

Sundyne HMD Kontro Sealless Pumps

HMD Kontro

Case Study

Rail Train Pumping

Russian Gas Train Uses HMD Kontro Sealless Pumps for Loading Duties

Travelling over 4.000 kilometres from the city of Nizhnevartovsk in West Siberia, right across the Russian Federation to the Perm gas refinery and using two rail trains per day, LUKOIL transport a vital ingredient for the Russian oil and gas industry.

The product shipped in this manner, from the Langepas plant, is ShFLU, otherwise known as wide fraction light hydrocarbons. This is a valuable petrochemical feedstock for use not only in oil and gas refineries but also in the production of synthetic rubber.

Each of the trains comprises of sixty cars and takes some three hours to load. Pumping the product during the lengthy loading operation are magnetic drive, sealless pumps from HMD Kontro.

The project was nearly eight years in gestation. The first enquiry was received by HMD Kontro's resident expert in Russia, Vladimir Lebedev, in 1997. A strategic partner in the FSU market, the Russian design and engineering institute for gas processing - OAO NIPigaspererabotka, Krasnodar, now a part of SIBUR Holding, required five pumps conforming to API standards. HMD Kontro and Vladimir Lebedev, suggested their GSP sealless pump, which completely meets the requirements of API 685.

Following a comprehensive selection process and tough competition from mechanical sealed pumps, the contract was awarded in March 2005. Five GSP 6x4x13 E-A17 pumps were selected with soft start facilities. The particular duty is to pump 200m³ per hour / 880 US gallons per minute at a differential head of 140 metres / 656 feet, all well within the capabilities of HMD Kontro's API 685 pumps.

The GSP pumps from HMD Kontro fully meet the requirements of API 685 for magnetic drive sealless pumps to be used in the oil, gas, petrochemical and chemical industries. All pumps are of separate mounted design; available in over thirty sizes based around four basic frame sizes to suit power requirements. A large degree of interchangeability within frame sizes minimises spares inventory and associated costs.

All pumps are of a centre line mounted design with support brackets on both the casing and coupling housing. Each is mounted on to a heavy-duty fabricated steel drip pan base plate.

Pumps are constructed with a single fully trapped gasket sealing the pressure boundary (to prevent blow out). The gasket is of a controlled compression design with metal-to-metal fit and is 316SS spiral wound, graphite filled with options of PTFE or graphite coated 316SS. All tapped openings are plugged with material to match the casing.

The five pumps were successfully commissioned in September 2005 by Don Honeysett of HMD Kontro and the company's Russian service engineer Toly Vozlyublenny. Since then, the pumps have run smoothly and without any problems whatsoever, providing regular service, loading the two trains per day.

The Langepas plant, where the pumps are located, is actually one of the three different locations from which the company, LUKOIL, takes its name. The LUK is represented by Langepas, Urai and Kogalym. As a matter of interest the latter is where the famous tennis player Maria Sharapova originates from.

For further information on HMD Kontro sealless pumps for use in arduous API and other applications, please contact us on +44 1323 452000 or by email to info@hmdpumps.com. Alternatively, please see our website at www.hmdkontro.com. Adding '/api' to the domain name will take you straight to information about API 685 and appropriate pumps to meet this standard.

