

Industrial Solutions

# ROLLER BEARING CONE CRUSHER

Suitable for Secondary and  
Tertiary Crushing of Hard Stones &  
Mineral Ores



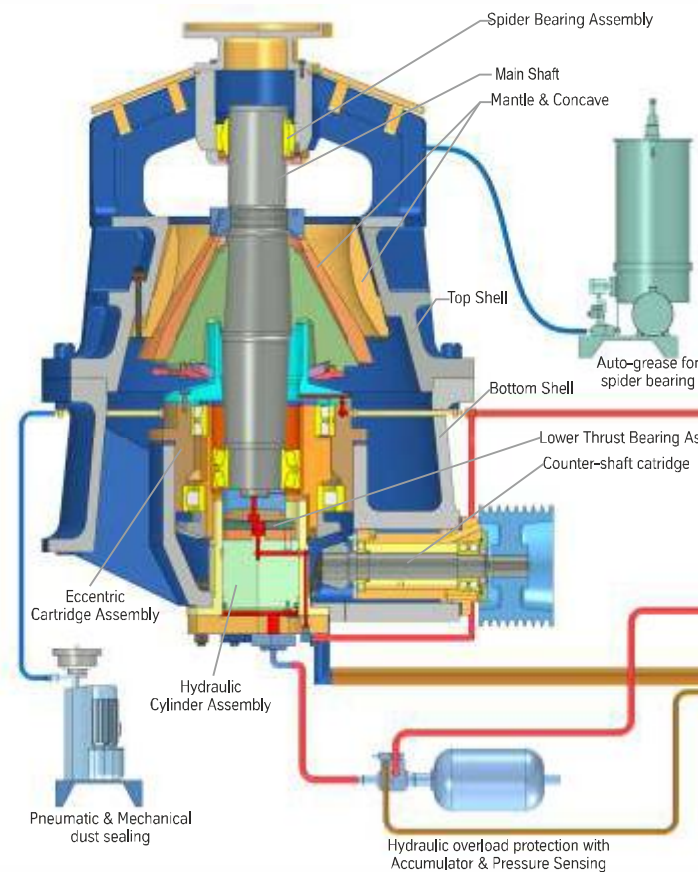
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# ROLLER BEARING CONE CRUSHER 3000RBC

## FEATURES

- Best Engineered Geometry
- Modern Hard Rock Crushing Technology
- Compact and Sturdy Construction
- High Production Volumes
- Low Power Consumption
- Easy Maintenance
- Graded Product Output
- Lower Wear Costs
- Simple Hydraulic Controls
- Inbuilt Safety Features



## TECHNICAL FEATURES

- High speed and Roller Bearing construction - less frictional resistance, less power consumption and longer life
- Precision machined alloy steel main shaft
- Perfect dust seal - combined air pressure and mechanical seal protection to all bearings
- Cartridge type eccentric & main shaft assembly and countershaft assembly for easy removal and maintenance
- Automatic lubrication of all bearings with built-in machine protection controls
- Hydraulic main shaft positioning system - tramp iron release, quick CSS by push button operation and over load protection
- Four types of crushing chambers - fine, medium and coarse and extra coarse crushing applications
- Profiled crushing chamber geometry for uniform flow of material, cubical product and well balanced grain distribution
- High manganese mantle & concave for long life
- Compact and well balanced machine for fixed plants as well as mobile plant installations
- Integral assembly with drive motor on a free-standing live baseframe supported on anti-vibration mounts for minimising foundation loads

3000 RBC Cone Crusher is ruggedly built with a heavy cast steel body comprising of top and bottom shells to withstand high gyratory crushing forces. The balanced design of the eccentric cartridge and main shaft assembly fitted with Heavy-Duty Roller Bearings, ensure constant alignment and deliver a smooth & frictionless gyro motion. The top end of the main shaft is held in a heavy-duty Spherical Spider Bearing that acts as fulcrum for gyro swing and transfers the rigorous crushing loads to the crusher body through the spider arms.

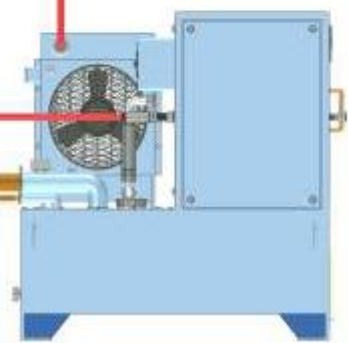


A set of thrust bearings of bronze and steel with a specialized metallurgy supports the main shaft and takes the wear and tear of the vertical crushing loads.

The whole shaft assembly is hydraulically supported with a high precision shaft positioning



assembly



Automatic Hydraulic & Lubrication unit

mechanism for CSS adjustment. Double protection automatic tramp iron release is built into the hydro-electric circuit protecting the machine from overloads. A highly reliable oil lubrication unit that forms part of the hydraulic power pack and a separate high pressure automated grease lubrication system for spider bearing with all built-in safety features provide a trouble free operation of the machine.

A positive air pressure seal combined with a mechanical seal provides full protection to all internals against ingress of dust in severest dusty environments.

The drive to the eccentric mechanism is through a heavily built counter shaft assembly and high precision spiral bevel gear and pinion for long term performance.

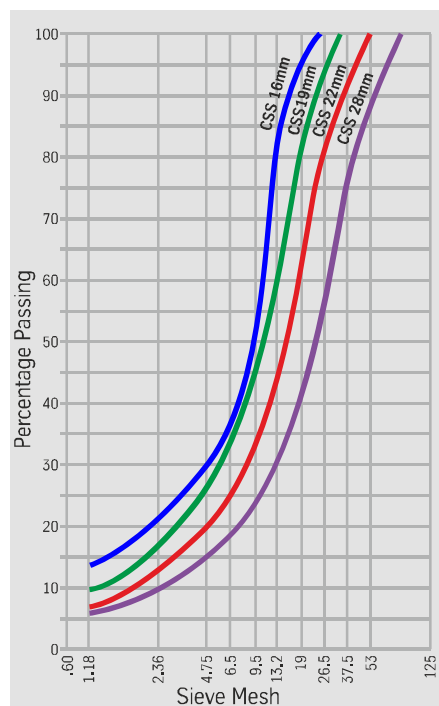
The crushing chamber profiles are designed for uniform flow and optimum material interactions to produce a cubical shaped product. A positive lock-tight fitting of mantle and concave with a backing compound provides an effective cushion to the manganese against the crushing loads.

The machine is built to meet varied crushing needs - fine, medium, coarse and extra coarse - of hard rocks and mineral ores.

The compact, well balanced, sturdy design and simple-to-operate features make the an ideal secondary and tertiary crusher suitable for stationary, skid-mounted, portable or mobile crushing in toughest quarries and mines.



### PRODUCT CURVES



The gradings shown are indicative. Contact us for more information.  
 FINE SETTING (Blue line)  
 MEDIUM SETTING (Green line)  
 COARSE SETTING (Red line)  
 EXTRA COARSE SETTING (Purple line)

### CRUSHER THROUGHPUT CAPACITY

FEED OPENING (mm)	SPEED (gpm)	STROKE (mm)	POWER (kW)	THROUGHPUT (metric tons per hour)								
				CLOSED SIDE SETTING (CSS) - mm								
				12	16	19	22	25	28	32		
75 (Fine)	315	19	90	70-75	80-85	85-90	95-100	105-110				
		22	110									
		25	132									
110 (Medium)	315	19	90	95-100	100-110	100-105	110-115	115-125	125-135			
		22	110									
		25	132									
150 (Coarse)	315	19	90	110-115	120-130	130-140	140-150	140-150	140-150	150-160	160-170	
		22	110									
		25	132									
190 (Extra coarse)	315	19	90	130-140	135-145	145-155	145-155	155-165	155-165	165-175	160-170	160-170
		22	110									
		25	132									

### APPLICATION AREAS

For secondary and tertiary crushing of

- Hard rock crushing for aggregates production
- Limestone crushing for cement industries
- Iron ore crushing for graded product outputs
- Metallic and non-metallic mineral ore crushing

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thyssenkrupp

We offer you a comprehensive range of equipment and services. Wherever you do crushing, screening and conveying, either hard rocks or mineral ores, with thyssenkrupp machines and systems, you can rely on our uncompromising quality, workmanship, and unflinching support. You will find thyssenkrupp a competent and reliable partner in all your project tasks.

## PRODUCT RANGE ( PST Services )



### Single Toggle Primary Jaw Crusher

Models PST9060 (36"x24"), PST1108 (44"x32") and PST1209 (50"x38");  
Capacity range: 70-600 TPH

### Secondary Gyrotory Cone Crusher

Model 3000 GLH for secondary crushing, feed opening suitable for coarse and extra coarse crushing; Capacity range: 250-350 TPH



### Roller Bearing Cone Crusher

Model 3000 RBC for secondary & tertiary crushing, feed openings suitable for fine, medium, coarse and extra coarse crushing from 60-200 TPH

### 'DuraCone SRM' Crusher

Models SRM400 and SRM500 for Secondary & Tertiary Crushing, feed opening suitable for fine, medium, coarse and extra coarse crushing from 250-700 TPH of hard stones.



### VSI Crusher

Models NP2503, NP3003, NP3503, NP4003 & NP4503;  
Capacity range: 40-550 TPH

### Vibrating Grizzly Feeder

800 mm, 1000 mm, 1200 mm, 1350 mm and 1500 mm width and different lengths to suit; Capacity range: 50-1000 TPH



### Vibrating Screen

'MaxFlow' & 'HiFlow' series inclined screens and 'Tripleks series horizontal screens of 2-Deck, 3-Deck & 4-Deck Models of varying sizes

### Spiral Classifier

Spiral sizes from 600 to 2100 mm dia for raking capacity from 15 TPH to 300 TPH for washing-classifying-dewatering plants



### Mobile Plants

Tyre-mounted Primary Jaw Stations Model NM7550J, NM9060J, NM1108J and NM1209J; Secondary Cone Stations Model NM3000RBC and NM3000GLH/RBC-TC; Tertiary VSI Station Model NM3003VSI, NM3503VSI, NM4003VSI and NM4503VSI-TD; Capacity range: 90-300 TPH

### Stationary Plants

Turnkey crushing & screening and bulk handling plants from 70-500 TPH for aggregates and mineral ores, and manufactured sand plants



### Belt Conveyors

All sizes and capacities for cement plants, thermal power stations, mining and process plants.

### Concrete Delivery Systems

Belt conveying and placement of concrete in dam projects;  
Capacity range 1000 TPH and above

