



ALUMINIUM WATERJET CUTTING

GARNET REMOVAL SYSTEM

THE CHALLENGE

During normal operation waterjet cutting machines fill up with garnet which needs to be efficiently removed to continue operation. Existing inbuilt garnet recovery system is designed to remove garnet from a single source point therefore unable to remove garnet across the entire tank. Excessive build up occurs placing undue pressure on lightweight diaphragm pump which then fails to pump garnet to bulka bag recovery tank.

Machine shutdown and manual extraction is required, a common solution is semi disassemble the machine and use an excavator to dig garnet from the machine, this is time consuming, messy and carries a high risk of damaging equipment, subsequent repairs and downtime.

OUR SOLUTION

Using the Supavac SV30 vacuum solids pump fitted with low pressure discharge we were able to effectively pump all of the garnet from the tank without any equipment disassembly in 2 hours.

- A dropbox was fitted above the bulka bag recovery container to allow the material to drop into the recovery system for disposal
- The system requires a 1" connection with 80CFM of compressed air at 100psi to operate

SUPAVAC SV30

The SV30 Portable Solids Pump is a one person operator vacuum loading pressure discharge pump capable of recovering and transferring almost any flowable material, sludge or slurry.

- Lightweight robust construction, portable
- Easily retrofit to existing garnet removal systems
- Minimal maintenance, no internal moving parts
- 100% compressed air operated, intrinsically safe
- Recovers material up to 30m, delivers up to 300m



CALM ALUMINIUM

An aluminium processing plant using a waterjet cutting system is dependant on performance of inbuilt garnet recovery system which is currently unreliable and inefficient at keeping with demand. Resulting in unscheduled downtime, additional maintenance expenses and reduced production output.

THE RESULTS

- Problem solved in 2 hours
- No disassembly required
- Supavac SV30 delivers a an efficient and fast solution
- Portable solution to service multiple machines
- No more unscheduled downtime

