



Magnetic Separator and Vibratory Equipment

Magnetic Separator

- 1) Over Band Magnetic Separator
- 2) Magnetic Drum Separator
- 3) A Magnetic Coolant Separator
- 4) Suspension Magnet
- 5) Electromagnetic Suspension Magnet
- 6) Magnetic Pulley
- 7) Drawer Magnet
- 8) Square grill Magnet
- 9) Round grill Magnet
- 10) Hump Magnet
- 11) Tube Magnet / Bullet Magnet
- 12) Prong Magnet / Liquid Magnet / Pipe Line Magnet
- 13) Permanent Magnetic Lifer
- 14) Magnetic Sweeper
- 15) Permanent Magnetic Concentrator
- 16) Plate Magnet

Vibratory Equipment

- 1) Vibratory Feeder
- 2) Motorized Tuber Feeder
- 3) Vibratory Screen
- 4) Furnace Charger
- 5) Bin Activator
- 6) Compaction Vibratory Table
- 7) Unbalance Motorized Spiral Elevator
- 8) Vibro Seive Separator

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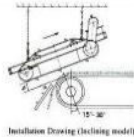
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Over Band Magnetic Separator (Self Cleaning)



Over Band Magnetic Separator



Installation Drawing (clicking model)



Suspension Magnet



Features

- Permanent Magnetic field
- No need of electric supply
- Compact design
- Magnetic strength is unaffected by vibration Moisture or adverse atmospheric condition. Ideal for use in humid wet dusty condition and flame proof area

Working principal

Short Length conveyor belt is used to remove collected tramp metal from conveyor belt driven by double pulley belt drive. These magnetic separator are used where tramp metal volumes are very high.

Suspension Magnet

These type of magnet usually used when frequency of the tramp iron is not very high.

Application

- Cement Plant – to keep metal out of coal Pulverized
- Recovery ferrous material from slag
- Used in foundry to remove chills, gagers from foundry return sand.
- Used in waste (garbage) handling system.
- Used to protect crusher and knives in Sugar industries
- Used for removing iron from material in process like foundry sand, glass cullet, grain food etc.
- To safe guard Process equipment like crushers, conveyor belt, rotors vave, screw conveyer etc.

Magnetic Drum Separator



Features

- Powerful Permanent Magnet
- Ferrous and non – ferrous material Separator automatically it is highly recommend using for separate very fine ferrous material from product.

Working principal

The magnetic drum Consists of stationery Permanent magnetic assembly which will produce uniform magnetic field and this will remain effective half of the drum circumference. The drum is made of non magnetic stainless steel. The drum is driven by geared motor with control speed in respect to quantity of feed material the rotating drum attract iron particle from the feeding products and firmly held until carried beyond out of magnetic field.

The Drum separator equipped with vibrating feeder to regulate the flow on drum from inlet hopper and totally enclosed design to protect from dusty atmosphere.

Application

- Food Products
- Ores Industries
- Refractory Industries
- Sand Industries
- Fertilizer Industries
- Salt Industries
- Plastic Industries
- Abrasive Industries
- Sawdust Industries
- Glass Industries

Magnetic Pulley



Features

- It is permanent type of magnet have no eclectic power, carbon brush etc.
- Useful to capture underneath material from burden of material.

Working principal

Magnetic pulley consists of 360 degree of magnetic core and covered by non – magnetic shell.

The pulley will be driven by geared motor the unique part of this equipment is it will give dual result it means it will work as a head pulley and also work as a magnetic pulley to separate ferrous material which is embedded in burden of the material.

Useful Appreciates

- All types of Minerals
- Ceramics Industries
- Slag Handling
- Chemical Industries
- Rubber Industries
- Saw dust, wood chips
- E – Waste
- Food
- Painting and pigments
- Paper and plastic

Drawer Magnet / Grill Magnet and Grate Magnet



Drawer Magnet



Features

- Easy for operation and cleaning
- Zig zag multilayer design will give maximum contact area
- The entire clearing process takes place out side of the product flow which eliminates possibilities of tramp iron a returning to process system.
- Easy accessible for cleaning Means saving on time
- Most effective when the product in dry. Free flowing and does not have tendency to bridge between the magnetic tubes.



Square Grill Magnet



Round Grill Magnet



Working principal

Manual cleaning drawer magnet will remove very fine ferrous contaminants from any type of dry free flowing Product under gravity flow.

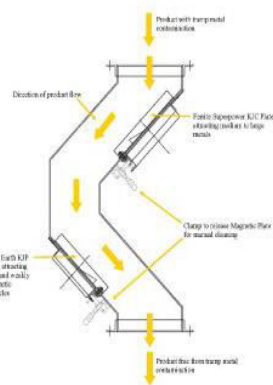
Multiple staggered rows will provide maximum contact area of product flow to have better separation efficiency

Grill magnets can be placed directly on the top of hopper. Grill magnets typically available 25 mm dia and fixed on 50 mm centre in S.S. frame. The length and width can be given in any dimension. Most effective when the product is dry free flowing and does not have tendency to bridge between the magnetic tubes.

Application

- Food Products
- Refractory Industries
- Fertilizer Industries
- Plastic Industries
- Sawdust Industries
- Ores Industries
- Sand Industries
- Salt Industries
- Abrasive Industries
- Glass Industries
- Useful for any type of powder free flowing material.
- Plastic industries mineral industries, fertilizer industries,
- Sponge Iron Industries

Hump Magnet



Features

- Excellent for high volume and poor flowability of material Suitable for fluffy and corrosive material.
- 100% S.S. body and closed construction
- Working against build up or bridging.

Working principal

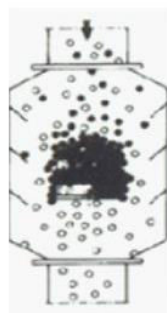
This equipment generally consists of two plate magnets fixed inside chute in zigzag Pattern.

As products pass through chute will face first plate, and then travels in zigzag pattern and fall on second plate magnet. This arrangement facilitate to separate ferrous material as it passes through magnetic plate. These magnetic plate are either hinged, latched, for clearing purpose.

Application

- Very good for all type of grain and pulses.
- Recycling material
- Vergin resins.
- Suger
- Textile
- Food Industries
- Plastic

Tube Magnet / Bullet Magnet



Features

- Very good conveying material through pipe line Horizontally and Vertically.

Working principal

In this device there will be fixed magnet at the centre which will have bullet type shape.

This type of design will help to pass material without reducing the flow or velocity of material at the same time all material pass through megnet. **to capture ferrous material**

Application

- Food Products
- Pharmaceutical
- Plastic and chemicals
- Flour Mills
- Ric Mills
- Dal Mills

Prong Magnet / Liquid Magnet / Pipe Line Magnet



Features

- No pressure drop or reduction due to its design
- can be connected directly to the pipe line with any type of modification.
- can be erected horizontally or tangentially without affecting magnet efficiency.
- for higher temp like 200 to 400 degree centigrade can be offered special type of magnetic system.
- Easy to clean ferrous material by quick opening with the help of wing nuts.

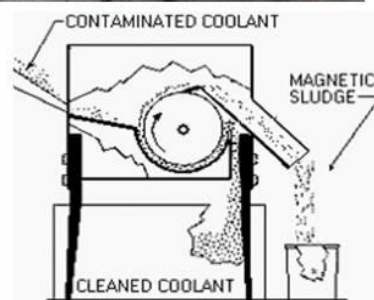
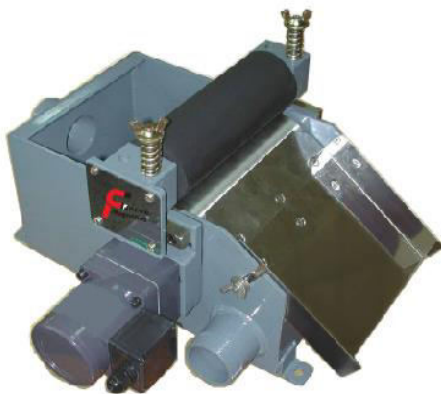
Working principal

These type of magnetic device used in liquid line where it attracts very very fine ferrous particles, this device useful when even rust erosion takes place during transferring the liquid through pipe line.

Useful Appreciates

- Useful for all type of liquid serup
- Food processing juice
- Neptha liquid/kerosene
- High temp liquid
- Ceram slurry
- Chemical slurry/liquid
- Starch products.

A Magnetic Coolant Separator



Features

- A sturdy built S S tank.
- Squeezed roller having coating of neoprene rubber with in built bearing.

Working principal

A used coolant fluid is discharge into tank. As main magnetic roller is rotating at designed speed Which sambarged into coolant liquid. Due to magnetic force all ferrous particle will gat attracted to magnetic roller and cleaned with help of S. S. Scrapper.

Application

- In built motorised operation will give self cleaning operation to separate ferrous material from liquid.
- Can be supplied 50, 100, 150, and 200, LPM Capacity

Permanent Magnetic Lifter



Features

- Easily move from one place to another
- No maintenance and recurring cost
- No electricity required being a permanent magnet
- Can be lifted long length M. S. sheet with multiple magnets in series
- No battery back-up system required
- Available for lifting capacity from 100kg – 2000 kg

Working principal

These are permanent type magnetic lifter it produce strong magnetic flux at the bottom surface of magnet. When any ferrous object is to be lifted first magnet is placed on surface lifting object and with help of 'ON' position handle material will get lifted and if handle turnoff position it will detach from object.

Application

- Useful for block and cylinder
- Useful in M. S. Fabrication
- Steel rolling mills
- Shipyard
- Steel and forging industries.
- Press tools.

Magnetic Sweeper



Features

- Reduce worker injuries and vehicle damage
- Keeps good house keeping

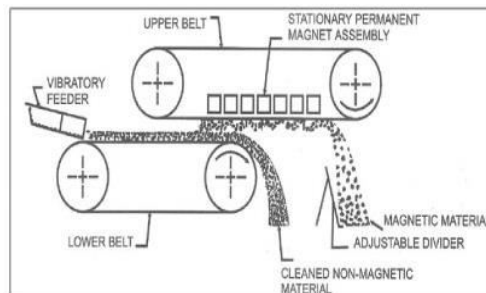
Working principal

The permanent magnet plate of will be cover with S. S. plate and there are two wheel on either side to move from one place to another place. As it is designed to kept away from ground level to attract all ferrous material which passes through and can be de magnetise immediately by hand lever or pedal lever.

Application

- Useful in scrap yard
- Factory aisles
- Machine shop
- Scrap on floor
- Useful for iron chips
- Useful to collect Nut bolt, nails, pins, screw, etc.

Permanent Magnetic Concentrator



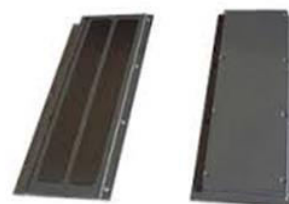
Working principal

With the help of vibrating feeder material will be feeded to bottom conveyor at the same time top conveyor is also driven which equipped with stationery permanent magnet assy. During the drive when bottom conveyor material comes under top conveyor it will try to attract ferrous material from the product and will get separated once contact of the magnetic field is over.

Application

- Ideal for upgradation of Sponge iron
- Very good for separation of ferrous material from cast iron boring, steel, brass, aluminum turning, chip material.
- Mineral beneficiation application.
- Purification of dry ceramic and refractory material.

Plate Magnet



Application

- Widely use for separation of ferrous contaminates from various types of free flowing material and liquid material it can be supplied in any size and shape and suit to customer requirement.
- It gives very good performance when material is actually passing through plate.
- Available in gauss value of 2500, 5000, 11,500.

Vibratory Feeder



Working principal

Feeder has got vibratory motor on either side it creates linear straight motion which ultimately leads to convey material. Speed of the feeder can be controlled with help of counter weight balance of vibrator motors.

Features

- No. belt no plumber block hence maintenance is zero.
- Flow can be adjusted by installing of V. F. D.
- Very compact and also can be suspended from top
- Unlike electromagnetic type vibratory feeder where air gap is to be adjusted.

Application

- Voice level is under control.
- Used in cement Industries
- Pigment Industries.
- All type of grain handling Industries.
- Food Industries.
- Glass Industries.
- Mineral Industries.
- Metal Industries.
- Ceramic Industries.

Motorised Tube Feeder



Features

- Mainly useful when dust or cross contamination is not allowed. Very useful when sluggish material new aired to convey
- Very good replacement to screw conveyor or rotary valve as they are pro Maintenance equipment.

Application

- Food products.
- Maize products.
- Plastic pallets.
- Glass Industries.
- Ceramic Industries.
- Mineral Industries.
- Std. size available
- 100 mm dia.
- 150 mm dia.
- 200 mm dia.
- 300 mm dia.
- 450 and 500 mm dia.

Unbalance Type Motorice Vibrating Screen



Features

- Being a compact design it can be recommeded as per space requirement
- East replacement of mesh
- No maintenance as no bearing plumber block belt etc.

Working principal

Motorised vibratory screen will work on the principal of liner motion which ultimately leads to displace of material due to resultant force generated by two unbalance motors fixed on either side of deck.

Thus created vibration will help to separate various size materials.

Being a tailor made device user has to give the details like product size separation of various grade nature of material etc.

Application

- Plastic industries
- Glass industries
- Ceramic industries
- Mineral industries
- Coal industries
- Food industries
- Metal industries
- Pigment industries
- De – water application
- Foundry
- Quarry industries
- Salt industries.

Furnace Charger



Features

- Motorised feeder can give any required out put
- As vibration under control feeding will be uniform
- As charging material uniformly discharge into furnace will protect inside lining walls.
- Control metal splash will reduce man accident.

Working principal

Material is loaded into storage hopper with help of either magnet or by conveyor. The furnace charger is placed on forged wheel to facilate to and fro operation with help of geared motor on ground railing system. Once it is brought centre of feeding points vibratory motors starts in operation which will help to discharge material with control speed.

Application

- Aluminum casting.
- Steel scraps
- Castings
- Foundry

Bin Activator



Features

- Prevent labour from hammering or blasting the air inside
- Ideal equipment facing for problem of arching bridging and rat holing at the out let.
- Some cases it is replacement to rotary value.
- Lower power consumption
- Long life guaranteed for suspension and sleeve.

Working principal

This equipment consist of conical dish type plate which is welded to the body of the bin activator from inside. The half portion of bin activator vibrators horizontally with help of unbalanced vibratory motor which helps the material pushes it in all direction to come surface. The vibration will also get transmitted to the material in upper portion of the bin as the vibration takes place.

Application

- Flour, soya meal, sugar pigments, starch, carbon black, fondrysand, chips, saw dust, colorants, talc lime soda ash, coal, flyash, cattle feed, spent grain.

Compaction Vibratory Table



Features

- System made compaction table supplied with variable speed to accomade various types of product.



Working principal

Compaction table are equipped with set of vibratory motors. During opration it produce vertical vibrators, this will help to redup density of material b) 15 to 20%.

Application

- Useful for wide variety of materials like powdery, granular or material in boxes -drums or cartons. It will be useful for cartons to packages shock and foligue test or concerte products.

Electromagnetic Type Bin Vibrator



Working Principal

When Vibrator starts working the material in hopper gets friction and inner skin of hopper will break the material with vibration. Once this process in place the material will flow without any obstruction.



Electro Circular Lifting Magnet



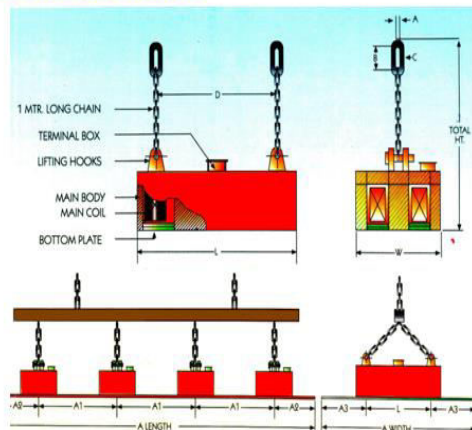
How Electro Magnet Works

It Works on Electromagnet Principal of Woven Either Made Of Copper/ Aluminium Conductor is Energized By Giving DC Supply Through Rectifier Box Control Panel. Due To DC Power Coil Gets Exciated And Produce MagneticFlux At Bolten Of Magnet To Lift Either M.S. Plat, Metal Scraps, Billets Or Any Type Of M.S. Steel.

Applectionation

Lifting Magnets Are Availble in Two Type, Circular And Rectangular Type. Circular Type Of Magnet Mostly Used For Handling Steel Scrap And In Forwarding For Charging Farnace, Steel Yards. Rectanguler Type Of Magnet Are Mainly Used For Handling M.S. Billets, Steel Plates On Loading Plates in Steel Yards.

Rectangle Type Electro Lifting Manget



High Intensity Magnetic Roller System



Advantage of The High Intensity Magnetic Roller System

In this type of Magnetic System disc Shape magnet are assembled with specially designed metal disc. Careful calculation of magnetic geometry provides very strong magnetic force on fabricated roller magnets. This System is offered in modules such as single roll, double roll or triple roller system. Hence less space is required.

Working Principal

The Vibratory Feeder discharge the material at an even rate on to the special short band conveyer belt, which has got two rollers "Magnetic Roller" and "Non-Magnetic Roller". Due to its low speed the product partials on at rest on the belt before they are exposed to strong magnetic force close to magnetic roller the non metal ate thrown off the magnetic roller due to centrifugal force and gravity force. Where as the magnetised particle the follow the conour of roll on the belt until the centrifugal and gravity force exceeds the magnetic attraction force. It is found that some particles are weakly magnetic, tray will tend to drop earlier than more strongly magnetic particles in order to maintain a division between the desired products or two splitters are used. The separated products are collected in launders and discharge on reprocess in additional stagey.

Rotary Grid Magnet



Working Principal

It has been special designed for sticky and fragile in nature material. The Material which are process to difficult and has got tendencs of forming of bridging, caking, sluggish and sticky in nature. In this design circuter magnetic grid is driven by geard motor and material is being pass throush the magnetic grid to get maximum iron to be trapped.

Unbalance Motorised Sprial Elevator



Working principal

Unbalanced vibratory motors are erected in diametrical position and certain angle either at the bottom or at the top of tube.

This will produced

Torsional vibration resulting in micro throw movement over the whole conveying path due to which the product makes way to upward direction.

Application

- carbon black
- clay
- fertilizers
- minerals
- plastics
- seeds
- tobacco
- food powders
- crumb rubber
- sugar

Vibro Seive Separation



Features

- Low power consumption
- no screen choking/clogging
- flexible Layout
- low maintenance
- modular design
- compact and elegant

Working principal

It is working on principal of Gyrotory motion generated by double eccentric weight mounted on two ends of the shaft of vertically mounted vibratory motors. The screen consists of one or more set of deck. the deck is mounted on a set of suspended springs which isolate the base from vibrating assly.

Machine Dia Under Mfg.

- 24" Dia
- 28" Dia
- 34" Dia
- 48" Dia
- 60" Dia
- 72" Dia.

Application

- Grains
- Paints
- Steel Shots
- Talcum Powder
- seed
- Starch
- PVC
- Foundry
- food
- salt
- slurry



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