



CURVE™
The next CURVE™ in slurry pumping

NEWS RELEASE

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New Curve™ Slurry Pump surpasses all expectations

Pump and Abrasion Technologies® (PAT) unveiled its new CURVE™ range of pumps in September 2016. A prominent South African ferrochrome processing plant was among the first companies to adopt this new technology by implementing a project to change all their pumps to the CURVE range of pumps. The conversion project commenced with the installation of the first CURVE™ pump on 1 November 2016. Since then, this pump's performance has surpassed all expectations while being closely monitored to validate the actual performance of CURVE™ pumps in real-world applications and conditions.

"This was in effect the first true test of the CURVE™ S150 pump," says James Pienaar, PAT sales director. "The changeover of all existing pumps at the client's plant to the CURVE™ range is a process that takes time, but we are currently standing at over 10 CURVE™ pumps installed and operating at the plant."

Innovative Features

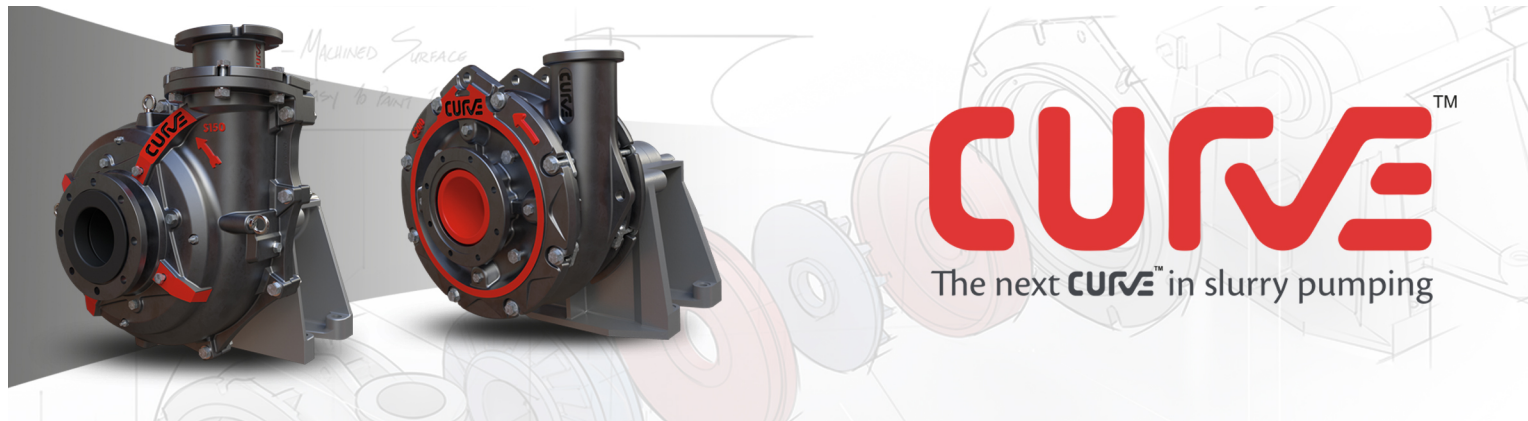
The CURVE™ S150 model offers several innovative features that makes it an ideal candidate to meet the client's operational needs. These features include a one piece volute liner, fully profiled impeller vanes, adjustable throatbush, enhanced cutwater profile, and a clip-in suction joint. Sealing performance and life have been addressed by a larger diameter expeller and high chrome shaft sleeve and lantern ring. The CURVE™ S150 also features a discharge piece designed to eliminate the need to remove the discharge pipe during routine maintenance.

Operational Benefits

According to Pienaar, the client has benefitted handsomely from the installation of CURVE™ pumps. "The major benefit in investing in the CURVE™ is cost saving. Through the use of the latest design and technology, these pumps are highly durable and thereby reduce the Total Cost of Ownership," Pienaar explains. "Along with this, the CURVE™ pumps boast a longer wear life cycle, are safer to work on and require maintenance less often."

PAT has been monitoring the performance of the first pumps installed at the client's plant on an on-going basis and the results underline the CURVE's™ incredible operational capabilities. "One of the most astounding results we have seen so far is a 73% reduction in downtime. The pump is only opened every third maintenance cycle due to its longer wear life. This was measured in comparison to the wear life and required maintenance of the previously installed pumps," says Pienaar.

Along with this, maintenance on the pump was reported as being easier and faster compared to experiences with previous pumps. This is due to the inherent features of pumps in the CURVE™ range. For instance - the pump's encapsulated one-piece volute liner reduces opening and closing time by 80%; eye bolts allow for safe removal of the casing; the casing assembly is a balanced load for safe handling, and the discharge pipe no longer needs to be removed when disassembling the pump thanks to the newly designed discharge piece.



Pienaar elaborates on the report saying that the pump also reduced electricity consumption due to its efficient design. “An 8% power reduction was reported. This power saving is achieved throughout the life cycle of the pump. Slurry flows through the pump in a more natural flow pattern. A uniform wear design means that the hydraulic profile is maintained and efficiency remains ‘higher for longer’.”

Additional benefits that the client reported with this pump includes quick and easy dismantling, inspection and reassembly; improved safety when working on the pump; excellent sealing over the trial period; and essentially choke-free operation.

Total Ownership Cost Reduced Significantly

An astounding 52% reduction in total ownership cost was reported with a number of factors contributing to the reduction. Firstly, the pump’s adjustable suction liner maintains optimal clearances thereby reducing wear and improving efficiency. Then there is the one piece volute liner that improves the liner wear life from 10 weeks to 30 weeks. An assessment of the pump also revealed that the CURVE™ pump impeller at 15 weeks had visibly reduced wear compared to the previously installed pump at just 5 weeks.

Pienaar explains how these results prove the CURVE™ range’s ability to outperform older technology pumps on the market. “When we examine the basic operating conditions of the previous pump and the CURVE™ pump in the trial application, they are virtually the same. Both pumps have rubber liners and a 35% chrome impeller. In terms of expected performance, both pumps offer 38 l/s and specific gravity (SG) was unchanged at 1.5. The duty covered by both pumps is the transfer-to-plant with a particle size of 80% less than 1.5mm. In spite of many similarities on paper, the CURVE™ S150’s performance is outstanding. It proves that PAT’s design and engineering is absolutely cutting edge and that the company can deliver on the claimed benefits of the CURVE™ range.”

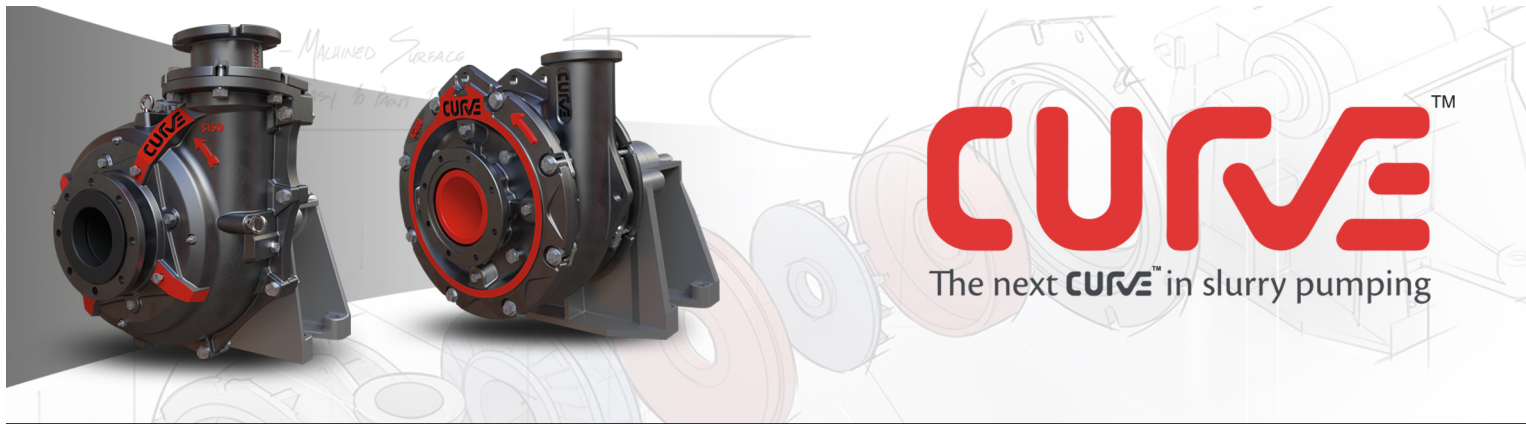
Best Solution

“The application at the client’s plant is a perfect example of what the CURVE™ range of pumps is able to do for a mine. Now there is concrete evidence that this pump is the best solution for any mine or minerals processing operation. The facts are there to prove that the CURVE™ slurry pumps save real money,” Pienaar concludes.

Maiden Curve™ Project

During the first quarter of 2017, PAT was awarded their first all CURVE™ pump project. The project in a new technology flotation application, included the supply of 13x S150 CURVE™ pumps inclusive of motors and drives. The project was initially proposed late 2016 and the order was placed in February 2017 with delivery in March 2017. What makes this project significant is that the wear life of the pumps had to be guaranteed for a fixed period as part of the client’s operation methodology. This obviously made the CURVE™ an ideal candidate due to its high emphasis on total ownership cost reduction and service cycles.

More information on the CURVE™ is available at www.pumpandabrasion.co.za



The End

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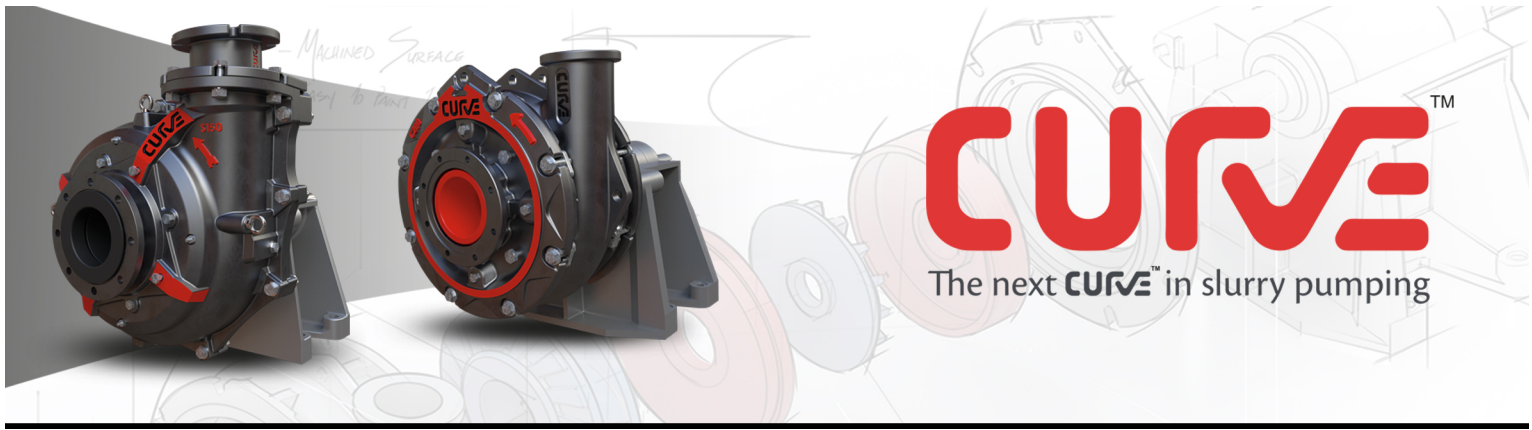
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About Pump & Abrasion Technologies®

Pump and Abrasion Technologies® is a respected manufacturer and supplier of heavy duty pump solutions to the mining and mineral processing industries. It has developed a range of premium quality pumps and pump spares, offered at competitive prices and with unparalleled service and backed by ISO 9001 accreditation. Pump and Abrasion Technologies® is based in Centurion, South Africa but its' operational footprint extends to all major African mining territories. PAT's supply and support capability encompasses entire pumping systems comprising pumps, electric motors and related accessories, from concept design and application engineering phase through to installation, commissioning and maintenance. Their Battlemax®, Battlestream®, Battlesub® and CURVE™ brands are recognized throughout Africa for offering the highest quality, excellent performance and long working life.

For more information, visit their website www.pumpandabrasion.co.za, call +27 12 666 0904/5, or email info@pumpab.co.za. Follow them on social media by liking the Pump and Abrasion Technologies Facebook page or on Twitter @PumpandAbrasion.



Cost Saving is a major benefit when investing in the CURVE.

