



## BELT CONVEYORS



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# BELT CONVEYORS

## General Description and Intended Use

Belt conveyors are used to carry the solid wastes to the storage fields. It is used to transfer screen wastes and dewatered sludge in the wastewater treatment plants and to carry the materials in bulk in the industrial plants.

## Working Principle Of Equipment

The belt is generally tightened between drums. The belt speed is generally designed as  $\sim 0,3$  m/sec. The driving drum transfers the movement taken from the driving system to the belt with friction. The belt is in U form to carry the material easily on the conveyor. The lower belt arm is flat. The rolls carrying the upper belt arm consist of three-part carrier rolls in order to provide U form for the belt. The lower belt arm moves on the rolls which consist of a single piece and called rotation rolls.

The inclination of the belt route can be increased to a maximum value depending on the subcharge (accumulation) angle of the material and the friction

coefficient between the material and the belt. Maximum inclination of the belt route in order to carry the material on the belt safely should be lower than the angle corresponding to the friction coefficient between the belt and the material.

## Advantages

- High Performance Carriage Capability,
- Compact Design in Desired Capacity and Size,
- Easy Transportation,
- Easy and Mute Operation,
- Fast and Simple Assembling,
- Low First Investment Cost,
- Low Operation and Maintenance Costs,
- Possibility to Control and Follow the System Operation Over SCADA,
- Assembling Straight or Angled,
- Low Energy Consumption,
- Manufactured From Corrosion Resistant Material,
- Double-Sided Operation,
- Resistant Design,
- Long Operation Life.



# Technical Specifications

- It is manufactured in any capacity and size.
- They are mounted straight or depending on the intended use.
- Smooth or ragged belt is used depending on the material to be carried and the assembling angle.
- Spoilers can be coupled to the belt conveyors in order to prevent the materials fall from the edges during transportation according to the feature of the materials to be carried.
- Water drip pans can be coupled to the belt conveyors in order to prevent the wastewater pour from the edges during transportation according to the feature of the materials to be carried.
- It can be manufactured to move in both directions.
- A long-life rubber belt which is resistant to corrosive structure and oil is preferred.
- Proximity switch and torque switch are available for the safety of the employees and the equipment. In case of excessive loading or compulsion in the equipment,

the torque switch is activated and stops the system. In case of loosening or breaking in the belt, the switch is activated and stops the system since there will be no signal for loosened and broken belt from the proximity switch.

## ACCESSORIES

- Waste Scraper
- Torque Safety System
- Belt Loosening Proximity Switch
- Belt Breaking Proximity Switch
- Spoiler Sheets\*
- Upper Cover\*
- Waste Inlet Chute\*
- Waste Container\*
- Water Drip Pan\*
- Waste Inlet Chute\*
- Emergency Button\*
- Local Power and Control Panel\*

\* Optional accessories are defined.

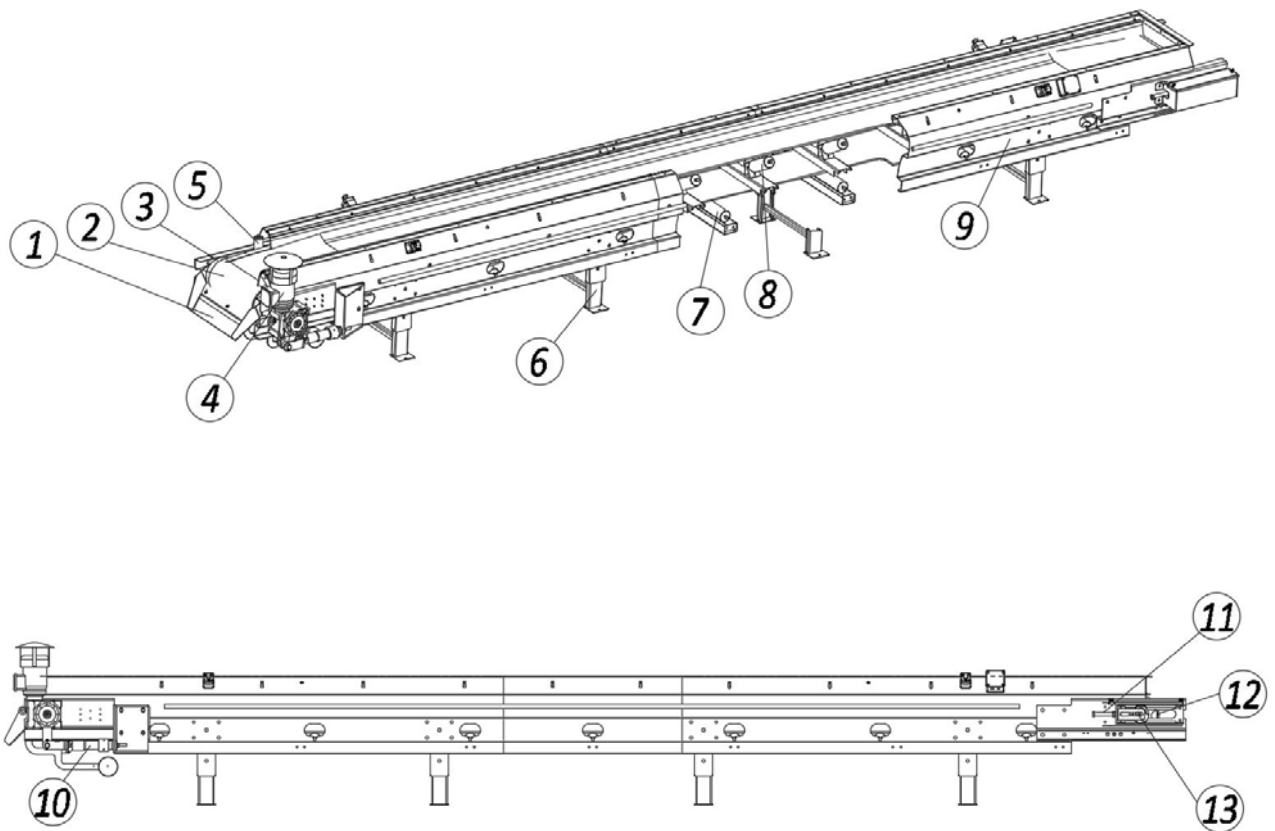


## Material Details

- **Frame:** They can be manufactured as DIN 1.4301 (AISI 304), DIN 1.4401 (AISI 316) or S235JR + Hot dipping galvanized coating.
- **Drum:** They can be manufactured as DIN 1.4301 (AISI 304), DIN 1.4401 (AISI 316) or S235JR + Hot dipping galvanized coating.
- **Belt:** It is manufactured from oil-resistant rubber.
- **Waste Scraper:** It is manufactured from High Density Polyethylene (UPE 1000).

"Different materials can be preferred in accordance with the request of the customer."

No	Part Name
1	Waste Scraper
2	Belt
3	Driving Drum
4	Motor / Reducer
5	Belt Fixing Coil
6	Lugs
7	Belt Return Drum
8	Belt Carrier Drum
9	Frame
10	Torque Safety System
11	Stretcher Unit
12	Stretcher Drum
13	Belt Loosening or Breaking Switch







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