

Mining crushers
Superior™ MKIII Primary Gyratory

Maximizing
plant efficiency
and throughput

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

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.

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 provides 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

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.

Superior™
Primary Gyratory
enters 3rd phase of
evolution

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.

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

Industry's most
CAPEX efficient
Primary Gyratory

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.



Delivering optimized production and reduction in vault size

Metso metrics

Analytical dashboards and preventive maintenance



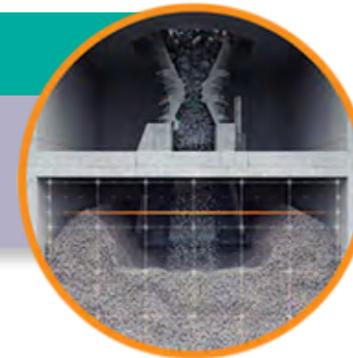
VisioTruck®

Automatic incoming material size analysis



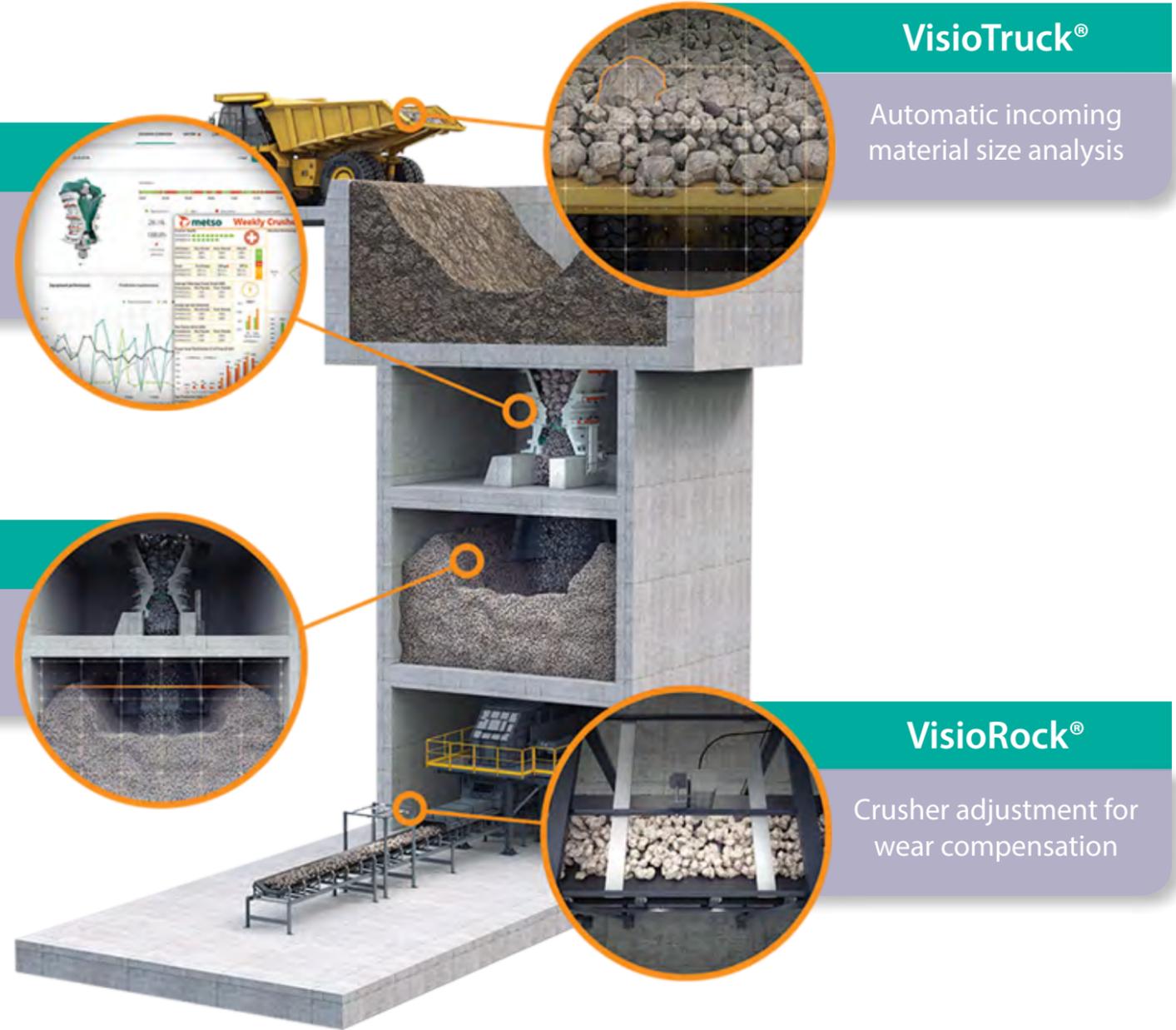
Vault level sensor

Crusher adjustment for more consistent level in vault



VisioRock®

Crusher adjustment for wear compensation



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



Most of the new MKIII features are retrofittable on existing Superior™ MKI and MKII

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.

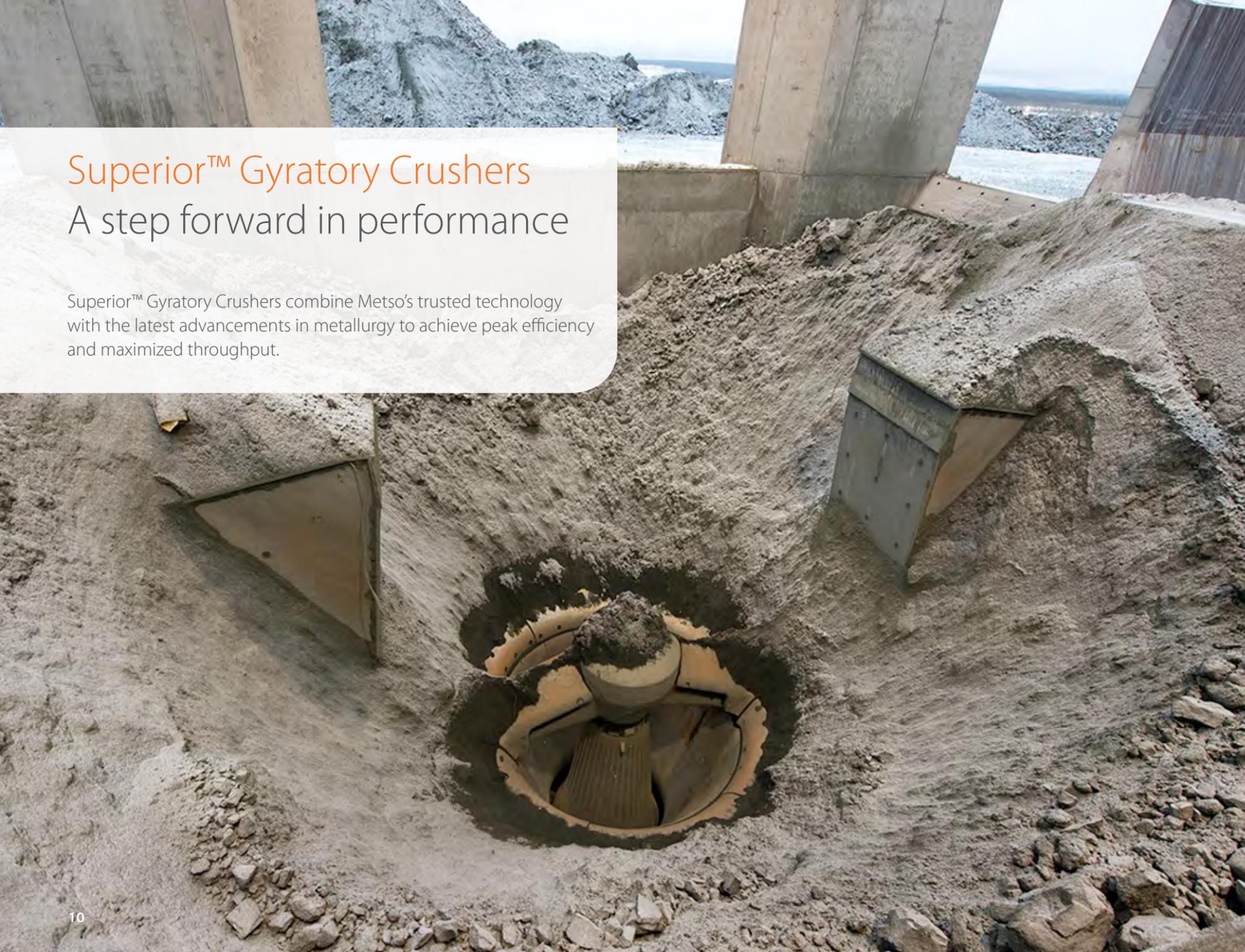
- +30%** additional throughput
- 3** times faster wear parts exchange
- 70%** reduced downtime
- Robust and proven design
- Safe maintenance
- Lower environmental impact



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

Model	Weight (mtons)	Feed opening (mm)	Power (kW)	Maximum capacity (mtph)
42-65	120	1066	450	5250
50-65	153	1270	450	6375
54-75	242	1370	600	7500
62-75	298	1575	600	8750
60-89	365	1525	750	12500
70-89	430	1780	900	15000
60-110	553	1525	1500	17000

5 year warranty on main components



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

OSS (mm)	152 (6 in)		177 (7in)		203 (8 in)		230 (9 in)		254 (10 in)		305 (12 in)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
42-65	2354	3362	2893	4133								
50-65	2414	3449	2958	4226								
54-75	2908	4154	3170	4529	3513	5018						
62-75	2913	4162	3846	5494	4365	6235						
60-89			4576	6538	5337	7625	5851	8359				
70-89			5051	7215	6076	8681	7033	10047				
60-110			5579	7970	7394	10562	8346	11923	8961	12802	9857	14082

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



Metso Inc.,
www.metso.com/superior