

Project Magnet update New Mobile Feed Hopper at Whyalla

Rocktec continue to make their mark on the Australian mining industry, recently commissioning a new mobile feed hopper for "Project Magnet", a OneSteel mining development at Whyalla near Adelaide.

The mobile feed hopper is the third project Rocktec have commissioned for Project Magnet, which is administered by Thiess, one of Australia's premier mining consultancy and service providers.

The fully automated hopper can drive alongside the stockpile of magnetite ore, rather than moving product to machinery and is capable of transferring around 1725 tonnes of product per hour via an overland conveyor.

Designed and manufactured at Rocktec's Matamata workshop, the mobile feed hopper was disassembled for transportation and reassembled on site in Adelaide in January. Engineering designer Darcy Mandeno travelled to oversee the assembly and carry out staff training. "This has been a really interesting project, right from the design concept through to formulating training programmes."

Meanwhile, Rocktec looks forward to the potential of further work with Thiess and in the Australian marketplace in general. "There is definitely potential for further work with Thiess, for whom we're working hard to become preferred supplier," says Rocktec project manager Nigel Bluett. "There is a lot of competition in our field but Thiess have been quite impressed with

our performance so far. The amount of work on offer in Australia in general is phenomenal and there are lots of opportunities."

For further details on this project please contact Nigel Bluett.



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Terminator makes an impact in Europe

Rocktec's new Terminator DX 700 is making quite an impact in Europe. Rock & Earth Equipment in Alsfeld are enjoying the advantages that the world's most powerful rock breaker can provide.

Until recently, the use of gravity impact hammers has been limited to secondary rock breaking. But Rocktec's new Terminator DX 700 provides a gravity impact solution for direct excavation in open mining or for civil engineering in hard bedrock, providing greater flexibility in use as compared to heavy hydraulic attachments. The new Terminator has a unique and patented coupling system to the carrier enhancing maneuverability and handling, enabling better raking and positioning options than previous models.

The Terminator Rock Breaker functions by lifting a forged steel weight and allowing it to free fall onto the striker pin; the pin then directs this energy into the rock. As the weight falls it resets the cylinder, so the Terminator is ready for the next cycle. Any over shock is absorbed by a unique patented buffering system. The Terminator operates with very high energy impacts at a low strike rate.

With enhanced efficiency and production, increased carrier options, low carrier shock, reduced noise exposure and dust generation and impressive performance life, the Terminator

achieves outstanding results across a range of applications including secondary breaking in mines and quarries, slag and foundry waste, over primary breaking, demolition and "exploding" large boulders.

The 5,520 kg DX 700 has an overall height of 6.8 metres and develops impact energy of up to 70,000 joules while reaching up to 15 blows per minute. Under favourable conditions, the DX 700 can achieve the output levels of a heavy hydraulic hammer (+ 5 tonnes) with 70 tonne equipment.

Rock & Earth Equipment have enjoyed putting the new Terminator DX 700 through its paces, and have recorded outputs of up to 275 tonnes per hour. With improvements to the hammer housing, including a strengthened base plate, the point of impact can be covered by the hammer – allowing it to be used directly against a wall, on hard bedrock or for removing concrete. "We can achieve high excavation rates with minimal impact on the environment," says Rocktec's European Sales Manager Ian Dawson. "The low impact frequency means we are way ahead when it comes to noise and dust, compared to conventional hammers. The on board hydraulics' lower power requirement reduces operating costs and we need far smaller carriers."

"The Terminator offers real benefits which will make it into a superb multifunctional device,

particularly in mining," adds Klaus Schwalm, owner of Rock & Earth Equipment. "Especially where direct excavation is preferred for legal or technical reasons, the impact hammer will prove its worth."

Rocktec will soon present the newest edition to the Terminator family – the DX 1800 which will offer up to 180,000 joules of impact force and will be designed for carriers around 65 – 70 tonnes.

Visit www.rocktec.co.nz for the 06/2006 Aggregates International Terminator DX600 feature.



Rock solid with news

Hi and welcome to the latest edition of Rock Solid - although it has been a while since we have had one, Rocktec has plenty of news to share. We have again had one of our busiest years with over 20 container loads of equipment heading "over the ditch" and into the Australian market as well as large projects for our local customers.

Since our last newsletter we have also introduced our new DX Terminator range into Europe with immediate success. The new machine can, in most instances extract rock direct from the face as well as provide secondary breaking options and this is proving a big hit in parts of Europe and the Middle East.

We have also supplied our first tracked mobile unit, a whopping 90 tonne Impactor mobile for Winstone's Flat Top quarry. With the successful commissioning of this unit we can confidently offer customers a full design and build service for any mobile unit they may require, so talk to us if you are thinking mobile plant.

We are also set to announce our new agency for the TRIO range of equipment including crushers and screens and I look forward to sending this out in a special edition of Rock Solid shortly.

We say hello to our new staff member Darcy Mandeno in this edition but we have a number of other new staff members joining Rocktec in March including people who will be well known to our industry and we will feature them in our upcoming editions.

If you get a chance to visit us in Matamata you will see the new Factory addition (effectively doubling our production space) and also our new Cafeteria and Board/Training room which continues the trend of modernising and improving our facilities.

I hope you enjoy this edition of Rock Solid. Please just let us know if you would like further info on any of these topics. We have plenty of great new projects underway now so we look forward to sharing those with you in future editions. We also look forward to seeing our many industry friends at this year's conference in Wellington.

Rick Johnson
Managing Director

New Impactor impresses with power

Rocktec have recently commissioned an impressive Trio Impactor for Winstone Aggregate's Flat Top Quarry near Dairy Flat.

The impactor had to pass a tough eight-hour customer performance test, but did so with flying colours. "Before the impactor was accepted it had to prove it could process 500 tonnes per hour over an eight hour period," says Rocktec project manager Nigel Bluett. The November trial was an outstanding success, and the impactor was soon put to work for the long term.

The Trio impactor combines strength with maneuverability - it may have superior processing power and weigh 90 tonnes but installed on a set of tracks it is completely portable. "This means that Winstone Aggregates can blast at the quarry face and move the Impactor back to the blasted section to be loaded directly onto the machine, rather than taking rock back to the static plant, quite a distance away," says Nigel.

Driven by two powerful diesel engines, the impactor averages an output of 500 tonnes per hour, but can perform at 650 tonnes per hour as the performance test results showed. The machine has since registered 780 tonnes per hour in recent production output checks. Rock of up to 700mm can be crushed down to 65mm aggregate or even smaller. Rock is fed into the hopper, then the apron feeder underneath feeds

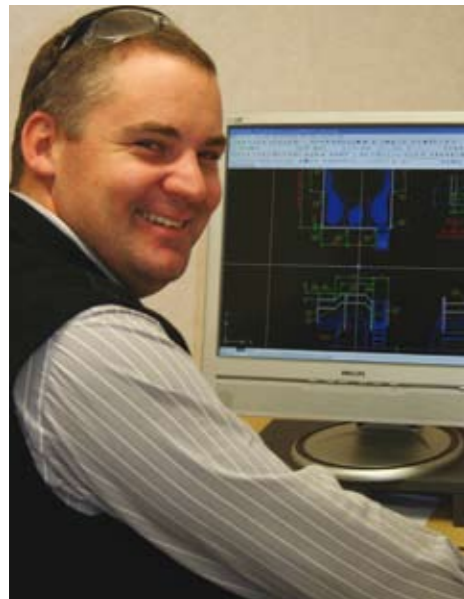


it onto a scalping screen and then crushes it in the impactor. The reduced aggregate then drops onto a conveyor belt where it is then transported to another plant for further processing. The whole process is fully automated and can be controlled remotely from the loader.

"This has been a really successful project," says Nigel, "and one of our first utilizing Trio equipment. The new impactor has now become Winstone Aggregate's number one crushing plant on the site, replacing a static plant which we designed and built around 10 years ago. This has now been disassembled and moved to another Winstone site."

For further information on the Impactor please contact Nigel Bluett.

Staff profile - Darcy Mandeno



As an engineering designer for Rocktec, 33 year old Darcy Mandeno thrives on the challenge of helping to transform a concept into reality.

"I really enjoy the creative process involved," says Darcy, who provides detailed drawings for Rocktec's engineering workshop. A relative newbie to the Rocktec team, Darcy began in April 2006, after a stint as 2nd engineer at Greenlea Premier Meats in Hamilton.

With experience at CHH Kinleith, where he completed a fitter/turner machinist apprenticeship, and a recently completed NZCE (New Zealand Certificate of Engineering), Darcy has a wealth of engineering knowledge and expertise and adds considerable value to the Rocktec team. Goals for the future include continuing to gain design experience and moving into project management.

In the short period that Darcy has been with Rocktec he has already gained International experience with commissioning equipment designed, built and supplied to One Steel's Whyalla Mine site in Australia.

A keen fisherman, Darcy lives in Hamilton with his partner Christina, who is studying law and politics at Waikato University. The couple have travelled extensively and plan to see more of the world around their professional commitments.

Heavy duty expertise creates efficiencies

A limestone storage transfer plant upgrade posed many challenges for Holcim NZ Ltd, but Rocktec were up to the task, installing an extra heavy-duty wide belt conveyor feeder and auxiliary equipment to considerably enhance efficiency.

A tight timeframe, demanding conditions and the very nature of limestone added to the complexity of the upgrade at Westport Cement Works, but Rocktec Technical Sales Rep Jason Tapper says he enjoyed the process. "It was great to sell, draw and manage the project and see a job complete from start to finish."

The primary aim of the project was to streamline the plant by removing bottlenecks in the process and minimizing the time that dump trucks have to wait to unload. Crushed limestone is brought to the plant in 60 tonne loads from a nearby quarry. Prior to the plant upgrade, trucks could not off load the full amount, but had to feed gradually.

Rocktec's new heavy duty wide belt conveyor feeder now allows for full loads to be released at once. "We had to deal with a throughput of 600 tonnes per hour, with 10 trucks coming through," says Jason. In addition to the weight, the distance that the limestone had to fall onto the belt below also created a challenge. "The material falls 9 metres down onto the feeder, so we had to create one robust enough to not only take 60 tonne lots, but to handle the impact from that height."

Extra heavy duty components including a ceramic lagged head drum were utilised to take the weight, while a vibrating bridge was also used to help minimise the impact. ESS air canons were also supplied, along with primary and secondary scrappers to eliminate build-up. "Limestone is a sticky product that can block up really easily; the air can be fired into the hopper to help the material move along. This has created real efficiencies for the customer as they do not have to waste time clearing blockages."

The new componentry had to fit in with the original plant, designed in the 1950's. "Our feeder had to integrate with the existing conveyor system which transports the limestone to the cement plant," says Jason. "It also had to be able to continue to operate and take material if the rest of the plant had shut down for a period of time."

The feeder was built over a four week period, with two Rocktec engineers traveling to Westport to install and commission. "We had to meet a really



tight timeframe and fit in within a scheduled 20-day plant shut down. The feeder also had to fit in down through a concrete bunker, so it had to be designed in modular componentry and reassembled underground."

Despite the complexities of the project, both Jason and the customer are thrilled with the result. "We're really pleased and have had no problems since commissioning in April last year. It's been a great project and we look forward to working with Holcim again in the future."

For further information on this project please contact Jason Tapper.