Seal-Lok Troubleshooting Guide

O-Ring Face Seal

CONDITION	PROBABLE CAUSE(S)	RECOMMENDATION
Immediate leakage when system is pressurized	• Improper tightening of joint	• Check for O-ring damage and re-tighten connection to the recommended torque value
Under-flanged assembly	• Undersized tube diameter resulting in tube slippage during flanging • Die gripping surface is worn or dirty	• Verify that the O.D. is correct; if undersized, replace tube. • Inspect die gripping surface; if clogged or excessively worn, clean or replace.
Over-flanged assembly	• Sleeve is positioned incorrectly in die	• Check for proper positioning of sleeve in die; if over-flanged, replace tubing
Flange out-of-round	• Tubing was not cut properly • Tube was not properly supported during flanging • Tubing is eccentric	• Cut tubing within 90° ±1° • Support tubing so that tube end is perpendicular to tube stop during flanging • Replace with quality tubing • Replace out-of-round flanges
Cracked flange	• Tubing too hard	• Replace tubing using recommended quality tube
Scored, pitted flange	• Improper deburring and cleaning of tube prior to flanging • Flange pin not cleaned and lubricated properly	• Replace flange using proper deburring and cleaning recommendations • Keep flanging pin clean and working surfaces well lubricated.
Leakage at braze joint	• Poor braze joint/improper joint clearance • Mixing of sleeve and tube material • Improper/inadequate flux, braze alloy overrun, or buildup on face • Improper/inadequate braze temperature	• Flux and reheat the joint, remove and replace with new sleeve • Always use steel sleeves with steel tubing and stainless sleeves with stainless tubing • Apply flux liberally to sleeve and tube end prior to brazing. Use recommended flux, braze alloy and brazing temperature.
Leakage at face-seal end	• Misalignment or improper fit • Damaged, pinched, improper, or missing O-ring • Extruded O-ring • Damaged fitting • Braze overflow on sealing surface	• Align tube end and connecting fitting properly before tightening tube nut, holding the flat face of the mating fitting against O-ring while tightening • Replace O-ring, properly installing it in the face seal groove • Replace O-ring and check for proper alignment and pressure surges exceeding rated pressure of fitting; tighten the nut to recommended torque or replace fitting if threads or sealing surface is grossly damaged. • Remove and replace sleeve which has braze overflow on its sealing surface.

Table T16 – Seal-Lok Troubleshooting guide

Dimensions and pressures for reference only, subject to change.