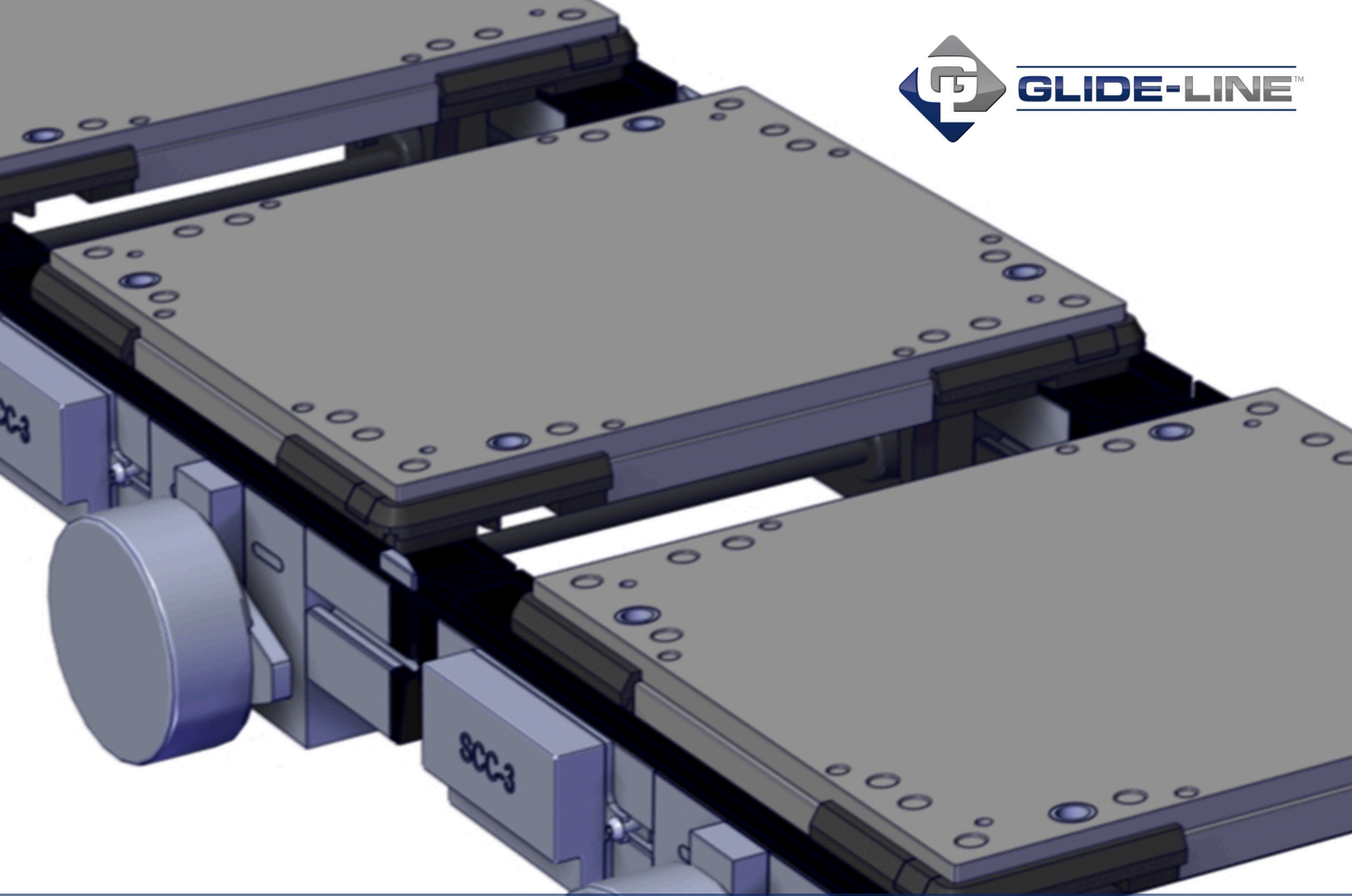




GLIDE-LINE™



INDEXING AND POSITIONING

HOW TO **REDUCE DAMAGE,**
HAVE SMOOTH MOTION
& SECURE YOUR PRODUCT
ON THE CONVEYOR LINE

Just imagine you're building a conveyor system for fragile products. Let's say, glass tubes. The items are placed in a pallet, but unsecured. The typical accumulation method has been your go-to in terms of conveying. But accumulation has one big flaw.

Bang. Crash. Boom.

The first pallet hits a hard pneumatic stop. Subsequent pallets join in the fun. What do you get? Pallet after pallet of potentially damaged product. But what if we told you there was a cost effective and much more elegant alternative to traditional accumulation techniques like this? Would you be interested?

In this eBook, we will show you how Glide-Line's Zero Contact Zoned Conveyor solution can relieve many of your pain points while building the right conveyor system:

- How Glide-Line Zero Contact Zoned Conveyors Minimize Product Damage
- Why The Zero Contact Zoned Conveyor's Embedded Controls Ensure Smooth Motion
- Securing Your Product: Specific Solutions For Your Product Type



What Are Indexing and Positioning?

Indexing is the process of moving product from one predetermined position to another in order to complete a series of operations. In the assembly automation world, this consists of moving a work-piece pallet from station to station to complete the assembly process. Using conveyors, this process can be done by turning on the conveyor to begin indexing, and then turning it off when the workpiece pallet reaches its predetermined location.

Because of the precise machining of a work-piece pallet, pallets can be accurately positioned and located via sensors, RFID, or other data carriers when they reach the desired station. When location accuracy is desired for pallet positioning, locating pins can be used to engage the precision locating bushing in our pallets.

How Glide-Line Zero Contact Zoned Conveyors Minimize Product Damage

The Problem With Traditional Conveyor Techniques

In many cases, traditional accumulation techniques are completely fine. But, in other circumstances, pallets bumping into each other is a big issue with traditional accumulation conveyor designs. Single-belt (or chain) conveyors employ hard stops. A delicate product moves down the line, and BOOM! it hits the stop!

The risk comes from the traditional single drive method. With this traditional method, when a product stops, subsequent products start to accumulate. They bang into each other, one by one. BANG CRASH BOOM. Wasted time, money, and effort thanks to a flawed method.

This calls for a more sophisticated handling solution. Instead of relying on a rough single-belt method, controlled handling is another solution to consider. A solution that separates products to prevent damage. With Zero Contact Zoned Conveyor's indexing solution, significantly improved control can be achieved.

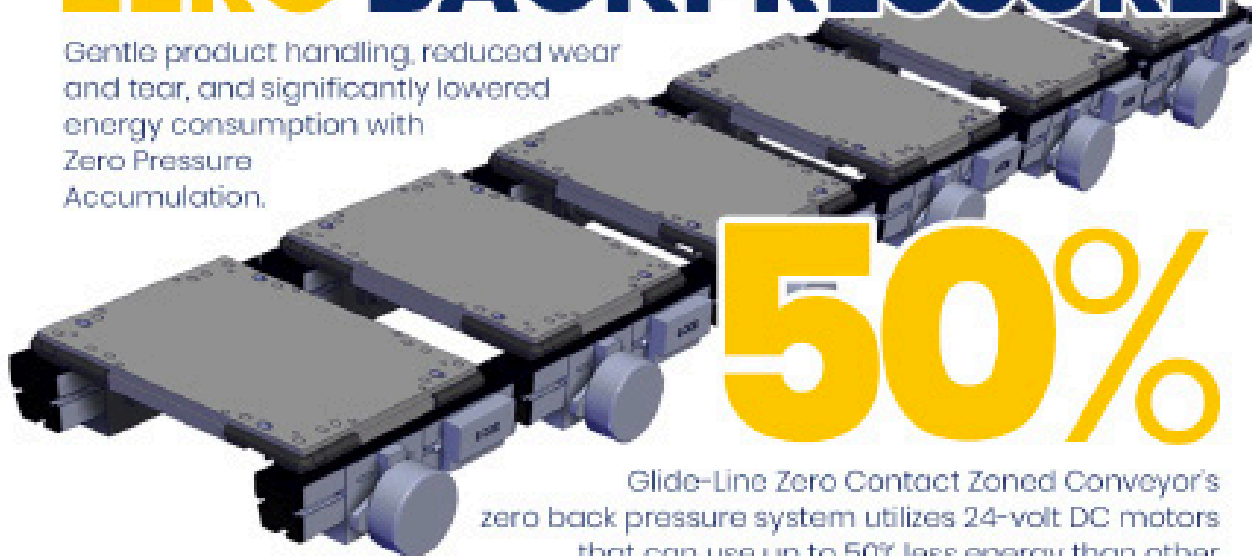
Enter The Zero Contact Zoned Conveyor Solution

Glide-Line's Zero Contact Zoned Conveyor solution eliminates the issue. Zero Contact Zoned Conveyors have built-in accumulation logic. This allows automatic indexing of products zone by zone, moving product from station to station. This alone makes Zero Contact Zoned Conveyor a better choice for production line conveyor systems. For controlled speed, Zero Contact Zoned Conveyor's analog input functions can provide a wide range of manual acceleration/ deceleration.

HOW TO **REDUCE DAMAGE** TO **PRODUCTS ON CONVEYORS**

ZERO BACKPRESSURE

Gentle product handling, reduced wear and tear, and significantly lowered energy consumption with Zero Pressure Accumulation.



Glide-Line Zero Contact Zoned Conveyor's zero back pressure system utilizes 24-volt DC motors that can use up to 50% less energy than other traditional conveyor motors as they are more efficient and "run on demand"

ZERO PRODUCT CONTACT

Individually managed accumulation zones ensure a minimum 2" gap between products, providing extreme product protection.

ZERO FRICTION

Zero pressure accumulation eliminates wear and tear due to friction. Product-to-belt friction is completely eliminated. Belt to wearstrip friction is reduced dramatically.

ZERO COMPROMISING

Individual conveyor zones operate only as needed, exactly as needed. Stop compromising on product handling; use the Glide-Line ZP instead.

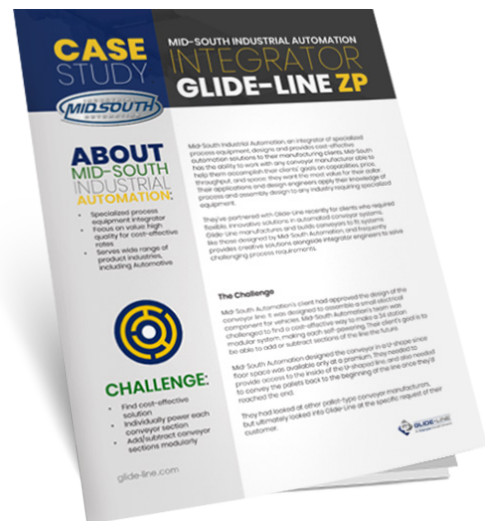
Zero Contact Zoned Conveyors are not “single belt.” Instead, separately-zoned conveyors carry products from station to station. There is always a fixed amount of space between zones. This means products do not touch each other. This makes the Zero Contact Zoned Conveyor a great alternative to traditional single-drive methods.

In addition, our typically solution avoids the use of hard stops (except in areas where precise location is needed, and we typically control the deceleration in these areas). Instead, we go with a more elegant approach. Each zone uses a sensor. When a pallet enters a zone, the sensor is triggered, which tells the conveyor to stop immediately and the zoned conveyor’s dedicated DC motor shuts off. The separately-zoned conveyor gradually decelerates until it makes the stop.

The triggering of the sensor also stops subsequent pallets upstream. This prevents them from doing the “bang, crash, and boom” associated with traditional techniques. Our Zero Contact Zoned Conveyors run only as needed. Separate zones prevent product contact. This eliminates the risk of damaging your product.

[Glide-Line’s Zero Contact Zoned Conveyor indexing solution addresses pain points caused by traditional accumulation conveyors.](#) By using conveyor indexing with our zoned conveyors, product damage is eliminated, and smooth handling is ensured.

We have a relevant
CASE STUDY
you can check out!



Zero Contact Zoned Conveyor Indexing Conveyors in Action

Here is a real-life example of how our Zero Contact Zoned Conveyors improved an end-user’s operations. An electronic component manufacturer required high precision and pallet control in their robot assembly process. With the products conveyed being small and fragile, there were concerns about product damage control. Non-indexing applications could give way to vibration and jarring, damaging the products.

To solve this user's issue, we provided a customized Zero Contact Zoned Conveyor solution. This solution consisted of individual DC-powered conveyor sections per station. Using our DC motor controllers and sensors, the customer could control transitions from station to station. All of this was done without the use of hard pneumatic stops.

Our Zero Contact Zoned Conveyor solution provided the control and precision required to eliminate product damage. All of it was achieved with an elegant and cost-effective design. No matter your end-user's requirements, we can build a similar system using the Zero Contact Zoned Conveyor solution.

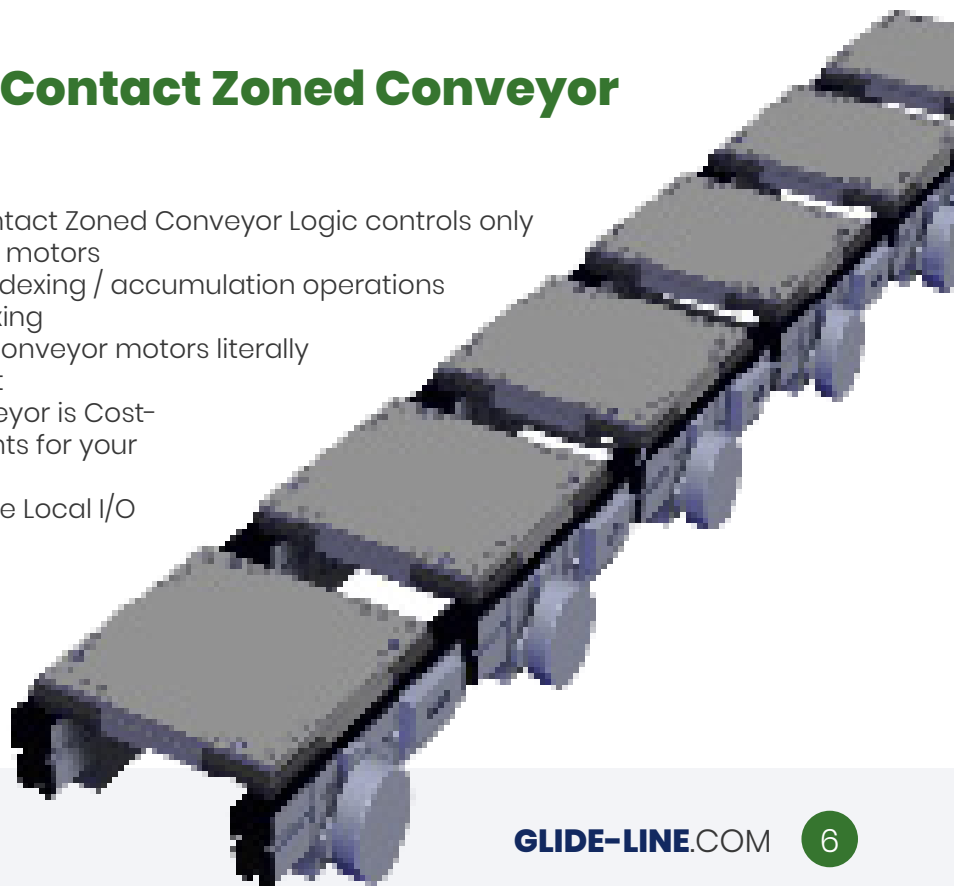
Why Zero Contact Zoned Conveyor Automated Controls Ensure Smooth Motion

When deciding on the right **indexing conveyor**, automated control quality is top of mind. Our DC driven, stepper or servo-driven indexing conveyors use a tooth belt and steel-tensioned member-based timing belts. This design provides smooth handling and better control, along with precision control.

Most users use their own PLC controls for their conveyor systems. The Zero Contact Zoned Conveyor system comes with its own indexing logic controls which can save a lot of money and time on hardware, code development, and field wiring – saving additional PLC code development time.

Key Benefits of Zero Contact Zoned Conveyor Controls

- Easy installation—Our Zero Contact Zoned Conveyor Logic controls only require a power source for the motors
- Zero Programming for basic indexing / accumulation operations
– Only need to wire up for Indexing
- Robust—Zero Contact Zoned Conveyor motors literally consist of a single moving part
- The Zero Contact Zoned Conveyor is Cost-Effective—reduced requirements for your control system
- Manual Control Option—Use the Local I/O to override automatic logic



Securing Your Product: Specific Solutions For Your Product Type

Delicate Products Call For Delicate Solutions

Typical conveyors require products to fit securely on pallets. But our Zero Contact Zoned Conveyor solution offers a variety of conveyance options. Say you are transporting unfastened products on a pallet. A good example would be surgical instruments. Or, perhaps you're moving a product with ancillary components (such as auto parts with pieces that hang down). In both situations, you need a customized solution to ensure smooth product handling.

With the Glide-Line Zero Contact Zoned Conveyor, you can still safely convey products if they fit poorly on the typical work-piece pallet. This could cause havoc with a traditional system. But with the Zero Contact Zoned Conveyor, moving unfastened products is a piece of cake.

Why Traditional Methods Don't Cut It

On a typical conveyor system, deceleration is rough. The pallet makes a jarring stop. This may work for secured pallets, but for fragile products, this could be a problem.

This is also a concern when moving products in a semi-complete state. Say you're moving a product while it is curing. Rough handling could impact the process, ruining the incomplete product. How about partially assembled products? Rough handling could easily bring you back to square one. There are many ways products can be ruined with traditional conveyor techniques.

Why The Zero Contact Zoned Conveyor is A Solid Choice For Moving Sensitive Products Between Stations

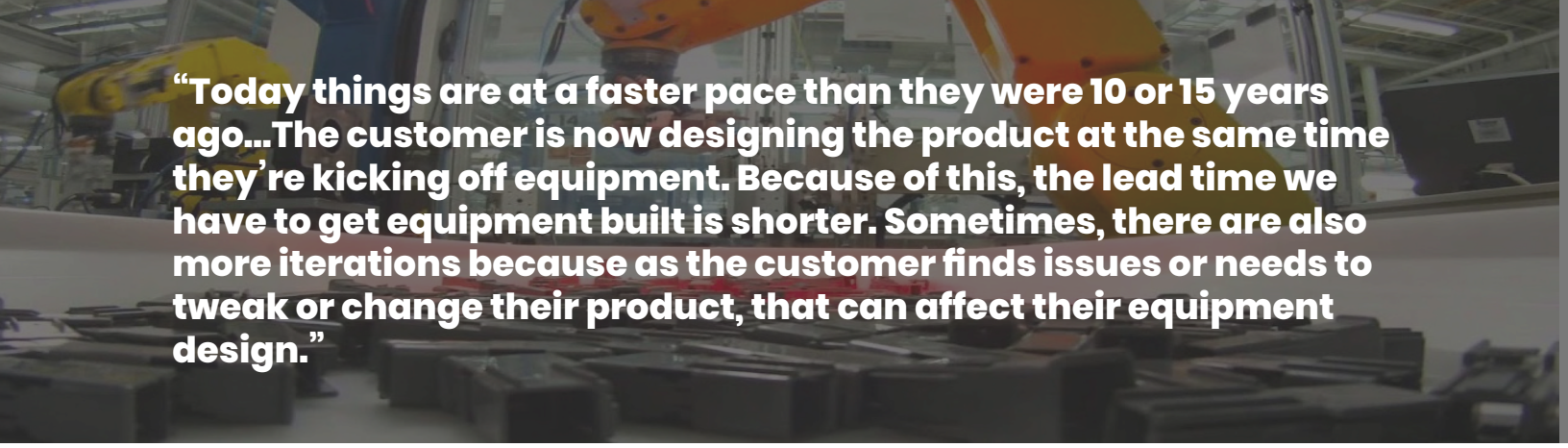
The Zero Contact Zoned Conveyor gives you more controlled movement along the assembly line. With a greater level of controls, sensitive products can more easily move from station to station. These benefits extend beyond partially completed products. Completed products that are fragile also benefit from the Zero Contact Zoned Conveyor solution.

For example, take medical products such as surgical devices. These types of products travel via a pallet, but are typically unfastened. Without hard stops, Zero Contact Zoned Conveyors provide smoother handling. When a zoned conveyor reaches a stop on the line, it turns off automatically. This allows the zone to slow down gradually before stopping.

Across many types of sensitive products Zero Contact Zoned Conveyor proves itself as a great alternative. With traditional accumulation techniques, products bang into each other. With the Zero Contact Zoned Conveyor, this risk is eliminated.

Glide-Line Can Help You Build The Right Solution

Life moves fast in the manufacturing space. As Jason Flynn (Applications Engineer and Account Manager at Mid-South Industrial Automation) said in our recent case study:



“Today things are at a faster pace than they were 10 or 15 years ago...The customer is now designing the product at the same time they’re kicking off equipment. Because of this, the lead time we have to get equipment built is shorter. Sometimes, there are also more iterations because as the customer finds issues or needs to tweak or change their product, that can affect their equipment design.”

Here at Glide-Line, we understand this challenge, and offer customized solutions to system integrators. We have configured unique solutions for a variety of end users. No matter your specifications, we can build the appropriate solution. You can also choose to configure a solution yourself, using our [IMPACT! configuration software](#).

But don’t take our word for it! Here is what Kevin Hayes, Director at Primetest Automation has to say about working with us:



“The experts at Glide-Line are quick to respond, they’re quick to bring solutions, and they’re quick to help me identify product. They’ve back up everything they’ve told me and brought good product to bear and their solutions are running well in the field. I’m not sure what more you could as for.”

In a fast moving, ASAP-world, Glide-Line is there to provide you with a timely solution that meets your needs. Whether you have an idea in mind, or need our help to configure the right product, we can provide you with the right conveyors for your system.

Thank you for taking the time to download and read our guide. For more FREE information, please check out some of our other eBooks:



And, you can find additional resources [here](#).

Ready To Get Started?

**Contact Us Today To See How
We Can Help You Build an
Indexing Conveyor Solution!**



GLIDE-LINE™

