CHESTERTON
Global Solutions, Local Service.

Split Seals in Vessel Stripping Pumps

Rotating Equipment Sealing Solutions

Marine
Chesterton 442 Split Mechanical Seals
Case Study 006 RE

Challenge

On large cargo vessels, stripping pumps are used to evacuate ballast and other tanks on board. Typically sealed with compression packing, the pumps lose prime once emptied.

It is difficult to prime after the tank has been evacuated because packing leaks into the atmosphere so that it can be properly lubricated and cooled.

When the pumps were started after evacuation, the packing would run dry, causing it to excessively heat up and wear.

Operators would have to intervene to regain prime so they could operate. They wanted to find a better sealing solution.

Solution

Chesterton 442 Split Mechanical Seal with Plan 11 Discharge Recirculation

The **Chesterton 442™ Split Seal** is an excellent option for sealing stripping pumps or other pumps that tend to run dry. Because the **442 Seal** is a split design, you do not have to dismantle the pump to install the mechanical seal!

Another advantage: the patented **442** design allows the split faces to handle positive pressure and vacuum, which is critical in this application.

The **442 Split Seals** utilizes a carbon seal face with high graphite content which allows for momentary dry-run conditions. Once the pump is primed, lubrication is provided to the seal faces via the existing discharge re-circ line.

Results

- The pumps now immediately prime at every startup because the **Chesterton 442 Split Seal** is capable of sealing vacuum.
- Operators no longer need to spend valuable time trying to get the pump to prime
- **Chesterton 442 Split Seal** technology has proven to be effective and reliable in sealing stripping pump applications.

The Chesterton 442 Split Seal can be installed without dismantling the pump.

Why Use Chesterton 442 Split Seals in Pumps?

- Proven high-performance, reliable sealing even in vacuum applications
- Easy to install, simple field repair
- Fits more equipment than any split seal
- Eliminates pump teardowns
- Reduces sealing costs while increasing cycle time

Chesterton 442 with Plan 11 Discharge Recirculation.

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