

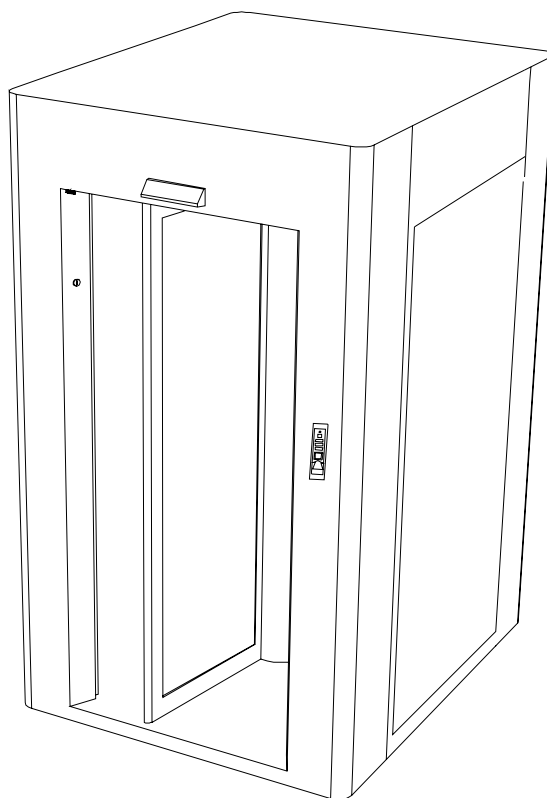
SAIMA SICUREZZA S.p.a.

Indicatore 60/G - 52100 AREZZO - ITALY

Tel. +39 (575) 9291 Telefax +39 (575)

987097

Telex 574074 SAIMA I

E-Mail: sicurezzaservice@saimanews.com<http://www.saimanews.com>**REVOLVING
DOOR****ROTANT III**

Introduction
Garantee
Destination/use
Identification
General safety rules
Maintenance

I - Instructions for use

General description
Control console
Position of controls on the console
External front of the revolving door
Internal front of the revolving door
Forward exit procedure

Index

II - Body of the system

General view
Technical features

III - System installation

Preliminary checks
M. D. disturbance sources
Unpacking
Installation and test
Wiring
Deactivation and setting aside

Appendix

System handbook
Maintenance card

INTRODUCTION

Thank you for trusting in our company and buying our product . We would like to remember you that this handbook is an integral part of our anti-robbery revolving door and for this reason it is necessary to follow its indications. If the plant has not been set, please examine the chapter called “ unpacking , installation and testing”. This is a very important book for all our customers as in it they can find all the basic information concerning use and maintenance safety.

No part of this document can be reproduced without SAIMA SICUREZZA S.P.A written authorization.

Notes preceded by this symbol give important information regarding use, risks, rules.

KEEP CAREFULLY THIS HANDBOOK FOR ANY FURTHER CONSULTATION.

This book describes all use and maintenance rules it is necessary to follow in order to get the best results and to achieve the highest efficiency level from your revolving door. Please read carefully this piece of advice before operating the machine.

Guarantee

The machine is guaranteed one year from the date of the test.

We are at your disposal for any further information you need.

Please remember that the guarantee is considered as cancelled if you do not follow the rules here stated.

Any maker’s liability gets lost if the user does not follow the notes here inserted or if the user introduces any change without the maker’s previous written authorization.

Saima sicurezza S.p.A reserves the right to do all the changes considered necessary for a better working of this machine.

Destination/use

The revolving door must be used only as an equipped protection door with entrances control.

Use restrictions:

The revolving door must be used only for the purpose it has been made for, taking into account the fixed restrictions.



Any other use must be considered as inappropriate and wrong.

The maker cannot be considered responsible for any damage caused by inappropriate, wrong or irrational use of the revolving door.

Identification

The metal plate, here represented, contains all the information about identification and plant working.

It is placed on the roof of the booth near the internal inspection door.

			
SICUREZZA S.P.A. INDICATORE (AR) ITALY Tel. 0575-9291			
MATR. N°	<input type="text"/>	VOLTAGE [V]	<input type="text"/>
YEAR	<input type="text"/>	FREQUENCY [Hz]	<input type="text"/>
MODEL	<input type="text"/>	POWER [kW]	<input type="text"/>
WEIGHT [Kg]	<input type="text"/>	FORCE MAX [N]	<input type="text"/>

General safety rules

Only special trained and authorized staff can carry out the maintenance service and any tampering or modification of the plant which the maker has not previously authorized, this prevents him from being responsible for any damage due to what above mentioned.

The removal or tampering of safety devices involves the breaking of the European laws concerning safety.

We recommend the use of original spare parts. Our machines are planned to accept only original spare parts. Their setting must be carried out by skilled staff able to respect the instruction hereby stated.

Please check that during the working of the machine all the safety conditions are respected. If you note an irregular working, please stop the system immediately and call the SAIMA SICUREZZA S.P.A. maintenance service.

Any operation on the electric system even if of small entity must be carried out by skilled staff

Security devices

- Ergonomic console;
- Manual release of the plant in case of total lack of electricity.
- Button of inner aid call;
- Mechanical motion not accessible;
- Metal plates showing the correct procedures to be followed;
- Sensitive devices to open the wing in case it is intercepted during the closing phase;
- Electronic couple governor to keep the noticeable thrust on the wing.
- Accident-prevention microes inside the small inner door;
- Stopping button to stop from the bank;
- Electrical isolation.
- Protection by magneto-thermic switches;
- Safety transformer.
- Peripheral devices working by SELV;

We kindly remind all our customers to follow the inforce rules, first of all the: earth-connection of the plant and the safe device.

Maintenance

The door has been realized in compliance with regulations and taking into account the low coming from the el directions.

We recommend you to verify the system six-monthly by qualified staff.

During this planned maintenance it is necessary to carry out the procedures mentioned is the maintenance system handbook.

I - ISTRUCTIONS FOR USE

General description

The revolving door ROTANT III is part of the control switched on selfrunned plant runs both automatically or manually.

The revolving door has a special mechanical device which avoids the bouce of the spider in case of manual thrust. In case of automatic rotation, the mechanical device reacts to thrust forces which are applied to the turnstile increasing or decreasing the rotation speed.

A special control system allows verifying the status inside the transit box after every alarm of the metal detector.

The control for metal object presence is activated both during the automatic rotation of the turnstile end during the rotation by request and it includes the whole transit box. In case the control system reveals the presence of the metal object the alarm will be activated, the turnstile will invert the running until it reaches the forward door allowing the user to exit remove the metal object, after this the user can enter following normal running.

After every alarm a sanding message will invite the user to exit from the transit box and to deposit the metal object inside special chest of drawers.

N.B- It is possible to fix the revolving door to lateral structures (casing, ceiling) without endangering its correct working.

The enblock if the evolving door is made with still plate (thickness 30/10), conveniently strengthened by tubular of thick thickness. The painting is made using special stuff so that the final product has a very good resistance to crash and atmospheric agents. The supports of the door, where are placed the bullet-proof bent glasses, and walls of the transit box are realised using special material, which are highly resistant.

The metal detector is placed inside the revolving door in an invisible way. Metal detector bolts can be easily replaced.

The metal detector general board and the logic direction unit are placed on the upper side of the revolving door so to be easily inspected. A roofing of plastic material protects the upper side from the dust.

The turnstile is animated by an electromechanical system and a direct current motor runs it. The sub-feeding of the motor gives a further guarantee of accident-prevention protection further to the pneumatic one.

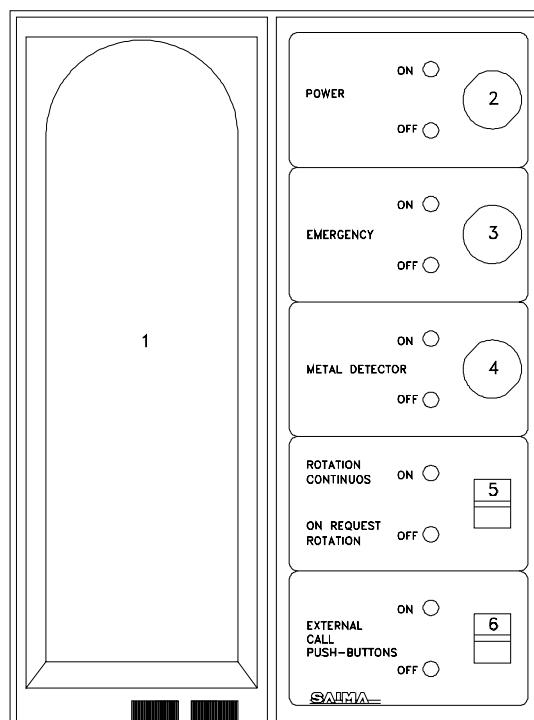
Furthermore the revolving door furnished with:

- An interphone to communicate between the external side and the control console;
- Vocal synthesis with one or more messages;
- Push-button panels with semaphore signals (Green, Red, Orange). Push-button to start the rotation of the turnstile (in case of rotation by request);
- There are sensors both in the internal and external side of the bank which start the turnstile rotation (in case of rotation by request);
- Ceiling bowl with headlamp to light the transit box, loudspeaker, interphone button and interphone (set by request).

I - INSTRUCTIONS FOR USE

Control console

Drawing n. 1



- 1) **Interphone receiver.**
By raising the receiver one can communicate with customers outside the revolving door.
- 2) **Power key revolving door**
By turning this key the revolving door is switched off or on.
ON= revolving door is switched on.
OFF= revolving door is switched off.
In case of manual reset of the system the same key must be used by sequence "On - Off - On".
- 3) **Emergency key**
By turning this key one interrupts any operations in course and therefore the turnstile can be manually turned in emergency cases when it is necessary to evacuate the building.
ON= motorized rotation of the turnstile.
OFF= manual rotation of the turnstile.
In case of emergency if the operator selects OFF it will be possible to turn the turnstile manually.
- 4) **Metal Detector ON/OFF key**
ON = the M. D. included.
OFF= the M.D. excluded.
Use this control only when it is really necessary.
- 5) **This switch activates the continuous rotation control or rotation upon request**
ON= continuous rotation.
OFF= rotation by request.
- 6) **This switch disengages the external push-button in order to allow exit only when the revolving door is programme for rotation upon request.**
ON= external button excluded.
OFF=normal working.
When the rotation by request is activated and the external button is excluded it is possible to exit only.

I - ISTRUCTIONS FOR USE

Position of controls on the console

NORMAL TRANSIT

Starting	ON
Emergency	OFF
M.D. Control	ON
Cont. Rotation/req. Rotation	ON
External call push-button	ON/OFF

TRANSIT UPON REQUEST

Starting	ON
Emergency	OFF
M.D. Control	ON/OFF
Cont. Rotation/req. Rotation	OFF
External call push-button	ON/OFF

EXIT TRANSIT ONLY

Starting	ON
Emergency	OFF
M.D. Control	ON/OFF
Cont. Rotation/req. Rotation	OFF
External call push-button	OFF

TRANSIT WITH METAL OBJECTS

Starting	ON
Emergency	OFF
M.D. Control	OFF
Cont. Rotation/req. Rotation	ON
External call push-button	ON/OFF

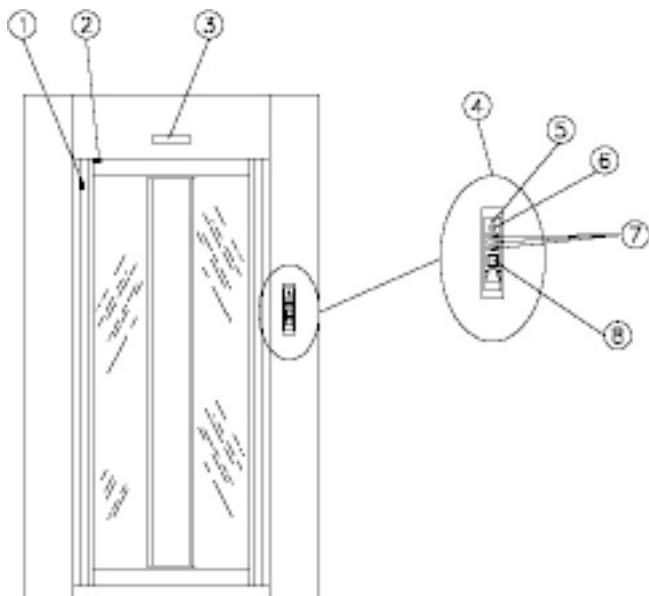
EMERGENCY

Starting	ON
Emergency	ON
M.D. Control	ON
Cont. Rotation/req. Rotation	ON
External call push-button	ON/OFF

The **marked points** show the changes with respect to NORMAL TRANSIT.

I - INSTRUCTIONS FOR USE

External front of the revolving door

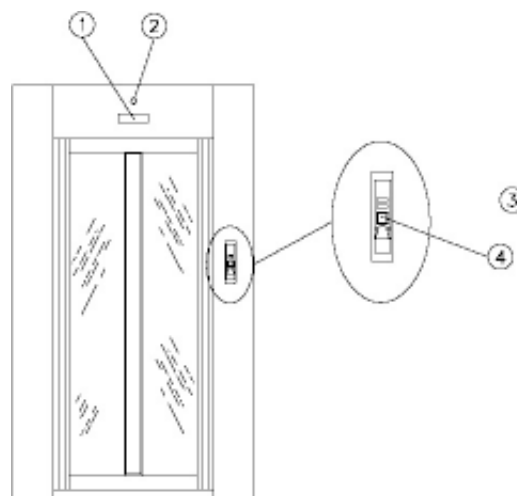


Drawing n.2

- 1) **Key for the mechanical block of the turnstile.**
- 2) **Power key revolving door.**
Acting on this key it is possible activate or disarm the revolving door. Before the revolving door is ready for works, they must spend around 10 sec. The power owes however happen from the point in which the revolving door has stayed out
- 3) **External radar.**
When rotation upon request is selected from the console and users enter within the radar's range of action, the turnstile automatically performs a turn and in this way allows the user to enter through the revolving door. However, if the external push-button is cut out from the circuit, the radar and the external push-button are disengaged and the revolving door will travel only in the exit direction.
- 4) **External call push.button panel.**
- 5) **External interphone..**
- 6) **Interphone button.**
If it is selected it starts the electric bell of the console.
- 7) **Lighting signals.**
- 8) **External door opening button.**
If rotation upon request is selected from the console and this button is pressed the turnstile will perform one turn allowing users to forward transit from the revolving door.

Internal front of the revolving door

- 1) **Internal radar.**
When rotation upon request is selected from the console and users enter within the radar's range of action, the turnstile automatically performs a turn allowing users to exit from the revolving door.
- 2) **Key for openig the shutter.**
Allows inspection and maintenance of the electronic system.
- 3) **Internal push-button panel.**
- 4) **Internal call push-button.**
If rotation upon request is selected from the console and this button is pressed the turnstile will perform one turn allowing users to exit from the revolving door.



Drawing n.3

I - INSTRUCTIONS FOR USE

Forward exit procedure

STARTING THE REVOLVING DOOR:

The revolving door can be switched on and off with the key placed above on the external front of the unit construction or with the key on the console.

When starting the revolving door it is important to switch it on from the position in which it has been switched off.

The key placed on the external front should only be used when no service door is available for the first entrance or the last exit.

NORMAL TRANSIT:

Once that the revolving door has been started one can select continuous rotation (for a large flow of customers) or rotation upon request. With rotation upon request it is sufficient to press one of the two call push-buttons placed on the side of the transit area. By doing this the turnstile shall effect a complete turn and therefore one can transit through.

TRANSIT IN ALARM:

When entering the revolving door with a weapon or with a metal object (similar to a weapon according to size and weight) the detection system receives an alarm impulse and the user is automatically invited to leave the revolving door and deposit the metal objects in the locker outside.

At this point the turnstile will invert the direction of travel by taking back the person and eventual objects or weapons left inside the transit area.

After having executed this procedure the revolving door is automatically reset and is ready for normal functioning.

TRANSIT WITH METAL OBJECTS:

In order to allow entrance to users carrying metal objects or weapons, it is necessary that:

- 1 - If by entering the user provokes an alarm impulse to the detection system he shall have to step outside and wait until the alarm procedure has been completed; at this point the switch-board operator can, by means of the key on the console, cut out from the circuit the metal detector and the user can transit through;
- 2 - The user identifies himself through the interphone, at this point the switch-board operator shall cut out from the circuit the metal detector by means of the key on the console in order that the user can transit through.

In either case, the metal detector is re-activated when the operator turns the key to position ON.

DOOR CLOSED TO THE PUBLIC:

During closing hours it is sufficient to cut out from the circuit the external call push-button and to activate the rotation upon request control.

Therefore, whoever wishes to enter the premises shall have to identify himself through the interphone and wait until the switch-board operator opens the revolving door.

I - INSTRUCTIONS FOR USE**Forward exit procedure****EMERGENCY:**

The turnstile can be disengaged from the motor, by turning the key on the console, allowing it to be manually pushed open.

MANUAL UNCLAMPING IN CASE OF EMERGENCY:

Should the revolving door not answer to the console controls anymore, due to break downs or other, it is necessary to proceed with the manual unclamping of the revolving door.

In this case it is necessary to open the small shutter placed above on the inside front of the revolving door and pull the unclamping lever.

In order to re-establish normal functioning the lever has to be brought back to its forward position.

N.B. It is important to fulfill this operation after having deactivated the general switch off of the revolving door.

Should the revolving door not work as usual, ensure that the controls on the console are correctly positioned, i.e. NORMAL TRANSIT.

Strong tension rushes in the power mains of the revolving door or a prolonged power failure can induce the revolving door to act differently, for instance it could simulate the presence of a metal object inside the transit area.

In order to regenerate normal functioning switch off the revolving door with the key and after a few seconds switch it back on.

For other misfunctionings contact immediately our maintenance service at the following number:

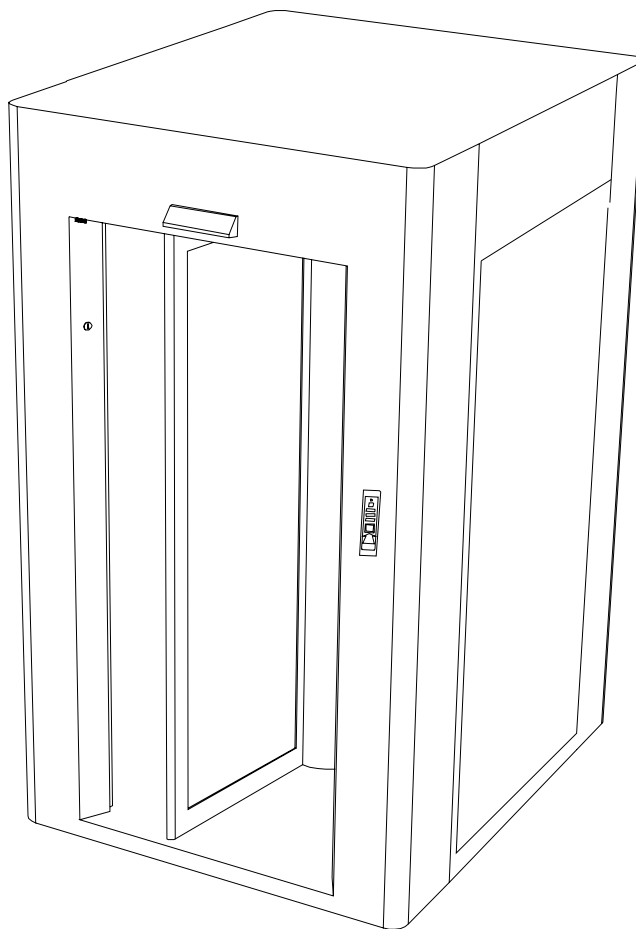
TEL +39 (575) 9291 - 929216

FAX +39 (575) 929238

II - BODY OF THE SYSTEM

General view

Drawing n.4



Technical features

Electrical system

Power supply	220± 10%V - 50Hz
Maximun power absorbed	0,3 KW
Batteries	N°2 - 12 V 15Ah
Management logic	Planing by a multiprocessor unit
Forwards and exits	24 + 24 espandibile
I/O analogical	8 + 2
Serial lines	1 (RS232) + 1 (RS485)
Engines	c.c. 24V

Structure

Frame	It is made with tubes of 30/10 mm and press-bendend sheet steel section
Tampons	Bullet-proof and shock-proof
Paint	Polyurethan with epixidic base

Performances

Metal Detector	YES NO
Self-activation	YES NO
Transit speed	20 passages per minute
Working temperature	-10°÷ +55° C

Dimensions and weight

Dimensions	Height	2400 mm
	Lenght	1500 mm
	Width	1600 mm
Transit box dimensions	Height	2030 mm
	Width	850 mm
Weight		1400 Kg.

III - SYSTEM INSTALLATION

Preliminary checks

Before setting the revolving door it is necessary to carry out the following checks in the most careful way in order to avoid possible failures.

Possible floor defects can prevent the correct mechanic working of the system.

Verify that the ceiling of the room where the revolving door is placed is 280 cm high at least, (every revolving door is 240 cm. high) so that it can be guaranteed the entry into the upper part of the system in order to carry out the assembly and the maintenance of the revolving door.

Verify that there is not any source which can provoke the metal detector failure. (see M.D disturbance sources in this chapter)

It is important to keep the place where you put the system unchanged.

III - SYSTEM INSTALLATION

M.D. disturbance sources

The metal detector is a system which is sensitive to electro-magnetic parasitic disturbances, in order to reach the highest performances, at the highest sensibility, it is necessary to take some precautions when you use the structures in which it is placed.

There are two kinds of disturbance:

- 1) a kind of mechanic nature
- 2) a kind of electric nature.

INTERFERENCES OF MECHANIC NATURE

The metal detector owns a generator of electro-magnetic field able to induce, in its receiving section an electromotive force which, modified by passing metal objects, makes the system operate. The flux of the magnetic field invests, at a certain level, even the space surrounding the probe.

Near metal structures can introduce field absorptions which can be due to:

A - The moving of considerable metal mass or mass placed particularly near the antenna.

B - Fixed metal structures placed in the metal detector proximity can be suitably replaced by panels made of formica, bachelite, polycarbonate or other insulating materials.

C - Door: if the doors are made of metal, they must be placed at a distance of at least 60 cm, the loop formed by the door metal profiles must be insulated. If the doors are made of insulating material (blinded with wood etc) the precautions just mentioned are not necessary.

D - Electro-magnetic loops formed by structural components (metal frames, glass doors, metal ceiling strips etc) which, because of movements or vibrations do not own a stable nature. If the loops are subjected to movement they must be distanced from the antennae or eliminated by insulating. If the loops are fixed, because they are formed by structures and draw pieces which surround the metal detector, they must be insulated by an appropriate split or made electrically stable by rivetings or electrical bypass connections (in case of varnishing remove the varnish layer on the surface which is in contact with screws and use notched washers).

ELECTRICAL INTERFERENCES

They depend on the proximity to the antennae of power supply cables (electro-magnetic field generated by alternating currents) or impulsive sources of electro-magnetic interferences (electric motors with a high ignition absorption and related power supply cables fluorescent lights, emergency generation, teleprinters, air conditioning units, remote control switchers).

A - Power supply cables: they should be placed at a distance of 20 cm at last from the sensitive probe, particularly from the receiving one (the distance depends on the circulation current) and twisted with a pitch which cannot be greater than 2.5cm (if it is not possible they must be inserted into a screening tube made of ferrous material 2mm thick at last).

B - The impulsive sources must be removed, eliminated or screened.

b1- Fluorescent lights: the lights and their related reactors must be removed from the metal detector and particularly from the receiving probe marked by the red stamp. Where it is possible you must substitute the fluorescent lights with filament lights.

b2- Electrical locks: If they are placed near the probe of the metal detector we recommend the use of a kind supplied with screening. It is better to use motorised locks with a lower starting point current.

III - SYSTEM INSTALLATION**Unpacking**

Packing parts (such as plastic bags, polystyrene, nails, screws, woods) must be kept away from children's reach as they can be extremely dangerous.



Collect the above mentioned materials in special dumps.



Once ended the unpacking before assembling the revolving door keep its parts in a clean and dry place.

Only skilled staff, authorized by SAIMA SICUREZZA S.P.A., can carry out the installation and the assembly of the revolving door. Skilled staff must follow what stated in this installation and assembly handbook.

After assembling, the assembler together with the customer, will carry out the working test and fill the test form where the customer will sign if the test is positive.

A qualified technician must carry out the test as well as the regulation and he must put the revolving door in running order.

III - SYSTEM INSTALLATION

Installation and test

1) Free the revolving door from the external protection packing, take the board which is inside it and control the console is disconnected from the cable of the revolving door.

2) Place the revolving door where established, arrange the external side in direction of the external side of the local. To move it use a crane hanging its cables to the four up edges "A" of the revolving door (draw A), the pinch bar and the rolls placed under the base (draw B).

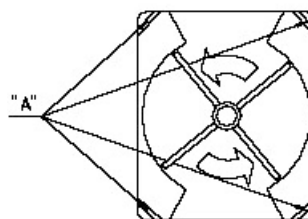


Fig. A

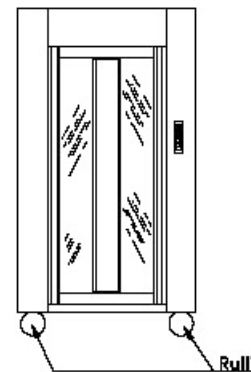


Fig. B

3) Stabilize the revolving door on the floor avoiding it moves, even using its apron feet (placed under the taps of the gum floor draw C). Stability is indispensable for a good running quality of the revolving door. Attach any frame directly in the revolving door, pay attention do not insert in it the screws for more than two centimeters.

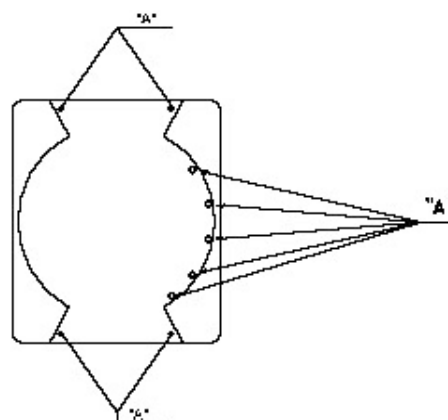
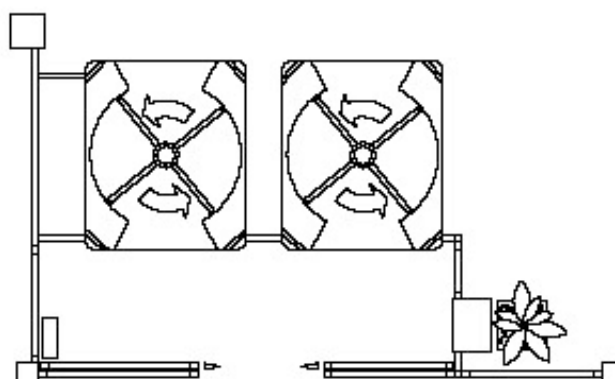
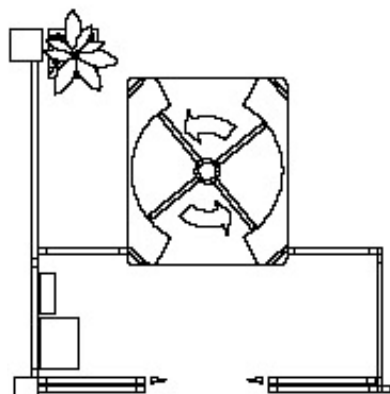


Fig. C

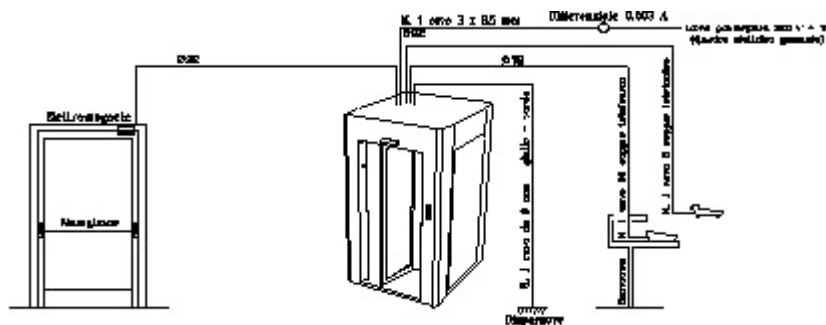
Underwritten there are two typical examples to set the both.



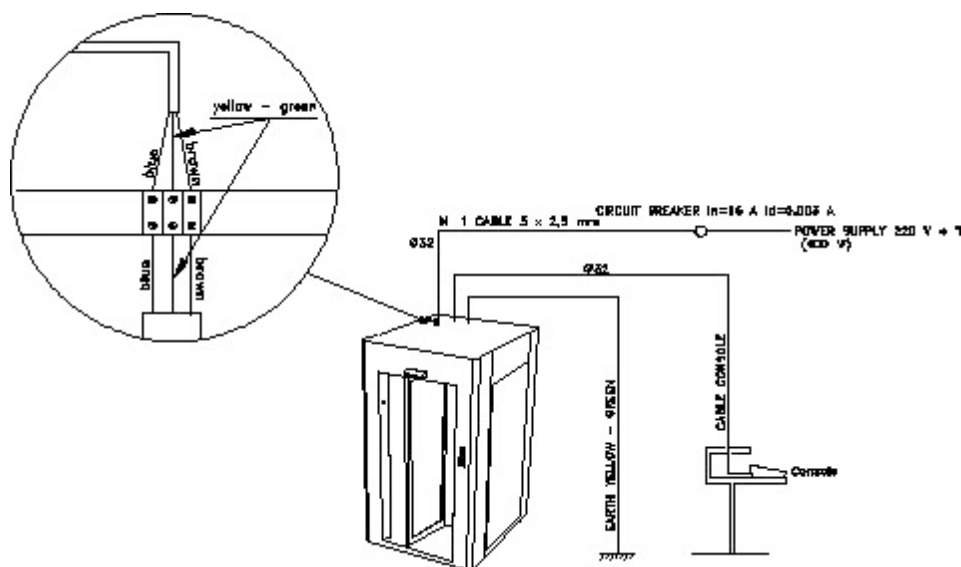
III - SYSTEM INSTALLATION

Wiring

- 4) Bring the feeding cable from protected with circuit breaker $I_n = 15A$ $I_d = 0.03A$ the general board of the bank until the roof of the revolving door, connect it to the terminal board which is placed in the back, behind the inspection panel (see draw 5 and the particular draw 6).



Drawing n.5



Drawing n.6

- 5) From the up side of the revolving door arrange a telephonic cable connecting the revolving door itself to the operator's working place where will be the console, using a duct of a diameter of 32 mm. Insert the cable connector in the general console.
- 6) Connect the console to the cable of the revolving door.
- 7) Free the wings inside the revolving door, removing the nylon protections and the adhesive tape or in same case remove the locks placed between the wings and the floor of the revolving door.

III - SYSTEM INSTALLATION

Wiring

- 8) Arm the general switch of the bank control board which feeds the revolving door using the preferential line. Then arm the general switch of the revolving door.
- 9) Switch on the revolving door by the ignition key placed in the console and in the external front of the revolving door.
- 10) Now the revolving door is ready to be tested.

Testing

Console

- Verify the working of the key button.
- Verify the commutators.
- Verify the working of LED

Transit simulation

- First forward
- Last exit
- Emergency
- Transit without metal
- Transit with a sample weapon
- Spider interception.
- Attachment presence.
- Presenza accessori

Metal detector

- Verify the program and sensitivity.
- Simulation of the Metal Detector interference .
- Verify the message and the volume of the vocal synthesis.

Semaphors

- Check the luminous signals swapping.
- Check buttons working.
- Check the interphone working.

The revolving door is ready to be used.

Deactivation and setting aside

If the revolving door is not used for a long period it is necessary to cut the cable connecting the revolving door to the power source paying attention to leaving at least 30 cm of the cable, in this way it will be easier to set it again.

We recommend the operator to put the revolving door in a dry and sheltered place and to insulate any component from the floor or the walls.

Please remember that the plant must be disassembled only by skilled and authorized staff.

Appendix

MAINTENANCE

SYSTEM HANDBOOK

Carry out six-monthly the following checks:

KIND OF CHECK	CHECK DESCRIPTION
Electrical exchange	Check there are no liquids seeped through Check there are no heated parts Check feeding card leds Check system working without feeding network (only the internal booth light must be switched off)
Control console	Working selector switches (commutators) control Working switches control Working led control Check and set if necessary the intercommunicating system
Metal detector	Noise test with transit of people without metal objects
Push-button panel and roof lamp	Check shining signaling Check push-button and ring-bell Check microphone and responder, set volume if necessary
Accident prevention	Emergency release tests Maximum pair control Check pneumatic frame and accident prevention sensors sensitivity
Mechanisation	Bock arms control Check engine and linkeages noise Clearance on the mobile parts in static condiction Clearance on the mobile parts in dynamic condiction Check the carriages wheels glide plane and wear Check there is no oil loss in the motor reducers

N.B. This handbook is an integral part of the system and it must be kept near the booth.

