

CONVEYANCE SOLUTIONS -





TRANSFORMING MANUFACTURING WITH INDUSTRY 4.0 SMART CONVEYORS



STREAMLINE, INNOVATE, & ELEVATE

It's not enough to make your manufacturing smart; your entire in-house manufacturing journey must be smart. We support your journey towards complete smart manufacturing. No matter where you are in your process, we have the technology to support your progress. Whether you're just starting with automation or looking to introduce new advanced technologies, our wide range of conveyance solutions designed to meet your needs and propel your operation to the next level. Embrace the future of manufacturing with comprehensive Industry 4.0 smart conveyor systems from CMCO's Conveyance Solutions Group.

montrac[®]

For full Industry 4.0 integration, montrac[®] offers complete intelligent motion conveyance solutions that facilitate smart manufacturing and process sequencing. montrac[®] allows for a one-piece flow in production lines, accommodating different products with various process steps.

- · Ease of integration with a variety of control systems
- Real-time data visibility within 1 to 200 milliseconds
- Unique shuttle ID to track precisely
- Flexibility and modularity

DORNER

Precision in a conveyor system is vital for accurate positioning, product quality, efficiency, and integration with robotics. Dorner pioneered and remains at the cutting edge of precision conveyance technology, and offers complete conveyor solutions for almost any industry.

- Speed and accuracy
- Consistent spacing and orientation
- Compact, low-profile design
- Meets operational requirements, from heavy industrial to sanitary food processing

GARVEY

Production lines are only as fast as the slowest machine. Garvey maximizes uptime by optimizing the production speed of every machine through accumulation and buffering, ensuring consistent throughput and precise pacing for automated manufacturing processes.

- Unmatched speed and throughput
- Space efficient design
- Low maintenance = maximized up-time



THE VALUE OF SMART CONVEYANCE

Smart conveyance systems seamlessly integrate advanced technology to enhance manufacturing precision and throughput. By leveraging cutting-edge automation and real-time data analytics, intelligent motion systems ensure optimal efficiency and adaptability, boosting not only productivity but also setting new standards for operational excellence in modern manufacturing.

INTEGRATION

Seamlessly integrate with a variety of control systems and existing infrastructure. Our conveyance systems are designed for cross-compatibility, allowing for faster and more flexible operation with every system on the market. This flexibility helps our integrators and customers adapt to different requirements, ensuring seamless operation.





PRECISION

For industry 4.0 manufacturing lines, precision is the cornerstone of efficiency, quality, and productivity. Our conveyors are engineered to deliver unparalleled accuracy, ensuring each product is transported to the right place, at the right time, and in the right orientation for every step along the production line.

THROUGHPUT

Optimizing every aspect of a production line is key to achieving the highest efficiency and throughput in modern manufacturing. Advanced accumulation and conveyance solutions help to minimize bottlenecks and maximize throughput in every step of production, increasing quality, output, and profitability.



SMART CONVEYANCE PORTFOLIO

montratec montrac®

The montrac® monorail system from montratec is an ideal solution for transporting materials through complex assembly processes with speed, efficiency, and intelligent motion. The modular design and intelligent motion sensors facilitate seamless process sequencing across production operations.



DORNER FLEXMOVE

The unique chain design in Dorner's FlexMove conveyor offers the flexibility needed to create complex production lines within a small footprint. Capable of multiple turns and elevation changes on one line, FlexMove conveyors offer smart conveyance solutions for facilities looking to maximize their available space.



DORNER DUALMOVE

Dorner's latest pallet system conveyor is designed with dual timing belts to precisely transport and position products for automated assembly and inspection processes. The modular construction and innovative engineering makes this system easily customizable for each facility's unique needs.



DORNER ERT

Edge Roller Technology (ERT) pallet conveyors feature an open, edge roller design with non-contact zoning making it ideal for delicate products or sensitive electronics. The patented linear gearbox is easily reconfigurable in the field, allowing this conveyor to adapt to changes in production requirements.



montrac[®] SHUTTLE SYSTEM

INTELLIGENT DATA-BASED CONVEYORS FOR INDUSTRY 4.0

Intelligent manufacturing is more than just a process—it's a core value that drives everything we do. By delivering seamless integration, real-time visibility, and tailored conveyance solutions, we help our customers achieve their goals, resulting in:

Increased Throughput: Our ability to interlink process steps ensures a streamlined workflow, enhancing overall production efficiency.

Improved Productivity & Uptime: Advanced process automation and precise control maximizes uptime and boosts productivity, ensuring consistent and high-quality manufacturing operations.

Greater Profitability: By optimizing operations and reducing inefficiencies, our solutions ultimately lead to increased profitability for our customers.

Adaptable Solutions: montrac[®]'s flexible and modular design adapts to evolving manufacturing requirements, supporting continuous improvement and innovation.





CHOOSE montrac® WHEN YOU'RE LOOKING FOR:

Seamless Interlinking of Process Steps: manage the entire assembly process from start to finish ensures that all process stations are effectively connected. This seamless interlinking of steps is crucial for optimizing production flow and enhancing overall efficiency.

Comprehensive Process Automation: full control over every aspect of conveyor movement, including speed, heating, and turning. This level of control, combined with the ability to track products through fixed shuttle IDs, ensures seamless material flow and integration with Industry 4.0 solutions.

Direct Manufacturing and Assembly: process sequencing by allowing manufacturing and assembly to occur directly on the shuttle. This eliminates the need to step out of the conveyor system, enhancing efficiency and reducing production time.

Integrated System Solutions: Instead of offering individual components, montrac provides a comprehensive system solution that addresses complex manufacturing needs. This integrated approach is ideal for overcoming space constraints, simplifying processes, and combining multiple manufacturing steps into one seamless system.



THE montrac[®] DIFFERENCE

How the montrac® system can support your industry 4.0 journey: Industry 4.0 is about knowing every detail of your production process in real-time. montratec offers industry 4.0 operations and innovative conveyor solution with the montrac® monorail shuttle system. The montrac® system provides intelligent, data-based manufacturing solutions that provide real-time visibility, flexibility, and seamless integration. Our approach ensures we deliver the best solutions tailored to each customer's unique needs.

Advanced Process Automation: Offers full control over conveyor movement, including speed, heating, and turning, ensuring precise and consistent operations.

Enhanced Traceability: Each shuttle's unique ID enables precise tracking throughout the production process, ensuring high standards of quality control and compliance.

Direct Manufacturing on Shuttles: Enables manufacturing and assembly directly on the shuttle, eliminating the need for additional handling and reducing production time.

Tailored Intralogistics Solutions: Customized solutions designed to meet specific customer requirements, enhancing effectiveness and efficiency in the manufacturing process.

Availability and Low Maintenance: High system availability and minimal maintenance requirements reduce downtime and operating costs, enhancing productivity and efficiency.

Maximizing Manufacturing Space: Space-efficient monorail system operates on a single track, ideal for crowded production halls, with options for ceiling or elevated installation to enhance production flow **Cleanroom, ESD, and EMV Compliance:** Designed to meet ISO Class 5 or 6 cleanroom specifications, continuous grounding to prevent ESD, and compliance with EMV standards, ensuring safe and efficient handling of delicate products.

Efficient and Reliable Product Transport: Handles up to 70Kg per shuttle, operates at a top speed of 55 km/h, and ensures shock-free transportation, protecting product integrity and increasing productivity.

Unique Power Supply Efficiency and Productive Travel Time: Optimized energy consumption and transforming travel time into productive time, reducing CO2 emissions and improving cycle times.

Modular Design: Flexible and scalable components allow quick adaptation to new requirements, preventing overinvestment, and ensuring ease of maintenance and independent operation.

THE DORNER DIFFERENCE

Precision is more than just a technical specification—it's a value that drives everything we do. By delivering unmatched precision, we help our customers achieve their goals, resulting in:

Higher Throughput: Increased efficiency in automated processes leads to higher throughput.

Higher Productivity: Enhanced precision boosts productivity within the production process.

More Up-Time: Reliable and precise conveyors mean more up-time and less downtime.

Increased Profitability: Ultimately, precision translates to more money for our customers by optimizing operations.

PRECISION REDEFINED

Dorner conveyors are designed to offer the highest level of accuracy and repeatability. Our commitment to precision means that your production line runs smoother, faster, and more efficiently.

Choose Dorner when you're looking for:

Speed and Accuracy: Our conveyors move products at higher speeds without compromising on precision. This ensures that your production line can meet high demands while maintaining product quality.

Controlled Location: Our advanced technology allows for precise control over the location of each part, reducing errors and increasing efficiency.

Consistent Spacing and Orientation: We maintain exact product spacing and orientation throughout the process, ensuring that each item is perfectly positioned for the next stage of production.

Compact Design: Dorner conveyors fit into tighter spaces with a smaller factory footprint, making them ideal for modern, space-conscious manufacturing environments.



PRECISION IN MOTION

Dorner's wide catalogue of intelligent motion conveyor solution offer the precision required for automated production lines and robotics integration. With our range of offerings, you can customize your operation to achieve your precision and throughput goals, all while helping you gain the highest return on investment.

FLEXMOVE

As one of the most versatile conveyor systems available, FlexMove conveyors are the perfect solution for many different applications from indexing and sorting to packaging and inspection. With easy integration features and a completely customizable design, our FlexMove systems can be configured to meet the exact needs of almost any operation.

Benefits

- Easily customized and reconfigurable system.
- Industry's most flexible plastic chain belt, capable of multiple turns and inclines in one line.
- Low-profile design is ideal for tight spaces.
- · Easy integration with controls, photo-eyes, and sensors
- Variety of modules and belting options.

PRECISION MOVE SERIES

Dorner's Precision Move belted conveyors feature a timing belt design to offer unparalleled accuracy in belted conveyors across the industry, making them ideal for indexing, automated assembly, inspection, and more. With Dorner's t-slot frame design, accessories can be mounted along the entire length of the conveyor for versatile operation and customization.

Benefits

- Reverse v-guide provides positive tracking along entire length of conveyor
- Positive drive no slip belting and side guides provide worry free belt tracking even at higher load capacities
- Servo motor and timing belt offer precise indexing repeatability
- Cleats or belt fixtures for additional part stabilization





In addition to highly precise industrial fabric and modular belted conveyance, Dorner offers the most extensive portfolio of specialty conveyance on the market.

DUALMOVE

With a similar timing belt design as Dorner's Precision Move conveyor, the DualMove Pallet System features twin T10 timing belts to transport pallets throughout automated production lines. This innovative conveyor offers a range of modules for product positioning and transfers, allowing for easy customizability to meet a wide range of production needs.

Benefits

- Various belting options available including low or medium friction, and static conductive
- Brushless DC motors for energy efficient operation
- Cost-effective pin tracking system capable of 180° corners
- Quick belt-changing with minimal disassembly required

ERT PALLET SYSTEM

Dorner offers two ERT Pallet Systems: the ERT150 for light loads and small parts handling, and the ERT250 for heavy duty product transportation. This innovative platform features and open-frame design and simple accessory mounting for easy integration with automation technology such as robots, sensors, and testing equipment.

Benefits

- Static conductive HPDE pallet skirts
- Proximity sensor pick-ups on pallets facilitate smart conveyance capabilities
- Low-to-no backpressure accumulation
- Easily replace individual rollers for quick maintenance



INTEGRATION IN ACTION

To achieve complete smart manufacturing, integrating advanced conveyance systems is crucial. This comprehensive solution demonstrates the capabilities of CMCO's Conveyance Solutions group by combining the innovative monorail shuttle systems from montratec, precision conveyors from Dorner, and sophisticated control systems from Magnetek. This synergy ensures seamless operation, real-time visibility, and flexibility across your production line.

Whether you're automating assembly, inspection, or material handling, our intelligent motion conveyor systems are designed to meet diverse operational needs and propel your manufacturing journey towards Industry 4.0. Step into the future with our smart conveyance solutions, tailored to support your progress at every stage.

montratec montrac®

Intelligent and flexible automation and transportation for interlinking industrial production, cleanroom and logistics processes.

- **Pallet widths:** Standard sizes from 200 mm to 300 mm; customized widths up to 800 mm available
- **Pallet lengths:** 300 mm to 550 mm; customized lengths up to 1,200 mm available
- Load capacity: up to 70 kg per pallet
- Speed: Up to 55 mpm

Dorner ERT

Open-frame edge roller design with offers minimal particle production for cleanroom applications. With brushless DC motors and energy-efficient drive components, ERT conveyors offer unique solutions for a variety of automated production applications.

- Pallet widths: 160 mm to 800 mm
- Conveyor lengths: up to 53500 mm
- Load Capacity: up to 114 kg per pallet
- Speed: up to 37 mpm

Dorner DualMove

High-precision conveyor system for automated assembly and manufacturing processes. The DualMove is designed with twin timing belts, providing repeatable accuracy within 0.5 mm.

- Pallet widths: Standard sizes from 160 to 800 mm; customized widths between 140-800 mm available in 5 mm increments
- Conveyor lengths: 500 to 7,500 mm
- Load capacity: up to 45 kg per pallet
- Speed: Up to 66 mpm

Dorner FlexMove

Modular platform for complex manufacturing footprints and floor layouts. This flexible chain conveyor is ideal for complex layouts with multiple curves or elevation change in one line.

- Chain widths: 45 mm, 65 mm, 85 mm, 105 mm, 150 mm, 180 mm, 260 mm
- Conveyor lengths: up to 30 mm
- Load capacity: up to 65 kg per meter; maximum 272 kg (not accumulated)
- Speed: up to 58 mpm

Garvey Accumulators

Designed to eliminate bottle necks while precisely accumulating delicate product, Garvey's accumulation solutions boost efficiency and throughput in production lines

- High speed product handling up to 800 units per minute
- Wide variety of size options from small footprint accumulation tables to large scale distribution systems
 - Zero-backpressure accumlation reduces product and label damage

EMBRACE THE FUTURE OF SMART CONVEYANCE

As you journey towards complete smart manufacturing, CMCO's Conveyance Solutions Group is here to support you every step of the way. Our comprehensive conveyance solutions are designed to meet your needs and propel your operation to the next level.

OUR OFFERINGS

montrac®: Facilitating smart manufacturing with intelligent motion conveyance solutions.

- Ease of integration with various control systems
- · Real-time data visibility within 1 to 200 milliseconds
- Unique shuttle ID for precise tracking
- Flexibility and modularity

Garvey: Maximizing uptime by optimizing production speed through accumulation and buffering.

- Unmatched speed and throughput
- Space-efficient design
- Low maintenance for maximized uptime

Dorner: Pioneering precision conveyance technology for accurate positioning and product quality.

- Speed and accuracy
- Consistent spacing and orientation
- Compact, low-profile design
- · Suitable for heavy industrial to sanitary food processing

Magnetek: Integrating Industry 4.0 technology with innovative controls solutions.

- Wide range of platform compatibilities
- Customizable programming
- Unmatched safety designs
- Multi-panel integration capability



CONVEYANCE SOLUTIONS -

DORNER GARVEY montrated



Experience the difference that true efficiency and precision can make in your manufacturing process.

Scan the QR code below or visit www.cmco.com/en-de/system-solutions/conveyance/ to learn more.





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