CASE STUDY

CHESTERTON
Global Solutions, Local Service.

STEEL INDUSTRY



*Mechanical Seals*

# Coal Slurry Pump Sealing Solved and Increased Run Time

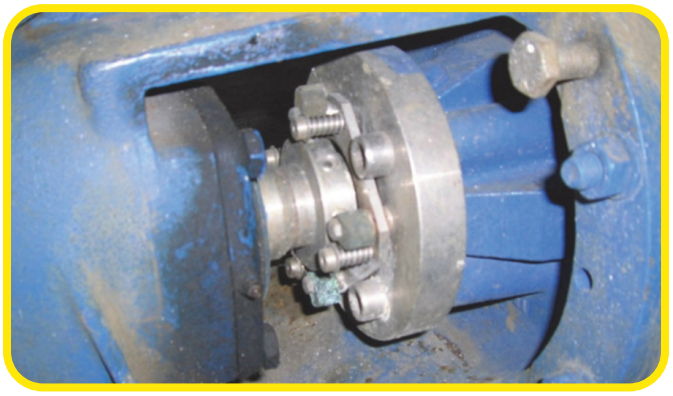
**Product Solutions:** Chesterton® 170 Slurry Single Cartridge Seal

## Challenge

A large steel plant was having difficulty reliably sealing their waste coal slurry pumps. The pumps were integral to their water treatment operation.

The waste slurry was a semi-solid consistency at 28% solids and difficult to pump. The steel mill tried several sealing solutions, from a single mechanical seal with a Plan 32 flush to dual seals with a barrier fluid supply. None were successful, and the plant wanted a better option.

The best seal life the mill operators were able to obtain was 3 to 4 months MTBF (Mean Time Before Failure). They needed a better sealing option!



## Solution

The Chesterton® 170 Slurry Single Cartridge Seal was installed in one of the waste coal slurry pumps without a flush.

The Chesterton 170 Slurry Seal is a single seal designed to handle harsh slurries (up to 40% solids) without a Plan 32 flush.

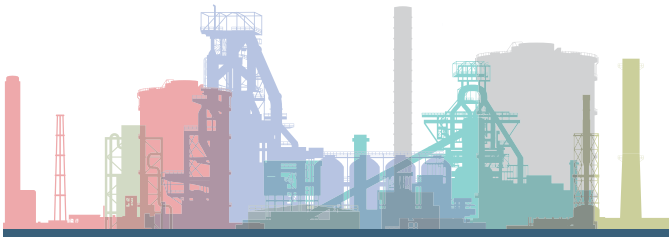
The unique design of the Chesterton 170 Slurry Seal incorporates a high-strength drive system to give the seal higher torque capabilities. The innovative pressure plate system also keeps the springs entirely outside the seal.

## Results

**The first seal operated for over 3 years without a flush!**

Due to this greatly improved reliability, the steel mill standardized all their waste coal slurry pumps to the Chesterton 170 Slurry Single Cartridge Seal.

To date, all installed Chesterton 170 Slurry Single Cartridge Seals have greatly improved the plant's sealing reliability and have increased the plant's run time.



**The seal operated for *over 3 years* without a flush!**




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