Wirtgen | World premiere of the new 280 SM(i) surface miner

100 per cent mining – environmentally friendly, efficient and safe extraction of primary resources in a single operation

With the new 280 SM(i) surface miner, Wirtgen has developed another efficient and practice-oriented solution for the extraction of primary resources. Its innovative technologies enable high machine utilisation rates and maximum productivity.

Cutting, crushing and loading of rock in a single operation

The 280 SM(i) is a high-performance surface miner designed for the reliable and selective extraction of primary resources by direct loading, sidecasting or cut-to-ground. Raw materials are extracted and crushed in situ in purest quality in a single operation – without drilling and blasting, and with minimal environmental impact. The 280 SM(i) is driven by four steerable and height-adjustable crawler units. The machine is highly manoeuvrable and can be quickly turned at the end of a cut. The LEVEL PRO *ACTIVE* automatic levelling system maintains the specified cutting depth with consistently high precision and without further aids.

Efficient cutting technology

The 280 SM(i) is an all-rounder for all rock hardnesses and applications. The 2,750 mm cutting drum unit with a cutting depth of up to 650 mm is precisely adaptable to each specific application and achieves outstanding cutting performance with minimal pick wear. Wear-resistant toolholder systems ensure optimal pick utilisation and minimal downtimes. The soft rock cutting drum unit is designed especially for high material flows in soft rocks. In contrast, the hard rock cutting drum unit ensures maximum durability and long life in hard rocks.

Maximum utilisation rates for maximum productivity

In the extraction of primary resources by open cast mining, the key priority is always a combination of highest possible productivity, maximum purity of the material mined and the reduction of impact on people and the environment to a minimum. Aside from performance, the productivity of mining equipment depends primarily on constant operational readiness and optimum machine utilisation. Only a reliable and maintenance-friendly machine assures high utilisation rates. The innovative operator’s cabin contributes to the operator’s ability to exploit the full potential of the machine and maximise productivity. The 280 SM(i) surface miner is therefore the tool of choice for cost-efficient mining processes in the 120-ton class.

High-performance belt conveyor unit with high material flow

The high-performance, hydraulically height-adjustable, rear discharge conveyor with a movable counterweight can be slewed to the right and left by 90° and enables the loading of mining trucks with payloads of up to 100 tons. What’s more, the operator can continuously vary the speed of the belt independent of the engine speed to reduce belt wear dependent on the material volume and the piece-size of the mined material.

Outstanding operator comfort

Entirely new standards are set by the dust-sealed and air-conditioned positive-pressure cabin with fresh air filtration, which effectively prevents the ingress of dust into the operator’s workplace. Mounted on the front left chassis column, the operator’s cabin with all-round glazing is decoupled from the machine body and can be rotated by 90° in both directions. Up to six cameras can also be installed to provide even better all-round vision. Various automatic functions also contribute to the operator’s comfort, reduce the risk of fatigue, assist the operator in the achievement of high productivity rates and make the overall process more efficient.

Conservation of resources and environmental awareness

These days, the reduction of carbon emissions, noise, dust and vibration while maintaining consistently high extraction rates and productivity is more important than ever before. With the new surface miner, Wirtgen offers innovative technologies that minimise impact on the environment and conserve valuable natural resources. Thanks to the reduction of carbon emissions by low specific fuel consumption, an efficient water management system and effective solutions for the minimisation of dust pollution, the 280 SM(i) shows that ecological and economic considerations are actually compatible and closely interconnected.

**Photos:**

  
W\_photo\_280SM\_00026\_HI

The Wirtgen 280 SM(i) is a high-performance surface miner for reliable, selective extraction of primary resources by direct loading, sidecasting or cut-to-ground.



**W\_photo\_280SM\_00004\_HI**

With the 280 SM(i) surface miner, primary resources are extracted in purest quality and crushed in situ in a single operation – without drilling and blasting, and with minimal environmental impact.



**W\_photo\_280SM\_00013\_HI**

The 280 SM(i) surface miner’s air-conditioned and soundproofed operator’s cabin with all-round glazing is swivel-mounted on the front chassis column and provides a productive working environment with a low risk of fatigue.

Please note: the photographs shown here are only previews. If you wish to publish them in other media, please download the higher resolution (300 dpi) versions from the Wirtgen Group websites.

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