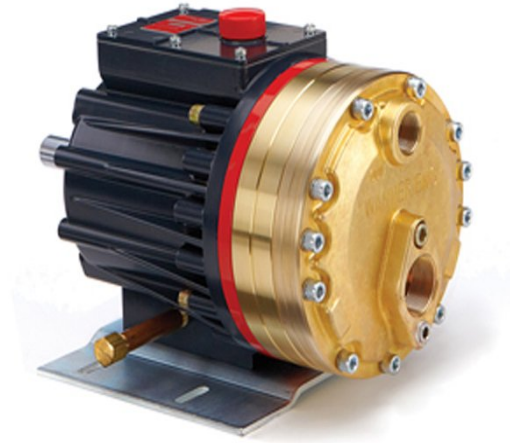


Application story


WANNERTM
HYDRA-CELL[®] PRO
SEAL-LESS PUMP TECHNOLOGIES



Seal Flushing for Large Centrifugal Mining Pumps (1)

Location	USA	Hydra-Cell model	G25XKBTHFECA / G35XKBTHFECA
Type of application	Seal Flushing for Large Centrifugal Mining Pumps	Flow rate	G25 Up to 75 l/min (20 gpm) / G35 Up to 100 l/min (26 gpm)
Liquid	Water	Pressure	Up to 45 bar (650 psi)
Application details	Large centrifugal pumps are widely used in mining operations for moving slurries, e.g. pumping out ground water, or transferring residual tailings to evaporative ponds. To avoid expensive early failure through rapid seal wear, the seals or packings of these pumps must be continuously flushed with clean water. Pumps used for flushing must overcome pressure inside the seal chamber, which rises as mining progresses and the slurry pumps, working harder, have to be staged together. Seal chamber pressures in the multi-stage pumps can reach 40 bar – a level well above the capability of a small centrifugal flush pump, but easily overcome by Hydra-Cell pumps. Hydra-Cell also has advantages over high pressure reciprocating pumps on flushing applications. Flow is virtually pulse-free, keeping steady pressure on the gland area, whereas piston/plunger pumps (with longer inlet strokes) may allow pressure to drop for the critical fraction of a second that lets contaminated liquid enter the seal area of the centrifugal pump – starting a process of rapid degeneration. Seal flushing is a well-documented application for Hydra-Cell pumps in the mining industry. One customer purchased 15 x G35 pumps for this work on a single mine site.		
Advantages of Hydra-Cell pump on this application	Adequate pressure to force cleaning water into the seal chamber against the internal pressure of the centrifugal pump. Steady pulse-free flow to keep the seal chamber clear of contaminant. Seal-less design, so that the performance of the Hydra-Cell pump stays consistently high (does not decline with seal wear).		

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