Dings Co. magnetic group

PERMANENT OVERHEAD MAGNETIC SEPARATOR SPECIFICATIONS AND DATA

DESCRIPTION

The Permanent Overhead is a magnetic separator that attracts ferrous (magnetic) material. Typically suspended above a conveyor belt, mild steel objects are lifted up, out of the nonmagnetic material conveyed beneath the separator. Attracted steel is held against the underside surface of the separator until removed - automatically on self-cleaning models which have a belt that travels continuously around the magnet.

Suspended overhead magnets are available for either over-the-belt (crossbelt) or over-the-head pulley (inline) installations; the preferred location for most applications is inline above the conveyed material trajectory as it is discharged from the conveyor belt. Separating efficiency is greater because the conveyed material is less compacted while being projected directly toward the magnetic surface of the separator.

Literature is available describing the features and performance of all Permanent Overhead Magnet models and Electro Overhead models.

TYPICAL INSTALLATIONS

1) Separates ferrous metal from any conveyed nonmagnetic materials.
2) For conveyor belt widths 12" to 72."
3) For suspended heights 4” to 14” (use Electro Overhead Magnets for higher suspension heights).
4) For conveyor speeds up to 500 FPM - inline or crossbelt installation. For higher conveyor speeds, consult factory.
5) For conveyor speeds below 250 FPM, head pulley may have to be non-magnetic stainless steel to prevent loss of separation efficiency (for inline mounting only).

STATIONARY MAGNET SPECIFICATIONS

- Dings Flux Control magnetic circuit with exclusive blocking magnets–see Bulletin 23.
- Magnet housing filled with Ceramic VIII magnet material - highest grade available.
- Mild steel top plate.
- Stainless steel side plates.
- Stainless steel bottom plate.
- All unprotected surfaces are spray painted with a coat of enamel.
- Operating temperature for ceramic magnets is -40°F through 482°F (-40°C through 250°C).
- Operating temperature for rare earth magnets is 176°F (80°C) or less.

STATIONARY MAGNET OPTIONS

- Four-point suspension for stationary models.
- Special paint.
- Hand or motorized geared trolley.
- Manual cleaning arm with extended stainless steel face-plate.
- Multiple turnbuckle and bullring three point suspension sling assembly.

Consult factory on any options not listed.

SELF-CLEANING MAGNET SPECIFICATIONS

- 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.
- Belt speed 400 FPM.
- Shaft mounted gearmotor TEFC, 1800 RPM, 230/460-3-60 AC.
- Operating temperature for ceramic magnets is -40°F through 250°F (-40°C through 120°C).
- Operating temperature for rare earth magnets is 176°F (80°C) or less.

SELF-CLEANING MAGNET OPTIONS

- Explosion proof drive motor.
- Zero Speed Switch (NEMA 1, 4 & 12 or NEMA 9).
- Special self-cleaning belts (high temperature anti-static).
- Hydraulic motor (in place of standard electric motor).
- Stainless steel angle bolt-on cleats for belt.
- Non-standard AC voltage and Hz for drive motor or enclosures other than TEFC.
- Motor starter - specify NEMA enclosure.
- Suspension components (turnbuckles, wire rope, shackles, sling assemblies).
- Dust enclosure (top, ends and sides) with inspection doors).
- Central bearing lubrication system.
- Self-cleaning belt speeds other than 400 fpm.
- Lagged drive pulley.
- Expanded metal pulley guards.
- Belt alignment switches.

Consult factory on any options not listed.