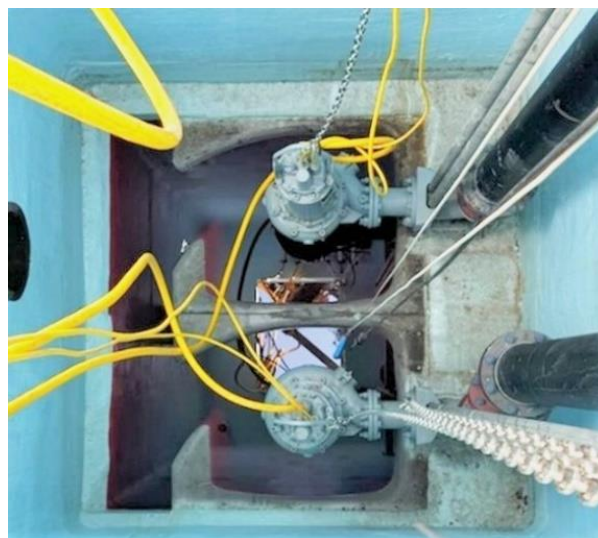


Oily Water Pumping – BNSF Railway

Market segment	Industry
Application market	Oil & Gas
Pumped medium	Oily water
Pump product	Immersible with internal cooling & Prerostal System
Country	United States



Challenge

BNSF Railway is the largest freight railroad in the United States and the largest by revenue. With over 8'000 locomotives they have railway yards scattered around the USA. The locomotives travel across thousands of miles through multiple terrains and needs to be washed down regularly at their service yards. The washdown water is then collected to be processed and recycled and will contain an array of oils, chemicals, grit, and sand. This washdown wastewater will need to pass through oil separators to extract all the oil residues. A pump system is needed to pump the wastewater from washdown areas to the separators. The pump systems used need to be specific for the application to enhance the oil separation process. A pump with shear sensitive characteristics is essential to not emulsify the oil within water. The pump system also needs to be resilient to handling abrasive media and have reliability to ensure smooth operation.

Solution

Use of the **Hidrostal Screw Centrifugal Pump** with **Prerostal** system! The **Hidrostal Screw Centrifugal Impeller** is of gentle handling nature and is shear sensitive. Made with High chrome impeller and liner it is ideal for abrasive media. The low-level pumping capability with the Prerostal system allows for maximum amount of oil extraction from the lift station. Also combined with proven performance in oily water applications and its ability to avoid emulsification – critical for downstream separation.

Benefits

- Superior reliability and efficiency
- Maintained FM approval without compromise on design
- Resolved emulsification issues caused by conventional centrifugal pumps
- Enabled gentle fluid handling, preserving oil droplet integrity for effective separation
- Self-cleaning wet well reducing odor and build up

Quantity of units sold	more than 50
Pump type	E05K-M04R + EEXP4
Motor data	14.7 kW (20 hp) / 4-pole (1'724 rpm) / 460 V / 60 Hz / FM Class 1 Div 1
Material combination	Cast iron pump body, Hidrohard impeller and wear parts
Duty point	Flow (metric) : 69.4 litres per second / Head : 11.6 meters Flow (US) : 1'100.0 US gallons per minute / Head : 38.0 feet
In operation since	2023