Modular radius belt

ZERO CONTACT

Movex® BELTSERVICE CORPORATION

MAINTENANCE MANUAL
Zero contact™ Do’s and don’ts

- Assure that the conveyor is properly fixed before starting.
- Be sure the conveyor is correctly levelled before starting-up.
- Pay attention to the conditions of the modular belt.
- Do not operate when the belt is damaged.
- Assure proper fitting of all rods before starting the system (especially after first installation & maintenance of the belt).
- Do not operate the system when rods are not properly in place.
- Zero contact is the ideal conveyor for the food, and beverage processing industry.
- Do not use the conveyor to transport people or animals.
- We suggest starting the belt slowly to check the correct operation and to avoid the stumbling points.
- Do not start the conveyor before checking critical point’s of operation.

- Respect the technical specifications.
- Do not overload the belt.
- We suggest to use only warm water for cleaning the belt.
- Do not use chemicals such as chlorides, acids, etc for cleaning the belt.
- Keep ignition sources away from the belt.
- Do not contact with open flame.
- Keep product in temperature range under 60°.
- Do not expose the conveyor to temperatures above 60°.
- Keep the conveyor clean to prevent belt damage.
- Do not climb on the conveyor.
**Product Use**

The new modular radius belt Zero Contact™ is available in different widths with a closed-top surface capable of handling a variety of package sizes, types and configurations including delicate products and applications found on shrink wrappers.

Zero Contact™ is designed to be used for the transport of various sized components.

If you want to use this conveyor for another purpose and there are doubts about the application, please don’t hesitate to contact your MOVEX’s sales representative or our engineering team.

- **The conveyor is not meant to be used for the transport of people or pets.**
- **Under no circumstances should you walk or cross the belt during operation.**
- **All protection devices must be fitted before operating the conveyor.**

**Locating**

**Handling and locating**

For a safe and easy handling/placement of the conveyor use a forklift or pallet trucks with extended forks, the recommended lifting point is under the frame of the conveyor.

**Adjusting height and leveling**

- Once the conveyor is in its final position, the differences in floor level can be corrected by means of the adjustments on the support leveling pads [1].

- Loosen the lock nut and turn the foot into the correct position.
- When the conveyor is at the correct height and is fully stable, tighten the lock nut [2].
- The conveyor now is leveled [3].
Disassembling

To disassemble the belt

- Take the conveyor out of production to ensure it cannot be started during fitting time (isolate electrical supply and use lockers).
- To split the belt it is necessary to remove a cross rod. For conveyors with side guides, a slotted hole is provided in both sides of the frame to make this possible. For conveyors without, or with low side guides, you just lift the belt by hand.
- To take away the locking of the rod remove the plastic clip that is fitted on the outside radius. Use the correct size of blade screw driver [4].

- Remove the rod. This can be done by inserting a small blade screw driver inside the rod’s hole passing through the slotted hole, on the inside radius [5]. The rod will come out of the belt [6].

- The belt can now be removed from the conveyor frame.

Before proceeding to remove the rod, ensure that the belt ends cannot slip away due to its weight.
Installation

To Assemble the belt

- Lay the belt upside down with the ribs uppermost and slide the belt through the lower part of the frame, to the other end of the conveyor [7].

- Approach one end of the belt to the other in the upper part of the conveyor. Check if the sprockets engage correctly to the belt [8].

- Lay one belt end on the other [9]. If there are modules lying on top of each other, the modules on top should be removed.

- Join the belt ends together by pushing a cross rod in from the outside radius of the belt [10]. Use only original straight rods, bent or deformed rods may affect the performance.

- Before proceeding to insert the rod, ensure that the belt ends cannot slip away because of its weight.

- To block the cross rod inside the belt, with the help of blade screw driver close the external plastic clip. Use the correct size of blade screw driver [11].

- The belt now is correctly assembled.
Micropitch conveyor

Also we have an optional application including the Zero Contact and it is a micropitch conveyor, one understands already from the name that the 8 mm pitch is very small.

This type of conveyor is used in the food and beverage industry, specifically for product transfers of small and delicate products. Coupling with Zero Contact saves space or money avoiding more gearmotors for the conveyors infeed or outfeed. This is possible through chain transmission.

The belt design enables a smooth and tight transfer, improved tracking, and product stability while allowing a minimum gap between conveyors and prevents products from being damaged and misorientated. The conveyor is bi-directional, and the frame is resistant to high and low temperatures due to its stainless steel construction.

### 510 FT - Belt Technical specifications

- **Belt Material**: LFA
- **Weight**: 5.8 kg/m²
- **Max working load**: 3000 N/m
- **Temp. range (dry)**: -40° to +120°C
- **Temp. range (wet)**: -40° to +60°C
- **Max belt speed**: 50 m/min

- **Drive method** (positive driven)
- **Sprockets material**: Polyamide / **Frame material**: Stainless steel / **Nose radius**: R3
Micropitch spare parts

Transmission chains and chain wheels (only micropitch version)

- If the micropitch conveyor is delivered separately from the Zero contact conveyor, make sure that the wheels are aligned during assembly and execute the correct tension of the transmission chain through a tensioner group.
- After running one week all transmission chains must be adjusted, then check the status frequently of the chain and if necessary proceed with the lubrication.
- When any wear is clearly visible both chain and chain wheels should be replaced.

For more details on Micropitch spare part consult our product catalog: www.movexii.com
Maintenance

**Zero Contact™** conveyors require limited maintenance but important points of attention are:

### Bearing units
- All bearings units are hermetically sealed and lubricated for life.
- The flange bearings may be supplied with a grease nipple or lubricated for life.
- Flange bearings with a grease nipple must be lubricated when the bearings do not run freely or replaced when there are signs of wear.
- If “Long Life” bearings are installed and show visible wear, they have to be replaced.

### Belt
- For the initial start-up of this conveyor we suggest to run it slowly to allow a complete check of the running belt.
- Assure to not have points of obstruction.
- Depending on the application, we recommend checking the belt at least every 2 months or more frequently if required.
- If the wear of the belt is clearly visible it must be replaced.
- After every 1,000 hours, the belt has to be checked to see if stretching is clearly visible, we recommend to remove one or more rows of modules if necessary.

### Sprockets and wear strip
- When the teeth of the sprockets show wear they should be replaced.
- Wear strip must be replaced when wear is clearly visible and it is recommended to replace when fitting a new belt.

### Cleaning
- For better conveyor efficiency, cleanliness is necessary to keep it as clean as possible.
- Normal cleaning with warm water is sufficient excessive build up requires a non-aggressive detergent and flush sufficiently afterwards with clean water.
- Take care not to spray the bearings, chain transmission and gearmotors, to avoid the possibility that lubricant is washed away and the danger of an electrical short circuit (Micropitch version).

### Gearmotor
For basic maintenance consult the supplier’s manual of the gearmotor, or contact our application engineering department.
Zero contact™ Spare parts

1. Zero Contact™
2. Support guide
3. Spacer (Optionally)
4. Sprocket
5. Locking collar
6. Flange bearing
7. Transfer modules
8. Inside guide
9. Bearings
10. Outside guide

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