McNALLY SAYAJI ENGINEERING LIMITED

(A Member of the Williamson Magor Group)

CIRCULAR MOTION VIBRATING SCREEN

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

MSEL circular motion screen is a versatile sieving machine capable of handling wide range of material however, with certain limitation in handling very fine particle size and high moisture contents. It is widely used for stone, sand, gravel, slag, sinter, coal, coke, chemicals, clay, bricks, pottery, refractories, NPK, urea, rock phosphate and in various crushing and screening plant.

OPERATING PRINCIPLE

The screen frame or basket is a freely vibrating mass supported on a set of springs mounted on a rigid base frame. The eccentric mass mounted on a rotating horizontal shaft or eccentric shaft located close to the CG of the basket imparts oscillating circular motion to the basket due to centrifugal force. It produces a steep angle of throw to the particle lying on the screen deck which is having a downward slope of 150 to 220.

While oversize particles move over the screen deck towards discharge end, the undersize particles escape through the opening below. Multiple deck arrangement separates required particles sizes in accordance with the screen opening through multiple chutes arranged at the discharge end and below. Parameters like size distribution, shape, bulk density, moisture, separation size, capacity etc. are important for screen size selection and performance.

CONSTRUCTIONAL FEATURES

The basket is having two vertically parallel side plates connected through flanged cross beams or pipes bolted with them. A flanged tubular housing bolted with side plate near the CG of the basket is containing the eccentric shaft with eccentric masses at both ends. It is mounted on vibration duty grease or oil lubricated self aligning spherical roller bearings through flanged bearing housing bolted to side plates. The basket is supported by 4 sets of mechanical coil spring in parallel or "V" orientation. Screen deck panels made of wire mesh (carbon steel or spring steel) having suitable opening are mounted tightly against a number of cross and longitudinal support, so orientated as to give a gentle curvature for tight sitting by side stretching or longitudinal tension device. The rubber or poly-urethane panels are mounted on specially design flat deck frame. Maximum number of decks can be four.

The drive is through vee belts with motor supported on hinged spring loaded frame or by cardan shaft. Specially designed eccentric vee pulley in phase with basket motion is also provided to ensure a smooth drive.

SALIENT FEATURES

- All bolted construction, either with HT bolts or with HUCK bolts.
- Vibration duty self-aligning spherical roller bearings are used.
- Stress relieving wherever required.
- High workmanship with quality material of MSEL screen provides long service life with minimum maintenance.
- Full dust cover is available in certain sizes.

AVAILABLE SIZES

TYPE OF SCREEN	NO. OF DECK	MIN. SIZE	MAX. SIZE
CIRCULAR MOTION	ONE	0.8 m x 1.7 m	2.5 m x 6.6 m
	TWO	0.8 m x 1.7 m	2.4 m x 6.0 m
	THREE	0.8 m x 1.7 m	2.4 m x 6.0 m
	FOUR	1.0 m x 2.5 m	2.0 m x 5.0 m

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

McNally Sayaji Engineering Limited

Corporate Office: **Ecospace Business Park**, Campus-2B,11F/12, New Town, Rajarhat, Kolkata 700 156, India. P +91-33-3014 2345/6628 2345; F +91-33-3014 2393.

Factories: **Kumardhubi** P +91-6540-273010/11, +91-6540-272 235/197; F +91-6540-273024 | **Baroda** P +91-2667-263000/2661-2793650; F +91-2667-263051 | **Bangalore** P: +91-08151399964/67/58 | **Asansol** M +91-8016090116, +91-8016090128.

Sales Office: **Kolkata** P +91-33-40111300; F +91-33-40111317 | **Bangalore** P +91-80 41153781-83; F +91-80 41153784 | **Chennai** M +91-9500011660; F +91-044-22431309 | **Delhi** M 9910661861 | **Mumbai** P +91 022-26397641 | **Hyderabad** P +91-040-27204395; F +91-040-27205361 | **Nagpur** M +91-9422114059; F +91-712-2535089/2560097 | **Vishakhapatnam** P +91–891–2551534 | **Kochi** P +91-9846034939; F +91-484-2405914 | **Vijaywada** M +91-9440320529 | **Coimbatore** M +91-978 978 0318.