



ELECTRO OVERHEAD MAGNETIC SEPARATOR SPECIFICATIONS AND DATA

DESCRIPTION

The Electro 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 or by switching off the power for a stationary model.

Suspended overhead magnets are available for either over-the-belt (crossbelt) or over-the-headpulley (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 Electro Overhead Magnet models, as well as Permanent Overhead models.

For concrete recycling and other severe-duty applications, refer to the specifications and data on Bulletin I-94SDE. For materials recycling applications, refer to Bulletin 3200MRF.

TYPICAL INSTALLATIONS

- 1) Separates ferrous metal from any conveyed nonmagnetic materials.
- 2) For conveyor belt widths 18" to 90."

- 3) For suspended heights up to 32."
- 4) For conveyor speeds up to 450 fpm - inline installation.
- 5) For conveyor speeds up to 350 fpm - crossbelt installation.
- 6) For higher conveyor speeds, consult factory representative.
- 7) For conveyor speeds below 200 fpm, headpulley may have to be nonmagnetic stainless steel to prevent loss of separation efficiency (for inline mounting only).

SPECIFICATIONS

(Magnet Only for All Models)

- 1) Balanced magnetic circuit. See electro overhead product bulletin.
- 2) Coils are wound with Class H anodized aluminum strap - See Bulletin 21.
- 3) Non deteriorating glastic coil spacers.
- 4) Ten year warranty against magnet coil burnout (longest in the industry), one year on balance.
- 5) DC voltage is 115 or 230 depending on model.
- 6) Solid steel center core.
- 7) Magnet case filled with Fin Diekan-410 transformer oil.
- 8) Space inside magnet case for warm oil expansion. (Because of exclusive coil design using anodized aluminum strap, no external expansion tank is necessary).
- 9) One-way pressure relief valve.
- 10) Thick steel side plates in magnet case.
- 11) Stainless steel bottom plate.
- 12) 3/16" thick stainless steel replaceable wearplate on impact area of magnet.
- 13) Terminal connection box is NEMA 4 weather tight.

- 14) Oil level plug on side of magnet.
- 15) Oil drain plug on side of magnet.
- 16) Oil fill plug on top of magnet.
- 17) Weight and watts depend on magnet model.
- 18) Turnbuckle, wire rope and bullring three point suspension sling assembly is standard on all stationary models.
- 19) All unprotected surfaces are spray painted with a coat of enamel.
- 20) Options:
 - a) NEMA 9 terminal box.
 - b) R-TEMP or silicone hazardous duty transformer oil.
 - c) SP-6 blast cleaning and/or special paint.
 - d) Four point suspension for stationary models.
 - e) Manual or hand geared trolley.
- 21) Rectifier - refer to Specification and Data Bulletin 2530S.

ADDITIONAL SPECIFICATIONS (Self-Cleaning Models)

- 22) Four pulley design (two pulley on Model 11).
- 23) TEFC 1800 RPM drive motor, 230/460-3-60 AC.
- 24) Shaft mounted gear motor.
- 25) Self-aligning pillow block bearings.
- 26) Self-cleaning belt speeds for inline models are 450, 600 and 750 fpm.
- 27) Self-cleaning belt speed for all crossbelt models is 450 fpm.
- 28) Adjustable screw take-ups on tail pulley.
- 29) Nonendless multi-ply rubber self-cleaning belt with 1" x 1" vulcanized rubber cleats and Flexco brand stainless steel mechanical fasteners.

- 30) Crown curved pulleys with compression style hubs.
- 31) Heavy duty channel frame with four welded suspension lugs.
- 32) Options:
 - a) Explosion proof construction.
 - b) Zero Speed Switch (NEMA 1, 4 & 12 or NEMA 9).
 - c) Special self-cleaning belts (high temperature anti-static or Severe-Duty Durabelt - see Bulletin 22, standard on Severe Duty model, see Bulletin I94-SDE).
 - d) Stainless steel angle bolt-on cleats.
 - e) Nonstandard AC voltage and Hz for drive motor or enclosures other than TEFC.
 - f) Motor starter - specify NEMA enclosure.
 - g) Suspension components (turnbuckles, wire rope, shackles, sling assemblies)
 - h) Dust enclosure (top, ends and sides) with two inspection doors.
 - i) Central bearing lubrication system.
 - j) Self-cleaning belt speeds less than 450 fpm.
 - k) Stainless steel deflector mounted on infeed side of crossbelt separator (recommended for all applications with slow moving feed conveyors).
 - l) Chain and sprocket drive with oil tight chain guard.
 - m) Endless (nonspliced) self-cleaning belt or hinge style splice with center pin.
 - n) Expanded metal pulley guards.
 - o) Belt alignment switches.
 - p) Consult factory on any options not listed.