

MOUNTING AND OPERATING INSTRUCTIONS

ELECTRIC TRANSPORTER CLEAN LINE

2299.61.12100.00 / 2299.61.14100.00 / 2299.61.18100.00



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These instructions are valid for the product

2299.61.12100.00 / 2299.61.14100.00 / 2299.61.18100.00

Electric transporter CLEAN LINE

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Contents

| | | |
|----------|--|-----------|
| 1 | Introduction | 5 |
| 1.1 | Definition | 5 |
| 1.2 | Intended use | 5 |
| 1.3 | Limits of use | 5 |
| 1.4 | Foreseeable misuse | 6 |
| 1.5 | Warranty | 6 |
| 1.6 | Manual | 6 |
| 1.6.1 | Target group | 6 |
| 1.6.2 | Legend | 7 |
| 1.6.3 | Figures | 7 |
| 1.6.4 | Safety instructions | 8 |
| 1.6.5 | General instructions | 8 |
| 2 | Safety | 9 |
| 2.1 | Safety information | 9 |
| 2.1.1 | Due diligence by the party first placing the product on the market | 9 |
| 2.1.2 | Qualifications of personnel | 9 |
| 2.1.3 | Personnel requirements | 10 |
| 2.2 | Residual risks | 11 |
| 3 | Product description | 12 |
| 3.1 | System structure and equipment | 12 |
| 3.2 | Function | 13 |
| 3.3 | Technical data | 14 |
| 3.3.1 | Type plate | 17 |
| 3.3.2 | Tightening torques | 17 |
| 4 | Transport | 18 |
| 4.1 | Transport damage | 18 |
| 4.2 | Interim storage | 18 |
| 4.3 | Return shipping | 18 |
| 4.4 | Disposing of the packaging material | 18 |
| 5 | Assembly | 19 |
| 5.1 | Important safety instructions | 19 |
| 5.2 | Preparation for mounting | 20 |
| 5.3 | Mounting material | 22 |
| 5.4 | Mounting electric transporter | 23 |
| 5.5 | Mounting single trough | 24 |
| 5.6 | Trough support | 25 |
| 6 | Commissioning | 26 |
| 7 | Operation | 27 |
| 7.1 | Operation | 27 |
| 8 | Faults | 28 |
| 8.1 | Important safety instructions | 28 |
| 8.2 | Customer services | 28 |

| | | |
|-----------|---------------------------------------|-----------|
| 9 | Servicing | 29 |
| 9.1 | Important safety instructions | 29 |
| 9.2 | Maintenance work | 29 |
| 9.3 | Inspection | 30 |
| 9.4 | Cleaning | 30 |
| 9.5 | Maintenance | 31 |
| 9.6 | Repairs | 31 |
| 10 | Disassembly and disposal | 32 |
| 11 | Service and spare parts | 33 |
| 11.1 | Service | 33 |
| 11.2 | Spare parts ordering | 33 |
| 11.3 | Spare parts | 34 |
| 12 | Indexes | 35 |
| 12.1 | Third-party products | 35 |
| 12.2 | Index of figures | 35 |
| 12.3 | Index of tables | 35 |
| 13 | Appendix | 36 |
| 13.1 | Declaration of installation | 36 |
| 13.2 | Personal notes | 38 |
| 13.3 | Maintenance plan | 39 |
| 14 | Index | 40 |

1 INTRODUCTION

1.1 Definition

The product Electric transporter CLEAN LINE is a partly completed machine as defined by European Directive 2006/42/EC, Article 1g and 2g.

1.2 Intended use

The product is intended to be installed in systems, machines or other incomplete machines or equipment or combined with them.

FIBRO GMBH has no influence on the intended use of the product.

It can only be used within the defined limits.

It must not be put into operation until the required safety of the entire system of which the product is a part is ensured, and compliance with the legislation and guidelines of the relevant country in which the product is being operated has been established and confirmed.

The company operating the product is responsible for protective systems or safety devices covering the operation of the whole system.

Proper use also includes:

- Reading these instructions
- Complying with the safety information they contain
- Complying with the other applicable documents
- Observing the maintenance requirements

1.3 Limits of use

| | |
|--------------------------------|---|
| Operating conditions | The product is designed for industrial use and is not suitable for private use. |
| Food industry | The product is suitable for use in the food industry. |
| Pharmaceutical industry | The product is suitable for use in the pharmaceutical industry. |
| Alignment | The product may only be moved, mounted, stored and operated horizontally. The trough slope in the transport direction must not exceed 8°. A rising trough can reduce the conveying speed by up to 50%. |
| Service life | The service life of the product is 15000 operating hours. |
| Temperature range Operation | Permissible temperature range for operation: -20 °C...+100 °C. |
| Storage temperature range | Permissible temperature range for storage: -20 °C...+60 °C. |
| ATEX | The product is not suitable for operation in an environments with explosive atmospheres, gases or radiation. |

Intended use

Intended use of the product:

- Industrial process transport of solid materials
- Use in the food and pharmaceutical industries

1.4 Foreseeable misuse

Every type of use of this product beyond the proper use shall be considered misuse and is prohibited.

The product must not be stressed beyond its load limits.

The following instances, among others, are considered misuse:

- Operation outside the permissible technical data (see chapter 3.3 "Technical data" on page 14).
- Operation in potentially explosive atmospheres.
- Use with vertical alignment.
- Use under water.

1.5 Warranty

The guarantee is regulated contractually (see Terms and Conditions or contract)

1.6 Manual

These instructions describe how to use the product and contain important information on proper use.

A copy of these instructions must always be kept by the product and must be read, understood and followed by everyone who works on or with the product.

The safety information in the various different chapters must be observed.

These instructions and other applicable documents are not updated automatically.

We reserve the right to make changes to the data and images in these instructions in the course of further technical development.

FIBRO GMBH can supply the current issue.



These instructions must be kept throughout the entire operating life of the product. One copy of these instructions must be available to the user directly and be read carefully before using the product.

Incomplete instructions must be supplemented. Illegible pages must be replaced.

1.6.1 Target group

Target groups of this manual are

- Specialists
- Trained personnel
- Instructed personnel

Tasks and the required qualification of the personnel are defined in chapter 2.1.2 "Qualifications of personnel" on page 9.

1.6.2 Legend

Characters, symbols and abbreviations are used in these instructions in order to clearly represent the content. They have the following meaning:

- 1) Marks the first level of an itemisation
 - a) Marks the second level of an itemisation
- Marks the first level of a list
 - Marks the second level of a list
- ✓ Contains information on requirements which have to be fulfilled before executing handling instructions.
- ✘ Contains information on tools, operating materials or tools required for the execution of repair work.



The book symbol before a text is a reference to a related document or another chapter of these instructions. The content of this document or the chapter must be taken into account.



The information symbol before a text marks a supplementary note or an important application tip.

1.6.3 Figures

The figures in these instructions are examples. Deviations between a figure and the actual conditions on the machine are possible.

The drawings of FIBRO GMBH and the information on third-party products are decisive.

1.6.4 Safety instructions

These instructions contain safety notices intended to draw attention to possible dangers that should be observed to prevent injury.

The pertinent text describes

- the type of danger
- the source of danger
- the options for preventing injuries
- the consequences in case of non-observance of the warning notices

The safety instructions are emphasised by a colour signal bar with warning triangle and signal word.

The signal bars have the following meaning:



A safety notice on a red signal bar with the signal word DANGER designates a hazard with a high risk level which, if not avoided, will result in death or severe injury.



A safety notice on an orange signal bar with the signal word WARNING designates a hazard with a medium risk level which, if not avoided, might result in death or severe injury.



A safety notice on a yellow signal bar with the signal word CAUTION designates a hazard with a low risk level which, if not avoided, could result in minor or moderate injury.

1.6.5 General instructions

In addition to the safety notices, these instructions contain information that must be observed to prevent property damage.

The pertinent text describes

- the possible reason for property damage
- the possibilities for preventing property damage

Notices of possible property damage are emphasised by a blue signal bar and the signal word *ATTENTION*.



Notices for the prevention of property damage are not related to possible injuries.



Furthermore, these instructions contain general information on use.

General information on use and tips for certain applications are emphasised with a blue information symbol.

2 SAFETY

2.1 Safety information

2.1.1 Due diligence by the party first placing the product on the market

This product was designed and constructed by FIBRO GMBH according to state-of-the-art technology. Requirements for maintaining of safety and health protection have been fulfilled.

This safety can only be achieved under normal work conditions when all measures necessary for that have been met. The party first placing on the market must plan these measures and check their implementation.

The introducing party must ensure that

- the product is brought to market in a fault-free, functioning condition and that all necessary mechanical and electrical safety equipment is present.

2.1.2 Qualifications of personnel

Special qualifications are required for personnel performing specific tasks.

Among other things, knowledge of first aid measures and local rescue facilities is required.

| | |
|----------------------|---|
| Electrical equipment | Qualified personnel from the electrical trade (as defined for specialists in IEC 364) |
| Transport | Trained personnel |
| Assembly work | Trained personnel |
| Inspections | Instructed personnel |
| Cleaning | Instructed personnel |
| Maintenance | Trained personnel |
| Repair | Qualified expert |
| Troubleshooting | Trained personnel |
| Decommissioning | Qualified expert |
| Disassembly | Qualified expert |

Tab. 2-1 Qualifications of personnel

Qualified personnel are persons who, due to their education, experience, training, and knowledge of relevant standards, provision, accident prevention regulations, and operating conditions, are authorised to perform the required tasks whilst recognising and preventing possible dangers.

Trained personnel are persons who have been trained by the manufacturer or the operating company for a specific set of tasks or activities. Trained personnel are authorised to perform the tasks or activities which correspond to the level of knowledge achieved from the training. Trained personnel have been informed about possible dangers and can recognise and avoid/prevent these.

Instructed personnel are persons who have been authorised by the manufacturer or the operating company to perform a specific set of tasks or activities independently.

2.1.3 Personnel requirements

The following safety information must be observed when working on or with the product described in these instructions. Disregarding the safety information may result in death or serious injuries.

The personnel must have the required training, experience and in order to be able to work on the product correctly. Improperly carried out work on the product can be dangerous and result in death or serious injuries.

No work may be carried out unless the information on it in these instructions and other applicable documents has been read and understood.

If a tool, activity, working method or practice is not expressly suggested by FIBRO GMBH, users must ensure it is safe both for themselves and others.

It must also be ensured that the product is not damaged or made unsafe by the intended work.

Everyone who works on or with the product must:

- Have read and understood these instructions.
- Comply with the safety information in these instructions.
- Heed the danger signs on the product.
- Heed the warnings in these instructions about possible residual risks.
- Ensure that there are no unauthorised persons near the product.
- Follow not only these instructions but also the instructions issued by the operating company on safety at work and accident prevention.
- Inform the operating company or a supervisor if a malfunction occurs.
- Immediately notify the manager responsible if there are any changes to the product that may diminish safety.

2.2 Residual risks

Dangers that cannot be completely eliminated through design and/or control-technical measures present a residual risk.

A safety notice in the relevant chapters and before certain handling steps in these instructions draw attention to residual risks.

For the colour coding and structure of the individual safety notices, see chapter 1.6.4 "Safety instructions" on page 8.

In addition to the information in the chapters, the safety notices to be observed for a safe handling of the machine are summarised as follows.



WARNING!

Ignition of an explosive atmosphere

Ignition hazards arising from a product may ignite an explosive atmosphere and cause an explosion.

- ▶ The product is not suitable for use in explosion hazard areas.
- ▶ Use in explosion hazard areas is prohibited.
- ▶ Serious through to fatal injuries due to the consequences of an explosion.



WARNING!

Crushing of fingers and hands

Moving parts pose a risk of crushing.

- ▶ Do not reach between moving or moving and stationary parts.
- ▶ Wear protective gloves.
- ▶ Reaching between moving or moving and stationary parts can result in crushing fingers or hands.



WARNING!

It is forbidden for non-qualified staff to perform any activities on the machine.

Activities on or with the product sometimes require that the staff has certain qualifications (see chapter 2.1.2 "Qualifications of personnel" on page 9).

- ▶ These activities can only be performed by staff which is qualified for these activities and is authorised to do so by the operator.
- ▶ If unqualified or non-authorised staff works on the system, injuries can be caused by improper handling.

3 PRODUCT DESCRIPTION

3.1 System structure and equipment

Available models:

- Electric transporter CLEAN LINE MINI 2299.61.18100.00
- Electric transporter CLEAN LINE COMPACT 2299.61.14100.00
- Electric transporter CLEAN LINE MAX 2299.61.12100.00

System

The product consists of:

- Electric transporter
- Mounting elements for electric transporter (mounting material optional)
- Mounting elements for trough (mounting material optional)

For optional mounting material, see chapter 5.3 "Mounting material" on page 22.

Electric transporter

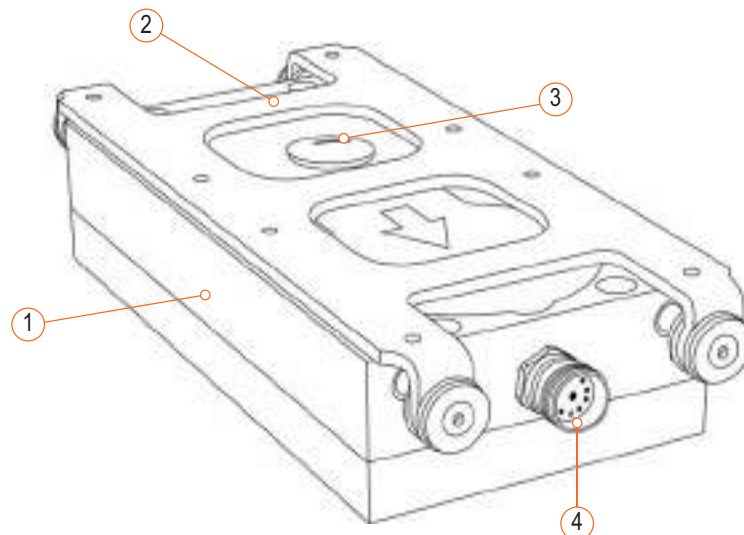


Fig. 3-1 Components of the electric transporter

- 1 Housing
- 2 Carriage
- 3 Oil cap
- 4 Connection socket

Equipment

The product is driven by a sensor-controlled brushless BLDC engine (**B**rush**L**ess **D**irect **C**urrent) with high torque.

The integrated ball-bearing mechanism operates in an oil bath and is designed for high loads. Malfunctions are detected directly by an integrated motion sensor.

Control unit for operation

A control unit adapted to the respective type must be used to control the electric transporter.

| Electric transporter | Control unit |
|-------------------------------------|-----------------------------|
| 2299.61.18100.00 CLEAN LINE MINI | 2299.61.18100.12 CLEAN LINE |
| 2299.61.14100.00 CLEAN LINE COMPACT | 2299.61.14100.12 CLEAN LINE |
| 2299.61.12100.00 CLEAN LINE MAX | 2299.61.12100.12 CLEAN LINE |



With FIBRO GMBH, this control unit including the connection cable for the connection socket and the signal cable for data exchange with external devices is available.

3.2 Function

A trough or combination of troughs mounted on the product first moves slowly forward, conveying the material in the trough.

The forward movement is followed by a rapid backward movement, during which the material is not moved.

This sequence gently and carefully advances the material.

3.3 Technical data

Electric transporter CLEAN LINE MINI

Article number 2299.61.18100.00

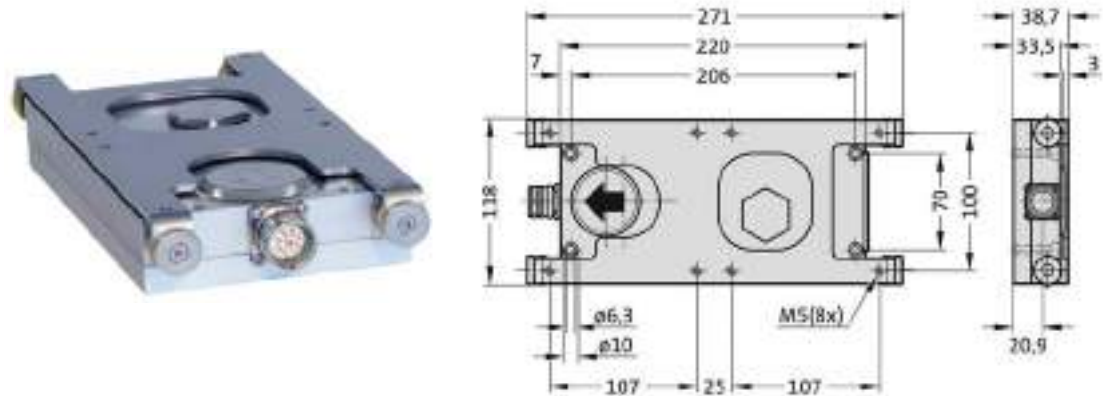


Fig. 3-2 Dimensions of electric transporter CLEAN LINE MINI

| Description | Unit | Value |
|---|----------|---------------------------|
| Maximum transport weight (without trough) | [kg] | 10 |
| Maximum trough weight | [kg] | 4 |
| Stroke length | [mm] | 20 |
| Conveying speed (mechanically adjustable) | [m/min] | 4...8 |
| Warning system (motion sensor) | -- | Integrated |
| Start / Stop | -- | Can be controlled via PLC |
| Engine and overload protection | -- | Integrated |
| Noise emission | [dB (A)] | 60 |
| Energy consumption | [kW] | 0.05 |
| Electrical connection, control unit | -- | M23 |
| Protection class | -- | IP66 |
| Dimensions (length x width x height) | [mm] | 271 x 118 x 38 |
| Weight | [kg] | 2.65 |

Tab. 3-1 Technical data of electric transporter CLEAN LINE MINI

Electric transporter CLEAN LINE COMPACT
Article number 2299.61.14100.00

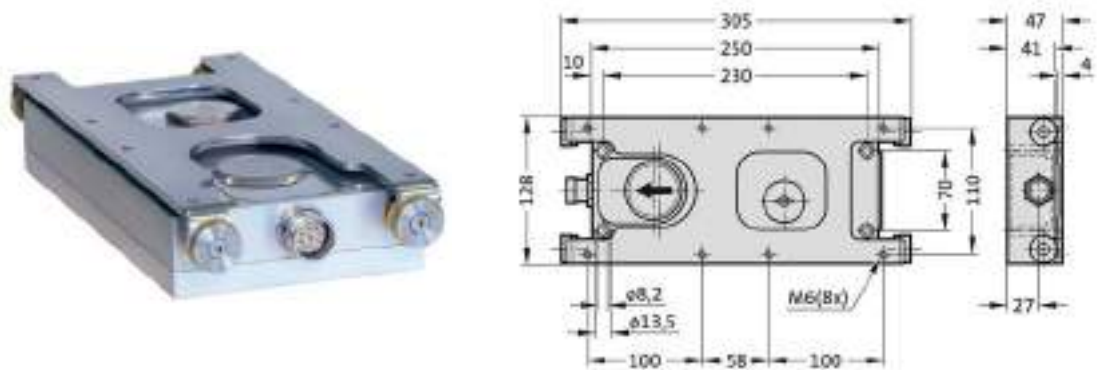


Fig. 3-3 Dimensions of electric transporter CLEAN LINE COMPACT

| Description | Unit | Value |
|---|----------|---------------------------|
| Maximum transport weight (without trough) | [kg] | 20 |
| Maximum trough weight | [kg] | 8 |
| Stroke length | [mm] | 20 |
| Conveying speed (mechanically adjustable) | [m/min] | 4...8 |
| Warning system (motion sensor) | -- | Integrated |
| Start / Stop | -- | Can be controlled via PLC |
| Engine and overload protection | -- | Integrated |
| Noise emission | [dB (A)] | 60 |
| Energy consumption | [kW] | 0.07 |
| Electric connection, control unit | -- | M23 |
| Protection class | -- | IP66 |
| Dimensions (length x width x height) | [mm] | 305 x 128 x 47 |
| Weight | [kg] | 3.7 |

Tab. 3-2 Technical data of electric transporter CLEAN LINE COMPACT

Electric transporter CLEAN LINE MAX
Article number 2299.61.12100.00

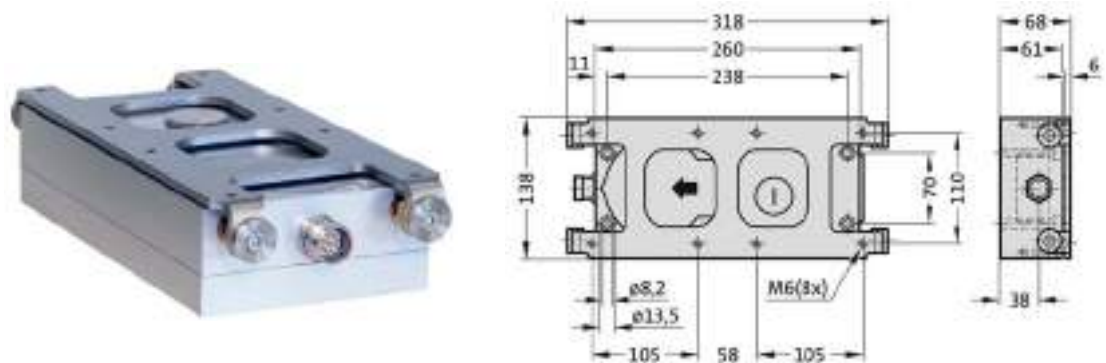


Fig. 3-4 Dimensions of electric transporter CLEAN LINE MAX

| Description | Unit | Value |
|---|----------|---------------------------|
| Maximum transport weight (without trough) | [kg] | 40 |
| Maximum trough weight | [kg] | 16 |
| Stroke length | [mm] | 20 |
| Conveying speed (mechanically adjustable) | [m/min] | 4...8 |
| Warning system (motion sensor) | -- | Integrated |
| Start / Stop | -- | Can be controlled via PLC |
| Engine and overload protection | -- | Integrated |
| Noise emission | [dB (A)] | 60 |
| Energy consumption | [kW] | 0.15 |
| Electric connection, control unit | -- | M23 |
| Protection class | -- | IP66 |
| Dimensions (length x width x height) | [mm] | 318 x 138 x 68 |
| Weight | [kg] | 6.3 |

Tab. 3-3 Technical data of electric transporter CLEAN LINE MAX

3.3.1 Type plate



A type plate is attached to the CLEAN LINE electric transporter. The information on the nameplate must be given for all questions and orders.



Fig. 3-5 Type plate

3.3.2 Tightening torques



If not otherwise specified, the tightening torque for the screws must be selected depending on the tightening process and the grade of the screws.

4 TRANSPORT

4.1 Transport damage

On delivery, the consignment must be checked immediately to ensure that it is complete and has not been damaged in transit. If damage is found on the packaging that indicates possible damage to the contents, the contents must also be inspected for damage.

If damage is found, the transport company must be informed immediately and the transport company must verify the damage.

4.2 Interim storage

- Only store when dry, in its original packaging and in enclosed rooms
- Storage temperature -20 °C...+60 °C
- Maximum humidity 60% (at 25 °C).
- No aggressive substances may be stored in the storage room (acids, bases, solvents etc.).

4.3 Return shipping

For the returns the parts which have to be sent back to the manufacturer for repair have to be packaged securely.

4.4 Disposing of the packaging material

The packaging materials must be either reused or properly disposed of in accordance with the country-specific regulations.

5 ASSEMBLY

5.1 Important safety instructions

The work described in this chapter may only be carried out after reading chapter 2 "Safety" on page 9 as well as the safety instructions and warnings for this chapter.

Chapter 2 "Safety" on page 9 provides general safety information for the entire product, details of the safety-related equipment of the product, the required qualifications of personnel, and warnings, which concern the entire product.

The safety instructions in this chapter supplement the general safety information and apply only to this chapter.

The warning notices in this chapter supplement the general safety information and apply only to this chapter.



WARNING!

Incorrect installation

Incorrect installation can lead to damage to the product and consequently to hazards for persons.

- ▶ Assembly work is only permitted to be carried out by qualified personnel.
- ▶ Work to connect the electrical energy is only permitted to be carried out by qualified electricians. The conformity of the mains frequency and voltage with the specifications in the technical data must be checked.
- ▶ All power supply units may only be connected when the power supply is switched off.
- ▶ The fixings must be of sufficient size to withstand the stresses during operation.
- ▶ Injuries due to incorrect assembly.

NOTICE

Material damage due to moving parts

The carriage of the electric transporter moves horizontally over a defined stroke. Collision with objects in the range of motion can lead to hazards and cause property damage.

- ▶ Ensure the installation space is sufficient before mounting.
- ▶ Mount all attachments so that they cannot collide with other parts.
- ▶ Injuries or property damage could result from a crash during operation.

5.2 Preparation for mounting



For use in the food and pharmaceutical industries

Selecting a suitable trough is at the discretion of the operator.

The trough material must be conform to the hygiene requirements of the operator.

Countersink of the mounting holes in the trough



For standing or hanging mounting with clamping of a trough to a profile rail, drilling and countersinking mounting holes is not required.

Required tool:

- ✂ Mounting tool 2299.10.00.01.05 or 2299.10.00.01.06 (see chapter 5.3 "Mounting material" on page 22).
- ✂ Ring wrench 10 mm for countersunk screw M5
- ✂ Allen wrench 4 mm for countersunk screw M5
- ✂ Ring wrench 13 mm for countersunk screw M6
- ✂ Allen wrench 5 mm for countersunk screw M6



Eight threaded holes are located on the carriage of the electric transporter. The four outer threaded holes must be used for mounting a single trough.

1. Mark the position of the holes on the trough (for hole pattern of the relevant electric transporter, see chapter 3.3 "Technical data" on page 14).
2. Drill holes.
 - a) Hole diameter 6 mm for countersunk screw M5.
 - b) Hole diameter 8 mm for countersunk screw M6.
3. Insert countersunk screw into the hole from above.



4. Screw the counterpart onto the countersunk screw from below.
5. Hold the counterpart with the ring wrench.
6. Screw the countersunk screw into the counterpart using the Allen wrench and tighten.



7. Unscrew the countersunk screw and the counterpart.
8. Perform steps 3 to 7 in each hole.

The countersinks are complete.

Setting conveying speed



When delivered, the conveyor speed of the electric transporter is set to the highest level (H).

Required tool:

- ✘ Screwdriver for electric transporter 2299.6x.12100.00 and 2299.6x.14100.00
- ✘ Socket wrench SW36 for electric transporter 2299.6x.18100.00
- ✘ Hexagon socket wrench SW6 for electric transporter 2299.6x.12100.00
- ✘ Socket wrench SW13 for electric transporter 2299.6x.14100.00 and 2299.6x.18100.00

1. With the aid of the screwdriver or the socket wrench SW36, unscrew the oil cap(A).
2. Using the hexagon socket wrench SW6 or the socket wrench SW13, turn the screw (B) visible in the oil opening anticlockwise by a quarter turn.
3. Move the screw (B) sideways continuously between the following positions:
H = Highest conveying speed / Lowest conveying force
L = Lowest conveying speed / Highest conveying force

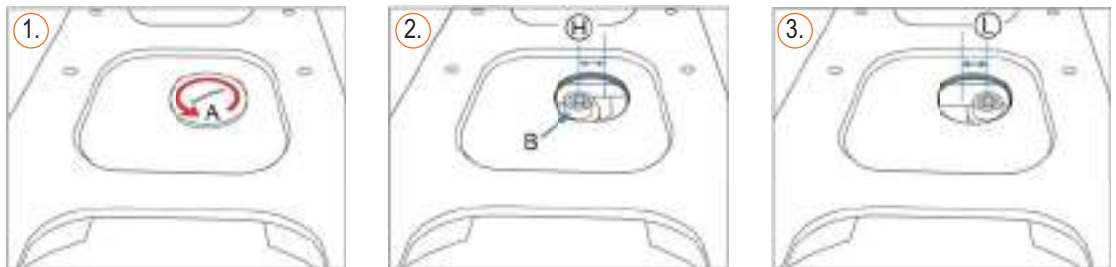


Fig. 5-1 Setting conveying speed

4. After setting the desired conveying speed, tighten the screw (B).
5. Screw on oil cap (A) and tighten.

The conveying speed is set.

5.3 Mounting material

Mounting tool

Article number 2299.69.10.00.01.05 / 2299.69.10.00.01.06



Use mounting tool 2299.69.10.00.01.05 for electric transporter 2299.60.18100.00 or 2299.61.18100.00

For electric transporter 2299.60.14100.00 / 2299.60.12100.00 or 2299.61.14100.00 / 2299.61.12100.00, use mounting tool 2299.69.10.00.01.06.

The mounting tool is used to countersink the mounting holes in the trough.

The mounting tool consists of

- Countersunk screw
- Counterpart



Fig. 5-2 Mounting tool

Standard trough mounting

Article number 2299.69.10.1x



For electric transporter 2299.60.18100.00 or 2299.61.18100.00, use the *standard trough mounting kit* with article number 2299.69.10.1x.05.

For electric transporter 2299.60.14100.00 / 2299.60.12100.00 or 2299.61.14100.00 / 2299.61.12100.00, use the *standard trough mounting kit* with article number 2299.69.10.1x.06.

The *standard trough mounting kit* is used for mounting a trough directly on the electric transporter.

The mounting kit consists of

- Four countersunk screws
- Four self-adhesive washers



Fig. 5-3 Standard trough mounting kit

5.4 Mounting electric transporter

Mounting requirements:

- ✓ The mounting surface must be horizontal and flat.
- ✓ The electric transporter must not be mounted in a tilted or inclined position.

Required mounting material:

- ✘ 4 fixing screws M6x40 for electric transporter 2299.6x.18100.00
- ✘ 4 fixing screws M8x50 for electric transporter 2299.6x.14100.00
- ✘ 4 fixing screws M8x70 for electric transporter 2299.6x.12100.00



FIBRO GMBH recommends that all screws be provided with medium-strength thread lock.

1. Make threaded holes in the mounting surface.
(For hole pattern of the mounting holes, see chapter 3.3 "Technical data" on page 14).
2. Place electric transporter over the threaded holes in the mounting surface.
3. Insert fixing screws and tighten crosswise.
4. Remove yellow warning tape.
5. Unscrew plastic oil cap.
6. Screw in supplied metal oil cap.

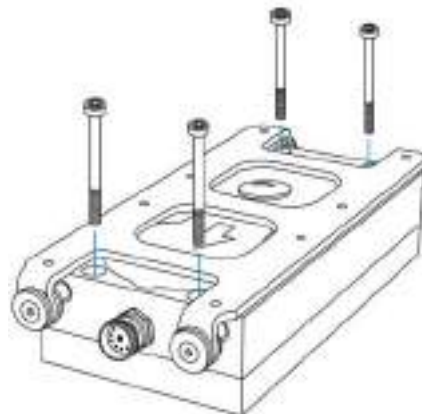


Fig. 5-4 Mounting electric transporter

The electric transporter is mounted.



FIBRO GMBH recommends adjusting the conveying speed to the application before mounting attachments. If the conveying speed is changed later, the attachments would otherwise have to be dismantled again (for setting the conveying speed, see chapter 5.2 "Preparation for mounting" on page 20).

5.5 Mounting single trough



For use in the food and pharmaceutical industries

Selecting a suitable trough is at the discretion of the operator.

The trough material must conform to the hygiene requirements of the operator.

Mounting requirements:

- ✓ The electric transporter is properly mounted.
- ✓ The mounting holes in the trough are present and provided with a countersink (for holes and countersink, see chapter 5.2 "Preparation for mounting" on page 20).
- ✓ The trough slope in the transport direction must not exceed the value of 8°. A rising trough can reduce the conveying speed by up to 50%.

Required mounting material:

- ✘ *Standard trough mounting kit* (see chapter 5.3 "Mounting material" on page 22).
 - 4 countersunk screws M5x8 and 4 washers for electric transporter 2299.6x.18100.00
 - 4 countersunk screws M6x10 and 4 washers for electric transporter 2299.6x.14100.00
 - 4 countersunk screws M6x10 and 4 washers for electric transporter 2299.6x.12100.00



FIBRO GMBH recommends that all screws be provided with medium-strength thread lock .

1. Remove plastic film from the washers.
2. On the underside of the trough, place the washers on the holes. The washers are self-adhesive and adhere to the trough.
3. Position trough over the threaded holes of the electric transporter, insert countersunk screws and tighten crosswise.

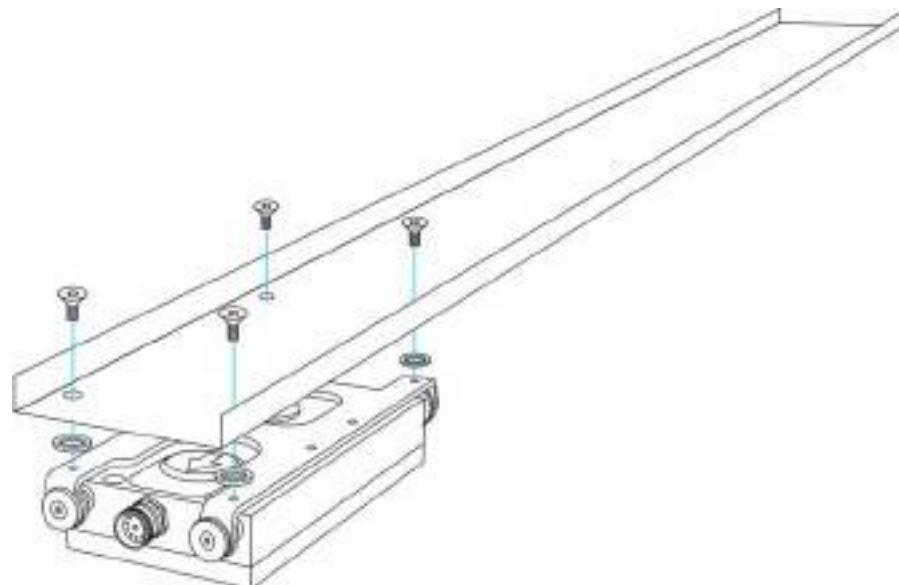


Fig. 5-5 Mounting single trough

The trough is mounted.



If troughs are long, FIBRO GMBH recommends installing suitable trough support (see chapter 5.6 "Trough support" on page 25).

5.6 Trough support

Depending on the length of a trough and the weight of the conveyed material, suitable trough support must be installed.

Installing trough support is at the discretion of the operator.

Example of trough supports:

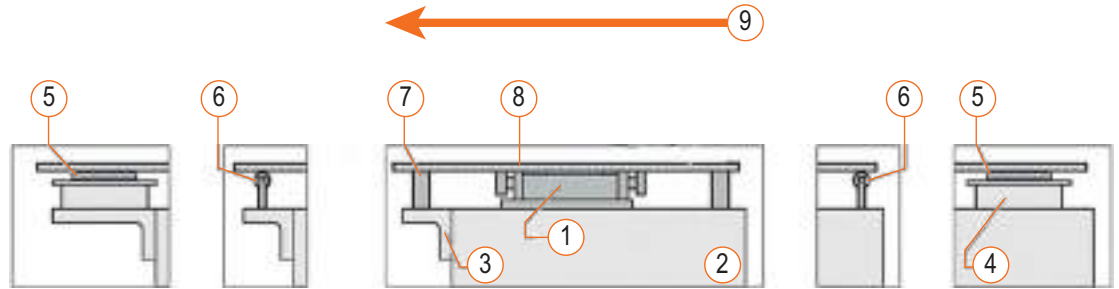


Fig. 5-6 Trough supports

- 1 Electric transporter
- 2 Mounting surface
- 3 Support bracket
- 4 Spacer
- 5 Ball guide
- 6 Support roller
- 7 Sliding guide
- 8 Trough
- 9 Transport device

6 COMMISSIONING

The product is designed for installation in a machine or system in accordance with its intended use. The product is commissioned together with the machine or system in which it has been installed. The distributor or operator is responsible for commissioning.

7 OPERATION

7.1 Operation

The product is designed for installation in a machine or system in accordance with its intended use. Operation is the responsibility of the distributor or the operator of the machine or system.

8 FAULTS

8.1 Important safety instructions

**WARNING!****Non-rectified fault**

Continued operation after a fault may result in injury and serious damage to the product.

- ▶ Any identified faults must be rectified immediately.
- ▶ Operating a damaged product is forbidden.
- ▶ Injuries could occur if this warning is not observed.

8.2 Customer services

If you should require the assistance of our customer service we would ask you to provide the following information:

- Serial number from type plate FIBRO GMBH (see chapter 3.3.1 "Type plate" on page 17)
- Description of the current fault
- Time and circumstances of fault
- Suspected cause

You can reach our customer service Monday to Friday from (times are UTC + 1) 7 am to 5 pm on **service number** +49 (0) 62 66 73 0

Outside of the stated time, there is an automatic message with further information.

Customer service address:

FIBRO GMBH

August-Läpple-Weg

DE 74855 Hassmersheim

info@fibro.de

On www.fibro.de you can find all FIBRO subsidiaries worldwide.

9 SERVICING

9.1 Important safety instructions

The work described in this chapter may only be carried out after reading chapter 2 "Safety" on page 9 as well as the safety instructions and warnings for this chapter.

Chapter 2 "Safety" on page 9 provides general safety information for the entire product, details of the safety-related equipment of the product, the required qualifications of personnel, and warnings, which concern the entire product.

The safety instructions in this chapter supplement the general safety information and apply only to this chapter.

The warning notices in this chapter supplement the general safety information and apply only to this chapter.



WARNING!

Non-authorized staff

Only the work described in these instructions with regards to the maintenance may be carried out by the staff of the operator.

- ▶ This staff has to be trained and authorized for the intended tasks.
- ▶ All further work and repairs may as a rule only be carried out by FIBRO staff.
- ▶ If using non-authorized staff, wrong action may cause injuries.



WARNING!

Use of incorrect spare parts

If incorrect spare parts or operational media are used, consequential damage can occur.

- ▶ Only use spare parts that are cited in our spare parts list or spare parts that we have approved.
- ▶ Individual components must not be used to replace one another. Subsequent modifications are not permitted.
- ▶ Only specified process materials must be used.
- ▶ Self-locking screws and nuts must be continually replaced.
- ▶ All specified screw tightening torques must be strictly observed.
- ▶ Failure to comply with these instructions means that the possibility of injury cannot be excluded.

9.2 Maintenance work

The following activities are considered maintenance work:

- Inspection
- Cleaning
- Maintenance
- Repair

9.3 Inspection

Inspection of the product

- Qualification: Specialists
 Maintenance type: Monitoring
 Interval: daily
1. Visual inspection for damage
 2. Inspection of fastening elements

9.4 Cleaning

Cleaning the product

- Qualification: Instructed personnel
 Maintenance type: Cleaning
 Interval: if required

Depending on the level of contamination, the operating firm can extend or reduce the specified cleaning interval. The time of a cleaning operation is dependent on

- ✓ Daily operating time
 - ✓ Production conditions
 - ✓ Operational environment
1. Inspect product for contamination.
 2. Clean product if necessary.
 - a) Vacuum out dust.
 - b) Carefully wipe the product with a soft cloth.

NOTICE

- ▶ Do not use compressed air for cleaning.
- ▶ Do not use harsh solvents or degreasers.

Use in the food and pharmaceutical industries



Cleaning of all product-contact parts, setting of cleaning intervals and selecting the cleaning agents must be carried out in accordance with the hygiene requirements of the operating firm. The cleaning agents must be compatible with the material used. Appropriate cleaning regulations conforming to the product-specific experiential values are to be produced by the operating firm. The corresponding valid legal stipulations should be observed.

Cleaning is only permitted to be carried out by instructed staff. Complying with suitable cleaning intervals is the responsibility of the operator. Observe the following for wet cleaning:

- All parts of the electrical and electronic installation must be protected from dampness and moisture.
- Never directly spray electrical equipment with a water or steam jet.

Work tools

Clean the surfaces of the machine with suitable wet or dry tools.

NOTICE

Surfaces must not be damaged or scratched by unsuitable work tools or foreign particles in the cleaning cloth.

- For dry cleaning, we recommend
 - Brushes with natural and plastic bristles
 - Textile materials made of natural and chemical fibres
 - Plastic fleeces without abrasives
- For wet cleaning, we recommend
 - Water and brush

9.5 Maintenance

Oil change

| | |
|-------------------|-----------------------|
| Qualification: | Trained personnel |
| Maintenance type: | Maintenance |
| Interval: | 3 / 15,000 Years or h |

Required tools and operating materials:

- ✘ Tool: See chapter 5 "Assembly" on page 19.
 - ✘ Lubricant: ISO 68 NSF-H1
 - ✘ CLEAN LINE MINI lubricant quantity: 0.15 litres
 - ✘ CLEAN LINE COMPACT lubricant quantity: 0.16 litres
 - ✘ CLEAN LINE MAX lubricant quantity: 0.30 litres
1. Remove attachments.
 2. Loosen the union nut of the connection cable and pull off the cable.
 3. Unscrew electric transporter and wipe carefully.
 4. Unscrew oil cap.
 5. Turn over electric transporter and let the oil run into a suitable container for at least 30 minutes.
 6. Attach electric transporter.
 7. Fill with new oil.
 8. Screw on oil cap.
 9. Plug in the connector of the connection cable and tighten the union nut.
 10. Mount attachments.
 11. Let electric transporter sit for 2 hours before putting it back into operation. There is a risk of leakage due to the oil pressure.

9.6 Repairs

No repairs should be made by the operating firm. If repairs are required, please inform customer services at FIBRO GMBH.

For contact data, see chapter 8.2 "Customer services" on page 28.

10 DISASSEMBLY AND DISPOSAL

NOTICE

Dispose of assemblies correctly!

Incorrect disposal of assemblies can cause environmental damage and lead to prosecution.

- ▶ In any case, the assemblies must be disposed of in accordance with the relevant national and regional laws and guidelines.
 - ▶ Care must be taken to ensure the environmentally-friendly disposal of the process materials.
 - ▶ Local regulations for the correct recycling and disposal of waste must be adhered to.
-

11 SERVICE AND SPARE PARTS

11.1 Service

You can reach our customer service Monday to Friday from (times are UTC + 1) 7 am to 5 pm on **service number** +49 (0) 62 66 73 0

Outside of the stated time, there is an automatic message with further information.

Written enquiries to:

FIBRO GMBH
August-Läpple-Weg
DE 74855 Hassmersheim

info@fibro.de

On www.fibro.de you can find all FIBRO subsidiaries worldwide.

11.2 Spare parts ordering

Bei der Bestellung von Ersatzteilen bitten wir um folgende Angaben:

- Name, address, mailing address
- Exact name of the machine Serial number from type plate(see chapter 3.3.1 "Type plate" on page 17)
- Exact name of the spare part
 - If necessary, provide samples, photos or sketches
- Number of required spare parts

Please send your spare parts order to

FIBRO GMBH
August-Läpple-Weg
DE 74855 Hassmersheim

info@fibro.de

On www.fibro.de you can find all FIBRO subsidiaries worldwide.

On receipt of the spare parts delivery:

- Number, correctness and condition of the supplied parts
- Please feedback any errors immediately

Claims for compensation due to transport damage have to be made immediately.

11.3 Spare parts

Spare parts must meet the technical requirements specified by FIBRO GMBH.

By ordering original spare parts from FIBRO GMBH, you are assured that these requirements will be met.

FIBRO GMBH can assume no liability for any damage caused as a result of using non-original spare parts.

| Article number | Description | To be used for transporter |
|---------------------|--------------------|-----------------------------|
| 2299.61.12100.00.01 | Oil cap | Clean Line 2299.61.12100.00 |
| 2299.61.14100.00.01 | Oil cap | Clean Line 2299.61.14100.00 |
| 2299.61.18100.00.01 | Oil cap | Clean Line 2299.61.18100.00 |
| 2299.61.12100.00.02 | Engine cover | Clean Line 2299.61.12100.00 |
| 2299.61.14100.00.02 | Engine cover | Clean Line 2299.61.14100.00 |
| 2299.61.18100.00.02 | Engine cover | Clean Line 2299.61.18100.00 |
| 2299.61.12100.00.03 | Carriage | Clean Line 2299.61.12100.00 |
| 2299.61.14100.00.03 | Carriage | Clean Line 2299.61.14100.00 |
| 2299.61.18100.00.03 | Carriage | Clean Line 2299.61.18100.00 |
| 2299.61.12100.00.04 | Stop washer set | Clean Line 2299.61.12100.00 |
| 2299.61.14100.00.04 | Stop washer set | Clean Line 2299.61.14100.00 |
| 2299.61.18100.00.04 | Stop washer set | Clean Line 2299.61.18100.00 |
| 2299.61.12100.00.05 | Damping washer set | Clean Line 2299.61.12100.00 |
| 2299.61.14100.00.05 | Damping washer set | Clean Line 2299.61.14100.00 |
| 2299.61.18100.00.05 | Damping washer set | Clean Line 2299.61.18100.00 |
| 2299.61.12100.00.07 | Plastic oil cap | Clean Line 2299.61.12100.00 |
| 2299.61.14100.00.07 | Plastic oil cap | Clean Line 2299.61.14100.00 |
| 2299.61.18100.00.07 | Plastic oil cap | Clean Line 2299.61.18100.00 |

12 INDEXES

12.1 Third-party products

The product contains no components from third-party companies.

12.2 Index of figures

| | | |
|----------|---|----|
| Fig. 3-1 | Components of the electric transporter | 12 |
| Fig. 3-2 | Dimensions of electric transporter CLEAN LINE MINI | 14 |
| Fig. 3-3 | Dimensions of electric transporter CLEAN LINE COMPACT | 15 |
| Fig. 3-4 | Dimensions of electric transporter CLEAN LINE MAX | 16 |
| Fig. 3-5 | Type plate | 17 |
| Fig. 5-1 | Setting conveying speed | 21 |
| Fig. 5-2 | Mounting tool | 22 |
| Fig. 5-3 | Standard trough mounting kit | 22 |
| Fig. 5-4 | Mounting electric transporter | 23 |
| Fig. 5-5 | Mounting single trough | 24 |
| Fig. 5-6 | Trough supports | 25 |

12.3 Index of tables

| | | |
|----------|---|----|
| Tab. 2-1 | Qualifications of personnel | 9 |
| Tab. 3-1 | Technical data of electric transporter CLEAN LINE MINI | 14 |
| Tab. 3-2 | Technical data of electric transporter CLEAN LINE COMPACT | 15 |
| Tab. 3-3 | Technical data of electric transporter CLEAN LINE MAX | 16 |

13 APPENDIX

13.1 Declaration of installation

Every incomplete machine falling in the application range of Directive 2006/42/EG is supplied with a declaration of installation in the context of this Directive.

FIBRO GMBH states in the declaration of installation which essential requirements of this directive were applied and complied with.

In addition, the declaration of installation contains details on other applied directives and observed harmonised standards.

See the next page for the content of the declaration of installation as well as sources of the applied directives and observed harmonised standards.



Declaration of installation of an incomplete machine in terms of Directive 2006/42/EC

Manufacturer

FIBRO GMBH
August-Läpple-Weg
DE 74855 Hassmersheim

hereby states that for the incomplete machine

| | |
|---------------------|--|
| Product designation | Electric transporter |
| Type designation | CLEAN LINE |
| Article number | 2299.61.12100.00 / 2299.61.14100.00 / 2299.61.18100.00 |
| Intended use | Industrial process transport of solid materials Use in the food and pharmaceutical industries |

the following essential requirements of Directive 2006/42/EC Annex 1 (Machinery Directive) were applied and complied with: 1.1.2 / 1.1.3 / 1.1.5 / 1.5.1 / 1.5.4 / 1.5.7 / 1.7.2 / 1.7.3

The incomplete machine may not be put into operation until it has been determined that the machine in which the incomplete machine has been installed complies with the provisions of Directive 2006/42/EC.

For certain components of this product placed on the market by FIBRO GMBH, the relevant requirements from the following other relevant directives have been met during design and construction:

--- No requirements from other relevant directives were identified.

For the correct implementation of the required relevant regulations in the named directives, the following harmonised standard(s) according to Article 7 Paragraph 2 and/or technical specifications has/have been applied:

| | |
|----------------------|--|
| EN ISO 12100:2010-11 | Safety of machinery - General design principles - Risk assessment and risk reduction |
| EN 60204-1:2018 | Safety of machinery - Electrical equipment of machines Part 1: General requirements |
| EN 619:2011 | Continuous handling equipment and systems - Safety and EMC requirements for equipment for mechanical handling of unit loads |

The special technical documents in accordance with Annex VII Part B have been created. We undertake to provide the special documents to national authorities in electronic form upon justified request.

Person resident in the Community authorised to compile the relevant technical documents :
FIBRO GMBH, Wendelin Leist, August-Läpple-Weg, DE 74855 Hassmersheim

DE 74855 Hassmersheim

Date:

p.p. Frank Oberhardt
Head of Product Management

o.b.o Wendelin Leist
Product Management Department

2.7829.00.0920.0100000

13.3 Maintenance plan

| Interval [Years or h] | | Qualification | | | | | | Task |
|-----------------------------|--|-------------------|--|--|--|--|--|--------------|
| 3 / 15,000 | | Trained personnel | | | | | | "Oil change" |

| daily | weekly | monthly | quarterly | half-yearly | yearly | if required | Task |
|-------|--------|---------|-----------|-------------|--------|-------------|-----------------------------|
| x | | | | | | | "Inspection of the product" |
| | | | | | | x | "Cleaning the product" |

14 INDEX

A

Alignment 5
Assemblies 32
ATEX 5
atmospheres
 potentially explosive 6

C

Changes
 technical 6
connection
 electric 15 16
 electrical 14
connection cable 13
connection socket 13
control unit 13 14 15 16
Conveying speed 14 15 16
conveying speed 21
 reduced 5 24
Copyright 2
countersink 24

D

Damage
 to the contents 18
 to the packaging 18
Danger sign 10
Dangers
 possible 8
declaration of installation 36
Dimensions 14 15 16
Directive 2006/42/EC 36
directives
 other 36
Distributor 27
Documents
 other applicable 6
documents
 technical 37

E

electric transporter
 components 12
Energy consumption 14 15 16
Engine protection 14 15 16

F

Food industry 5

H

Humidity
 maximum 18
Hygiene requirements 30

I

Injuries
 preventing 8

L

Lubricant 31
Lubricant quantity 31

M

misuse 6
models
 available 12
mounting holes
 countersink 20
Mounting tool 20

N

Noise emission 14 15 16

O

Oil cap 31
oil cap 21
 metal 23
 plastic 23
Operating conditions 5
overload protection 14 15 16

P

Packaging material 18
person
 authorised 37
Personnel
 instructed 9
 qualifications 9
 qualified personnel 9
 trained 9 9
Pharmaceutical industry 5
Protection class 14 15 16

R

Regulations
 Cleaning regulations 30
Repair 18
Returns 18

S

Safety equipment 9
Safety notices 8
screws
 grade 17
 tightening process 17
Service life
 Operating hours 5
Signal bar 8
signal cable 13
Signal word 8
Staff
 qualification 11

Standard
 harmonised 37
standard
 harmonised 36
Start / Stop 14 15 16
Storage temperature 18
Stroke length 14 15 16

T

technical documents
 special 37
Temperature range
 Operation 5
 storage 5
thread lock 24
tightening torque
 screws 17
tools 10
Transport damage 18
transport weight
 maximum 14 15 16
trough slope 5 24
trough weight
 maximum 14 15 16

U

Use
 intended 5 26 27
 proper 5 6
use
 proper 6

W

Warning system 14 15 16
washers
 self-adhesive 24
Weight 14 15 16

More information at

<https://www.fibro.de/normalien/downloads/pdf-downloads/peripherie/>



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THE LÄPPLE GROUP

LÄPPLE AUTOMOTIVE
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