



DMSF™ seals end contamination problem for Spanish firm

A metalworking company in northern Spain, specialising in car body Cataphoresis coating had equipped its pumps with component mechanical seals, parallel spring-mounted back-to-back, with an API Plan 54 circulation system.

However, the pumps started leaking from the product process to the barrier after only a few weeks. The problem was that when the customer stopped the pump, the cataphoresis paint in the stuffing box and between the seal faces began to harden, and when the pump was restarted, the mechanical seal failed. Every pump was installed in the same API Plan 54 circuit, so once one pump failed, the “UF-Dip” (Ultra Filtrate) barrier fluid was contaminated with the cataphoresis paint, and the pumps started to fail one by one. The result was a constant cycle of monthly or half-yearly repairs, with the UF-Dip (Ultra Filtrate) tank needing to be cleaned twice a year.

AESSEAL® recommended replacing the component seals with the more robust and reliable DMSF™ range of double cartridge mechanical seals, which are specifically designed for more demanding applications. These were installed alongside the SW2™ water management system and its low-cost seal support vessel, EasyClean™. This ensures that if one mechanical seal fails, the rest of the UF-Dip circuit will be protected from contamination by the cataphoresis paint. The ease with which the EasyClean™ vessel can be inspected and cleaned means that paint inside the vessel can be easily removed. The customer was also advised to clean the stuffing box with UF-Dip after stopping the pump, and before restarting it.

The new system was installed in July 2022, and it is still operating trouble-free over two years later, saving the company more than €20,000 a year in lost production, replacement seals and labour costs. It has removed the need to clean the UF-Dip tank every six months, and there has been no further loss of production as a result of pump failures.

‘Reliability increased from 3 weeks to >22 months’

Industry:	Automotive
Product:	DMSF™, SW2™ and EasyClean™
Application:	Boiler Feed Pumps
MTBF Increase:	3,100% (and counting)
Savings:	>€38,000 / \$40,500 (and counting)
Reference N.O:	TD3103809

