



# McNALLY SAYAJI ENGINEERING LIMITED

(A Member of the Williamson Magor Group)



# **REVERSIBLE HAMMER MILL**

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.

#### **A**PPLICATION

A Hammer mill is employed where high reduction and small or finer particle size is required. MSEL is having a wide range of models of Reversible Swing Hammer Mill suitable for various duty condition i.e. Primary, Secondary and tertiary application. For Heavy duty i.e. Primary and Secondary application heavier duty Hammer Mills are used for crushing Limestorne, Dolomite, Clinker and similar medium hard material (up to moderately abrasive) mainly for Cement Plant requirement. High Speed light Hammer models are ideally suitable for fine Coal Crushing for Coke Oven and Lime Crushing for Sinter Plant.

#### OPERATING PRINCIPLE

The crushing principle is by hammering action on feed material against the breaker plate or grinding jib. Initially, near the feed end zone material is crushed by impact force and as it passes down the crushing chamber material is subjected to crushing actionby shearing and attrition (near the discharge end). Product size is controlled by gap adjustment between grinding jib and Hammer Tip circle.

## **C**ONSTRUCTIONAL FEATURES

It is consisting of housing with multiple section, 2Nos. hinged grinding walls, rotor assembly with swing hammers mounted on arms or without arms and with or without grate bar (open bottom). The top housing can be swung out mechanically or hydraulically for ease of maintenance. The grinding walls each hinged at the top are provided with mechanical or hydraulic gap adjustment at the bottom to compensate wear loss. In grate bar design the lower half is provided with hinged grate bar with suitable opening while top half is provided with hinged grinding walls on both sides. Hammers and Grinding jibs are made of high quality alloy steel castings. Side liners are provided on exposed area.

The drive system from motor is consisting of vee belt and jack shaft or directly through gear box and Fluid Coupling. Variable drive system is also available on request.

#### **S**ALIENT FEATURES

- Open Bottom design is non clogging and clear out tramp iron instantaneously.
- Separate Hammer tips on arm reduces spares cost substantially.
- MSEL's unique long arm design enables it to maintain consistency of product granulometry against wearing of hammers to great extent. Also long arm allows very closer setting for finer product out put.
- · Long length of grinding jib ensures high reduction ratio
- Multiple segmented housing with adequate inspection doors provided for ease of maintenance
- Electronic under speed switch trips the drive motor in case of jamming.
- Hydraulic Housing opening saves maintenance time.
- Centralised grease lubrication system can be provided on request.

## **A**VAILABLE SIZES

AVAILABLE SIZE (mm) ROTOR ROTOR		TYPE	Nominal Motor	Apprx. Wt. (kg)
DIAMETER	LENGTH		Power (kW)	W/o Drive
400	400 TO 600	REVERSIBLE	9 TO 11	1000 TO 1400
600	600	NON- REVERSIBLE	18.5	2000
800	400 TO 1000	REVERSIBLE	22 TO 75	3300 TO 6500
1000	600 TO 1200	REVERSIBLE	45 TO 90	6500 TO 12500
1200	800 TO 1200	REVERSIBLE	55 TO 160	9500 TO 12000
1400	1400 TO 1600	REVERSIBLE	225 TO 300	19000 TO 25000
1600	1600 TO 2000	REVERSIBLE	300 TO 450	24000 TO 32000
1800	2000 TO 2200	REVERSIBLE	600 TO 670	45000 TO 75000
2000	2200	REVERSIBLE	750	48000

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 & Screeing Plant | Slurry Pump | Thickener | Floatation Cell | Pressure Vessel | Equipment for Iron Ore, Steel, Cement, Power, Coal & Other Non-Ferrous Metal Processing Plants