

# Stationary & Semi-mobile crushing solutions

## Primary gyratory stations



*Stationary primary gyratory station*



*Semi-mobile primary gyratory station*

# Metso superior® primary gyratory – the first step in high-capacity in-pit crushing

Years of experience and thousands of primary gyratory installations combine to create the best gyratory the industry has to offer.

Metso's SUPERIOR® gyratory crushers are built to help you meet the challenges of high-capacity primary crushing.

With thousands of crushers operating in mines and quarries around the world, Metso has the experience and knowledge to provide a primary gyratory crusher with the best performance, highest throughput, and most efficiency.

## Low cost per ton

In today's competitive market, environmental concerns and energy costs are on the rise. To meet these conditions, Metso offers a primary gyratory that provides a low cost per ton through energy efficiency, durability and optimized crusher performance.

## Crusher range

Metso offers a comprehensive range of SUPERIOR® primary gyratory crushers. Crushers are available in models with capacities ranging from 2010 to 8890 mtph (2200 - 9800 stph) and feed openings up to 1575 mm (62"), so there is one to match your feed material and throughput requirements.

## Key features

SUPERIOR® gyratory crushers have evolved from a well proven design and are manufactured with high-quality cast steel components to ensure the highest possible functionality and reliability in primary crushing applications.

## Main benefits

Designed for low service requirements and ease of operation, the SUPERIOR® primary gyratory will readily fit the needs of any new or existing processing plant.

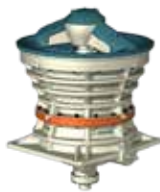
## The heart of a crushing pit



60-110E



60-89



54-75



50-65



42-65





## Stationary solutions for in-pit crushing

With over a century of experience in primary gyratory crusher installations, Metso is the perfect partner for a complete stationary primary gyratory station solution.

Metso has experience in the design and supply of primary gyratory stations made of either steel or concrete. Different locations favor one or the other with considerations such as :

- Pit wall design
- Local costs of concrete works
- Site environmental conditions.

Metso designs with a focus on reliability and maintainability.

As designer of the primary gyratory crusher we are in best position to design the entire crusher station for complete and safe maintenance access.



Stationary primary gyratory stations



# Semi-mobile solutions for in-pit crushing

Metso capitalizes on decades of experience in the design and manufacturing of crushers and complete systems. We offer you an in-pit crushing solution with the goal of increasing productivity and profitability.

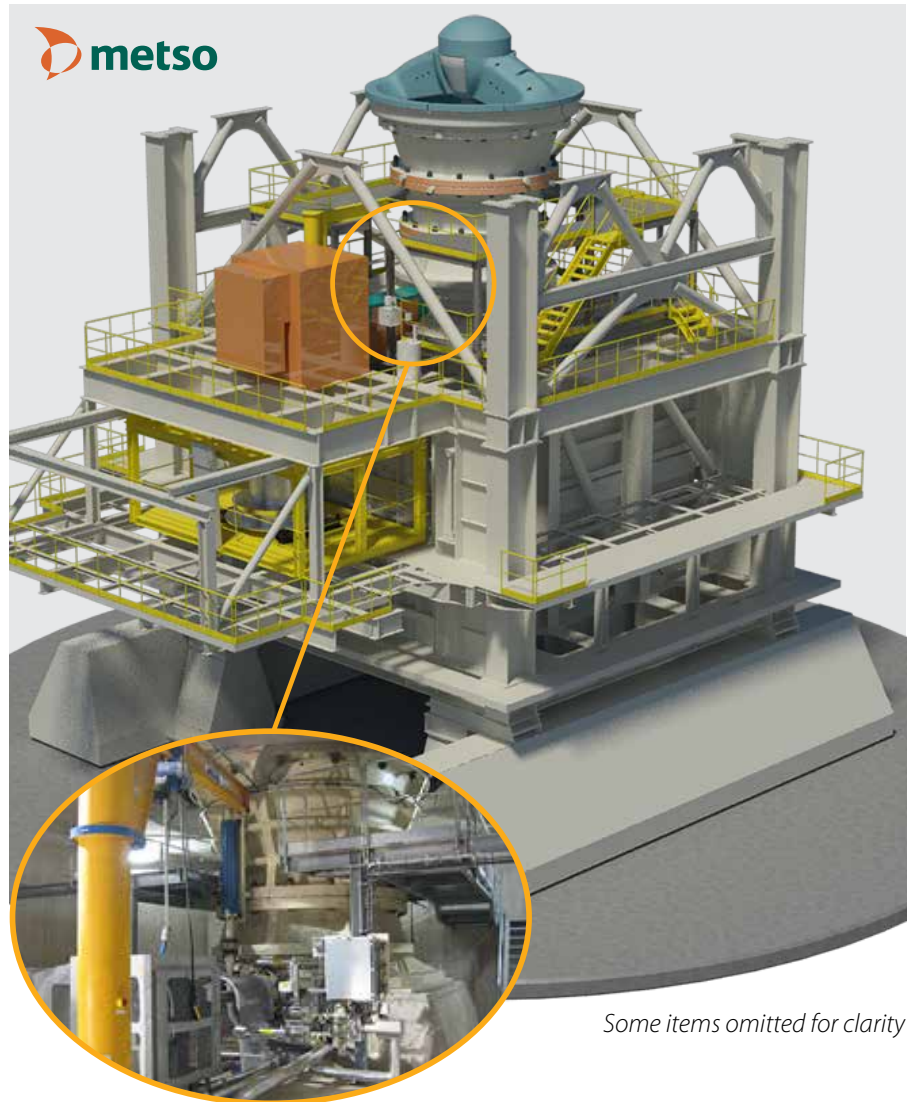
## Flexibility and minimum handling

We offer a complete range of semi-mobile solutions in mining and aggregate primary crushing applications. In-pit crushing minimizes material handling costs by reducing truck hauling requirements.

The result is a minimum truck fleet with less manpower required. The ability to relocate the primary station allows for greater flexibility in mine planning and reduced life of mine operating costs.

## Key features

- Safe access for routine maintenance of the crusher.
- An innovative design of the vault ensures a proper access to the MPS (Mainshaft Positioning System) and eccentric assembly.
- Minimized environmental impact utilizing a water spray system to reduce dust emissions.
- High capacity discharge vault.
- Double truck dump design in line with the spider to ensure highest capacity and crusher reliability.
- Large discharge vault capacity to enable maximum production and minimize wait times for trucks.

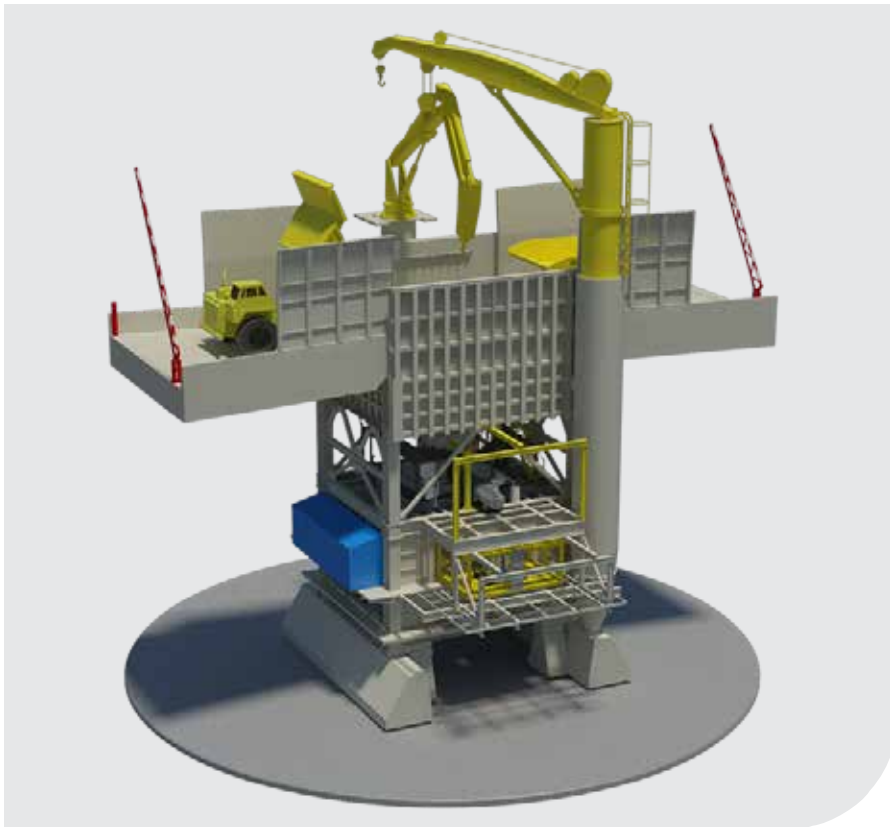


*Some items omitted for clarity*

## Main benefits

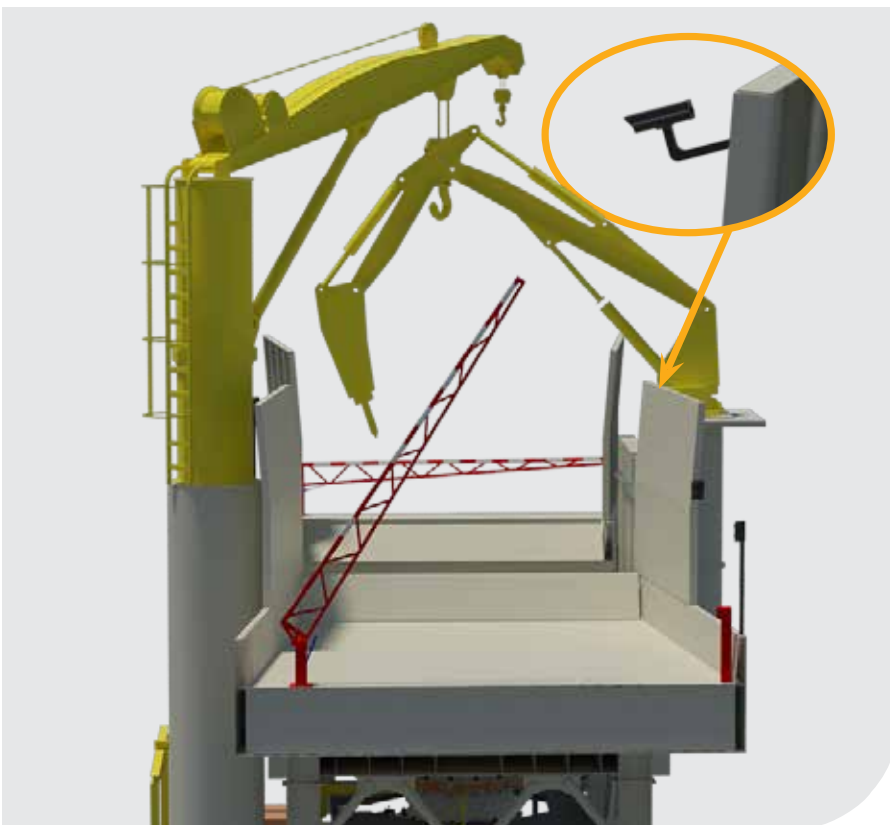
- Can be installed on stable natural ground, which can sometimes be unsuitable for large fixed concrete solutions.
- Minimal civil works required.
- High dump hopper capacity.
- High operating availability due to maintenance focused design.
- High degree of mobility, ease of relocation.

# Innovative design



Semi-Mobile Primary Gyratory crusher station designed to meet strict industrial safety standards and with extensive maintenance access.

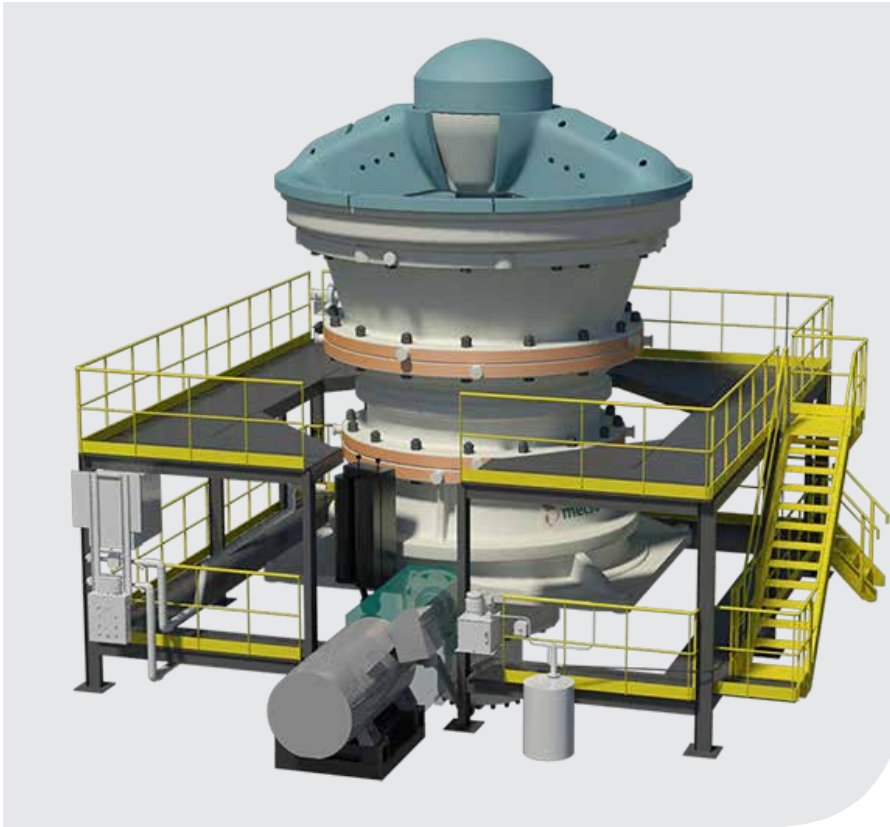
Monorail for safe motor maintenance.



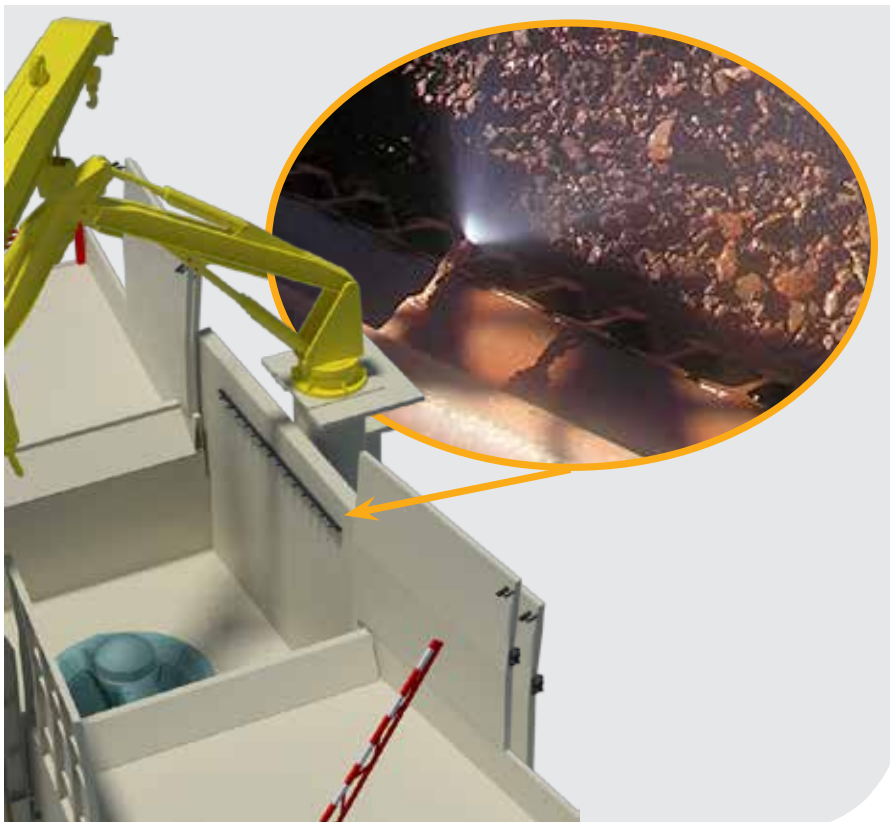
Improved operator visibility from the control room when equipped with a complete automation system.

Jib crane provides access to the dump hopper and assists with liner replacement. The crane rotates to the loading point on the ground for maintenance vehicle access.

Rock breaker designed to reach the whole dump hopper reduces production downtime.



Dedicated area to safely monitor and service the crusher per Metso recommendations.  
Tipping ramp access can be equipped with a complete automation system.



Wet dust suppression systems are available in the dump hopper and discharge area to reduce environmental constraints.



Maintenance platform

**The perfect blend of experience and innovation**

Using our extensive experience in crushing equipment and processes, Metso has designed our fixed and semi-mobile stations with integration of best safety practices and ease of maintenance.

**Health, safety and environment**

Health, safety and environment are high priority concerns for Metso and they are addressed with the same sense of responsibility as quality, productivity, and cost efficiency.

We are all responsible to conduct our operations in a way that is safe for site personnel and environmentally sound. Our service offerings assist you to achieve such targets.

**State of the art safety features**

- Mainshaft stands
- Access platform designed and reviewed by operating personnel
- Eccentric trolley
- Spider platform
- Concave platforms
- Spacious dump pocket design



Concave liner safety lever



Spacious dump pocket design

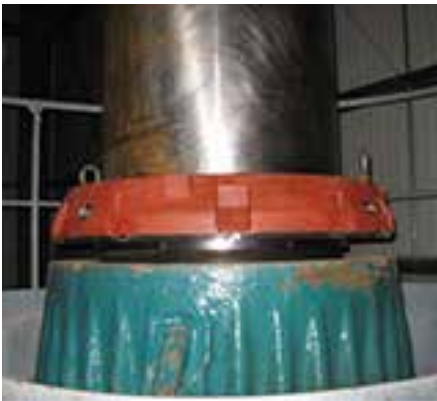


# Tools



### Spider access platform

Gives access to the spider and wear parts for inspection, maintenance and replacement.



### Main shaft access platform

Support & access platform dedicated to ensure the replacement of the mantle in a safe and secure location.



### Main positioning system disassembly

Rail supported trolley designed to enter the vault and service the Main Positioning System (MPS) and eccentric assembly.



### Concave liner installation platform

A platform at each level to remove and set new concave liners.



### Certified wearparts

Metso certified wear parts will protect the gyratory and prolong its service life. Metso has strong research and development programs, particularly in areas of metallurgy and parts design. Metso wear parts are designed and produced with the latest designs and innovations and according to strict Metso quality standards.

As a result, we have complete control over quality at every step of the process, from the selection of raw materials right through to final production.

### Adding value by lifecycle thinking

Metso incorporates lifecycle thinking into everything we do. We partner with our customers throughout the entire process lifecycle:

- Design, installation and startup

### Customer training

- Process optimization
- Monitoring services
- Inspections, repairs and upgrades
- Preventive/predictive maintenance
- Performance based services
- Spare, wear parts and components

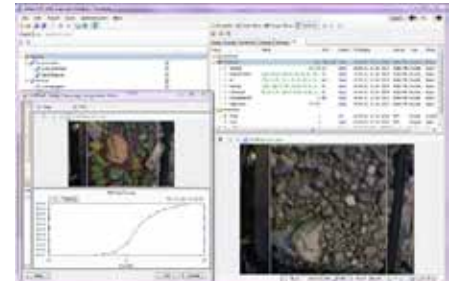
# Automation

Process control and automation is the most effective way to maximize productivity. With several offerings available, Metso is an expert in automating crushing stations and proposes several offerings.

Automation and advanced control systems allow detailed reporting and on-line analysis of plant operations as well as increased operational safety.

Equipped with advanced control systems such as Metso Cisa Visio Rock® and Visio Truck®, crushing operations are intelligently controlled for optimal ore processing and distribution.

Metso's VisioRock® technology estimates a rock's particle size distribution and other rock properties as a standalone instrument or integrated in a fully advanced control system.



Contact your local Metso representative

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