



ENVIRONMENTAL TECHNOLOGY

Seal Upgrade improves reliability and simplifies maintenance

A major integrated zinc / lead smelter company in Canada was unhappy with the performance of the existing mechanical seal on its slurry feed pumps.

The mean time between failure (MTBF) of the seal ranged from 2 weeks to 3 months, in addition the installation procedure was particularly arduous. When the sealing solution was originally purchased the plant maintenance team expected the cartridge seal could be fitted directly to the pump and locked in position. However, the procedure involved taking the existing cartridge seal apart in the field prior to installing to the pump's seal plate.

The seal required stripping into two parts, the gland with faces and the split drive collar. The OEM seal plate then needed to be positioned on two blocks and after inserting the main body of the seal upwards through the seal plate the seal locking collar needed re-attaching to the internal sleeve. Finally, then re-setting the seal with its setting clips. Once the seal had been re-assembled into the OEM seal plate, the seal plate had to be hoisted up with a crane and installed back onto the pump. This was a difficult and expensive exercise, and on average one out of three attempts resulted in broken seal faces before the pump was rebuilt and back in service. The company approached AESSEAL® for an alternative approach...

'Saving CAD 90,000 (\$67,000) each year'

Industry:	Metal Processing
Product:	CDPH™
Application:	Slurry feed pump
MTBF Increase:	100% (and counting)
Savings:	\$67,000/year (CAD 90,000/year)
Reference N.O:	CS0033



aes seal.com/info



ENVIRONMENTAL TECHNOLOGY

AESSEAL® were challenged to come back with a double cartridge seal design, that did not require disassembly for installation, for a 6 month trial. AESSEAL® application engineers designed a CDPH with a shaft spacer and a separate fully machined gland that pulls and secures the complete seal body assembly into the pump wear plate. The dual seal is supported by a water management system and an accumulator. The new seal was installed in May 2018.

The maintenance staff found the new seal much easier to install and are very happy to have a reliable mechanical seal that outlives the other wetted parts of the pump in this difficult slurry application. The MTBF has improved to more than 6 months and is saving \$90,000 / year.

The customer has benefited from a much quicker and simpler seal installation process, virtual elimination of water ingress into the process fluid and reduce water consumption.

The new seal has performed so well the customer purchased another CDPH seal and water management system for the stand-by pump.



‘Saving CAD 90,000 (\$67,000) each year’

Industry:	Metal Processing
Product:	CDPH™
Application:	Slurry feed pump
MTBF Increase:	100% (and counting)
Savings:	\$67,000/year (CAD 90,000/year)
Reference N.O:	CS0033



aes seal.com/info