

### Challenge

In typical thermoelectric power plants, electricity is generated by passing steam through a turbine which turns a generator.

Large amounts of water are pumped to the cooling tower and back to the plant using large circulating pumps.

Due to the large shaft sizes, cooling water pumps are typically sealed with compression packing. Over time, packing causes sleeve wear and excessive leakage. This leads to unnecessary downtime to replace bearings, shaft sleeves, and other equipment damage.

These pumps are critical to power generation and must be maintained to avoid unscheduled downtime.



Cooling water pumps have been sealed leak free for over 9 years - Shaft size 300 mm (11.75 in.)

### Solution

Chesterton Split Seals are the solution for sealing large circulating pumps used in thermoelectric power plants.

The split horizontal cooling tower pumps were fitted with 300 mm (11.75 in.) Split Seals. Because the seals are split, there is no need to dismantle the pumps to install the Split Seals.

Additionally, sleeve replacement was not necessary because the seals are installed outside the stuffing box, away from the wear area caused by compression packing.

#### Why Use Chesterton Split Seals?

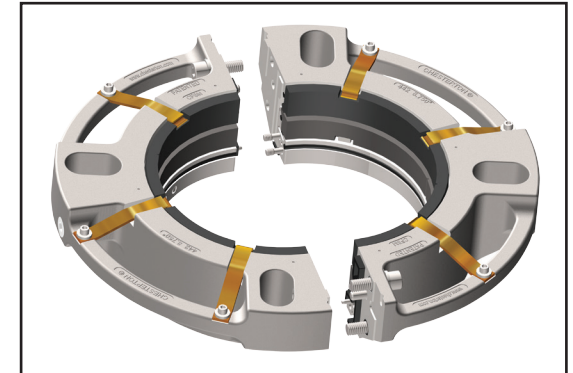
- Eliminate shaft/sleeve replacement
- Easy installation
- Eliminate equipment teardown and the associated downtime
- No packing maintenance or break-in requirements
- Reduce or eliminate flush water usage
- Proven technology for years of reliable operation
- Reduce maintenance and operating costs
- Field repairable

### Results

The installed **Chesterton Split Seals** have been operating for over 9 years completely leak free! The operators could not believe the how easy it was to install these seals and the extended seal life they have experienced.

#### Chesterton Split Seals – Proven Technology

Our innovative technology has expanded split seal use in large process equipment, simplifying installation, improving reliability at start-up, and extending performance capabilities. Chesterton split seals will give your plant years of reliable, maintenance free operation!



Chesterton Split Mechanical Seal