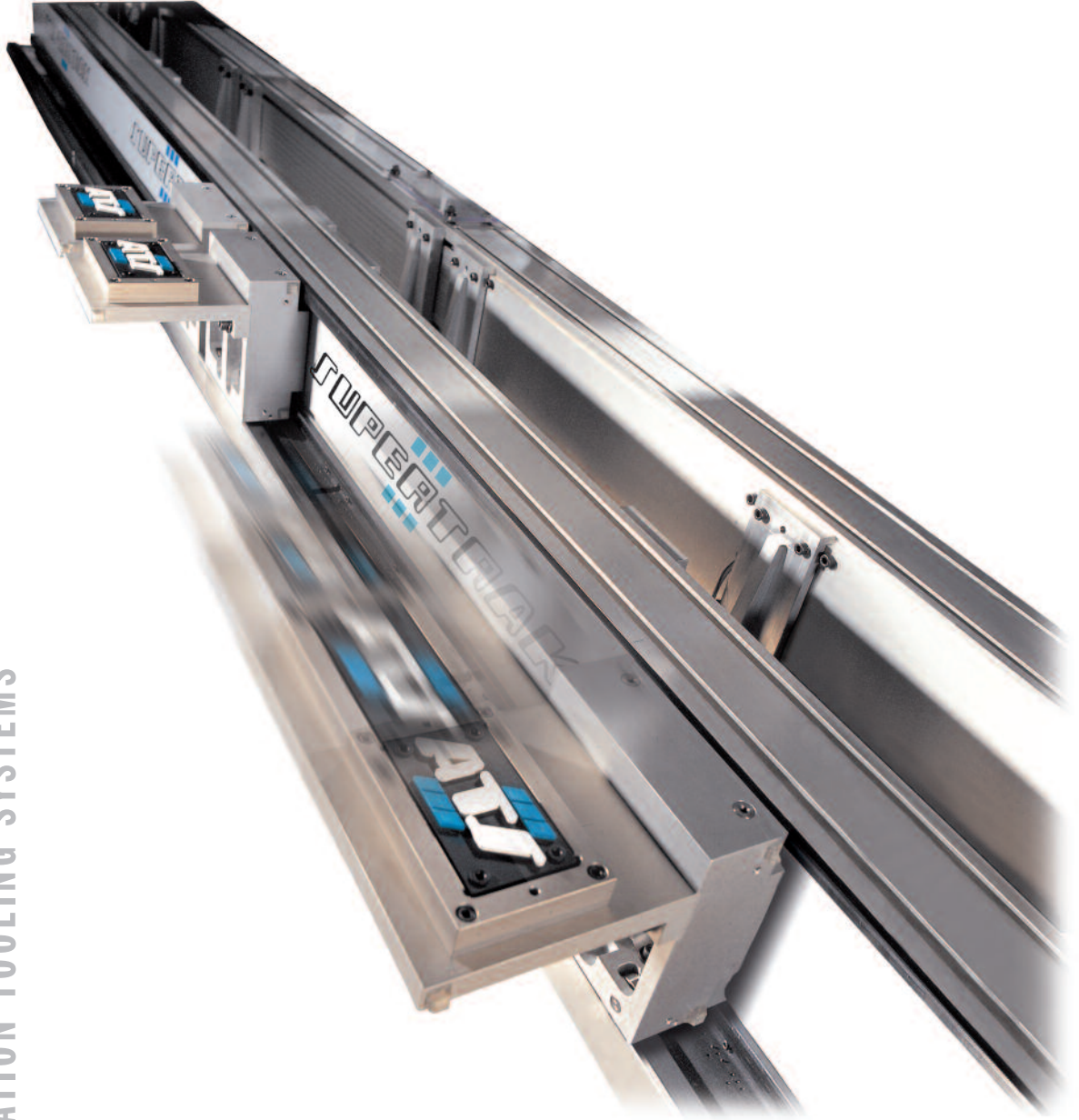


Automation

AUTOMATION TOOLING SYSTEMS



**Supertrak™ Modular
Conveyor System**



Supertrak™ Modular Conveyor System

Description

The ATS Supertrak™ conveyor system is a revolution in high-speed pallet transport. With this system, the direction, acceleration, speed and position of each individual pallet are totally programmable. Integrated collision avoidance eliminates pallet-to-pallet contact, and provides auto-queuing at process stations. Pallet routing may be controlled on a station-by-station basis or by means of individual pallet routing data. Polymer rollers on steel tracks reduce pallet wear and keep the system clean. Integrated pallet ID and data tracking means that external RF or mechanical pallet tags are not required. Absolute pallet identification tracking can be achieved using an optional integrated IR system. The Supertrak conveyor's flexible positioning, velocity and acceleration can reduce the need for additional devices, allowing the pallet to be used as an axis of movement for operations such as liquid dispense, contouring and printing.

The Supertrak pallet's unique design allows full access to the top and bottom of the pallet, while eliminating conventional lift & locates, conveyor pre-stops and lift & transfer devices. Station stop locations are taught once and maintained within each section. Individual control of the motion of each pallet allows for greater control over the entire assembly process. For example, unloaded pallets can be moved between process stations at full acceleration and velocity to help control and reduce cycle times.

The Supertrak pallet transport system, with its sophisticated controls package, delivers greater capability and flexibility, optimum performance and overall higher return on your automation investment.

Specifications

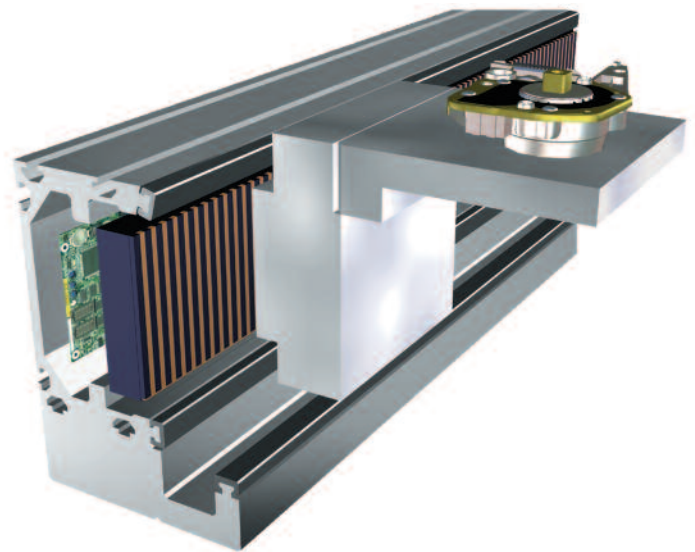
Payload + Pallet:	Up to 6 kg (13.2 lb)
Pallet Sizes:	Width from 150 mm to 450 mm (6 in to 18 in)
Velocity:	2.5 m/sec max (98 in/sec)
Acceleration:	8.3 m/sec ² max (326 in/sec ²) Average
Point-to-point Move:	0.5 m in 0.5 sec (1.65 ft in 0.5 sec) with 6 kg (13.2 lb) payload and pallet
Force:	120 Newtons peak (27 lbs force)
Encoder Resolution:	0.0254 mm (0.001 in)
Stop Repeatability:	± 0.051 mm (0.002 in)
Operating Temp:	10°C to 50°C (34°F to 122°F)
Electrical Supply:	120-240 VAC, 1 phase, 47-63 Hz
Controls Interface:	- Machine Control through standard protocol over Profibus - Basic controls available through discrete I/O - TrackMaster interface over ethernet
Environment:	Meets ISO Class 6 clean room environment

UL approved and CE mark. Protected by U.S. Patent No. 6,191,507.

Other patents pending.

Features

- Mechanical stops, lifts & locates eliminated
- Belt wear and pallet-to-pallet contact eliminated
- Integrated Pallet ID and part data tracking
- S-curve acceleration & deceleration
- Motion parameters programmable for each individual pallet
- Modular sections include drives & controls
- Sections extendible to over 40 meters in length
- Pallets may bypass stations at full speed
- Individual internal routing for each pallet
- Multiple part types per pallet with individual routing
- Pallet synchronization with external devices for continuous motion applications
- Accurate external device triggering based on pallet position
- Optional absolute fixture tracking using IR reader/tag system
- 3D simulation software



Contact ATS directly for custom applications or for product specific applications beyond the scope of this document.



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