

Polymer Labyrinth Seal

Unitized, Non-Contacting Seal for Bearing Protection

The Chesterton® Polymer Labyrinth Seal (PLS) is a non-contact bearing seal designed to provide protection for pumps, gearboxes, and other rotating equipment in splash applications. The unique design minimizes fretting caused by conventional lip seals and helps to increase bearing and gearbox life by extending the mean time between equipment repairs.

This unitized labyrinth seal uses Chesterton’s exclusive polymer to create a non-contacting three-piece seal design that includes a rotor, a stator, and a built-in valve with no wearing parts. During operation, centrifugal force and gravity help ensure lubricant is contained within the labyrinth and flows back into the bearing housing while outside contaminants are excluded and redirected back to atmosphere.

The unique design also incorporates a built-in valve that is activated by shaft rotation which engages during shutdown periods to create a positive seal during idle time, blocking ingress of external contaminants from entering the housing.

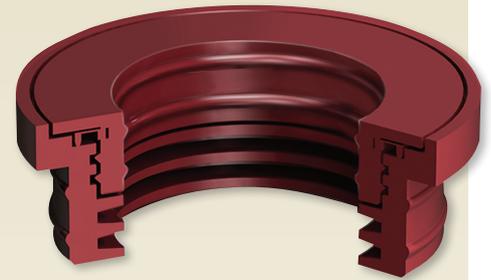
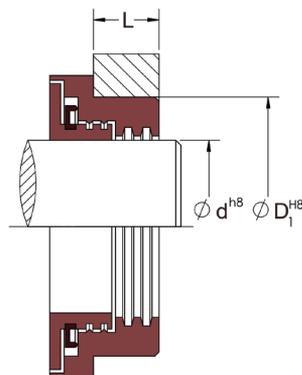
Chesterton’s material technology is manufactured from an advanced, durable, maintenance-friendly thermoset polymer compatible with common bearing and gear oils that offers a cost-effective alternative solution to other material options. Each seal is custom manufactured to the exact equipment size needed to maximize performance.

SPECIFICATIONS



Material (designation)	Temperature °C (°F)	Speed* m/s (ft/min)	Eccentricity mm (inch)
AWC800 (EU)	-50 – 85 (-60 – 185)	30.50 (6000)	0.75 (0.030)
AWC860 (EU)	-50 – 120 (-60 – 250)	30.50 (6000)	0.75 (0.030)

*Contact engineering for speed beyond these limits.



- High-performance, non-contact design, eliminates fretting caused by lip seals
- Keeps lubrication in and seals out external contamination
- Unitized design and durable non-sparking material provide easy, reliable installation
- Available in a variety of configurations to meet plant-wide equipment needs
- Same day shipment available for standard sizes, minimizing downtime and associated costs
- Standard sizes available for popular equipment, custom sizes available upon request
- IP56 (third party certification) resistant to dust and water

PRODUCT PROFILES



PLS1



PLS2



Global Solutions, Local Service

Since its founding in 1884, the A.W. Chesterton Company has successfully met the critical needs of its diverse customer base. Today, as always, customers count on Chesterton solutions to increase equipment reliability, optimize energy consumption, and provide local technical support and service wherever they are in the world.

Chesterton's global capabilities include:

- Servicing plants in over 113 countries
- Global manufacturing operations
- More than 500 Service Centers and Sales Offices worldwide
- Over 1200 trained local Service Specialists and Technicians

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