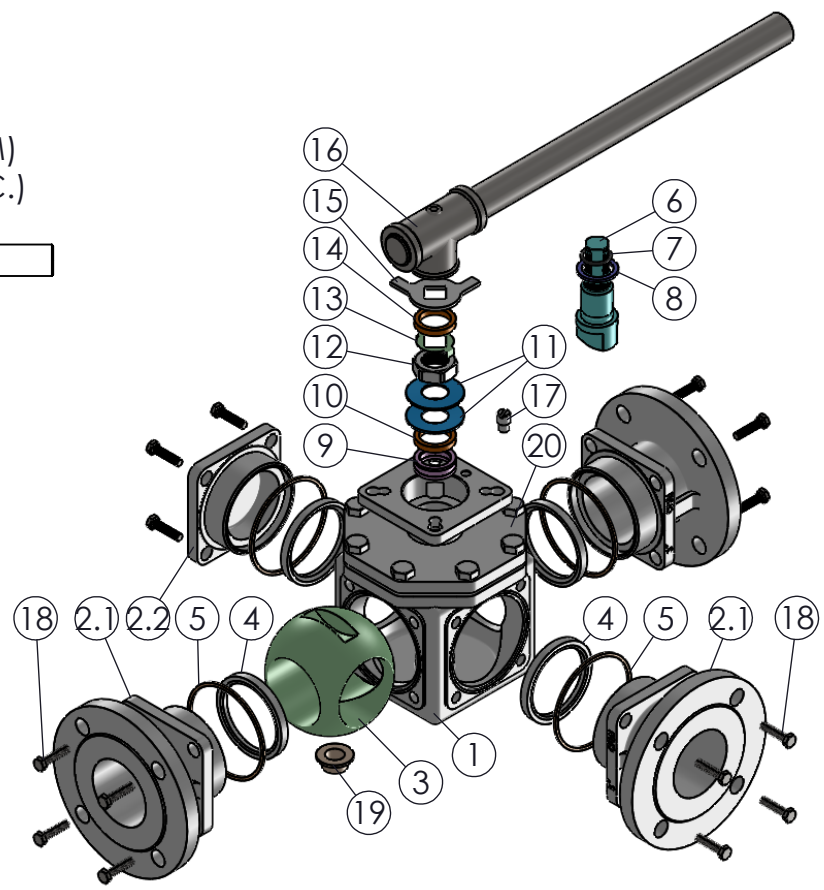
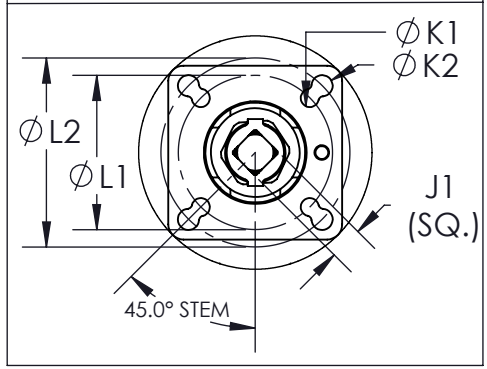
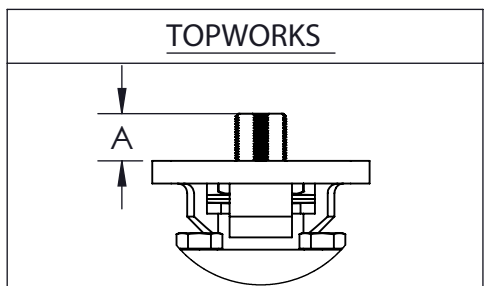
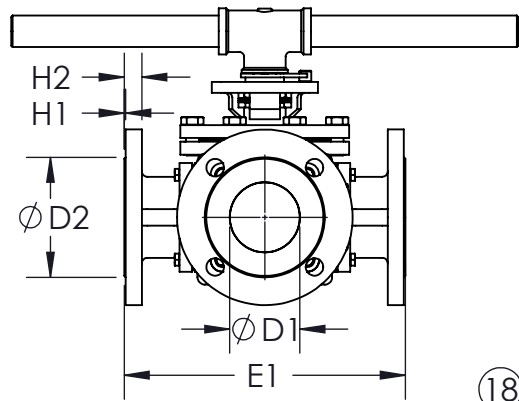
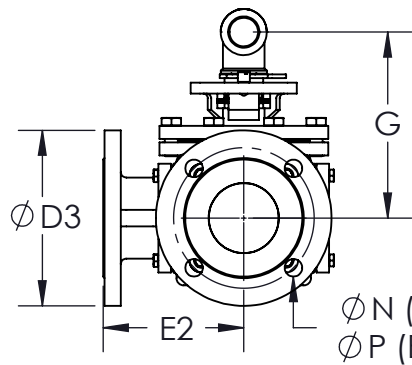
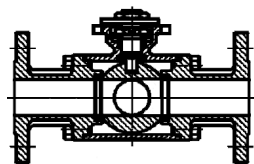


*AT FULL DIFFERENTIAL PRESSURE FOR CLEAN FLUIDS WITH PTFE SEATS

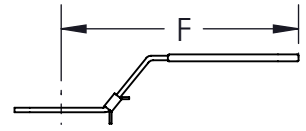
| SIZE | A | øD1 | øD2 | øD3 | E1 | E2 | F | G | H1 | H2 | J1 (SQ.) | øK1 | øK2 | øL1 | øL2 | M | øN | øP | ISO 5211 | WEIGHT (lbs) | Cv | TORQUE* (in-lbf) |
|--------|-----------|-----------|------------|------------|-------------|------------|-------------|------------|------------|-----------|-----------|-----------|-----------|------------|------------|---|-----------|------------|----------|--------------|------|------------------|
| 1" | 0.43 (11) | 0.98 (25) | 2.01 (51) | 4.25 (108) | 7.48 (190) | 3.74 (95) | 6.30 (160) | 3.39 (86) | 0.06 (1.6) | 0.47 (12) | 0.43 (11) | 0.24 (6) | 0.28 (7) | 1.65 (42) | 1.97 (50) | 4 | 0.63 (16) | 3.14 (80) | F04-F05 | 12 | 91 | 186 |
| 1-1/2" | 0.55 (14) | 1.50 (38) | 2.87 (73) | 5.00 (127) | 8.66 (220) | 4.33 (110) | 7.28 (185) | 4.33 (110) | 0.06 (1.6) | 0.55 (14) | 0.55 (14) | 0.28 (7) | 0.35 (9) | 1.97 (50) | 2.76 (70) | 4 | 0.63 (16) | 3.89 (99) | F05-F07 | 24 | 254 | 416 |
| 2" | 0.67 (17) | 1.89 (48) | 3.62 (92) | 5.98 (152) | 10.00 (254) | 5.00 (127) | 9.84 (250) | 5.24 (133) | 0.06 (1.6) | 0.63 (16) | 0.67 (17) | 0.35 (9) | 0.43 (11) | 2.76 (70) | 4.02 (102) | 4 | 0.75 (19) | 4.76 (121) | F07-F10 | 39 | 442 | 637 |
| 2-1/2" | 0.87 (22) | 2.44 (62) | 4.13 (105) | 7.01 (178) | 11.50 (292) | 5.75 (146) | 19.69 (500) | 7.87 (200) | 0.06 (1.6) | 0.71 (18) | 0.87 (22) | 0.43 (11) | 0.53 (13) | 4.02 (102) | 4.92 (125) | 4 | 0.75 (19) | 5.51 (140) | F10-F12 | 69 | 700 | 832 |
| 3" | 0.87 (22) | 2.99 (76) | 5.00 (127) | 7.52 (191) | 12.01 (305) | 6.02 (153) | 19.69 (500) | 8.50 (216) | 0.06 (1.6) | 0.75 (19) | 0.87 (22) | 0.43 (11) | 0.53 (13) | 4.02 (102) | 4.92 (125) | 4 | 0.75 (19) | 6.02 (153) | F10-F12 | 90 | 1084 | 1104 |
| 4" | 0.87 (22) | 3.56 (98) | 6.18 (157) | 9.01 (229) | 14.53 (369) | 7.28 (185) | 25.59 (650) | 9.06 (230) | 0.06 (1.6) | 0.94 (24) | 0.87 (22) | 0.43 (11) | 0.53 (13) | 4.02 (102) | 4.92 (125) | 8 | 0.75 (19) | 7.51 (191) | F10-F12 | 143 | 2082 | 1898 |



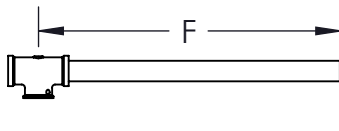
SIZES 1/2"-2" WITHOUT BONNET:



SIZES 1" - 2" WITH LEVER HANDLE:

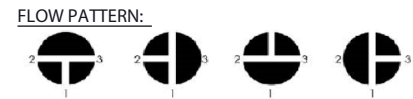


SIZES 2-1/2" - 4" WITH PIPE HANDLE:



PRODUCT INFORMATION:
 1. POSITIVE SHUT-OFF ON ANY OF THE THREE PORTS
 2. BLOW OUT PROOF STEM
 3. COMPLETE VALVE AUTOMATION

APPLICABLE STANDARDS:
 1. ASME BT6.34: DESIGN REQUIREMENTS
 2. ANSI B16.5: FLANGE DIMENSION
 3. ANSI B16.10: FACE TO FACE STANDARD
 4. API 598: INSPECTION AND TESTING
 5. ISO 5211: MOUNTING
 6. CGA G-4.1: CLEANING FOR OXYGEN SERVICE
 7. NACE MR0175
 8. USP CLASS VI: CONFIRMATION OF COMPLIANCE (PTFE MATERIAL)



| ITEM NO. | DESCRIPTION | MATERIALS | QTY. |
|----------|--|---------------------|------|
| 1 | BODY | A351-CF8M A216-WCB | 1 |
| 2.1 | END | A351-CF8M A216-WCB | 3 |
| 2.2 | BLIND END | A351-CF8M A216-WCB | 1 |
| 3 | BALL | A182-316 | 1 |
| 4 | SEAT | RTFE | 4 |
| 5 | BODY SEAL | PTFE | 4 |
| 6 | STEM | A276-316 | 1 |
| 7 | STEM O-RING | VITON | 1 |
| 8 | STEM THRUST WASHER | PTFE | 1 |
| 9 | STEM SEAL | PTFE | 4 |
| 10 | GLAND FOLLOWER | A276-304 | 1 |
| 11 | BELLEVILLE WASHER | A276-304 | 2 |
| 12 | STEM NUT | 304 STAINLESS STEEL | 1 |
| 13 | LOCK TAB | 304 STAINLESS STEEL | 1 |
| 14 | SPACER | A276-304 | 1 |
| 15 | STOP PLATE | 201 STAINLESS STEEL | 1 |
| 16 | PIPE HANDLE (FOR SIZES 2-1/2"-4" ONLY) | A276-304 | 1 |
| 17 | STOP PIN | 201 STAINLESS STEEL | 1 |
| 18 | BODY BOLTS | A193-B8 | 16 |
| 19 | BOTTOM BUSHING (FOR SIZES 3"-4" ONLY) | PTFE | 1 |
| 20 | BODY BONNET (FOR SIZES 2-1/2"-4" ONLY) | A351-CF8M A216-WCB | 1 |

DRAWN BY E.P. DATE 02/12/2018
 CHECKED BY E.G. DATE 02/12/2018
 APPROVED BY J.S. DATE 02/12/2018

PROJECTION THIRD ANGLE

OSVF FLOW CONTROLS

DESCRIPTION:
 1" - 4" MB51 THREE-WAY MULTI-PORTED BALL VALVE, 150# FLANGED ENDS, T PORT, S/S

UNITS: INCH (MILLIMETERS) DATE: 03/15/2018 REV: C