

# CUSTOM MOLDED SEALS & WIPERS

## High Speed/Dry Running Applications

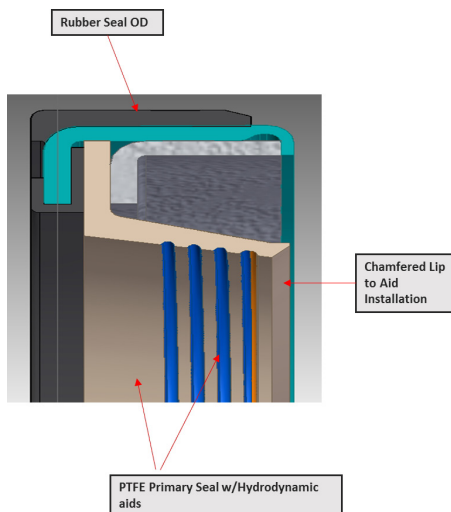
### Reducing friction and wear are key considerations in dry running assemblies.

Identifying solutions for dry-running lip seals used in high-speed applications, which are chronically susceptible to wear and failure, are a key focus in rotating equipment design. What drives consideration and cost is recognizing components capable of performing at high

speeds or in dry, running conditions. They must reduce friction and wear, extend seal life, and maintain the performance of expensive equipment and accessories.

### High-Speed, Dry-Running Seal

Material advancements are at the forefront in high-speed seal design. OEM's concerned with high speed and/or dry running conditions in applications where lubrication to the seal lip is inadequate or non-existent should look to seal solutions that lower frictional heat with innovative materials and seal lip engineering. Equipment applications may include superchargers, dry powder mixers, and processing equipment, or dry sump gearboxes.



Vanseal's custom High-Speed, Dry-Running Seal, is a single component that can be manufactured to seal on both sides, for example separating gear case oil up to 8 psi (.6 bar) on one side and air pressure up to 16 psi (1.1 bar) on the other. Our seal operates in temperatures ranging between -40F to 300F+, and at maximum speeds above 20,000 RPM (6,200 SFPM (32 m/s)), making it ideal for high-speed applications.

### Vanseal Design

Our design has several key improvements that maintain cooler temperatures and extend seal life.

1. Integrated rubber outside-diameter (OD) maintains a positive seal during dimensional changes in aluminum bores.
2. Filled, PTFE-machined primary lip with hydrodynamic aids provides extrusion resistance and cooler under-lip temperatures at high speeds.
3. Vanseal's High Speed-Dry Running Seal is proven, successfully completing performance tests on a supercharger running at wide-open-throttle speeds up to 7,600 SFPM for 300 hours.

- Radial lip seals
- Hydraulic rubber seals
- Rapid prototyping
- Overmolding
- Assembly
- Tooling
- Seal testing



**Founded 1956**  
**Vandalia, Illinois**

Vanseal is a premier designer and manufacturer of radial lip and hydraulic rubber seals and mechanical seal components.

We generally serve customers in the commercial, off-highway, agricultural, fluid power, recreational vehicle and aerospace industries.



**Trust your seals. Vanseal solves tough sealing problems. Our manufactured, highly-engineered rubber and PTFE solutions, use dynamic testing methods, ensuring the highest level of performance.**

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Submit a quote:

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