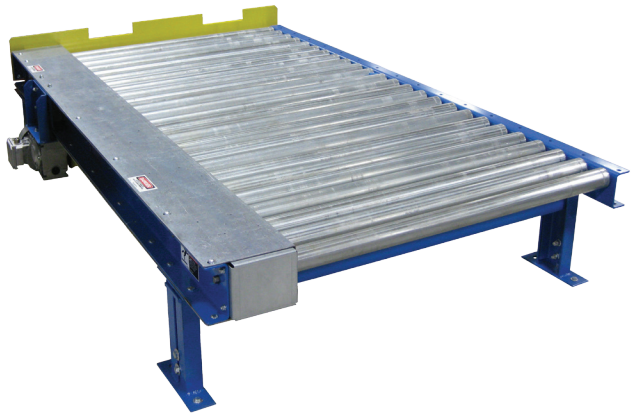
Chain Driven Live Roller Conveyor

INDUSTRIAL KINETICS, INC.

Engineered Conveyor Solutions



Product shown with optional adjustable floor supports and fixed angle stop with fork cutouts.

2511/2607 Roller to Roller Chain Driven Live Roller

Key Benefits

- Chain drive is ideal for conveying heavy pallets, containers, or drums, eliminating the need to move these items with a forklift.
- Designed to perform in environments where dirt or oil are present, reducing costly downtime.

Features

- Positive Chain Drive
- Reversible Drives
- 4 Gauge Formed Steel Frames
- Precision Machined Sprocket Plug Construction
- ABEC-1 Bearings with 11/16" Steel Hex Axle

Standard Specifications

Rollers - 2-1/2" diameter x 11 gauge mild steel tube, 11/16" pin or spring retained hex axle. 2-5/8" diamater mild steel tube, 11/16" pin or spring retained hex axle. With ABEC precision bearings.
Frame - Tread rollers mounted in 8" x 4 gauge painted formed steel channel on side opposite chain guard and 8" x 4 gauge painted form steel channel on chain guard side. Note: 3" roller center tread rollers mounted in 6" channel side.

Effective Widths - 10-1/4" to 82-1/4"
Drive Chain - No. 40 or 60 roller chain
Drive Mounts - Top, Bottom, Shaft, or Bottom Underslung
Speed - Constant 30 FPM @ 60 Hz
Speed Reduction - Sealed worm gear C-Face speed reducer
Bearings - ABEC-1 bearings with 11/16" steel hex axle
Motor - 1 HP – 208/230/460V - 3 Ph. 60 Hz.
Floor Supports - Available as optional equipment

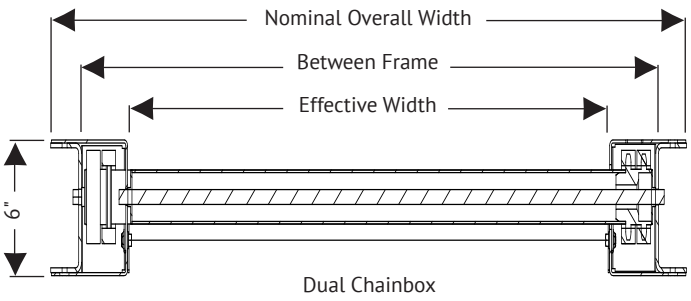
Optional Methods of Construction

Rollers - 2-1/2" roller is available in pre-galvanised finished with clear top coat. 2-5/8" 7 gauge plain steel rollers are available for applications that benefit from use of a thicker wall roller. 2-5/8" diameter roller is available zinc plated.
Optional Roller Centers - Roller centers of 3", 4-1/2", 6", 9", 12", 18", and 24".
Axle - 11/16" zinc plated hex axle
Floor Supports - Adjustable H style frame supports manufactured of heavy gauge structural steel with welded top and bottom plates. Holes in the bottom plate allow the frames to be securely attached to the floor. See chart on the next page for the variety of heights that are available.
Brakemotors - Available from 0.5HP to 2HP. Spring set, electric release, the brakemotor prevents product coast or drift and benefits applications requiring precise positioning.
Crossover Drive Package - Used in applications where a pallet needs to be moved off a conveyor line, but the chain guard would interfere. The chain drive is repositioned to the opposite side of the conveyor line for a distance to make a path, then the chain drive is repositioned back to its original orientation.

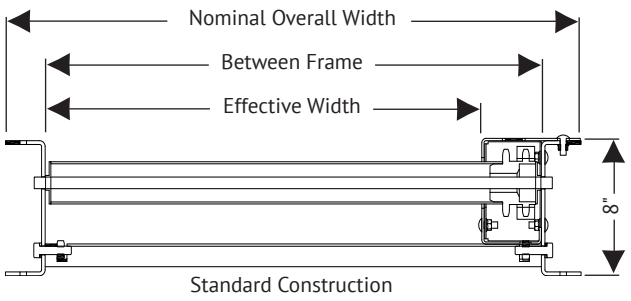
Accessories

Empty Pallet Justifier - Positions the empty pallet or container in an exact location for robotic interface.
Empty Pallet Pusher - Used to move a pallet off a main conveyor and on to a perpendicular conveyor line for kitting or palletizing applications. An economical alternative to chain transfer.
Empty Pallet Blade Stop - Steel plate pops up between rollers activated by an air cylinder. Designed to stop empty pallets or containers
Mechanical Advantage Stop - Steel plate pops up between rollers activated by an air cylinder. Designed to stop a fully loaded pallet (3,000 lbs or less).
Adjustable Pallet Guides - Available as bolt-on or clamp-on. The bolt-on guides are manufactured from 4 gauge painted steel and are bolted on to the frame. Clamp-on guides are sold in sets of eight and clamp on to the rollers.
Fixed Angle End Stop - Constructed of 1/4" thick painted steel. Fork cutouts available.
Digital Scale Interface - A section of conveyor line becomes a scale to weigh a pallet or container. Weight can be displayed in a digital display and data can be transmitted via RS-232 or via an Ethernet interface.
ASRS Lift Interfaces - Available in either hydraulic or electromechanical. Picks up pallet and positions it for an ASRS lift.

Standard Conveyor Dimensions



Dual Chainbox



Standard Construction

3" Centers - RC60 Chain - Dual Chainbox

Nominal Overall Width (in.)	22 3/4	28 3/4	34 3/4	40 3/4	46 3/4	52 3/4	55 3/4	58 3/4	64 3/4	76 3/4	82 3/4	88 3/4	94 3/4
Between Frame (in.)	14	20	26	32	38	44	47	50	56	68	74	80	86
Effective Width (in)	10 1/4	16 1/4	22 1/4	28 1/4	34 1/4	40 1/4	43 1/4	46 1/4	52 1/4	64 1/4	70 1/4	76 1/4	82 1/4

3" Centers - RC40 Chain

Nominal Overall Width (in.)	17 3/4	23 3/4	29 3/4	35 3/4	41 3/4	47 3/4	50 3/4	53 3/4	59 3/4	71 3/4	77 3/4	83 3/4	89 3/4
Between Frame (in.)	12 3/4	18 3/4	24 3/4	30 3/4	36 3/4	42 3/4	45 3/4	48 3/4	54 3/4	66 3/4	72 3/4	78 3/4	84 3/4
Effective Width (in.)	10 1/4	16 1/4	22 1/4	28 1/4	34 1/4	40 1/4	43 1/4	46 1/4	52 1/4	64 1/4	70 1/4	76 1/4	82 1/4

4 1/2" and Larger Centers - RC60 Chain

Nominal Overall Width (in.)	18	24	30	36	42	48	51	54	60	72	78	84	90
Between Frame (in.)	14	20	26	32	38	44	47	50	56	68	74	80	86
Effective Width (in.)	10 1/4	16 1/4	22 1/4	28 1/4	34 1/4	40 1/4	43 1/4	46 1/4	52 1/4	64 1/4	70 1/4	76 1/4	82 1/4

Notes:

- RC60 roller to roller chain drive also available in the following center to center distances: 6", 9", 12", 18", and 24".

Adjustable Floor Support Heights

Adjustable Floor Support Heights (Optional) - Available in 4" or 6" Upright Widths			
Roller Elevation - Single Chainbox (Top of Floor to Top of Rollers) (in)		Roller Elevation - Dual Chainbox (Top of Floor to Top of Rollers) (in)	
Low	High	Low	High
12 3/4	15 1/4	10 7/8	13 3/8
13 3/4	17 1/4	11 7/8	15 3/8
16 1/4	20 3/4	14 3/8	18 7/8
19 1/4	26 3/4	17 3/8	24 7/8
25	32 3/4	23 1/8	30 7/8
31 1/4	39	29 3/8	37 1/8
37 1/4	45	35 3/8	43 1/8

Elevations shown are for shaft or top mount roller drive. Minimum roller elevation for bottom mount roller drive is 17". Minimum roller elevation for underslung mount roller drive is 19".

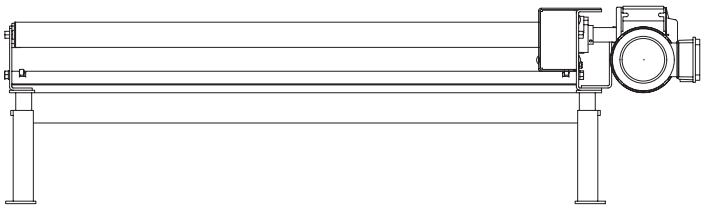
Load and Horsepower Specifications

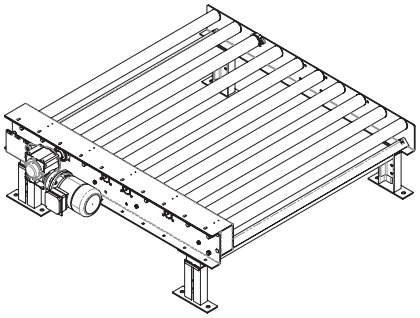
2 1/2" Diameter and 2 5/8" Diameter CDLR Horsepower and Load Capacity Guidlines

		5' Long One at Listed Load Weight			10' Long Two at Listed Load Weight			20' Long Four at Listed Load Weight			30' Long Six at Listed Load Weight			40' Long Eight at Listed Load Weight			50' Long Ten at Listed Load Weight		
Roller Centers	Load Weight Each	35 FPM	45 FPM	60 FPM	35 FPM	45 FPM	60 FPM	35 FPM	45 FPM	60 FPM	35 FPM	45 FPM	60 FPM	35 FPM	45 FPM	60 FPM	35 FPM	45 FPM	60 FPM
3" Single Chainbox	1000	1/2	1/2	1/2	1/2	1/2	3/4	1	1 1/2	2	-	-	-	-	-	-	-	-	-
3" Single Chainbox	2000	1/2	1/2	1/2	1/2	3/4	1	1 1/2	2	3	-	-	-	-	-	-	-	-	-
3" Dual Chainbox	1000	1/2	1/2	1/2	1/2	1/2	3/4	1	1 1/2	2	3	5	5	-	-	-	-	-	-
3" Dual Chainbox	2000	1/2	1/2	1/2	1/2	3/4	1	1 1/2	2	3	-	-	-	-	-	-	-	-	-
3" Dual Chainbox	3000	1/2	1/2	1/2	3/4	3/4	1	3	3	3	-	-	-	-	-	-	-	-	-
4 1/2" Centers (Typ.)	1000	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	1	1 1/2	1 1/2	2	3	3	5	-	-	-
4 1/2" Centers (Typ.)	2000	1/2	1/2	1/2	1/2	1/2	3/4	1	1 1/2	1 1/2	2	3	5	-	-	-	-	-	-
4 1/2" Centers (Typ.)	3000	1/2	1/2	1/2	1/2	3/4	3/4	1 1/2	1 1/2	2	3	5	5	-	-	-	-	-	-
6" Centers (Typ.)	1000	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	1	1	1 1/2	1 1/2	2	3	3	3	5
6" Centers (Typ.)	2000	1/2	1/2	1/2	1/2	1/2	3/4	3/4	1	1 1/2	1 1/2	2	3	3	3	5	-	-	-
6" Centers (Typ.)	3000	1/2	1/2	1/2	3/4	3/4	3/4	1	1 1/2	1 1/2	2	3	3	5	5	-	-	-	-

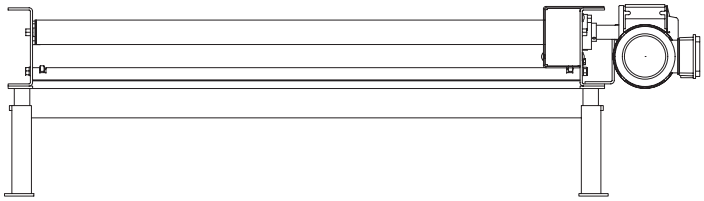
Assumptions:
Clean environment and oiled chain, 52 1/2" effective width, flat wood conveying surface in good condition, calculated using the industry standard ANSI/CEMA 404-2003 (R2009)
Effective width, length, & roller spacing listed is for reference only. Many standard options are available which can affect the requirements. Contact factory for application specific assistance.

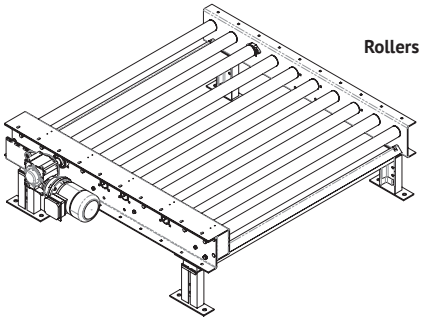
Motor Mount Locations



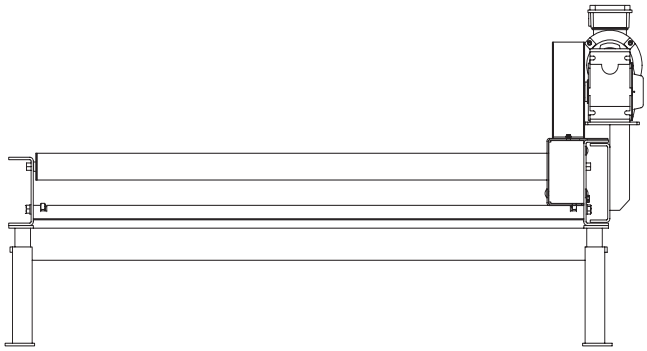


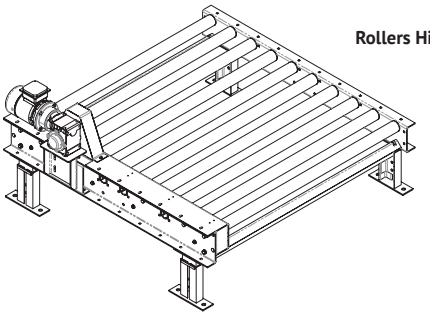
Shaft Mount Drive
Angle Idler Frame



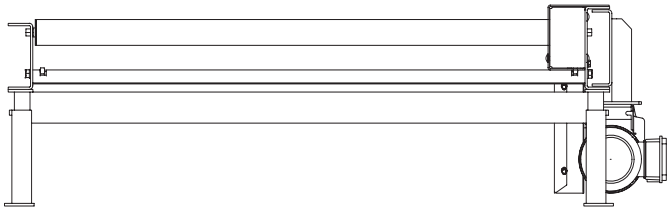


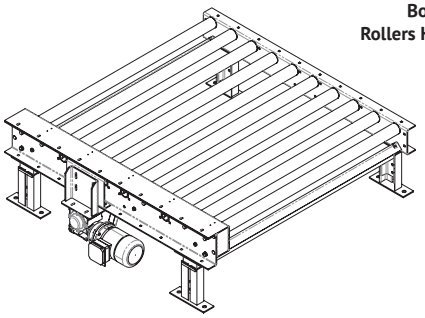
Shaft Mount Drive
Rollers Low Idler Channel



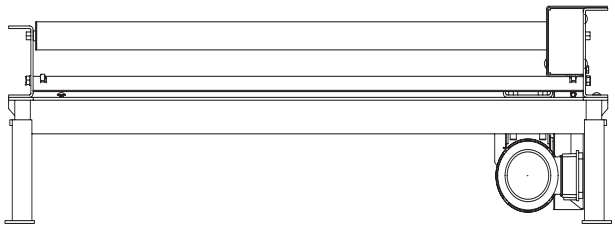


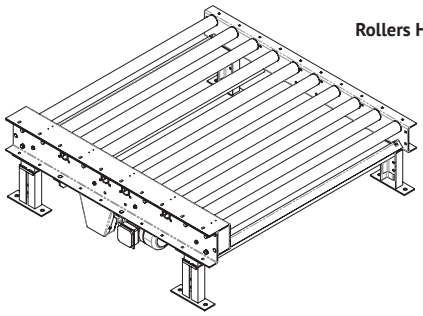
Top Mount Drive
Rollers High Idler Channel





Bottom Mount Drive
Rollers High Idler Channel





Underslung Drive
Rollers High Idler Channel