



Dings

MAGNETIC SEPARATORS

PERMANENT OVERHEAD MAGNETS



Self-Cleaning



Stationary



RECYCLING



MINING/AGGREGATE



FOUNDRY



COAL



CONSTRUCTION/DEMOLITION



ELECTRONICS RECYCLING

Self-Cleaning

Continuous Removal

Permanent overhead magnets are non-electric suspended type separators. No external power source is required for the magnet. During operation, tramp iron contained inside material conveyed under the magnet is magnetically attracted. Magnetic force lifts the metal to the face of the magnet. Metal attracted by the self-cleaning model is automatically and continuously removed from the magnet face by a belt that travels around the body of the magnet.



Stainless steel frame

Dings' non-magnetic laser cut stainless steel frame reliably prevents ferrous items from sticking to the magnets. This feature prevents ferrous from collecting on the frame, and belt "porcupining" caused by ferrous material collecting between the belt and the magnet face.

Features

- LIFETIME GUARANTEE on magnetism
- Patented flux control circuit (DFC) provides a stronger, deeper and more uniform magnetic field
- LOWER WEIGHT: Unique construction allows a smaller, lighter magnet for a given strength than any other in the industry
- Different magnet strengths for different suspension heights to meet your application
- Sizes to fit any belt width
- Stainless steel frame construction
- Heavy-duty belt is standard
- IP56 Class II direct drive gearmotor, for operation in temperatures from -25° C to 60° C ; -13° F to 140° F

Options

- Option of electric or hydraulic motor
- Dust cover, belt & pulley guards
- High temp. belt, rubber cleats, stainless steel cleats
- Hazardous location model available
- Special voltages
- Stainless steel pulley
- Suspension systems
 - turnbuckles, trolleys, wire rope
- Zero speed switch
- Hydraulic motor
- Other belt speeds
- Special paint
- Optional rare earth design

SPECIFICATIONS

Belt speed 400 FPM

Low profile design with two crown curved pulleys with QD hubs

Heavy duty stainless steel channel frame with four welded lugs for suspension, stainless steel full top plate and extra wide bottom plate

Stainless steel deflector (crossbelt only)

Heavy duty self-aligning flange bearings

Adjustable screw take-ups on tail pulley

Multi ply rubber belt with 1" by 1" vulcanized rubber cleats and Flexco brand hinged splice

Shaft mounted gearmotor TEFC, 1800 RPM, 230/460-3-60 AC

Magnet housing filled with Ceramic VIII magnet material - the highest grade available

Stationary

This maintenance-free design has no moving parts and requires no power supply. A convenient three-point sling assembly is included with your magnet. Just suspend it over the conveyor or over the headpulley and it's ready to pick up those stray metal fragments before they can cause damage to downstream equipment. When the magnet surface starts to fill up, swing the magnet away from the conveyor and dislodge the attracted metal. Swing it back over the conveyor and you're back in operation.



Features

- LIFETIME GUARANTEE on magnetism
- Patented flux control circuit (DFC) provides a stronger, deeper and more uniform magnetic field
- Can be supplied with 3- or 4-point suspension system

Options

- Sweeper arm
- Suspension systems
 - turnbuckles, trolleys, wire rope
- Hand or motorized geared trolley
- Special paint
- Optional rare earth design

SPECIFICATIONS

Mild steel top plate

Stainless steel side plates

Stainless steel bottom plate

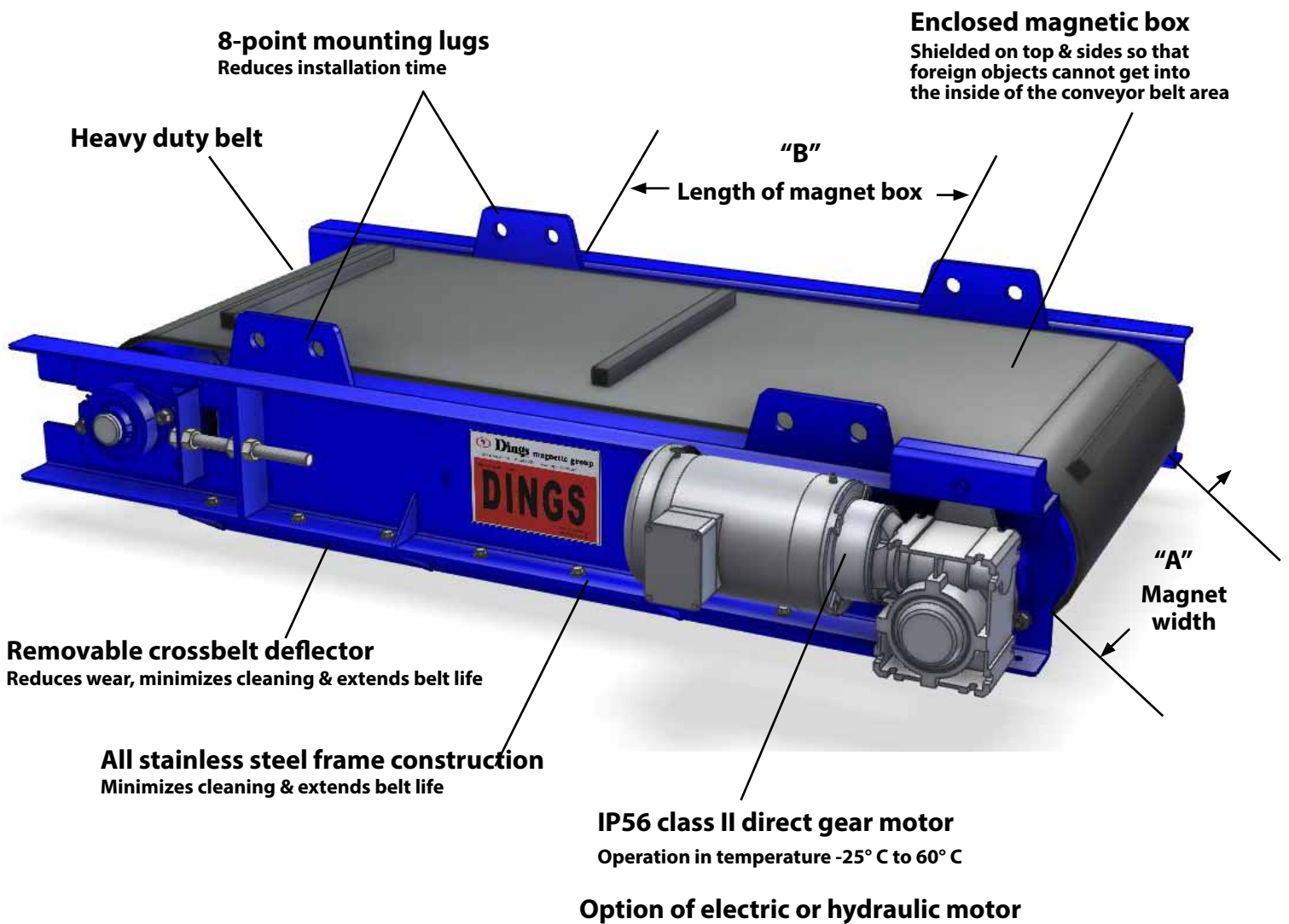
All unprotected surfaces painted with a coat of enamel

Magnet housing filled with Ceramic VIII magnet material - the highest grade available

Sizes

Model	Suspension Height	Length "B"		Width "A"
		Min	Max	
9PCM	UP TO 9"	36"	72"	21"
11PCM	UP TO 11"	36"	72"	26"
12PCM	UP TO 12"	36"	72"	31"
13PCM	UP TO 13"	42"	72"	35"
14PCM	UP TO 14"	42"	72"	40"
15PCM	UP TO 15"	48"	72"	45"

Features



Installation

Dings permanent overhead magnets are built in 2 types: In-line and Crossbelt. An In-line type is installed over a conveyor head pulley so that the magnet face is parallel to the travel direction of material falling off the conveyor. The head pulley must be made from non-magnetic material. This location is preferred because separation efficiency is better when the magnet is located over where the conveyed material opens up during its path through the air.

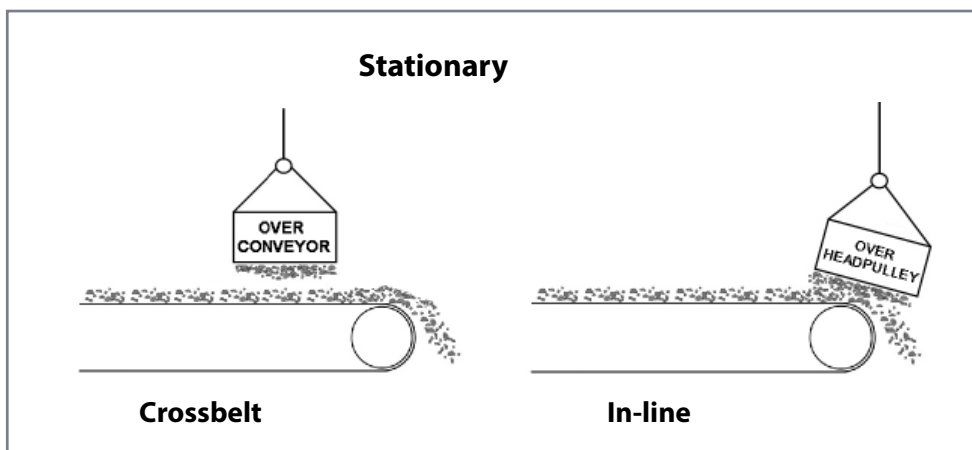
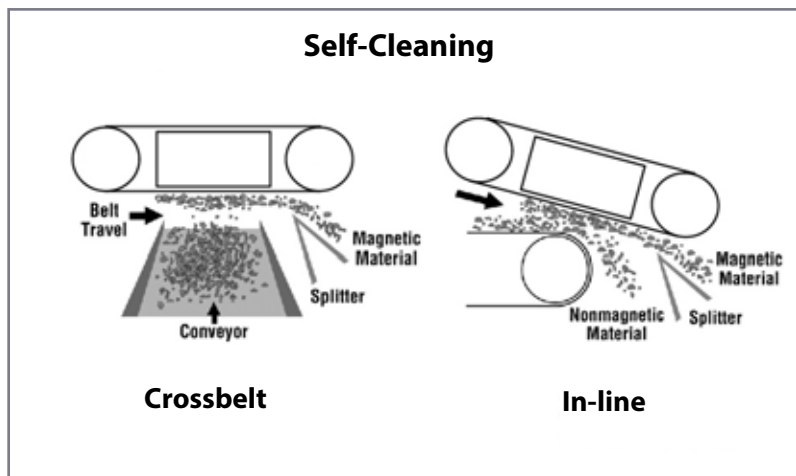
A Crossbelt type is installed over a conveyor so that the magnet is at a right angle to the travel direction of the material on the conveyor. If the magnet cannot be installed over the head pulley, install it over a flat section of the conveyor. Magnetic performance may be affected by magnetic material in the field; see "Non-magnetic area" on the next page.

IMPORTANT:

IN-LINE installation is preferred because separation efficiency is better when the magnet is located over where the conveyed material opens up during its path through the air.

Suspension height is critical to the performance of the magnet. This distance is measured from the bottom of the magnet face to the surface of the material handling belt. Elevate the magnet to the suspension height that is appropriate for the application. An appropriate height is 2" – 3" above the top of the conveyed material or the height specified at the time of purchase. If a height is specified, measure it at the middle of the conveyor belt, on its surface, up to the magnet face – the bottom surface of the magnet.

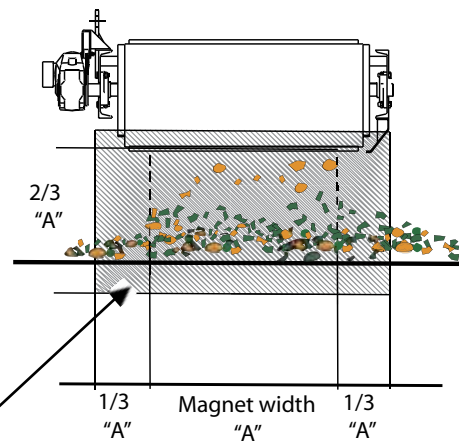
If the magnet is too high above the burden, sufficient magnetism may not reach into the burden and cause a loss in separation efficiency. For best results, crossbelt separators should be centered over the belt and parallel to the slope of the belt conveyor.



Non-magnetic area

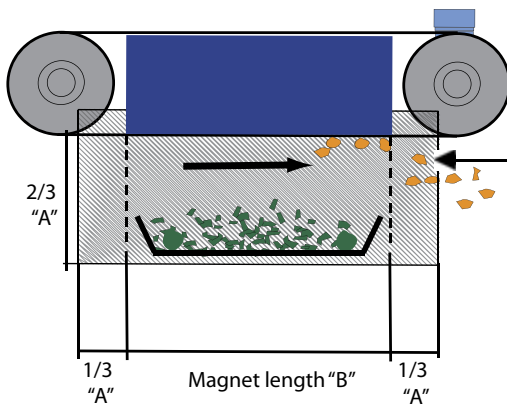
Magnetic performance is affected by magnetic material in the field; in the shaded area, no construction parts that can be magnetized are permitted. Pulleys, rollers, frames, supports, etc., must be made of material that cannot be magnetized. When installing the magnet in-line, the head pulley must be non-magnetic.

Model	Suspension Height	Length "B"		Width "A"
		Min	Max	
9PCM	UP TO 9"	36"	72"	21"
11PCM	UP TO 11"	36"	72"	26"
12PCM	UP TO 12"	36"	72"	31"
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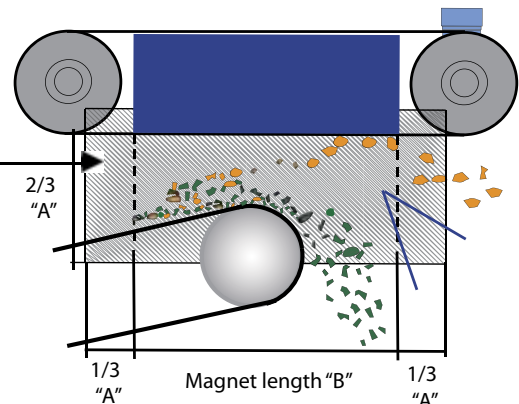


Non-magnetic area shown as shaded areas

Crossbelt



Crossbelt



In-line

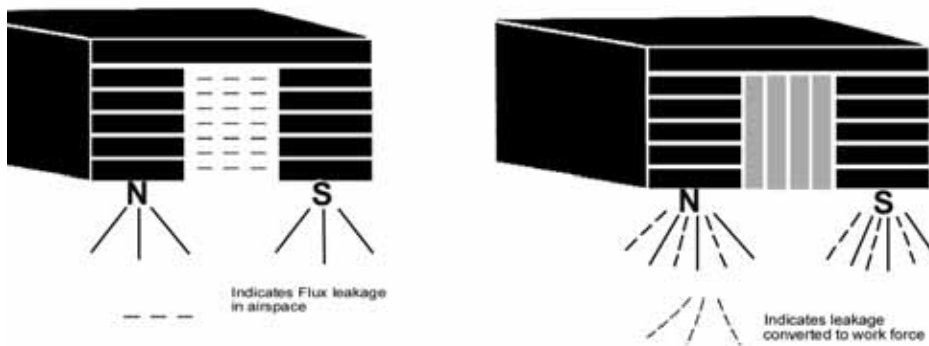
Patented Flux Design — Lifetime Guarantee on Magnetism !



The Dings patented flux control circuit (DFC) was a breakthrough in the design of permanent magnetic separators. It eliminates internal leakage between magnetic poles and improves separating performance.

Conventional magnetic circuits contain air or filler material between the magnetic poles. This gap causes the flux, or excess magnetism, to be wasted. In Dings DFC design, blocking magnets are strategically positioned in the spaces between magnetic poles. These blocks redirect the flux outward, into your product, converting wasted force lines to working force.

The overall strength of the magnet is improved three ways – the field is stronger, the field is extended deeper and the field pattern is more uniform and therefore more efficient. By efficiently using the magnetism, a Dings magnet can be sized to provide the right amount of magnetic power for your application – a potential savings in weight and cost.



In-House Testing

Unsure which product is best for your application?

Just send us a sample of your product with a brief description of what you are trying to accomplish. We'll be happy to test it on actual equipment at our in-house testing laboratory at no charge. We will then give you a report and recommend the best equipment for your particular application.

Custom Design

Don't see exactly what you're looking for in our standard products? Our team of highly experienced sales engineers will work with you to design the perfect separator for your application. Using state of the art computer modeling and design, our engineers will provide you with certified prints prior to production to ensure that everything meets your requirements.

Rebuilds

If your magnet has been damaged and funds aren't available for replacement, consider having Dings rebuild it. In many cases, we can bring a magnet back to near-new condition at a cost substantially less than that of a new one.

Contact us to discuss your application



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