



INSTALLATION MANUAL OF DOORS TYPE DFM DS
v. 2.7 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



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.



IDENTIFICATION, HANDOVER AND NOMENCLATURE

e. g DFM DS 60-2: DS = STEEL DOOR

60= EI60



2 = double leave



DURING HANDOVER OF GOODS FROM TRANSPORT COMPANY CHECK PACKAGING AND QUANTITY OF DOORS AND CARTONS. IN CASE OF ANY CLAIM A NOTE ON CMR MUST BE MADE AND PHOTOS TAKEN AND SENT TO: it@dfm-europe.eu

ORDER

PROJECT NAME „Yacht Park Gdynia”

PROJECT DOOR NUMBER „B17-D6”, „B6-D6”

PACKING LIST

PROJECT NAME Yacht Park Gdynia”

PROJECT DOOR NUMBER „B17-D6”

INDIVIDUAL PRODUCTION DOOR NUMBER 2137/2019/004

LABEL ON THE CARTON WITH EQUIPMENT

PROJECT NAME Yacht Park Gdynia”

PRODUCTION NUMBER PART OF ORDER 2137/2019

QUANTITY AND NUMBER OF CARTON: 2/3

LABEL ON THE DOOR

PROJECT NAME „Yacht Park Gdynia”

PROJECT DOOR NUMBER „B17-D6”

INDIVIDUAL PRODUCTION DOOR NUMBER 2137/2019/004

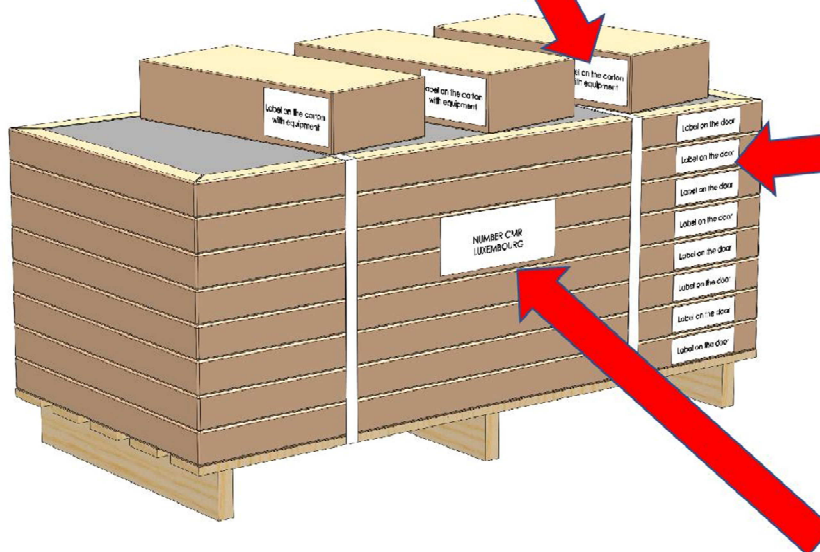
CMR

PRODUCTION NUMBER PART OF ORDER

2137/2019

1345/2019

1589/2019



ADDITIONAL INFORMATION ON THE SIDE OF PALLET

CMR NUMBER „573”

DELIVERY ADDRESS „GDYNIA”

DOOR LABEL:

DFM DS-60-1-OB.
Nr zlecenia / Production Nr.

02137/2019/004

980 x 2040 L

Oznaczenie projektowe / Project Name
B17 - D6 Project : Yacht Park, Gdynia

Data Produkcji / Prod Date : 2019-10-08 Kolor

EQUIPMENT LABEL:

DFM DS
Nr zlecenia / Production Nr.

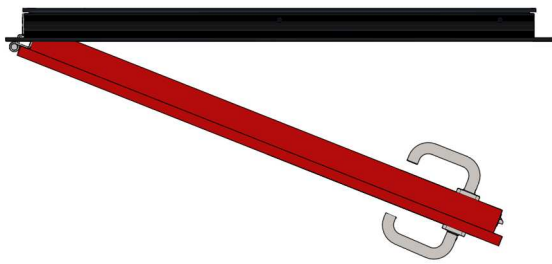
02137-PL-2019

PACZKI / EQUIPMENT 1/1

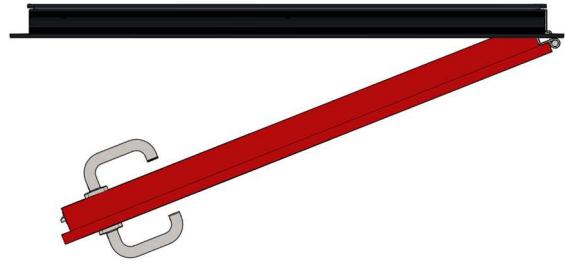
Oznaczenie projektowe / Project Name
B6 - D6 Project : Yacht Park, Gdynia

Data Produkcji / Prod Date : 2019-10-08

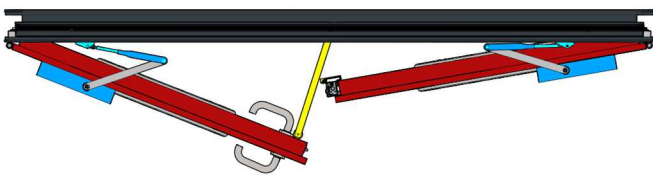
DIN LEFT



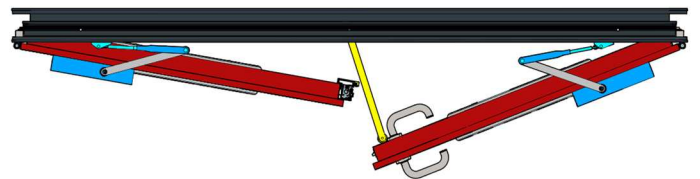
DIN RIGHT



DIN LEFT

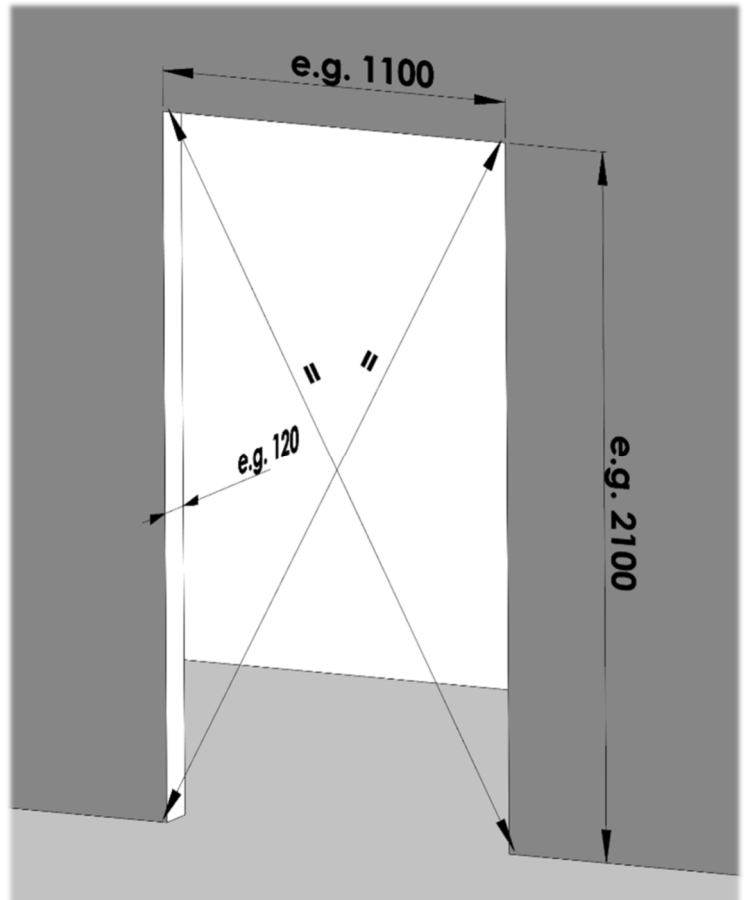
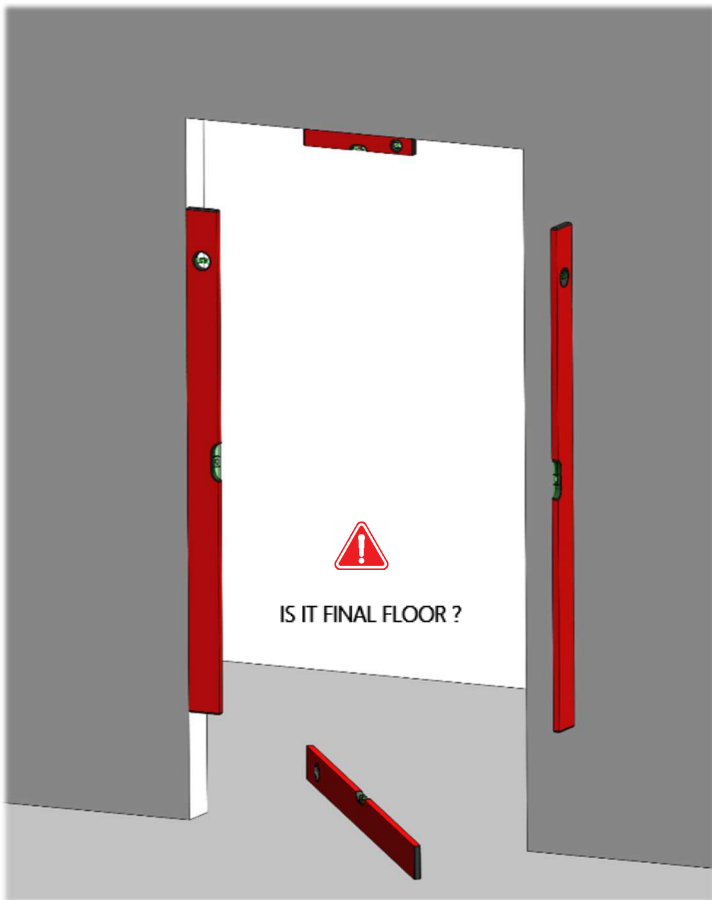


DIN RIGHT



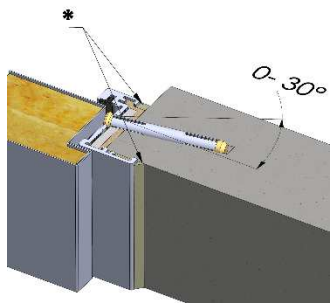
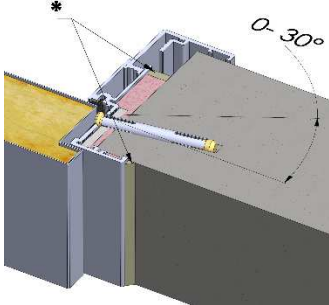
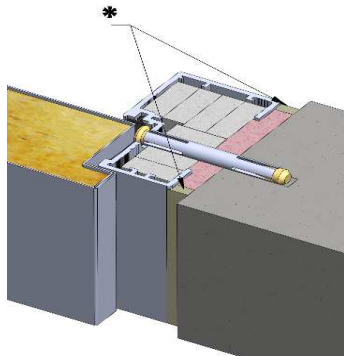


2

CHECK THE WALL OPENING



3


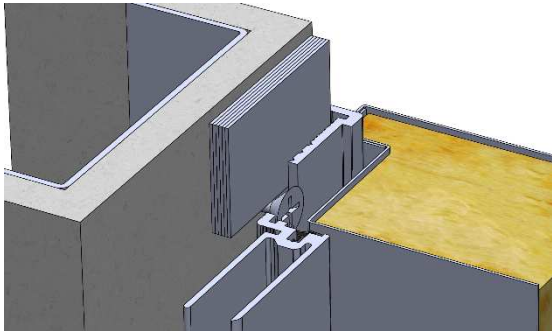
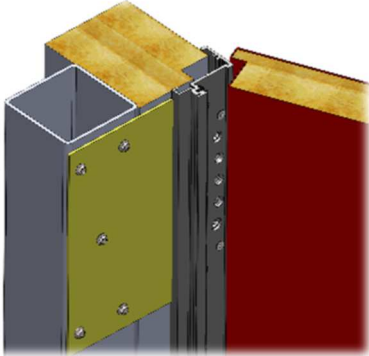
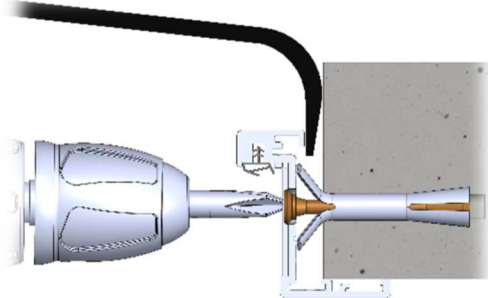

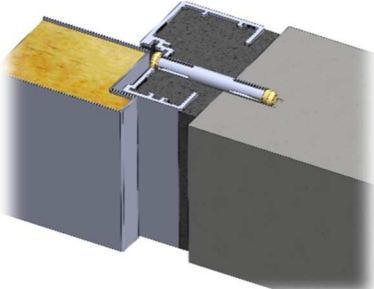
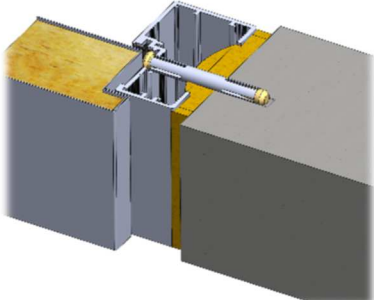
INSTALLATION METHODS - MAKE SURE THAT PROPER INSTALLATION MATERIAL IS APPLIED

	CORNER FRAME	EMBRACING FRAME	RECTANGULAR FRAME
TYPE OF DOOR FRAME			
 EI ₂ 30 EI ₁ 30	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> ✓ cement mortar, lime cement or plaster mortar ✓ rockwool of density min. 50kg/m³ + fire retardant mass or cement mortar or glue ✓ glue for plaster Perfix T ✓ fire resistant polyurethane foam and silicate calcium band on places of anchor fixing + fire retardant mass 	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> ✓ cement mortar, lime cement or plaster mortar ✓ rockwool of density min. 50kg/m³ + fire retardant mass or cement mortar or glue ✓ glue for plaster Perfix T ✓ fire resistant polyurethane foam and silicate calcium band on places of anchor fixing + fire retardant mass 	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> ✓ cement mortar, lime cement or plaster mortar ✓ rockwool of density min. 50kg/m³ + fire retardant mass or cement mortar or glue ✓ glue for plaster Perfix T, ✓ fire resistant polyurethane foam and silicate calcium band on places of anchor fixing + fire retardant mass <p>Filling of door frame:</p> <ul style="list-style-type: none"> ✓ plaster boards type A or F 9.5÷12.5mm ✓ cement mortar, lime cement or plaster mortar ✓ glue for plaster Perfix T <ul style="list-style-type: none"> ✓ fire resistant polyurethane foam and silicate calcium band on places of anchor fixing (except smoke doors)
Type of wall for EI ₂ 30, EI ₁ 30	Installation in walls of fire resistance according to EN 13501-2:2016, not less than EI 30		
 EI ₂ 60	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> ✓ cement mortar, lime cement or plaster mortar ✓ rockwool of density min. 50kg/m³ + fire retardant mass or cement mortar or glue ✓ glue for plaster Perfix T 	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> ✓ cement mortar, lime cement or plaster mortar ✓ rockwool of density min. 50kg/m³ + fire retardant mass or cement mortar or glue ✓ glue for plaster Perfix T 	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> ✓ cement mortar, lime cement or plaster mortar ✓ rock wool of density min. 50kg/ m³+ fire retardant mass or cement mortar or glue ✓ glue for plaster Perfix T <p>Filling of door frame:</p> <ul style="list-style-type: none"> ✓ plaster boards type A or F 9.5÷12.5mm ✓ cement mortar, lime cement or plaster mortar ✓ glue for Plater Perfix T
Type of wall for EI ₂ 60	Installation in walls of fire resistance according to EN 13501-2:2016, not less than EI 60		
Gap dim.	GAP ≤ 20 mm (S _a , S ₂₀₀ : GAP ≤ 8 mm)		GAP ≤ 20 mm (S _a , S ₂₀₀ : GAP ≤ 8 mm)
For doors without fire resistance	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> ✓ cement mortar, lime cement or plaster mortar ✓ glue for plaster Perfix T ✓ polyurethane foam 	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> ✓ cement mortar, lime cement or plaster mortar ✓ glue for plaster Perfix T ✓ polyurethane foam 	<p>Filling of gap between wall and door frame:</p> <ul style="list-style-type: none"> ✓ cement mortar, lime cement or plaster mortar ✓ glue for plaster Perfix T ✓ polyurethane foam



* Fixing and filling materials are not included in delivery. For information on materials for filling the wall gap in acoustic doors please contact DFM sales department.

















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

 <p>Installation to the frame studded wall on steel screws with silicate calcium slab (e.g. TECBOR, SILBOARD, PROMAT) on places of anchor fixing.</p> <p>*Or steel plate spacers for non-fire resistant doors. Spacers produced only for request.</p> <p>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.</p> <p>Filling the installation gap acc. to the table from page 4.</p>	
<p>Installation of external non fire resistant doors in sandwich panel with galvanized steel plates min. 3 mm.</p> <p>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.</p> <p>Special attention should be paid to bottom hinge while fixing the door frame.</p> <p>Filling of gap between wall and door frame with polyurethane foam and (as option) dedicated membranes.</p>	
<p>Method of tightening of anchors without usage of installation steel space plates or hardwood wedge for non-fire resistant doors.</p>	
 <p>Filling of the wall gaps</p> <p>As alternative to filling of door frame with plaster boards, cement mortar, lime cement or plaster mortar or glue for plaster Perfix T can be used.</p>	
<p>Filling of wall gap with polyurethane foam in internal applied non- fire resistant door in block frame</p>	



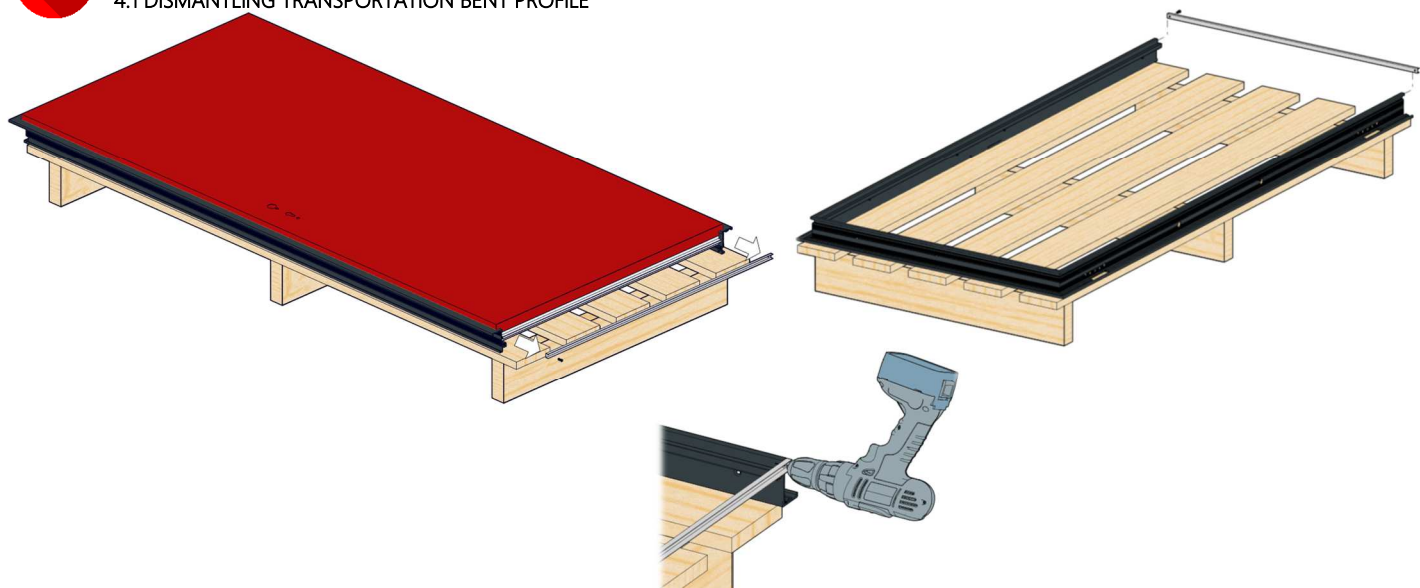
IN CASE HARDWOOD WEDGES ARE USED TO PRESERVE THE FRAME RIGIDITY, THEY ARE NOT TO BE TAKEN OUT AFTER INSTALLATION AND FILLING OF THE INSTALLATION GAP. HARDWOOD WEDGES ARE ALLOWED ONLY FOR NON-FIRE RESISTANT DOORS.

TYPES OF USED SCREWS

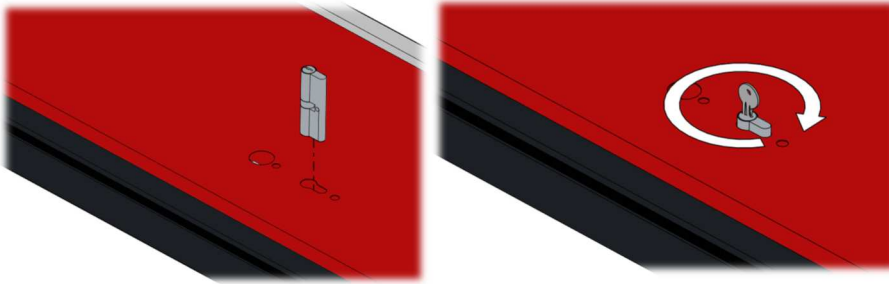
Wall / door frame types	DFM DS EI 00 Corner and embracing frame	DFM DS EI ₂ 30 EI ₂ 60, EI ₁ 30 Corner and embracing frame DON'T USE ANY PLASTIC ELEMENTS FOR FIXING FIRE DOORS ! 	DFM DS EI 00 Rectangular frame	DFM DS EI ₂ 30 EI ₂ 60, EI ₁ 30 Rectangular frame DON'T USE ANY PLASTIC ELEMENTS FOR FIXING FIRE DOORS ! 
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 Ø10x92 mm.  Dowel screw AST of size not less than Ø10/100 	steel anchors of size not less than Ø10x92 mm. 	steel anchors of size not less than Ø10x132 mm.  Dowel screw AST of size not less than Ø10/100 	steel anchors of size not less than Ø10x132 mm. 
Sandwich frame wall of total thickness not less than 100mm for EI ₂ 30 and 125 mm for EI ₂ 60, EI ₁ 30. 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 ³ laid in supporting construction of steel	Steel screws of size not less than Ø6,3x50mm  	Steel screws of size not less than Ø6,3x50mm  	Steel screws of size not less than Ø6,3x85mm  	Steel screws of size not less than Ø6,3x85mm  

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

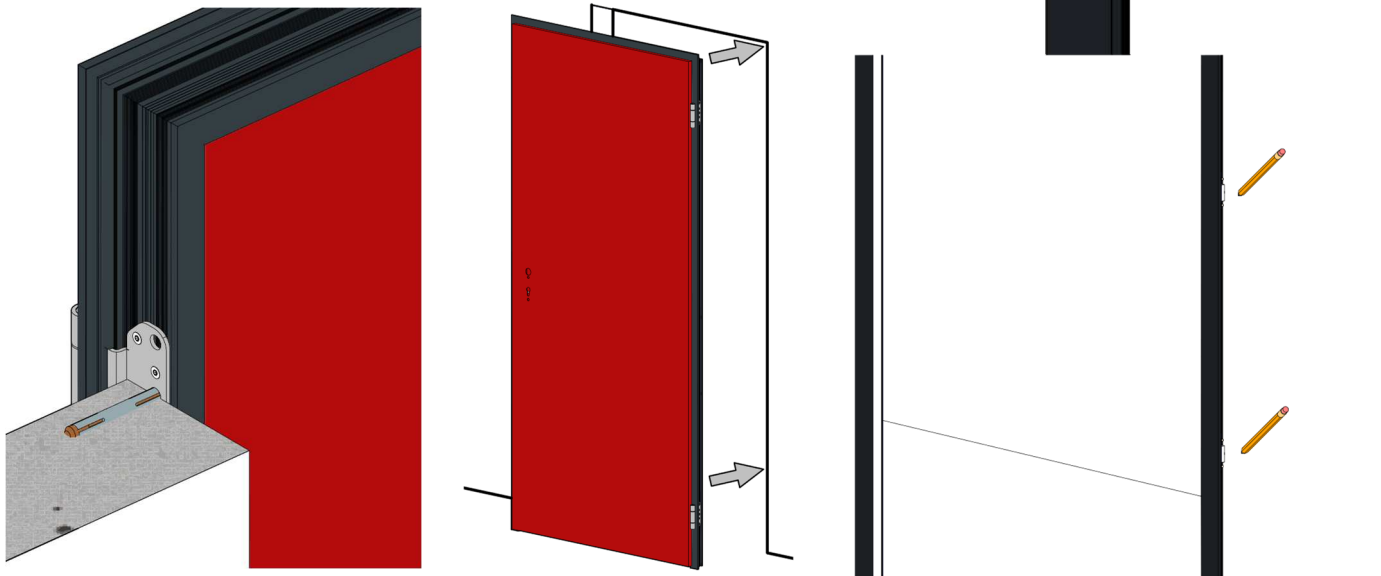
4 **CYLINDER PREASSEMBLING, DISMANTLING OF DOOR LEAF AND PREPARATION OF THE WALL**
4.1 DISMANTLING TRANSPORTATION BENT PROFILE



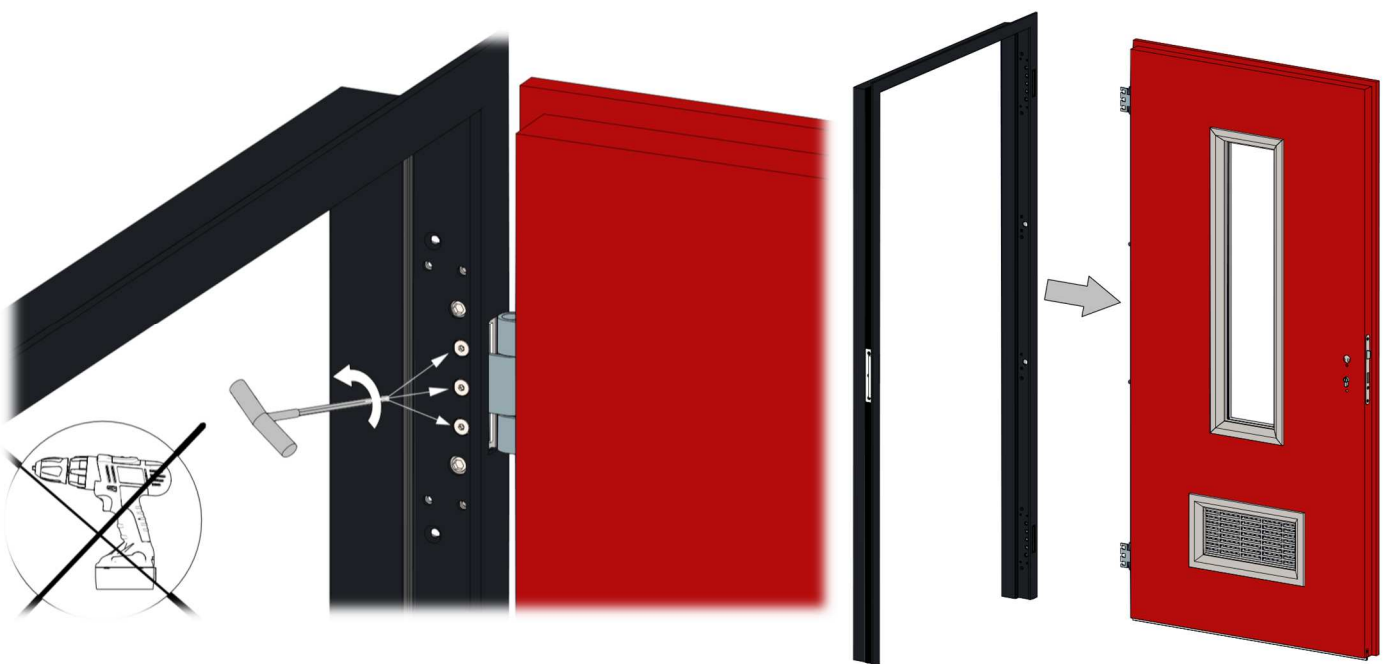
4.2 CYLINDER PREASSEMBLING



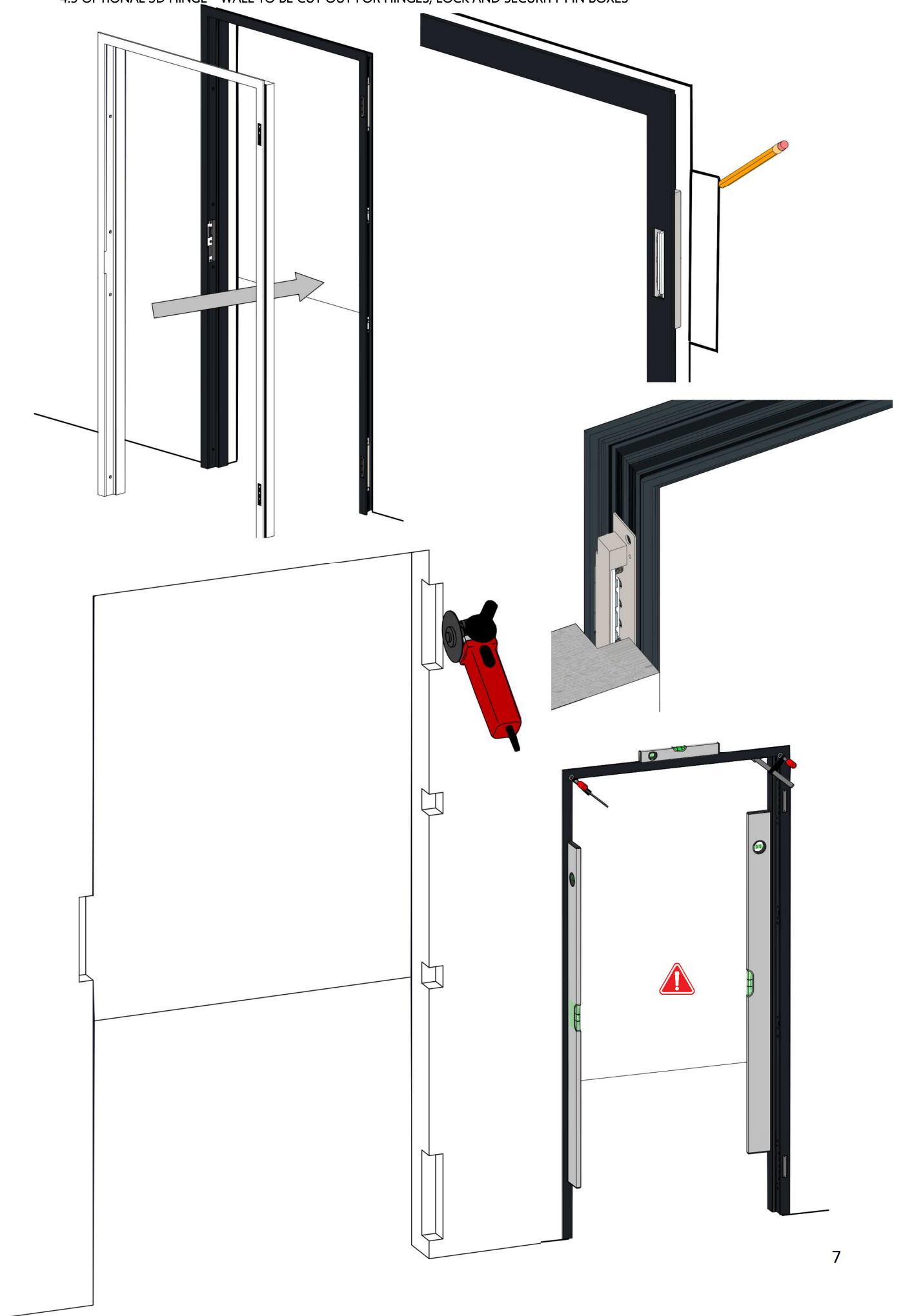
4.3 STANDARD HINGE. WALL TO BE CUT OUT FOR LOCK AND SECURITY PIN BOXES



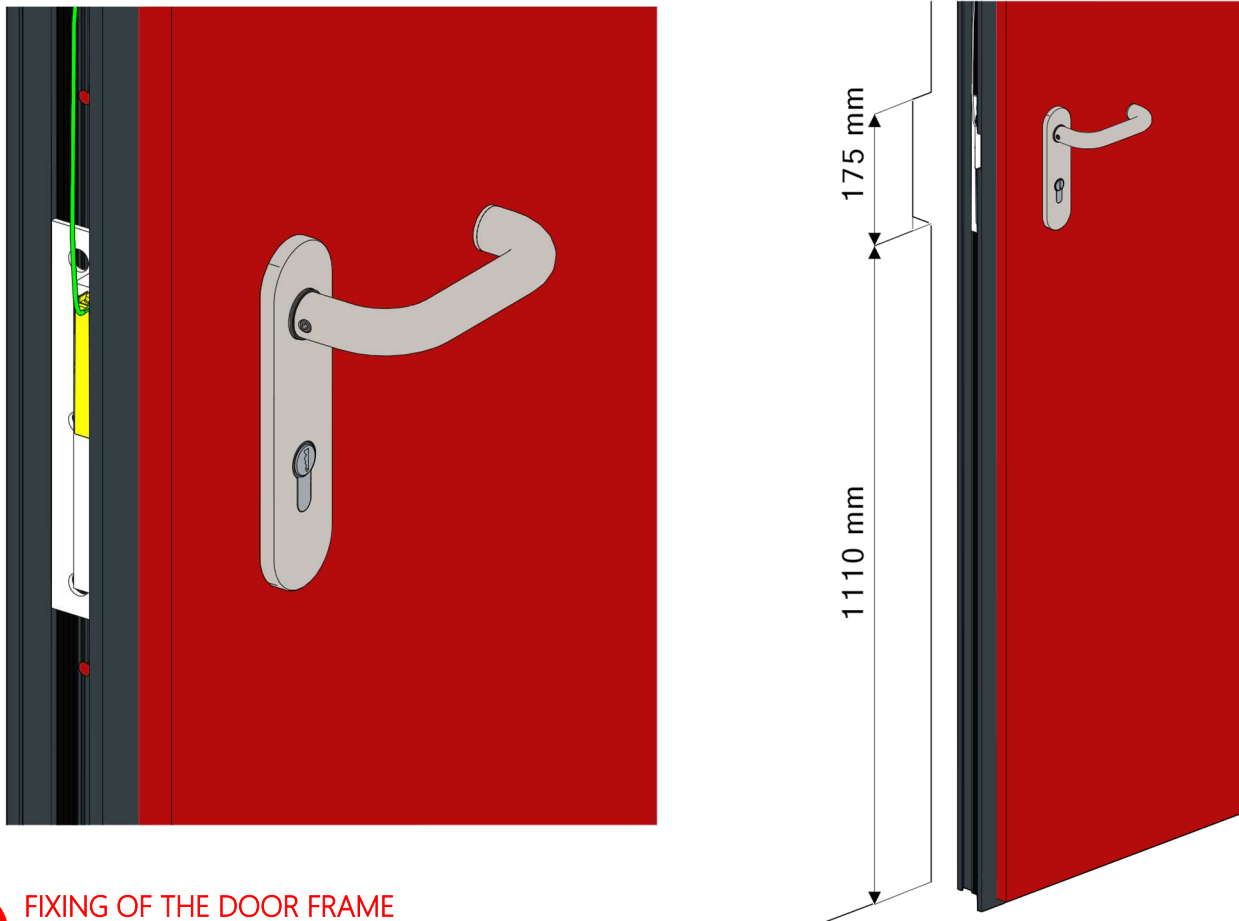
4.4 OPTIONAL 3D HINGE- DISMANTLING THE DOOR LEAF BEFORE FIXING OF FRAME IS RECOMMENDED



4.5 OPTIONAL 3D HINGE - WALL TO BE CUT OUT FOR HINGES, LOCK AND SECURITY PIN BOXES



4.6 AN OPTIONAL ELECTRIC STRIKE, ENTER THE CABLE:

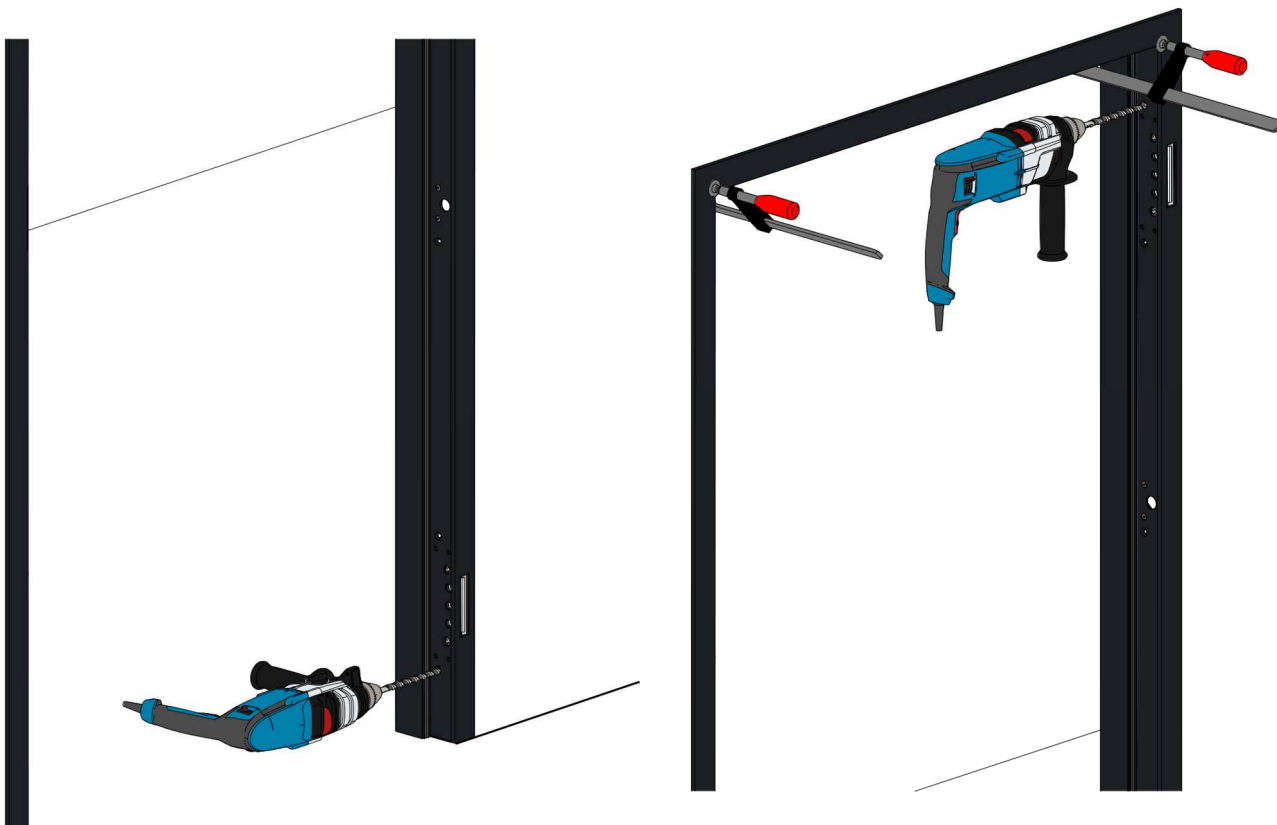


5

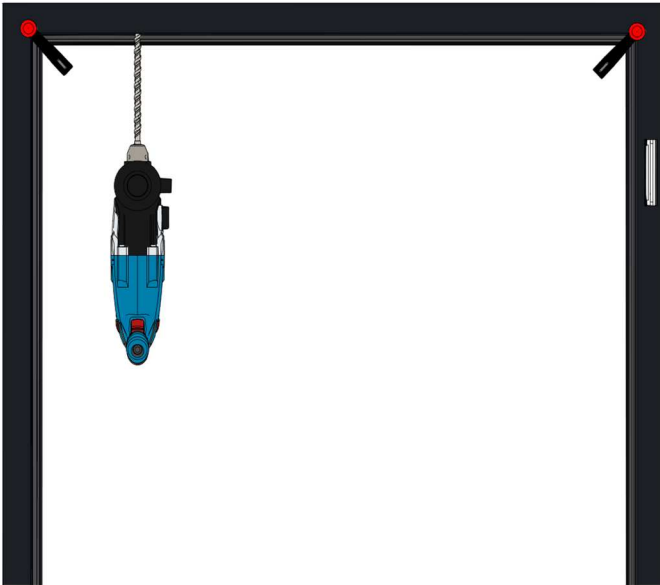
FIXING OF THE DOOR FRAME

THE QUANTITY OF ANCHORS DEPENDS ON NUMBER OF FRAME PREPARED HOLES.
HOLES PREPARED IN ACCORDANCE WITH RELEVANT CERTIFICATES. SCREWS – SEE PAGE 5

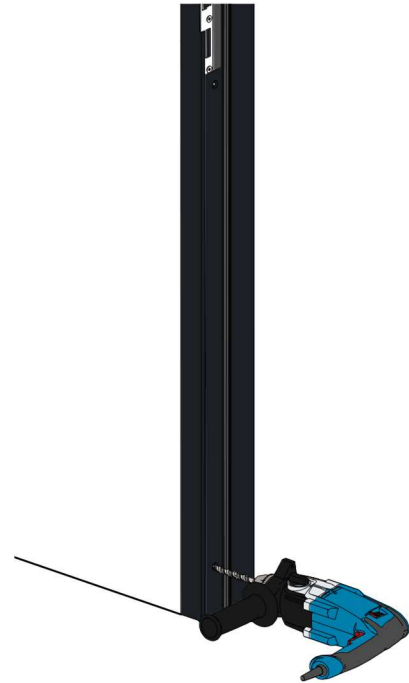
5.1 VERTICAL PARTS – HINGES SIDE



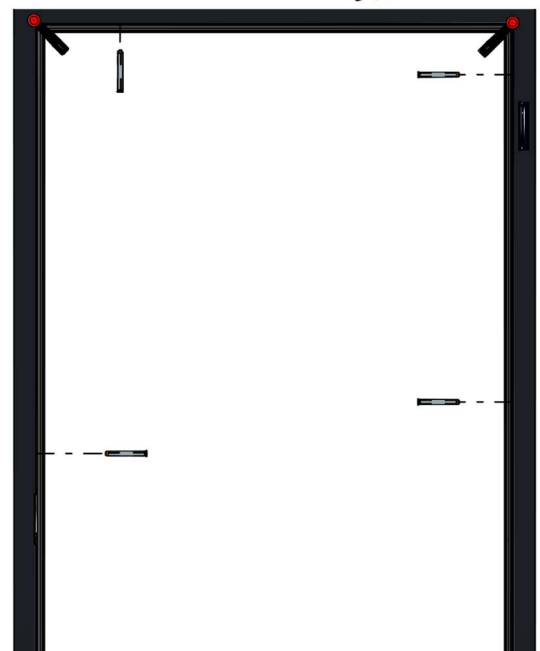
5.2 UPPER PART



5.3 VERTICAL PART – LOCK SIDE



5.4 STRIKING PLATE

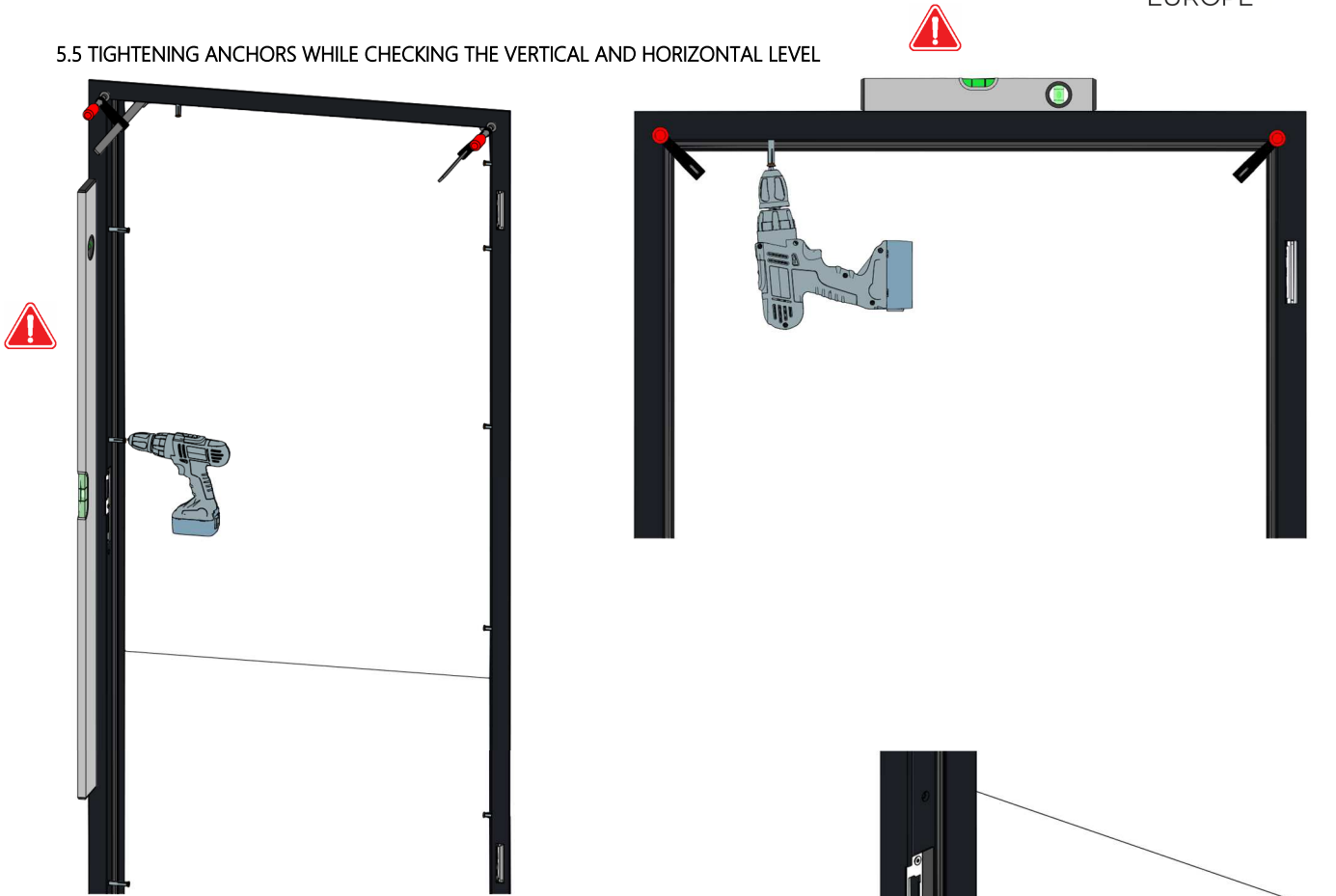


Special attention should be paid to bottom hinge while fixing the door frame!

Box for bottom hinge should be fixed rigidly without any twisting of the frame.



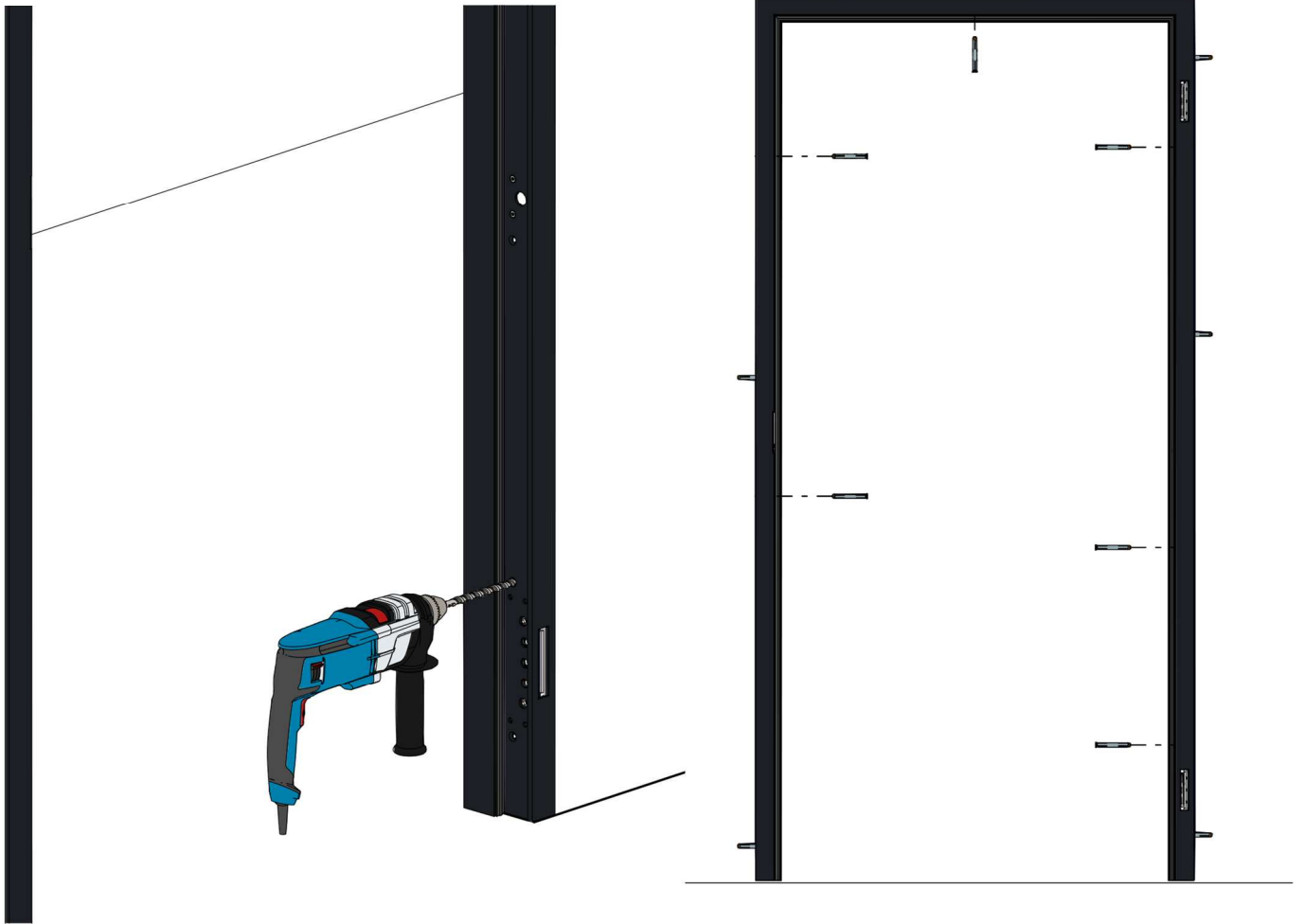
5.5 TIGHTENING ANCHORS WHILE CHECKING THE VERTICAL AND HORIZONTAL LEVEL



5.6 VERTICAL PART - LOCK SIDE

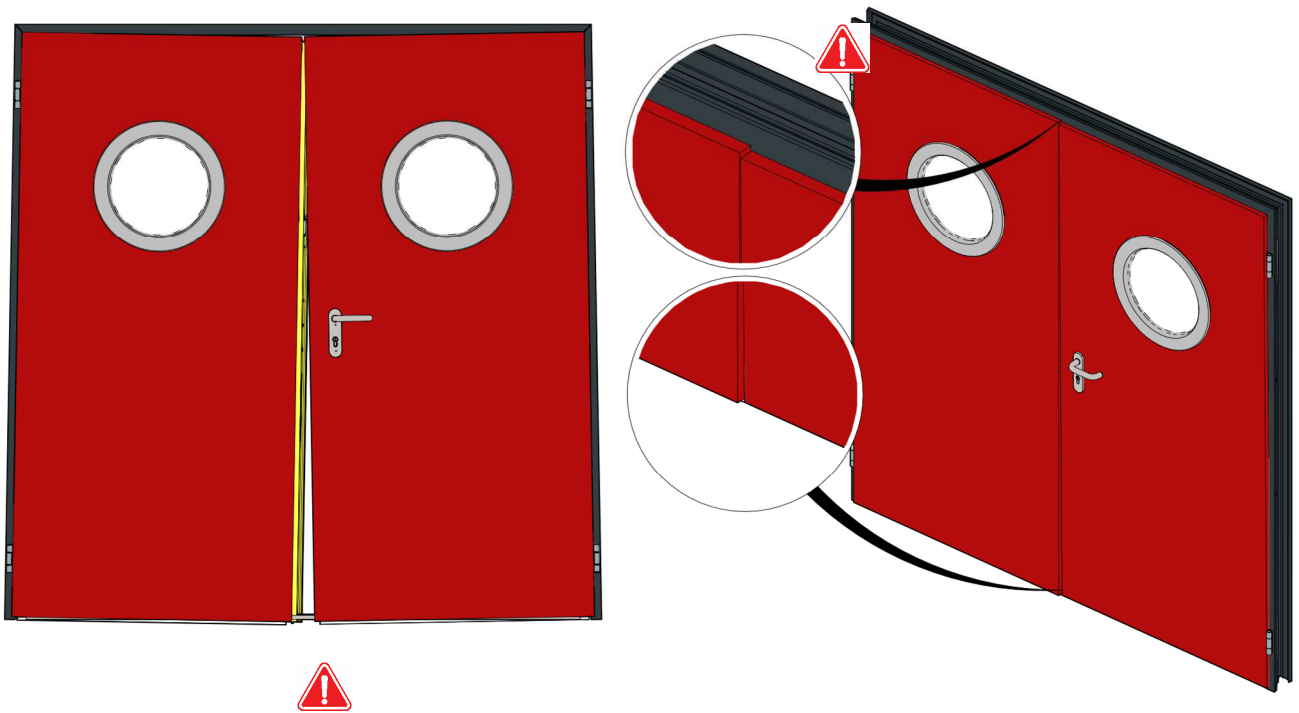


5.6 VERTICAL PART - HINGES SIDE

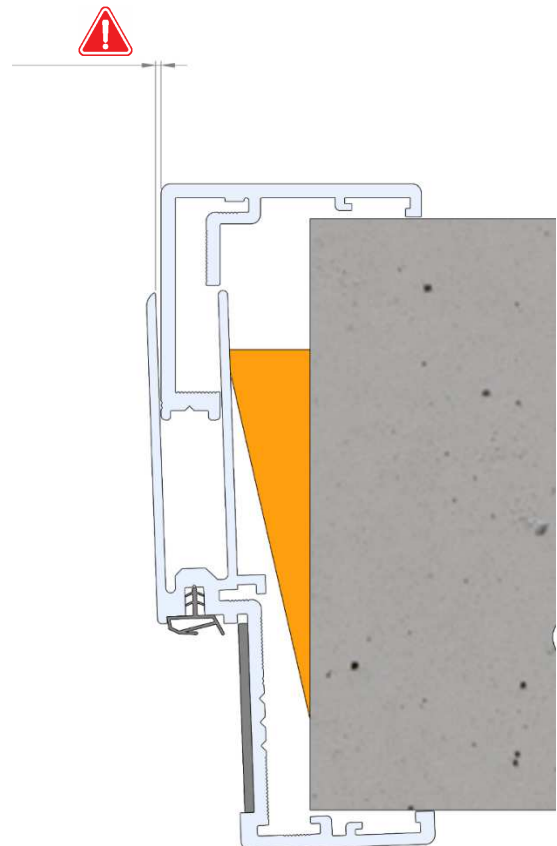
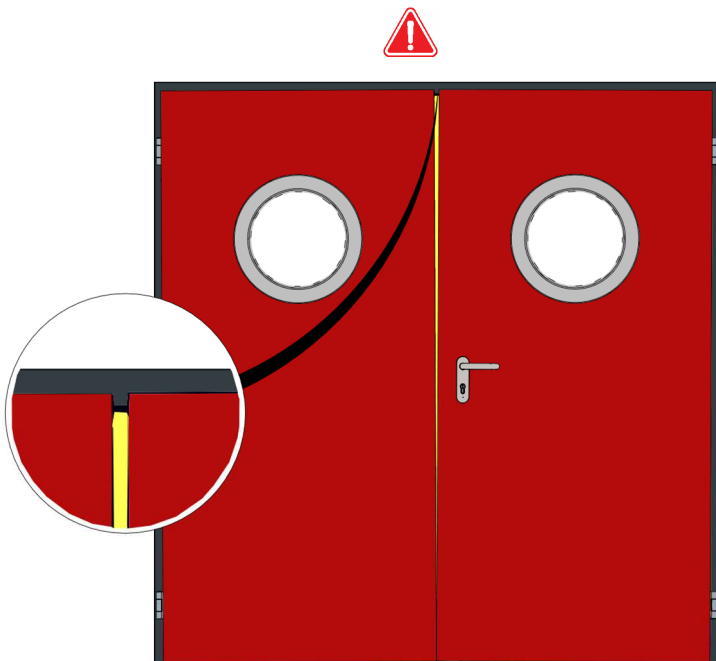


5.7 TIGHTENING ANCHORS WHILE CHECKING THE VERTICAL LEVEL





See results of incorrect installation if the door frame is NOT FIXED PROPERLY
AND RIGIDLY IN THE BEGINNING



6 ASSEMBLING THE DOOR LEAF AND ITS ADJUSTMENT

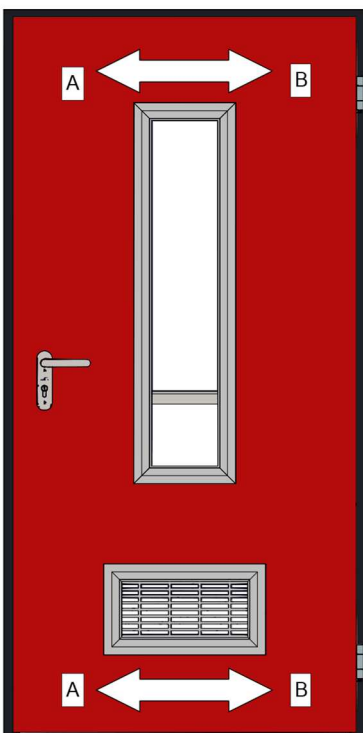
6.1 GET LEAF/LEAVES INSIDE TO THE FRAME



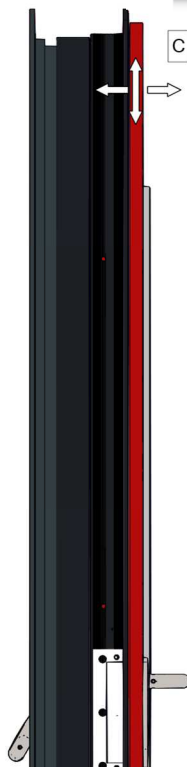
6.2 INSTALL HANDLE AND/OR PANIC BAR



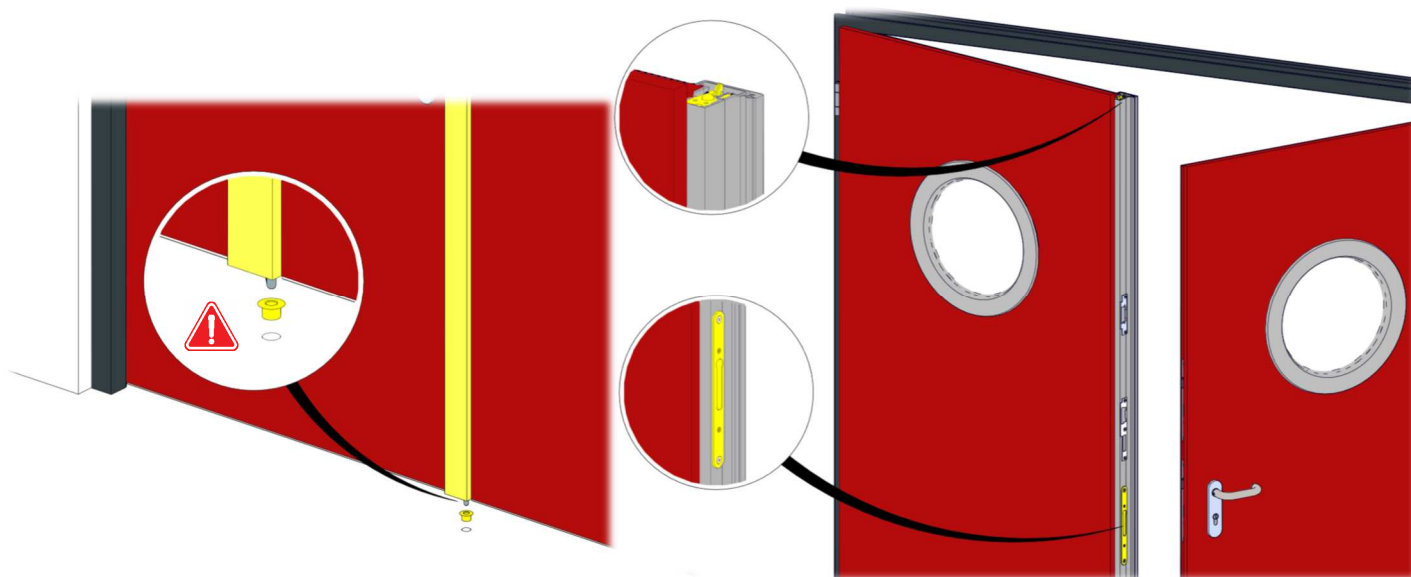
6.3 METHOD OF ADJUSTMENT 3D HINGES



FOR 3D HINGES
ONLY

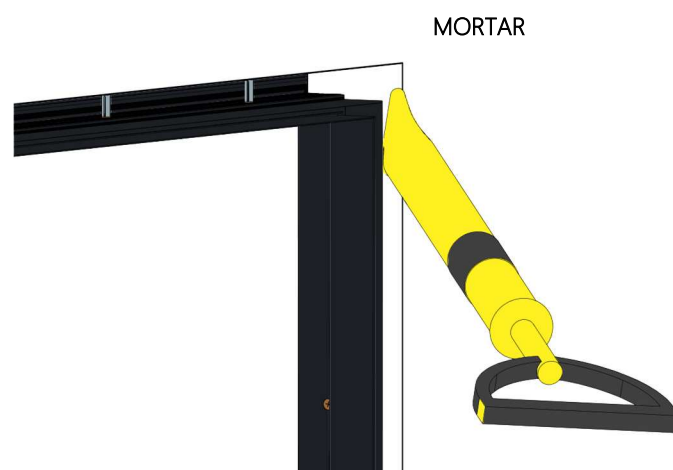


6.4 FIXING PASSIVE LEAF JUST AFTER FINAL ADJUSTMENT ALL LEAVES. FOR ALL TYPES OF DOUBLE LEAF DOORS. WITHOUT THIS FIXING OF PASSIVE LEAF, DOOR DOES NOT WORK CORRECTLY.



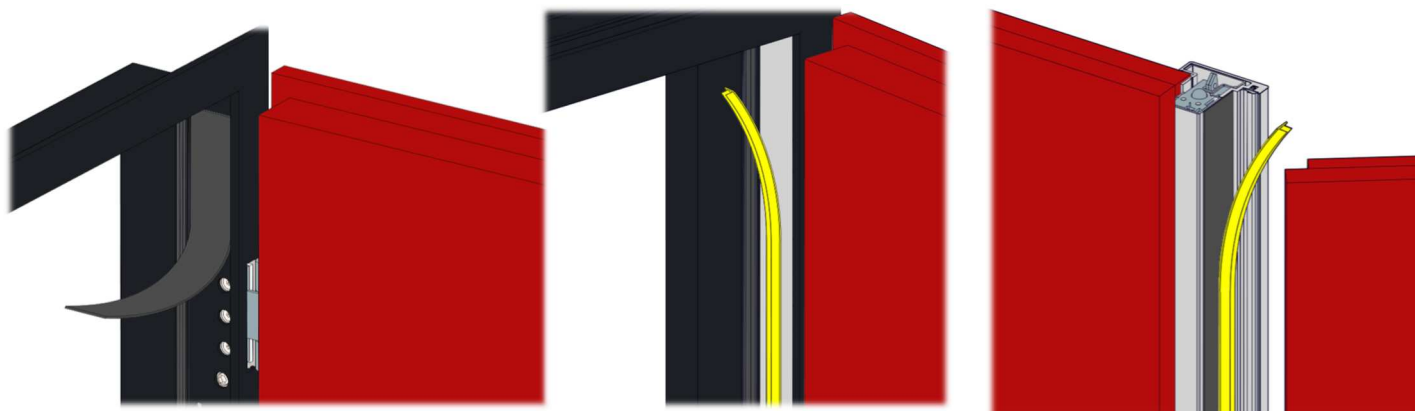
7

FILLING OF THE INSTALLATION GAP, GLUEING THE INTUMESCENT OR EPDM GASKET



7.1 FIRE RESISTANT INTUMESCENT GASKET OR EPDM GASKET FOR NON FIRE RESISTANT DOORS

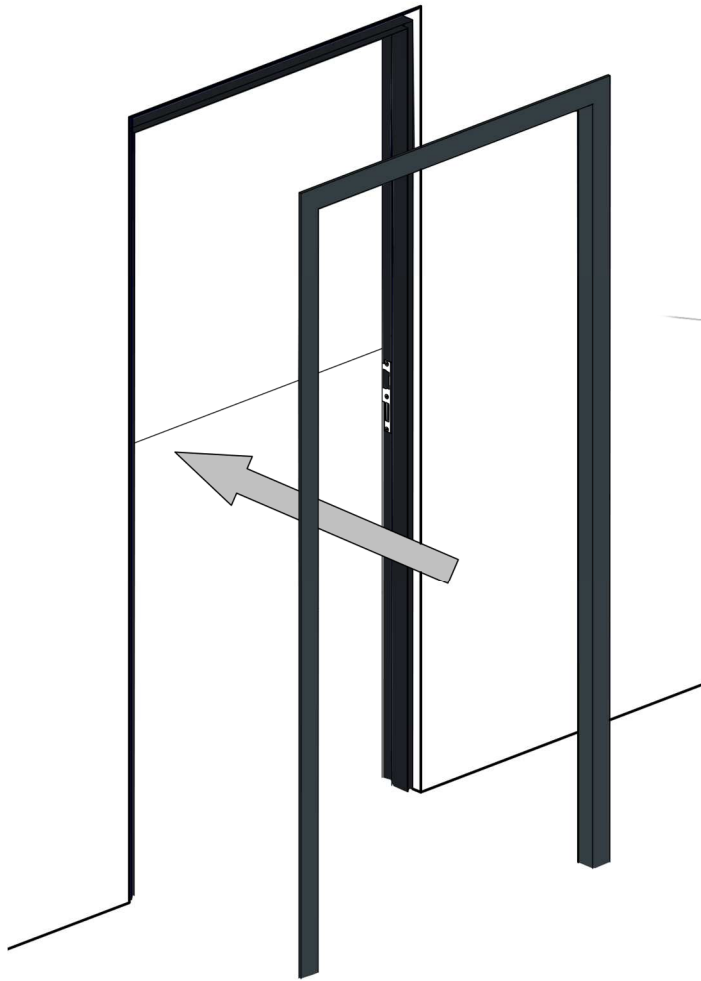
7.2 GLUEING GASKET FOR SMOKE PROOF DOORS. ON PERIMETER OF FRAME AND ON THE ASTRAGAL FOR DOUBLE LEAF DOOR



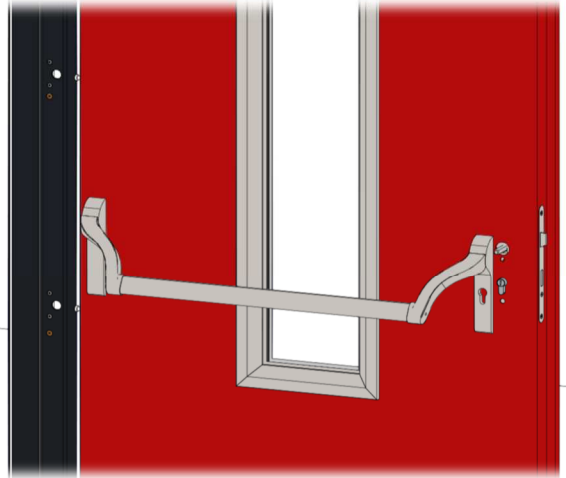
8

OPTIONAL EQUIPMENT

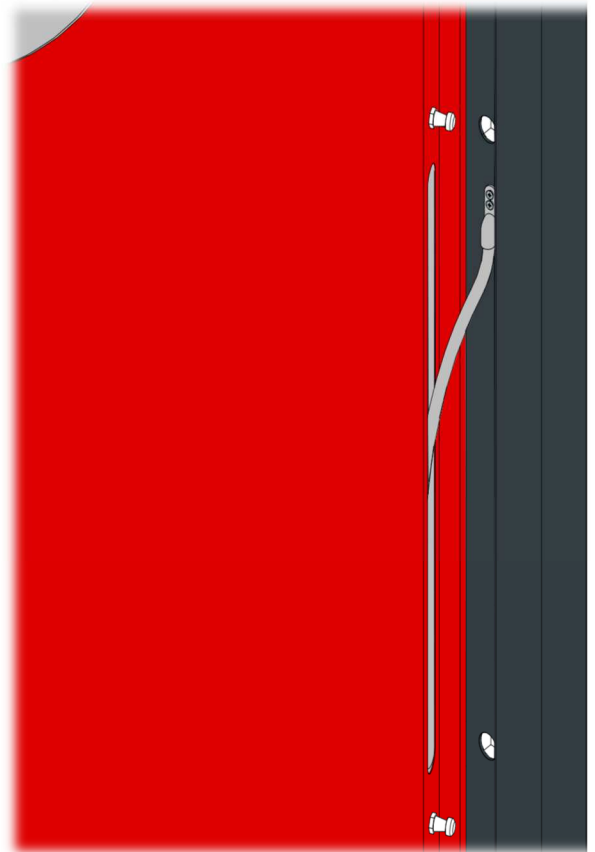
8.1 EMBRACING ELEMENT



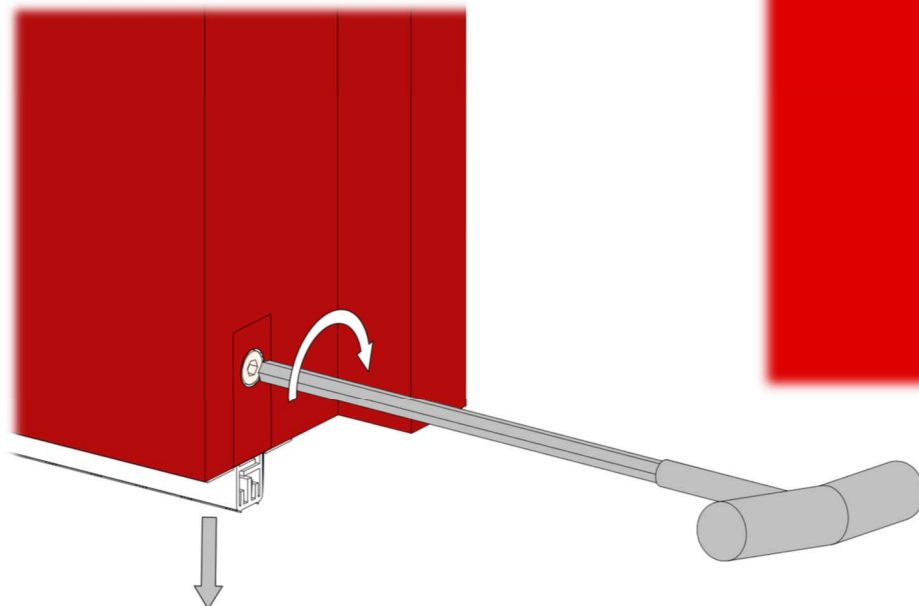
8.2 SYSTEM OF PANIC DEVICE



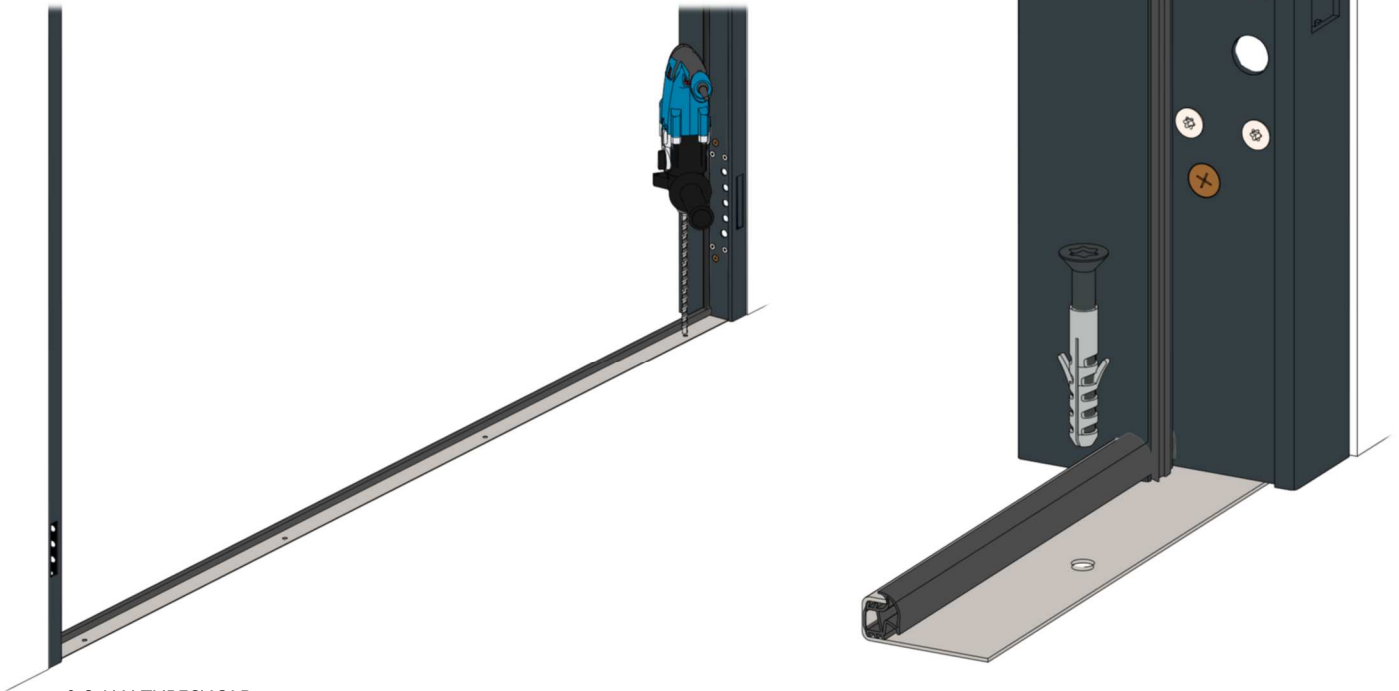
8.3 CABLE TRANSFER



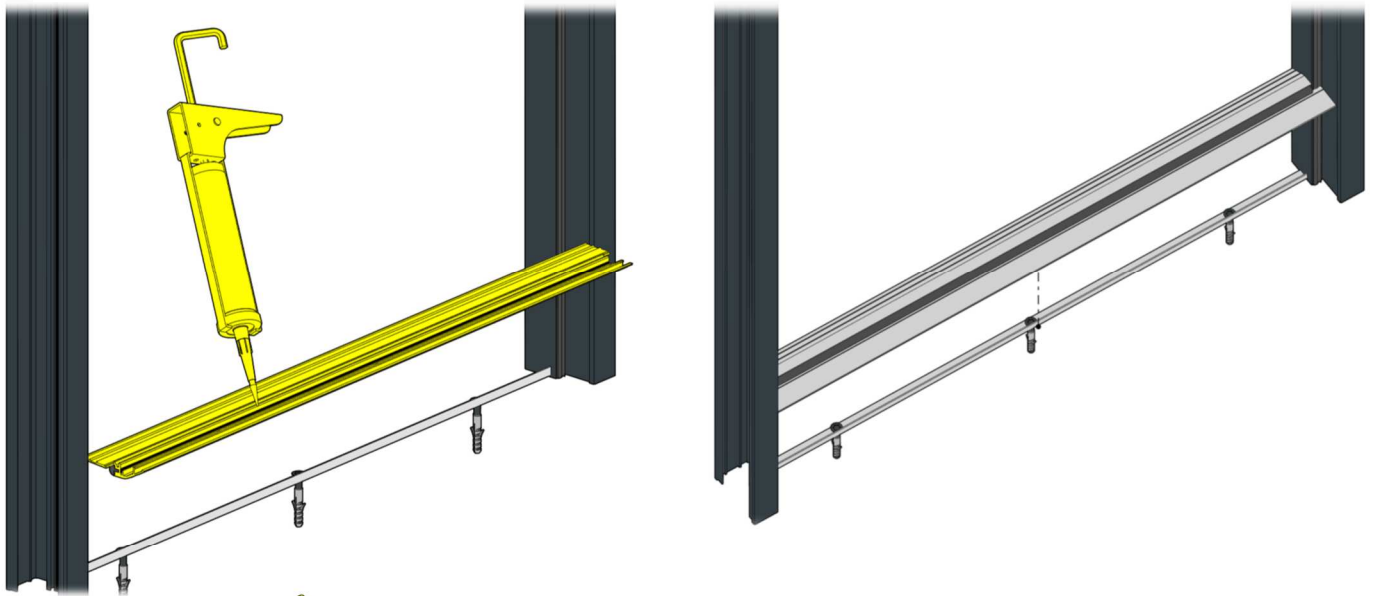
8.4 REGULATION OF AUTOMATIC DROP DOWN SEAL



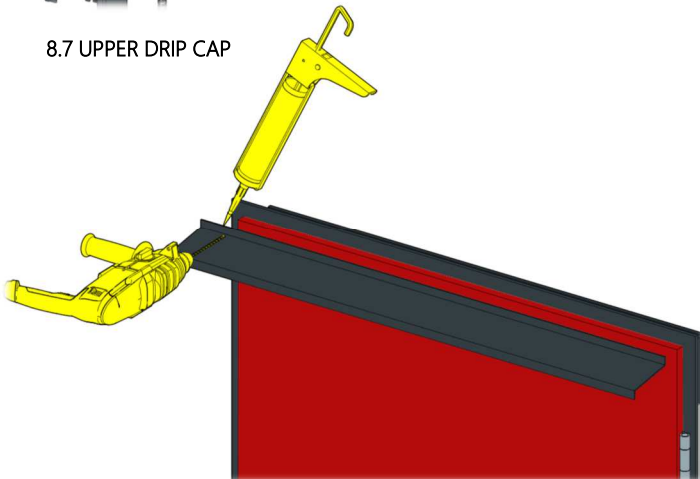
8.5 SCREWED THRESHOLD (INOX OR RAL PAINTED)



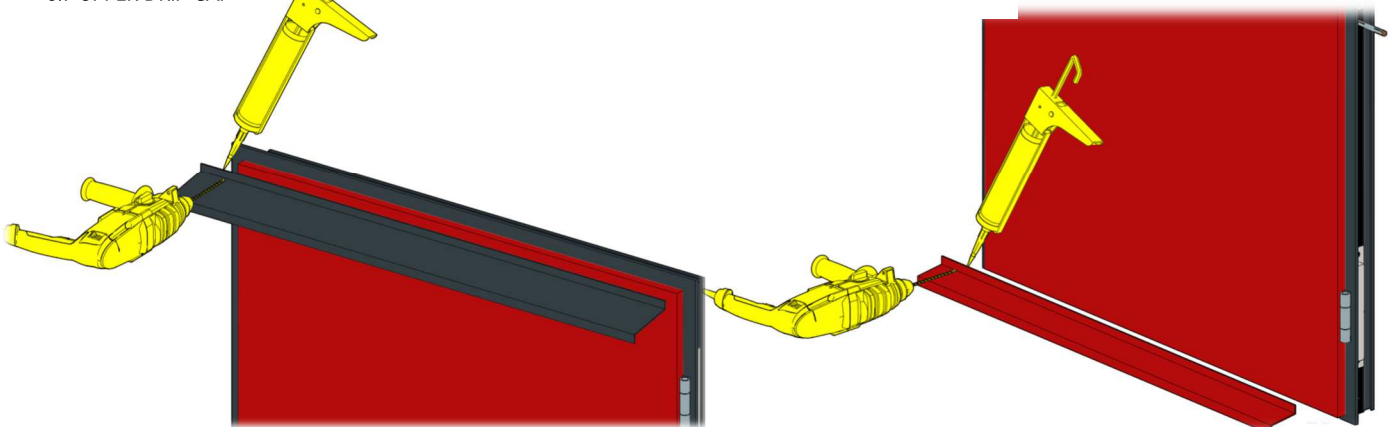
8.6 ALU THRESHOLD



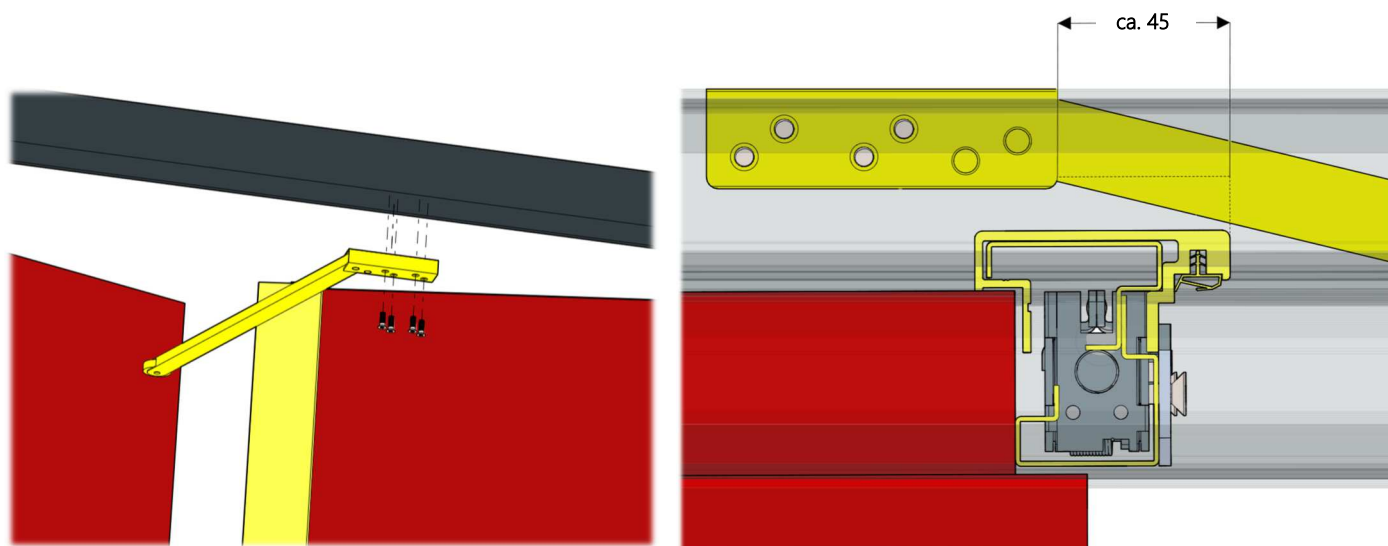
8.7 UPPER DRIP CAP



8.8 BOTTOM DRIP CAP



8.9 DOOR LEAF COORDINATOR FO DOUBLE LEAF DOORS



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 in a horizontal position on pallet 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;
- to repair each fault immediately;
- to clean the doors and equipment with NON aggressive fluids - aggressive agents can cause corrosion of both powder coat and stainless steel elements.

DFM EUROPE is not responsible for errors and claims caused from incorrect installation;

The condition of guarantee is due maintenance doors and fittings minimum every 6 months.

Conditions of Guarantee of DFM Europe Sp. z o.o are defined in General Conditions of Sale published on dfm-europe.eu, or in Order Confirmation.