Garlock Compression Packing

Style 1303-FEP Braided Packing

Description

The Style 1303-FEP packing is manufactured from flexible graphite yarn contained by an INCONEL filament jacket. This INCONEL wire filament is only 0,1 mm diameter and making the finished braid non-abrasive to valve stems. The packing minimizes valve emissions and reduces actuation forces.

Due to inconel meshing the packing has a high pressure and is used up to 690 bar dependent on the application and size.

Main Segments

» Valve OEM
» Chemical Industries
» Oil and Gas
» Critical Service
» Maintanance

Certificates/Declarations*

» TA-Luft certification
» ISO 15848-1
» API 622 third version
» „Fire-tested" API 589 and 607
» ChevronTexaco Test Standard

Key Benefits

» Suitable for many different industry low emission standards
» Dual type corrosion resistance available
» Available as boxes and die formed rings
» Low percent of PTFE content
» TA-Luft certification
» API 622 third version
» „Fire-tested" API 589 and 607

Features*

» Available as set and boxes
» Temperature: -200 °C to +455 °C in steam up to +650 °C
» Pressure: up to 690 bar
» pH full range 0 – 14

* Depending on product and application details.

Important information for installation

» The set needs to be installed one ring at a time, with each ring firmly compressed after installation.

» Apply compression to the lower rings in the set when possible. If the gland follower will reach down to contact the second ring, then use it to apply compression by tightening down on the gland bolts to the minimum recommended torque (see below section). If the gland follower does not contact the second packing ring, then insert a proper size bushing in the stuffing box and again, apply compression by tightening down on thegland bolts to the minimum recommended torque. Remove this bushing after the compression step.

» Do this steps until all rings are installed: If a torque wrench is not readily available, a work around compromise would be to apply 30% compression by braided and 15% compression by die formed rings to the set.

Estimated Force Formulars for Style 1303-FEP

Estimated Reciprocating Frictional Force Formular for Style 1303-FEP

$$F = \pi * d * H * LF * 450$$

F = Calculated Friction Force (N)
d = Stem Diameter (mm)
H = Uncompressed Packing Height (mm)
LF = Load Factor 586 (bar) or 1.5 x system pressure if this is higher

Estimated Rotating Frictional Torque Formula for Style 1303-FEP in order to estimate the amount of frictional torque on the stem, we simply assume that the above force will act in a different direction. Taking this force and multiplying it by the moment arm that it acts on (d/2), we estimate the stem torque with the following equation.

$$T = \frac{\pi * d * H * LF * 450}{4000000}$$

Where = Calculated Frictional Torque (Nm)