

# BZIE24EZ

## 24 VDC Incline Roller Belt Conveyor (Zero Pressure Accumulating Type)

The model BZIE24EZ Accumulating conveyor uses a series of 24VDC motors to drive full width belt over rollers zones. Quiet operation, zero pressure accumulation with a roller bed design are some of the advantages. It can be equipped with a nose-over transition section at the infeed end to ensure a smooth transition from the horizontal to incline plane.

- EZLogic® Accumulation System
- All-Electric Operation
- Adjustable MS-Type Floor Supports Available
- Direct Drive Roller
- Pop-Out Roller



Conveyor shown with optional floor supports



**EZLOGIC**

U.S. Patent Numbers  
5,862,907 • 7,243,781  
7,591,366 • 7,905,345  
6,860,381 • 9,714,142  
Other Patents Pending.

Section Length	Between Rail Width	15"	21"	27"	33"
	Belt Width	14"	20"	26"	32"
	Overall Frame Width	19-1/4"	25-1/4"	31-1/4"	37-1/4"
16'-0"	Weights (lbs.)	500	545	580	623
Per Foot	Weights (lbs.)	27	31	35	40

**Note:** Bed Sections available in the following multiples:  
24" Zones—2', 4', 6', 8' & 10',      30" Zones—2 1/2', 5', 7 1/2' & 10',      36" Zones—3', 6', 9'

### POWER SUPPLY CHART

#### STANDARD MOTOR WITH CARD (033.0905)

	NUMBER OF DRIVES	AMPS	VOLTAGE
EB-000003	1-6	20	115VAC
EB-000004	1-12	40	115VAC
EB-000005	1-6	20	460VAC
EB-000006	1-12	40	460VAC
EB-000007	1	5	115VAC
EB-000007	1	5	460VAC

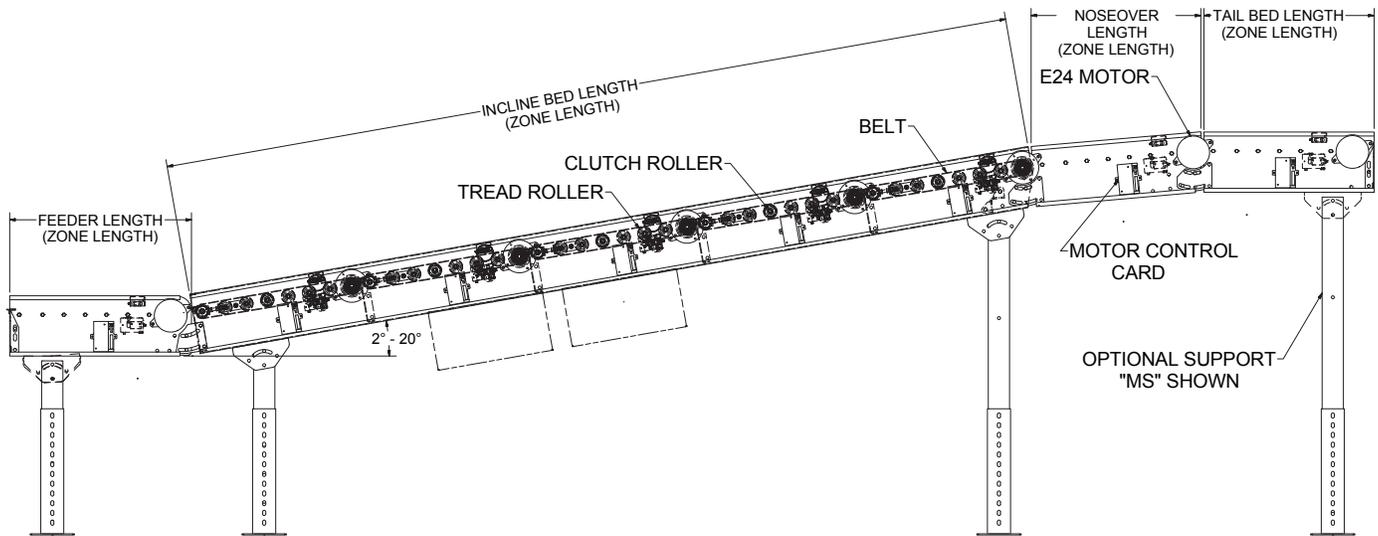
#### 125 WATT MOTOR WITH CARD (033.0905)

	NUMBER OF DRIVES	AMPS	VOLTAGE
EB-000003	1-5	20	115VAC
EB-000004	1-10	40	115VAC
EB-000005	1-5	20	460VAC
EB-000006	1-10	40	460VAC
EB-000007	1	5	115VAC
EB-000007	1	5	460VAC



## HOW IT WORKS

The conveyor is divided into accumulation zones. Each zone is powered by a 24 VDC Motor. The motor may be turned off to cause 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 12 ga. painted bolt-in pans. Mounted in 8 ½ in x 12 ga. powder painted formed steel channel frame bolted together with splice plates.

**DRIVE ROLLER**—1.9 in Dia. Fully Lagged, Trapezoidal Crown

**CLUTCH ROLLER**—1.9 in Dia. One Directional Roller included in incline zones.

**BELT**—PVC, Endless splice.

**MOTOR**—24 VDC, 100W motor. One in each zone of conveyor mounted on outside coupled directly to a lagged drive roller.

**MOTOR CONTROL CARD**—Used with each 24VDC Motor utilizing the 3A setting mounted on outside frame.

**ACCUMULATION ZONES**—24 in., 30 in., and 36 in. zones available.

**SET LOW CHANNEL**— Added additional flanges to make the installation and removal of the optional cover simple.

**NOSE-OVER SECTION**— A zone length section provides a transition of product from incline to horizontal.

**POWERED FEEDER/TAIL BED**— A horizontal zoned length section driven by a 24 VDC motor.

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

**POWER SUPPLY (FOR MOTORS)**—40 amp DC power supply, 24 volt fixed output. Maximum of 12 zones per power supply. 120 vac, 9.12 amp input. Mounted near center of conveyor.

**IOP**—Provides 27VDC, 100 watt power for EZLogic® accumulation system - contains slots for 4 input/output boards. Operates up to 50 zones with maximum of 25 on either side of IOP. Requires 120VAC or 230VAC single phase input.

**CONVEYING SPEED**—30 lbs see below capacity chart per zone at 65 FPM.

**CAPACITY**—See below for Capacity Chart

MAXIMUM CAPACITY CHART	
Angle (Degrees)	Incline (lbs)
2.5	75
5	75
7.5	63
10	49
12.5	39
15	29
17.5	29
20	24

Contact factory for larger degrees.

FLOOR SUPPORTS—Now supplied as optional equipment.							
Switches				100W24		125W24	
SW2-1	SW-2	SW-3	SW-4	RPM	033.0905 Standard Card	RPM	033.0905 Standard Card
OFF	OFF	OFF	OFF	280	161	350	201
ON	OFF	OFF	OFF	265	152	331	190
OFF	<b>ON</b>	OFF	OFF	250	144	312	179
ON	<b>ON</b>	OFF	OFF	235	135	293	168
OFF	OFF	<b>ON</b>	OFF	220	126	274	157
ON	OFF	<b>ON</b>	OFF	205	118	255	147
OFF	<b>ON</b>	<b>ON</b>	OFF	190	109	236	136
ON	<b>ON</b>	<b>ON</b>	OFF	175	101	217	125
OFF	OFF	OFF	<b>ON</b>	160	92	198	114
ON	OFF	OFF	<b>ON</b>	145	83	179	103
OFF	<b>ON</b>	OFF	<b>ON</b>	130	75	160	92
ON	<b>ON</b>	OFF	<b>ON</b>	115	66	141	81
OFF	OFF	<b>ON</b>	<b>ON</b>	100	57	122	70
ON	OFF	<b>ON</b>	<b>ON</b>	85	49	103	59
OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>	70	40	84	48
ON	<b>ON</b>	<b>ON</b>	<b>ON</b>	55	32	65	37

### 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.

## • OPTIONAL EQUIPMENT

**FLOOR SUPPORTS**—MS 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 MS-6 support.

**MOTOR AND CONTROL CARD**—24VDC, 125W with Standard card with dip switch set accordingly. Provides speed range of 40-190 FPM.

**POWER SUPPLY (FOR MOTORS)**—20 amp power supply available. 6 zones maximum. 120 volt @ 4.56 amps.

**POWER SUPPLY (FOR MOTORS)**— 460 volt, 3 phase – 20 and 40 amp available. Motors mounted on outside of channel.

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

**CEILING HANGERS**—½ in. dia. x 8 ft. long unplated steel rods fully threaded. Other lengths and galvanized rods available.

**EZLogic®** – See EZLogic® Components Page.