

Multi-Action cone crushers

Metso MX™ Series



A giant leap
in profitability

Metso MX

Features for profitability



Multi-Action technology

The Metso's patented Multi-Action technology is a revolutionary way to optimize the crusher setting and wear compensation in real time, requiring no human actions. Both the piston and rotating bowl adjustments are fully automated. Dynamic setting adjustment and wear compensation are designed to be used when the crusher is operating at its full potential without needing to stop the process.



+10% more uptime

The effective uptime of Metso MX is significantly greater compared with traditional cone crushers. The patented Multi-Action technology allows dynamic setting adjustment and wear compensation without having to stop the process. It also automatically optimizes protection against uncrushable objects, increasing uptime even further.



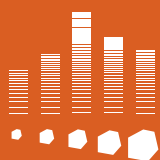
-10% operational costs

Metso MX cone crushers feature the cost-effective Multi-Action technology. It enables 10% or more savings in operational costs compared with traditional cone crushers. Savings in wear components, coupled with effective and continuous crushing action, reduce the cost per ton in quarrying and mining applications.



Up to 25% longer liner lifetime

Metso MX crushers enable up to 25% longer liner lifetime. Optimal cavity design, stroke direction and an effectively distributed crushing action lead to the ultimate rock-on-rock crushing motion. Together with Multi-Action technology, this results in extended maintenance intervals and higher production.



Selective production enabled

The agile optimization of Multi-Action technology is the key advantage to reach the desired end-product shape and particle size distribution while eliminating waste. You can control and automate parameters such as material cavity level, crusher speed, power, setting and piston pressure. With Visiorock Compact option product gradation can be continuously analyzed and monitored on Metso IC crusher automation display providing operator instantaneous feedback of deviations.



Safe and simple

Metso MX cone crushers are designed with high safety standards to operate and maintain. During the crushing operation, all moving parts are inside the crusher. Lifting devices and hydraulic tools make maintenance simple and safe. Backing resins for liners are no longer needed, something that operators and the environment appreciate. The simple design of the MX also enables disassembly without heating any components.



The profitability leap

The improvements in profitability usually come in small steps. But sometimes it's time to take a bigger leap.

The revolutionary Metso MX™ series crushers combine the rotating bowl with piston into one crusher. This Multi-Action translates to lower operating costs, high uptime and consistent high-quality output – in a word, more profitable operation.

The Metso MX series cone crushers are suitable for secondary, tertiary and quaternary stages in hard and soft rock applications.

Metso MX

The Agile crusher



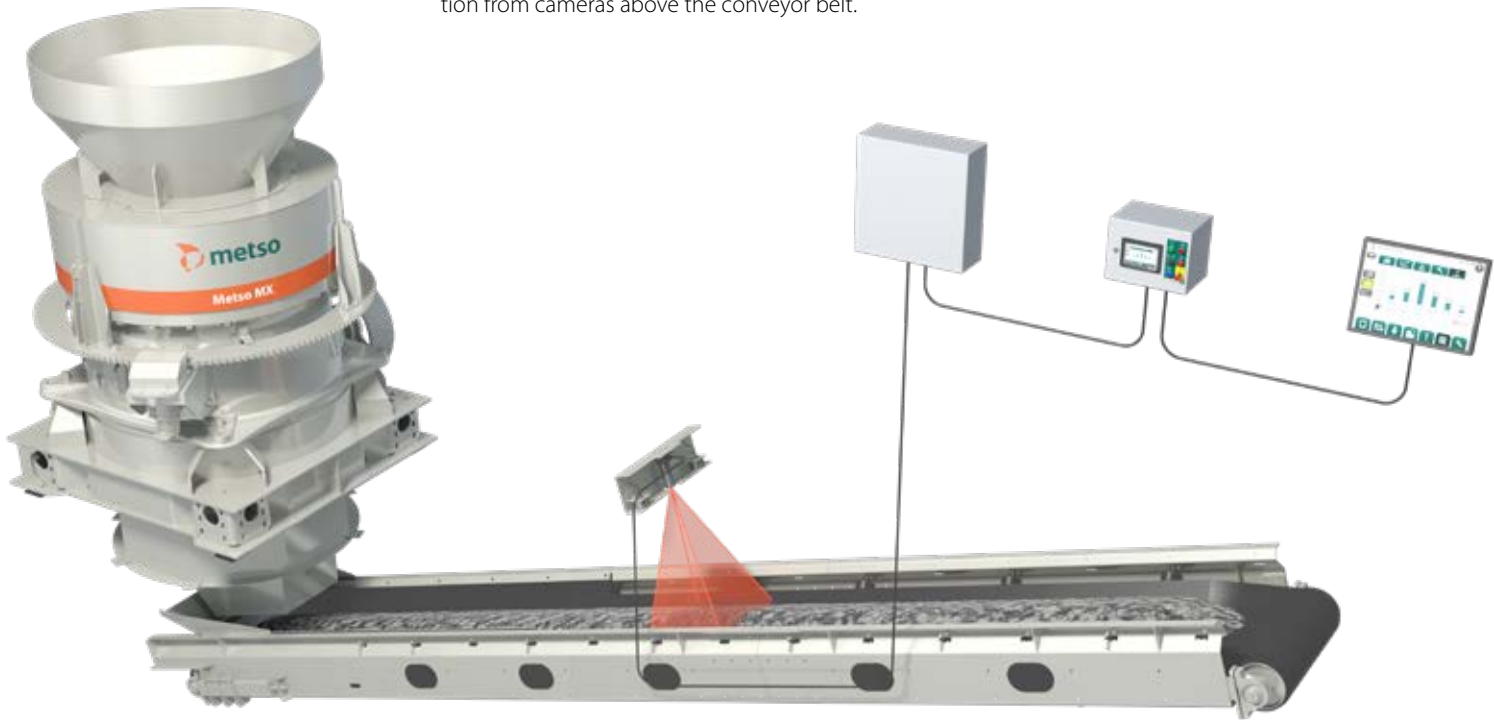
- 1 Piston
- 2 Rotating bowl
- 3 Head
- 4 Spiral bevel gear
- 5 Antispin device
- 6 Head seal
- 7 Inspection door
- 8 Liners without backing resin

Protection

Metso MX provides a maximal tramp release distance and high protection against uncrushable objects and overloading, even with completely new wear parts.

VisioRock Compact

The crushing quality can be easily measured with Metso's VisioRock™ photo particle size analyzer which is connected to the IC crusher automation. VisioRock Compact is the latest version of the system Metso has developed to measure real-time production. Its compact design, easy installation and Modbus interface enable quick access to particle size distribution from cameras above the conveyor belt.



Metso IC crusher automation

Metso IC™ crusher automation is an advanced way to optimize your production efficiency and uptime. It protects the crusher in multiple ways. The process can be started and stopped by pressing a single button for the feeder, crusher, and conveyors. Metso IC incorporates setting and load modes, plus offers practically unlimited ways to control your crusher's operation and feeding conditions. Metso IC crusher automation features the remote user interface, which allows the automation interface to be located in a central control room.

Case: Barracão Quarry, Santa Catarina, Brazil

30% production increase with the right equipment

Brazilian company Britagem e Pavimentadora Barracão has achieved a 30% increase in the production of crushed stone after purchasing two metso MX4™ Multi-Action cone crushers. The company now has a monthly production capacity of 150,000 tons, and revenues are up 30% as a result of high market demand. "We have been working with Metso for many years. We have four Metso machines already installed in our process, and now with two MX4 cone crushers we are achieving improved performance efficiency, production capacity and ease of operation. Our production quality is excellent, and with less downtime we are reducing costs. We will no doubt be ordering new Metso machines again soon," says Antonio Assini, owner of Britagem e Pavimentadora Barracão.

Challenge: Meet increased market demand and find a solution that removes the need to interrupt the crushing process to make adjustments.

Solution: Two Metso MX4™ cone crushers

Results: 30% increase in production

Case: Durance Granulats, Peyrolles, France

Constant flow rate and improved crushing energy efficiency

French quarrying company Durance Granulats wanted to improve their production capacity and crushing power consumption by replacing obsolete machinery with more modern technology. Watch the whole case study in www.metso.com/showroom to learn how they did it with Metso MX cone crushers.

Challenge: Increase production capacity and replace obsolete machinery

Solution: Metso MX cone crushers

Results: Constant flow rate and improved crushing energy efficiency

Metso MX4

Technical specifications

| Metso MX4 | Metric | Imperial |
|-------------------|-----------|------------|
| Maximum power | 315 kW | 400 HP |
| Maximum feed size | 257 mm | 10 1/2" |
| Head diameter | 1,175 mm | 46 1/4" |
| Length *) | 3,700 mm | 12' 1" |
| Width *) | 2,840 mm | 9' 3" |
| Height *) | 2,930 mm | 9' 7" |
| Weight *) | 21,200 kg | 46,750 lbs |

*) Complete installation: crusher and sub frame, motor sub frame, guards, and feed arrangements

Typical applications

| Metso MX4 | Metric tons per hour | Short ton per hour |
|--------------------|----------------------|--------------------|
| Maximum throughput | 400-600 | 440-660 |
| Ballast production | 160-220 | 175-240 |
| 0/20 mm or 3/4" | 220-285 | 240-315 |
| 0/10 mm or 3/8" | 130-160 | 140-175 |
| Sand production | 60-80 | 65-90 |

The capacities listed are dependent on the feed gradation, crushing chamber, material density, material cleanliness, moisture and crushability.

Metso MX3

Technical specifications

| Metso MX3 | Metric | Imperial |
|-------------------|-----------|------------|
| Maximum power | 220 kW | 300 HP |
| Maximum feed size | 230 mm | 9" |
| Head diameter | 1,050 mm | 41 3/8" |
| Length *) | 3,400 mm | 11' 2" |
| Width *) | 2,490 mm | 8' 2" |
| Height *) | 2,845 mm | 9' 3" |
| Weight *) | 16,600 kg | 36,600 lbs |

Typical applications

| Metso MX3 | Metric tons per hour | Short ton per hour |
|--------------------|----------------------|--------------------|
| Maximum throughput | 300-420 | 330-460 |
| Ballast production | 110-155 | 120-170 |
| 0/20 mm or 3/4" | 155-220 | 170-220 |
| 0/10 mm or 3/8" | 90-110 | 100-120 |
| Sand production | 40-55 | 45-60 |

Watch video and discover more



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or distributor



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