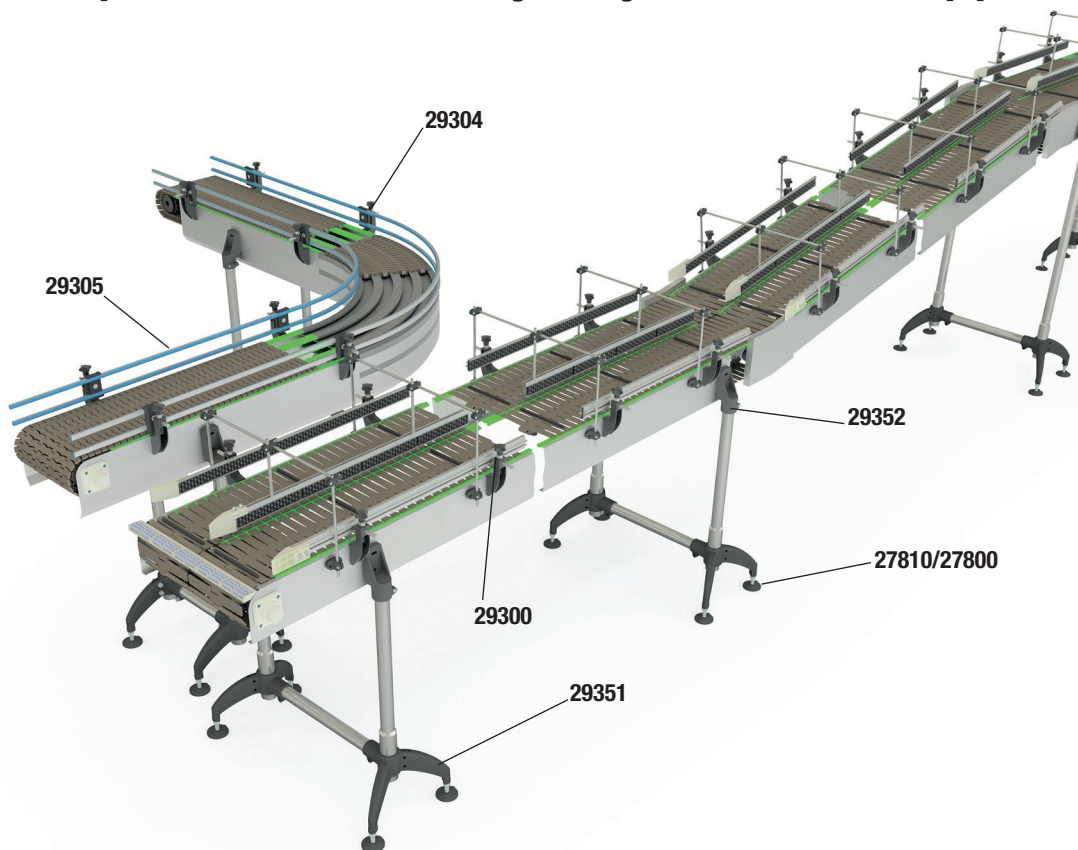


Technical note

Components for conveyor systems and support elements



Adjustable lateral guides and supporting items such as tube clamps and support elements are indispensable components of modern conveyor technology. They contribute decisively to the efficiency, flexibility and safety of conveyor belt systems by providing precise guidance for the conveyed goods and ensuring the stability of the conveyor systems. In industrial applications in particular, these components are of key importance for ensuring an efficient and trouble-free material flow.

Adjustable lateral guides

Adjustable lateral guides are essential components of conveyor technology. They ensure precise alignment and secure guidance for the conveyed goods, which is particularly important for loose or irregularly shaped items. Their adaptability increases the efficiency, safety and process stability of conveyor belt systems.

Function and advantages

The main functions are to stabilise the conveyed goods on the belt and prevent them from slipping or tilting. Benefits include:

- **Flexibility:** Adaptation to different item sizes and shapes.
- **Efficiency:** Rapid and precise adjustment reduces setup times.
- **Reduction of errors:** Minimises product damage and misplacement.
- **Safety:** Stable processes reduce the risk of malfunctions.

Structure and types

Adjustable lateral guides typically consist of:

- 1. Lateral guides:** The material PE-UHMW offers stability and durability. It also reduces wear to the products through low friction. The design must be adapted to the shape, speed and surface finish of the conveyed goods to prevent damage and jamming. The maximum force is between 2 kN and 3.5 kN.
- 2. Clamps:** Single clamps or double clamps for greater stability. It is also possible to adjust the height of the clamp individually using a flat bar. Simple adjustment is enabled via screw connections.
- 3. Lateral guide holders:** These firmly attach the guides to the conveyor belt structure.

Lateral guide materials

In addition to the PE-UHMW lateral guides, round profiles with a diameter of 10 mm and 12 mm can be used that match the clamps for round lateral guides. The material choice depends on the application:

- **Plastics** such as PE-UHMW are lightweight and corrosion-resistant, ideal for light to medium-sized conveyed goods.
- **Metals** such as stainless steel offer stability and are suitable for demanding environments.

Application areas

Adjustable lateral guides are used in:

- **Foodstuff industries:** For sensitive products such as baked goods or bottles.
- **Logistics and packaging:** For different sized packets.
- **Automotive industry:** For various components.
- **Pharmaceutical industry:** For sensitive medications.

Support elements for conveyor systems

Support elements stabilise and support the conveyor structure, prevent deformation and ensure precise alignment of the conveyor belt. The tube clamps are used to connect tube segments that form the supporting structure of a conveyor system. They offer flexibility and stability to the structure and enable modular customisation to meet differing requirements.

Structure and types

The support elements are made from plastic. Tube diameters of 48.3 mm and 60.3 mm are typically used. The cross connection can be realised with a tube diameter of 42.4 mm. The support elements are designed for maximum forces of 1.5 kN to 9.6 kN. Types available are:

- **Base elements:** Two-leg or three-leg for a stable base structure.
- **T-connectors:** Cross connections for additional stability.
- **Support head:** Connects the support structure to the conveyor belt.

Advantages

The combination of adjustable lateral guides and support elements offers numerous advantages:

- **Modularity:** Flexible adaptation to changing requirements.
- **Efficiency:** Time and cost savings during installation and maintenance.
- **Durability:** High-quality materials and precise construction increase the service life. However, regular maintenance and calibration are essential, especially in demanding environments.