

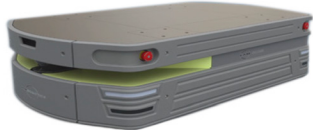
TREW TOPPER INTERMEDIATE MODULE

In Collaboration With IAM Robotics Bolt AMR



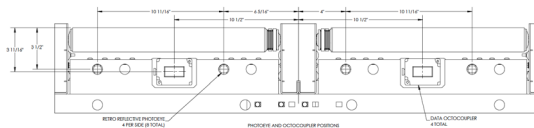
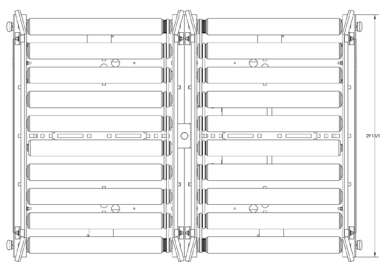
Hilmot's TREW Topper, integrated with Bolt, autonomous mobile robot (AMR) from IAM Robotics, provides an alternative solution for material handling and sortation. The two bidirectional single zone intermediates are designed for speed of induction (auto or manual) of items onto the rollers. This keeps the product in place, and then discharges the item from the rollers into the destination. TREW Topper's modular, pre-wired conveyor sections are mounted on adjustable supports for adaptability. With the help of Bolt, TREW Topper is able to align with two conveyors, or even be staggered. The all electric operation ensures a consistent and quiet system that is easy to maintain.

- **Product Size: Up to 24" x 32" (per bed)**
- **Single power source via IAM Robotics Bolt**
- **Up to 50 lbs per Topper bed**



IAM Robotics Bolt

A collaborative AMR from IAM Robotics—operates at speeds up to 2m/s and has free range navigation



KEY FEATURES AND BENEFITS

TREW Topper

- Roller and belted toppers available
- Two bidirectional, single-zone
- Able to align with two conveyors simultaneously
- Adjustable leg supports: 23.25" — 32"
- Durable, high tension O-bands
- Resilient and durable construction
- Modular design allows for quick topper change

IAM Robotics Bolt

- Largest payload capacity in its class: 300 kg
- Longest runtime in its class: Up to 20 hours to cover multiple shifts
- Autonomous self-charging capabilities
- Hot swappable battery: 10 second change by one person
- Power take-off allows integration with multiple tops
- Direct drive wheels (no gearbox)
- Fully collaborative and safe around people

TREW TOPPER - Bolt Specs

INTERMEDIATE MODULE - Series 1500



BOLT SPECIFICATIONS	
SERIES	DESCRIPTION
Size & Weight	<p><i>Dimensions:</i> 114.3 L x 73.7 W x 30 H cm (45 x 29 x 11.8 in.)</p> <p><i>Weight:</i> 91 kg (200 lbs)</p>
Speed Performance	<p><i>Speed:</i> Up to 2.0 m/s forward, 1.0 m/s reverse</p> <p><i>Payload Weight:</i> 300 kg (661 lbs) maximum</p> <p><i>Payload Size:</i> 600 x 800 mm (24 x 31 in) Standard**</p> <p><i>Lighting Indicators:</i> 4 status lights</p> <p><i>Sound Indicators:</i> Distinctive forward and reverse sounds and customizable audio</p> <p><i>Navigational Positional Accuracy:</i> 310 mm (0.39 in)</p> <p><i>Docking Positional Accuracy:</i> 310 mm (0.39 in)</p> <p><i>Dock / Tote Transfer Speed:</i> 5 seconds</p> <p><i>Turning Radius:</i> 0 mm</p> <p><i>Free Range Navigation</i></p>
Battery	<p><i>Battery Chemistry:</i> Lithium-based</p> <p><i>Runtime:</i> Up to 20 hours</p> <p><i>Hot Swappable Battery:</i> Replaceable by one person in 10 seconds</p> <p><i>Charge Time:</i> 80% capacity within 2 hours</p> <p><i>Capacities:</i> 80, 96, and 120 Ah</p>
Safety	<p><i>Sensors:</i> 360-degree field of view with 3-D cameras, LiDAR, and Infrared sensors</p> <p><i>Weight:</i> 91 kg (200 lbs)</p> <p><i>Safety E-Stops:</i> Six emergency stop buttons with configurable placement provides intuitive reaction smacking</p>

TREW TOPPER SPECIFICATIONS		
SERIES	DESCRIPTION	
Size & Weight	24x32, 50 lbs per tote	
Speed Performance	Up to 190 FPM, Induction Speed pending on validation testing	
Safety	E-Stops placed at all 4 corners of topper provides intuitive reaction smacking	
Controls	Interface from Topper to Bolt will be the same for all variations - quick swap	field-friendly wiring interface from topper to Bolt
Loading / Unloading	repeatable alignment - allowing for conveyor to conveyor handoffs	various top options allows for solutions to be more configurable