

Model 138-NSPEZ Live Roller Conveyor (Zero Pressure Accumulating Type)

The Model 138-NSPEZ is a horizontal live roller conveyor designed for Zero-Pressure Accumulation of product. Positive braking in each zone reduces the possibility of damage to fragile items during accumulation. Singulation feature allows products to be removed from any location on the conveyor.

Conveyor shown with optional floor supports



- ★ EZLogic® Accumulation System
- ★ Zero-pressure Accumulation
- ★ Product Singulation
- ★ Positive Brake on All Rollers
- ★ Adjustable LS-Type Floor Supports Available

HOW IT WORKS

The conveyor is divided into accumulation zones. Each zone extracts power from a line shaft that runs the entire length of the conveyor. A brake may be pneumatically applied to the tread rollers in each zone, causing product in that zone to stop. Hytrol's EZLogic® Accumulation Modules sense product presence and control the accumulation and release of product from the zones.

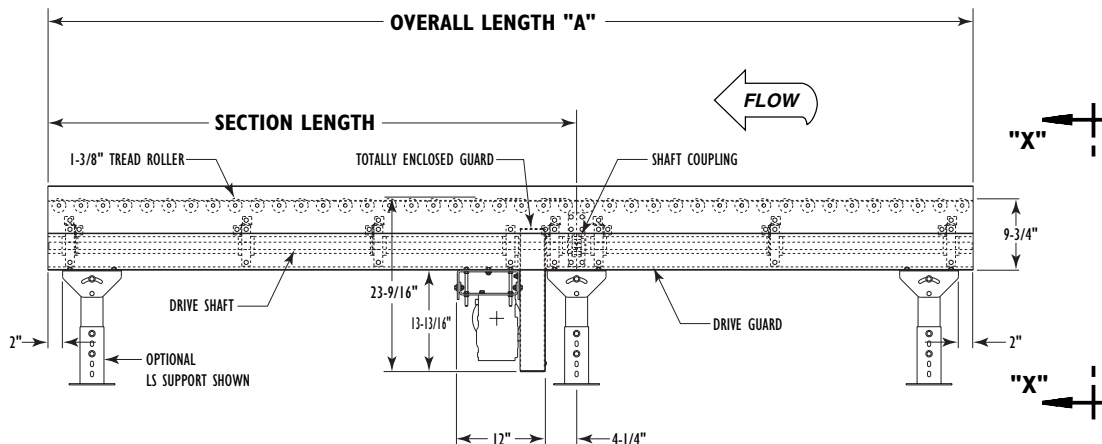
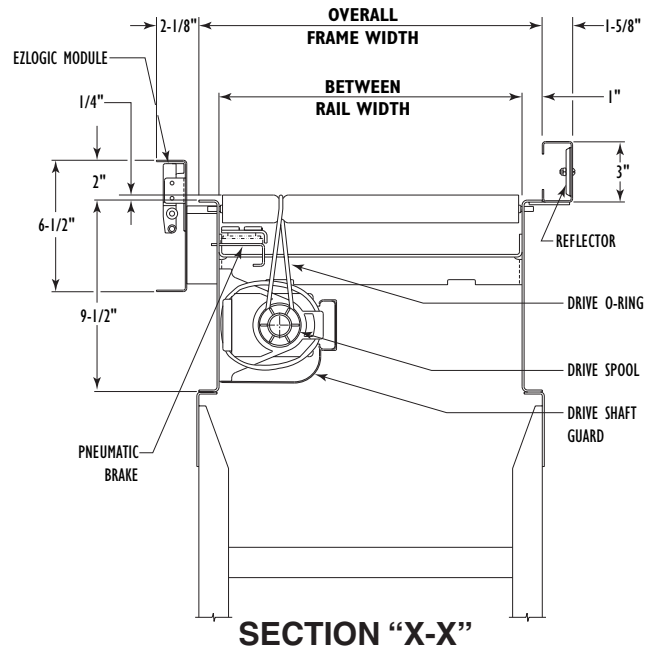
IMPORTANT NOTE:
Operating NSPEZ in sleep mode is not recommended.



SIZE TO ORDER Overall Length "A"	Between Rail Width	10"	13"	16"	22"
	Overall Frame Width	12"	15"	18"	24"
6'	WEIGHTS (Lbs.) Based on 3" Roller Centers	232	242	251	278
10'		331	348	359	395
16'		478	508	521	575
20'		577	614	629	697
26'		725	775	792	877
30'		824	880	901	998
36'		971	1039	1062	1178
40'		1069	1145	1171	1298
46'		1218	1304	1334	1479
50'		1316	1411	1443	1600
56'		1464	1570	1604	1779
60'	1562	1675	1713	1900	
66'	1711	1835	1875	2081	
70'	1809	1941	1984	2201	
76'	1955	2099	2146	2381	
80'	2055	2205	2255	2502	
86'	2202	2364	2417	2682	
90'	2302	2471	2525	2803	

All weights in catalog are conveyor weights only. Accessories, crating, etc., are not included.

NOTE: Bed sections available in the following multiples:
 12" Zones—2', 3', 4', 5', 6', 7', 8', 9' & 10'
 18" Zones—3', 4 1/2', 6', 7 1/2' & 9'
 *24" Zones—2', 4', 6', 8' & 10'
 30" Zones—2 1/2', 5', 7 1/2' & 10'
 36" Zones—3', 6' & 9'
 *Overall lengths in chart are for standard 24" zones. Other zones optional.



ACCUMULATION - MINIMUM PRESSURE

Standard Specifications

BED—Roller bed with 1-3/8 in. dia. roller x 18 ga. galvanized tube spaced every 3 in. Mounted in 9-1/2 in. x 12 ga. powder painted formed steel channel frame bolted together with splice plates.

CROSS BRACING—Rods with turnbuckle are fastened to underside of bed to provide proper alignment of bed rollers and insure correct product tracking. Supplied on every other section 30 ft. bed lengths and over.

DRIVE—Mounted underneath, placed near center of conveyor. **NOTE: On conveyors less than 24 in. OAW motor extends beyond frame.** Chain guard located on left hand side.

DRIVE SHAFT—1 in. dia. steel shaft extends full length of conveyor. Chain coupling at bed joints. Located on left hand side.

DRIVE SPOOLS—2 in. dia. Delrin spool held in place on drive shaft with spool spacers.

DRIVE GUARD—Underside of drive shaft with spools and drive o-rings guarded full length of conveyor.

DRIVE O-RING—1/8 in. dia. polyurethane o-ring from drive spool to tread rollers.

BEARINGS—Sealed, pre-lubricated, self-aligning, ball bearings with eccentric lock collar on drive shaft. Pre-lubricated ball bearings in tread rollers.

EZLogic® Accumulation System

Hytrol's EZLogic®, or "Electronic Zero-pressure Logic" Accumulation System, combines the sensing accuracy of photo-electronics with discrete electronic logic control without the use of a PLC or pneumatic logic components. The EZLogic® Accumulation System provides many features including:

Zero-pressure accumulation of product

Zone Stop function is built in! Any zone may be transformed into a workstation by connecting the EZLogic® Accumulation Module to any dry contact type switching device. The feature is always used at the **discharge end** of the conveyor line, and may be used at any other location where a zone stop is required.

Built-in enhanced "Slug Mode" features allow product to be transported on the conveyor **without separation**, even when the conveyor is in **accumulation mode!** Product may be slug released from the conveyor with the same ease as singulation release. Jams on the conveyor automatically activate accumulation even during slug release, preventing product pile-up.

ACCUMULATION ZONES—24 in. long air controlled. Power supply must be located in the center - maximum 50 zones per power supply. See Note opposite page.

EZLogic® ACCUMULATION MODULE—Located in each zone (Retroreflective). UL and CSA approved. NEMA 1, 2, 3, 4 & 4X Rated.

AIR REQUIREMENTS—Recommended working pressure 40 P.S.I. Free air consumption at 40 P.S.I.—.003 cu. ft. per sensor actuation.

FILTER, REGULATOR—Supplied for main air supply line. (3/8 in. NPT port).

SPEED REDUCTION—Sealed worm gear C-Face speed reducer. No. 50 roller chain to drive shaft.

MOTOR—1/2 HP—230/460V—3 Ph. 60 Hz. Totally Enclosed C-Face.

POWER SUPPLY—27 VDC, 4 amp Power Supply located near center of conveyor. Maximum of 50 zones per power supply (25 each side of power supply). Requires 120 VAC input.

CONVEYING SPEED—Constant 65 FPM.

CAPACITY—Maximum load 10 lbs. per drive roller.

FLOOR SUPPORTS—Now supplied as optional equipment.

CONVEYOR LENGTH	1 1/2" CENTERS		3" CENTERS	
	HP	TOTAL LOAD (LBS.)*	HP	TOTAL LOAD (LBS.)*
10'		800		400
20'	1/2	1600	1/2	800
30'	3/4	2400		1200
40'	1	3200		1600
50'		4000		2000
60'	1 1/2	4800	3/4	2400
70'		5600		2800
80'	NOT AVAILABLE		1	3200
90'	AVAILABLE		1	3600

*TOTAL LOAD BASED ON 10# PER DRIVEN ROLLER

FPM	30-44	45-90
HP (MAX)	1	1-1/2

If the required horsepower exceeds the maximum horsepower shown in the chart, more than one drive is required

Optional Equipment

FLOOR SUPPORTS—LS Type floor supports are available with a wide range of adjustment. Specify top of belt or roller elevation. One support required at every bed joint and ends of conveyor. Holes in feet for lagging to floor. Knee braces recommended above LS-6 support.

CONVEYING SPEED—Other constant and variable speeds from 30 to 90 FPM. **NOTE: H.P. and conveyor length affected by speed change.**

O-RING DRIVE CHAIN—With sealed in lubricant (Recommended for applications that do not permit regular lubrication).

ONE DIRECTION O-RING TRANSFER—See Accessory section.

REVERSING O-RING TRANSFER—See Accessory section.

ACCUMULATION ZONES—12 in., 18 in., 30 in., & 36 in. long available. Frame lengths change with zone. (See NOTE opposite page)

Note: 51 or more zones will require additional power supply and isolation cable.

PRESSURE SWITCH—Installed in air line after regulator unit. Kills conveyor drive when air pressure drops below minimum working requirements. Requires restart controller (not supplied).

GUARD RAILS—Continuous adjustable channel. **NOTE: If product comes in contact with guard rails, product flow will be affected.** Fixed channel overlapping-one direction.

POLY-TIER SUPPORTS—36 in. to 120 in. support heights in 6 in. increments. Knee braces required.

CEILING HANGERS—5/8 in. dia. x 8 ft. long unplated steel rods fully threaded. Other lengths and galvanized rods available.

MOTORS—Energy efficient, single phase, other characteristics. 1-1/2 HP maximum.

ELECTRICAL CONTROLS—Non-reversing or reversible magnetic starters and push-button stations. AC variable frequency drive.

EZ-Logic :

- **Diffuse type module** - 30" maximum range to 90% reflectance without obstruction. Range is adjustable through push button programming (Not Available for 10" BR).
- **Zone stop connector cable** - Attaches to any zone module. It requires a "dry contact" type input signal. Closed for zone stop.
- **Slug mode control cable** - Attaches to discharge module micro connector. Requires "dry contact" type input signal. Closed for slug mode, open for singulate. Required only if user wishes to alternate between singulation mode and slug mode.
- **Power supply isolation cable** - Used when joining conveyors with separate power supplies.
- **Accumulation module with photo eye output** - Used to supply "dry contact" photo eye output or to accept a voltage type zone stop input.