

Chesterton PLS Wins Bronze in Plant Engineering's 2016 Product of the Year Awards

Polymer Labyrinth Seal (PLS) Protects Bearings without The Shaft Fretting of Standard Lip Seals

FOR IMMEDIATE RELEASE

June 2, 2017 - Groveland, Massachusetts: Chesterton's [Polymer Labyrinth Seal \(PLS\)](#) won a bronze award in the **Fluid Sealing Category for Plant Engineering's 2016 Product of the Year Program**.

PLS is a unitized, non-contacting seal designed to protect splash-lubricated bearings found in pumps, motors, gearboxes, and other rotating equipment. The unique seal is designed to eliminate fretting caused by conventional lip seals, and extends bearing and gearbox life by increasing the time between equipment repairs.

Plant Engineering's 2016 Product of the Year program consisted of 15 categories and is "a celebration of all that is new and innovative in product development." The awards were presented to the winners at the **2017 Engineering Awards in Manufacturing** dinner on Monday, April 3, 2017, hosted by both Plant Engineering and Control Engineering.

Chesterton's Polymer Labyrinth Seal (PLS) is a patent-pending seal ideal for use as an upgrade from conventional lip seals because it reduces fretting and helps to reduce maintenance costs associated with premature bearing and gearbox failures.

- The design also incorporates a built-in valve, activated by shaft rotation, which engages during shutdown periods to create a positive seal during idle time—blocking the ingress of external contaminants from entering the housing. As a result, it keeps lubrication in and seals out external contamination.
- While in operation, lubricant is contained within the labyrinth and redirected back into the bearing housing while outside contaminants are excluded, by centrifugal force and gravity, from entering the housing.
- The seal is made from Chesterton's premium-grade thermoset polyurethane, AWC800, which is designed for high performance sealing in hydraulic, pneumatic and static applications.

- PLS design is IP56 certified. (International Protection Marking, IEC standard 60529 classifies and rates the degree of protection provided against intrusion of dust and water. It is published by the International Electrotechnical Commission. The equivalent European standard is EN 60529.)

Fossil Power Plant - Italy: The PLS was used to replace an elastomer radial oil seal in a hot water circulating pump (Goulds Type LX). The original seals failed prematurely with a lifetime of <3 months and caused shaft sleeve fretting. The Chesterton PLS non-contacting seal was made to size and is still working well after 9 months.

Chemical Plant - Japan: The Chesterton PLS was used to replace an elastomer radial oil seal in a process pump for splash bearing protection of pump bearing housing. The original seal had a varying, short life span. The PLS1 non-contacting seal was made to size and has existed over 14 months with virtually leak-free operation.

PLS is available in a variety of configurations to meet plant-wide equipment needs.

About Chesterton

The 130-year-old A.W. Chesterton Company operates in over 100 countries around the world and is recognized as a leading international provider of knowledge backed solutions, customized programs, and hands on expert service for Rotary, Stationary, and Fluid Power equipment platforms; supported by a comprehensive line of industrial fluid sealing systems, protective coatings, and specialty industrial lubrication.

