Oil & Gas

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Argentina's Largest Oil Co. Uses Mono for Shear Sensitive Duties

Argentina's largest oil company, YPF Argentina, has solved the problem of transferring a corrosive and shear sensitive mixture of crude oil, formation water and solids, with the installation of progressing cavity pumps from Mono.

YPF produces in the region of 400,000 barrels of oil per day from the Neuquen Province, of which 123,080 barrels/day are produced from the Lomitas Chiuhido oil field in the Rincon de Los Sauces region.

The Mono Industrial E Range pumps have been installed on a first stage upstream process to transfer a mixture of formation water, crude oil and sand from the intake tank to the separator system.

YPF Argentina chose the progressing cavity pump from Mono because its smooth rotating action, based on proven pump geometry, prevents emulsification of the mixture, thus enabling more efficient separation. The Industrial E Range pumps incorporate Mono's unique Flexishaft drive system which provides a single component link between the rotary motion of the drive shaft and the eccentric motion of the helical rotor. The reduced number of moving parts in the drive train eliminates the possibility of wear and makes lubrication unnecessary, thus preventing cross contamination. The Flexishaft is supported by a 5 year warranty.

Robust and easy to clean, and with the ability to handle a vast range of liquids, the pumps can easily handle the mixture's viscosity of 50cp, pressures of 35 bar and temperature of 40°C. Due to the highly corrosive nature of the formation water (up to 6 times the salinity of seawater), all wetted and rotating parts are manufactured in Super Duplex stainless steel to increase pump life and reduce maintenance requirements; while the stator is moulded in a high nitrile compound. The Mono progressing cavity pumps are a more cost effective solution than comparative centrifugal pumps manufactured in Super Duplex and produce far less shear.

The E Range incorporates one, two, four, six, eight and twelve stage pumps, capable of accommodating capacities up to 420m³/h and pressures up to 48 bar. Temperatures of up to 100°C can be handled with standard materials.



Pump:	FE106MS1J5/H870 x 18
Product:	Crude oil/water - 70/30
Capacity:	75m ³ /h
Pressure:	Maximum 48 bar
Pump Speed:	360 rpm
Drive:	Electric motor driven



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