

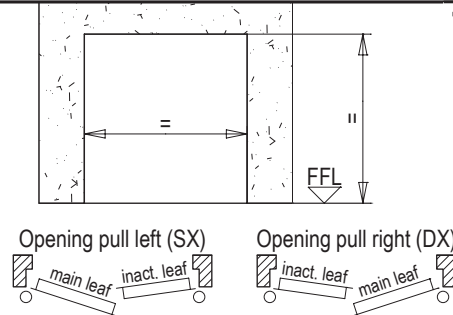
INSTALLATION, APPLICATION AND MAINTENANCE HANDBOOK FOR UNIVER EI₂ 60 FIRE-RATED DOUBLE-LEAF DOORS

NINZ S.p.A.
corso Trento, 2/A
I-38061 ALA (TN) / ITALY

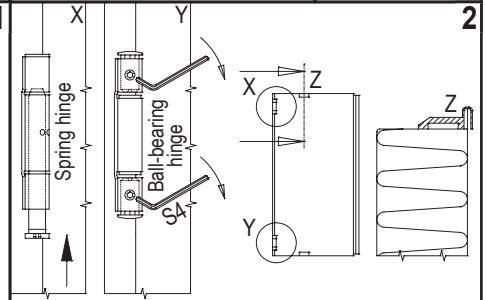
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If not required specifically, the reversible UNIVER DOUBLE LEAF door will be standard delivered with opening "PULL RIGHT". To change the opening pull from RIGHT to LEFT, follow the instructions on page 3.

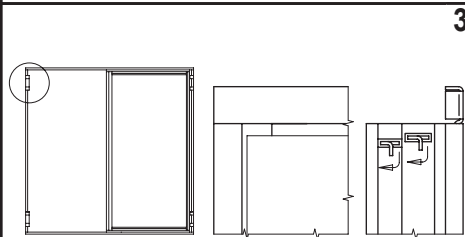
For door with ENVIRONMENTAL CHARACTERISTICS see also the enclosed complementary installation instructions.



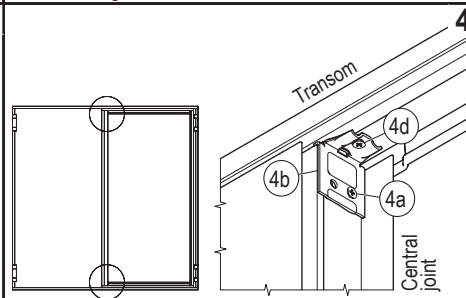
Unpack the materials, remove from the back of the doorframe the thermo expanding gasket FC that will be used for the operation in pos. 9. Verify the correspondence of the door's measures with the wall opening and the opening pull. Make sure that the walls are made of blocks, bricks or homogeneous cement with a density of $1200 \pm 400 \text{ kg/m}^3$ and a thickness of min. 150mm.



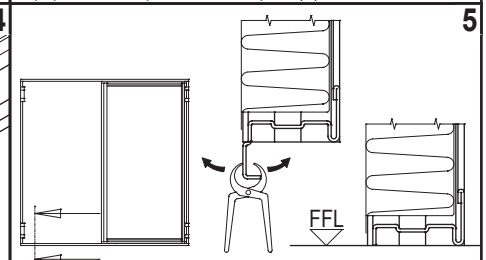
Fix the hinged jamb to the secondary leaf inserting the pin into the spring hinge (X) and screwing on both socket set screws of the ball bearing hinge (Y). Perform the operation very carefully. Insert the two spacers in equipment at top and bottom part (Z).



Join together the transoms and the jamba with the fixing flaps. Bend the flaps on the four corners to assemble the doorframe.

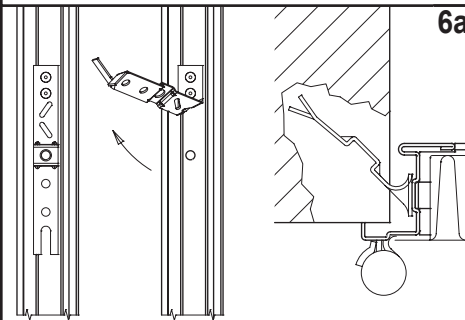


To make easier the following operation, release the prefixed screws (4a) of the angle bars (4b) placed at top and bottom of the central joint. Fix the two transoms to the inactive leaf and screw them with the screws (4d) in equipment with the handle box. Fix very well all screws.



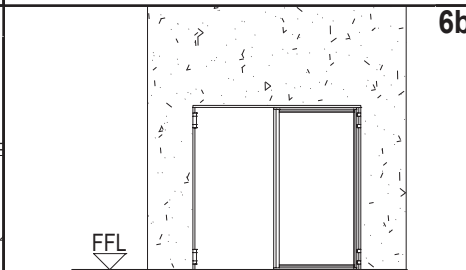
Once established the finished floor level (FFL) and decided that the door will be leaned without bottom frame, remove with caution the cover profile from the lower transom so to lay the profile correctly on the finished floor level.

INSTALLATION WITH ANCHORS



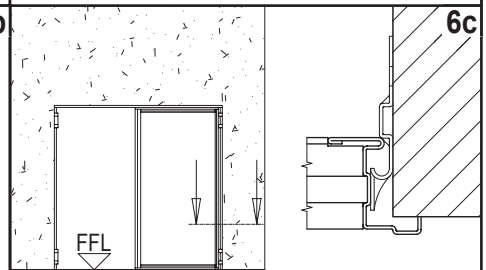
Bend up the frame anchors and mark on the wall their positions respecting the FFL level. Create the holes in the wall for the anchors.

INSTALLATION WITH EXPANSION SCREWS

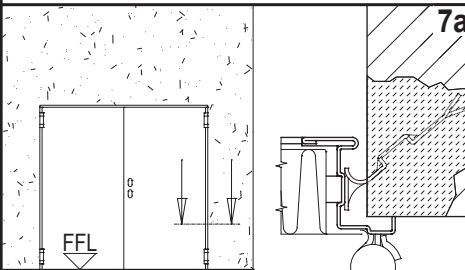


Fasten temporarily the door in the wall opening, respecting the plumb-line, the FFL level, and the parallelism to the wall.

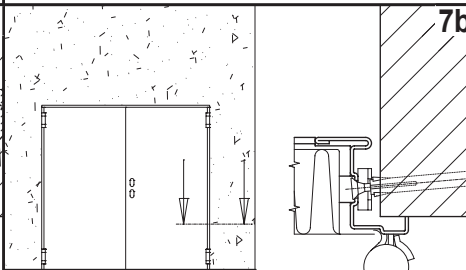
INSTALLATION WITH PLASTIC ANCHORS



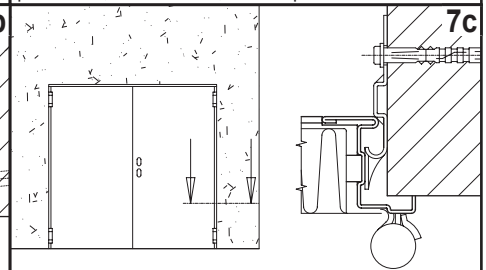
Bend up the wall anchors appropriately, fasten temporarily the door in the wall opening, respecting the plumb-line, the FFL level, and the parallelism to the wall.



Install the principal door leaf and check that the two leaves are positioned at the same height (see point 2). Fasten temporarily the door in the wall opening, respecting the plumb-line, the FFL level and the parallelism to the wall. Fix the wall anchors with quick set cement. When the cement will be solid, 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.



Fix the upper transom, using the presetted holes under the self expanding gasket, using expansion screws Würth Art. Nr. 0910436112 (not supplied). Install the main leaf and check that the two leaves are positioned at the same height (see point 2). 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. Fasten the remaining part of the doorframe.



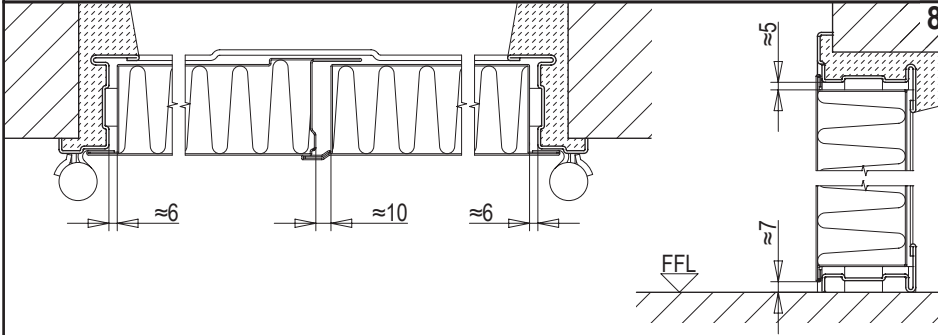
Fix the anchors of the upper transom, using plastic anchors Hilti, HRD-UGS Ø10x100mm (not supplied). Install the main leaf and check that the two leaves are positioned at the same height (see point 2). Remove the angle bars (part. 4b - draw. 4), to set free the inactive leaf. It is imperative to re-tighten both screws (4a) at top and bottom of inactive leaf. Fasten the remaining part of the doorframe. Fix further, in hinges zone, with Würth art. no. 0910436112 steel anchor bolts (not supplied).

INSTALLATION, APPLICATION AND MAINTENANCE HANDBOOK FOR UNIVER EI₂ 60 FIRE-RATED DOUBLE-LEAF DOORS

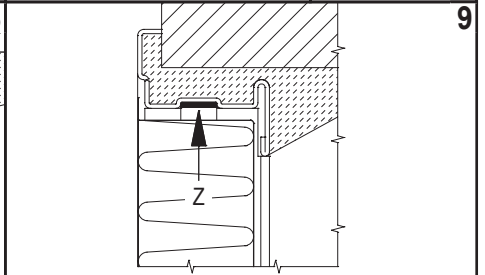
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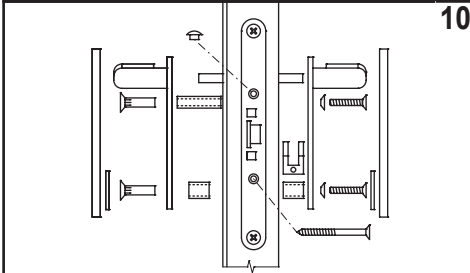
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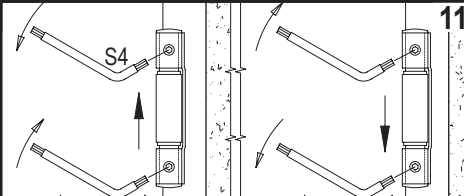
Fill up the space between doorframe and wall with mortar, without bending the frame, cover the frame with plaster and check the leeway.



Remove the spacers between doorframe and leaf, glue the self expanding gasket (Z) on the upper transom, leaving spaces for the strike box with roller.



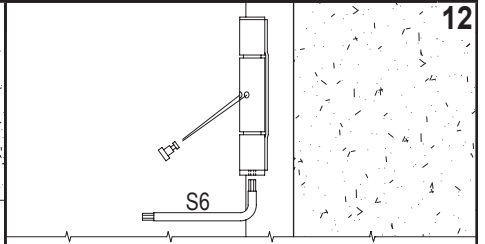
Install the handle on the main leaf.



Ball-bearing hinge

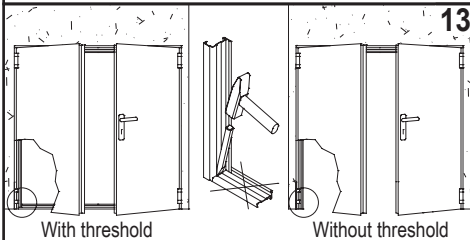
To raise the door leaf: unscrew the upper socked set screw, screw on the lower one, screw on the upper one again.

To lower the door leaf: unscrew the lower socked set screw, screw on the upper one. Operation to be carried out with the maximal care, with the aid of a lever.

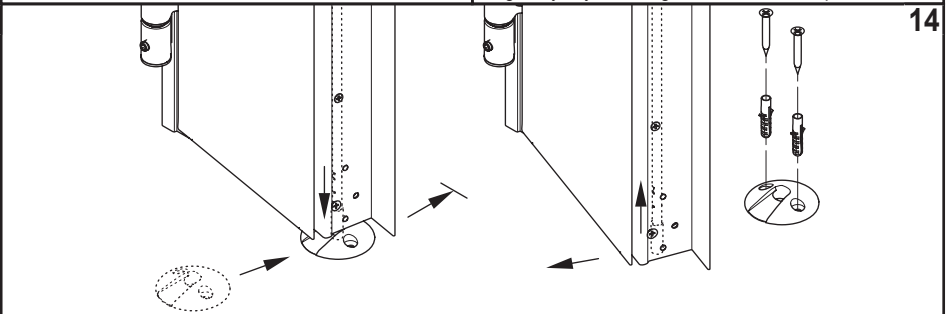


Spring hinge

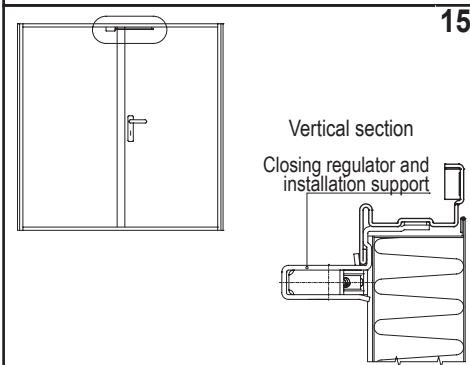
Wind up the spring hinge in the opening direction, inserting the tension pin. Even if self closing is not needed or door closer is installed, wind up the spring hinge anyway, blocking it with the tension pin.



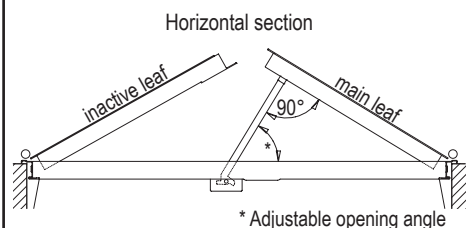
Warning: the threshold does not be removed in case of door with environmental characteristics.
In case the threshold is not needed, cut it with a chisel. Univer door is government approval with or without the bottom frame.



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.



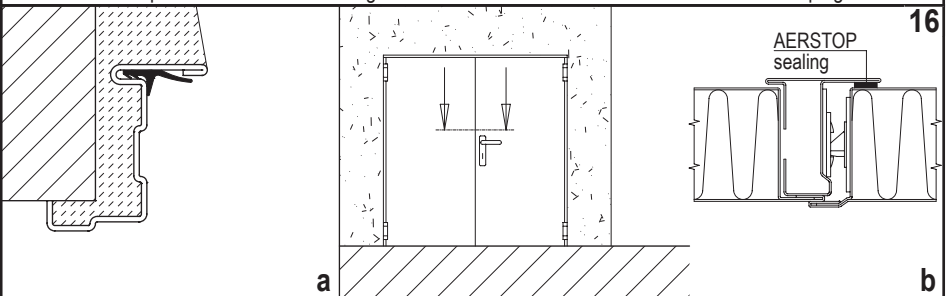
Vertical section
Closing regulator and installation support



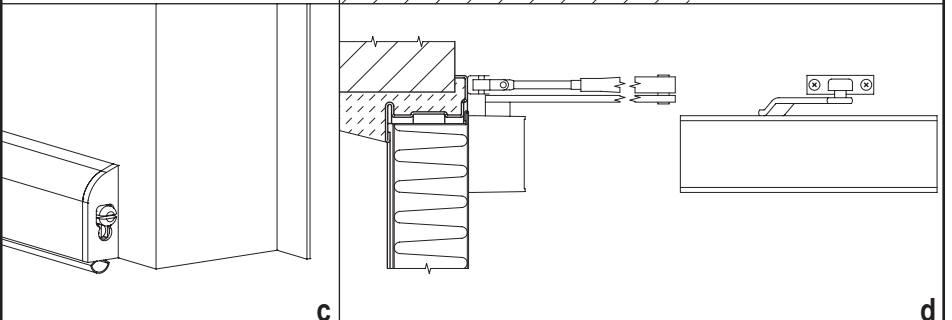
Horizontal section

inactive leaf
main leaf
90°

* Adjustable opening angle



AERSTOP
sealing



Compulsory accessories for doors:

a) FF/CR rebate sealing

b) AERSTOP sealing

c) automatic door sweep

d) overhead door closer (anchored in the wall / the spring hinge must be anyhow slightly loaded)

EI₂60 C5

EI₂60 Sm

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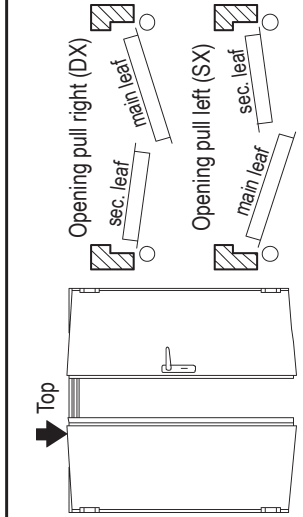
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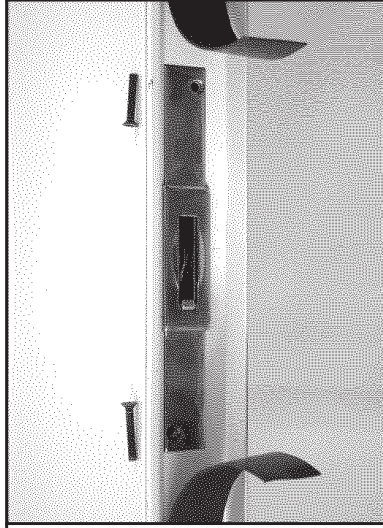
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Install the closing regulator with its installation support, following the instructions included in the kit RC/STD, delivered with the door equipment.

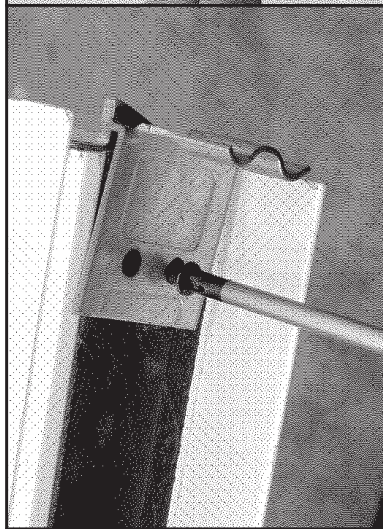
INSTALLATION INSTRUCTION TO CHANGE THE OPENING OPENING OF A UNIVER DOUBLE LEAF DOOR FROM DX (RIGHT) TO SX (LEFT)



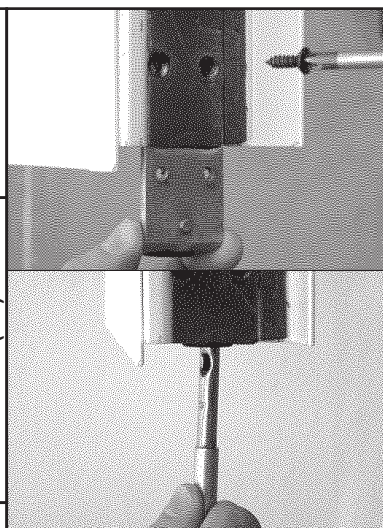
As standard the fire-rated door will be delivered from the factory with opening pull DX (right). To change the opening pull in SX (left) follow the next easy instructions.



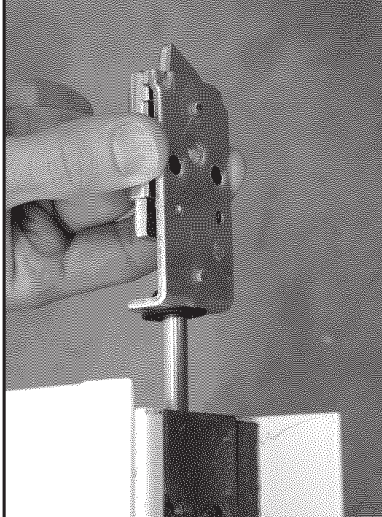
2 Remove part of the thermo expanding gasket FC, unscrew the two screws and remove the central lock.



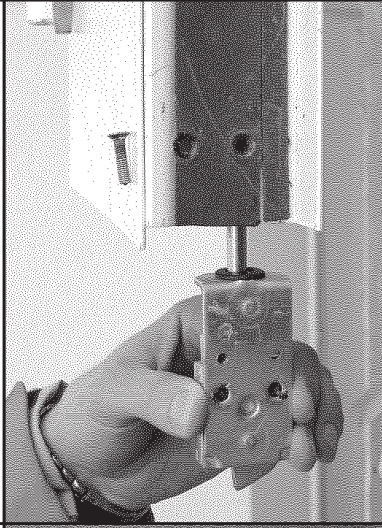
3 Remove the upper and lower external plates.



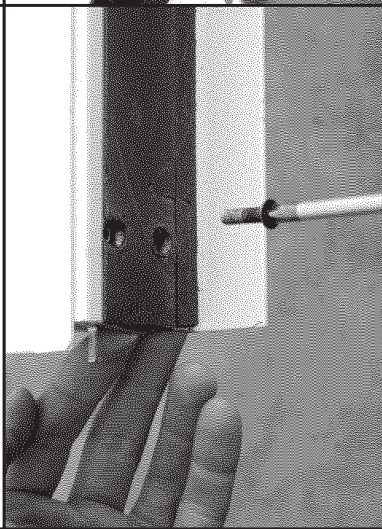
4 Remove the lower rod and the respective angle bar.



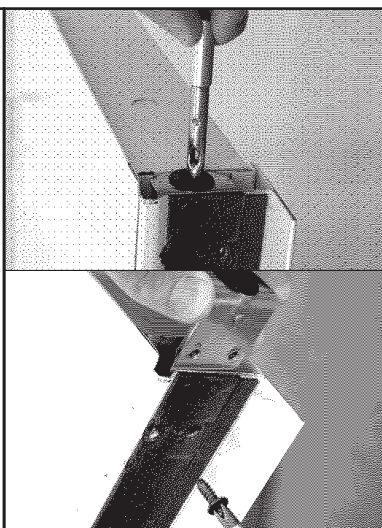
5 Remove the upper rod, the upper device and the respective angle bar.



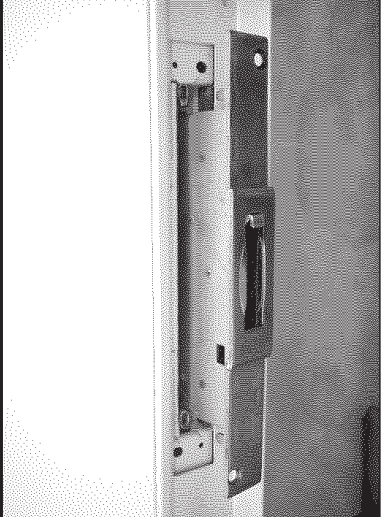
6 Turn the upper device on its support and insert the rod on the opposite side of the leaf respect the starting position.



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



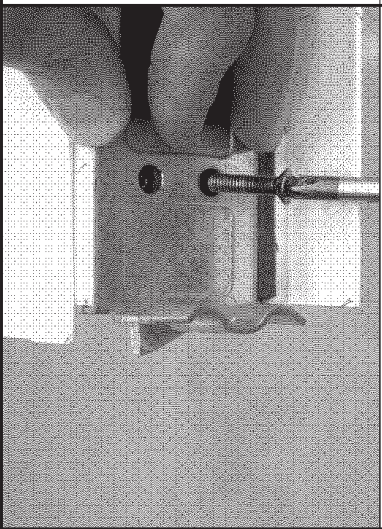
8 Screw the internal lower guiding angle by the self-tapping screw and insert the rod.



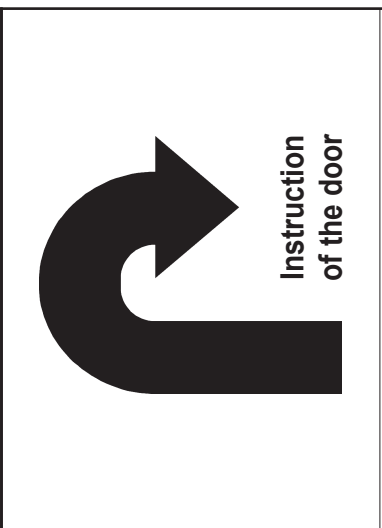
9 Insert the central lock with the hook drive turned look down. Make sure that the two rods will be coupled.



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



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



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

Instruction of the door

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171-GB

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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 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 pages 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 frames with grout as indicated in box 8 on page 2 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 goffered and particulary 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:	CE 0497/CPD/4265/11	- EN 12209:2003/AC	- 3 M 3 1 0 C 2 H A 2 0
Hinges:	CE 0789-CPD-2005	- EN 1935:2004	- 4 7 7 1 1 4 0 1 4
RC/STD closing regulator:	CE CPD-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 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.

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

- lubricating the ball-bearing hinge;
- lubricating the spring hinge and the spring after removing the tension pin;
- wind up the spring inserting the tension pin. 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 rod blocking 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 door closer etc.). Their mobile parts shall be lubricated too, following the dedicated instruction.

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

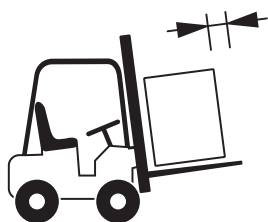
Note: for lubrication use viscous products.

HANDLING AND STORAGE - COMPLAINTS

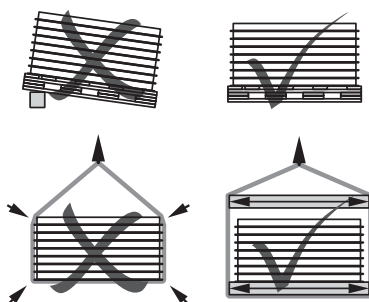
HANDLING: in case of handling with webbing slings/ropes, place them under the feet of the pallet; avoid to place them under the boards; avoid that the action of slings/ropes produces too much pressure upon the doors, by means of spacers interposed in the upper part. Do not handle the leaves using suction 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.

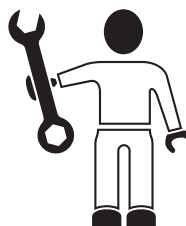
COMPLAINTS: in case of external visible defects on doors, they have to be marked in the copy of the transportation document to be returned to the forwarder and notified to the manufacturer by registered mail within 48 hours. We remember that according to our general conditions intrinsic defects have 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.**



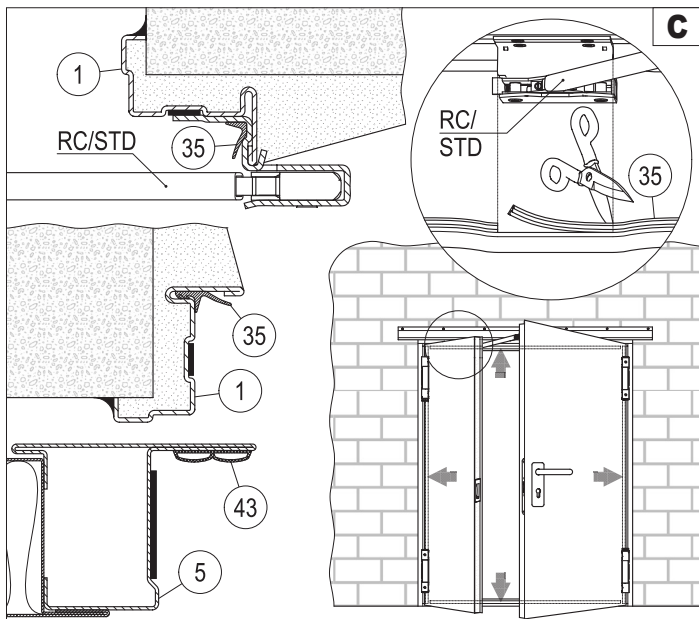
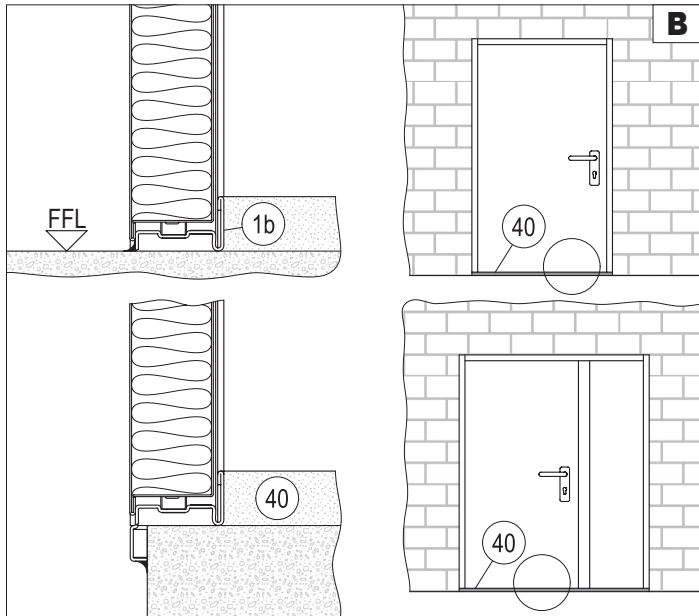
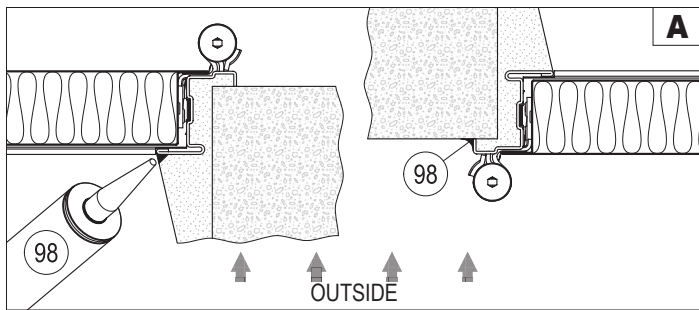
**Store and handle the
materials with care.**



**Assemble by
qualified staff
only.**



**Do not expose the
materials to the
naturals 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.

Consiglio Nazionale delle Ricerche

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TREES AND TIMBER INSTITUTE

TABELLA RIASSUNTIVA RAPPORTI DI PROVA DITTA NINZ - PORTE TAGLIAFUOCO

modello	classe	ante	soglia	misure	finestratura 400x600	classificazione	n° RP
UNIVER	E60, E130, E160, E190, RE90, RE160, RE1120	1	BATTUTA INFERIORE	889x2147	Aria, Acq, Ven	2, 2A, C2	09/01/2010
UNIVER	E160, E190, RE90, RE160, RE1120	2	BATTUTA INFERIORE	2004x2147	Aria, Acq, Ven	3, 3A-9B, C2	09/54/2010

TRASMITTANZA TERMICA

modello	classe	ante	soglia	misure	trasmissione termica (W/m²K)		n° RP
					finestratura 300x400	senza finestratura	
UNIVER	E60, E130	1	BATTUTA INFERIORE	1230x2180	1,58	1,49	09/40/2010
UNIVER	E160	1	BATTUTA INFERIORE	1230x2180	2,01	1,49	09/33/2010
UNIVER	RE90, RE160	1	BATTUTA INFERIORE	1230x2180	2,09	1,58	09/34/2010
UNIVER	E190, RE1120	1	BATTUTA INFERIORE	1230x2180	1,94	1,49	09/35/2010
UNIVER	E160 > 3,6 m²	2	BATTUTA INFERIORE	2000x2180	2,15	1,52	09/51/2010
UNIVER	E160 ≤ 3,6 m²	2	BATTUTA INFERIORE	1230x2180	2,91	1,88	09/51/2010
UNIVER	RE90, RE160 > 3,6 m²	2	BATTUTA INFERIORE	2000x2180	2,19	1,62	09/52/2010
UNIVER	RE90, RE160 ≤ 3,6 m²	2	BATTUTA INFERIORE	1230x2180	2,92	1,99	09/52/2010
UNIVER	E190, RE1120 > 3,6 m²	2	BATTUTA INFERIORE	2000x2180	2,06	1,51	09/53/2010
UNIVER	E190, RE1120 ≤ 3,6 m²	2	BATTUTA INFERIORE	1230x2180	2,78	1,88	09/53/2010

