



HDDSS™ seal ensures safer workplace at Australian plant

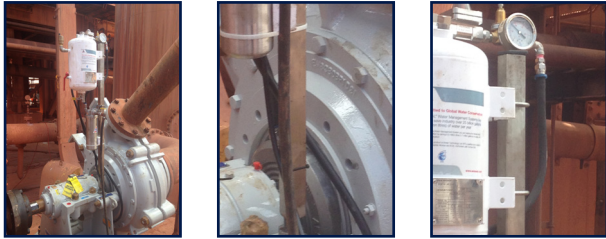
The frequent failure of a competitor’s seal was compromising employee safety at an Australian alumina refinery.

The seal was failing as little as three days and at most four months after being installed due to cavitation on startup and pressure spike. This resulted in the product, which was a mixture of bauxite and alumina and caustic, being flung over the walkways and flooding the pump area, raising serious concerns for worker safety.

In addition to the safety issue, the frequent seal failure meant that repeated downtime was required to change out the pump. On occasion the company’s engineers would fit the new seal on a Friday and have to change it out on the same weekend. The other problem they had was pressure spike from 4 bar to 7 bar.

The customer asked if AESSEAL® could supply a seal which would run for at least eight months. AESSEAL® fitted the HDDSS™ heavy duty slurry seal and SW2™ water management system to suit a Warman Pump and set the barrier fluid pressure to 8 bar. HDDSS™ seals are specifically designed for the arduous environment of the mining industry and are built to withstand high levels of pump vibration with large internal clearances accommodating a wide range of movement.

The seal was installed in February 2024 and has been running for more than two years without a problem. The result is improved water conservation, reduced downtime and lower labor costs. Worn components are now replaced at 60% wear compared to the previous threshold of around 90%, ensuring more proactive maintenance. Additionally, there are no longer any issues with caustic leaks or product spraying over the walkway, making the working environment significantly safer.



‘Reliability increased from <4 months to >2 years’

Industry:	Mining
Product:	HDDSS™ & SW2™
Application:	Warman pump
MTBF Increase:	500% (and counting)
Reference N.O:	TD3141699

