

# **Installation and Operating Instructions**

## **Screw Conveyor**

### **General Description**

The Screw Conveyor is a simple and rugged means of conveying material from one point to another. Our standard "U" shaped through Conveyors are of heavy-duty design. Each screw flight is a continuous helix with drive and end shafts which are carefully designed to provide adequate bending and shear strength with tolerances for correct bearing clearances. When equipped with a shroud (or metering section), a variable pitched screw and is choke fed, it will perform as a "rough" Feeder.

**Warning: Keep hands clear of moving parts. Serious injury can occur.**

### **Installation**

Screw Conveyors under 20 feet in length are shipped fully assembled and are ready for operation. Longer conveyors are shipped in sections. Each section has it's own screw and bearing assembly. Simply bolt the sections together and bolt the screw shaft to the pipe axles at points of connections. The Conveyor should then be checked for straightness and the screw should be turned manually to check for interferences. If any interference exists, the support bearings should be repositioned to eliminate the problem.

The Conveyor should then be put in position, leveled and bolted in place at the tabs provided.

### **Electrical Requirements**

Conveyors are normally provided with constant speed A.C. drives consisting of a motor and a gear reducer. These may be direct coupled or belt coupled. (See applicable drawings.) On occasions, special requirements will utilize a variable speed transmission. In these cases, check addendum to the operating instructions.

For standard drives, wire the motor for the proper voltage and check the direction of screw rotation. All Conveyors are provided with right hand flights and the rotation is clockwise when facing the discharge spout. Proper motor fusing or heaters should be provided.

## **Operation**

For Conveyors with shrouds or metering sections, a choke feed is required. For Conveyors without these features, a regulated flow is required to the Conveyor. When regulated flow to the Conveyor is the mode of operation, then the Screw Conveyor should be turned on either before or at the same time as the unit that is regulating the flow.

## **Maintenance**

The bearings should be checked periodically for wear. Increase in amperage draw or excessive noise is a good indication of bearing wear. The seal should also be checked for leakage. If leakage occurs, repack the seal with greased cotton waste.

To remove the screw or drive end bearing on units of one (1) piece assembly, the forward bearing plate should be removed with the bearing in place.

**Caution: All set screws should be loosened on bearing set collars.**

The screw may then be moved forward for complete removal or moved forward partially for removal of rear bearing.

Intermediate bearings are of two (2) piece construction and can be removed without disassembly of the screw assembly.

Coupling inserts and belts should also be checked for wear on a regular basis. It is suggested that bearing, belts or coupling inserts and a screw section be kept as spare parts.

**Note: Before maintenance is performed, motor should be electrically locked out.**

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