



CASE STUDY

PUMPING THICKENER UNDERFLOW IN THE MINING INDUSTRY

A wide variety of pumps struggle to meet the performance for pumping high-density mineral concentrate in thickener underflow transfer. Albin Pump peristaltic pumps are designed to handle high-solids content fluids, such as concentrated or paste (solids contents up to 65%). Our pumps feature a seal-less design to ensure the long life hose is the only item contacting the application fluid. This limits operator exposure to potentially harmful fluids and means the long life hose is the only regular maintenance item. The seal-less design is a unique benefit of Albin Pump peristaltic pumps com-

pared to other pump technologies, which utilize mechanical seals, where impellers, check valves, rotors and stators can potentially encounter the application fluid.

The specially designed hoses of our pumps allow for the pumps to run in-service longer with minimal downtime, unlike a centrifugal pump's continuous high wear rate servicing needs. Albin Pump products are bi-directional, can be serviced on site, and are the ideal pumping solution for thickener underflows, slurry transfer or chemical dosing.

WHY ALBIN PUMP® PERISTALTIC SOLUTIONS ARE THE FIRST CHOICE IN MINING APPLICATIONS?

- Our peristaltic pumps have a proven design and are able to transfer thickener underflow pastes and slurries (containing various chemicals)
- Globally, mines are using more and more Albin Pump hose pumps for a lower Total Cost of Ownership (TCO) versus rubber lined-centrifugal pumps (amongst other high-speed rotary equipment). The reasons are directly related lower maintenance costs required for a peristaltic pump (one hose), a sealless design, and its ability to pump thicker slurries versus a need for mechanical seals and costly water consumption and delivery methods (both for seal maintenance and dilution of the slurry) associated with running and maintaining centrifugal pumps while in process
- Damage-free continuous dry running
- The peristaltic design allows for gentle transfer of abrasive solids through the hose without damaging it, in contrast to a rubber lined centrifugal pump generally running at 30-40x the speed and causing quick and heavy wear on impellers, shafts, and seals
- The hose is the only wearing part and can be changed without using any special tools
- Hoses are made with the highest quality compound rubber and offer long life material and structure with inner reinforcement layers. All hoses are engineered to last longer and can handle very abrasive and concentrated fluids





In South Africa, Albin Pump® supplied 2 pump set ALH125 set at 55 m³/h each (25 rpm) and does not suffer excessive abrasive wear. The lifetime of the hose is primarily related to the pump speed. Our pumps ALH125 run continuously 24/7 and hose life is more than customer's expectation.



The slow running of our pump combined with our Natural Rubber (NR) hose offer an extended hose life time. Our NR hoses are perfectly designed to handle abrasive liquids.

OUR HOSE PUMPS ARE ABLE TO TRANSFER SLURRIES CONTAINING:

- ✓ Pyrite
- ✓ Sludge
- ✓ Viscous fluids
- ✓ Mud
- ✓ Clay
- ✓ Fluids with high solid content
- ✓ Light concrete
- ✓ Lead sulfate
- ✓ SABX
- ✓ Cyanide
- ✓ Various acids



In various mining markets:

- ✓ Copper
 - ✓ Uranium
 - ✓ Nickel
 - ✓ Cobalt
 - ✓ Silver
 - ✓ Platinum
 - ✓ Chrome
 - ✓ Gold
- ...and more!

EXTENDED HOSE LIFE TIME

Well known for its longer life hoses, Albin Pump invests in high quality raw materials (which includes natural rubber) and in an engineered hose design to perfectly balance strength and elasticity.

The result of this effort is the Albin Pump hose portfolio, which add premium performances and a life cycle up to 30% longer than competitive hoses up to 30% longer than competitive hoses when used in similar applications and conditions.

Albin Pump hoses are available in different lengths to be able to retrofit most major competitive pumps (Bredel™, Verderflex™, Abaque™...).



Albin Pump® is a brand of Ingersoll Rand and part of the Precision and Science Technologies (PST) business segment. PST consists of a portfolio of complementary technologies and industry leading brands such as Milton Roy®, ARO®, LMI®, Haskel®, Thomas®, Dosatron®, SEEPEX®, MP Pumps® and Oberdorfer®. At PST, we deliver solutions for precision dosing and transfer of high value fluids in mission-critical markets such as life sciences, food and beverage, water and hydrogen.