



Gas Drying (4)

Location	India (Installation: March 2019)	Hydra-Cell model	D35XESGHFEHH
Type of application	Natural Gas Drying	Flow rate	24 lpm (6.34 US gal/m)
Liquid	Tri-Ethylene Glycol (TEG)	Pressure	96 bar (1392 psi)

Application details

ONGC Ltd. in Assam, India, contracted Megha Engineering & Infrastructures Ltd. to replace a leaking plunger pump in a Tri-Ethylene Glycol (TEG) gas drying application.

TEG is a non-lubricating liquid, known to cause damage to dynamic seals. In this instance, seal failure occurred on a locally manufactured plunger pump within 2 to 3 months of installation, resulting in expensive maintenance costs and loss of production; sand particles from the wet gas flow exacerbated the problem and was also accelerated by the +120°C temperature of the TEG.

A Hydra-Cell G35 pump was installed with an oil cooler to replace the leaking plunger pump. The TEG is pumped at high temperature into the wet natural gas stream within an absorber at a pressure sufficient to overcome the inherent pressure of the natural gas stream. The water-charged liquid drains from the absorber and is subsequently heated to over 100°C to remove the absorbed water content before being re-injected into the system. Hydra-Cell's seal-less design ensures 100% containment of the liquid and eliminates leakage, as well as reliably handling the high temperatures and sand particles which destroy the packing of plunger pumps.

Last report - August 2020: continuous running; no maintenance.

Advantages of Hydra-Cell pump on this application

Hydra-Cell's seal-less design ensures:

- 100% containment of the liquid and eliminates leakage
- Reliably handles high temperatures
- · Reliably handles liquids with particles which destroy the packing of plunger pumps

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