# Mill lining solutions Megaliner<sup>TM</sup>

#### Application

The Megaliner<sup>™</sup> is suitable for large AG, SAG and ball mills with large trunnions and where modern liner handlers are available.







The innovative Megaliner<sup>™</sup> concept, developed by Metso, minimizes safety risks and significantly reduces downtime and maintenance costs.

# Read more at: **Description metso.com/megaliner**

#### Discovering your needs

Metso understands that good business means ensuring mill availability and minimizing downtime. Peak availability is becoming more and more important as grinding mills are made increasingly larger, processing more tons per hour. Production lost due to downtime represents significant costs. Liner installations therefore need to be carried out in a fast and efficient way at the same time as workers need to be kept safe performing dangerous liner replacement work.

#### Fast and safe installations

Metso Megaliner<sup>™</sup>, with its innovative attachment system, enables a quick and easy installation and removal of liners as well as a safer and less stressful environment for installation crews. Each Megaliner<sup>™</sup> element covers a large area of up to 5m<sup>2</sup> and is light-weight in relation to size. It integrates multiple lifter and plate rows and has a minimum number of attachment points. Thanks to its unique attachment system, patented by Metso, liner bolts are inserted and removed from the outside of the mill. So, there is no need for any member of the installation crew to be in the danger-zone of the liners while inserting or removing liner bolts.

To further speed up installation, guiding markers on the liners facilitate easy positioning and alignment.

#### Increased maintenance efficiency

Metso has also developed a patented Liner Positioning System to further improve safety and efficiency. Using this camerabased system, the liner handler operator can accurately position new liners without guidance from other workers. By enabling the liner handler operator to safely work alone, maintenance efficiency is increased while maintenance costs are kept down. Metso also offers installation supervision, full installations and wear and performance follow-up, as additional services. Through these services, Metso can improve installation efficiency and also carry out customized liner optimization.

#### Benefits

- Maximized mill availability
- Fast and efficient installation
- Easy removal of bolts and much faster replacement of worn liners
- Improved safety for workers

# Boliden's Aitik Plant, Sweden Successful implementation of Megaliner™

Boliden's Aitik copper plant in northern Sweden was first to install the innovative Megaliner<sup>™</sup> system in their new AG mills.

### Challenge

• More efficient liner change-outs without compromising safety

## **Solution**

• Development of the Megaliner<sup>™</sup> concept, and installation in two 38'x45' AG mills

### **Results**

- Replacement of multiple Megaliner<sup>™</sup> sets has proven to reduce shell liner change-out time by 30-40% as compared to conventional liners
- The customer greatly appreciates the comparative safety of the Megaliner™ system, since nobody needs to be in the danger-zone of the liners during installation or replacement

30-40% faster change-out gives more uptime and