

Table of Contents

- 1 Table of Contents
- 2 Important information
- 3 Description of the machine
- 4 Operating instructions
- 5 Mechanical settings
- 6 Maintenance of the machine
- 7 Transport & installation



### Table of Contents

# **Table of Contents**

2 IMPORTANT INFORMATION	3
2.1 PURPOSE	3
2.2 USE	3
2.3 OPERATION SAFETY	1
2.4 SECURITY WHEN SETTING UP AND SERVICE	5
2.5 EMERGENCY STOP AND IT'S LOCATION	5
2.6 WARNING LABELS	5
2.7 SPECIFICATION	5
2.8 ACCIDENT	3
2.9 RECYCLING	3
3 DESCRIPTION OF THE MACHINE	9
3.1 GENERALLY	9
4 OPERATING INSTRUCTIONS	)
4.1 CONTROL PANEL	)
4.2 EMERGENCY STOP	)
4.3 RESET	)
4.4 AUTOMATIC OPERATION	)
5 MECHANICAL SETTINGS	1
5.1 SAFETY INSTRUCTIONS FOR MECHANICAL SETTINGS	1
6 MAINTENANCE	2
6.1 SAFETY DURING MAINTENANCE AND SERVICE	2
6.2 GEARBOX MAINTENANCE	2
6.3 LUBRICATIONS OF COMPONENTS	3
6.4 CLEANING THE MACHINE	3
7 TRANSPORT AND INSTALLATION	1
7.1 SAFETY DURING TRANSPORT AND INSTALLATION	1
7.2 INSTALLATIONS INSTRUCTIONS EMT	1
7.3 ELECTRICAL CONNECTION	5
7.4 CONTROL AND CONNECTION OF THE MACHINE	5



# **2 IMPORTANT INFORMATION**

# **2.1 PURPOSE**

This instruction manual describes installation, driving, commissioning and maintenance to assist the operator or service and maintenance personnel.

Electromechanical Conveyor is referred to in the instruction manual as EMT.

### **2.2 USE**

EMT consists of input and output of products to systems, machines or incomplete machines.

EMT is intended to handle aluminum profiles with the following dimensions:

Min 500mm

Max 5000mm

EMT is a subsystem together with a machine, when the machine's emergency stop is activated, electricity must be made powerless so that all movements stop.

EMT lacks lighting, normal lighting in industrial premises is considered sufficient.

In all other uses, the manufacturer cannot be held responsible for any damage that occurs.

EMT may only be installed, used, adjusted and maintained by personnel who have sufficient knowledge of the machine and who are informed of its dangers.

The owner is responsible for ensuring that the operators have read the instruction manual and understood the contents, and are aware of the risks associated with EMT.

Changes to EMT that the manufacturer has not approved are not taken responsibility for.





# **2.3 OPERATION SAFETY**

- Observe national and local safety regulations.
- All safety functions must be tested before the EMT is put into operation.
- Staff working at EMT must not have jewelry, clothing or other loose hanging that can get caught in the machine.
- If danger arises, the EMT must always be stopped immediately.
- The owner of EMT must ensure that only suitable personnel with knowledge of the machine work with it
- The operator must know all controls.
- The operator must check that the EMT is switched off and that the safety switch on the electrical cabinet is switched off during service or maintenance of the machine.
- The operator shall ensure that superiors or the like receive information about any errors or deficiencies in EMT that affect safety.



### **2.4 SECURITY WHEN SETTING UP AND SERVICE**

- Only personnel with sufficient knowledge of EMT may perform service and maintenance.
- Check that the EMT is switched off and that the safety switch on the electrical cabinet is switched off
- Always lock the safety switch with a padlock so that no one can start EMT during service.
- Use only spare parts that are adapted for EMT and that meet the manufacturer's requirements for quality and accuracy.
- Before testing after an adjustment or repair, check that no one is in or next to the risk zones in or around the EMT.
- Always perform a function check after each repair.
- Perform maintenance according to given points and intervals.
- If danger arises, the machine can always be stopped immediately with the emergency stop.

### **2.5 EMERGENCY STOP AND IT'S LOCATION**

The EMT's electrical system must be connected so that when the emergency stop is activated, the EMT stops.

Emergency stop is located on the machine's control panel.

### **2.6 WARNING LABELS**

There are warning labels on EMT.



### **2.7 SPECIFICATION**

Designation of the machine

Machine: Electromechanical Conveyor

Machine number: 2299

Manufacturer

Meab Systems AB

Fotåsgatan 1

523 37 Ulricehamn

URL: http://www.meabsystems.se

The EMT input and output unit is adapted for the following Alu profiles:

#### Series:

2299.001 Vertica	Gearbox
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2299.002 Horizontal Gearbox

Series:

2299.011 Vertical Gearbox, mounting plate, Alu-profile 500-1200mm

2299.012 Horizontal Gearbox, mounting plate, Alu-profile 500-1200mm

#### Series:

2299.121.xx.900

Vertical Gearbox, two linear units, mounting plate 900mm, Alu-profile 1300-1800

2299.122.xx.900

Horizontal Gearbox, two linear units, mounting plate 900mm, Alu-profile 1300-1800

Series:

2299.121.xx.1200

Vertical Gearbox, two linear units, mounting plate 1200mm, Alu-profile 1900-2400mm



#### 2299.122.xx.1200

Horizontal Gearbox, two linear units, mounting plate 1200mm, Alu-profile 1900-2400mm

Series:

2299.121.xx.1500

Vertical Gearbox, two linear units, mounting plate 1500mm, Alu-profile 2500-3000mm

2299.122.xx.1500

Horizontal Gearbox, two linear units, mounting plate 1500mm, Alu-profile 2500-3000mm

Series:

2299.121.xx.1720

Vertical Gearbox, two linear units, mounting plate 1500mm, Alu-profile 3100-3600mm

2299.122.xx.1720

Horizontal Gearbox, two linear units, mounting plate 1500mm, Alu-profile 3100-4000mm

#### Series:

2299.121.xx.2320

Vertical Gearbox, two linear units, mounting plate 1500mm, Alu-profile 3700-4300mm

2299.122.xx.2320

Horizontal Gearbox, two linear units, mounting plate 1500mm, Alu-profile 3700-4300mm

#### Series:

2299.121.xx.2920

Vertical Gearbox, two linear units, mounting plate 1500mm, Alu-profile 4500-5000mm

2299.122.xx.2920

Horizontal Gearbox, two linear units, mounting plate 1500mm, Alu-profile 4500-5000mm





#### Noise level

The equivalent sound level of the machine is below 70dB.

#### Electrical

Electrical box with start / stop switch, motor protection,

and zero voltage triggers

Function to stop the machine

Electric engine

### **2.8 ACCIDENT**

If an accident or breakdown occurs, the responsible person and the manufacturer must be informed!

### **2.9 RECYCLING**

When the machine is used up, it must be recycled in accordance with current regulations. Contact staff specializing in recycling.



Description of the machine

# **3 DESCRIPTION OF THE MACHINE**

# **3.1 GENERALLY**





#### The machine consists of

- A) Engine
- B) Gearbox
- C) Back plate
- D) Raise and lower brackets
- E) Quick tensioner for scrap tray
- F) Alu-profile

With an oscillating movement of the aluminum profile, the chute moves with a slow movement with a fast return resulting in the material moving in one direction.

#### **EMT Tekniska Specifikationer**

Motor	3fast 400v 0.09kW 0.4 A

- Stroke length 20mm
- Transport speed 4,5-5m / min 0% lutning When the gutter is tilted, the speed increases
  - Stroke frequency 4/s
    - Maximum gutter weight incl. Profile 50kg
- Max Weight (gutters / profile / material) 100kg
- Temperature -20 till +60



**Operating instructions** 

# **4 OPERATING INSTRUCTIONS**

The following pages describe instructions and functions that are important for the operator to know.

### 4.1 CONTROL PANEL

The EMT input and output unit has its own control switch.

The equipment is included as part of EMT.

### **4.2 EMERGENCY STOP**

EMT has no internal emergency stop.

Activates the emergency stop on the main machine on which the unit is mounted

on / together with, EMT must also stop.

Emergency stop is located on the main machine's control panel.

### If danger arises, the main machine can always be stopped immediately with the emergency stop.

### **4.3 RESET**

If the reset button is pressed, the machine resets after protection has been opened, an emergency stop has been pressed or another alarm has been activated.

### **4.4 AUTOMATIC OPERATION**

Is done via EMT's control box.



**Mechanical Settings** 

# **5 MECHANICAL SETTINGS**

# **5.1 SAFETY INSTRUCTIONS FOR MECHANICAL SETTINGS**

- EMT and the power supply switched off.
- Settings may only be made by personnel who have knowledge of the machine.



# **6 MAINTENANCE**

### **6.1 SAFETY DURING MAINTENANCE AND SERVICE**

- During service or maintenance, the EMT must be switched off and the power isolated.
- Only trained personnel may perform service and maintenance on a EMT
- Repair or replacement of larger heavy machine parts must as far as possible be lifted by truck / traverse.
- Use only spare parts that are adapted to the machine and that meet the manufacturer's requirements for quality and accuracy
- Before testing after an adjustment or repair; check that no one is in the vicinity of the risk areas at EMT. If someone is within these risk areas, EMT may not be started.
- After each service or repair, test the function so that it works as intended in a safe way.
- Maintenance must be performed according to given points and intervals.
- If danger arises, the EMT can always be stopped immediately with the emergency stop.
- Electrical repairs may only be carried out by authorized personnel.

### **6.2 GEARBOX MAINTENANCE**

- Check the oil level through sight glasses daily
- Change of oil 10,000 / h. Volume 260ml
- Recommended oil Omega 690 80W90 DIN 51354
- Replacing the gearbox three open ended holes needs to be plugged with Loctite 542 or one similar.



• Replacing the motor one open ended hole needs to be plugged with Loctite 542 or one similar

# **6.3 LUBRICATIONS OF COMPONENTS**

- Linear guides
- Interval 200 / h
- Grease DIN 51502 or 51825

### **6.4 CLEANING THE MACHINE**

- Remember to isolate the power to the machine when cleaning on the EMT.
- Vacuum the machine from dust other debris once a week.
- Wipe the machine and other parts weekly.
- Keep the machine clean.



# **7 TRANSPORT AND INSTALLATION**

### 7.1 SAFETY DURING TRANSPORT AND INSTALLATION

- The machine parts must be lifted as far as possible with a truck or other suitable equipment. Loading and unloading of the machine must be carried out by approved truck drivers
- All lifting and moving of the machine must be done with great care.
- The machine must be bolted in place, great care should be taken.
- All electrical installation may only be performed by authorized personnel.
- When testing the machine in connection with the installation, great care must be taken.
- During installation, all safety functions must be tested. In the event of a lack or problem with any function, the machine must not be put into operation until the fault has been rectified.
- EMT is a subsystem together with a machine. When the machine's main electrical switch and emergency stop are broken, EMTs must be electrically isolated from the power supply.

### 7.2 INSTALLATIONS INSTRUCTIONS EMT

EMT can be installed in several different ways.

With existing brackets or holders. (see brochure)

When installing, make sure that there is sufficient space or protection between moving parts and eg press tables so that a dangerous risk of crushing cannot arise.

The installation must be done by an experienced mechanic.



Transport and Installation

# **7.3 ELECTRICAL CONNECTION**

See wiring diagram, Document motor protection and document electric motor.

Electrical connection must be made by a qualified person.

The motor cover is "economical" set, adjust if the motor stops.

### **7.4 CONTROL AND CONNECTION OF THE MACHINE**

It is important that the control mode of the machine prevents the machine or parts of the machine from starting unintentionally.

It must be possible to start and stop the equipment in a clear manner from the machine's control box.

EMT is a subsystem together with a machine, when the machine's emergency stop is activated, electricity must be made powerless so that all movements stop.