# Innovative Conveyor Solutions





#### **2025 Manufacturing Achievement**

In 2025, Metaroller strengthened its path of manufacturing excellence by successfully producing 22 motorized flexible conveyor systems, each 10 meters long, totaling 220 meters in length, at its Istanbul facility.

These systems were implemented at the logistics center of one of Turkey's largest e-commerce companies.

Designed to provide the perfect combination of speed, durability, and flexibility under demanding operational conditions, the project once again highlighted Metaroller's engineering expertise and leadership in conveyor solutions.

#### **Motorized Flexible Conveyor**

The motorized flexible conveyor, developed by Metaroller, stands at the core of smart material handling solutions.

Equipped with driven rollers, the system ensures smooth and automatic product flow.

Its accordion-style frame allows the conveyor to expand, contract, or curve into S, L, or U shapes, adapting seamlessly to spatial constraints.

This structure provides maximum flexibility where fixed systems cannot reach.





#### **Smart Motion for Every Industry**

Motorized flexible conveyors are widely used in ecommerce logistics, warehouse material flow, truck loading/unloading, food packaging lines, airport cargo handling, and temporary transfer systems.

The system can easily be moved and reconfigured to meet dynamic operational needs, providing unmatched versatility in motion.

#### **Efficiency, Flexibility & Durability**

This conveyor system offers:

- Motor-driven rollers that minimize manual handling,
- Modular design for quick integration into different lines,
- German-made Interroll drive rollers ensuring longevity and quiet operation,
- Low maintenance requirements for continuous operation.
- Every detail is engineered with a focus on energy efficiency, durability, and operational adaptability.



#### **Gravity Roller Flexible Conveyor**

Metaroller's gravity-powered accordion-style roller conveyor offers unmatched flexibility and reliability, making it an essential solution for industrial material handling.

Designed and manufactured at our Istanbul facility, each system is equipped with German-made roller heads, ensuring long-lasting durability, robust performance, and consistent operation.

Custom-built to meet every size and requirement, these conveyors seamlessly integrate into logistics and production lines.

#### Flexible, Durable, and Smooth Flow

- Rollers are available in galvanized, stainless steel, aluminum, or plastic options.
- Ball-bearing rollers enhance product flow, providing smooth and reliable movement.
- Fully customizable in width, length, and height, delivering tailored solutions for each line.
- The inclined design allows products to move naturally under gravity, maximizing efficiency while minimizing energy use.

#### **Easily Adapts to Any Layout**

Plastic handles and wheels on the conveyor frame allow for quick, safe relocation.

Lockable wheels ensure the system remains stable once positioned.

The accordion-style structure lets the conveyor curve into S, L, or U shapes, navigating around columns or obstacles with ease and maintaining seamless product flow.





#### Versatile, Ergonomic, and Practical

The gravity roller flexible conveyor finds applications across numerous industries:

- Logistics centers for product transfer and truck loading/unloading
- E-commerce warehouses for inter-rack product movement
- Food and manufacturing facilities for transporting packaged goods
- Airport cargo areas (pre- and post-X-ray screening)
- Corrugated cardboard and packaging sectors as bridging conveyors between feeding, strapping, or processing machines

Its flexible design, ergonomic handling, and easy installation ensure high operational efficiency across all environments.



#### Flexible & Portable

The Skatewheel Flexible Conveyor provides easy mobility and rapid setup.

Its wheeled and modular design allows quick adaptation to different lines or areas as operational needs change.

Thanks to its accordion structure, products can move in S, L, or U shapes, enabling a flexible and uninterrupted workflow.

#### **Solutions for Light Loads**

The Skatewheel Flexible Conveyor is ideal for transporting light packaged goods across various environments:

- E-commerce warehouses and production lines: Rapid movement of packaged products
- Food industry: Safe transport of lightweight packaged items
- Packaging and corrugated cardboard sectors: Feeding or bridging between machines
- Its easy-to-clean, ergonomic design makes it suitable for sensitive operations requiring hygiene and care.

#### **Skatewheel Flexible Conveyor**

Metaroller's Skatewheel Flexible Conveyor is a gravity-powered accordion-style conveyor designed for light loads.

Its accordion frame allows the system to expand and contract quickly, occupying minimal space while perfectly fitting production lines and storage areas.

The lightweight, portable design enhances operational flexibility, ensuring smooth product flow even in tight spaces.



#### **Gravity Roller Conveyor Manufacturing & Design**

Metaroller manufactures its gravity roller conveyors at its Istanbul facility, using German-made roller heads while producing all other components in-house.

These systems are gravity-powered, modular, and built for long-lasting performance, delivering high reliability across production lines.

Width, length, and leg height can be customized according to customer requirements, making the conveyors adaptable to different operational setups.

#### **Customizable Rollers & Conveyor Types**

- · Roller diameters and materials are selected based on the weight and type of products being transported.
- Aluminum rollers are ideal for light loads, while stainless steel rollers are suited for food and hygiene-sensitive production lines.
- Ball-bearing rollers ensure smooth and efficient product flow.
- Conveyors can be designed as straight, 90° or 180° turns, or inclined, according to operational needs.





#### **Application Areas**

Gravity roller conveyors are widely used across industries:

- · White goods production lines: Assembly and transport applications
- · Panel furniture cutting factories: Efficient part transfer
- Automotive and electronics manufacturing: Assembly and testing lines
- · Packaging and storage: Handling of packaged goods
- They are valued for being low-cost, energyefficient, and low-maintenance solutions.

#### Ball Tables: 360° Product Rotation & Guidance

Ball tables allow 360° rotation and precise product positioning.

They are ideal for assembly lines, ensuring products are correctly oriented for the next operation.

Constructed with ball-bearing rollers and stainless steel, these tables are suitable for sensitive and hygienic production environments.





#### **Driven Roller Conveyor**

Metaroller manufactures project-specific driven roller conveyor systems at its Istanbul facility.

Our systems feature chain-driven, poly-V belt-driven, and O-ring belt-driven configurations.

Plastic drive components are German-made, while chains and sprockets are fully produced in-house, ensuring high quality and durability.



#### **Technical Features & Advantages**

Our driven roller conveyors are motorized systems ideal for palletized product handling.

Conveyors can be customized in width, length, and height according to customer requirements.

Motorized design provides low energy consumption, minimal maintenance, and quiet operation, enhancing efficiency and reducing operational costs.

#### **Application Areas & Reference Projects**

Driven roller conveyor systems are particularly suitable for the corrugated cardboard industry.

For instance, in a project delivered to Romania, an 80-meter-long driven roller conveyor system facilitated product transfer at the entry and exit of a tunnel oven machine.

This system ensured smooth product flow along the production line, optimizing throughput and operational efficiency.



**PVC Belt Conveyor** 

Metaroller designs and manufactures PVC belt conveyors for production and logistics operations. They provide a clean, quiet, and efficient transport solution for light to medium-weight products. In 2021, we delivered a 70-meter PVC belt conveyor line with integrated loading units to a client in Stuttgart, Germany, showcasing our engineering capability and reliability in turnkey conveyor projects.

#### **Technical Features and Configurations**

PVC belt conveyors can be manufactured with:

- · Painted metal frame construction,
- Aluminum sigma profile frame, or
- Stainless steel body structure.

Available configurations include straight, inclined, 90° curved, and 180° curved types.

Belt type and speed are selected according to the product characteristics and operational layout.

Thanks to the motorized drive system, belt tensioning mechanism, and precise tracking system, smooth and continuous product flow is ensured. PVC belt conveyors significantly reduce manual handling,

increase production capacity, and optimize line efficiency.





#### **Application Areas and Use Cases**

PVC belt conveyors are extensively used across various industries, including:

- Logistics and transfer centers
- · Production and assembly lines
- Plastic injection facilities particularly Z-type conveyors
- · Inspection and packaging lines
- Hotel baggage handling systems
- Corrugated cardboard and waste carton transfer lines
- Food industry applications especially in checkweigher systems

These conveyors enhance workflow efficiency, reduce manual labor, and optimize overall operational performance, ensuring a seamless and cost-effective material flow.



#### **REFERENCES**

























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