



ENTRE//MATIC

CE

VOLO

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Installation and
maintenance manual for
sliding curvilinear doors.

(Original instructions)



ISO 9001
Cert. n° 0957

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All right reserved

All data and specifications have been drawn up and checked with the greatest care. The manufacturer cannot however take any responsibility for eventual errors, omissions or incomplete data due to technical or illustrative purposes.

1. GENERAL SAFETY PRECAUTIONS



This installation manual is intended for professionally competent personnel only.

Before installing the product, carefully read the instructions.

Bad installation could be hazardous.

The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, as these are a potential source of hazard.

Before installing the product, make sure it is in perfect condition.

Do not install the product in an explosive environment and atmosphere: gas or inflammable fumes are a serious hazard risk.

Before installing the motors, make all structural changes relating to safety clearances and protection or segregation of all areas where there is risk of being crushed, cut or dragged, and danger areas in general.

Make sure the existing structure is up to standard in terms of strength and stability.

The motor manufacturer is not responsible for failure to use Good Working Methods in building the frames to be motorised or for any deformation occurring during use.

The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account: applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorised door.

Apply hazard area notices required by applicable regulations.

Each installation must clearly show the identification details of the motorised door.

2. EC DECLARATION OF CONFORMITY

(Directive 2006/42/EC, Annex II-A)

The manufacturer DITEC S.p.A. with headquarters in Via Mons. Banfi, 3 - 21042 Caronno Pertusella (VA) - ITALY

Declares that the rounded sliding motorised door type VOLO

- Conforms to all applicable provisions of the Machinery Directive 2006/42/EC.
- Conforms to the Low Voltage Directive 2006/95/EC;
- Conforms to the Electromagnetic Compatibility Directive 2004/108/EC;
- The technical file has been produced by Renato Calza with offices in Via Mons. Banfi, 3 - 21042 Caronno Pertusella (VA) – ITALY.

Caronno Pertusella, 28-10-2010

Silvano Angaroni

(Managing Director)

2.1 Machinery Directive

Pursuant to Machinery Directive (2006/42/EC) the installer who motorizes a door or gate has the same obligations as the manufacturer of machinery and as such must:

- prepare the technical file which must contain the documents indicated in Annex V of the Machinery Directive; (The technical file must be kept and placed at the disposal of competent national authorities for at least ten years from the date of manufacture of the motorized door);
- draw up the EC Declaration of Conformity in accordance with Annex II-A of the Machinery Directive and deliver it to the customer;
- affix the EC marking on the motorized door in accordance with point 1.7.3 of Annex I of the Machinery Directive.

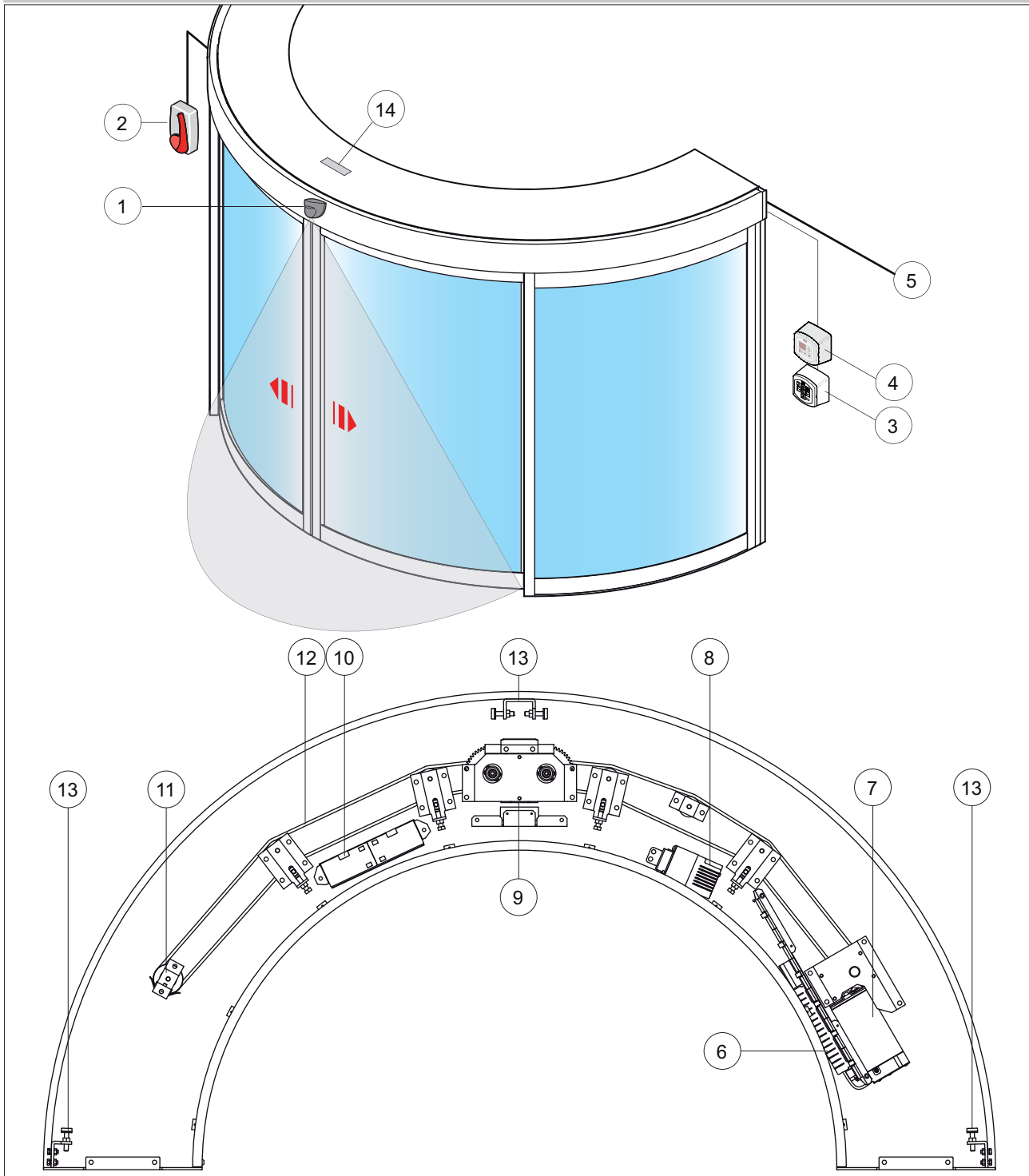
3. TECHNICAL DETAILS

Power supply	230 V~ / 50-60 Hz
Absorption	1 A
Accessories power supply	24 V= / 0,5 A (max)
Opening speed	1,2 m/s
Closing speed	0,8 m/s
Intermittence	S3=100%
Service life *	5 - VERY INTENSE
Max. door weight	160 kg
Minimum radius	900 mm
Temperature	-20° C / +55° C (Batteries -10°C / +50°C)
Degree of protection	IP20 IP24 (with rainproof top)

* 3.1 Application

- Performance characteristics are to be understood as referring to the recommended weight (approx. 2/3 of maximum permissible weight). A reduction in performance is to be expected when the access is made to operate at the maximum permissible weight.
- Service class, running times, and the number of consecutive cycles are to be taken as merely indicative having been statistically determined under average operating conditions, and are therefore not necessarily applicable to specific conditions of use.
- The actual performance characteristics of each automatic access may be affected by independent variables such as friction, balancing and environmental factors, all of which may substantially alter the performance characteristics of the automatic access or curtail its working life or parts thereof (including the automatic devices themselves). When setting up, specific local conditions must be duly borne in mind and the installation adapted accordingly for ensuring maximum durability and trouble-free operation.

4. STANDARD INSTALLATION



REF.	CODE	DESCRIPTION
1	PASM24W	One-way movement sensor
2	LOKSBM	Release handle
3	COME	Functions selector
4	MD1 + MDA	Display
5		Power supply
6	EL20A+ MP1	Control panel
7		Gearmotor
8	AL2	Transformer
9	LOK	Blocking device

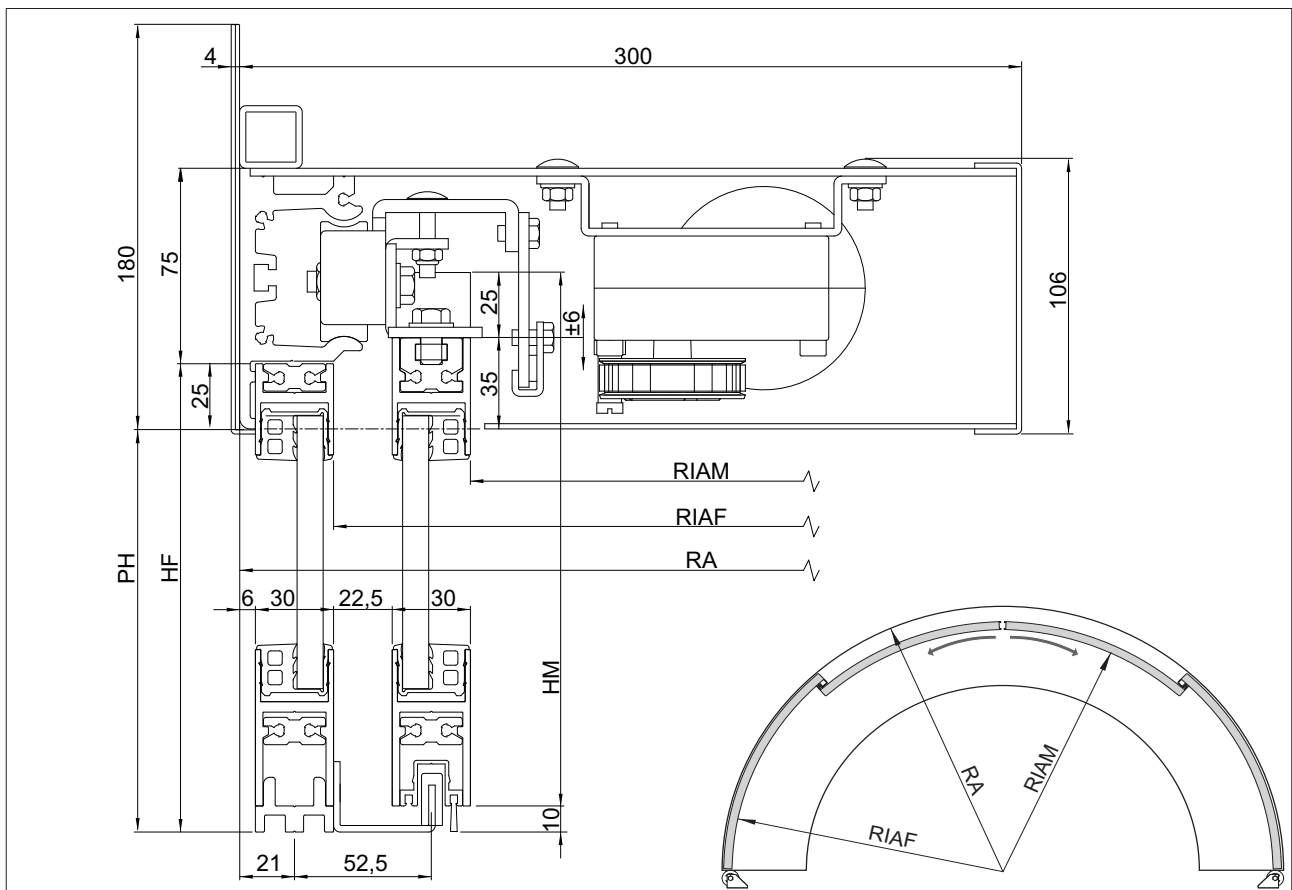
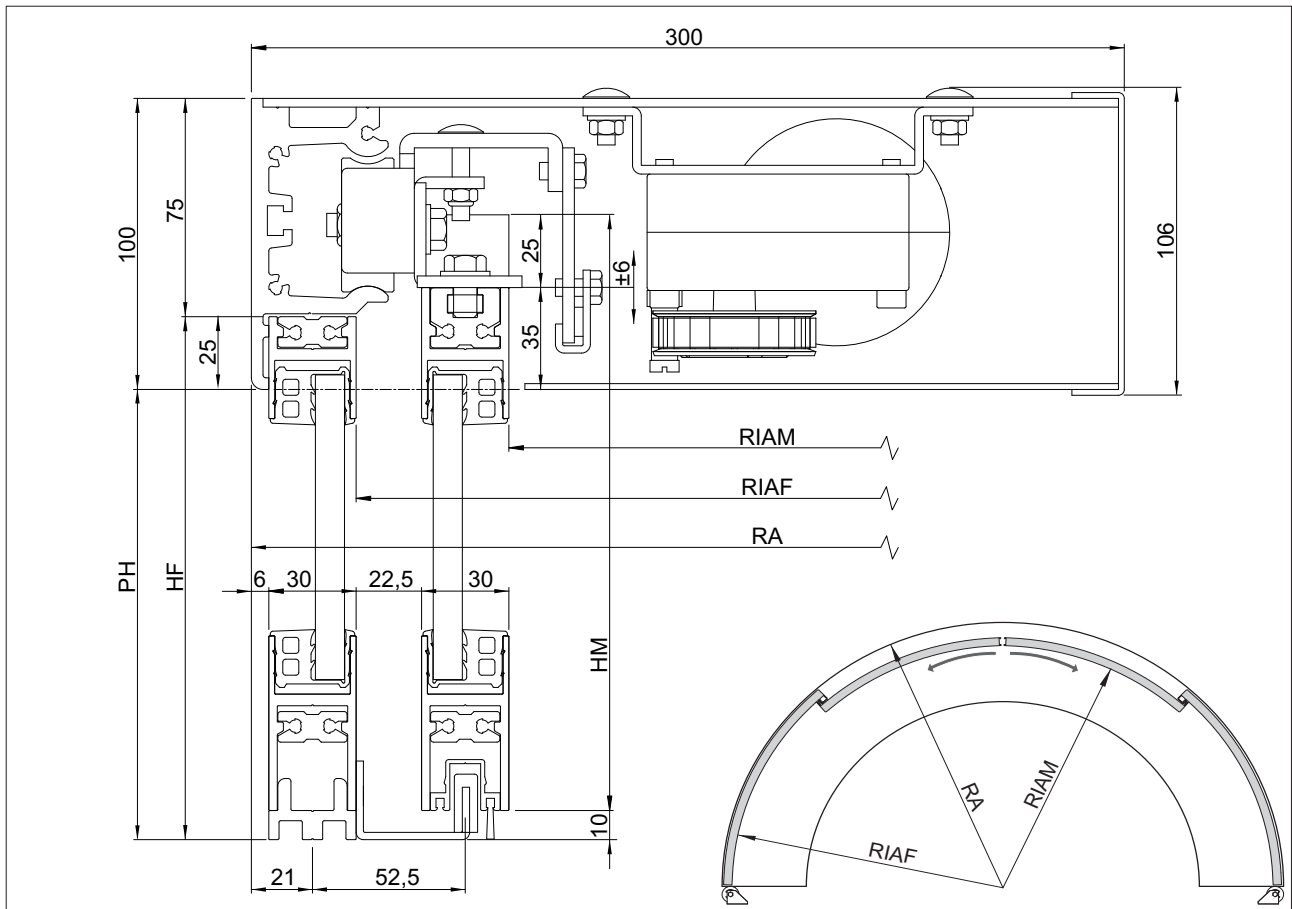
REF.	CODE	DESCRIPTION
10	VALABE	Emergency battery kit
11		Transmission unit
12		Belt
13		Opening and closing stops
14	REM1	Safety sensor



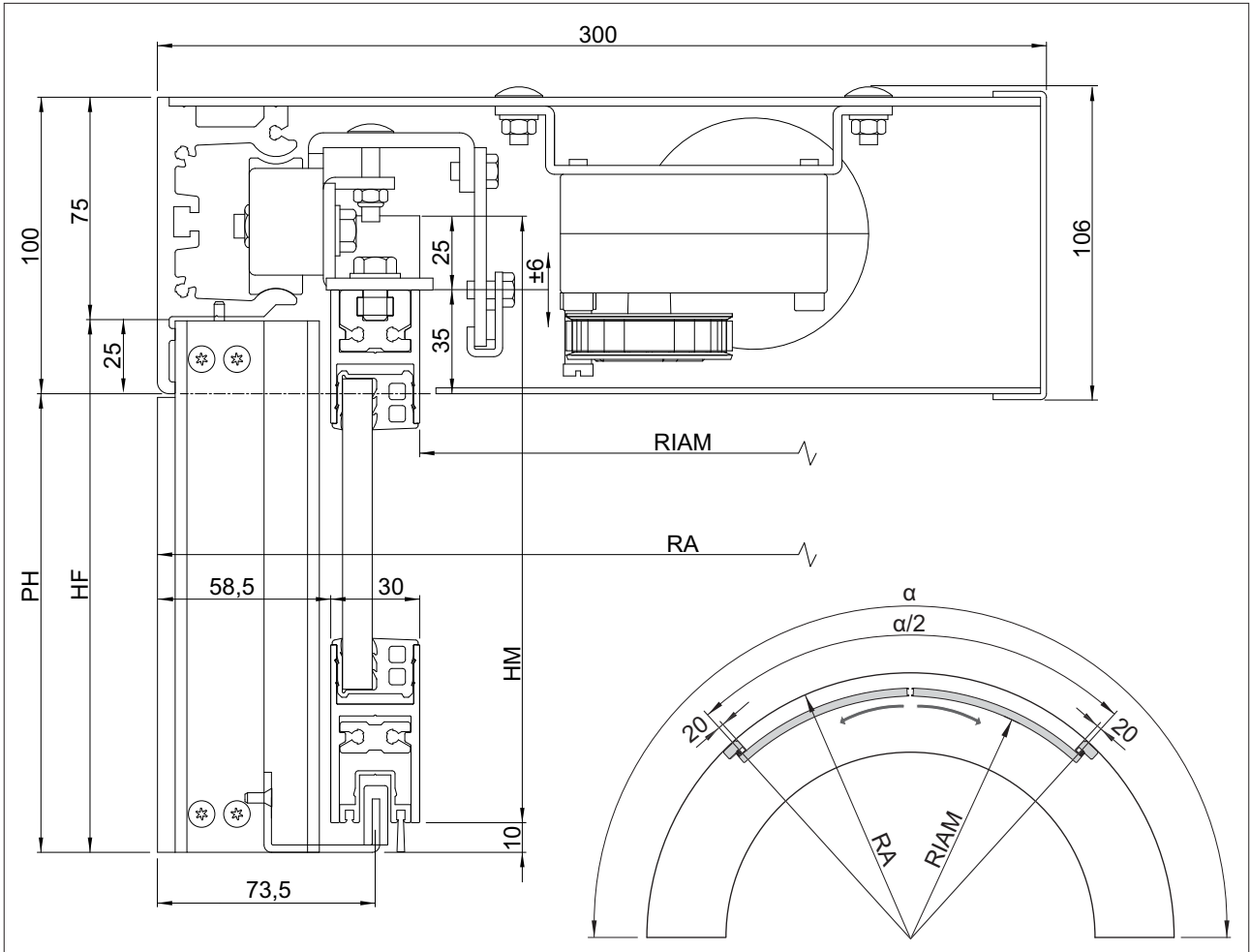
NOTE: the given operating and performance features can only be guaranteed with the use of DITEC accessories and safety devices.

5. INSTALLATION

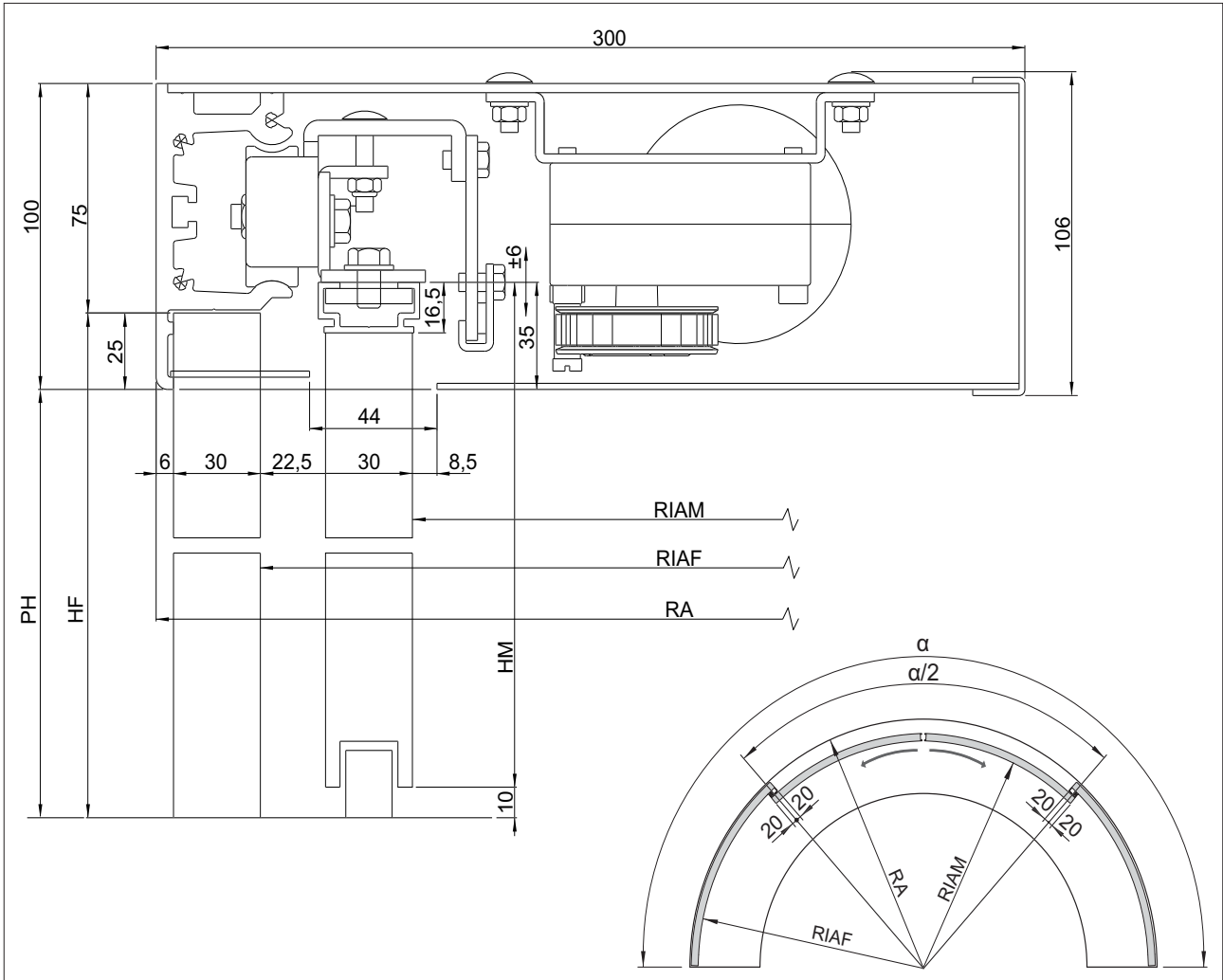
In the figure are indicated the dimensions of the VOLO automation with mobile and fixed doors designed with PAM30 profiles.



In the figure are indicated the dimensions of the VOLO automation supplied only with mobile doors designed with PAM30 profiles.



In the figure are indicated the dimensions of the VOLO automation complete with generic doors, not supplied by us.

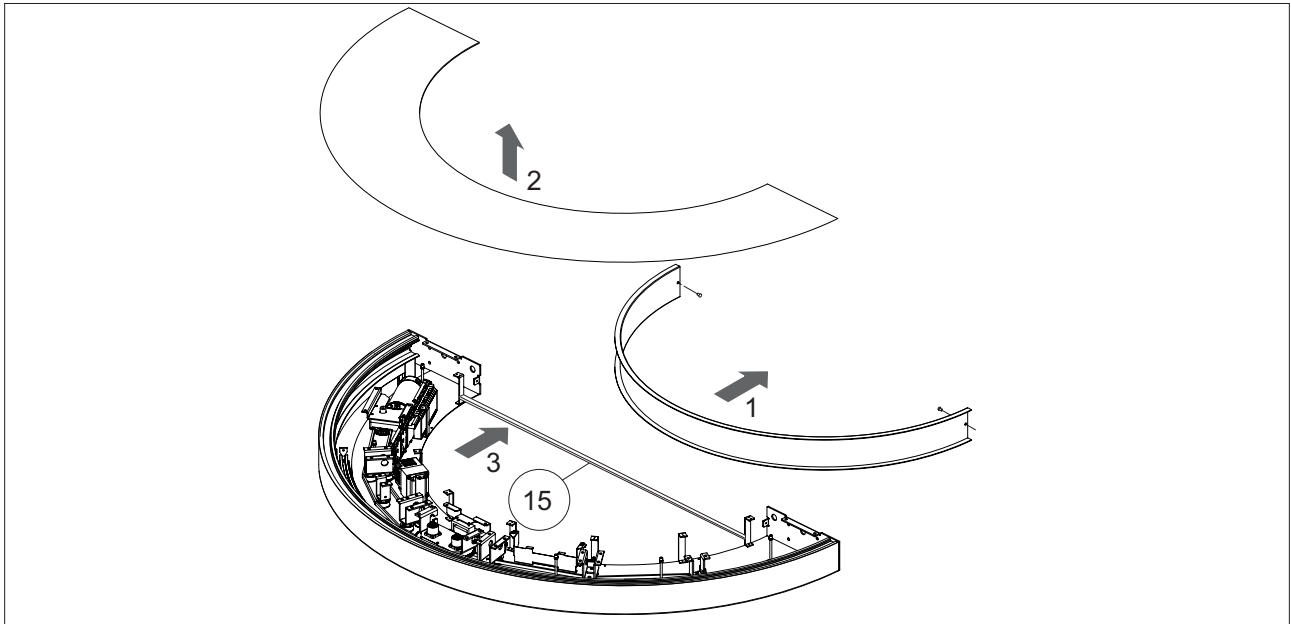


5.1 Installation procedure



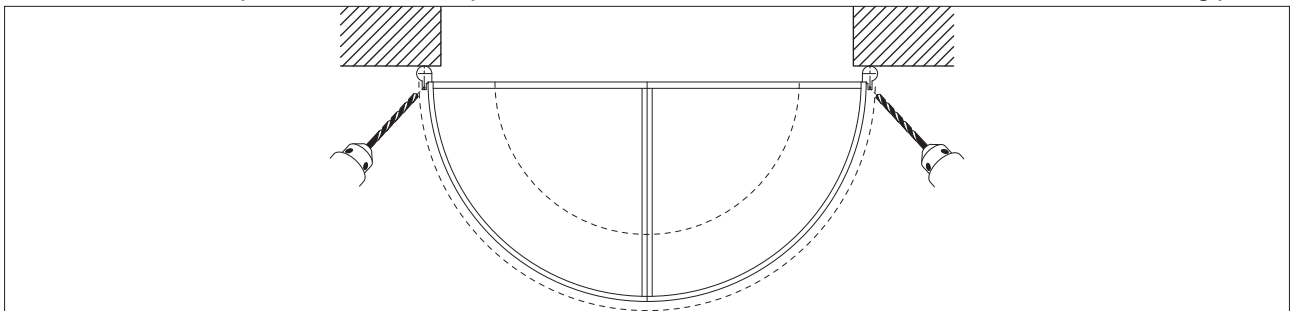
Unless otherwise specified, all measurements are expressed in millimetres (mm).

- Remove from the automation its frontal case and bottom covers and the stiffening rod [15] used for its transportation.

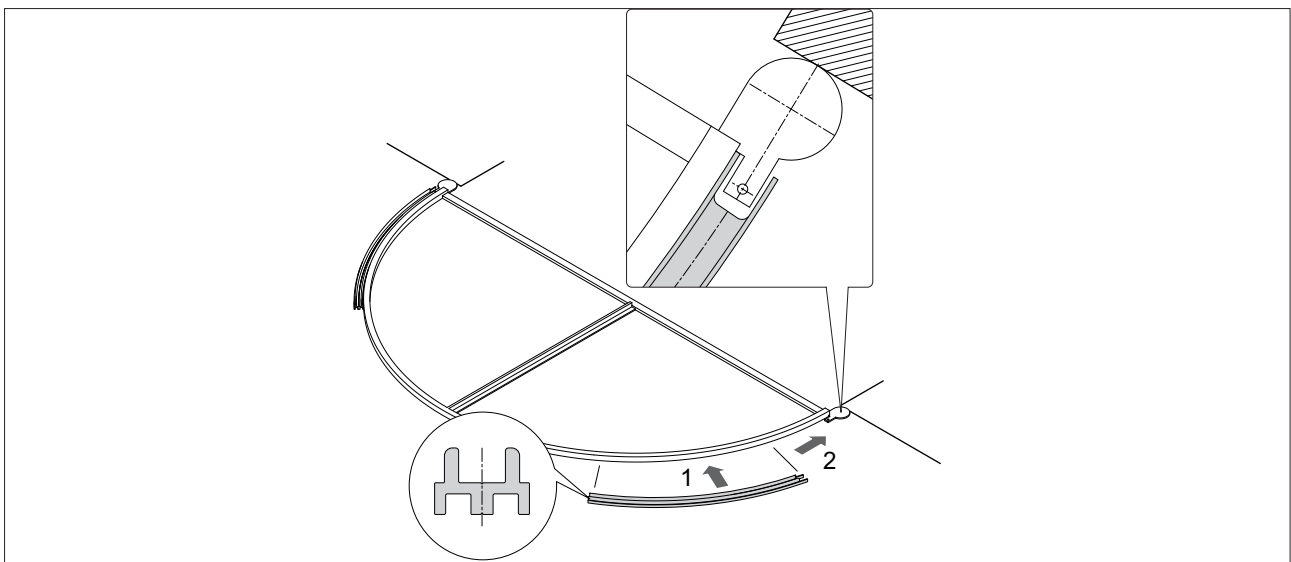


- Centre the template in the doorway on the ground, drill holes to correspond with the ones on the plates and fix it provisionally.

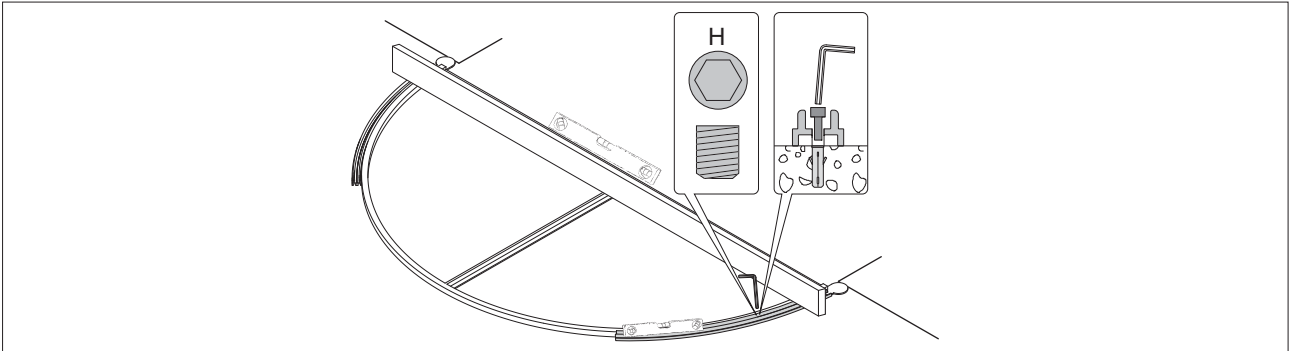
NOTE: the template dimensions reproduce the automation maximum overall dimensions including posts.



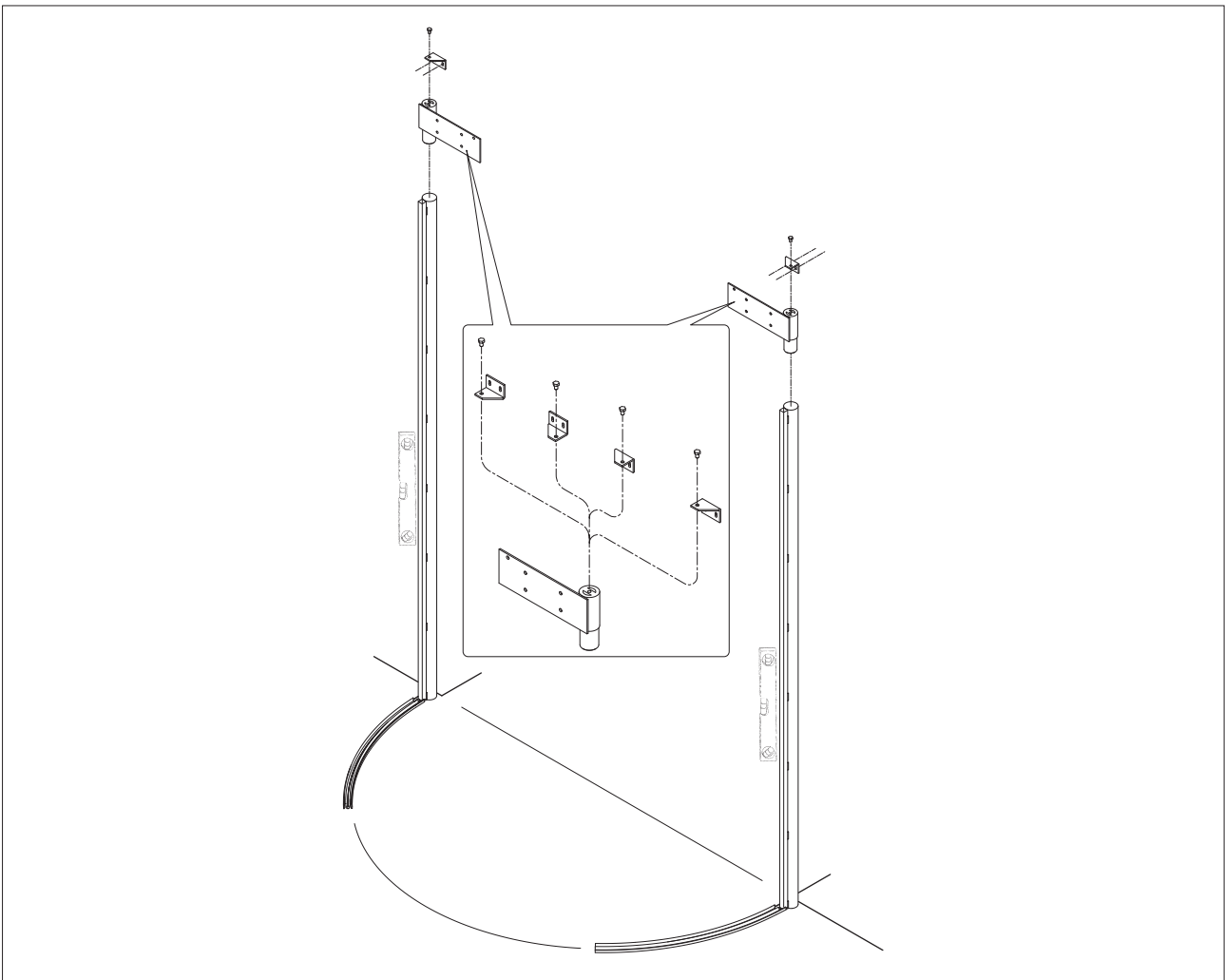
- Bring the fixed wings base profiles alongside the template, position them properly and drill on the ground where prearranged.



- Level the profiles by means of the screws [H], shim to make up for any ground unevenness and fasten with M6 dowels through the existing holes. Remove the template.
NOTE: to allow the fixed panels to be adjusted once the door has been installed, you are advised to fix the profiles to the floor with just one dowel on the column side. The final fixing can be carried out by means of the floor slides [J].



- Position the posts to correspond with the holes on the ground used to fix the template, insert the heads, mount the wall-fastening brackets according to type and fastening allowed. Check for verticalness and levelness then drill holes for wall fastening.

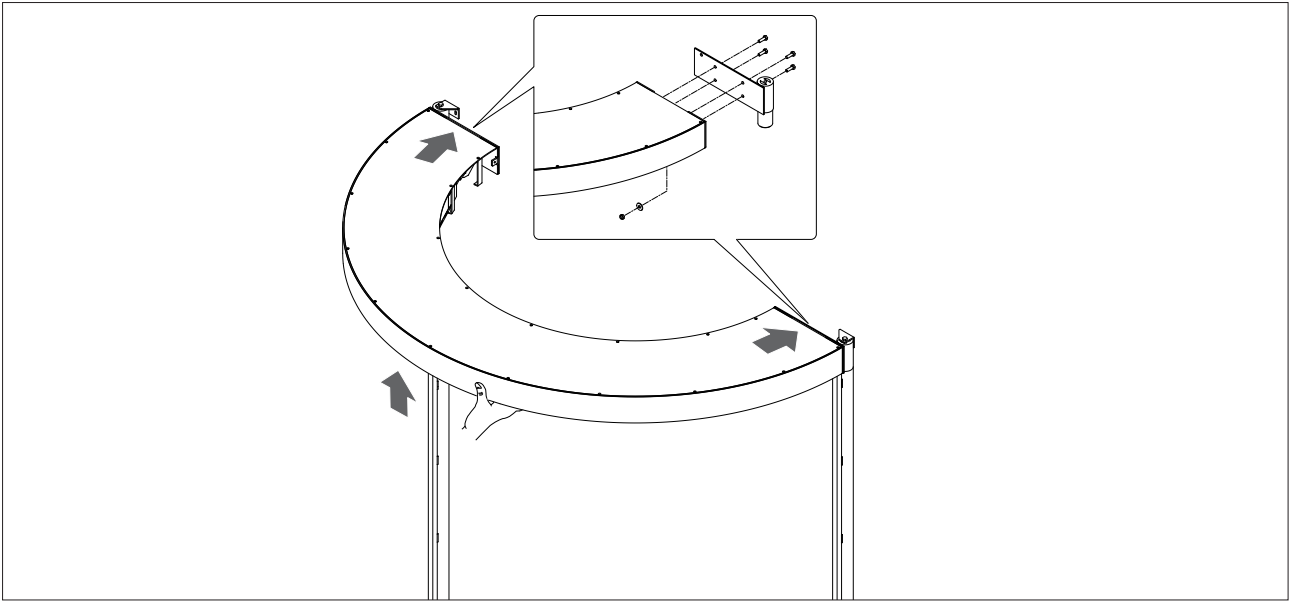


- Position the automation onto the posts and fasten.

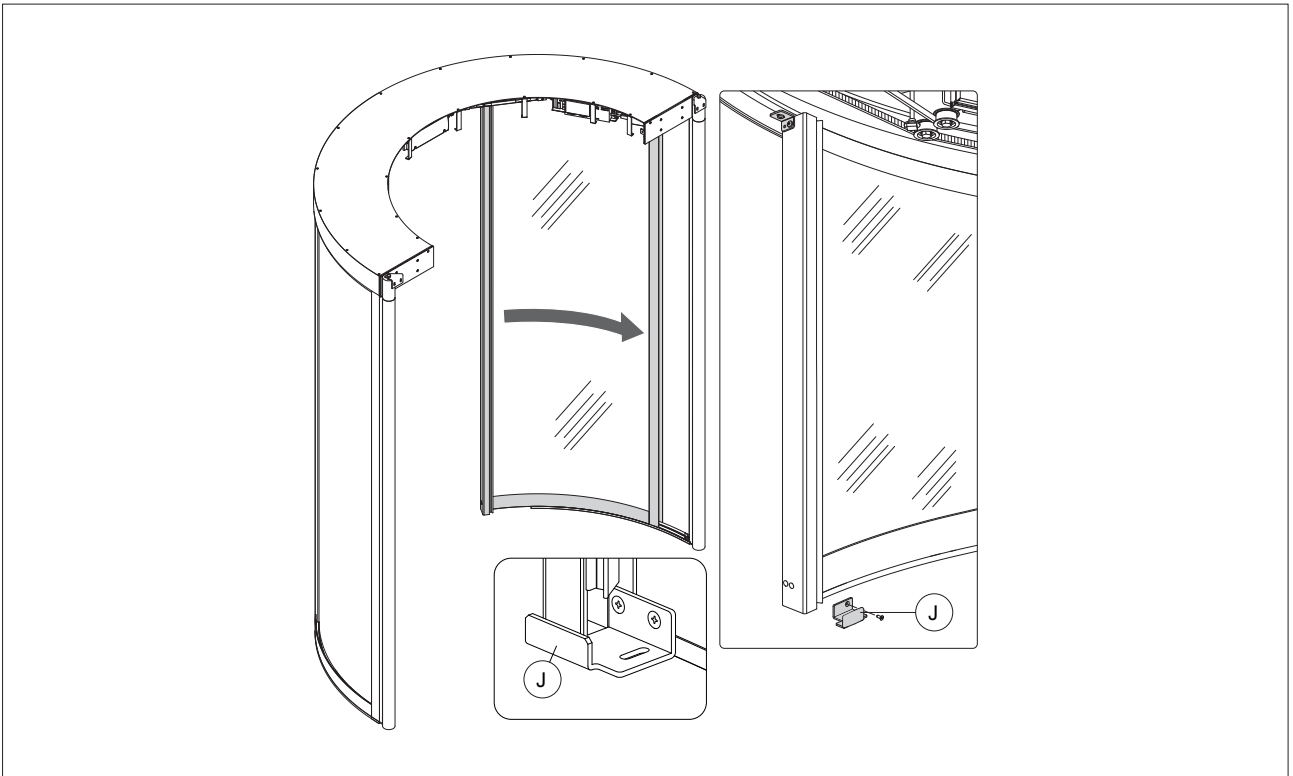


WARNING the structure is not self-supporting on the heads.

Support the automation in the central part until the wings are positioned.



- Position the fixed wings onto the kickplates and posts then fasten them to the kickplates and in the upper part to the automation by means of the special brackets. Position the sliding shoes on the ground.

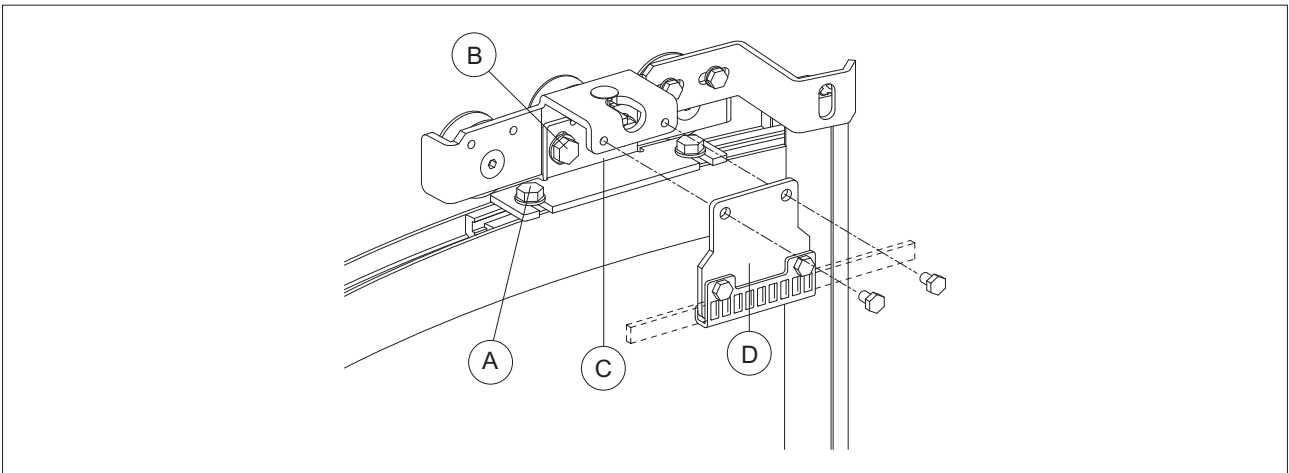


- Fasten the wings to the trolleys with the screws [A], bring the wings in the closing position with the trolleys well positioned on the stops and the lock pegs centered in the slot of the brackets, adjust horizontally and fasten.

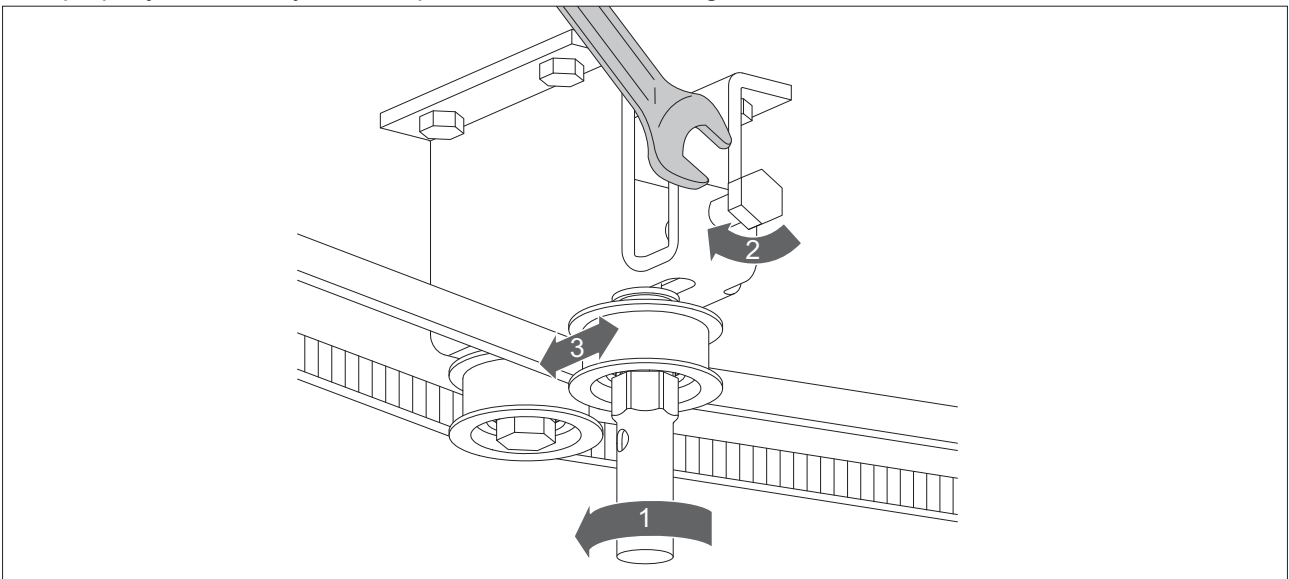
Loosen the screws [B], adjust the vertical position of the wing by means of the nut [C], then fasten with the screws [B].

Manually moving the wings, make sure that the movement is smooth and friction-free, and that the wheels rest on the guide, in case loosen the screws [B] and [A], make sure the trolleys are well set on the guide then tighten the screws again.

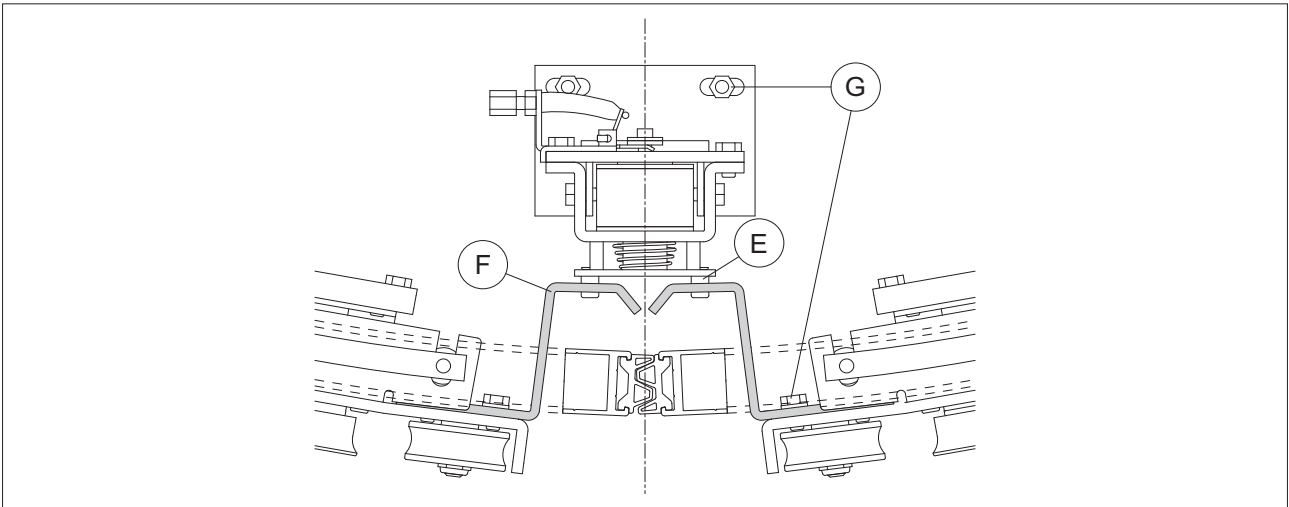
WARNING: to make the wings adjustment operation easier, do not release the belt but disjoin the belt fastening bracket [D] from the wheel unit.



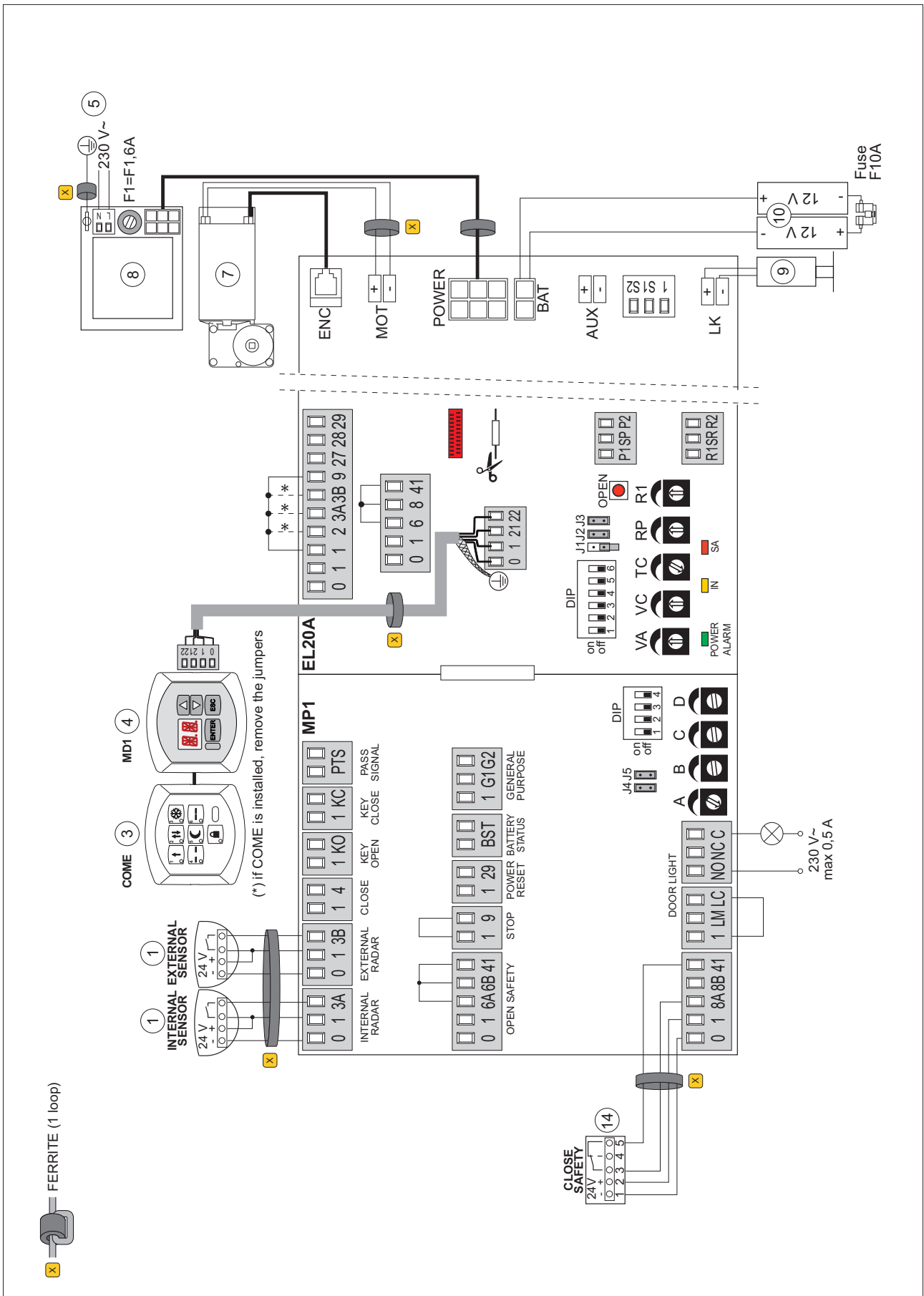
- After the wings have been adjusted, manually check for proper belt tension. To loosen or make the belt properly tense, carry out the operations shown in the figure.



- Bring the wings in the closing position and check that the lock pegs [E] and lock bracket [F] meet then check manually the lock is properly working. Slots [G] avoid maladjustment and allow proper centering. Slightly lubricate the pegs [E] and the brackets sloping part [F].



6. ELECTRICAL CONNECTION



The start-up procedure and the information concerning electrical connections and adjustments can be found in the manual of the EL20A control panel.

7. ORDINARY MAINTENANCE SCHEDULE

Perform the following operations and checks every 6 months according to intensity of use of the automation.

Without 230 V~ power supply and batteries:

- Clean and lubricate the moving parts (the carriage guides and the floor guides).
- Check the belt tension.
- Clean sensors and photocells.
- Check the stability of the automatic system and make sure that all screws are correctly tightened.
- Check the alignment of the doors, the closing positions and the correct introduction of the blocking device.

Connect the 230 V~ power supply and batteries:

- Check that the blocking system is working correctly.
- Check the stability of the door and that the movement is regular and without friction.
- Check that all command functions are operating correctly.
- Check the correct functioning of the safety device.
- Check that the door's developed powers are in accordance with applicable regulations.



WARNING: For spare parts, see the spares price list.

7.1 Maintenance of the metal structure

Protection against corrosive agents

Although a suitable anticorrosion paint has been applied to the automation, it is however still subject to the following factors:

Corrosive atmospheric agents

- atmospheric pollution (urban and industrial areas);
- atmospheric salinity (sea areas);
- seasonal climatic conditions and degree of humidity.

Abrasive action

- atmospheric dust and sand carried by the wind.

To keep the metal structure in good condition it is necessary:

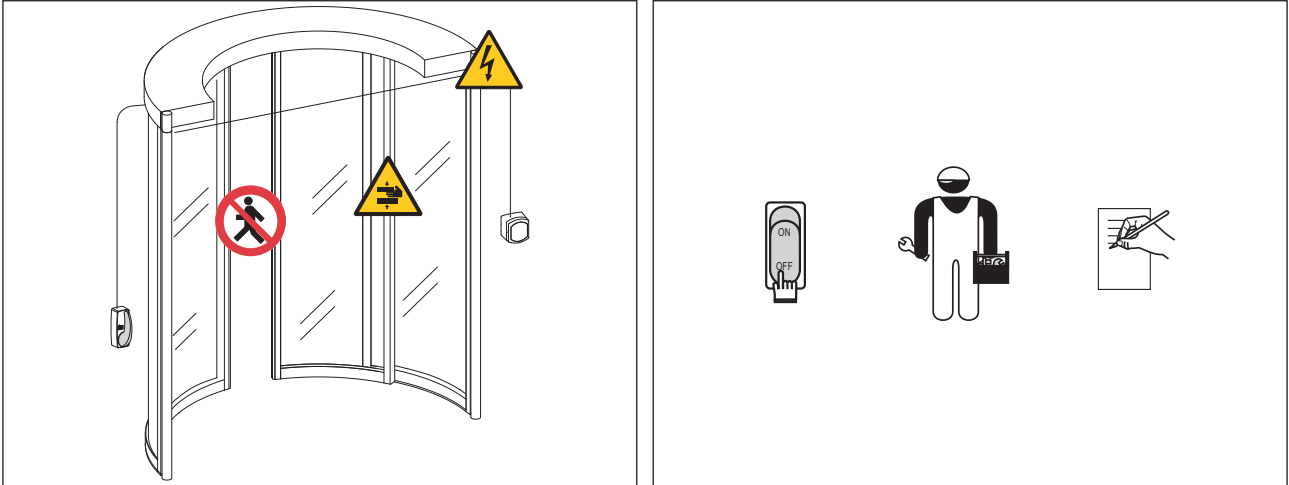
- to prevent the accumulation of dirt;
- to soften the surfaces with water before rubbing them clean.

For repairs or replacements of products only original spare parts must be used.


The installer shall provide all information relating to automatic, manual and emergency operation of the motorised door or gate, and provide the user with operating instructions.



8. USER INSTRUCTIONS



8.1 General safety precautions

 The following precautions are an integral and essential part of the product and must be supplied to the user. Read them carefully as they contain important indications for the safe installation, use and maintenance. These instructions must be kept and forwarded to all possible future users of the system.

This product must be used only for that which it has been expressly designed.

Any other use is to be considered improper and therefore dangerous.

The manufacturer cannot be held responsible for possible damage caused by improper, erroneous or unreasonable use.

Avoid operating in the proximity of the hinges or moving mechanical parts.

Do not enter the field of action of the motorised door while in motion.

Do not obstruct the motion of the motorised door as this may cause a situation of danger.

Do not lean against or hang on to the door when it is moving.

Do not allow children to play or stay within the field of action of the motorised door.

Keep remote control or any other control devices out of the reach of children, in order to avoid possible involuntary activation of the motorised door. In case of breakdown or malfunctioning of the product, disconnect from mains, do not attempt to repair or intervene directly and contact only qualified personnel.


Failure to comply with the above may create a situation of danger.

All cleaning, maintenance or repair work must be carried out by qualified personnel.

In order to guarantee that the system works efficiently and correctly it is indispensable to comply with the manufacturer's indications thus having the periodic maintenance of the motorised door carried out by qualified personnel.

In particular regular checks are recommended in order to verify that the safety devices are operating correctly.

All installation, maintenance and repair work must be documented and made available to the user.

 For the correct disposal of electric and electronic equipment, waste batteries and accumulators, the user must take such products to the designated municipal collection facilities.

TEAR OFF AND DELIVER TO USER



TEAR OFF AND DELIVER TO USER

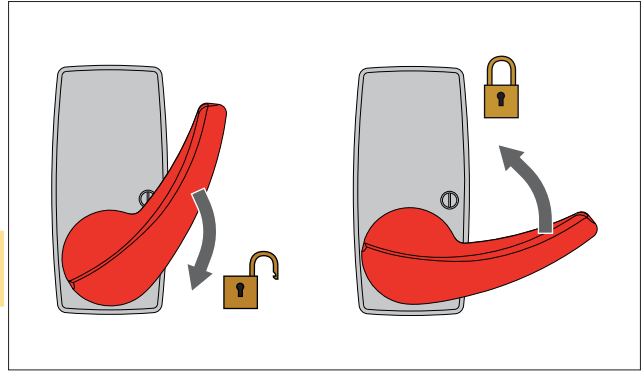
8.2 Manual release instructions

In the event of maintenance, malfunctioning or emergency, lower the lock release lever LOKSBM (if installed) and move the door wings manually into the open position.

To block the door wings again, reposition the lock release lever to the initial position.



WARNING: Carry out the door wing blocking and release with the motor switched off.



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Installer:



TEAR OFF AND DELIVER TO USER

9. USER INSTRUCTIONS FUNCTION SELECTOR

The STOP position prevents the batteries from engaging in case of emergency.

NOTE: for correct door operation and regular battery recharging, it is essential that the automatic system be always powered with batteries connected (also during the night).

FUNCTION SELECTOR	COME	COMH-K
DOOR OPEN The door opens and remains open.		
TOTAL ONE-WAY OPENING For one-way operation from the inside/outside of the door.		
TOTAL TWO-WAY OPENING For two-way door operation		
PARTIAL OPENING For two-way, one-way and partial opening operation.		
PARTIAL OPENING For two-way partial opening.		
DOOR CLOSED The door closes and remains closed and locked (if lock is present).		
IMMEDIATE NIGHT-TIME CLOSURE (STOP) The door stops immediately when the NIGHT-TIME CLOSURE key is pressed for 3 s.		
DELAYED NIGHT-TIME CLOSURE Pressing the NIGHT-TIME CLOSURE key, the door closes after 10 seconds (with J1=ON) or 60 seconds (with J1=OFF). This allows authorised door management personnel to get out before it closes.		
IMMEDIATE NIGHT-TIME CLOSURE The door stops immediately when the NIGHT-TIME CLOSURE is selected.		
POWER RESET Cancels the data acquired, proceeding with a new acquisition after 3 seconds.		
DMCS Jack This is used to connect the DMCS software. N.B.: The DMCS jack can be accessed by removing the function selector switch cover.		
SETTING THE CODE (with J3=ON) The code can contain up to 5 numbers. Press the LOCK key for 3 seconds. Enter the numerical code. <i>NOTE: the red LED flashes during this procedure.</i> Press the LOCK key for 3 seconds. If the LED remains steady on, the selector is protected by an access code.	 	
CANCELLING THE CODE (with J3=ON.) Press the LOCK key for 3 seconds. Enter the numerical code. <i>NOTE: the red LED flashes during this procedure.</i> Press the LOCK key for 3 seconds. If the LED is switched off, the selector is working and no access code is set.	 	



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