

# McNALLY SAYAJI ENGINEERING LIMITED

(A Member of the Williamson Magor Group)



## TOOTHED DOUBLE ROLL CRUSHER

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

Toothed Double Roll Crusher is used for Secondary and Tertiary Crushing of soft to medium hard material like lignite, coal, fertilizer, gypsum, chalk, clay, limestone, coke, sinter, etc.

# OPERATING PRINCIPLE

Due to inward opposite rotation of the rolls, the feed material is nipped between the rolls and crushed by piercing and compression. To adjust the gap for controlling product size floating roll is moved by turning threaded spindle (horizontal or vertical type) or by cylinders. During entry of un-crushable, gap increases automatically by compressing the spring thereby releasing the same. Floating roll comes back to original position by spring retraction.

MSEL's unique yoke beam design for vertical spindle arrangement enables gap adjustment without stopping the crusher. It also ensures parallel shifting of rotor.

# CONSTRUCTIONAL FEATURES

It consists of two counter rotating rolls mounted horizontally on a rigid frame. The rolls are totally enclosed in a fabricated housing. One of the roll is fixed in position while the other is floating being mounted on a spring loaded yoke beam to control product size and release un-crushable material. The yoke beam is hinged and supported on Helical Coiled Spring having differential spring stiffness and is of robust construction. The roll surface can be corrugated or toothed depending on the type and size of the feed material. In corrugated and tooth roll crushers the crushing elements are normally segmented and bolted in a heavy fabricated roll body. Toothed Roll Crusher can have ring type crushing elements also mounted on hexagonal rotor body tightly held by long studs and can be easily dismantled for replacement. Centralized grease lubrication is provided.

Two rolls rotate in opposite direction by means of individual motor with gear box and vee belts drive.

# SALIENT FEATURES

- MSEL's unique yoke beam design enables floating roll to shift parallel to the fixed roll even in operating condition saving down time.
- Unique teeth configuration in MSEL design ensures min. fine generation with control of oversize.
- Crushing Rings mounted on hexagonal rotor body ensures long service life.
- Low speed of rotor minimizes fine generation and wearing rate. It also reduces vibration and noise level.
- Balance Rotor.

# AVAILABLE SIZES

AVAILABLE SIZE		MINIMUM MOTOR POWER(kW)	Approx Wt. (Kg) W/o Drive
ROLL DIAMETER (mm)	ROLL LENGTH (mm)		
500	500	1 x 11	4000
650	600 TO 1500	2 x 15 TO 2 x 30	8000-15000
800	600 TO 2800	2 x 15 TO 2 x 160	9000 TO 25000
1000	1000 TO 2000	2 x 37 TO 2 x 110	23000-36000
1200	800 TO 2500	2 x 22 TO 2 x 160	19000-65000
1400	800	2 x 45	29000
1600	1600	2 x 110	29000

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