



ENVIRONMENTAL TECHNOLOGY

Improved seal face cooling with CDFI™ range

A chemical company in the American Midwest which uses corn starch to make products for the food and pharmaceutical industries was experiencing regular seal failures as a result of inconsistent seal water pressure and flow rates.

The company was using the AESSEAL® CDSA™ range of double cartridge mechanical seals on the plant API plan 54, supplying seal water to more than 60 pumps. The problem was that with no pressure gauges or flow meters at the pumps, seal water from API plan 54 was difficult to monitor, with only a paddle flow indicator showing an unknown amount of flow and pressure at each seal. This was not enough for applications where temperatures can rise to 240 degrees Fahrenheit, making effective cooling a matter of vital importance.

In order to make the removal of heat at the inboard faces more efficient, AESSEAL® recommended replacing the CDSA™ seals with the CDFI™ whose directed barrier fluid flow path achieves effective heat removal at both sets of seal faces. Developed using the highly efficient DMSF™ pumping ring the CDFI™ effectively and reliably circulates barrier fluid irrespective of the direction of shaft rotation.

The CDFI™ seals were installed on three pumps in October 2019, along with 10L EasyClean™ tanks and a heli-cooler. The new system has improved the MTBF from less than two years to between four and five years. From spending 4-8 hours a week checking for leaks, the company now has a system where it is possible to check for seal leaks in seconds rather than hours, with significant cost savings when applied throughout the plant.



‘Now possible to check for seal leaks in seconds’

Industry:	Chemical
Product:	CDFI™
Application:	Product Circulation Pumps
MTBF Increase:	100-150%
Savings:	Significant time savings
Reference N.O:	TD3134107



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