

SAG Mill Trommel Screen Provides Simple Mechanism To Classify Large Volumes Of Mill Product

Blurb for online platforms

Multotec's locally manufactured SAG mill trommel screens offer a viable alternative to vibrating screens in SAG mill scalping applications, offering reliable and efficient operation with reduced downtime.

Media release – 11-11-2019

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The global mining industry has become more discerning about equipment selection for process plant applications, driven by the need to increase throughput and reduce downtime. The SAG mill trommel is one example that delivers on both fronts. With large volume capabilities and a robust and simple structure, it is considered a viable alternative to vibrating screens in SAG mill scalping applications.

Many designers and mill operators believe that the benefits of simplicity and the ability to handle throughputs in excess of 3 500 tons per hour of solids make trommels the preferred equipment for this application.

“A key component ensuring optimal performance of SAG mill trommels is the screen panel, which enables this equipment to classify large volumes of mill product,” says Francois Fouche, senior screening specialist at Multotec.

The company has developed a special range of rubber compounds that are used to manufacture the compression moulded rubber screen panels which are considered the highest wearing items in the trommel.

“We have achieved excellent results from our compression moulded screen panels with wear life extending over six months in 4 500 tons per hour SAG mill applications,” Fouche states.

Multotec has nearly four decades of experience supplying locally manufactured trommel screens and today has the process capability to size SAG mill trommel screens with diameters up to 5.5

metres. The company also designs its trommel screens to suit each customer's unique requirements and confidently offers process and mechanical guarantees.

"Considering the size and complexity of large SAG mill trommel frames, Multotec is able to apply the latest Finite Element Analysis techniques during the design phase to ensure we reduce fatigue stresses and ensure structural integrity," Fouche points out.

Given the arduous duty, Multotec covers all frame surfaces that are exposed to the milled product with a wear resistant material, typically rubber.

Fouche says that the operational performance of a SAG mill trommel is another key consideration for Multotec. "As adequate retention time is required for the efficient removal of the fine fraction we need to reduce the high velocity of the slurry that exits SAG mills. We are able to achieve this with various configurations of weir bars. The design of a set of scrolls is an integral part of the design process as these regulate the flow of solids through the trommel screen," he says.

Multotec has supplied a number of trommel screens for 38 to 40-foot SAG mills that required 500 to 600 mm high weir bars to create sufficient retention time.

Multotec can also supply a range of rubber shell plates and lifter bars to protect the SAG mill trunnion against wear.

"Providing long term customer support is one of the major advantages that Multotec offers," Fouche says. "Our experienced competent field service crews maintain the screening media and provide condition monitoring on the trommels."

The Multotec field service maintenance crews can also focus on wear rate indication and monitor the wear resistant lining of the steel structure, and in doing so provide a complete maintenance solution.

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#SAGmills

#SAGmilltrommels

#optimisedthroughput

#reduceddowntime

Captions

SAG MILL TROMMELS PIC 01 : Francois Fouche, senior screening specialist, Multotec Manufacturing.

SAG MILL TROMMELS PIC 02 : Multotec SAG mill trommel screens.

SAG MILL TROMMELS PIC 03 : The SAG mill trommel has the ability to handle throughputs in excess of 4500 tons per hour.

SAG MILL TROMMELS PIC 04 : Multotec has the process capacity to size SAG mill trommel screens with diameters up to 5.5 metres.

SAG MILL TROMMELS PIC 05 : Weir bars and scrolls increase retention time and regulate the flow of solids through the trommel screen.

SAG MILL TROMMELS PIC 06 : Multotec offers its customers a service level agreement where the field service team can conduct condition monitoring and trommel maintenance.

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