

TURBOEXPANDER FOR SOUR GAS APPLICATIONS

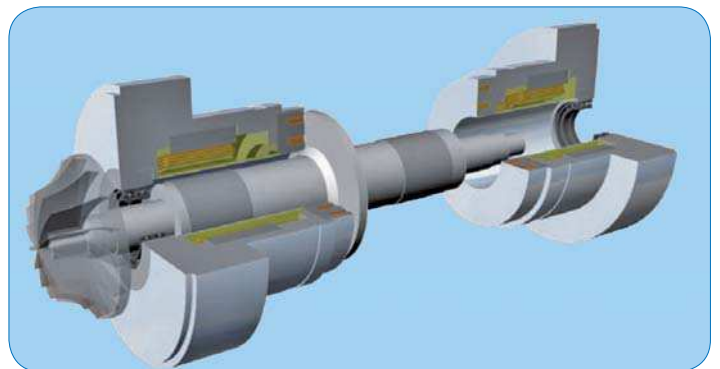
New oil and gas reserves are sourer with H₂S and CO₂. These contents are increasingly present in processed gas.

The technology shown below, is S2M/SKF's response to the need to deal with sour gas. Magnetic bearings are isolated from the gas by a stainless can which is designed according to NACE* guidelines to resist to stress corrosion crackings. (*NACE : National Association of Corrsion Engineers)



This cartridge supplied by S2M/SKF, includes the stator parts of the radial bearing and $\frac{1}{2}$ axial bearing. It is ready to be assembled in the machine.

GE Rotoflow machine equipped with the first NACE compliant S2M/SKF bearings is in operation since December 2007 in sour gas environment (Qatar).



Overview of the assembly : 1 shaft + 2 cartridges



ADVANTAGES :

- No additional equipment (separation seals, sweet gas at high pressure and flow rate)
- Full canned, corrosion proof design
- NACE MR075 compliant
- Qualified for operation in sour gas (H₂S)
- Oil free

Bearing Diameter : 120 mm and 200 mm

Speed Range : 6900 rpm to 14 000 rpm

Temperature Range : -20°C +90°C

Pressure : Up to 150 bars

H₂S Partial Pressure : Up to 100 kPa

