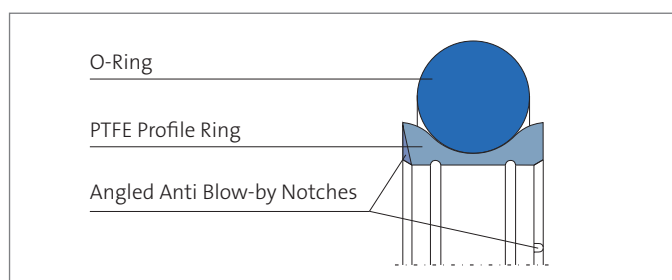


# OMEGAT OMS-CS CAP SEAL FOR AEROSPACE



Omegat OMS-CS Cap Seal is a two-piece rod seal set, consisting of an engineered PTFE ring and an O-Ring as energizer.



## VALUE TO THE CUSTOMER

- Low breakaway and running friction
- Excellent wear and extrusion characteristics
- Chemical compatibility with Aerospace fluids and greases
- Angled anti blow-by notches and lubrication grooves
- Fits in all AS4716 and MIL-G-5514F glands

### Application

Rod seal specifically designed for use in dynamic, reciprocating applications when low friction is required.

### Special Design of the Anti Blow-By Notches

The FEM analysis of a pressurized Omegat OMS-CS seal reveals a typical pressure peak within the O-ring at the rounded edge of the PTFE profile ring (Fig. 1).

Freudenberg's angled anti blow-by notches avoid additional sharp edges at this mostly stressed area of the O-ring. That means maximum protection of the O-Ring preventing premature failure.

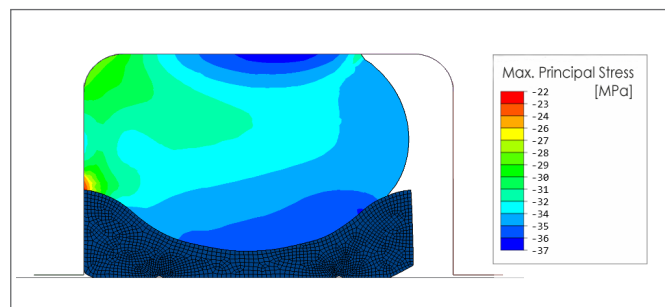


Fig. 1: FEM analysis of a pressurized Omegat OMS-CS seal at 35 MPa

### Material

#### PTFE Profile Ring

Material	Designation	Color	Specification
Graphite filled PTFE	Quantum® PTFE Q78-2	Dark Gray	AMS-3678/2
Carbon Fiber filled PTFE	Quantum® PTFE Q78-8	Gray	AMS-3678/8
Mineral & Moly filled PTFE	Quantum® PTFE Q78-12	Dark Gray	AMS-3678/12
Aromatic Polymer filled PTFE	Quantum® PTFE Q78-15	Beige	AMS-3678/15



## MATERIAL PROPERTIES & GLAND DESIGN

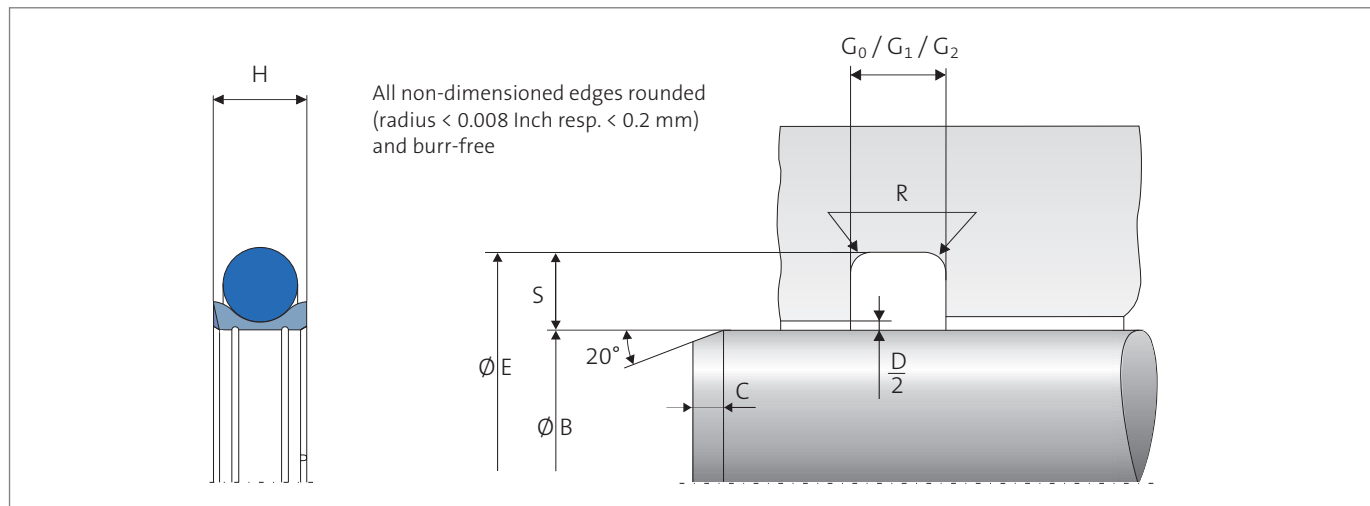
### Material

#### O-Ring Material

Material	Designation	Specification	Temperature	Fluids Commonly Used
NBR	N456	AMS-P-83461	-65°F to +275°F -54°C to +135°C	MIL-PRF-5606 / MIL-PRF-83282 / MIL-PRF-87257
EPDM	E454	NAS 1613 Rev 6 NF L 17-241/41B8	-67°F to +302°F -55°C to +150°C	All commercially available AS1241 phosphate ester hydraulic fluids.
FKM	V75	AMS7276 NF L 17-164/64C8	-20°F to +400°F -29°C to +204°C	MIL-PRF-7808 / MIL-PRF-23699
FKM (low temp.)	V199	AMS7287 AMS-R-83485	-40°F to +400°F -40°C to +204°C	MIL-PRF-7808 / MIL-PRF-23699 HTS Fluids

Other material combinations available on request.

### Installation Diagram



The information contained herein is believed to be reliable, but no representation, guarantees or warranties of any kind are made to its accuracy or suitability for any purpose. The information presented herein is based on laboratory testing and does not necessarily indicate end product performance. Full scale testing and end product performance are the responsibility of the user.

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