

SYTECHS MINING TECHNOLOGY



SYTECHS ST-HPM CONE CRUSHERS



North American Technology
5 YEARS EXTENDED WARRANTY



SYTECHS ST- HPM SERIES CONE CRUSHERS- MINE BOOSTER

FEATURES

High Performance of ST- HPM Cone Crusher-(Mine Booster)

The Sytechs ST-HPM Series High Performance Cone Crusher produce finer products by limiting crushing stages, which lowers your investment cost and saves energy. This is achieved through a combination of optimized speed, large throw, crushing chamber design and increased crushing force.

More Power With Less Energy:

A higher density in the crushing chamber improves the inter-particle crushing action, resulting in superior product shape, high reduction ratio and high capacity.

More Uptime, More Confidence:

Dual-acting hydraulic tramp-release cylinders are used to let the crusher pass tramp iron and to provide a large clearing stroke if needed. The double accumulator combination provides better reactivity of the hydraulic system.

User Friendly Maintenance:

Accessibility from the top of the crusher to the principal components, easy access for liner maintenance, mechanical rotation of the bowl for removal with a simple press of a button, no backing compound on liners, and full protection of the cone crusher with the Sytechs Automation which makes the ST-HPM Series the most reliable cone crushers.



Soft Start Drive (SSD) System

The ST-HPM Series Cone crushers are supplied with Soft Start Drives (SSD) System which are used to limit inrush current associated with electric motor startup. Soft-start drives lower the initial voltage by adding solid-state series impedance and ramp up until full speed is achieved. Doing this extends the life of the motor and mechanical components that are connected to it. The SSD also eliminates high inrush current on large electric motors which places a high demand (Power Surge) on the electrical supply system and often results in extra cost and larger power generators.

Guaranteed performance when original Sytechs parts are used, a long lifetime of the cone crusher is guaranteed
Wearing parts are available with High Manganese MN13%, Mn18%, Mn21%

Maximum performance

The ST-HPM series cone crushers are designed to give maximum performance in a wide variety of crushing processes: from secondary to extra fine crushing. Full process adaptability is the result of being able to use several different crushing cavities in the same frame structure.

This feature ensures you are always able to adapt your Sytechs ST-HPM cone to the crushing process.

Benefits of the STHP Series :

- Large stroke
- Strong crushing force
- Reduction ratio
- Dual-acting cylinders

Materials: Granite, marble, basalt, limestone, quartz, pebble, copper ore, iron ore, etc.

CAVITY SELECTION

Crusher size	Minimum setting				Feed opening				
	ST-HPM3	ST-HPM4	ST-HPM5	ST-HPM6	ST-HPM3	ST-HPM4	ST-HPM5	ST-HPM6	
CAVITY	Extra fine	8 mm (0.31")	8 mm (0.31")	6 mm (0.24")	9 mm (0.35")	18 mm (0.78")	67 mm (2.64")	50 mm (2.00")	52 mm (2.05")
	Fine	11 mm (0.43")	10 mm (0.39")	10 mm (0.39")	13 mm (0.52")	95 mm (3.74")	116 mm (4.55")	130 mm (5.10")	106 mm (4.17")
	Medium	15 mm (0.59")	16 mm (0.63")	20 mm (0.79")	20 mm (0.79")	156 mm (6.15")	158 mm (6.22")	195 mm (7.70")	196 mm (7.71")
	Coarse	20 mm (0.79")	25 mm (1.00")	25 mm (1.00")	25 mm (1.00")	183 mm (7.20")	203 mm (7.99")	252 mm (9.90")	279 mm (10.98")
	Extra coarse	25 mm (1.00")	28 mm (1.10")	30 mm (1.20")	30 mm (1.20")	200 mm (7.89")	237 mm (9.33")	312 mm (12.30")	328 mm (12.91")

TECHNICAL SPECIFICATIONS

Crusher size	Cavity	Standard		Short head	
		Minimum setting "A"1	Feed opening "8"2	Minimum setting "A"1	Feed opening "8"2
ST-HPM100	Extra fine			6 mm (0.24")	14 mm (0.55")
	Fine			9 mm (0.35")	74 mm (2.91")
	Medium			9 mm (0.35")	72 mm (2.83")
	Coarse	13 mm (0.51")	100 mm (3.94")		
	Extra coarse	17 mm (0.67")	141 mm (5.55")		
ST-HPM200	Extra fine			6 mm (0.24")	10 mm (0.39")
	Fine	13 mm (0.52")	95 mm (3.74")	5 mm (0.20")	23 mm (0.90")
	Medium	17 mm (0.67")	125 mm (4.92")	6 mm (0.24")	54 mm (2.13")
	Coarse	19 mm (0.75")	185 mm (7.28")	10 mm (0.39")	76 mm (2.99")
	Extra coarse				
ST-HPM300™	Extra fine			6 mm (0.24")	25 mm (0.98")
	Fine	13 mm (0.51")	107 mm (4.21")	6 mm (0.24")	22 mm (0.87")
	Medium	17 mm (0.67")	150 mm (5.91")	8 mm (0.31")	53 mm (2.09")
	Coarse	19 mm (0.75")	211 mm (8.31")	10 mm (0.39")	77 mm (3.03")
	Extra coarse	25 mm (0.98")	233 mm (9.17")		
ST-HPM400™	Extra fine			6 mm (0.24")	52 mm (2.05")
	Fine	14 mm (0.55")	111 mm (4.37")	6 mm (0.24")	51 mm (2.00")
	Medium	20 mm (0.79")	198 mm (7.80")	8 mm (0.31")	52 mm (2.05")
	Coarse	25 mm (0.98")	252 mm (9.92")	10 mm (0.39")	92 mm (3.62")
	Extra coarse	30 mm (1.18")	299 mm (11.77")		
ST-HPM500	Extra fine			6 mm (0.24")	53 mm (2.09")
	Fine	16 mm (0.63")	133 mm (5.24")	8 mm (0.31")	52 mm (2.05")
	Medium	20 mm (0.79")	204 mm (8.03")	10 mm (0.39")	57 mm (2.24")
	Coarse	25 mm (0.98")	286 mm (11.26")	13 mm (0.51")	95 mm (3.74")
	Extra coarse	30 mm (1.18")	335 mm (13.19")		
ST-HPM900	Extra fine	16 mm (0.63")	187 mm (7.36")		
	Fine	19 mm (0.75")	219 mm (8.62")	9 mm (0.35")	33 mm (1.30")
	Medium	19 mm (0.75")	267 mm (10.51")	10 mm (0.40")	92 mm (3.62")
	Coarse	25 mm (0.98")	297 mm (11.69")	13 mm (0.51")	155 mm (6.10")
	Extra coarse	32 mm (1.26")	353 mm (13.90")		

	ST-HPM100	ST-HPM200	ST-HPM300	ST-HPM400	ST-HPM500	ST-HPM900	ST-HPM3	ST-HPM4	ST-HPM5	ST-HPM6
Head diameter	735 mm (29")	940 mm (37")	1,120 mm (44")	1,320 mm (52")	1,520 mm (60")	1,780 mm (70")	1,000 mm (39")	1,120 mm (44")	1 250 mm (49")	1,400 mm (55")
Power	90 kW (125 hp)	132 kW (200 hp)	220 kW (300 hp)	315 kW (400 hp)	355 kW (500 hp)	700 kW (900 hp)	250 kW (350 hp)	315 kW (400 hp)	370 kW (500 hp)	500 kW (650 hp)
Total crusher weight	6,470 kg (14,300 lbs)	12,160 kg (26,800 lbs)	18,100 kg (39,900 lbs)	25,600 kg (56,400 lbs)	37,000 kg (81,600 lbs)	77,960 kg (171,870 lbs)	16,100 kg (35,600 lbs)	24,200 kg (53,400 lbs)	29 000 kg (64 000 lbs)	44,550 kg (98,200 lbs)
Feed opening	150 mm (5 7/8")	185 mm (7")	241 mm (9 1/2")	304 mm (12")	351 mm (13 4/5")	356 mm (14")	220 mm (8 3/4")	252 mm (9 7/8")	317 mm (12 1/2")	331 mm (13")
Capacity up to	155 MtpH (170 Stph)	250 MtpH (275 Stph)	440 MtpH (485 Stph)	630 MtpH (700 Stph)	790 MtpH (870 Stph)	2,000 MtpH (2,204 Stph)	388 MtpH (427 Stph)	555 MtpH (610 Stph)	600 MtpH (661 Stph)	790 MtpH (870 Stph)

EXTENDED WARRANTY POLICY (OPTIONAL) New Machines & Parts

Equipment Protection Services

As part of Sytechs Life Cycle Services for Aggregates, Equipment Protection Services (EPS) brings you added protection for your most valuable assets, fixed or mobile. This comprehensive plan includes extended warranties, scheduled inspections with Sytechs -certified technicians and Sytechs Metrics Services, our remote monitoring and data visualization solution.

The challenge: managing risks under demanding conditions

In the field, anything can happen. And when you're managing a fleet of mobile crushing equipment often spread out in remote areas or even around the world, maintaining optimal performance for each unit can prove challenging. With new equipment, the likelihood of unexpected failures is low and any required corrective work is likely covered under warranty. Beyond the standard warranty period however, equipment may fail if unsuitable parts are used or the equipment is not maintained in an optimal way.

The solution: Equipment Protection Services

On-site machine inspections and extended warranty under a single plan

Equipment Protection Services (EPS) gives you confidence in your cost structure by anticipating and minimizing unexpected equipment failures. Along with extended warranties that cover repairs or replacements on key designated parts that need to be replaced, this plan also includes comprehensive inspections and other services to keep your equipment running smoothly at all stages of operation.

Extended warranty to 10,000 hours or 5 years for specified major components on designated equipment

Scheduled inspections with Sytechs-trained and certified technicians, coupled with parts recommendation

Maintenance planning and reporting through our Remote Diagnostic solution,

**5 YEARS
EXTENDED WARRANTY**

EXTENDED WARRANTY POLICY (OPTIONAL)

<p>CLASS I</p> <ul style="list-style-type: none"> Adjustment Cap Adjustment Ring Bowl Bowl Adapter Ring Clamp Ring Countershaft Countershaft Box Eccentric Extension Cap Feed Distributor Filler Piece Head Head Ball Head Center Head Nut Locking Collar Lower Spring Segment Main Frame Main Shaft Main Shaft Nut Shaft Extension 	<ul style="list-style-type: none"> Spider Spider Cap Springs Tie Rod Tie Rod Nut Upper Spring Segment Water Chamber <p>CLASS II</p> <ul style="list-style-type: none"> Bowl Lock Counterweight Gear Gear Housing Lower Step Bearing Plate Lower Thrust Bearing Main Frame Cap Main Frame Pin Oil Flinger Oil Flinger Housing Pinion Upper Step Bearing Plate Upper Thrust Bearing Wedge 	<p>CLASS III</p> <ul style="list-style-type: none"> Anti-Spin Mechanism Arm Guard Bottom Sleeve Bowl Adjustment Ram Clamping Cylinder Clearing Jack Countershaft Box Guard Countershaft Bushing Dust Collar Eccentric Bushing Eccentric Thrust Bearing Eccentric Thrust Washer Feed Cone Feed Hopper Feed Plate Floating Ring Floating Ring Retainer Gearbox Guard Guide Bushing Head 	<ul style="list-style-type: none"> Locking Nut Locking Nut Cover Lock Link Main Frame Liner Main Shaft Sleeve Motorized Rotating Feed Distributor Oil Collar Gear Oil Pump Gear Outer Eccentric Bushing Power Unit Sealing Ring Socket Liner Socket Plate Socket Sealing Ring Spider Bushing Spider Guard Spider Wing Guard Spring Bolt Swivel Plate Thrust
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MAIN FRAME STEEL CASTING PROCESS



A history of success

Sytechs HPM cone crushers are built on the success of years of Sytechs cone experience. They are manufactured as per North American design and specifications at the Shenyang manufacturing Plant in China. The product is ISO9001 quality system and CE certified.

The Sytechs HPM cone is well known for its rugged construction and application versatility. It has set the standard in the mining industry. It introduced many new innovations to reduce maintenance and operating costs. It is supplied with special features such as hydraulic clamp adjustment, and others.

The field-proven Sytechs cone combines the best of these technologies to provide the highest capacity, the best product shape, easy automation, and the greatest possible reliability and flexibility. All to help you achieve the highest possible levels of profitability and performance



Crusher Capacities

The capacity figures shown apply to material weighing 100 pounds per cubic foot or 1600 kg per cubic meter. The crusher is one component of the circuit. As such, its performance is in part dependent on the proper selection and operation of feeders, conveyors, screens, supporting structure, electric motors, drive component and surge bins. Where used, attention to the following factors will enhance crusher capacity and performance.

- ✓ Proper selection of crushing chamber for material to be crushed.
- ✓ A feed grading containing proper distribution of the particle sizes.
- ✓ Controlled feed rate.
- ✓ Proper conveyor sized to carry maximum crusher capacity.
- ✓ Discharge conveyor sized to carry maximum crusher capacity.
- ✓ Properly sized scalping and closed circuit screens.
- ✓ Automation controls.
- ✓ Adequate crusher discharge area.

The following factors will detract from crusher capacity and performance.

- ✓ Sticky material in crusher feed.
- ✓ Fines material in crusher feed (smaller than crusher setting) exceeding 10% of crusher capacity.
- ✓ Excessive feed moisture.
- ✓ Feed segregation in crushing cavity.
- ✓ Improper feed distribution around circumference of crushing cavity.
- ✓ Lack of feed control.
- ✓ Inefficient use of recommended connected horsepower.
- ✓ 8 Insufficient conveyor capacity.
- ✓ Insufficient scalper and closed circuit screen capacities.
- ✓ 10 Insufficient crusher discharge area.
- ✓ Extremely hard or tough material.
- ✓ Operation of crusher at less than recommended full load countershaft speed.

For more complete information on Sytechs products, dealer services, and industry solutions, please contact sales@sytechs-minerals.com
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**ISO 9001
QUALITY
SYSTEM**

**Manufactured as per North American Design
and Specifications,
Under License of Sytechs Minerals NA**

Form: SCC4824- 99

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