

# CAT® PRECISION SEALS

## Lubrication Requirements

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Duo-Cone™ seals are a mechanical face sealing technology that require lubrication to survive. Oil lubricant should be used with all metal face seals with a detergent type SAE 10W-40 as the recommended weight. However, other mineral base oils ranging from 10WT to 90WT are commonly used, depending on temperature requirements and other application parameters. Extreme Pressure (EP) gear lubricants should be used with caution, as some EP additive packages are not compatible with polymers. Contact Cat Seals for more information.

Oil not only provides lubrication to the sealing faces, but also serves to cool the seal rings. Lubricant must cover a minimum of two thirds of the sealing surface to properly lubricate and cool the rings. Metal face seals work best in clean, closed systems. To allow adequate volume for thermal expansion, closed cavities should not be filled more than 90% full. Maximum care should be taken to ensure lube cavities are clean at assembly – free from dirt, scale and other foreign materials.

### Cat Seals Application Engineering

The engineers of Caterpillar can analyze your sealing requirements and recommend the metal face seal and elastomer combination that would best suit your needs. Cat Seals can work with your engineering department to help design the application and provide electronic drawings to aid in your design. You need only complete the application data sheet and provide drawings of the area containing the seals.

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