# SuperTrak HORIZON10

SuperTrak

uperTrak

www.supertrakconveyance.com

SuperTrak



Speed. Precision. Independent Shuttle Control. SuperTrak HORIZON**10**<sup>™</sup> is a high-performance magnetic conveyor designed for demanding lean manufacturing automation.

SuperTrak HORIZON**10**<sup>™</sup> systems can carry up to 10kg per shuttle and are designed for ease of integration, use, and maintenance. Its independent shuttle control combined with up to 40m/s<sup>2</sup> acceleration and +/-0.01mm repeatability, allows machine builders to reduce repetitive tooling and reduce the size and cost of the final system machine.

SuperTrak CONVEYANCE<sup>™</sup> is a platform that enables building more cost-effective, space-saving automation with reduced risk and effort. Focus on your specific application while the platform's integrated functionality manages the motion in real time.

# Reduce space and cost of your automation.

# Independent Shuttle Control empowers cost-effective and space-saving automation by:

- Avoiding duplication of parallel stations.
- Using offsets to index parts on a shuttle.
- Reducing the size of buffers.
- Optimizing the use of every station and simplify the final machine.

# As a smart conveyance platform, SuperTrak CONVEYANCE<sup>™</sup> delivers higher performance and leaner automation through:

- Increased speeds.
- Lowered settling times.
- Rapid acceleration.
- Reducing cycle times and increasing overall productivity.

#### Increased precision means leaner automation as it reduces:

- The number of stop-and-locate tooling.
- The amount of engineering effort.
- The burden on operations to maintain complex tooling.

### SuperTrak HORIZON10<sup>™</sup> Features

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#### Speed

High speeds, quick acceleration, and industry-leading settling time offer maximum throughput.

- Speeds of up to 4 m/s
- Rapid acceleration to 40 m/s<sup>2</sup>

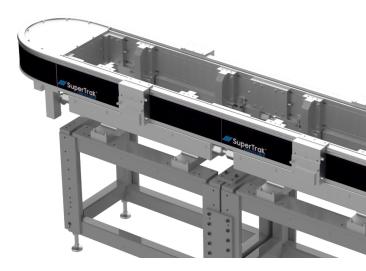
#### Precision

Tight repeatability, in combination with speed and acceleration, drives the consistency of processes not otherwise possible with alternative conveyance options.

+/-0.01 mm repeatability

#### Independent Shuttle Control

The ability to independently control each shuttle's destination, direction, speed, and acceleration enables maximum utilization of every component in the final machine.



## Maximum Functionality. Less Space.

#### **Reduced Footprint**

Maximizing the functionality of your factory automation in the minimum amount of space is a top priority for today's manufacturers and their industrial automation processes.

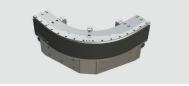
Different configuration options provide system designers the flexibility to mount tooling on the inside, outside, over-top, or underneath to meet their unique system requirements.



Straight section



### **180° section** (500mm width)



**90° section** 1200mm Width (2x 600mm sections)



**180° section** (800mm width)

#### The Flexibility to Scale

Being able to effortlessly scale your business is essential for the success of today's manufacturers.

SuperTrak's modularity allows manufacturers to expand their systems by easily adding additional modular sections as the business grows and as products change. System designers can readily reconfigure the functionality of the conveyance platform as business requirements change.



# Higher Availability. Improved Quality. Increased Performance.

#### SuperTrak HORIZON10<sup>™</sup> Configurations





#### SuperTrak HORIZON10™ 800mm Configuration

The 180° (500mm) configuration keeps the physical space required for the conveyor to a minimum while offering manufacturers options to mount tooling on the outside of the conveyance platform.

The 180° (800mm) configuration provides additional space within the conveyance platform and allows manufacturers many options to mount tooling on the inside. This helps minimize the amount of space required on the factory floor.



SuperTrak HORIZON10<sup>™</sup> 90-degree Configuration The 1200mm curved sections allow for even more configuration options such as a squared circle or rectangle. Manufacturers can fit even more tooling on the inside to minimize system footprint.

## Reduce the Cost of High-Performance Automation

Focus on your specific application while the SuperTrak CONVEYANCE<sup>™</sup> integrated functionality manages the motion in real time. Integrated functionality incorporates a number of features into one platform thus reducing system design and integration hours. This enables a higher level of performance for your automation with less risk attributed to complex engineering.

#### A sample of integrated functionalities include:



#### **Collision Avoidance**

Shuttles will automatically avoid contact. No additional programming is necessary.



#### **Target Routing**

Set and release shuttles to destinations around the track without any additional management in the PLC.



#### **Pre-stops**

Set pre-stops where extra space for tooling or process is required.



#### **Define Regions for Specific Motion Dynamics**

Shuttles will move through the region with a specified velocity, acceleration, or jerk.

# 

### Design > Simulate > Build > Perform

#### **Reduce Design and Integration Hours**

The user interface for the SuperTrak CONVEYANCE<sup>™</sup> platform provides a means to:

Create system simulations

Configure integrated functionality

View system performance statistics

Access diagnostic tools

Unlike other conveyance platforms' software, TrakMaster<sup>™</sup> was designed and built with the intent to reduce engineering and integration hours, offering machine builders and manufacturers a faster path to production.

The easy-to-use software empowers an intuitive PLC interface to control the platform's high-performance capability with less engineering, and therefore, less risk.



## Built by Machine Builders, for Machine Builders

#### **Manufacturing Applications**

The SuperTrak CONVEYANCE<sup>™</sup> team has deployed systems across the globe spanning a variety of industries in some of the most demanding environments.

From harsh, dirty environments to cleanroom applications, we have conveyance solutions that can evolve with your changing needs.

#### Smart conveyance technology is best suited for applications that require:

High-volume assembly	Multiple process steps
Limited floor space	Multi-part types
Energy efficiency	Modularity to scale and adapt
Cleanroom assembly	Functionality in harsh environments
Quiet operation	A high degree of precision



# Automation for a Variety of Industries

#### **Popular Industry Applications**



#### **Medical Devices**

- Contact lens packaging
- Syringe assembly
- Catheter assembly
- Insulin pumps



#### Automotive Components

- EV battery assembly
- Valve assemblies lash adjuster, seat/o-ring, ABS, motor components
- Door lock actuators



#### **Consumer Electronics**

- Cell phone assembly
- Small household appliances
- Household electronics



#### **Consumer Products**

- Disposable shavers
- Food packaging
- Pump bottles



#### SuperTrak HORIZON10<sup>™</sup> Data Sheet

Straight Section	1000mm
180° Section	• 500mm Diameter
	• 1000mm Diameter
90° Section	1200mm Width (2x 600mm sections)
Product Fixture Width	152mm up to 1000mm
Maximum Speed	4 m/s
Acceleration	• 1G with 10 kg Payload
	<ul> <li>4G with 1 kg Payload</li> </ul>
Repeatability	+/- 0.01mm (straight section)
	+/- 0.025mm (curved section)
Payload	10+ kg per shuttle*
Process on Curve	Full control
Shuttle Options	Standard shuttle configuration
	with 2- or 3-magnet array options
Communication	
PROFI EtherN	et/IP POWERLINK EtherCAT

\* Higher payloads possible. Speak to a member of the SuperTrak Team for more info.









#### Reduce the Cost of High-Performance Automation

Have a project on the **horizon**? Conveyance is a good place to start.

We work with machine builders and system designers to improve system design and meet automation goals.

#### Contact Us

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