

# MODEL ZPA

## ZERO PRESSURE CHAIN DRIVEN ELECTRONICALLY CONTROLLED AIR CLUTCH ZONE ACCUMULATOR



**Titan Zone Accumulation Conveyors** are designed to accumulate products and containers into zones without contact, commonly termed "Zero Pressure Accumulation" or "ZPA". Available "Plug & Go" logic makes control easy and reduces cost. Titan offers designs compatible with all models and types of roller conveyors.

The **Model ZPA** is designed to handle heavy loads such as pallets, skids or drums. Standard zone length is 60" with other zone lengths available. Rollers are 2 1/2" diameter x 11 gauge or an optional 2 5/8" x 7 gauge. Standard roller spacing is 5" with other options available. Accumulation and load release can be either single or slug type and must be specified when ordered. Optional controls are available to control accumulation and release modes, create intermediate load/unload stations and allow for time delay settings. Incoming power is 110 volt, single phase and then is converted to 24 volt DC for sensor and solenoid control.

### Styles:

1. Zones have individual conventional drives.
2. Zones are engaged by air clutch from a single drive.
3. Zones have individual motorized roller drives.

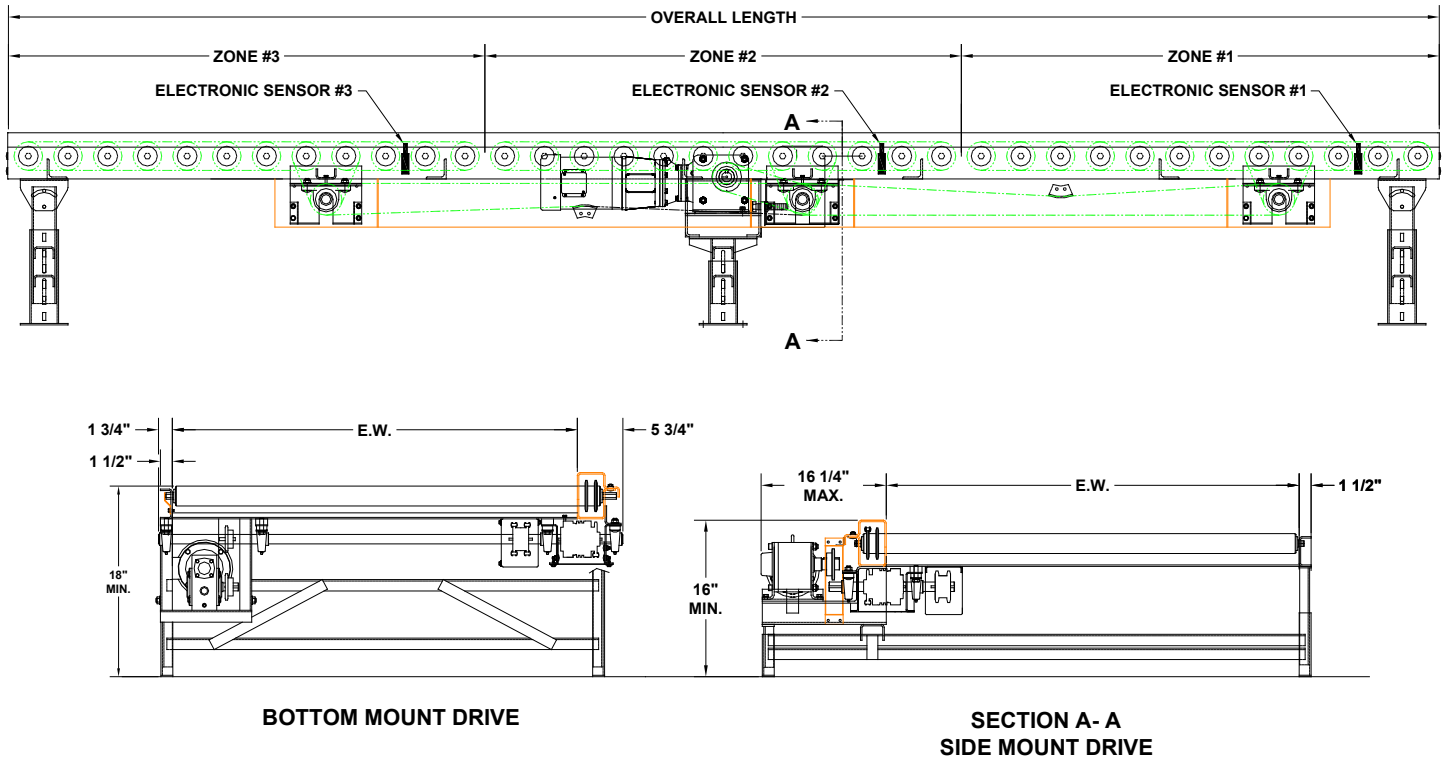
ZERO PRESSURE CHAIN DRIVEN ELECTRONICALLY CONTROLLED ACCUMULATION SPECIFICATIONS		
	Standard	Options
Effective Widths	15" to 72"	Specify
Lengths	10' standard unit	Varies per application
Roller Size	2 1/2" dia. x 11 ga. with 11/16" hex shaft	2 5/8" dia. x 7 ga. with 11/16" hex shaft
Roller Center	5"	Specify
Frame	Formed 7 ga.	
Drive	3/4 H.P. 230/460/3/60	1, 1-1/2, 2 HP 115/230/1/60, severe duty,
Chain Drive	#50 roll to roll, #60 zone to zone	
OPTIONS		
Roller Space - Consult factory, Roller Center - Consult Factory, Drive locations: as needed, Galvanized or stainless construction, , Speeds, Variable speed, Controls, Paint, end stop, Rollers set low, UHMW sleeves, higher capacity bearings, Zone lengths to suit, E-stop with pull cord, Knee braces, Supports - 6" @ #8.2 structural channel		

**NOTE: Specifications subject to change without notice**

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3 Zones Illustrated below - Number of zones determined by needs of customer.



### How the Conveyor Works

A Chain Driven Live Roller Conveyor is set up with individually controlled "zones" by installing electronic sensors at equal intervals along the conveyor. Power to individual zones comes from a main chain drive that runs the length of the conveyor. Each zone is driven off the main drive and activated or deactivated with an air operated clutch controlled by an electronic sensor.

In normal operation, the discharge zone (zone #1) is electronically activated by an electrical solenoid (provided by Titan). When a load is placed on the conveyor, at the infeed, it travels the length of the conveyor to the discharge. At the discharge the load activates the electronic sensor which activates the air clutch and stops the load. At the same time, this disengages the clutch and moves a load into zone #2 to accumulate the next load placed on the conveyor.

When the conveyor is to be unloaded, an external signal (NOT provided by Titan) is sent to the solenoid switch which engages the clutch in zone #1. This activates the zone rollers and moves the load toward the discharge. Once the load clears the electronic sensor, the second load moves forward from zone #2 to zone #1 and all other loads advance forward one zone.



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