Cost-effective Pump Repairs, with Innovative Solutions!	Case Study Overhung Vertical In-Line (OH6)			
	Duty & Fluid	OEM & Designation	Materials	
	Reclaimed Oil Pump Rec. Oil/Prod. Water	Sundyne LMW-322-Z	Duplex Stainless Steel API D1	

Challenge

Norwegian Oil & Gas customer was looking for a more cost-effective solution to repair their Sundyne pump, than the OEM. The repair had to overcome internal erosion issues, as well as re-rating the pump performance by modifying the gear ratio.

Solution

Pinnacle Re-Tec's experience in high head, low flow units meant we were able to offer significant improvements to the wear life of the static hydraulic components. This was achieved by HVOF Tungsten Carbide coating of the high velocity wetted areas of the casing internals. Rather than replacing volute as suggested by OEM, the casing volute was weld repaired. The old impeller was reverse engineered and a new impeller was manufactured in house on a 5 axis CNC machine from a solid piece of duplex material. Pinnacle Re-Tec worked with a local gear manufacturer to design and manufacture the required gears for the pump speed change.

New Impeller machined in-house from Duplex on CNC Machine

New gears designed and manufactured to re-rate the pump speed

Benefit

A one-stop shop for the pump repair which incorporated; reverse engineering and in-house manufacturing all required parts including the new open vane impeller & gears, weld repair of pump casing & HVOF Tungsten Carbide coating to the required areas of the casing volute.

Result

By reverse engineering and manufacturing in-house the required spare parts, we have given the customer an improved, cheaper and faster pump repair than the OEM offering whilst offering OEM equivalent quality guarantees.

To see how Pinnacle Re-Tec can help you with cost effective pump repairs and innovative solutions to increase MTBF please call us on 01207 588 731 or email info@pinnacle-re-tec.co.uk