

Customised solutions increase screening efficiencies



Multiple screen material options are available from Multotec and include rubber grades.

As the demand for enhanced efficiencies and throughput increases, the market is seeking out solutions that have a proven track record, yet can be customised to suit specific applications. This is the view of Multotec which sees its ability to stay abreast of technological changes and implement smarter, more cost effective ways of screening as a big differentiator.

The screen panel is the most critical aspect of the screening application as it defines what the end user will receive from the process. For this reason it is essential for the appropriate panel to be in place to ensure correct feed envelopes to

downstream processes. Much of the time, screening media is misunderstood and insufficient attention is often given to this critical component.

According to Rhodes Nelson, MD of Multotec Manufacturing, one of the driving forces in screening at the moment is the ability to determine wear of screen panels and to plan for maintenance and replacement thereof. "By being able to establish wear patterns before they cause a shutdown, process plants save substantial amounts of labour and money on downtime. As a result, we have seen an increasing demand for our online monitoring system, Hawkeye, as well as for enhancements in recording processes."

The use of visual wear indicators is another technology that is seeing an increased demand as it provides a major advantage in terms of monitoring screen panels. This is a system with a visual indicator that shows the incremental wear rates that occur on screening media. As the aperture wears, the visual dots become clearly visible and the changeout criteria cannot be misinterpreted. The end result is far more accurate determination

of screen panel changeouts.

Multotec is seeing a significant change in the end users' expectations of product quality and adherence to product specification. Nelson believes that this is predominantly because of the oversupply situation and applies specifically to coal and iron ore. "This has led to the reality that sampling of product is now far more critical than previously exhibited and there is a need for the feed envelopes to the various processes or for the final product to be more accurate."

Multotec invests strategically into R&D to respond to direct customer demands. This has resulted in the development of a number of products and solutions that are geared towards increased return on investment. "Another development we have seen is where three dimensional screening is optimising open area for screen panels. An example is the Multotec TeePee™ panel that is used in dewatering applications," says Nelson. In addition, Multotec's O-slot™ aperture is being successfully used in iron ore applications where panel life needs to be optimised, while still retaining non blinding characteristics.

Bernadette Wilson, Multotec Group, tel (+27 11) 923-6193

Joest Kwatani screens find favour in coal sector

Joest Kwatani says it has been at the development forefront of custom-built vibrating screens, grizzlies and feeders in the South African and African mining industry for almost 40 years, especially in the coal sector where numerous Witbank and Middelburg mines operate its vibrating screens, grizzlies and feeders.

The company has 30 % black ownership and Level 3 BBBEE accreditation. "Joest

Kwatani was the first company in its class to exceed the mining charter requirement," says Kim Schoepflin, MD of Joest Kwatani.

New to the coal industry is its 4,3 m wide banana screen, which fulfils the industry's need for more efficient, high throughput equipment.

The new screen design, incorporating the latest technology and refinements, addresses the failure modes of existing 4,3 m wide screens while also offering reduced downtime and ease of maintenance, a critical consideration owing to the large scale components involved. The new screen also focuses on critical issues such as lifespan and structural integrity.

Joest Kwatani has become the preferred equipment supplier to one of South Africa's largest coal preparation plants close to Lephalale in Limpopo.

"Impressively, one of our 1 500 ton per hour single deck vibrating screens (3 m wide by 9,8 m long), installed in 2005, is still operational today and proof of our equipment longevity excellence," says Schoepflin.

The company also has two of the longest single deck banana screens used in coal sizing – measuring 3,66 m wide and 10 m long – installed at a colliery in Secunda. More recently, it replaced ageing competitor screens with two 650 t/h double deck, exciter-driven, ROM-sizing screens at a Delmas, Mpumalanga-based colliery. "The fast turnaround time of less than six weeks from the date of order contributed to maximised uptime and productivity," states Schoepflin.

The company has grown significantly over the past two decades. It believes that one of the major factors contributing to this growth is its 24/7 customer service and branch network located in all major mining areas with support from its Spartan headquarters. "We recently purchased another factory to increase our capacity which now extends over an area of almost 17 000 m² in Kempton Park," Schoepflin comments.

Joest Kwatani, tel (+27 11) 923-9000



A Joest Kwatani coal plant primary feed sizing screen.