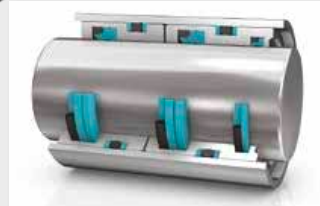
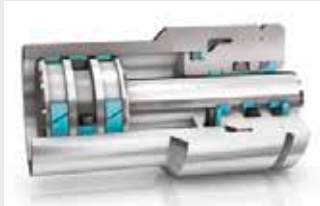


# Turcon® HST Face Seal

DESIGNED SPECIFICALLY FOR AS6235  
AEROSPACE GLANDS



## Enhanced face seal capabilities for aerospace applications

The AS6235 is an SAE aerospace standard for face seal gland designs. Specifically designed to meet this standard, the Turcon® HST Face Seal has increased elastomer squeeze compared to an O-Ring and incorporates a Back-up Ring for extrusion protection.

The Turcon® HST Face Seal consists of an L-shaped elastomer sealing element supported by a solid Turcon® Back-up Ring. At zero or low pressure operation, the L-shaped elastomer element functions as a positive sealing element. Its flat sealing surface provides an increased elastomer contact area, as well as, a more uniform distribution of sealing forces when compared to an O-Ring.

Typically in face seal applications, seals are exposed to impulse pressure profiles. This results in a high breathing condition between the seal and mating hardware. The Turcon® HST Face Seal provides optimized sealing under these conditions. As the system pressure increases, the L-shaped elastomer is deflected against the Turcon® Back-up Ring. This provides excellent extrusion protection while allowing the L-shaped elastomer to provide outstanding leakage control.

The Back-up Ring can be supplied in either Turcon® or Zurcon® materials. Using Zurcon® Back-up Rings will maximize the extrusion resistance of the sealing configuration at system pressures above 35 MPa / 5,000 psi.

### Application Examples

- Servo Valve
- Pumps
- Manifolds
- Poppet Valves
- Gear Boxes
- Swivels

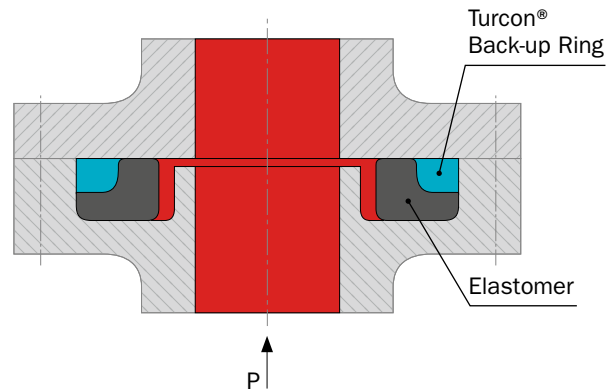
## TURCON® HST FACE SEAL

### Features and Benefits

- Elastomer profile provides optimum performance and loading profile. L-shaped elastomer provides an increase in contact area versus an O-ring of similar size, as well as a more distributed loading profile
- Back-up Ring gives extrusion resistance for zero-leakage
- Pressure limits are dependent on the Back-up Ring material chosen
  - 35 MPa / 5,000 psi with Turcon® Back-up Rings
  - 207 MPa / 30,000 psi with high modulus Zurcon® Back-up Rings
- Wide temperature range, depending on elastomer materials
- Drop-in replacement for AS568 O-Rings in the AS6235 gland
- Both internal and external pressure designs are available

### Materials

- Elastomers
  - NBR (Turel® NE) and EPDM (Turel® EP) most commonly used elastomers
  - Available in FKM (Turel® FK, FT, FG) and FVMQ (Turel® LA, LF)
- Back-up Rings
  - Wide variety of Turcon® and Zurcon® materials
  - Turcon® T10, T11, T29 and Zurcon® Z43 are most commonly used Back-up Ring materials



Operating Conditions	
<b>Movement</b>	Static
<b>Gland</b>	AS6235
<b>Pressure</b>	207 MPa / 30,000 psi
<b>Temperature Range</b>	-54°C to +200°C / -65°F to +390°F
<b>Clearance</b>	AS6235 does not allow for any hardware clearance. Turcon® HST Seal allows for clearances that exceed AS4716 depending on the combination of pressures and clearance gaps
<b>Media</b>	Mineral oil-based hydraulic fluids, flame-retardant hydraulic fluids, environmentally safe hydraulic fluids (bio-oils), phosphate ester-based hydraulic oils, water and others depending on the elastomer material selected

\* The above data includes maximum values and cannot be used at the same time. The maximum operating speed depends on material type, pressure, temperature and gap value. Temperature range also dependent on media. Contact your local Trelleborg Sealing Solutions marketing company for an evaluation of your application.