

138-NSPEZ

Live Roller Conveyor (Zero Pressure Accumulating Type)

The Model 138-NSPEZ is a horizontal lineshaft driven conveyor, designed for zero pressure accumulation of product. Each zone features positive braking of each roller in the zone during accumulation. Product may be released in singulation or slug fashion.

- EZLogic® Accumulation System
- Singulation, Slug or Cascaded Slug Operation
- Dynamic Zone Allocation
- Positive Brake on All Rollers
- Adjustable LS-Type Floor Supports Available

Conveyor shown with optional floor supports



U.S. Patent Numbers
5,862,907 • 7,243,781 • 7,591,366
Other Patents Pending.

SIZE TO ORDER Overall Length "A"	Between Rail Width	10"	13"	16"	22"
	Overall Frame Width	12"	15"	18"	24"
6'	WEIGHTS (Lbs.) Weights 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.

Overall length must be divisible by zone length

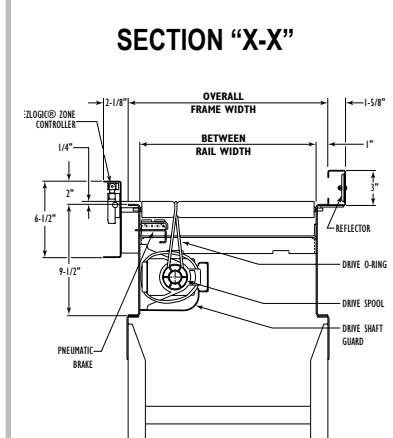
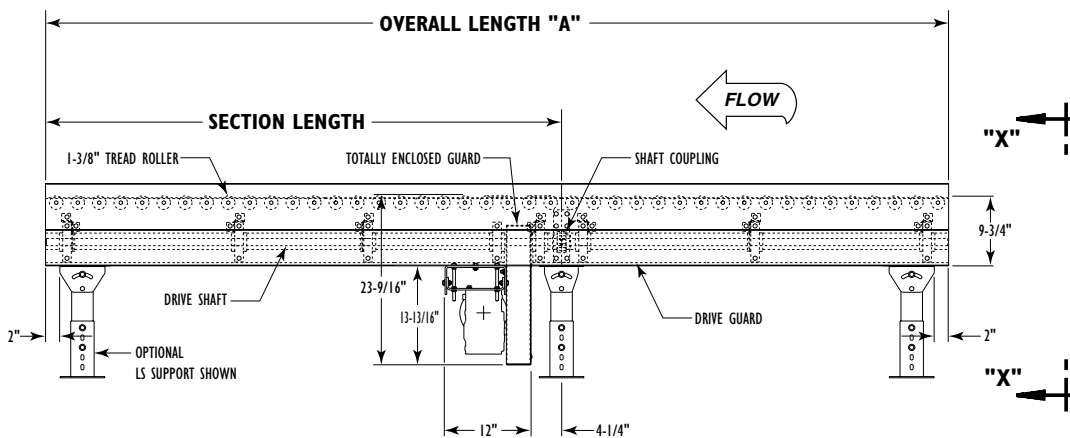


IMPORTANT NOTE

- Operating NSPEZ in sleep mode is not recommended.

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® Zone Controllers sense product presence and control the accumulation and release of product from the zones.



• STANDARD SPECIFICATIONS

BED—Roller bed with 1 3/8 in. dia. roller x 18 ga. galvanized tube and 5/16 in. HRS hex shafts 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—3/8 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.

ACCUMULATION ZONES—12, 18, 24, 30 and 36 in. long air controlled. Section lengths change with zone lengths. (See **Note** opposite page). **Note:** 51 or more zones will require an additional IOP, isolation cable and power supply T cable.

EZLogic[®] ZONE CONTROLLER—Located in each zone. (Retro-reflective). NEMA 1, 2, IP 62. UL Approved.

IOP—Provides 27VDC, 100 watt power for EZLogic[®] accumulation system - contains slots for 4 input/output boards. Operates up to 50 zones (25 each side of IOP). Requires 120VAC or 230VAC single phase input.

AIR REQUIREMENTS—Recommended working pressure 35 P.S.I.. Free air consumption at 35 P.S.I.—.002 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—208/230/460/575V—3 Ph. 60 Hz. Totally Enclosed C-Face.

CONVEYING SPEED—Constant 65 FPM.

CAPACITY—Maximum load 10 lbs. per drive roller.

FLOOR SUPPORTS—Now supplied as optional equipment.

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 a dry contact switching device to the auxiliary port of the EZLogic[®] Zone Controller. This 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.

Selectable Modes of Operation

Singulation Mode—Product separates while traveling down the conveyor and when it is released from the conveyor - creating a zone-length gap between products.

Enhanced Slug Mode w/ Jam Protection—Product does not separate when traveling down the conveyor or when it is released from the conveyor. This allows higher product throughput at any given conveyor speed. Product will not separate on the conveyor even when accumulation has been activated at the discharge end.

Cascaded Slug Release—Rather than releasing all zones simultaneously, this function introduces a momentary delay in the release of each zone, from discharge upstream.

Dynamic Zone Allocation—Automatically adjusts the conveyor's zone length to accommodate the length of the product being conveyed. Improves conveyor efficiency and system flexibility.

HP/LOAD CAPACITY CHART @ 65 FPM				
CONVEYOR LENGTH	1 1/2" CENTERS		3" CENTERS	
	HP	TOTAL LOAD (LBS.)*	HP	TOTAL LOAD (LBS.)*
10'	1/2	800	1/2	400
20'		1600		800
30'		2400		1200
40'	1	3200	1	1600
50'	2	4000	1	2000
60'		4800		2400
70'		5600		2800
80'		NOT AVAILABLE		3200
90'				3600

*TOTAL LOAD BASED ON 10# PER DRIVEN ROLLER

MOTOR SELECTION CHART		
FPM	30-44	45-90
HP (MAX)	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.

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—Adjustable Universal Channel Guard Rail. **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. 2 HP maximum.

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

EZLogic[®]—See EZLogic[®] Components Page.