



DYNAMIC CONVEYOR
CORPORATION

Raising ROI with Reconfigurable Conveyors

Go with the flow: The Three R's

People often say “go with the flow.” But what if the flow becomes too slow or inflexible? Then it's probably time to start thinking about the three R's: reuse, reconfigure, and repurpose.

You can easily get up to speed by converting your line operations to the modularized reconfigurable conveyor concept and make the flow go.

Since its 1990 introduction, this technology has achieved steady growth – and for good reason. Workers can conclude a production run and quickly convert that same line to accomplish a different task by altering the line's length, directional angle or horizontal-vertical orientation. Simply remove the appropriate module and insert another one. In some cases, a belt adjustment might be required. That's it.

Downtime to reconfigure a conveyor is minimal, occupying mere hours vs. the conventional method of taking days to remove and replace a system. In fact, two people can install or reconfigure a conveyor within hours, not days like traditional conveyors that require installation crews.

Bethel, VT-based GW Plastics Inc., a leading supplier to the automotive, health care and consumer/industrial markets, says it has realized roughly \$72,000 in annual labor costs due to the increased efficiencies offered by its reconfigurable conveyor lines.

The reconfigurable conveyor's inherent modularity offers the long-term ability to continually add to or alter the system as a company's operations expand or are re-focused.

“When you purchase a modular conveyor, you're actually buying a series of units to build a conveyor,” says Brett Huster, engineering manager for Bridgeton, MO-based injection molder C.A.P.S. Inc. “It's up to the customer to decide on how he puts them together. We use them in several different configurations, but also change them or move them whenever the need arises.”

The benefits of plastic

A key aspect of the reconfigurable conveyor system is its plastic construction, making it much easier to clean than its metal counterparts. Plastic can be cleaned with water or detergents without risking rust, which might prove quite important to certain applications, such as food packaging.

One of the main reasons we bought a reconfigurable conveyor system was because it is durable plastic (polypropylene and polycarbonate) and noncorrosive,” says Dan Duchamp, president, Gulf Coast Wire Products Inc., Kaplan, LA.

Plastic conveyors are replacing metal conveyors in many applications. Plastic flexes while steel remains stiff. If a plastic conveyor is damaged, only the broken pieces need replacement, not the entire conveyor.

“The modular conveyor systems enable us to get our blow-molded products to the packers in better shape,” says Mark Evjen, R&D engineer, Custom Bottle Inc., Naugatuck, CT. “Also, productivity is significantly higher because we don't have conveyor downtime. Servicing the

new modular conveyor is much simpler and faster and they usually have the parts on hand or can get them overnight.”

The system’s belts are constructed of interlocking links, so if a belt is harmed, only its damaged section requires replacement. This easy repair method is relatively inexpensive. Also, most conventional conveyors require regular lubrication and continuous belt tensioning vs. the many maintenance-free modular systems.

Compared to plastic link-style belting, traditional conveyor belts (such as PVC) are more difficult and time-consuming to install and service; require frequent realignment; and are harder to clean.

“In the end, once a solution is evident, cost of ownership is the main question” says Tom Taylor, Director of machinery division at Sharp Packaging Systems, Inc. in Sussex, WI. “We needed to fit into a specific pricing structure, and Dynamic Conveyor offers the lowest cost of ownership plus the most flexible and reliable conveyor system that we could find.”

Lasts a lifetime

Servicing a reconfigurable conveyor with link-style belting is a snap. Simply remove the two side panels from the end module, pull out a pin, and then unlace the belt and remove it. Plus, belt replacements can be made for reasons other than repair. A variety of belt styles are available to fit any need: flat, cleat, rubber top, and porous.

“A conveyor’s cost can be far greater than the purchase price,” You have to figure in the benefits, the things you can do with it, and the things you don’t have to do, such as maintenance.” says Gulf Coast Wire Product’s Duchamp.

Motors are also maintenance-free and so efficient they will save on electric power consumption all day long, year after year. It is perceived that weight and horsepower of conventional fixed-length metal conveyors results in durability and reliability. In reality, those vintage designs are becoming outdated due to their unnecessary energy consumption and their lack of flexibility.

“Our modular conveyor system grows right along with our business because it works on every product we make,” Custom Bottle’s Evjen says. “It’s very easy to add or remove sections and accessories as needed, such as extended sides and cooling fans. If we decide to run two machines into one conveyor system, I can extend the length of the conveyor easily. Everything is easy. Whatever the situation calls for, there is usually a very easy way to do it.”

Reconfigurable conveyors start to save money from the initial set-up. Consider a company that provides its shop floor layout to a reconfigurable conveyor supplier so a system can be designed to work within the operation’s available space. After purchasing and receiving the conveyors, the company finds it miscalculated. No problem: simply remove a module or two, shorten the belting and reassemble the conveyor. With a conventional conveyor in that same situation, company leaders would be faced with what amounts to fitting a square pet into a round hole.

“One of the things we like best about the system is that you can reconfigure it so easily,” Huster says. “Because you buy it in any number of sections you want, you won’t outgrow the system, because it grows with you.”

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