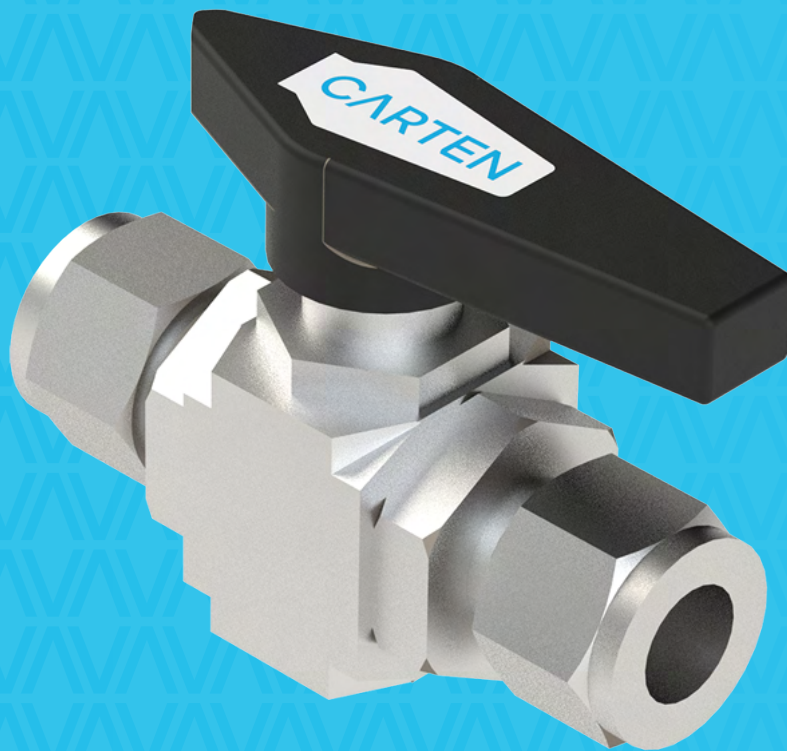


CARTEN

FLOW SOLUTIONS - **WE GO BEYOND**

INTRODUCING CARTEN'S BVM SERIES

1/4 TURN STAINLESS STEEL
2-WAY BALL VALVES



BVM Series

Carten Ball Valves

Semiconductor standards applied to ball valves for the market, twin ferrule compression connections and quarter turn functionality ensures suitability for specified applications.

Key Features

Available in line sizes up to 1"

PTFE internal and external seals

Minimal dead space for POC block configurations

Off-shelf compression fittings standard

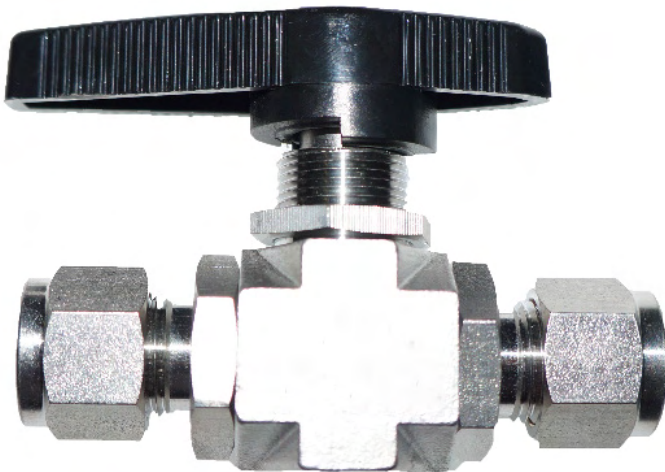
Typical Applications

Vacuum exhaust, CFOS compatibility, low purity gas sticks, low purity laterals POC (low purity), shut - off functionality for gas distribution and low volume abatement.

Key Specifications

| Materials of Construction | Cleanliness | Specifications | Options |
|-------------------------------------|------------------------------------|--|-------------|
| 316 stainless body and ball | Manufactured in Class 10 Cleanroom | Leak tested using Mass spectrometer $<1 \times 10^{-6}$ mbar.l/s | ¼ turn only |
| 316 stainless flange and components | Cleaned for Oxygen Service CFOS | <30Ra micro-inch surface roughness | |
| Cast 316 source | Compression fitting standard | Pressure tested 100% production control | |
| PTFE internal / external seals | Cleaned using 18.2MΩ-cm DI water | 1000p.s.i. operating pressure | |

Material of Construction



| Item | Material |
|------------------|-------------|
| HANDWHEEL | Nylon |
| BODY | St. St. 316 |
| C/LOK CONNECTION | St. St. 316 |
| BALL | St. St. 316 |
| STEM | St. St. 316 |
| STEM PACKING | PTFE |

BVM Series Technical Specifications

| | | |
|-------------------------------|------------|--|
| Maximum Operating Pressure | BVM Series | 0-250 psig (0-17.2 bar) See below for pneumatic actuation pressures |
| Maximum Operating Temperature | PTFE Seat | -65°F (-54°C) to 302°F (150°C) |

| Inch Model | | Cv |
|-------------|-----------|-----|
| Description | Body Size | |
| BVM 250 | 1/4" | 0.7 |
| BVM 375 | 3/8" | 2.0 |
| BVM 500 | 1/2" | 4.2 |
| BVM 750 | 3/4" | 4.2 |
| BVM 1000 | 1" | 9.2 |

| | | |
|------------------|------------------------|--|
| Helium Leak Test | Across the Seat | <1 x 10 ⁻⁶ scc/s He (1 x 10 ⁻⁷ Pa-M ³ /s) |
| | Outboard Pressure Test | <1 x 10 ⁻⁶ scc/s He (1 x 10 ⁻⁷ Pa-M ³ /s) |

| | |
|---------------------------|---|
| Cleanliness and Packaging | Assembled and tested Purged and Finally Double-bag Vacuum Packing in Class 10 Cleanroom. |
|---------------------------|---|

| | |
|-----------------|---|
| Standard Finish | Internal Surface Finish: BA Grade, 30 Ra u.inch Cleaned for Oxygen Service per ASTM G93 process. |
|-----------------|---|

Order Information

Sample: BVM500-1/2" C/LOK

BVM - 500 - 1/2" C/LOK - blank - blank

Manual 1/4 Turn Version - 1/2" - 1/2" Compression Fitting - 1/2" Compression Fitting - Black Handwheel Supplied

| Series | Size | Inlet Connection | Outlet Connection ¹ | Handle Colour ² |
|-------------------------------|------------|------------------|--------------------------------|----------------------------|
| BVM – Manual 1/4 Turn Version | 250 (1/4") | 1/4" C/LOK | 1/4" C/LOK | Black Handwheel Supplied |
| | 375 (3/8") | 3/8" C/LOK | 3/8" C/LOK | |
| | 500 (1/2") | 1/2" C/LOK | 1/2" C/LOK | |
| | 750 (3/4") | 3/4" C/LOK | 3/4" C/LOK | |
| | 1000 (1") | 1" C/LOK | 1" C/LOK | |

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