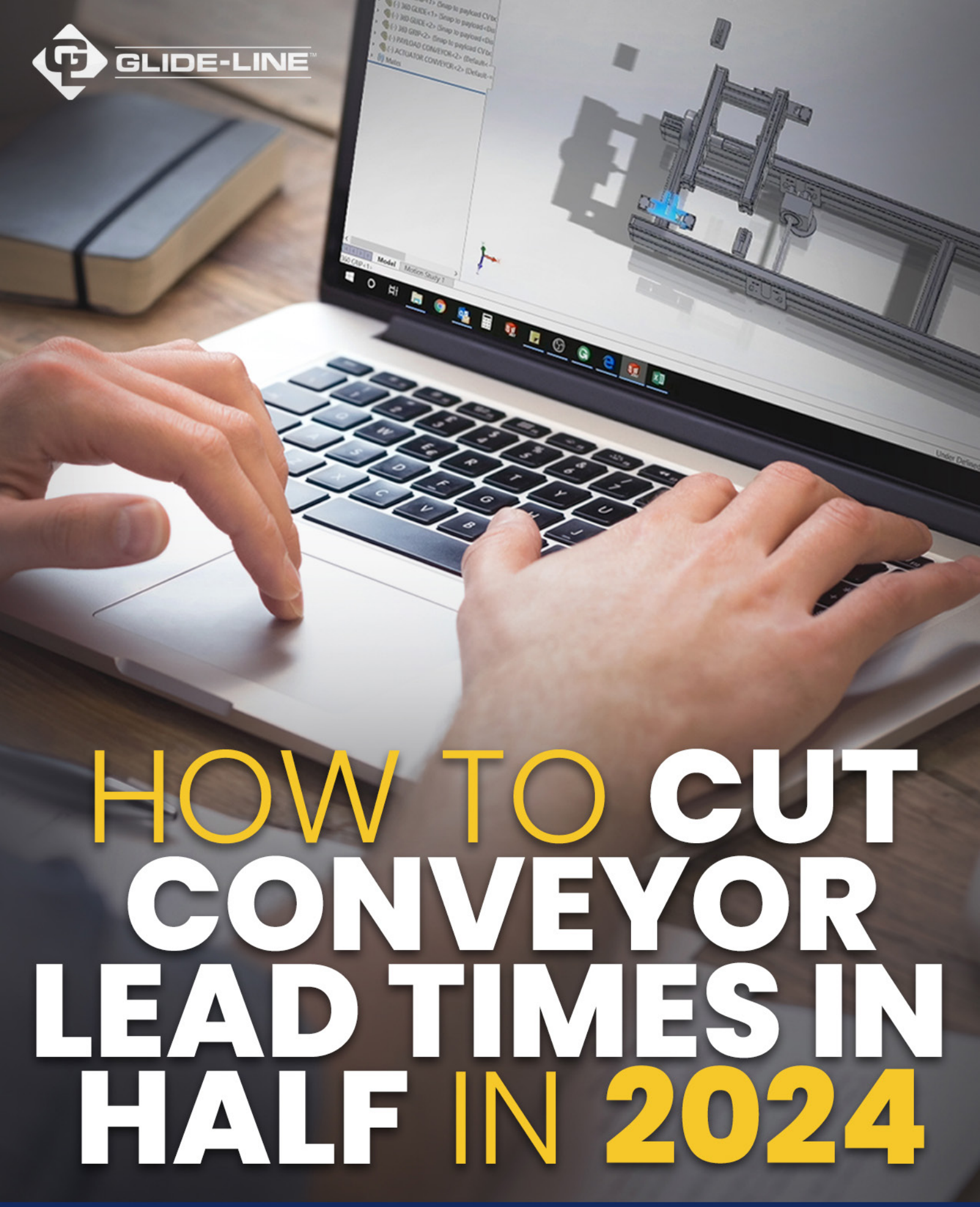

HOW TO CUT CONVEYOR LEAD TIMES IN HALF IN 2024

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INTRODUCTION

If long lead times for conveyor systems are threatening to damage your project timelines and customer relationships, it's time to look for a better way to do things. In this ebook, we'll cover a number of ways you can help cut your conveyor system lead time in half.

What is an unpredictably long lead time costing you and your customers? It's time to take back control. Learn about updated design technology, manufacturing processes dedicated to shortening lead times throughout the process, and conveyor technology that enables shorter delivery and assembly times.

CHAPTERONE

CHANGES IN TODAY'S CONVEYORS COMPARED TO 2 DECADES AGO

Design Technologies

Accurate CAD blocks are obviously required in the world of application design. As you're developing an automated assembly system layout, estimate, proposal, and final design, accuracy could be hindered as conveyor system blocks or configurators that lack flexibility, innovation, or generally slow you down. Traditional configuration tools haven't changed in the past ten years. They still require multiple phone calls to sales representatives at the manufacturer, downloads from a website, engineering involvement to double-check measurements, obtain accurate blocks, and part numbers, and they generally lack innovative solutions for complex problems. What's worse, if you need a solution that doesn't currently exist, you could be looking at expensive customizations for your automation system.

Today, 100% configurable conveyor technology software lives locally on your own computer and interacts directly with SOLIDWORKS. When you update details on your layout, the configurable conveyor technology software dynamically updates part numbers and pricing instantly from the millions of SOLIDWORKS configurations available. It even provides tools to evaluate the application itself. The updated process using an in-context configurator cuts down your pricing and design process significantly while giving you highly detailed and accurate layouts perfect for 3D solid modeling. This in-context configurator, available from Glide-Line, is called IMPACT!.

Manufacturing Processes

In addition to changing how the design process works, IMPACT! also improves the lead time in the manufacturing process. In decades past (and still the case for many manufacturers), once the order is placed, engineers would get involved to check everything that had been requested in every order; the technologies did not speak to one another to make the process faster.

Now, when using the in-context configurator, the wide variety of flexible conveyor models available from Glide-Line can go directly from IMPACT! into a manufacturing and fulfillment system without the need for engineering involvement.

Many parts are modular, and stored on-site, which also shortens the lead time. Additionally, for any parts or pieces machined on command, the configurator gives the information automatically to the machine operations without requiring detailed design or engineering. This is because of the use of parametric models driving machining operations.

Simplifying the designing and ordering processes have shortened the manufacturing and fulfillment lead times across the board for Glide-Line. We're focused on turning around orders as quickly as possible for our clients and their customers.

Conveyor Technology

One of the biggest recent innovations made by Glide-Line has been the expansion of the definition of standard when it comes to conveyor designs and what conveyors can accomplish. Standard conveyors from our competitors are available in a set number of sizes, are built to accomplish a set pattern of movement and are unable to deviate from the intended use case for each conveyor. It's different for Glide-Line, which has opened many opportunities for unique conveyor solutions.

For example, the Glide-Line 360 suite of solutions is so flexible it can solve all sorts of challenges never before considered for a standard conveyor. Our ebook Ultimate Guide to Creating a Flexible Automation Conveyor Application Solution discusses these solutions at length; download it for all the details. From using a lift and rotate conveyor in a VTU, to bypassing using an open center pallet elevator, to lift and locates with open access for operations to the bottom of your product, it's clear that conveyor technology has come a long way, giving applications engineers greater opportunity to creatively solve automation problems.

CHAPTER TWO

WHY LEAD TIMES CAN BE SO DARN LONG

Experienced applications engineers know that lead times can be unpredictable at best, and incredibly long at worst. Waiting weeks for modifications to a design in order to get a quote sets the process off, and then fulfillment, shipment, and assembly of the conveyors can take months. Customizations lengthen lead times even more. No client has time to waste on long lead times for conveyors.

If the conveyor manufacturer's processes aren't focused on shortening lead times, then the experience we've just mentioned is very normal. But it doesn't have to be the case.

Take Glide-Line's process, for example. When you need a flexible conveyor solution – one that takes a standard solution base configuration and adapts it to fit a unique need – Glide-Line's conveyors take the lead. The ability to adapt an existing standard product rather than building and customizing a solution from scratch shortens lead times significantly. Flexible solutions also fit multiple needs, take less time to engineer, manufacture and assemble, are less costly, and can often accomplish your goal more efficiently without compromising the design.

Applications engineers and their clients experience up to 50% time savings by designing using conveyors that are built to be flexible, compared to other manufacturers' available options. And that time savings is even greater when compared to building a completely custom solution from the ground up. We hope you'll reach out to the experts at Glide-Line to find out if they have a flexible solution that requires minimal customization to solve your customer's automation problems - chances are we do!

CHAPTER TWO

ENSURING A FAST LEAD TIME FOR YOUR CONVEYOR APPLICATION

Control Your Process & Timeline

Maintain control over the timeline of ordering and assembling your conveyor application system by carefully selecting a conveyor manufacturer offering nearly unlimited options for creating your conveyor systems. In this chapter, we'll delve into tips to help you control your process and timeline, ensuring a faster lead time for your conveyor application:

- Choose standard instead of custom options.
- Look for a wide range of stock pallet and conveyor sizes.
- Reduce the need for extra engineering time.
- Select pre-assembled conveyors and automated conveyor systems.
- Design using simple controls and parts, including drives.
- Select a manufacturer able to guarantee their lead times.

Choose Standard vs. Custom Options

Choosing from standard conveyor options will cut down on lead time compared to choosing custom options. Most conveyor manufacturers have the ability to customize any part required, but it can double or triple the lead time if the necessary pieces aren't in stock.

If your client needs flexibility or a unique solution, partner with a manufacturer who offers the most standard options to cut down on customizations. Better yet, partner with a conveyor systems manufacturer who has flexible conveyors able to meet any specification you need – that way, the majority of the "customizations" you need are actually standard.

Use the conveyor manufacturer's standard motor, gearbox, lifts, pallet sizes, and belt materials for the most efficient assembly.

Conveyor & Pallet Size

Both conveyor and pallet sizes are within your control to choose and help ensure a faster lead time. Choosing standard sizes for the conveyor manufacturer will speed up the process. If you need a custom factor for these elements, look for a manufacturer with a wide range of available options. Customizations will be minimal so you can work with a high level of configurability instead of struggling with an entirely custom piece.

For example, many pallet conveyor manufacturers offer ten standard pallet sizes. Glide-Line, on the other hand, has twenty times more available sizes. Where one company may offer a 160mm pallet and a 480mm pallet, we offer the 160mm, 161mm, 162mm, 163mm, and everything in between – all as standard configurations. That means a competitive supplier offers 5 width options, and Glide-Line offers 400 "just in that range!" Multiply that by the length option and the fact that we can go as wide as you want, and you can see endless possibilities - all standard!

Additional "standard customizations" from a flexible conveyor system manufacturer like Glide-Line include pallets with holes, slots, or other additions for visibility and easy transfer. These can be easily manufactured to your specifications in way that doesn't negatively impact lead time and saves you steps in the process.

Engineering

Parts of the engineering process can be out of your control when working with a traditional conveyor systems manufacturer. Engineering is involved from the beginning of the design process, when you're assembling conveyor pieces into your conveyor design software. Typically, you're required to reach out to the manufacturing salesperson or manually download CAD models for quotes, model numbers, or conveyor expertise.

Glide-Line has put the control squarely back into your hands through our proprietary software called IMPACT!. This in-context configurator is a better way to deliver accurate, impressive 3D solid model automation.

It cuts down lead time by delivering concepts faster to your clients and project team, eliminating the previously necessary "middle man" of engineering, plus the time it took to go back and forth for accurate pricing and modeling. Read more in our blog post about cutting time spent by using an in-context configurator.

Additionally, engineering is typically involved at the conveyor manufacturer in creating size-dependent parts for a conveyor order. We've created a proprietary process to streamline our parts manufacturing so engineering is unnecessary; when IMPACT! is used to create a conveyor system, the design never has to go through engineering again. We developed and designed our manufacturing process and machinery specifically for modern manufacturing techniques to achieve this.

Assembly

A typical conveyor assembly process requires an engineer to assemble the conveyor from a box of parts shipped to your client's warehouse. Instead of buying an entire conveyor, your client is buying the intermediate sections – chains, belts, cross members, and other pieces. This adds complexity to the overall process and requires this work to be done by you. Customers typically budget an hour a foot to assemble the conveyor once it arrives, dedicate an engineer to supervise the project, and spend the time and labor necessary to complete the assembly.

Instead, look for pre-assembled conveyors shipped from a reputable conveyor systems manufacturer to cut down lead time. You'll see time savings of 25-50% from this single factor.

Simplicity of Parts

This is where choosing the standard options offered by your conveyor manufacturer will play the biggest part in positively affecting lead times. When the design matches a manufacturer's standards, the building, shipping, and assembly of the conveyor all go much more quickly.

When you've selected a flexible conveyor system like Glide-Line's, even more parts are considered standard, such as the length of the conveyor you need. In this case, the belt is cut to order and aluminum conveyor beams are cut to length. These design techniques shorten lead times by eliminating additional design time using IMPACT! and eliminating complex sourcing and fabrication operations often used by other manufacturers.

Conveyor simplicity is another huge factor out of your direct control. But, it heavily impacts lead time. "Simplicity" is effectively the number of parts a typical conveyor uses. This is especially clear when comparing the number of parts used in drives and other devices created by Glide-Line versus some of our competitors.

Simplicity in Drives/Motors and Associated Controls Saving

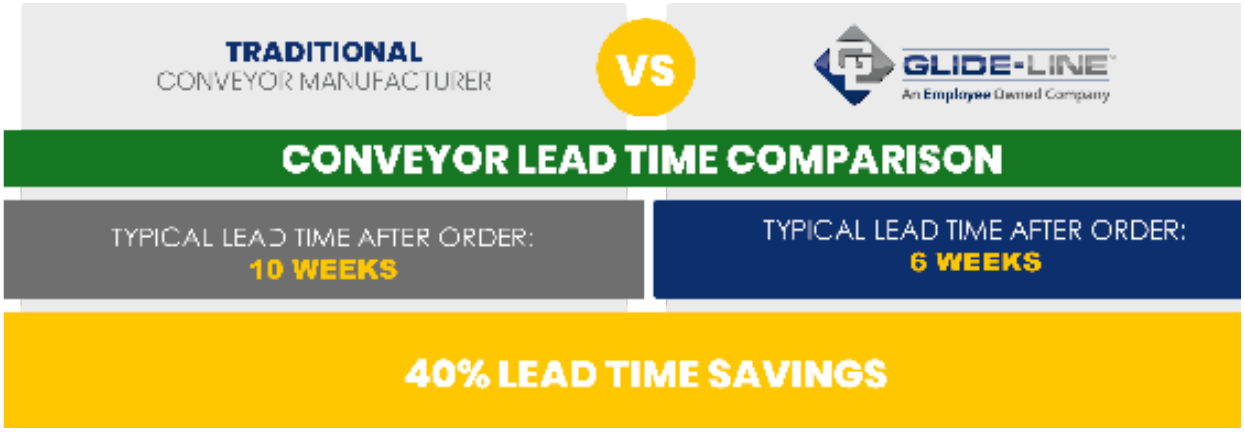
Slave-driven solutions, or power take-offs, in a conveyor application drive delivers savings and shorten lead times.

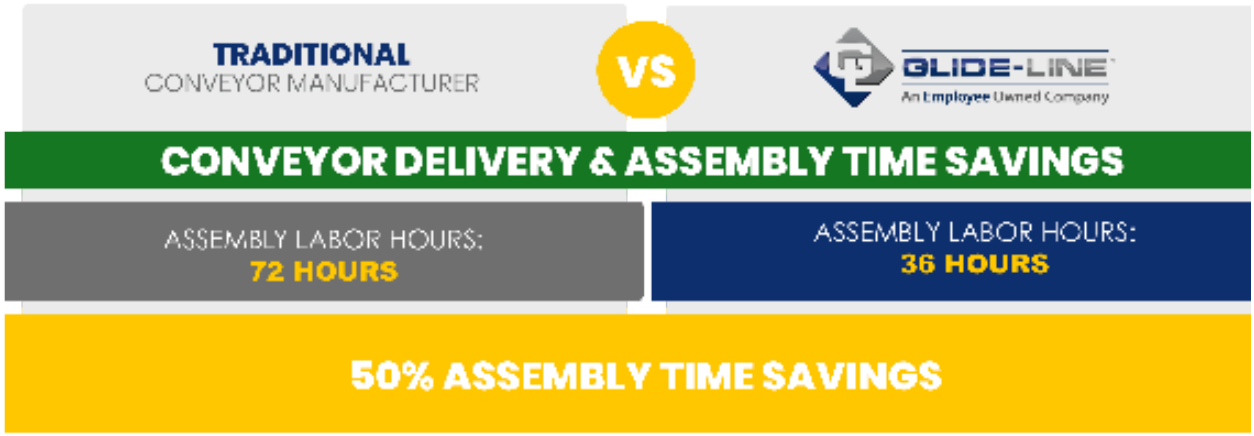
Every conveyor has a drive, and certain devices in an application get their own drives. In a rectangular conveyor loop, there are typically 8 drives. Because Glide-Line uses a timing belt as a conveying belt, we can use as few as 2 drives. Why? The belt conveying the product doesn't stretch. A timing belt has tensile members; we use steel tensile members to keep it from stretching (unlike a normal timing belt, which is similar to a rubber band), which allows us to utilize the belt itself as a power transmission tool.

Because of the way the belt is constructed, instead of just the pulley, we're able to insert a shaft and borrow the power for another device. This is called a power take-off, or a slave-driven solution. Because we use timing belts as our standard, and are borrowing more power, we can use fewer drives throughout the conveyor system.

Now, because we have fewer motors, we've also eliminated the need for the associated motor starters or drivers in the electric panel. This simplifies the number of controllers you have to purchase, wire, mount, and program at a cost of $3K-$5K per motor (including VFD, wiring, code, materials). This can be a savings of tens of thousands of dollars on a typical conveyor system, in addition to the lead time savings due to fewer parts requiring assembly and programming.


TRADITIONAL
CONVEYOR MANUFACTURER
VS
GLIDE-LINE
CONVEYOR ENGINEERING TIME SAVINGS COMPARISON
SIMPLE DESIGN
INITIAL DESIGN USING CAD BLOCKS PROVIDED:
3 HOURS
INITIAL DESIGN USING IMPACT:
15 MINUTES
PRICING PROCESS WITH SUPPLIER:
2 DAYS*
PRICING PROCESS:
INSTANT
THREE SIMPLE CHANGES:
1 HOUR EACH
THREE SIMPLE CHANGES:
5 MINUTES EACH
PRICING PROCESS WITH SUPPLIER:
2 DAYS*
PRICING PROCESS:
INSTANT
6 HOURS ENGINEERING AND
4 DAYS WAITING FOR PRICING
30 MINUTES ENGINEERING AND
INSTANT PRICING
92% ENGINEERING TIME SAVINGS AND
100% PRICING TIME SAVINGS
COMPLEX DESIGN
INITIAL DESIGN USING A CONFIGURATOR:
8 HOURS
INITIAL DESIGN USING IMPACT:
2 HOURS
PRICING PROCESS WITH SUPPLIER:
2 DAYS*
PRICING PROCESS:
INSTANT
THREE SIMPLE CHANGES:
1 HOUR EACH
THREE SIMPLE CHANGES:
15 MINUTES EACH
ONE MAJOR LAYOUT CHANGE:
3 HOURS
ONE MAJOR LAYOUT CHANGE:
1 HOUR
PRICING PROCESS WITH SUPPLIER:
2 DAYS*
PRICING PROCESS:
INSTANT
14 HOURS ENGINEERING AND
4 DAYS WAITING FOR PRICING
3 ¾ HOURS ENGINEERING AND
INSTANT PRICING
73% ENGINEERING TIME SAVINGS AND
100% PRICING TIME SAVINGS
*ALL COMPETITOR TIMELINE ESTIMATIONS ARE BASED ON BEST CASE SCENARIO NUMBERS;
TIME SAVINGS CAN BE EVEN GREATER.





Guaranteed Lead Times

It's important for you and the manufacturer you select to be on the same page when it comes to your lead time needs. With our modular design and simple construction, conveyors and systems can be built and shipped in lead times typically half that of our competition. We meet our clients' tightest deadlines and guarantee the fastest lead times in the industry. In the next chapter, we'll cover the top questions to ensure your manufacturer can meet your lead times, no matter how sharp the turn time needs to be.

CHAPTER FOUR

TOP 6 QUESTIONS TO ASK WHEN PICKING A LEAD-TIME-CONSCIOUS CONVEYOR SYSTEM MANUFACTURER

1 What are the manufacturer's standard conveyor options?

Lead time will be greatly impacted by the number of standard parts versus custom conveyor parts you need in an applications system. If you need both short lead time and variations from the standard norms, look for a manufacturer with the greatest variety and flexibility in their standard conveyor system options.

2 What are the manufacturer's lead times for standard conveyors?

Most conveyor systems manufacturers' lead times from order to delivery are in the 10-12 week range. Typically this can be expedited for a hefty fee.

Partnering with a conveyor systems manufacturer able to deviate from the norms, like Glide-Line, will be most beneficial to your lead time. Glide-Line's manufacturing process is built to shorten lead times; we can ship conveyors in 2 to 3 weeks, and devices such as lifts, lift and transfers, lift and locate stations, and more in 4 to 6 weeks. This cuts lead time in half compared to other manufacturers and saves your client significant time and money.

3 Is there something different in the company's manufacturing process enabling them to produce engineered designs quicker than most?

You'll be able to gauge a manufacturer's ability to innovate with new solutions, new processes, and new customer-focused initiatives based partially on this response. A traditional company will simply speed up and compress a traditional process to accommodate a shorter lead time request, often at the expense of your client (and possibly at the expense of attention to detail). However, an innovative company will have developed a more efficient conveyor manufacturing process to address this frequent concern of applications engineers. One of these solutions is forcing a fit, one is a natural solution.

Glide-Line, for example, has designed their engineering tools and manufacturing process for conveyor systems around customers' desires for a shorter lead time, effectively cutting lead times in half for all standard and configured orders.

4 Can the company expedite materials if needed?

Most manufacturers would answer 'yes' - but your follow-up question should be, "At what cost?" Paying twice as much for expediting may not be worth it to your customer. Instead, look for a conveyor manufacturer with limited cost increases for shortened lead times to minimize the impact to your customer's bottom line, and increase overall ROI of the conveyor system.

5 Is the company responsive to inquiries, requests, and service requirements?

A responsive manufacturer shows in their actions they're collaborative and responsive to your needs and those of your client. Plus, it's obvious that a highly responsive manufacturer will be more responsive throughout the terms of the business transaction, making for an overall smoother experience. When your lead time is already short, you can't afford to wait around for responses from a manufacturer who may not have the answers you're looking for.

6 Is the company responsive to inquiries, requests, and service requirements?

If you can't avoid customizations in your conveyor application, the next step is to seek a manufacturing partner able to deliver customized elements as quickly as possible. Better yet, seek a partner able to deliver configurable or alterable options in less time than customizations.

For example, Glide-Line's 360 series conveyor is built to be as flexible and configurable as possible - the most flexible conveyor on the market today. This means that instead of customizing a conveyor from scratch to meet your client's goal, you're configuring a standard, which significantly cuts down on lead time.

Even if true customization is required in your unique application, an experienced flexible conveyor manufacturer will have built their manufacturing process to be incredibly efficient, cutting down on lead time even for truly customized conveyor solutions.

CONCLUSION

There are a number of ways to significantly cut down your conveyor system lead time, but for the most part, they hinge upon choosing a manufacturing partner who is focused on lead time reduction. With the right partner, you're able to:

- Choose from a wide variety of standard options, instead of customizing to meet your clients' needs.
- Reduce the need for extra engineering time, thanks to an integrated in-context configurator.
- Select pre-assembled conveyors and automated conveyor systems.
- Design using simple controls and parts, including drives.
- Guarantee lead times.

What are you waiting for? Cut your lead times in half this year with Glide-Line.

ABOUT GLIDE-LINE

Glide-Line offers the most versatile multi-strand panel or pallet handling solution available for the assembly automation industry. Our advanced configuration tools enhance the design experience, allowing our customers to configure the Glide-Line product exactly as they need. And, our digital manufacturing process allows for your specific configuration to be built quickly and efficiently, allowing you to meet your project's tight deadlines. Flexible, precise, easy, and fast – that's what we promise. Glide-Line is more than the next step in custom conveyor configuration; it represents the next generation in the conveyor design and fabrication process.

ABOUT THE AUTHORS

Kevin Mauger

Kevin Mauger is the President of NCC and started his career here days after his college graduation in 1994 in the Applications Engineering department. In 2006, he purchased the company, instilled a new philosophy and has grown the company six-times over since.

His vision for NCC is to continually support the entrepreneurial spirit of his team and to create a positive and inspiring culture for both employees and customers. Outside of work, he enjoys spending time with his wife Danielle, children Kyle, Madison and Kelsey, deep sea fishing, and watching his Philadelphia Eagles.

Craig Newberry

Craig Newberry is a Product Specialist for Glide-Line. His past involvement in a variety of competitive sports along with current passion for obstacle course races spills over into his desire to drive business forward. Concurring challenges motivate him on daily basis, while his family fuels his desire to succeed in life. Although a bit of an adrenaline junky, he also tries to live by a brilliant statement made by Ferris Bueller "life moves pretty fast, if you don't stop and look around once in a while, you may miss it."

Ron Schwar

Ron Schwar is the Godfather of Glide-Line. A machine designer by trade, with experience designing everything from bottle cappers to fiber optic embroidered apparel and even unmanned helicopters, he has seen it all. His passion is to develop innovative products for engineers that are easy to design with, easy to design around, and set the bar for industrial automation. He loves a challenge and does anything he can do to make Glide-Line the best it can be.

GLIDE-LINE™