ENVIRONMENTAL TECHNOLOGY

DMSF™ seals halt water leakage

Premature seal failure was causing barrier water and product leakage in a South African chemical plant. This necessitated a plant shutdown while the seal was changed.

The company had been using a standard pot with no cooling coils, even though the product temperature was 135 degrees Centigrade, too high to run a pot system without cooling coils. A small amount of barrier water would be drained in order to allow cooler water into the system.

In March 2021 AESSEAL® installed a 3.25" DMSF™ double cartridge mechanical seal with a 3.75" internals. This allowed for more cooling water to flow through the seal. Until cooling water lines are installed, flow and pressure is being controlled with a Flowtrue™ flow meter. The result has been a reduction in barrier water and product spillage. Once cooling water lines are installed and functioning, the Flowtrue™ can be removed and a 25L cooled SW02™ water management system can be installed to the seal barrier system.

The previous MTBF was between two and four weeks. The DMSF™ seal operated successfully for seven months, which is the best MTBF they have had in the application. The customer has upgraded a further four seals so far and is in the process of changing all the seals in this application.

'The best MTBF they have had in the application'

Industry:	Chemical
Product:	DMSF™ and Flowtrue™
Application:	Sodium Dichromate
MTBF Increase:	650%
Savings:	Barrier water & product spillage
Reference N.O:	CS0173