

ES5005 Compressor wet seal upgrade

Easily installed Kaydon seal eliminates oil leakage



Engineered solution purpose

This engineered solution provides a cost effective upgrade that reduces the potential for oil leakage.

Applicability

Any pipeline or beam style compressor employing wet seals.

Technical description

This upgrade incorporates a liquid buffered oil bushing seal with low leakage and high reliability referred to as a Kaydon seal. The Kaydon seal's pumping bushing seal is provided in a cartridge assembly for ease of installation into the compressor. An assembly plate maintains the alignment between the seal housing and the shaft sleeve. The assembly plate is then removed once the cartridge assembly is slid into place.

Key seal features include:

- Rugged carbon/steel retained assembly
- Free floating rings with minimized hydraulic side loading for easier centering and reduced rotordynamics effects
- Hard-faced mating surfaces for durability
- Controlled liquid flows - typically less than 10 GPD to the sour oil drain
- Unitised assembly for ease of handling and installation.

Benefits

The Kaydon Pumping Bushing Oil seal provides consistently low sour oil leakage. The seal design incorporates a generous clearance between the rotating shaft and seal process side bushing and incorporates pumping geometry to maintain low leakage. In contrast, seals that rely on a close clearance to maintain acceptable levels of sour oil leakage are prone to permanent and dramatic increases in leakage when shaft vibration or upset conditions cause the bushing clearance to open.



Scope of work

The existing bushing oil seal cartridge (seals and housings) are removed and replaced with Kaydon KBOS seal cartridges which fit in the same space envelope.

Undertaken

At site