

Industry: Power & Desalination
End User: Dubai Electricity & Water Authority (DEWA)
Application: Vertical Pump, Goulds
Thordon Grade: ThorPlas-Blue
Date of Original Installation: May 2020

THORPLAS-BLUE BUSHINGS CONTINUE TO INCREASE UPTIME IN VERTICAL PUMP APPLICATIONS

About:

Dubai Electricity & Water Authority (DEWA) is a public service infrastructure company that was founded in 1992. The objective of the state-run company is to make an adequate and reliable supply of electricity and water available to the people of Dubai and other emirates.

Challenge:

The bronze bushings that DEWA had originally installed in their 20 vertical pumps were wearing out and causing frequent breakdowns every 6-8 months. Unfortunately, there were multiple components that failed in the pumps as a result of bushing failure forcing the end user to seek a longer lasting and more reliable bushing solution. As the medium in these pumps is seawater, the bushing solution would also need to be corrosion resistant as that was a likely cause of wear in the bronze bushings.

Solution:

Ocean Power International, Thordon's authorized distributor based in Dubai, proposed ThorPlas-Blue for this vertical pump application. The high operating speed of the pumps caused frictional heating; any bearing installed would have to operate in temperatures up to 60°C (140°F). As ThorPlas-Blue is able to operate in temperatures up to 80°C (176°F), this application was well within the material's range. ThorPlas-Blue is also corrosion resistant and would be able to operate in the seawater with this application.

Result:

Approximately 8 months after installing ThorPlas-Blue, the end user still has not suffered any down time and the pumps are running without an increase in vibration. By installing ThorPlas-Blue, DEWA has saved approximately USD \$50,000 by increasing uptime, eliminating the need for costly spares, and reducing the cost of the labour and machining as they no longer have to replace the bearings every 6-8 months.

