



# From pump rental to sales: the solution-driven approach

MechChem Africa visits the new expanded premises of Integrated Pump Rental (IPR) and Integrated Pumps Technology (IPT) and talks to IPR's managing director, Lee Vine.

With 13 years previous experience in the pumping industry – as an applications engineer on the dewatering side; head of a mining and minerals pumping division; and as a rental division manager – Lee Vine has been with IPR since its inception in 2015. “With all my experience on mines I saw a need for a solution for silted-up lined ponds. This sparked an idea for my own dredge, which we started to design as soon I joined IPR,” Vine reveals.

The end result is IPR's proprietary Slurry Sucker, which has achieved instant success as a rental solution. “Our Slurry Sucker meets the need to clean lined process ponds, removing the accumulated slurry deposits from the pond floor,” Vine says.

Notably, the Slurry Sucker system does not require submersible pumps with cutter heads to agitate the settled sludge, which tend to damage the liner. “We pump water through the dredge head to disturb the sludge, and we immediately pump the slurry up and out of the pond. This means that we can clean a pond while it is online, since the disturbance is contained in the region immediately surrounding the dredge head and all of the displaced slurry

is evacuated immediately,” he explains.

Describing the components of the system, Vine says that two 18 kW dewatering pumps located in front and at the back of a floating pontoon are used to draw water from the top surface of the pond. This water is pumped through front and back jetting bars to agitate the slurry on the pond floor.

“A submersible slurry pump suspended underneath the pontoon is then used to evacuate the disturbed area, pumping the slurry through floating hoses out of the pond,” Vine tells MechChem Africa.

“To move the Slurry Sucker across the pond, we use a transferring rope system with winches, which pull the system from one side to the other. After each pass the height of the suspended slurry pump is automatically dropped a further 100 to 200 mm, and once the ‘cut’ is completed, the tensioning winches are moved across a further two metres and a new cut line is started,” he says, adding, “this design suits ponds of 5.0 to 6.0 m deep that are, typically, 150 by 150 m in area.”

Vine says that, at many of the process circuits on our mines, due to lack of maintenance and/or incidents such as thickener breakdown, “I have seen the accumulated silt from

process water ponds being fed back into the processing stream, with costly consequences. Our Slurry Sucker rental solution is ideal for preventing that from happening, safely and reliably, without having to shut down the processing plant or having to invest in new equipment,” he points out.

“And for bigger ponds, or where the pond is caked with dry thick slurries with too little surface water, we can clean the pond using our hydro-mining solution called Slurry Blaster. This involves taking clean water from another pond or source and then blasting the slurry material towards the slurry to create enough suspension to pump off the slurry. But this has to be done offline,” says Vine.

“Both of these rental options are 100% turnkey solutions. We do not simply hire out equipment and deliver to site. Following a technical onsite consultation, we supply all of the equipment and accessories needed to clean the pond in question, then we install it and oversee the entire cleaning process, which can take months. We then leave with our equipment after the job is done,” he assures.

## Diesel-powered pit dewatering from Sykes

IPR took responsibility for the Sykes brand in 2016 with immediate rental success. “We have only been the exclusive Sykes agents for a little over a year and we have already filled our rental fleet with Sykes solutions. When people rent our equipment and see how effective and reliable it is, they find it much easier to justify a purchase,” he suggests.

Vine cites a recent success in the coal industry involving Sykes CP150s. “Following a rental period from November 2016 to February 2017, our clients were so impressed that they bought eight units identical to those on rental. These pumps are from the 6-inch Sykes Contractors Pump (CP) range. They have a shut off head of around 70 m and on the right side of the curve flows of up to 120 l/sec can be delivered,” he says.

Also included in the Sykes rental offering from IPR are the XH (extra-high head), the HH (high-head), the MH (medium-head) and the SW (sewage) ranges. “The CP range is very versatile. It gives a good balance between flow and head, but we can offer a best-fit pump for every conceivable pit dewatering

application, with heads of up to 210 m from the XH range and pump flows, at nominal heads of over 500 m.

“The Sykes CP150 can empty the 2.5-million litre Olympic Swimming pool in four hours, while the MH300, built for high flow and long pipe runs, can do it in one hour and 20 minutes,” Vine notes.

The key advantage of Sykes pumps is that the impellers, wear plates and all the internals of the wet end are made in stainless steel as standard. “In South Africa, we are seeing a rise in acid mine drainage and the pH levels of mine wastewater are continuously falling. Stainless steel internals are increasingly necessary to combat corrosion in this tough environment.

“Also, Sykes pumps have an excellent and highly reliable Venturi-based self-priming system with no moving parts. This system allows the pumps to prime, run in snore conditions, run dry and automatically reprime, without any damage to the pump,” Vine tells MechChem Africa.

## Drainage sludge and wastewater solutions

Where electrical power is readily available, IPR has a full range of drainage solutions available: Grindex dewatering pumps from 1.0 kW to 90 kW; Grindex sludge pumps from 2.0 to 10 kW; as well as the Faggiolati range of submersible electric wastewater, transfer, sewage and chemical pumps in the 5.7 kW to 270 kW power range. “With full stainless steel pumps available, Faggiolati pumps offer robust solutions for arduous and corrosive conditions found on mines, construction sites and water treatment plants,” Vine says, adding that Faggiolati pumps are also starting to be used in the food industry for pastes and food pulp.

“But we are not a simple supplier of pump rental units,” he reiterates. “We supply full solutions that include all of the accessories necessary to get the pumps working quickly and effectively. If a control panel is needed, we have portable units ready for immediate installation and we supply hoses, hose flotation devices and all of the connectors and fittings needed – everything from the problem to the discharge point,” he points out.

“We pride ourselves on our service success. We focus fully on our clients and their problems and applications. Client satisfaction is our number one priority. Second is quality.



Sykes diesel powered dewatering pumps are also now part of the rental offering from IPR. These include the XH (extra-high head), the HH (high head), the MH (medium head); the CP (Contractors Pump); and the SW (sewage) ranges.



Grindex Maxi L pumps being used to check the depth of the clean water dam. IPR has Grindex dewatering pumps from 1.0 kW to 90 kW and Grindex sludge pumps from 2.0 to 10 kW available for rental.

As a rental company, high-reliability is critical, so we develop and offer dewatering, slurry and sludge solutions using only quality brands and components. This combination makes our offering difficult to better,” Vine believes.

“The approach spills over to the sales side of our business, through IPT. We offer the

same high levels of service and support and the same high-quality product range to our customers.

“Also, by adopting a rental solutions in advance of making a purchase, customers can be certain that their money will be wisely spent,” Vine concludes. □



Designed to clean lined process ponds, the Slurry Sucker system does not require submersible pumps with cutter heads to agitate the settled sludge and, due to the design and engineering of the dredge head, it is able to operate while the pond is online.



## Round-the-clock dewatering

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