# SS316 3PC BALL VALVE 3000 WOG NPT

3-Piece Full Bore High Pressure Ball Valve · Stainless Steel CF8M (316) · ISO 5211 Mounting Pad

BRAND: SW FLOW CONTROLS | SKU: P-0046 | SIZE 1/4" TO 2" | 3000 WOG / 207 BAR




FIG. 1 | SS316 3PC BALL VALVE 3000 WOG, LOCKING LEVER HANDLE

## PRODUCT OVERVIEW

The SW Flow Controls SS316 3PC Ball Valve is a three-piece, full bore, high pressure ball valve with ASTM A351 CF8M body, end caps and solid ball. The bolted construction lets the centre section be removed for servicing and seat replacement without disturbing the pipeline connections.

An ISO 5211 direct mounting pad allows actuators to be fitted without brackets. The design includes a blow-out proof stem, anti-static device, graphite and Viton stem sealing with Belleville spring loading, and a lockable lever. The valve is fire safe certified by the manufacturer.

| | |
|---|---|
| Valve type | **3-piece ball valve, full bore** |
| Operation | **Manual lever, actuator ready** |
| Body material | **ASTM A351 CF8M (SS 316)** |
| End connection | **Female NPT threaded** |
| Pressure rating | **3000 psi (207 bar) up to 1"** |
| Size range | **1/4" to 2" (DN8 to DN50)** |

## TECHNICAL SPECIFICATION

| | | | |
|---|---|---|---|
| Body design | **3-piece, bolted** | Seats | **POM** |
| Port | **Full bore** | Stem sealing | **Graphite packing, Viton O-ring** |
| End connection | **Female NPT** | Live loading | **Belleville washers, AISI 301** |
| Actuator mounting | **ISO 5211 direct mounting pad** | Fire safe | **Certified by manufacturer** |
| Stem | **AISI 316, blow-out proof** | Max. temperature | **Approx. 90°C (POM seat)** |
| Anti-static device | **Standard** | Handle | **AISI 304, lockable** |

## BILL OF MATERIALS

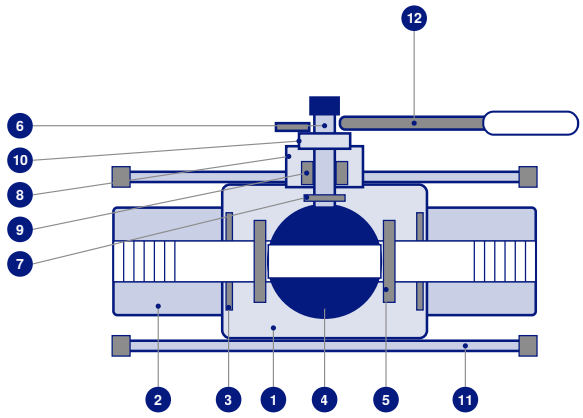



FIG. 2 | SECTIONAL ARRANGEMENT (SCHEMATIC)

| # | COMPONENT | MATERIAL |
|---|---|---|
| 1 | Body | ASTM A351 CF8M |
| 2 | End cap (2 nos.) | ASTM A351 CF8M |
| 3 | Joint gasket (2 nos.) | Graphite |
| 4 | Solid ball | ASTM A351 CF8M |
| 5 | Ball seat (2 nos.) | POM |
| 6 | Stem | AISI 316 |
| 7 | Thrust washer | 25% carbon filled |
| 8 | O-ring | Viton |
| 9 | Stem packing (2 nos.) | Graphite |
| 10 | Stem ring, stem nut, washers | AISI 304, Belleville AISI 301 |
| 11 | Hex bolts (8 nos. to 2") | AISI 304 |
| 12 | Handle, stop pin, locking device | AISI 304, PVC grip |

Materials shown for the 316 build. Hex bolt count rises to 12 nos. on 2.1/2" and 16 nos. on 3" and 4".

## DIMENSIONS, TORQUE AND RATING

| SIZE | DN | ØD (MM) | L (MM) | H (MM) | W (MM) | CV | TORQUE (KGF-CM) | ISO 5211 | RATING (PSI / BAR) |
|---|---|---|---|---|---|---|---|---|---|
| **1/4"** | 8 | 11 | 60 | 68 | 117 | 6.4 | 100 | F03 | 3000 / 207 |
| **3/8"** | 10 | 12.7 | 60 | 68 | 117 | 7.9 | 100 | F03 | 3000 / 207 |
| **1/2"** | 15 | 16 | 65 | 72 | 117 | 11.2 | 150 | F03 / F04 | 3000 / 207 |
| **3/4"** | 20 | 20 | 75 | 79 | 127 | 21 | 200 | F03 / F04 | 3000 / 207 |
| **1"** | 25 | 25 | 85 | 85 | 209 | 34 | 250 | F04 / F05 | 3000 / 207 |
| **1.1/4"** | 32 | 32 | 100 | 88 | 209 | 57 | 330 | F04 / F05 | 2000 / 138 |
| **1.1/2"** | 40 | 38 | 110 | 107 | 259 | 80 | 430 | F05 / F07 | 2000 / 138 |
| **2"** | 50 | 50 | 130 | 116 | 259 | 148 | 550 | F05 / F07 | 2000 / 138 |
| **2.1/2"** | 65 | 65 | 170 | 153 | 333 | 265 | 700 | F07 / F10 | 1500 / 104 |
| **3"** | 80 | 80 | 190 | 165 | 333 | 415 | 900 | F07 / F10 | 1000 / 69 |
| **4"** | 100 | 100 | 220 | 205 | 333 | 780 | 1200 | F10 / F12 | 1000 / 69 |

Ød = bore, L = face to face length, H = centreline to top of handle, W = handle length. Torque shown for greased service. Dimensions are taken from manufacturer data, are nominal and are given for guidance only. Sizes 2.1/2" to 4" are offered against enquiry at the reduced ratings shown.

## ORDERING INFORMATION

| FIELD | OPTIONS |
|---|---|
| Product code | P-0046 |
| Size | 1/4", 3/8", 1/2", 3/4", 1", 1.1/4", 1.1/2", 2" (2.1/2" to 4" on enquiry) |
| Thread | Female NPT |
| Material | ASTM A351 CF8M (SS 316) |
| Operation | Lockable lever standard. Bare stem for actuation on request |
| Order example | **P-0046 / 1" / NPT / LEVER** |

Stock held in Dubai for fast despatch across the UAE and GCC. Contact our sales desk for pricing, availability, actuated packages and certification requirements.

## PRESSURE AND TEMPERATURE

| | |
|---|---|
| 1/4" to 1" | **207 bar (3000 psi) up to 38°C** |
| 1.1/4" to 2" | **138 bar (2000 psi) up to 38°C** |
| 2.1/2" / 3" to 4" | **104 bar / 69 bar up to 38°C** |
| Derating | **Linear above 38°C to approx. 90°C** |

Ratings are read from the manufacturer pressure-temperature chart and are limited by the POM seats. Confirm duty with SWBM before use above ambient temperature.

## TYPICAL APPLICATIONS

- Oil and gas production and wellhead utilities
- Petrochemical and chemical processing
- High pressure water and hydraulic lines
- Automated isolation with pneumatic or electric actuators
- Industrial pipeline systems
- Skid packages and process modules

## COMPLIANCE AND QUALITY

- ISO 5211 direct mounting pad for actuation
- Fire safe certified by the manufacturer
- Anti-static device and blow-out proof stem
- Body, end caps and ball in ASTM A351 CF8M
- Spring loaded graphite stem packing
- Material test certificates available on request

## INSTALLATION AND OPERATION

- Flush the line thoroughly before installation to clear debris, scale and thread swarf
- Install with the valve in the fully open position
- Apply PTFE tape or an approved sealant to the male pipe thread only
- Tighten on the end cap hexagon flats, never on the handle or stem
- Mount actuators directly on the ISO 5211 pad, aligned to the stem flats
- The valve is open when the lever is in line with the pipe, and closed at 90°

COMPANY

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