AESSEAL®
ENVIRONMENTAL TECHNOLOGY

Unique utilization of the cooling coil solves pump problems.

The installation of the AESSEAL® DMSF™ double cartridge mechanical seal was the answer to recurring seal failures at a chemical storage facility in the north-east of England.

A pump fitted with a single cartridge seal was failing on average every few weeks. The pump was only required to run intermittently, but when it was not in use the temperature would fall and the product, in this case phenol, would crystallize on the seal faces, resulting each time in a failure on start-up.

On AESSEAL's recommendation the company installed a DMSF™ double seal. To avoid the risk of crystallization, the barrier fluid was heated to maintain the seal face temperature even when the pump was not in use. This was done through the cooling coil, using hot water from the hot water ring main. The pump and seal were then lagged, and the temperature was constantly monitored to ensure that it did not fall sufficiently to allow the product to crystallize on the seal faces.

As a further precaution, the pump was also fitted with an EasyClean™ support system so that in the event of seal failure, any crystallizing product could be easily removed. The full containment achieved by the use of the DMSF™ seal has also removed any risk that employees might come into contact with the product, which has the potential to cause severe irritation to the eyes, nose, and throat. The seal was installed in June 2018, and has been operating for more than six years without a failure, saving the company an estimated £48,000 in replacement, repair and maintenance costs over this period.

'Reliability increased from <1 month to >6 years'

Industry:	Chemical
Product:	DMSF™ & EasyClean™
Application:	Phenol Transfer Pump
MTBF Increase:	>7,100% (and counting)
Savings:	£48,000
Reference N.O:	TD3111056

aesseal.com/info