



An ISO 9001:2000 Company

# McNally Sayaji Engineering Limited

A Subsidiary of McNally Bharat Engineering Company Limited



Cone Crusher | For Crushing Moderately Hard to Hardest Rock

At MBE we believe in constantly reinventing ourselves. And in line with this we are always on the lookout for new avenues and opportunities.

McNally Sayaji Engineering Limited (MSEL), with factories in Kumardhubi, Asansol, Bangalore and Baroda, is one of the country's leading manufacturer of Crushing, Screening, Milling, Material Handling and other heavy equipment, serving the core sectors of the economy. These sectors include Coal, Mining and Mineral Processing, Power, Steel, Ports, Cement, Aluminium and Non-Ferrous Metals.

**The manufacturing units have ISO 9000 certification.**

We have marketing and branch offices at Kolkata, Baroda, Mumbai, Kumardhubi, Bangalore, Chennai,

Secunderabad, Cochin, Nagpur, Vizag and Vijaywada. This makes us capable of comprehensive customer support at all times.

MSEL has inducted technology over the years through strategic alliances and developed focused R&D and Design & Development teams, who offer optimum and cost effective solutions to meet customer needs.



### Main advantages of the Cone Crusher

- High throughput capacity, depending on the specific requirements
- High degree of crushing in the secondary stage
- Increased proportion of cubical grain in the final product for the production of fine chippings
- Low maintenance costs and highly wear resistant crushing tools
- Low operating costs

The Cone Crusher is very efficient for various crushing jobs in the second and third crushing stages. Due to the expedient inclination of the crushing tools it is particularly suited for the production of fine chippings. Especially for this job the fully hydraulic adjustment offers considerable advantages, the gap width being easily adjustable, both in unloaded condition or under load. The adjustment is effected on the machine or from a central switchboard gallery.

Due to the well arranged local control instruments the closed circuit hydraulic system can easily be monitored.

The main control functions can be effected either fully automatic or manually.

The machine unit requires a switch cabinet to accommodate the electrical switching and control devices. This equipment should be provided by the customer. On request we can supply this as accessories.

The eccentric bushing of the Cone Crusher, which supports the cone shaft, is driven by an electric motor via V-belts and a bevel gear with helicoidally toothing. The helicoidally toothing ensures a smooth running of the machine.

The main bearing of the moving parts is an amply dimensioned and relatively sturdy sliding bearing. The horizontally arranged driving shaft is provided with roller bearings. A sufficiently dimensioned oil circulating system guarantees efficient lubrication of the bearings. In order to prevent dust from entering into the driving and bearing system, wear-resisting sealing elements, which require very little attendance, are installed in all the important locations.

A hydraulic/electronic control governs the hydraulic unit which serves for the adjusting and monitoring of the gap width as well as for the protection of the granulator against excessive loads.

All functioning elements are well arranged in an electronic switch cabinet equipped with a dust and splash-proof front panel.

The gap width is set by following actions and is digitally displayed on the front panel.

By adjusting the piston, which acts via the hydrostatic axial bearing on the supporting conical shaft or the crushing cone, the gap width is adjusted by means of a solenoid valve. In case of overload a relief valve having a large nominal diameter and opening pressure-dependent release effects a rapid lowering of the crushing cone. After reduction of the load peaks the gap is set automatically to the preselected width.

### Crushing Tools

The crushing tools are selected according to the required job. The combination of crushing shell and crushing tool is specially determined for each individual job, taking into account the material to be crushed, the feeding lump size and the desired final grain distribution. The crushing tools are made of highly wear and break resistant cast steel alloys. The possible utilization factor may range between 60 and 70%

Fastening of the crushing tools:  
The crushing cone is fastened on the cone shaft by means of a thrust piece with shaft-nut. The crushing shell is connected to the crusher housing by means of a trapezoid clamping ring and is secured by means of bolts.



## McNally Sayaji Engineering Company Limited

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**Crusher | Screens | Mills | Feeders | Conveyors | Port Cranes | Stacker Reclaimer | Wagon Tippler | Slurry Pump | Thickener  
Pressure Vessels | Equipments for Steel, Cement, Power & Non Ferrous Metals**