

Challenge

A large petrochemical facility in Belgium wanted to convert their vertical cooling tower pumps from compression packing to mechanical seals to eliminate leakage.

Accumulated wear of the packing sleeves resulted in uncontrolled leakage, premature bearing failures, and corrosion damage of the pump bases.

Solution

As disassembly of these cooling tower pumps is both cumbersome and costly, the operator required a sealing solution that could be repaired without bringing the pump into the workshop.

During a scheduled revision of the pump, the packing was removed and replaced by a **Chesterton 442-80mm Split Mechanical Seal**.

By installing split mechanical seals, future repairs could be done within one hour and without the need to disassemble the equipment.

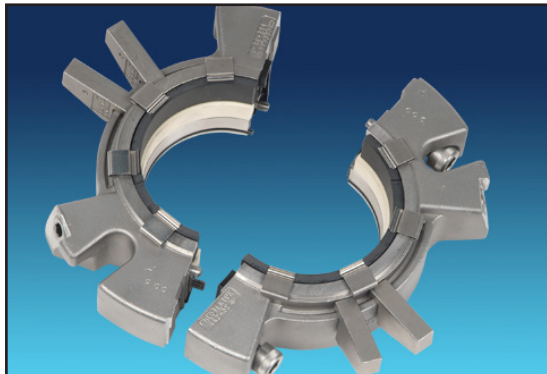
Results

The first pumps upgraded have been running without leakage—making corrosion of the pump base a thing of the past. Moreover, bearing failures have not occurred, and the mean time between repairs has increased 4+ years.

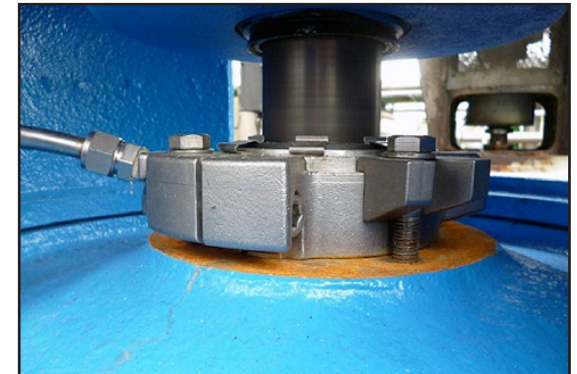
After the good results with the first pumps, the remaining cooling tower pumps are now being upgraded to **Chesterton Split Mechanical Seals**.



Leakage from previously installed compression packing.



Chesterton 442 Split Seal.



Chesterton 442 Split Seal after three years in service.