Maximizing plant efficiency and throughput
Energy efficient solutions for superior performance

Ensuring the accuracy and consistency of product size directly affects the profitability of your operation. Efficiently reducing ore size requires the optimum mix of world-class equipment. As the leading supplier of crushing, screening and grinding equipment, Metso ensures that you have selected the best technology, systems and solutions for your mining application.

Comminution Solutions from Metso

Minerals processing is changing. With diminishing ore grades and rising energy costs, ensuring that a plant has the lowest total cost of ownership is vital. More sustainable technologies & practices are required to make these hard, variable and low-grade ore bodies viable. Metso has an extensive history of technological development and is recognized as the world leader in engineering and innovating comminution circuits that are not only energy efficient but are also lower in operating costs helping our customers achieve maximum production and consistent recovery.

Metso is the global leader in comminution technology

Crushing
Metso’s high capacity, reliable and energy efficient crushing equipment delivers superior performance and maximized throughput for the most demanding mining applications.

Screening
Metso’s high efficiency screening solutions provide dependable screening performance for large material volumes with hard and abrasive ores.

Grinding
Metso’s comprehensive line of grinding mills and systems provide the most effective and energy efficient technology across wet or dry, horizontal or vertical stirred milling operations.

Competitive solutions that result in productive mining operations
Introducing the Superior™ Primary Gyratory MKIII Range

The right choice for your application

Metso’s line of Superior™ Primary Gyratory crushers are designed to meet the demand for high efficiency and high capacity mining installations.

Superior™ MKIII is the first high speed Gyratory. The new features allow significant CAPEX reduction of a primary crushing stage from the retaining wall to the primary stock pile.

Industry’s most CAPEX efficient Primary Gyratory

Excellent performance
- Up to 30% increased capacity from Superior™ MKII to MKIII
- Possible to use a smaller machine to achieve the design capacity
- Higher throughput is reached thanks to increased speed, installed power and mechanical improvements

Rotable shells
- Hydraulic separation and individual lifting of shells for easy & safe maintenance
- 70% reduction in downtime with new set of shells and concaves
- Significant reduction of primary stock pile based on crusher maintenance downtime

Proven technology
- The new features of Superior™ MKIII have been proven and tested on the field
- Majority of structural and rotating components same as Superior™ MK-II

Advanced automation
- Intelligent measurement of crushing operations by control systems such as VisioRock® and VisioTruck®
- Detailed reporting and on-line analysis of plant operations
- Increased operational safety

Perfect blend of experience and innovation

100+ years of proven experience, latest advancements in metallurgy and thousands of crusher installations around the world combine to create a Primary Gyratory crusher with the best performance, highest capacity, and highest reliability.
Introducing the industry leading **SmartStation**

Metso is an expert in automating crushing stations. The patent-pending **SmartStation** combines innovative monitoring tools such as VisioRock® and VisioTruck®, along with expanded sensors on the equipment and bin/hopper, enabling intelligent measurement and automated-control of crushing operation for optimal ore processing and distribution. The system includes on-line analysis and detailed reporting of plant operations, as well as increased operational safety.

**VisioRock® technology**
An advanced innovative image analysis technology for estimating rock size distribution and other rock properties, usually online, most often on a conveyor belt. VisioRock® system may be used either as a standalone instrument, or as a component of an integrated advanced control system.

**VisioTruck® technology**
An advanced innovative vision technology for estimating rock size distribution and other properties of mine truck loads. VisioTruck® intelligently archives truck images and makes it easy to navigate among archived images or replay the discharge of any truck in the past.

**Metso metrics**
- **Analytical dashboards and preventive maintenance**
- **Vault level sensor**
  - Crusher adjustment for more consistent level in vault
- **Automatic incoming material size analysis**
  - Crusher adjustment for wear compensation
  - Delivering optimized production and reduction in vault size
Why choose Metso Superior™ Primary Gyratory?

Metso’s Superior™ is leading the global market since 1953. The range provides innovative and cost-effective features with power and performance to operate in the most demanding conditions.

**Proven and Robust core Superior™ design delivers +30% capacity**

- +30% additional throughput
- 3 times faster wear parts exchange
- 70% reduced downtime
- Robust and proven design
- Safe maintenance
- Lower environmental impact
- Get more from less

One piece robust main shaft

Mn Bronze spider bushing
3x longer lifetime

Shell separators

Minimize bridging

Large upper counter weight
60% Dynamic loads

One piece U shape arched spider

Most of the new MKIII features are retrofittable on existing Superior™ MKI and MKII
Superior™ Gyratory Crushers
A step forward in performance

Superior™ Gyratory Crushers combine Metso’s trusted technology with the latest advancements in metallurgy to achieve peak efficiency and maximized throughput.

Main characteristics

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight (mtons)</th>
<th>Feed opening (mm)</th>
<th>Power (kW)</th>
<th>Maximum capacity (mtph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>42-65</td>
<td>120</td>
<td>1066</td>
<td>450</td>
<td>5250</td>
</tr>
<tr>
<td>50-65</td>
<td>153</td>
<td>1270</td>
<td>450</td>
<td>6875</td>
</tr>
<tr>
<td>54-75</td>
<td>242</td>
<td>1370</td>
<td>600</td>
<td>7500</td>
</tr>
<tr>
<td>62-75</td>
<td>298</td>
<td>1575</td>
<td>600</td>
<td>8750</td>
</tr>
<tr>
<td>60-89</td>
<td>365</td>
<td>1525</td>
<td>750</td>
<td>12000</td>
</tr>
<tr>
<td>70-89</td>
<td>430</td>
<td>1780</td>
<td>900</td>
<td>15000</td>
</tr>
<tr>
<td>60-110</td>
<td>553</td>
<td>1525</td>
<td>1500</td>
<td>17000</td>
</tr>
</tbody>
</table>

Capacity (mtph): Typical feed curve, SG=2.75 t/m³, maximum eccentricity

<table>
<thead>
<tr>
<th>OIS (mm)</th>
<th>152 (6 in)</th>
<th>177 (7 in)</th>
<th>203 (8 in)</th>
<th>230 (9 in)</th>
<th>254 (10 in)</th>
<th>305 (12 in)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min</td>
<td>Max</td>
<td>Min</td>
<td>Max</td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>42-65</td>
<td>2354</td>
<td>3362</td>
<td>2893</td>
<td>4133</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-65</td>
<td>2414</td>
<td>3449</td>
<td>2958</td>
<td>4226</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54-75</td>
<td>2908</td>
<td>4154</td>
<td>3170</td>
<td>4529</td>
<td>3513</td>
<td>5018</td>
</tr>
<tr>
<td>62-75</td>
<td>2913</td>
<td>4162</td>
<td>3846</td>
<td>5494</td>
<td>4965</td>
<td>6235</td>
</tr>
<tr>
<td>60-89</td>
<td>365</td>
<td>1525</td>
<td>4576</td>
<td>6538</td>
<td>5537</td>
<td>7625</td>
</tr>
<tr>
<td>70-89</td>
<td>5061</td>
<td>7215</td>
<td>6076</td>
<td>8981</td>
<td>7033</td>
<td>10047</td>
</tr>
<tr>
<td>60-110</td>
<td>5579</td>
<td>7970</td>
<td>7394</td>
<td>10562</td>
<td>8946</td>
<td>11923</td>
</tr>
</tbody>
</table>

5 year warranty on main components
The Metso Way -
Making the big difference to our customers

Everything we do is based on deep industry knowledge and expertise that makes the big difference to our customers. Decades of close customer collaboration and adaption to our customers’ ever-changing needs have transformed us into a knowledge company.

Through our knowledge and experience, we work with our customers to create solutions that enable them to attain their objectives. We call this The Metso Way, which focuses on creating value to our customers. The Metso Way is built upon knowledge, people and solutions.

**Knowledge -**
We have deep knowledge about our customers’ business environment, processes and challenges.

**People -**
Our committed and highly competent people make the difference to our customers.

**Solutions -**
We create the technology and services required to meet our customer needs.