

1. General warning

Installer and customer should read all instructions in the present manual very carefully, before installing and using the fire resistant sliding Fire Fixing® door. This fire resistant product is intended for industrial use, to be used by trained personnel, specifically skilled in fire compartmentation.

Lack of compliance to the instructions in the manual, could cause harm or injury.

On delivery make sure that the material has not been damaged in transport and check that all components listed in the packing list are present. All packing lists are checked (and shot) before shipment. Complaints will only be considered if made in writing within 8 days from the date of delivery.

It is advisable that Meverin Fire Fixing® products work together with fire detecting systems, designed and installed by experts; these latter systems are not produced by Meverin.

2. Packing and transport

The fire resistant sliding Fire Fixing® door components are controlled before shipment, packed in adequately protected metal containers. To lift use an adequate fork lift, capable of lifting the entire weight of the elements to move.

3. Environmental conditions

To avoid the door's deterioration in the case it cannot be installed immediately, or is dismantled, or in the case it is necessary to store components of the system, the following should be taken into consideration:

- use the provided transport and storage cages and the spacers to avoid contact between both the door's components and the ground;
- the storage area should not be too damp, and free from condensation;
- if condensation forms, packaging should be opened, all components dried and kept in an aired environment, but protected (formation of condensation in badly ventilated conditions can cause mould or mildew which could cause marking of the paint and its deterioration);
- do not expose to the elements or to the sun's rays not even if the original packaging is intact; always keep under cover.

4. General information for installation

- Use qualified installers / technicians.
- In all elements which should be fixed to walls by rawl plugs, more holes than necessary have been made to guarantee secure fixing even if some holes coincide with parts of the wall unsuitable for plugs and therefore cannot be fixed.
- The holes in the guides are not aligned in only one direction: both superior and inferior holes must be used, using prevalently the superior holes (using a 2 superior to 1 inferior ratio).
- Metal plugs must be used to fix to walls. The holes made in the various elements call for the use of plugs and washers to distribute the load, both of various diameters. For each element the correct plugs and washers should be chosen according to the existing wall (concrete castings, concrete blocks or other materials, full or hollow bricks, etc), which should be decided upon at the yard by competent personnel, using the load tables provided by the producers of the plugs used.

Only use plugs with bolts, not plugs with through-nuts threaded rods (the backward sliding of the screw could interfere with the wheel-bogies or other sliding parts), lined screws, 65mm minimum length, 10mm min. diameter, with min. tensile stress load of 1500 N and min. shearing stress load of 3200 N (e.g. IILTI IISL-TZ or IILTI IILC).

The diameter of the plug and the load it can support are chosen according to the weight of the door. The type of plug should always be chosen according to the support on which the fire resistant Fire Fixing® door will be hung: the weights and the examples mentioned in this manual refer to C20 concrete. If the door is hung on metal beams, use M8 min. bolts.

5. On site verification of installation

It is extremely important that the surfaces to which:

- the upper guide
- the perimetrical labyrinth seal;
- the counter-weight box
- the end-of-stroke box of the sliding wing are to be fixed, are plumb-line level (vertically).

The floor surface should also be perfectly level.

6. Installation steps

The steps to be carried out to correctly hang the door, and their description are on the sheet "Installation step by step" which you will find enclosed.

The manual and the enclosed installation sheet are integral parts and can not be substituted one for the other.

7. Handing over of the product

At the end of installation, the installer should complete and sign the form stating that the door has been mounted conforming to the hanging instructions supplied by the Manufacturer, recording the reliability of the product and hand it over to a capable person assigned by the Purchaser or whoever will use the product.

This act sanctions the acceptance of responsibility by the Purchaser (or whoever uses the product) relative to the use and

maintenance of the product to rigorously follow the outline provided by the Manufacturer in the “Instructions for Use and Maintenance”.

8. Description of the door, its components, and spare parts

8.1 Safety devices

- Safety devices are applied to fire resistant sliding Fire Fixing® doors to guarantee the user’s safety.
- Viscotroller®: anti-accident device that when closing the door keeps the speed limited and within safety values.
- At the Customer’s request, with little extra charge, a double effect viscotroller® can be installed to eliminate the possibility that the door is pulled too quickly during the opening phase.
- S.A.M.: end-of-closing-stroke shock absorber device, to stop the door-wing. To be used with, not as a substitute for, viscotroller®.
- At the Customer’s request, with little extra charge, one more S.A.M. can be installed as an end-of-opening- stroke shock absorber device.
- Derailment preventing device : safety device to avoid the bogie’s wheels to come out of the guide risking the wing to fall.
- Important Notice: the wheels of the bogie holding the wing of the door must be mounted correctly so that the derailment-preventing device can work properly. This takes place when the wheels are mounted with the side with the largest cavity turned towards the wall.
- End-of-stroke stops: end-of-stroke stops should be fitted to the guides and on the ground, and should be firmly fixed into place as indicated in the relative installation section.
- Fixed Guards: to prevent contact with the sliding door’s moving parts.

8.2. Control and operating devices

If a fire resistant door has to be usually held open (blocked open) it must be guaranteed that in the case of fire the door closes automatically by itself, without the aid of a human command.

This is guaranteed by an “electromagnetic-operated” system.

In some cases, as an alternative, it could also be used a “thermal fuse-operated” system.

The electromagnetic-operated system is preferable to the thermal fuse-operated one; however, the choice of the door’s automatic closure system, when the door is to be held open, is at the discretion of the Purchaser and on his own responsibility.

9. Superficial finishing and appearance

9.1. Paint

Fire Fixing® fire resistant doors are made of galvanized sheet iron and finished with an ecological base, industrial, high quality, epoxy resin to guarantee protection against corrosion from a vast range of aggressive agents, acid and non-acid, in environments not directly exposed to natural outside elements.

At additional cost, the doors can be supplied in a vast range of the RAL range paints.

Even using high quality products, which guarantee high level protective and presentation properties, the chromatic appearance is that of an industrial product, with its typical tolerance, and is influenced by numerous factors (variability of atmospheric conditions and

mixture, characteristic to the painting process, different geometric sizes of the components to paint, etc.).

Reproduction of a colour already obtained on another part or on a different support cannot ignore a certain tolerance margin, inherent in physical processes, never identically repeatable.

Fire Fixing® fire resistant doors are finished with a semi opaque paint which subdue the effects described in the following point 9.2 , which are instead emphasised with a shiny superficial finish; if the Customer requests such a finish, it is understood that the final results will be unconditionally accepted in respect of the higher perception of the lack of flatness of the surface.

9.2. Appearance

To attain the characteristics of fire resistance, the modular elements which make up the door wings of the Fire Fixing® fire resistant sliding doors are built with specific artifices, one of which is a predefined deformability of the panel to heat.

For this reason it is not possible to make reinforcing ribs to keep the steel sheet completely taut and flat, which can show signs of waving and other surface defects, which should be considered inborn with the construction.

10. Marking and identification of the door

A metallic label on the Fire Fixing® fire resistant sliding door shows the references for its recognition according to the law (Producer name, door type and relevant classification, door serial number and year of manufacture, test report number and issuing Body name, Italian homologation number).

A plastic card overlays the metallic label, repeating all said data and, moreover, a polychromatic, high definition, logo and all registered addresses of the Producer, and a bar code for the door traceability and the maintenance purposes.

11. Instructions for the use of the door

- Installation, maintenance, eventual repairs, must be carried out exclusively by qualified personnel.
- Do not use the door differently from that indicated in this manual.
- Do not use the door before having installed all safety devices.
- Do not remove the safety devices: these can only be removed by authorised and expert personnel, after having cordoned off the area around the door, to avoid inexperienced personnel nearing the area.
- Do not carry out maintenance or adjustments when the door is in movement.
- Do not move the door to another site without the assistance of a qualified installation technician.

12. Routine and extra-routine maintenance

Without the minimum foreseen maintenance, the guarantee is annulled. Maintenance of fire resistant doors is an extremely IMPORTANT point for human safety and for the buildings they are intended to protect. For any other maintenance operation not described here, it is advisable to contact the supplier directly, who will be able to give advice on the problem in hand.

12.1. Minimum routine maintenance foreseen

Routine maintenance consists of the operations which serve to maintain the sliding Fire Fixing® fire resistant door efficient and in good condition.

Generally, when used correctly, a yearly check-up should be sufficient. However:

- For the first year, a three monthly check-up is advised to verify the effect of the actual conditions of use.
- Increase to six monthly intervals only after you are sure that more frequent controls are redundant.
- If the doors are installed where there is dust, damp polluting agents, or, in general, dirt, it is advisable to increase the number of controls.

In any case to determine the most appropriate maintenance programme, it is necessary to proceed with a correct analysis and evaluation of environmental conditions and wear on the door.

Operations to carry out during every check-up on the door, or every time the Security Manager retains the conditions necessary for a maintenance check-up:

- clean the guides, to avoid accumulation of dust and dirt. Use a cloth without threads and a bland detergent;
- lubricate the bogie's wheel bearings and the driving pulleys, using specific bearing lubricant;
- verify the tightening of all mechanical couplings;
- verify the condition of the thermal-expansible seals;
- verify the condition of the pulling rope and the counter-weight fasteners;
- verify the integrity and the correct adjustment of the derailment preventing device;
- verify that the Viscotroller® works correctly;
- verify the intervention of the starting devices and how the door runs;
- pay attention to the cleanliness of the electromagneticoperated system components and check that the system works

12.2. Extra-routine maintenance

Extra-routine maintenance consists of a series of operations which must be carried out following an event which has damaged the integrity of the door or one of its parts, or lowered the efficiency of the selfclosing system.

- Substitute the wings of the door or some of their components if the doors have been damaged by unexpected blows by objects or persons. To carry out this operation correctly qualified technical personnel must be called in, and follow the instructions to install the door.
- If the door has closed due to the system of automatic closure, this must be checked in all its components, exclusively by personnel competent on the subject.
- Substitute those components which do not work correctly due to the fair wear and tear.

13. Guarantee

The guarantee covers, by law, breakage of mechanical parts, due to construction defects, and will substitute only the defective parts, excluding labour, travelling expenses and transport.

Electrical components and parts subject to wear due to incorrect use and/or installation and/or maintenance, as well as all eventual inflicted damage are excluded from the guarantee.

When the guarantee has run out, MEVERIN® can reproduce spare parts while the regulations under which the original door has been manufactured remain applicable.

Without the foreseen minimum routine maintenance, the guarantee is forfeited.

The maintenance must be carried out by trained, skilled, not cow-boy personnel, otherwise the guarantee is forfeited.

14. Call-out, technical assistance, spare parts

For eventual call-outs, technical assistance, orders for spare parts, apply directly to the Retailer and the network of qualified installers. Use only original spares or those approved by MEVERIN®.

15. Door and its components disposal

In disposing the Fire Fixing® fire resistant doors, the leaves and the components have to be treated in different ways. The door leaves shall be disassembled; the insulating core is an industrial waste which could contain mineral wool, silicates, plasterboard, ceramic fibres; the steel elements shall be treated as metal scrap.

The door components shall be treated following the instructions of their producer, or accordingly the rules for disposing the specific material which they are made from.

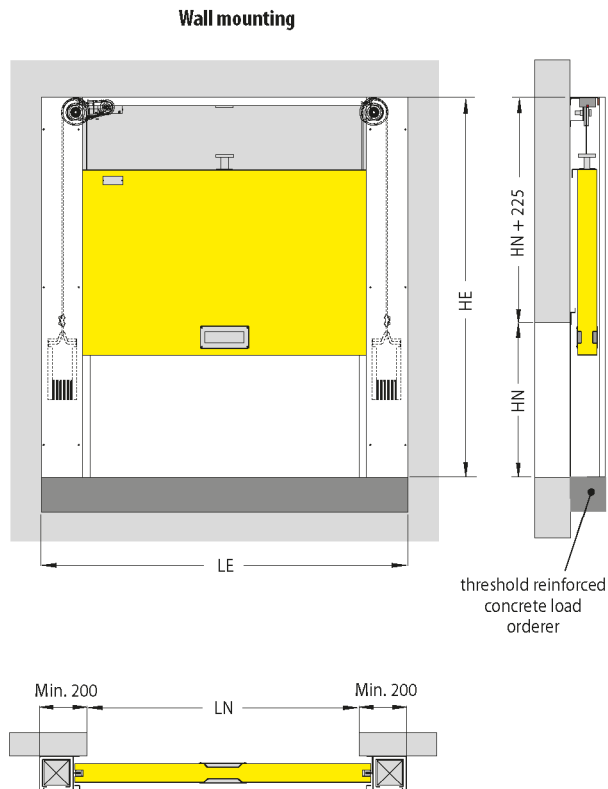
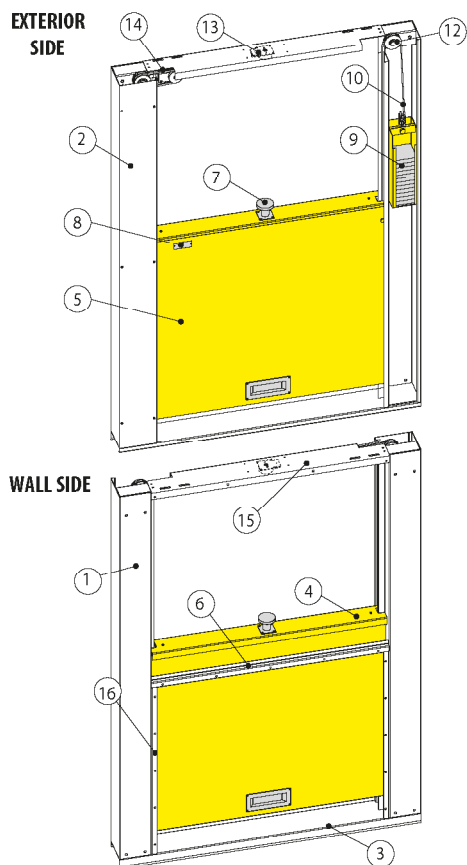
16. Protection of intellectual property rights

Laws regarding the protection of intellectual property rights are applied to the present manual. It is forbidden, therefore, without the Author's explicit authorisation, to copy, either entirely or in part.

17. Validity

MEVERIN® reserves the right to make all the modifications retained necessary to this manual, at any time.

- 1) C-shaped guide
- 2) Side guide guard
- 3) Lower crosspiece (template)
- 4) Horizontal wing labyrinth
- 5) Modular panel
- 6) Wall labyrinth
- 7) Electromagnetic touch plate
- 8) Label identification
- 9) Counterweight box
- 10) Pulling rope
- 12) Pulling rope driving pulley
- 13) Electromagnet
- 14) VT
- 15) Upper crosspiece (transom)
- 16) Side labyrinth



DOOR TO LIMITED MOVEMENTS, TO BE ASSIGNED ONLY TO THE TECHNICAL ROOM AND NOT THE PASSAGE OF PEOPLE

THE DOOR WORKING CORRECTLY IS ALSO DUE TO THE CORRECT MOUNTING. WE WOULD LIKE TO THANK THE INSTALLERS FOR THEIR CARE, ATTENTION AND COLLABORATION.

Handle with adequate fork-lifts.	Don't knock or bend the panels.	Don't step on the panels and accessories.	Handle with care. Incline the container at the discharge.	Don't expose to sun light or adverse weather conditions.	Keep covered. The truck must be covered.	Installation to be carried out by qualified and experienced staff.	Packing and mix of accessories checked before delivery.
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FIG. 2.1

Take off the guide guards (2) and lower crosspiece (3).

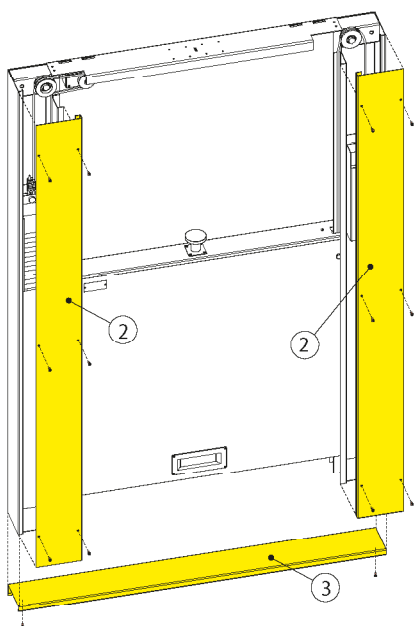
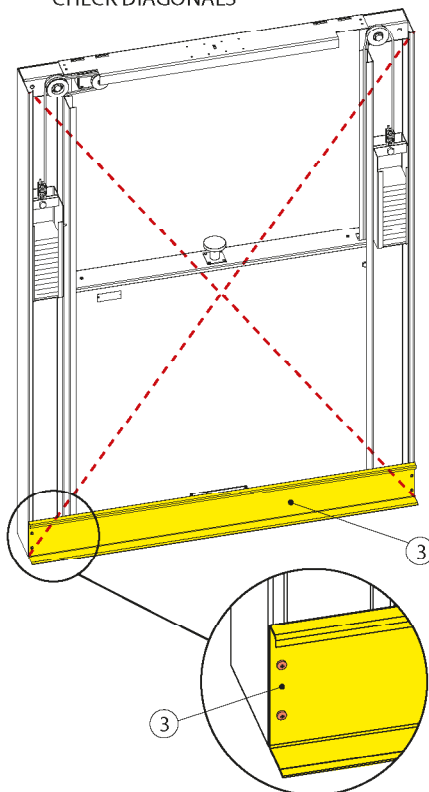


FIG. 2.2

Check the measurements of the diagonals (must be the same) and screw down the lower crosspiece (3) as shown, and use it, as a template. Make sure the frame is plumb.

CHECK DIAGONALS



PUT A LEAD FRAME

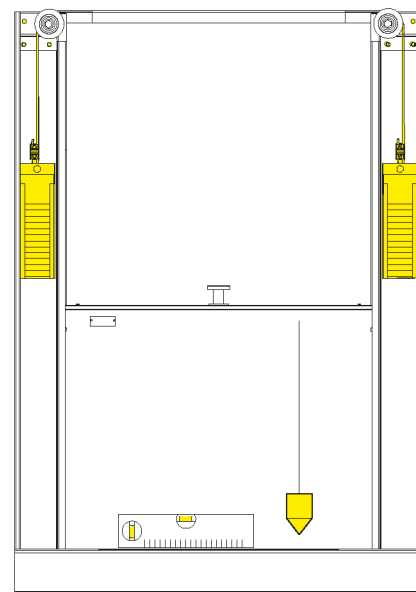


FIG. 3.1
Plug the side counterweight blocking screws and the electromagnetic touch plate.

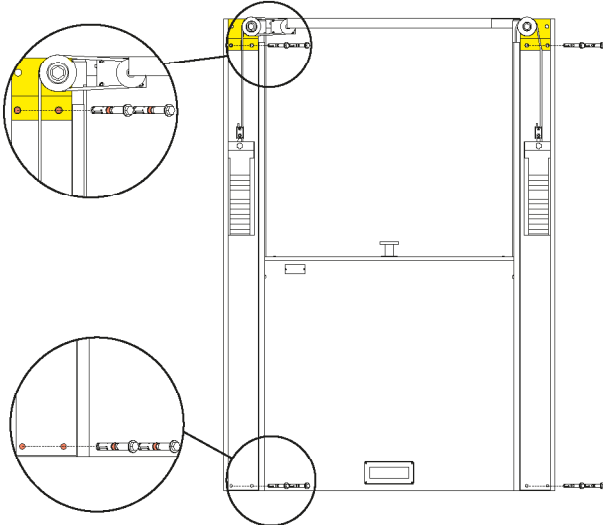


FIG. 3.2
Unscrew the counterweight blocking screws and the electromagnetic touch plate (7).

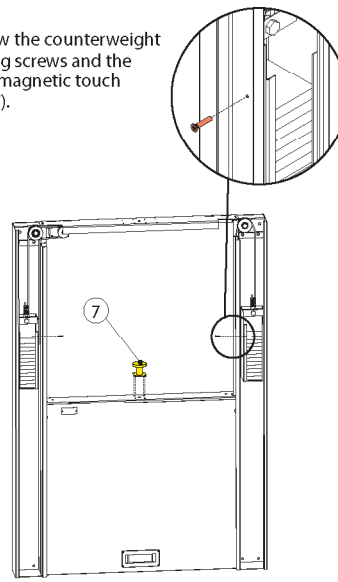
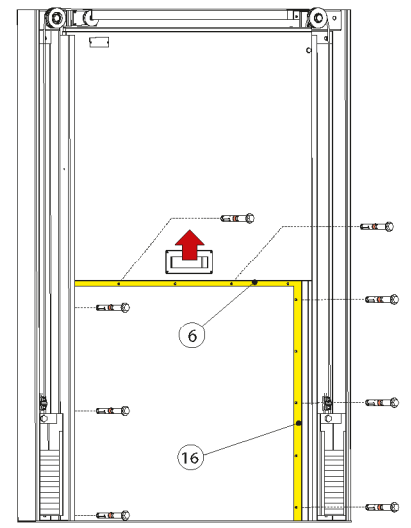


FIG. 3.3
Lift the panel (5) and plug the wall labyrinth (6) and side labyrinths (16) to the wall.



NOTE: Verify that the wall, where rawplugs must be secured, has the suitable consistency and homogeneity, and that repairs or fillings with unsuitable materials which could weaken the power of the rawplugs have not been made. The plugs are not included in the delivery. Use only metal plugs with lined screws: 65 mm minimum length, Ø 10 mm minimum. The diameter of the plug and the load it can support are chosen according to the weight of the door. The type of plug should always be chosen according to the support on which the fire resistant Fire Fixing® door will be hung.

FIG. 4.1
Fix the electromagnetic touch plate (7).

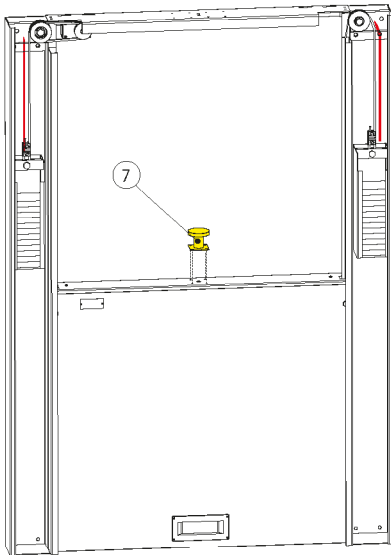


FIG. 4.2
Check the tightness of the counterweights rope pulleys and make sure that the rope clamps are tightened accurately.

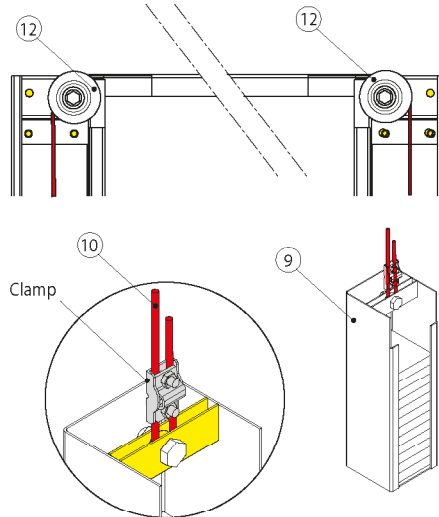
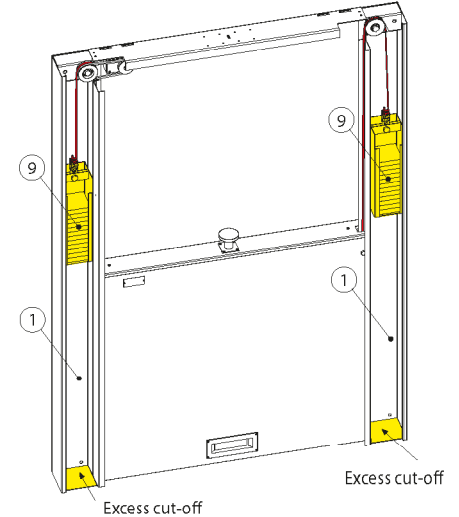


FIG. 4.3
Calibrate the modular counterweights (9) to ensure the wing is slightly heavier to assist closing (1).

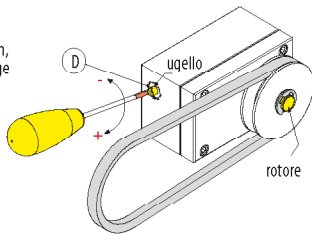


Check the closure system and that the door works correctly.

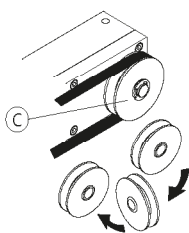
**VIT (Viscotroller)®
Speed control**

CALIBRATE WHEN INSTALLING THE DOOR

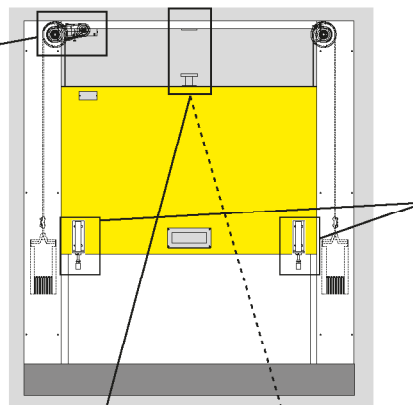
Note:
Don't over-tighten,
to avoid oil leakage



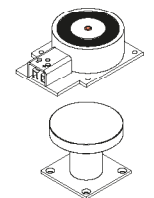
Turning the rotor (D) the torque reverses. Operating the screw (E) (nozzle opening) the closing speed is gradually regulated.



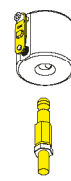
Note:
Turning the rotor by 180°,
the torque reverses



ELECTROMAGNET



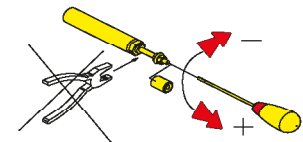
THERMAL FUSES



OPTIONAL

**S.A.M.
(Shock Absorber Magnetic)**

CALIBRATE WHEN INSTALLING THE DOOR



Note:
- Be careful not to damage the rod.
- Neither squeeze by pliers nor bend the absorber's rod.
- High stresses (due to an uncontrolled speed of the wing), may damage the absorber rod irreparably. (to avoid damages, use the VISCOTROLLER device)

Adjusting the absorber damping capability

Counterclockwise turning of the rod	dN(10N)
0°	7
90°	20
180°	35
225°	70
270°	140
285°	315
300°	Locked

At the speed of 50 m/sec

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