Spotlight

Hytrol's Model ART is a uniquely-designed modular plastic belt conveyor. The modular belt is unique in that it is fitted with rollers having diameters extending through both the top and bottom surfaces of the belt. As the belt is moved along the conveyor, these rollers rotate and convey the load at a higher speed than that of the belt. Furthermore, these rollers are positioned at an angle to the belt length so as to convey the load angularly to the conveyor length. This enhanced speed and angular product flow on the Model ART makes it the ideal conveyor for many material flow challenges.



~ product merging ~ product descrambling

APPLICATION - "WORKS OF ART"

Product Justification

Products may be justified either to the right or to the left as they are conveyed on the Model ART. Simply install the angle roller top belt with all rollers angled to the right or to the left and products may be justified against a low friction guard rail as they are conveyed. Products travel approximately 50-60% faster than the belt travels, depending on friction of the product on the guard rail.

FLOW		



Product Centering

Products may be centered as they are conveyed on the Model ART. For product centering, two belts are installed side-by-side with each having rollers set at opposite angles and angled toward the center in a herringbone fashion. Products travel up to 60% faster than the belt speed and exit the Model ART in the center of the conveyor width.



Product Merging

The Model ART may be configured for merging products from multiple parallel conveyor lines into a single line or from conveyor lines positioned at an angle to a main trunk line and located at various positions along its length.

Merging Multiple Conveyor Lines

Conveyors feed product onto an ART with rollers angled in a single direction for offset discharge or onto an ART with two parallel belts with rollers angled toward the center for a center discharge.



Merging at Various Locations along the Conveyor Length

In many situations the ART can provide simple merge solution without the cost of electrical merge control. When merging products enter the main line next to an existing product, they simply compete for the same location until one moves ahead and the other falls behind. The speed of the main line must be sufficient to provide adequate gaps in order to accommodate the merging product at any point. The following diagrams illustrate some possible configurations of merge applications.





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Product Descrambling

Many times products get scrambled or side-by-side when being conveyed. This is especially true when handling small or unevenly weighted products, particularly at high speeds. This presents a real challenge when the need arises to sort these scrambled products. The Model ART can be utilized very effectively in descrambling products prior to sort operations when other methods may not be cost effective. The configuration of the ART or ART system will vary depending on the particular throughput demands and product sizes that need descrambling. The following diagrams show a few possible layouts for effectively descrambling products.







Hytrol Conveyor Company, Inc. • 2020 Hytrol Drive • Jonesboro, AR 72401 870.974.5642 • www.hytrol.com