.50 | 4.50 | 4.53 | 5.00 |
| 2 1/2" | 7.50 | 9.50 | - | 3.09 | 4.05 | - | 5.50 | 5.86 | - | 7.00 | 7.50 | - | 6.70 | 6.70 | - |
| 3" | 8.00 | 11.12 | 14.00 | 3.74 | 5.40 | 6.18 | 6.00 | 6.62 | 6.52 | 7.48 | 8.25 | 8.25 | 7.00 | 7.00 | 7.20 |
| 4" | 9.00 | 12.00 | 17.00 | 4.46 | 5.93 | - | 7.50 | 7.88 | - | 9.01 | 10.00 | - | 7.70 | 7.70 | - |
| 6" | 15.50 | 15.87 | - | 7.61 | 7.60 | - | 9.50 | 10.63 | - | 10.98 | 12.50 | - | 11.22 | 11.22 | - |
| 8" | 18.00 | 19.75 | - | 8.34 | 9.33 | - | 11.75 | 13.00 | - | 13.50 | 15.00 | - | 11.57 | 12.71 | - |
| 10" | 21.00 | 22.37 | - | 10.47 | 11.18 | - | 14.25 | 15.25 | - | 15.98 | 17.50 | - | 13.70 | 15.28 | - |
| 12" | 24.00 | 25.51 | - | 12.00 | 12.80 | - | 17.00 | 17.75 | - | 19.01 | 20.50 | - | 13.50 | 15.08 | - |

| DIM | F | | | N | | | G | | | H | | | I | | |
|--------|-------|-------|-------|-----|-----|-----|------|------|------|------|---------------|-----|------|-------|-----|
| CLASS | 150 | 300 | 600 | 150 | 300 | 600 | 150 | 300 | 600 | 150 | 300 | 600 | 150 | 300 | 600 |
| 1/2" | 6.50 | 6.50 | 4.98 | 4 | 4 | 4 | 1.39 | 1.39 | 1.39 | 0.48 | 1/2 - 20 UNF | | 0.25 | 0.295 | |
| 3/4" | 6.50 | 6.50 | 4.98 | 4 | 4 | 4 | 1.39 | 1.39 | 1.39 | 0.48 | 1/2 - 20 UNF | | 0.25 | 0.295 | |
| 1" | 7.87 | 7.87 | 5.77 | 4 | 4 | 4 | 1.39 | 1.39 | 1.39 | 0.60 | 9/16 - 18 UNF | | 0.35 | 0.393 | |
| 1 1/2" | 9.85 | 9.85 | 7.54 | 4 | 4 | 4 | 1.94 | 1.94 | 1.95 | 0.68 | 3/4 - 16 UNF | | 0.39 | 0.472 | |
| 2" | 10.45 | 10.50 | 7.54 | 4 | 8 | 8 | 1.94 | 1.94 | 1.95 | 0.63 | 3/4 - 16 UNF | | 0.39 | 0.472 | |
| 2 1/2" | 13.75 | 13.75 | - | 4 | 8 | - | 2.84 | 2.84 | - | 0.95 | - | | - | - | |
| 3" | 13.75 | 13.75 | 13.75 | 4 | 8 | 8 | 2.84 | 2.84 | 2.84 | 0.95 | 1 - 20 UNF | | 0.63 | 0.745 | |
| 4" | 13.75 | 13.75 | - | 8 | 8 | - | 2.84 | 2.84 | - | 1.14 | - | | 0.71 | - | |
| 6" | 38.97 | 38.97 | - | 8 | 12 | - | 3.48 | 3.48 | - | 1.72 | - | | 0.95 | - | |
| 8" | 38.97 | 38.97 | - | 8 | 12 | - | 3.48 | 3.48 | - | 1.72 | - | | - | - | |
| 10" | G.O. | G.O. | - | 12 | 16 | - | 3.90 | 3.48 | - | 1.96 | - | | - | - | |
| 12" | G.O. | G.O. | - | 12 | 16 | - | 3.90 | 3.90 | - | 1.96 | - | | - | - | |

| DIM | J | | | K | | | W | | | ØZ | PORT DIA (IN) | | | WEIGHT (LBS) | | | APPROX CV DATA |
|--------|------|------|------|------|------|------|-----|-----|-----|------|---------------|-------|------|--------------|-----|------|----------------|
| CLASS | 150 | 300 | 600 | 150 | 300 | 600 | 150 | 300 | 600 | 150 | 150 | 300 | 600 | 150 | 300 | 600 | ALL CLASSES |
| 1/2" | 0.39 | 0.39 | 0.49 | 0.63 | 0.63 | 0.74 | M5 | M5 | M6 | 1.65 | 0.59 | 0.59 | 0.59 | 4 | 5 | 6 | 26 |
| 3/4" | 0.39 | 0.39 | 0.49 | 0.63 | 0.63 | 0.79 | M5 | M5 | M6 | 1.65 | 0.78 | 0.78 | 0.78 | 6 | 7 | 8 | 50 |
| 1" | 0.44 | 0.50 | 0.61 | 0.90 | 0.90 | 0.93 | M6 | M6 | M6 | 1.96 | 1.00 | 1.00 | 1.00 | 8 | 10 | 11.5 | 94 |
| 1 1/2" | 0.63 | 0.55 | 0.84 | 1.18 | 1.18 | 1.22 | M8 | M8 | M8 | 2.75 | 1.50 | 1.50 | 1.50 | 15 | 19 | 22 | 260 |
| 2" | 0.63 | 0.55 | 0.84 | 1.18 | 1.18 | 1.22 | M8 | M8 | M8 | 2.75 | 2.00 | 2.00 | 2.00 | 20 | 33 | 38 | 480 |
| 2 1/2" | 0.82 | - | - | 1.83 | 1.83 | - | M10 | M10 | - | 4.01 | 2.55 | 2.55 | - | 36 | 50 | - | 750 |
| 3" | 0.82 | 0.90 | 0.69 | 1.83 | 1.83 | 1.67 | M10 | M10 | M10 | 4.01 | 3.00 | 3.00 | 3.00 | 45 | 68 | 78 | 1300 |
| 4" | 1.00 | 1.13 | - | 1.83 | 1.83 | - | M10 | M10 | - | 4.01 | 4.00 | 4.00 | 4.00 | 75 | 96 | 188 | 2300 |
| 6" | 1.77 | 1.77 | - | 3.35 | 3.35 | - | M12 | M12 | - | - | 6.00 | 6.00 | - | 135 | 230 | - | 5400 |
| 8" | - | - | - | 3.86 | 3.86 | - | M12 | M12 | - | - | 7.88 | 7.88 | - | 290 | 430 | - | 10000 |
| 10" | - | - | - | 3.74 | 3.91 | - | M16 | M16 | - | - | 9.84 | 9.84 | - | 540 | 810 | - | 15000 |
| 12" | - | - | - | 3.74 | 3.82 | - | M16 | M16 | - | - | 11.81 | 11.81 | - | 660 | 902 | - | 21000 |

Units in mm

FEATURES & OPTIONS

SERIES FS

- API 607 4th Edition Fire Safe Tested
- API 608 & 6D compliant
- Split body, full port and reduced port design per ASME B16.34
- Blow out proof, anti-static stem design
- Belleville spring, live loaded stem seals with Fugitive emissions capability
- Floating ball design prevents cavity pressure build-up while the valve is open
- Fully encapsulated body seals prevent seal rupture in steam or high pressure services
- ISO 5211 integral mounting pad allows for easy mounting of actuators or media containment bonnet
- OSHA compliant locking handle
- Self-cleaning, leak-tight slotted seat design
- Wide choice of seat and seal material options
- Fully encapsulated seats
- Traceability in the form of heat numbers and CMTRS

ORDERING INFORMATION

| Size | Series | Class | Body | Trim | Seats | Seals | Ends | Options |
|--------|---------------|-------|-----------------|-----------------|----------------|-------------|-------------|---------------|
| 1/2" | FS- Full port | 150 | 1 - Carbon | 1 - Carbon | D - Devlon | G - Grafoil | BW - Butt | O2 - Oxygen |
| 3/4" | RFS – | 300 | Steel | Steel | H - TFM | | Weld | Prep |
| 1" | Reduced port | 600 | 2 - Alloy 20 | 2 - Alloy 20 | N - Nova | | RF - Raised | L - Lever |
| 1-1/4" | | | 3 - 316SS | 3 - 316SS | P - PEEK | | Face | Handle |
| 1-1/2" | | | 5 - Hastelloy C | 4 - A276 Grade | R - Reinforced | | RTJ - Ring | MCB - Media |
| 2" | | | L - A350 Grade | 410 | Teflon | | Type | Containment |
| 2 1/2" | | | LF2 | 5 - Hastelloy C | T - Teflon | | Joint | Bonnet |
| 3" | | | X - Special | L - A350 Grade | U - UHMWPE | | | SE - Stem |
| 4" | | | 6 - A352 | LF2 | | | | Extension |
| 6" | | | LC2 | X - Special | | | | GO - Gear |
| 8" | | | 9 - F51 Duplex | 6 - A352 | | | | Operator |
| 10" | | | Stainless | LC2 | | | | PR - Prep for |
| 12" | | | | 9 - F51 Duplex | | | | Automation |
| | | | | Stainless | | | | |

PLEASE NOTE: *There may be some performance variations between the GVC Series FS and other manufacturer's comparable body designs. To ensure the longevity of performance, please provide specific information relevant to the requirements needed for each application process.*



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