



INSTALLATION MANUAL OF DOORS TYPE DFM DS

DS60-1, DS60-2, DS60B-1, DS30-1, DS30-2, DS30B-1, DS30B-2,  
DS00-1, DS00-2, DS60-1A, DS60-2A

fire resistant range EI<sub>1</sub>30, EI<sub>1</sub>60, EI<sub>2</sub>30, EI<sub>2</sub>60 and non-resistant doors

v. EN 3.4.2020

Our business model shall guarantee:

FACILITY – comfortable and customised solutions aimed at Customers' needs

TRANSPARENCY- clear business relations

BUSINESS EXPERTISE – a team of passionate professionals with “out of box ” attitude

# 1 IDENTIFICATION, HANDOVER AND NOMENCLATURE



During installation, usage and repair works prescriptions of safety on site must be observed, specifically those referring to particular regulations for construction and joinery works.

Installation must be carried out by qualified installers, trained for installation of fire doors.  
Parts and components of doors shall not be modified or replaced.



e.g: DFM DS 30B-2  
DFM DS 30-2  
DFM DS 60-1A

DS = steel door, 30 = EI<sub>1</sub>30, 2 = double leaf  
DS = steel door, 30 = EI<sub>2</sub>30, 2 = double leaf  
DS = steel door, 60 = EI<sub>2</sub>60, 1 = single leaf, A=Rw 42dB

During handover of goods from transport company check packaging and quantity of doors and cartons. In case of any claim a note CMR must be made and photos taken and sent to: it@dfm-europe.eu

## ORDER

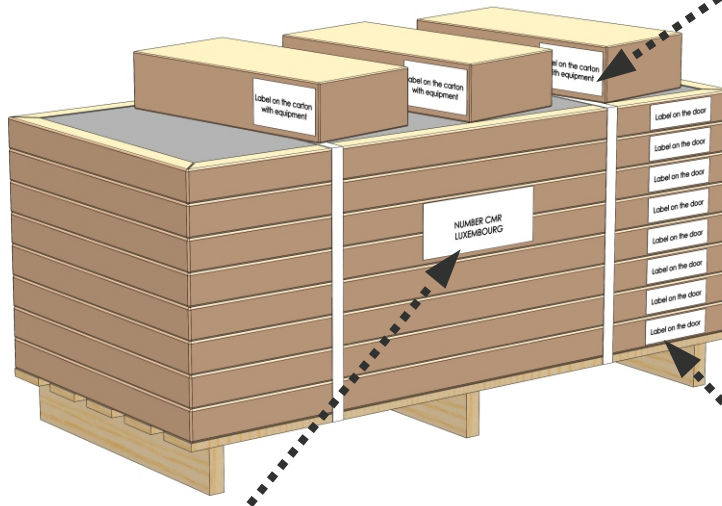
PROJECT NAME: „SOHO  
X.199808”  
PROJECT DOOR NUMBER:  
„74”

## PACKING LIST

PROJECT NAME: „SOHO  
X.199808”  
PROJECT DOOR NUMBER: „174”  
INDIVIDUAL PRODUCTION  
DOOR NUMBER: 1087/2020/026

## LABEL ON THE CARTON WITH EQUIPMENT

PROJECT NAME: „SOHO X.199808”  
INDIVIDUAL PRODUCTION DOOR  
NUMBER:1087/2020/026  
QUANTITY AND NUMBER OF CARTON:  
1/3



## CMR

INDIVIDUAL PRODUCTION DOOR  
NUMBER:  
1087/2020  
1345/2020  
1589/2020

## LABEL ON THE DOOR

PROJECT NAME: „SOHO X.199808”  
PROJECT DOOR NUMBER: „74”  
INDIVIDUAL PRODUCTION DOOR  
NUMBER: 1660/2020/021

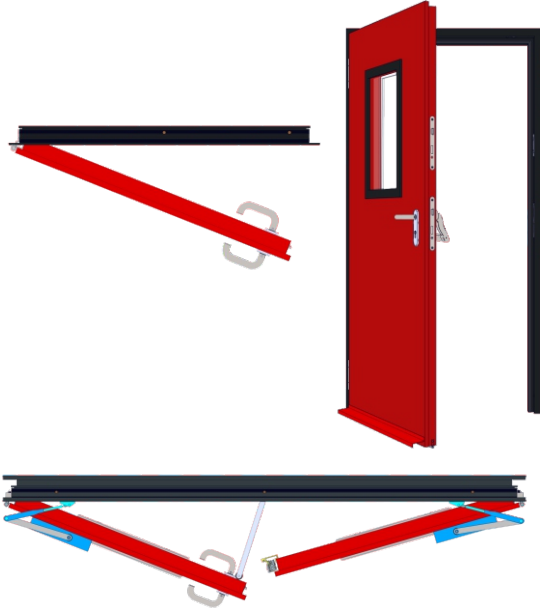
ADDITIONAL INFORMATION ON PALLET SIDE :  
NUMBER OF CMR: „573”  
DELIVERY ADRES: „LUXEMBOURG”

Example of labels on the door and box with equipment:

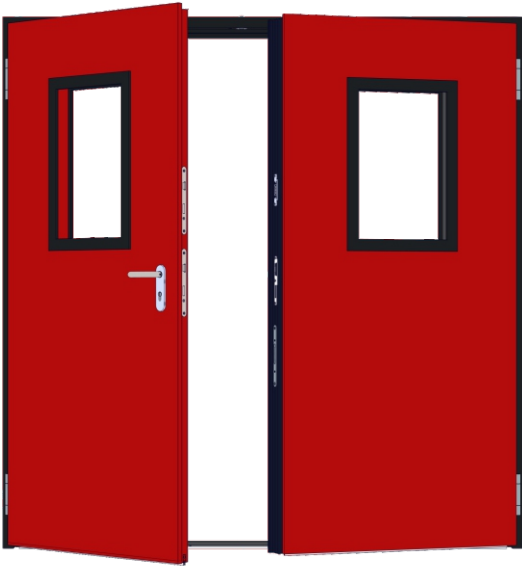
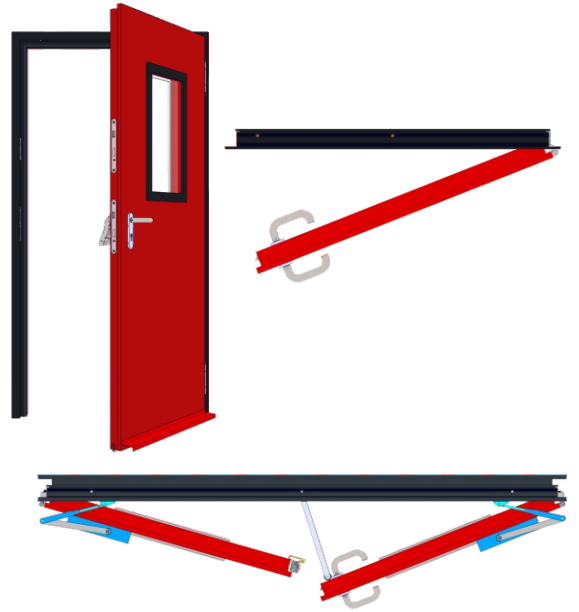
DFM DS-30-1-OB.	<b>DFM</b>
Nr zlecenia / Production Nr.	DOORS
<b>01087/2020/026</b>	
1000 x 2130 P	
Oznaczenie projektowe / Project Name	
<b>74 Project : SOHO X.199808</b>	
Data Produkcji / Prod Date : 2020-07-16	Kolor 8019 satyna

DFM DS	<b>DFM</b>
Nr zlecenia / Production Nr.	DOORS
<b>01087-EU-2020</b>	
PACZKI / EQUIPMENT	<b>1/1</b>
Oznaczenie projektowe / Project Name	
<b>74 Project : SOHO X.199808</b>	
Data Produkcji / Prod Date : 2020-07-16	

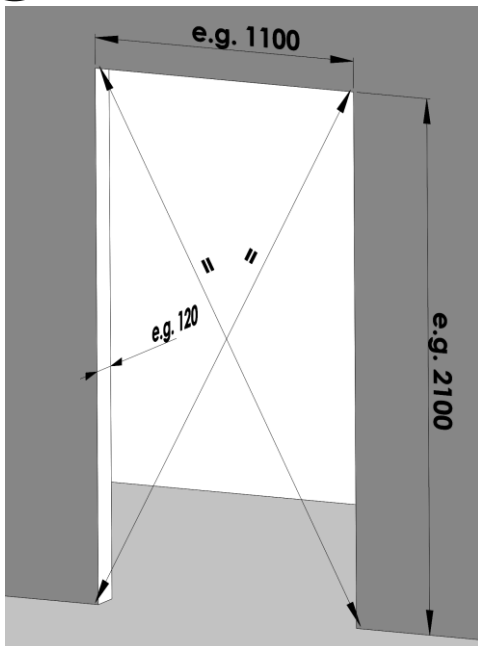
DIN LEFT



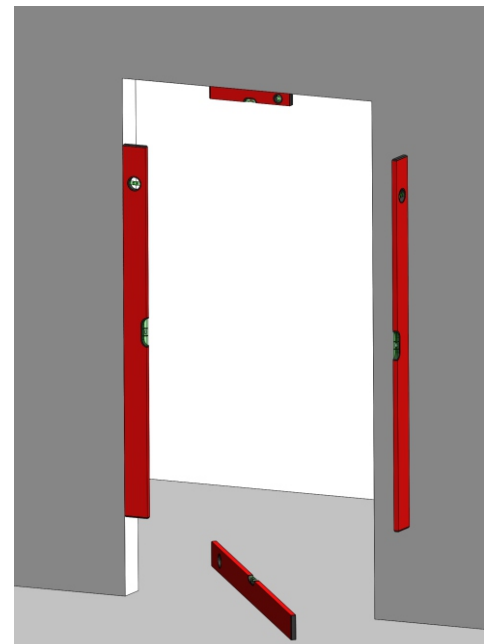
DIN RIGHT



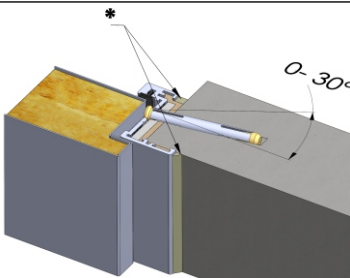
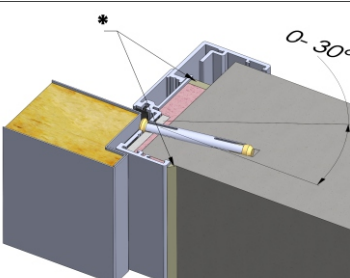
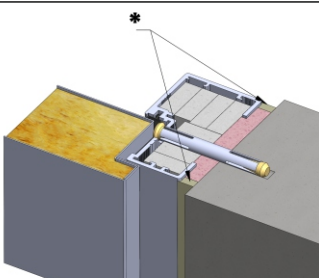


**2** CHECK THE WALL OPENING



IS IT FINAL FLOOR?



### 3 INSTALLATION METHODS - MAKE SURE THAT PROPER INSTALLATION MATERIAL IS APPLIED

	CORNER FRAME	EMBRACING FRAME	RECTANGULAR FRAME
TYPE OF DOOR FRAME / TYPE OF DOOR			
 DS30-1 DS30B-1 DS30-2 DS30B-2	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> <li>- cement mortar, lime cement or plaster mortar</li> <li>- rockwool of density min. 50kg/m<sup>3</sup> + *fire retardant mass or cement mortar or glue</li> <li>- glue for plaster Perfix T</li> <li>- fire resistant polyurethane foam Soudafoam FR and silicate calcium band on places of anchor fixing + *fire retardant mass FIRE SILICON B1 FR for smokeproof doors.</li> </ul>	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> <li>- cement mortar, lime cement or plaster mortar</li> <li>- rockwool of density min. 50kg/m<sup>3</sup> + *fire retardant mass or cement mortar or glue</li> <li>- glue for plaster Perfix T</li> <li>- fire resistant polyurethane foam Soudafoam FR and silicate calcium band on places of anchor fixing + *fire retardant mass FIRE SILICON B1 FR for smokeproof doors.</li> </ul>	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> <li>- cement mortar, lime cement or plaster mortar</li> <li>- rockwool of density min. 50kg/m<sup>3</sup> + *fire retardant mass or cement mortar or glue</li> <li>- glue for plaster Perfix T</li> <li>- fire resistant polyurethane foam Soudafoam FR and silicate calcium band on places of anchor fixing + *fire retardant mass FIRE SILICON B1 FR for smokeproof doors.</li> </ul> <p>Filling of door frame:</p> <ul style="list-style-type: none"> <li>- plaster boards type A or F 9.5÷12.5mm</li> <li>- cement mortar, lime cement or plaster mortar</li> <li>- glue for plaster Perfix T</li> <li>- fire resistant polyurethane foam and silicate calcium band on places of anchor fixing (except smoke doors)</li> </ul>
 DS60-1 DS60B-1 DS60-2 DS60-1A DS60-2A	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> <li>- cement mortar, lime cement or plaster mortar</li> <li>- rockwool (not allowed for DS60B-1) of density min. 50kg/m<sup>3</sup> + *fire retardant mass or cement mortar or glue</li> <li>- glue for plaster Perfix T</li> </ul>	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> <li>- cement mortar, lime cement or plaster mortar</li> <li>- rockwool (not allowed for DS60B-1) of density min. 50kg/m<sup>3</sup> + *fire retardant mass or cement mortar or glue</li> <li>- glue for plaster Perfix T</li> </ul>	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> <li>- cement mortar, lime cement or plaster mortar</li> <li>- rockwool (not allowed for DS60B-1) of density min. 50kg/m<sup>3</sup> + *fire retardant mass or cement mortar or glue</li> <li>- glue for plaster Perfix T</li> </ul> <p>Filling of door frame:</p> <ul style="list-style-type: none"> <li>- plaster boards type A or F 9.5÷12.5mm</li> <li>- cement mortar, lime cement or plaster mortar</li> <li>- glue for plaster Perfix T</li> </ul> <p>In the case of doors classified according to smoke resistance, the gap between the frame and the wall, filled with rockwool, must be additionally insulated with gypsum mortar, cement mortar, cement and lime mortar, gypsum adhesive Perfix (Knauf) or fire retardant silicone sealant FIRE SILICON B1 FR</p>
DS00-1 DS00-2	Filling of gap between wall and door frame: cement mortar, lime cement or plaster mortar, glue for plaster Perfix T or olyurethane foam		
Wall requirements	Installation in walls of fire resistance according to EN 13501-2:2016, not less than EI 30 for DS30-1, DS30B-1, DS30-2, DS30B-2, and EI60 for DS60-1, DS60B-1, DS60-2, DS60-1A, DS-60-2A.		
Requirements for the dimensions of the mounting gap	$G \leq 20 \text{ MM} (S_{df}, S_{200}, \text{GAP} \leq 8 \text{ MM})$	$G \leq 20 \text{ MM} (S_{df}, S_{200}, \text{GAP} \leq 8 \text{ MM})$	$G \leq 20 \text{ MM} (S_{df}, S_{200}, \text{GAP} \leq 15 \text{ MM})$
Standard mounting gap	Gst = 7MM	Gst = 7MM	Gst = 10MM

**3.1** EXAMPLES OF METHODS OF FIXING FRAMES. CHECK COMPLIANCE WITH APPROPRIATE CERTIFICATE

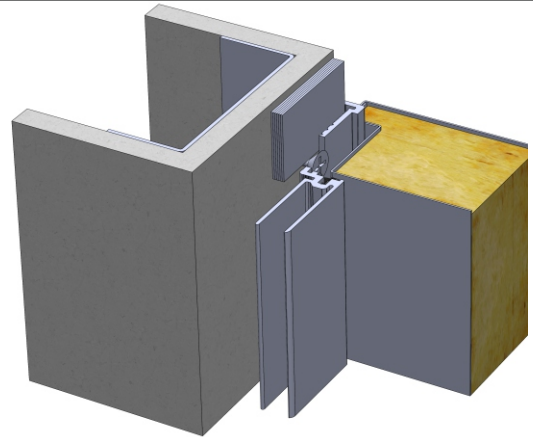


Installation to the frame studded wall on steel screws with silicate calcium slab (e.g. TECBOR, SILBOARD, PROMAT) on places of anchor fixing.

\*Or steel plate spacers for non-fire resistant doors. Spacers produced only for request.

Location of the spacers above the screw. The thickness of the spacer's plates set depends on the width of the installation gap. Ensure that the frame is vertical and not twisted.

Filling the installation gap acc. to the table on previous page.



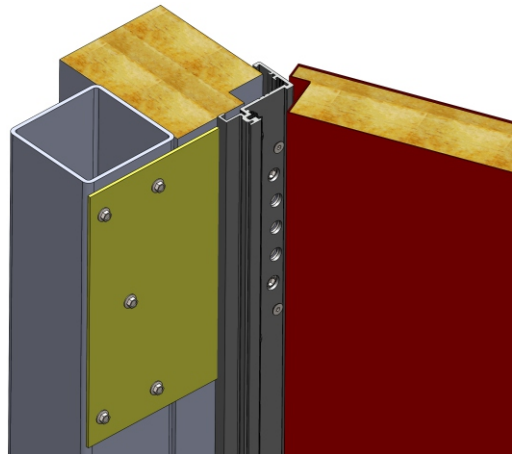
Installation of external non fire resistant doors in sandwich panel with galvanized steel plates min. 3 mm.

Installation plates are ordered individually acc. to the wall construction.

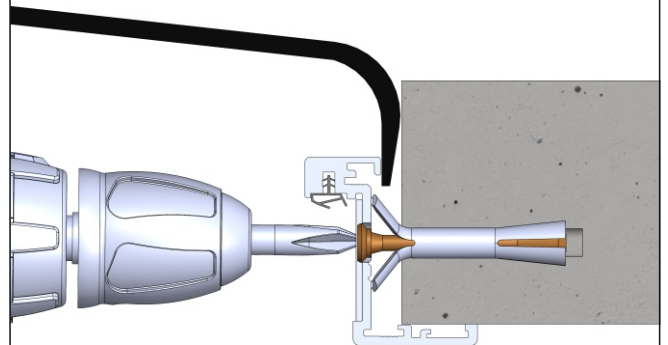
Additionally, door frame must be blocked with hardwood edges to preserve rigidity of the frame.

Special attention should be paid to bottom hinge while fixing the door frame.

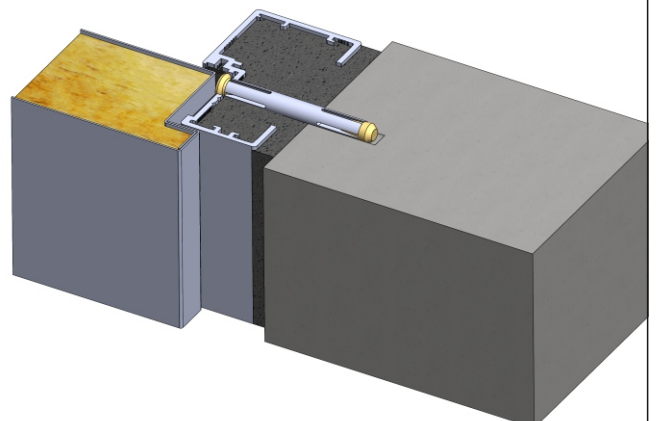
Filling of gap between wall and door frame with polyurethane foam and, as an option, dedicated membranes.



Method of tightening of anchors without usage of installation steel space plates or hardwood wedge for non-fire resistant doors.

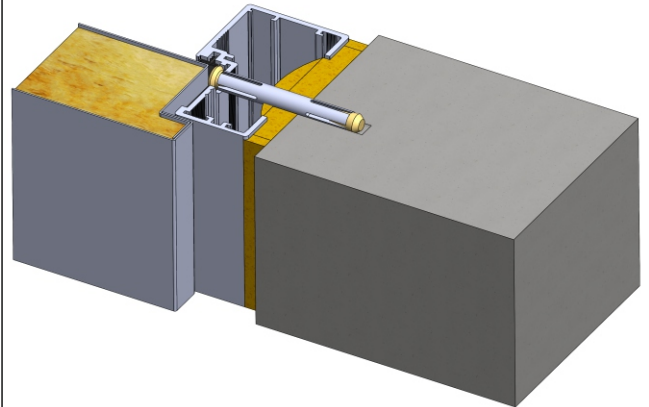


Cement mortar, lime cement or plaster mortar or glue for plaster Perlix T can be used as alternative to filling of door frame with plaster boards,.

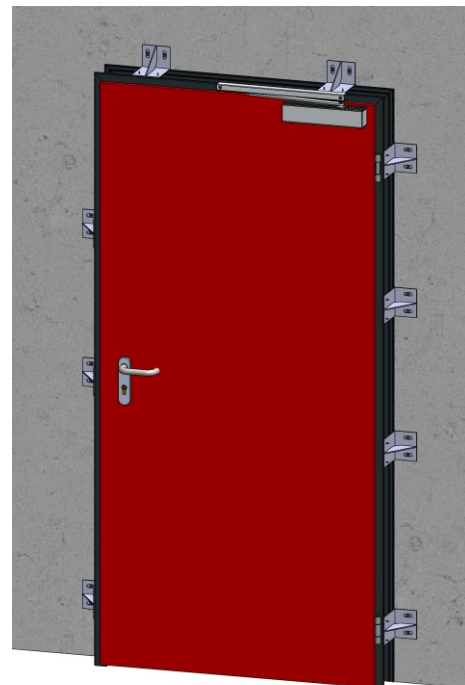
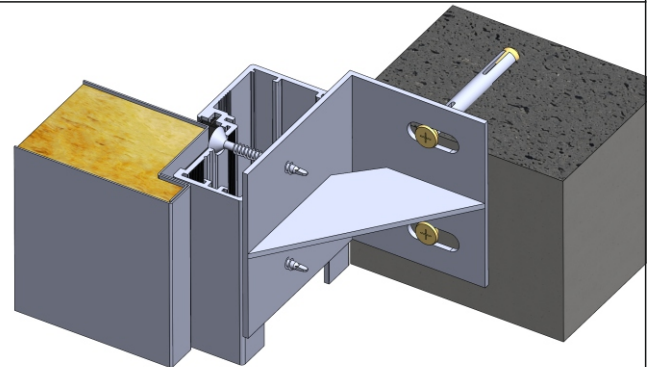


**3.2** CONTINUATION. EXAMPLES OF METHODS OF FIXING FRAMES. CHECK COMPLIANCE WITH APPROPRIATE CERTIFICATE

Filling of wall gap with polyurethane foam in internal applied non- fire resistant door in block frame



Mounting of non-fire resistant doors with steel brackets








FIXING AND FILLING MATERIALS ARE NOT INCLUDED IN DELIVERY.



IN CASE HARDWOOD WEDGES ARE USED TO PRESERVE THE FRAME RIGIDITY, THEY ARE NOT TO BE TAKEN OUT AFTER INSTALLATION AND FILLING OF THE INSTALLATION GAP. HARDWOOD WEDGES ARE ALLOWED ONLY FOR NON-FIRE RESISTANT DOORS.

**3.3 TYPES OF SCREWS:**

type of frame / type of wall	 <b>ATTENTION ! DON'T USE ANY PLASTIC ELEMENTS FOR FIXING FIRE DOORS !</b> 		NON RESISTANT DOORS	
	corner or embracing frame	rectangular frame	corner or embracing frame	rectangular frame
Sandwich frame wall of total thickness not less than 100mm for DS30-1, DS30B-1, DS30-2, DS30B-2 and 125 mm for DS60-1, DS60B-1, DS60-2, DS60-1A, DS60-2A. constructed of 12,5 mm gypsum plaster boards type F or DF according to EN 520+A1:2012, filled in with rockwool of density not less than 30 kg/m <sup>3</sup> laid in supporting construction of steel	steel self-drilling screws of size not less than Ø6,3x50mm	steel self-drilling screws of size not less than Ø6,3x85mm	steel self-drilling screws of size not less than Ø6,3x50mm	steel self-drilling screws of size not less than Ø6,3x85mm
				
- Concrete or reinforced concrete - Masonry wall of full brick or concrete blocks - Wall of hole bricks or aerated concrete blocks	steel anchors of size not less than Ø10x92mm	steel anchors of size not less than Ø10x132mm	steel anchors of size not less than Ø10x92mm	steel anchors of size not less than Ø10x132mm
				
			Dowel screw AST of size not less than Ø10x100mm	Dowel screw AST of size not less than Ø10x135mm
				

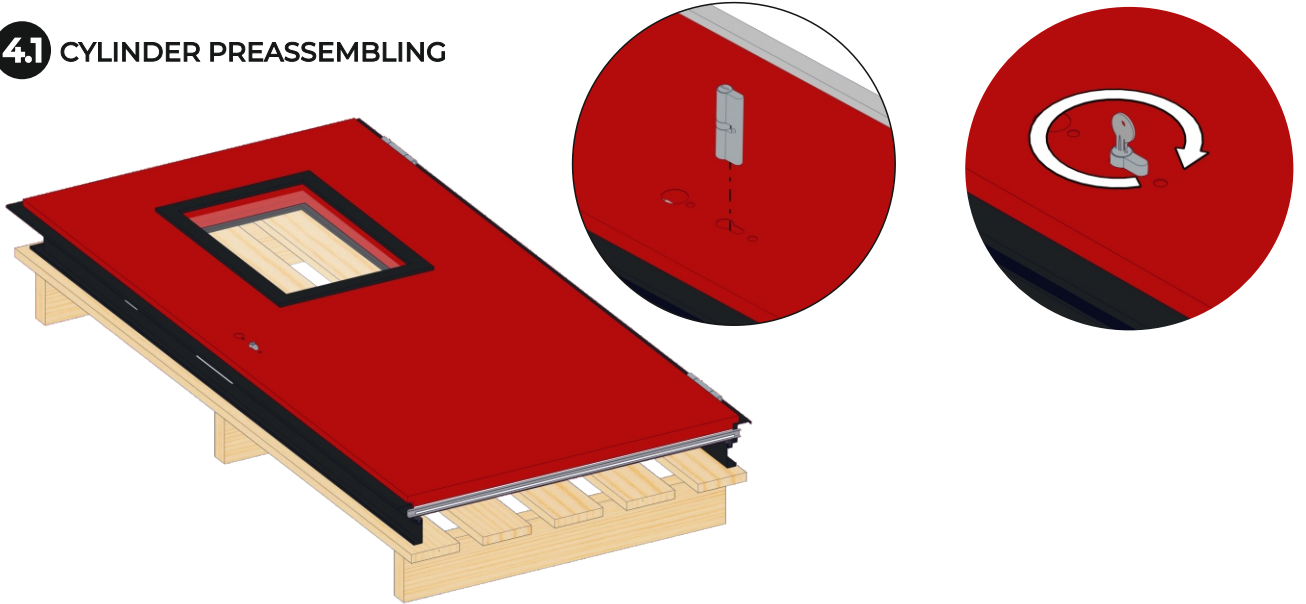
THE SIZES GIVEN FOR ANCHORS AND SCREWS ARE MINIMUM SIZES, THE APPROPRIATE LENGTH MUST BE CHOSEN WITH REGARDS TO THE ACTUAL INSTALLATION CONDITIONS

## 4 PRELIMINARY ACTIVITIES

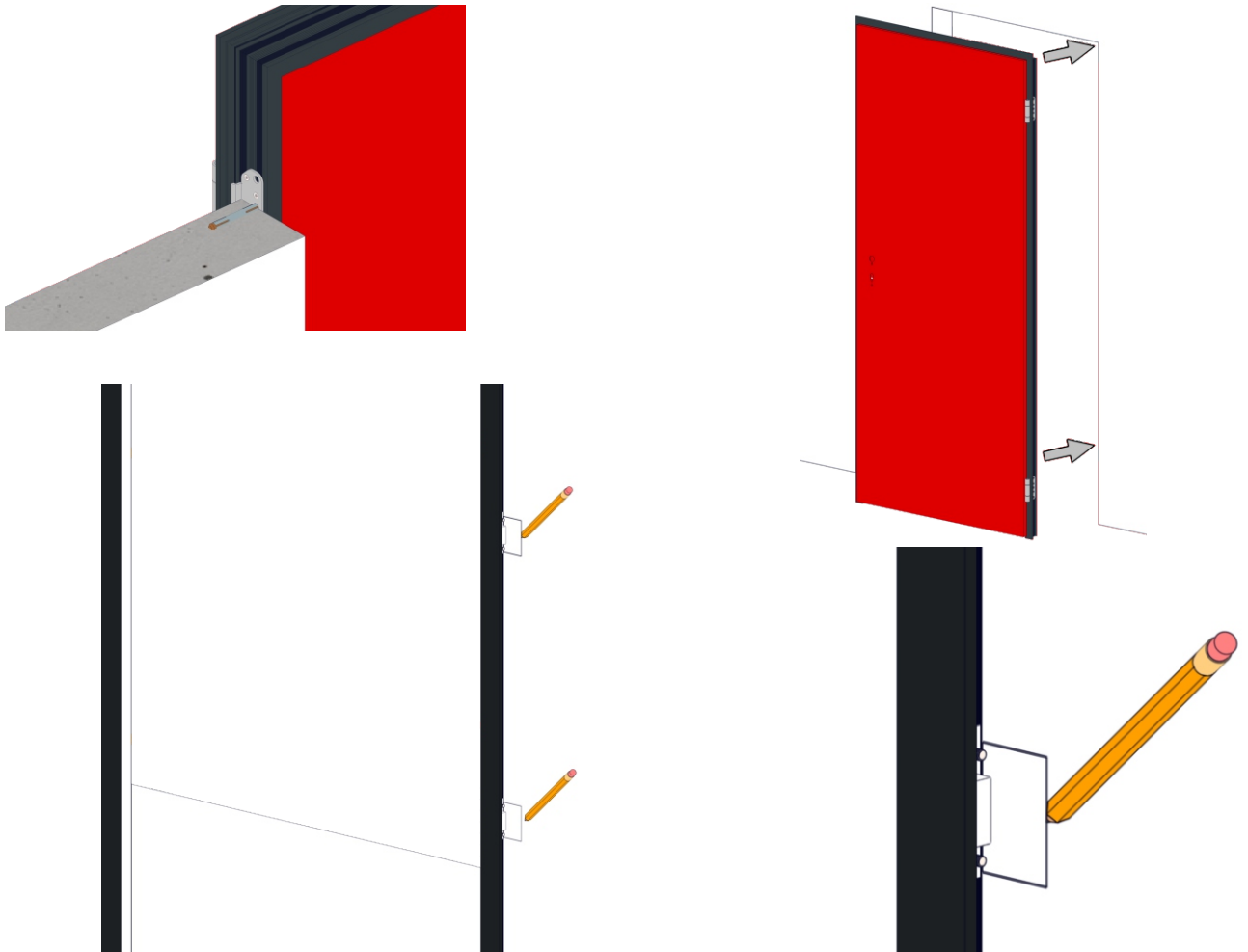
Since the weight of the leaves or/and dimensions of doors are significant, double-leaf doors sometimes are supplied in parts, frame and leaves separately.

Single doors are supplied as a set, frame and leaves together.

### 4.1 CYLINDER PREASSEMBLING

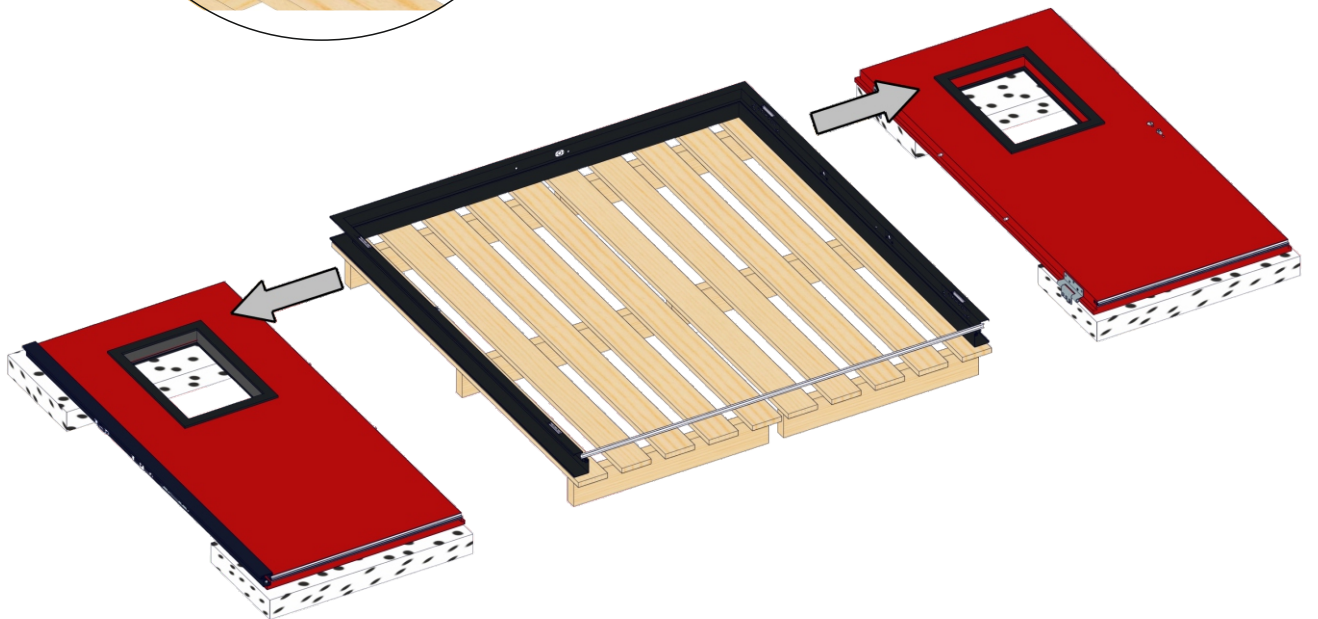
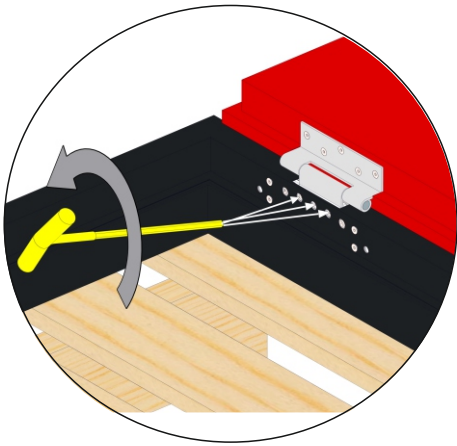
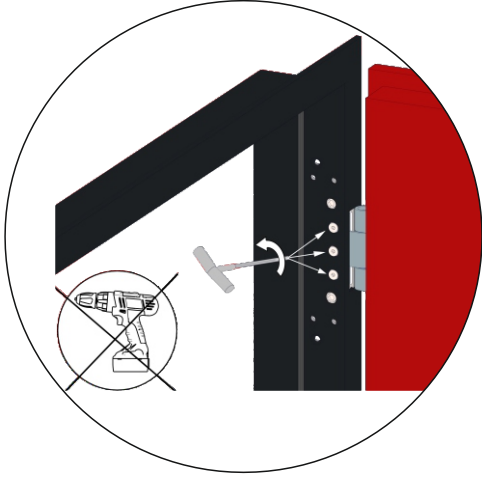


### 4.2 FOR STANDARD (NON ADJUSTABLE) HINGES WALL TO BE CUT OUT FOR LOCK AND SECURITY PIN BOXES





**4.3** OPTIONAL 3D HINGE- DISMANTLING THE DOOR  
LEAF BEFORE FIXING OF FRAME  
IS RECOMMENDED



**4.4** DISMANTLING TRANSPORTATION BENT PROFILE

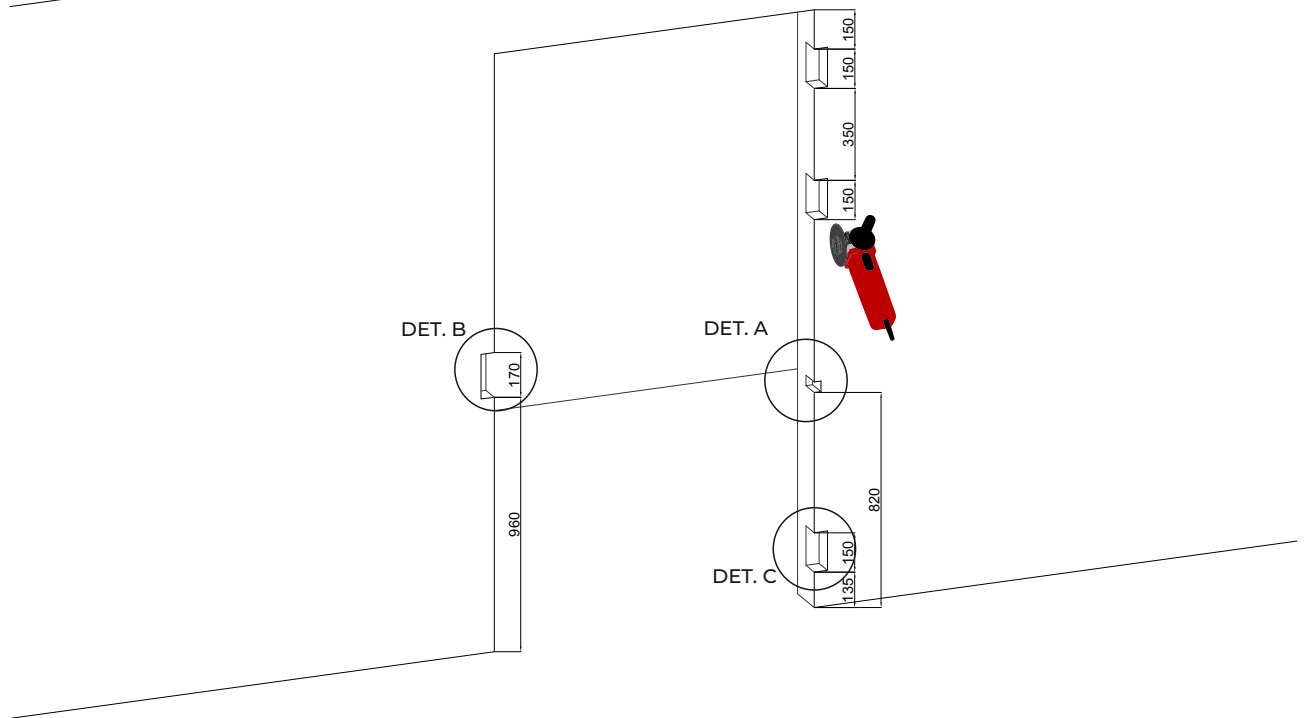
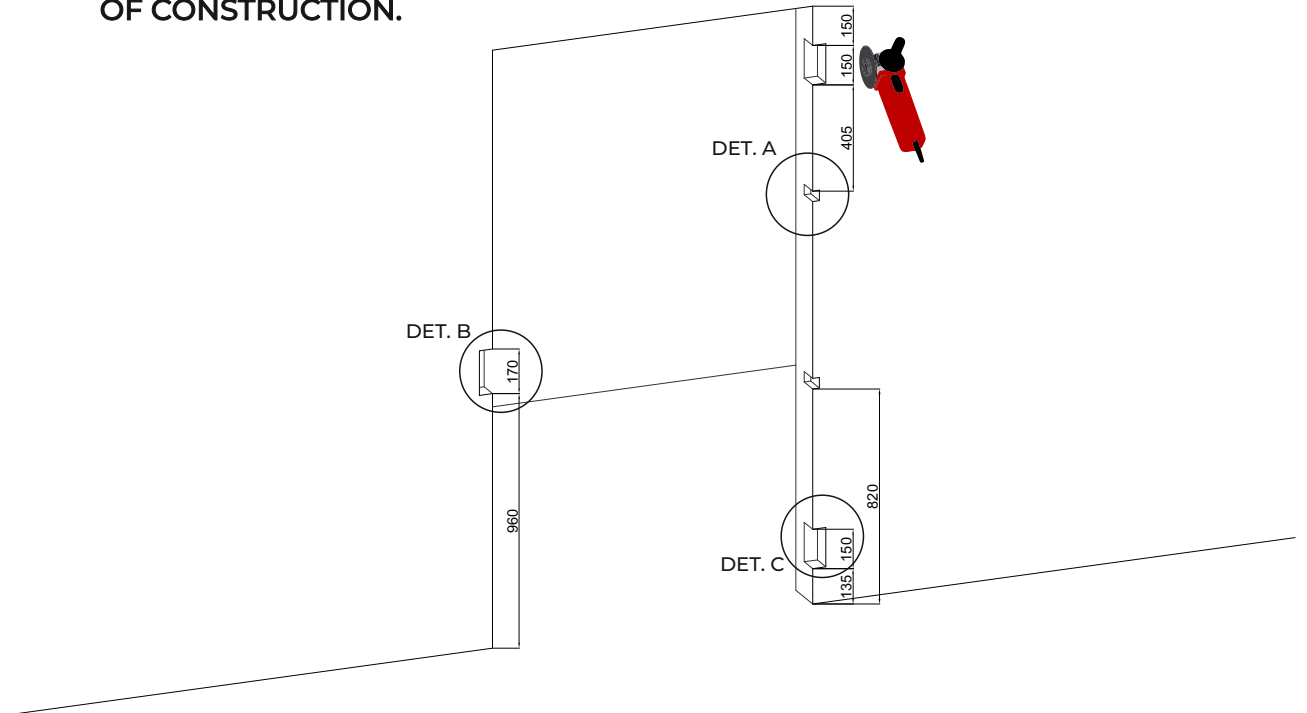


**5** PREPARATION OF THE WALL

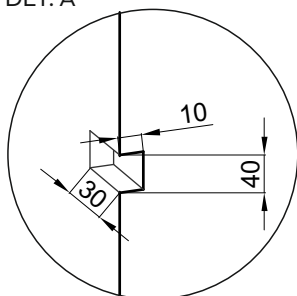


5.1

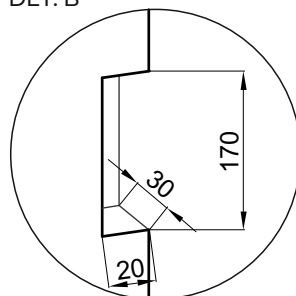
BELOW AS AN EXAMPLE OPENINGS FOR CORNER STEEL FRAME (WITH THE ASSUMPTION THAT INSTALLATION GAP IS 7 MM ON HEIGHT AND 11 MM ON EACH SIDE FOR WIDTH). PLEASE NOTE THAT SIZES, GIVEN ON DRAWINGS, ARE ILLUSTRATIVE ONLY, TO BE VERIFIED ON RECEIVED DOORS. CHANGES CAN OCCUR DEPENDING ON PARTICULAR EQUIPMENT OR AS RESULT OF AMENDMENTS OF CONSTRUCTION.



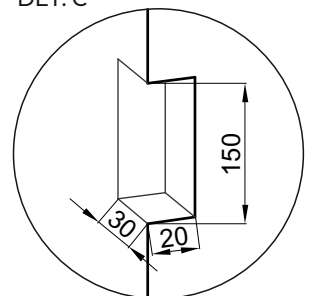
DET. A



DET. B

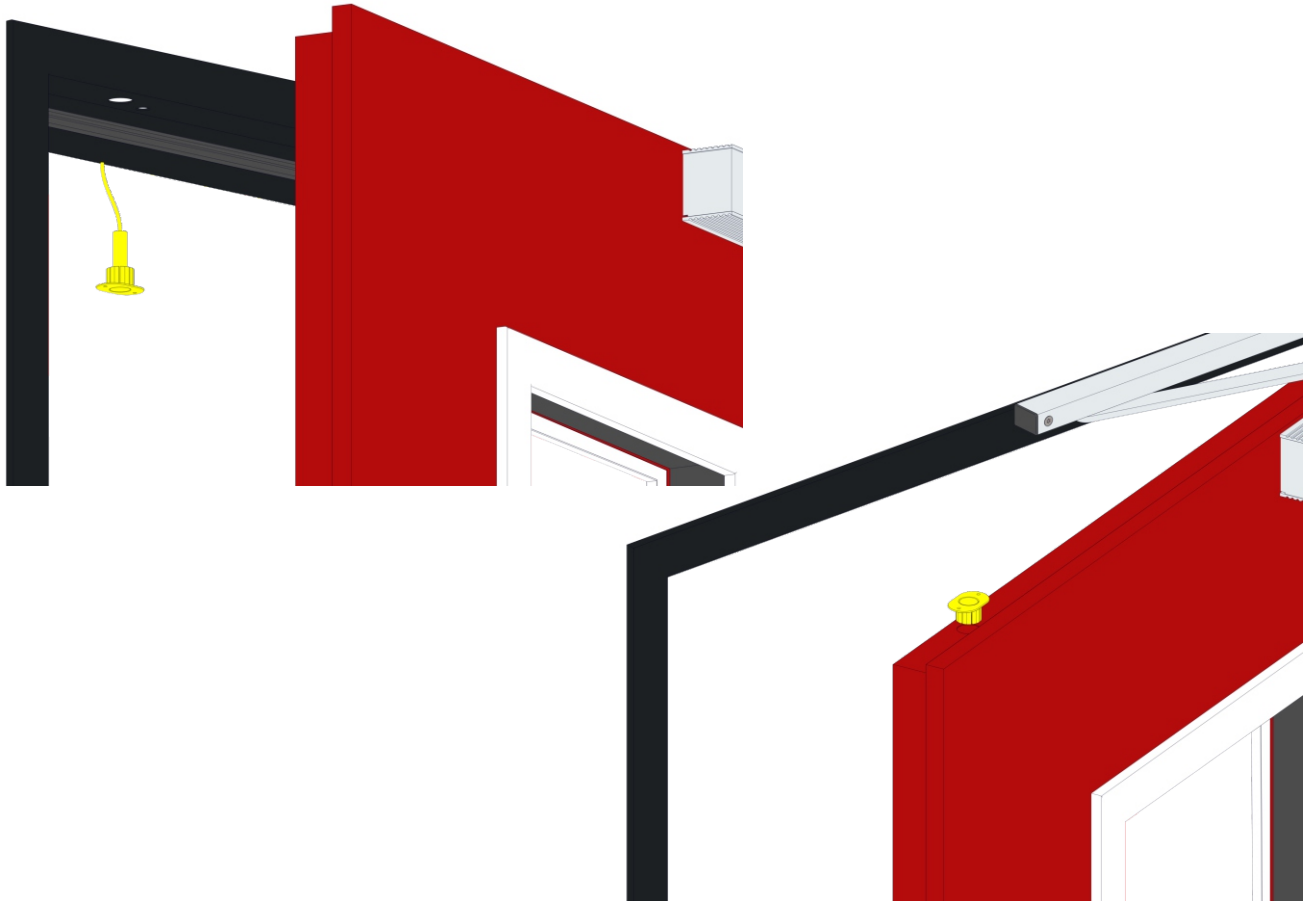


DET. C

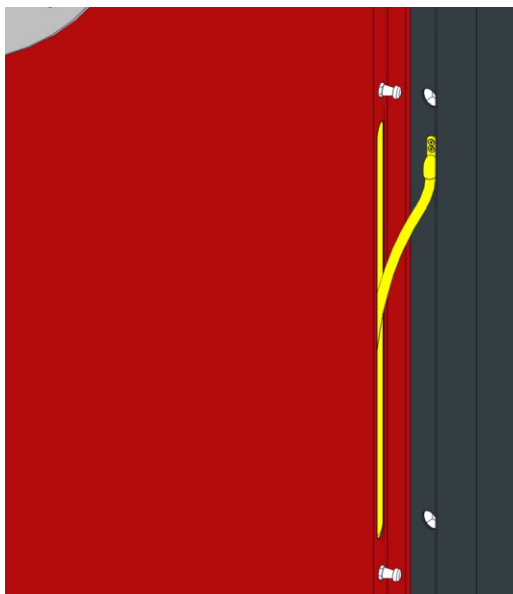


**5.2** IF ACCESS CONTROL IS PLANNED, CHECK WHETHER THE CABLE HAS BEEN DISTRIBUTED AT AN APPROPRIATE PLACE.

**5.3** FOR EXAMPLE FOR MAGNETIC CONTACT



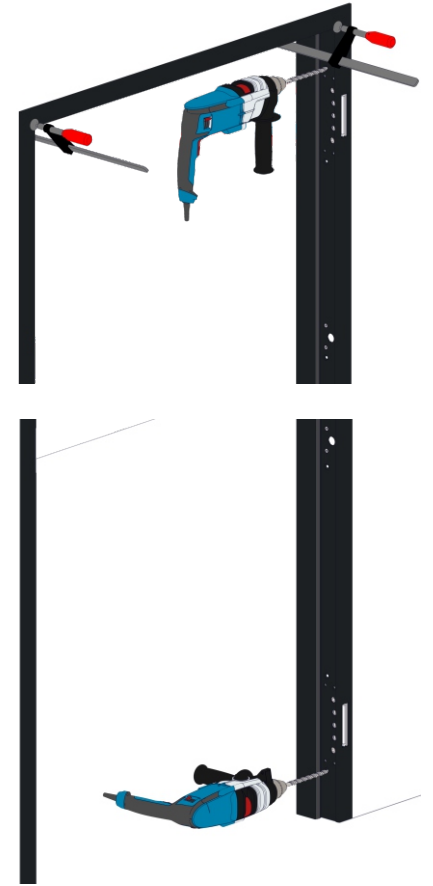
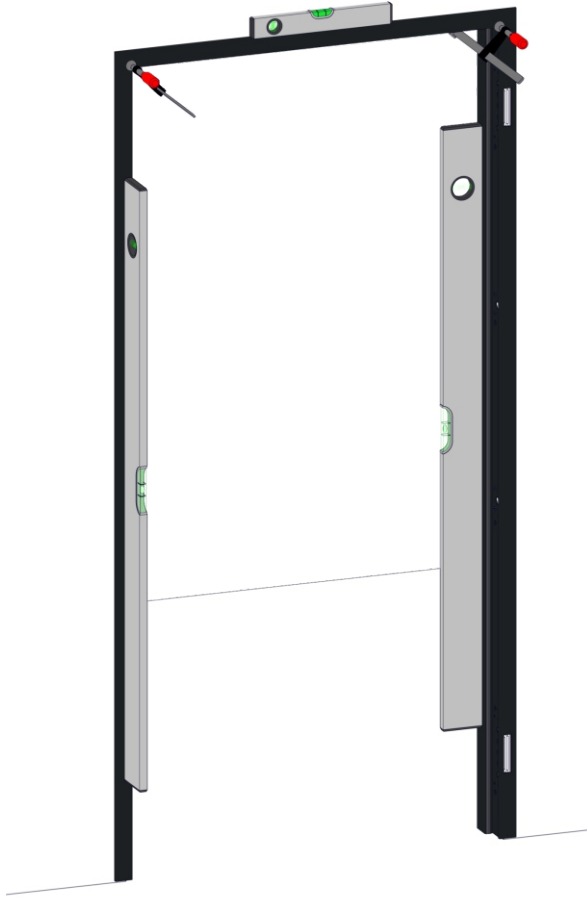
**5.4** FOR EXAMPLE FOR ELECTRICAL STRIKE/CABLE CONDUIT



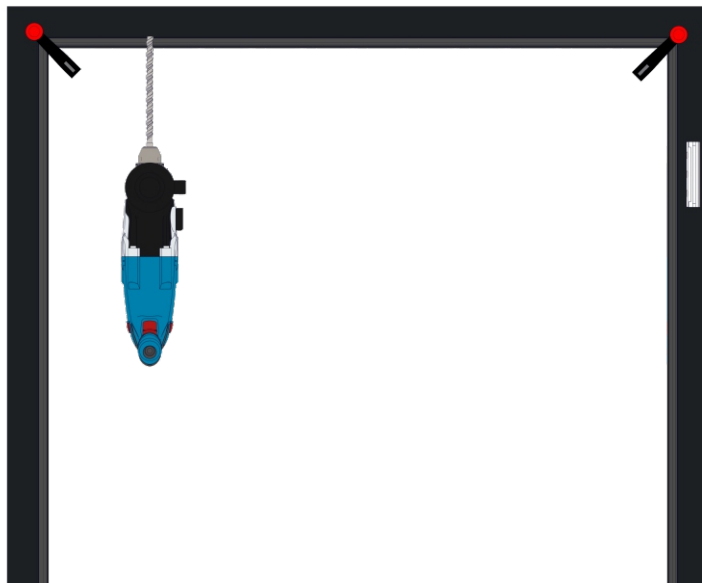
## 6 FIXING OF THE DOOR FRAME

THE QUANTITY OF ANCHORS DEPENDS ON NUMBER OF FRAME PREPARED HOLES. SCREW OPENINGS ARE PREPARED IN ACCORDANCE WITH RELEVANT CERTIFICATES. .

### 6.1 VERTICAL PARTS – START FROM HINGES SIDE

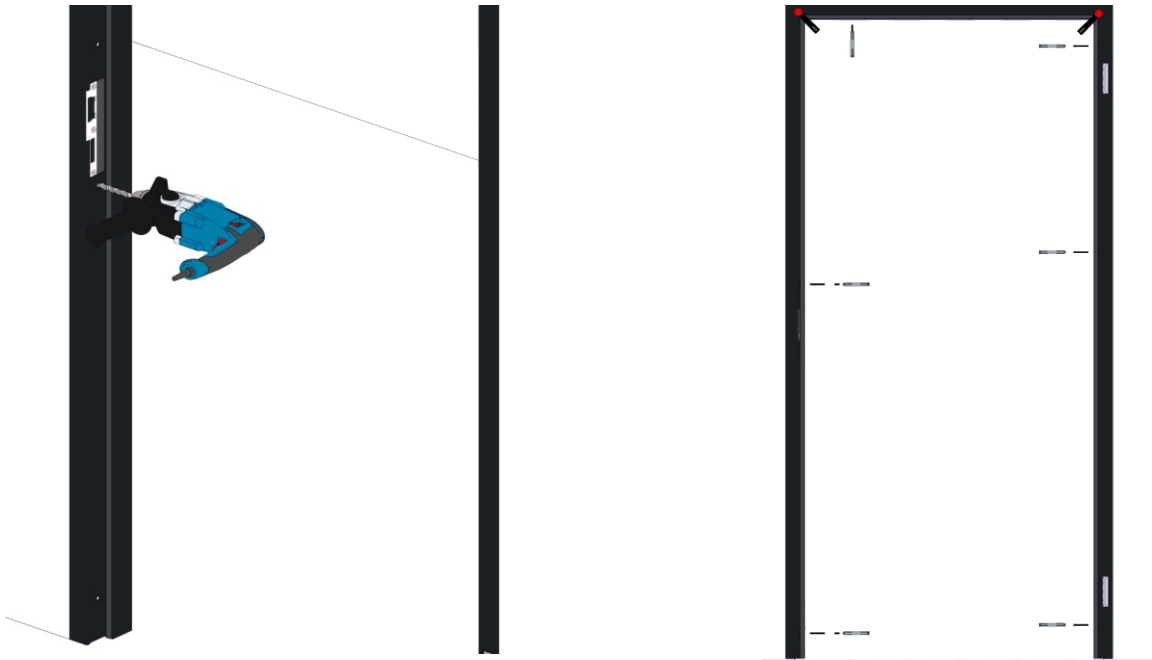


### 6.2 UPPER PART



### 6.3 VERTICAL PART – LOCK SIDE





**6.4** TIGHTENING ANCHORS WHILE CHECKING THE VERTICAL AND HORIZONTAL LEVEL

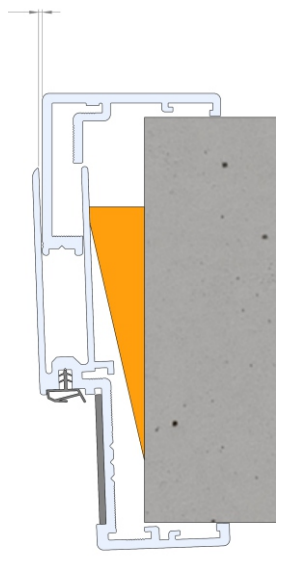
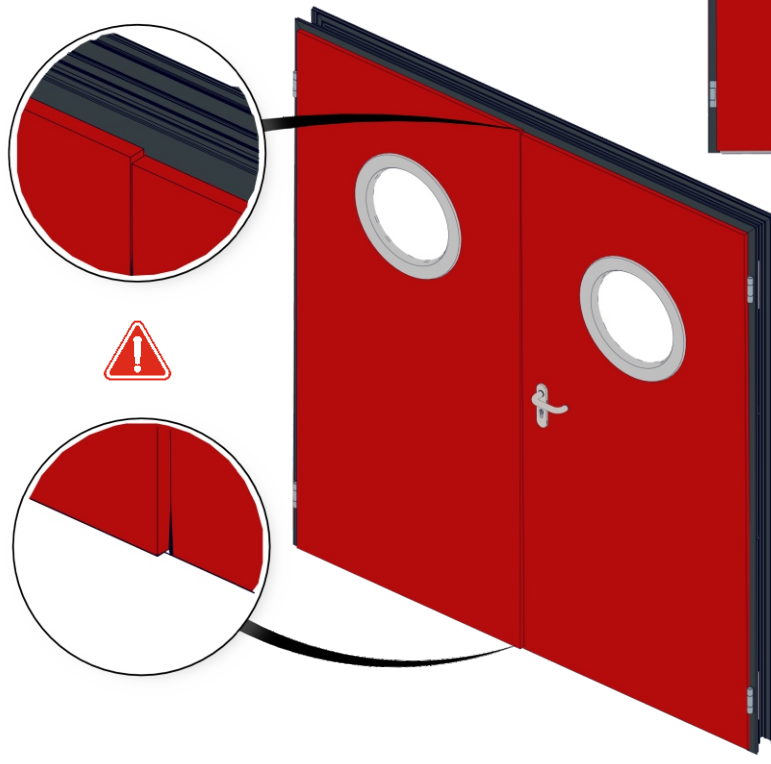
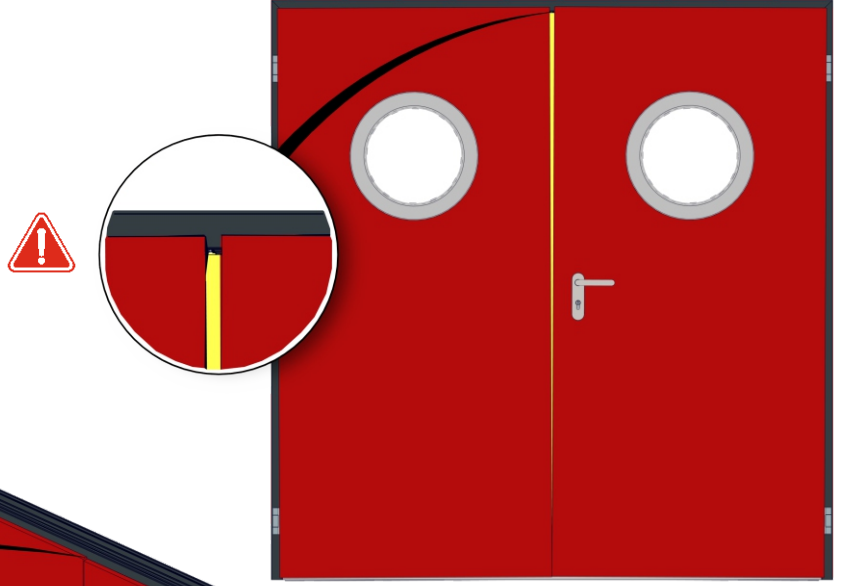
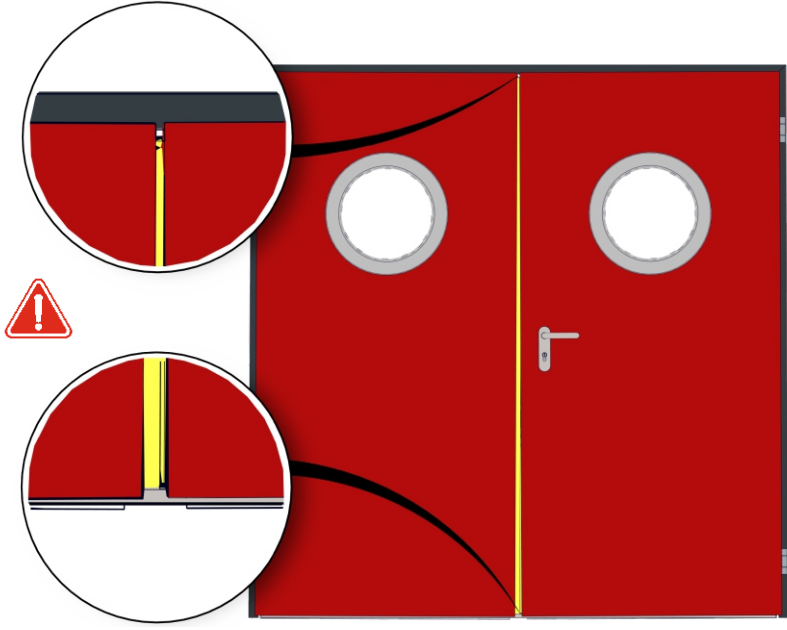


Special attention should be paid to bottom hinge while fixing the door frame!

Box (pocket) of bottom hinge should be fixed rigidly without any twisting of the frame.

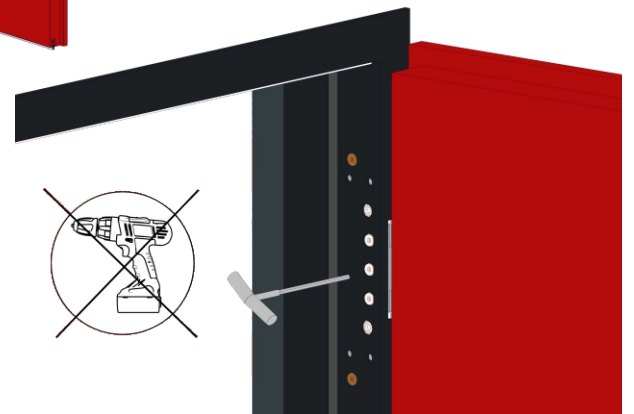
**6.5** DRILL THE REMAINING HOLES FOR THE ANCHOR IN THE WALL THROUGH THE HOLES PREPARED IN THE BOX. SUPPLEMENT WITH ANCHORS, AT THE SAME TIME CHECK WHETHER THE FRAME IS NOT TWISTED AS „PROPELLER”.

**6.6** SEE RESULTS OF INCORRECT INSTALLATION IF THE DOOR FRAME IS NOT FIXED PROPERLY AND RIGIDLY IN THE BEGINNING



**7** ASSEMBLING THE DOOR LEAF AND ITS ADJUSTMENT

**7.1** GET LEAF/LEAVES INSIDE TO THE FRAME. PRELIMINARY TIGHT SCREWS

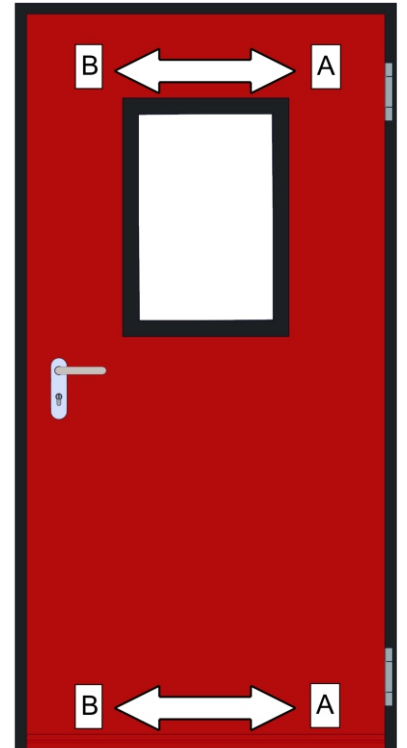
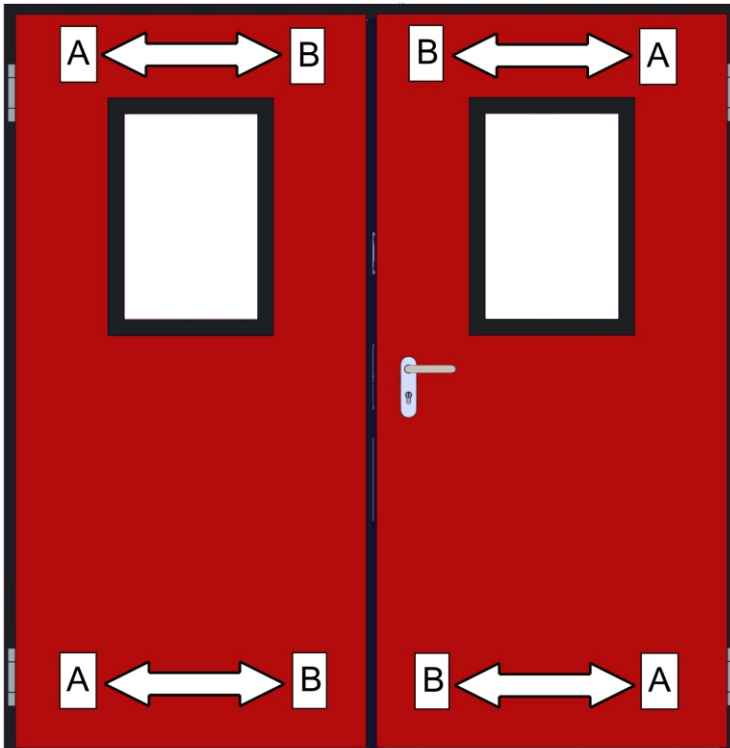
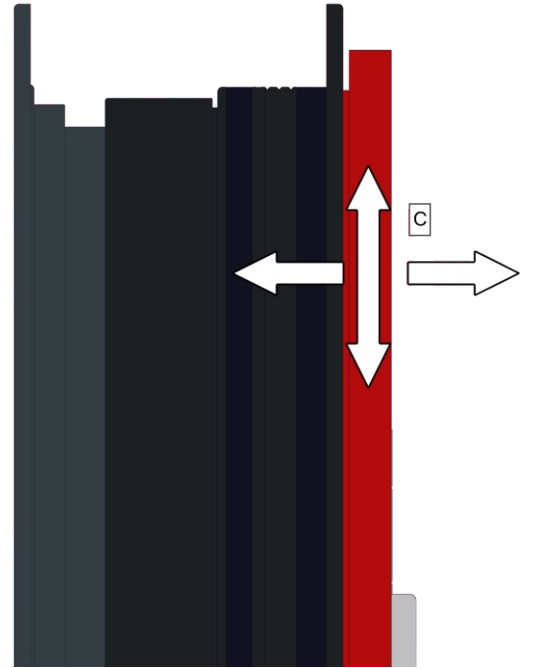
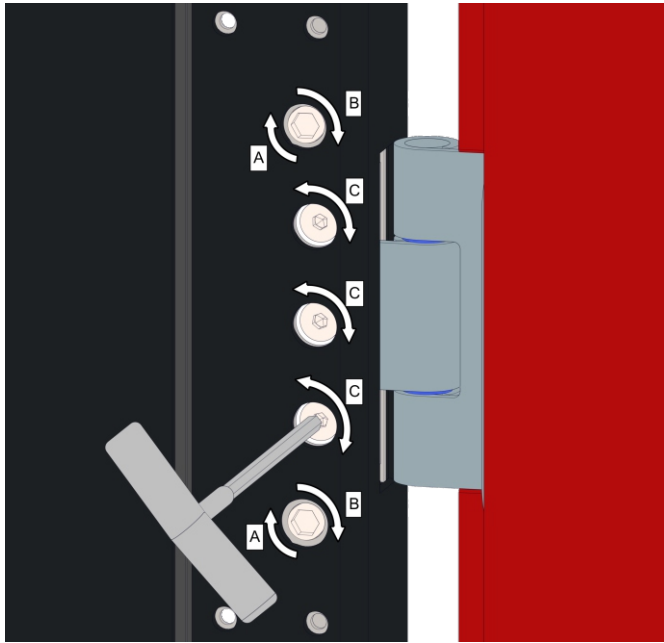


**7.2** INSTALL HANDLE AND/OR PANIC BAR

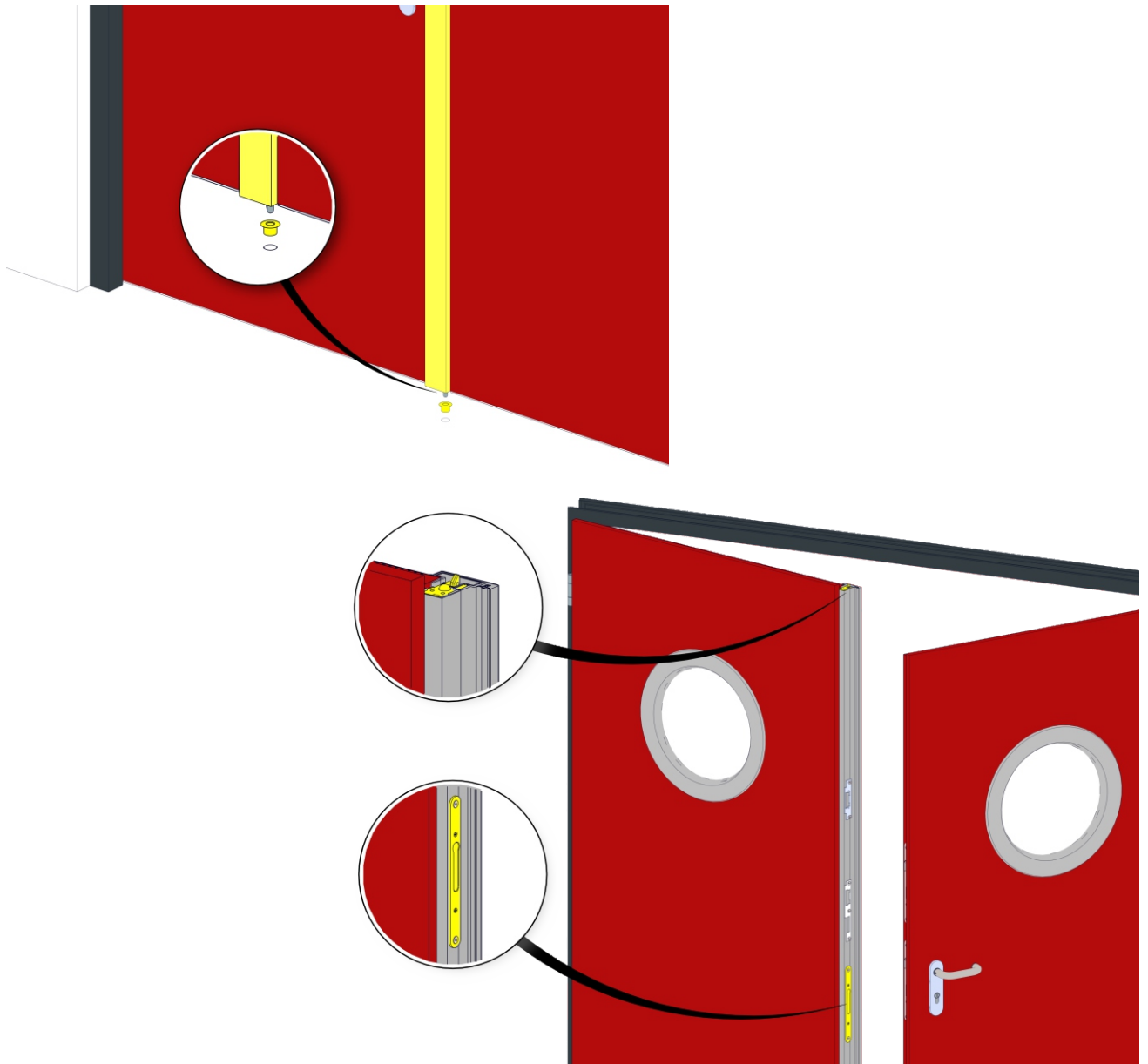




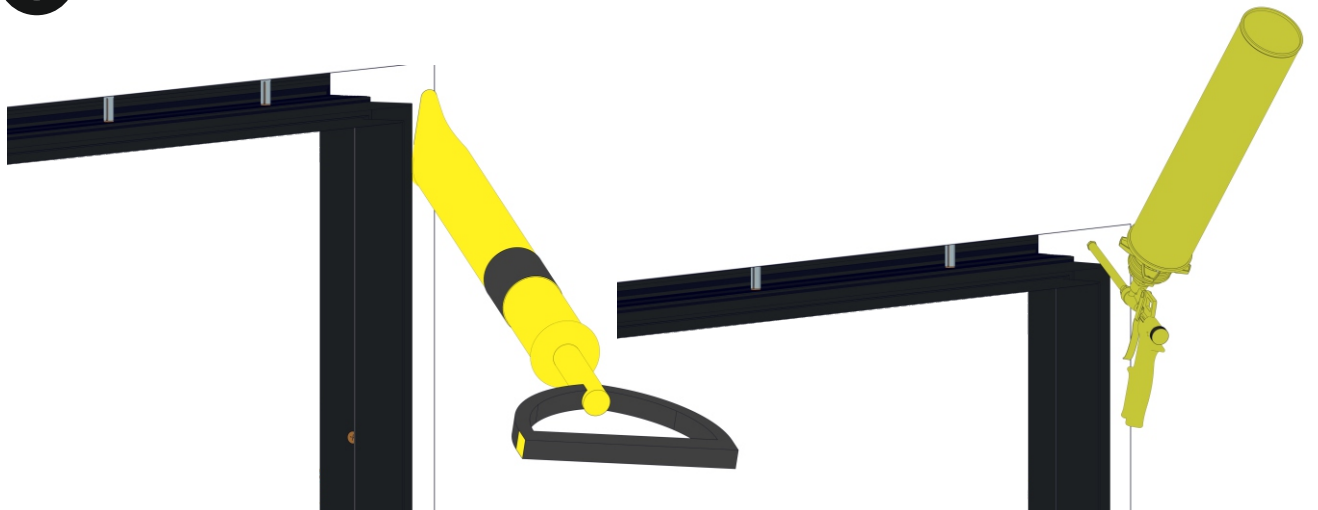
**7.3** METHOD OF ADJUSTMENT 3D HINGES



- 7.4** IN ORDER TO AVOID BENDING / BREAKING OF THE PASSIVE LEAF, FLOOR SLEEVE FOR FLUSH BOLT SHOULD BE INSTALLED IMMEDIATELY AFTER ADJUSTING THE POSITION OF THE LEAF.

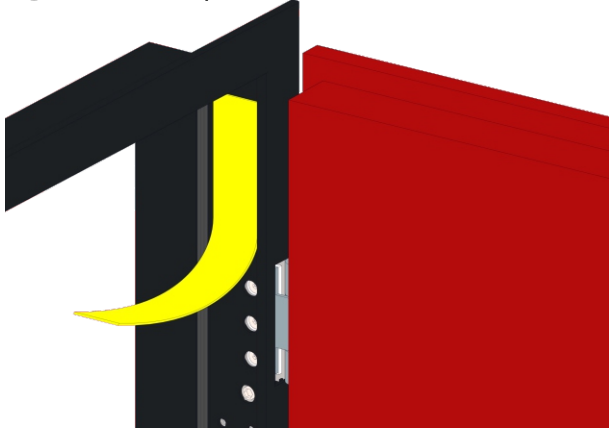


- 8** FILLING THE INSTALLATION GAP - MORTAR

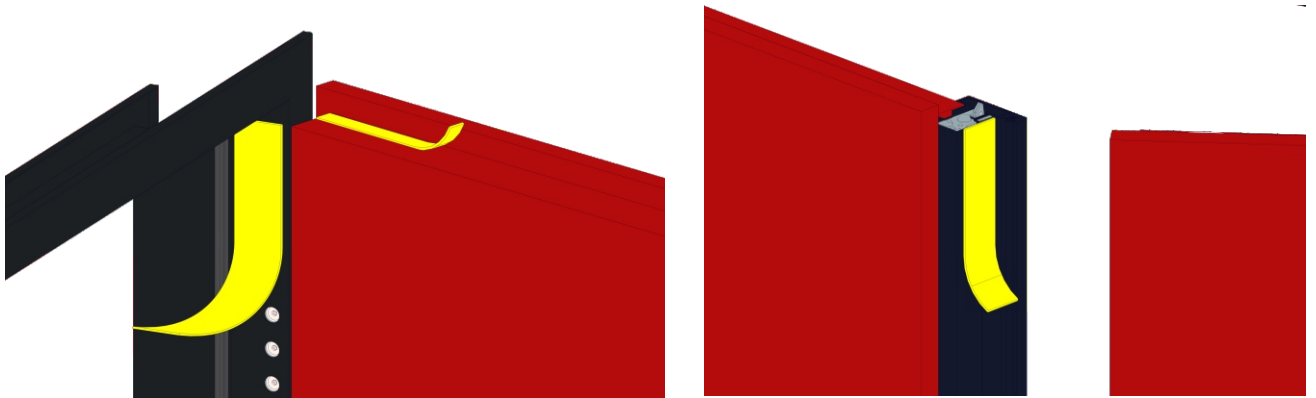


**9** FIRE RESISTANT INTUMESCENT GASKET OR EPDM GASKET FOR NON FIRE RESISTANT DOORS

**9.1** GLUEING IN PERIMETR OF FRAME FIRE RESISTANT INTUMESCENT GASKET FOR EI 30, EI60 OR EPDM GASKET FOR NON RESISTANT DOORS



**9.2** DOUBLE LEAF DOORS EI30 AND EI60 - GLUEING NARROW GASKET AT TOP OF LEAF AND AT THE FRONT OF ASTRAGAL ON PASSIVE LEAF

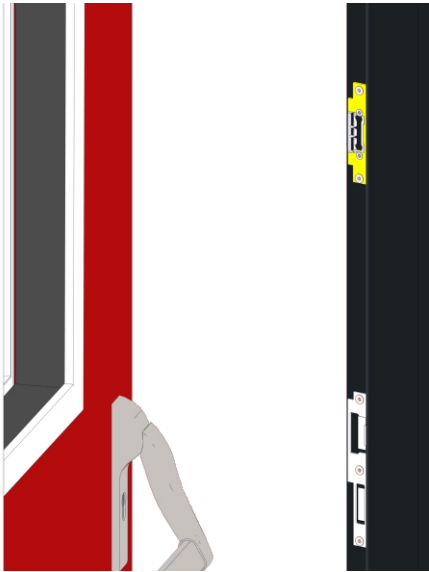


**9.3** GLUEING GASKET FOR SMOKE PROOF DOORS. ON PERIMETER OF FRAME AND ON THE ASTRAGAL FOR DOUBLE LEAF DOOR

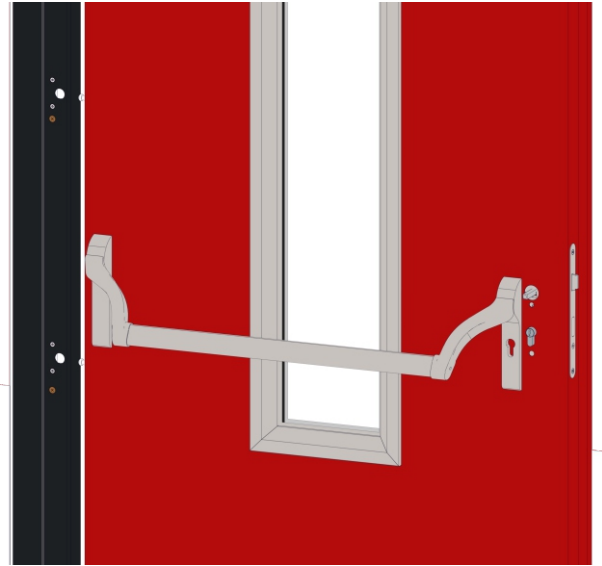


## 10 OPTIONAL EQUIPMENT

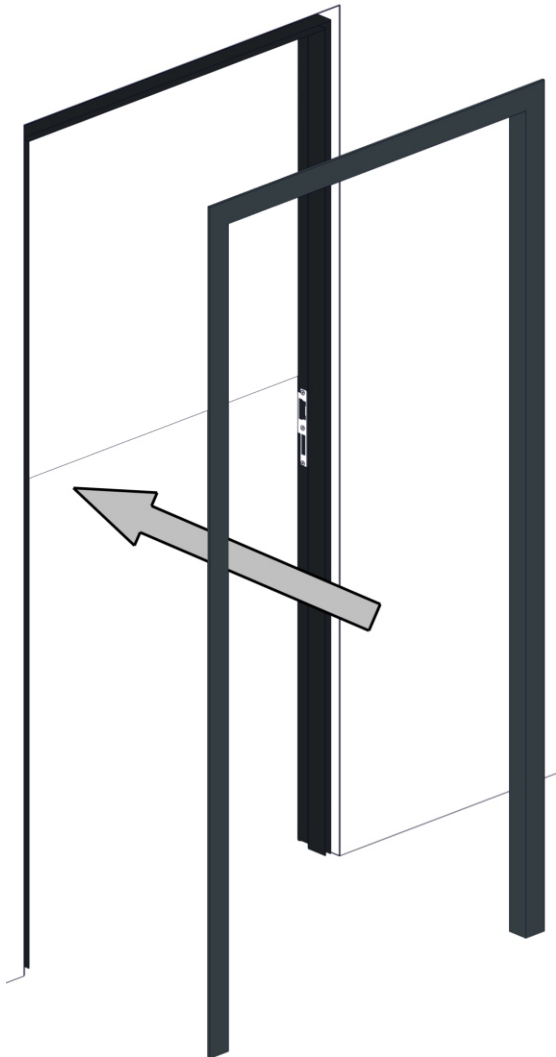
### 10.1 ELECTRICAL STRIKE



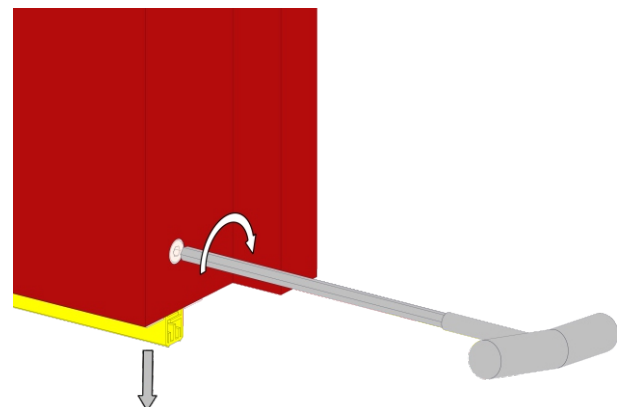
### 10.2 SYSTEM ANTIPANIC DEVICE Eco Schulte GBS+EPN900



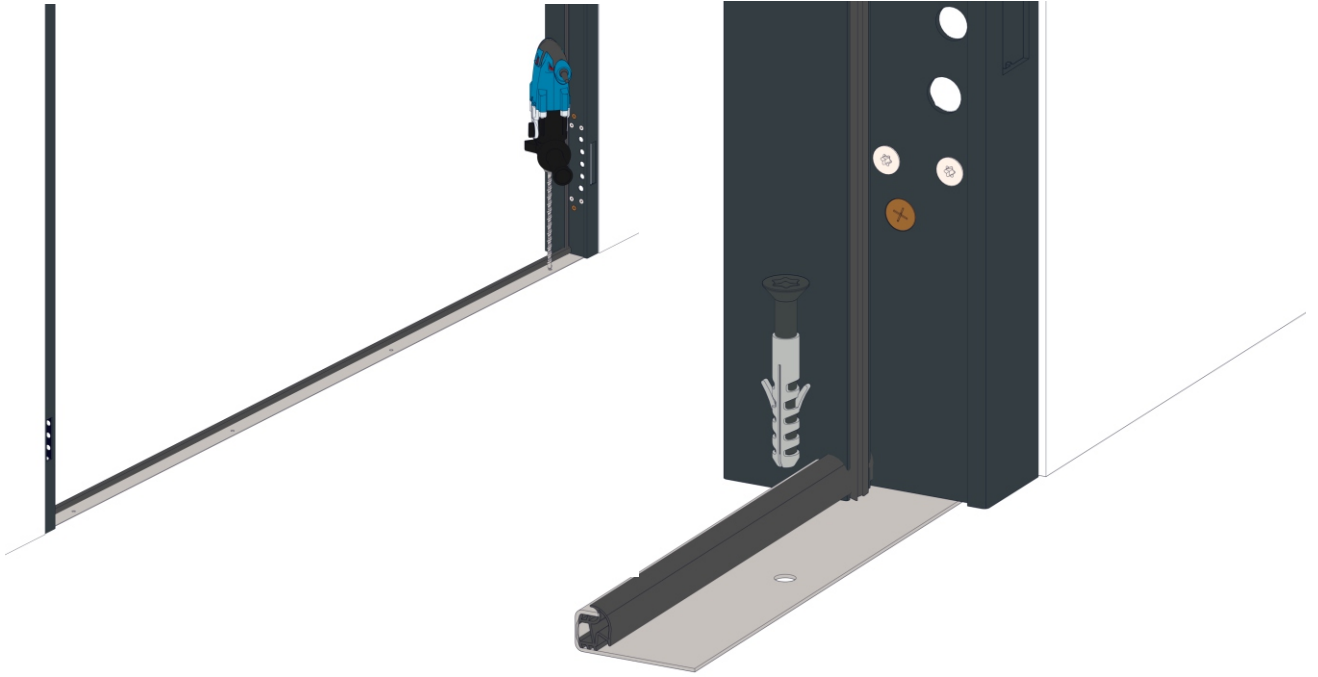
### 10.3 EMBRACING ELEMENT



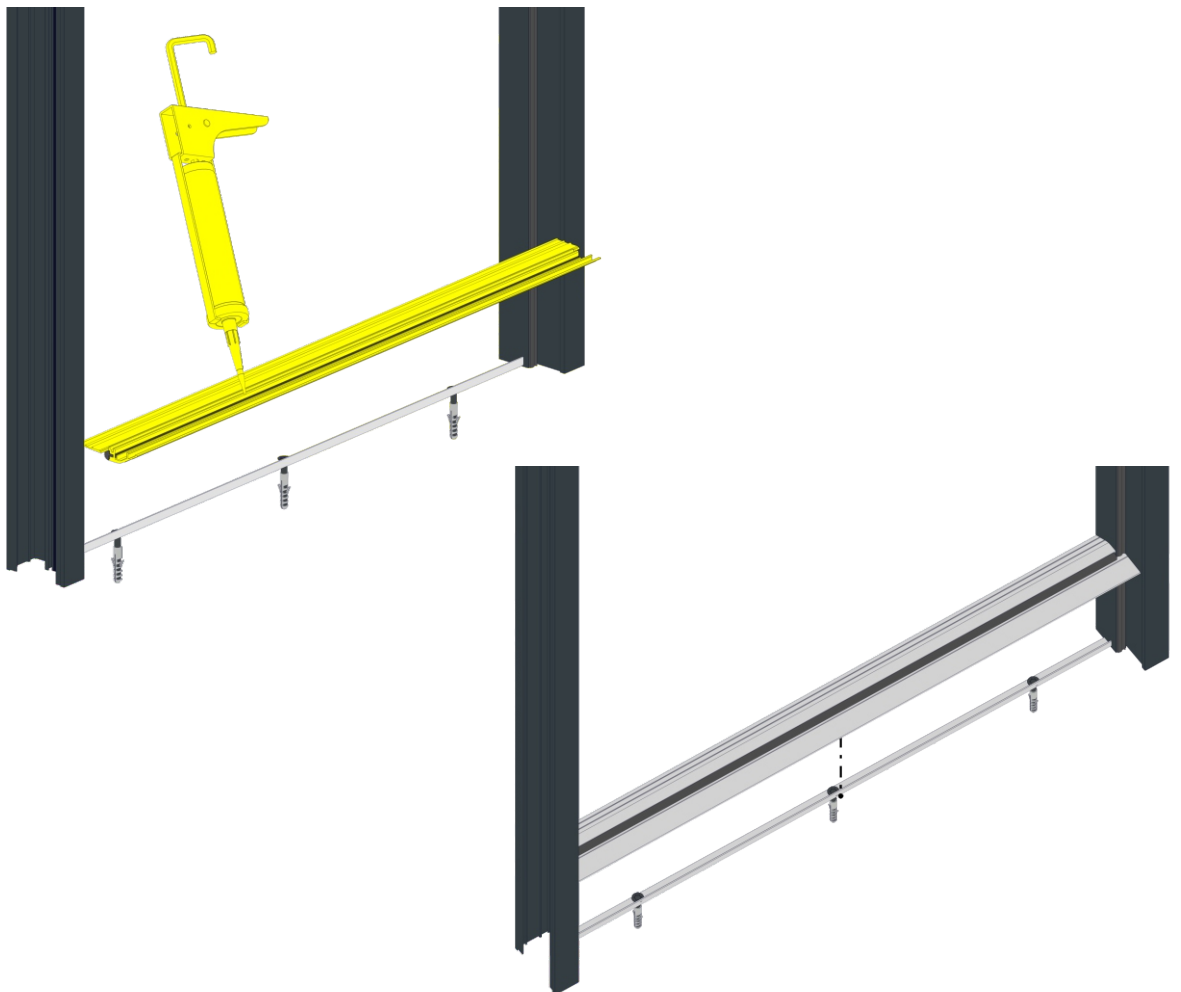
### 10.4 REGULATION OF AUTOMATIC DROP DOWN SEAL



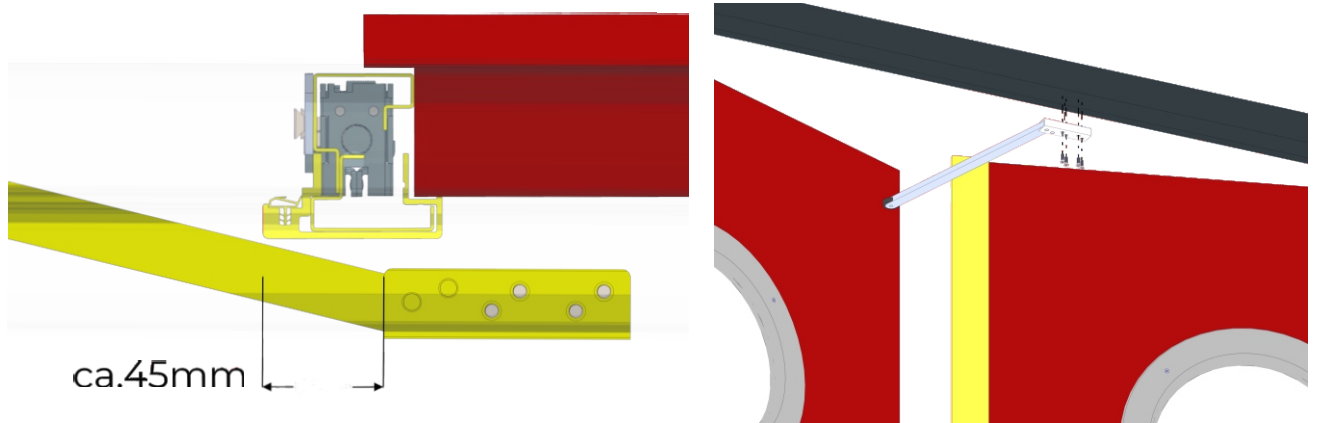
**10.5** SCREWED THRESHOLD (INOX OR RAL PAINTED)



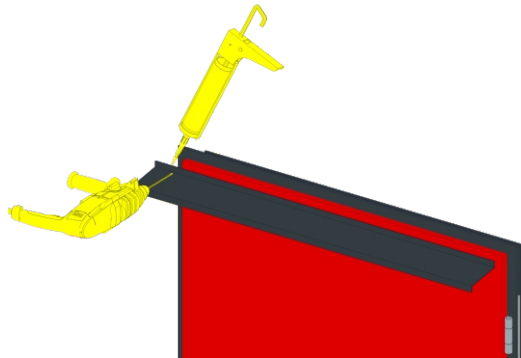
**10.6** ALU THRESHOLD



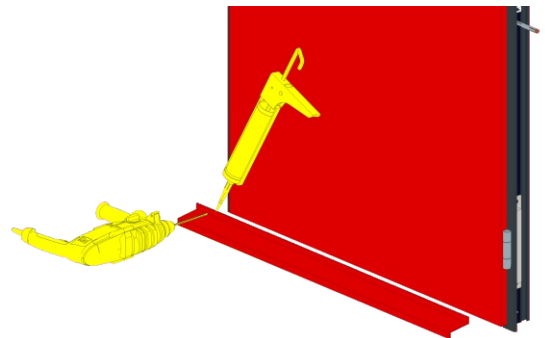
**10.7 DOOR LEAF COORDINATOR FOR DOUBLE LEAF DOORS**



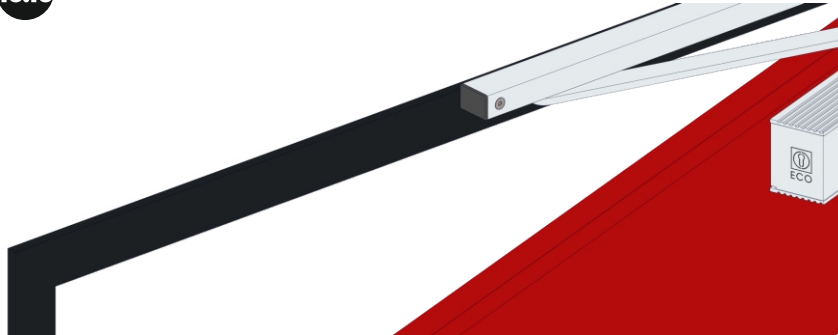
**10.8 UPPER DRIP CAP (SILICON AND RIVIETS ARE NOT INCLUDED)**



**10.9 BOTTOM DRIP CAP**



**10.10 DOOR CLOSER ECO SCHULTE OR DORMA MOUNTING ACCORDING TO PRODUCERS MANUAL**



**11 THE FILM SHOULD BE REMOVED FROM THE LEAF IMMEDIATELY AFTER INSTALLATION**

**12 WARRANTY AND HANDLING**

Standard warranty term is 12 months counted from day of delivery agreed upon in Order Confirmation. Warranty for additional equipment, such as door closers, panic bars, electric strike plates and the like may be granted based on separate documents provided by the Producers of this equipment.

Please remember:

- to stock the doors flat in a horizontal position and protect them against rain, sun and mechanical damages;
- to remove protection foil from the door's surface immediately after installation;
- to install the doors acc. to the proper certificate ;
- that DFM EUROPE is not responsible for errors and claims caused from incorrect installation;
- to keep DFM warranty maintain the doors and fittings min. each six months;
- each fault must be repaired immediately;
- do not clean doors and equipment with agressive fluids, it could cause corrosion even on stainless steel elements;

The guarantee of DFM Europe Sp. z o.o is defined in General Conditions of Sale published on [dfm-europe.eu](http://dfm-europe.eu), or in Order Confirmation.