

Application story



High Pressure Spraying

Location	Australia (Installation: December 2020)	Hydra-Cell model	G35EKSTHFHCB
Type of application	Conveyor Belt Cleaning	Flow rate	3.6 m ³ /h (951 gph)
Liquid	Water	Pressure	55 bar (800 psi)
Application details	A major Iron Ore producer was experiencing issues with conventional belt cleaning technologies. Our partner Dynapumps was assigned to design and construct high-pressure spraying systems to replace all the mechanical scraping equipment. Third-party reports found that conveyor belts are the number one contributor to dust pollution in Port Hedland. Any miners wishing to increase their throughput must not increase their current operating levels of dust, adhering to the Department of Water and Environmental Regulation (DWER) strict regulatory guidelines. Lastly, the head end of the conveyor chute was frequently subject to high vibration while in operation. To solve these issues, Dynapumps selected the Hydra-Cell to supply 16 x HPLV (High Pressure Low Volume) pumps to assist with belt cleaning. By utilising Hydra-Cell's seal-less technology, along with a self-tensioning belt drive, Dynapumps solved the problems associated with the vibration. The modular skids were fabricated and tested at the new Dynapumps facility in Kenwick, Western Australia. Since installation, the maintenance costs are drastically reduced as the high-pressure water does not inflict damage on the conveyor belt whilst mitigating dust, allowing the operator to gain approval to expand their throughput. The customer has since ordered additional HPLV systems for Iron Bridge after the success of the original package in Port Hedland.		
Advantages of Hydra-Cell pump on this application	Wanner Hydra-Cell seal-less design ensures reliable handling of the non-lubricating and corrosive nature of the water used in the spraying system with the ability to deliver high pressure in a compact arrangement within a harsh environment.		

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