



ENVIRONMENTAL TECHNOLOGY

Successful Support System Upgrade Improves Plant Reliability

A chemicals manufacturer in the USA was experiencing ongoing issues with the reliability of the seal support system supplying a double seal.

The seal support system was configured as per API Plan 54 with a single tank supplying all the seals fitted to pumps in that area of the plant. If any of the seals in the system leak inboard the entire system becomes contaminated with the process fluid (sodium silica). In addition, the system was unable to provide enough pressure to keep a clean fluid film at the seal faces. Cleaning of the seal support system tank was a constant task and seal reliability was poor. Leaking pumps was creating a safety issue around the site. The site approach AVT Sealing Solutions for assistance.

AVT Sealing Solutions recommended replacing the competitors dual seal with an AESSEAL® DISP™ dual seal and installing an SSE10W3 seal support system in place of the old Plan 54 tank solution. Addition of the SSE10W3 provides a closed loop system for each seal and is only topped up from the plant water supply. Using the SSE10W3 system isolates each seal from the water main, so if the seal fails there is no contamination of the other seals on the site.

The new solution was installed in August 2019 and over two and a half years later has been working flawlessly ever since. This is a significant improvement over the previous solution that had an MTBF of just 2 months. The investment in the new solution was repaid within 138 days and the customer has subsequent upgraded additional seals to this solution.

‘MTBF increase from 2 months to over 32 months’

Industry:	Chemical
Product:	DISP and SSE10W3
MTBF Increase:	1500% (and counting)
Reference N.O:	26032021-JMA01



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