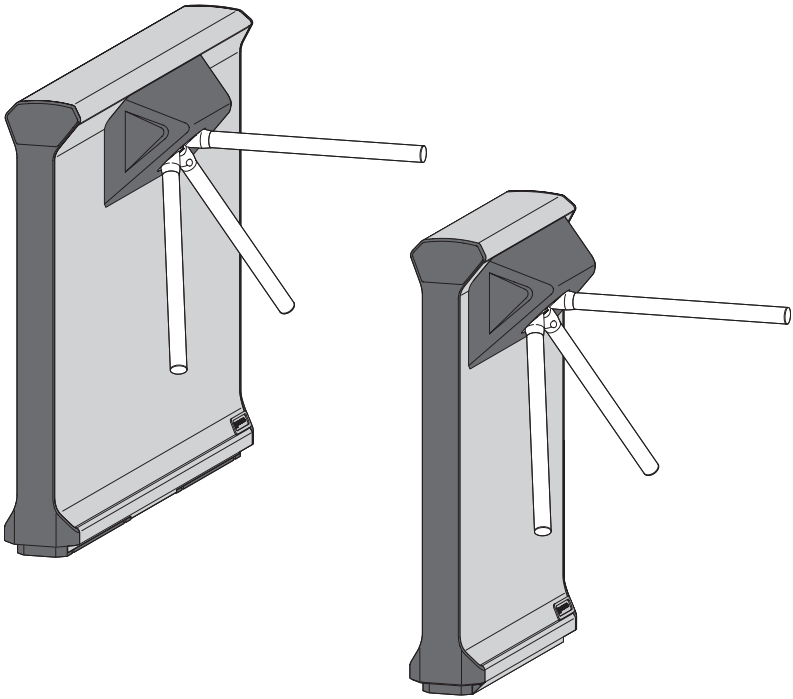
Operating Instructions

Turnstile

MHTM™ FlowMotion®

mTripod



Doc.ID: 5817,0026EN
Version 03

Original Operating Instructions

This document is available as PDF in the Magnetic Autocontrol download area (www.magnetic-access.com). Authorisation is required for download.

MAGNETIC AUTOCONTROL GMBH
Grienmatt 20
D-79650 Schopfheim
Germany

Phone +49 7622 695 5
Fax +49 7622 695 802
info@magnetic-germany.com
www.magnetic-access.com

Contents

1 Notices on the document

1.1 Purpose and contents of this operating instructions

These operating instructions provide all the information required for the product in the various phases of its life cycle.

This operating instructions contains the following information: Design and function, transport and storage, unpacking and delivery, installation and mounting, electrical connection, commissioning, operation, cleaning and maintenance, decommissioning, dismounting and disposal.

IMPORTANT!

For parameterisation see separate document "Description of control unit MGC for mTripod (Doc.ID: 5817,0025)".

1.2 Reading and storing the operating instructions

Prerequisite for secure work is compliance with all indicated safety notes, warning notes and instructions. In addition, the local accident prevention regulations, general safety regulations and local environmental regulations applicable to the area of application of the product must be observed.

Carefully read these operating instructions before starting any work! The operating instructions are a product component and must be kept in direct proximity of the product, well accessible to the personnel at all times.

When passing the product on to third parties, these operating instructions must also be handed over.

1.3 Non-observance of the operating instructions

Magnetic declines all liability for personal injury and material damage caused by not observing the operating instructions.

This applies in particular to damage caused by:

- Improper use
- Use of non-qualified personnel
- Use of non-approved components
- Arbitrary modifications
- Inappropriate mounting and installation
- Incorrect operation
- Defective or unperformed maintenance and repairs
- Use of non-approved spare parts
- Operating a defective product

1.4 Symbols and illustrations used in the operating instructions

1.4.1 Warning notes and notices

Warning notes are characterised by pictograms in these instructions. A warning note starts with a signal word that expresses the extent of the hazard.

It is absolutely essential to observe the warning notes and to proceed with caution in order to prevent accidents as well as bodily injuries and property damage.

Warning Notes

⚠ DANGER	
	The signal word DANGER points to an immediately dangerous situation, which leads to death or severe injuries if it is not avoided.

⚠ WARNING	
	The signal word WARNING points to a potentially dangerous situation, which can lead to death or severe injuries if it is not avoided.

⚠ CAUTION	
	The signal word CAUTION points to a potentially dangerous situation, which can lead to minor injuries if it is not avoided.

NOTICE	
	The signal word NOTICE points to a potentially harmful situation, which leads to property damage if it is not avoided.

Notes and recommendations

IMPORTANT!

The signal word IMPORTANT highlights useful notes and recommendations as well as information for an efficient and trouble-free operation.

2 Safety

2.1 Intended use

The Magnetic turnstile mTripod is designed for the control of persons entering or leaving an area with restricted access.

The turnstile is intended for passage of persons who can pass the turnstile safely, speedily and without any help. Separate means of access must be provided for persons who cannot pass through the turnstile safely, quickly or without assistance, such as small children, elderly people or people with disabilities. Children under 14 years of age may only pass through the turnstile under the supervision of an adult.

The turnstile may only be mounted on non-flammable floors.

The turnstile may only be operated within the temperature range indicated on the type plate.

Misuse

Any use differing from or beyond this is considered improper use. Magnetic is not liable for any resulting personal injury or damage to property.

For example, the following applications are regarded as improper use:

- Use of the turnstile by unaccompanied children under 14 years of age.
- Use of the turnstile by persons who cannot pass the turnstile safely, quickly or without assistance.
- Use of the tturnstile without released passage. This means that the blocking arms are forced to rotate.
- Mounting of the turnstile on flammable ground.

2.2 Changes and modifications

Modifications and conversions to the product, to an attachment or to one of the components can lead to unforeseen dangers. Magnetic's written approval must be obtained before any technical modifications or alterations are made to the product or any of its components.

2.3 Target groups

2.3.1 Operator and its responsibility

The operator must comply with the statutory obligations regarding work safety. In addition to the safety instructions and warning notes in this operating instructions, the valid safety, accident prevention and environmental protection regulations must be observed.

In particular, the operator must:

- determine additional danger in a danger analysis
- implement the necessary behavioural requirements in work instructions for operation with the product at the operating location
- regularly verify throughout the product time of use that the work instructions drawn up by him comply with the current state of the regulations
- adapt the working instructions to any new provisions, standards and usage conditions - where required.
- clearly regulate the responsibilities for all work on the product and with the product such as mounting, commissioning, operation, cleaning, maintenance, etc.
- ensure that personal protective equipment is worn
- ensures that all employees who work with the product or on the product have read and understood the operating instructions.

Furthermore, the operator must train personnel regarding the use of the product at regular intervals and provide information on possible dangers.

Furthermore, the operator is responsible for:

- the product is always in perfect technical condition.
- the product is maintained at specified maintenance intervals
- the product is only operated within the permitted temperature range.

The operator is also responsible for ensuring that the danger area of the product cannot be accessed by any unauthorised persons under any circumstances.

2.3.2 Personnel - activities and qualifications

Only authorised, trained and sufficiently qualified personnel may work on and with the product. The personnel must know and have understood the operating instructions and the required operating procedures.

Designation	Qualification
Transport equipment operator	› Has professional experience as a transport equipment operator or warehouse and transport worker. › Has a valid driving licence for the required industrial truck, e.g. forklift. › Knows the necessary regulations. › Can evaluate the work assigned to him, recognise possible dangers and take appropriate safety measures.
Technician	› Has completed training as a systems mechanic, machinery technician, installation mechanic, installation technician or has comparable technical training. › Has completed training as an electrical safety expert. › Has additional knowledge and experience. › Knows the relevant technical terms and regulations. › Can evaluate the work assigned to him, recognise possible dangers and take appropriate safety measures.
Magnetic MHTM™ FlowMotion® service expert	› Meets all the requirements of the technician. › Trained and authorised by Magnetic.
Operator	› Trained by the operator.

Table 1: Qualifications of personnel

Task	Transport equipment operator	Technician	Magnetic service expert	Operator
Transporting	X	X	–	–
Unpacking	X	X	X	–
Laying the foundation	–	X	–	–
Mounting	–	X	X	–
Electrical connection	–	X	X	–
Parameterisation	–	X	X	–
Commissioning [1)]	–	X	X	–
Operating	–	X	X	X
Cleaning	–	X	X	X
Servicing	–	X	X	–
Troubleshooting	–	X	X	–
Repairing	–	X	X	–
Decommissioning	–	X	X	–
Dismounting	–	X	X	–
Disposing	–	X	–	–

1) According to the supplied log book MHTM™ FlowMotion® mTripod

Table 2: Activities and qualifications

2.4 Personal protective equipment

It is necessary to wear personal protective equipment when dealing with the product so as to minimise health hazards.

Before carrying out any work, properly dress in the necessary protective equipment such as work clothes, protective gloves, safety shoes and wear during work.

2.5 Symbols on the device

Warning of electric voltage!

The warning sign indicates dangerous areas with dangerous electric voltage. Non-observance of the warning signs causes severe injuries or death. The work to be carried out may only be carried out by a qualified electrician or an electrical safety expert.

This warning sign is fixed at the following point:

› At the terminals, under the cover.

2.6 For your safety

Mortal danger by electric voltage!

Touching live parts can be lethal. Damage to the insulation or to individual components can be lethal.

› If the insulation or any parts are damaged, switch off the power supply at once and initiate repair.

› Only qualified electricians or electrical safety experts may carry out work on the electrical system.

› Before commencing any work, switch off power supply and secure against restarting. Test for absence of voltage.

› Perform the electrical installation in accordance with the applicable regulations.

› Protective devices that are required according to national and local regulations, e.g. residual current devices, must be provided. These protective devices must be provided by the customer.

› Observe the information on the type plate.

› Close all covers after all work is completed.

› Keep moisture and dust away from live parts. Intruding moisture and dust may cause a short circuit.

› If the electrical connection is made during precipitation, e.g. rain or snow, prevent the intrusion of moisture by means of suitable protective covers.

› During or after a lightning strike into the system, there is danger to life if the components are touched or during a stay in the immediate vicinity of the system. When mounting outside, do not install and mount the pedestrian gate during thunderstorms.

2.7 To protect the environment

Improper disposal!

Improper disposal can result in damage to the environment.

› Dispose of the product in accordance with local and national laws and regulations.

› Sort resources and supply them to recycling.

2.8 Emergency opening of the pedestrian gate

↗ Page 73, chapter 8.4.1.

3 Technical data

3.1 Dimensions and design

3.1.1 mTripod-ML

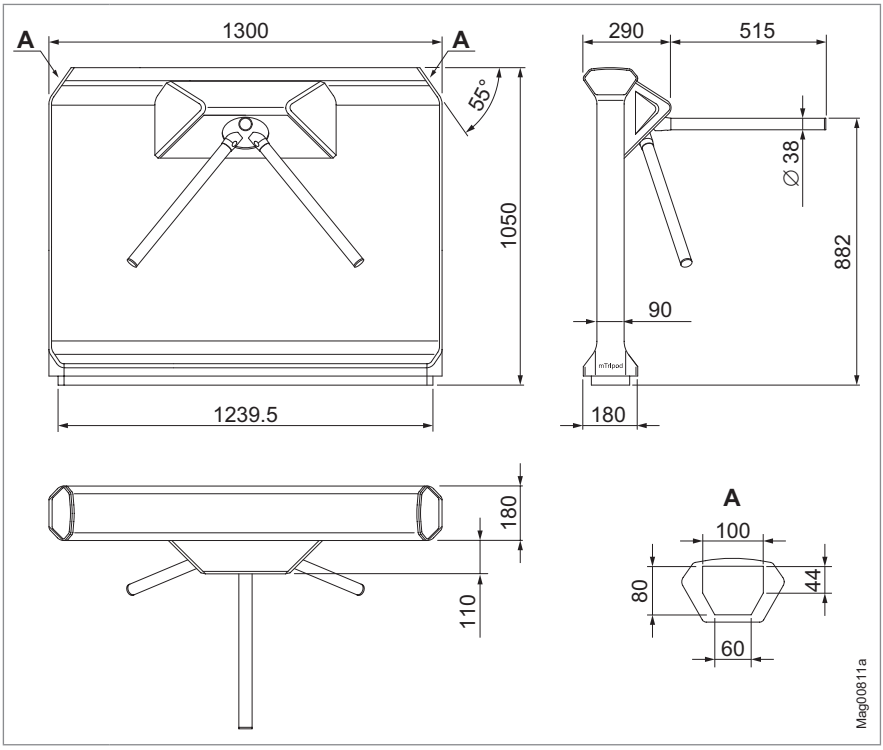


Fig. 1: Dimensions FMTP-ML (dimensions in mm)

A Dimensions for customer access-control device

Designation	Value
Dimensions (length x width x height)	1300 mm x 290 mm x 1050 mm ↗ Page 16, Fig. 1.
Passage width	515 mm
Weight	› Turnstile complete: Approx. 70 kg › Base frame FURA100 [1]: 11.0 kg › Base frame FURA102 [1]: 17.5 kg
Material	› Housing: mDure › Base frame [1]: Stainless steel › Base plate [1]: Stainless steel
Housing colour, standard	› Side parts: basalt › Frame: anthracite

1) Optional

Table 3: Dimensions and design – mTripod FMTP-ML

3.1.2 mTripod-MS

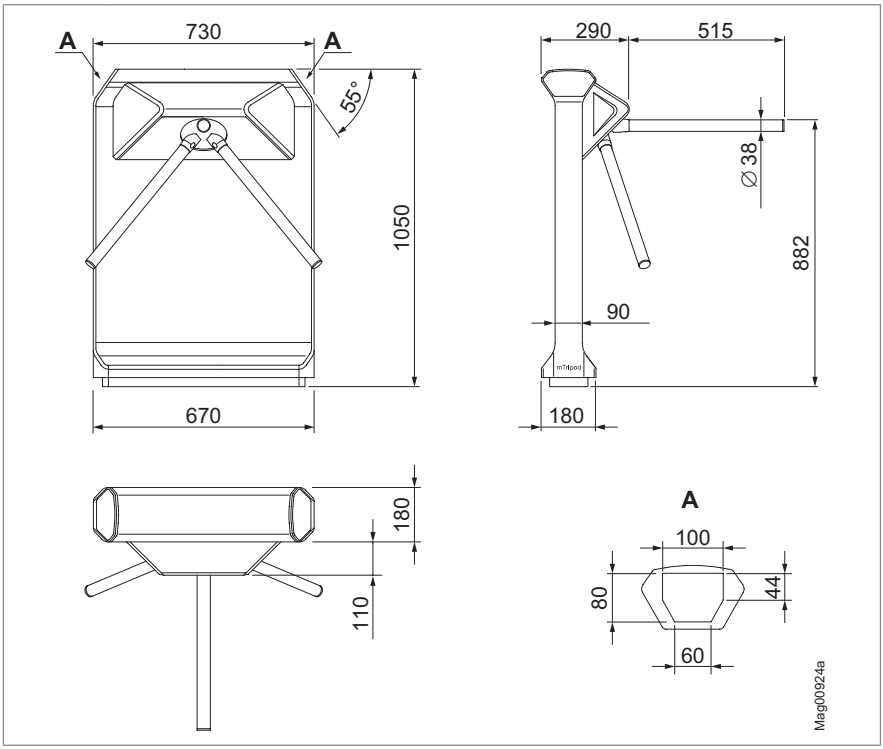


Fig. 2: Dimensions FMTP-MS (dimensions in mm)

A Dimensions for customer access-control device

Designation	Value
Dimensions (length x width x height)	730 mm x 290 mm x 1050 mm ↗ Page 18, Fig. 2.
Passage width	515 mm
Weight	› Turnstile complete: Approx. 56 kg › Base frame FURA102 [1]: 5.5 kg › Base frame FURA104 [1]: 10.0 kg
Material	› Housing: mDure › Base frame [1]: Stainless steel › Base plate [1]: Stainless steel
Housing colour, standard	› Side parts: basalt › Frame: anthracite

1) Optional

Table 4: Dimensions and design – Tripod FMTP-MS

3.2 Clearances and line configuration to be maintained

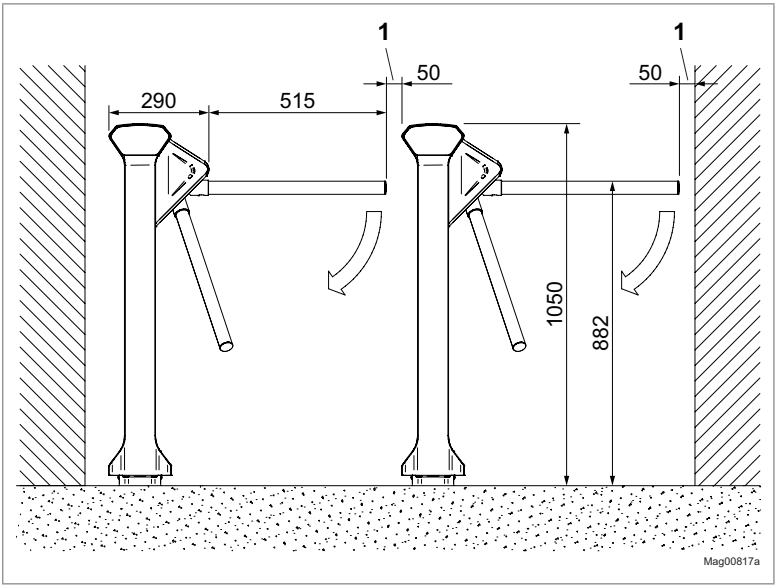


Fig. 3: Clearances and line configuration to be maintained

1 Minimum distance 50 mm

3.3 Electrical connection

Designation	Value
Power supply	100 to 240 V AC ± 10 %, 50 to 60 Hz
Current consumption at 240 V AC	1.0 A
Current consumption at 100 V AC	2.1 A
Max. performance	174 W
Duty cycle	100 %

Table 5: Electrical connection

3.4 Operating conditions

Designation	Value
Operating temperature range	–30 to +55 °C
Storage temperature range	–30 to +55 °C
Relative humidity	Maximum 95 %, non-condensing
IP rating	IP 54

Table 6: Operating conditions

3.5 Emissions

Designation	Value
Airborne sound pressure level (LpA)	≤ 70 dB (A)

Table 7: Emissions

3.6 Control unit MGC

Designation		Value
Power supply		24 V DC
Control unit		max. 1 A: max. 300 mA + current consumption of the individual plug-in modules
Power consumption		max. 24 W: Max. 7.2 W + power consumption of the individual plug-in modules
Control unit safety device		1 A T
Output terminal 2	Output voltage	24 V DC
	Max. output current	300 mA
Digital inputs	Number	8
	Input voltage	24 ± 10 % V DC
	Input current	< 10 mA per input
	Max. cable length [1)]	30 m
Digital outputs	Number	4 (open collector)
	Input voltage	24 ± 10 % V DC
	Input current	100 mA
	Max. cable length [1)]	30 m
Relay outputs	Number	3 closers + 3 changeovers , isolated
	Max. switched voltage	30 V AC / DC
	Switching current	10 mA to 1 A
	Max. cable length [1)]	30 m
Display		Graphics display, 128 x 65 pixel
Number of slots for plug-in modules		5

1) Specified without optional over voltage module. For cable lengths above 30 m, over-voltage modules must be installed upstream of the connection terminals.

Table 8: Control unit MGC

4 Design and function

4.1 Design

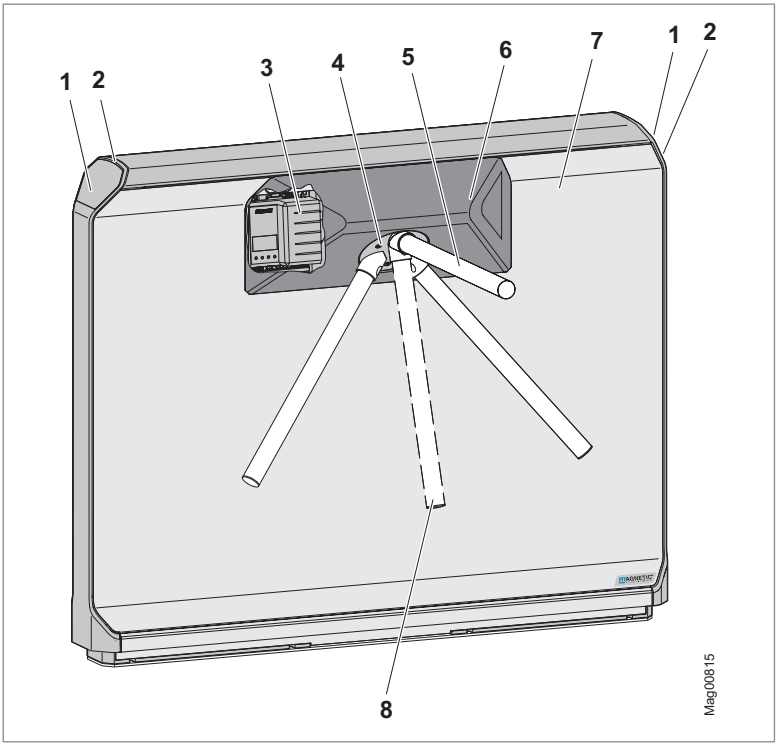


Fig. 4: Structure, shown here mTripod FMTP-ML

1 Room for access-control device provided by the customer, e.g. card reader
2 Space for GED (passage direction display)
3 Control unit MGC
4 Drive for blocking element, consisting of 3 blocking arms
5 Blocking arm (3 x)
6 Cover for control unit and drive blocking element, consisting of cover and trapezoidal plate
7 Side part (front panel)
8 Drop arm (option)

4.2 Function

The Magnetic mTripod turnstiles separate and control people who want to enter or leave restricted areas.

Depending on the parameterisation of the turnstile, after the validation of the turnstile, it can be passed either in one direction or in both directions. Furthermore, the turnstile can be used in free entry or exit mode.

For emergencies such as fire or power failures Magnetic has developed the option "drop arm". With this option, when an emergency is triggered or in the event of a power failure, the blocking arm, which is at the top at this time, unlocks. The blocking arm turns downwards. When the voltage returns, the blocking arm is automatically turned to its basic position. With turnstiles without the "drop arm" option, the passage in both directions is enabled when an emergency is triggered and in the event of a power failure.

A random check function is integrated for checking persons or bags. If the random check function reaches the random value of passages, the passage is blocked and a signal is given. Only after the operator, e.g. porter, has actuated an enable signal, the passage is enabled and the person can pass.

5 Receipt of goods, transport and storage

5.1 Receipt of goods

Immediately check the delivery after receipt for completeness and transport damages.

In case of externally visible transport damage, proceed as follows:

› Do not accept the delivery or only under reserve.

› Note the extent of damage on the transport documents or on the delivery note of the carrier.

› Lodge complaint.

IMPORTANT!

Lodge a complaint for each defect, as soon as it is recognised. Compensation claims can only be submitted within the valid complaint periods.

5.2 Safety during transport

Qualification of personnel

› Transport equipment operator

› Technician

› Magnetic MHTM™ FlowMotion® service expert

↗ Page 12, chapter 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

› Work clothes

› Protective gloves

› Safety shoes.

⚠ WARNING

Lifting heavy loads!

Lifting heavy objects can result in severe damage to the back or supporting structure.

- Preferably, transport the goods with suitable transport equipment.
- Alternatively, the transported goods can be carried by two persons.
- Lift and deposit the transport goods with two persons.

NOTICE

Improper transport!

An improper transport may result in damage to the product.

- Observe the symbols on the packaging.
- Always load, transport and unload packages carefully.
- Note the dimension.
- Do not remove packaging until immediately before mounting and at the final location of the product.

5.3 Transport

The recipient of the product is responsible for internal transport.

- Transport and position the goods to be transported with a suitable forklift or pallet truck.
- The forklift forks or lift truck forks must reach completely under the transported goods. Observe the centre of gravity of the load.
- Secure the transported goods with sufficiently dimensioned lifting gear.

5.4 Storage

Store packages or the product under the following conditions:

- Store the delivery in its original packaging. Observe the symbols on the packaging.
- Do not store outdoors.
- Store dry and dust free.
- Do not expose to aggressive media.
- Protect against solar irradiation.
- Avoid mechanical vibrations.
- Storage temperature range: –30 to +55 °C
- Relative humidity: max. 95 %, non-condensing

Check the general condition of all components and packaging regularly, if they are stored for longer periods than 3 months.

6 Unpacking, scope of delivery and identification

6.1 Unpacking

⚠ WARNING	
	**Lifting heavy loads!** Lifting heavy objects can result in severe damage to the back or supporting structure. › Preferably, transport the goods with suitable transport equipment. › Alternatively, the transported goods can be carried by two persons. › Lift and deposit the transport goods with two persons.

The individual components are packed according to the expected transport conditions.

Do not destroy the packaging and remove only directly before mounting. The packaging should protect the components against transport damages, corrosion, etc.

1. Unpack product at final location.
2. Report an incomplete or faulty delivery to Magnetic.
3. Check the scope of delivery with the delivery note.
4. Separate material according to type and size and continue to use them after recycling. Observe local and regional standard laws and guidelines.

6.2 Scope of delivery

The following components are supplied as standard per mTripod turnstile:

- 1 turnstile mTripod
- 3 blocking arms
- 1 attachment set for 3 blocking arms without "drop arm" option
- 1 attachment set for 3 blocking arms with "drop arm" option
- 4 U angle
- 1 tool for dismounting the cover
- Drilling template
- 1 bag with screws and washers
  - 8 screws DIN 7984 M 8 x 30, A2
  - 4 screws DIN 7984 M 8 x 20, A2
  - 4 screws DIN 7984 M 8 x 16, A2
  - 4 washers DIN 125 A8.4, A2
- Documentation: Electrical circuit diagram, log book, these operating instructions and description "Control unit MGC"

For options and attachments, see your order confirmation.

6.3 Identification

6.3.1 Type plate

The type plate is located under the cover to the right of the drive unit.

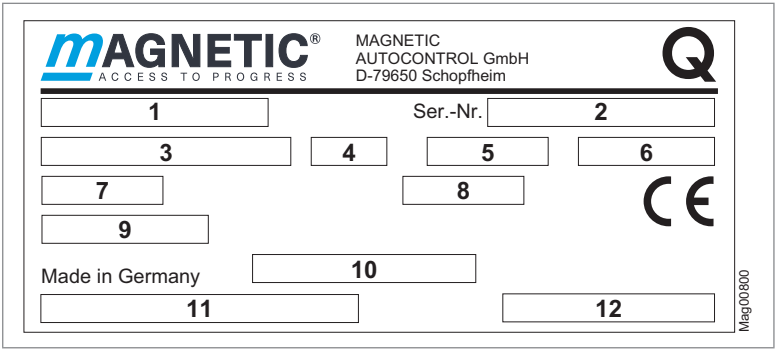


Fig. 5: Type plate

1 Product designation
2 Serial number
3 Power supply
4 Frequency
5 Current consumption
6 Power consumption
7 IP rating
8 Duty cycle for operating mode S1 "Continuous operation"
9 Ambient temperature range
10 Date of manufacture, version, date of type plate printing
11 Bar code for product designation
12 Bar code for serial number

7 Installation and mounting

7.1 Safety during installation and mounting

Qualification of personnel

› Technician
› Magnetic MHTM™ FlowMotion® service expert

↗ Page 12, chapter 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

› Work clothes
› Protective gloves
› Safety shoes.

⚠ WARNING	
	**Improper fixing!** Improper fixing can cause the pedestrian gate to tip over, resulting in crushing and serious injury. › Mount the pedestrian gate in accordance with the description on the foundation. › Observe and follow the separate notes and instructions of the fixing material manufacturer. › After mounting, check all screws and nuts for tightness.

⚠ WARNING	
	**Improper mounting on flammable ground!** The mounting of the pedestrian gate on a flammable floor can promote the development of a fire and accelerate the spread of the fire. A fire and the resulting smoke can cause life-threatening injuries. › Only mount the pedestrian gate on a non-flammable floor.

7.2 Mounting variants

You can mount the mTripod turnstile as follows:

Mounting variant	Material required per pedestrian gate	Notice
Variant 1: Mount the pedestrian gate directly on a foundation.	› Attachment set BSS100 for mounting the pedestrian gate directly on a foundation [1)]	› Suitable for concrete foundation › Indoor application typical › Use M 8 x 30 screws.
Variant 2: Mount base frame on foundation or unfinished floor. Mount base plate to foundation or finished floor. Mount the pedestrian gate on the base plate. The threaded rods position the base plate and are set in concrete.	› Base frame FURA100 / FURA101 [2)] › Attachment set BSSFURA100 / BSSFURA101 for mounting the pedestrian gate via threaded rods [3)] › Attachment set BSS100 for mounting the base frame, alternatively customer-supplied fastening material	› Suitable for solid floors › Height of finished floor can still be defined › Indoor application typical
Variant 3: Glue base frame to foundation or finished floor. Mount the pedestrian gate on the base frame.	› Base frame FURA100 / FURA101 [2)] › Adhesive set BSSKL100 for gluing the base frame	› Suitable for finished floors such as tiles › Not suitable for concrete as the porous structure absorbs the adhesive › Indoor application typical › Use M 8 x 16 screws to mount the metal base frame to the floor. Use M 8 x 20 screws to mount the plastic frame to the floor.
Variant 4: Mount the base frame on the foundation. Mount the pedestrian gate on the base frame.	› Base frame FURA102 / FURA104 [4)] › Attachment set BSS100 for mounting the base frame, alternatively customer-supplied fastening material	› Concrete foundation required as mounting base › Suitable for slabs and interlocking paving stones › Outdoor application typical

1) mTripod-ML: 8 sleeves with inner thread, mTripod-MS: 6 sleeves with inner thread

2) mTripod-ML: Base frame FURA100, mTripod-MS: Base frame FURA101

3) mTripod-ML: BSSFURA100 with 8 threaded rods, mTripod-MS: BSSFURA101 with 6 threaded rods

4) mTripod-ML: Base frame FURA102, mTripod-MS: Base frame FURA104

Table 9: Mounting variants

Mounting material	Consisting of
Mounting material supplied	› 8 screws DIN 7984 M 8 x 30, A2 › 4 screws DIN 7984 M 8 x 20, A2 › 4 screws DIN 7984 M 8 x 16, A2 › 4 washers DIN125 A8.4, A2
BSS100 (optional attachments)	Attachment set › 8 sleeves with inner thread M 8, VA › 4 washers DIN 125 A8.4, A2 › 8 screws DIN 7984 M 8 x 30, A2 › 8 screws DIN 7984 M 8 x 16, A2 › Composite mortar UPAT UPM CX150 Mounting aid for sleeves with inner thread: › 1 screw DIN 912 M 8 x 30, A2 › 1 nut DIN 934 M 8 › 1 hexagon SW 6 x 60
BSSFURA100 (optional attachments)	Attachment set for mTripod-ML › 1 FlowMotion mTripod-ML base plate › 8 threaded rods M 8 x 330, 1.4301 › 32 nuts M 8
BSSFURA101 (optional attachments)	AAttachment set for mTripod-MS › 1 FlowMotion mTripod-ML base plate › 6 threaded rods M 8 x 330, 1.4301 › 24 nuts M 8
BSSKL100 (optional accessory)	Adhesive set › Surface cleaner HaftClean › Surface cleaner HaftPlus › Surface cleaner Entferner › Construction adhesive Power
FURA100 (optional accessory)	Base frame, 1.4301 for mTripod-ML
FURA101 (optional accessory)	Base frame, 1.4301 for mTripod-MS
FURA102 (optional accessory)	Base frame height 150 mm, 1.4301 for mTripod-ML
FURA104 (optional accessory)	Base frame height 150 mm, 1.4301 for mTripod-MS

Table 10: Description mounting material

7.3 Steps to be taken

The following work step must be carried out prior to mounting:

› Build foundation and lay empty conduits.
↗ Page 33, chapter 7.4.

The following work steps must be carried out during mounting:

› Unpack the pedestrian gate. ↗ Page 27, chapter 6.1.

› Align the pedestrian gate. ↗ Page 42, chapter 7.8.

› Prepare the pedestrian gate for mounting and electrical connection. ↗ Page 42, chapter 7.9.

› Mount the pedestrian gate. ↗ Page 45, chapter 7.10.

› Connect the pedestrian gate electrically. ↗ Page 69, chapter 8.

› Assemble the pedestrian gate. ↗ Page 60, chapter 7.11.

7.4 Building foundation and laying empty conduits

7.4.1 Requirements foundation

The foundation must meet the following requirements:

› Have sufficient load-carrying capacity.

› Concrete C20/25 or corresponding industrial floor

› Fastening must have a secure grip

› Foundation cross-section according to foundation and empty conduit plan

› Non-slip surface

› Horizontal and level.

Foundation and empty conduit plan mTripod FMTP-ML: ↗ Page 35, Fig. 6.
Foundation and empty conduit plan mTripod FMTP-MS: ↗ Page 37, Fig. 8.

When installing outdoors, the foundation must meet the following additional requirements:

› Concrete C35/45 XD 3 XF2

› Foundation depth: at least 800 mm, frost-proof. Adapt the foundation depth to the local conditions.

› Reinforcement mesh according to reinforcement plan

Reinforcement plan mTripod FMTP-ML: ↗ Page 36, Fig. 7.
Reinforcement plan mTripod FMTP-MS: ↗ Page 38, Fig. 9.

7.4.2 Requirements empty conduits

Note the following points for the empty conduits:

- Lay empty conduits according to the foundation plan.
- Conduits have to be planned to a sufficient length.
- Plan the empty conduits required for access control-devices and other peripheral equipment. The wiring for this is the responsibility of the customer.

IMPORTANT!

To ensure trouble-free operation, separate empty conduits must be installed for all mains cables and control lines.

7.4.3 Building foundation and laying empty conduits

1. Excavate the foundation hole according to the foundation and empty conduit plan.
   ↗ Page 35, Fig. 6. ↗ Page 36, Fig. 7.
2. When installing outdoors, lay the reinforcement mesh.
3. Place empty conduits according to the foundation and empty conduit plan in the foundation hole.
4. Seal empty conduits so that no water can enter.
5. Concrete the foundation.
6. Create a smooth plaster.
7. Let concrete cure.
8. Apply moisture protection for outdoor mounting.

7.4.4 Foundation and empty conduit plan and reinforcement mTripod FMTP-ML

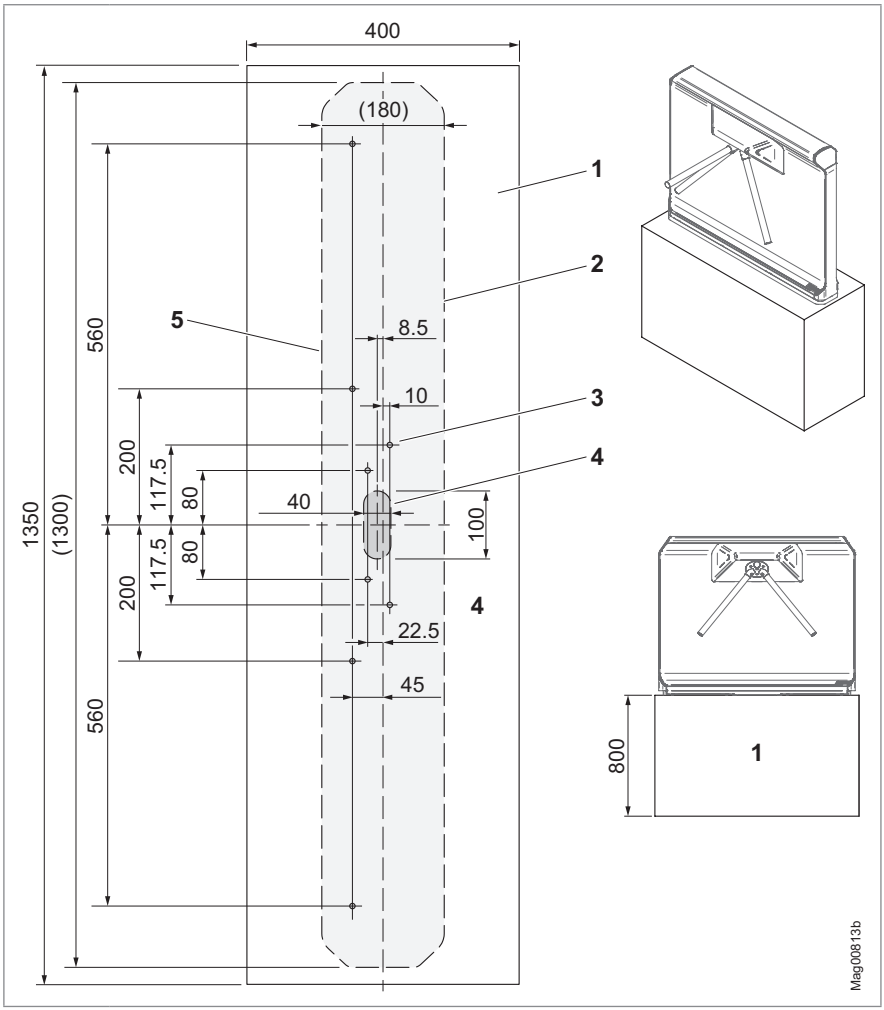


Fig. 6: mTripod FMTP-ML foundation and empty conduit plan (dimensions in mm)

1 Foundation, frost depth, outdoor
2 Outline mTripod FMTP-ML
3 Boreholes (8 x)
4 Feedthrough for empty conduits
5 Passage side, side of the blocking arms

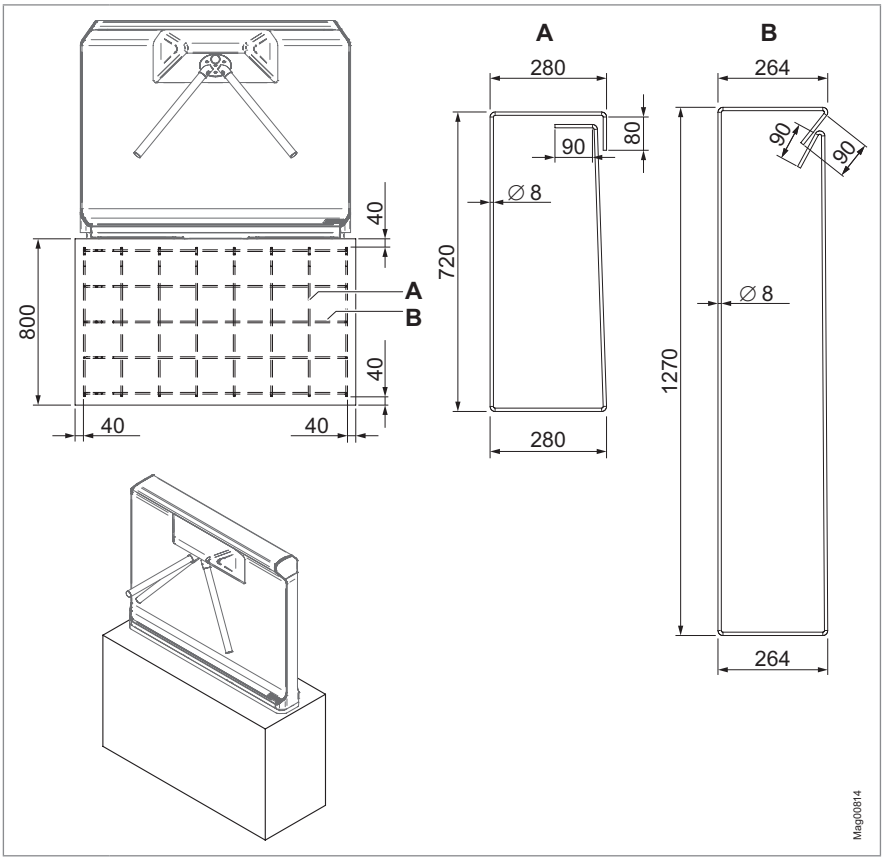


Fig. 7: Reinforcement plan FMTP-ML (dimensions in mm)

7.4.5 Foundation and empty conduit plan and reinforcement mTripod FMTP-MS

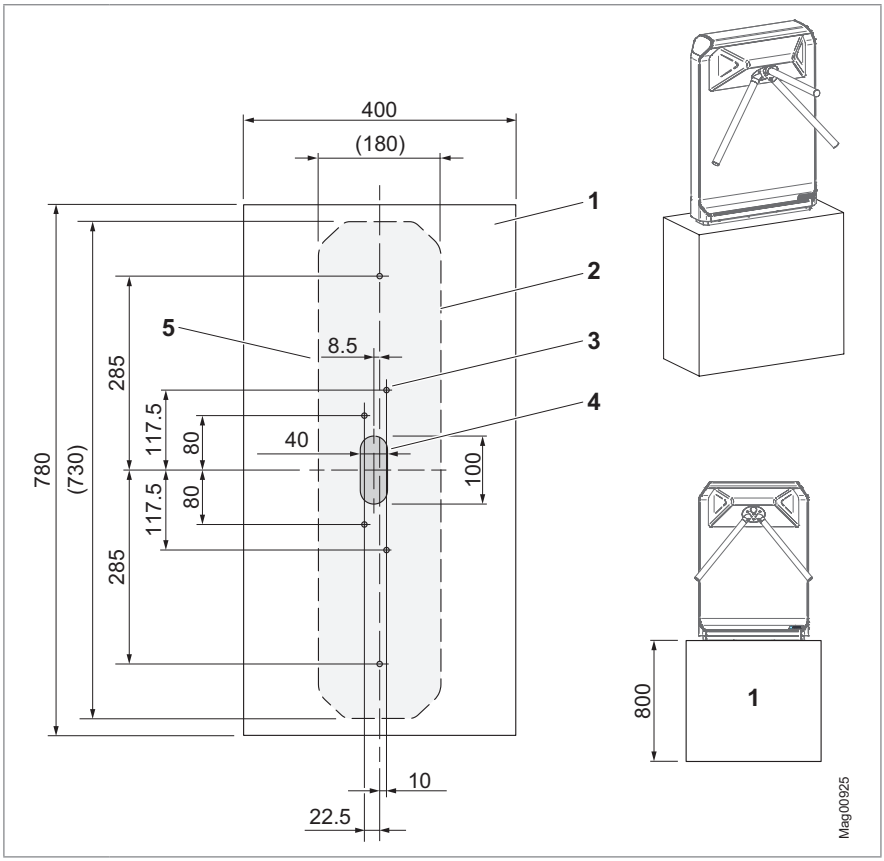


Fig. 8: mTripod FMTP-MS foundation and empty conduit plan (dimensions in mm)

1 Foundation, frost depth, outdoor
2 Outline mTripod FMTP-MS
3 Boreholes (6 x)
4 Feedthrough for empty conduits
5 Passage side, side of the blocking arms

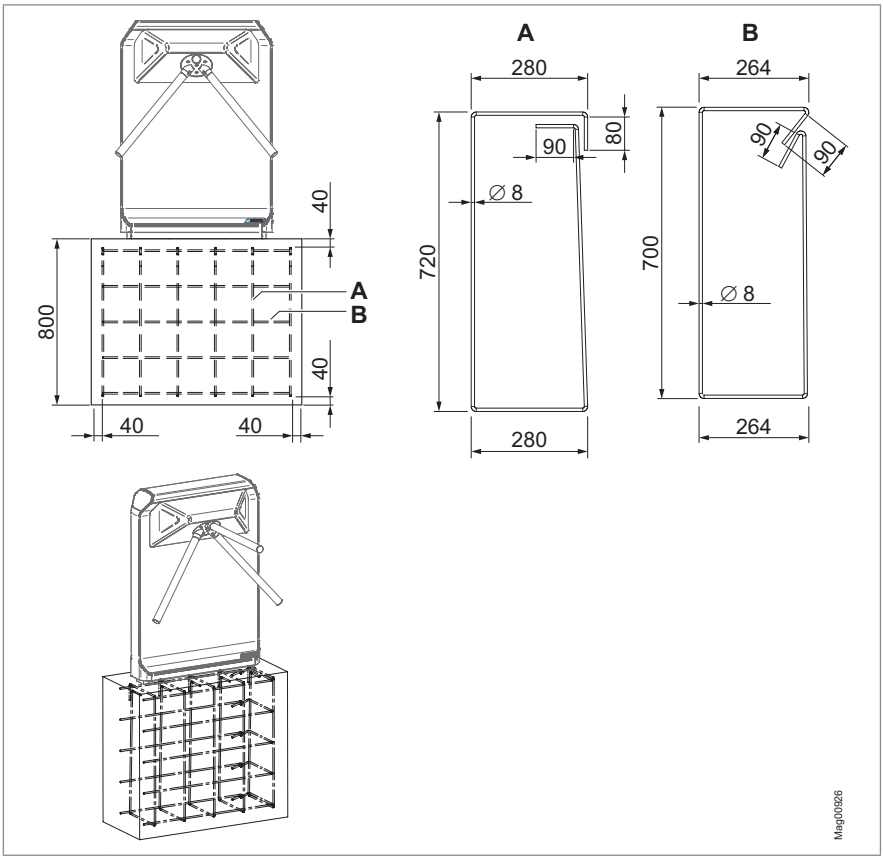


Fig. 9: Reinforcement plan FMTP-MS (dimensions in mm)

7.5 Base frames FURA100 and FURA101

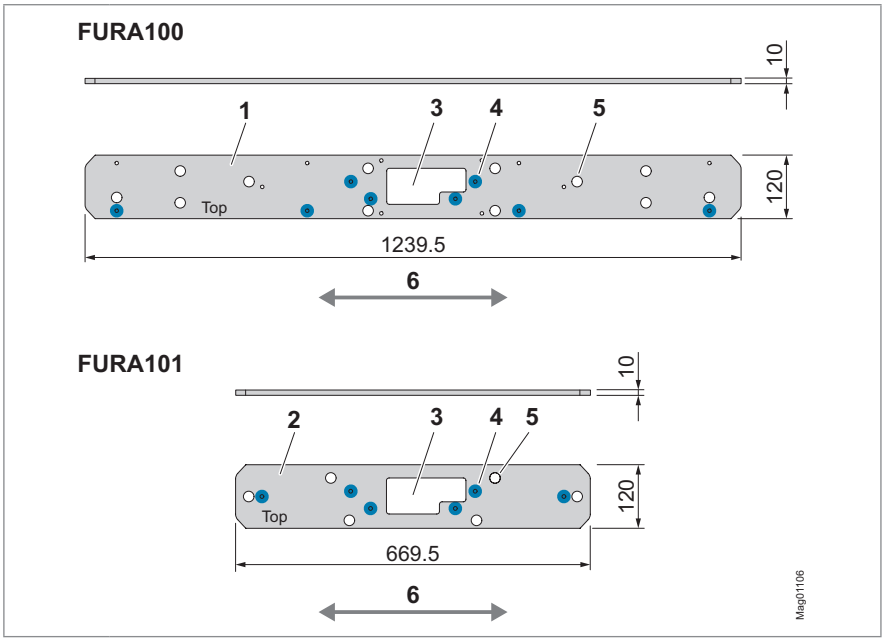


Fig. 10: Base frames FURA100 and FURA101 (dimensions in mm)

1 Base frame FURA100 for mTripod-FMTP-ML
2 Base frame FURA101 for mTripod-FMTP-MS
3 Feedthrough for empty conduits
4 Relevant boreholes M 8 for threaded rods or screws (FMTP-ML: 8 x and FMTP-MS: 6 x)
5 Boreholes ∅ 20 mm for sleeves with inner thread
6 Passage side, side of the blocking arms

7.6 Base plate FlowMotion

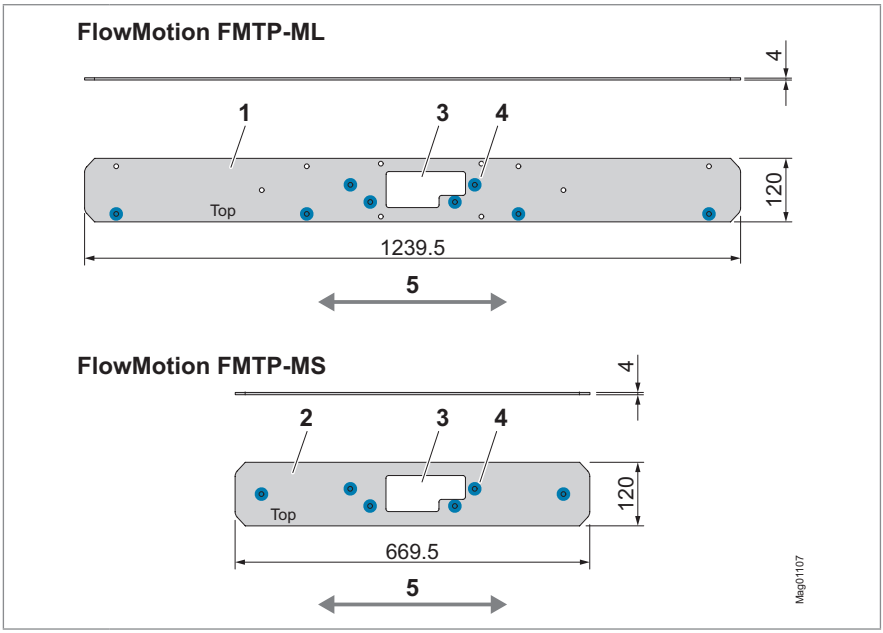


Fig. 11: Base plates FlowMotion (dimensions in mm)

1 Base plate FlowMotion for mTripod-FMTP-ML
2 Base plate FlowMotion for mTripod-FMTP-MS
3 Feedthrough for empty conduits
4 Relevant boreholes M 8 for threaded rods (FMTP-ML: 8 x and FMTP-MS: 6 x)
5 Passage side, side of the blocking arms

7.7 Base frames FURA102 and FURA104

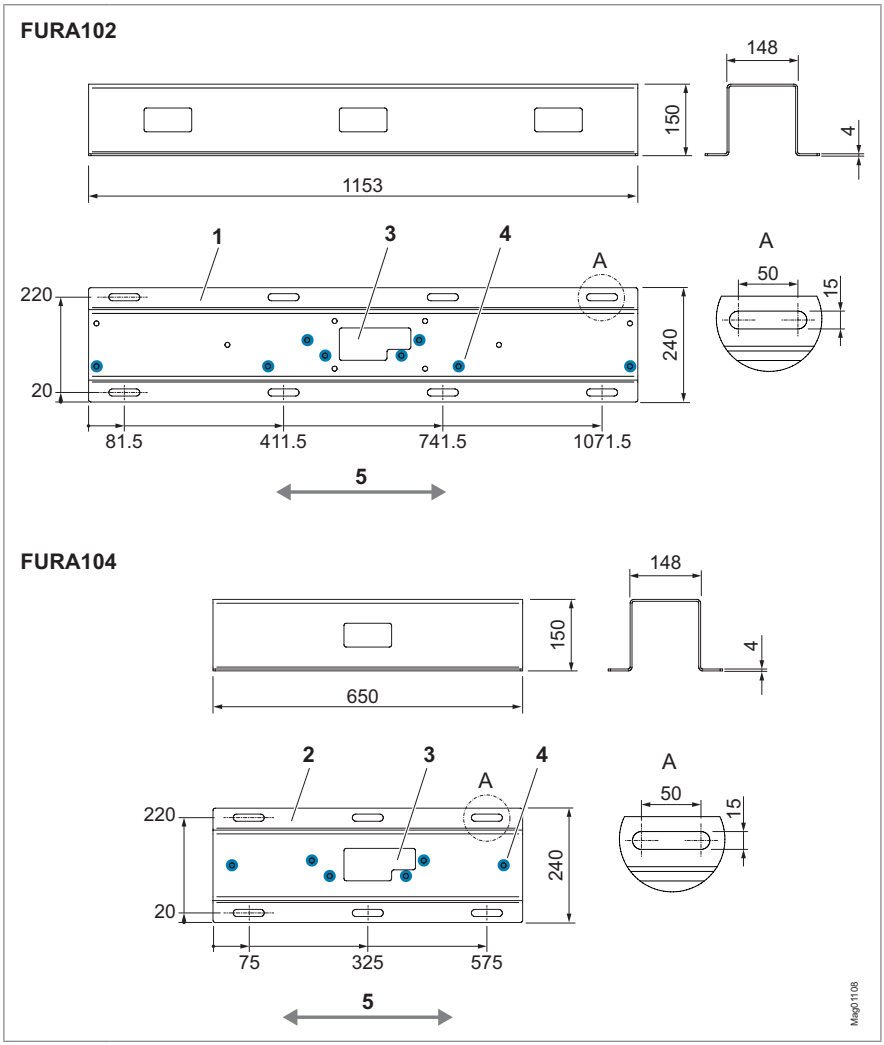


Fig. 12: Base frames FURA102 and FURA104 (dimensions in mm)

1 Base frame FURA102 for mTripod-FMTP-ML
2 Base frame FURA104 for mTripod-FMTP-MS
3 Feedthrough for empty conduits
4 Relevant boreholes M 8 for screws (FMTP-ML: 8 x and FMTP-MS: 6 x)
5 Passage side, side of the blocking arms

7.8 Aligning the pedestrian gate

When mounting several pedestrian gates, align the pedestrian gates to the customer's specifications and to the on-site conditions, e.g. walls, tile joints and railings, using a laser or scale.

7.9 Preparing mTripod for mounting and electrical connection

1. Remove the cover. To do this, pull the remove strips.
2. Remove the remove strips from the cover.

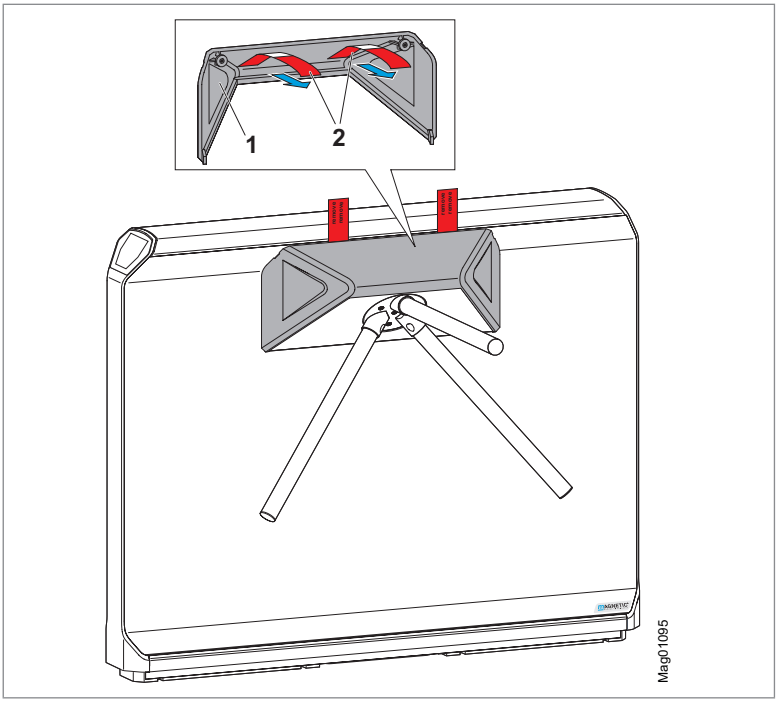


Fig. 13: mTripod in delivery state

1 Cover

2 Remove strips (2 pieces)

3. Dismount the front panel. To do this, loosen the 4 screws.

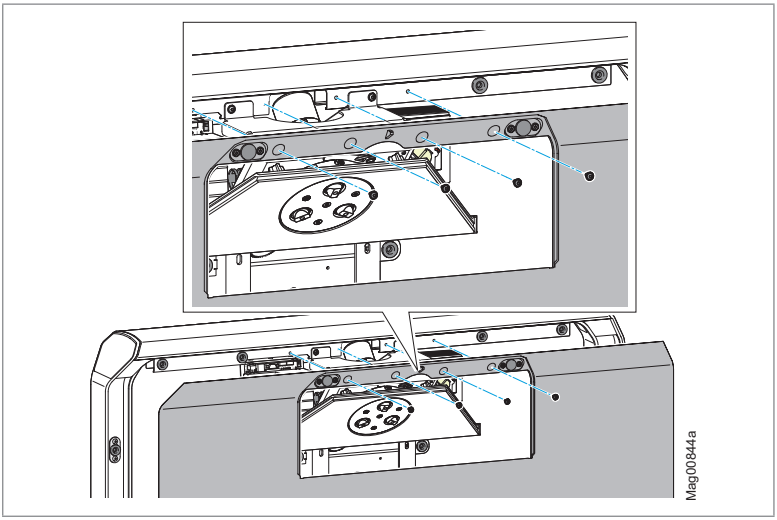


Fig. 14: Dismounting the front panel

4. Remove the front wall.

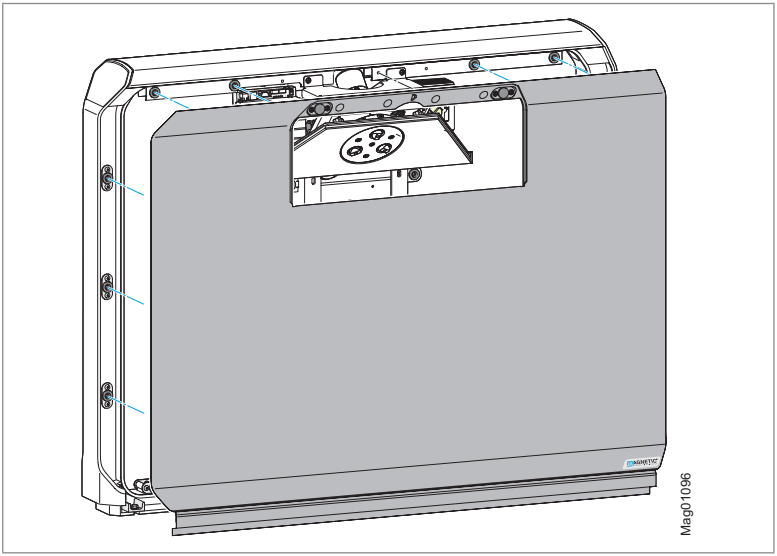


Fig. 15: Removing the front wall

5. Dismount the trapezoidal plate.

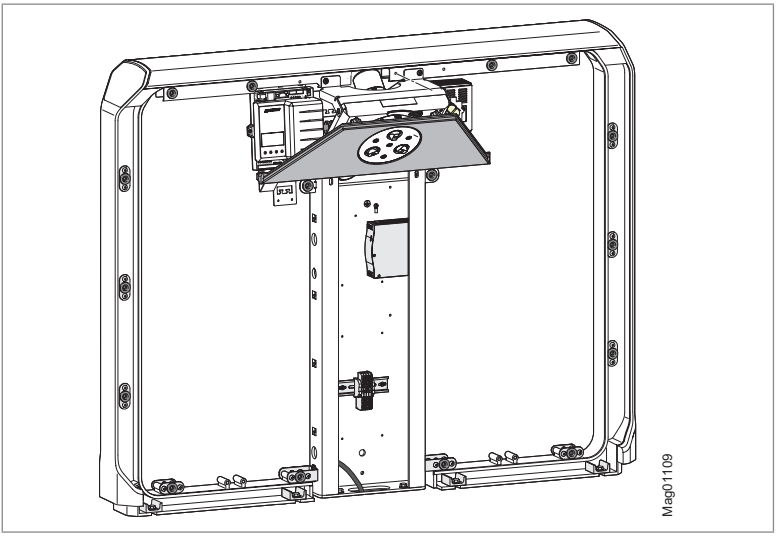


Fig. 16: Dismounting the trapezoidal plate

√ The turnstile is prepared for mounting and electrical connection.

7.10 Mounting of the mTripod

7.10.1 Mounting variant 1 (direct mounting)

With this mounting variant, you mount the pedestrian gate directly on a foundation. For the variant mTripod FMTP-ML you need 8 sleeves with inner thread. For the variant mTripod FMTP-MS you need 6 sleeves with inner thread.

Required material, included in the scope of delivery:

- Screw M 8 x 30, stainless steel
- Washer A 8.4 mm, stainless steel
- U angle

Required material (not included in the scope of delivery):

- Sleeves with inner thread M 8 x 90, stainless steel (FMTP-ML: 8 x, FMTP-MS: 6 x)
- Composite mortar UPAT UPM CX150

IMPORTANT!

We recommend the attachment set BSS100, which contains the necessary material for direct mounting. You must order the BSS100 attachment set separately.

Requirements

- The foundation was built.
- The empty conduits were laid.
- The foundation has cured.

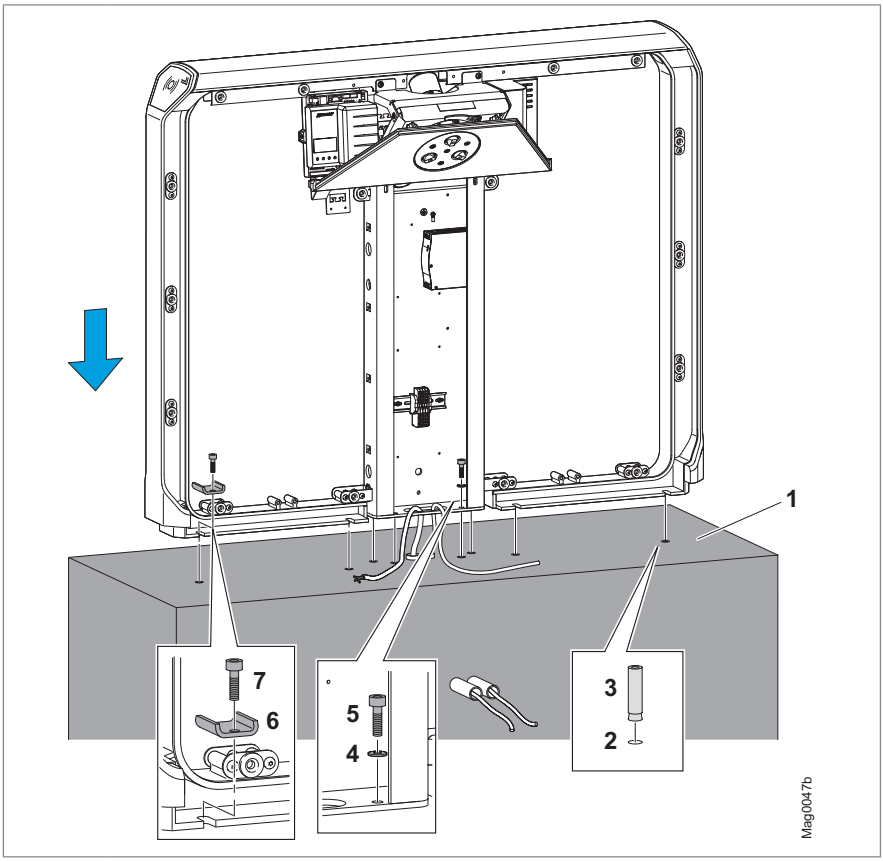


Fig. 17: Mounting variant 1 (direct mounting), shown here mTripod FMTP-ML

1 Concrete foundation
2 Borehole (FMTP-ML: 8 x and FMTP-MS: 6 x)
3 Sleeve with inner thread M 8 x 90, stainless steel (FMTP-ML: 8 x and FMTP-MS: 6 x)
4 Washer A 8.4 mm, stainless steel (4 x)
5 Screw M 4 x 30, stainless steel, (8 x)
6 U angle (FMTP-ML: 4 x and FMTP-MS: 2 x)
7 Screw M 8 x 30, stainless steel (FMTP-ML: 4 x and FMTP-MS: 2 x)

IMPORTANT!
Follow the separate notices and instructions for the composite mortar and sleeves with inner thread.

Foundation and empty conduit plan mTripod FMTP-ML: ↗ Page 35, Fig. 6.
Foundation and empty conduit plan mTripod FMTP-MS: ↗ Page 37, Fig. 8.

1. Boreholes for the sleeves with inner thread according to the foundation plan.

   NOTICE
   Incorrect alignment of the pedestrian gate! The pedestrian gate is not symmetrically constructed. Align the pedestrian gate so that the passage side is on the correct side. Observe foundation plan.
2. Clean the boreholes with compressed air.
3. Inject composite mortar into the boreholes.
4. Turn in the sleeves with inner thread to the bottom of the boreholes by hand. The BSS100 attachment set contains mounting aids.
5. Wait for the curing time. Follow separate instructions.
6. Place the mTripod.
7. Place U angles and screws. Place washers and screws.

   ⚠ WARNING
   Possible injuries due to pedestrian gate falling over!
   Use the M 8 x 30 screws supplied or the M 8 x 30 screws from the BSS100 attachment set. Do not use the M 8 x 16 or M 8 x 20 screws.
8. Tighten the screws slightly.
9. Align mTripod.
10. Tighten the screws firmly.
11. If necessary, seal the housing with a silicone joint.
12. Arrange electrical connections. ↗ Page 69, chapter 8.
13. Assemble the mTripod. ↗ Page 60, chapter 7.11.

7.10.2 Mounting variant 2

With this mounting variant, first mount the base frame on the foundation or on the unfinished floor. Use threaded rods to position the base plate at the desired height. After completion of the finished floor, mount the pedestrian gate on the base plate. The threaded rods are set in concrete. For the variant mTripod FMTP-ML you need 8 threaded rods. For the variant mTripod FMTP-MS you need 6 threaded rods.

Material required for mTripod-ML, not included in the scope of delivery:

- Base frame FURA100
- Attachment set BSSFURA100 for mounting the turnstile
- Attachment set BSS100 for mounting the base frame, alternatively customer-supplied fastening material

Material required for mTripod-MS, not included in the scope of delivery:

- Base frame FURA101
- Attachment set BSSFURA101 for mounting the turnstile
- Attachment set BSS100 for mounting the base frame, alternatively customer-supplied fastening material

Before finishing the finished floor – mounting and preparing the base frame

Requirements

- The foundation / unfinished floor has been built.
- The empty conduits were laid.
- The foundation / unfinished floor has hardened.

Foundation and empty conduit plan mTripod FMTP-ML: ↗ Page 35, Fig. 6.
Foundation and empty conduit plan mTripod FMTP-MS: ↗ Page 37, Fig. 8.
Base frames FURA100 and FURA101: ↗ Page 39, Fig. 10.
Base plates FlowMotion: ↗ Page 40, Fig. 11.

1. Mount the base frames FURA100 / FURA101 on the foundation or unfinished floor.

   NOTICE
   Incorrect alignment of the pedestrian gate! The pedestrian gate is not symmetrically constructed. Align the pedestrian gate so that the passage side is on the correct side. Observe foundation plan.

2. Screw the threaded rods into the base frame.

   NOTICE
   Incorrect placement of the threaded rods! Note the figure of the base frame.

   › mTripod FMTP-ML: 8 threaded rods
   › mTripod FMTP-MS: 6 threaded rods

3. Fix the threaded rods with nuts.

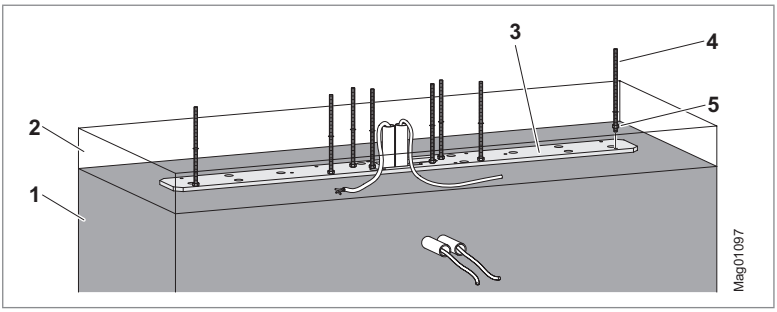


Fig. 18: Mounting the base frame and threaded rods

1 Foundation / unfinished floor
2 Planned finished floor
3 Base frame (FMTP-ML: FURA100 and FMTP-MS: FURA101)
4 Threaded rods M 8 x 330, stainless steel (FMTP-ML: 8 x and FMTP-MS: 6 x)
5 Nut M 8 (FMTP-ML: 8 x and FMTP-MS: 6 x)

4. Mount the other nuts on the threaded rods so that the top edge of the FlowMotion base plate is flush with the finished floor.
5. Position the FlowMotion base plate.
6. Fix the FlowMotion base plate with nuts.

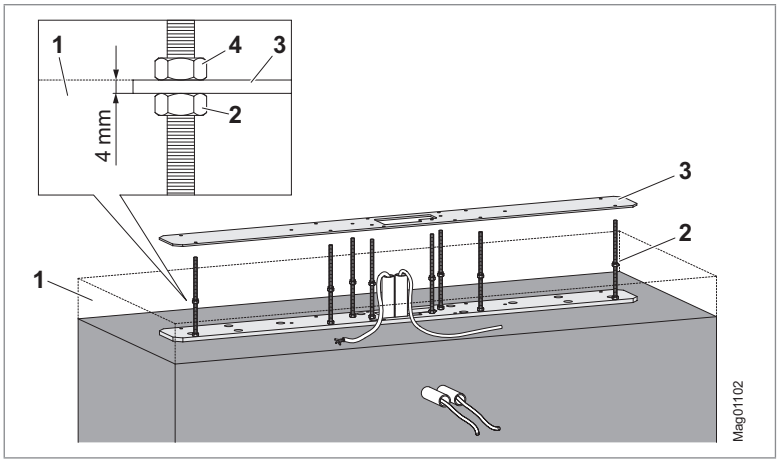


Fig. 19: Positioning the FlowMotion base plate

1 Planned finished floor
2 Nut M 8 below the planned finished floor (FMTP-ML: 8 x and FMTP-MS: 6 x)
3 Base plate FlowMotion
4 Nut M 8 for fixing the base plate (FMTP-ML: 8 x and FMTP-MS: 6 x)

After completion of the finished floor - mounting mTripod

Requirements

› The finished floor is finished.

› The nuts fixing the base plate have been removed.

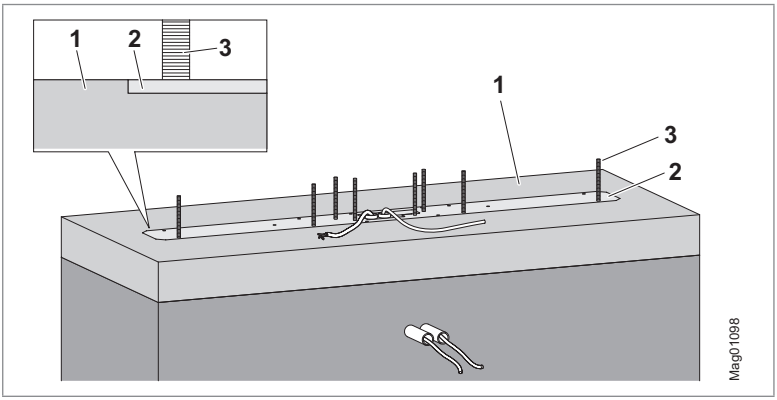


Fig. 20: FlowMotion base plate in the finished floor

1 Finished floor

2 FlowMotion base plate, flush with finished floor

3 Threaded rods M 8 x 330, stainless steel (FMTP-ML: 8 x and FMTP-MS: 6 x)

1. Flex off the threaded rods 20 mm above the finished floor.

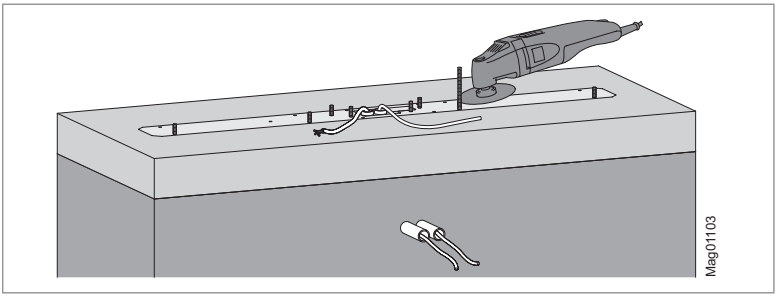


Fig. 21: Flexing off threaded rods

2. Place the mTripod on the threaded rods. ↗ Page 52, Fig. 22.
3. Mount mTripod with U angle and nuts.
4. Tighten the nuts slightly.
5. Align mTripod.

6. Tighten the nuts with 10 Nm.
7. If necessary, seal the housing with a silicone joint.
8. Arrange electrical connections. ↗ Page 69, chapter 8.
9. Assemble the mTripod. ↗ Page 60, chapter 7.11.

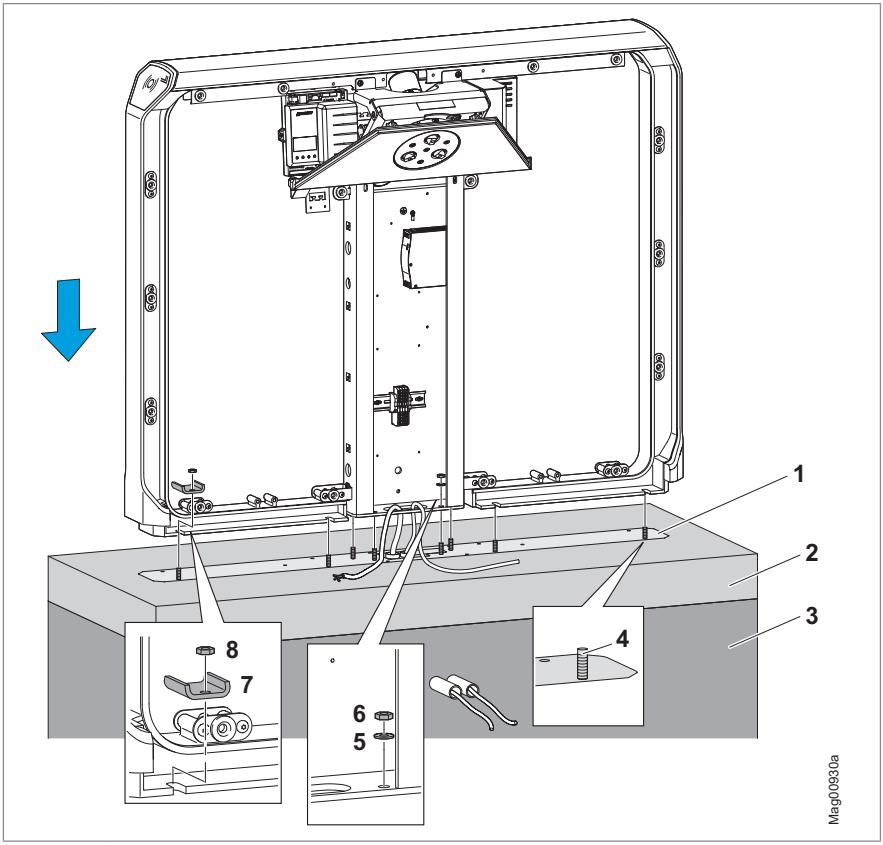


Fig. 22: Mounting variant 2, shown here mTripod FMTP-ML

1 Base plate FlowMotion
2 Finished floor
3 Unfinished floor / foundation
4 Threaded rods M 8 x 330, stainless steel (FMTP-ML: 8 x and FMTP-MS: 6 x)
5 Washer A 8.4 mm, stainless steel (4 x)
6 Nut M 4 (8 x)
7 U angle (FMTP-ML: 4 x and FMTP-MS: 2 x)
8 Nut M 8 (MTP-ML: 4 x and FMTP-MS: 2 x)

7.10.3 Mounting variant 3

With this mounting variant, you first glue the base frame onto the foundation or the finished floor. Then mount the pedestrian gate on the base frame. For the variant mTripod FMTP-ML you need 8 screws. For the variant mTripod FMTP-MS you need 6 screws.

Required material, included in the scope of delivery:

- Screw M 8 x 20, stainless steel
- Screw M 8 x 16, stainless steel
- Washer A 8.4 mm, stainless steel
- U angle

Required material (not included in the scope of delivery):

- Base frame FURA100 for mTripod FMTP-ML
- Base frame FURA101 for mTripod FMTP-MS
- Adhesive set BSSKL100 for gluing the base frame

Requirements

- The foundation / finished floor has been built.
- The empty conduits were laid.
- The foundation / finished floor has hardened.

IMPORTANT!

Follow the separate instructions as well as the packaging labels for the surface cleaner, construction adhesive and remover.

The floor must be free of paint and varnish.

Foundation and empty conduit plan mTripod FMTP-ML: ↗ Page 35, Fig. 6.

Foundation and empty conduit plan mTripod FMTP-MS: ↗ Page 37, Fig. 8.

Base frames FURA100 and FURA101: ↗ Page 39, Fig. 10.

1. Place and align base frame FURA100 / FURA101.

   NOTICE
   Incorrect alignment of the pedestrian gate! The pedestrian gate is not symmetrically constructed. Align the pedestrian gate so that the passage side is on the correct side. Observe foundation plan.

2. Mark the outline of the base frame on the floor. Make sure that the markings are either washable or invisible.

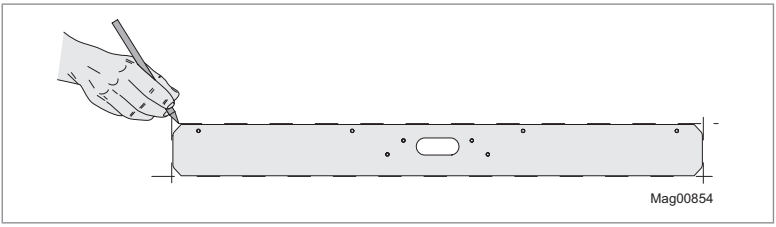


Fig. 23: Mark outline

3. Put the base frame aside. The underside must face upwards.
4. Clean the floor with the "HaftClean" surface cleaner.
5. Clean the underside of the base frame with the "HaftClean Metall" surface cleaner.
6. Apply construction adhesive "Klebt + D Dicht Power" to the floor in the form of a beat within the marking. Apply less construction adhesive towards the edge.

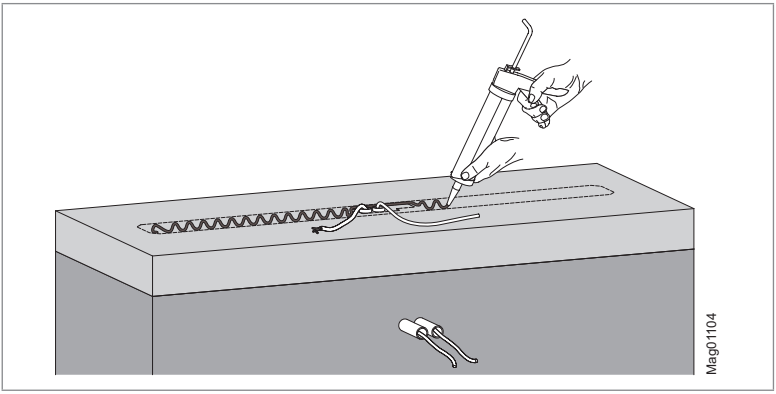


Fig. 24: Applying construction adhesive

7. Immediately place the base frame on the construction adhesive. Observe markings.

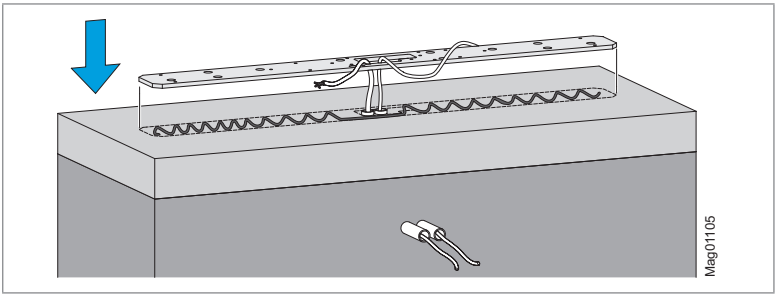


Fig. 25: Placing base frame

8. Immediately press the base frame down well. If the base frame lifts due to unevenness of the ground, weigh down the base frame with weights.
9. Remove excess construction adhesive as soon as possible with "Klebt + Dichtet Entferner". If the construction adhesive has already cured, remove excess construction adhesive with a suitable tool. When selecting the tool, consider the material of the base.
10. Wait for the curing time.
11. Place mTripod on base frame. ↗ Page 56, Fig. 26.
12. Place U angles and screws. Place washers and screws.

    NOTICE
    Possible damage to the finished floor!
    Use the M 8 x 16 and M 8 x 20 screws supplied. Do not use the M 8 x 30 screws.
13. Tighten the screws slightly.
14. Align mTripod.
15. Tighten the screws firmly.
16. If necessary, seal the base frame laterally with a silicone joint.
17. Arrange electrical connections. ↗ Page 69, chapter 8.
18. Assemble the mTripod. ↗ Page 60, chapter 7.11.

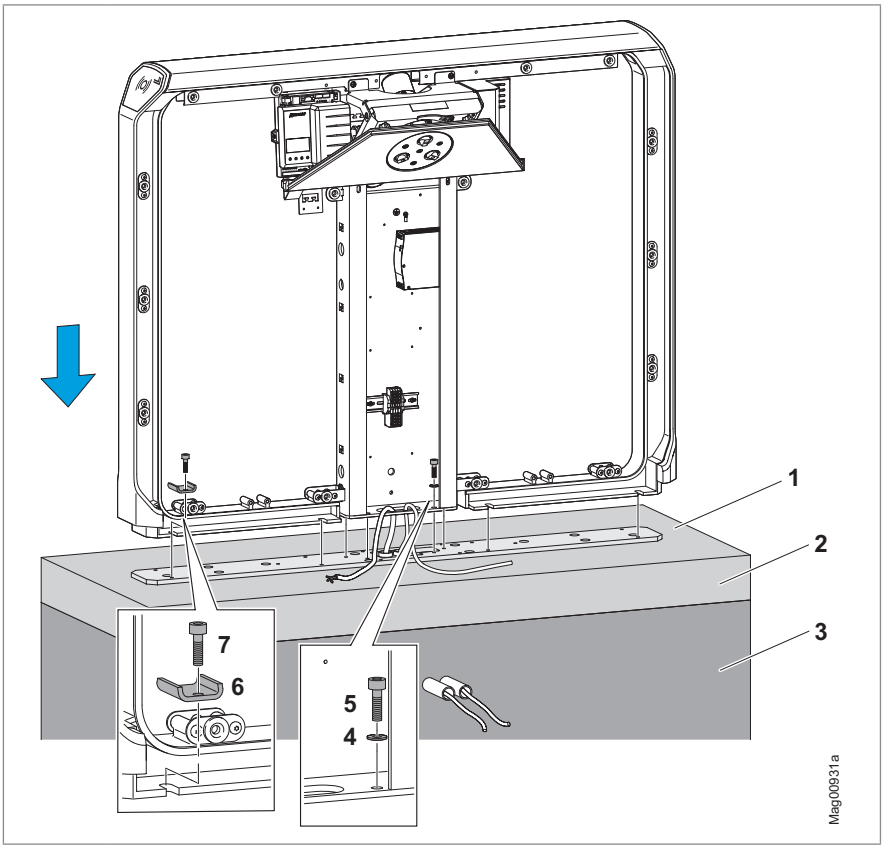


Fig. 26: Mounting variant 3, shown here mTripod FMTP-ML

1 Base frame FURA100 / FURA101
2 Finished floor
3 Unfinished floor / foundation
4 Washer A 8.4 mm, stainless steel (4 x)
5 Screw M 4 x 16, stainless steel, (8 x)
6 U angle (FMTP-ML: 4 x and FMTP-MS: 2 x)
7 Screw M 8 x 20, stainless steel (FMTP-ML: 4 x and FMTP-MS: 2 x)

7.10.4 Mounting variant 4

With this mounting variant, first mount the base frame on the foundation or on the unfinished floor. After completion of the finished floor, mount the turnstile directly onto the base frame. For the variant mTripod FMTP-ML you need 8 screws. For the variant mTripod FMTP-MS you need 6 screws.

Required material, included in the scope of delivery:

- Screw M 8 x 30, stainless steel
- Washer A 8.4 mm, stainless steel
- U angle

Material required, not included in the scope of delivery of the turnstile:

- Base frame FURA102 for mTripod FMTP-ML
- Base frame FURA104 for mTripod FMTP-MS
- Attachment set BSS100 for mounting the base frame, alternatively customer-supplied fastening material

Before finishing the finished floor - Mounting the base frame

Requirements

- The foundation / unfinished floor has been built.
- The empty conduits were laid.
- The foundation / unfinished floor has hardened.

Foundation and empty conduit plan mTripod FMTP-ML: ↗ Page 35, Fig. 6.
Foundation and empty conduit plan mTripod FMTP-MS: ↗ Page 37, Fig. 8.
Base frames FURA102 and FURA104: ↗ Page 41, Fig. 12.

1. Mount base frames FURA102 / FURA104 on the foundation or unfinished floor.

   NOTICE
   Incorrect alignment of the turnstile! The turnstile is not symmetrically constructed. Align the turnstile so that the passage side is on the correct side. Observe foundation plan.

After completion of the finished floor - mounting mTripod

Requirements

› The finished floor is finished.

1. Mount the base frame.
2. Place mTripod on base frame. ↗ Page 59, Fig. 27.
3. Mount mTripod with U angle and nuts.
4. Tighten the nuts slightly.
5. Align mTripod.
6. Tighten the nuts with 10 Nm.
7. If necessary, seal the housing with a silicone joint.
8. Arrange electrical connections. ↗ Page 69, chapter 8.
9. Assemble the mTripod. ↗ Page 60, chapter 7.11.

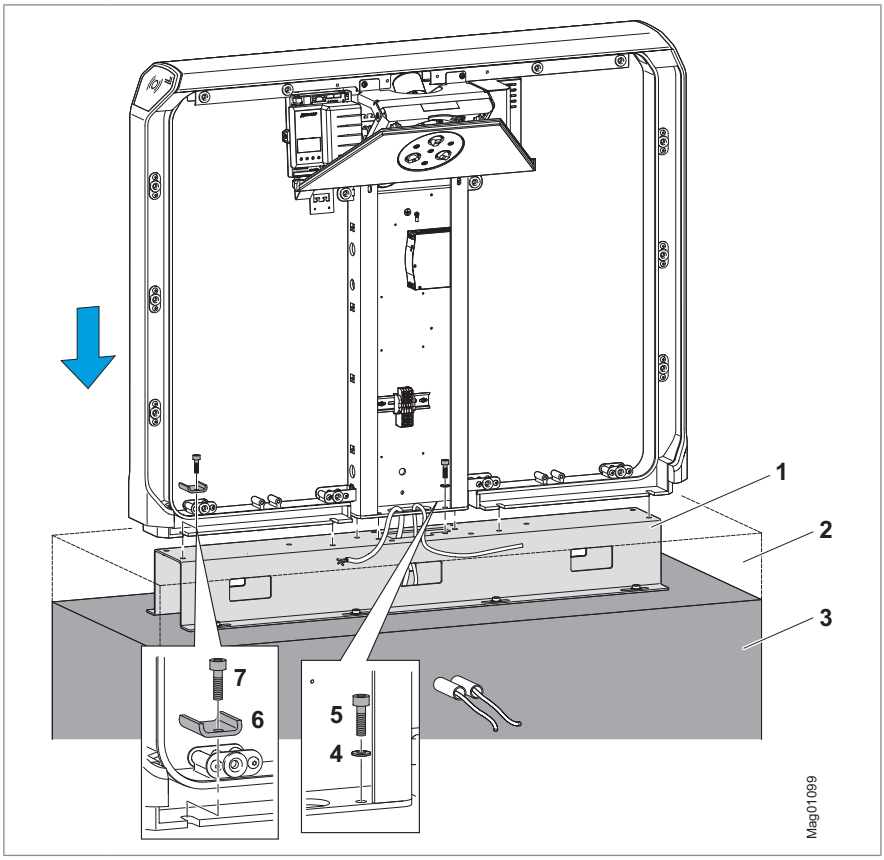


Fig. 27: Mounting variant 4, shown here mTripod FMTP-ML

1 Base frames FURA102 / FURA104
2 Planned finished floor such as interlocking paving stones
3 Concrete foundation
4 Washer A 8.4 mm, stainless steel (4 x)
5 Screw M 4 x 16, stainless steel, (8 x)
6 U angle (FMTP-ML: 4 x and FMTP-MS: 2 x)
7 Screw M 8 x 30, stainless steel (FMTP-ML: 4 x and FMTP-MS: 2 x)

7.11 Assembling mTripod

Requirements

› The pedestrian gate is mounted on the floor.
› The electrical connection has been made.

1. Mount the trapezoidal plate. The cover is held by magnets.

   ⚠ CAUTION
   Danger of crushing! Hold the trapezoidal plate with both hands only at the side during mounting.

   › Hook in the trapezoidal plate with the lower edge.
   › Tilt the trapezoidal plate towards the housing until the magnets attract.

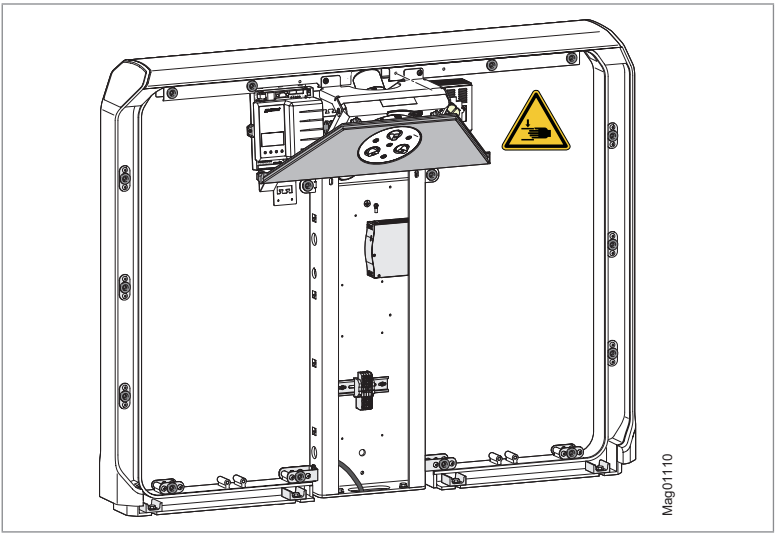


Fig. 28: Mounting the trapezoidal plate

2. Mount the front panel. A click sound is heard each time it clicks into place.

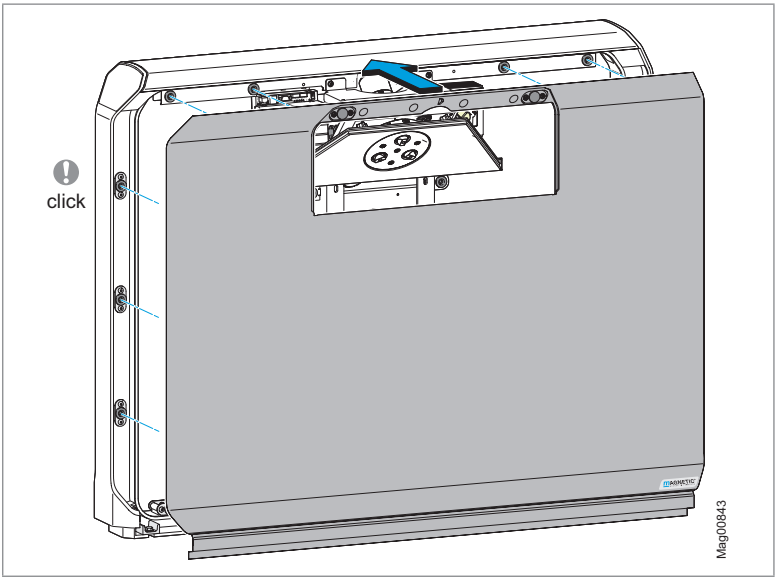


Fig. 29: Mounting the front panel

3. Attach the front panel with the 4 screws.

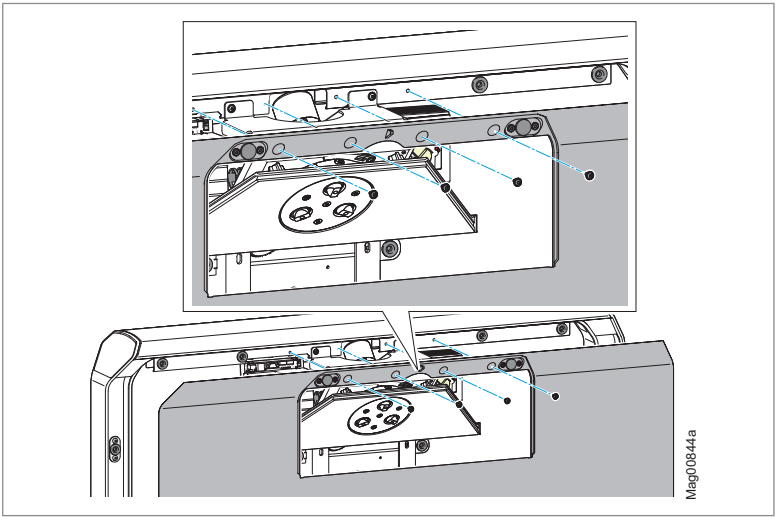


Fig. 30: Attaching the front panel

4. Mount the cover. The cover is held by 2 magnets.

   ⚠ CAUTION
   Danger of crushing! Hold the cover with both hands only at the side. Do not hold the cover by the front edge or the top edge.

   › Hook in the cover.

   › Tilt the cover backwards until the magnets close the cover.

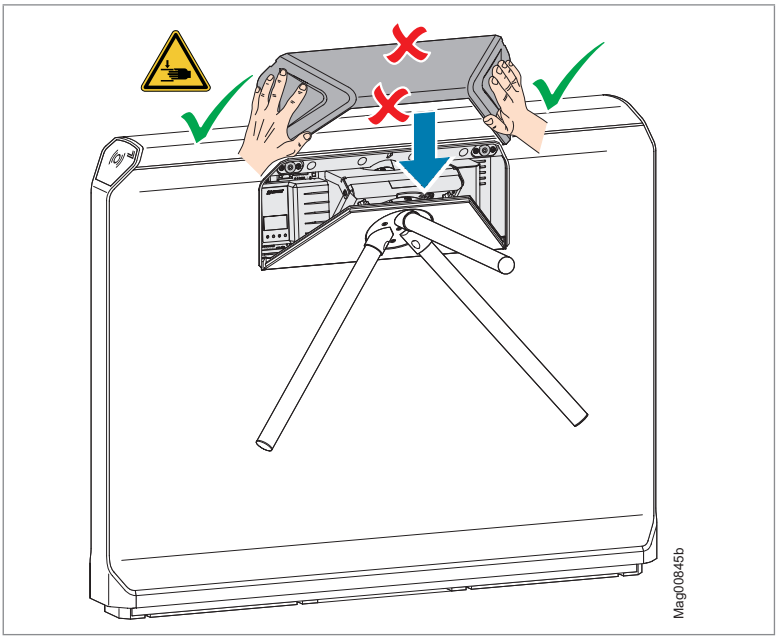


Fig. 31: Mounting the cover

5. Mount blocking arms.
   - › Blocking arms with drop arm function: ↗ Page 63, Fig. 32.
   - › Blocking arms without drop arm function: ↗ Page 64, Fig. 33.

IMPORTANT!

The scope of delivery includes one attachment set for blocking arms without "drop arm" option and one attachment set with "drop arm" option per pedestrian gate. Mount the blocking arms with the correct attachment set.

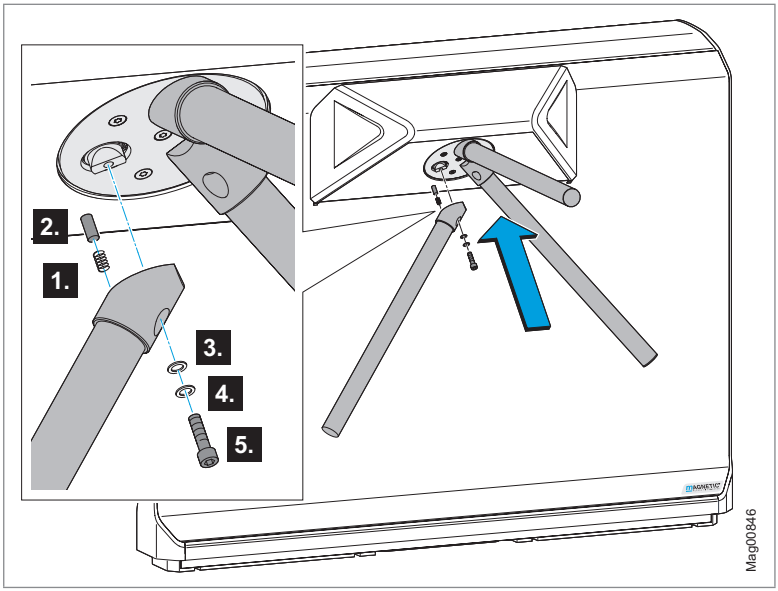


Fig. 32: Mount the blocking arm with drop arm function
Observe the mounting sequence of spring, silicone sleeve, washer, Nordlock washer and hexagon socket screw.

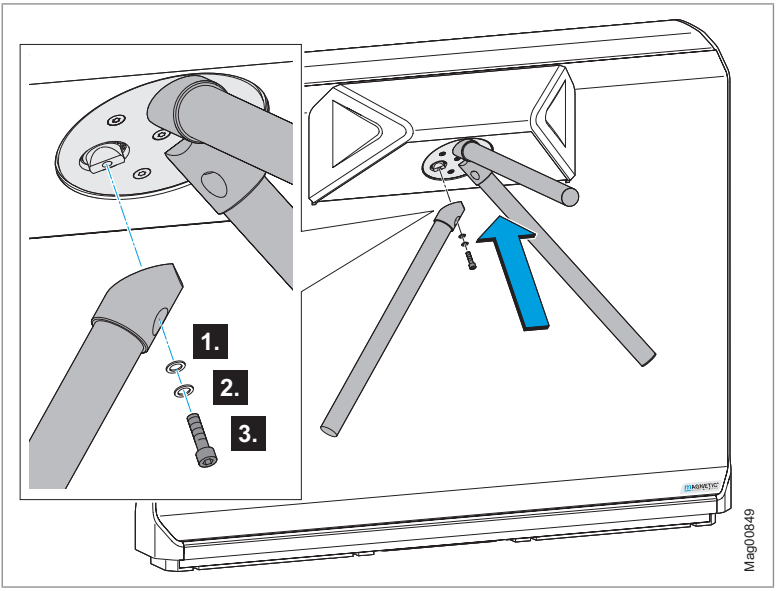


Fig. 33: Mount the blocking arm without the drop arm function.
Observe the mounting sequence of the washer, Nordlock washer and hexagon socket screw.

7.12 Dismounting and mounting the cover

For the following activities, for example, you must dismount the cover:

› Switch the pedestrian gate on and off.

› Parameterise the control unit MGC.

The cover is held by 2 magnets.

Dismounting the cover

1. Place the tool supplied in one of the two grooves in the cover.
2. Lever the cover forward with the tool.
3. Place the tool supplied in the other groove in the cover.
4. Lever the cover forward with the tool.
5. Unhook the cover.

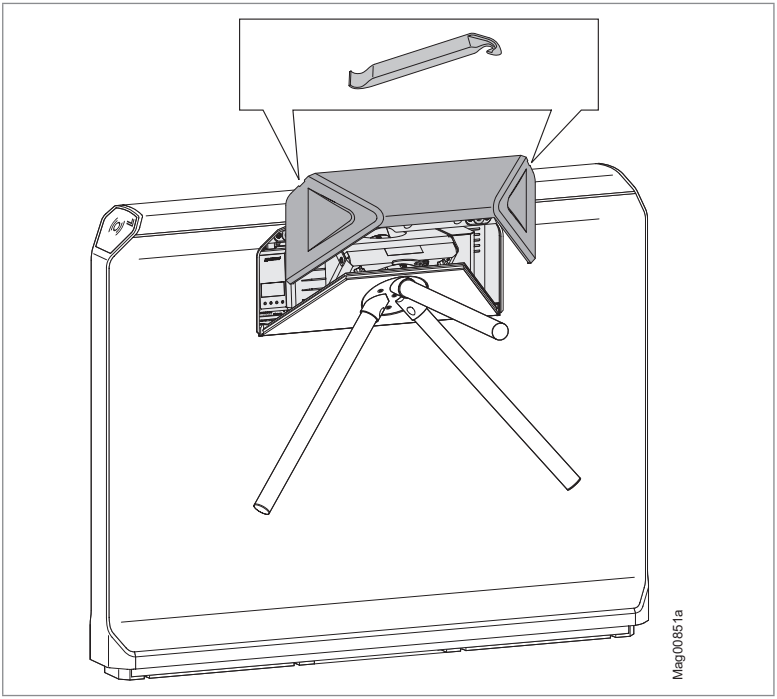


Fig. 34: Dismounting the cover using a tool

Mounting the cover

1. Hook in the cover.

   ⚠ CAUTION
   Danger of crushing! Hold the cover with both hands only at the side. Do not hold the cover by the front edge or the top edge.

2. Tilt the cover backwards until the magnets close the cover.

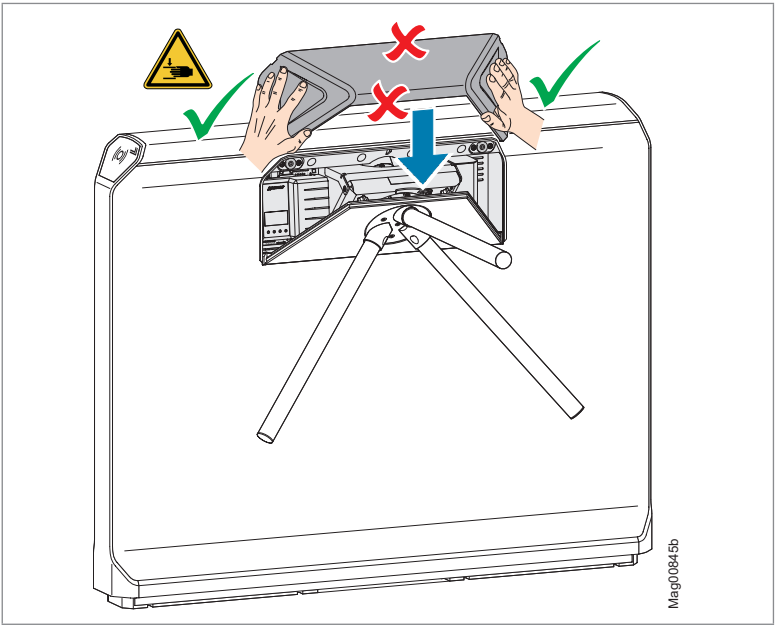


Fig. 35: Mounting the cover

7.13 Opening and closing the housing

To make the electrical connection, you must open the housing.

Opening the housing

1. Dismount the hood. ↗ Page 65, chapter 7.12.
2. Dismount the blocking arms. ↗ Page 63, Fig. 32. ↗ Page 64, Fig. 33.
3. Loosen the 4 screws of the front panel. ↗ Page 43, Fig. 14.
4. Dismount the front panel.

   NOTICE
   Front panel may break if dismounted incorrectly.

   › Open the side fasteners alternately.
   ↗ Page 67, Fig. 36, 1st to 6th
   › Open the upper fasteners. ↗ Page 67, Fig. 36, 7th to 8th
   › Open the lower fasteners. ↗ Page 67, Fig. 36, 9th to 10th

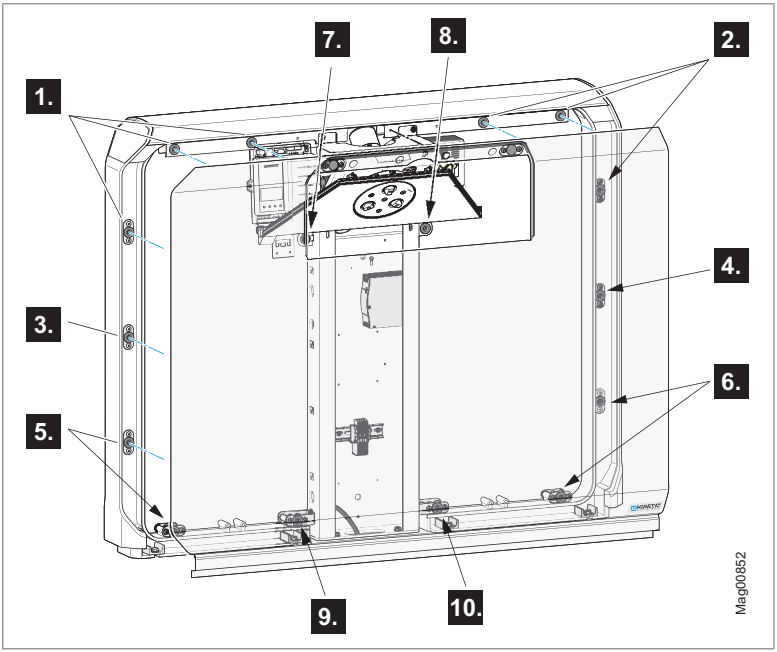


Fig. 36: Dismounting the front panel

5. Dismount the trapezoidal plate. ↗ Page 44, Fig. 16.

Closing the housing

1. Mount the trapezoidal plate.
2. Mount the front panel.
3. Mount blocking arms.
4. Mount the cover. ↗ Page 65, chapter 7.12.

7.14 Checking mounting

Check the following points after mounting:

› Are all screws and nuts tightened?

› Have all pedestrian gate covers been properly mounted?

8 Electrical connection

8.1 Safety during electrical connection

Qualification of personnel

› Technician

› Magnetic MHTM™ FlowMotion® service expert

↗ Page 12, chapter 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

› Work clothes

› Protective gloves

› Safety shoes.

⚠ DANGER	
	**Electric voltage** Touching live parts can be lethal. Damage to the insulation or to individual components can be lethal. › Only qualified electricians or electrical safety experts may carry out work on the electrical system. › Before commencing any work, switch off power supply and secure against restarting. Test for absence of voltage. › Keep moisture and dust away from live parts. Moisture or dust may cause a short circuit. › If the electrical connection is established at precipitation, e.g. rain or snow, intrusion of moisture must be prevented by suitable measures, such as a protective cover. › Protective devices that are required according to national and local regulations, e.g. residual current devices, must be provided. These protective devices must be provided by the customer. › Observe the information on the type plate. › Close all covers after all work is completed.

⚠ DANGER

Mortal danger from lightning and electric voltage!

During or after a lightning strike into the system, there is danger to life if the components are touched or during a stay in the immediate vicinity of the system.

› When mounting outside, do not install and mount the pedestrian gate during thunderstorms.

› Protect yourself in buildings or vehicles.

NOTICE

Electromagnetic interference!

The pedestrian gate is approved for industrial, residential, commercial and business use. Operation in other electromagnetic environments may result in interferences or malfunction.

› Place control lines and mains cables into separate conduits.

› Customer access-control devices, signal transmitters and receivers must be EMC-tested and comply with the prescribed EMC limits. In this case, a Declaration of Conformity must be carried out by the customer.

8.2 Installing electrical protective devices

The protective devices that are required according to national and local regulations must be provided on site. This safety equipment is to be provided by the customer.

As a rule, the following protective devices must be installed:

› Residual current device (RCD)

› Circuit-breaker

› Lockable 2-pole main switch acc. to EN 60947-3.

8.3 Connecting the mains cable

IMPORTANT!
The wire cross-section of the mains cable must be between 1.5 and 4 mm². Observe national regulations regarding cable length and corresponding wire cross-section.

Requirements

› The housing is open. ↗ Page 67, chapter 7.13

1. Disconnect the system from the power supply. Ensure absence of voltage. Secure against reactivation.

   ⚠ DANGER
   Mortal danger by electric voltage!
2. Strip the mains cable and wires as per the following figure.

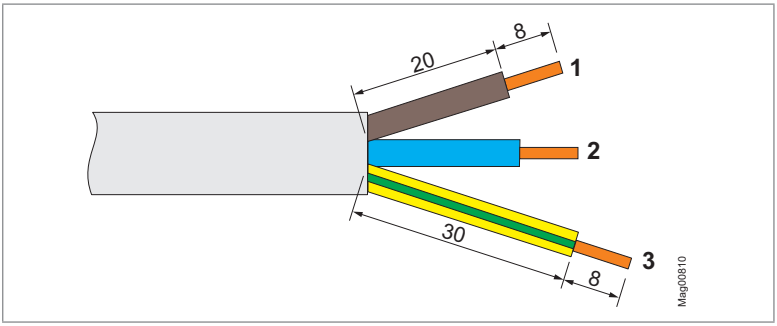


Fig. 37: Stripping (dimensions in mm)

1 Phase
2 Zero conductor
3 Protective earth conductor

3. Carefully guide the mains cable through the housing to the connection compartment and secure it with the brackets.
4. Connect the mains cable to the terminals X1: Connect L / N / PE. ↗ Wiring diagram, separate document.
5. Attach mains cable to the tabs with 2 cable ties.

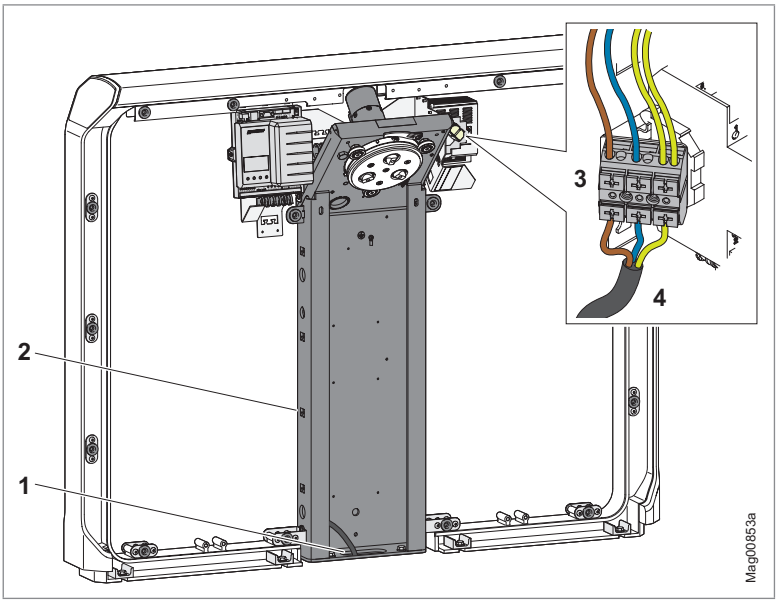


Fig. 38: Laying and connecting the mains cable

1 Conducting empty conduits and lines
2 Straps for fixing empty conduits and lines
3 Terminals
4 Mains cable to be connected

8.4 Connect customer's control lines

IMPORTANT!

For connecting the control lines provided by the customer, see separate document "Description of control unit MGC for mTripod (Doc.ID: 5817,0025)".

8.4.1 Connecting emergency opening contacts

↗ Separate wiring diagram and document "Description control unit MGC for mTripod (Doc.ID: 5817,0025)".

Connect fire brigade switches, emergency opening contacts, etc. to the "Emergency open" input. This input has the highest priority. The input function "Emergency open" is superordinate to all other input functions. As long as +24 V DC are present at this input, the pedestrian gate is in operation.

Turnstiles with "drop arm" option: If the signal drops, the holding magnet for the "drop arm" is released. The motor starts up briefly so that the "drop arm" can be released.

Turnstiles without "drop arm" option: If the signal drops, the passage is enabled in both directions.

8.5 Installing and connecting customer access-control devices

You can install access-control devices in the following places:

› At both ends of the housing

› On the rear panel of the turnstile

↗ Separate wiring diagram and document "Description control unit MGC for mTripod (Doc.ID: 5817,0025)".

At both ends of the housing

Attach the access-control device to the cover with screws. Observe the installation dimensions. ↗ Page 73, Fig. 39.

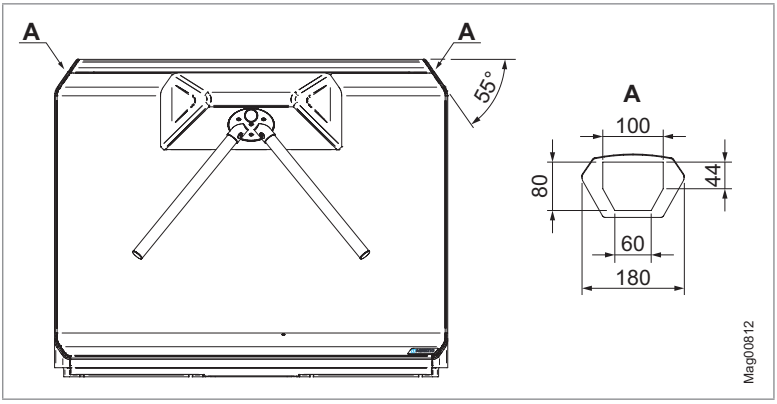


Fig. 39: Installation space for access-control device (dimensions in mm)

A Dimensions for customer access-control device

On the rear panel of the turnstile

In general, you can also mount devices on the rear panel of the turnstile. The maximum permitted drilling depth is 5 mm.

Additional mTripod FMTP-MS:

The rear panel of the mTripod FMTP-MS turnstile is additionally equipped with struts. There are already cast holes on the struts, which you can drill out if necessary. We recommend universal screws 4.5 x 25 mm as fastening screws. The maximum permitted drilling depth is 7 mm.

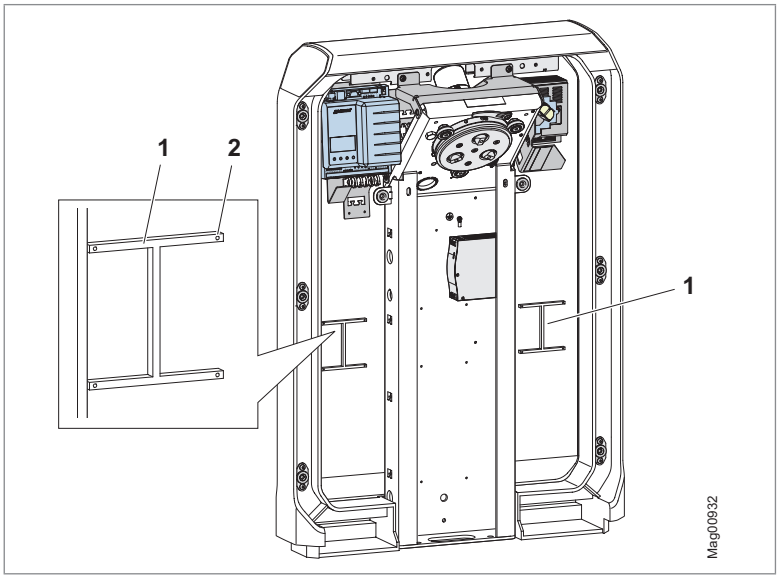


Fig. 40: Rear panel mounting options – mTripod FMTP-MS only

1 Reinforcement: H-shaped struts (2 x)

2 Boreholes, diameter: 1.5 mm, per reinforcement 4 x

8.6 Checking the electrical connections

Check the following after completing the electrical installation:

- Does the power supply match the specification on the type plate?
- Are the required protective devices installed?
- Is the pedestrian gate connected according to electrical circuit diagram?
- Is the emergency signal transmitter correctly connected?
- Are the customer's signal transmitters and receivers correctly connected?
- Are all screws tightened?
- Have all pedestrian gate covers been properly mounted?

9 Commissioning

9.1 Safety during commissioning

Qualification of personnel

› Technician
› Magnetic MHTM™ FlowMotion® service expert

↗ Page 12, chapter 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

› Work clothes
› Protective gloves
› Safety shoes.

9.2 Putting the pedestrian gate into operation

IMPORTANT!

Commissioning must be carried out in accordance with the log book. See separate document "Log Book MHTM™ FlowMotion® mTripod (Doc.ID: 5873,0002)".

9.3 Switching the pedestrian gate on and off

NOTICE

Restarting quickly!

Restarting the pedestrian gate too quickly can lead to damage of the equipment!

› Wait for at least 10 seconds after switching off the pedestrian gate before you switch the mains power on again.

1. Dismount the hood. ↗ Page 65, chapter 7.12.
2. Switch the pedestrian gate on or off using the on/off switch.

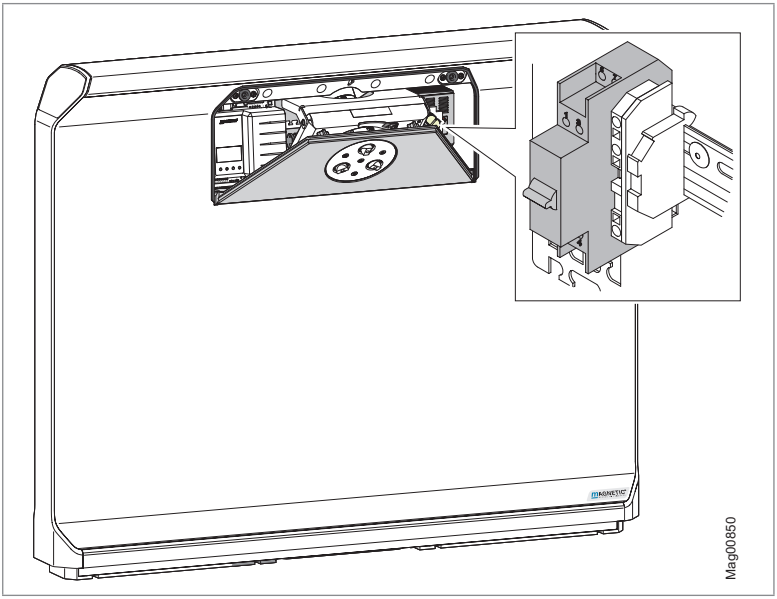


Fig. 41: Switching the mTripod on and off

1 On and off switch

3. Mount the cover. ↗ Page 65, chapter 7.12.

9.4 Parameterising the pedestrian gate

IMPORTANT!

For parameterisation see separate document "Description of control unit MGC for mTripod (Doc.ID: 5817,0025)".

10 Log book

The pedestrian gate must be checked at least once a year in accordance with the log book.

The log book "MHTM FlowMotion® mTripod (Doc.ID: 5873,0002)" is included in the scope of delivery.

11 Operation

The operation of the pedestrian gate depends on the connected access-control devices, signal transmitters and signal receivers and on the parameterisation of the control unit.

We recommend to create a description for the operation, depending on the connected devices and the parameterisation.

IMPORTANT!

For parameterisation see separate document "Description of control unit MGC for mTripod (Doc.ID: 5817,0025)".

12 Cleaning and maintenance

12.1 Cleaning the pedestrian gate

NOTICE

Aggressive cleaning aids and substances!

Aggressive detergents and consumables may damage or destroy components, electric cables, or the coating of the pedestrian gate.

› Do not use cleaning agents with aggressive ingredients.

Cleaning the pedestrian gate from the outside

1. Switch off power supply and secure against restarting.
2. Pre-clean surfaces with a moist cloth. Never use wet cloth.
3. Clean the surface with a mild household cleaner.
4. Carefully clean areas with persistent dirt with spirit.
5. Dry surfaces with a dry cloth.

12.2 Maintenance schedule

The maintenance plan lists all work required to ensure safe, optimum and trouble-free operation of the pedestrian gate.

Interval	Work	Personnel
Monthly	Check emergency function.	Operator
	Check the "drop arm" function for turnstiles with the "drop arm" option.	Operator
	Check the housing from the outside for damage.	Operator
Every 6 months	Check the fastening of the blocking arms.	Technician
	Check the function of the external residual current circuit breaker.	Technician
Every 12 months	Check electrical lines for damage.	Technician
	Check if all electrical connections are firm.	Technician
	Check the fastening of the housing.	Technician

Table 11: Maintenance schedule

13 Corrective action

IMPORTANT!

For troubleshooting see separate document "Description of control unit MGC for mTripod (Doc.ID: 5817,0025)".

14 Spare parts and repair

NOTICE

Wrong and faulty spare parts!

Incorrect or defective spare parts can result in damage, malfunctions or total failure and also impair safety.

› Use only the manufacturer's original spare parts.

Spare parts can be purchase from your authorised dealer. The address can be found on your delivery receipt, invoice or the rear of these operating instructions.

Spare part lists can be obtained on request.

15 Customer service

Our customer service can be contacted for any technical advice. Notices concerning the responsible contact person can be retrieved by telephone, fax, E-mail or via the Internet at any time, refer to manufacturer's address on page 2.

IMPORTANT!

In order to enable fast handling note the data of the type plate such as type, serial number, version etc. before calling.

16 Decommissioning

The pedestrian gate must be taken out of service in the following cases:

› The pedestrian gate is mounted at a different location.

› The pedestrian gate is decommissioned for more than 6 months.

If you only want to deactivate the pedestrian gate for a short time, see the "Switching the pedestrian gate on and off" section. ↗ Page 77, chapter 9.3.

16.1 Safety during decommissioning

Qualification of personnel

› Technician

› Magnetic MHTM™ FlowMotion® service expert

↗ Page 12, 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

› Work clothes

› Protective gloves

› Safety shoes.

16.2 Taking the pedestrian gate out of service

1. Switch off the pedestrian gate. ↗ Page 77, chapter 9.3.
2. Disconnect the pedestrian gate from the power supply.
3. If necessary, dismount the pedestrian gate.
4. Store the pedestrian gate or its components correctly. ↗ Page 26, chapter 5.4.

17 Dismounting and disposal

17.1 Safety during dismounting and disposal

Qualification of personnel

› Technician
› Electrical specialist
› Magnetic MHTM™ FlowMotion® service expert

↗ Page 12, chapter 2.3.2.

Personal protective equipment

Wear the following personal protective equipment:

› Work clothes
› Protective gloves
› Safety shoes.

17.2 Dismounting and disposal of pedestrian gate

Requirements

› The pedestrian gate is out of order. ↗ Page 82, chapter 16.2.

1. Disassemble the pedestrian gate into individual components.
2. Recycle parts by type and material. Dispose of non-recyclable materials in an environmentally friendly manner. Observe local and national laws and guidelines.

√ The pedestrian gate is dismounted and disposed of.

EU-Declaration of Conformity

CE

The manufacturer MAGNETIC AUTOCONTROL GmbH hereby declares for the product supplied by him:

Designation	**Pedestrian gate FlowMotion®**
Type	mTripod FMTP-M*
From serial number	11449059

The conformity according to:
Directive 2006/42/EC (Machine directive) amended by **2009/127/EC**
Directive 2014/30/EU (EMC directive)
Directive 2011/65/EU (RoHS-2 Directive)

Applied harmonised standards (or parts hereof):
EN ISO 12100:2010
Safety of machinery – General principles for design – Risk assessment and risk reduction

EN 60204-1:2018
Safety of machinery – Electrical equipment of machines – Part 1: Specifications for general requirements

EN 61000-6-2:2005/AC:2005
Electromagnetic compatibility (EMC) – Part 6-2: Generic standard – Immunity for industrial environments

EN 61000-6-3:2007/A1:2011/AC:2012
Electromagnetic compatibility (EMC) – Part 6-3: Generic standard – Emission standard for residential, commercial and light-industrial environments

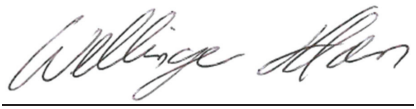
EN ISO 13849-1:2018
Safety of machinery – Safety-related parts of control systems – Part 1: General principles for design

EN 60335-2-103:2015
Household and similar electrical appliances – Safety – Part 2-103: Particular requirements for drives for gates, doors and windows

This declaration is not a guarantee of characteristics in the sense of product liability law. The safety regulations of the operating instructions have to be observed.

MAGNETIC AUTOCONTROL GmbH
Grienmatt 20-28
79650 Schopfheim

Documentation Engineer
Mr. Stefan Wellinger



Schopfheim, 04/02/2021
Place and date

Signature

Index

MAGNETIC AUTOCONTROL GMBH
Grienmatt 20
D-79650 Schopfheim
Germany

Phone +49 7622 695 5
Fax +49 7622 695 802
info@magnetic-germany.com
www.magnetic-access.com

Sales partner

Doc.ID: 5817,0026EN
Version 03