Info

Pedestrian Barrier MAGSTOP

Pivot MPP 112

Technical Data:	Typ	MPP 112
Voltage	VAC	115–240
Frequency	Hz	50–60
Current nom.	mA	200
Current max.	mA	850
Duty Cycler	%	100
Protection	IP	32/44
Length	mm	400
Width	mm	300
Height	mm	1035
Weight	kg	40

Product Description

The Pedestrian Barrier Pivot series type MPP (**M**agnetic **P**edestrian **P**ivot) is designed to control pedestrians entering or exiting restricted areas, usually under surveillance, in low security situations. Personal surveillance is therefore recommended as the barrier can be breached. The barrier consists of a rotating center, at 3 x 120 degrees, providing single access through steps of 1 x 120 degrees.
The operation of the barrier allows for controlled two directional pedestrian flow and is capable of blocking in either direction, or free rotation in either direction.
This model can be used in two directional control applications with a high usage of pedestrian traffic.

Typical Fields of Applications:

- Train stations
- Airports
- Sport stadiums
- Museums
- Company entries
- Swimming pools
- Public convenience

Housing

The housing is made of stainless steel 430 with protection class IP32. The standard type is for indoor installations. Furthermore for external/outdoor installations, Magnetic provides a special type model of stainless steel 430 with protection class 44. No roofing is required.

Motor Drive

Our new developed and patented **M**agnetic **H**igh **T**orque **M**otor **MHTM** with sensor technique is the focus of the drive unit. The MHTM motor allows a direct drive of the rotating center without additional gear.
In connection with the new universal MBC controller we can provide functional features that are very useful and expedient for our customers. The motor offers a near noiseless operation, smallest dynamic impact forces, lowest abrasion and highest positioning accuracy of the rotating arms.
Performance and speed of the motor is set by a response curve, i. e. the motor will try to meet the set position and speed regardless user stopping the turnstile arm during rotation. This provides an optimized running behavior. Thus, accelerating or over spinning of the home position is almost eliminated.
In the case of the motor power being insufficient to prevent someone from an illegal entry or a vandalism forced rotation in the opposite direction. Then secondary coupling is activated and will prevent fraudulent use.Under normal operation the secondary coupling is inactive.
The retention force of the secondary coupling is in the range of 700 – 800 N applied at the ends of the turnstile arms. The secondary coupling is designed to slip in excess of forces greater than 800 N in order to prevent the mechanical damage to the drive mechanism.
Under these circumstances the rotating center will find home position immediately.
The MHTM motor operates under constant power in the home position; therefore the heat dissipated prevents any condensation and prolongs the life of the motor.

Option

Optionally the MPP Pedestrian Pivot can be fitted with a patented drop arm.
It is designed for the case of emergency, e.g. fire alarm, accident or in the event of power failure to allow free passage. Hence the turnstile arm turns down after power fails or is manually switched off.
When power resumes the turnstile arm returns to it's correct position and the rotating center resets and returns to the operating home position.

Info number: MF 5751/E
Subject to technical modifications.

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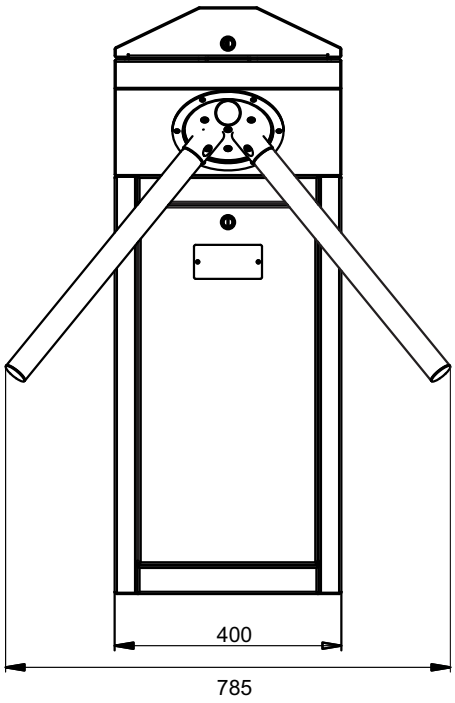
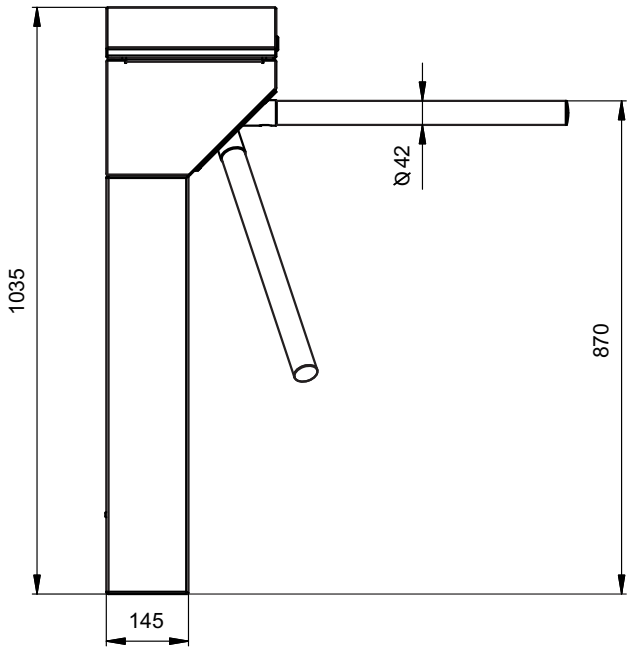
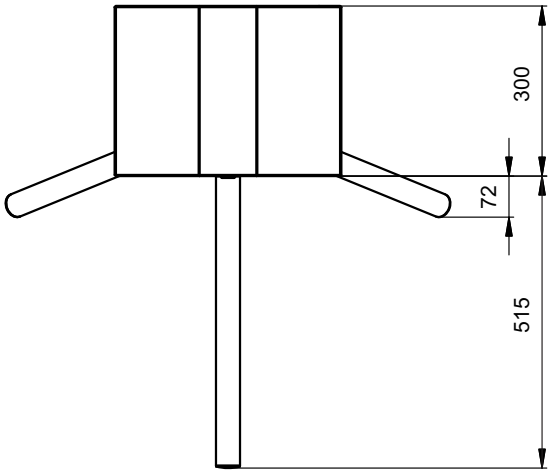
580 E, 5751/0/05.06







Dimensional Diagram

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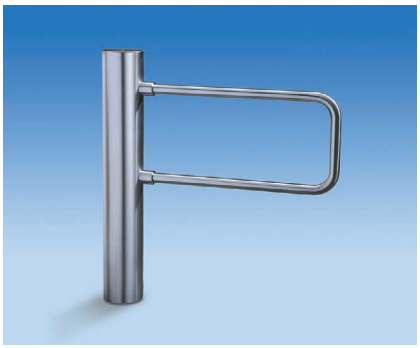

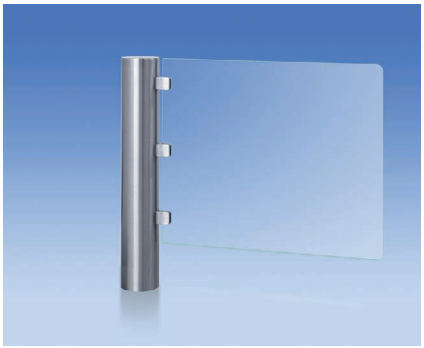

Pedestrian Swing Gate

MPS 122

Technical data	Type	MPS 122
Drive system		MHTM®
Voltage	V	110/115/230/240
Frequency	Hz	50-60
Power requirement	W	45
Opening / closing time	s	1.5 - 4.0[1]
Opening angle, works setting	°	2x90
Height	mm	1000
Diameter	mm	159
Weight	kg	40
Degree of protection	IP	44
Operating temperature	°C	-25 / +45[2]

[1] Depending on dimensions
[2] With heating activated

Product description

The MPS (Magnetic Pedestrian Swing Gate) range of pedestrian barriers was developed to control the access of persons in basic security applications with surveillance. The barrier can be operated in one or both directions. These barriers are also used to supplement our turnstiles and flap barriers, in particular to provide passage for wheelchairs and for persons carrying large items of luggage.

Typical fields of application

- Commercial buildings
- Museums
- Sports stadiums
- Public facilities
- Government offices
- Banks
- Airports
- Leisure facilities

Housing

The housing (column) is basically a polished, grade 1.4301 (V2A) stainless steel tube with a diameter of 159 mm, which provides degree of protection IP 44. The drive unit is concealed within the housing and rotates the outer stainless steel tube. This rotatable part of the barrier has two or three brackets for mounting barrier elements. These can be standard rails, glass flaps (toughened safety glass or laminated glass), or customer-specific barrier elements.

Drive system

The drive unit incorporates our innovative and exceptionally reliable **MHTM®** (**M**agnetic **H**igh **T**orque **M**otor) drive technology. This offers numerous advantages, such as a long working life, freedom from maintenance, silent operation, low dynamic forces, obstacle detection, and harmonic opening and closing motions.

In the inactive state, the motor has a very low power requirement. The heat generated prevents condensation and enables use of the barrier in extreme ambient conditions. In combination with the MBC-111 logic controller, the system provides functions for a multitude of applications. The speed and opening time are adjustable. The opening angle can be different for each direction, and is adjustable over a wide range from 10° to 300°.

Safety

The intelligent drive system is able to obstacles in the swept zone, and so ensures the greatest possible protection against injury or damage. The behaviour of the barrier after contact with an obstacle is adjustable.

Unauthorised access or manipulation of the barrier by opening or turning the flap or rail is prevented by an electromagnetic toothed clutch. In addition, it can trigger an alarm signal, e.g. at a safety control centre or a video system.

In case of a power failure or in an emergency the power supply to the motor is switched off and the toothed clutch released to provide free passage.
MPS swing gates are available in a version with approval for use in emergency exits and rescue routes.

Drive technology

Motor technology
MHTM® Pat. No. DE 103 53 366
The key component of the MPS drive is the highly dynamic **MHTM®** – **M**agnetic **H**igh **T**orque **M**otor with precision position feedback. The major feature of this motor is its high torque combined with harmonic opening and closing motions. This ensures fast acceleration and braking, and, at the same time, low forces and improved safety.
The drive system incorporates a maintenance free planetary gear set.

Info-Nummer: 5807,5007EN

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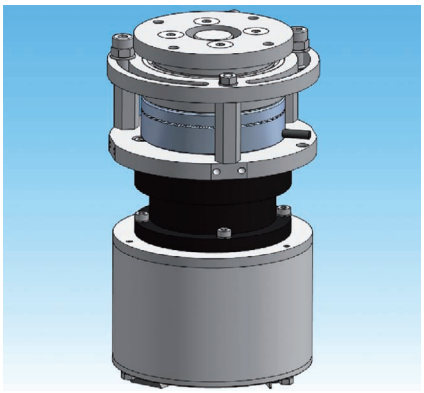
Info

MAGNETIC AUTOCONTROL™

Locking / vandalism protection



An electromagnetic toothed clutch allows the barrier to be locked in any position; the positions are determined by the teeth of the clutch. This prevents the barrier from being forced out of its end position or being moved against the released direction of passage.
In the event of panic or vandalism, protection and safety are ensured by a force limiter.
In the event of a power failure or in an emergency, the toothed clutch opens to provide free passage.

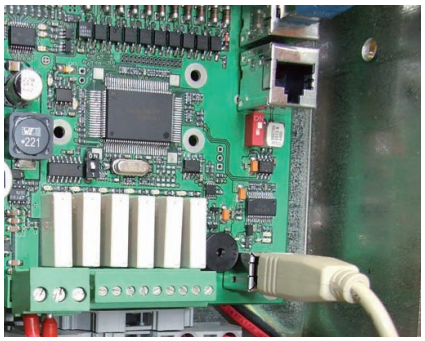
Motor controller MMC-120

The motor controller permits precise control of the motor taking account of parameters such as torque, speed, acceleration and braking in any position. The combination of a highly dynamic motor and precise control enables a safe, harmonic rotary motion and, simultaneously, quick reaction to manipulation, obstacles, or contact.

Main features of the motor controller:

- CAN bus for integration in a network
- Safety release, e.g. by a fire alarm system
- Precision position regulation
- Adjustable acceleration and braking ramps
- LEDs for diagnosis
- Dimensions: 220 mm (L) x 141 mm (W) x 62 mm (H)

Logic controller MBC-111



The logic controller offers a high degree of functionality and flexibility to meet customer-specific requirements. It can control the pedestrian barrier either by means of serial commands from a communication point, or using digital inputs and outputs.

The MBC-111 controls all functions of the barrier independently. It accepts opening commands from an external access-control system such as a card reader or a finger-print reader, etc.

Main features of the logic controller:

- CAN bus or serial interface for integration in a network
- Control extensions via CAN bus
- 9 digital inputs, 6 relay outputs
- USB part (programming, parametrisation)
- Functions: open, direction of passage, emergency, reset
- Signal output error, power failure, unlock, lock, and counting impulse
- LEDs and display for service and diagnosis purposes
- Dimensions: 105 mm (L) x 105 mm (W) x 18 mm (H)

Controller housing with mains unit

The logic controller MBC, the mains unit, the main switch, and the terminals for connecting the access-control reader or a signal provider, such as a fire alarm system, are all installed in the MPS column. Thus, the unit can be quickly and easily connected.
Diagnosis and service software which runs on Microsoft Windows® is available for changing parameters and reading error messages.

Declaration of Conformity

The barriers and controllers comply with CE requirements.
On request barriers can be supplied with UL or other certification.

Info

MAGNETIC AUTOCONTROL™

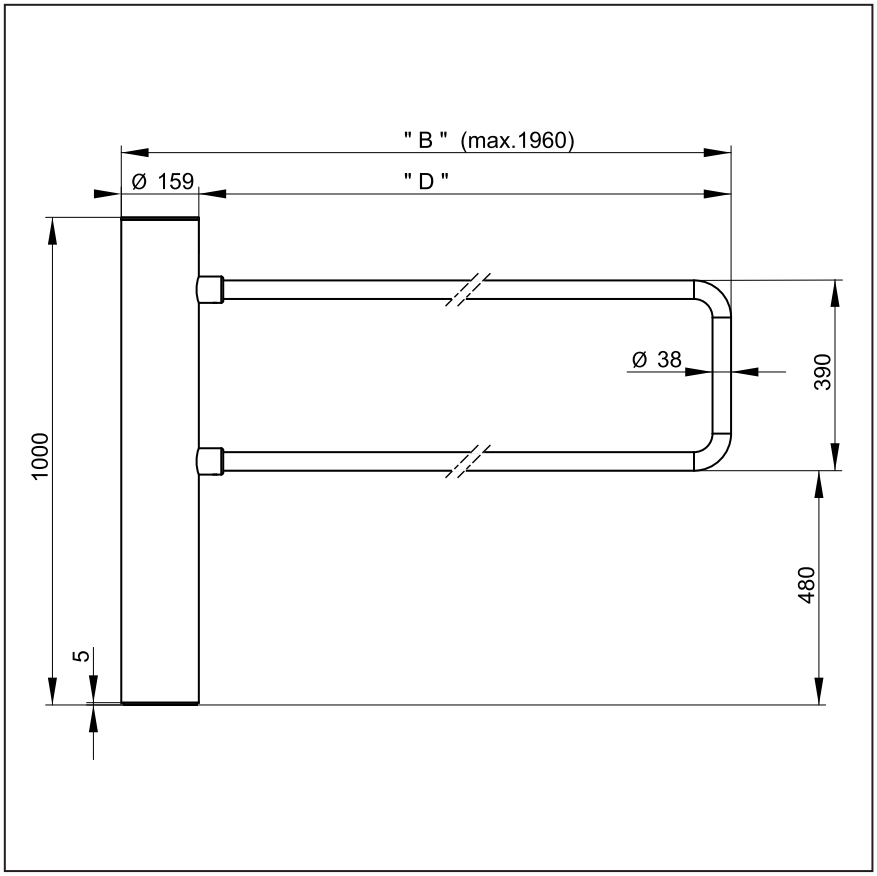
Dimensions and configurations:

The drawing shows the standard dimensions for a barrier with a U-shaped rail.

Other dimensions and various flap designs are available on request.

Overall width B = 1960 mm including column,
corresponds to a barrier
width of D = 1800 mm

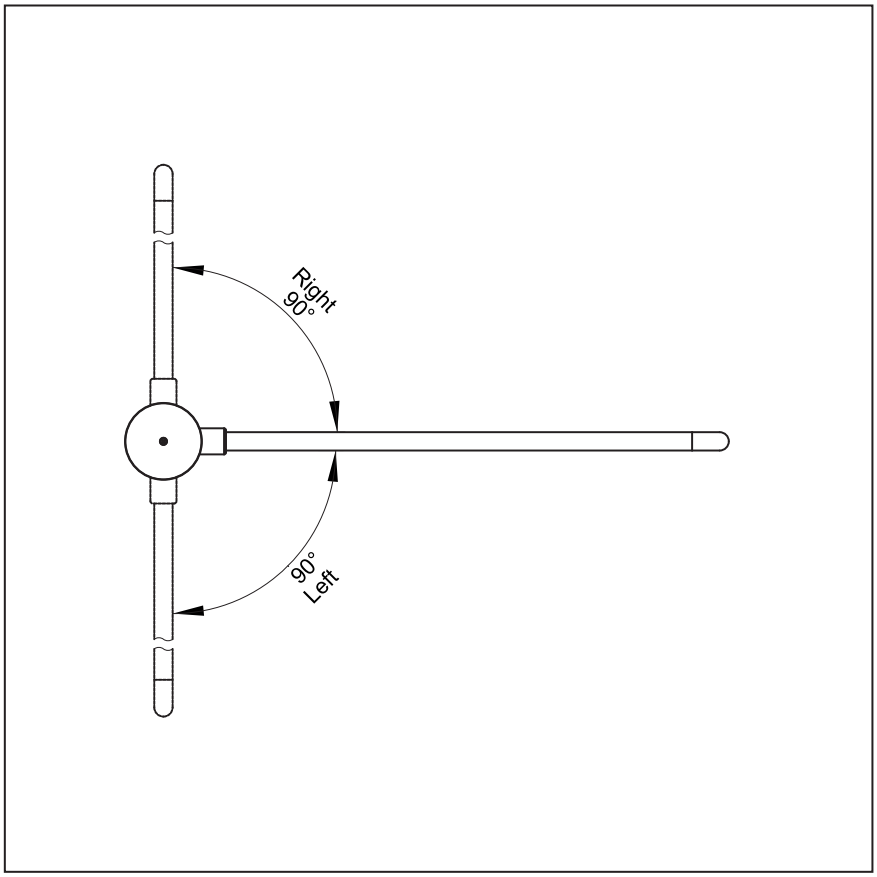
Indoor and outdoor applications with rail barrier



The factory setting for the opening angle is 90° in each direction.

The two parameters can be changed independently of each other in a range from 10° to a maximum of 300°.

When commissioning, the factory setting for the home position is on the right.



Info

MAGNETIC AUTOCONTROL™

Dimensions and configurations:

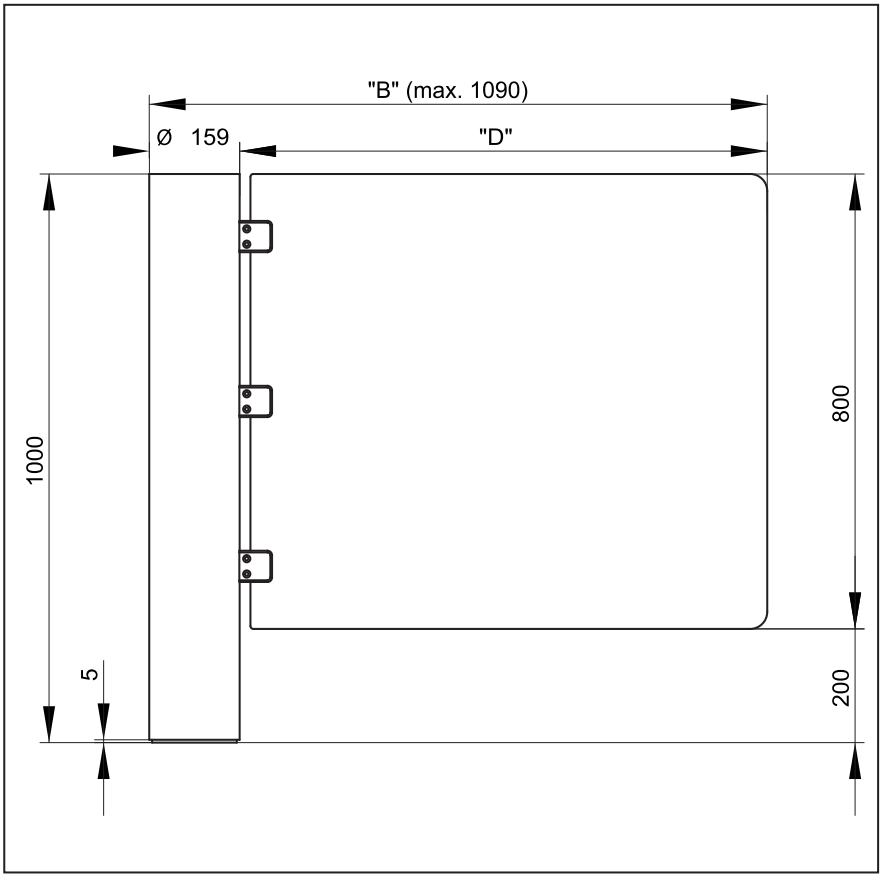
The drawing shows the standard dimensions for a barrier with a glass flap.

Other dimensions and various flap designs are available on request.

Version with glass flap for indoor applications

Toughened safety glass TSG

Overall width B = 1090 mm including column corresponds to a barrier width of D = 930 mm



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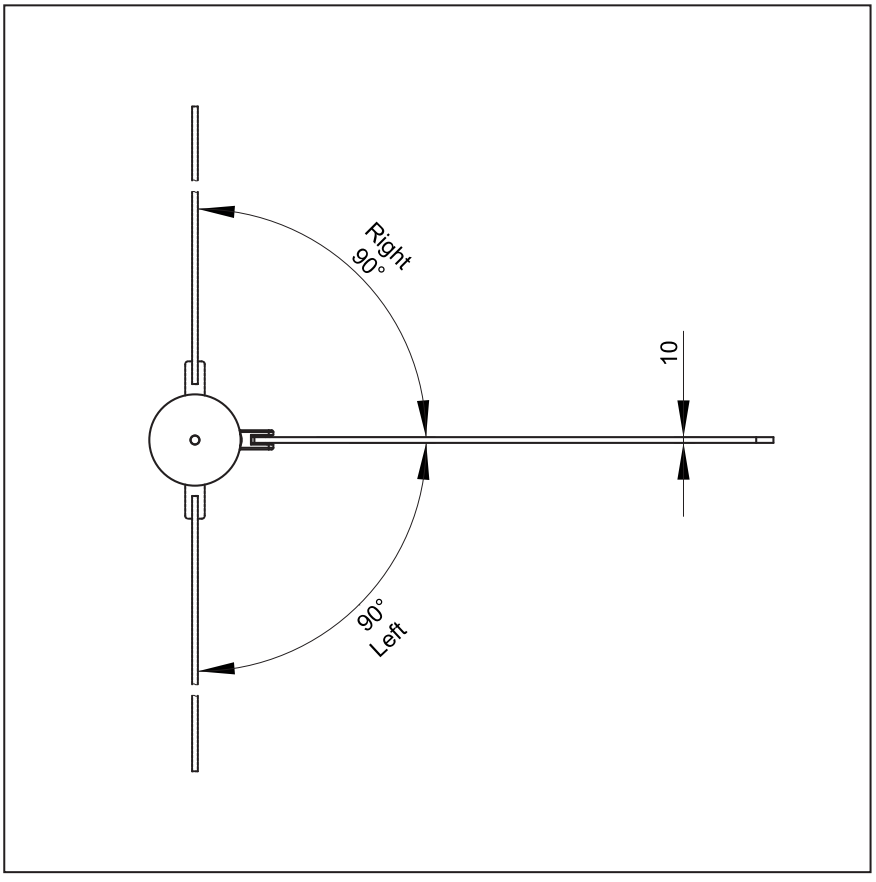

Info

Pedestrian Barriers Swing

MPS 10

Technical Data:	Type	MPS 10
Mechanism		Manual
Opening time for 90 Deg	S	–
Opening Angle	Deg	1 x 90
Supply Voltage	VAC	–
Frequency	Hz	–
Protection	IP	43
Current	A	–
Duty Cycle	%	100
Weight	Kg	35
Height	mm	1000
Diameter	mm	152

Description

The MPS Series of swing gates have been developed to provide a user friendly access system for pedestrian traffic control.
These gates are also used to complement our turnstile and retractable pedestrian barriers where wheelchair or other wide objects need to be passed through. The gate mechanism controls the movement through a 90 degree restricted opening. The design includes a lock/release mechanism operated by key. This provides a means of selectively controlled operation often used at egress check points.

Typical installations:

Railway platforms
Sport Stadiums
Swimming pools
Museums
Libraries
Supermarkets

Housing

The main body of the housing is constructed from a 152 mm diameter polished stainless steel tube with a brushed finish. A mounting flange is attached to the base, providing a suitable means of bolting the column to a finished floor surface. It matches the design appearance of the MPS 12 automatic version.

Technology

The Magnetic manual return mechanism operates quietly and effectively to achieve a 90° rotation when the "U" bar is pushed to gain access. Once released, the mechanism returns the bar to its closed position. No power is required, and the mechanism may be specified to rotate in either a left or right hand direction with the opposite direction blocked.

Options

- A selection of powder coat finishes.
- Acrylic infill panels.
- Direction symbols.
- Disabled symbols.
- Left and right hand operation.
- Variation of bar length.
- Counters.
- Guide Rails and Posts.

Info No. MPS 10
September 2002

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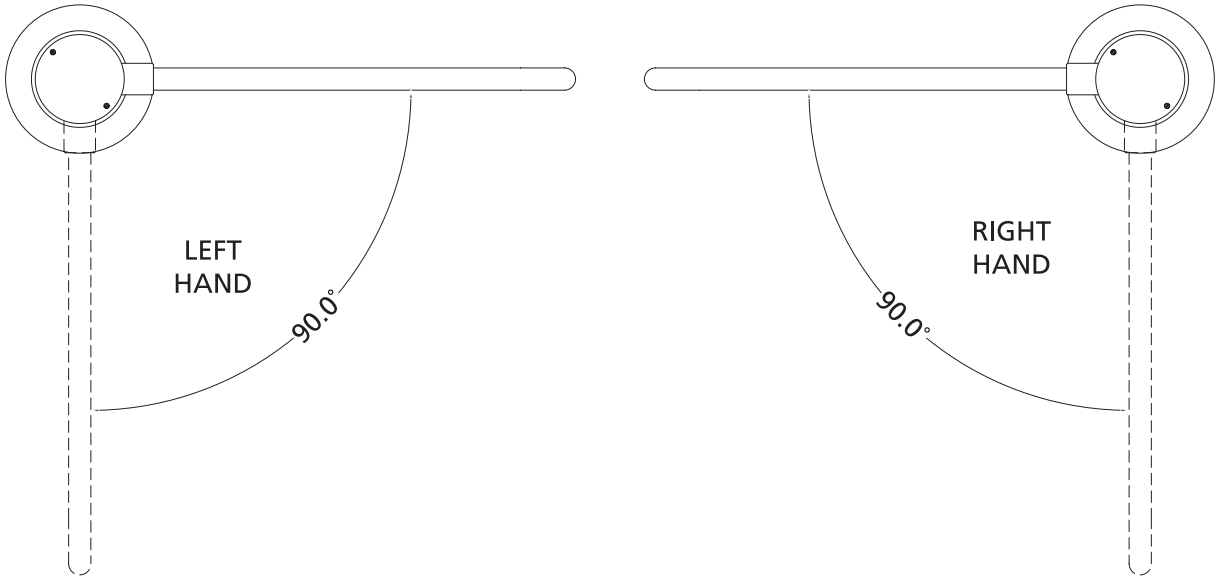

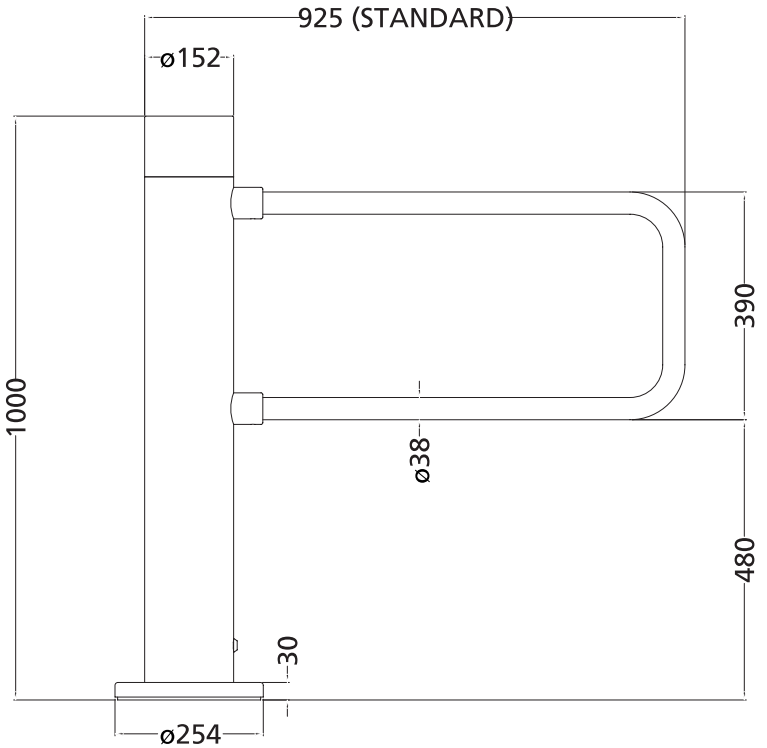

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Info

Pedestrian Barriers MAGSTOP

Full Height Turnstile MPT 52/53

Technical Data:	Type	MPT 52	MPT 53
Protection	IP	54	54
Voltage	VAC	240	24
Frequency	Hz	50	50
Current	A	2.0	2.5
Duty Cycle	%	100	100
Weight	kg	325	320
Height	mm	2230	2230
Diameter	mm	1300	1300

Description

The MPT52/53 series of full height turnstiles have been specifically developed to control simultaneous bi-directional pedestrian control of two independent turnstiles where limited space is available. The turnstile has been designed as a modular system and can easily be assembled on site by hand and without the need of heavy lifting devices.

The turnstile consists of an outer cage section and two centre columns, each incorporating a 3 x 120° offset 'U' bar configuration. The MUC Controllers and the torque positioning drives are mounted on top of the cage and within a sheet metal enclosure. Additional space has also been made available for the installation of access control equipment.

The turnstile is designed to be installed directly to concrete surfaces, or in the case of paved areas an optional foundation frame is available.

Housing

The turnstile consists of a left and right hand outer vertical bar section, a central 'U' bar section and two central rotating columns, each incorporating a 3 x 120° offset 'U' bar configuration.

The control and drive mechanism are housed within a folded sheet metal enclosure which is located above the central columns. As standard all sections are fully "hot dip" galvanised after fabrication and can also be powder coated in RAL 7042 grey upon request. Optional and special RAL colours and either 304 or 316 grade stainless steel construction are also available upon request.
Access control devices such as card readers can easily be fitted to the turnstile cage. A mounting plate fixed at each entry point on the outer vertical bar sections of the turnstile enables ease of installation of such control devices.

Technology

MPT52 motor driven

The MPT52 turnstile is operated by our well-known motor drive technology.
The drive system incorporates our 3-phase Magnetic Torque Motors and self locking system which are controlled by our Magnetic Universal Controllers (MUC). The rotation speed of the centre columns are pre-programmable and are compared with the actual speed.

The MUC Controllers in turn provide the optimum power to frequency ratio to the torque motors which assist the user in the rotation of the centre columns. In the event of power failure the centre columns are allowed to turn freely (standard option). An optional locking device to stop entry in one or both directions is available upon request.

MPT53 electromechanical

The MPT 53 turnstile is rotated manually by the user. The locking mechanisms contain a cam plate and two locking solenoids. Each unit is controlled by our MSC10 E-100 Controller. This controller has been designed specifically by Magnetic for this application. Upon receiving a pulsed input, the controller releases the respective solenoid and allows the centre column to be turned 120° by hand, the centre column then locks back into position. The turnstile is then ready to receive additional inputs. The options available, in the event of power fail are: 'locked' or 'free wheel' in one or both directions.

Option

- Over-climb protection roof
- Overhead lighting within the turnstile
- Foundation frame
- Enclosure to incorporate access control devices.

Info-Nummer: MF 5812/E
Subject to technical modifications.

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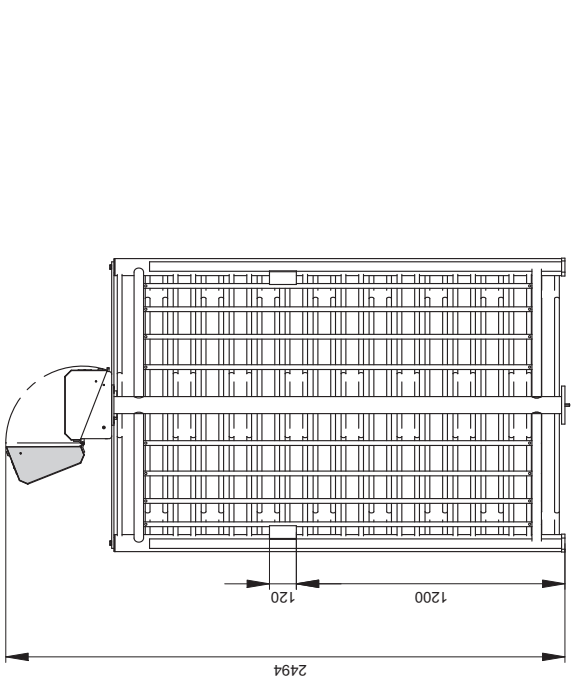

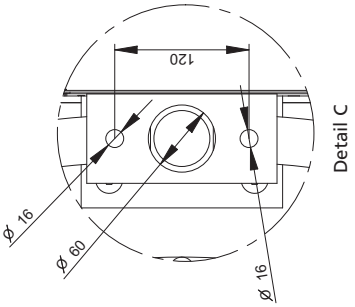

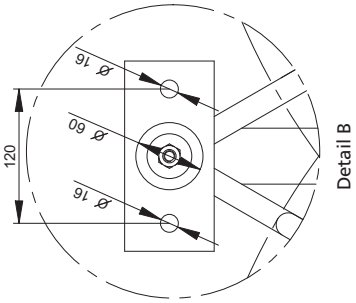

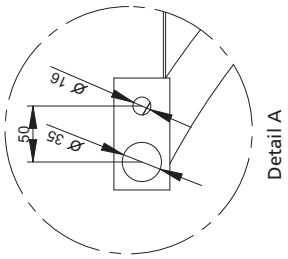

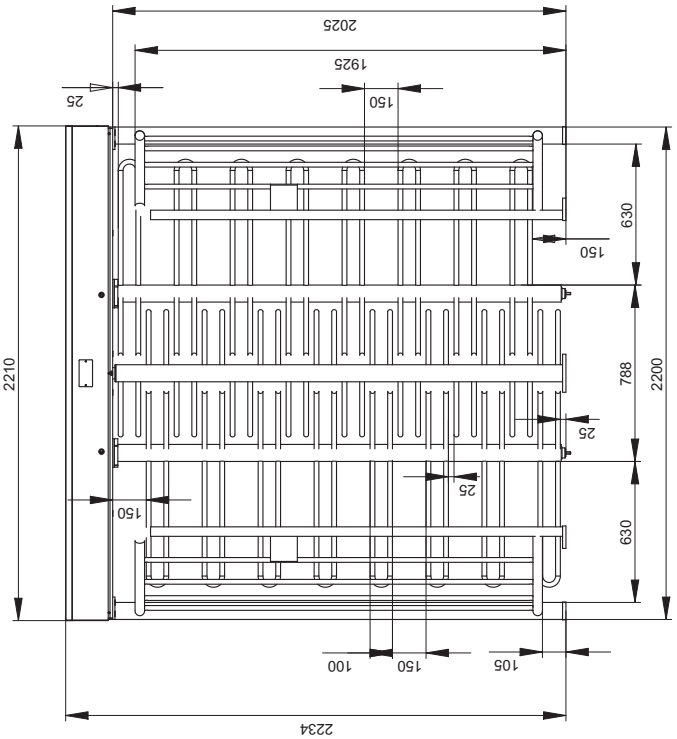

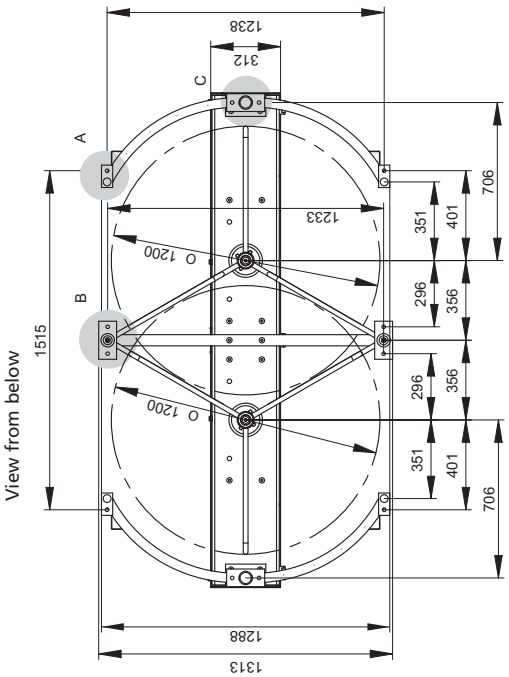

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