

# Finlay Spaleck Screen works a gem at Gentra 22

**The modern alluvial diamond miner is organised. Gone are the days of simply digging where diamond-bearing gravels were thought to exist. Now, there is planned mining that takes place in accordance with resource models, environmental impact and management structures as well as rehabilitation plans.**

Like any opencast miner, alluvial diamond miners also aim to avoid double handling of material, especially waste material as this consumes time, money and harms sustainable production practices.

Mining the sandy soils near Douglas in the Northern Cape, one such established diamond miner has turned to modern technology to all but eliminate sand that does not present itself as the gravels that bear the elusive gems.

Pieter Erasmus and his mining company, Gentra 22, mine the Jasper Mine south of Douglas. Pieter had worked for the well-known Schalk Steyn for many years before the latter encouraged him to go out on his own with what he had learnt from his mentor.

At the Jasper Mine overburden of between one and four metres is stripped using a 75-ton excavator and the gravels below get ripped using a bulldozer before a 46-ton excavator loads the material into a Finlay 893 Heavy Duty Screen.

“We had bought the Finlay 893 Screen as it was similar to those used by Schalk Steyn and we were familiar with its proven benefits. We raised the sides of the screen to increase the capacity of the feed hopper from 10 to 15 cubic metres,” Pieter explains. “Oversized and medium material is screened out immediately, to be used as the base of our on-going rehabilitation and which then avoids double handling. We load our gravels into dump trucks which deliver to the stockpile that feeds our four 16-foot pans.”

“The decision to buy the Finlay 893 Heavy Duty Screen was a relatively easy one as I’d experienced first-hand what the machine could do,” Pieter explains. “It is the only machine of its type that lasts in this challenging environment and offers sustained service as the centrepiece of our operation.”

Although de-sanding screens are installed in the processing plant, Pieter was keen to get as much sand out of the diamond-bearing concentrate at an earlier stage and in doing so avoid double handling of the sandy waste material, which contains no diamonds.

“To do this effectively, we decided to invest in a Finlay 693+ Spaleck Screen and were surprised to find out that ours was the first of its type to be sold in South Africa,” he tells us enthusiastically. “As our material is at times damp, with a moisture content as high as 20%, we thought the Finlay 693+ Spaleck Screen could handle such damp material effectively and we have not been disappointed.”

Finlay Screens are distributed and maintained by Bell Equipment in Southern Africa which, with the introduction of the Finlay Spaleck option, has strengthened an already well-established range of screens.

The German designed and built Spaleck technology features a double deck high performance aggressive screen box with state-of-the-art flip-flow technology on both decks and this technology makes the machine the



ultimate tracked mobile solution for the effective processing of a host of materials that were previously seen as problematic to mobile screens.

“The material that exits the Finlay 893 Screen is fed directly into the Finlay 693+ Spaleck Screen where the sand is separated out,” Pieter explains. “To give you an example of the latter screen’s effectiveness, a recent performance study yielded that out of 82 loads of material fed into the screen sequence, 28 loads of sand stayed behind in the pit and this was handled only once. When our material is drier, as in winter, the sand content is much higher and with wet material, we slow the Finlay 693+ Spaleck Screen down a little to allow it to screen out the wetter material.”

“The end result though is one we’ve been aiming at for a while, which is to haul only the correct sized gravel of minus 40mm to our plant with oversized and sandy material remaining in the pit where it forms the basis of our rehabilitation process. Thanks to our Finlay Screens, this makes for lower production costs and has a positive effect on our bottom line.”

Genra 22’s Finlay Screens are working so well that the company took delivery of a replacement Finlay 893 Heavy Duty Screen in October 2018.



Brothers, Fanie and Pieter Erasmus, with Bell Equipment Sales Representative, Eric van der Merwe.