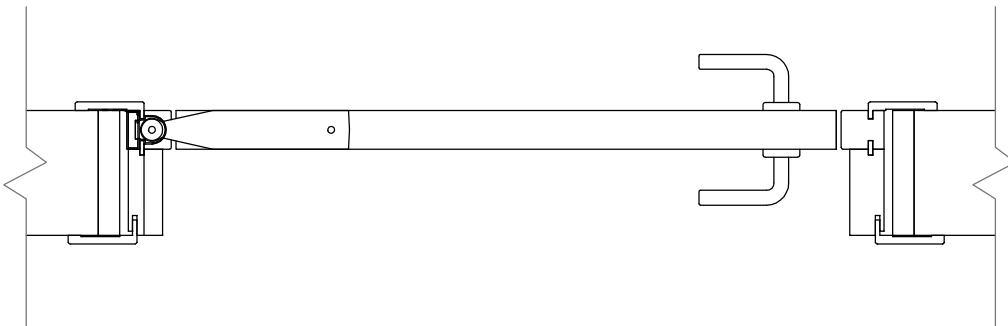


duo swing

Full technical installation instruction



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INTRODUCTION

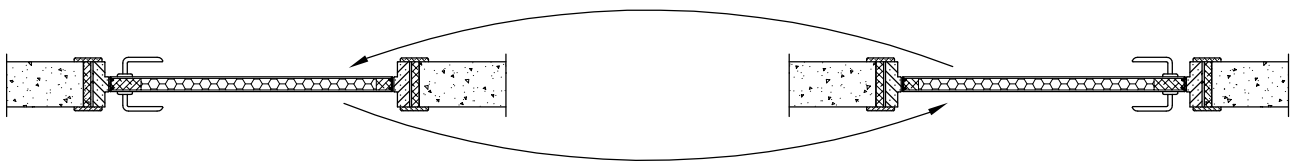
Duo Swing is ideal for internal residential doors, which is built for doors unsuitable to contain the connecting rod between the two arms, such as glass, mirror, solid wood doors, etc. As a result of that the rod is positioned inside the jamb. Duo swing is certified by the research institute and test laboratory CATAS according to EN 1119 standards and has passed 100.000 opening and closing cycles .

Door thickness as 35-50 mm can be achieved and a maximum weight of 70 kg.

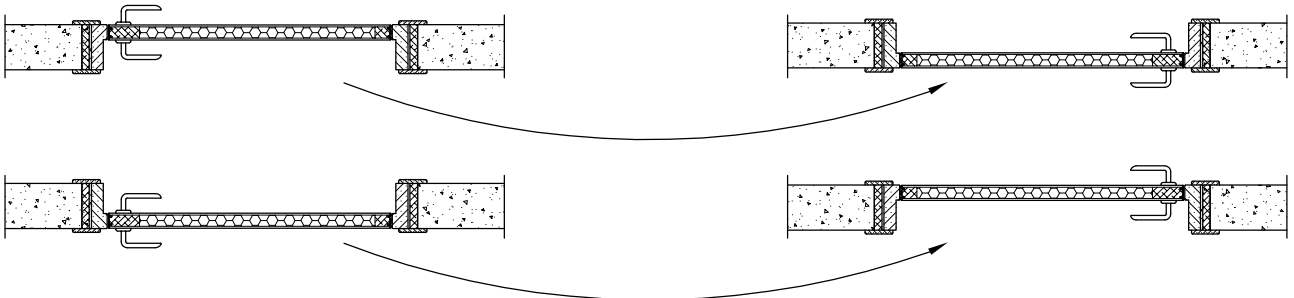
The standard finishes available for the duo swing are silver and black.

Depending on particular requirements, the door with the duo swing hardware can be built so that the door can be situated in any position inside the wall thickness. Two installation are described as follows:

- 1) "centered door " when the door leaf is in the middle of the thickness of the wall;



- 2) "flush door" when the door is flush with one of the two sides of the wall;



WALL THICKNESS

With the Duo swing **system** it is important to pay attention to the wall thickness limits see at pag. 5-6

LOCK

Duo swing, two way of opening permit the use of two different types of latch/lock mechanisms, each with its own functional characteristics:

- Magnetic latch. This type of latch was designed for traditional doors that open one way only. If used with a two way opening, it does not work well unless the door is moved by hand to the closed position. If the door is pushed, even lightly, the magnetic latch is not activated and the door continues its swing past the closed position.
- (AGB) latch/lock mechanism. This type of closure is modified to replace the standard latch, which allows the door to close in a manner similar to a standard door with stop. Unlike the magnetic latch, even if the door is pushed with some force it will stop in the closed position.

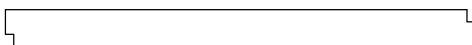
Duo swing one way opening with stop.

With one way opening, you can use any latch mechanism, although optimal function is provided by a magnetic latch.

REBATED DOOR WITH ONE-WAY OPENING

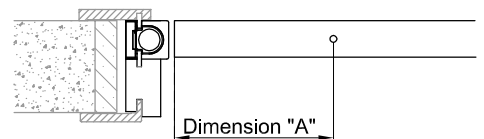
In some home's rooms can be more suitable using rebated doors with Duo swing, this is possible by putting some rebates on the vertical door sides. With this way you cannot achieve double-way opening, but there is a better acoustic isolation inside the room by using a gasket.

In the drawings on the right side there are two examples (fig. 2-3) of duo swing rebated door. In order to prepare the rebates on the panel and the jamb (fig. 3), it's necessary that both of them are specular (fig. 4), furthermore in order to maintain the insertion point of the connecting rod on the panel in the right position, it's important to pay attention to the dimension "X" which has to be added to the "Dimension A", mentioned at page 9.

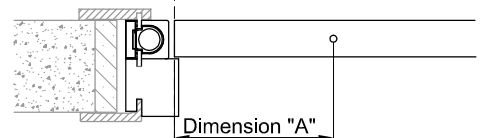


(Fig. 4)

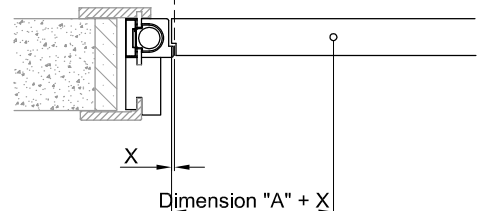
DOUBLE WAY OF OPENING (Fig.1)



EXAMPLE OF REBATED DOOR (Fig.2)

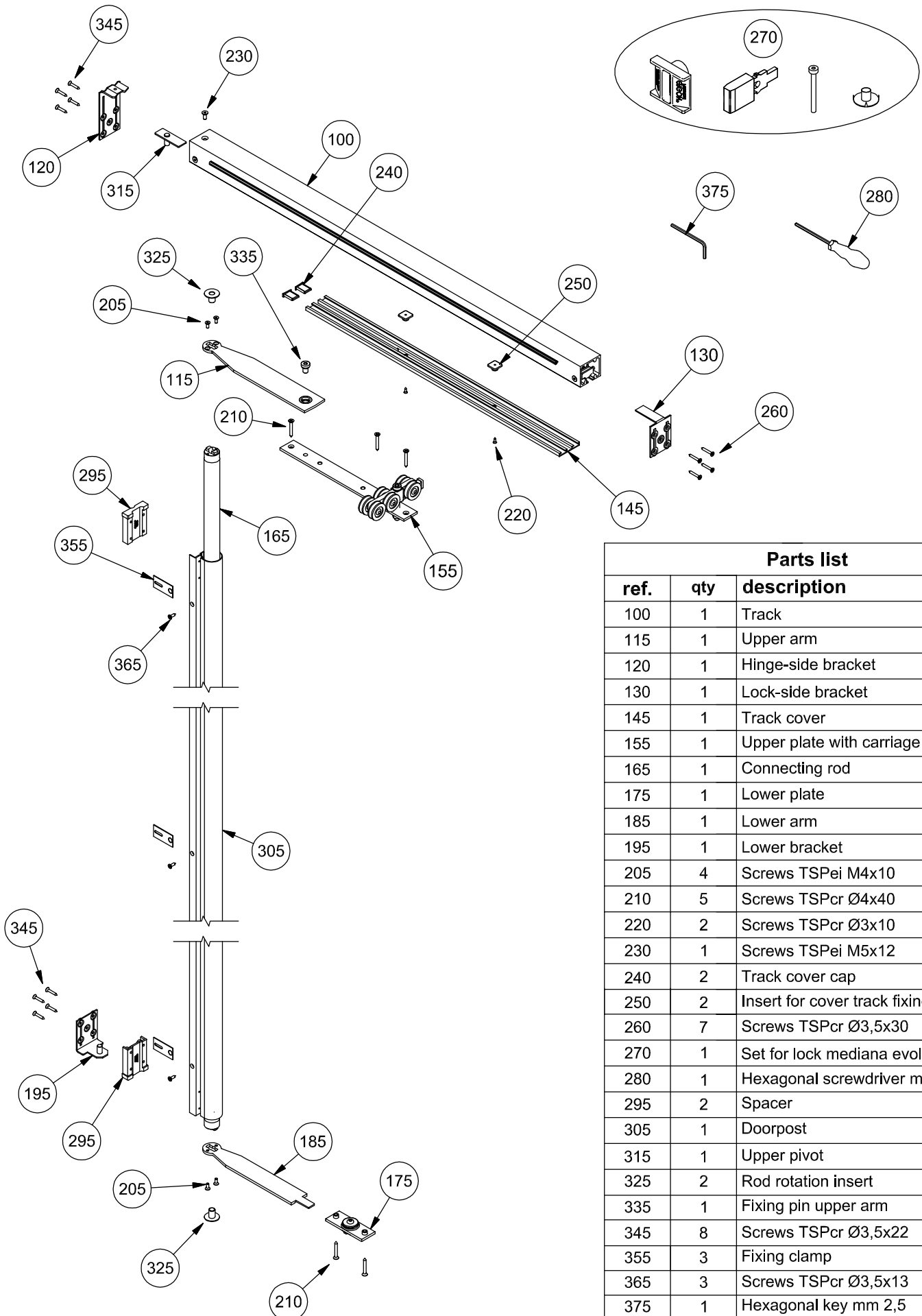


EXAMPLE OF RABBET DOOR (Fig.3)



INDEX

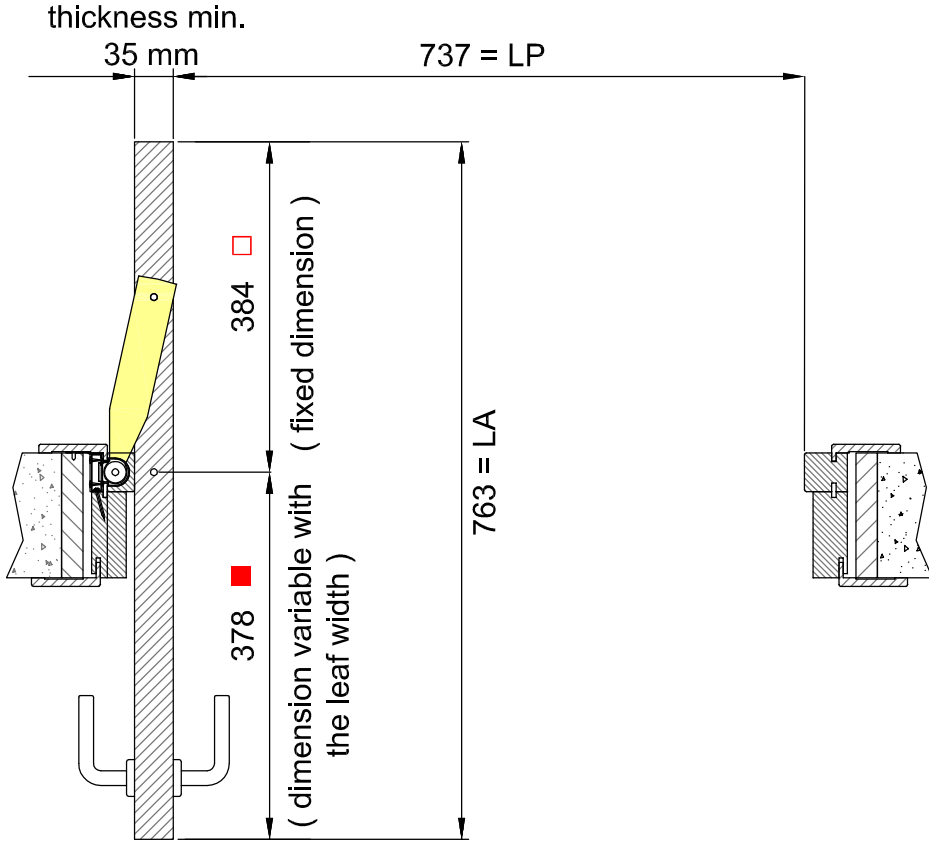
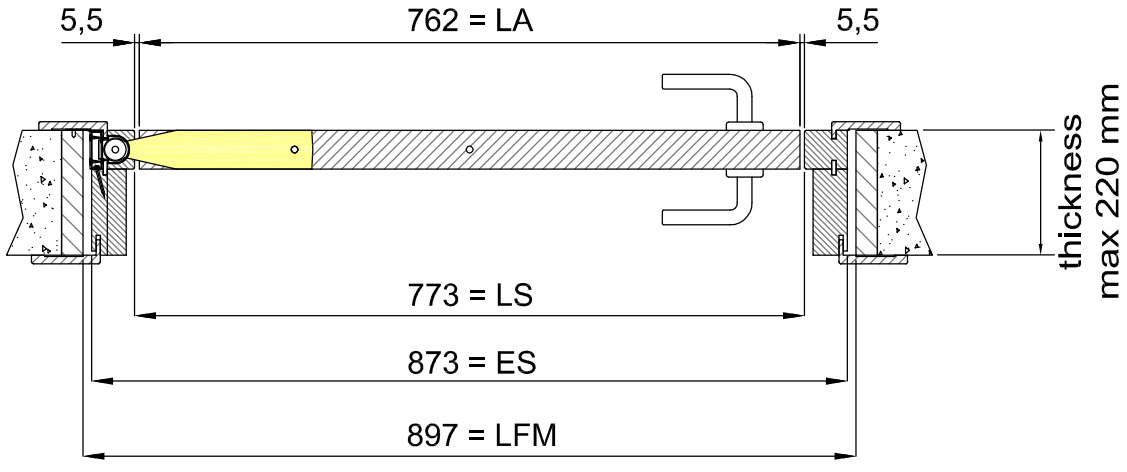
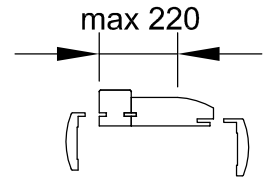
Exploded view of the hardware	page 4
Dimensional diagram of the <u>oriented door</u> with arm "BASE"	page 5
Dimensional diagram of the <u>centered door</u> with arm "BASE"	page 6
Dimensional diagram vertical	page 7
Summary sizes finished door leaf	page 8
Working door leaf specification	page 9
Exploded view of the frame	page 10
Details for vertical frame arm side	page 11
Details for vertical frame lock side	page 12
Details for the upper crossbeam	page 13
Track adjustment to the width of the door	page 14
Connecting rod kit with extension	page 15-16
Kit union tracks for door with two door leafs with ERGON system	page 17-18
Assembling the hardware in the door leaf	page 19
Assembling connecting rod with upper and lower arm	page 20
Assembly of connecting rod with hinge-side bracket	page 21
Assembly the doorpost to hinge-side door jamb and fixing clamp	page 22
Assembly frame to track	page 23-24
Complete door jamb installation	page 25
Door leaf installation	page 26
Adjusting door leaf and door jamb	page 27
"Soft Opening" installation (optional)	page 28-29
Frames and track cover installation	page 30



Parts list		
ref.	qty	description
100	1	Track
115	1	Upper arm
120	1	Hinge-side bracket
130	1	Lock-side bracket
145	1	Track cover
155	1	Upper plate with carriage
165	1	Connecting rod
175	1	Lower plate
185	1	Lower arm
195	1	Lower bracket
205	4	Screws TSPei M4x10
210	5	Screws TSPcr Ø4x40
220	2	Screws TSPcr Ø3x10
230	1	Screws TSPei M5x12
240	2	Track cover cap
250	2	Insert for cover track fixing
260	7	Screws TSPcr Ø3,5x30
270	1	Set for lock mediana evolution
280	1	Hexagonal screwdriver mm 2,5
295	2	Spacer
305	1	Doorpost
315	1	Upper pivot
325	2	Rod rotation insert
335	1	Fixing pin upper arm
345	8	Screws TSPcr Ø3,5x22
355	3	Fixing clamp
365	3	Screws TSPcr Ø3,5x13
375	1	Hexagonal key mm 2,5

WALL THICKNESS UP TO 220 mm

If rounded jambs are used, the above thickness wall dimension must be calculated only on the plane surface and not on the rounded side.



B A S E A R M

LEGEND	
LP	= Passage dimensions (LFM - 160)
LA	= Leaf Width (LFM - 135)
LS	= Door Jamb opening (LFM - 124)
ES	= Outer Jamb (LFM - 24) = lenght of the upper crossbeam
LFM	= Wall Hole Width

The dimensions on the technical drawings refer to the 900 Wall Hole Width and it is the dimension in which the encumbrance of the open door is symmetric.

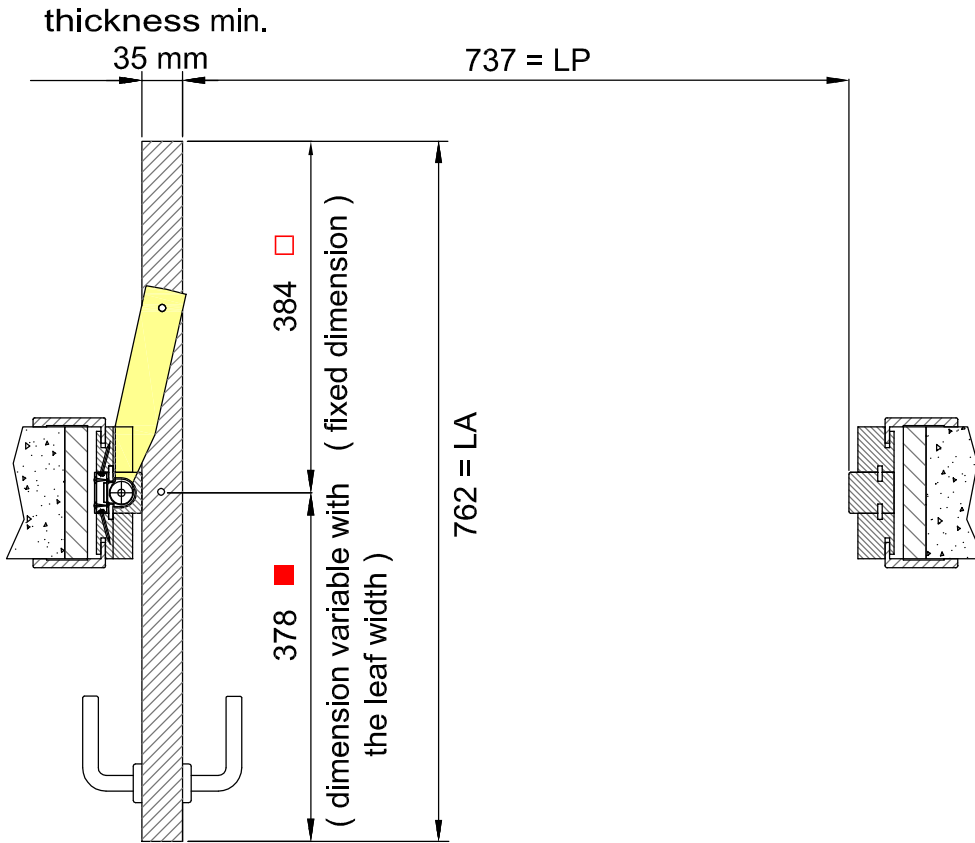
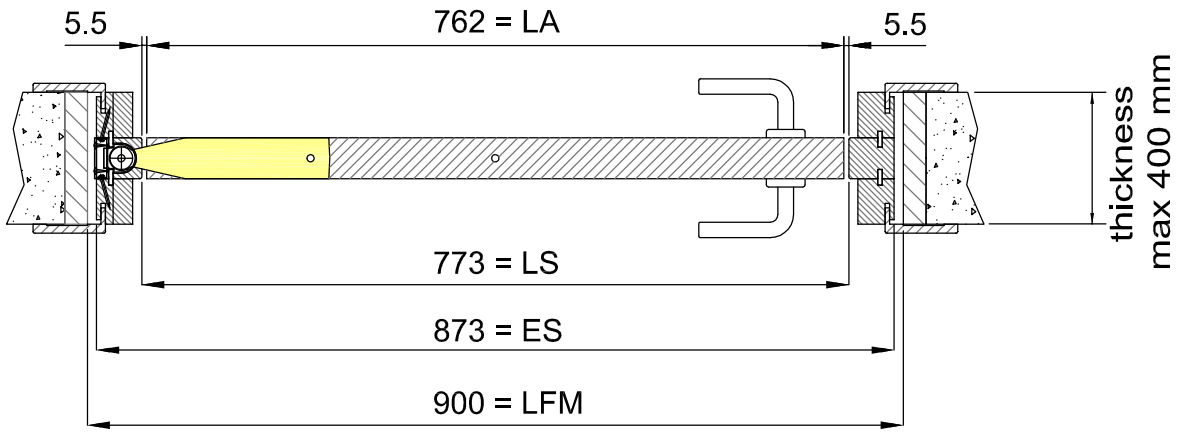
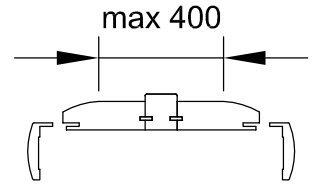
DOOR ENCUMBRANCE			
LFM WALL HOLE WIDTH	LP PASSAGE DIMENSION	LA DOOR LEAF WIDTH	MAX ENCUMBRANCE OF THE OPEN DOOR
700	540	565	384 □
750	590	615	384 □
800	640	665	384 ◻
* 821	657	686	384 □
* 897	737	762	384 □
* 973	809	838	454 ■

* Available stardard dimensions: it is possible to have other dimensions, even intermediate dimensions (see page 14) by adjusting the track.

See in evidence the minimum measeure possible by using "Soft Opening" kit pages 32-33

WALL THICKNESS UP TO 400 mm

If rounded jambs are used, the above thickness wall dimension must be calculated only on the plane surface and not on the rounded side.



B A S E A R M

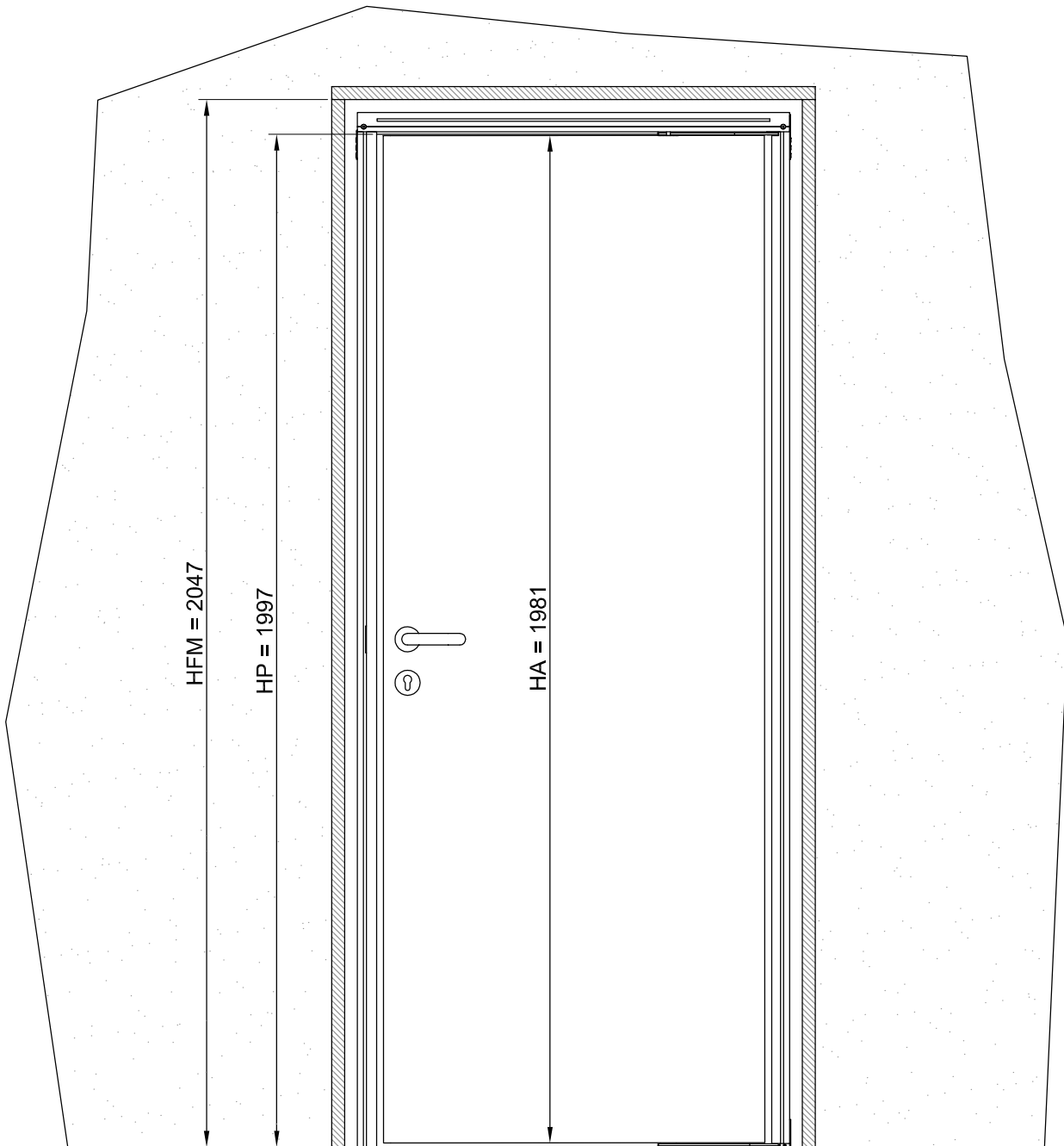
LEGEND	
LP	= Passage dimensions (LFM - 160)
LA	= Leaf Width (LFM - 135)
LS	= Door Jamb opening (LFM - 124)
ES	= Outer Jamb (LFM - 24) = lenght of the upper crossbeam
LFM	= Wall Hole Width

The dimensions on the technical drawings refer to the 900 Wall Hole Width and it is the dimension in which the encumbrance of the open door is symmetric.

DOOR ENCUMBRANCE			
LFM WALL HOLE WIDTH	LP PASSAGE DIMENSION	LA DOOR LEAF WIDTH	MAX ENCUMBRANCE OF THE OPEN DOOR
700	540	565	384 □
750	590	615	384 □
800	640	665	384 □
* 821	657	686	384 □
* 897	737	762	384 □
* 973	809	838	454 ■

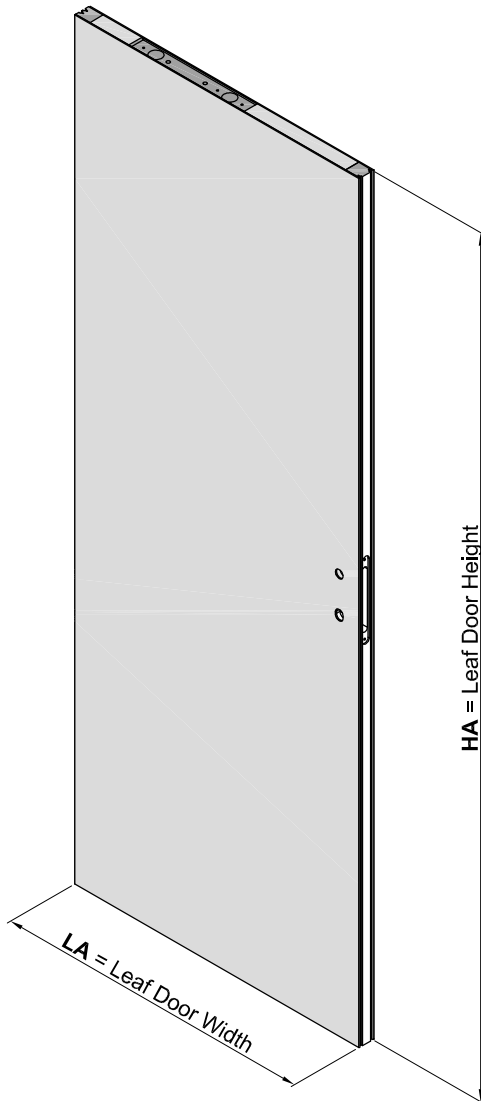
* Available stardard dimensions: it is possible to have other dimensions, even intermediate dimensions (see page 14) by adjusting the track.

See in evidence the minimum measure possible by using "Soft Opening" kit pages 32-33



VERTICAL DIMENSIONS

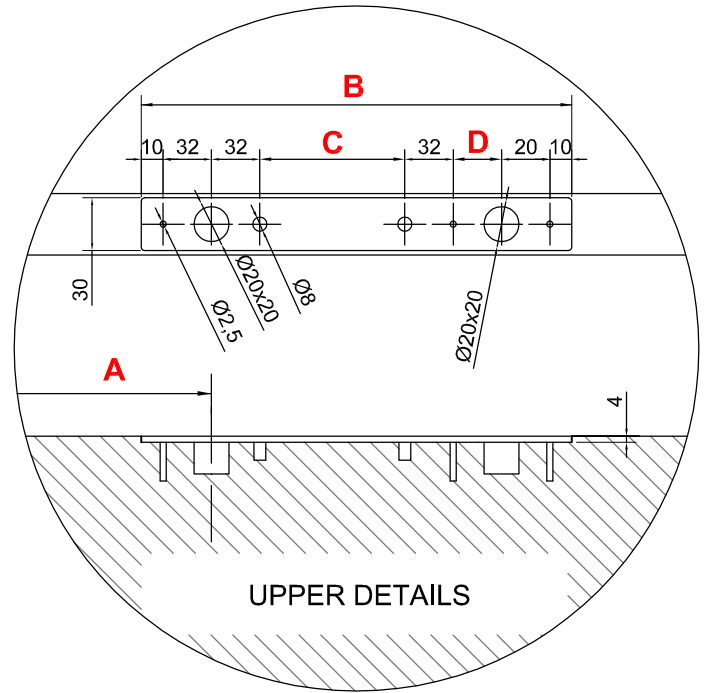
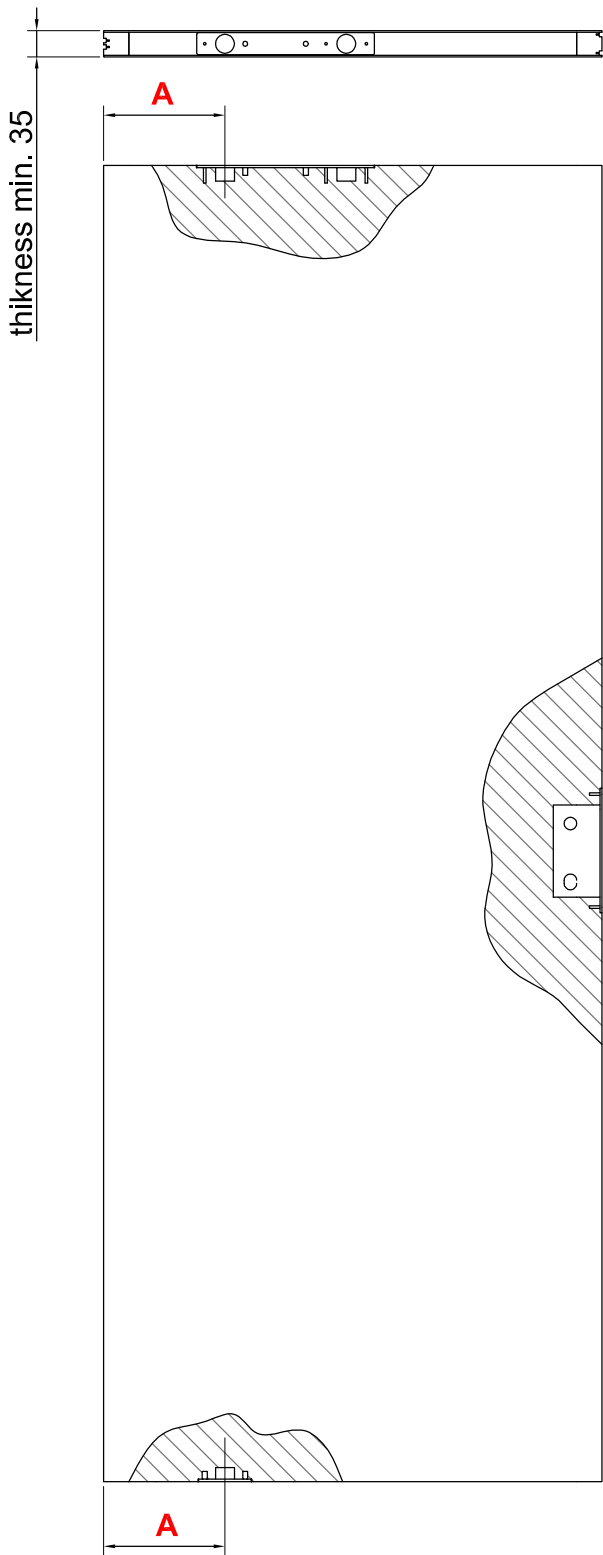
HFM wall hole height	HP passage dimension	HA door leaf height	HP = (HFM - 50) HA = (HFM - 66)
* 2047	1997	1981	
* Available standard dimensions; it is possible to have other dimensions, even intermediate dimensions, by adjusting the doorpost (see page 15) and the connecting rod (see page 16).			



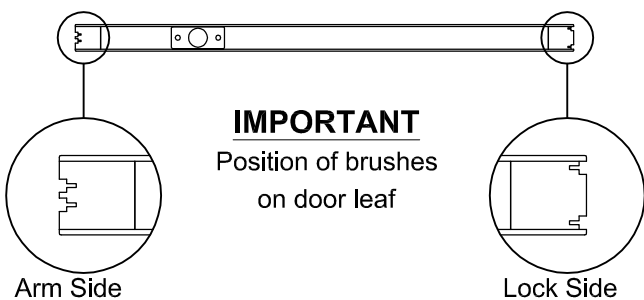
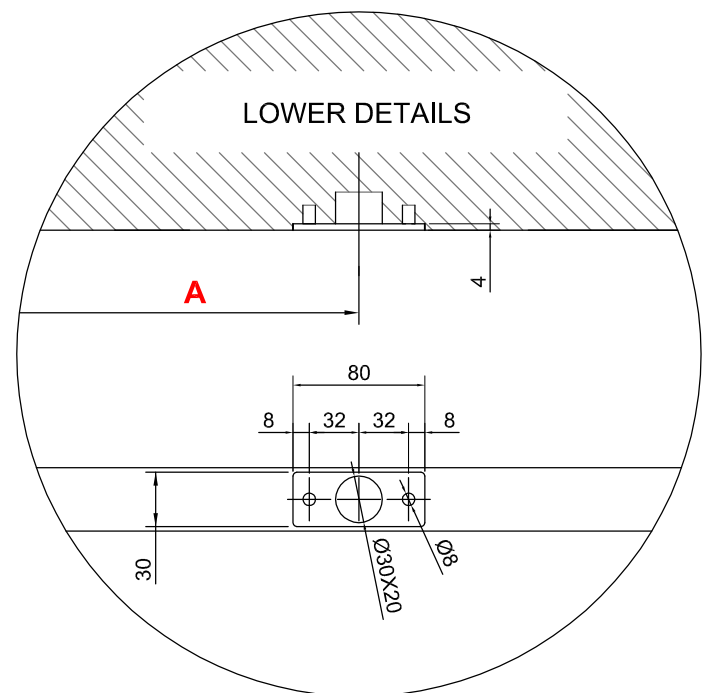
Minimum dimension with "Soft Opening" BASE Arm

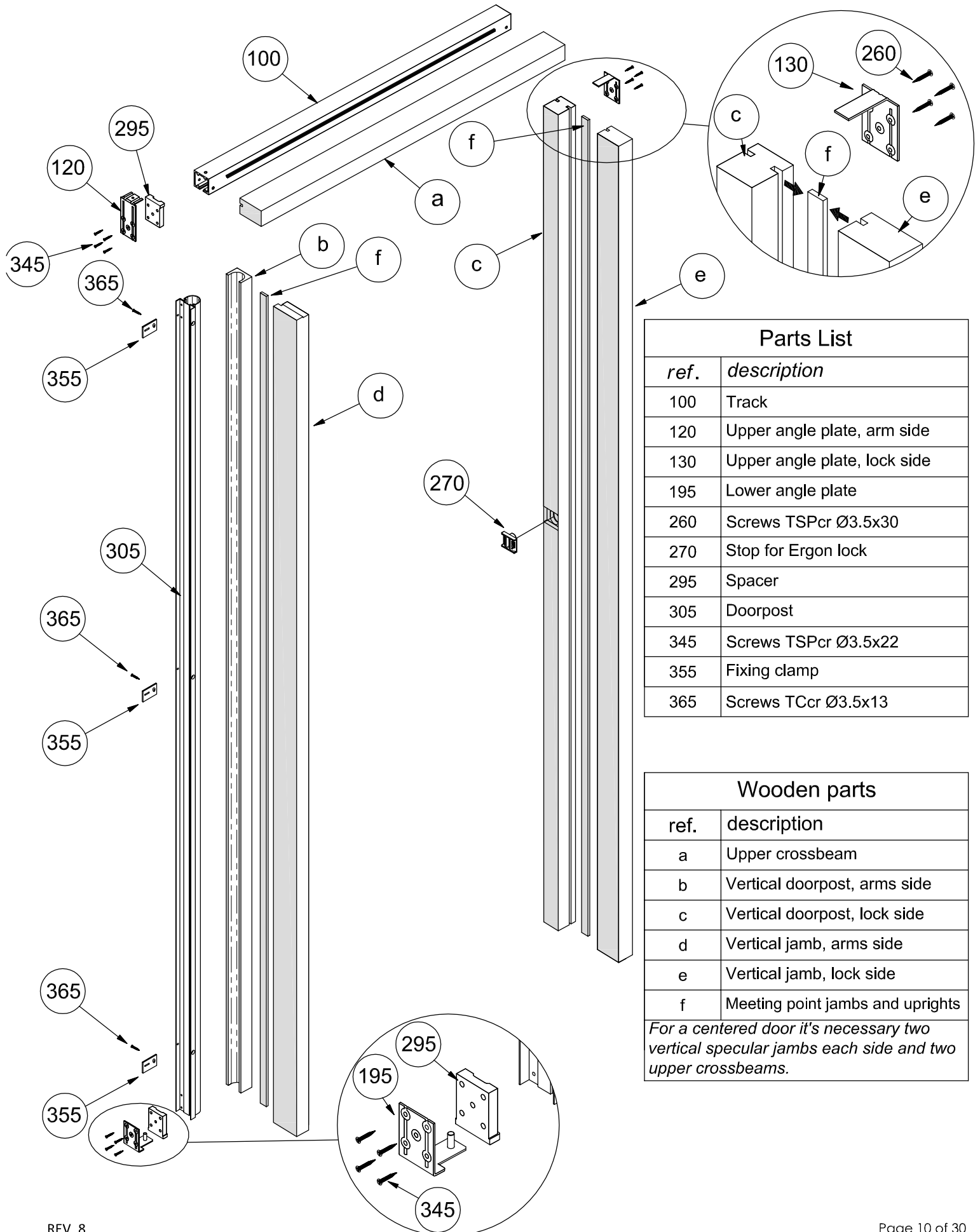
VERTICAL DIMENSIONS			
HP= (HFM-50) HA= (HFM-66)			
STANDARD HEIGHT	HFM	HP	HA
	WALL HOLE HEIGHT	HEIGHT PASSAGE DIMENSION	DOOR LEAF HEIGHT
	2250	2200	2184
Available standard dimensions: it's possible to have other dimensions, even intermediate dimensions, by adjusting the doorpost (see page 15) and the connecting rod (see page 16).			

HORIZONTAL DIMENSIONS			
LP= (LFM-160) LA= (LFM-135)			
BASE	LFM	LP	LA
	WIDTH WALL HOLE	WIDTH PASSAGE DIMENSION	DOOR LEAF WIDTH
●	700	540	565
●	750	590	615
●	800	640	665
⊙	821	657	686
⊙	897	737	762
⊙	973	809	838
⊙ Available Standard dimensions			
Available dimensions, by adjusting the track, see page 14			
● (it is possible to have intermediate dimensions)			



Variable measures according to arm used				
	A	B	C	D
BASE Arm	180,5	276	96	44





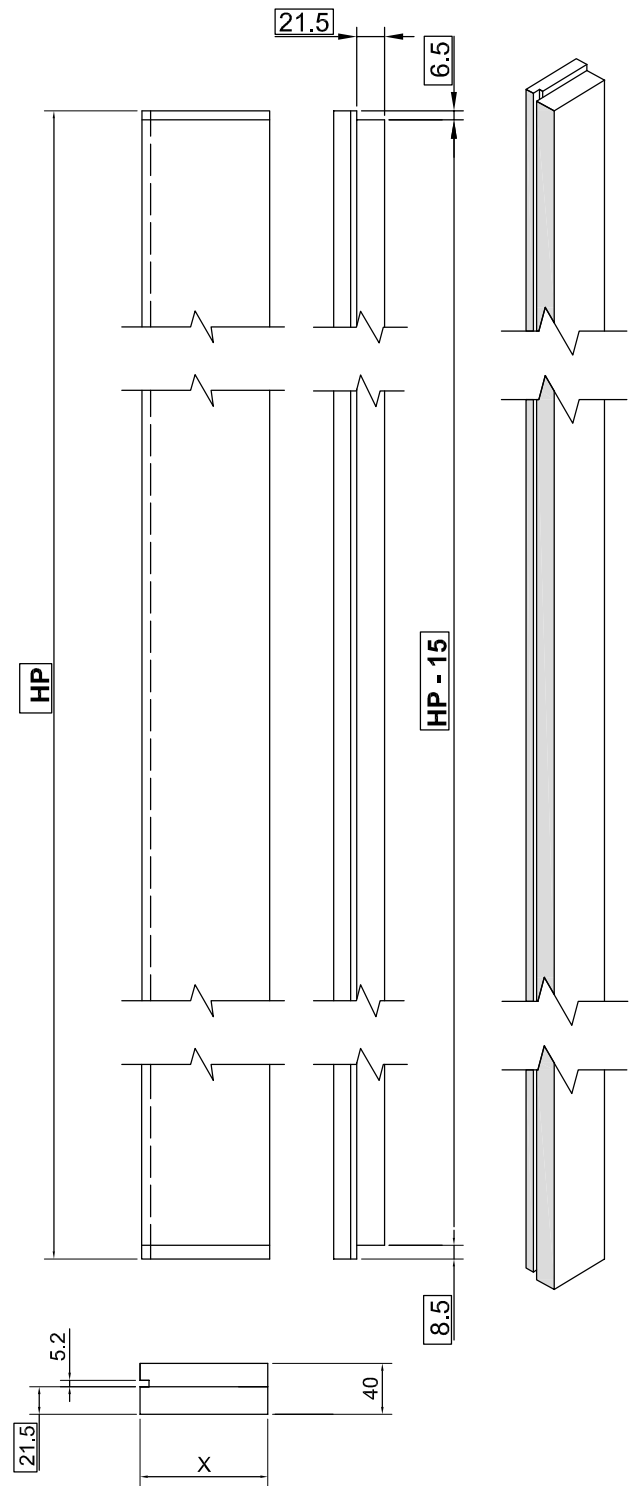
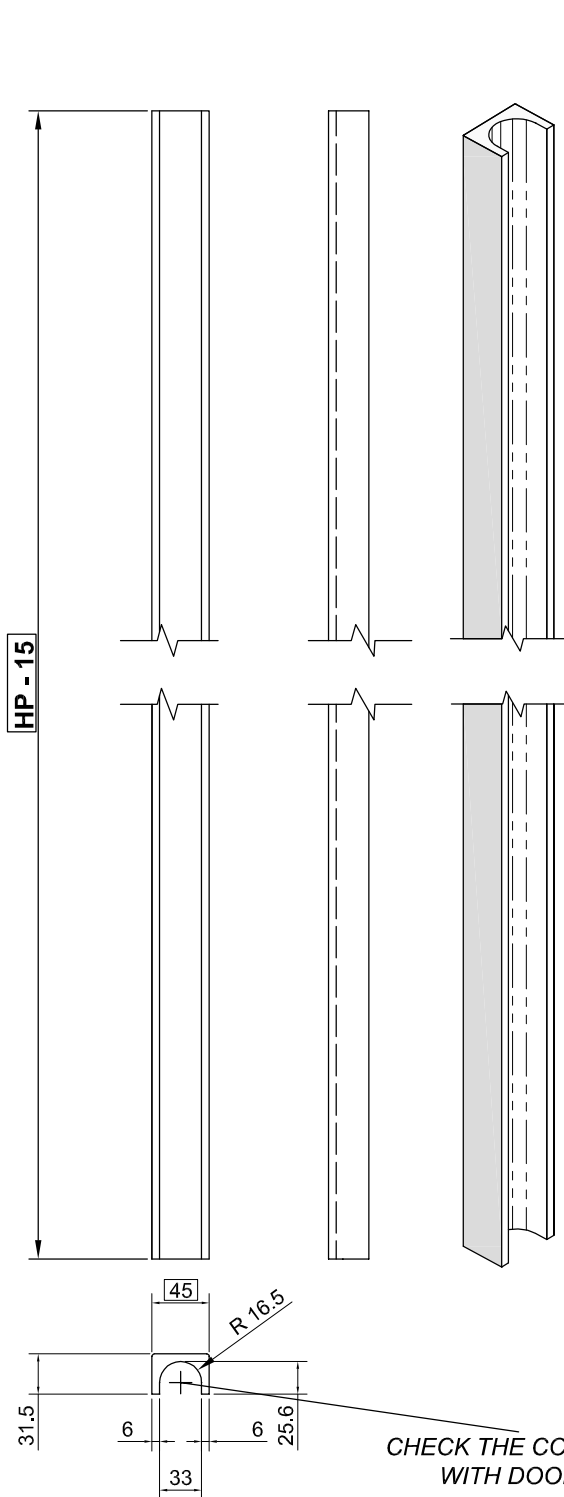
Parts List	
ref.	description
100	Track
120	Upper angle plate, arm side
130	Upper angle plate, lock side
195	Lower angle plate
260	Screws TSPCr Ø3.5x30
270	Stop for Ergon lock
295	Spacer
305	Doorpost
345	Screws TSPCr Ø3.5x22
355	Fixing clamp
365	Screws TCcr Ø3.5x13

Wooden parts	
ref.	description
a	Upper crossbeam
b	Vertical doorpost, arms side
c	Vertical doorpost, lock side
d	Vertical jamb, arms side
e	Vertical jamb, lock side
f	Meeting point jambs and uprights

For a centered door it's necessary two vertical specular jambs each side and two upper crossbeams.

DOORPOST

JAMB



DIMENSION THAT MUST BE ACCURATE

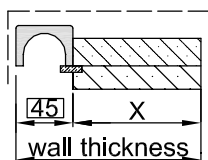
X = WALL THICKNESS - 45

HP = HEIGHT PASSAGE DIMENSION

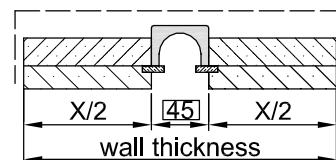
— — — VISIBLE SIDE

ORIENTED DOOR

CENTERED DOOR

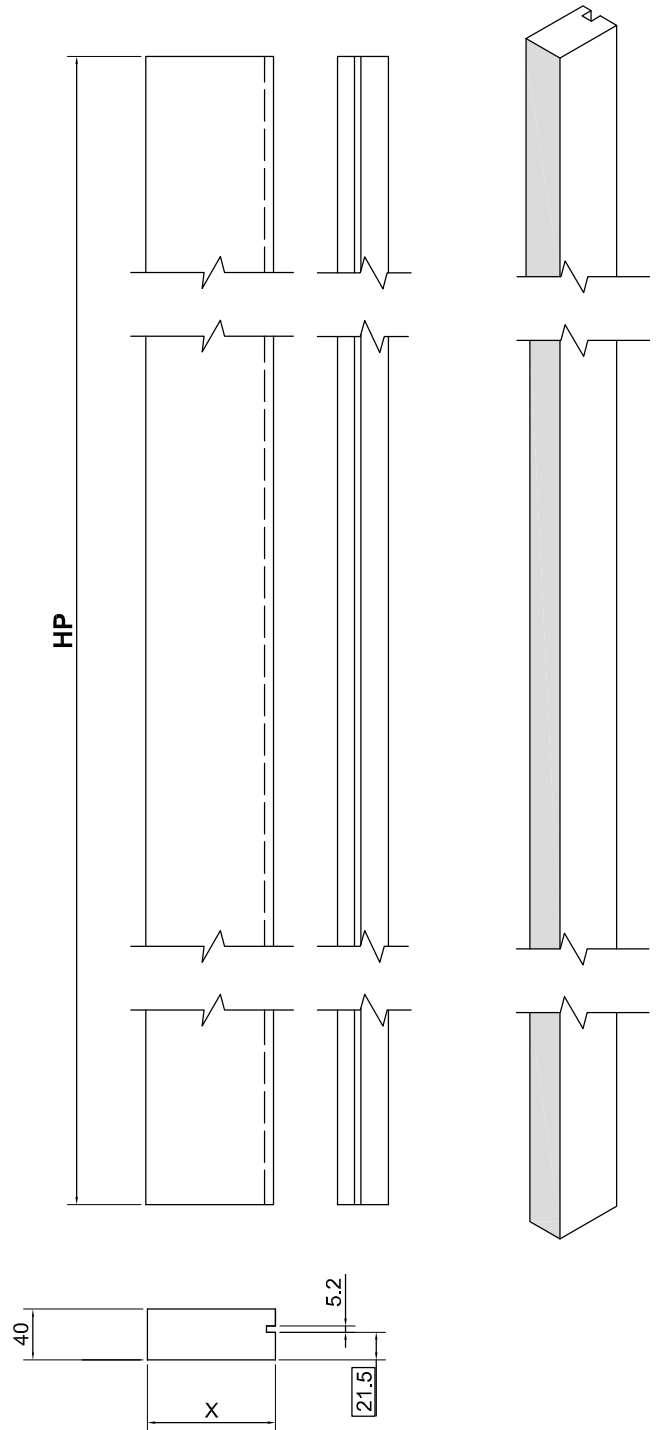
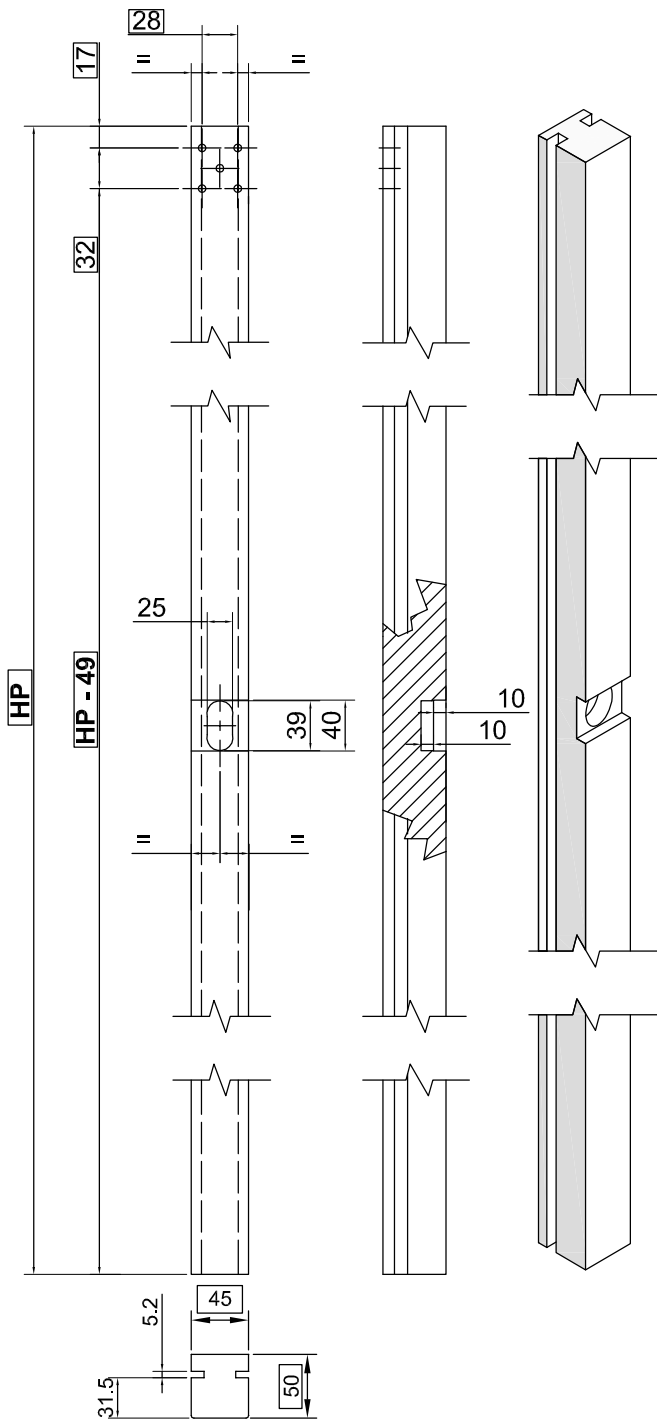


When the door is in the middle of the wall, you must have two specular jambs



DOORPOST

JAMB



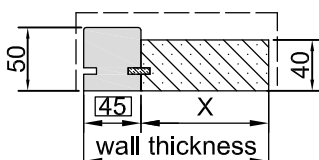
 DIMENSION THAT MUST BE ACCURATE

X = WALL THICKNESS - 45

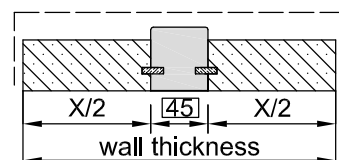
HP = HEIGHT PASSAGE DIMENSION  VISIBLE SIDE

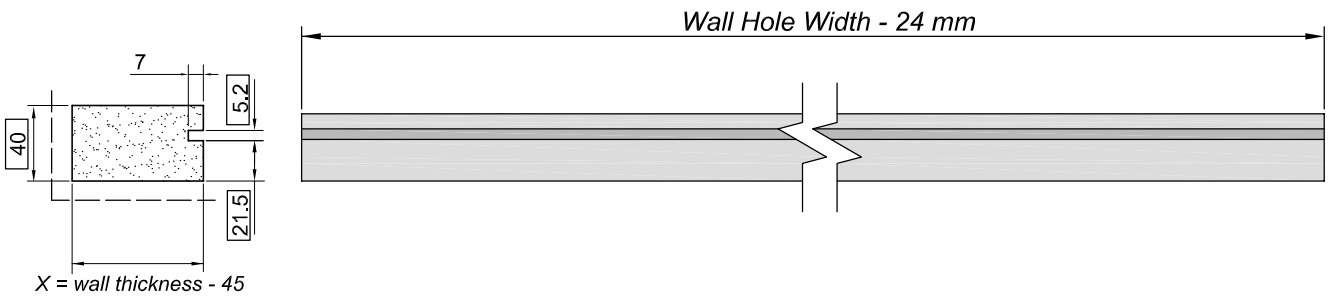
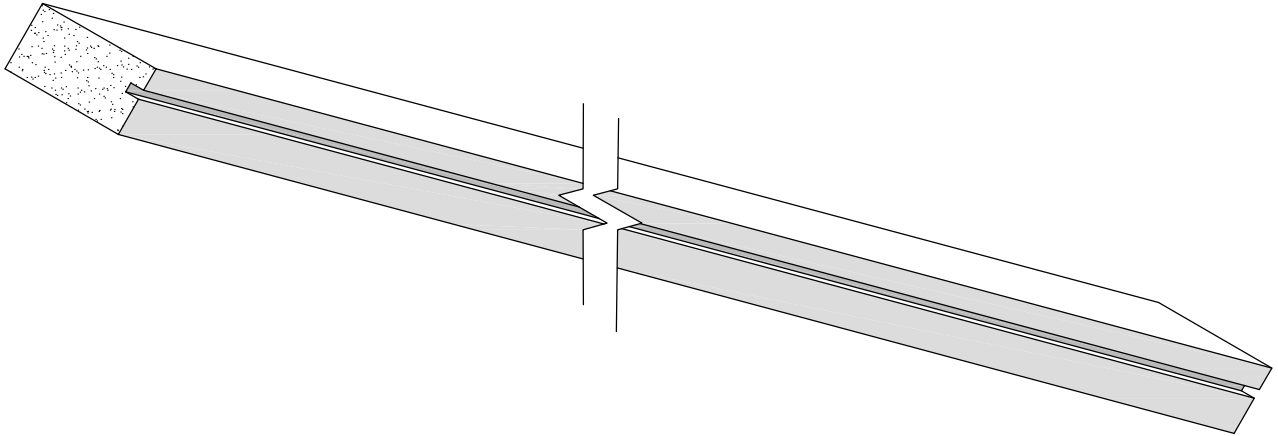
ORIENTED DOOR

CENTERED DOOR



When the door is in the middle of the wall, you must have two specular jambs





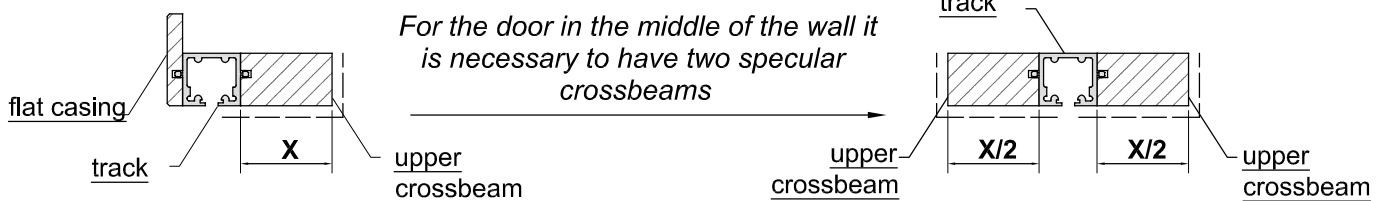
DIMENSION THAT MUST BE ACCURATE

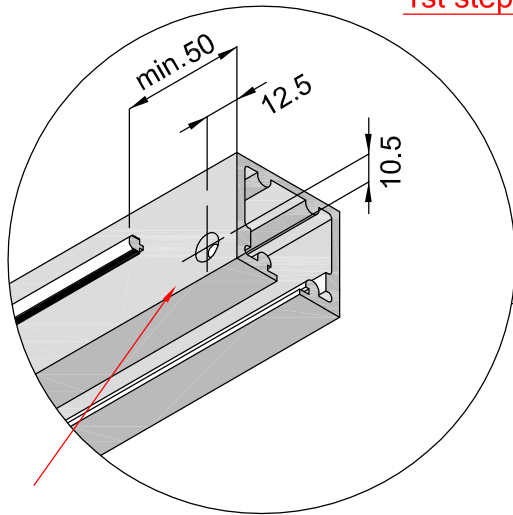
$X = \text{WALL THICKNESS} - 45$

--- VISIBLE SIDE

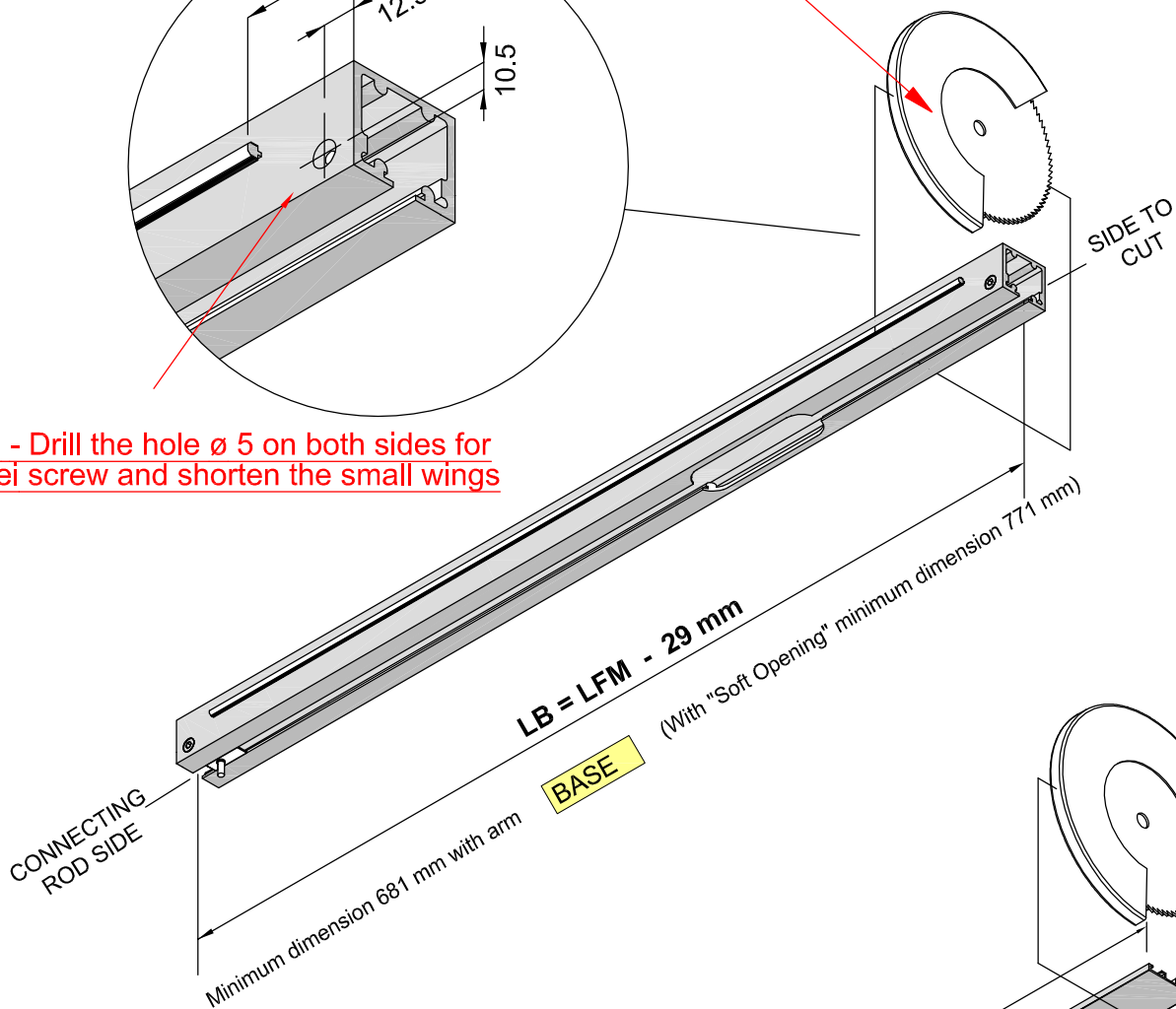
ORIENTED DOOR

CENTERED DOOR

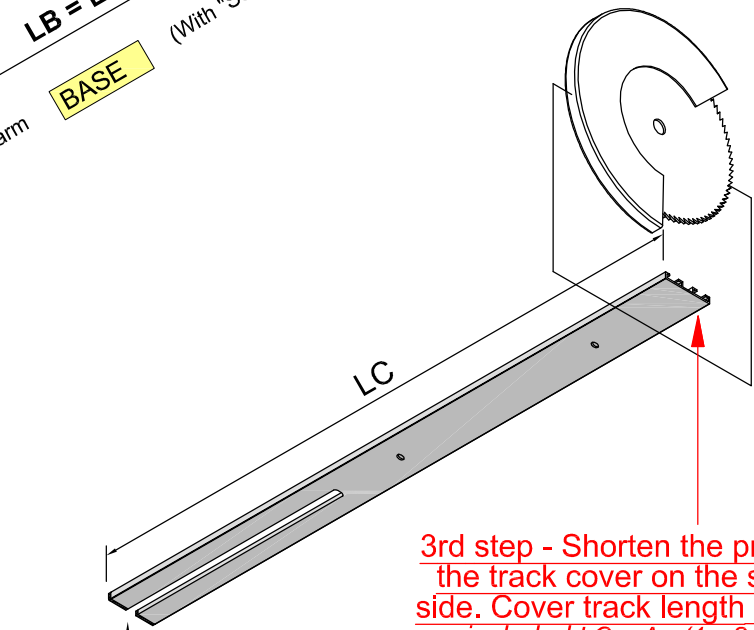




1st step: Cut the track on the shown side

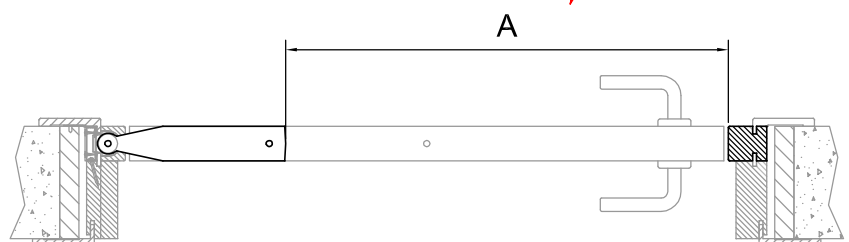


2nd step - Drill the hole $\varnothing 5$ on both sides for M5 TSPei screw and shorten the small wings



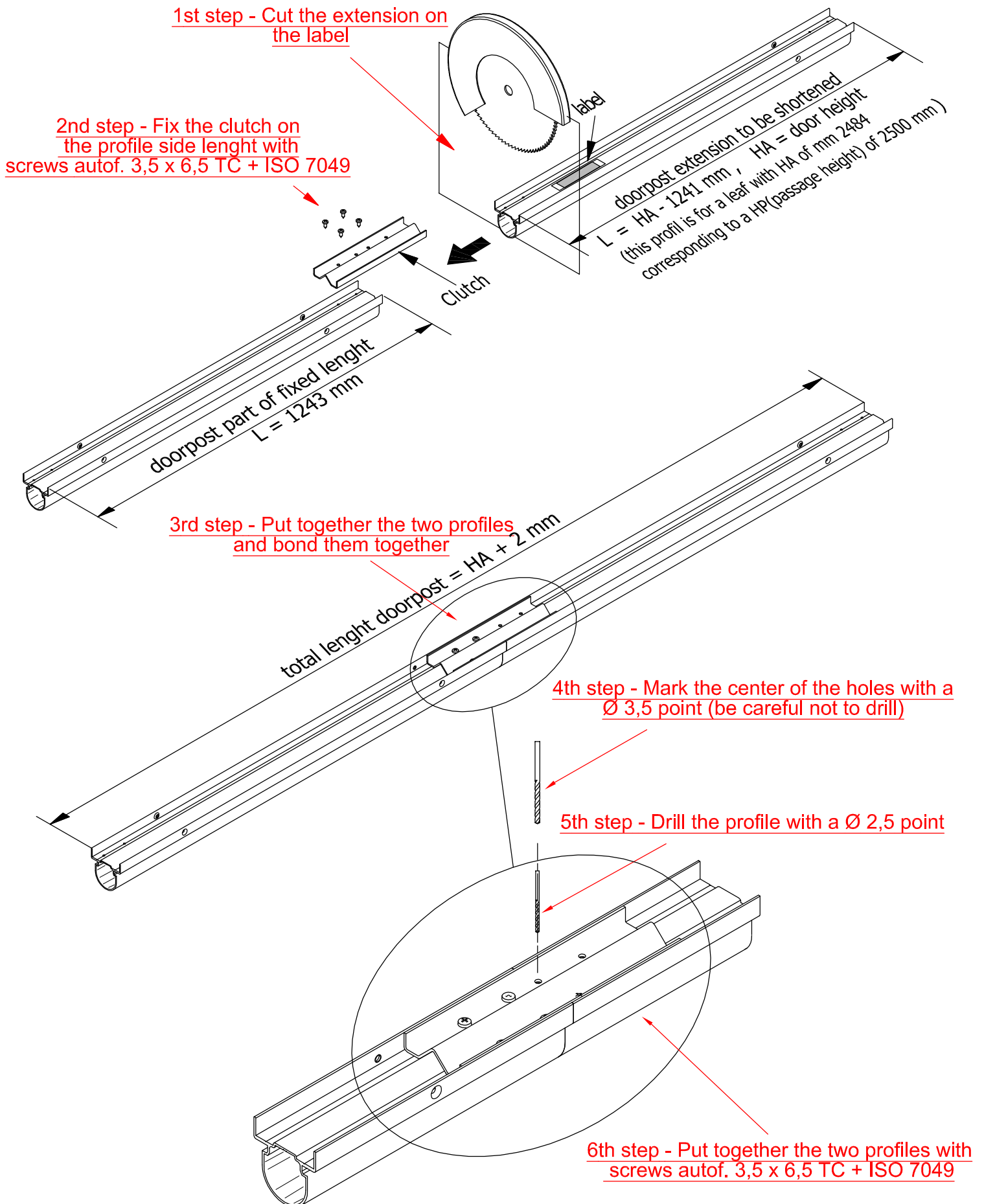
track cover caps

3rd step - Shorten the profile of the track cover on the shown side. Cover track length with cap included $LC = A - (1 + 2 \text{ mm})$



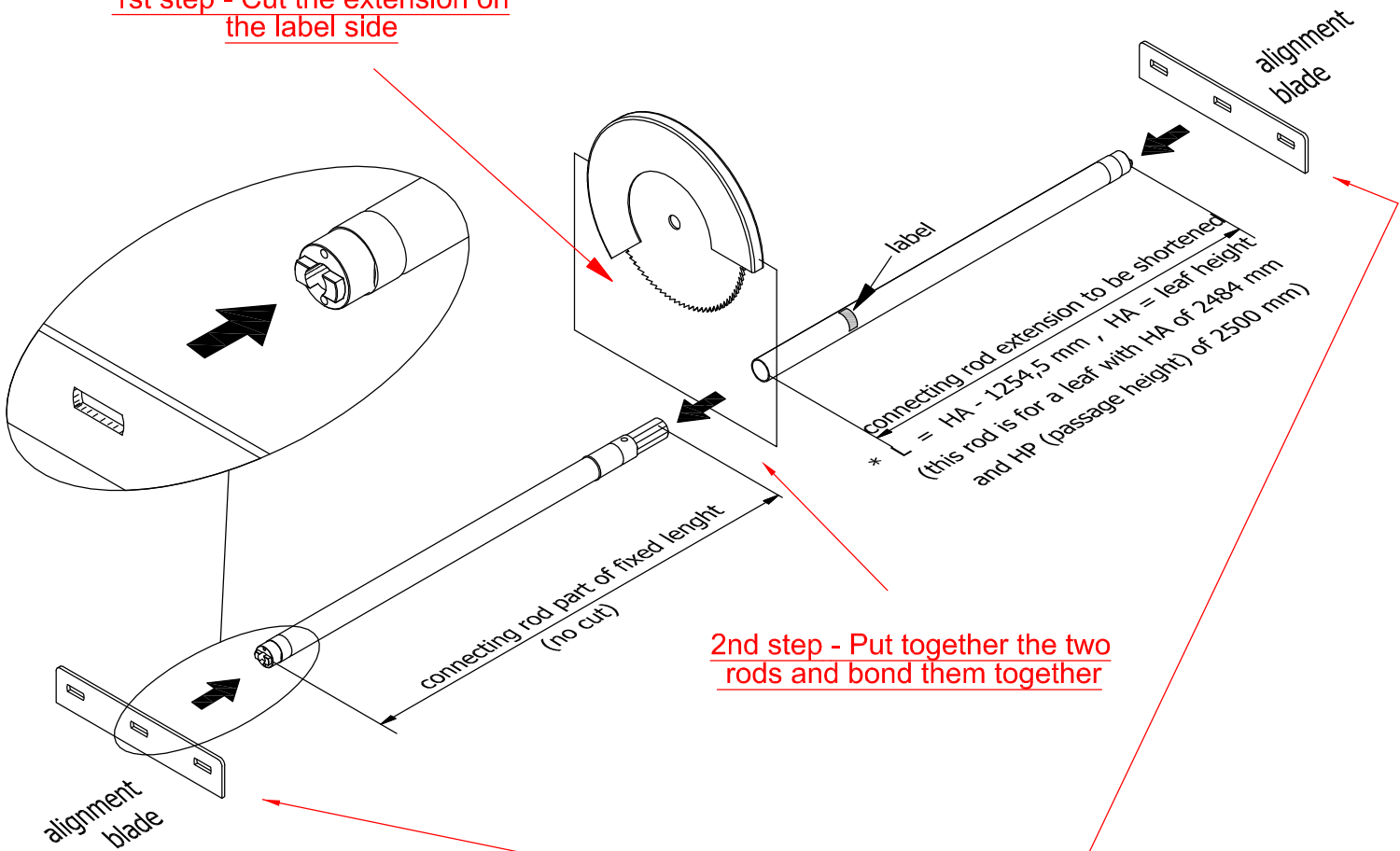
LFM WALL HOLE WIDTH	LB TRACK LENGTH
700	671
725	696
750	721
775	746
825	796
875	846
925	896
975	946
LB = LFM - 29	

CUTTING OF THE DOORPOST FOR NOT STANDARD HEIGHTS.



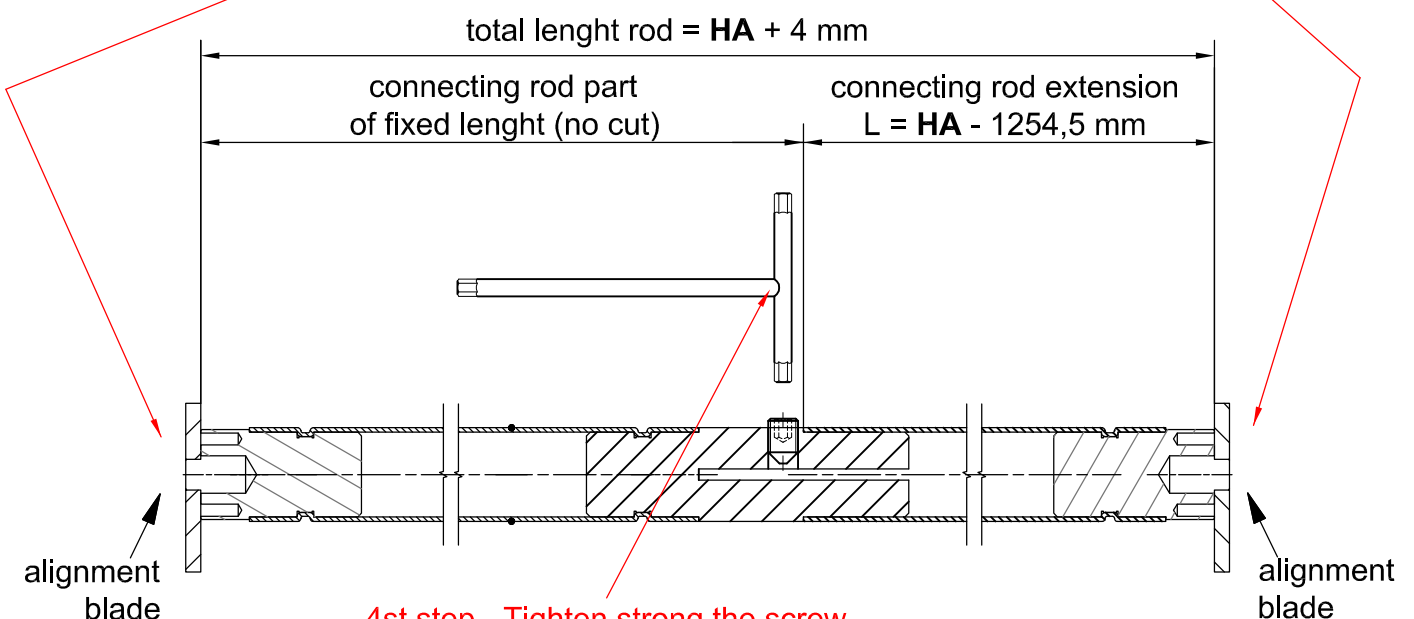
CUTTING OF THE CONNECTING ROD FOR NOT STANDARD HEIGHTS.

1st step - Cut the extension on the label side

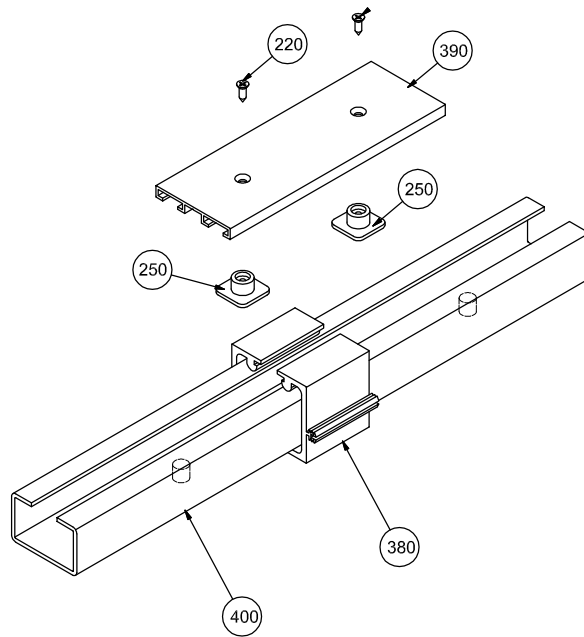


2nd step - Put together the two rods and bond them together

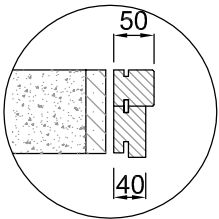
3rd step - Align carefully the two rods with two blades resting on a flat surface



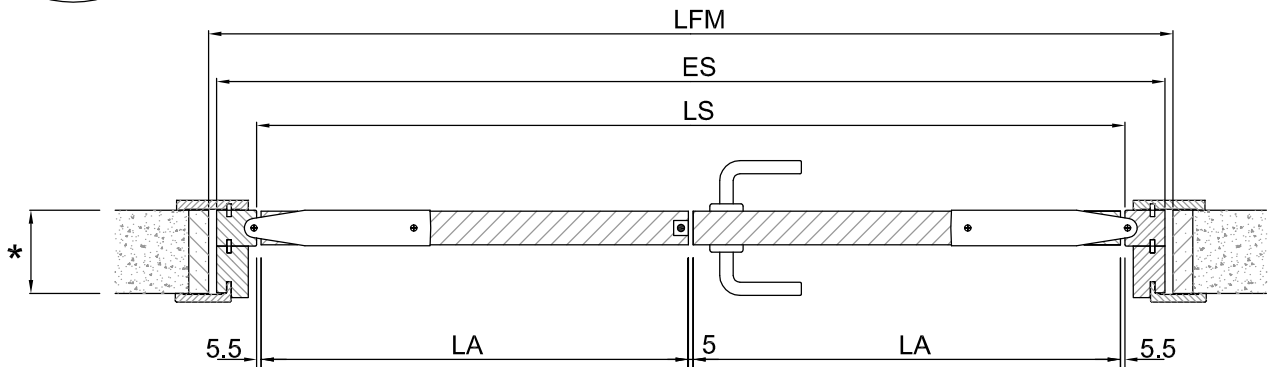
4th step - Tighten strong the screw (after the assembling the rod must be perfectly straight)



Part list		
rif.	q.ty	DESCRIPTION
220	1	Screw TSPcr Ø3X10
250	2	Track cover installation insert
380	1	Track extension
390	1	Track cover extension
400	1	Track graft junction



The measurements refer to a jamb with doorpost of 50 mm.



* N.B. For the limits of the wall thickness see page 5-6-7-8-9-10 in this manual.

LFM min. 1600 mm. with arm **BASE**
with "Soft Opening" **LFM** min. 1700 mm.

Legend	
LP	= Passage Dimension ($LFM - 200$)
LA	= Door Leaf Width ($\frac{LFM - 136}{2}$)
LS	= Door Jamb Opening ($LFM - 120$)
ES	= Outer Jamb ($LFM - 20$ = length of the track and upper crossbeam)
LFM	= Wall Hole Width

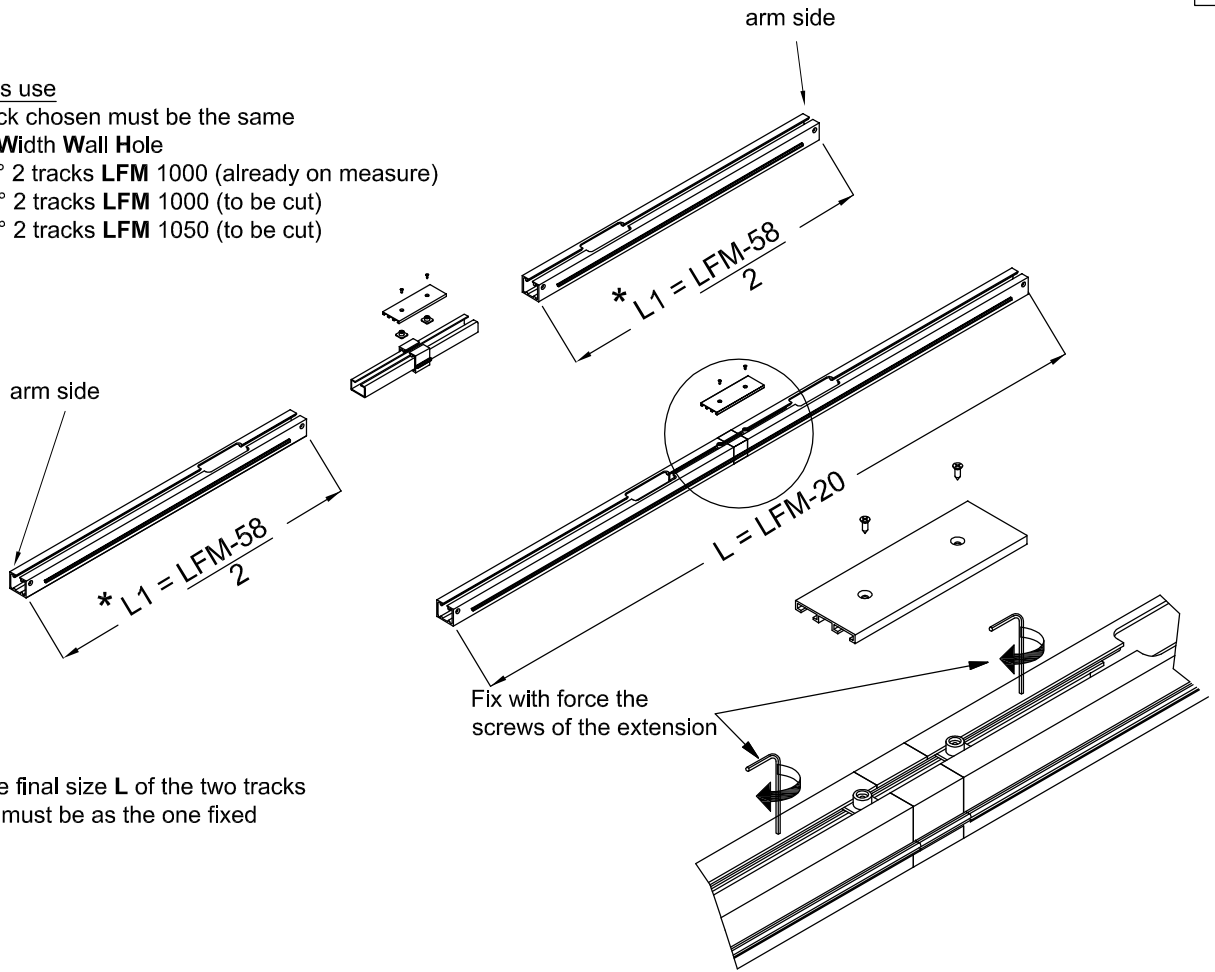
Choice of the tracks use

The sum of the track chosen must be the same or higher than the **Width Wall Hole**

ex. : **LFM 2000** n.° 2 tracks **LFM 1000** (already on measure)

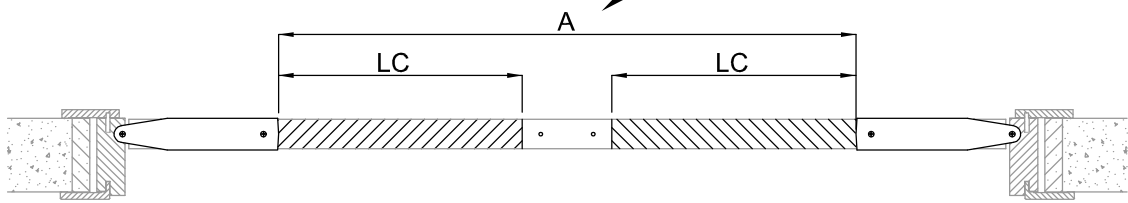
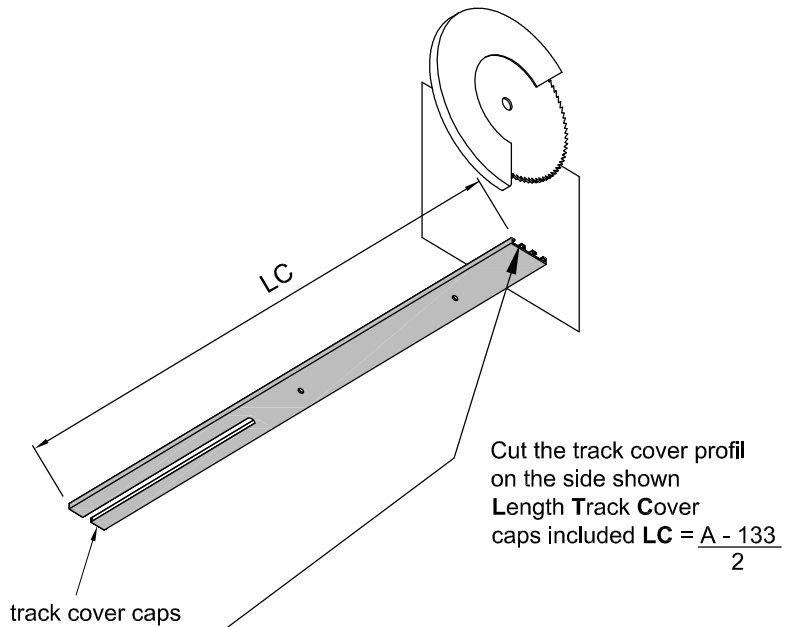
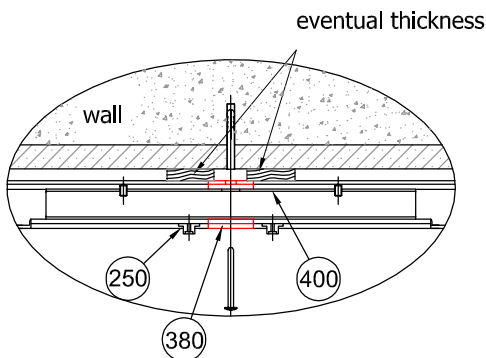
LFM 1960 n.° 2 tracks **LFM 1000** (to be cut)

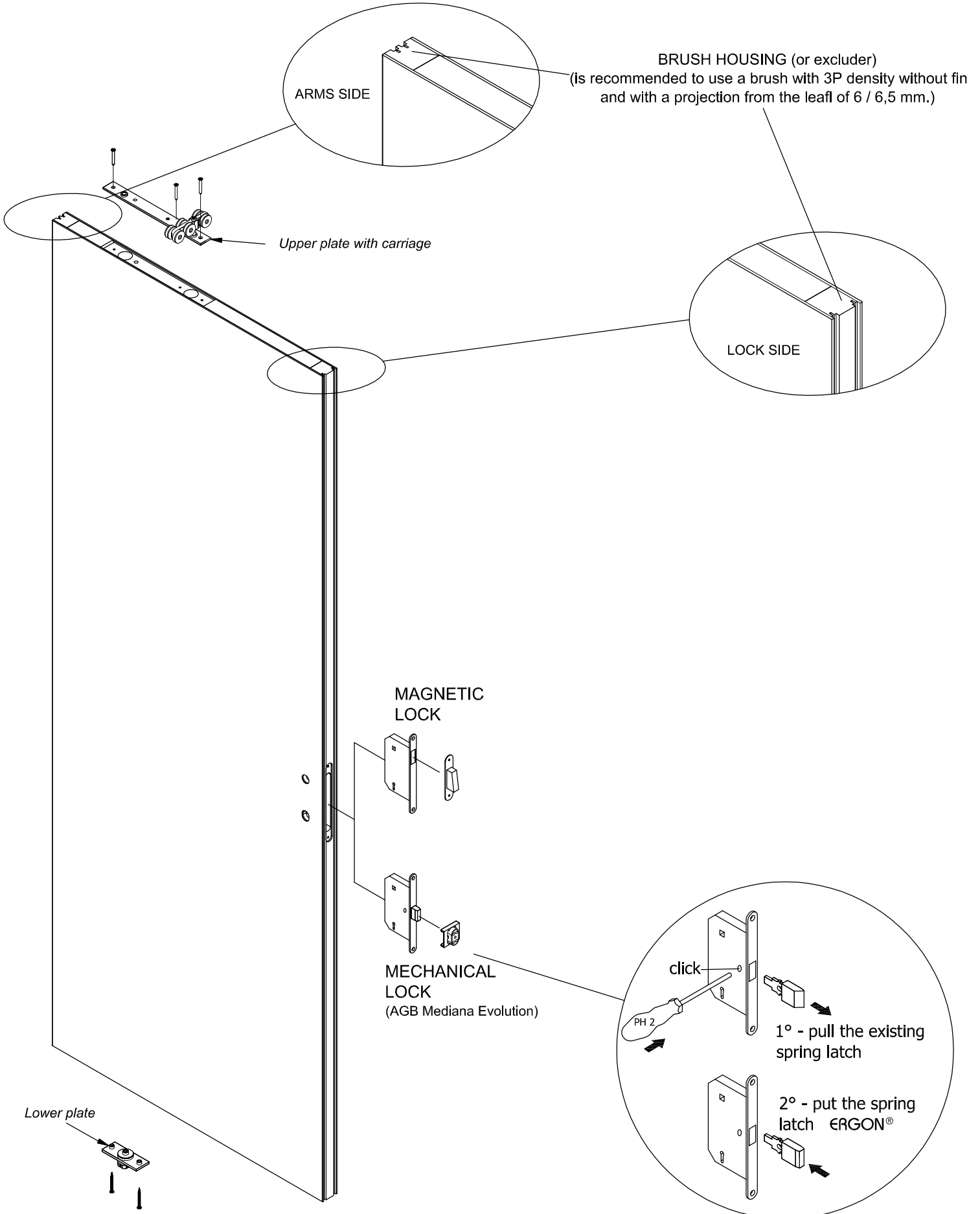
LFM 2060 n.° 2 tracks **LFM 1050** (to be cut)



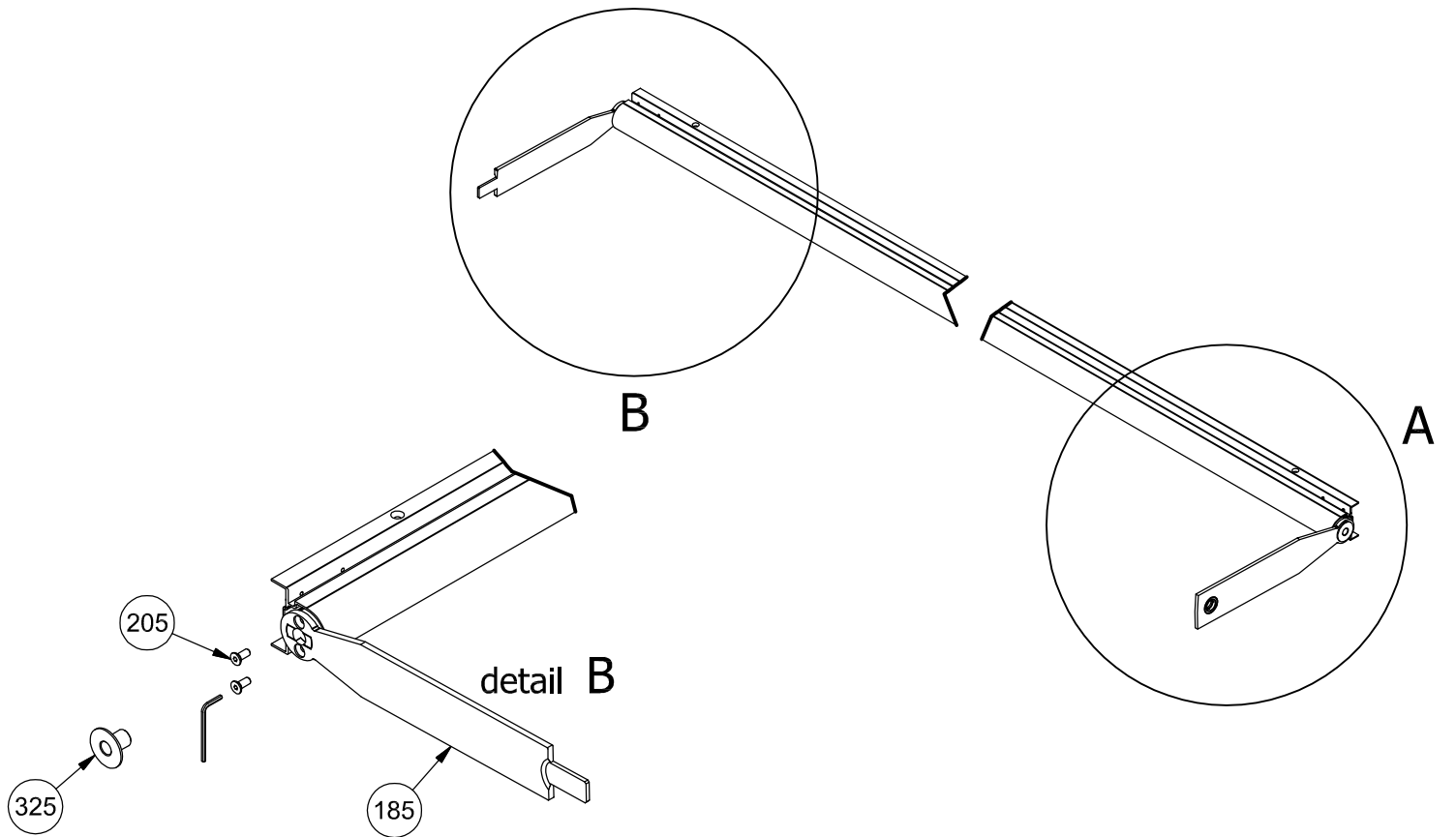
* Pay attention to the final size **L** of the two tracks assembled, which must be as the one fixed

Fix properly the track to the upper wall through the hole you see on the track extension (380) Before installing the doors be sure that internal track are clean.

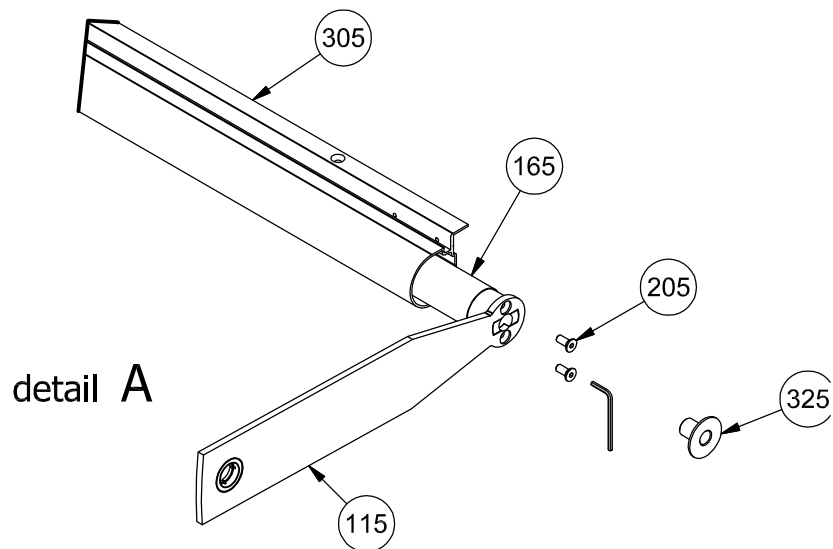




Install the upper and lower arms into the rod which is already inside the aluminium profile and mind the alignment, when you insert the brasses be careful to the kingpins on the bearing brasses: they must be inserted in the screws' hexagons.

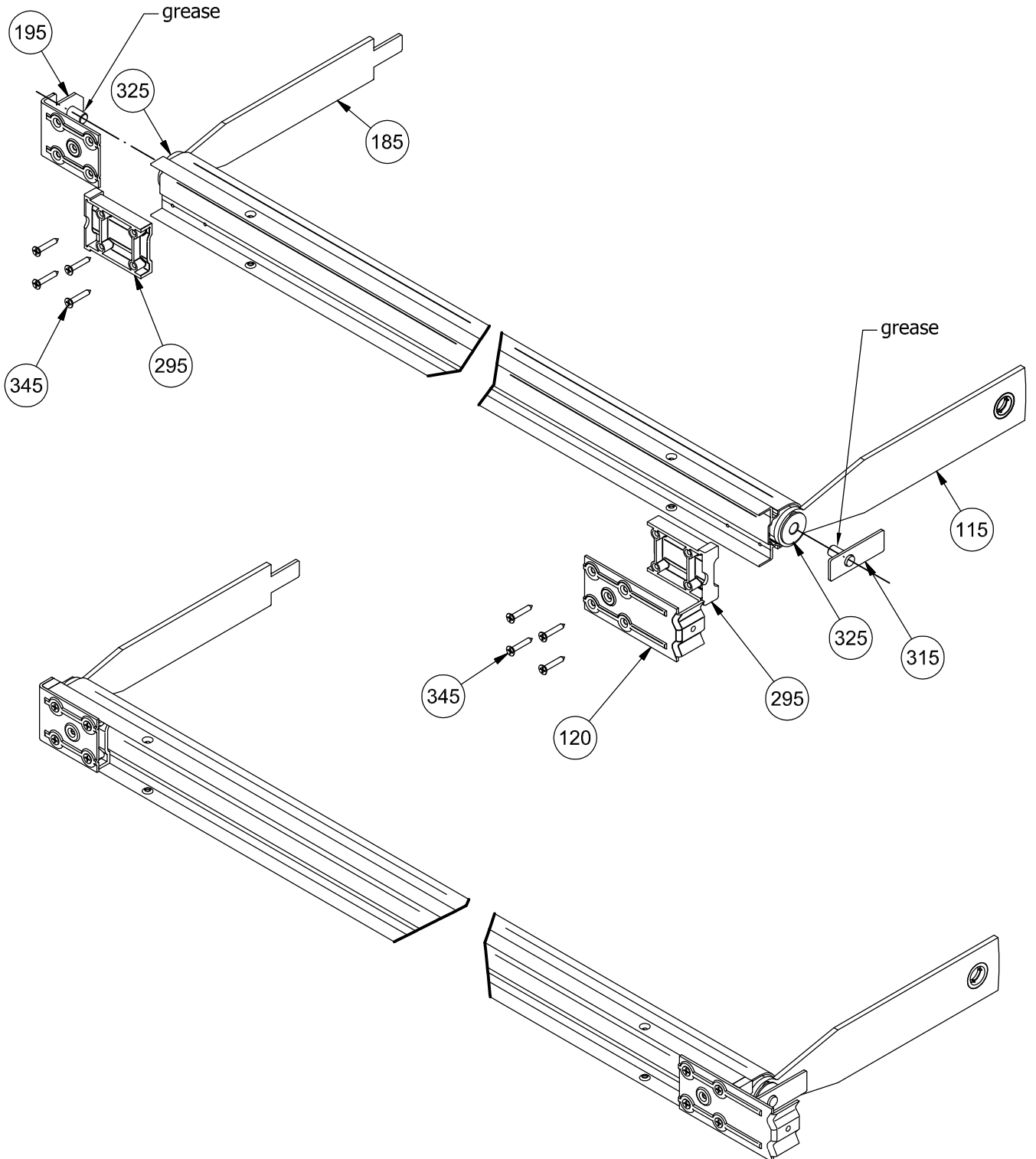


Attention!
Tighten firmly the screws (205) with a hexagonal spanner 2,5 mm. Make sure that the arm adheres to the pin plate of the connecting rod.

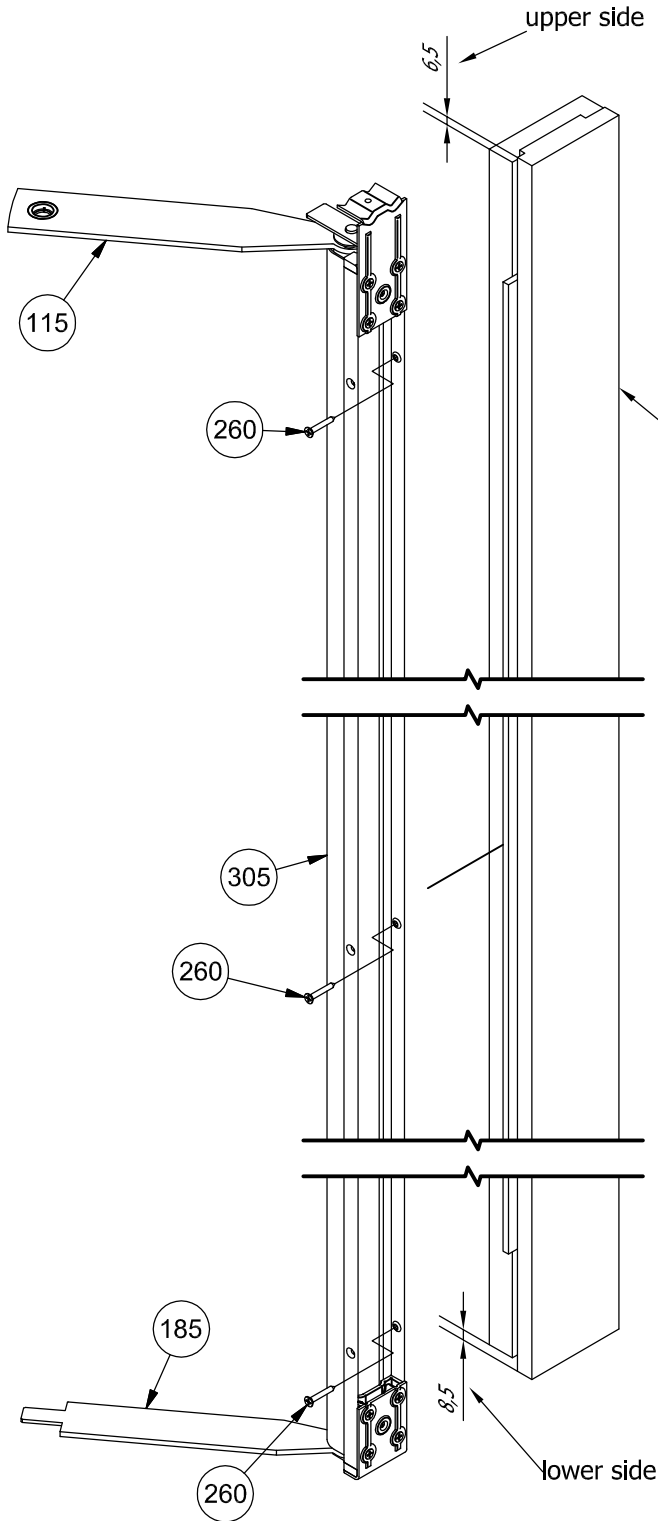


Parts list		
Ref.	Qty	Description
115	1	Upper arm
165	1	Connecting rod
185	1	Lower arm
305	1	Doorpost
325	2	Rod rotation brass
205	4	Screw TSPei M4x10 - ISO 10642

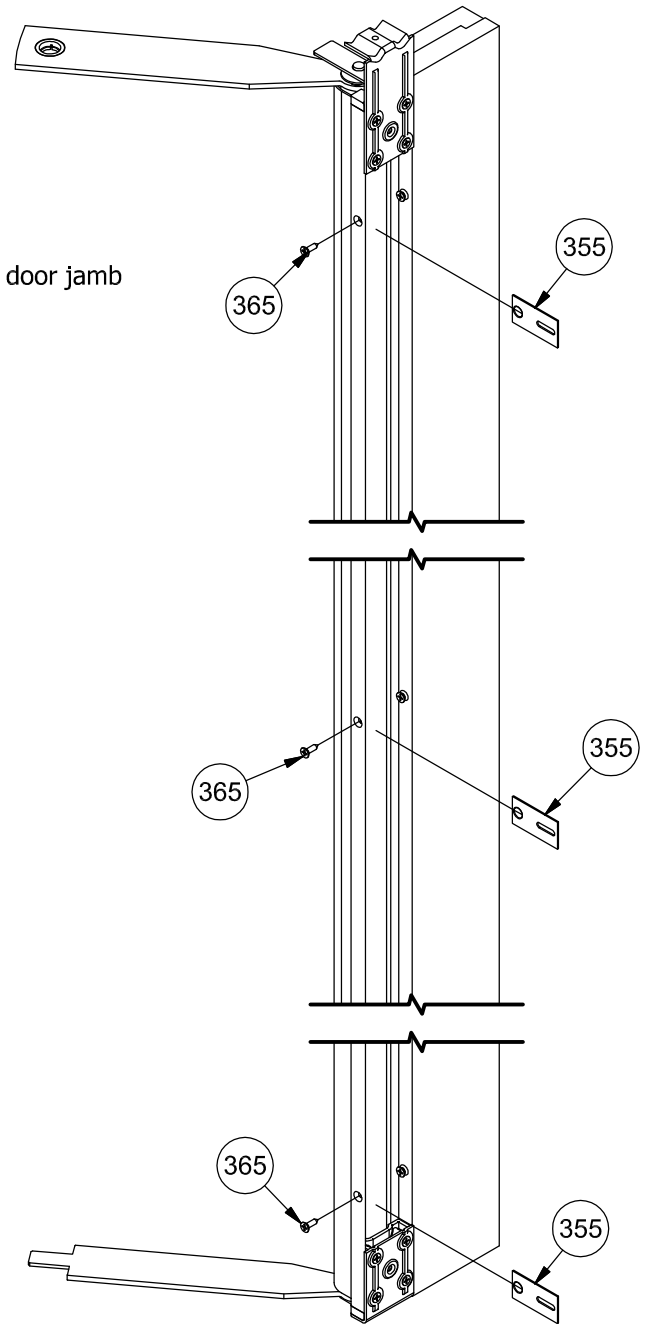
N.B.: check the correct brasses (325) installation.



Parts list		
Ref.	Qty	Description
115	1	Upper arm
120	1	Hinge-side bracket
185	1	Lower arm
195	1	Lower Bracket
295	2	Spacer
315	1	Upper pivot
325	2	Rod rotation brass
345	8	Screw TSPcr Ø3,5x22

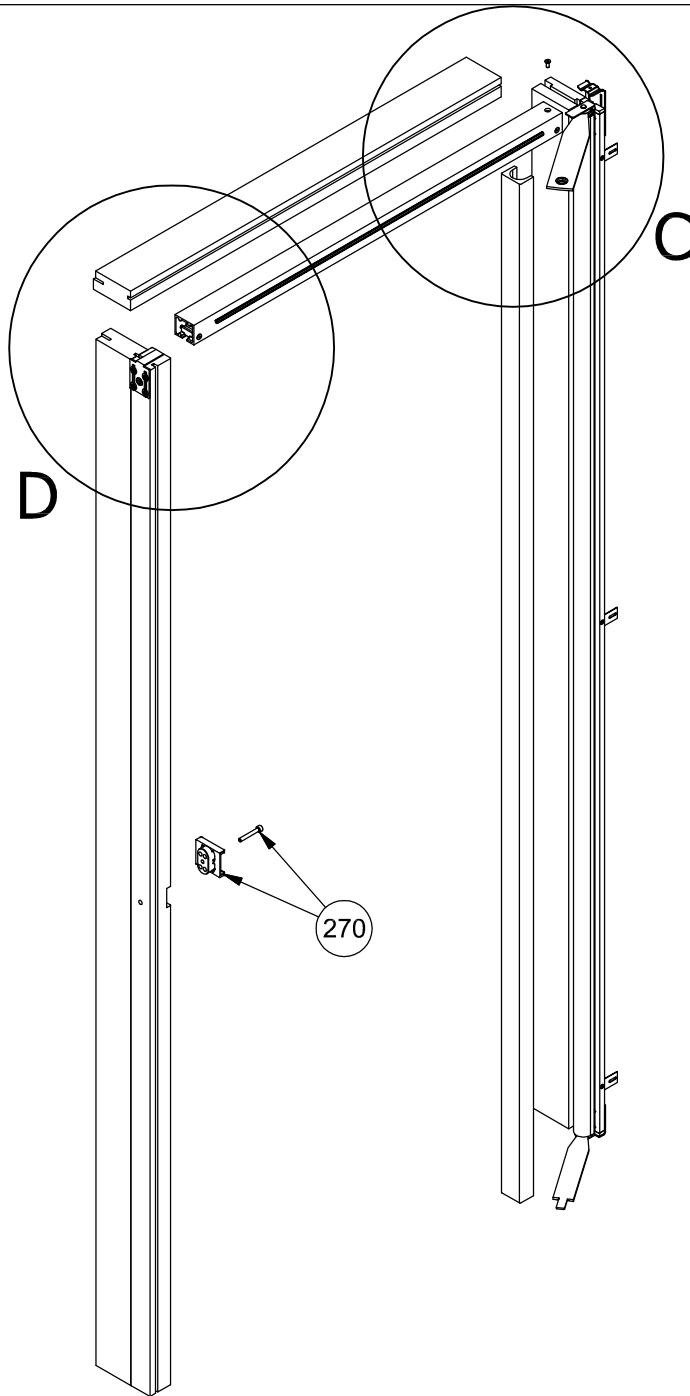


Assembling door jamb

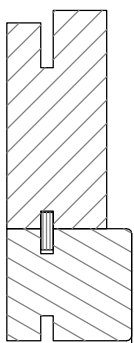


Assembling fixing clamp

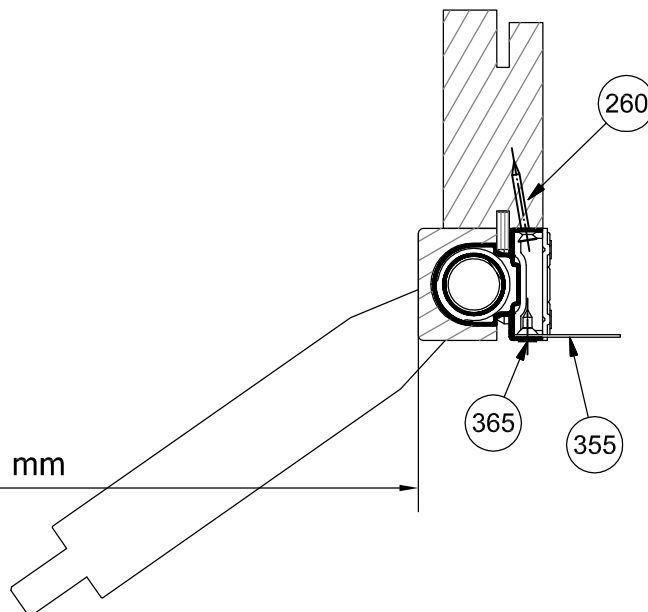
Parts list		
Ref.	Qty	Description
115	1	Upper arm
185	1	Lower arm
260	3	Screw TSPcr Ø3,5x30 - DIN 7505-A
305	1	Doorpost
355	3	Fixing clamp
365	3	Screw TSPcr Ø3,5x13 - ISO 7050



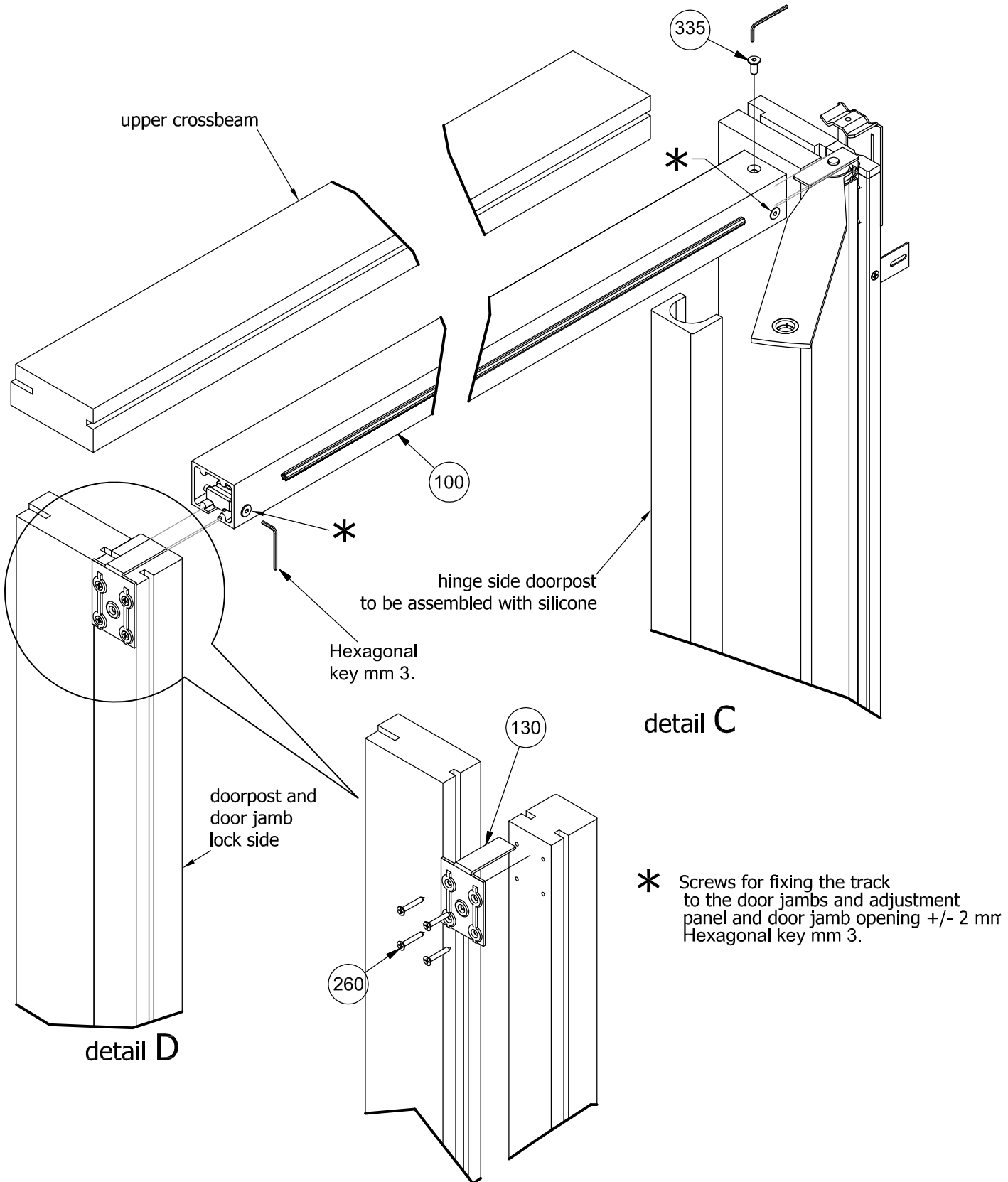
N.B. Details **C - D**
see page 6



LS = Panel Width + 11 mm

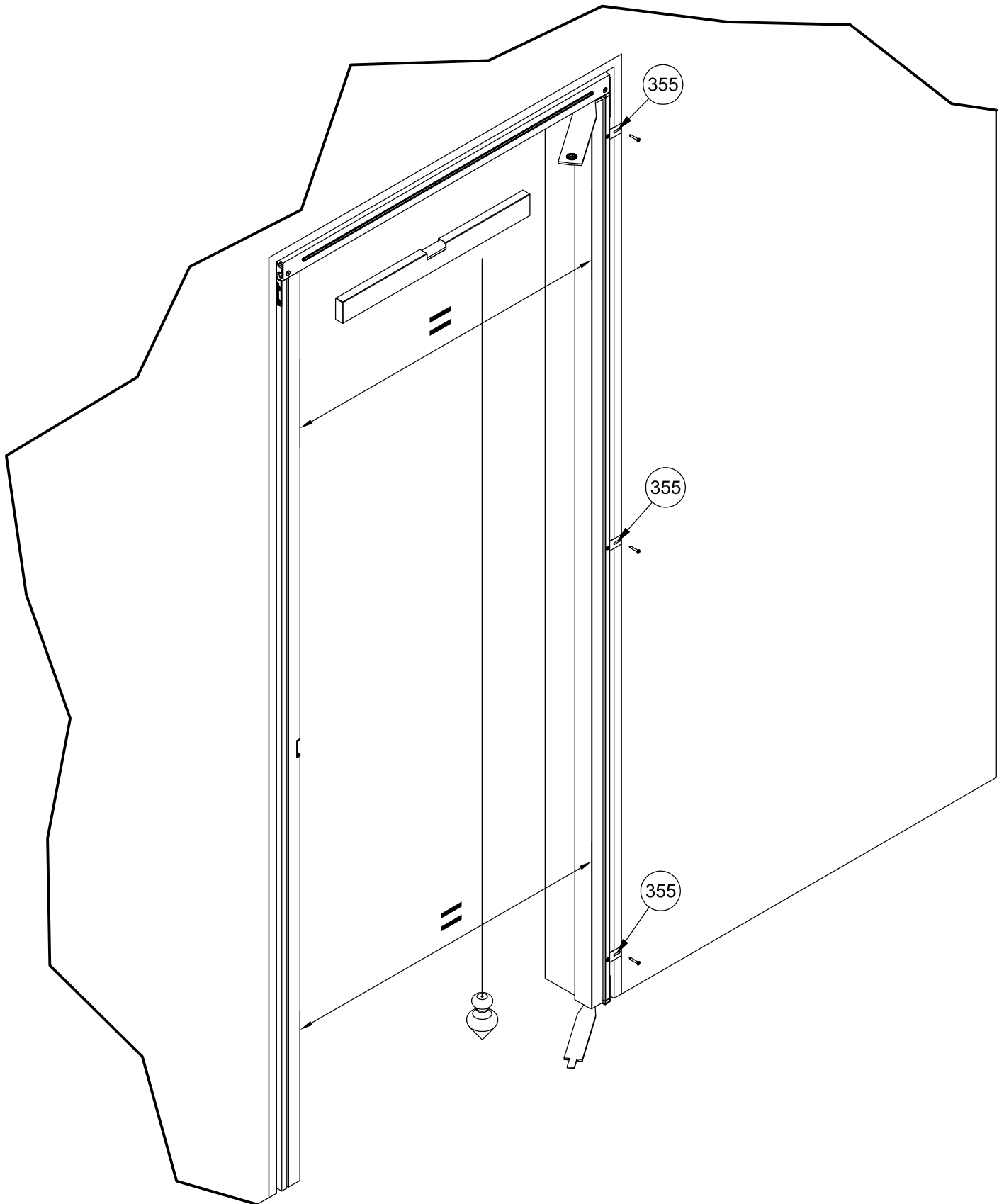


Parts list	
Ref.	Description
260	Screws TSPcr Ø3,5x30 - DIN 7505-A
270	Set for lock mediana evolution
355	Fixing clamp
365	Screw TSPcr Ø3,5x13 - ISO 7050

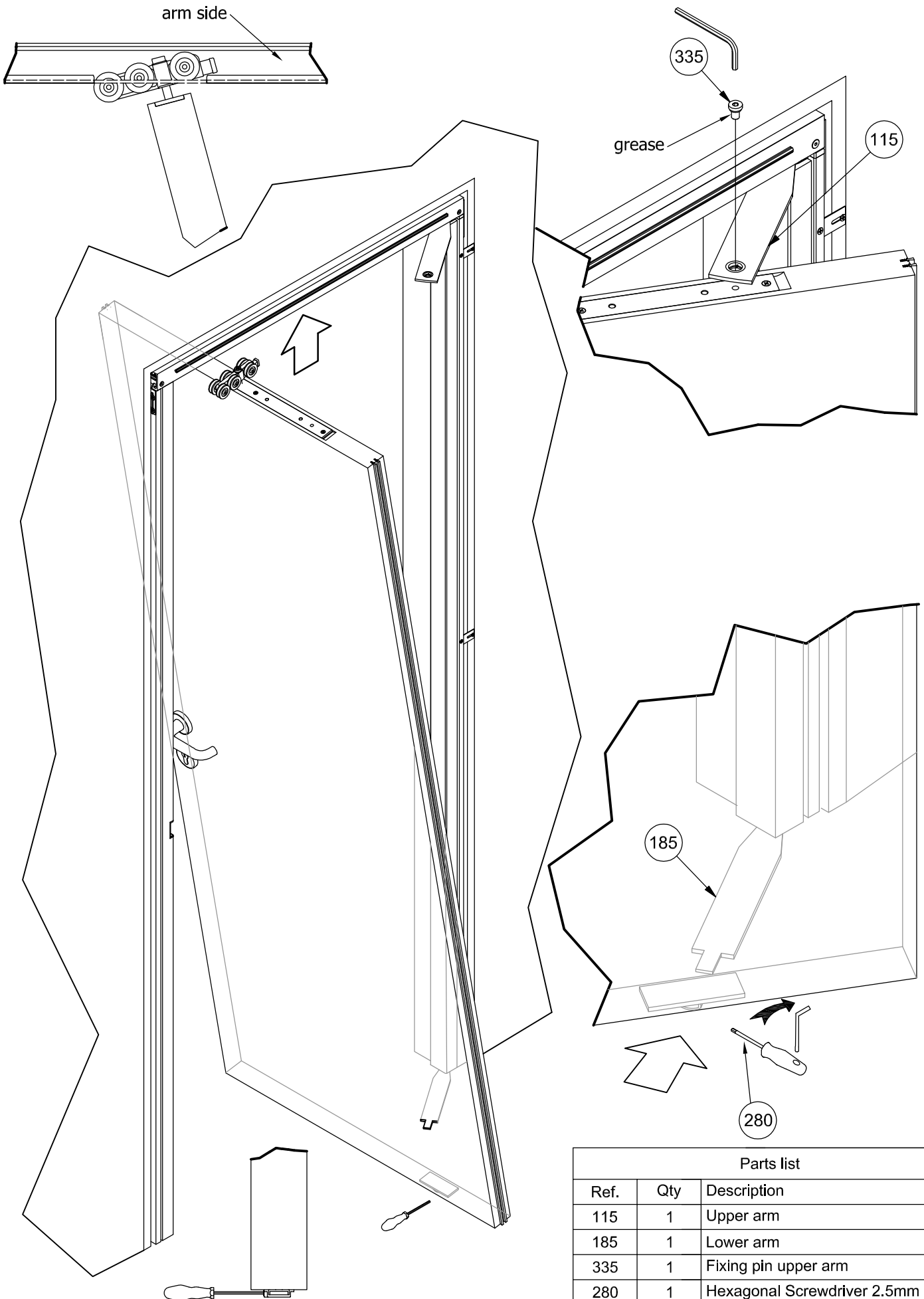


Parts list		
Ref.	Qty	Description
100	1	Track
130	1	Lock-side bracket
230	1	Screw TSPei M5x12 - ISO 10642
260	4	Screws TSPcr Ø3,5x30 - DIN 7505-A

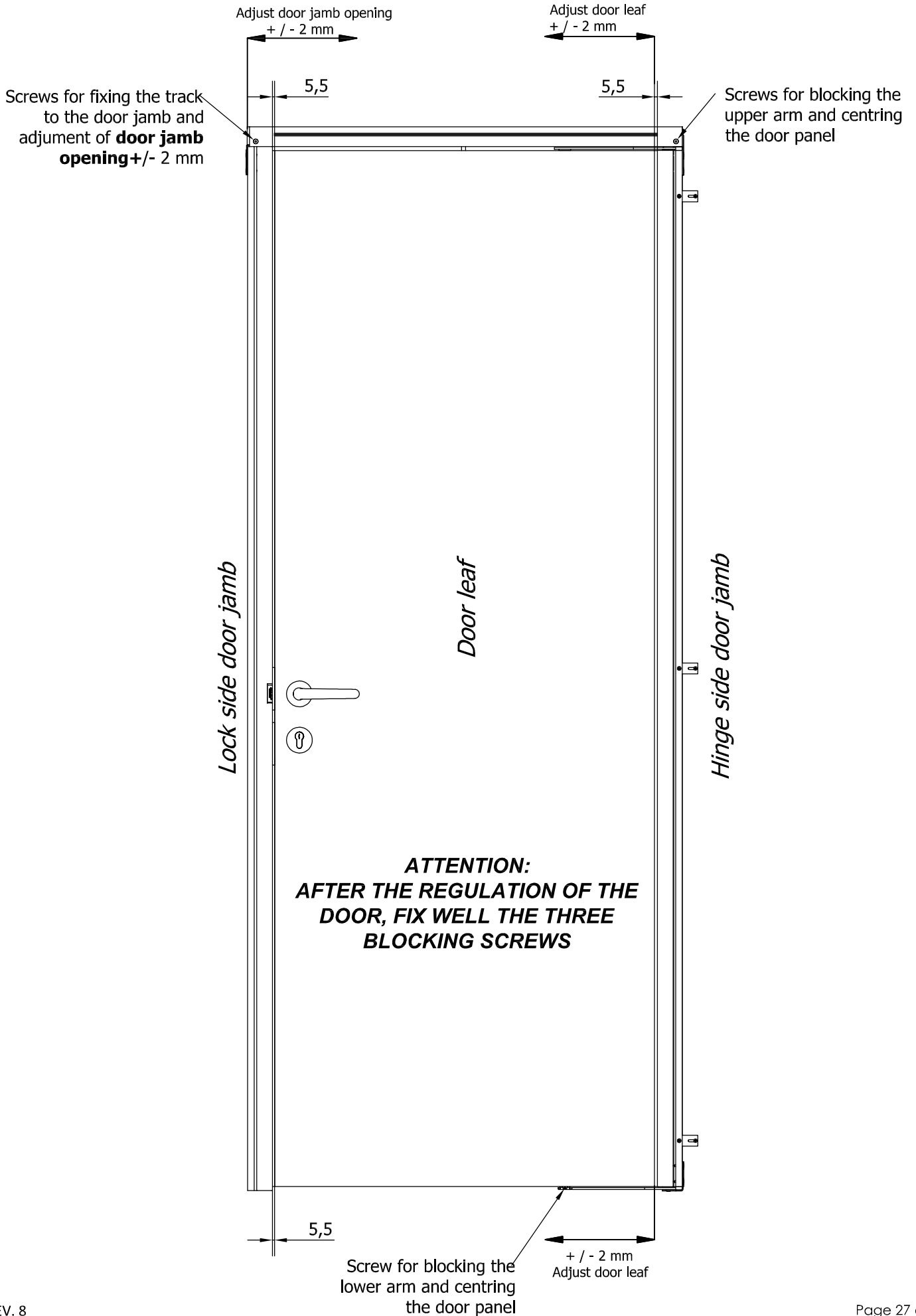
N.B. The levelling of the track and the plumb of the door jambs must be precise.

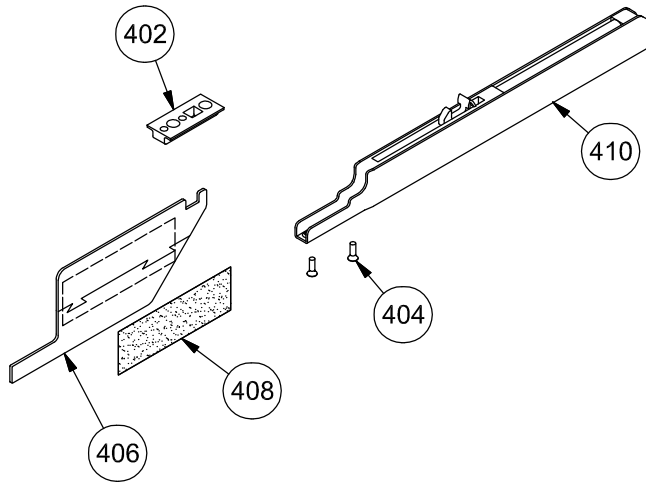


Parts list		
Ref.	Qty	Description
355	3	Fixing clamp



Parts list		
Ref.	Qty	Description
115	1	Upper arm
185	1	Lower arm
335	1	Fixing pin upper arm
280	1	Hexagonal Screwdriver 2.5mm

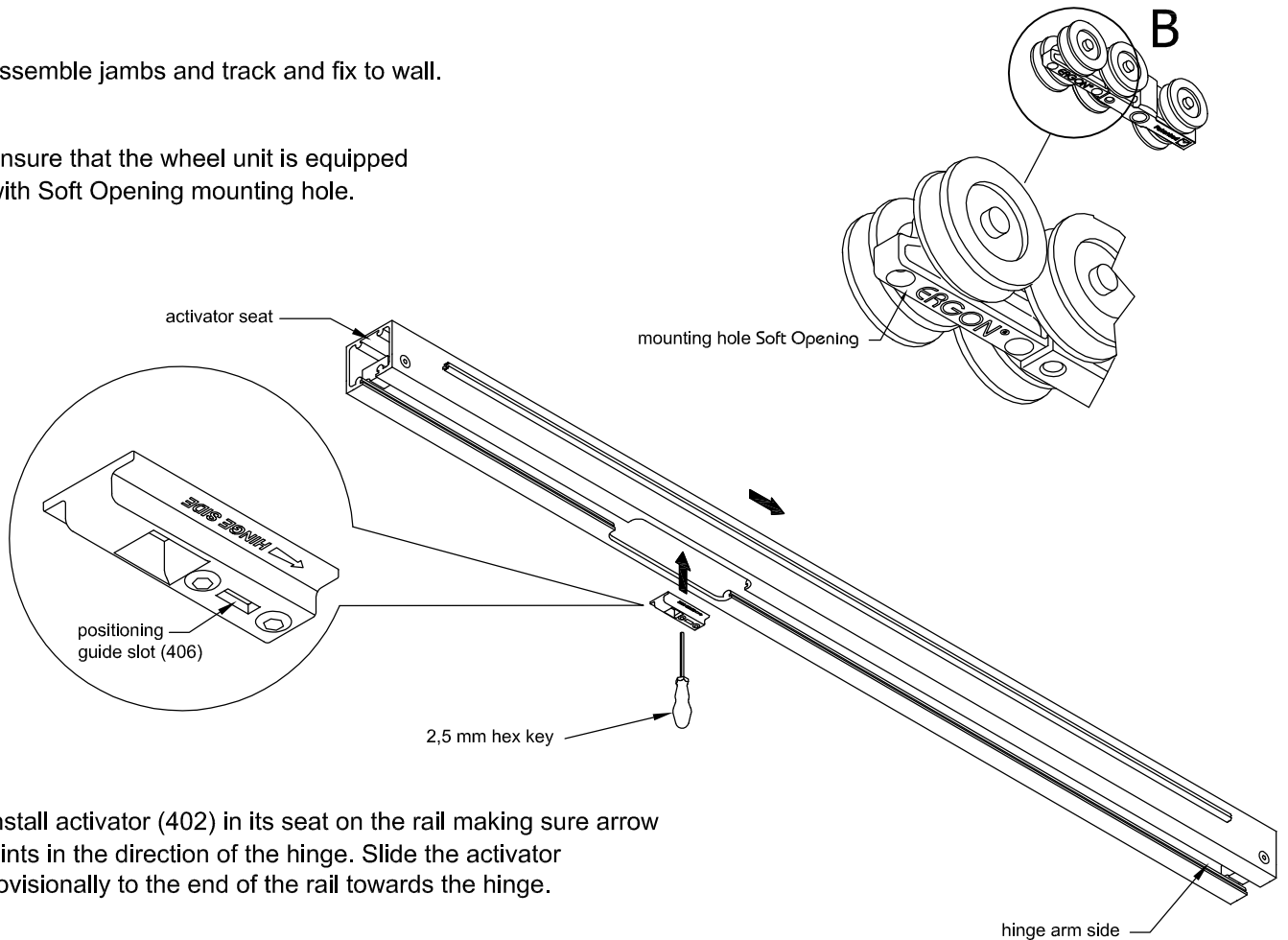




List of Components		
Ref.	Q.ty	Description
402	1	Activator
404	2	Screw TSP+ M3x8 - ISO 7046
406	1	Activator positioning template
408	1	Sticker
410	1	Soft Opening

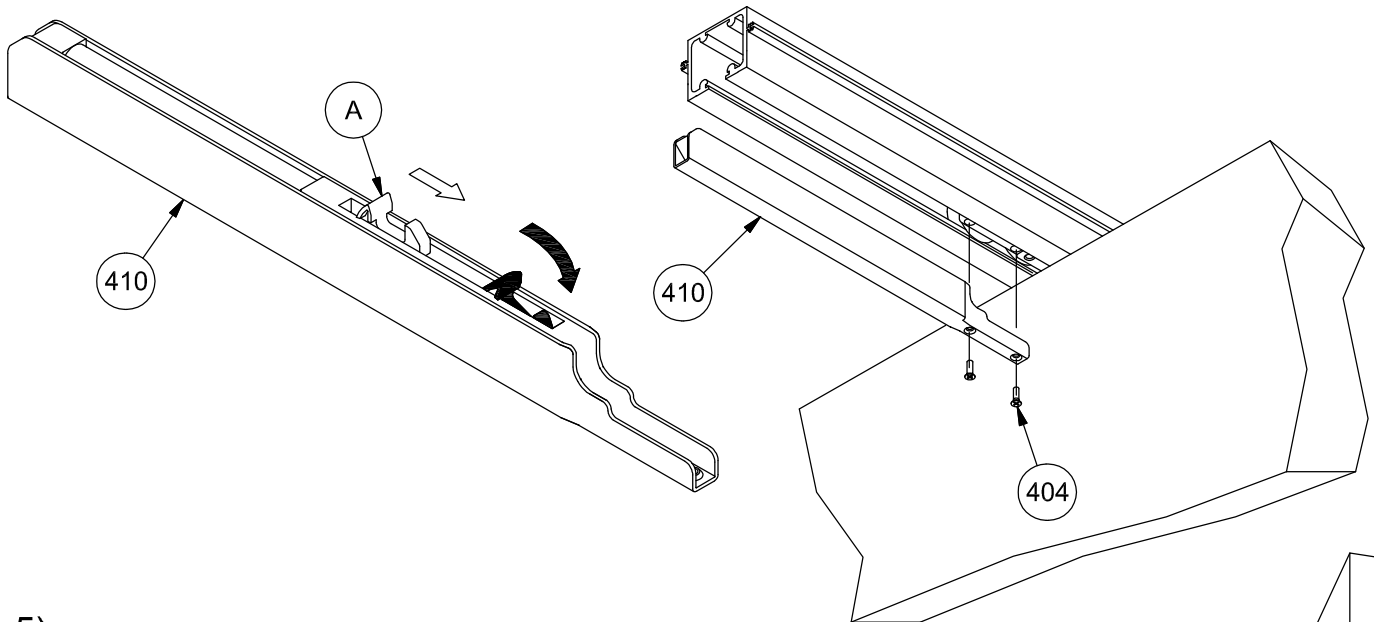
Installation

- 1) Assemble jambs and track and fix to wall.
- 2) Ensure that the wheel unit is equipped with Soft Opening mounting hole.

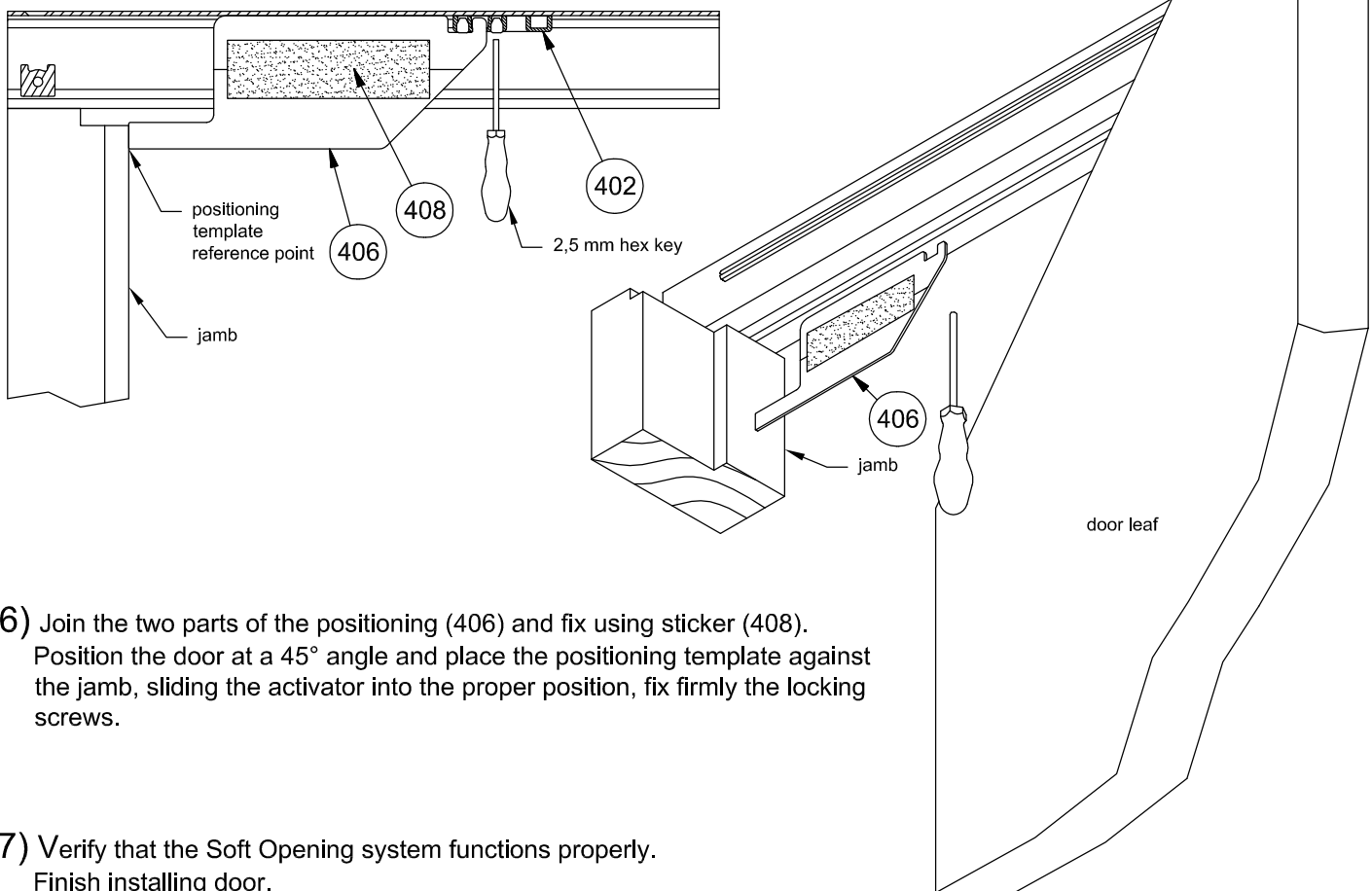


- 3) Install activator (402) in its seat on the rail making sure arrow points in the direction of the hinge. Slide the activator provisionally to the end of the rail towards the hinge.
- 4) Hang the door and mount the hinge arm. Adjust the door normally and open it all the way.

N.B. If the door is already installed, remove the track cover and then install the activator in its seat on the rail.

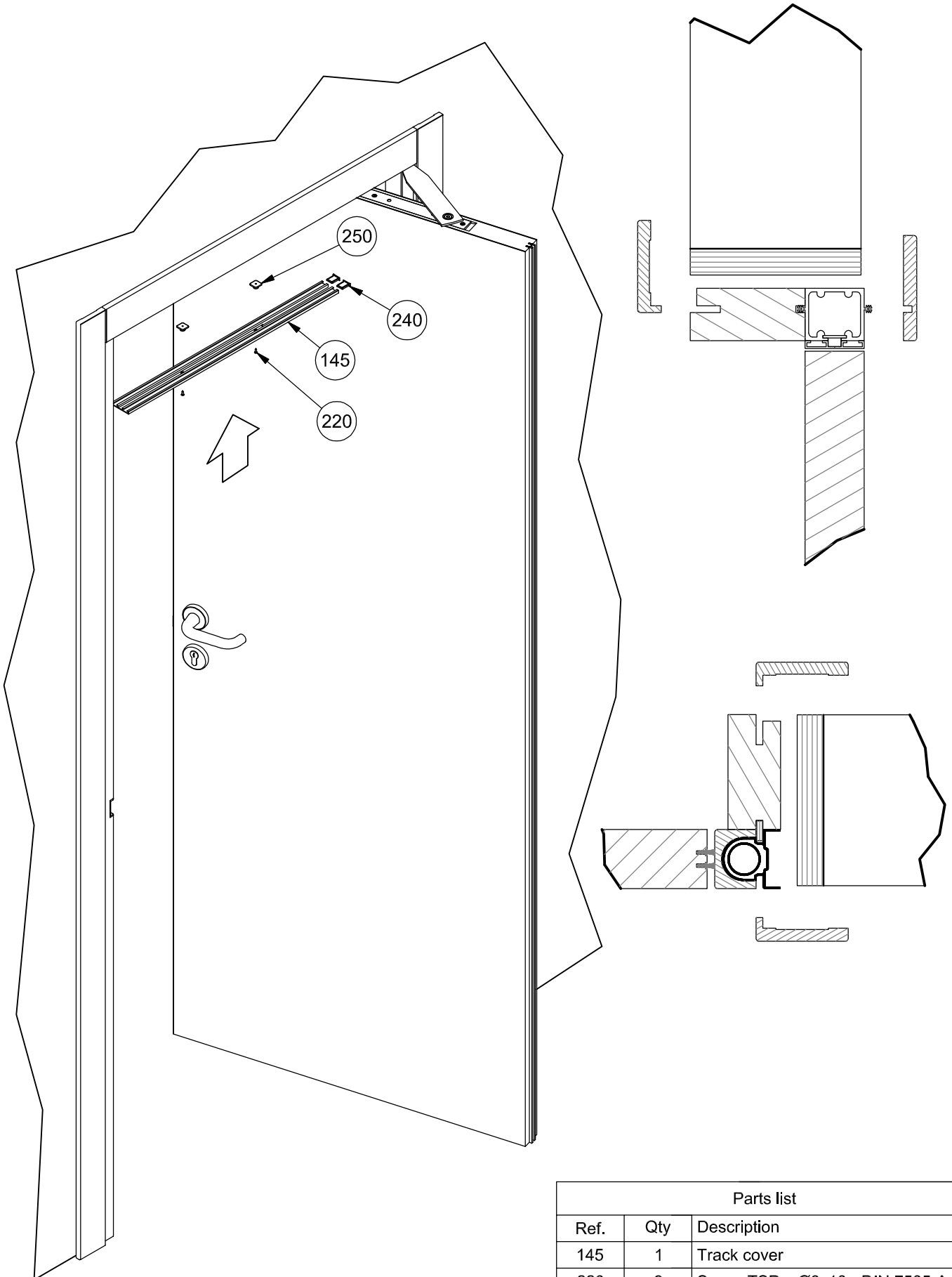


- 5) Push hook (A) to set the Soft Opening unit (410).
Mount Soft Opening unit to wheel unit using the screws provided (404).



- 6) Join the two parts of the positioning (406) and fix using sticker (408).
Position the door at a 45° angle and place the positioning template against the jamb, sliding the activator into the proper position, fix firmly the locking screws.

- 7) Verify that the Soft Opening system functions properly.
Finish installing door.



Parts list		
Ref.	Qty	Description
145	1	Track cover
220	2	Screw TSPcr Ø3x10 - DIN 7505-A
240	2	Track cover cap
250	2	Insert for cover track fixing

HILLALDAM COBURN SLIDING SYSTEMS



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