

# 302F Ball Valve

3 Piece Full Port



**For Manual Service**

General Chemical

Industrial

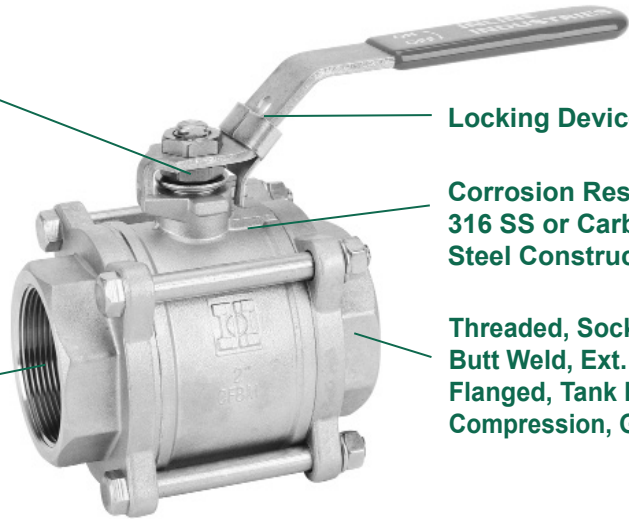
Other Corrosion  
Resistant Applications

# The 302F Series Ball Valve

The 302F series ball valve delivers exceptional performance and economy in a 3-piece design. The full port design improves flow rates and minimizes the pressure drop through the valve. Our unique metal-backed seat design enhances overall valve performance, while the live-loaded stem packing automatically adjusts for wear and thermal variations.

**High-Cycle  
Live-Loaded  
Stem Packing**

**Full Port  
Construction**



**Locking Device**

**Corrosion Resistant  
316 SS or Carbon  
Steel Construction**

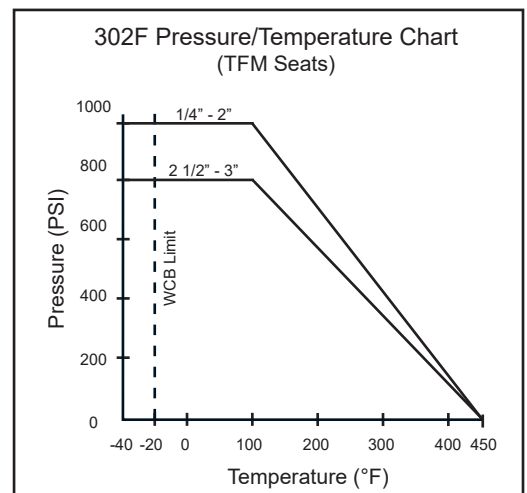
**Threaded, Socket Weld  
Butt Weld, Ext. Butt Weld,  
Flanged, Tank Bottom,  
Compression, Grooved Ends**

## Standard Features and Benefits

- **High-Cycle, Live-Loaded Stem Packing**  
Dynamic loading of stem packing ensures a tight seal through varying pressure and temperature conditions, reducing maintenance costs and extending service life
- **Blow-Out-Proof Stem**  
Stem is bottom loaded to prevent removal when valve is in service
- **Full Port Design**  
Full port construction improves flow characteristics for greater process efficiencies
- **Locking Device**  
Enables plant personnel to secure valve in open or closed position when manually operated
- **End Cap Alignment Step**  
Ensures easy and proper alignment between mating parts
- **Investment Cast**  
Improves dimensional control and reduces porosity
- **Standard Seats and Seals Suitable for 150 psi Saturated Steam**
- **Castings Meet NACE MR0175/ISO 15156**

## Options

- **Available in NPT, Socket Weld, Butt Weld, Ext. Butt Weld, Flanged, Compression, Tank Bottom and Grooved End Connections**
- **Oval Handles (1/4" - 1 1/2")**
- **Various Seat and Seal Materials Available**
- **Air Safety Exhaust Valve (ASEV)**
- **Stem Extensions**
- **Oxygen Cleaning**
- **Material Test Reports Available Upon Request**

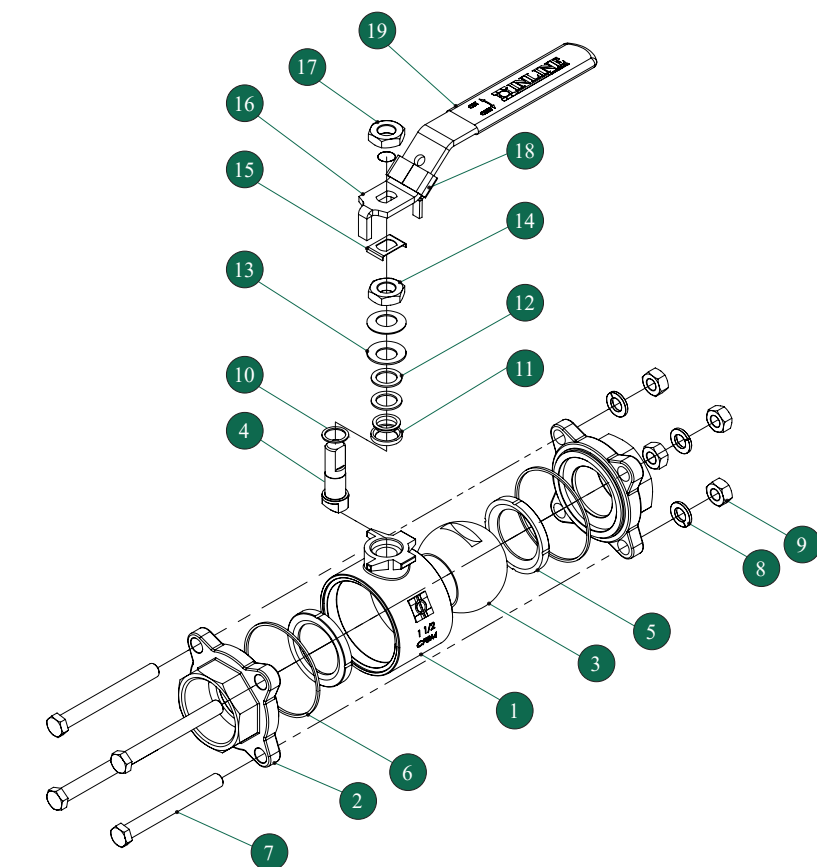


## Operating Conditions

- **Temperature Range (TFM):**  
-40°F ~ 450°F
- **Maximum Pressure (TFM):**  
1000 PSI CWP (1/4" - 2")  
800 PSI CWP (2 1/2" - 3")

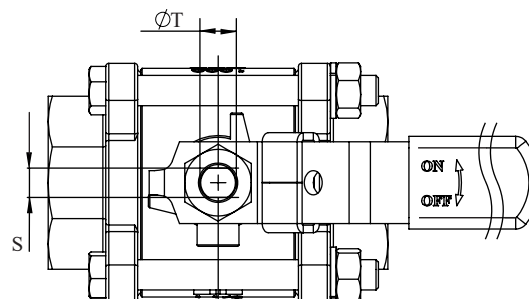
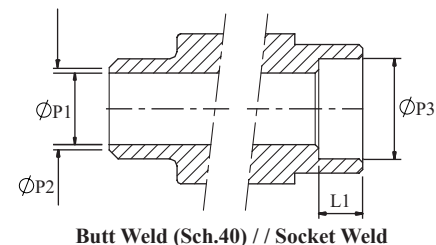
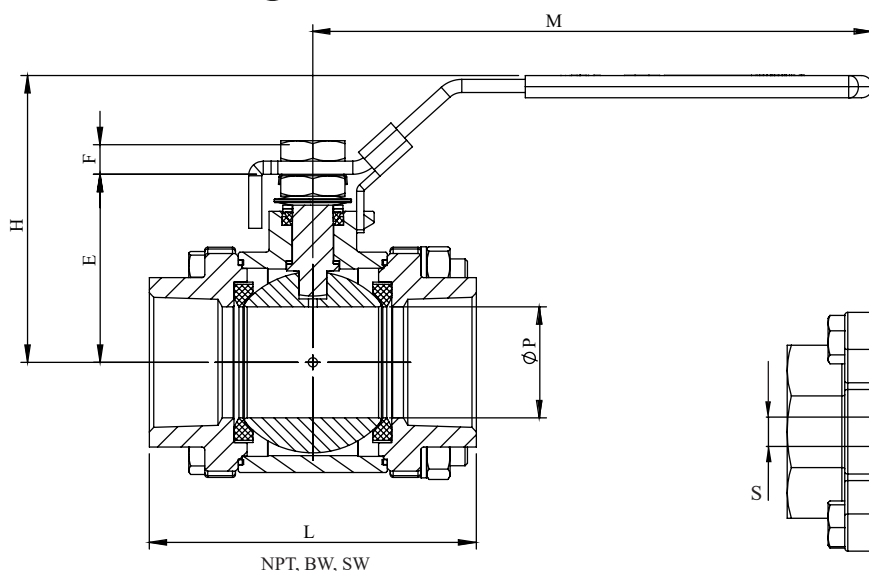
## Specifications

- Valves designed and tested to ASME B16.34, API 598 and MSS SP-110, and meet ANSI/FCI 70-2 Class VI and MSS SP-61 leakage requirements
- All materials comply with applicable ASTM material specifications and USDA and FDA material requirements
- NSF/ANSI/CAN 61 & 372 certified
- All soft wetted parts comply with FDA CFR Title 21 Part 177
- **End connections**  
All to ASME B16.34  
NPT to ASME B1.20.1  
Socket Weld to ASME B16.11  
Butt Weld to ASME B16.25  
Flanges to ASME B16.5



| Valve Components |                       |          |     |
|------------------|-----------------------|----------|-----|
| No.              | Part Name             | Material | Qty |
| 1                | Body                  | CF8M     | 1   |
| 2                | End Cap-NPT           | CF8M     | 2   |
| 3                | Ball                  | CF8M     | 1   |
| 4                | Stem                  | 316 SS   | 1   |
| 5                | Seat                  | TFM      | 2   |
| 6                | Body Seal             | TFM      | 2   |
| 7                | Body Bolt             | 304 SS   | 4*  |
| 8                | Split Lock Washer     | 304 SS   | 4*  |
| 9                | Body Nut              | 304 SS   | 4*  |
| 10               | Thrust Washer         | TFM      | 1   |
| 11               | Stem Packing Set      | TFM      | 1   |
| 12               | Packing Gland         | 304 SS   | 2   |
| 13               | Belleville Washer     | 301 SS   | 2   |
| 14               | Gland Nut             | 304 SS   | 1   |
| 15               | Gland Nut Lock Washer | 304 SS   | 1   |
| 16               | Handle                | 304 SS   | 1   |
| 17               | Handle Nut            | 304 SS   | 1   |
| 18               | Handle Lock           | 304 SS   | 1   |
| 19               | Handle Cover          | Vinyl    | 1   |

\*3" Valve: Body Studs X4, Split Lock Washers X8, Body Nuts X8.



| Dimensions (Inches) |      |      |      |      |      |      |      |     |      |      |      |      | Cv   | Weight (lbs)* |
|---------------------|------|------|------|------|------|------|------|-----|------|------|------|------|------|---------------|
| Size                | L    | L1   | P    | P1   | P2   | P3   | M    | H   | E    | F    | S    | T    |      |               |
| 1/4"                | 2.06 | 0.44 | 0.50 | 0.36 | 0.49 | 0.56 | 4.3  | 2.1 | 1.18 | 0.30 | 0.20 | 0.31 | 6.0  | 0.9           |
| 3/8"                | 2.06 | 0.44 | 0.50 | 0.49 | 0.62 | 0.69 | 4.3  | 2.1 | 1.18 | 0.30 | 0.20 | 0.31 | 12.0 | 0.9           |
| 1/2"                | 2.32 | 0.50 | 0.59 | 0.62 | 0.75 | 0.85 | 4.3  | 2.1 | 1.25 | 0.30 | 0.20 | 0.31 | 15.9 | 1.0           |
| 3/4"                | 3.06 | 0.56 | 0.79 | 0.82 | 0.95 | 1.07 | 5.1  | 2.5 | 1.54 | 0.30 | 0.26 | 0.38 | 30.2 | 1.9           |
| 1"                  | 3.29 | 0.63 | 0.98 | 1.04 | 1.17 | 1.33 | 5.9  | 2.8 | 1.83 | 0.38 | 0.31 | 0.46 | 46.0 | 2.6           |
| 1 1/4"              | 3.91 | 0.69 | 1.25 | 1.38 | 1.51 | 1.67 | 5.9  | 3.1 | 2.09 | 0.31 | 0.31 | 0.46 | 74.4 | 4.1           |
| 1 1/2"              | 4.41 | 0.75 | 1.50 | 1.61 | 1.74 | 1.91 | 7.6  | 3.9 | 2.53 | 0.40 | 0.38 | 0.54 | 115  | 6.2           |
| 2"                  | 5.16 | 0.87 | 2.00 | 2.07 | 2.19 | 2.41 | 7.6  | 4.2 | 2.83 | 0.45 | 0.38 | 0.54 | 205  | 9.8           |
| 2 1/2"              | 6.46 | 0.87 | 2.56 | 2.47 | 2.59 | 2.91 | 12.3 | 5.7 | 3.66 | 0.71 | 0.47 | 0.77 | 340  | 18.9          |
| 3"                  | 7.40 | 1.00 | 3.15 | 3.07 | 3.19 | 3.54 | 12.3 | 6.1 | 4.06 | 0.71 | 0.47 | 0.77 | 552  | 28.8          |

\*Weights are based on NPT Ends

Cv value represents flow data to ISA 75.01.01 - 2007



Automation Systems



Direct Mount Products

## 302F Ordering Information

Example: 2" 3-Piece Full Port Ball Valve with Lever Handle and Locking Device, 316 SS Body and Trim, TFM Seats and Seals, NPT Ends

| 302F                                    | D                                                                                                | 6                                                | 6                                                                            | 6             | 6             | M                                                                                                                                                                               | M                                                                            | TT                                                                                                                                                                                                                                                                      | 2         | S                                  |
|-----------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------------------|---------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------|
| Valve Series                            | Valve Size                                                                                       | Body Material                                    | End Material                                                                 | Ball Material | Stem Material | Seat                                                                                                                                                                            | Seal                                                                         | End Connection                                                                                                                                                                                                                                                          | Port      | Ball Config.                       |
| 302F - Full Port<br>302C - Compression* | 2 1/4"<br>3 3/8"<br>5 1/2"<br>7 3/4"<br>A 1"<br>B 1 1/4"<br>C 1 1/2"<br>D 2"<br>E 2 1/2"<br>F 3" | 6 - A351 Gr. CF8M (316)<br>2 - A216 Gr. WCB (CS) | 6 - A351 Gr. CF8M (316)<br>2 - A216 Gr. WCB (CS)<br>3 - A351 Gr. CF3M (316L) | 6 - 316 SS    | 6 - 316 SS    | M - TFM<br>C - RTFE (15% C.F.)<br>F - 50% 316 SS Filled PTFE<br>R - RTFE (15% G.F.)<br>S - Infill (Carbon, Carbon Fiber, Ekonol Filled Modified PTFE)<br>T - PTFE<br>U - UHMWPE | M - TFM<br>F - 50% 316 SS Filled PTFE<br>T - PTFE<br>U - UHMWPE<br>V - Viton | T - NPT<br>S - Socket Weld**<br>4 - Butt Weld Sch. 40**<br>1 - Butt Weld Sch. 10**<br>5 - Butt Weld Sch. 5**<br>6 - Ext. BW Sch. 10**<br>7 - Ext. BW Sch. 40**<br>A - ANSI 150# Flanged<br>B - ANSI 300# Flanged<br>G - Grooved<br>K - Tank Bottom**<br>P - Compression | 2 - 2 Way | S - Straight Port<br>7 - ASEV Ball |

\*Available in 1/4" - 1".

Due to continuous product development, information may change without notice.

\*\*316L - Standard Material



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