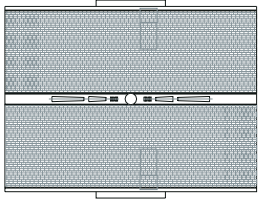


Load Rotation Device Mesh Belt (LDRMB)

SPECIAL DUTY DEVICE



LDRMBs reorient unit loads on the conveyor without lifting the load above the conveyor..

PRODUCT DESCRIPTION

The Mesh Belt Load Rotation Device (LDRMB) is a special device that reorients a unit load on the conveyor. The rotation device itself consists of a pair of self-contained conveyors, arranged side by side, with a pivot assembly mounted between them. The conveyors are built as standard Mesh Belt conveyor. The pivot assembly consists of a center plate and an array of rollers to assist and control the load during rotation. The pivot plate and rollers are all supported by air actuators that raises the unit to engage the load bottom during rotation.

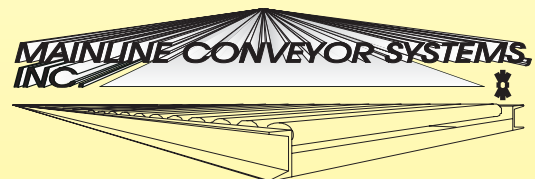
During normal conveyor operation, the pivot assembly remains in a lowered position as the paired conveyors operate in tandem to move loads over the conveyor. When a load is to be rotated, it is stopped centered on the conveyor just over the pivot plate. The air actuators raise the pivot assembly to engage the bottom of the load with a slight pressure to prevent slipping during rotation. The paired conveyors engage the load in opposite directions causing rotation of the load about the pivot assembly. A sensor, attached to the pivot assembly, tracks the degree of rotation and thereby controls the rotation in the desired increments.

APPLICATION

The LDRMB is often used as part of a unit banding operation, where it is necessary to reorient the load to apply cross straps. The addition of a load rotation device between strappers allows rotation to be accomplished without occupying the strappers themselves to greatly improve operating throughput. The Mesh Belt style of Load Rotation Device is intended to further improve throughput by eliminating lifting and lowering the load for rotation.

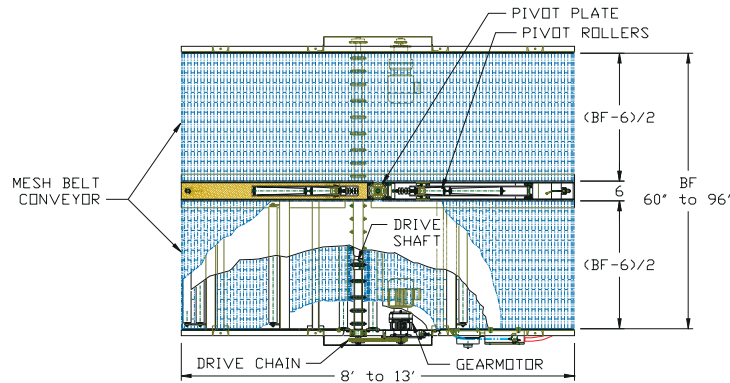
FEATURES

- Low profile, 12" TOR minimum, self-contained conveyors.
- For use with new or existing conveyor systems of any manufacture.
- Loads are fully supported by the conveyor during rotation.
- Eliminates lifting and lowering of loads for rotation, thereby shortening the rotation cycle time.
- Dual conveyors allows wide conveyor support for large loads.
- Rotates continuously in either direction without rerotate between loads.
- May be provided as a unit or as a field assembly.
- Variable speed conveyor drives improve cycle time while improving position control.
- Motor disconnect switches and load position sensors are prewired for easy installation.
- Mesh Belt conveyor provides stable surface for operators to access the load from on top of the conveyor.



MESH BELT LOAD ROTATION DEVICE (LDRMB)

Dimensions (in.)



GENERAL SPECIFICATIONS

Nominal Conveyor Width	60" to 96" BF
Nominal length	8' to 13'
Minimum Height	12" T.O.R.
Load Capacity	3,000 lbs.*
Conveyor Speed	45, 60FPM

POWER REQUIREMENTS

Air Supply, Pivot Assembly	Approx. .3 CFM @ 40 PSIG
Electrical Supply; Amperage	230-460V/3ph/60hz; 1.85 Amps (460V) @ full load
Drive Gearmotors (2)	1 HP @ 45 or 60 FPM
Drive Chains	3/4" pitch #60

CONSTRUCTION

Frame	Integral weldment includes: Sideframe: C5x6.7# structural steel channel Tie Braces (cross supports): 3x2x3/16 structural steel tubing and angle Legs: C5x6.7# structural steel channel
Mesh Belt	Polypropylene or Acetal textured flat top link belt with 1" P modular links
Belt Support Bed	Melamine laminated particle board panels, 3/4" thk; mechanically fastened to frame
Drive Shaft	2-1/2" sq. shaft w/ 15T x 1" P sprkts mounted at approx. 5" centers across conveyor width
Wrap & Terminal Rollers	Retained (2.5"Dia.-11g galv, 5/8 hex shaft, 6205 precision bearings)
Pivot Assembly	Pivot Plate: Approx. 5.5"dia. textured surface Post and Bearings: Approx. 1"dia. TGP w/mounted bearings Lift Actuator: Large dia., Short stroke, double acting Rotation Sensor: Shaft Encoder

CONTROL OPTIONS *

Manual Operation	Pushbutton, operator actuated
Automatic Operation	Device position sensors combine with Load detecting sensors and control logic to position, and rotate a unitized load. Manual controls are included with automatic controls.
PC Controls	

* Contact Mainline Conveyor Systems, Inc. for additional control or capacity information.



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