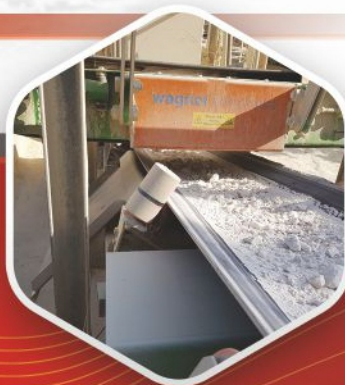




 **THE MAK**
ENTERPRISE
a unit of industrial magnetic solution



We "The Mak Enterprise" are Sole Proprietorship (individual) based company established in the year 2013 placed at Kolkata (West Bengal, India). Backed by rich industry experiences, we are engaged in manufacturing and exporting a high-quality range of Magnetic Separator, Magnetic Lifter and also dealing with Raw Magnets, etc. In addition to this, we are also providing Repairing Service to our clients. Under the stem surveillance of our Proprietor, "S. Saha", we have been able to attain maximum customer satisfaction. We also export our products to Bangladesh, Spain, Dubai, Morocco, Slovenia, Singapore, Indonesia, Nepal

LIST OF OUR PRODUCTS

1) MAGNETIC SEPARATORS :

a) Permanent Magnetic Separator

- i) Suspended Magnets
- ii) Overband Magnetic Separator
- iii) Magnetic Drum Separator
- iv) Wet Magnetic Drum Separator
- v) Magnetic Roll Separator
- vi) Magnetic Pulley
- vii) Coolant Separator
- viii) Magnetic Concentrator

b) Electro Magnetic Separator

- i) Suspended Magnets
- ii) Overband Magnetic Separator
- iii) Magnetic Drum Separator
- iv) Magnetic Pulley

2) MAGNETIC LIFTERS :

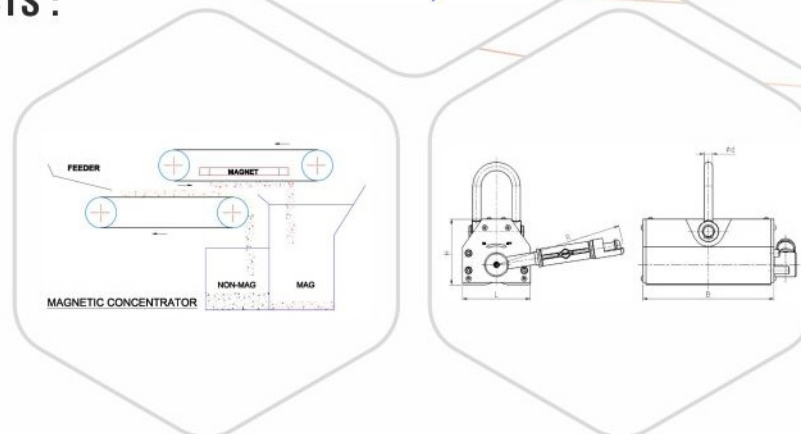
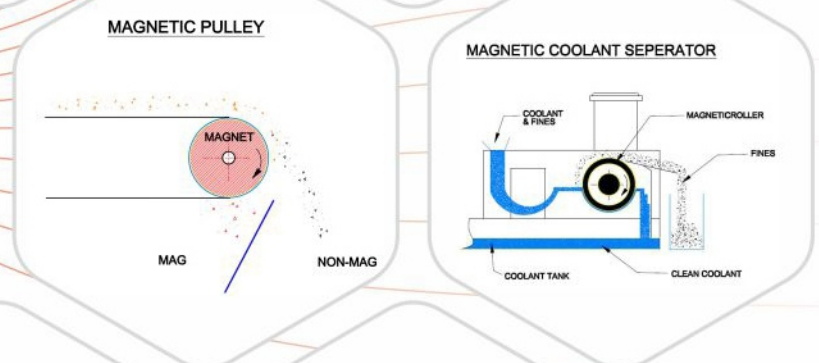
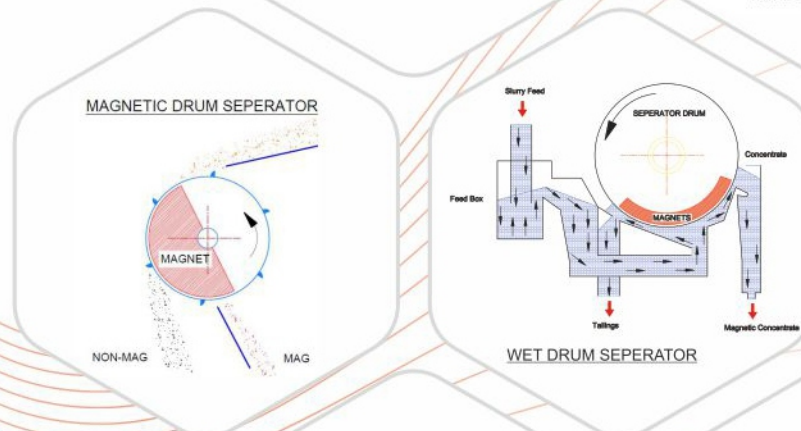
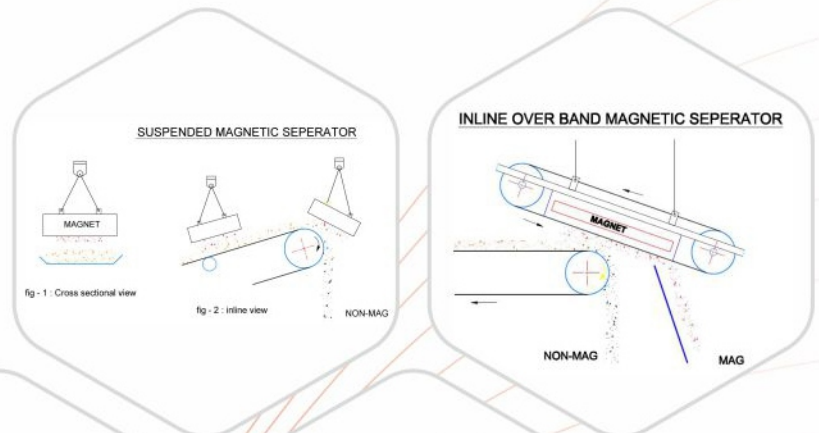
a) Permanent Magnetic Lifter

b) Electro Magnetic Lifters

- i) Circular Electro Magnetic Lifters
- ii) Hot Magnetic Lifter
- iii) EPM Lifter

3) OTHER MAGNETIC PRODUCTS :

- a) Plate Magnets
- b) CTC Bar Magnets
- c) Magnetic Rods
- d) Magnetic Sweeper
- e) Magnetic Grills
- f) Permanent Magnetic Chuck
- g) Electro Magnetic Chuck
- h) Bullet Magnets



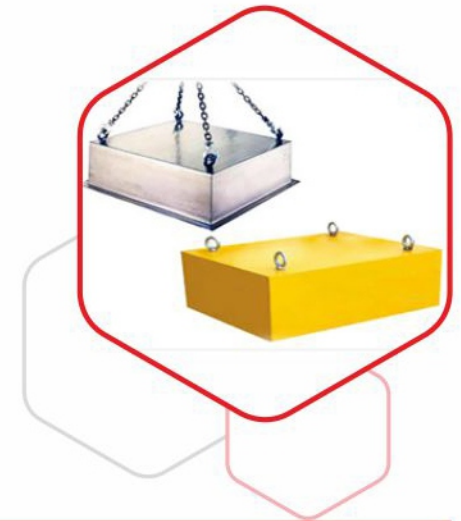
SUSPENDED MAGNETIC SEPARATOR

■ Permanent Magnetic

Permanent Magnetic Suspended Separator are placed above open conveyors to arrest ferrous objects and fines found in grains, feed stuffs, raw and processed products, dry chemicals, salt, ceramics, Clinkers in Cement Industry, Coal conveying in power plants and many other products. Suspended Permanent Magnets are used for separating big Ferrous particles like lugs, nuts, bolts, rivets, MS plates, angles, channels and tools from moving material on a conveyor belt.

It is provided with eye bolts, D shackle and sling /chains with turnbuckles for adjustments while mounting.

Permanent suspended Magnetic Separator are used for separation of small ferrous particles from conveyer and operating height not more than 200 mm.



STANDARD SUSPENDED PERMANENT MAGNET

Model No.	Length (mm)	Width (mm)	Height (mm)	Max. Temp (C)	Magnet Type	Gauss Strength	Max Operating Height (mm)
MAK0055	500	500	250	200	Ferrite	1500±200	200
MAK0066	650	600	250	200	Ferrite	1500±200	200
MAK0086	800	600	250	200	Ferrite	1500±200	200
MAK0088	800	800	250	200	Ferrite	1500±200	200
MAK0108	1000	800	250	200	Ferrite	1500±200	200
MAK1010	1000	1000	250	200	Ferrite	1500±200	200
MAK1210	1200	1000	250	200	Ferrite	1500±200	200
MAK1212	1200	1200	250	200	Ferrite	1500±200	200

■ Electro Magnetic

Electromagnetic suspended magnets have a very deeply penetrating holding field, which makes them very suitable for larger capacities. Electromagnetic suspension magnets can be switched on and off, this simplifies cleaning (when the magnet is switched off the Fe particles fall off the block), and they are more flexible as they can be activated whenever the process requires their use. However, electromagnetic block magnets do consume power, and they require a control panel. A sizeable electric coil is needed in order to generate a powerful magnetic field. Coils are made from Copper wire OR Aluminium Wire as per the requirement of buyer.

Suspended Electro magnets are generally in big sizes depending upon the width and speed of the conveyor belt. They are provided with eye bolts, D shackle and sling chains with turnbuckles for adjustments while mounting.

It is used where the Ferrous material picked-up from long distance i.e. more than 250 mm and also the size/weight of more than 2.0 kgs of single piece



OVERBAND MAGNETIC SEPARATOR

■ Permanent Magnetic Type

Overband magnetic separators are self-cleaning separators for installation over conveyors for continuous removal of tramp ferrous material from a product stream. Most commonly used on mobile crushing machinery, so that no manual cleaning is required and downtime for the end user is reduced to a minimum. This type of magnetic separator is used to protect, clean and separate materials on applications in the recycling and quarrying industries, while transverse self-cleaning magnets remove the ferrous materials over the side of the conveyor.

■ Electro Magnetic Type

Electro Magnetic overband separators are used where the tramp ferrous particles size/weight over 2.0 kgs and where operating height between 200 mm to 450 mm.

Applications

- Installation on Mobile Crushers
- Separation of ferrous contamination from conveyor
- Removal of ferrous materials in mining operations
- Removal of ferrous from Foundry applications
- Separation of ferrous metals from Municipal Solid Waste

Separation of ferrous metals in Skip Waste recycling

Overband can be positioned either inline over a conveyor head pulley or across on conveyor belt. All models are designed to be virtually maintenance free and are available with an electric drive. Overband Magnetic Separators are designed on the basis of conveyor belt width.

MAGNETIC DRUM SEPARATORS

■ Permanent Magnetic Drum And Drum Separator

Drum Separator are of self-cleaning type and provide continuous removal of ferrous contamination from a wide range of free-flowing bulk and granular materials in high-volume applications. Permanent Drums Separators are designed for the continuous extraction of ferrous materials from a product being fed uniformly on to the face of the drum. As the material is fed onto OR pick-up by the drum, ferrous materials are extracted and are firmly held to the drum face by the magnetic separator until they move away from the magnets influence and discharge, leaving any non-ferrous materials to free fall.

Permanent Drums have a 180 degree stationary magnet system within a revolving cover. The magnet system is constructed using fully stabilised strontium ferrite permanent magnets OR NdFeb (Rare Earth Magnet). The magnets are mounted on to heavy-duty back plates, to optimise the magnetic strength directed at the product stream. This not only enhances the Drums performance but also reduces the magnetic fields in the shaft and bearings, helping to extend their service life.

Mak provide only magnetic drum as well as Complete set of Permanent Magnetic Drum Separator as per requirement of customer. It can be made upto Triple Drum separator as per the requirement of our customer.



■ Electro Magnetic Drum Separator

Electro Magnetic Drum Separators are used to continuously remove ferrous metals from a product stream in applications such as municipal refuse and vehicle recycling plants.

These particular Drums are typically used where magnetic materials may be entrapped or buried beneath non-metallic materials. The Drums are designed to allow extracted magnetic materials to roll over the face of the drum to release any non-metallic materials that may be caught between the ferrous material and the magnet.

■ Wet Drum Separator

Wet Drum Separators are mainly used for the recovery of magnetic/ferrosilicon in dense media plants and iron ores. Wet drum separators work on a similar principle to our other existing drum separators. A stationary magnet system with several radial poles attracts the magnetic material to the drum face. The rotating cover then carries the magnetics from one pole to another, at the same time rotating the magnetic particle to allow trapped non magnetics to free fall.

This should then produce a clean magnetic product completing the magnetic separation process. Wet drum separators have three basic designs that work with 3 different types of application, they are concurrent, counter flow and counter current. The purpose of this is to ensure that we can meet recovery figures of 99.9% when dealing with different solid to liquid ratios.

■ Roll Separator

Magnetic Roll Separators are the most trusted magnetic separation equipment followed by industries to separate ferrous from non ferrous substances. The Magnetic Roll Separator uses powerful rare earth magnets that perfectly segregate feeds; this is made possible by the properties and special series of magnet used. Substances with low magnetic properties are also effectively separated and so there are no chances of missing out even the least magnetically active substance.

The separators are manufactured in varying magnetic intensities to suite the requirements of various industrial applications. Customized models with variations in magnetic intensity, count of magnetic rolls, roller width etc. can be manufactured. Single stage Magnetic Roll Separator is also available but no of roll increases separation reaches higher standards.

PERMANENT MAGNETIC HEAD PULLEY

Permanent magnetic pulleys are an easy, reliable solution for the continuous extraction of ferrous metals/ contamination like nails, spikes, nuts, bolts, cans, and wire from a product stream. Magnetic pulley separators are easy installed as a replacement head pulley at the discharge end of a conveyor. A non- magnetic adjustable divider plate is installed beneath the pulley to split the ferrous material away from the non-ferrous materials in the product stream. As non-metallic materials free-fall at their normal trajectory, the 360 degree magnet system ensures that the ferrous materials are discharged behind the centre line of the pulley.

The Mak Magnetic pulley requires very little maintenance and can last for years without any trable. The pulley magnet can also be supplied as an electro magnetic unit for an even better level of extraction.



Pulley magnets are constructed with a stainless steel shell and are available with either radial or axial poles. Vulcanized or rubber lagging and stainless steel shafts are optional on magnetic pulleys.

The Mak magnetic head pulleys are custom built and are available from DIA 200 mm to 750 mm and Length 300 to 1500 mm and it will be recommended based on customer's installation or application process.

This can be made from both Ferrite Magnet and NeFeb (Rare Earth Magnet) depend on the Gauss intensity required and applications require removal of finer iron particles.

MAGNETIC COOLENT SEPARATOR

These filters/separator are used in different Industries like Engineering, Automobile, Bearings, Spindles, Textile Machinery Rolling Mills, Wire drawing etc. The MAK has wide range of standard models from 50 LPM to 1500 LPM capacity and special/large can be designed and supplied as per requirement and application.

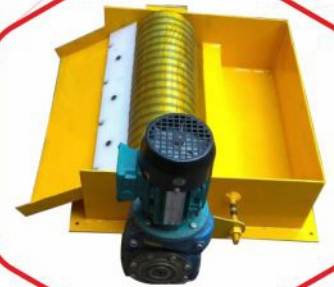
Magnetic Filter consists of powerful magnetic drum driven by double reduction worm geared motor. The contaminated coolant from the machine is passed is through the gap between the drum and the body. The dust particles are attracted by the drum and a rubber roller squeezes the 'babri (scrap metal)' which is scrapped off by a scrapper plate. The clean coolant is collected is the coolant tank for recirculation to the machine.

PERMANENT MAGNETIC CONCENTRATOR SEPARATORS

Permanent Magnetic Concentrator Separators is extensively used for advancing or concentrating material containing a very high percentage of magnetic or where magnetic/mechanical agitation is required for the separation of many difficult materials. It is perfect for the improving Sponge Iron/Cast Iron borings, Steel/Brass Aluminum turnings, Chips and for mineral beneficiation application such as the purification of dry ceramic and refractory materials, reclamation of abrasive grains, removal of iron contamination from chemical powders and grains and for many other such applications requiring maximum separation with minimum production loss etc.

1. Two Conveyor belts The Upper belt running ahead of the lower conveyor belt and in the same direction.
2. Super power Permanent Magnet assembly is picking Tramp Iron from the feed Conveyor.
3. Magnetic and Non-Magnetic Material will be collected in two different.
4. Compact hollow shaft Gearbox & Motors will be provided to drive the belt conveyor.
5. The Supporting Structure and mounting arrangement

The material to be treated is fed from the vibratory feeder on to lower belt where after traveling a short distance it comes under the belt conveyor. The upper belt conveyor runs under a series of powerful Permanent Magnets arranged in such a manner so that the material is exposed during its travel through a number of magnetic fields of alternating polarity. Due to the continuous repetitive agitation of the material nonmagnetic material falls back on to the lower conveyor belt, while the magnetic material is retained on the upper conveyor belt due to the force of magnetic attraction. The separated material are carried and deposited into the respective magnetic and non-magnetic discharge chutes.



MAGNETIC LIFTER

Permanent Magnetic Type

- Use to lift and transport, steel and iron slabs, sheets, rounds for factories, warehouses, small fabrication units, Engineering Units and many more.
- Turning the manual handle activates or turns off the magnet.
- Finds a major application near flame cutting and during fabrication job.
- Used for handling steel plates, blocks, rounds, press moulds and die tools loading/unloading in machines.

Effectively used for long period with no requirement for power supply. Strong attraction gives this tool a powerful lifting ability Compact Size, Light Weight makes it safe and easy to operate. Safety Factor of 3 maintained. Powerful Rare Earth NdFeB magnets used. Safetylock for accidental switch off.

CIRCULAR MAGNETIC LIFTERS

The most efficient and convenient method for lifting and separation of ferrous material in scrap yards. These are designed keeping in mind the convenience of industries/firms having heavy duty lifting, holding, loading/unloading & shifting applications. These can be used for easy and quick handling of solids & scraps, sweeping/cleaning of mill area and blast furnace feeding. Suitable for high temperature ferrous material handling upto 600 deg, handling of slabs,

For use in heavy-duty steel industries

High-strength ribs and two protection shield of nonmagnetic steel

High strength alloy steel suspension chains

Manganese/thick SS bottom plate for protection OR safeguard of inside conductor for handling of high temperature ferrous material

50 to 75% ED : To specify

Our range from 600 mm Dia to 2400 mm Dia of Lifter Current 15 Amp to 154 Amp and KW from 3.5 to 34.0

ELECTRO MAGNETIC LIFTER FOR BILLETS, SHEETS AND REBAR

is the most efficient and cost- effective way for lifting various sizes of MS sheets, plates etc. The Spreader beam Electro Permanent Magnetic Lifter systems consist of multiple arrangements of electromagnets placed in a design so as to gain the maximum output from each of the magnets. The design enables the Electro Permanent Magnetic Lifter to lift very large dimension sheets with ease. Spreader Beam Electro Permanent Magnets are very useful resources for industries that have to deal with a lot of day to day material handling. The Spreader Beam Electro Permanent Magnetic Lifters come with forged hooks, heavy duty chains and are entirely made out of steel. This makes the Spreader Beam Electro Magnetic Lifter the best sheet lifting solution for lifting and transporting large size sheets from one place to the other within the shop floor. It uses an Electronic Control Board Panel to operate with ease.





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