

thyssenkrupp showcases world's largest gyratory crusher at MINExpo INTERNATIONAL® 2016

New design features an increased mantle diameter – higher performance at a lower weight

The Industrial Solutions business area of thyssenkrupp, a world leader in the supply, construction and service of crushing equipment for the mining industry, presents the KB 63-130, the world's largest gyratory crusher, at MINExpo INTERNATIONAL® 2016 in Las Vegas. The new design features a larger mantle diameter that increases the machine's throughput by 30 percent, compared to thyssenkrupp's previous model. A virtual reality simulation highlighting the new, significantly lighter crusher is available at the thyssenkrupp booth (North Hall, #3051) at MINExpo 2016.

When compared to the previous model, the KB 63-114, the KB 63-130 features an approximately 14 percent larger mantle diameter of 130 inches (approx. 3.3 meters), and is much lighter at 490 mt. The machine's mantle diameter increases the throughput to 14,000 mtp/h, which is a more than 30 percent higher throughput compared to the KB 63-114 model. The increased throughput, combined with significant weight reduction, has been made possible by combining proven finite element method calculations with advanced discrete element method simulations. The KB 63-130 also sets new standards with a drive rating of 1,500 kW.

"In the past, the rule of thumb was the bigger the diameter, the taller the crusher," says Detlef Papajewski, Head of Mineral Processing, thyssenkrupp Industrial Solutions. "Because users generally only need a bigger diameter to increase output, the KB 63-130 is exactly the same height as the other crushers in thyssenkrupp's 63-inch series, despite its larger mantle diameter."

The machine's shell sections have a "fish belly design," similar to other thyssenkrupp gyratory crushers. This special design reduces stresses in the crusher housing and increases its strength, despite the optimized weight. Technical highlights of the new crusher include the rotatable countershaft assembly for setting gear and pinion tooth clearance, and the eccentric bearing assembly with top bevel gear. Along with providing better machine balance, the new bearing system has a much more compact design, as well as maintenance-friendly assembly and disassembly from the top.

The new gyratory crusher continues to display the standard properties of the 63-inch series. If used in a semi-mobile crushing plant for example, the weight of the crusher can be reduced by around 200 mt prior to relocation by removing certain components. These component parts, such as the heavy main shaft fitted with crushing wear materials, can also be easily removed for maintenance purposes.

About thyssenkrupp Industrial Solutions:

The Industrial Solutions business area of thyssenkrupp is a leading partner for the engineering, construction and service of industrial plants and systems. In addition to mining, ore processing and port handling equipment, its portfolio also includes chemical, coke, refinery, cement and other industrial plants, along with corresponding services. In the naval sector, thyssenkrupp is a leading global system supplier for submarines and surface vessels. As an important system partner to our customers in the automotive, aerospace and battery industries the company optimizes the value chain and improves performance. In collaboration with its customers, thyssenkrupp develops top-quality solutions and delivers efficiency, reliability and sustainability over the entire life cycle. Around 19,000 employees at over 70 locations form a global network with a technology portfolio that guarantees maximum productivity and cost-efficiency.

For more information visit: www.thyssenkrupp-industrial-solutions.com.

About thyssenkrupp in North America:

thyssenkrupp North America, Inc. oversees more than 400 facilities in the United States, Canada and México. In fiscal year 2014/2015, thyssenkrupp generated sales of approximately €9.8 billion (\$11.25 billion) in the region, accounting for almost 23 percent of the Group's total sales. This makes the region the Group's biggest sales market after Germany and other member countries of the European Union.

For more information visit: www.thyssenkrupp-north-america.com

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