

Retrofit screens project excites SA iron ore giant

Joest Kwatani has successfully completed another large screen equipment project for a South African iron ore operation in Kathu in the Northern Cape.

Joest Kwatani has enjoyed a 25-year relationship with this mine, mostly because of the performance of its robust screens in these very arduous working environments.

Kim Schoepflin, managing director of Joest Kwatani, says this was the largest retrofit undertaken at the mine in such a short period, and that the project was completed within budget and well before the contractual completion date. "We have always enjoyed fast track projects; we find that they are always extremely efficient and, more importantly, accurate," she says.

Joest Kwatani undertook the project over two phases, which involved designing, manufacturing, installing and commissioning 57 screens in just over a year. Schoepflin says the second phase was the largest of the two involving the installation of 22 screens in the mine's cyclone plant and 15 in its washing and screening facility.

In the washing and screening plant, seven were primary double-deck and eight secondary double-deck screening machines. These size iron ore material, which is fed to the cyclone plant, where the balance of Joest Kwatani's screens are single-deck vibrating units used to separate coarse and medium sized material.

Schoepflin says that one of the biggest challenges was working in an existing plant structure and screening machine footprint, while ensuring the productivity at the mine was uninterrupted.

Significant design challenges had to be overcome so that the existing plant could accommodate the new screens. This included designing screens with low side plates and developing a fit-for-purpose spreader beam to lift the units over one another in order to place them into their final positions in the washing and screening plant.

In order to keep the programme on track, the company gradually phased itself into the second stage of the work,

and then followed up with a detailed project plan over the entire contractual period. Schoepflin notes, however, that flexibility is key to working successfully on mining projects.

"Although our plan was aligned to the mine's production programme, we have always had the ability to adjust and think on our feet to accommodate the operation's strict production requirements," she says.

All the screens feature Joest Kwatani's exciter gearboxes that increase G-forces and therefore improve the mine's recovery of ferrosilicon material and the screening efficiency, while reducing total cost of ownership. "Our screens have been known for being workhorses since their inception and will place the operation in a very good position for the future," she says.

The screens were manufactured at the company's premises in Kempton Park, Gauteng. Depending on the installation schedule at the mine, four to eight units

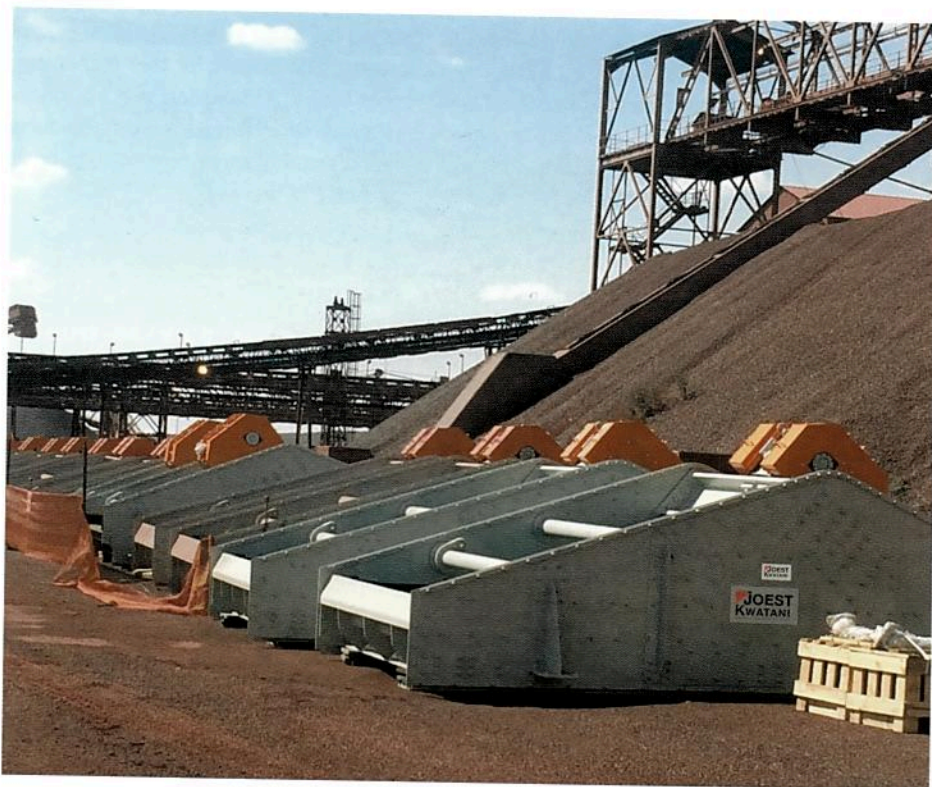


A Joest Kwatani double deck screen ready for installation at a washing and screening plant of the Kathu-based iron ore mine.

were transported to the mine site every month, after undergoing stringent testing at the company's in-house test facilities.

The screens were received by Joest Kwatani's 15 dedicated personnel stationed at the site, who oversaw the installation and commissioning of the screens. The contract also includes a one-year maintenance agreement that will be honoured by the company's dedicated office in Kathu.

This is just one of many examples of Joest Kwatani's ability to deliver a robust bespoke solution to the mining industry. And it is no surprise that it continues to dominate the screening market in the iron ore rich Northern Cape. □



Joest Kwatani drain and rinse screens ready for installation into the mine's cyclone plant.