CONVEYOR SYSTEM
X85X/X180X/X300X
Maintenance manual
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1 Safety

The conveyor system has been designed in such a way, that it can be used and maintained in a safe way. This holds for the application, the circumstances and the instructions described in the manual. Any person working with or on this machine should study the manual and follow the instructions. It is the responsibility of the employer to make sure that the employee is familiar with and follows these instructions.

The company or the country in which the machine is used may require extra safety measures. This particularly applies to the working conditions. This manual does not describe how these are to be complied with. In case of doubt, consult your government or safety officer!

1.1 System information

The project number and/or general drawing number shall always be specified when communicating with FlexLink with respect to the machine.

1.2 Important safety conditions

At the moment that the machine is going to be operated by a user, the following safety conditions must be met:

- Ensure that no unauthorized personnel have access to the machine, and surrounding area by, for example, screening off the machine using a fence.
- Only persons who have read and understood the operating instructions are allowed to operate, maintain and clean the machine.
- Do not reach into the machine while it is running or on. Even if the machine is not running, it can be 'on', which means that the machine can start operating automatically.
- Safety provisions, such as machine guards, emergency stops and proximity detectors shall not be removed or deactivated while the machine is running.
- Provide good ambient lighting to enable the operator to work well and orderly with the machine.
General

- Incorrect use of the equipment can cause personal injury.
- Do not stand or climb on the equipment.
- Do not wear loose clothing or other articles that can get caught in the machine.
- Follow the instructions in this user manual when transporting the machine. FlexLink must approve all modifications or changes to this machine.
- Only use recommended spare parts.
- Only authorised personnel may maintain electrical control panels.
- FlexLink is not responsible for damage if service on the equipment is not performed in accordance with this maintenance manual.

Maintenance and Service technicians

Service technicians must have:

- Sufficient knowledge for reading technical information
- Ability to comprehend technical drawings
- Basic knowledge of mechanics
- Sufficient knowledge in the use of hand tools
- Skilled (EN ISO 12100:2010)

Electricians

Electricians must have:

- Experience from similar installations
- Sufficient knowledge to work from drawings and wiring diagrams
- Knowledge of local safety regulations for electrical power and automation
- Skilled (EN ISO 12100:2010)

To avoid risks, only experienced personnel with technical knowledge and experience may perform repair work on the machine’s electronics components.

Operators

To correctly use the equipment, operators must have appropriate training and/or experience.
2 Introduction

2.1 Maintenance information

2.2 Scope

This information is part of an information collection describing the maintenance of the X85X/X180X/X300X systems. This information can therefore differ from your actual system.

2.3 Audience

This information is mainly written for maintenance personnel. The contents may also be of use for training purposes.

It is assumed that the maintenance personnel working with the FlexLink conveyor system have attended the FlexLink Basic training course.
2.4 Symbols

Clarification of certain symbols occurring in this documentation:

- **Assembly**
  - Proceed inspection with more/other actions

- **Maintenance**
  - Replace component. Repair/fix new and recycle if needed

- **Disposal**
  - Speed of conveyor, reduce
2.5 Cross reference symbols

The different sections in this manual may have cross-references to other documents, forums and other sections in the present manual.

Chain Calculation tool, FlexLink.com

e.g. See chapter 3.4 in the X85X Assembly manual

Contact FlexLink or your FlexLink supplier for support and/or consultation
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3 Inspection and action

3.1 Introduction

The following section is designed to offer assistance for your planned maintenance schedule. It may become evident that the suggested maintenance intervals can be shortened or extended to accommodate your local environmental conditions. Recommended maintenance every 1500 hour.

The manual contains directions for the standard components sold through the X85X/X180X/X300X chapters of the FlexLink stainless steel catalogue. In general, maintenance instructions are not given for equipment which the customer has chosen and specified for fitting to the installation.

Maintenance of the FlexLink conveyor systems should only be carried out by competent persons, who are familiar with FlexLink equipment. The instructions supplied should be followed to ensure that the maintenance runs with a high degree of safety and to minimize the risk of breakdowns which can adversely affect the production. If there is any doubt as to the most suitable procedure for maintenance, consult your FlexLink supplier.

Note: Consult your system documentation for any special maintenance required for your specific installation.

3.2 Non FlexLink equipment

Equipment and components which are not from the FlexLink family of products, such as motors, pneumatic equipment, control systems etc., should be maintained and serviced in accordance with their respective manufacturer's instructions.

3.3 Safety considerations

Before starting any maintenance on your FlexLink equipment, the following safety instructions must be observed:

- All electricity must be switched off.
- Make sure that the motor switch is also switched off and locked in the “off” position.
- Pneumatic and/or hydraulic power must be disconnected and any pressure accumulation released.
- Products being transported should be, if possible, removed from the conveyor chain.
• Staff affected must be informed that maintenance work is being undertaken.

**Warning:** *Do not climb onto the equipment.*

### 3.4 Warranty/guarantee

FlexLink conveyors are covered by warranty/guarantees as identified within the trading terms issued for each country. Check the warranty conditions for your system before submitting claims etc. If you are in any doubt as to what warranty is applicable to your system, consult your supplying agent or FlexLink direct.

### 3.5 Spare/replacement parts

If there is a demand for spare parts, contact FlexLink or your supplying agent.
3.6 Inspection checklist

- 3.7.1
- 3.7.2
- 3.7.3

- >8h

- >70°C
Inspection and action

1. Δ 20°C

4.11/4.13

3.7.4
3.7 Corrective actions

3.7.1 Jerky running
3.7.2 Unknown noise

kg?

kg

V?

6.

5.

3.7.

?
3.7.3 Motor overheated

- Temperature above 70°C

- Temperature below 70°C

- Check weight

- Contact FlexLink

- Check again
This page is intentionally left blank
3.7.4 Overheated plain bend
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3.75 Changing guides

8 mm
Inspection and action

1

2

3

4

5

6
3.7.6  Changing sprocket kit

- 10 mm
- 13 mm
- NOCO-Fluid or similar
- Snap ring plier
- 10 mm
3.8 Cleaning guidelines

Select correct cleaning chemicals in cooperation with the chemical supplier.

Ensure chemical mix within specifications. Consequence can be corrosion on the conveyor and belt degradation.

Recommendation is to clean the belt in place on conveyor in order to avoid recontamination during handling and belt reassembly.

Run the conveyor and clean the belt as it goes around the sprockets.

Clean the chains with warm water (50°C).

When using high pressure cleaning do not exceed 50 bar, 60 °C.

Sanitizer containing chlorine should not exceed 200 ppm chlorine.

Plastic conveyor parts and especially chains shall not be exposed for chlorine based fluids for a longer period. Consequence is brittleness and discolouration of the plastic.
Plastic material resistance for different types of cleaning agents.
(Parameters such as concentration, temperature, exposure time influence the resistance. Follow the chemical supplier recommendations.)

<table>
<thead>
<tr>
<th>Type of agent</th>
<th>Material</th>
<th>Polyoximetylen</th>
<th>Polyvinylidenfluorid</th>
<th>Polyamide</th>
<th>Polyethylene</th>
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<tbody>
<tr>
<td>Neutral</td>
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<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Alkaline</td>
<td>○</td>
<td>○</td>
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<tr>
<td>Acid</td>
<td>□</td>
<td>○</td>
<td>□</td>
<td>□</td>
<td>○</td>
</tr>
<tr>
<td>Chlorine</td>
<td>□</td>
<td>○</td>
<td>□</td>
<td>□</td>
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<table>
<thead>
<tr>
<th>Item</th>
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<th>○</th>
<th>○</th>
<th>○</th>
<th>○</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slide rail</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Steering guides (drive, idler)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Sprockets, idler wheels, drive wheels</td>
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<td></td>
</tr>
<tr>
<td>Guides L+R</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheel Disc</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Guide rail bracket</td>
<td></td>
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</tr>
</tbody>
</table>

○ resistant  □ conditionally resistant  × material
4 Dismantling and disposal

4.1 Important safety conditions

Dismantling the FlexLink conveyor system should be carried out by competent persons, who are familiar with the equipment being decommissioned.

In the absence of detailed information, every care should be taken to ensure that all items are securely retained during the decommissioning process. This is to ensure that the equipment remains stable and will not fall if left unattended.

With regard to the environment, you should separate the plastic, motor and stainless steel when you disassemble the system.

If there are any doubts as to the most suitable procedure for decommissioning, then consult the equipment supplier.

4.1.1 Other equipment

If other equipment is to be dismantled simultaneously with the FlexLink conveyor, attention should also be given to the interaction of the other equipment to the FlexLink conveyor. Pneumatic equipment should be removed from the conveyor before dismantling. Hydraulic equipment should be removed from the conveyor before dismantling and handling of the conveyor components during dismantling and disposal.
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4.2 Dismantling

8 mm  10 mm  13 mm  17 mm  24 mm  30 mm

3 mm  4 mm  5 mm

Snap ring plier

10 mm

Pin insert tool

XBMJ 6P
Switch off all electrical power. Ensure that system is safe by shutting down all feed supplies or removing electrical fuses.
4.3 Recycle

Sort different materials ready for disposal. Recycle components in accordance with local regulations.

**Material categories**

**Stainless steel**
Beams, bends, support legs etc.
- EN: 1.4301, 1.4305, 1.4436

**Electronics**
Motors and all other electronics

**Plastics**
Chains
- Acetal resin
Slide rails
- HDPE, PA/PE, PVDF, UHMWPE, PVC

**Steel**
Fasteners
- Electro zinc plated steel
Most material in the X85X system are stainless steel. Spareparts are stainless steel, plastic and the engine. This table shows the different plastics to be disposed.

<table>
<thead>
<tr>
<th>Material</th>
<th>POM</th>
<th>PVDF</th>
<th>PA</th>
<th>PE</th>
</tr>
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<tbody>
<tr>
<td>Chains</td>
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<td>×</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slide rails</td>
<td></td>
<td>×</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>Steering guides (drive, idler)</td>
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<td></td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Sprockets, idler wheels, drive wheels</td>
<td></td>
<td></td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Guides L+R</td>
<td></td>
<td></td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Wheel Disc</td>
<td></td>
<td></td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>Guide rail bracket</td>
<td></td>
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