



ENVIRONMENTAL TECHNOLOGY

Improved Safety and Reliability

A major manufacturer in the UK was having reliability issues with the seal on a critical Labour chemical pump used to pump caustic solution.

The pump was fitted with a single mechanical seal connected to a quench to drain system to ensure the caustic product did not crystallise inside the seal causing it to fail. The mean time between failure (MTBF) was just 6 months and the company were looking to improve reliability and prevent the escape of hazardous product to the environment.

AESSEAL® recommended replacing the single seal with a CDSA™ dual mechanical seal along with a Water Management System. The dual seal and water management system prevents escape of hazardous product in the event of inner seal failure. The water management system provides a closed loop for the seal barrier fluid and helps improve seal reliability as the seal faces are lubricated by a clean and cool barrier fluid. The water management system utilised the EasyClean™ vessel which is designed so that it can be easily cleaned.

The new solution was installed in March 2020 and has been running trouble free over four years later. The use of a closed loop water management system has significantly reduced water usage by the application and the customer intends to upgrade the standby pump in the same manner in the coming year.



before



after

‘Reliability increased from <6 months to >4 years’

Industry:	Metal Processing
Product:	CDSA™ and Water Management System
Application:	Caustic Chemical Pump
MTBF Increase:	733% (and counting)
Reference N.O:	CS0031



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