

A WIRTGEN GROUP COMPANY



FMG intensifies strategic partnership with WIRTGEN.

# Surface Mining in Australia



One of the WIRTGEN surface miners' most important features is their ability to load the cut material directly onto trucks, like the 4200 SM shown here. The belt can be pivoted through 90 degrees on either side and adjusted in height.

# FMG intensifies strategic partnership with WIRTGEN

In recent years, the surface miner fleet of the Fortescue Metals Group (FMG), one of Australia's largest iron ore producers, has grown to a total of 43 machines, with 28 WIRTGEN 4200 SM and 15 WIRTGEN 2500 SM, which ensure the selective, economical extraction of high-quality iron ore in the Pilbara region.

The WIRTGEN Surface Miners cut, crush and load the material in a single step, thus providing enormous potential savings. For example, they lower production costs by some 40 percent per ton of iron ore, and the investment costs are around 50 percent lower than for conventional mining methods.

## SYNERGY EFFECTS INCREASE COST-EFFECTIVENESS AND MACHINE AVAILABILITY

The good partnership between FMG and WIRTGEN forms the basis for a constant continuing development of the technologies. In the 4200 SM, FMG and WIRTGEN have developed a surface miner that is even more powerful and ideally adapted to the mining conditions for iron ore, and which has been successfully proven since 2009.

*«Support for our machines is a continuous development strategy between WIRTGEN and Fortescue. And WIRTGEN plays a major role in the development and improvement of all components.»*

*Cody Faryna, FMG Surface Mining Manager, Christmas Creek Minesite*



## INNOVATIONS IN CUTTING TECHNOLOGY PAY OFF

Everyday practical experience is used in the ongoing development of the surface miners – especially in cutting technology, one of WIRTGEN's core competencies. With the HT15 quick-change toolholder system, the innovation leader has developed a unique device





which simplifies the process of changing tool-holders and shortens it by 60 percent. Together with the new WPI (WIRTGEN Pick Inspection) tool wear detection system, which ensures maximum use of the cutting tool capacity, the latest innovations have led to significant production increases at FMG.

## EXPANDING PROVEN SERVICE STRUCTURES WITH NEW CONCEPTS

Especially in mining, where the machines are in use every day, 24 hours a day, machine availability is a central factor for success. In addition to surface mining technology, WIRTGEN also presents itself as a reliable partner with a comprehensive service offering. The service products are the result of an intensive collaboration between the main WIRTGEN plant in Germany and its subsidiary WIRTGEN AUSTRALIA in Perth. The regular communication with and physical proximity to the customer ensure fast reaction times. New demands, process changes or machine developments can thus be quickly implemented – both directly on site in the mine and in the plant.

In the middle of 2012, a general overhaul of the surface miners in Perth was added as a new product in the WIRTGEN GROUP's service program. With the strategic change to a proactive maintenance system, both partners are setting the course for the future, as the growing surface miner fleet means increased maintenance. The general overhaul sets the pace for an optimized and far-sighted maintenance strategy.

## MINING IN AUSTRALIA - WIRTGEN INVESTS IN PERSONNEL AND INFRASTRUCTURE

"In order to further strengthen our position as a reliable mining partner in Australia, we have made enormous investments in technical personnel, administrative systems and the infrastructure – in the mine as well as at the branch office. On a site of 4.7 hectares, we are also constructing a factory and warehouse building specially equipped for surface miners, in which we can carry out general overhauls or retrofits of components, as well as training on service and work procedures," says Paul Hockridge, General Manager Mineral Technologies WIRTGEN AUSTRALIA, describing the investments to expand the WIRTGEN GROUP service structure in Australia.

*«WIRTGEN incorporates our ideas and practical experience into the further development of the machines and offer a service that meets our very high demands and requirements.»*

*Hedley Quick, FMG Superintendent  
Surface Miners, Cloudbreak Minesite*

*«WIRTGEN takes care of everything we need.»*

*Hedley Quick, FMG Superintendent  
Surface Miners, Cloudbreak Minesite*

**1 |** The comprehensive WIRTGEN GROUP services ensure maximum availability and output of the WIRTGEN Surface Miner fleet.

**2 |** The mined material is deposited in windrows behind the machine. This allows material to be cut independently of the loading process. WIRTGEN is the only manufacturer worldwide to offer customers both methods and hence the optimum solution for the prevailing requirements.



*«The majority of the ore stock could not have been extracted using conventional means, making the surface miners decisively important to our success.»*

*Cody Faryna, FMG Surface Mining Manager, Christmas Creek Minesite*



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