

Technical Information

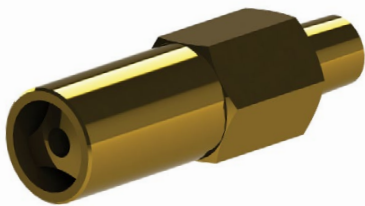
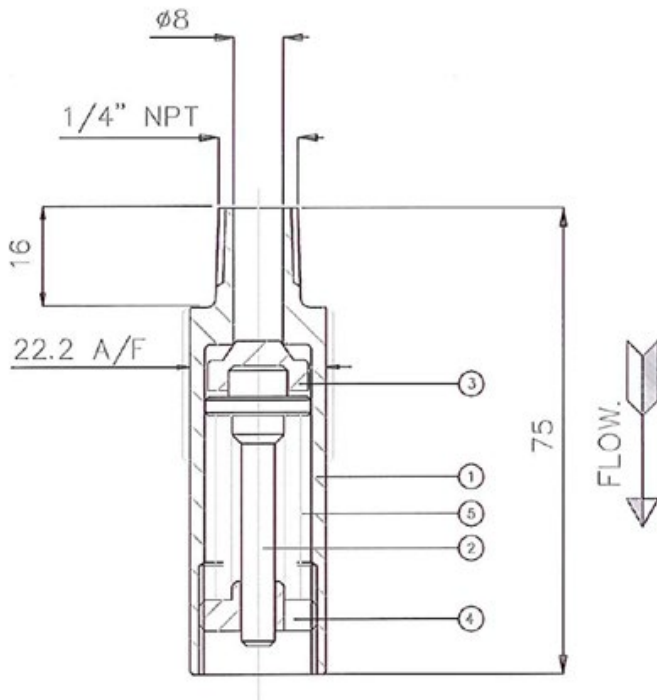
- Maximum Working Pressure up to 40 bar (580 psi) at -196°C to 65°C
- Designed and engineered for use with Group 1 gases.
- Designed and manufactured in accordance with ASTM B31.1, BS EN 1626 and BS ISO 21011
- Optional full material traceability backed by BS EN 10204 3.1/3.2 certification.

Operational Notes

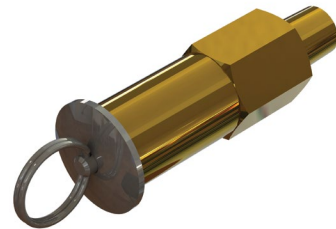
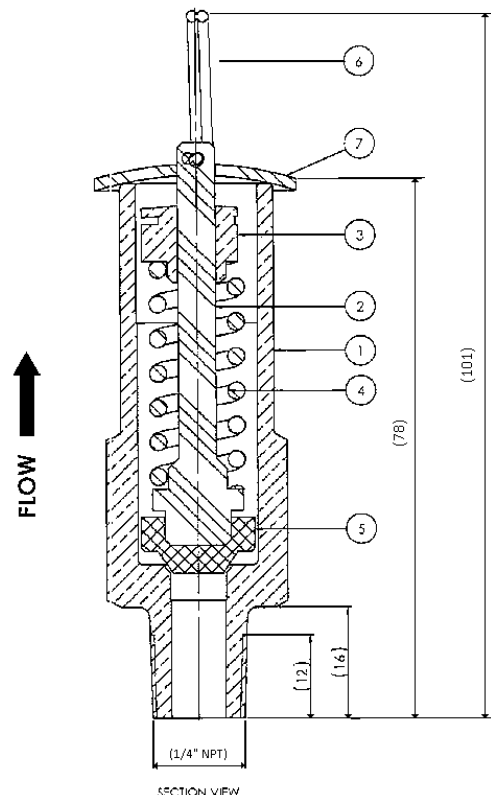
- Set pressures are accurate to +/- 3%
- Full flow at 10% accumulation
- Valve to close within 50% of set pressure
- Valve to seal tight up to 90% of set pressure

Outlet Options

Open to Atmosphere Outlet with 1/2" NPT Inlet



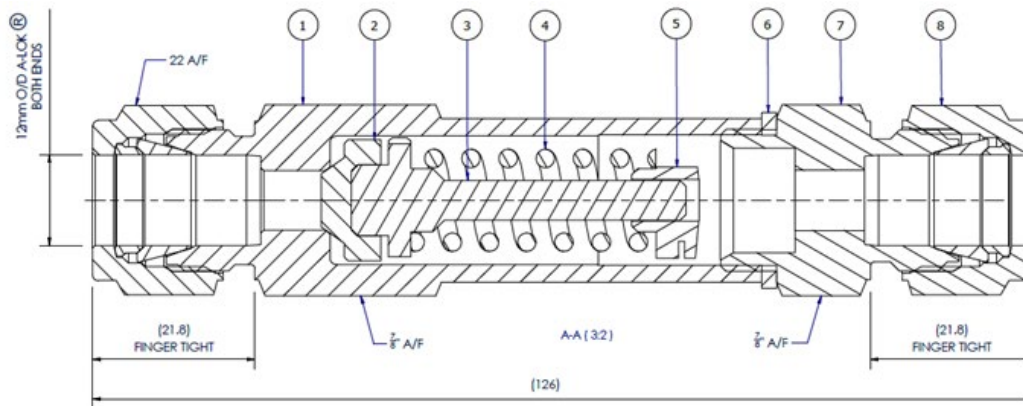
Ring Pull Outlet with 1/4" NPT Inlet



WARNING

The products described in this catalog can expose you to chemicals, including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.p65warnings.ca.gov.

A-LOK® Two Ferrule Fitting



Installation

Read & understand these instructions before installing the valve.

Improper installation, operation or maintenance of this valve can result in personal injury.

Only use genuine Parker Bestobell Valves spares to ensure safe & optimum performance.

Before installation of the valve into the system, ensure system is de-pressurised or isolated for the duration of the installation.

Wear Safety glasses & gloves during installation.

It is essential that installer & operator are conversant with all Safety issues relating to the medium within the system, e.g. asphyxiation from exhaust gases (See guidance notes and/or codes of practice published by relevant authorities e.g. Compressed Gas Association).

Hazards

- **Jet reaction**

If 10/12mm diameter copper warm up legs are used without restraint, then the ring pull or shrouded outlet version should be used to prevent bending due to jet reaction

- **Excessive loads**

Adjacent pipe work should be anchored to minimise pipe work forces acting on valve.

- **Cryogenic burns**

Can occur if the valve is handled during or after the valve has operated.

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- **Noise levels**

During the valve operation can exceed 85dB, therefore the necessary precautions should be carried out to avoid hearing damage.

- **Asphyxiation**

Can occur in confined spaces with certain gases during the operation of the valve.

- **Leaks**

Potential minor leaks from the outlet side of the valve may cause a hazard if allowed to accumulate in confined areas – but are safe when dissipating to atmosphere, therefore confined installation areas are to be avoided. Alternatively, thorough ventilation must be provided.

To minimise leaks, it is advised that the valve be fitted to a warm up leg. This is to avoid the temperature cycling due to the process flow conditions.

Leaks or exhaust gases from flammable gases such as CH₄ should warrant extreme caution. Areas should be well ventilated with notices stating No Naked Flames Allowed.

Consideration should be given to the effects on the environment.

Cleanliness

The valve is supplied in an airtight plastic bag in a 'clean for oxygen use' condition. It is essential to maintain this cleanliness throughout all stages of installation, with particular care not to contaminate internals of valve i.e. grease, moisture, grinding dust, weld/brazing splatter. Clean practices will save you time later with reduced 'flushing' and maintenance.

Gases To Be Used

This valve should only be used with the following media:

O₂, N₂, CO₂, He, Ar, SF₆, CH₄

Installation Instructions

The valve is **ONLY** to be used for the venting of trapped liquid in pipelines, including pipework on pressure vessels, but is not for use in venting the pressure vessel itself.

Note: ensure area for valve installation is adequate for its removal.

Pipe work on the inlet and outlet should be designed to minimise pressure drop. Attention should be paid to minimising sharp changes of direction in connecting pipe work and the use of any fitting, which may cause excessive obstruction to flow.

Pipe work on the outlet should be arranged to prevent the ingress of moisture as this may freeze and inhibit correct functioning of the valve. The outlet of the valve must not be restricted by any means, as this could also inhibit the correct functioning of the valve. Exhaust gases must not be vented onto any surface that maybe affected by localized freezing.

Connecting pipe work should be thoroughly cleaned before fitting the relief valve.

To stop moisture entering the valve, the outlet should point downwards.

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Pipe work on the outlet side should be arranged to prevent the ingress of moisture as this may freeze and inhibit the correct functioning of the valve. The outlet of the valve must not be restricted in any means, as this could also inhibit the correct functioning of the valve.

Exhaust gases must not be vented onto any surface that may be affected by localised freezing.

Connected pipe work must be thoroughly cleaned before fitting the valve.

If the valve is to be used in areas where extreme atmospheric or seismic conditions could occur, please contact Parker Bestobell.

STEP 1:

Ensure all end connections to the valve are in line. This will reduce unwanted stresses in the valve and system pipe work.

STEP 2 (Taper threaded end connections):

For valves with taper threaded connections, the torque figures in Table 1 below should not be exceeded.

Hand tighten end connections to reduce risk of cross-threading before finally tightening to the torque figures in Table 1.

NOTE: Carelessly applied thread tape entering the nozzle of the valve is the most common form of valve failure.

STEP 2 (Parallel threaded end connections):

Tighten end connections to the figures in Table 1 below. These figures should not be exceeded.

STEP 2 (A-LOK® end connections):

See separate section below on the connection to A-LOK® fittings

Table 1 – Threaded End Connection Maximum Torque Settings

Thread Size	Maximum Torque
¼ " BSP	54 Nm
½ " BSP	68 Nm
¼ " NPT	54 Nm
¼ " NPT	68 Nm

STEP 3:

Before introducing pressure to the valve, carry out a thorough inspection of all connections. Once pressure is introduced to the valve, a method appropriate to the medium being carried by the system should be employed to test for leaks.

WARNING

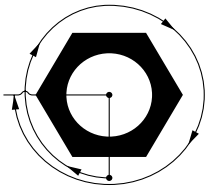
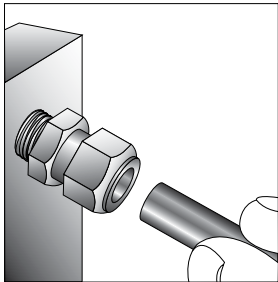
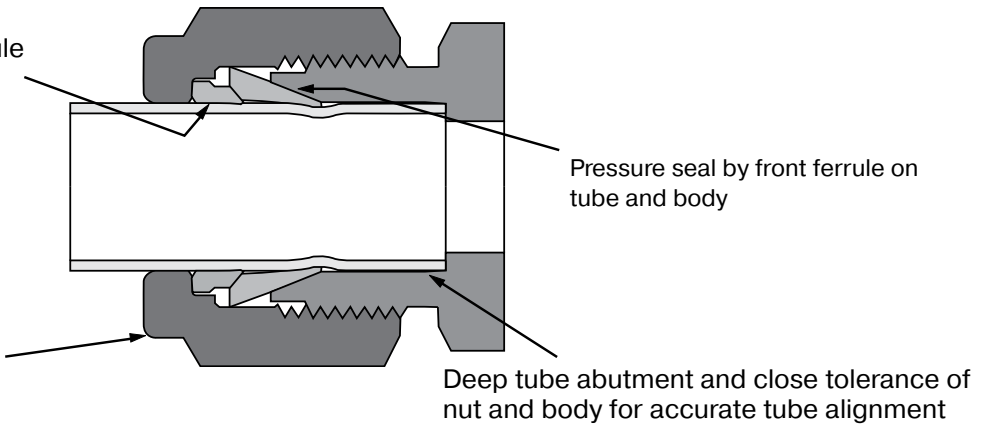
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CAUTION! NEVER USE HANDS TO TEST FOR LEAKS

A-LOK® Connections

The Parker Suparcase® back ferrule provides a strong mechanical and anti-vibration hold on the tube.

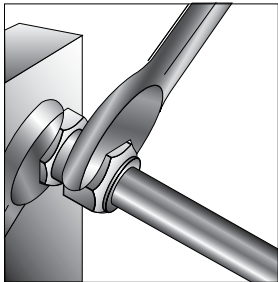
Parker's high quality, silver plated nut ensures no galling of body threads



The Parker A-LOK® connections are provided completely assembled and ready for immediate use.

Simply insert the tube as illustrated below until it bottoms in the fitting body (If the fitting is disassembled, note that the small tapered end of the ferrule(s) go into the fitting body).

Tighten nut finger tight. Then tighten nut with wrench an additional 1 ¼ turns as illustrated. Hold fitting body with a second wrench to prevent body from turning. It is helpful to mark the nut to facilitate counting the number of turns



Maintenance

The Thermal Relief Valve is designed to be maintenance free.

For refurbishment or replacement contact your local Parker distributor.

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