



# McNALLY SAYAJI ENGINEERING LIMITED

(A Member of the Williamson Magor Group)



# APRON FEEDER

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

MSEL Apron Feeder is employed for handling large boulder falling from a height with impact below a Feed Hopper and of high capacity for feeding a Primary Jaw Crusher or Gyratory/ Cone Crusher. It is also efficient in withdrawing material from under stockpile with heavy column load or from under a Primary Crusher as well. Apron Feeders are normally employed for heavy duty application. For lighter duty Apron Conveyors are used. Apron Feeder is the best solution for wet, sticky and abrasive material when other type of feeders can not handle.

### OPERATING PRINCIPLE

The feed material from the Feed Hopper above the Apron Feeder is carried forward by the pans being pulled by the chain and sprocket arrangement. It then gets discharged at the discharge end. Material gets distributed over the width with uniform bed depth ensuring uniform surge free discharge rate. The Apron Feeder can be horizontal or inclined type depending upon site lay out. Variable speed arrangement can also regulate the flow rate according to requirement. Tensioning screws adjust chain tension.

### **C**ONSTRUCTIONAL FEATURES

The basic components are pans, chain, skirt, support/return rollers, impact rail, head sprocket and tail drum, main structural frame with base and drive assembly. Over-lapping type (double beaded or single crimped) pans are fabricated form wear resistant plate or MS with liner or Alloy Cast Steel (Mn. Steel) depending upon duty condition. Skirts being supported form the base frame are also provided through out the length for minimum spillage. Pans are bolted to the chains. Depending upon duty condition, either heavy duty crawler chains or link plate roller chains are used. Crawler chains have high static breaking load and are life lubricated. High surface hardness ensures wear resistance. Crawler chains are supported and guided on main frame by life lubricated carrying rollers with special seal. For link plate type roller chain carrying rollers are directly mounted on base frame to take impact. Wider Apron Feeder is

provided with one or two impact rails below the pans with sufficient clearance. Heavy Duty segmented type sprocket of wear resistant materials are fastened to the sprocket hub. Head, tail and counter shaft are supported on liberally sized babbited bearings or roller bearings housed in pillow blocks. Generally screw type tensioning device is provided, hydraulic tensioning may be provided optionally. The drive from motor is transmitted to the head shaft through gear box, counter shaft and open gearing. Either manually or automatic centralized grease lubrication are provided.

#### SALIENT FEATURES

- MSEL robust design and construction with high workmanship and quality material make it almost maintenance free equipment.
- Various alternative design can be offered depending upon duty condiotn, heavy or light. For Lighter duty, Apron Conveyor of economized design is available.

#### **A**VAILABLE SIZES

Pan Width : 1000 mm to 2600 mm

Feeder c/c length : 4.2 m to 10 m

for Apron Feeder and up to 74 m for Apron Conveyors (lighter duty)

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.

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