Nordberg MP $^{\circ}$  Series cone crushers MP2500



World's largest cone crusher

101

METSO

# The Nordberg MP<sup>®</sup>2500

#### Designed for increased capacity, reduced maintenance and increased reliability.

#### Technology at work for you.

As the world's largest cone crusher, Metso's MP<sup>®</sup>2500 is capable processing more ore than any other crusher on the market. The MP<sup>®</sup>2500 helps customers achieve production needs with innovations increasing its serviceability while achieving greater performance and higher availability.

#### Production

Metso is responding to the customer challenge of reducing energy consumption and employing cost efficient technologies for minerals processing with the MP<sup>®</sup>2500. The MP®2500 cone crusher links easily with other Metso products to create a simplified, cost effective process flow for high production sites.

With its high capacity design, the MP2500 can be installed in place of several smaller crushers, simplifying the circuit.

• For example, one MP2500 matches the production of two MP1250's or four HP800

Due to the crusher size, the largest available feed opening allows greater topsize capability, providing flexibility for primary crusher operation.

· Larger topsize processing allows for wider settings on primary crushers. This could lead to fewer primary crushers needed in the circuit.

#### **Installation / Operation**

By processing more material in a single crusher, large capacity plants can minimize the pieces of equipment. And not just for the crushers, but also feeders, conveyors and screens. This also extends to the installation and construction of the plant.

- · Can reduce or eliminate the use of tripper conveyors
- Reduced structure and/or foundation costs
- Smaller relative footprint with fewer number of foundations

Fewer pieces of equipment mean less maintenance to perform. Reduced maintenance leads to reduced operating costs, but also fewer part lifts and handling.

When there is less equipment to maintain. there are also fewer parts to order and stock, leading to even lower operating costs and streamlined operations.

#### Maintenance

The MP2500 does not eliminate maintenance, but by utilizing fewer pieces of equipment, the time required for maintenance is reduced.

Metso developed the MP2500 with maintenance in mind and included design elements which improve the serviceability of the crusher.

- Heating of the socket is eliminated
- Locknut installation no longer requires sledging

As the worlds largest cone crusher, components are larger. But Metso has designed many components for simple handling and transportation by designing lifting feature into the components or supply of specialized tooling.

A head maintenance stand is also available to perform inspection or maintenance of the head in any orientation.

#### Mining crusher TC automation

- · Dramatically reduces installation, commissioning time and costs.
- Enables the crusher to be operated at the optimum operational limits at all times, while protecting against crushing force and power limit.
- Better predict preventative maintenance needs and avoid unexpected breakdowns
- Proven process control technology to optimize performance while protecting the crusher.





#### More financial flexibility for your operations

increased reliability and simplifies maintenance procedures. advanced crusher.

Metso innovation... Lower investment...

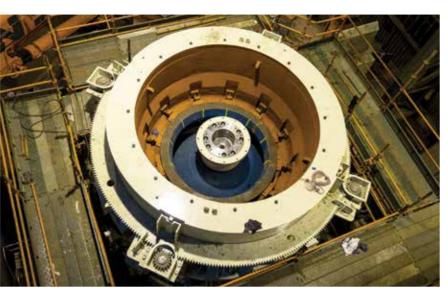
# Applications

Metso's MP2500 cone crusher is the world's highest production cone crusher to date. The largest available feed opening and greater top size capability, allows for added flexibility of the upstream equipment. This has the potential to reduce the size and/or quantity of the primary crushers allowing for larger settings.

The high capacity and reduction ratio ability make the MP2500 ideal for minimizing installed equipment for high capacity plants, which offers simplicity of the circuit along with associated installation and operating cost reductions.

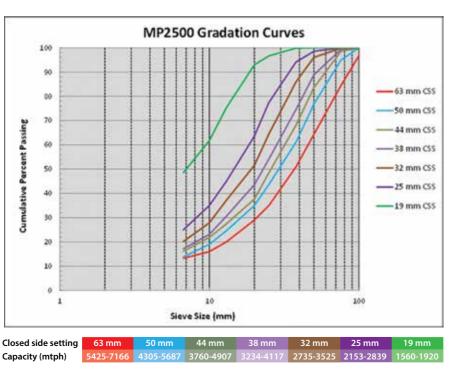


Cone crusher capacity tables are shown for estimating approximate crusher production capabilities. True production projections are provided on a project basis using advanced modelling and field proven results. The capacity figures and discharge curves assume 100 lb/cu.ft (1.6 t/m3) bulk density, medium hardness ore, and proper equipment set up and operation. Actual production depends on specific ore properties, circuit and screen configuration, appropriate feeding capability, and crusher design parameters.



## Examples of applications where the MP2500 shifts the philosophy of plant design:

- Secondary crushing prior to HPGR circuit. Today, a single MP2500 can be paired with a single large HPGR (ex: the Metso HRC3000) and achieve capacity up to 75 ktpd range.
- Pre-crushing in SAG/AG circuits. One existing installation uses two MP2500 as a pre-crushing stage prior to a 250 ktpd SABC circuit.
- Secondary crushing in plants with very large topsize after the primary stage. The MP2500 can be configured to accept feed topsize in excess of 450 mm, which allows for wider settings to used with very large jaw crushers, primary gyratories, and primary sizers.
- Retrofit applications with the ability to replace up to eight 7' Symons STD crushers



# MP<sup>®</sup>2500 Specifications

#### Weights - Complete crusher

#### Description

#### **Crusher complete**

(Does not include hydraulic power unit, package lubrication syst

#### Upper main frame assembly

Lower main frame assembly (Includes mainshaft)

#### Bowl assembly

(Includes bowl liners, adjustment cap, and wedge assemblies)

Adjustment ring assembly (Includes mainframe pins, clamp cylinders, driver ring)

#### Head assembly

(Includes locking nut, upper & lower mantle, lift plate, and lift eye

#### Mantle

(Includes upper and lower mantle)

#### **Bowl liner**

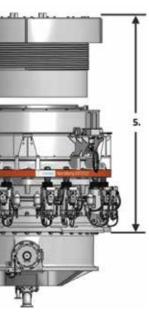
#### **Crusher dimensions**

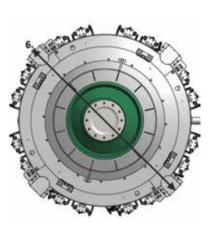
- 1. Base (Foundation pads) to bottom of oil piping
- 2. Maximum height from base (Foundation pads) to top of
- 3. Additional upward travel due to clearing stroke
- 4. Clearance required for removing countershaft box asse
- 5. Clearance required for removing bowl assembly
- 6. Adjustment ring maximum diameter





r and major sub-assemblies:		
	Kg	Lbs.
stem or cooling system)	450.000	992.080
	45.500	100.310
	109.000	240.304
	81.953	180.675
	55.181	121.653
ye)	61.905	136.477
	15.120	33.334
	16.513	36.405
	mm (in)	
	2334 (92)	
of feed hopper	4291 (169)	
	406 (16)	
embly	4830 (190)	
	7323 (288)	
	6500 (256)	





### Our range of complementary products and services



#### **Unit Crushers**

- C Series jaw crushers
- Primary gyratory crushers
- GP Series cone crushers
- HP Series cone crushers
- MP Series cone crushers
- NP Series horizontal impact crushers
- B- and V-Series vertical shaft impact crushers
- Laboratory crushers

#### **Mobile Equipment**

- LT Series mobile crushing plants
- NW Series portable plants

#### **Complete Plants**

- Complete plants for aggregate production
- Complete plants for recycling

#### Services

- Annual service agreements
- Breakdown assistance
- Equipment inspections
- Machine upgrades/retrofits
- Operations and maintenance training
- Replacement parts
- Service life extension projects
- Start-Up assistance/commissioning
- Troubleshooting services
- Equipment performance optimization
- Wear optimization

### 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 adapting to our customers' ever changing needs have transformed us into a knowledge company.



Nordberg and MP are trademarks owned by Metso and are registered in many countries around the world.

Metso Minerals Industries, Inc., 20965 Crossroads Circle, Waukesha, WI 53186, USA, tel +1 262 717 2500, fax +1 262 717 2508, www.metso.com

The information contained herein is a general description only, is not guaranteed and contains no warranties of any kind.