

APPLICATION

Gas: 100% Nitrogen
Suction Pressure: 8barg / 116.0psig
Discharge Pressure: 14barg / 203.1psig
Suction Temperature: 30°C / 86°F
Discharge Temperature: 130°C / 266°F

FAILURE MODE

Broken internal parts. Increase of temperature and leakage rate of piston rod packing after only 2500 hours of operation.

ROOT CAUSE

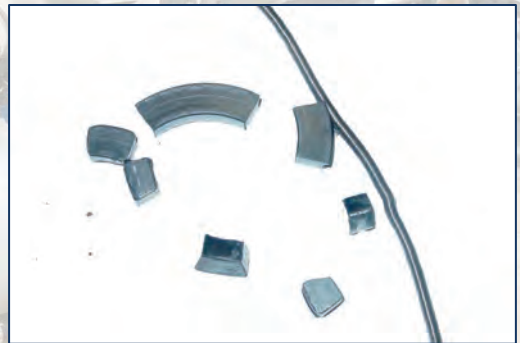
Sealing material was too brittle with only 0.5 % of elongation at break. Due to ring breakage, springs were also affected and leakage rates went up because sealing efficiency was no longer given.

SOLUTION

Material change from competitor material (resin material) to PTFE based sealing material with increased elongation at break of more than 10 %. Lifetime was extended to more than 8.760 hours in dry-running Nitrogen application.



Packing with damaged internals



Damaged spring & sealing ring

FIELD CASE

Packing Internals

STASSKOL, Inc.
19911 Morton Rd., Suite 200
Katy, Texas 77449
USA
Phone: +1 713 244 5050
Mobile: +1 281 91 0567
Web: www.stasskol.com

STASSKOL GmbH
39418 Stassfurt
Maybachstrasse 2
Germany
Phone: +49 3925 288 100
Mail: info@stasskol.de
Web: www.stasskol.de