Application story

WANNER™
HYDRA-CELL® PRO
SEAL-LESS PUMP TECHNOLOGIES

Gland Seal Flushing

Location	South Africa	**Hydra-Cell model**	G35XKBTHFEHA
Type of application	Gland Seal Flushing	**Flow rate**	127 l/min (34 gpm)
Liquid	Water	**Pressure**	35 bar (500 psi)

Application details

A South African mine deals with a phosphate slurry, a particularly abrasive material, which must be pumped away to a slimes dam. For this purpose, the mine uses large all-metal slurry pumps arranged in series and developing a head of 30 bar. Their seals must be continuously flushed to prevent excessive wear and premature breakdown. The small pumps used for flushing must maintain a pressure above that of the system to establish a water seal at the gland seal of the slurry pump and so prevent slurry from pushing back into its seal chamber. But the conventional seal flushing pumps originally fitted could not do this effectively, because their own seals could not handle the recycled grey water (containing abrasive particles) that the mine used for flushing.

Following successful trials, the mine replaced all its conventional flush pumps with Hydra-Cell G35 pumps. Five months later, mine engineers reported that no pump failures had occurred and there had been no need in that period for any technician to be called-out in emergency. Savings in production downtime, pump repair and call-out costs paid for the Hydra-Cell pump and motor sets within ten months, and five years later the G35s were still running reliably.

Advantages of Hydra-Cell pump on this application

Ability to handle non lubricating abrasive slurry reliably. Controllability. High pressure capability

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