Marine Valves
For Industrial Marine Applications
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Manually Operated Globe Valve

DN15 - 150

The Parker Bestobell range of Stainless Steel, extended globe valves have been designed to eliminate leakages, maximise lifetime operation and reduce maintenance and spares cost for ship operators, whilst providing full compliance with Class requirements.

The range is available with either butt weld or flanged options and utilises Parker Bestobell’s unique independent bonnet and flange design, eliminating leakage through the flange gasket. Coupled with a three stage packing at the top of the stem, Parker Bestobell globe valves are leak free to atmosphere.

The floating disc arrangement provides absolute sealing across the seat, and is designed to provide a tight, leak free shut off whilst still providing compliance with fire safe requirements for LNGC applications. Nitronic steel bushings provide smooth operation without galling problems.

Features

• Designed and manufactured for use on LNGC, FSRU & FLNG in accordance with BS6364
• Full range of Class 150 Stainless Steel extended globe valves. Class 300 available for sizes up to DN100.
• Independent bonnet and flange design
• Floating disc arrangement
• Firesafe graphite gasket
• Firesafe all metal seat design
• Firesafe graphite, carbon, nitronic steel packing at the top of the stem
• Nitronic steel bushings
• Laser etched nameplates
• DN200 – DN350 options available
• Outside screw option available

Technical

• Full material traceability backed by BS EN 10204 3.1/3.2 certification
• Temperature range -196°C to + 80°C
• Available in Butt Weld (ANSI b16.25) and Flange (ANSI B16.5) connections
• Shell wall thickness in accordance with ANSI B16.34
• 316 Stainless Steel construction for marine applications
• Full 3.2 certification to meet Class requirements
Materials

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*Other extensions available

Flanged Ends (Class 150)

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Please contact us for other options.
Cryogenic Actuated Globe Valve

Hydraulically Actuated DN25 - DN350

The Parker Bestobell range of Stainless Steel, extended globe valves have been designed to eliminate leakages, maximise lifetime operation and reduce maintenance and spares cost for ship operators, whilst providing full compliance with Class requirements.

The range is available with either butt weld or flanged options and utilises Parker Bestobell’s unique independent bonnet and flange design, eliminating leakage through the flange gasket. Coupled with a three stage packing at the top of the stem, Parker Bestobell globe valves are leak free to atmosphere.

The all metal seat of the valves are designed to provide a tight, leak free shut off against the valve disc and allow compliance with fire safe requirements for LNGC applications. Nitronic steel, also Aluminum-Bronze, bushings provide smooth operation without galling problems.

The valves can be operated by either a linear or multi-turn hydraulic actuator, and both types are used for throttling and on/off applications. Position control is provide either by a potentiometer or with a torque switch, and On-Off actuation is controlled by limit switches.

Features
- Designed and manufactured for use on LNGC, FSRU & FLNG in accordance with BS6364
- Full range of Class 150 Stainless Steel extended globe valves. Class 300 available for sizes up to DN100.
- Independent bonnet and flange design
- Firesafe graphite gasket
- Firesafe all metal seat design
- Firesafe graphite, carbon, nitronic steel packing at the top of the stem
- Nitronic steel bushings
- Linear and hydraulic motor type actuators available
- Throttling and On/Off functions available
- Laser etched nameplates

Technical
- Full material traceability backed by BS EN 10204 3.1/3.2 certification
- Temperature range -196°C to + 80°C
- Available in Butt Weld (ANSI B16.25) and Flange (ANSI B16.5) connections
- Shell wall thickness in accordance with ANSI B16.34
- 316 Stainless Steel construction for marine applications
- Full 3.2 certification to meet Class requirements
Materials

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Specifications

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*Other extensions available

**Flanged Ends (Class 150)**

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Class 300 valves available on request

Please contact us for other options.
Cryogenic Actuated Globe Valve

Pneumatically Actuated
DN15 - DN150

The Parker Bestobell range of Stainless Steel, extended globe valves have been designed to eliminate leakages, maximise lifetime operation and reduce maintenance and spares cost for ship operators, whilst providing full compliance with Class requirements.

The range is available with either butt weld or flanged options and utilises Parker Bestobell’s unique independent bonnet and flange design, eliminating leakage through the flange gasket. Coupled with a three stage packing at the top of the stem, Parker Bestobell globe valves are leak free to atmosphere.

The all metal seat of the valves are designed to provide a tight, leak free shut off against the valve disc and allow compliance with fire safe requirements for LNGC applications. Nitronic steel bushings provide smooth operation without.

The valves can be operated for throttling and on/off applications. Position control is provide either by a potentiometer, and On-Off actuation is controlled by limit switches.

Features
- Designed and manufactured for use on LNGC, FSRU & FLNG in accordance with BS6364
- Full range of Class 150 Stainless Steel extended globe valves. Class 300 available for sizes up to DN100.
- Independent bonnet and flange design
- Firesafe graphite gasket
- Firesafe all metal seat design
- Firesafe graphite, carbon, nitronic steel packing at the top of the stem
- Nitronic steel bushings
- Throttling and On/Off functions available
- Marine paint option for on deck valves
- Laser etched nameplates

Technical
- Full material traceability backed by BS EN 10204 3.1/3.2 certification
- Temperature range -196°C to + 80°C
- Available in Butt Weld (ANSI b16.25) and Flange (ANSI B16.5) connections
- Shell wall thickness in accordance with ANSI B16.34
- 316 Stainless Steel construction for marine applications
- Full 3.2 certification to meet Class requirements
Materials

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Specifications

Butt Weld Ends (Class 150)

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*Other extensions available

Flanged Ends (Class 150)

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Class 300 valves available on request

Please contact us for other options.
Cryogenic Swing Check Valve

**DN25 - DN350**

Stainless Steel Swing Check Valve with bolted bonnet. Available with flanged end connections, with easy access to the serviceable parts of the valve

The valves are designed and manufactured for use with LNG, LPG and other flammable gas services.

Loose bolted bonnet design allows for thermal expansion and contraction and eliminates leakage at the bonnet gasket.

Shell minimum wall thickness in accordance with B16.34 and optional full material traceability backed by BSEN 10204 3.1/3.2 certification.

Flanged end connections to ANSI B16.5 and Butt Weld end connections to B16.25

**Features**

- 316 Stainless Steel construction for marine applications
- Internal hinge design
- PTFE seal ensures a tight shut off
- Quick removal of headworks allow fast, easy maintenance
- Temperature range -196°C to + 80°C
- Fire safe approved to BS EN ISO 10497:2004
- ISO 9001 accreditation
- General design in accordance with BS6364

**Technical**

- Full material traceability backed by BS EN 10204 3.1/3.2 certification
- Temperature range -196°C to + 80°C
- Available in Butt Weld (ANSI B16.25) and Flange (ANSI B16.5) connections
- Shell wall thickness in accordance with ANSI B16.34
- 316 Stainless Steel construction for marine applications
- Fire safe approved to BS EN ISO 10497:2004
- Full 3.2 certification to meet Class requirements
### Materials

<table>
<thead>
<tr>
<th>1. Body</th>
<th>ASTM A351 CF3M / ASTM A351 CF8M</th>
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Class 300 valves available on request.

Please contact us for other options.
The Parker Bestobell range stainless steel lift check valves have been designed to reduce leakage across the seat, maximise lifetime operation and reduce maintenance and spares cost for ship operators, whilst providing full compliance with Class requirements.

The valve range is available with either butt weld or flanged options designed to ANSI standards, and designed to prevent back flow in LNG systems.

Both the valve disc and the metal seat have a final lapped finish to provide the excellent sealing properties across the seat.

The bolted bonnet headworks provides for quick and easy access for maintenance and servicing of the valves.

**Features**

- Designed and manufactured for use on LNGC, FSRU & FLNG and LNG fuel systems in accordance with BS6364
- Full range of Class150 stainless steel swing check valves. Class 300 available for sizes up to DN100
- Firesafe all metal seat design
- Lapped valve disc and seat
- Bolted bonnet headworks
- Firesafe graphite gasket
- Laser etched nameplates

**Technical**

- Full material traceability backed by BS EN 10204 3.1/3.2 certification
- Temperature range -196°C to + 80°C
- Available in Butt Weld (ANSI b16.25) and Flange (ANSI B16.5) connections
- Shell wall thickness in accordance with ANSI B16.34
- 316 Stainless Steel construction for marine applications
- Full 3.2 certification to meet Class requirements
### Materials

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### Flanged Ends (Class 150)

Please contact us for other options.
Miniature Needle Globe Valve

Bolted Bonnet - Extended and Non-Extended Stem
DN15 - DN25

Stainless Steel extended and non-extended spindle needle globe valve with bolted bonnet and integral metal seat.

Available with socket weld, butt weld and flanged ends, the valve has a conical seat design for a tight shut off. The bolted bonnet allows for simple site maintenance, with easy access to the serviceable parts of the valve.

Features

- Designed and manufactured for use with LNG, LPG and other flammable gas services
- Temperature range -196°C to + 80°C
- 316 Stainless Steel construction for marine applications
- Fire safe approved to BS EN ISO 10497:2004
- Loose bolted bonnet design allows for thermal expansion and contraction and eliminates leakage at the bonnet gasket
- Anti-blow out stem for operator safety
- Rotating disc prevents galling seat contact and reduces wear
- Quick removal of headworks allows fast, easy maintenance

Technical

- Designed and engineered for use with Group 1 gases
- ISO 9001 accreditation- design and manufacture to ASTM B31.1 and BSEN 1626
- Optional full material traceability backed by BSEN 10204 3.1/3.2 certification
- Marking according Pressure Equipment 97/23/EC
- Marking to Directive 99/36/EC only on written request complete with purchase order
Materials

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Specifications

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Flanged Ends (Class 150)

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Please contact us for other options.
Low Pressure

Screw Down Non-return Valve

Inside Screw
DN25 - DN65

Stainless Steel Extended and non-extended stem globe valve with bolted bonnet and available with socket weld and butt weld ends, the valve is of the cone seat design for drop tight shut off. Unique Parker Bestobell loose flange bolted bonnet design allows for thermal expansion and contraction and eliminates leakage at the bonnet gasket.

The bolted bonnet allows easy maintenance, even in confined spaces with lower bolting torques required than for an equivalent size union bonnet valve.

All valves are degreased for oxygen duty, assembled in clean room conditions and pressure tested prior to dispatch.

Limit switches available for position indication.

Features
• Designed and manufactured for use on LNGC, FSRU & FLNG in accordance with BS6364
• Full range of Class 150 Stainless Steel extended globe valves. Class 300 available for sizes up to DN100.
• Independent bonnet and flange design
• Floating disc arrangement
• Firesafe graphite gasket
• Firesafe all metal seat design
• Firesafe graphite, carbon, nitronic steel packing at the top of the stem
• Quick removal of headworks allow fast, easy maintenance
• Nitronic steel bushings
• Laser etched nameplates

Technical
• Class 150 Stainless Steel extended globe valve with bolted bonnet and integral metal seat
• Designed for used with LNG, LPG and other flammable gas service in accordance with BS6364
• Shell wall thickness in accordance with ANSI B16.34
• 316 Stainless Steel construction for marine applications
• Temperature range -196°C to + 80°C
• Full 3.2 certification to meet class requirements
### Materials

<table>
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<td>17.5</td>
<td>19.05</td>
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Weight Kg

| Cv       | US GPM | 13.2 | 26.5 | 47   | 75   |

*Other extensions available*

Please contact us for other options.
Float Level Isolation Valve

DN200 & DN300

FLIV

The Parker Bestobell FLIV valve has been bespoke designed to work in conjunction with Whessoe or Henri secondary float level measurement systems, providing secure isolation of the float from the cargo tank. The FLIV eliminates the problems faced with gate valves of accidental cutting of the float tape that results in both tape and float falling back into the cargo tank.

Should the valve be accidentally closed before the float is fully re-wound, then the closing action of FLIV will result in the tape being trapped on the side of the valve disc rather than being cut, preventing the tape and float from falling back into the cargo tank.

The FLIV is operated by a quarter turn gearbox that has a clear open / shut indicator enabling quick and easy checks on the position of the valve disc. The gearbox is also fitted with ‘padlock flanges’ so that the valve can be locked to preventing unauthorised operation.

The compact design of the FLIV means that a single operative can operate both the valve and the level gauge with ease.

An integral inspection chamber is incorporated in the valve design for the inspection and / or replacement if the float, thus eliminating the need for a separate fabricated component. The FLIV is fire-safe by design using graphite gaskets on all external joints and PTFE/metal-to-metal backup on the disc.

Features

• Designed and manufactured for use on LNGC and FSRU
• 316 Stainless Steel construction for marine applications
• Integral inspection chamber
• Easy use handwheel and gearbox
• Padlock to prevent unauthorized operation
• Open/close indication
• Swing disc operation prevents cutting of float tape

Technical

• Designed and engineered for use with Group 1 gases
• ISO 9001 accreditation- design and manufacture to ASTM B31.1 and BSEN 1626.
• Temperature range -196°C to + 80°C
• Optional full material traceability backed by BSEN 10204 3.1/3.2 certification.
### Materials

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Please contact us for other options.
Cryogenic HP Manual Globe Valve

Class 2500 (370 Bar)
DN15 - 100 (½” - 4”)

The Parker Bestobell range of HP globe valves have been designed specifically for the MAN ME-GI fuel gas systems operating at 320 bar pressure or higher. The range covers all of the necessary manual valve applications within the system.

The range is offered with six CV profiles from 5 USGPM up to 30 USGPM, and three standard body sizes. These will cover both cryogenic and gas phases in the system. Pressure drop can be minimised by selecting the correct CV profile for the system conditions and flow rates. The end connection can then be machined to suit.

The range is available with various size butt weld connections and utilises Parker Bestobell’s unique independent bonnet and flange design that eliminates leakage through the flange gasket. Seat leakage at high pressure is also eliminated through careful lapping of the seat and disc faces.

The valves are available with 400mm extended stem for the cryogenic phase, and short stem for the gas phase or for valves that see low flow conditions in cryogenic service. The smallest body size can be used as an instrumentation valve with NPT connections.

Maximum Working Pressure (MWP)
Up to 370 bar (5366 psi) at -196°C to +80°C

Features
- Unique Bestobell loose flange bolted bonnet design allows for thermal expansion and contraction and eliminates leakage at the bonnet gasket
- Lapped metal-to-metal seat ensures tight shut off at all times
- Valve is fire safe by design
- Designed and engineered specifically for cryogenic service
- Anti-blowout spindle and one-piece high strength design for
- Precision machined one-piece extension tube cover with integral bush for high pressure us
- Fast/easy maintenance of disc
- Long life carbon and graphite gland packing
- Gearboxes available in marine grade paint for on deck applications

Technical
- Designed and engineered for use with LNG.
- Designed and manufactured in accordance with ASTM B31.1, BSEN 1626 and BS ISO 21011.
- Optional full material traceability backed by BSEN 10204 3.1/3.2 certification.
- 316L Stainless Steel construction for marine applications
- Temperature range -196°C to + 80°C

CV15: Pressure Drop v Flow At -163°C LNG
Materials

1. Body SS 316L BSEN 10088-3 1.4401/1.4404
2. Cover SS 316 BSEN 10088-3 1.4401
3. Bonnet Flange SS 316 BSEN 10088-3 1.4401
4. Disc SS 316 BSEN 10088-3 1.4401
5. Stem SS 316 BSEN 10088-3 1.4401
6. Gasket Bonnet SS 316 / Graphite
7. Gland Packing Graphite / Carbon
8. Fasteners SS ASTM A320 B8M (Class 2)
9. Hand Wheel SS ASTM A351 CF8M

Specifications

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End Connections (mm) | DN15,20,25 | DN32,40,50, 65 | DN50,65,80,100
End Connections (Inches) | ½", ¾",1" | 1¼", 1½", 2", 2½" | 2", 2½", 3", 4"
Weight (kg) | 4 | 35 | 35 | 90
Actuation Type | Hand wheel | Hand wheel | Hand wheel | Gearbox

Please contact us for other options.
Cryogenic HP Pneumatic Actuated Globe Valve

Class 2500 (370 Bar)
DN15 - 100 (½” - 4”)

The Parker Bestobell range of HP globe valves have been designed specifically for the MAN ME-GI fuel gas systems operating at 320 bar pressure or higher. The range covers all of the necessary actuated valve applications within the system and allows end users to select on/off or control valves where necessary.

The range is offered with four CV profiles from 5 USGPM up to 30 USGPM, and two standard body sizes. These will cover both cryogenic and gas phases in the system. Pressure drop can be minimised by selecting the correct CV profile for the system conditions and flow rates. The end connection can then be machined to suit.

The range is available with various size butt weld connections and utilises Parker Bestobell’s unique independent bonnet and flange design that eliminates leakage through the flange gasket. Seat leakage at high pressure is also eliminated through careful lapping of the seat and disc faces.

The valves are available with 400mm extended stem for the cryogenic phase, and short stem for the gas phase or for valves that see low flow conditions in cryogenic service.

Maximum Working Pressure (MWP)
Up to 370 bar (5366 psi) at -196°C to +80°C

Features
• Unique Bestobell loose flange bolted bonnet design allows for thermal expansion and contraction and eliminates leakage at the bonnet gasket
• Lapped metal-to-metal seat ensures tight shut off at all times
• Valve is fire safe by design
• Designed and engineered specifically for cryogenic service
• Anti-blowout spindle and one-piece high strength design for operator safety
• Precision machined one-piece extension tube cover with integral bush for high pressure use
• Fast/easy maintenance of disc
• Long life carbon and graphite gland packing
• Actuators available in “fail open” and “fail close” operation
• Actuators available in marine grade paint for on deck applications

Technical
• Designed and engineered for use with LNG.
• Designed and manufactured in accordance with ASTM B31.1, BSEN 1626 and BS ISO 21011.
• Optional full material traceability backed by BSEN 10204 3.1/3.2 certification.
• 316L Stainless Steel construction for marine applications
• Temperature range -196°C to + 80°C

CV15: Pressure Drop v Flow At -163°C LNG

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<tr>
<th>FLOW RATE (kg/hr)</th>
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<tr>
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<tr>
<td>6. Gasket Bonnet</td>
<td>SS 316 / Graphite</td>
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<td>7. Gland Packing</td>
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<td>B</td>
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<td>C</td>
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<td><strong>Max Closing Force</strong></td>
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Please contact us for other options.
The Parker Bestobell range of HP globe valves have been designed specifically for MAN ME-GI fuel gas systems operating at 320 bar pressure or higher. The HP Pressure Control Valve has been specifically designed to fine control pressure in the main line before and after the evaporator.

The valve is designed to reduce pressure in the main fuel line by safely discharging LNG from 320 Bar to less than 10 Bar. The CV has been significantly reduced to prevent excessive pressure loss in the main fuel line. The valve is supplied with a removable orifice plate so that the CV can be adjusted during commissioning if needed. By adjusting the CV allows for fine tuning of the flow rate and pressure drop though the orifice plate to suit operating conditions.

The HP Pressure Control valve is available with various size butt weld connections to suit the pipe size and utilises Parker Bestobell’s unique independent bonnet and flange design that eliminates leakage through the flange gasket. Seat leakage at high pressure is also eliminated through careful lapping of the seat and disc faces. The valves are available with 400mm extended stem for use in the cryogenic phase.

**Maximum Working Pressure (MWP)**
Up to 370 bar (5366 psi) at -196°C to +80°C

**Features**
- Unique Bestobell loose flange bolted bonnet design allows for thermal expansion and contraction and eliminates leakage at the bonnet gasket
- Removable orifice plate to adjust flow and pressure drop
- Discharge cage to reduce sound and cavitation
- Lapped metal-to-metal seat ensures tight shut off at all times
- Valve is fire safe by design
- Designed and engineered specifically for cryogenic service
- Anti-blowout spindle and one-piece high strength design for operator safety
- Precision machined one-piece extension tube cover with integral bush for high pressure use
- Fast/easy maintenance of disc
- Long life carbon and graphite gland packing
- Actuators available in “fail open” and “fail close” operation

**Technical**
- Designed and engineered for use with LNG.
- Designed and manufactured in accordance with ASTM B31.1, BSEN 1626 and BS ISO 21011.
- Optional full material traceability backed by BSEN 10204 3.1/3.2 certification.
- 316L Stainless Steel construction for marine applications
- Temperature range -196°C to +80°C

---

![CV vs Disc Lift at -165°C LNG](image-url)

---

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Materials

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Please contact us for other options.
Cryogenic HP On/Off Pump De-Gassing Valve

Class 2500 (370 Bar)
DN15 - 25 (½” - 1”)

The Parker Bestobell range of HP globe valves have been designed specifically for MAN ME-GI fuel gas systems operating at 320 bar pressure or higher. The HP De-Gassing valve has been specifically designed for use in the pump startup loop of the HP fuel gas system to remove pressure from the pump as it builds up system pressure. It is also required to operate during the pump shutdown.

The valve is designed to reduce pressure in the main fuel line by safely discharging LNG from 320 Bar to less than 10 Bar through the return pipe to the LNG tank. The CV has been significantly reduced to prevent excessive pressure loss in the main fuel line. The valve is supplied with a removable orifice plate so that the CV can be adjusted during commissioning if needed. By adjusting the CV allows for fine tuning of the flow rate and pressure drop through the orifice plate to suit operating conditions.

The HP De-Gassing valve is available with various size butt weld connections to suit the pipe size and utilises Parker Bestobell’s unique independent bonnet and flange design that eliminates leakage through the flange gasket. Seat leakage at high pressure is also eliminated through careful lapping of the seat and disc faces. The valves are available with 400mm extended stem for use in the cryogenic phase.

Maximum Working Pressure (MWP)
Up to 370 bar (5366 psi) at -196°C to +80°C

Features
- Unique Parker Bestobell loose flange bolted bonnet design allows for thermal expansion and contraction and eliminates leakage at the bonnet gasket
- Removable orifice plate to adjust flow and pressure drop
- Discharge cage to reduce sound and cavitation
- Lapped metal-to-metal seat ensures tight shut off at all times
- Valve is fire safe by design
- Designed and engineered specifically for cryogenic service
- Anti-blowout spindle and one-piece high strength design for operator safety
- Precision machined one-piece extension tube cover with integral bush for high pressure use
- Fast/easy maintenance of disc
- Long life carbon and graphite gland packing
- Actuators available in “fail open” and “fail close” operation
- Actuators available in marine grade paint for on deck applications

Technical
- Designed and engineered for use with LNG.
- Designed and manufactured in accordance with ASTM B31.1, BSEN 1626 and BS ISO 21011.
- Optional full material traceability backed by BSEN 10204 3.1/3.2 certification.
- 316L Stainless Steel construction for marine applications
- Temperature range -196°C to + 80°C
### Materials

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<td>Closing Force</td>
<td>kN</td>
<td>20</td>
<td>-</td>
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Please contact us for other options.
Cryogenic HP Lift Check Valve

Class 2500 (370 Bar)
DN15 - 100 (½” - 4”)

The Parker Bestobell range of HP globe valves have been designed specifically for the MAN ME-GI fuel gas systems operating at 320 bar pressure or higher. The range covers all of the necessary check valve applications within the system.

The range is offered with four CV profiles from 5 USGPM up to 30 USGPM, and two standard body sizes. These will cover both cryogenic and gas phases in the system. Pressure drop can be minimised by selecting the correct CV profile for the system conditions and flow rates. The end connection can then be machined to suit.

The range is available with various size butt weld connections and utilises Parker Bestobell’s unique independent bonnet and flange design that eliminates leakage through the flange gasket. Seat leakage at high pressure is also eliminated through careful lapping of the seat and disc faces.

The lift check valves are suitable for use in both cryogenic and gas phases.

Maximum Working Pressure (MWP)
- Up to 370 bar (5366 psi) at -196°C to +80°C

Features
- Unique Bestobell loose flange bolted bonnet design allows for thermal expansion and contraction and eliminates leakage at the bonnet gasket
- Lapped metal-to-metal seat ensures tight shut off at all times
- Valve is fire safe by design
- Designed and engineered specifically for cryogenic service
- One-piece high strength design for safety
- Precision machined one-piece body and extension tube cover with integral bush for high pressure use.
- Fast/easy maintenance of disc
- Vented disc to prevent locking in the open position and ensures fast reaction closing under back pressure.

Technical
- Designed and engineered for use with LNG.
- Designed and manufactured in accordance with ASTM B31.1, BSEN 1626 and BS ISO 21011.
- Optional full material traceability backed by BSEN 10204 3.1/3.2 certification.
- 316L Stainless Steel construction for marine applications
- Temperature range -196°C to + 80°C

CV15: Pressure Drop v Flow At -163°C LNG

![Graph showing pressure drop vs flow rate at -163°C LNG]
Materials

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</table>

Please contact us for other options.
Sales Offices Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai
Tel: +971 4 8127100
parker.me@parker.com

AT – Austria, Wiener Neustadt
Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt
Tel: +43 (0)2622 23501 900
parker.easteurope@parker.com

AZ – Azerbaijan, Baku
Tel: +994 50 2233 458
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles
Tel: +32 (0)67 280 900
parker.belgium@parker.com

BG – Bulgaria, Sofia
Tel: +359 2 980 1344
parker.bulgaria@parker.com

BY – Belarus, Minsk
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

CH – Switzerland, Etoy
Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com

CZ – Czech Republic, Klecany
Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst
Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid
Tel: +34 902 330 001
parker.spain@parker.com

FI – Finland, Vantaa
Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine s/Arve
Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Athens
Tel: +30 210 933 6450
parker.greece@parker.com

HU – Hungary, Budaörs
Tel: +36 23 885 470
parker.hungary@parker.com

IE – Ireland, Dublin
Tel: +353 (01) 466 6370
parker.ireland@parker.com

IL – Israel
Tel: +972 02 45 19 21
parker.israel@parker.com

IT – Italy, Corsico (MI)
Tel: +39 02 45 19 21
parker.italy@parker.com

KZ – Kazakhstan, Almaty
Tel: +7 7273 561 000
parker.easteurope@parker.com

NL – The Netherlands, Oldenzaal
Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Asker
Tel: +47 66 75 34 00
parker.norway@parker.com

PL – Poland, Warsaw
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal
Tel: +351 21 999 7360
parker.portugal@parker.com

RO – Romania, Bucharest
Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow
Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga
Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SK – Slovakia, Banská Bystrica
Tel: +421 484 162 252
parker.slovakia@parker.com

SL – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parker.slovenia@parker.com

TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com

UA – Ukraine, Kiev
Tel: +38 (0)22 573 24 00
parker.poland@parker.com

UK – United Kingdom, Warwick
Tel: +44 (0)1926 317 878
parker.uk@parker.com

ZA – South Africa, Kempton Park
Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario
Tel: +1 905 693 7777

CN – China, Shanghai
Tel: +86 21 2899 5000

HK – Hong Kong
Tel: +852 2428 8008

IN – India, Mumbai
Tel: +91 22 6513 7081-85

JP – Japan, Tokyo
Tel: +81 (0)3 6408 3901

KR – South Korea, Seoul
Tel: +82 2 559 0400

MY – Malaysia, Shah Alam
Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington
Tel: +64 9 574 1744

SG – Singapore
Tel: +65 6887 6300

TH – Thailand, Bangkok
Tel: +662 186 7000

TW – Taiwan, Taipei
Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129

BR – Brazil, Sao Jose dos Campos
Tel: +55 800 727 5374

CL – Chile, Santiago
Tel: +56 2 623 1216

MX – Mexico, Toluca
Tel: +52 72 2275 4200

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Parker Hannifin Manufacturing Ltd
Instrumentation Products Division
Europe
President Park, President Way
Sheffield S4 7UR
United Kingdom
Tel: +44 114 224 0000
www.parker.com/ipd

EMEA Product Information Centre
Free phone: 00 800 27 27 5374
(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

US Product Information Centre
Toll-free number: 1-800-27 27 537
www.parker.com