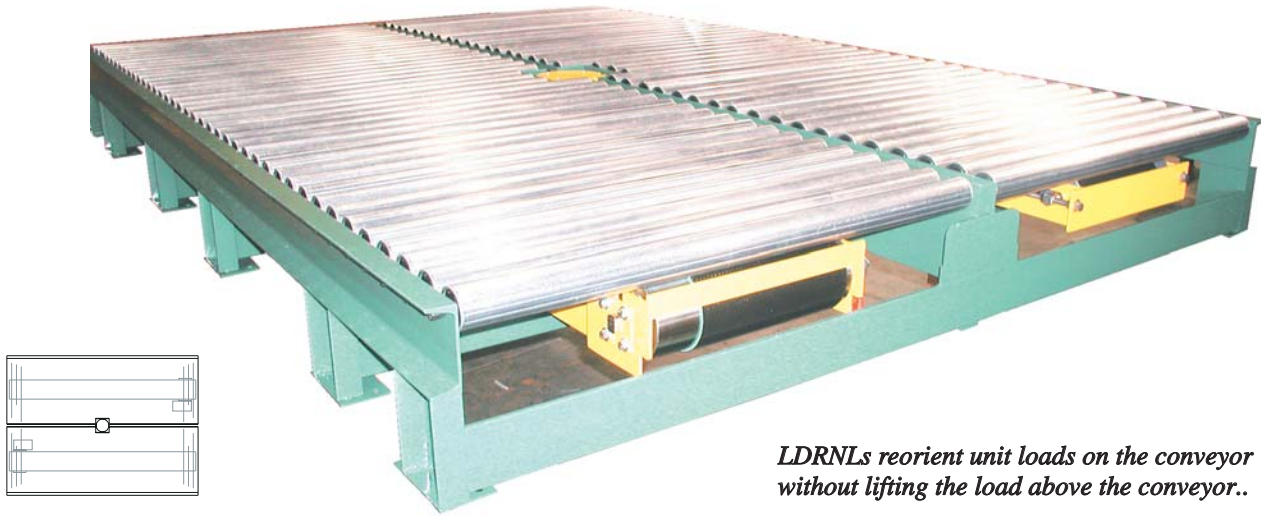


Load Rotation Device Non-Lifting (LDRNL)

SPECIAL DUTY DEVICE



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

PRODUCT DESCRIPTION

The Non-Lifting Load Rotation Device (LDRNL) 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 can be built as the standard center belt, belt driven live roller conveyor or as chain driven live roller conveyors. The pivot assembly consists of a plate attached to a post that is supported by bearings for rotation. The bearings, post, and plate are all supported by an air actuator that raises the unit to engage the load bottom during rotation.

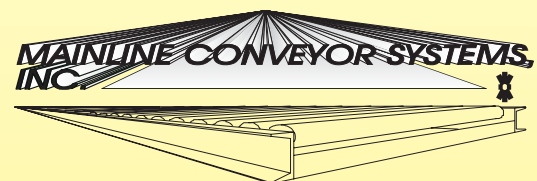
During normal conveyor operation, the pivot assembly remains in a lowered position as the paired conveyors operate in tandem to move loads over the conveyor. When a load is to be rotated, it is stopped centered on the conveyor just over the pivot plate. The air actuator below the post raises the pivot assembly to engage the center of the load with a slight pressure to maintain contact with the load without 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 LDR 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 Non-Lifting style of Load Rotation Device is intended to further improve throughput by eliminating lifting and lowering the load for rotation.

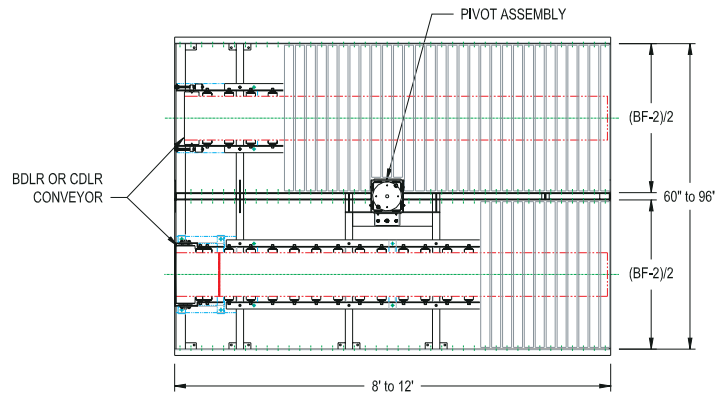
FEATURES

- 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.
- 2 speed rotation drive decreases cycle time while improving position control.
- Motor disconnect switches and load position sensors are prewired for easy installation.



NON-LIFTING LOAD ROTATION DEVICE (LDRNL)

Dimensions (in.)



GENERAL SPECIFICATIONS

Nominal Conveyor Width	60" to 96" BF
Nominal length	7' to 12'
Minimum Height	12" T.O.R.
Load Capacity	3,000 lbs.*
Conveyor Speed	45, 60FPM

POWER REQUIREMENTS

Air Supply, Pivot	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

CONSTRUCTION

Frame	<p><i>Integral weldment includes:</i></p> <ul style="list-style-type: none"> Sideframe: C5x6.7# structural channel Shaft Supports: Formed Flat, 3/16" thick x 2-7/8" width w/laser cut support slots Tie Braces (cross supports): 4x2x1/8" rectangular tubing at max 4'-0" centers Legs: Formed Flat, 3/16" thick x 6" wide, 2 per tie brace
BDLR Conveyor	Reference Nonaccumulating Roller Conveyor (CRN) specifications
CDLR Conveyor	Reference Chain Roller Conveyor (CRC) specifications
Pivot Assembly	<ul style="list-style-type: none"> Pivot Plate: Approx. 6" 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 utilized 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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