



CBG SERIES CHECK VALVES

High performance check valves for critical applications

Catalog 4130-CBG | June 2025



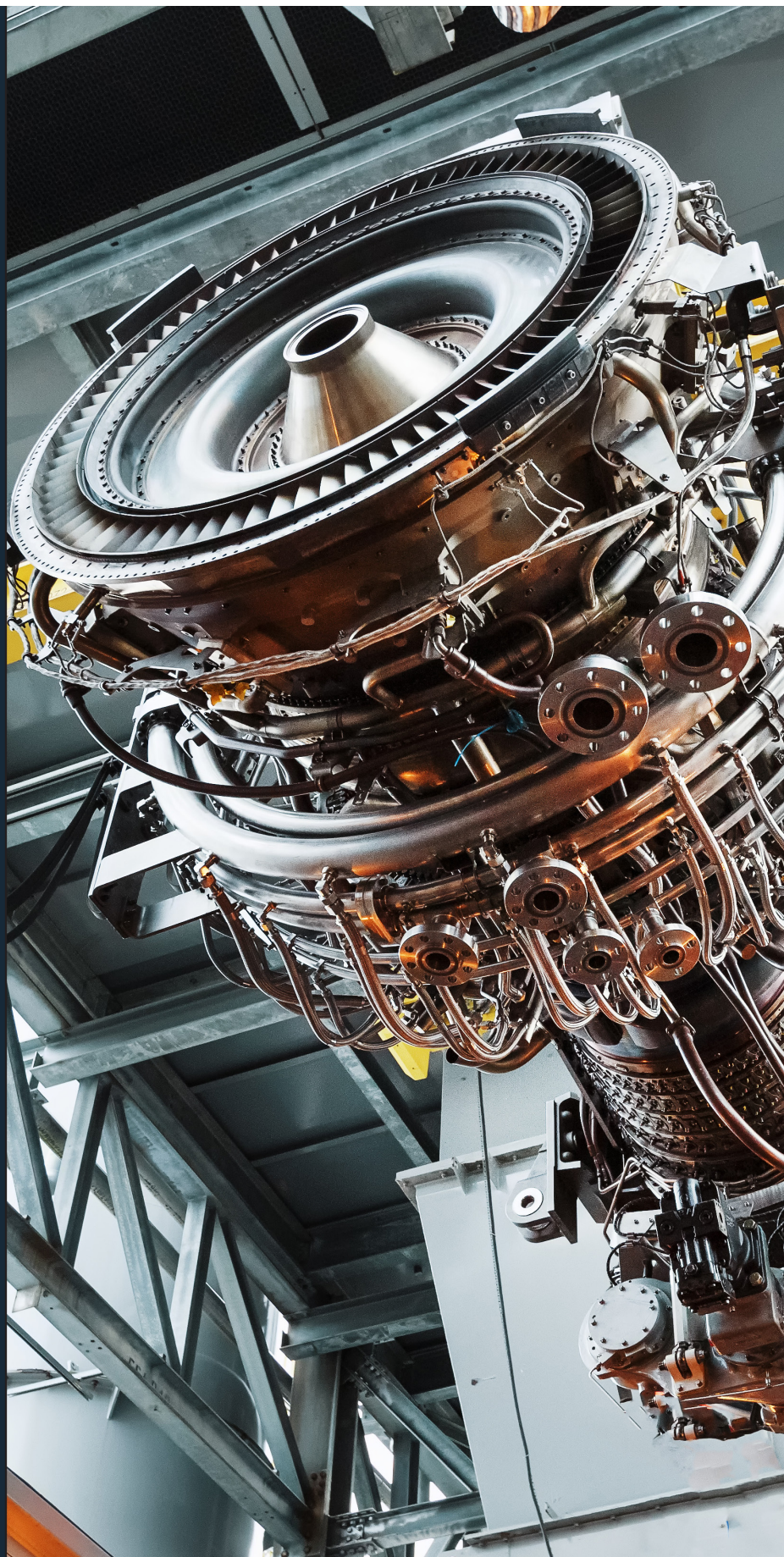
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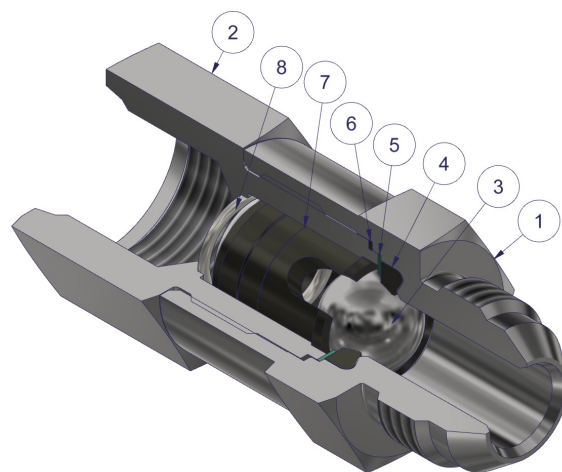
Product Highlights

The Parker CBG Series Check Valves are designed for unidirectional flow control of fluids and gases. The distinctive floating ball valve design combined with resilient reinforced PTFE copolymer seat materials provides for superior zero leakage performance in difficult service conditions in power generation, oil/gas production, and chemical processing. Specifically designed for higher temperature (up to 500°F) dual-fuel gas turbine applications with precise cracking pressures and optional fixed-orifice flow control, these check valves are the superior choice for demanding service conditions.

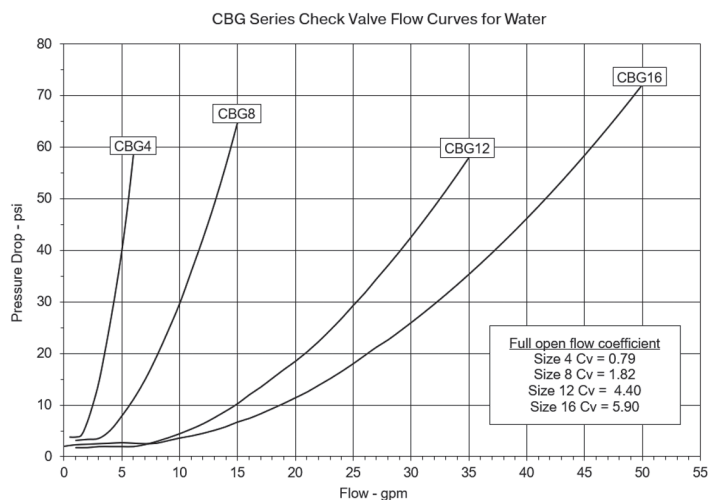
| Features: | Benefits: |
|--|---|
| Patented floating ball design | <ul style="list-style-type: none"> • Self-centering floating ball immune to poppet misalignment problems. • Wedge seat design prevents seat blowout at high flow rates and pressure drops. |
| Reinforced PTFE Copolymer seat materials. | <ul style="list-style-type: none"> • Reliable and consistent bubble tight seal. • High temperature capable up to 500°F. • Best-in-class chemical resistance. • Immune to explosive decompression failure common with elastomer seats. |
| PTFE coated poppet | <ul style="list-style-type: none"> • Smooth and reliable operation, especially with lower crack pressure applications. |
| Custom design development capability for specific OEM applications | <ul style="list-style-type: none"> • For improvements on existing or new system designs. |
| Available in a wide diversity of lengths and end connections | <ul style="list-style-type: none"> • Drop-in replacement. • Eliminates adapter fittings. |

Material of Construction

| Item# | Description | Material |
|-------|--------------|---|
| 1 | Cap | ASTM A479 Type 316 |
| 2 | Body | ASTM A479 Type 316 |
| 3 | Ball | 316 Stainless Steel |
| 4 | Seat | Parkerfill or Parker Carbon Reinforced PTFE Copolymer |
| 5 | Seat Washer | 316 Stainless PTFE Coated |
| 6 | Body Gasket | Grafoil® |
| 7 | Ball Cage | 316 Stainless PTFE Coated |
| 8 | Crack Spring | Inconel or 316 Stainless |

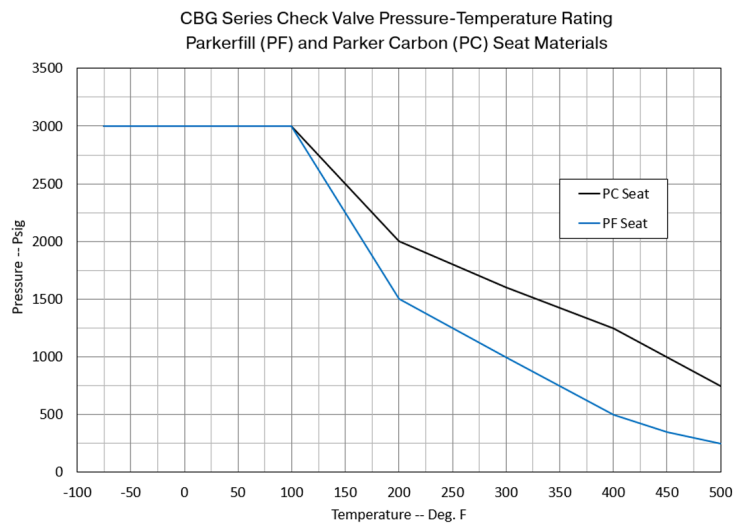


Flow Data



| Valve Size | End Connection Size Range | Recommended Liquid Flow Range |
|------------|---------------------------|-------------------------------|
| CBG4 | 1/4" – 1/2" | 1 – 6 gpm |
| CBG8 | 1/2" – 3/4" | 4 – 15 gpm |
| CBG12 | 3/4" – 1" | 10 – 35 gpm |
| CBG16 | 1" – 1-1/4" | 20 – 50 gpm |

Pressure and Temperature Rating



| Item | Rating |
|--|-------------------------------------|
| Shell Pressure Max. | 5000 psi |
| Parker Carbon Seat Check Pressure Max. | 3000 psi @ 100°F 750 psi @ 500°F |
| ParkerFill Seat Check Pressure Max. | 3000 psi @ 100°F 250 psi @ 500°F |
| Shutoff | Class VI (Bubble Tight) |
| Maximum Temperature | 500°F |

How to Build a Part Number

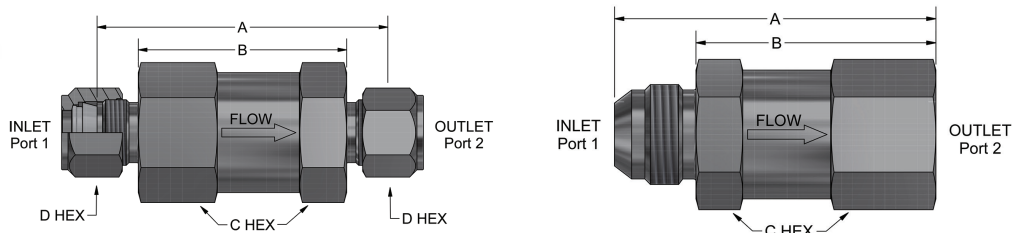
Typical Part Number example: **12X12G5-CBG12L-15-PF-SS**

(part number is created based on customer selection of product parameters, see below for example)

| 12 | X | 12 | G5 | - | CBG12L | - | 15 | - | PF | - | SS |
|-----------------------|---|------------------------|---|---|---------------|---|------------------|---|----------------------------|---|-------------------------------------|
| Inlet Connection Size | Inlet Connection Type | Outlet Connection Size | Outlet Connection Type | - | Valve Series | - | Crack Pressure** | - | Seat Material | - | Body Material |
| 4 1/4" | A Parker A-Lok® | 4 1/4" | A Parker A-Lok® | | CBG4L | | 1 | | PF Parkerfill | | SS 316 Stainless Steel |
| 6 3/8" | Z Parker CPI™ | 6 3/8" | Z Parker CPI™ | | CBG8L | | 5 | | PC Parker Carbon | | |
| 8 1/2" | M Male NPT | 8 1/2" | M Male NPT | | CBG12L | | 10 | | | | |
| 10 5/8" | F Female NPT | 10 5/8" | F Female NPT | | CBG16L | | 15 | | | | |
| 12 3/4" | G5 SAE J1926/2 O-Ring Port | 12 3/4" | G5 SAE J1926/2 O-Ring Port | | | | 20 | | | | |
| 16 1" | F5 SAE J1926/1 O-Ring Port Stud | 16 1" | F5 SAE J1926/1 O-Ring Port Stud | | | | 30 | | | | |
| | X SAE J514 37° Flare | | X SAE J514 37° Flare | | | | 35 | | | | |
| | LO Seal-Lok O-Ring Face Seal | | LO Seal-Lok O-Ring Face Seal | | | | 45 | | | | |
| | LX Seal-Lok Extreme Metal Face Seal | | LX Seal-Lok Extreme Metal Face Seal | | | | 50 | | | | |
| | | | | | | | 100 | | | | |
| | | | | | | | 120 | | | | |

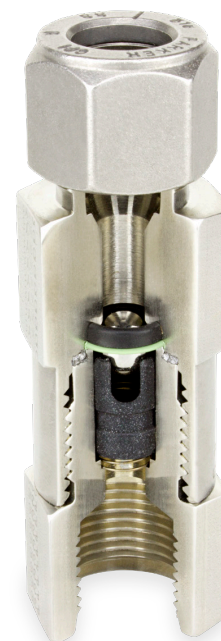
** Listed crack pressures are not available on all valve sizes.

Dimension



| Basic Part Number | End Connections | | Dimensions | | | | Orifice Diameter |
|-------------------|---------------------------|---------------------------|------------|-------|-------|-------|------------------|
| | Inlet Port 1 | Outlet Port 2 | A | B Hex | C Hex | D Hex | |
| CBG4 | | | | | | | |
| 4A-CBG4L | 1/4 A-LOK | 1/4 A-LOK | 2.40 | 1.56 | 1 | 9/16 | 0.187 |
| 4Z-CBG4L | 1/4 CPI | 1/4 CPI | | | | --- | |
| 4M-CBG4L | 1/4 MALE NPT | 1/4 MALE NPT | | | | 2.70 | |
| 4A4F5-CBG4L | 1/4 MALE NPT | 1/4 MALE SAE J1926/2 | 2.40 | | | 9/16 | 0.187 |
| 6A-CBG4L | 3/8 A-LOK | 3/8 A-LOK | 2.67 | 1.74 | 1 | 11/16 | 0.281 |
| 6A6M-CBG4L | 3/8 A-LOK | 3/8 MALE NPT | 2.88 | 1.84 | | | |
| 8A6M-CBG4L | 1/2 A-LOK | 3/8 MALE NPT | 2.70 | 1.66 | | | |
| 8A8G5-CBG4L | 1/2 A-LOK | 1/2 FEMALE SAE J1926/1 | 2.52 | 2.05 | | | |
| 8A-CBG4L | 1/2 A-LOK | 1/2 A-LOK | 2.89 | 1.96 | | | |
| 8Z-CBG4L | 1/2 CPI | 1/2 CPI | 2.89 | 1.96 | | | |
| 8A8M-CBG4L | 1/2 A-LOK | 3/8 FEMALE NPT | 3.00 | 1.75 | | | |
| 8F8M-CBG4L | 1/2 FEMALE NPT | 1/2 MALE NPT | 3.25 | --- | 1-1/4 | --- | |
| 8F-CBG4L | 1/2 FEMALE NPT | 1/2 FEMALE NPT | 3.25 | --- | | --- | |
| CBG8 | | | | | | | |
| 8A-CBG8L | 1/2 A-LOK | 1/2 A-LOK | 3.30 | 2.36 | 1-3/8 | 7/8 | 0.406 |
| 8Z-CBG8L | 1/2 CPI | 1/2 CPI | | | | --- | |
| 10A-CBG8L | 5/8 A-LOK | 5/8 A-LOK | | | | 1 | |
| 10Z-CBG8L | 5/8 CPI | 5/8 CPI | 3.56 | 2.62 | 1-1/8 | --- | 0.437 |
| 12A-CBG8L | 3/4 A-LOK | 3/4 A-LOK | | | | | |
| 12Z-CBG8L | 3/4 CPI | 3/4 CPI | 3.41 | 2.54 | 7/8 | | |
| 8F8M-CBG8L | 1/2 FEMALE NPT | 1/2 MALE NPT | | | | | |
| 12X12G5-CBG8L | 3/4 FLARED 37° SAE J514 | 3/4 FEMALE SAE J1926/1 | 3.41 | 2.94 | 1 | | |
| 8A8G5-CBG8L | 1/2 A-LOK | 1/2 FEMALE SAE J1926/1 | | | | | |
| 10A8G5-CBG8L | 5/8 A-LOK | 1/2 FEMALE SAE J1926/1 | 3.34 | 2.87 | 7/8 | | |
| 10G58A-CBG8L | 5/8 FEMALE SAE J1926/1 | 1/2 A-LOK | | | | | |
| 10G510A-CBG8L | 5/8 FEMALE SAE J1926/1 | 5/8 A-LOK | 3.84 | 3.37 | 1 | | |
| 12A12G5-CBG8L | 3/4 A-LOK | 3/4 FEMALE SAE J1926/1 | | | | | |
| 12F512G5-CBG8L | 3/4 MALE SAE J1926/2 | 3/4 FEMALE SAE J1926/1 | 3.80 | 3.08 | --- | | |
| CBG12 | | | | | | | |
| 12A-CBG12L | 3/4 A-LOK | 3/4 A-LOK | 4.42 | 3.48 | 1-5/8 | 1-1/8 | 0.563 |
| 12Z-CBG12L | 3/4 CPI | 3/4 CPI | | | | | |
| 16A-CBG12L | 1 A-LOK | 1 A-LOK | 4.46 | 3.32 | 1-1/2 | | |
| 16Z-CBG12L | 1 CPI | 1 CPI | | | | | |
| 12X12M-CBG12L | 3/4 FLARED 37° SAE J514 | 3/4 MALE NPT | 4.38 | 2.75 | --- | | |
| 12G512A-CBG12L | 3/4 FEMALE SAE J1926/1 | 3/4 A-LOK | 4.42 | 3.95 | 1-1/8 | | |
| 12G516A-CBG12L | 3/4 FEMALE SAE J1926/1 | 1 A-LOK | 4.51 | 3.76 | 1-1/2 | | |
| CBG16 | | | | | | | |
| 16A-CBG16L | 1 A-LOK | 1 A-LOK | 4.20 | 3.07 | 1-7/8 | 1-1/2 | 0.725 |
| 16Z-CBG16L | 1 CPI | 1 CPI | | | | | |
| 16L-CBG16L | 1 SEAL-LOK ORFS SAE J1453 | 1 SEAL-LOK ORFS SAE J1453 | 4.32 | 2.93 | --- | | |

Other types and arrangements of end connections and valve lengths are available. Contact Parker Instrumentation for availability



If you have questions about the products contained in this catalog, or their applications, please contact:

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