



Intelligent Package Systems
A Division of M2L Systems.LLC

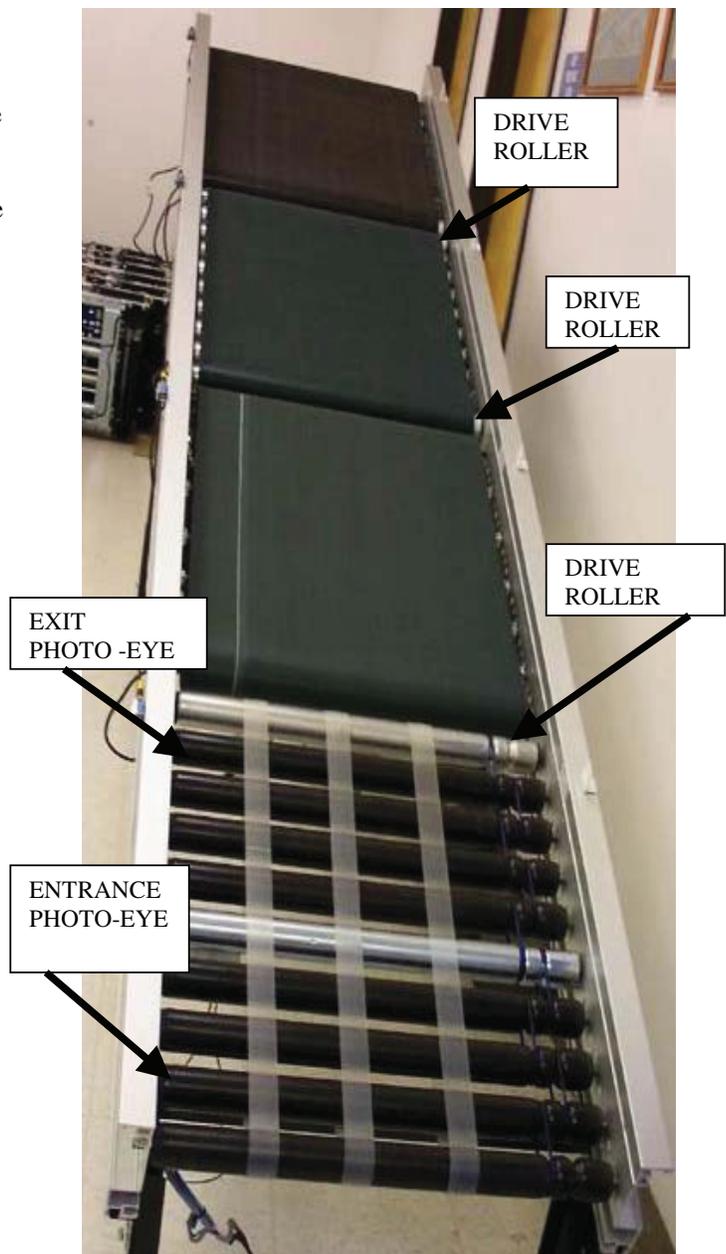
The intelligent conveying system
designed to meet the demands of
the 21st century.

IPS is introducing PQCON-24TM

Belt Conveyors

Pictured on the right is a ten-foot (120inch) Zero Pressure Accumulation incline conveyor QCON-24. The conveyor is divided into four 30-inch zones. The first zone is a three flat belt zone. The drive roller is positioned at the down stream end. The idler rollers are connected to the drive roller with o-rings the same as in a standard 30-inch roller conveyor zone. Each idler roller is PVC coated to aid in moving the container up the incline. In addition three flat belts are installed around the rollers in that zone. These will also aid in moving a container up the incline. The other three zones are 30-inch belt zones. Two drive rollers, one at the tail end and one at the head end drive each zone. The belt has a V-Guide at the bottom that falls in the standard roller groove for belt tracking. In between drive rollers, idler rollers are used to create belt on roller zones.

The belts or rollers in each zone move only when a container is entering the zone, passing through the zone or exiting the zone. This is accomplished through the interaction of the entrance and exit photo eyes in each zone, the conveyor PLC program, and the motor control cards and drive motors in each zone. When a container enters a zone, the photo-eye beam is interrupted. The sensor applies a high signal to the PLC input for the motor control in that zone. This results in the PLC applying a drive voltage to the drive motor for that zone through the drive motor control unit. The high applied to the PLC also turns on a red indicator on the PLC during the time the sensor beam is interrupted. When a container leaves a zone, the photo-eye beam is no longer interrupted. This results in a low signal applied to the PLC input. However, the motor is not immediately turned off. The PLC is programmed such that when the container moves far enough through the zone that it no longer breaks the photo-eye beam, a high signal is temporarily maintained at the Q output of the present zone. A high signal is also applied, via data lines, to the Q output of the next upstream zone. This ensures that the container will clear the present zone and enter far enough into the next zone to break the photo-eye beam in that zone. This action is repeated as the container moves through each zone of the conveyor.



BELT CONVEYORS

Specifications

Basics

Frame: Extruded Aluminum Side Frame 7" high x 1.625" wide. Pre-punched Hex holes on 1" centers will provide the ability for 1-2" hard skewing.

Supports: are mounted on a special mounting cavity running the length of the conveyor. This eliminates the need for holes.

Idler Roller: Spring loaded on both ends for ease of installation and removal.

Drive Roller: 15,000 hours continuous running. Ends are secured by special fittings that protect the Hex Holes from distortion.

Components

Power Supply:	Input voltage/freq:	90-260 VAC, Switched / 47-440 HZ
	Output Voltage:	Single output 24 VDC
	Overload Protection:	105 - 150%
	Over Voltage Protection:	115 - 135%
	Working Temp/Humidity:	0 to 50 degree C, 20% to 90% RH
	Safety Specification:	UL1012
	EMC Specification:	CISPR22 (EN55022) Class B, IEC801-1,2,3,4 IEC555-2

Motorized Roller: Brushless 24 VDC with inline 5.5 in-lb gearbox that are housed inside 1.9" tube. The motor has a controller that is equipped with dynamic braking for the accurate stoppage of the object. (30-240 FPM Adjustable speed).

Idler Roller: 1.9" outside diameter, spring loaded on both sides. Slaved via 3/16" urethane O'ring to the motorized roller.

Sleeves: Rollers can be covered with tapered sleeves for the curves, or straight sleeves should higher friction be needed such as inclines.

Roller Centers: The rollers are at 2", 3", 4" and 6" centers.

Direction: The motorized rollers can be reversed locally or via a remote device such as PLC analog output or variable resistor.

Operating Modes: Singulation, Train modes, and normal transport mode.

Live Load: 100 Lb per Zone (motorized roller).

Noise: With Atmospheric (background) noise 55 dba, 55-58dba @ 1 meter and 60-62dba @ 1 foot.

Modules

Straights: 2.5', 3', 4', 5', 6', 7.5', 8', 9', 10', 12' Independent or Electrical Slave Modules.

Curves: 30°, 45°, 60°, and 90° Modules.

Merge: 30° Degree Left hand and Right hand Divert Modules. Offered on short and long primary.

Divert: 30° Degree Left hand and Right hand Divert Modules. Offered on short and long primary.

UBT or RAT: Right-Angle-Transfer comes in variety of widths and lengths to match the straight modules.

Incline: 18° Incline modules with variety of lengths.

Decline: 18° Decline modules with variety of lengths.

Widths: 14", 15", 16", 17", 22", 24", 28", 30". Other widths will be considered on special request.

Intelligent Package Systems

A Division of M2L Systems, LLC

2122 113th Street

Grand Prairie, Texas 75050

Tel: 214-412-1400 Fax: 214-412-1403

WWW.QCON-24.COM

Email: Sales @ IPS-24.COM