

Flange Insulation Kits

HPG-OP One-piece Orifice Plate

TECSON[®]

HPG One-Piece Orifice Plate

Description:

HPG-OP is a one-piece isolating and sealing orifice plate design for pipeline flow restriction. HPG-OP incorporates spring-energized PTFE radial face seals or elastomeric o-ring seals which are completely encapsulated in a composite seal retainer which makes the orifice plate one-piece and simple to install. This eliminates the need for conventional orifice plates, plate holders and separate gaskets. This orifice plate design substantially reduces residual flange/bolt stress in orifice flanges and improves overall sealing performance under even the most extreme operating conditions in all hydrocarbon production, injection and process applications.

Advantages:

- One-piece, self-contained plate and seal design (replaces and retrofits conventional plate and ring-joint plate holder designs).
- Available for Orifice Fittings and Orifice Flanges .
- Flow Restriction Orifice Plates available with any Beta Orifice Size .
- Integrated Spring-energized radial face seals insure high integrity / maintenance free / pressure-energized sealing.
- Integrated composite seal retainer mitigates galvanic corrosion in dissimilar metal fittings and flanges.
- Protects flanges from media induced corrosion and flow-induced erosion in Orifice flanges .
- Decreases flange / bolt makeup stresses in Orifice flanges.
- Increases flange pressure sealing capabilities in Orifice flanges.
- Increases flange / bolt external (bending and tension) load bearing capabilities in Orifice flanges.
- Easy installation and removal.
- Reusable Orifice plate / seal retainer and seals.



Application:

- Hydrocarbon production
- Hydrocarbon Injection
- Hydrocarbon Processing

Supply Specification:

HPG-OP comprised of a alloy steel plate bonded to a G-10 fiber glass reinforced laminate. The orifice plate will be either .260" thick or .308" thick. The sealing surface will contain a precision tapered groove to accommodate the controlled compression of a PTFE spring energized seal. Sealing element placement shall accommodate either flat, raised or RTJ face flanges. The PTFE seal shall be spring and pressure energized. The G-10 retainer shall have a 800 volts/mil dielectric strength and a minimum 65,000 psi compressive strength.