



**Triple/S Dynamics**



# **How to Choose the Proper Vibratory Conveyor for Your Needs**

Mechanical conveyor systems are a critical component of material handling, offering an efficient and cost-effective method of transporting substances between and within processing centers. Although many systems rely on simple conveyor belts, rollers, or chains, other methods are available for applications with more particular requirements. For instance, vibratory conveyors, which use controlled oscillations to move their contents forward, make it possible to screen, stratify, or level materials as they are transported, making them an ideal option for powders, granules, and other loose materials.

At Triple/S Dynamics, our goal is to match every single client to a conveyor system that meets their unique needs. Our range of vibratory conveyors includes options for everything from delicate food products to heavy aggregates, offering a solution for every sanitary and industrial application.



## Types of Conveyors

We offer a diverse array of conveying systems, including traditional vibratory conveyors as well as our low-impact Slipstick models, which feature gentler, non-impact conveyance patterns. Each system is highly configurable, with extensive size and component options to accommodate diverse needs.



# Horizontal Motion Conveying and Vibratory Conveyors

Available in a variety of lengths, widths, and configurations, horizontal motion vibratory conveyors offer smooth motion ideal for fragile products. Triple/S Dynamics was the first to bring horizontal conveyors to the market, and our systems are still unsurpassed in terms of performance and longevity.

Most vibratory conveyors throw their contents forward in small increments, which can cause delicate items to break or bruise. By contrast, our horizontal motion conveyors replace the aggressive bouncing with slow advance / quick return horizontal pan movements, which gently encourage the product to slide down the pan. In the sanitary world, this no-impact conveyance method is ideal for fragile foods such as fresh produce or crunchy snacks, as well as coated, breaded, or heavily seasoned food items. The relative movement between the Slipstick pan and the conveyed material benefits industrial clients too by eliminating spillage, reducing wear on conveyor components, and not creating dust.

The primary advantages of horizontal conveyor systems include the following:



**Maximum Product Retention.** Since they merely slide foods rather than bouncing them along the pan, horizontal conveyors eliminate most instances of breakage or cracking.



**Preserved Coatings and Blends.** The sliding motion of a horizontal vibratory conveyor is ideal for products with delicate breading or seasoning, which can fall off the product when conveyed via other systems. The motion also moves materials en-masse, which means that blended products arrive at their destination exactly as they were mixed.



**Almost Zero Maintenance.** With few working parts and no springs, the Slipstick Horizontal Motion Conveyor is the closest approach to a zero-maintenance vibration conveyor. Nothing to adjust. No critical rubber parts. Replacement parts are bearings, seals, and timing gears.



**Cleanliness.** With a horizontal motion conveyor, the trough's contents stay still on the moving surface, which discourages buildup from seasoning, oil, or other debris. Furthermore, the exterior surfaces are fully accessible for cleaning, and the lack of a support frame or springs makes it easier to clean underneath the conveyor. These benefits are invaluable in a full washdown environment, but they can also allow time and cost savings for almost any material transport application.



**Reversible.** Conveying direction can be reversed.



**Extended Working Life.** Triple/S Dynamics' horizontal motion conveyors last significantly longer than the competition thanks to their drive units' slow rotational speed and the elimination of unnecessary moving parts. Many of our Slipsticks installed in the early 1990s are still running today.



**Reduced Noise.** The horizontal motion pattern reduces noise compared to a traditional vibratory conveyor.

Triple/S Dynamics offers these benefits for clients with heavy sanitation requirements, including those in the food and beverage industry as well as general industrial clients.





## Slipstick® Sanitary

The Slipstick Sanitary Conveyor is the original and standard food industry horizontal motion conveyor. The Slipstick's single-drive mechanism propels conveyor contents with a unique gliding motion that eliminates breakage and minimizes buildup, making it fast, effective, and sanitary. The Slipstick drive is also future-proof. As

needs change, the drive accommodates changes to conveyor design, and it's easy to increase the drive weight stack's size when capacity needs increase.



## Slipstick® Industrial

The Slipstick Industrial Horizontal Motion Conveyor brings the benefits of the Slipstick Sanitary to a broader base of industrial users—at a much larger scale with installed Slipsticks extending up to 259 feet long and installed widths up to 9 feet. The conveyor's gentle movements keep loose products in the pan to maintain a safe and

clean workspace. At the same time, the Slipstick Industrial achieves rapid, smooth transport with little maintenance thanks to its simple, spring-free design and the elimination of high-impact vibrations. As a result, the Slipstick Industrial offers incredible ROI across its decades-long working life.



## Vibratory Conveyors

Although horizontal motion conveyors are beneficial in many applications, traditional vibratory conveyors are still an efficient, cost-effective option for transporting less fragile materials. Standard vibratory conveyors use motors to bounce the conveyor platform, forcing the product forward in controlled jumps. The exact travel rate

varies depending on the individual system's amplitude and frequency, but typical rates are highly configurable between 0 and 60+ feet per minute. In addition to general point-to-point transport, vibratory conveyors are also useful for leveling or screening products.





# Determining Capabilities Needed

At Triple/S Dynamics, our Slipstick Horizontal Motion Conveyors come in many configurations, so there is no one-size-fits-all solution. To achieve the most benefits from a vibratory conveyor, it's important to first assess your application's requirements.



The first consideration that influences conveyor choice is the systems' role in your facility. At the broadest level, it's important to determine whether your needs involve general conveying or feeding. While general-purpose conveyance may involve time-sensitive delivery and multiple drop-off or pick-up points, feeding tends to have more specific and demanding requirements. For instance, feeding applications often involve moving material in very precise batches at a controlled rate, whereas general conveyance applications are more forgiving of variation. To accommodate these needs, feeder conveyor systems allow for more precise regulation of pitch, throw, and flow rate via either manual control or automation.



Whether or not you select a feeder system, you will also need to determine the conveyor's ideal configuration. Our Slipstick Horizontal Motion Conveyors can be customized with a variety of gates, product dams, and channels to facilitate distribution, accumulation, and more. Our team can help determine the appropriate size, material, and configuration customizations based on your application, but before we can do that, you'll need to assess how the system fits into your facility's workflow.



Along the same lines, consider the environmental conditions that may impact conveyor performance. Systems that will be exposed to high humidity, extreme temperature, or hazardous materials call for special



accommodations to ensure safe operation. Our Slipstick Horizontal Motion Conveyors can be adapted for your specific environment. When transporting harsh chemicals, we can fabricate your conveyor pan from corrosion-resistant materials. We can also incorporate air or water cooling systems to enable handling hot materials, and we offer a range of environmental controls to accommodate situations requiring dust control and more.

## Considerations Checklist

Many variables influence the ideal conveyor for your facility. To ensure your new system is appropriate for your needs, you should be sure to discuss the following during the quote process:

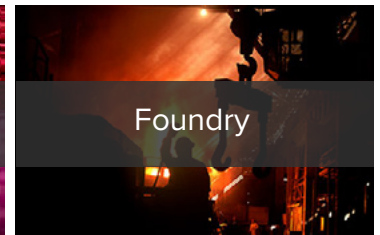
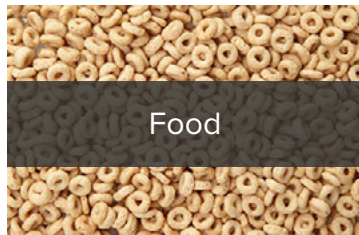
- System layout
- Provision for accumulation
- Feed modulation
- Total Cost of Ownership
- Method to divert product
- Sanitation
- Operator safety
- Cost of Maintenance/  
Downtime
- Cross-contamination
- Sustainability
- Product quality control
- Future Modification Flexibility

At Triple/S Dynamics, when our clients speak, we listen. As you work toward selecting one of our Slipstick Horizontal Motion Conveyors, our engineering and sales teams are more than happy to provide advice on the best models and customizations for your needs.



# Triple/S Dynamics' Conveyor Offerings

Triple/S Dynamics offers a comprehensive range of traditional pitch-action style vibrating conveyors alongside our renowned horizontal motion vibratory conveyors. Our offerings include systems for light or extreme-duty applications from a full range of industries, including:



Within these industries, we offer solutions for a wide range of conveyance applications, including:

- Screening and stratifying products
- Sorting products by size
- Distributing products into multiple inlets
- Leveling products prior to packing
- Elevating products between two processing points

We harness precisely controlled vibrations to enable all of these applications, alongside general point-to-point conveyance. Whatever your needs, our team can point you toward an economical solution that accomplishes your objectives.



# Invest in the Right Conveyor With Triple/S Dynamics

Triple/S Dynamics has been a leading innovator in material transport for over a century. As experts in vibratory conveyance systems, we take our clients' needs seriously, engineering custom solutions for industry-specific pain points, whether they be stringent food safety requirements or demanding environmental constraints.

For help identifying a conveyor that will save your facility time and money, [contact Triple/S Dynamics](#) today.

Contact Us



Resource Library



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