



PMT

PMT

"PMT" the name in Iron Separation



Magnetic Separators

PAPER INDUSTRY

Prevent Machinery Damage

Safeguard product from contamination | Improves Quality of products

PMT Magnetic Separators bring benefits throughout pulping and papermaking processes as it offers quality, labour cost benefits and can be operated effectively on the existing process lines.

Magnetic separators are used to remove iron particles from both dry and liquid line in pulp and papermaking industry. Iron particles are present throughout the pulping and papermaking process. The iron particles are found in following process lines:

- (1) Chips to pulp mills
- (2) Coal being fed in the power house;
- (3) Additives such as Starch, Clay Coloured pigments, Dry chemicals etc., being fed into processing.

The prevalence of iron particles can damage refiners, pulpers, pumps, jordans and board mill presses. It is tremendously beneficial to remove iron particles as early in the process as possible. The essence and application of Magnetic Separators can be broken down into three major categories of wood product users:

- (1) Paper Mills
- (2) Secondary Fibre Mills
- (3) Particleboard, hardboard, insulating board.

Bagasse, the fibrous residue remaining after the extraction of juice from the crushed stalks of sugar cane, is used as a source of cellulose for some paper products. While many sugar mills use magnetic separators before the rolls that squeeze juice from cane, a substantial quantity of small iron particles remains. If bagasse not cleaned, tramp iron can damage boiler/ feed equipment.

Pulpers & Refiners: Most secondary fibre mills have discovered through experience that placing a Liquid Inline Magnetic Separator ahead of the pressurized refiners or jordans is very useful and helps in removal of damaging ferrous particles.

Installations: In the initial processes of paper mills, suspended magnets or magnetic head pulleys are frequently utilized in conjunction with belt conveyors to move chips or coal.

PMT ENGINEERS & CONTRACTORS

Manufacturers of Magnetic Separators & Equipments.

As we know most fine paper mills use type SS304 and SS316 (which is nonmagnetic) in liquid lines, Liquid Inline Magnetic Separator & Grill Magnet are used ahead of the digester in many cases. Liquid Inline magnetic separator remove iron particles and these units also collect minute particles of black ferrous materials and oxides that could affect paper brightness, an increasingly important characteristic in today's market.

Drum Magnet, Plate Magnet and Liquid In line Magnetic separator are designed to remove smaller material within a process. Drum Magnet are installed at the discharge of hoppers & is a typical method for automatically separation of iron particles from woodchip and coal lines. Drum Magnets are typically used to separate damaging iron from smaller particles size in a dry material flow.

Large tramp iron must be prevented from entering the "closed" system & this can be done with installation of Suspension Magnet and Pulley Magnet on conveyors feeding material into pulpers. Magnetic Pulley is an inexpensive way to create a magnetic separator using an existing belt conveyor. In Pulley, Drum, Suspension the permanent magnets provide effective, economical removal of ferrous particles.

Other Magnetic Separators useful in both paper mills and secondary fibre mills include:

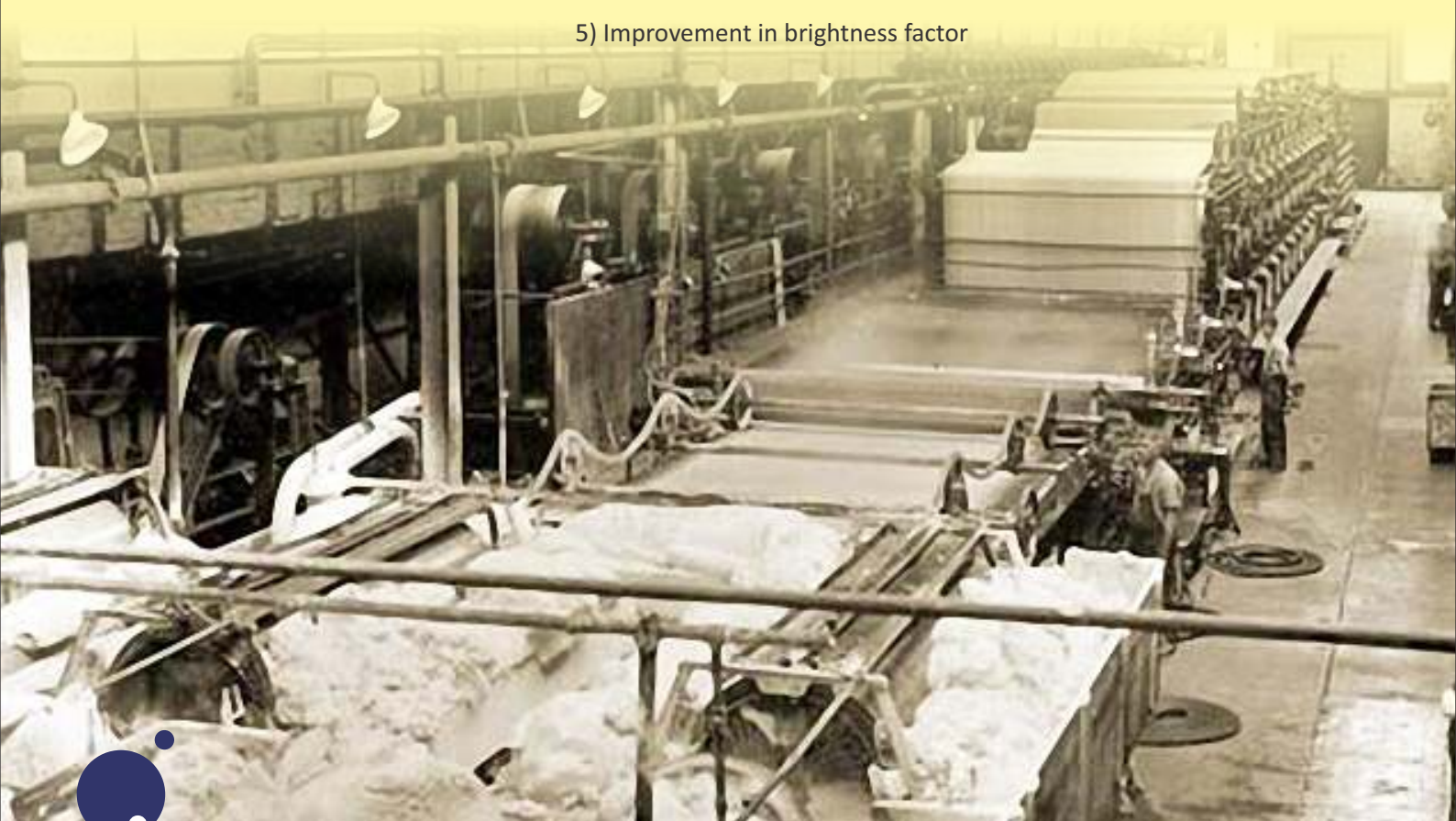
Plate Magnet - on the discharge end of chip screens: (typically installed in chutes where material flows over the magnet face)

Hump Magnet - on pneumatic conveying lines handling chips, lap pulp, clay, starch (Hump magnets are housing with 2 Plate Magnets and take advantage of gravity and direction change to remove iron particles)

Grill Magnets - to clean bag or bulk colour pigment going into the system.

Value of Magnetic Separators for Pulp and Papermaking Industry:

- 1) Reduction of Machinery maintenance and repair.
- 2) Reduction in paper rejects due to black specks.
- 3) Cost Savings & better quality products.
- 4) Reduction in downtime and production loss.
- 5) Improvement in brightness factor



PRODUCTS

Grill Magnet

3P - Ensures product purity, protects equipment & prevents costly downtime

Heavy Duty & High strength- SS 304 Rugged construction & Gemini Rare earth Powerful Magnets

Flexibility – Customized Spacing of magnetic tubes and number of layers/deck

Easy installation – In the existing processing line (Hoppers/Chutes/feeders)

Easy to Clean - Fast and easy cleaning of iron particles

3E – Economical, Efficient & Effective Magnetic Separator

Round, Square / Rectangle Grill



Hump Magnet

Easy to Clean - Hinged Magnet Plates - swung open for cleaning

Zig-Zag Design - Slows down the product flow volume for effective iron separation

Easy Installation – Existing processing line/system

Flexible – Flexibility to select half hump or larger structure

Dual protection – 2 Magnet Plates for better performance in capturing of iron particles



Liquid In Line Separator

Easy Installation – To be installed easily in existing fluid flow line without any major structural changes

High Intensity and Gemini Rare Earth Powerful Magnets – Separation of iron particles of fine iron particles

Flexibility – Customized size available for different pipelines to suit specific requirements

Durability - SS 304 construction & high intensity powerful magnets

Maintenance Free - No operating cost



Box Type Magnet

Self-Cleaning Magnetic Separator - Automatic cleaning

Continuous working - 24/7 operation

Plug & Play – Ready for operation from Day 1

Durability – SS 304 Outer Drum and Gun Metal Bush

Flow of Material – Adjustable Hopper tray

Flexibility – Customized size available as per the specific needs of end user





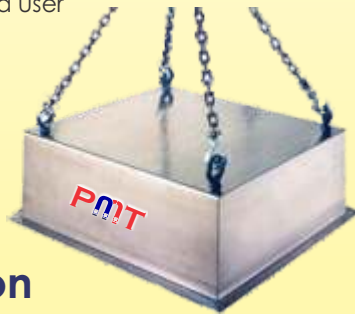
Suspension

Maintenance Free & No Operating cost – No Power Consumption

Easy installation - In the existing setup over the belt conveyor

Powerful Strontium Ferrite Magnets with reach of up-to 5 inches

Flexibility – Customized size available as per the width of the belt and specific needs of end user



Magnet Pulley

Self-Cleaning Magnetic Separator - Automatic Cleaning

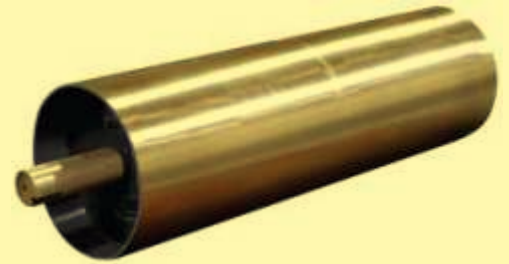
Continuous working - 24/7 operation

Easy installation - No Additional Setup

(Replace the existing MS pulley with PMT Magnet Pulley)

High Intensity and Gemini Rare Earth Powerful Magnets - Greater level of iron separation

Flexibility – Customized size available as per the specific needs of the end user



Overband Suspension Permanent Magnet

Self-Cleaning Magnetic Separator - Automatic cleaning & continuous working - 24/7 operations

Low maintenance & Easy Installation with adjustable belt arrangement

Durability - Rugged and heavy construction for long usage life

2 Mild steel construction pulley used with shafting and bearing arrangement

Heavy duty 2ply /3 ply rubber belt & 3phase gear motor



Plate Magnet

Economical & Maintenance Free - No operating cost

Simple & Easy installation – Existing processing line/system

Versatile - Standard and Customized sizes

Durability - SS 304 Construction also available

High intensity Gemini Rare Earth Powerful Magnets –

Removal of fine iron

Easy Cleaning - Handle & Bearing arrangement option



Handle Bearing Arrangement



Drum Magnet

Self-Cleaning Magnetic Separator - Automatic cleaning

No Bridge/Choke of the process material

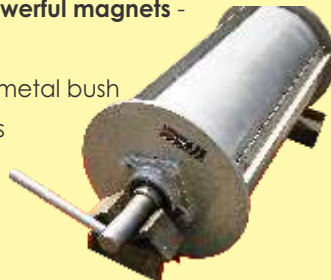
Continuous working - 24/7 operation

High Intensity and Gemini Rare Earth Powerful magnets -

Greater level of iron separation

Durability – SS 304 outer drum and gun metal bush

Flexibility – Customized size available as per the specific needs of end user



PMT ENGINEERS & CONTRACTORS

Manufacturers of Magnetic Separators & Equipments.

Gala No. 13, Universal Industrial Estate, I. B. Patel Road, Goregaon (E), Mumbai 400 063 Tel : 09324951285/09820840871



www.pmtmagnets.com



pmtmagnets@gmail.com