

SY-HP300

MOBILE CONE CRUSHER

Mobile secondary crushing for hard rock and aggregate production



150-300 t/h

Processing capacity

210 mm

Maximum feed size

30-50 mm

Discharge setting range

Hard-rock mobility with controlled output

A tracked cone-crushing platform combining laminated compression, hydraulic adjustment and integrated recirculation.

The SY-HP300 Mobile Cone Crusher is a tracked secondary and tertiary crushing plant engineered for hard-rock mining, quarrying, aggregate production and recycling. Its HP300 multi-cylinder hydraulic cone crusher, integrated return screening circuit, mobile chassis and selectable power configurations combine high throughput with controlled product shape and rapid on-site relocation.

150-300 t/h

Complete-machine processing capacity

250 kW

Cone crusher drive power

51.8 t

Complete machine weight

210 mm

Maximum feed particle size

Positioned for secondary and tertiary crushing

- Metal and non-metal ore processing
- Manufactured sand and aggregate production
- Concrete and asphalt aggregate
- Urban roadworks and demolition recycling

Final output depends on feed grading, material hardness, chamber selection, setting, moisture and operating practice.

Integrated mobile crushing circuit

Feeding, cone crushing, screening, return circulation and discharge are arranged on one tracked platform.



1-2

Feed acceptance and cone reduction

3

Power generation and operating control

4

Oversize classification

5

Finished-product discharge

6

Closed-circuit recirculation

7

Tracked mobility

Laminated compression, hydraulic control

The HP300 uses a gyrating mantle inside a fixed concave to compress material through a shaped crushing chamber.

01

FEED

The belt feeder delivers pre-sized material into the cone crusher.

02

COMPRESS

The eccentric assembly moves the mantle in a gyratory path against the concave.

03

LAMINATE

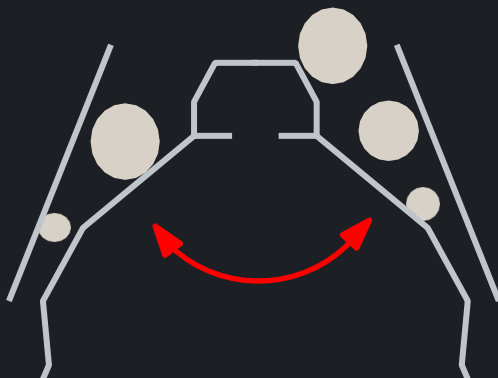
Material is compressed between chamber surfaces and adjacent particles.

04

CONTROL

Hydraulic adjustment regulates the discharge setting and protects against overload.

CONE CRUSHING CHAMBER



Cubical output through lamination

The eccentric shaft drives the mantle around the crusher centreline. Material is progressively compressed as it moves downward through the chamber. Increased speed and stroke support high reduction, while inter-particle crushing improves particle shape and reduces flaky or needle-like fragments.

- Hydraulic setting adjustment supports controlled output sizing.
- Overload protection helps release uncrushable material and restore the operating position.
- The return screen recirculates oversize material for further crushing.

Designed for shape, capacity and uptime

The SY-HP300 combines cone-crushing performance with mobile deployment and closed-circuit material control.



High-capacity hard-rock duty

A 200-300 t/h processing range supports medium- and large-scale aggregate and mining operations.



Inter-particle lamination

The cone chamber applies layered compression to improve cubical product shape and reduce needle-like particles.



Hydraulic process control

Hydraulic setting adjustment and overload protection support stable operation and controlled discharge sizing.



Integrated return circuit

The hanging screen and return conveyor recirculate oversize material for further reduction.



Tracked mobility

The LDZ55-3657 chassis allows efficient relocation between quarry faces, stockpiles and construction zones.



Flexible power packages

Single-power and dual-power configurations can be selected for grid-connected or independent operation.

Feeding and cone-crusher specifications

Core parameters for material intake and HP300 compression crushing.

FEEDING SYSTEM		CONE CRUSHER	
Feeding capacity	300 t/h	Crusher model	HP300
Hopper volume	3 m³	Maximum feed size	210 mm
Feeding belt	4550 x 1350 mm	Discharge setting range	16-40 mm
Feeding height	2800 mm	Crusher weight	18 t
Feeder drive power	5.5x 2 kW	Crusher power	250 kW

Cone-crushing configuration

The HP300 cone crusher combines a 210 mm maximum feed size, a 250 kW drive and a hydraulically adjustable 30-50 mm discharge setting. Chamber selection and operating setting should be confirmed against the target product curve.

Screening and conveying specifications

Integrated classification, return circulation and product discharge maintain a controlled material path.

SCREENING & RETURN

Return hanging screen	4800 x 2160 mm
Screen drive power	3.7 x 2 kW
Screen size	4200 x 1540 mm
Transition belt width	770 mm
Transition belt power	3 kW
Return conveyor	8930 x 770 mm
Return conveyor power	5.5 kW

PRODUCT CONVEYORS

Main conveyor	11000 x 1600 mm
Main discharge height	3500 mm
Main conveyor power	9.2 x 2 kW
Finished-material belt	5200 x 1350 mm
Finished discharge height	2650 mm
Finished belt power	5.5 x 2 kW



Closed-circuit return screening

The hanging screen separates oversize material after crushing. Material outside the target range is conveyed back to the HP300, while conforming product is transferred to the discharge belts.

Mobility, power and operating envelope

Machine-level data and configuration options for site planning, transport and deployment.

COMPLETE MACHINE		OPERATING ENVELOPE	
Project designation	SY-HP300	Working dimensions	16700×3800×4500 mm
Track chassis	LDZ55-3657	Transport dimensions	17600×3800×3950 mm
Engine power	100 kW	Maximum feed size	210 mm
Machine weight	51.8 t	Discharge range	16-40 mm
Processing capacity	150-300 t/h	Main discharge height	3500 mm
Total crushing power	306.3 kW	Finished discharge height	2650 mm

Power options

 Single Power EXTERNAL SUPPLY For sites with a stable grid or external generator supply.	 Dual Power DIESEL GENERATOR Built-in generation for projects requiring greater energy independence.
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AVAILABLE EMISSION PACKAGES

-  China III
-  China IV
-  EPA Tier 4
-  Euro V

Engineered for demanding hard-rock sites

The SY-HP300 supports high-quality secondary and tertiary crushing across mining, aggregate and recycling projects.

Mining Operations



Processes metal and non-metal ores including gold, copper and iron for downstream preparation.

Construction Aggregate



Produces cubical aggregate for concrete and asphalt production at medium- and large-scale plants.

Manufactured Sand



Integrates into sand-making lines to produce well-graded feed for downstream shaping and classification.

Quarry Production



Supports hard-rock quarry circuits requiring mobile secondary crushing and controlled product sizing.

Urban Infrastructure



Tracked mobility is suited to confined roadworks, bridge projects and changing construction zones.

Demolition Recycling



Reduces suitable demolition and concrete materials for reuse as secondary aggregate.

Typical material groups



Granite



Basalt



Iron ore



Copper ore



Gold ore



Concrete



Hard aggregate

Control the feed. Protect the chamber.

A disciplined operating and maintenance routine supports stable throughput, particle shape and crusher service life.

1

SITE PREPARATION

Confirm bearing capacity, access, working clearance, stockpile positions and safe traffic routes.

2

PRE-START CHECK

Inspect the crushing chamber, liners, feeder, screens, belts, hydraulics, lubrication and emergency stops.

3

START-UP

Start downstream conveyors and return circuit before the cone crusher and feeder; increase feed gradually.

4

PRODUCTION CONTROL

Maintain an even choke feed and monitor power draw, setting, recirculation load, belt tracking and product shape.

5

SHUTDOWN

Stop feed first, allow the chamber and belts to clear, isolate energy and follow approved lockout procedures.

Service & lifecycle support

- 12-month warranty support
- Installation and operator training
- Remote diagnostics and technical guidance
- Spare and wear parts supply
- Mantle and concave replacement planning
- Hydraulic, lubrication and conveyor inspection guidance

PROJECT DATA FOR SELECTION

- ☐ Raw material and hardness
- ☐ Required capacity (t/h)
- ☐ Maximum feed size
- ☐ Required finished size
- ☐ Power availability
- ☐ Destination and emission standard

MOBILE HARD-ROCK CRUSHING, CONTROLLED.

SY-HP300 Mobile Cone Crusher

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Specifications and appearance may change as part of continuous product development.