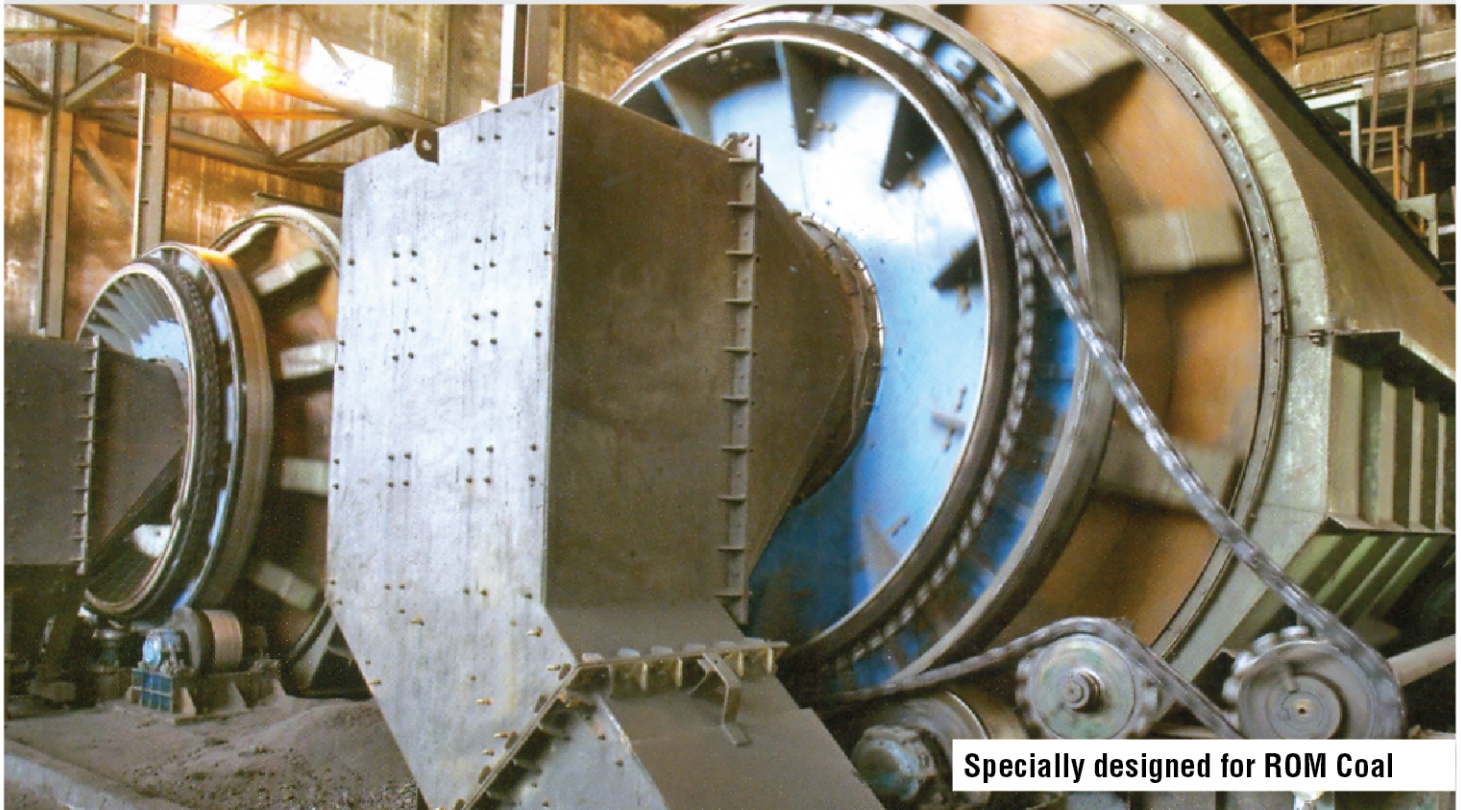


# McNALLY SAYAJI ENGINEERING LIMITED

(A Member of the Williamson Magor Group)



**Specially designed for ROM Coal**

## Rotary Breaker

At MSEL 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 mineral processing and other heavy equipment, serving the core sectors of the economy. These sectors include Coal, Mining, Power, Steel, Ports, Cement, Aluminium and Non-Ferrous Metals.

All manufacturing units of MSEL are ISO 9001-2008 certified with well established quality assurance department supported by modern testing facilities and

managed by a team of highly experienced professionals.

MSEL has branch offices at Kolkata, Bangalore, Chennai, Delhi, Mumbai, Hyderabad, Nagpur, Vishakhapatnam, Kochi, Vijaywada, Coimbatore. This makes MSEL capable to render comprehensive customer support.

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.

# APPLICATION

Rotary Breakers are used for crushing, sizing, and clearing (conditioning) of run-of-mine coal and other friable materials. They are used to produce a product that is relatively coarse, with minimum fines.

# OPERATING PRINCIPLE

Rotary Breakers crush by gravity impact only. A Large cylinder made of perforated screen plates is fitted with internal shelves. As the cylinder rotates, the shelves lift the feed and, in turn, the feed slides off the shelves and drops onto the screen plates below, where it shatters along natural cleavage lines.

The size of the screen plate perforations determines the product size. Sized product falls through these perforations but over-sized pieces will again be lifted and dropped by the shelves until they too pass through the screen plates.

Tramp Iron or other uncrushable debris that enters the breaker along with the feed will flow to the discharge end of the cylinder. There, these uncrushables are scooped out continuously by a refuse plow which channels this debris out of the cylinder and into a disposal bin.

Often a Breaker is used merely to clean debris from coal that has already been sized. This gives some indication of the economy of operation and versatility of this machine.

MSEL has also designed the screen plates in the breakers to be interchangeable, so that the screen plates from the feed end, where wear is greatest, can be replaced with screen plates from other areas of the cylinder where there is less wear.

# CONSTRUCTIONAL FEATURES

Cylindrical structure of the Rotary Breaker consists of two fabricated End Rings connected by a number of Spreader Beams. The End Rings are machined at the outer diameter and supported by a pair of Carrying Rollers at each end. Thrust Rollers are also used to prevent the axial movement of the Breaker body.

Fabricated or Cast Screen plates with desired opening are bolted between the spreader beams to control the product size. Lifters and Ploughs are used to increase the drop height and control the material retention time inside the cylinder.

Drive unit includes motor, coupling, reducer, chain, sprocket and line shaft.

# SALIENT FEATURES

The profile of the perforations in the screen plates of MSEL Rotary Breaker has been specially designed to obtain a maximum self-cleaning effect, without product bridging across the perforation itself.

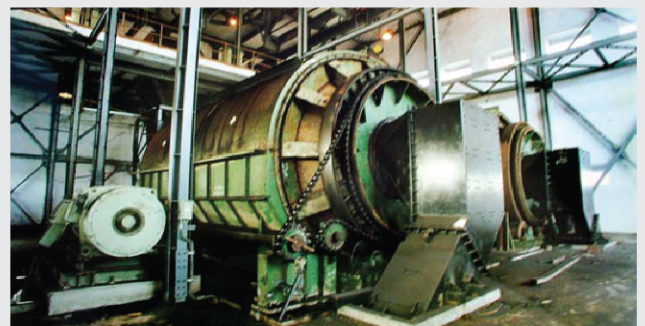
The roller mounted Breaker is used for coalmines where the feed often includes unusually large pieces of coal. This model will readily accept these larger pieces of coal without blocking the entry.

- Designed for high tonnage.
- Dust Housing provided for pollution free environment.
- RPM has been kept low for less vibration and noise.

# AVAILABLE SIZES

AVAILABLE SIZE (mm)		MAX FEED SIZE (mm)	CAPACITY (TPH)	MOTOR POWER (kW)	APPROX. WT (TON) W/O DRIVE
DIAMETER	LENGTH				
12'	18'	600	175	55	56
12'	22'-7"	600	500	75	72
12'	27'	600	1000	180	75

*NOTE: As improvements are made from time to time, specifications and other details are subject to change without notice.*



## McNally Sayaji Engineering Limited

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Crusher | Screen | Grinding Mill | Feeder | Conveyor | Wagon Tippler | Pulley & Idler | Port Crane | Stacker Reclaimer | Mobile/Skid Mounted Crushing & Screening Plant | Slurry Pump | Thickener | Flotation Cell | Pressure Vessel | Equipment for Iron Ore, Steel, Cement, Power, Coal & Other Non-Ferrous Metal Processing Plants