

FIGURE 310AM STAINLESS STEEL BALL VALVES



3 PC FULL PORT 1000 CWP W/ ISO MOUNTING PAD

FEATURES

- 1000 PSI CWP non-shock
- 150 PSI WSP
- End connections
 - Threaded
 - Socket weld
- Full Port
- Blowout-proof stem
- Live-loaded packing
- Anti-static design
- Investment cast body
- RTFE seats
- 4" with handle standard (Lock-out style)
- Direct mounting pad
- Vacuum rated to 26.967"Hg (75 Torr)*
- Vented ball
- Manufactured silicone-free
- Optional locking handle kit (1/4"–4")

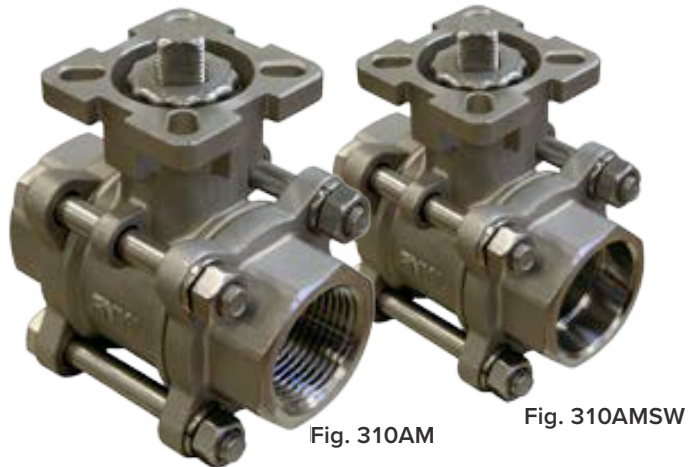


Fig. 310AM

Fig. 310AMSW

PRODUCT SPECIFICATIONS

Standards

- Design: MSS SP-110
- End Connections:
 - NPT - ASME B1.20.1
 - SW - ASME B16.11
- Mounting Pad: ISO 5211
- Seat/Shell Test: MSS SP-110
- Corrosion Resistance: NACE MR0103 and MR0175
- Fugitive Emissions: ISO 15848-1 and TA-Luft

* Vacuum measurements are often made in inches of mercury below atmospheric pressure. The values calculated here assume standard atmospheric pressure of 29.92 inches of mercury.

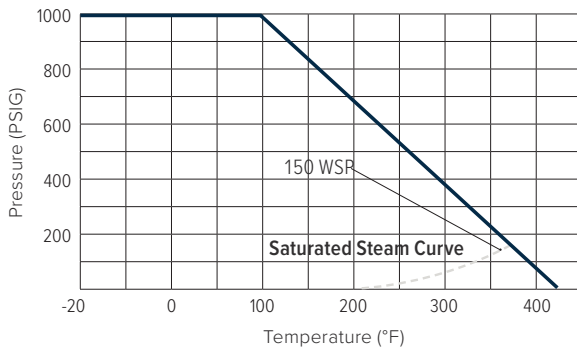


FIGURE NUMBER MATRIX

| End Code | FNW 310AM | | |
|----------------------|-----------|------------|------------|
| | 1/4" = B | 1" = G | 2-1/2" = L |
| Blank = Threaded NPT | 1/4" = B | 1" = G | 2-1/2" = L |
| SW = Socket Weld | 3/8" = C | 1-1/4" = H | 3" = M |
| | 1/2" = D | 1-1/2" = J | 4" = P |
| | 3/4" = F | 2" = K | |

ACCESSORIES



Replacement Locking Handle Kits (1/4"–4")



4" Includes Locking Handle

TORQUE (IN-LBS)

| Size /ΔP | 150 psig | 300 psig | 1000 psig |
|----------|----------|----------|-----------|
| | 10 Bar | 20 Bar | 63 Bar |
| 1/4, 3/8 | 57 | 57 | 57 |
| 1/2 | 57 | 57 | 57 |
| 3/4 | 69 | 69 | 69 |
| 1 | 114 | 126 | 126 |
| 1-1/4 | 150 | 173 | 218 |
| 1-1/2 | 218 | 254 | 299 |
| 2 | 334 | 368 | 437 |
| 2-1/2 | 517 | 564 | 679 |
| 3 | 828 | 932 | 1162 |
| 4 | 1265 | 1404 | 1703 |

Note: 30% safety factor is recommended when sizing actuator.

HANDLE KIT CODES (ORDER SEPARATELY)

| FNW 310AM | |
|---------------------|----------------|
| Kit Type | Size Code |
| Locking Handle= LHK | 1/4"–3/4" = BF |
| | 1"–1-1/4" = GH |
| | 1-1/2"–2" = F |
| | 1-1/2"–2" = LM |
| | 4" = P |

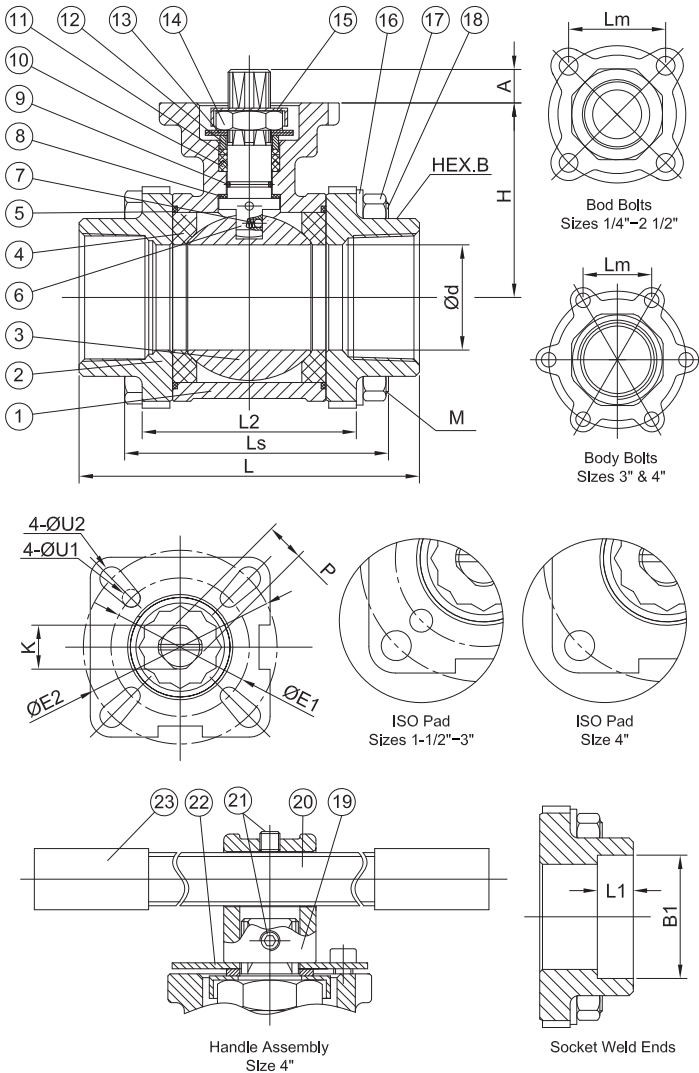
REPAIR KITS (ORDER SEPARATELY)

| FNW 310AM | |
|----------------|------------|
| Size Code | |
| 1/4"–3/8" = BC | 1-1/2" = J |
| 1/2" = D | 2" = K |
| 3/4" = F | 2-1/2" = L |
| 1" = G | 3" = M |
| 1-1/4" = H | 4" = P |

FIGURE 310AM STAINLESS STEEL BALL VALVES



3 PC FULL PORT 1000 CWP W/ ISO MOUNTING PAD



STANDARD MATERIALS

| Ref. No. | Description | Material | Qty |
|----------|---------------------|------------------------------|------------------------------|
| 1 | Body | ASTM A351 Gr. CF8M Stainless | 1 |
| 2 | End Cap | NPT | ASTM A351 Gr. CF8M Stainless |
| | | SW | ASTM A351 Gr. CF3M Stainless |
| 3 | Ball | 316SS Stainless | 1 |
| 4 | Seat | RTFE | 2 |
| 5 | Body Gasket | PTFE | 2 |
| 6 | Stem | 316SS Stainless | 1 |
| 7 | Anti-Static Device | 316SS Stainless | 2 |
| 8 | Thrust Washer | PTFE | 1 |
| 9 | O-Ring | FKM | 1 |
| 10 | V-Ring Packing | PTFE | 1 Set |
| 11 | Bushing | 50% Stainless+50% PTFE | 1 |
| 12 | Gland | 316SS Stainless | 1 |
| 13 | Belleville Washer | 301SS Stainless | 2 |
| 14 | Stem Nut | ASTM A194-8 Stainless | 1 |
| 15 | Stop-Lock-Cap | 304SS Stainless | 1 |
| 16 | Bolt Washer | 1/4"-2" | 4 |
| | | 2-1/2" | 8 |
| | | 3"-4" | 12 |
| 17 | Bolt Washer | 1/4"-2" | 4 |
| | | 2-1/2" | 8 |
| | | 3"-4" | 12 |
| 18 | Body Nut | 1/4"-3" | 4 |
| | | 4" | 6 |
| 19 | Handle Adapter 4" | ASTM A351 Gr. CF8 Stainless | 1 |
| 20 | Pipe Handle 4" | ASTM A53 Steel+Zinc Plating | 1 |
| 21 | Set Screw 4" | ASTM A193-B8 Stainless | 1 |
| 22 | Triangle Stopper 4" | 420SS Stainless | 1 |
| 23 | Handle Sleeve 4" | Vinyl Plastic | 1 |

DIMENSIONS (INCHES)

| SIZE | Ød | L | Lm | H | P | A | ØE1 | ØE2 | U1 | U2 | K (UNF) | Ls | L2 | M (UNC) | B | L1 | ØB1 |
|-------|------|------|------|------|------|------|------|------|------|------|----------|------|------|---------|------|------|------|
| 1/4 | 0.42 | 2.95 | 1.30 | 1.65 | 0.35 | 0.35 | 1.42 | 1.65 | 0.24 | 0.24 | 7/16-20 | 2.23 | 1.71 | 1/4-20 | 1.10 | 0.39 | 0.56 |
| 3/8 | 0.50 | 2.95 | 1.30 | 1.65 | 0.35 | 0.35 | 1.42 | 1.65 | 0.24 | 0.24 | 7/16-20 | 2.23 | 1.71 | 1/4-20 | 1.10 | 0.39 | 0.70 |
| 1/2 | 0.59 | 2.95 | 1.30 | 1.65 | 0.35 | 0.35 | 1.42 | 1.65 | 0.24 | 0.24 | 7/16-20 | 2.23 | 1.71 | 1/4-20 | 1.10 | 0.39 | 0.86 |
| 3/4 | 0.79 | 3.15 | 1.52 | 1.91 | 0.35 | 0.35 | 1.42 | 1.97 | 0.24 | 0.28 | 7/16-20 | 2.44 | 1.82 | 5/16-18 | 1.36 | 0.51 | 1.07 |
| 1 | 0.98 | 3.54 | 1.76 | 2.30 | 0.43 | 0.43 | 1.65 | 1.97 | 0.24 | 0.28 | 9/16-18 | 2.79 | 2.10 | 5/16-18 | 1.65 | 0.51 | 1.34 |
| 1-1/4 | 1.26 | 4.33 | 2.13 | 2.48 | 0.43 | 0.43 | 1.65 | 2.76 | 0.24 | 0.35 | 9/16-18 | 3.37 | 2.68 | 3/8-16 | 2.05 | 0.63 | 1.69 |
| 1-1/2 | 1.50 | 4.72 | 2.42 | 2.81 | 0.55 | 0.55 | 1.97 | 2.76 | 0.28 | 0.35 | 3/4-16 | 3.81 | 3.05 | 3/8-16 | 2.30 | 0.63 | 1.93 |
| 2 | 1.97 | 5.51 | 2.95 | 3.08 | 0.55 | 0.55 | 1.97 | 2.76 | 0.28 | 0.35 | 3/4-16 | 4.36 | 3.59 | 3/8-16 | 2.81 | 0.67 | 2.42 |
| 2-1/2 | 2.50 | 7.28 | 3.62 | 3.94 | 0.67 | 0.67 | 2.76 | 4.02 | 0.35 | 0.43 | 7/8-14 | 5.75 | 4.36 | 9/16-12 | 3.41 | 0.67 | 2.91 |
| 3 | 2.99 | 8.07 | 2.93 | 4.27 | 0.67 | 0.67 | 2.76 | 4.02 | 0.35 | 0.43 | 7/8-14 | 6.34 | 4.93 | 9/16-12 | 3.98 | 0.67 | 3.54 |
| 4 | 3.95 | 9.45 | 3.76 | 5.51 | 0.87 | 0.87 | 4.02 | 4.02 | 0.43 | 0.43 | 1-1/8-12 | 7.87 | 6.26 | 5/8-11 | 5.20 | 0.79 | 4.53 |

CV & WEIGHT

| Size | Cv | Wt (lbs) |
|-------|------|----------|
| 1/4 | 16 | 1.01 |
| 3/8 | 23 | 1.03 |
| 1/2 | 30 | 1.05 |
| 3/4 | 55 | 1.73 |
| 1 | 96 | 2.33 |
| 1-1/4 | 170 | 4.30 |
| 1-1/2 | 270 | 5.21 |
| 2 | 470 | 9.09 |
| 2-1/2 | 780 | 17.31 |
| 3 | 1150 | 24.36 |
| 4 | 2100 | 51.00 |