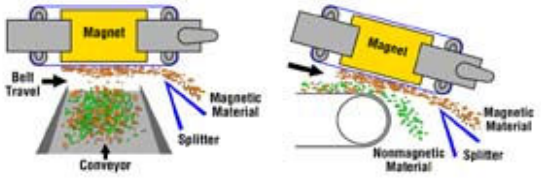

CROSSBELT SUSPENSION

IN-LINE SUSPENSION

"Suspended Magnet" Installation Manual

When determining the location for the installation of a suspended permanent or electro magnet consider the fact that ferrous material within the field of the magnet will become magnetic and may attract other ferrous materials. When the magnet is located directly over the conveyor belt, conveyor sections below the magnet need to be made of non-ferrous material 18 to 24 inches on all sides of the magnet. Turnbuckles are strongly recommended for mounting of the magnet. They allow for the proper adjustment of height and angle once the magnet is suspended. The magnet face and the product should be parallel. This normally eliminates the need for heavy equipment after the initial hanging of the magnet. The closer the face of the magnet is to the burden the stronger the magnet will be. Note* **expansion** tank should always be located at highest point of angle.

In-line Installation

When the conveyor belt speed is greater then 350 FPM, use the in-line installation method for the best possible results. The magnet should be located so that the material being passed approximately 2 inches from the face of the magnet towards the center of the magnet. If the belt speed is changed the magnet location may have to be adjusted to maintain proper clearance between the face of the magnet and the material being conveyed. For the best magnetic performance, a non-ferrous pulley should be used under the magnet.

Cross Belt Installation

The Magnet should be located as close to the conveyed material as possible, but clearance must be maintained between the conveyed material and the tramp metal that accumulates on the magnet's belt or face. The most efficient separation is accomplished by controlling the burden depth. Using a leveler ahead of the magnet will limit any irregularities. Check the area around the unit to be certain that it has adequate room to run freely and that measures have been taken to collect the discharged tramp metal. Also if using an Electromagnet on inclines always have expansion tank at the highest point.

Maintenance

This unit has been operated and adjusted at the time of manufacture. Belt tracking was done with the magnet assembly setting level. Belt rotation is counter clockwise when looking at the motor and electrical hook up side of the unit. The belt will settle during shipment so some adjustment may be required after installation, momentarily operate the belt drive to determine if the belt tends to wander, and if so, see directions below for belt tracking adjustments. With **Electromagnets:** oil level should be checked weekly. Magnet **must be** cool when this operation takes place. On the opposing side from the expansion tank you will find oil check plug, loosen plug, but do not take all the way out at this time, if oil starts to leak out when loosened oil level is correct, if this does not happen remove plug and fill using plug opening at top of expansion tank with specified oil till reaching the bottom of the oil check plug (when oil starts to leak out). Recommended oil is Shell Diala Oil AX. Follow manufactures recommendations for maintenance of motor, pulleys, reducer and bearings; **see manufactures recommendations for maintenance.**

Belt Stretch & Tracking Adjustment

(1) Position yourself on the take up end (opposite of motor / drive end) and face the magnet.

(2) To move belt to the right (a) Tighten left hand take up move pulley toward you and away from the magnet box (b) Adjust only 1/8 turn at a time and allow belt to run for five minutes, continue same until belt tracks in center of pulley.

(3) To move belt to the left: (a) Tighten right hand take up move pulley toward you and away from magnet box (b) Adjust only 1/8 turn at a time and allow belt to run for five minutes, continue same until belt tracks in the center of pulley.

(4) For the first week or so of operations you may have to perform the above operation a few times, all belts will stretch up to two percent. After first week only periodical adjustment should be required.

(5) Provisions should be made at time of installation for adequate space around the magnet to perform preventative maintenance.

(6) Bearings should be lubricated on a schedule consistent with the environment and other equipment being used at the plant or site. Multi-purpose lithium base grease is recommended such as Lubriplate # 930-2. For motor and drive instructions refer to the manufactures instructions.

Belt Replacement Instructions

The following steps are to be used when replacing the belt:

(1) Verify that the width and length are correct.
(2) Loosen take-ups and remove belt hinge pin.
(3) Lay out new belt with cleats down.
(4) Center magnet assembly equidistant on the belt.
(5) Fold belt over the pulleys and line up the edge of the belt and the belt fastener mesh.
(6) Slide a ¼" rod through the belt fastener mesh leaving a 2" opening on one end to start hinge pin. Pull ¼" rod out while feeding hinge pin through the mesh.
(7) Crimp keepers on hinge pin.
(8) Tighten belt using the take ups on the tail pulley.
(9) Belt tension should be set as loose as possible so that no slippage occurs during operation, (approximately 2" to 3" of sag from the magnet face).
(10) See belt-tracking instructions for additional tracking adjustments.

CAUTION: The new belt will be harder to track, and can cause overload on the shaft and bearing, if it is too tight.