



Q What is SMART ZONE®?

A Roach® SMART ZONE® is a series of zoned, zero pressure accumulation conveyors utilizing photo sensors to detect presence of product rather than mechanical sensor rollers.

Q What is the minimum weight package that can be accumulated on Roach SMART ZONE®?

A Since SMART ZONE® does not require physical package or carton weight to depress mechanical sensor, absolute minimal weight objects can now be accumulated on SMART ZONE® conveyors. We actually accumulated single sheets of paper during research and development of Roach SMART ZONE®.

Q How is SMART ZONE® powered?

A Roach SMART ZONE® is powered by a 24 Volt DC power supply. Customer simply runs 115V single phase input to SMART ZONES® DC power supply. The power supply then delivers a low voltage signal to photo sensors located in each accumulating zone.

Q How many zones can be powered by a single SMART ZONE® power supply?

A 50 zones or a maximum of 100 feet of zoned accumulation conveyor may be powered by a single SMART ZONE® power supply. Therefore, in many heavy duty applications, when 5-foot long zones are required, a total of 20 zones or 100 feet of conveyor are powered by a single 24 Volt DC power supply. Also, power supply is generally located near the center bed section of the conveyor and is shipped mounted to conveyor frame.

Q What are the various components required per accumulation zone?

A Although the individual zone components vary by SMART ZONE® model, all Roach SMART ZONE® conveyors require a photo sensor, reflector and solenoid valve. Air cylinders vary from model to model while an air cylinder is used on model SZ251CDA and SZ192CDA simply to engage or disengage the mechanical clutch in each zone.

Q What connections are required when installing SMART ZONE

A Photo sensors, reflectors, solenoid valves and cylinders are shipped mounted, connected AND tested on Roach SMART ZONE®. However, when mating individual SMART ZONE® bed sections during field installation, two simple connections are required. First, photo sensors must be adjoined across bed sections via DC Micro QD connectors. This is a screw-type connection with NO tools required. And, the 3/8" I.D. hose connecting solenoid valves is adjoined with another tools-free connection by pushing the hose onto a barbed fitting on the solenoid valve. It takes only seconds to make these connections.

Q What is the operational difference between zone singulation discharge and slug release discharge?

A The standard mode of product release for Roach SMART ZONE® is zone singulation operation. Here, each product is accumulated in a separate zone on the conveyor and each product advances into the next discharge zone when that zone releases its accumulated product. When the discharge-most zone is ready to offload, a single product is released and when that product clears the photo sensor, one product moves into that discharge-most zone. This process continues down the entire conveyor, allowing one product at a time to advance into the discharge-most available zone on the conveyor. However, with slug release discharge, most commonly all zones are powered to release all accumulated products at once. Finally, slug loading is another feature that allows a group or "slug" of products to enter SMART ZONE® at once, and all products move forward until the discharge-most zone photo sensor is blocked.