



ENVIRONMENTAL TECHNOLOGY

9+ Years MTBF for condensate pump

A paper producer in the USA were finding the mechanical seals used on condensate applications had an unacceptable Mean Time Between Failure (MTBF) of between 3 and 6 months.

Due to operational pressure despite the fact the seal had failed they would continue to run the pump until either the scheduled pump outage or the bearings failed. The seals were single seals with an API Plan 21 seal support system. The coolers used with the Plan 21 were fabricated on site and were often found (using thermography) to be blocked. The customer turned to AESSEAL® for an alternative solution.

AESSEAL® recommended replacing the single seal with a dual mechanical seal along with a SWC™ condensate seal support system. The new solution was installed in February 2012 and has been running now for more than 9 years without issue saving over \$13,000 in repair costs annually. To date a further 2 similar application have been upgraded in the same way.

Condensate pumps are commonly found to be 'bad actors' on paper mills. The pumps are often subject to dry running as the operators fear condensate building up on the dryer rolls and will operate the pumps continuously despite the condensate receiver tanks being empty or at a low level. The process temperatures are often high and get even higher if the condensate tank is allowed to empty. This will always cause problems with a single mechanical seal solution. However with a dual mechanical seal and suitable seal support system in place many of these problems can be eliminated as the seal support system provides a continuous fluid film to the seal faces regardless of whether the pump is being run dry or not.

'>1,800% Mean Time Between Failure increase'

Industry:	Pulp & Paper
Product:	CDSA™ and SWC™
Application:	Condensate
MTBF Increase:	1,883% (and counting)
Savings:	> US\$13,000 per year
Reference N.O:	CS0088



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