



We Make Automation Easy
SERIES 22

**DIRECT MOUNT
HIGH PERFORMANCE
TWO-PIECE BALL VALVES**

**DIRECT MOUNTING OF
ACTUATOR TO VALVES**

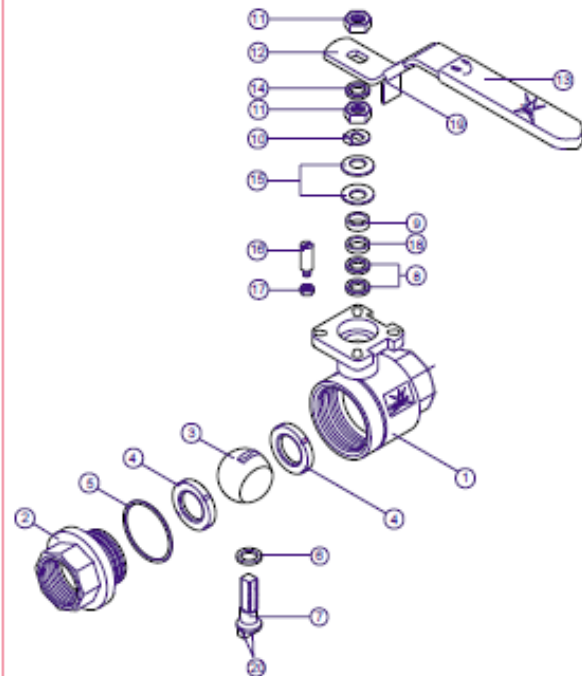


DESIGN ADVANTAGES

- FOR GENERAL INDUSTRIAL AND CHEMICAL APPLICATIONS, PROVIDES SAFE, ECONOMICAL PERFORMANCE.
- PATENTED ISO 5211 DIRECT MOUNT PAD
Allows direct mounting of pneumatic and electric actuators, no brackets and couplings needed. easy and low cost for automated service.
- EXTRA HIGH CYCLE LIFE
Mars maintenance free live loaded double sealing high cycle stem packing system provides extra longer service life.
- BLOW OUT PROOF STEM
- ANTI-STATIC DEVICE AS STANDARD
- LOCKING DEVICE AS STANDARD
- INVESTMENT CAST BODY CONSTRUCTION

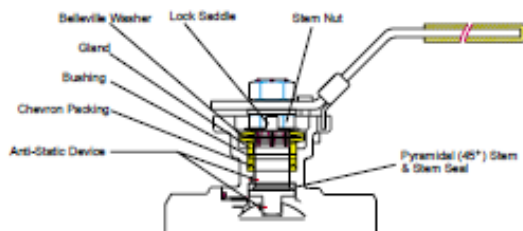
SPECIFICATIONS

Construction : Two-piece body, Full Bore
 Sizes : 1/2" to 3" (DN15 TO DN80)
 Ends : Threaded End
 Body : CF8M, WCB / DIN 1.4408, 1.0619
 Seat : PTFE
 Pressure Rating : 1000 PSI



MATERIALS LIST

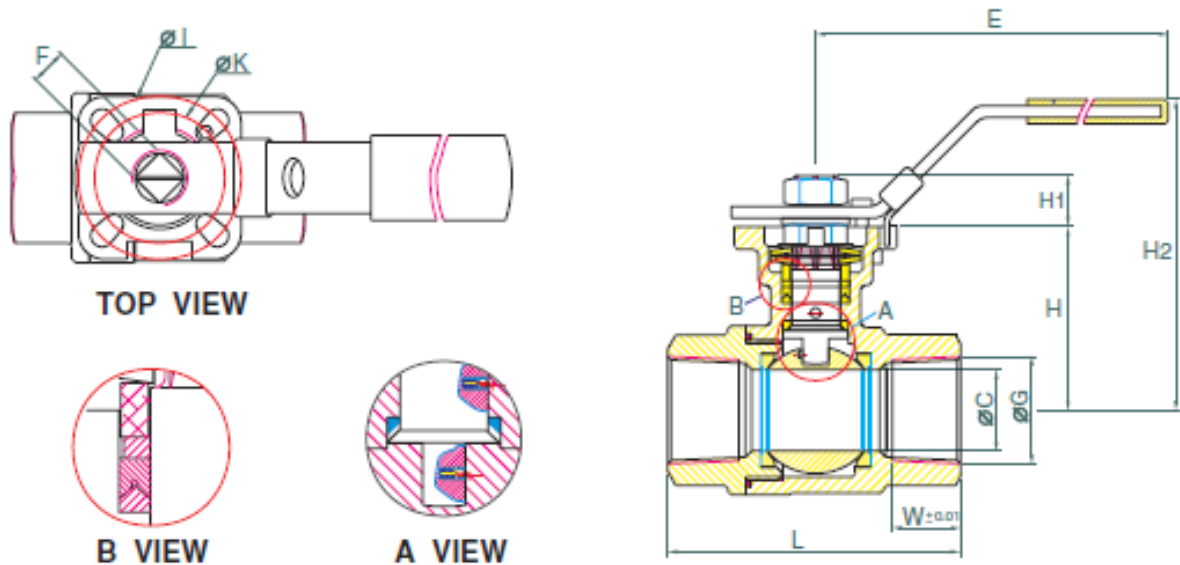
| NO. | PART NAME | MATERIAL | Q'TY |
|-----|--------------------|------------|------|
| 1 | Body | CF8M WCB | 1 |
| 2 | End Cap | CF8M WCB | 1 |
| 3 | Ball | SUS316 | 1 |
| 4 | Seat | PTFE/RTFE | 2 |
| 5 | Joint Gasket | PTFE | 2 |
| 6 | Stem Seal | PTFE/RTFE | 1 |
| 7 | Stem | SUS 316 | 1 |
| 8 | Gland Packing | MG1241 | 2 |
| 9 | Gland Bush | SUS 304 | 1 |
| 10 | Stop Washer | SUS 304 | 1 |
| 11 | Stem Nut | SUS 304 | 2 |
| 12 | Handle | SUS 304 | 1 |
| 13 | Handle Sleeve | Vinyl | 1 |
| 14 | Stem Washer | SUS 304 | 1 |
| 15 | Belleville Washer | SUS 301 | 2 |
| 16 | Stop Pin | SUS 304 | 1 |
| 17 | Pin Nut | SUS 304 | 1 |
| 18 | Bushing | 25% RTFE | 1 |
| 19 | Locking Device | SUS 304 | 1 |
| 20 | Anti-static Device | SUS 304 | 2 |



Germany Patent No. 299 02 532.2
 United States Patent No. 5,954,088
 China Patent No. ZL 98 2 09151.3

MAINTENANCE FREE LIVE LOADED DOUBLE SEALING HIGH CYCLE STEM SYSTEM

Our high cycle stem design is accomplished by double sealing system. The 45° **Pyramidal Segment Ring** in conjunction with a seal that fits on top of the Pyramidal segment provides the primary seal. Most of the media in the pipeline is contained by this seal. As a precautionary measure the V-Ring Chevron packing provides the secondary sealing. On top of the stem is a set of Belleville Washers that automatically adjusts compression of the seal to compensate for wear, pressure, or temperature fluctuations.



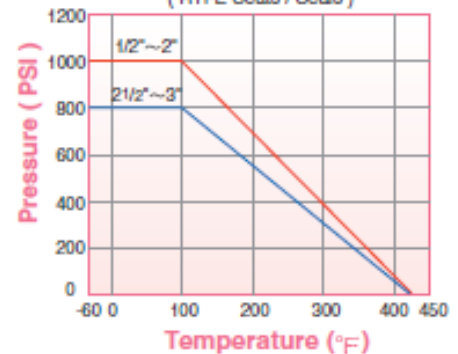
DIMENSIONS (mm)

| SIZE | øC | E | F | øG | H | H1 | H2 | øI | øK | L | W | kg/w | ISO5211 |
|--------|------|-----|----|-------------------|-------|------|-------|-----|----|-------|------|-------|---------|
| 1/2" | 15.0 | 132 | 9 | 1/2" NPT or BSP | 38.6 | 7.1 | 72.6 | 42 | 36 | 65.0 | 16 | 0.46 | F03/F04 |
| 3/4" | 20.0 | 132 | 9 | 3/4" NPT or BSP | 46.2 | 8.0 | 81.4 | 42 | 36 | 74.5 | 17 | 0.60 | F03/F04 |
| 1" | 25.0 | 167 | 11 | 1" NPT or BSP | 56.6 | 11.4 | 95.1 | 50 | 42 | 88.0 | 21 | 1.09 | F04/F05 |
| 1 1/4" | 32.0 | 167 | 11 | 1 1/4" NPT or BSP | 61.0 | 11.4 | 99.5 | 50 | 42 | 102.0 | 22 | 1.5 | F04/F05 |
| 1 1/2" | 38.0 | 187 | 14 | 1 1/2" NPT or BSP | 76.3 | 15.2 | 110.8 | 70 | 50 | 110.0 | 22.5 | 2.55 | F05/F07 |
| 2" | 49.0 | 187 | 14 | 2" NPT or BSP | 84.1 | 15.1 | 118.6 | 70 | 50 | 125.0 | 24 | 3.60 | F05/F07 |
| 2 1/2" | 65.0 | 262 | 17 | 2 1/2" NPT or BSP | 108.7 | 16.8 | 166.2 | 102 | 70 | 160.6 | 31 | 7.43 | F07/F10 |
| 3" | 80.0 | 262 | 17 | 3" NPT or BSP | 117.4 | 18.1 | 174.9 | 102 | 70 | 178.0 | 34 | 10.35 | F07/F10 |

BREAK AWAY TORQUE

| Size | Nm | In-Lb. | Cv |
|--------|----|--------|-----|
| 1/2" | 3 | 27 | 10 |
| 3/4" | 5 | 45 | 30 |
| 1" | 10 | 90 | 40 |
| 1 1/4" | 14 | 125 | 60 |
| 1 1/2" | 18 | 160 | 90 |
| 2" | 22 | 195 | 140 |
| 2 1/2" | 30 | 270 | 310 |
| 3" | 50 | 450 | 480 |

Pressure / Temperature Chart
(RTFE Seats / Seals)



HOW TO ORDER

22 08 S P

| VALVE TYPE | SIZE | BODY MATERIAL | SEAT |
|------------|------------------|---------------|--------------------------|
| SERIES 22 | 03 1/2" - DN15 | S CF8M | P PTFE |
| | 04 3/4" - DN20 | W WCB | R R-PTFE |
| | 05 1" - DN25 | | S 50/50 S.S. filled PTFE |
| | 06 1 1/4" - DN32 | | C Carbon filled PTFE |
| | 07 1 1/2" - DN40 | | M MG1241 |
| | 08 2" - DN50 | | |
| | 09 2 1/2" - DN65 | | |
| | 10 3" - DN80 | | |