

Inspired by Excellence



CONVELINE SYSTEMS PRIVATE LIMITED

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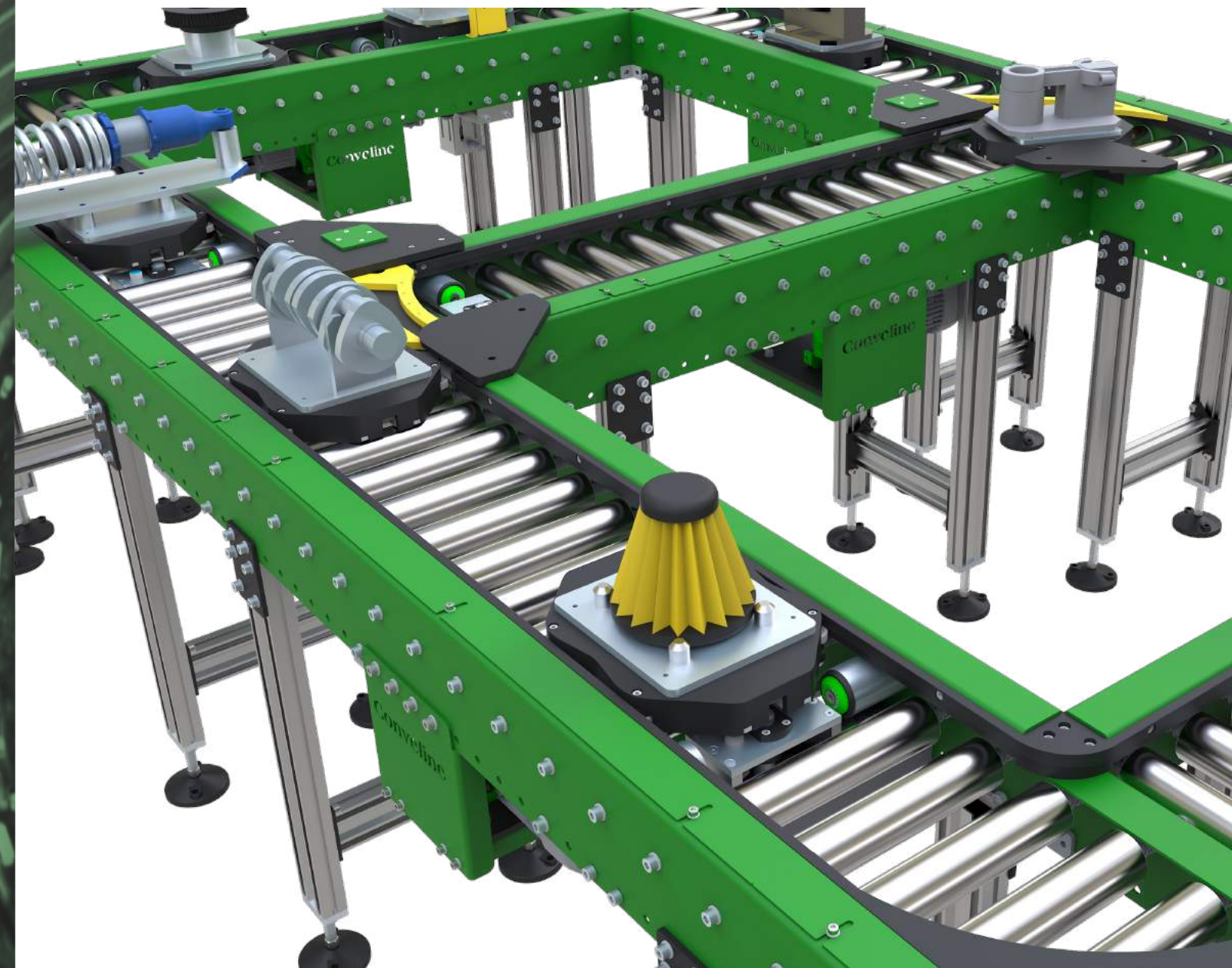
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IN/NOV/2021



Assembly Transfer Conveyor

Roller Conveyor Systems for Assembly and Test Automation

www.conveline.com

CONVELINE 6001 SERIES

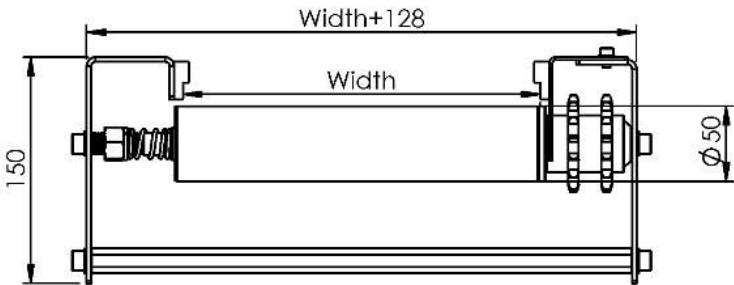
Conveyor Features

The CONVELINE 6001 Series conveyor systems is a robust, carrier friction roller conveyor with an anodized aluminium frame or MS powder coated steel frame. All pre-assembled powered conveyor sections are driven by a geared motor and duplex chain. Corners and diverts combine straight sections with just a few extra components. The entire system offers a high flexibility in reconfiguring the layout with low efforts. All sections can be located or inserted almost everywhere. The full rollers in that area can be replaced by stub rollers without any special tools within a couple minutes.

The CONVELINE 6001 Series is also available in a low profile version with a top of roller of only 150mm. The entire conveyor track is covered with walkable covers that allows to work directly on the work piece from each side. It also enables to get access to and use the inside of a conveyor loop. 6001 Series uses the standard components and offers high flexibility and efficiency.

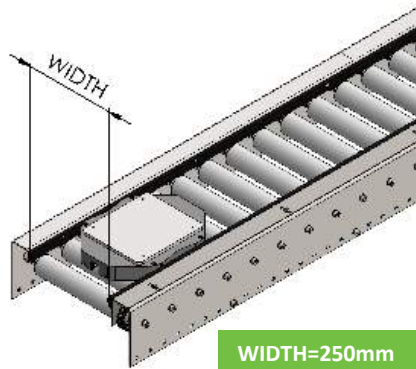
The systems is popular and known for its low maintenance, high availability and very good reliability for many years under production environment.

The Conveline system is designed for medium product weights up to 50 kg / work piece standard. Nominal widths from 250 mm to 550 mm are available. For most applications in the automotive industry the system with a nominal width of 450 mm is deployed. Typical areas of deployment are production lines and pre-assembly lines for gearboxes, cylinder heads, engines, and axle components.

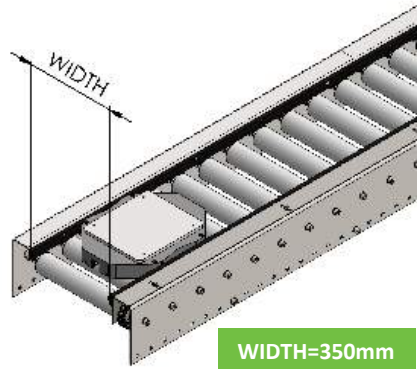


TECHNICAL SPECIFICATIONS

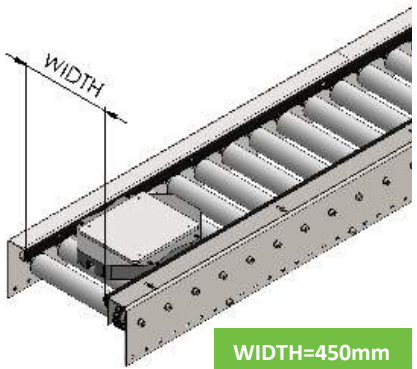
Available width (mm)	250, 350, 450, 550, 650, 850
Standard length (mm)	500, 1000, 1500, 2000 and 2500
Max. Pallet/Carrier weight (Kg)	50 / 250
Pallet/Carrier sizes (mm)	238 x 306 332 x 430 428 x 550 522 x 670 (option: with or without cut) (Heavy duty pallet based on application)
Height range	500 - 1000
Locating accuracy (mm)	±0.5 Stop Unit, ±0.1 Locating pin, ±0.05 Lift & Locate
Roller pitch (mm)	82.5 or 127 or 150.8
Roller diameter (mm)	50 / 76
Max. length per drive unit (mm)	7,500
Drive motor size	0.5 or 1 HP, SEW / Bonfiglioli
Drive speeds (m/min)	Up to 24
Frame material	Anodized aluminum or Mild steel powder coated
All Specification possible to changed based on width and product weight and total load of conveyors.	



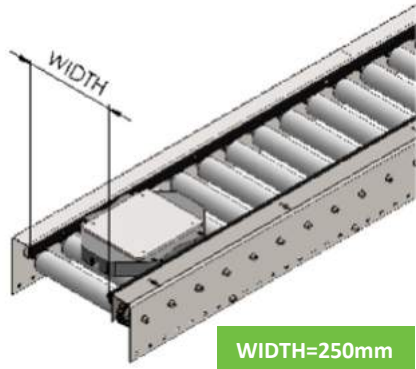
WIDTH=250mm



WIDTH=350mm



WIDTH=450mm



WIDTH=250mm

Widths (W) mm:

W = 250
W = 350
W = 450
W = 550

Widths (W) inch:

W = 9.8
W = 13.7
W = 17.7
W = 21.6

Customise Options
based on Application.

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The systems width W between the inner rails. The overall width is W+100mm. The top (upper) plate of the pallet carrying the product can extend out over the basic nominal width at the sides.

Typical applications for roller conveyors benefits are the following:

- Transmission parts
- Engines parts
- Cylinder head parts
- Battery modules
- Battery controllers and parts
- Steering Systems
- Front & Rear axles
- Automotive parts
- Seats
- Electronics assembly
- High energy efficiency level with different load application
- Safe, affordable operation without the need for guarding
- Tight positioning tolerances thanks to high precision guide rails
- Active braking and lifting of the Pallets
- Unlimited zero pressure accumulation of Pallets
- Flexible speeds from 0.2 to 24m/min between communication points
- Constant 24V auxiliary power available for energy Saving
- Very limited preventative maintenance required
- No track maintenance due to no moving parts in the track
- Very low noise level, less than 60db(A)
- Easy tracking of the Carts/parts throughout the layout
- Highly standardized components
- Significantly reduced wiring and commissioning time
- Low profile for easy part access around the line
- Tip protection for overhanging loads optionally available
- Adaptable pallet length to fit the size of your part

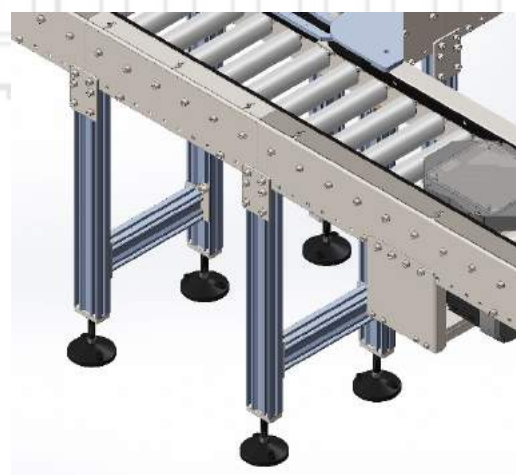
Technologies, smartly adapted to the growing demands of dynamic assembly automation. All this combined with low cost of ownership and high performance and flexibility, that is the Conveline system.

Our roller conveyor systems have consistently proven themselves for over 10 years in the field. They offer outstanding dependability at a low cost of ownership. Utilize a Conveline friction roller conveyor in your next automated production line and benefit from the great performance of this strong and robust system.



Roller Conveyor

Robust rollers based on the gentle conveying of workpiece carriers on straight roller conveyors. Depending on requirements, these conveyor lines can be manufactured in modules with different lengths, heights and widths. Each roller conveyor enables variable planning in grid dimensions and is set in motion by its own chain drive. The entire conveyor line can be designed as desired by 90° corner deflections, switches and lifts depending on requirements and space options. Due to the modular design, changes and extensions of the system are also possible afterwards without any problems. Profile grooves in the roller conveyor chassis are the basis for mounting various add-on parts. The friction rollers, which normally have a diameter of 50 mm, are available with zink surface, can be easily changed or, if necessary, replaced by stub rollers if the workpiece carrier is accessible from below.



Conveyor Support Leg

Conveyor support leg with high-quality aluminium/steel construction of are characterized by a high load capacity and stability. The supports are assembled to length and thus generate any desired transport height, which can be aligned by height-adjustable with feet. The position of the supports on the conveyor system is freely selectable. Oil pans, cable ducts, electrical or pneumatic components can be easily mounted on the supports and thus find their place under the conveyor line.



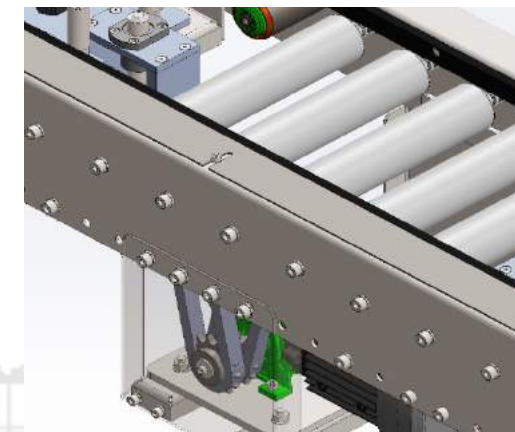
Corner Transfer 90°

Corner Transfer: Around the workpiece carrier from a roller conveyor to the next, has 90° corner bends. A plastic arc segment automatically guides the workpiece carrier in a different direction – without twisting the workpiece carrier. Thus, the workpiece carrier can be easily transported in the desired transport direction. An additional drive is not required for the 90° corner deflection in the conveyor line. By joining together two 90° corner deflections and a head module, a compact 180° corner deflection can also be created.

Drive Station

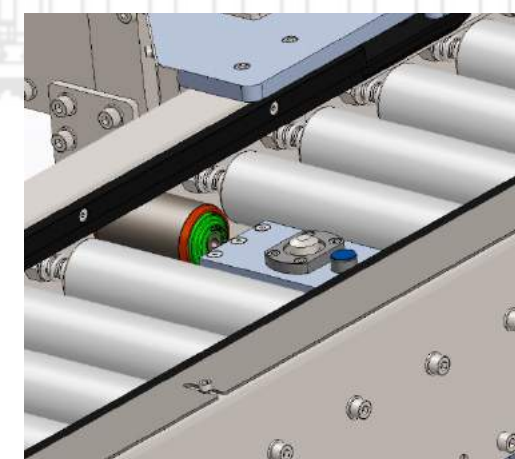
Effective drive: Each roller conveyor is driven by its own tangential or chain to chain and fully protected chain drive with automatic chain tensioner. Different motor types, sizes and designs can be selected for the drive station. The positioning is variable in the grid dimension. By designing engine speed and number of teeth of the chain sprocket offers a wide range of conveying speeds. If desired, these speeds can be controlled by a frequency converter. Normally, the drive motor is connected to 230/400 V-50/60 Hz and has an output of 0.18 to 0.37 kW. Reversing operation of the conveyor line is also possible on request.

Special Drive option with 24V Dc roller drive, normally it is use for energy saving and light load transfer applications.



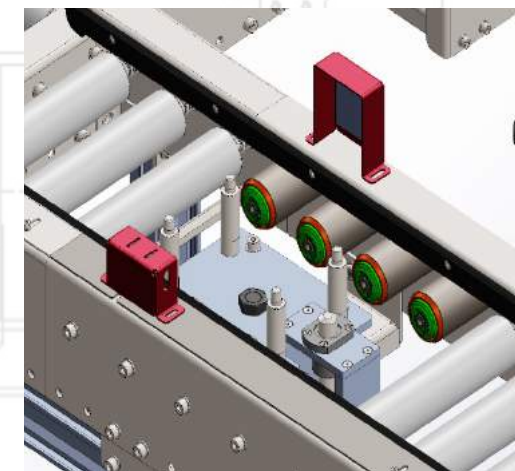
Stopper

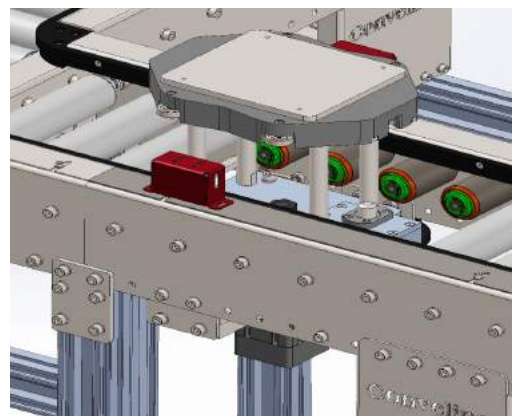
Targeted stopping up to 50 kilograms: To stop and individually the workpiece carrier is equipped with pneumatic stoppers. A stopper with a spring-loaded backstop is designed for product weights of up to 25 kilograms and ensures a positional accuracy of the workpiece carrier of ± 1 mm. The stop position and the number of stoppers can be selected individually within a conveyor section, and subsequent relocation of the stoppers is also possible without any problems. The stop cylinder is controlled by a way valve. A stopper query is not mandatory. As standard, the stoppers are equipped with a sensor holder.



Stopper & Lift Up

Targeted stopping and Lift up to 50 kilograms: The stoppers are also designed to stop and lift up separate the workpiece carriers, but are used for product weights of up to 50 kilograms. By gently braking the damped stopper of ideal at high speeds and large product weights. The damped stoppers and lift up, which are also pneumatically operated, also achieve a positional accuracy of the workpiece carrier of ± 1 mm by means of a backstop. The damping to the respective product weight can be adjusted individually. High capacity stopper and lift up available in customise solutions.



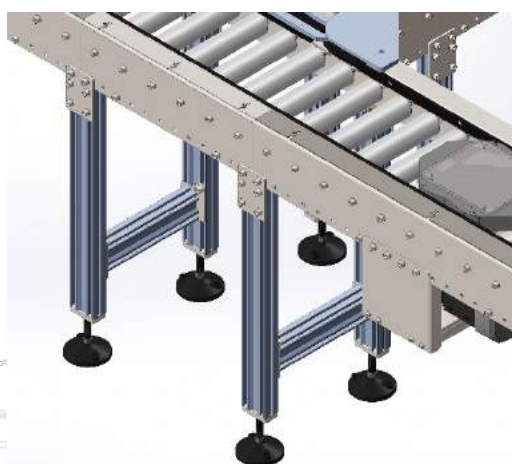
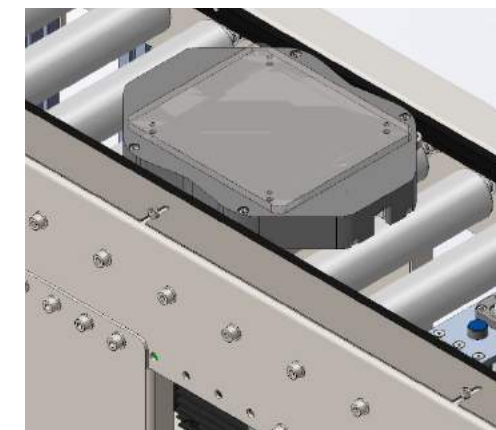


Lift Up

Exact positioning: If the positional accuracy of the workpiece carrier is not sufficient due to the stopper or the damped stopper, the position accuracy of the workpiece carrier can be further increased by a stroke indexer. This makes it possible to light an exact fixing and lifting of the workpiece carrier, and it can achieve optimal positional accuracy of ± 0.1 mm. The lifting of the workpiece carrier from the roller conveyor is variable and can be from 3 mm to 500 mm. The stroke indexer also increases the accessibility of the products on the workpiece carrier. Due to the lack of roll contact, a quiet position of the parts on the workpiece carrier in the X-Y and Z direction is achieved. The pneumatic stroke indexer is controlled by a directional valve.

Workpiece Carrier

Optimal basis enables robust, precise and gentle product transport on the conveyor line thanks to the workpiece carrier. The product-specific fixtures are mounted on a top plate or directly on the base body. In this way, even "complicated" products or workpieces can be transported reproducibly. This also provides the prerequisite for exact positioning on robots, test systems or similar units. Additional cut-outs can be made in the base body of the workpiece carrier, thus ensuring optimum accessibility of the products. Fixture can be mounting on workpiece carrier for part positioning and holding.

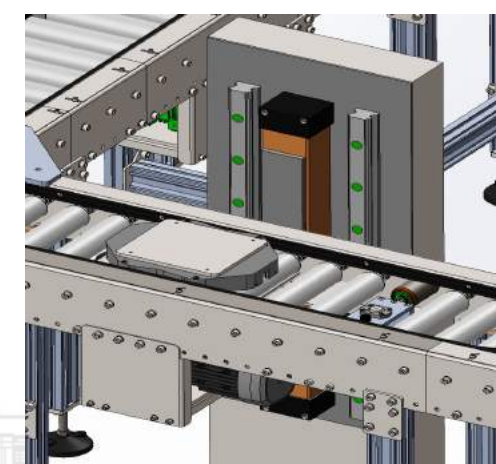


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Vertical Lift

Different levels By installing a lift, it is possible to Depending on requirements, individual transport of the workpiece carriers on different levels. A roller conveyor segment is mounted on the lift and the various conveyors are connected by the lift. The lift frame can be positioned laterally or on the front side of the roller conveyor segment. The lift can be driven pneumatically or electrically.



Diverter Transfer

Controlled direction with a switch allows the insertion/discharge of workpiece carriers in main and secondary conveyor without twisting the workpiece carrier. The diverter can be pneumatically operated or provided by the workpiece carrier itself. No additional drive is required in the conveyor section for a turnout. With the turnout function, a very special planning and design possibilities individual plant concepts.

Two Way Diverter

Two-way diverters enable a pallet to be sent to the left or right as required, or to be taken on to one track from either of two tracks coming from different directions. This is done by a track switch arm being moved into the corresponding position by an electric motor. The track leading to or leading away from this position must have a reversible drive.

