

PGV-S-HF (High-Flow) Packer Gas Vent Valve



Applications:

- Sweet to moderately corrosive environments
- Gas lift installations
- Wide range of setting depths
- Electrical submersible pump installations

Benefits:

- Adapts to multi-bore packers
- Predictable operation
- Decreased friction
- Reduced hydraulic chamber area
- Deeper setting depths
- Erosion resistant flow path

Features:

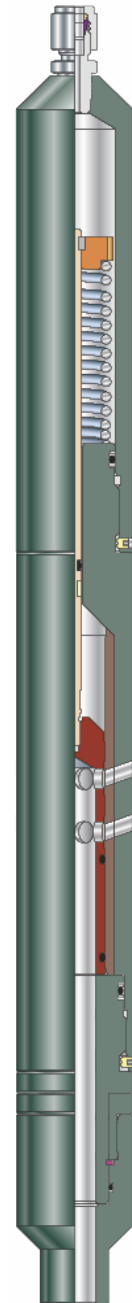
- Unique sleeve-closure system
- Proven rod-piston actuation system
- Erosion Resistant materials in gas flow path
- Radial adjustability after make-up to packer

Description:

The Camco* PGV-S-HF High Flow sleeve-closure type Packer Gas Vent valve is a High Flow erosion resistant valve that isolates annular flow below the packer. The PGV-S-HF is designed to control the flow of annular vent gas in electrical submersible pump installations and injection gas in High volume gas lift installations. The internal components of the High-Flow PGV are specially coated and or protected by erosion resistant material sleeves to extend valve life. The PGV-S-HF valve is commonly attached to the top of multi-bore packer. The packer blocks annular flow, provides a path for produced fluids, ESP power cable access, and a vent path for separated gas and/or break-out gas in ESP applications. The PGV-S-HF is normally installed with a dedicated hydraulic control line for positive surface control of the gas vent safety valve. The PGV-S-HF is rated to 5,000 psi [34,474 kPa] working pressure.

The PGV-S-HF valve design features an innovative sleeve-closure system. The proven rod-piston hydraulic actuation system provides predictable operation, decreased friction, a reduced hydraulic chamber area, and deeper setting depths than valves with concentric operating pistons.

The PGV-S-HF gas vent safety valve is adapted for high flow rates. The internal sleeve located in the valve housing and the valve closure sleeve are constructed of a high density, erosion resistant ceramic material to protect the valve's flow ports against erosion due to high velocity flow rates. Additionally, the valves exhaust ports can be radially oriented, after make-up to the packer and before tightening the hydraulic control line, to enable outflow from the valve to be directed away from the well tubing and casing.

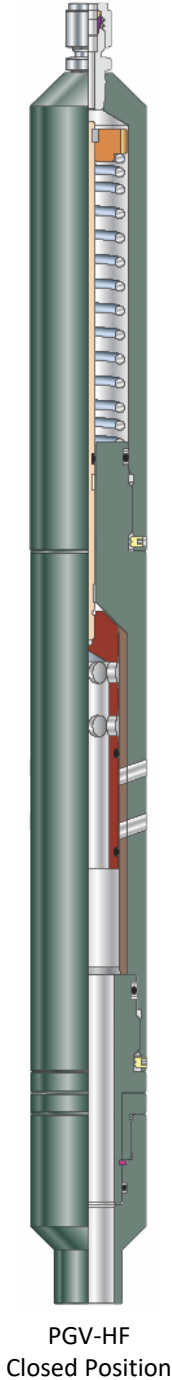


PGV-S-HF
Open Position



Q1-0099

PGV-S-HF (High-Flow) Packer Gas Vent Valve



Operation:

Open

When the valve is open, annular gas flows through the packer and valve. It exits into the casing annulus above the packer through the ports in the valve body.

Close

If hydraulic control line pressure is lost for any reason, a spring-loaded flow tube moves upward allowing the sleeve to close and shut in the annulus below the packer.

Engineering Data[†]:

Flow Area (Bore) In ² [mm ²]	Flow Area (Ports) In ² [mm ²]	Flowtube Travel in. [mm]	Hydraulic Chamber Area in. [mm]	Over All Length in [mm]	Max OD in [mm]	Min ID in [mm]
0.484 [312.3]	0.484 [312.3]	0.960 [24.4]	0.039 [251.6]	16.540 [420.1]	1.785 [43.6]	0.785 [19.9]

Lower Connection NPT in [mm]	Hydraulic Connection NPT in [mm]	Working Pressure psi [kPa]	External Parts	O-ring/ Back-ups	Tee Seal/ Back-ups
0.750 [20]	0.250 [8]	7,500 [51,710]	410/13Cr	Viton [®] / PEEK [®]	Viton [®] /Teflon [®]

Max Differential Pressure psi [kPa]	Max Differential Operating Pressure psi [kPa]	C/L Pressure to Open Against Max Setting Depth Spring psi [kPa]
5,000 [34,474]	4,500 [31,026]	8,000 [55,158]

Test Pressure (Hydraulic Chamber) psi [kPa]	Full Open Pressure psi [kPa]	Full Closed Pressure psi [kPa]
12,500 [86,185]	3.000 [20,684] †	1,500 [10,342] †

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† Opening and closing pressure are dependent on setting depth and fluid gradient. The engineering data provided illustrate the scope of this product offering and are not all inclusive. Additional sizes and pressure ratings are available upon request.

Direct request for quotations to: product.sales@tejasre.com