KOMATSU

Sizers

Capacity range
< 300 MTPH - < 3 000 MTPH
(< 331 STPH - < 3,310 STPH)

Mass range
7-48 tonnes
(7.7-52.9 tons)

Standard output range
25/38/50/150/200/250 mm
(1/1.5/2/6/8/10 in in)

Harnessing the power of industrial technology to support a sustainable, prosperous future for all

You move the minerals. We make the machines.

The essential minerals you produce power modern technology, facilitate community growth and move society forward. But these minerals are hard to find and tougher to mine. Your customers trust you to deliver these resources, so you need an equipment, service and technology provider you can rely on to help keep your operation productive and efficient. Together we can focus on operating safely, productively and responsibly.

Add crushing longevity and versatility

to your fleet with extended-life sizers

Benefit from superior crushing power

We understand that you need proven and reliable sizers that deliver versatile, high-capacity options for processing various materials while minimizing dust and waste in the crushing process. These machines help to increase production with cost-effectiveness using matched velocity technology (MVT) and long-lasting wear components.

Cost-effective, smart design

Gain efficiencies in your operation with Komatsu sizers that feature energy-efficient helical gear reducers, robust power transmission components, an automatic lubrication system, and long lasting wear components. Smart machine technology helps you monitor operations and predict maintenance to maximize uptime. A Torque Limiting Coupling minimizes damage in the event of tramp metal ingress on primary and secondary sizers.

High-capacity, low water and dust for continuous operations

Keep your operations humming with sizers that feature both high capacity and crushing ratios. The production capacity of these machines can help reduce the number of crushing stations required. Your maintenance crews will appreciate an innovative design that minimizes water and dust ingression through an integrated outboard sealed bearing design that keeps the moving parts away from the mineral.

A sizer for every size job

Choose from a lineup of primary or secondary sizers to meet your need. Primary sizers feature wear-resistant pick technology for big jobs and long life. Secondary sizers have bi-metallic cast wear segments with replaceable teeth. No matter what your mineral crushing needs, there's a sizer that best suits your operation.

We trace our history back to the machines that made history.

Primary sizers built so your operation can crush it

Your operation relies on a primary sizer that can handle large lump size, last longer and perform consistently. With Komatsu primary sizers, you get wear-resistant pick technology developed from shearers, continuous miners and over 3,500 feeder breakers.

Primary sizers accept run-of-mine material and crush it to a size that can be easily and quickly transported on a belt conveyor. These machines are designed to efficiently crush wet, sticky materials without clogging. Innovative pick technology breaks minerals in tension — most minerals have a tensile strength of less than 10% of compressive strength.

No-clog performance to keep mineral moving

Clogging of crushers decreases production and increases operating costs. Many mines struggle with a combination of clay, marl and other sticky materials along with hard stones. Traditional hard rock jaw and gyratory crushers work well with hard material but can pack and clog with soft, sticky or wet feed. Komatsu primary sizers process wet, sticky minerals that may typically clog other types of crushers. The productive machine can also work with a combination of hard abrasive minerals and wet sticky material.

Low fine generation

For many applications, fines are a waste product and represent lost production. If the mineral is being crushed for kiln feed, fines are incinerated in the kiln and lost. In heap leach operations, mineral fines increase acid consumption. Very small fines can cause respiratory health hazards and can be a concern for the local community. These primary sizers use pick technology to break minerals in tension. Tensile breaking reduces fines generation compared to compression crushing.

Customize the primary sizer to your operation

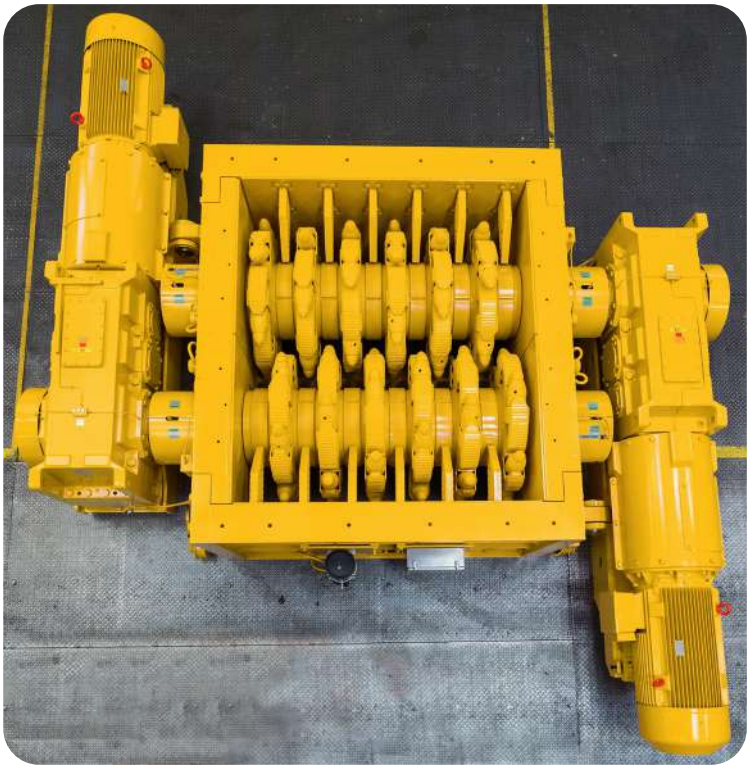
Because every mining operation has a unique composition of materials, you have several pick designs available to match your application — hard, abrasive or sticky. Control product sizing with adjustable, removable breaker bars and pick selection. Choose from pick designs for a range of applications developed from experience building thousands of feeder-breakers, continuous miners and shearers.

Primary sizers offer robust features

The combination of compact design and high capacity make these primary sizers an excellent choice for any mining operation. These quality-built machines are engineered to crush minerals effectively and produce high-capacity output with an innovative, easy-to-replace pick system to break rock in tension.

HRX 1000 primary sizer for Hard Rock and abrasive applications

The Komatsu HRX 1000 is a hard rock sizer designed to push the envelope where sizers can be successfully applied. Traditional hard rock crushers are difficult to deploy underground due to the required tunnel size, space to operate and foundations. Relocating is rarely practical once deployed. This machine features a compact design with a rich feature set for the performance and versatility you need.



Decreased costs from a compact package

These primary sizers can be installed where other crushers would not fit and at a lower cost. These machines are ideal for mobile or underground applications with a small machine envelope designed to reduce your total install cost.

Crush wet, sticky materials

Avoid downtime with sizers built to avoid clogging, even with challenging minerals. You can rely on these machines to work well with wet and sticky materials — clay, marl and tunnel spoil. Cleaners in the frame effectively scrape off material accumulation.

Reduce stations

High-capacity capabilities can potentially help your operation reduce the number of crushing or dump stations required in your mine. These quality-built sizers can work with very large lump sizes to increase crushing ratios.

Minimize water and dust ingression

Many sites use water spray in the sizer to suppress dust and wash the mineral being sized. Our sizers incorporate an outboard bearing design to minimize water and dust ingress.

Renew replaceable picks and breaker bars

Sizer shafts have replaceable picks that allow you to renew them compared to disposable competitive offerings. Control product size with adjustable, removable breaker bars and pick selection. Minimize transfer issues in chutes, transfer points and conveyor belts.

Maximize availability, minimize downtime

Instrumentation monitors equipment health to maximize availability and boost reliability. Locked rotor detection alarms notify the operator to help minimize damage from tramp metal.

Add a secondary stage crusher for a variety of applications

Secondary sizers that are first in productivity

Gain advantages from long lifecycle design

Extended machine life lowers total cost of ownership, a top priority for any operation. Komatsu secondary sizers use bimetallic segmented wear parts. Replaceable teeth are welded to a wear-resistant casting. Different tooth material and geometry are available for various applications and environments. Many competitive machines require the wear casting to be discarded after a relatively small amount of wear because there is no replaceable element. These secondary sizers feature replaceable teeth that extend the casting life. A welded-frame construction delivers durable, reliable performance.

Built for easier maintenance

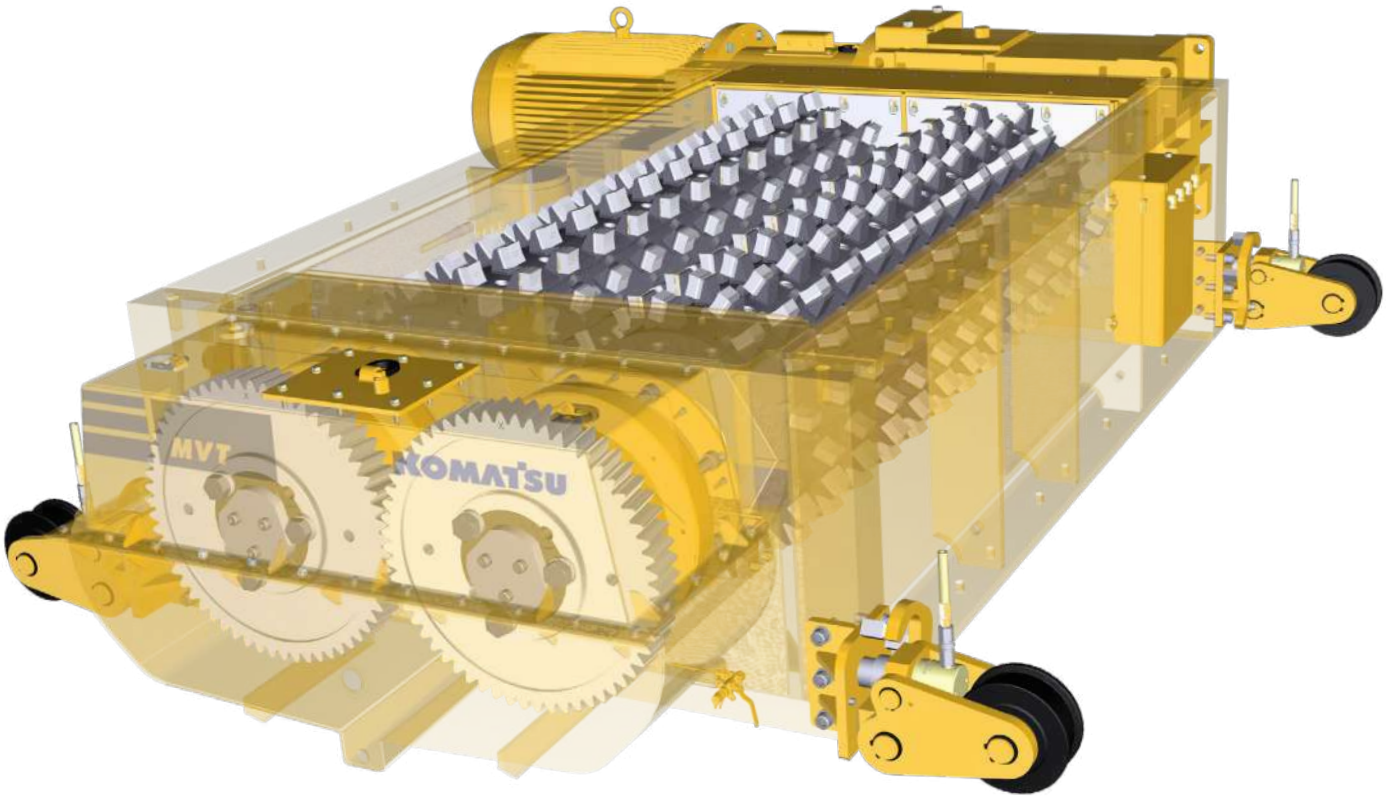
Replaceable bolt-on roll segments make it easier to perform needed services. The unit is optionally wheel-mounted and uses hydraulic jacks to position the sizer for maintenance. Upon disconnect from adjacent chute work, these secondary sizers can be raised and rolled into an easily accessible safe work location, reducing time and effort for your maintenance crew.

Gain operational agility with advanced roll crushing technology

We understand that fines generation is a top concern, while still maximizing capacity. Secondary (and tertiary) sizers reduce fines generation through matched velocity technology (MVT) while optimizing throughput capacity. Roll speeds are set to match incoming material's speed, reducing excess fines created with competitive designs. Competitive high-speed sizers create fines by over crushing materials. Slow-speed roll crushers allow material to build up on top of the rolls, additional handling and pulverizing. MVT Sizers also feature also feature a roll gap that can be easily adjusted to meet your application's product size requirements.

Your secondary/tertiary sizer should still be a primary performer

Secondary/tertiary sizers provide a valuable function for the reduction of minerals with minimal fines production after the primary crushing phase of material processing. Secondary/tertiary sizers need to provide exceptional crushing performance as they are often producing the final, sellable product.

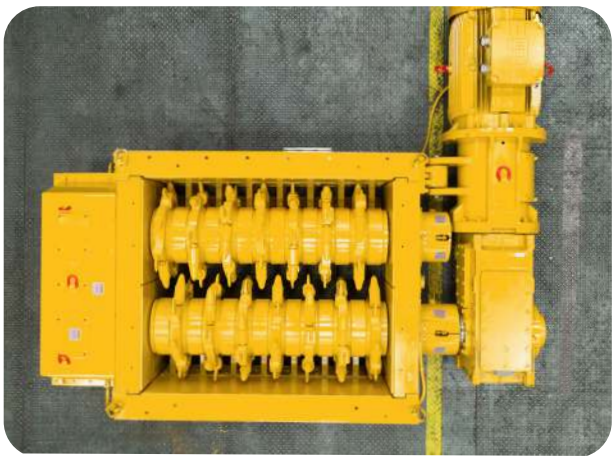


Operating capacities

	iXRS 600	XRS 600	XRS 800	DRX 800
Capacity	< 800 MTPH (< 882 STPH)	< 1 800 MTPH (< 1,984 STPH)	< 2 500 MTPH (< 2,756 STPH)	< 3 000 MTPH (< 3,307 STPH)
Mass	7-9 tonnes (7.7-9.9 tons)	10-14 tonnes (11-15.4 tons)	18-24 tonnes (19.8-26.4 tons)	20-26 tonnes (22-28.7 tons)
Roll spacing	600 mm (23.6 in)	600 mm (23.6 in)	800 mm (31.5 in)	800 mm (31.5 in)
Feed size	< 800 mm (31.5 in)	< 600 mm (23.6 in)	< 800 mm (31.5 in)	< 800 mm (31.5 in)
Standard output	150/200 mm (6/8 in)	150/200 mm (6/8 in)	150/200/250 mm (6/8/10 in)	150/200/250 mm (6/8/10 in)
Roll length	1 000-1 500 mm (39.4-59 in)	1 000-2 500 mm (39.4-59 in)	1 000-3 000 mm (39.4-118 in)	1 000-3 000 mm (39.4-118 in)

iXRS 600

This primary sizer is designed for tunneling and industrial applications. This versatile machine can be easily reconfigured for applications with changing materials, such as lengthy tunneling applications. It was specifically designed for very sticky materials and to improve high angle conveyor system performance and total cost of ownership.



XRS 600 and 800

Single Drive Primary Sizers for minerals in the soft to medium hardness range such as coal, potash, phosphate, salt, bauxite, gypsum, and lignite. The XRS sizer has a single drive and a timing gears to transmit power to the non-drive side. The roll centers are 600mm (24 in) and 800 mm (31 in) respectively.

DRX 1000	HRX 1000	MVT-II 600	MVT-II 800
< 3 000 MTPH (< 3,307 STPH)	< 3 000 MTPH (< 3,307 STPH)	< 1 000 MTPH (< 1,100 STPH)	< 2 500 MTPH (< 2,760 STPH)
32-36 tonnes (35.2-39.7 tons)	43-48 tonnes (47.4-52.9 tons)	13-17 tonnes (14.3-18.7 tons)	20-26 tonnes (22-28.7 tons)
1 000 mm (39.4 in)	1 000 mm (39.4 in)	600 mm (23.6 in)	800 mm (31.5 in)
< 1 000 mm (39.4 in)	< 1 000 mm (31.5-39.4 in)	< 250 mm (<10 in)	< 350 mm (< 13.8 in)
200/250 mm (8/10 in)	200/250 mm (8/10 in)	25/38/50 mm (1/1.5/2 in)	50/100 mm (2/4 in)
2 000-3 000 mm (78.7-118 in)	2 000-3 000 mm (78.7-118 in)	1 000-2 500 mm (39.4-98.4 in)	1 500-3 000 mm (59.4-118 in)

DRX 800 and 1000

Dual drive primary crushers for applications similar to the XRS 600 and 800 but with higher capacities. The roll centers are 800 mm (31 in) and 1 000 mm (39 in) respectively.

HRX 1000

The HRX 1000 primary sizer is designed for harder and more abrasive applications such as limestone, cement additives, metal ores, copper and gold ores. It is also suitable for operations mining soft materials which are abrasive or with hard contaminates.

MVT-II 600 and 800

This secondary sizer features matched velocity technology (MVT) to minimize fines generation and a segmented roll design with replaceable teeth, so only the worn segments need replacement. Roll gap can be adjusted to optimize productivity. The self-cleaning, timed teeth optimize throughput by allowing sized material to pass through unimpeded.

Sizers

More installation choices

The compact footprint means these sizers can be installed where other crushers can't making them ideal for mobile or underground applications and lowering installation cost.

Meshing action prevents clogging

Meshing action of timed-center sizing shaft scrubs wet sticky material off shafts. Unlike conventional side-sizing designs that can only clean between rings of teeth on the shaft, timed-center sizers clean between the teeth.

Control and optimize product size

Timed shafts and tooth gap adjustment enables control of product size to minimize transfer issues to chutes, transfer points and conveyor belts but meet product size and capacity requirements.

Minimize fines and wear

Keep fines and wear to a minimum with matched velocity technology (MVT). This innovations aligns the roll's tooth speed with the velocity of the mineral falling through the crusher.

Replaceable teeth advantages

For a more sustainable operation and to help lower your costs, wear segments with replaceable teeth allow you to swap them out for renewed performance. A unique design that extends the machine life and lowers costs compared to conventional disposable designs.

Save energy and predict maintenance

The smart machine technology in these machines helps your operation be more proactive with maintenance to mitigate unplanned — and costly— downtime. These sizers can optionally use variable speed drives to help reduce component wear and improve performance.

Exceptional services, features and parts you can count on

We consistently listen to our customers and offer comprehensive services based on real mining operations needs. Whether it's productivity-enhancing training, adaptability of our equipment, financing options or after-sales services, the customer is always our top priority. We also help provide the guidance you need to design crushing operations that include the best options for primary and secondary mineral processing based on your unique mining minerals and challenges.

Innovations that crush the most minerals cost-effectively

We've listened to our customers who value the need to keep crushing and processing minerals moving through long shifts. Along with all the robust features our primary and secondary sizers have to offer, you'll also find productivity-boosting smart technology and energy-efficient designs that deliver performance and may help lower operational costs.

KOMATSU

mining.komatsu