

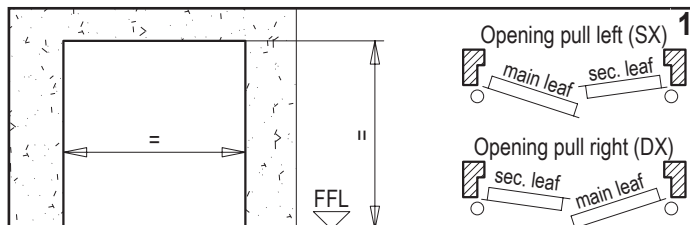
INSTALLATION, USE AND MAINTENANCE HANDBOOK FOR EI₂ 90 FIRE-RATED DOUBLE-LEAF UNIVER DOORS

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corso Trento, 2/A
I-38061 ALA (TN) / ITALY

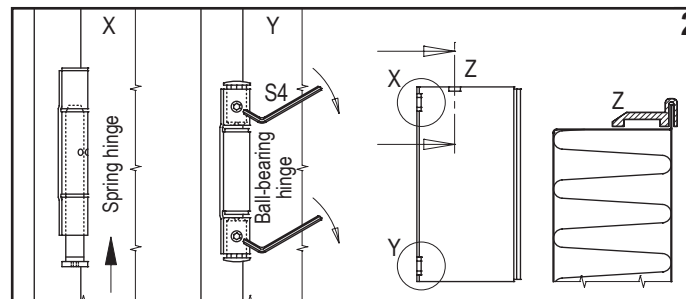
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If not required specifically, the reversible UNIVER DOUBLE LEAF door will be standard delivered with opening "PULL RIGHT". To change the opening pull from RIGHT to LEFT, follow the instructions on page 3.

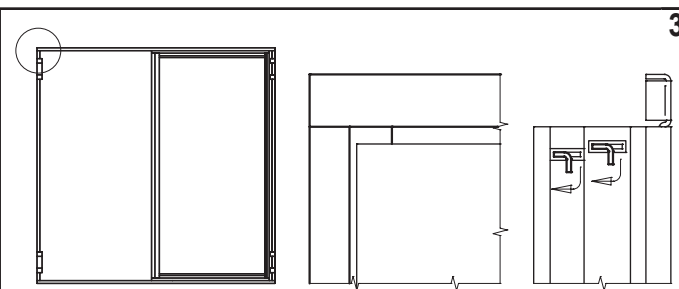
For door with ENVIRONMENTAL CHARACTERISTICS see also the enclosed complementary installation instructions.



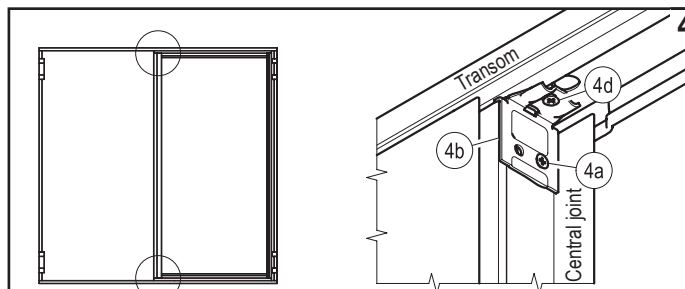
Unpack the door being careful do not throw away the FC thermo expanding gasket (included in package) that will be used for the operation in pos. 9. Verify the correspondence of the door's measures (printed on the white sticker applied on the doorframe) with the wall opening and the opening direction. Establish the Finished Floor Level (FFL). Make sure that the walls are made of blocks, bricks or homogeneous cement with a density of $1200 \pm 400 \text{ Kg/m}^3$ and a thickness of min. 150mm.



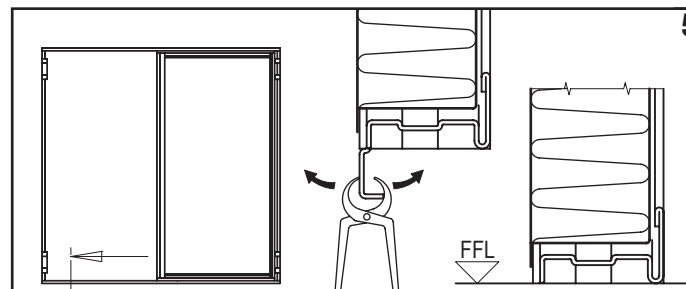
Fix the hinge frame on the secondary leaf putting in the pin for the spring hinge (X) and screwing on without overtighten both the socket set screws of the ball bearing hinge (Y). Perform the operation very carefully. Insert on the top and bottom the two spacers (Z) in equipment.



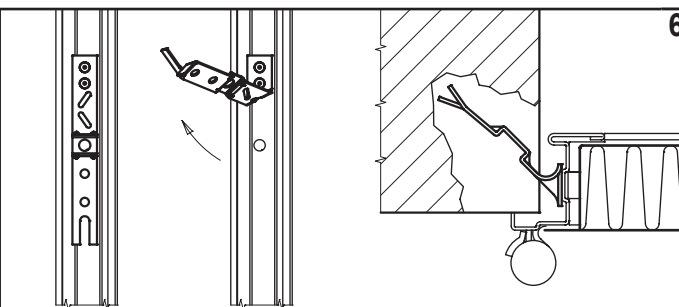
Join together the two transoms and the other hinge doorframe with the fixing flaps. Bend the flaps on the four corners to block the frame.



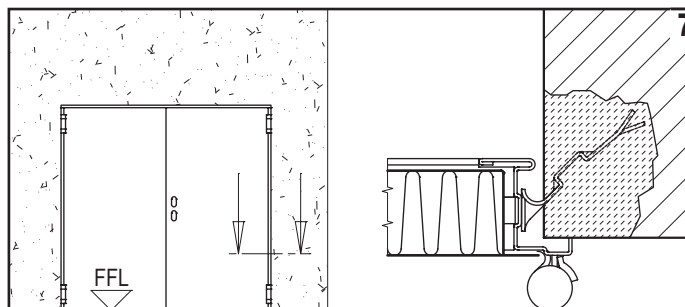
To make easier the following operation, release the prefixed screws (4a) of the angle bars (4b) placed at top and bottom of the central joint. Fix the two transoms to the inactive leaf and screw them with the screws (4d) in the equipment with the handle box. Fix very well all screws.



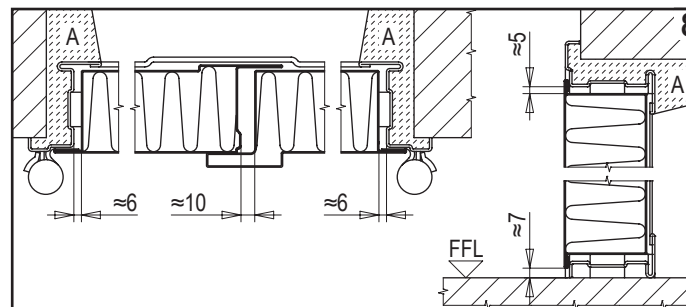
Once established the finished floor level (FFL) and decided that the door will be leaned without bottom frame, cut the jutting out fin of the lower transom so to lay the profile correctly on the finished floor level.



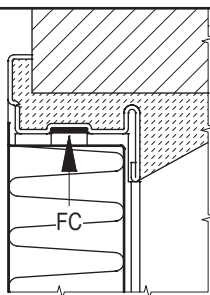
Bend up the frame-brackets and mark on the wall their positions respecting the FFL level. Create the holes in the wall for the brackets.



Install the principal door leaf and check that the two leaves are positioned at the same height (see point 2). Temporarily immobilize the door in the wall space, using a FFL level, true to the wall, the finished floor and the parallel walls and fix the wall anchors with quick drying cement.

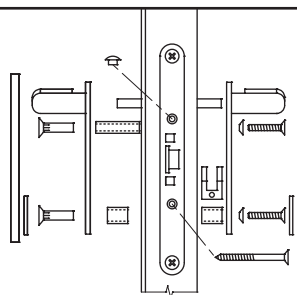


Fill up the space between the doorframe and the wall with mortar (detail A) without bending the doorframe and covering it with plaster. Remove the angle bars (part. 4b - draw. 4) to set free the inactive leaf. It is imperative to re-tighten both screws (4a) at top and bottom of inactive leaf. Check the leeway



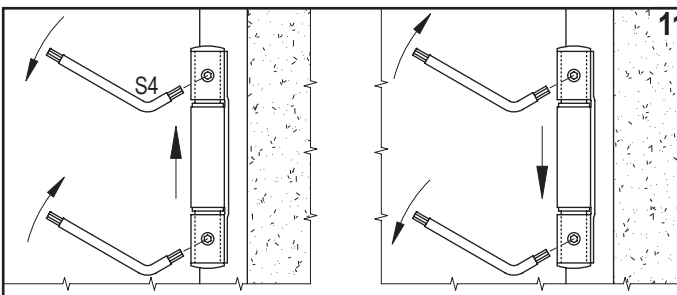
9

Remove all the plastic spacers between doorframe and leaf. Apply the thermo expanding gasket (FC) on the upper transom, but cut it before in two pieces with a measure that is going from the roller insert to the opposite angle of the doorframe.



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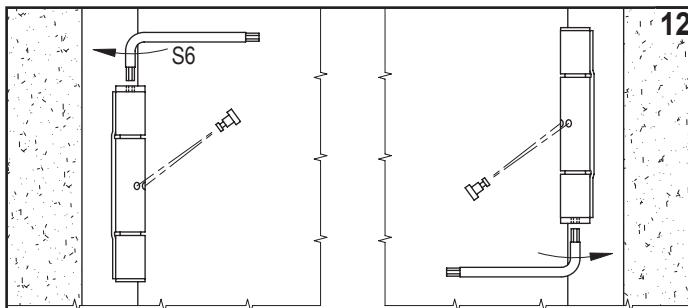
Mount the handle on the main leaf.



11

Adjusting of the ball-bearing hinges

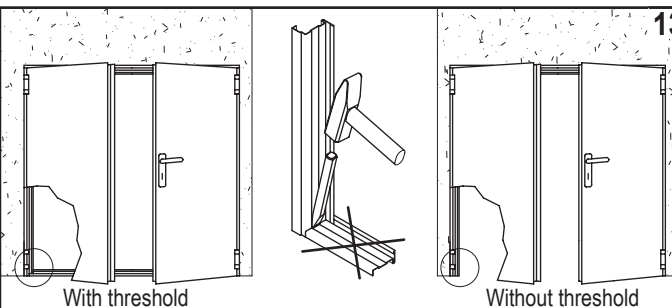
To raise one of the leaves, unscrew the upper socket set screw, screw on the lower one, screw on the upper one again. To lower one of the door leaves, unscrew the lower socket set screw, screw on the upper one. Operation to be carried out with the max. care with the aid of a lever.



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Adjusting of the spring hinges

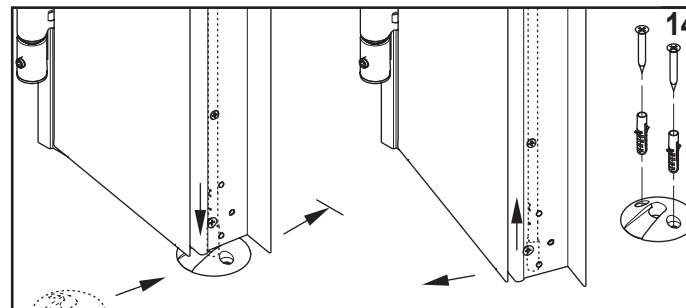
Wind up the spring hinges in the opening direction and insert the tension pins. Even if self closing is not needed or overhead doorclosers are installed, blocking the hinge springs anyway with the tension pins.



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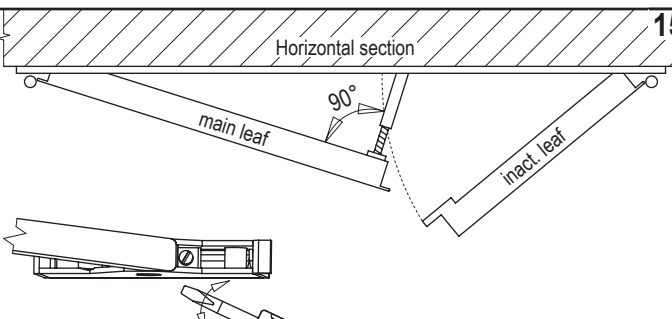
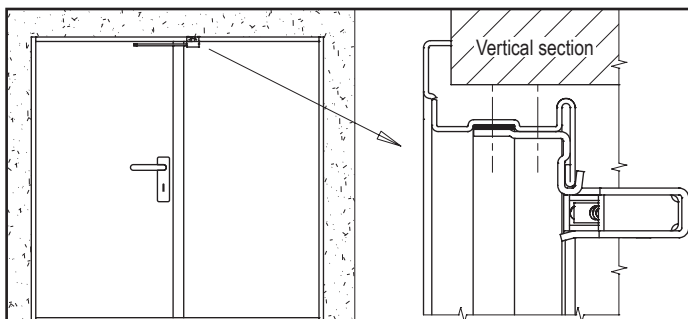
Warning: the threshold does not be removed in case of door with environmental characteristics.

In case the threshold is not needed, cut it with a chisel. Univer door is government approval with or without the bottom frame.



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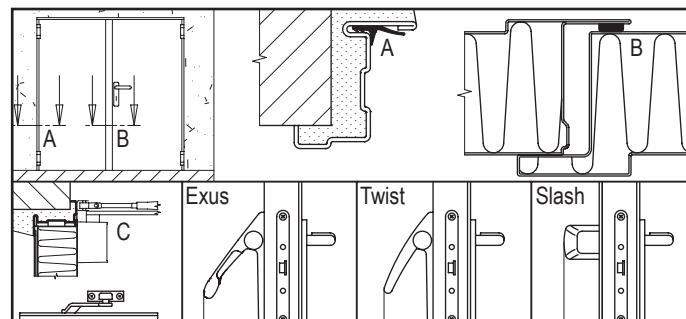
Install without lower rebate, position the floor catch beneath the passive leaf, close it and insert the lower rod into the floor catch. Open the leaf without moving the floor catch and fix it to the floor with screws and plugs.



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Opening angle regulable

Apply the bracket and the closing regulator following the handbook included in the RC/STD kit delivered with the door equipment.



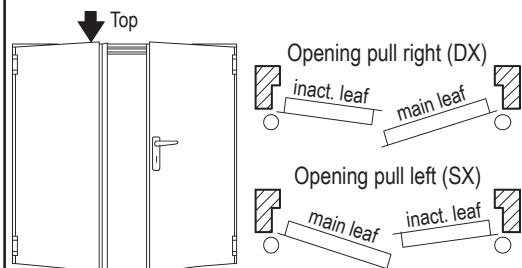
Accessories: A, B= rebate sealing - C= overhead door closer (the spring hinge must be anyhow slightly loaded) - EXUS, TWIST or SLASH panic bar.

INSTALLATION INSTRUCTION TO CHANGE THE OPENING PULL OF A UNIVER DOUBLE LEAF DOOR FROM DX (RIGHT) TO SX (LEFT)

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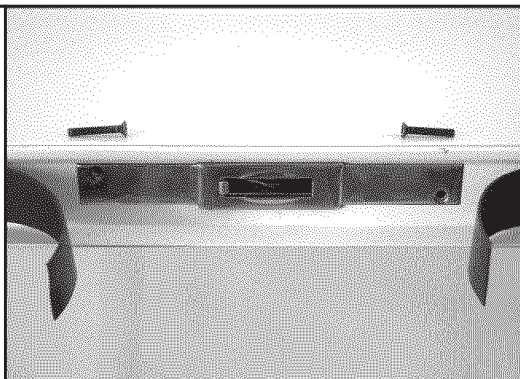
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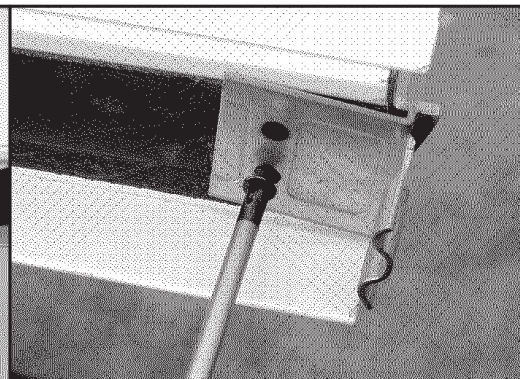


As standard the fire-rated door will be delivered from the factory with opening pull DX (right). To change the opening pull in SX (left) follow the next easy instructions.

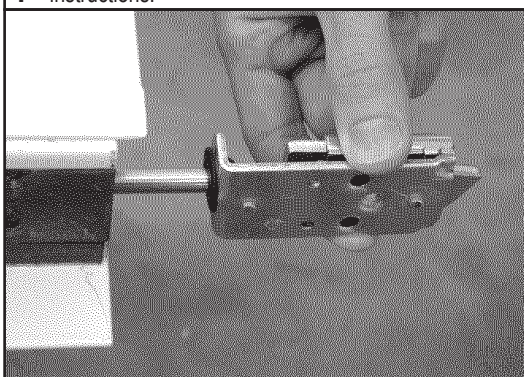
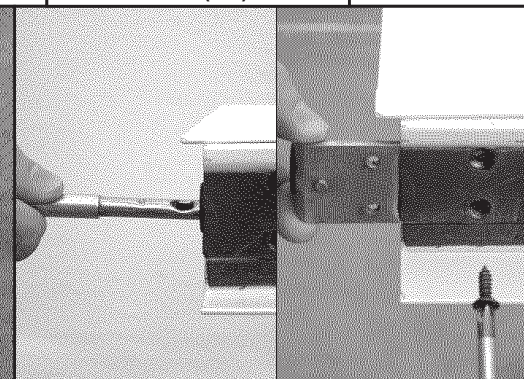
1 Remove part of the thermo expanding gasket FC, unscrew the two screws and remove the central lock.



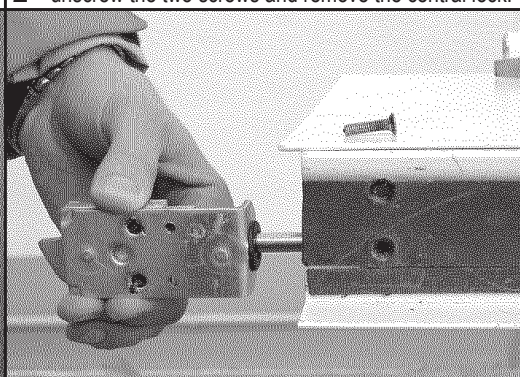
2 Remove the upper and lower external plates.



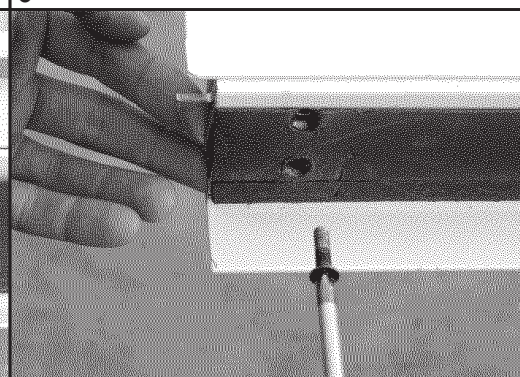
3 Remove the lower rod and the respective angle bar.



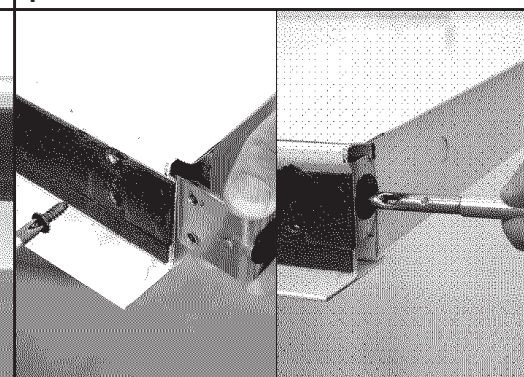
5 Turn the upper device on its support and insert the rod on the opposite side of the leaf respect the starting position.



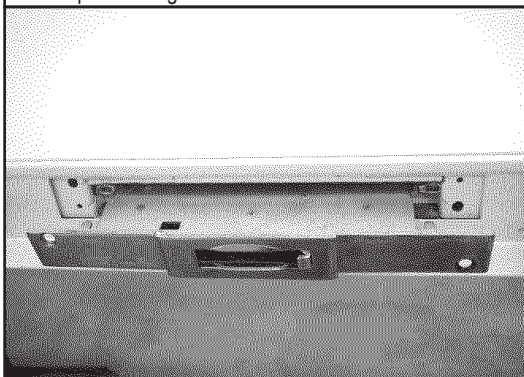
6 Screw the upper device with its own angle bar with the screw M5.



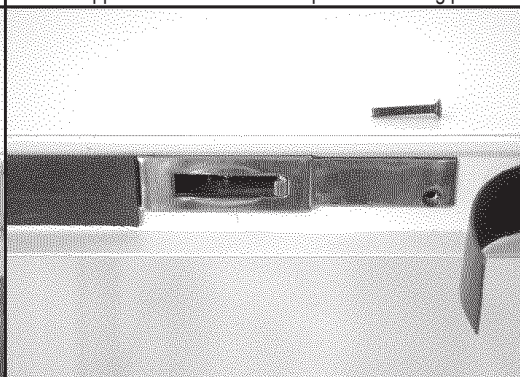
7 Screw the internal, lower guiding angle by the self-tapping screw and insert the rod.



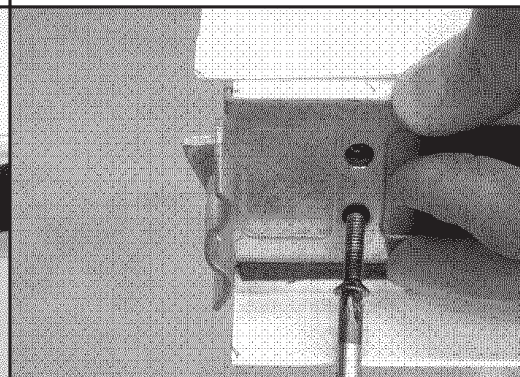
8 Insert the central lock with the hook drive turned look down. Make sure that the two rods will be coupled.



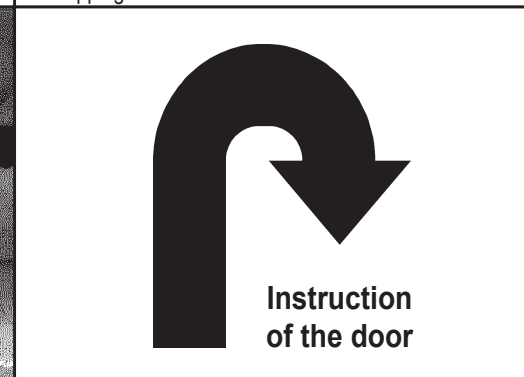
9 Screw the lock (M6 screw) and stick again the thermo expanding gasket FC, add if necessary two drops of silicone.



10 Screw again the upper and lower external plates (M5 screw on device side).



11 Go ahead following the general installation instruction of the door.



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GENERAL NOTES

STANDARD: the assemble instructions have to be followed in every detail to respect the test conditions and assure the perfect functioning of the door, including the self-closing. Furthermore a regular service according to Decree 10th March 1998 is necessary.

LIABILITY: It is duty of the installer to follow the installation instructions in any detail, specifically point 2, 8, 11 and 12 reported at page 1 and 2, in order to guarantee the safety of the end-users.

MASONRY WORKS: It's under customer's responsibility to execute the brickworks according to the norm EN 1634-1, to fill the doorframes with concrete as indicated in box 8 on page 1 (detail A) of the present instructions and to keep the wall integral in particular in the anchor points of the door.

FINISHING: the serial door is finished with an epoxy-polyester powder paint oven-baked at 180° C. The surface is orange-skin and particularly resistant. In case an additional paint is desired we advise to follow these instructions:

- make smooth the surfaces with sandpaper and dust them;
- apply a base coat of semi-gloss acrylic (suggested product: ACRILFIN SL series 567 + 20% by weight aliphatic hardener series E872003 - made by ELCROM, Italy);
- finish the surfaces with enamels or paints to your choice.

CLEANING: the doors are supplied from the factory clean and packed. We suggest to use a clothe and soaped water only. Do not scratch the surfaces.

WARRANTY: the manufacturer gives warranty as per Italian law (C.C.1495). Any claim for missing or damaged goods have to be recorded by inserting a written remark in the delivery notes and must be notified the maximum within eight days from the date of materials receipt.

CURRENT CE MARKED ACCESSORIES FOR FIRE-RATED DOORS:

Std015 lock: CE0497/CPD/4265/11 - EN 12209:2003/AC - 3 M 3 1 0 C 2 H A 2 0

Hinges: CE0789-CPD-2005 - EN 1935:2004 - 4 7 7 1 1 4 0 14

RC/STD closing regulator: CECPD-0425-1153 - EN 1158:2003 - 3 5 5/3 1 1 4

The CE marking of the Std 019 lock for inactive leaf of two-leaved doors is only valid if a panic bar or emergency handle is installed onto main leaf.

USE AND MAINTENANCE INSTRUCTIONS FOR UNIVER DOORS

All fire-rated doors located in escape routes need regular maintenance in order to verify that no damage occurred and that they close regularly. The scheduled maintenance shall guarantee that the leaf swings correctly and that the self closing mechanism works properly. Doors must be kept free from obstructions (Law 19.09.1994, No. 626, M.D. 10.03.1998).

Any 5.000 opening cycles but at least every 6 months the following operations shall be carried out:

- lubricating the ball-bearing hinges;
- lubricating the spring hinges and the springs after removing the tension pins.
- wind up the springs inserting the tension pins. Verify that the closing force is sufficient to shut the door if opened to 30±2°;
- lubricating the lock and the latch;
- verify the functionality of the secondary leaf's rods and lubricate its guide rail;
- clean the hole of the floor catch set;
- lubricate the lock and the self-locking device (top);
- verify the regular functionality of the closing regulator (arm position perpendicular to the main leaf). Lubricate the mobile parts of the closing regulator.

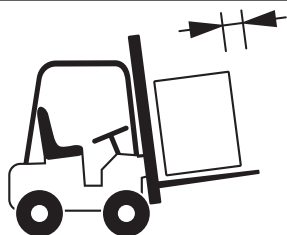
Verify the regular functionality of the doors accessories (handle, panic bar, overhead doorcloser etc.). Their mobile parts shall be lubricated too.

In case of irregular functioning of the door or its accessories contact an authorized installer or replace the damaged accessories.

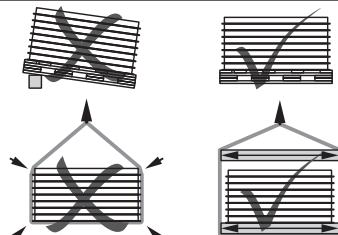
N.B.: For lubrication use viscous products.

HANDLING AND STORAGE - COMPLAINTS

HANDLING: in case of handling with webbing slings/ropes, place them under the feet of the pallet; avoid to place them under the boards; avoid that the action of slings/ropes produces too much pressure upon the doors, by means of spacers interposed in the upper part. Do not handle the leaves using suction caps. **STORAGE:** it is duty of the company/person taking over the doors to store them in a suitable place so that they will be protected from the natural agents and from the direct sun rays. If during transportation or truck unloading it rains or snows on the doors it is necessary to remove immediately the nylon film from each leaf and doorframe put them in vertical position to dry appropriately. **COMPLAINTS:** in case of external visible defects on doors, they have to be marked in the copy of the transportation document to be returned to the forwarder and notified to the manufacturer by registered mail within 48 hours. We remember that according to our general conditions intrinsic defects have to be notified to the manufacturer within 8 days from the delivery date by registered mail. Goods with defects never have be utilized or assembled, they should be stored at disposal for controls by the manufacturer appointed person.



Move the materials with appropriate means.



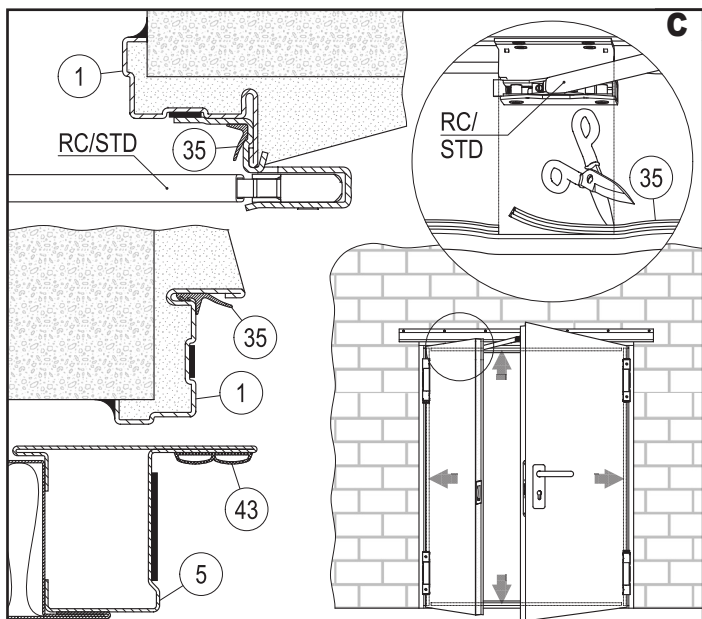
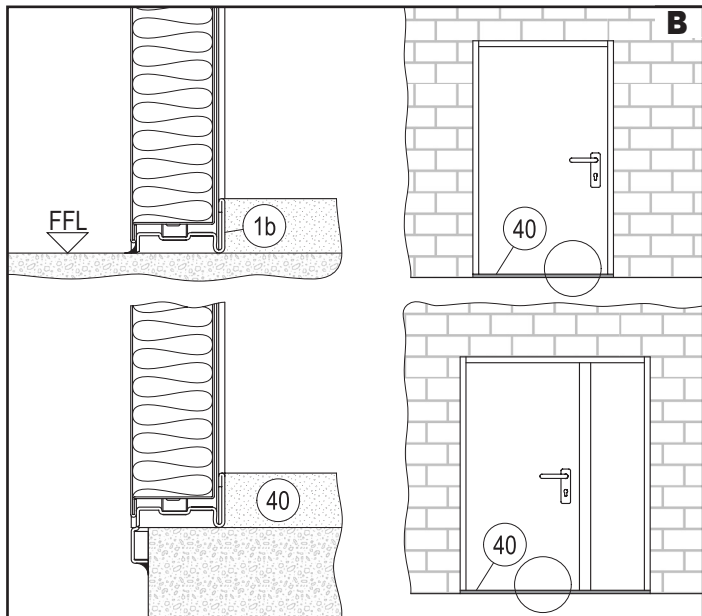
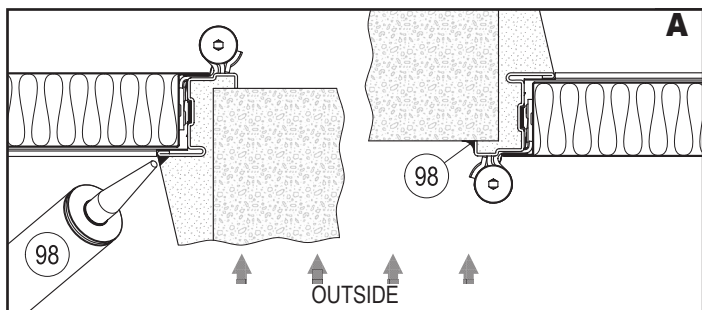
Store and handle the materials with care.



Assemble by qualified staff only.



Do not expose the materials to the natural agents.



ATTENTION

The RC closing regulator is obligatory only for two-leaved fire rated doors.

COMPLEMENTARY INSTALLATION INSTRUCTIONS FOR UNIVER FIRE-RATED DOORS WITH ENVIRONMENTAL CHARACTERISTICS AND PROVIDED WITH APPROPRIATE OPTIONAL

ATTENTION

- If the UNIVER door should provide also environmental characteristics, these complementary installation instructions must be strictly followed, **then without remove the threshold.**
- **The installation with push-side exposed outside is not suitable for escapes routes and also the water-tightness will be lost too.**

COMPLEMENTARY INSTALLATION INSTRUCTIONS

- Protect the door from direct weathering action. If necessary, install a canopy roofing immediately above it, which prevent the water infiltration in the upper part of the door.
- If the door was ordered without a coating for exterior use, it is duty of the customer to apply a suitable paint, by following the instructions in the dedicate section for re-painting of surfaces.

Drawing A

- It is necessary to seal with neutral silicone (98 - not supplied) the perimeter edge of doorframe, in the angle formed with the external side of the wall.

Drawing B

- **The installation with threshold is mandatory, in order to achieve the expected environmental characteristics.**

If the door is installed into an escape route, is necessary to make a rising (40) of the floor level (FFL), in order to conceal the threshold (1b).

Drawing C

KIT AMB U series, with performances of: thermal transmittance, air permeability, water-tightness and resistance to windload. Only for doors installed with the push side inside.

- Cut the FF rebate sealing to measure. Insert those of type (35) into appropriate channels (showed in drawing by arrows) of the doorframe (1). In case of two-leaved door, the application of the other self-adhesive (43) on the central joint of the passive leaf (5) is needed too. Place the sealings with profiles turned as shown in sections.



TABELLA RIASSUNTIVA RAPPORTI DI PROVA DITTA NINZ - PORTE TAGLIAFUOCO							
modello	classe	ante	soglia	misure	finestratura 400x600	classificazione	n° RP
UNIVER	E60, EI30, EI60, EI90, RE90, REI60, REI120	1	BATTUTA INFERIORE	889x2147	Aria, Acq, Ven	2, 2A, C2	09/01/2010
UNIVER	EI60, EI90, RE90, REI60, REI120	2	BATTUTA INFERIORE	2004x2147	Aria, Acq, Ven	3, 3A-9B, C2	09/54/2010

TRASMITTANZA TERMICA				trasmissione termica (W/m²K)			n° RP
modello	classe	ante	soglia	misure	finestratura 300x400	senza finestratura	
UNIVER	E60, EI30	1	BATTUTA INFERIORE	1230x2180	1,58	1,49	09/40/2010
UNIVER	EI60	1	BATTUTA INFERIORE	1230x2180	2,01	1,49	09/33/2010
UNIVER	RE90, REI60	1	BATTUTA INFERIORE	1230x2180	2,09	1,58	09/34/2010
UNIVER	EI90, REI120	1	BATTUTA INFERIORE	1230x2180	1,94	1,49	09/35/2010
UNIVER	EI60 > 3,6 m²	2	BATTUTA INFERIORE	2000x2180	2,15	1,52	09/51/2010
UNIVER	EI60 ≤ 3,6 m²	2	BATTUTA INFERIORE	1230x2180	2,91	1,88	09/51/2010
UNIVER	RE90, REI60 > 3,6 m²	2	BATTUTA INFERIORE	2000x2180	2,19	1,62	09/52/2010
UNIVER	RE90, REI60 ≤ 3,6 m²	2	BATTUTA INFERIORE	1230x2180	2,92	1,99	09/52/2010
UNIVER	EI90, REI120 > 3,6 m²	2	BATTUTA INFERIORE	2000x2180	2,06	1,51	09/53/2010
UNIVER	EI90, REI120 ≤ 3,6 m²	2	BATTUTA INFERIORE	1230x2180	2,78	1,88	09/53/2010

