

TRANSFERS and Accurate Product Positioning Applications

(Please consult New London Engineering with these applications)

These 400 series belts are primarily used in applications where products are being transported on larger production lines in various manufacturing operations, bottling plants, warehousing & distribution facilities and parcel freight facilities.

INTRALOX BELT SERIES	PRIMARY APPLICATIONS	TYPICAL APPLICATIONS AND PRODUCTS
 <p>400 Angled Roller Top</p>	<p>The rollers on this belt protrude beyond both the top and bottom of the belt and are skewed / angled at 30 degrees from the direction of belt travel. As the belt moves across the conveyor's surface, friction from this surface drives the rollers causing them to spin and then steer the product in the direction of the rollers.</p> <p>(See the 400 Angled Roller Applications on the next page.)</p>	<p>Accurately aligns boxes, cases, packages and luggage so they can be scanned, inspected, bar coded, labeled, off-loaded, or loaded with product.</p>
 <p>400 Ball Bent</p>	<p>This belt is used for high-speed 90-degree transfers. These balls protrude beyond both the top and bottom of the bottom of the belt. Product movement is controlled by driving the balls with a perpendicular secondary conveyor placed underneath the carry way of the main belt. Since the secondary conveyor controls the speed and movement of the product from below the main conveyor, there is no need to worry about the diverting mechanism's recycle time. Since this system has no diverter recovery time, it's the ideal choice for high-speed transfers. (See Transfers (Sortation) below.)</p>	<p>This belt is used for high-speed 90-degree transfers.</p>
 <p>400 Transverse Roller Top</p>	<p>This belt is used to transfer very heavy products with surfaces that typically don't slide very well 90 degrees. The rollers on this belt protrude beyond the top surface of the belt only, and are positioned opposite the belt's direction of travel. Products are then transferred on these rollers. This low friction configuration provides the mechanism to transfer heavy products. (Note roller direction.)</p>	<p>Ideal for the 90-degree transfers of heavy products like luggage, tires, filled cases or pallets. Also good for products like furniture or appliances and any product conveyed on slip-sheets.</p>

SERIES 400 ANGLED ROLLER APPLICATIONS (See illustrations of these applications on the next page)

Case Turning	Cases are typically turned to apply or read a bar code or to align them to be loaded or unloaded. Existing roller conveyor technology relies on the momentum of the case to execute a full turn. Interruptions in momentum often cause cases to skew rather than to completely turn, resulting in jams down stream. The series 400 roller belts ensure a complete case turn even if the conveyor is stopped and restarted (interrupted) in the middle of a cycle.
De-palletizing	The advantage of using the series 400 angled roller belt for de-palletizing is that the large 2" pitch rollers are capable of handling an infinite variety of case sizes and types. Cases can also be loaded onto the belt in groups to be descrambled and sent down the line. Typical roller conveyor de-palletizers can descramble cases only one by one. In this application, two series 400 angle roller top belts are placed side by side with the rollers pointing toward the center of the conveyor to create a singulation conveyor which centers cases into single fine line. The speed and consistency of this system is ideally suited for robotic loading applications.
Merging	A traditional roller conveyor merge relies on momentum to orientate the case to its desired location at the merge. This momentum is often not strong enough to combat the friction from the accepting belt causing cases to misalign and jam, resulting in bar code misreads and lowered production due to package recirculation. With the series 400 angled roller belt, products are moved on the protruding rollers, virtually eliminating friction and insuring a proper merge every time. Another advantage of this system is it can accommodate several infeed lines from a variety of merge angles with various size packages all at once.
Center Line Merges / Singulation	Current roller conveyor technology often uses a "plow" type mechanism to center or align cases. Often cases come into contact with "plow" prior to reaching the throat of the take-away conveyor causing a line jam. In a center line merge, two series 400 angle roller top belts are placed side by side with the rollers pointing towards the center of the conveyor to create a singulation conveyor which centers cases into a single file line.
Transfers (Sortation) (not shown)	This is a two-conveyor application. A secondary conveyor is placed underneath the carry way of the original series 400 belt conveyor. A photo eye signals the secondary conveyor to activate and transfer the product. This system accurately sorts various shapes and sizes of packages to multiple angles all at once.

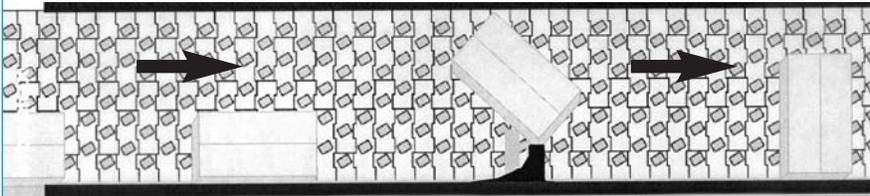
Belt Specifications

INTRALOX BELT SERIES	PRICE COMPARED TO ALL PLASTIC BELTS**	PRICE COMPARED TO BELTS IN THIS TABLE**	BELT MATERIAL	BELT PITCH	BELT THICKNESS	ROLLER SPACING ACROSS WIDTH OF BELT	ROLLER SPACING DOWN LENGTH OF BELT	ROLLER DIAMETER	ROLLER LENGTH
400 Angled Roller	\$\$\$\$\$	\$\$\$\$\$	PP*	2**	5/8"	2"	2"	.8"	.9"
400 Ball Bent	\$\$\$\$\$	\$\$\$\$\$	PP*	2**	5/8"	2"	2"	1" Round	1" Round"
400 Transverse Roller	\$\$\$\$	\$	PP*	2"	5/8"	2"	2"	.7"	.8"

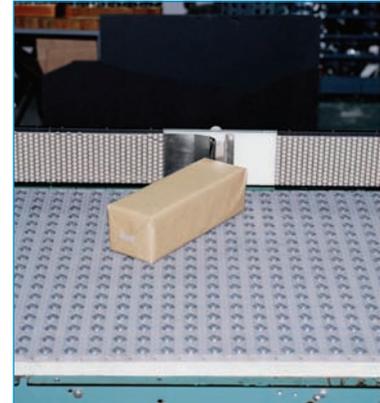
(*) (**) See Definition Page on page 136

TRANSFERS and Accurate Product Positioning Applications

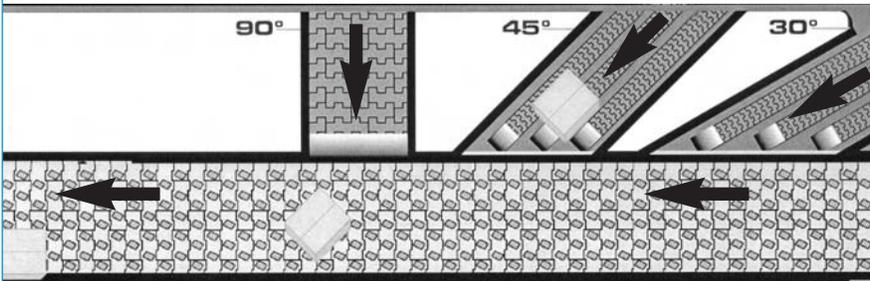
Case Turning



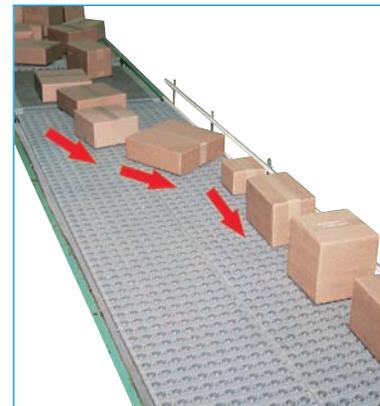
The angled rollers direct the boxes to the edge of the conveyor. The boxes then turn as they hit the case turner.



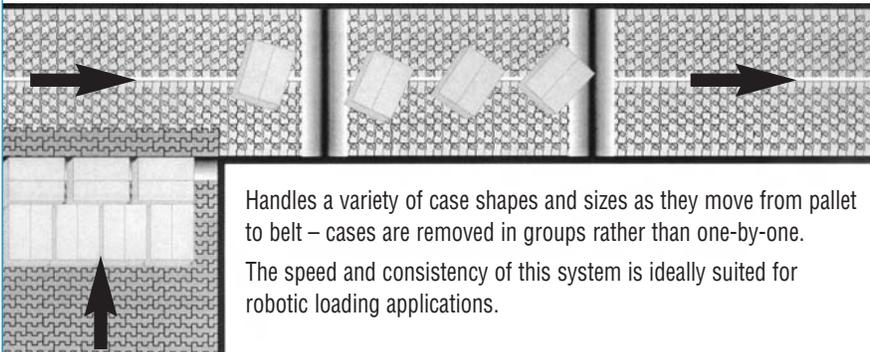
Merging



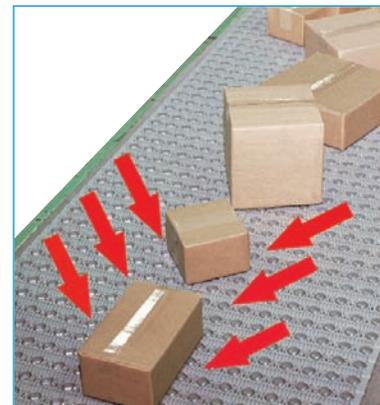
This system properly merges and orients packages of a variety of sizes and shapes, accommodating several infeed lanes from a variety of merge angles. The spinning rollers direct the products to the conveyor edge.



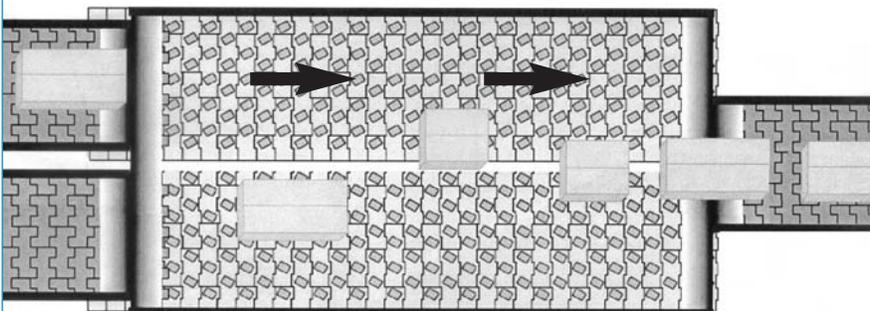
Depalletizing



Handles a variety of case shapes and sizes as they move from pallet to belt – cases are removed in groups rather than one-by-one. The speed and consistency of this system is ideally suited for robotic loading applications.



Center Line Merge



The two side-by-side angled roller belts direct products to the belt's center.

