

SYTECHS MINING TECHNOLOGY



ST-SG SERIES HYDRO CONE CRUSHERS

NORTH AMERICAN TECHNOLOGY



SINGLE SHAFT
HYDRO CONE

5 YEARS
EXTENDED
WARRANTY

SYTECHS

MINERALS
MINING TECHNOLOGY

HEAVY DUTY



ST-SG SERIES CONE CRUSHERS

The Sytechs Hydraulic ST-SG series cone crushers is designed to match a wide range of applications. These cones are suitable for secondary and Tertiary crushing applications, designed for high efficiency and good discharge product shape.

The ST-SG Sytechs cone crusher is built to deliver the highest efficiency and excellent end-product quality. The Single Cylinder design Hydro cone crusher in addition to the High Quality Steel and the optimized wear resistant components make of the ST_SG Cone crusher the right match and the most economical in the toughest conditions..

Features:

- A variety of standard crushing chamber types to be chosen, which can fully meet various production requirements
- Automatic Control System Continuous monitoring of the internal load of the crusher and automatically adjust the equipment to get the best performance.
- Guaranteed performance when original Sytechs parts are used, a long lifetime of the cone crusher is guaranteed.
- Heavy Duty Hydraulic Cylinder, supporting and adjusting the Main Shaft
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- High Performance & Efficiency
- Constant Feed acceptance Capability
- High output
- High quality product
- Full Control of the Process
- Safety & Setting Adjustment Functions
- Automatic Overload Protection

Easy Handling & Maintenance

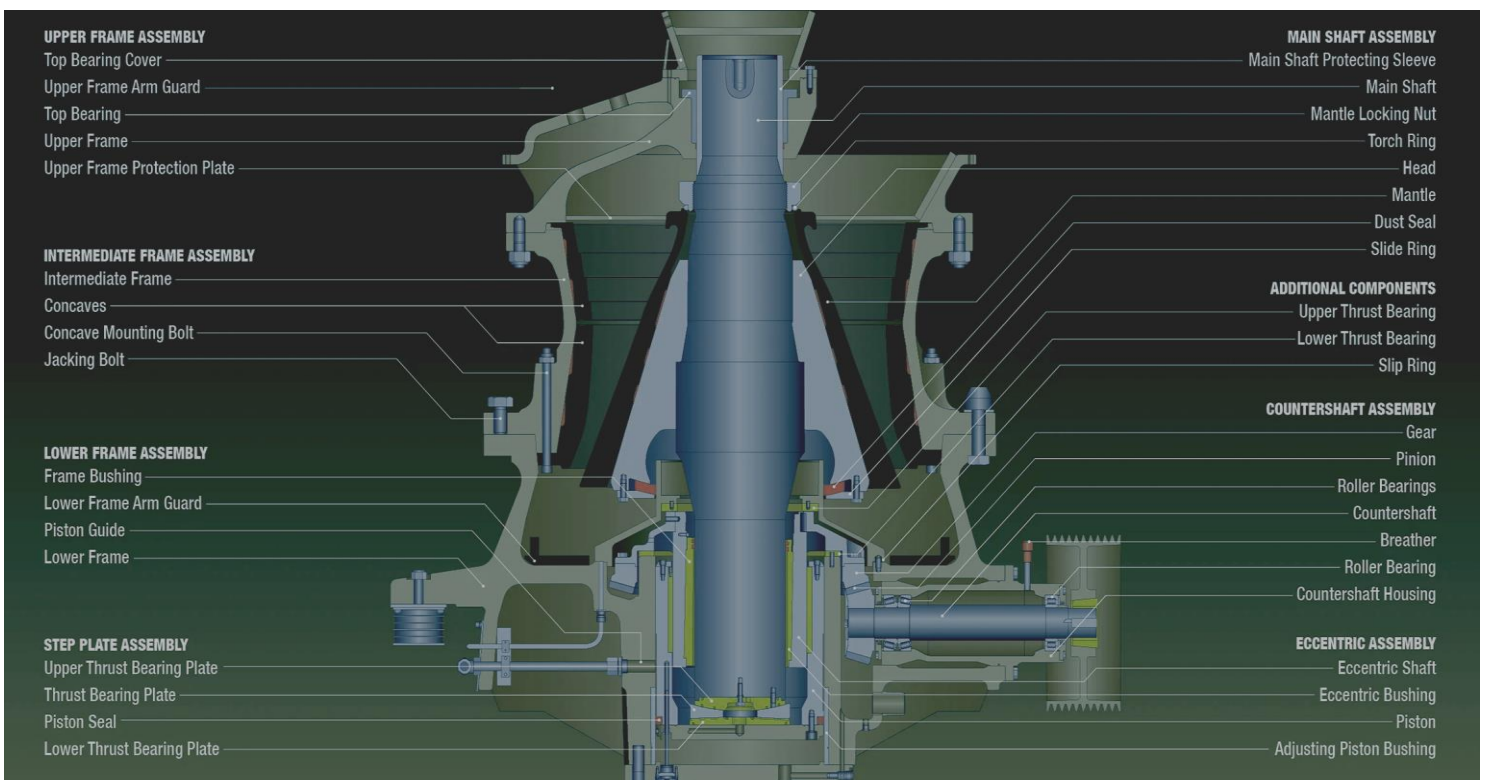
- All Servicing & Handling of the cone is done from the upper side.
- Robust & Effective Sealing against Dust

Excellent Versatility

- Easy setting adjustment to match the desired output size
- Excellent choice for Secondary, Tertiary applications.



INTELLIGENT PLC CONTROL



SOFT START DRIVE (SSD) SYSTEM

The ST-SG 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 Symonstechnology (Sytechs) parts are used, a long lifetime of the cone crusher is guaranteed

Wearing parts are available with High Manganese MN13%, Mn18%, Mn21%

TECHNICAL SPECIFICATIONS

	ST-SG75S	ST-SG160S	ST-SG220S	ST-SG75	ST-SG185	ST-SG220	ST-SG355	ST-SG355S
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TECHNICAL SPECIFICATIONS

Power	75-90KW (100-125HP)	110-160KW (150-225HP)	132-250KW (175-350HP)	75-90KW (100-125HP)	132-200KW (175-275HP)	250-315KW (325-425HP)	250-355KW (325-450HP)	200-355KW (275-475 HP)
Basic Crusher Weight	7350Kg (16,200 lbs)	10,900 Kg (24,000 lbs)	16,200 Kg (35,700 lbs)	5,800 Kg (12,800 lbs)	10,200 Kg (22,500 lbs)	15,700 Kg (34,600 lbs)	26,500 Kg (58,400 lbs)	33,500 Kg (73,400 lbs)
Capacity	80-275 TPH	110-274 TPH	180-484 TPH	35-116 TPH	70-308 TPH	105-430 TPH	160-561 TPH	300-957 TPH

Cavity

FEED OPENING

EF				46mm	58mm		68 mm	
F				53mm	89mm	85mm	95 mm	
MF				95mm	101mm	107mm	113 mm	
M	206 mm			141mm	118mm	135mm	152 mm	
C	239 mm	222mm	247mm	142mm	182mm	184mm	192 mm	321mm
EC		295mm	332mm		213mm	225mm	250 mm	401mm
EC-LS/EC-TR			332mm		213mm	225mm	265 mm	442mm

Stroke

STROKE OPTIONS

mm	16, 20, 25	18, 25,28, 32, 36	18,22,25,28, 32,36	16, 20, 25	18, 25, 28 32, 36, 40	18,22,25,28,32 , 36, 40	25, 28, 32, 36, 40, 45	18, 25, 28 32, 36, 40
Inch "	5/8, 13/16, 1"	11/16, 1, 17/64, 1 1/4, 1 13/32 "	11/16, 1, 17/64, 1 1/4, 1 13/32	5/8, 13/16, 1"	11/16, 1, 17/64, 1 1/4, 1 13/32, 1 9/16"	11/16, 7/8, 1, 1 7/64, 1 1/4, 1 13/32, 1 9/16"	1, 1 7/64, 1 1/4, 1 13/32, 1 9/16, 1 25/32	11/16, 1, 17/64, 1 1/4, 1 13/32, 1 9/16"

CSS	CAPACITY (TPH)							
6mm				35-50				
1/16"				39-55				
8mm				40-65	70-90	105-145		
5/16"				44-72	77-99	116-160		
10mm				45-73	80-130	110-190	*)	
3/8"				49-80	88-143	121-210	*)	
15mm				50-95	105-175	130-260	160-310	
19/32"				55-105	115-192	143-286	176-341	
20mm	80-90			65-105	120-230	155-300	190-340	
25/32"	88-99			72-116	132-253	170-330	209-374	
25mm	105-155	110-160	180-200		150-265	180-350	230-410	
1"	116-170	121-176	198-220		165-292	198-385	253-451	
30mm	120-195	150-265	170-290		165-280	210-390	250-450	
1 3/16"	132-214	165-292	187-319		182-308	230-430	275-495	
35mm	135-220	190-330	200-400		**)	**)	280-510	
1 3/8"	149-242	209-363	220-440		**)	*)	308-561	
40mm	145-230	210-365	215-440				**)	
1 9/16"	160-253	231-402	236-484				**)	
45mm	155-250	**)	**)				**)	300-470
1 3/4"	170-275	**)	**)				**)	330-517
50mm		**)	**)					375-670
2"		**)	**)					413-737
55mm								400-750
2 3/16"								440-825
60mm								450-800
2 3/8"								495-880
65mm								470-870
2 9/16"								517-957
70mm								**)
2 1/4"								**)

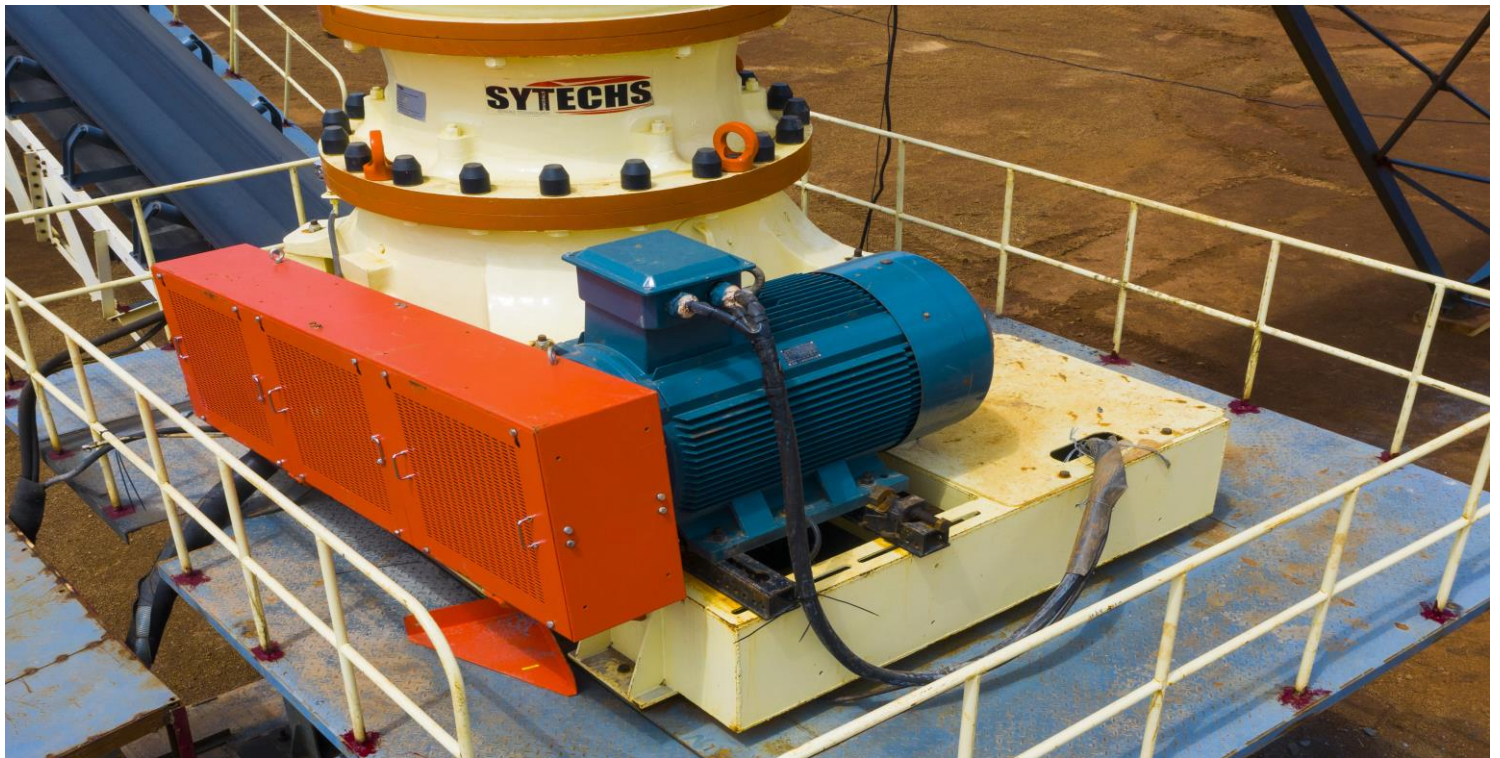
Crusher Capacities

The crusher is one component of the Crushing Line. 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.
- ✓ Insufficient conveyor capacity.
- ✓ Insufficient scalper and closed circuit screen capacities.
- ✓ Insufficient crusher discharge area.
- ✓ Extremely hard or tough material.
- ✓ Operation of crusher at less than recommended full load countershaft speed.



Skid Mounted Unit- Both cone and electric motor are mounted on a skid for better performance. Such structure design results in minimum vibration, longer motor and counter shaft bushings life. The skid is mounted on anti-vibration pads.





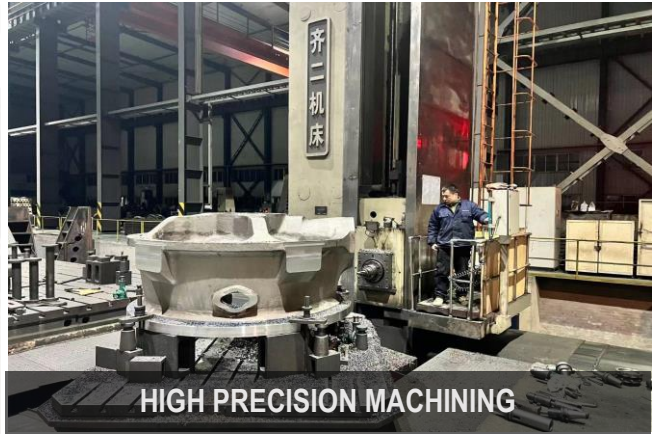
HIGH TECH FACTORY



COMPUTER CONTROLLED MACHINING



CASTING



HIGH PRECISION MACHINING

**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.

- What we do:** Protection starts with prevention
- 1 Thorough field inspections with certified Sytechs technicians every 1,000 operating hours
 - 2 Full-service reports on your equipment's condition
 - 3 Technicians identify preventive and/or correction actions and provide recommendations
 - 4 Extended protection plan of 5 years or 10,000 hours for designated major components

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,

TECHNOLOGY & APPLICATIONS

The Sytechs Single Shaft SG series Hydro cone crushers, particularly their single-shaft models, offer several advantages over other competitors. Here are some key points:

Advantages

1. Advanced Technology:

- ✓ Sytechs SG series Hydro cones : Utilizes a unique Multi-Action technology that combines the best features of traditional cone crushers while addressing common issues like uneven wear and short liner life.
- ✓ Sytechs SG Series: Engineered for high performance with low total cost, suitable for a wide range of applications.

2. Efficiency and Performance:

- ✓ Higher Capacity: Sytechs models are designed to handle higher capacities with better reduction ratios and superior product quality.
- ✓ Optimized Performance: Features like adjustable settings, hydraulic systems, and advanced automation ensure consistent performance and reduced downtime.

3. Versatility:

- ✓ Multiple Applications: Suitable for secondary, tertiary, and quaternary crushing stages in aggregates production, mining operations, and recycling applications.
- ✓ Adaptability: Can be used for various rock types and materials, making them versatile for different crushing needs.

4. Safety and Maintenance:

- ✓ User-Friendly Design: Engineered for improved safety and simpler operation, with features like hydraulic setting adjustments and access to main components.
- ✓ Reduced Maintenance: Advanced designs reduce the need for frequent maintenance, leading to higher uptime and lower operating costs.

Applications

- **Aggregates Production:** Ideal for producing high-quality aggregates for construction and infrastructure projects.
- **Mining Operations:** Efficiently handle large volumes of material, making them suitable for mining applications.
- **Recycling:** Effective in recycling operations, reducing material size for further processing or reuse.

Key Features

1. Hydroset™ System:

- ✓ Provides safety and setting adjustment functions, ensuring optimal performance and protection against overloads.

2. Intelligent Control System (PLC):

- ✓ Automatically adapts the crusher to varying feed conditions, maintaining consistent performance and maximizing efficiency.

3. Unibody Mainframe:

- ✓ Built as a single unit without moving parts, offering optimal strength and reducing maintenance needs.

4. Adjustable Eccentric Throw:

- ✓ Allows for precise balancing of capacity to the process, harmonizing the crushing stages.

5. Constant Liner Profile:

- ✓ Maintains the feed opening and performance throughout the entire service life of the liners.

6. Top Serviceability:

- ✓ Lifting from above minimizes risks and allows for quicker and safer maintenance.

7. Multiple Crushing Chambers:

- ✓ Various chambers are available (e.g., Coarse, Extra Coarse) to match different production needs.

8. PLC Controlled Mechanical Dump Valve:

- ✓ Provides tramp iron protection, reducing pressure peaks and mechanical stress on the crusher



HEAVY DUTY CRUSHER

HD





SYTECHS INTERNATIONAL PRODUCT SUPPORT

From the Design point, to Manufacturing, Shipment, Installation, Commissioning & Training in addition to After Sales service, Sytechs Minerals is committed to provide First Class Services anywhere in the world.

Our After sales service includes but not limited to on site technical support or through our online Diagnostic system.



**ISO 9001
QUALITY SYSTEM
CERTIFIED**

**Manufactured as per North American
Design and Specifications.**

Form: SCC4548-2401

Factory address
No.5, North Road 23, Economic and Technological Development Zone, Shenyang, China
Tel: 86 150 4126 0774
sales@sytechs-minerals.com