

Seal solution increases safety of process and plant availability

**EagleBurgmann®**  
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## HX75KF-D Seals in cold service pumps



The Santos Moomba gas plant is located in the Cooper Basin, 800 km north of Adelaide in South Australia. The area is desert and exposed to weather extremes such as high temperatures and dust storms.

There are 10 pumps in question and these are part of a light ends plant circulating light hydrocarbons (specific gravity  $\approx 0.54$ ) through de-methaniser and de-ethaniser towers. Known as cold service pumps (operating temperature  $-20\text{ }^{\circ}\text{C} \dots +35\text{ }^{\circ}\text{C}$  ( $-4\text{ }^{\circ}\text{F} \dots 95\text{ }^{\circ}\text{F}$ )) they were installed with double seals and a common seal support system supplying barrier fluid to the ten pumps. Seals and systems were originally supplied by one of our competitors.

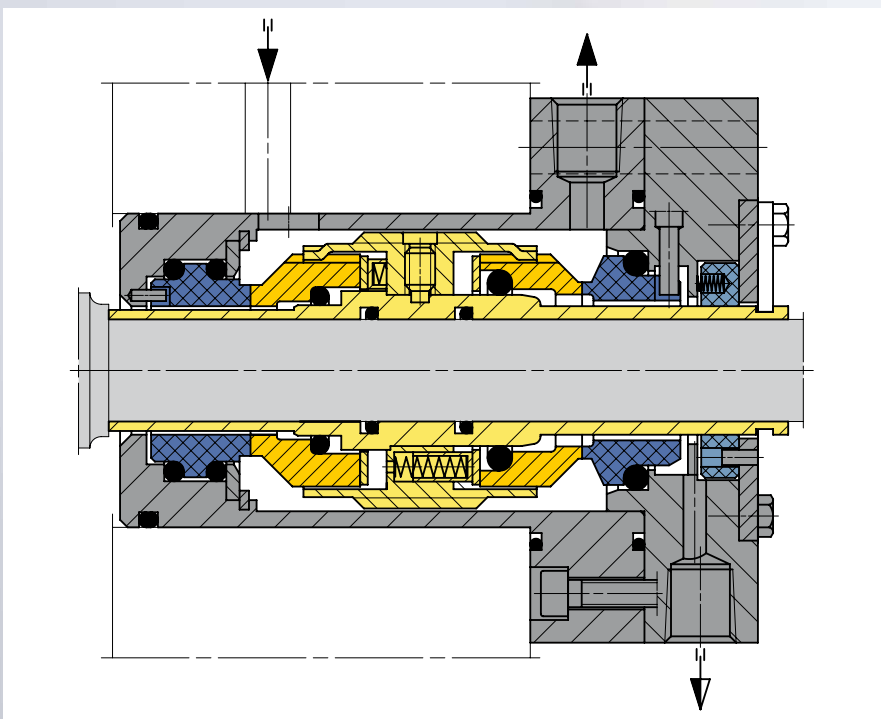
### The problem

The cold service pumps in question have had a history of poor mechanical seal life. In 2007 a seal failure resulted in product escape and plant evacuation, in 2009 another seal failure again resulted in plant evacuation. Investigation and analysis of the failures found core design issues at the root of the problem – the mechanical seal and its support system. Seal life was as low as a few weeks, typically months and had continual significant impact on maintenance resources.

### The EagleBurgmann solution

An engineered double mechanical seal type EagleBurgmann HX75KFD was installed in a Byron Jackson pump in June 2009 together with a DRU supply system and has not caused any problems what so ever. As a consequence of that all, many of the cold service pumps have been converted to EagleBurgmann seals and supply systems in 2010, the others will be converted in 2011.

The conversion not only resulted in considerable reduction of the risk of product release: reactive workload and maintenance spent on seal repairs have been down-shifted, on the other side the MTBF is increasing.



EagleBurgmann HX75KFD mechanical seal

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