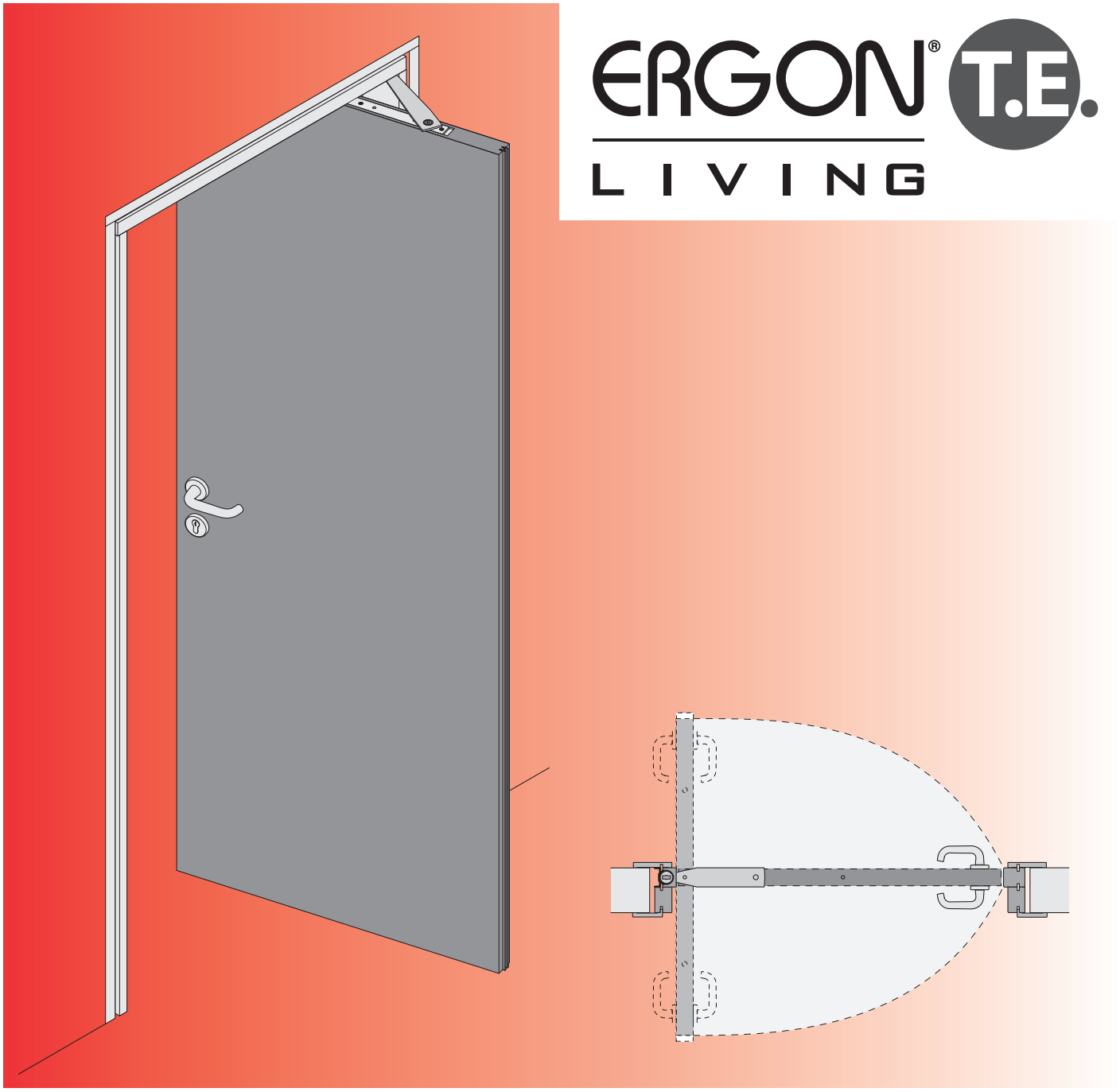
CELEGON
SMART OPENING SYSTEMS



ERGON® T.E.
LIVING

TECHNICAL MANUAL - CONSTRUCTION AND INSTALLATION

swinging sliding door with connecting rod on frame

JAMB THICKNESS 50 mm

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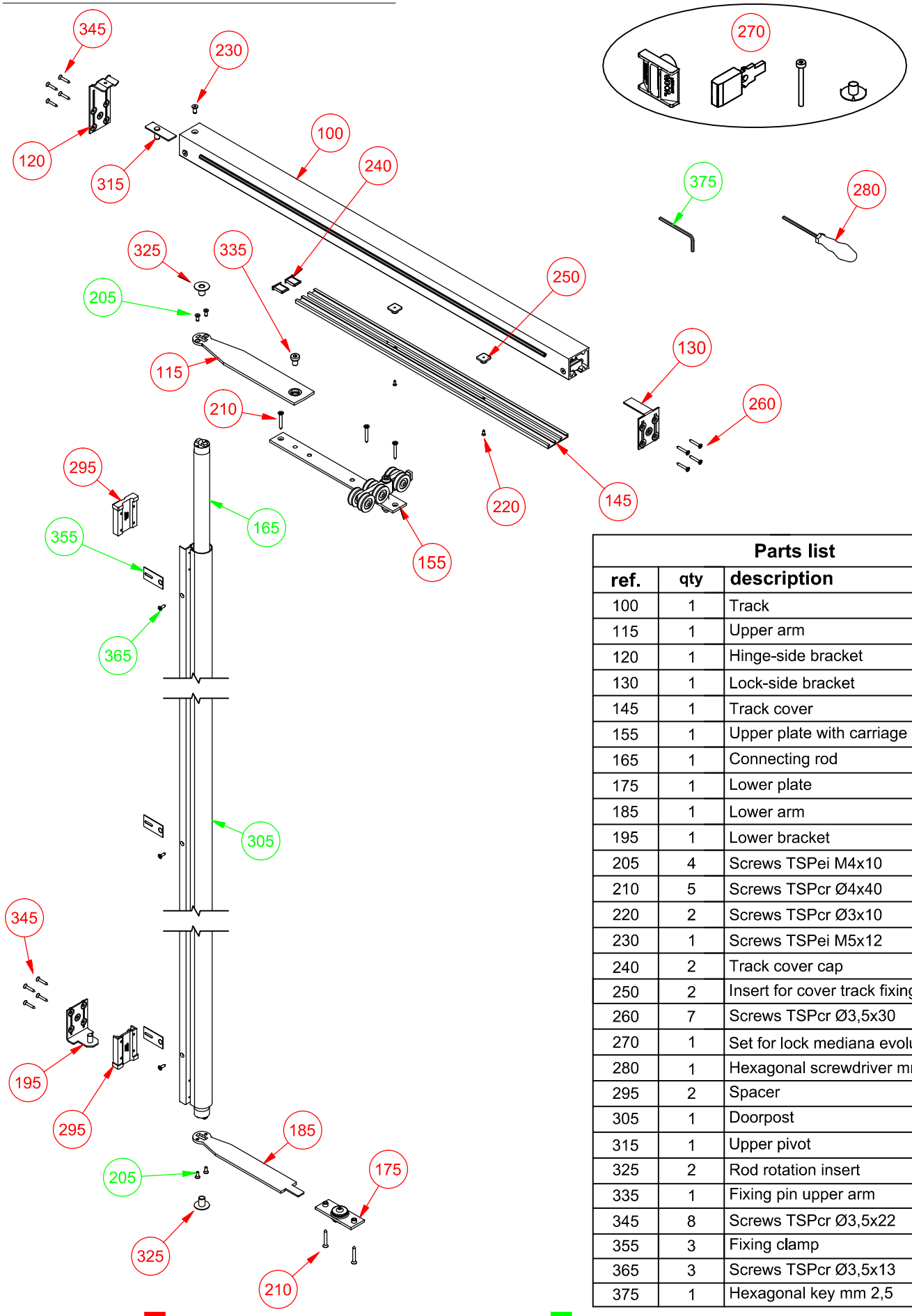
EXPLODED VIEW OF THE HARDWARE



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

Component present in the track kit

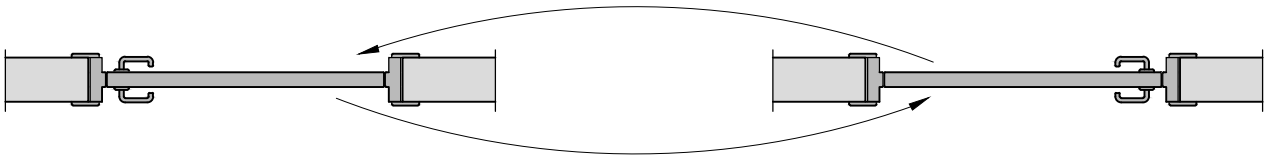
Component present in the rod kit

INTRODUCTION

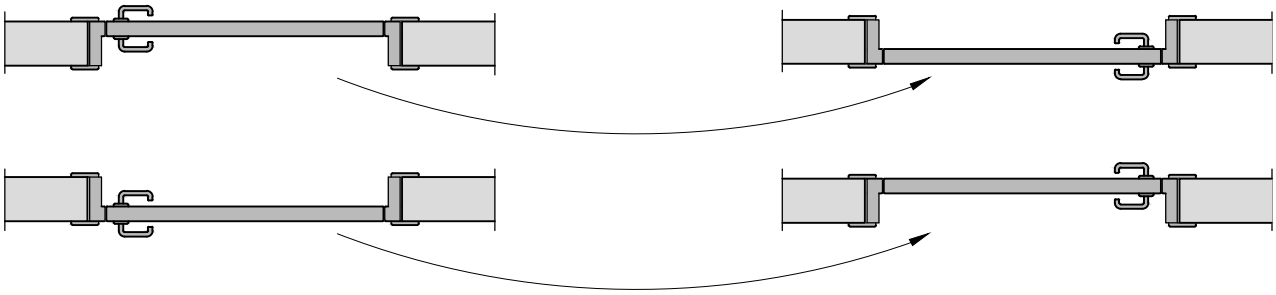
Ergon T.E. version extend the possibilities of use **ERGON**® technology for internal residential doors, which are built for doors unsuitable to contain the connecting rod between the two arms, such as glass, mirror, solid wood doors, etc. To guarantee the reliability and practicality provided by thousands of produced models, the components used for the T.E. version come from **ERGON**® LIVING S40 and **ERGON**® COMMUNITY models. These models are certified by the research institute and test laboratory CATAS according to EN 1119 standards and they passed severe tests about the system resistance to repeated door's opening and closing (100.000 cycles).
In the version T.E. the rod is foreseen inside the jamb and not inside the panel, so that it is possible to use the same panels as the sliding doors. In addition the door can have a minimal thickness of 35 mm and a maximum weight of 70 kg.
The standard finishes available for the T.E. version are silver and black.
In order to reduce the hindrances to the door movement, we propose three different kind of arms:
. "BASE": especially suitable for LFM (wall hole opening) from 800 to 1100 mm;
. "SMALL": especially suitable for LFM (wall hole opening) from 610 to 800 mm;
. "LARGE": especially suitable for LFM (wall hole opening) from 1100 to 1450 mm;

Depending on particular requirements, the door with the **ERGON**® LIVING T.E. hardware can be built so that the door can be situated in any position inside the wall thickness. However to make the description simpler, hereafter there is the description of the two limit positions and it is used the same terminology of this manual:

1) "centered door " when the leaf is in the middle of the thickness of the wall; this solution offers the advantage in the construction of the lock, which do not depend from its laying. Indeed since the door is in the middle of the wall and it has two way of opening, the laying position could also be decided in the same time of the installation without make any modifications to the door.



2) "oriented door" when the door is flush with one of the two sides of the wall; in this case the door must be appositely built according to the laying and and its orientation.



According to the wall hole width, the T.E. series is available in different standard dimensions for each kind of arm (BASE, SMALL, LARGE). Once the right kind has been chosen, it is possible to have intermediate dimensions, by cutting the track and the track cover (page 16). With regard to the wall hole height, in case it is necessary a different dimension from the standard one, the special kit is to required, thanks to which it is possible to have the required dimension by cutting the doorpost profile (page 17) and the connecting rod (page 18).

FRAME SPECIFICATION

LOCK

ERGON LIVING double way of opening.
ERGON System double opening way doors 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 double opening way, 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.
- "Mediana Evolution" (AGB) latch/lock mechanism. The use of this type of closure, opportunely modified by replacing the standard latch with the **ERGON** latch (included with the guides), 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.

RABBET DOOR WITH ONE-WAY OPENING

In some home's rooms can be more suitable using rabbet doors with ERGON, this is possible by putting some rabbets on the vertical door sides. In this way there's not more the double-way opening, but there is a better acustic isolation inside the room by using a gasket for the tightness.

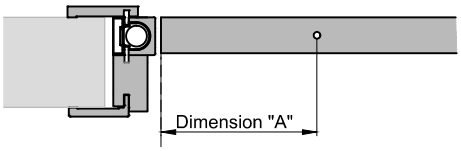
With **ERGON** System one opening way, you can use any latch mechanism, although optimal function is provided by a magnetic latch.

ATTENTION: **ERGON** kits for one-way doors with stop are identical to those used for double opening way.

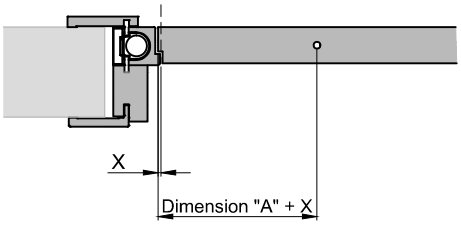
In the drawings on the right side there is examples (fig. 2) of **ERGON** rabbet door. In order to prepare the rabbets on the panel and the jamb (fig. 2), it's necessary that both of them are specular (fig. 3), it's important to pay attention to the dimension "X" which has to be added to the "Dimension A", mentioned at page 11 of the present manual instruction.

(Fig. 3)

DOUBLE WAY
OF OPENING (Fig.1)

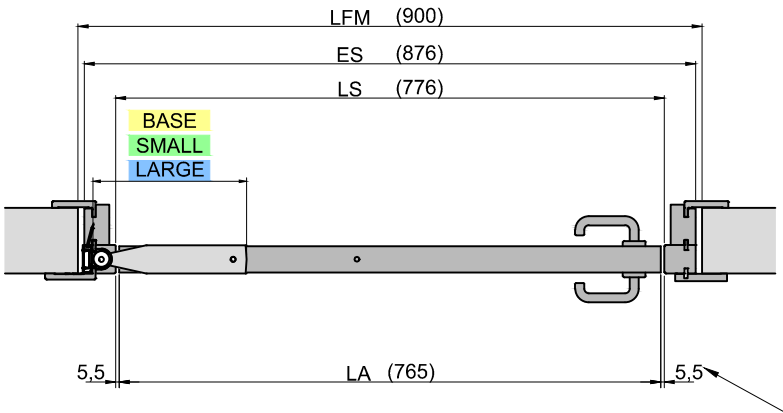


EXAMPLE OF
RABBET DOOR (Fig.2)

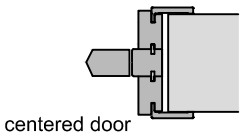


SINGLE DOOR HORIZONTAL DIMENSIONAL DRAWING

(dimensional example)

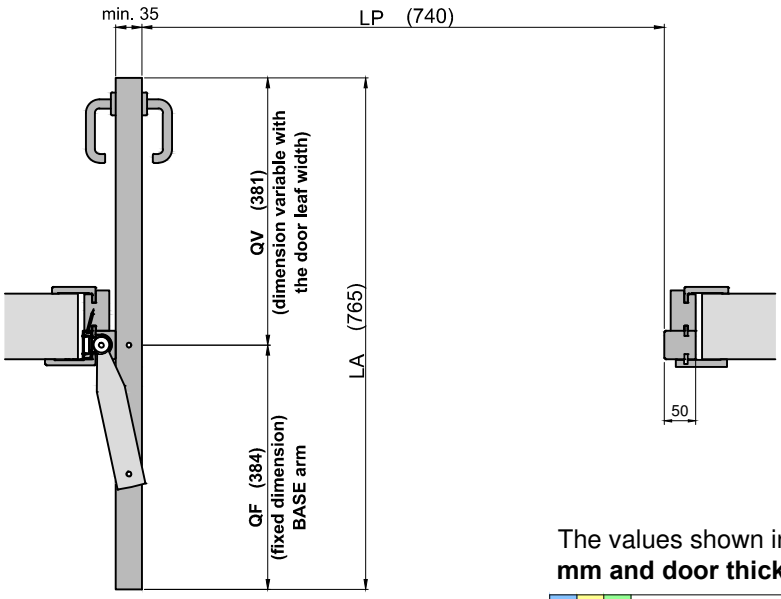


The door can be positioned at the centre with respect to the thickness of the wall.

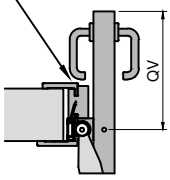


See page 10 for information on managing wall thickness

If a magnetic lock is used, it is recommended to reduce the gap to 3 mm on this side only.



CAUTION:
On doors with reduced widths the handle may collide with the jamb. Pay attention to the dimensions of the handle, door and wall thickness.



The values shown in this table refer to a **door with frame thickness 50 mm and door thickness 45 mm.**

LARGE	BASE	SMALL	WITH DIMENSION LFM WALL HOLE WIDTH	LP PASSAGE DIMENSION	LA DOOR LEAF WIDTH	QF FIXED DIMENSION		QV VARIABLE DIMENSION	
		•	610	450	475	285		190	
		•	650	490	515	285		230	
	•	•	700	540	565	384	285	181	280
	•	•	750	590	615	384	285	231	330
	◉	◉	800	640	665	384	285	281	380
	◉		850	690	715	384		331	
	◉		900	740	765	384		381	
	◉		950	790	815	384		431	
	◉		1000	840	865	384		481	
	◉		1050	890	915	384		531	
•	◉		1100	940	965	610	384	355	581
•			1150	990	1015	610		405	
•			1200	1040	1065	610		455	
•			1250	1090	1115	610		505	
◉			1300	1140	1165	610		555	
•			1350	1190	1215	610		605	
•			1400	1240	1265	610		655	
◉			1450	1290	1315	610		705	

Minimum dimension for "Soft Opening" SMALL arm

Minimum dimension for "Soft Opening" BASE arm

Minimum dimension for "Soft Opening" LARGE arm

◉ = Available standard dimensions

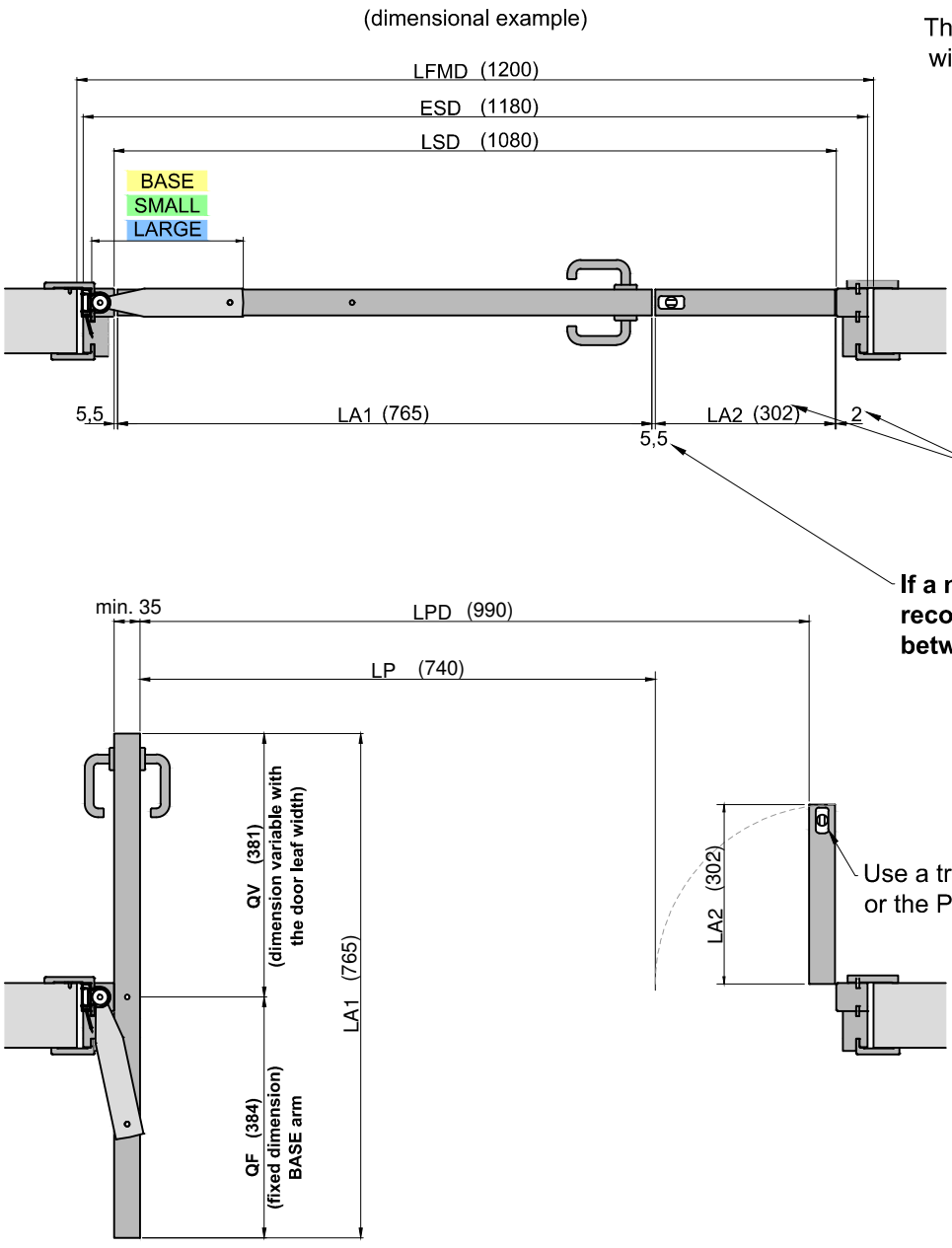
• = Several examples of dimensions that can be obtained by shortening the track. Intermediate dimensions are also possible.

For other custom dimensions, contact Celegon in regards to feasibility

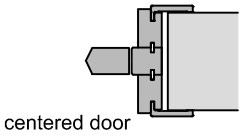
LEGEND

LFM = WALL HOLE WIDTH
LP = PASSAGE DIMENSION (LFM - 160)
LA = DOOR LEAF WIDTH (LFM - 135)
LS = DOOR JAMB OPENING (LFM - 124)
ES = OUTER JAMB (LFM - 24)
QF = FIXED DIMENSION ENCUMBRANCE ARM-SIDE
QV = VARIABLE DI MENSION ENCUMBRANCE HANDLE-SIDE

DOUBLE DOOR HORIZONTAL DIMENSIONAL DRAWING (ERGON DOOR LEAF AND RABBET DOOR)



The door can be positioned at the centre with respect to the thickness of the wall.



See page 10 for information on managing wall thickness

Variable dimensions depending on type of hinge used.

If a magnetic lock is used, it is recommended to reduce the gap between door leafs to 3 mm.

Use a traditional latch or the Push&Go EVO system (see pg.21)

The values shown in the above diagram refer to a **door with frame thickness 50 mm and door thickness 45 mm.**

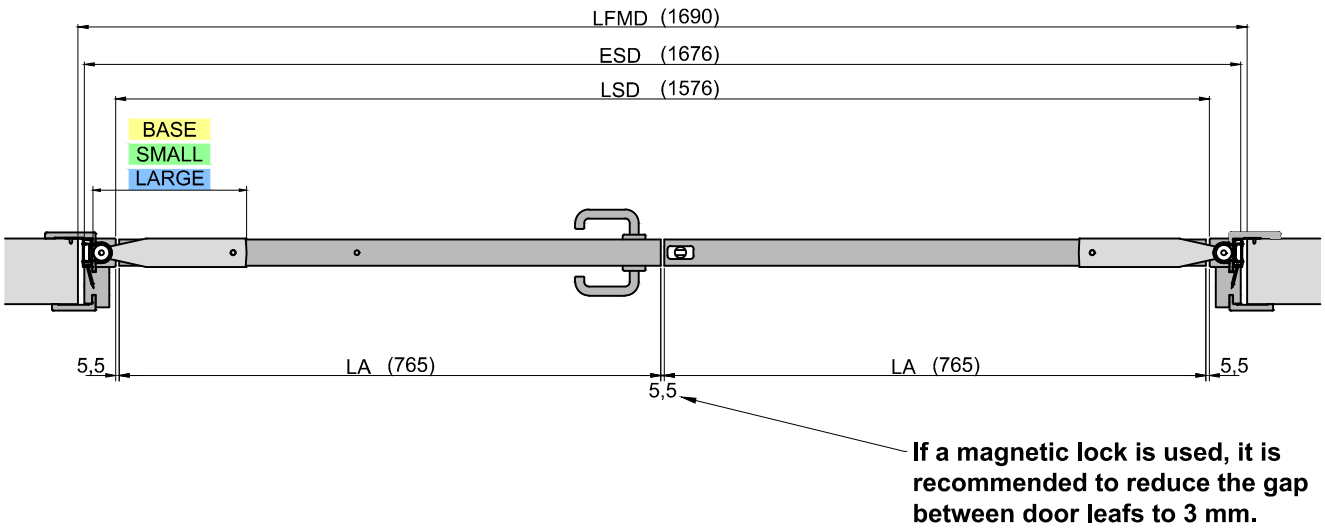
When ordering hardware, the dimensions of the wall opening and the type of arm that will be used must be provided. A custom track kit will be supplied based on the dimensions provided.

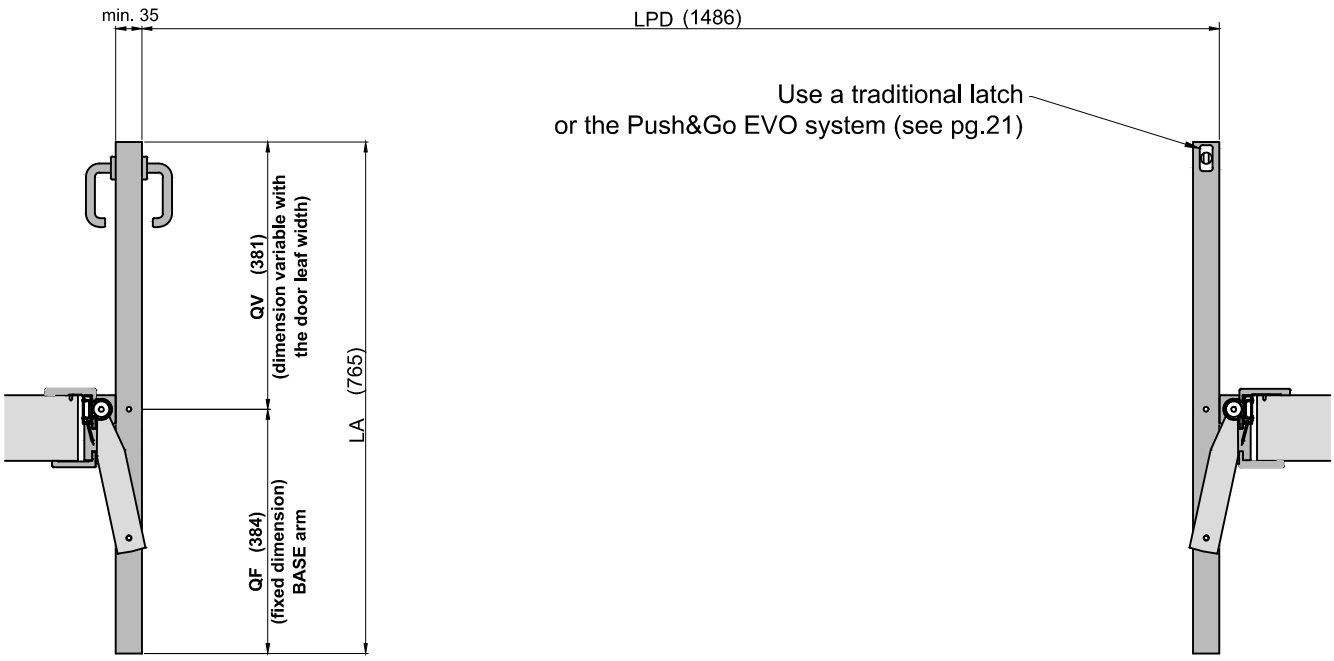
LEGEND

LFMD = WALL HOLE WIDTH
LPD = PASSAGE DIMENSION (LFMD - 210)
LA1 = DOOR LEAF WIDTH (see table on page 5)
LA2 = DOOR LEAF WIDTH (LFMD - LA1 - 133 variable depending on door LA1 dimensions and type of hinge used)
LSD = DOOR JAMB OPENING (LFMD - 120)
ESD = OUTER JAMB (LFMD - 20)
QF = FIXED DIMENSION ENCUMBRANCE ARM-SIDE (see table on page 5 based on type of arm used)
QV = VARIABLE DIMENSION ENCUMBRANCE HANDLE-SIDE (see table on page 5 based on type of arm used and the dimensions of door LA1)

DOUBLE DOOR HORIZONTAL DIMENSIONAL DRAWING (DOUBLE ERGON DOOR LEAVES)

(dimensional example)





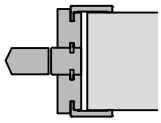
The values shown in the above diagram refer to a **door with frame thickness 50 mm and door thickness 45 mm.**

In this case, it is possible to use track kits for single doors in combination with the dedicated union kit.
For specifications, see pages 19-20-21.

LEGEND

LFMD = WALL HOLE WIDTH
LPD = PASSAGE DIMENSION (LFMD - 204)
LA = DOOR LEAF WIDTH $\frac{(\text{LFMD} - 160)}{2}$
LSD = DOOR JAMB OPENING (LFMD - 114)
ESD = OUTER JAMB (LFMD - 14)
QF = FIXED DIMENSION ENCUMBRANCE ARM-SIDE
QV = VARIABLE DIMENSION ENCUMBRANCE HANDLE-SIDE

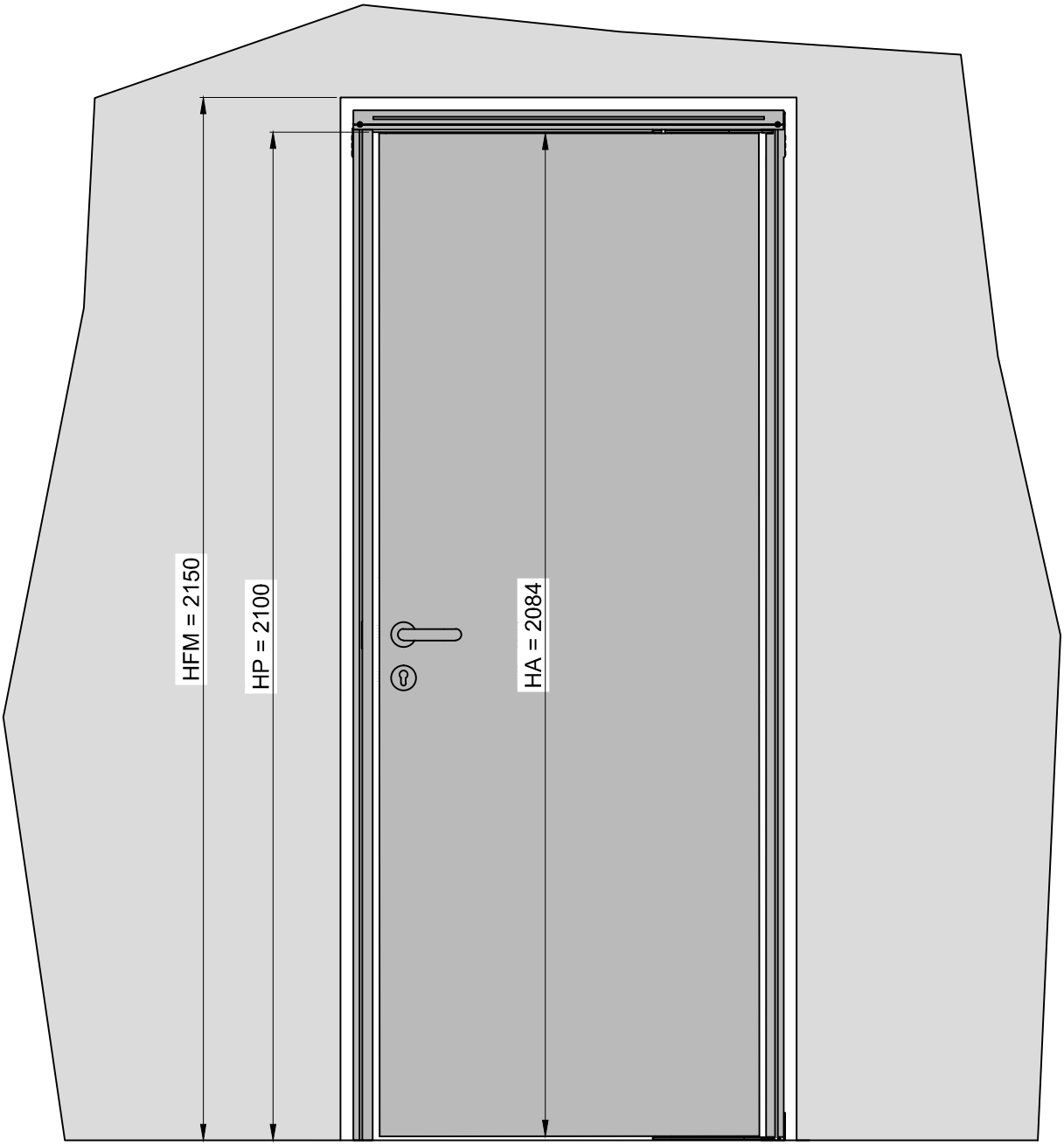
The door can be positioned at the centre with respect to the thickness of the wall.



centered door

See page 10 for information on managing wall thickness

DIMENSIONAL VERTICAL DIAGRAM



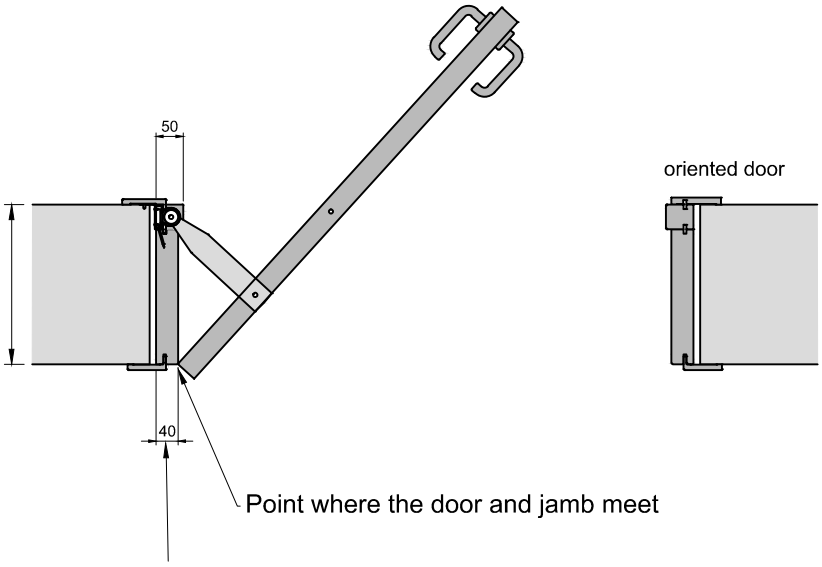
VERTICAL DIMENSION			
HFM wall hole height	HP passage dimension	HA door leaf height	
* 1950	1900	1884	HP = (HFM - 50) HA = (HFM - 66)
* 2000	1950	1934	
* 2050	2000	1984	
* 2100	2050	2034	
* 2150	2100	2084	
* 2200	2150	2134	
* 2250	2200	2184	

* Available standard dimensions; it is possible to have other dimensions, even intermediate dimensions, by adjusting the doorpost (see page 17) and the connecting rod (see page 18). For getting rods in special sizes, kindly contact Celegon s.r.l..

MANAGING WALL THICKNESS

The particular translation movement causes the door to retreat during opening, meaning wall thickness requires special attention to prevent the door from colliding with the surface of the jamb (see drawing below).

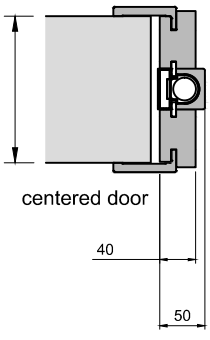
thickness **max. 180 mm** for SMALL arm
thickness **max. 260 mm** for BASE arm
thickness **max. 390 mm** for LARGE arm

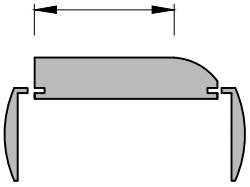


To increase the wall thickness, the jamb thickness can be reduced <40 mm.
By reducing the jamb to less than 40 mm, the wall thickness can be increased
by approximately 30 mm for every 2 mm (e.g. jamb thickness 38 mm = BASE arm wall thickness 290 mm).

By positioning the door at the centre of the jamb, the maximum wall thickness can be increased.

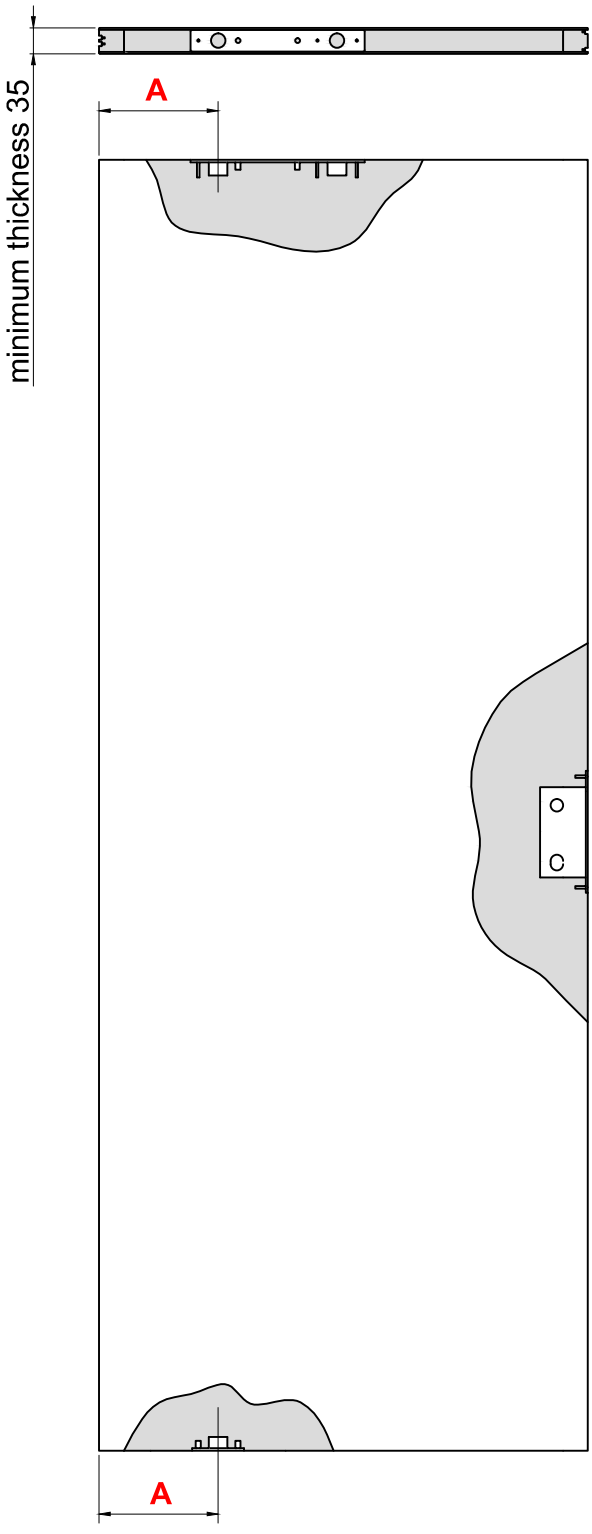
thickness **max. 320 mm** for SMALL arm
thickness **max. 480 mm** for BASE arm
thickness **max. 740 mm** for LARGE arm

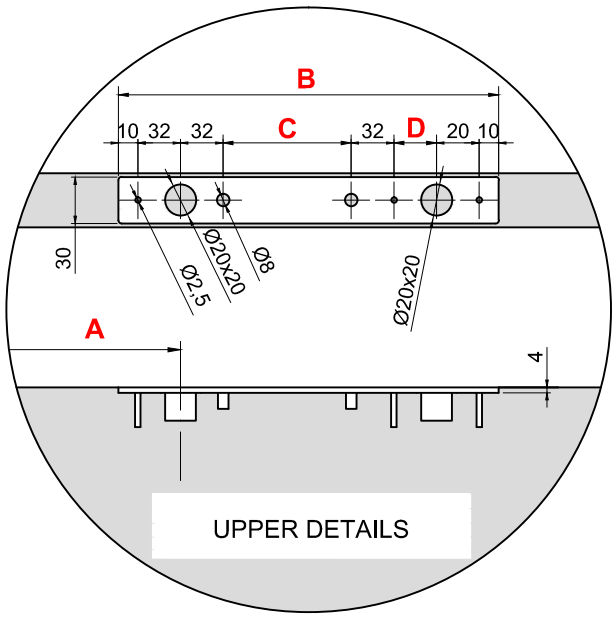




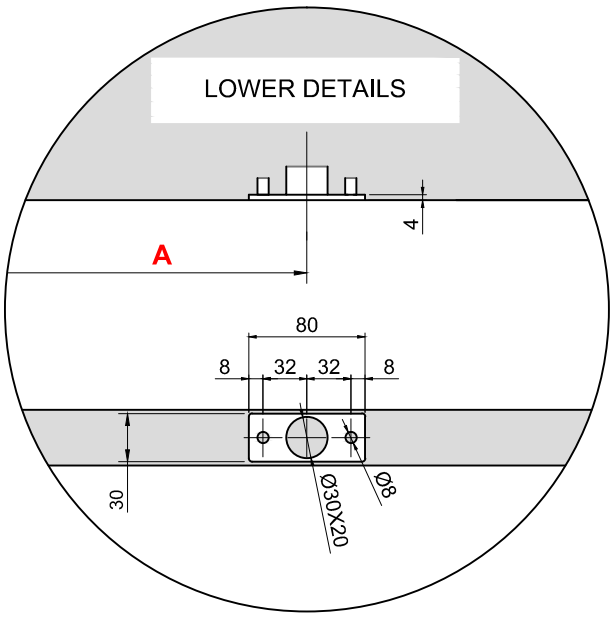
If rounded jambs are used, the above thickness wall dimension must be calculated only on the plane surface and not on the rounded side.

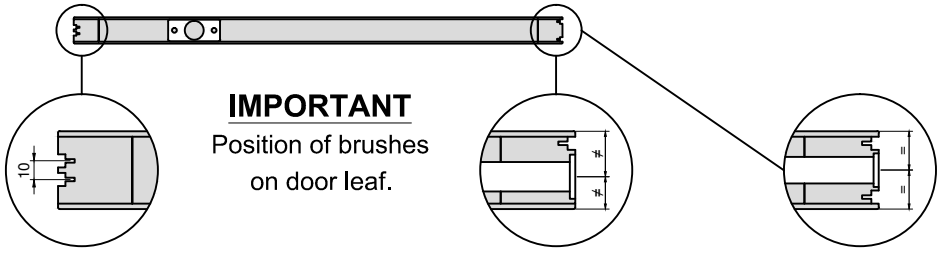
WORKING DOOR LEAF SPECIFICATION





Variable measures according to arm used				
	A	B	C	D
BASE arm	180,5	276	96	44
SMALL arm	131,5	225,2	45,2	44
LARGE arm	292	389,4	224	29





IMPORTANT
Position of brushes on door leaf.

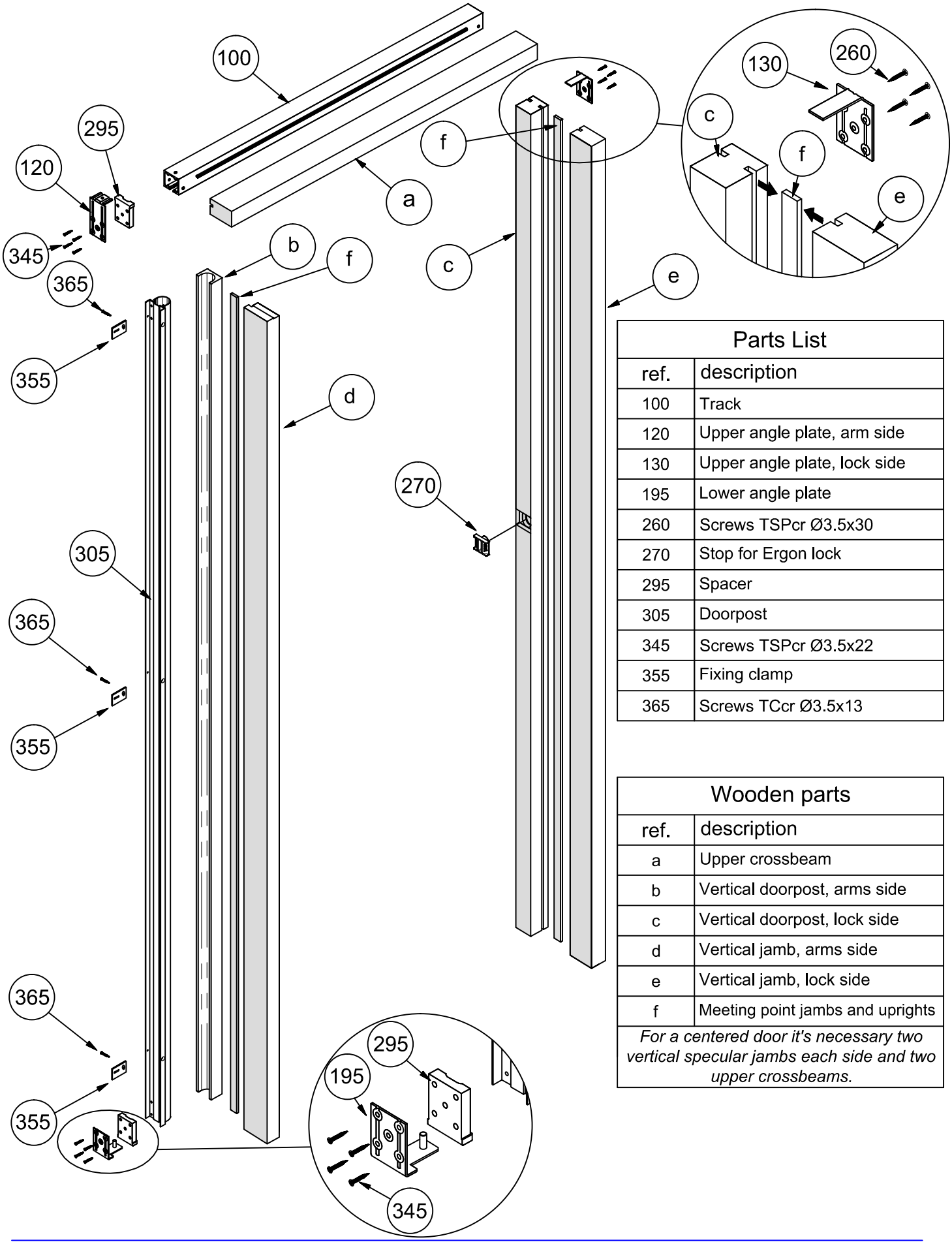
Arm Side

Lock side for thickness door leaf 35÷38 mm

Lock side for thikness door leaf 39÷50 mm

It is recommended to use a lock with facing no larger than 18 mm

EXPLODED VIEW OF THE FRAME

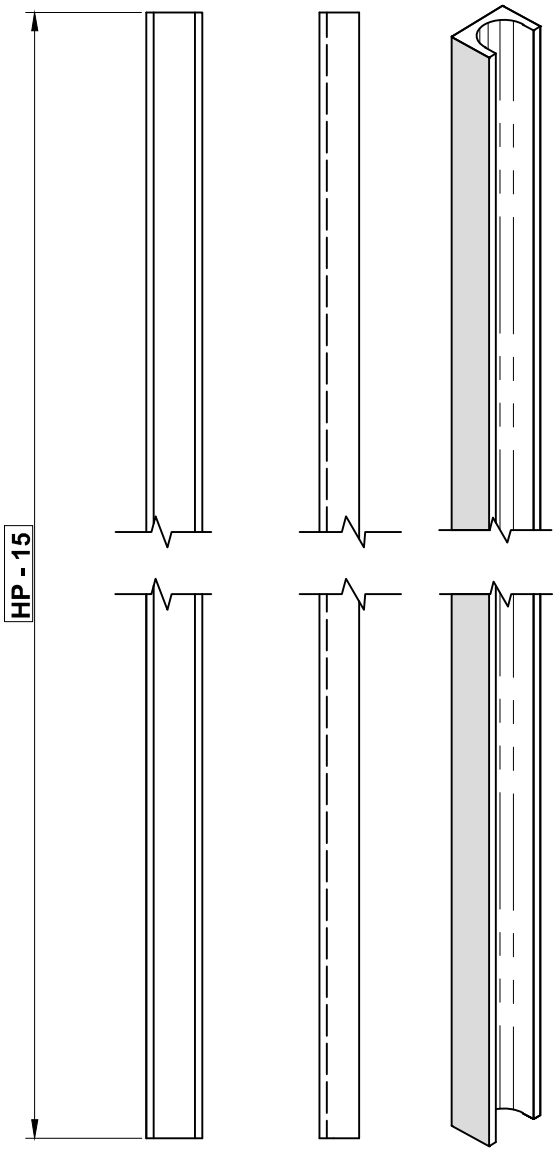


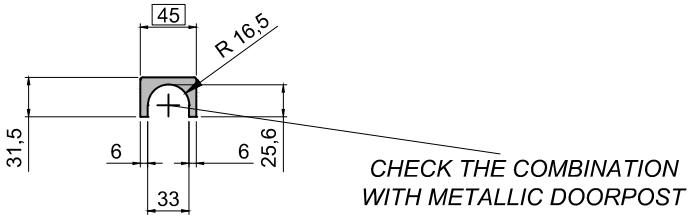
Parts List	
ref.	description
100	Track
120	Upper angle plate, arm side
130	Upper angle plate, lock side
195	Lower angle plate
260	Screws TSPcr Ø3.5x30
270	Stop for Ergon lock
295	Spacer
305	Doorpost
345	Screws TSPcr Ø3.5x22
355	Fixing clamp
365	Screws TCcr Ø3.5x13

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.	

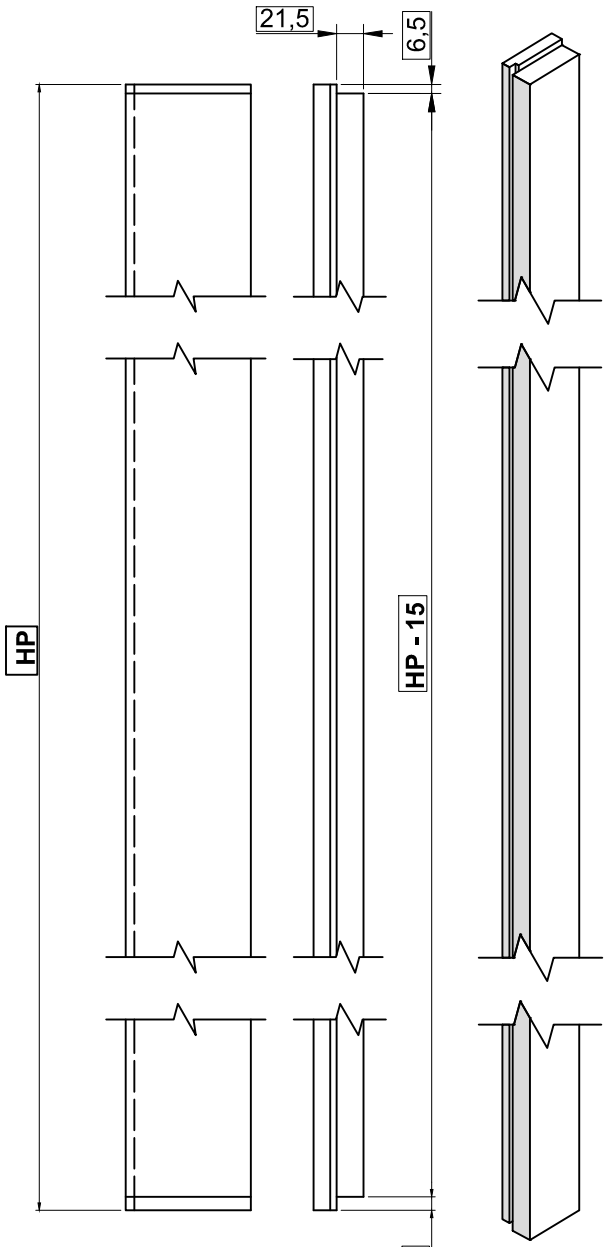
DETAILS FOR VERTICAL FRAME ARM SIDE

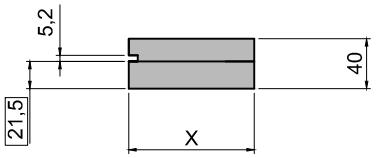
DOORPOST





JAMB





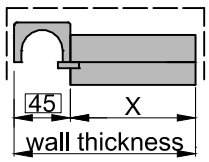
DIMENSION THAT MUST BE ACCURATE

X = WALL THICKNESS - 45

HP = HEIGHT PASSAGE DIMENSION

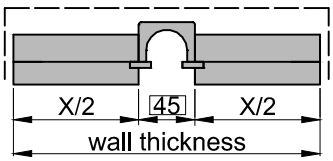
—— —— VISIBLE SIDE

ORIENTED DOOR



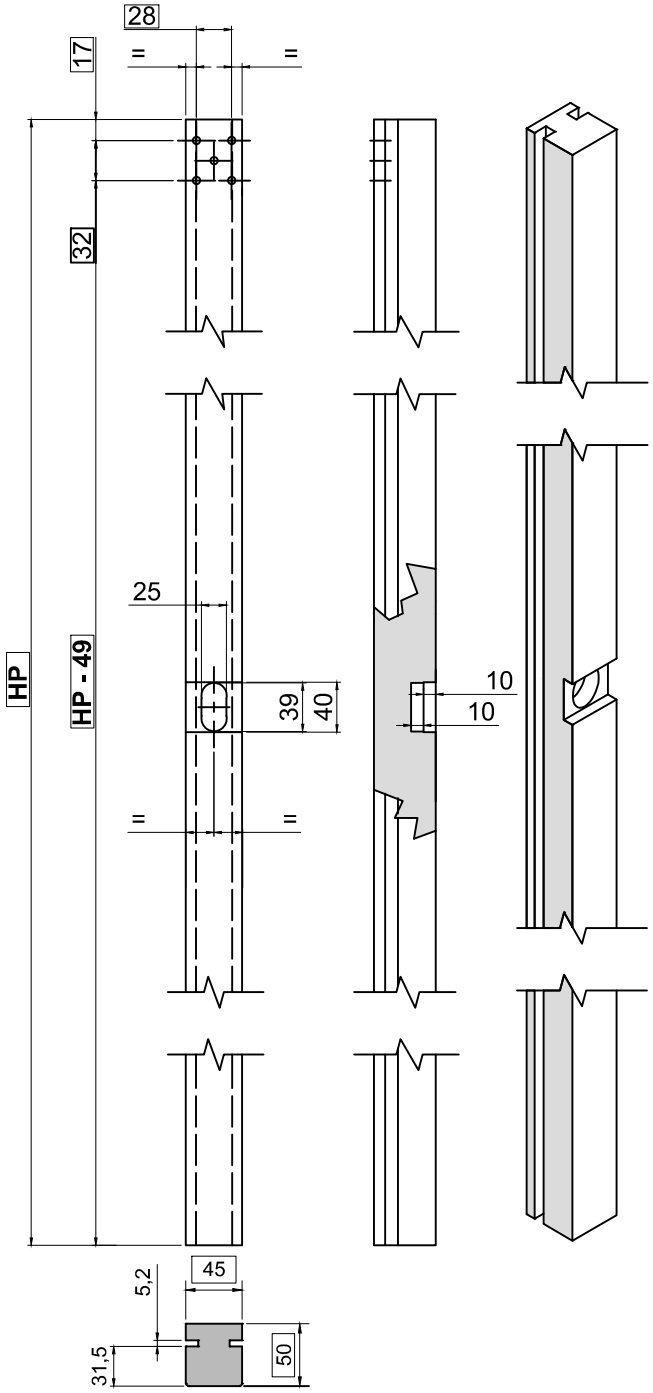
When the door is in the middle of the wall, you must have two specular jambs

CENTERED DOOR

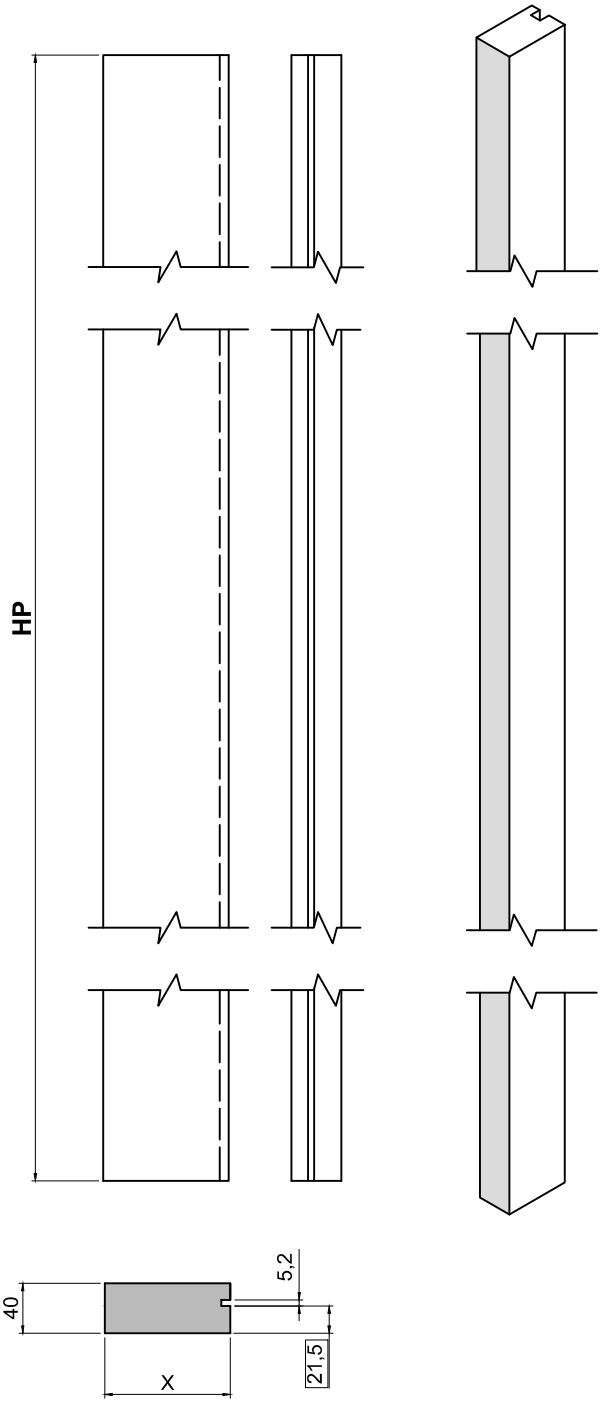


DETAILS FOR VERTICAL FRAME LOCK SIDE

DOORPOST



JAMB



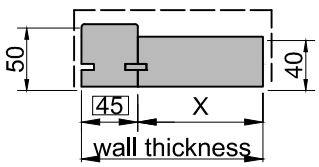
DIMENSION THAT MUST BE ACCURATE

X = WALL THICKNESS - 45

HP = HEIGHT PASSAGE DIMENSION

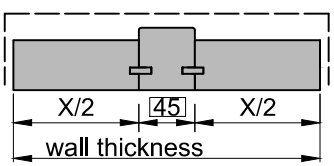
——— VISIBLE SIDE

ORIENTED DOOR

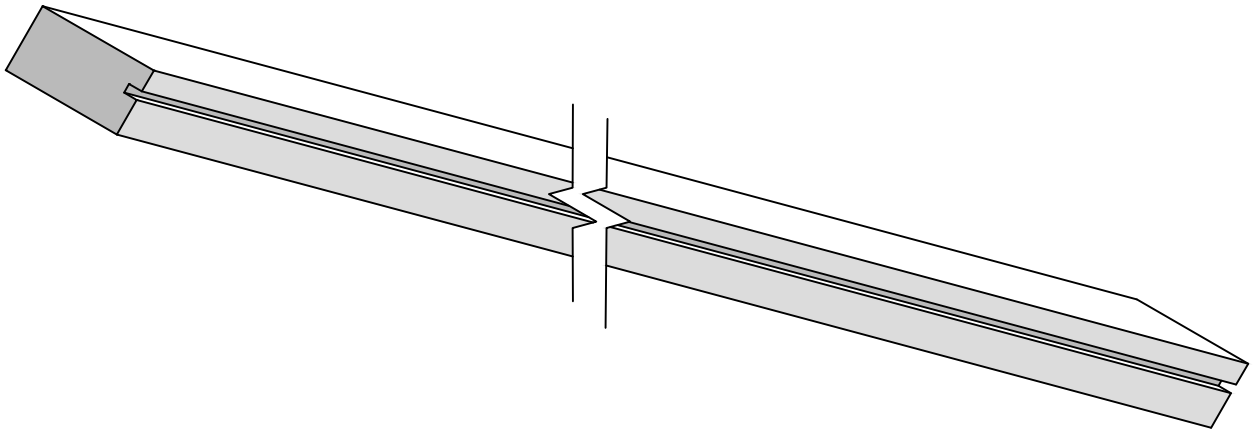


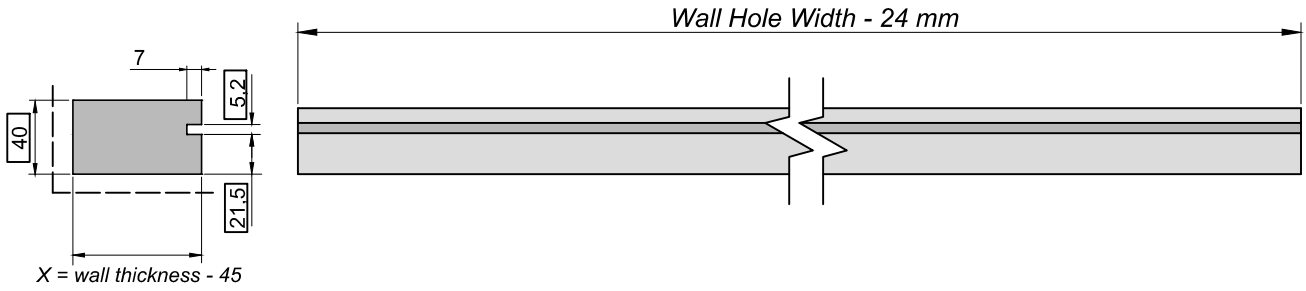
When the door is in the middle of the wall, you must have two specular jambs

CENTERED DOOR



DETAILS FOR THE UPPER CROSSBEAM

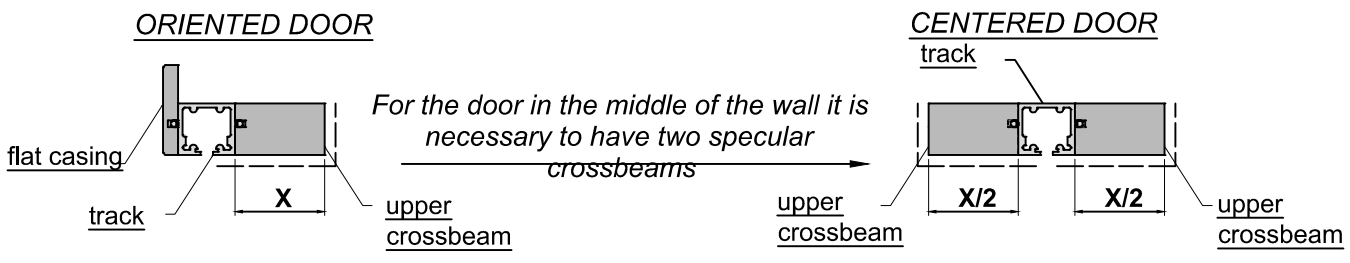




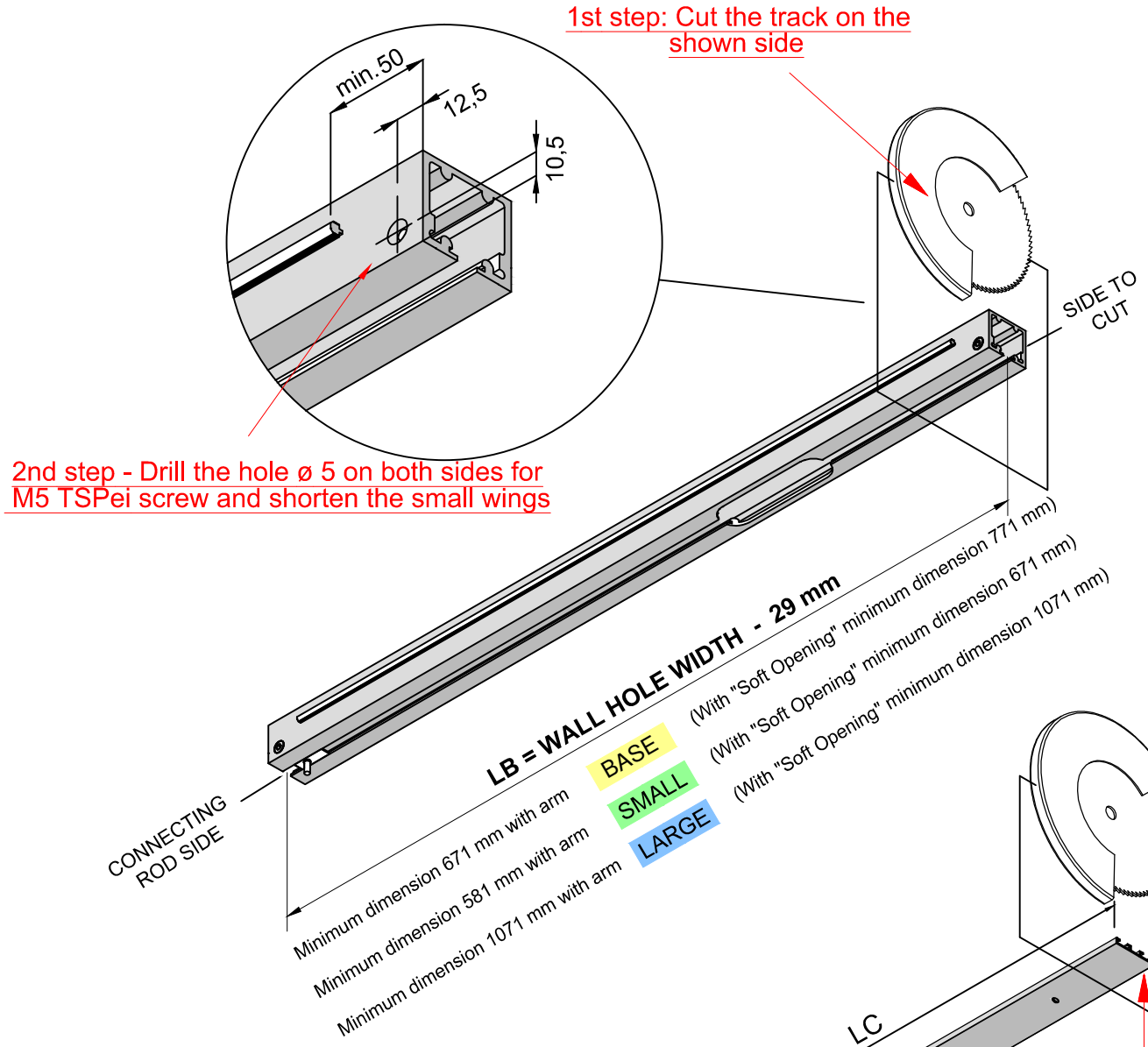
DIMENSION THAT MUST BE ACCURATE

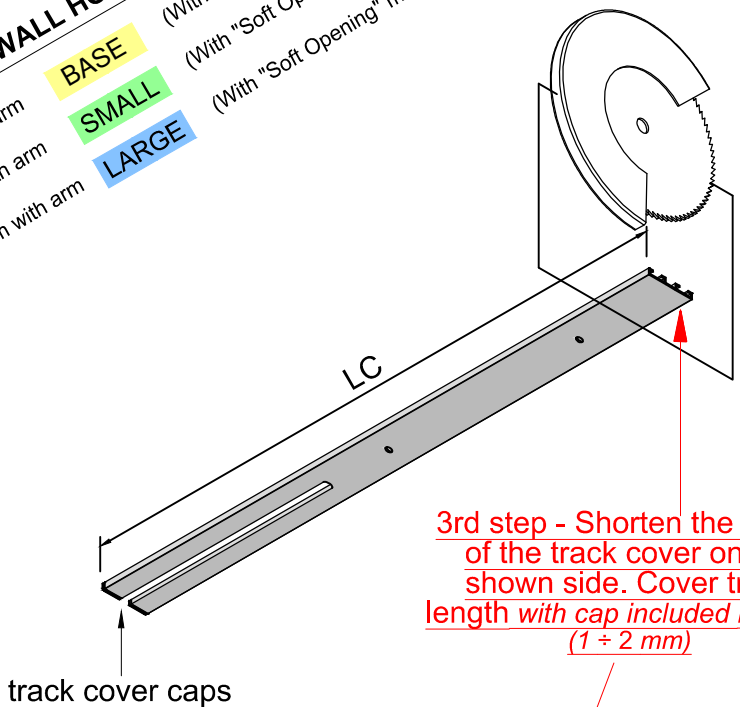
X = WALL THICKNESS - 45

——— VISIBLE SIDE

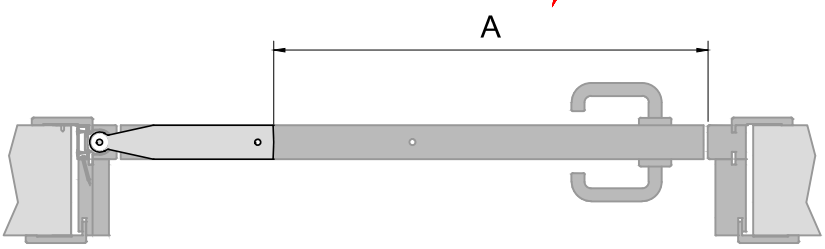


TRACK ADJUSTMENTTO THE WIDTH OF THE DOOR





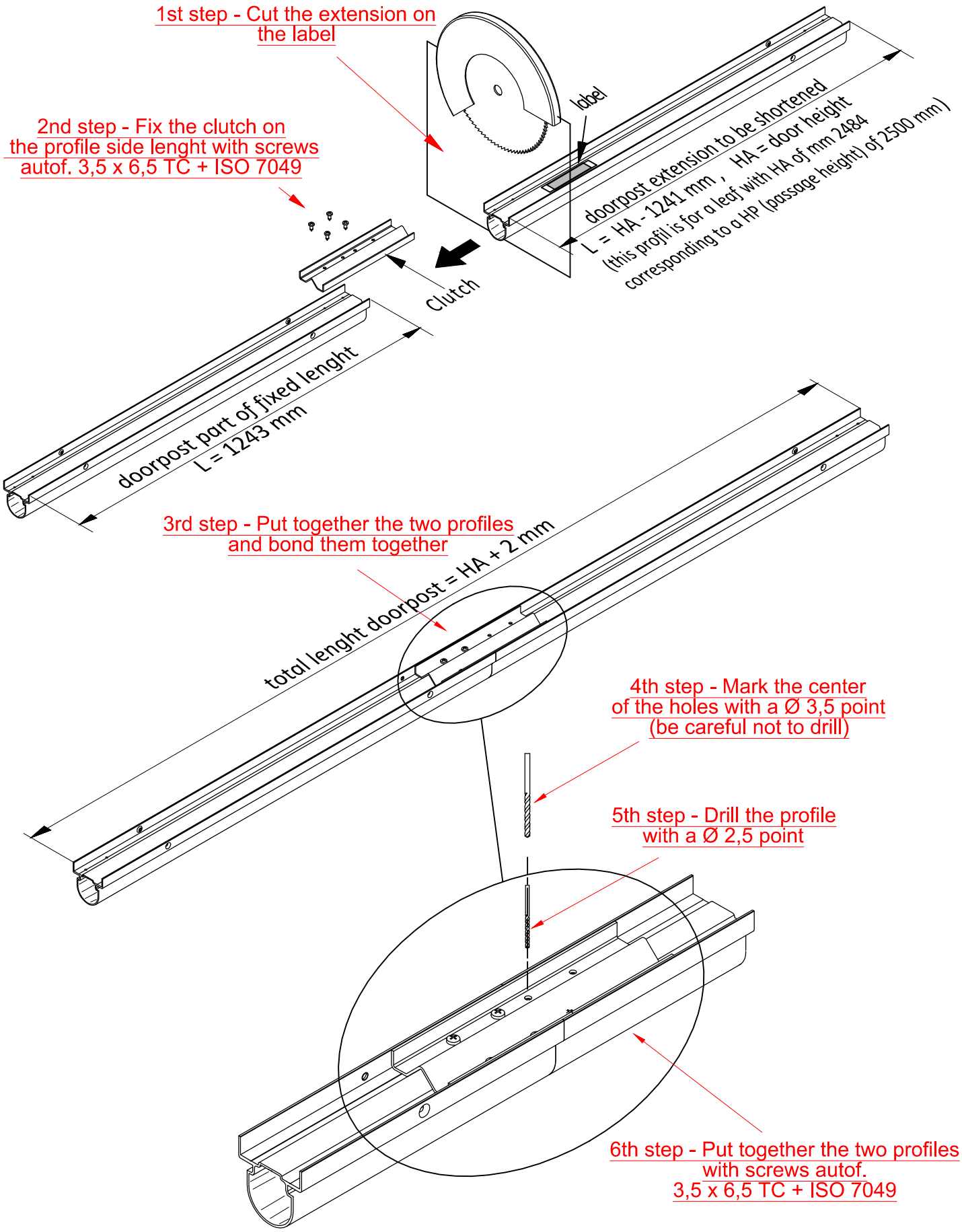
3rd step - Shorten the profile of the track cover on the shown side. Cover track length *with cap included LC = A - (1 ÷ 2 mm)*



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	

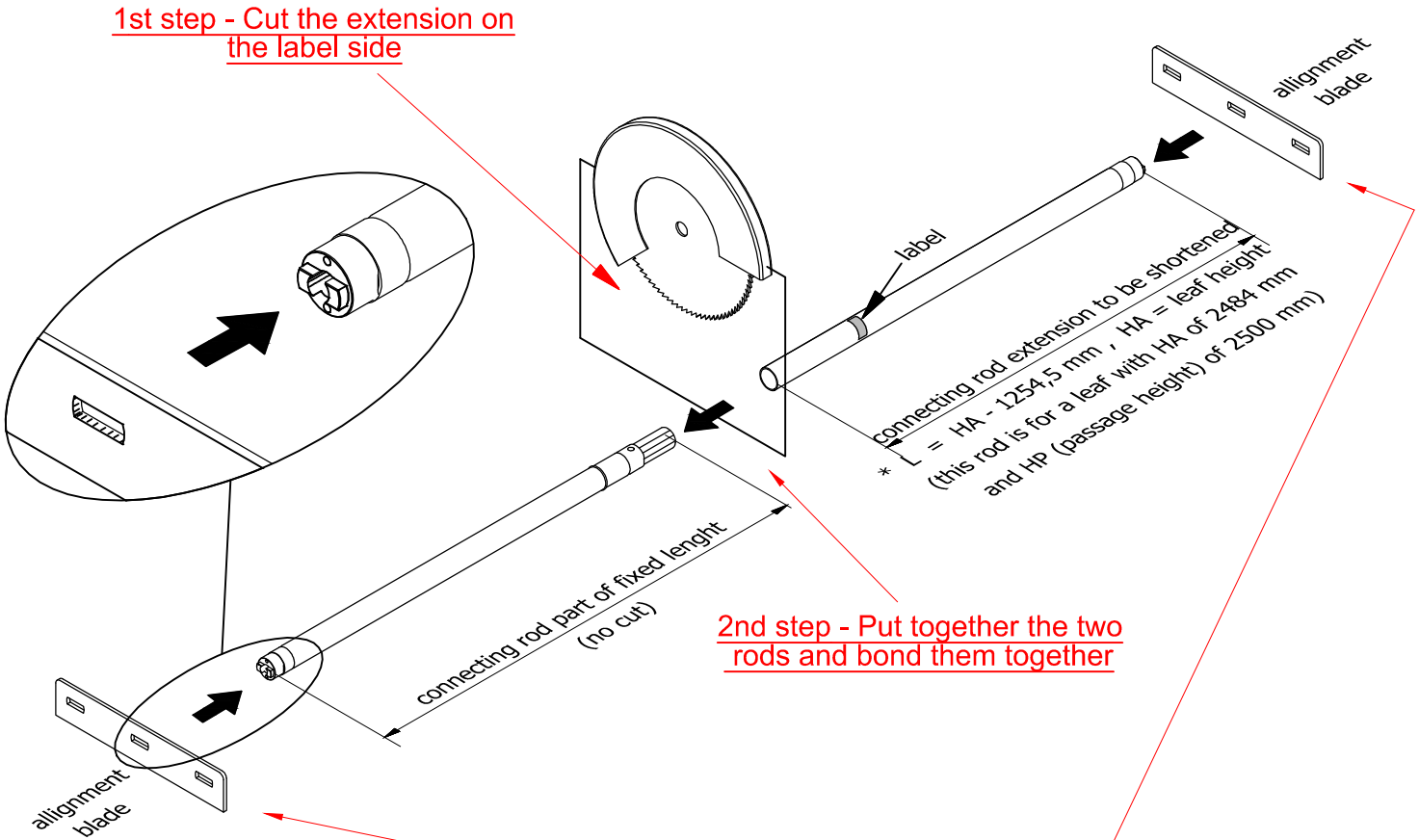
ROD KIT SHORTNABLE

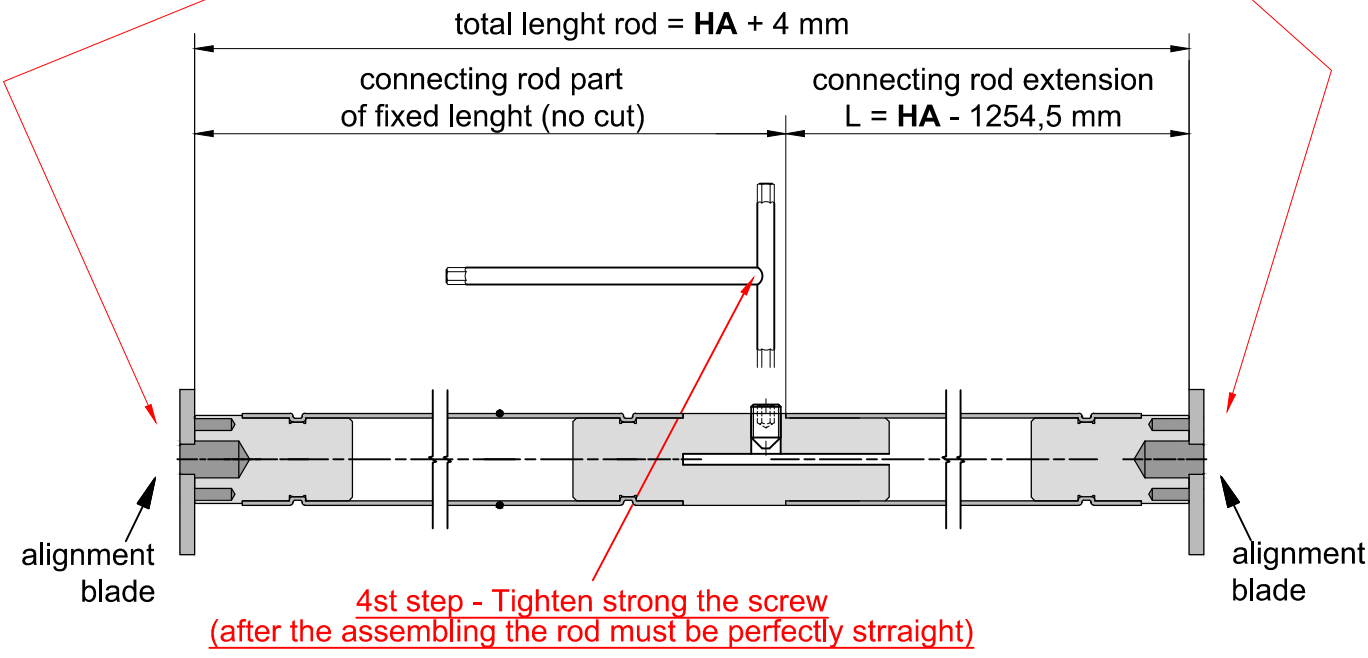
CUTTING OF THE DOORPOST FOR NOT STANDARD HEIGHTS



ROD KIT SHORTNABLE

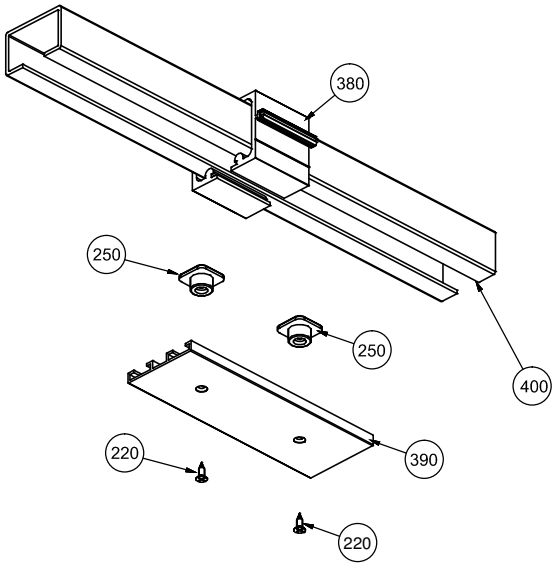
CUTTING OF THE CONNECTING ROD FOR NOT STANDARD HEIGHTS





KIT UNION TRACKS FOR DOOR WITH TWO DOOR LEAVES WITH ERGON LIVING SYSTEM

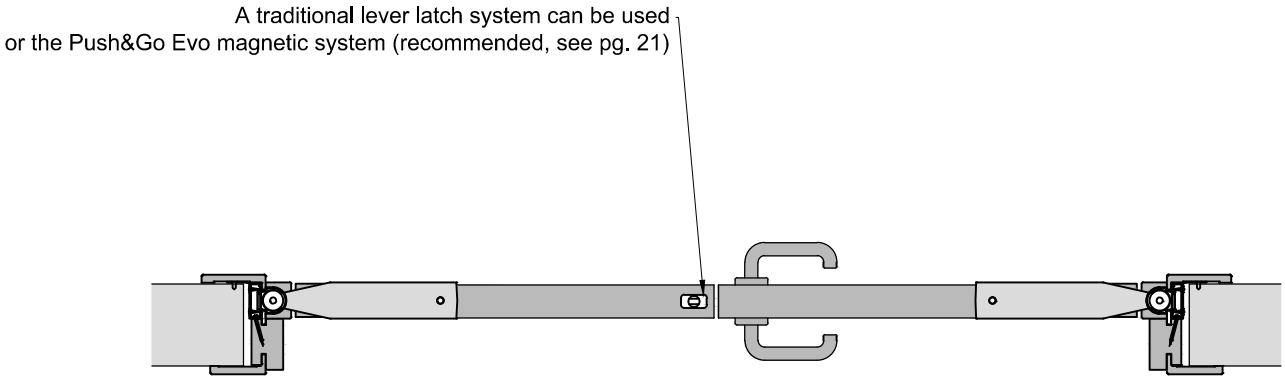
1



Item number 564000

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

2



N.B.: for the limits of the wall thickness see page 10 in this manual.

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

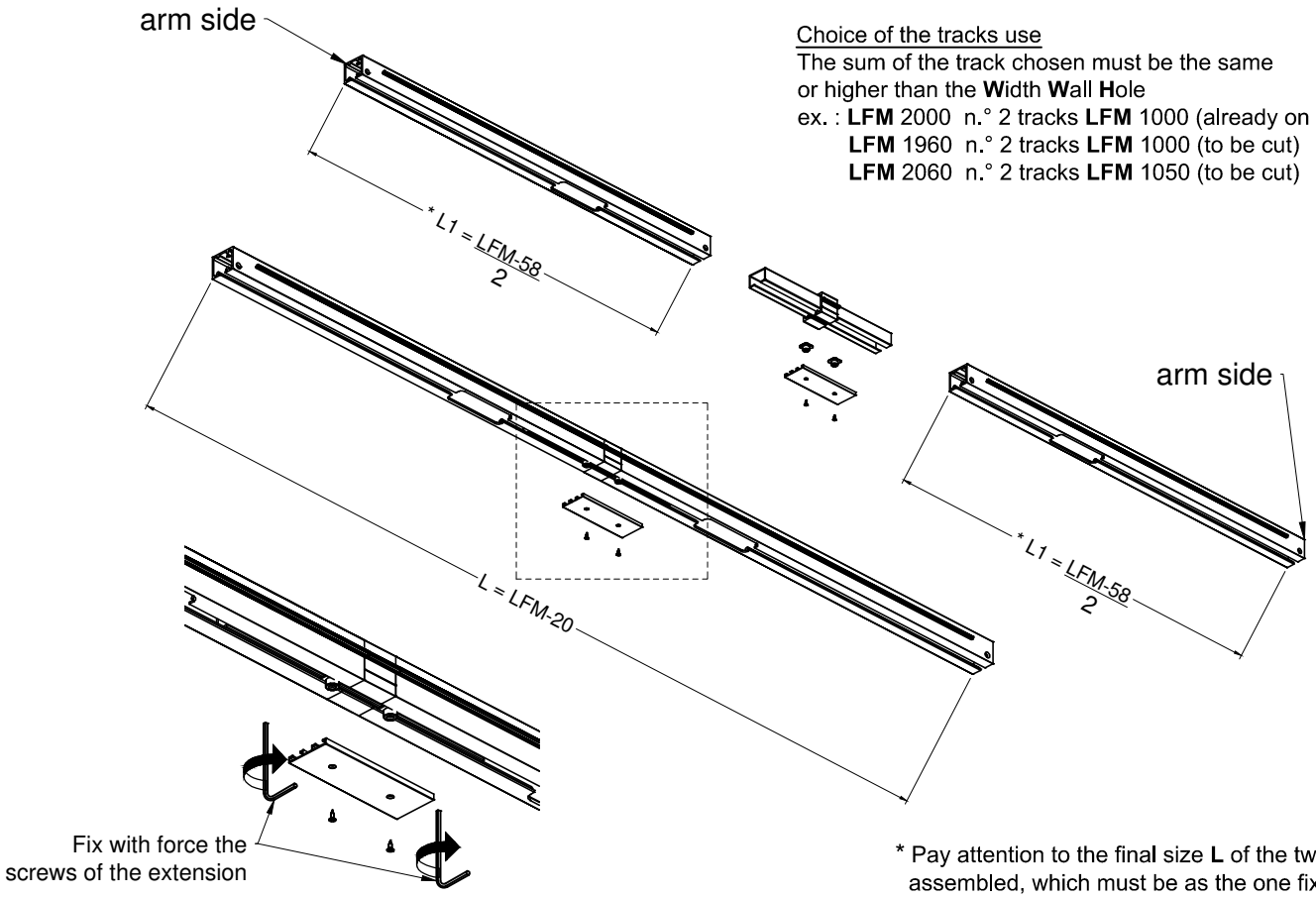
LFM minimum 1400 mm. with SMALL arm, with "Soft Opening" **LFM** minimum 1500 mm.

LFM minimum 2300 mm. with LARGE arm, with "Soft Opening" **LFM** minimum 2300 mm.

For dimensions smaller than those indicated, contact Celegon S.r.l.

KIT UNION TRACKS FOR DOOR WITH TWO DOOR LEAVES WITH ERGON LIVING SYSTEM

3



Choice of the tracks use

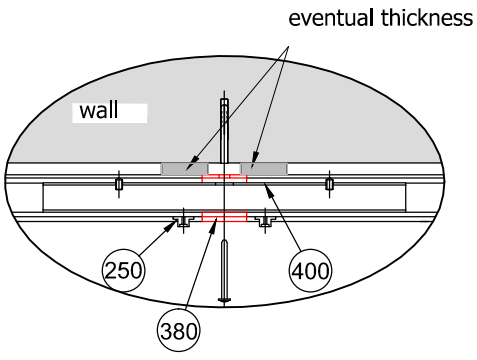
The sum of the track chosen must be the same or higher than the **W**idth **W**all **H**ole

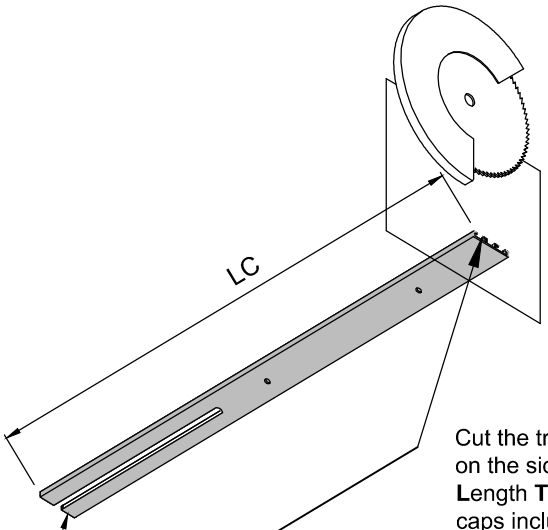
ex. : **LFM** 2000 n.° 2 tracks **LFM** 1000 (already on measure)
LFM 1960 n.° 2 tracks **LFM** 1000 (to be cut)
LFM 2060 n.° 2 tracks **LFM** 1050 (to be cut)

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

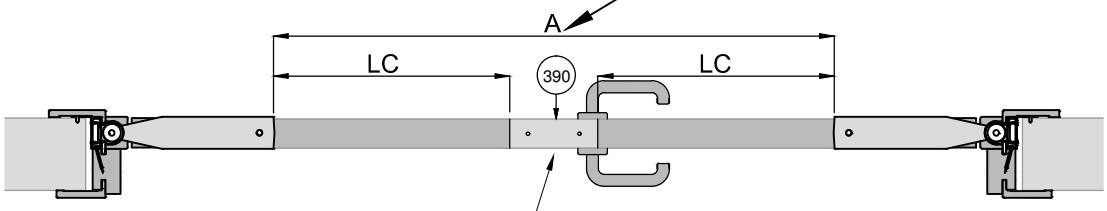
4

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.





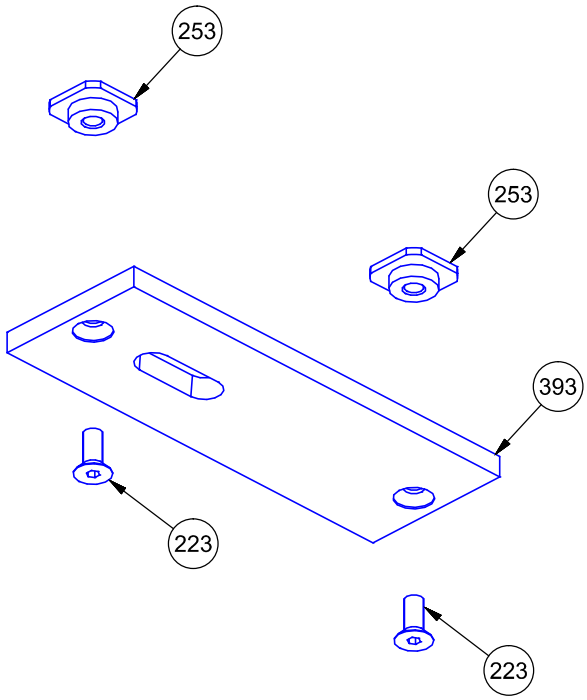
Cut the track cover profil on the side shown **L**ength **T**rack **C**over caps included **LC** = $\frac{A - 133}{2}$



Create the opening to block the secondary door for the traditional latch,
OR
For the Push&Go EVO system use the dedicated kit, see next page.

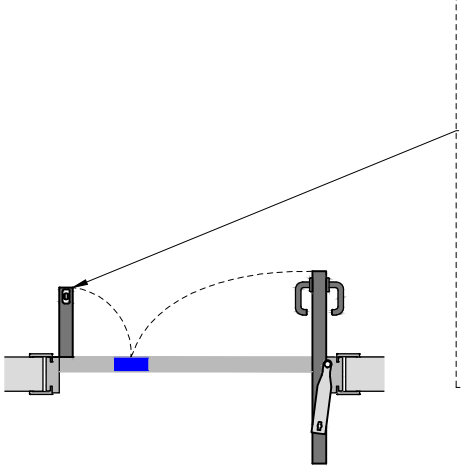
MAGNETIC STRIKER PLATE FOR "Push&Go EVO"

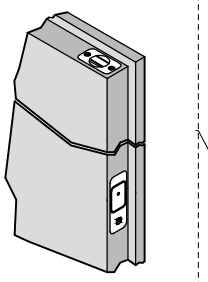
For use with double door leaves with Ergon Living system.



Silver item number 4150IA
Black item number 4150IN

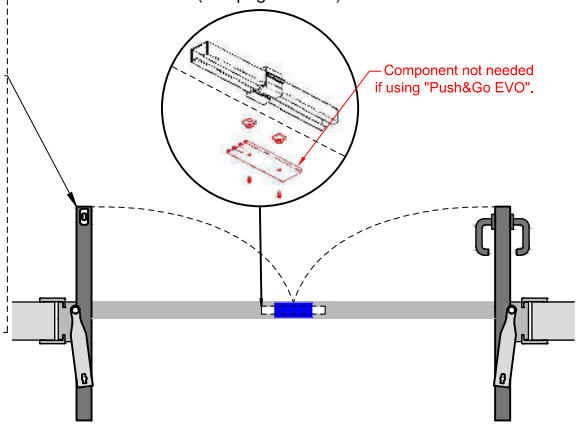
ref.	qty	Parts list
223	1	Screw TSPEI M5x12
253	1	Plate fixing insert
393	1	Magnetic striker plate

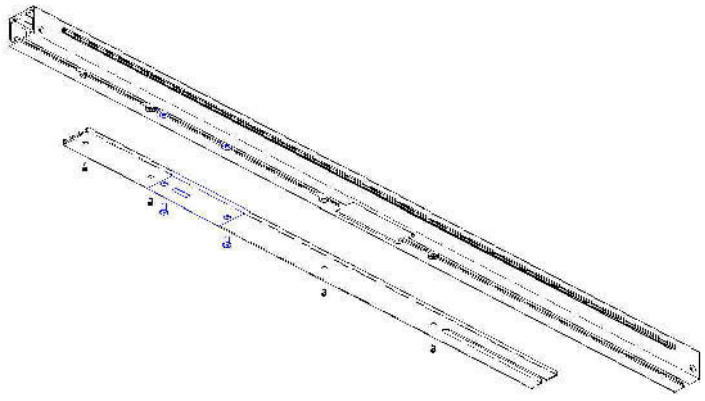


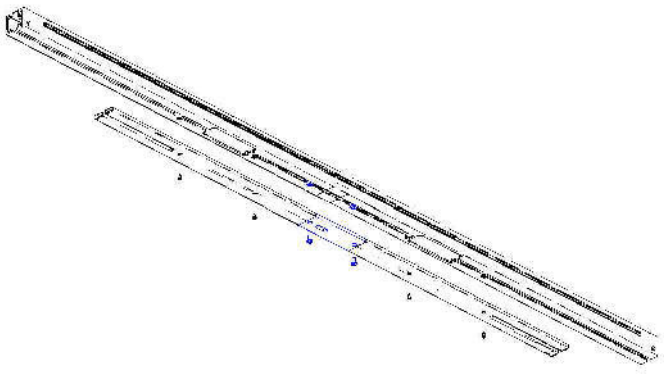


For processing specifications see "Push&Go EVO" technical manual

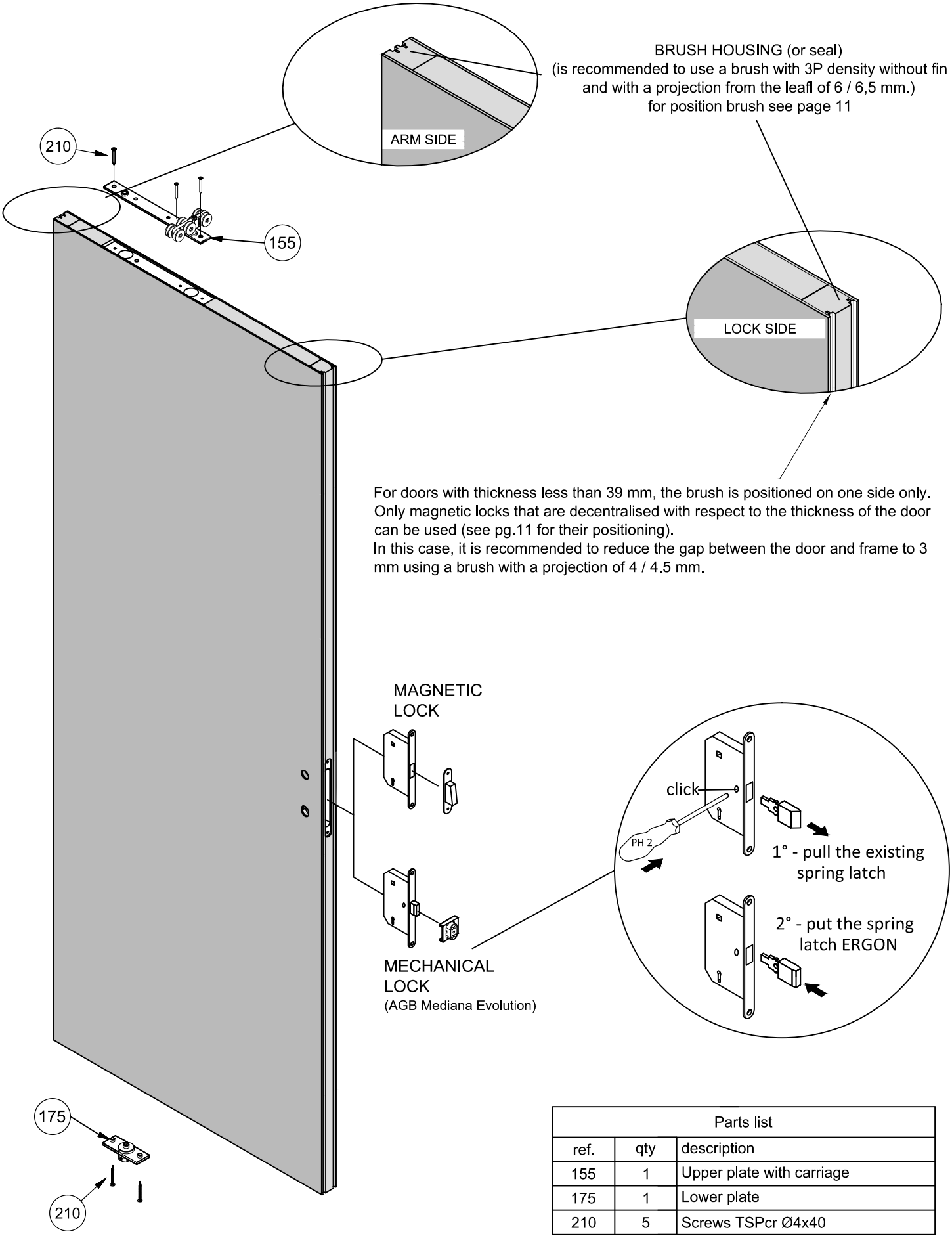
Kit union tracks item 564000
(see pages 19-20)







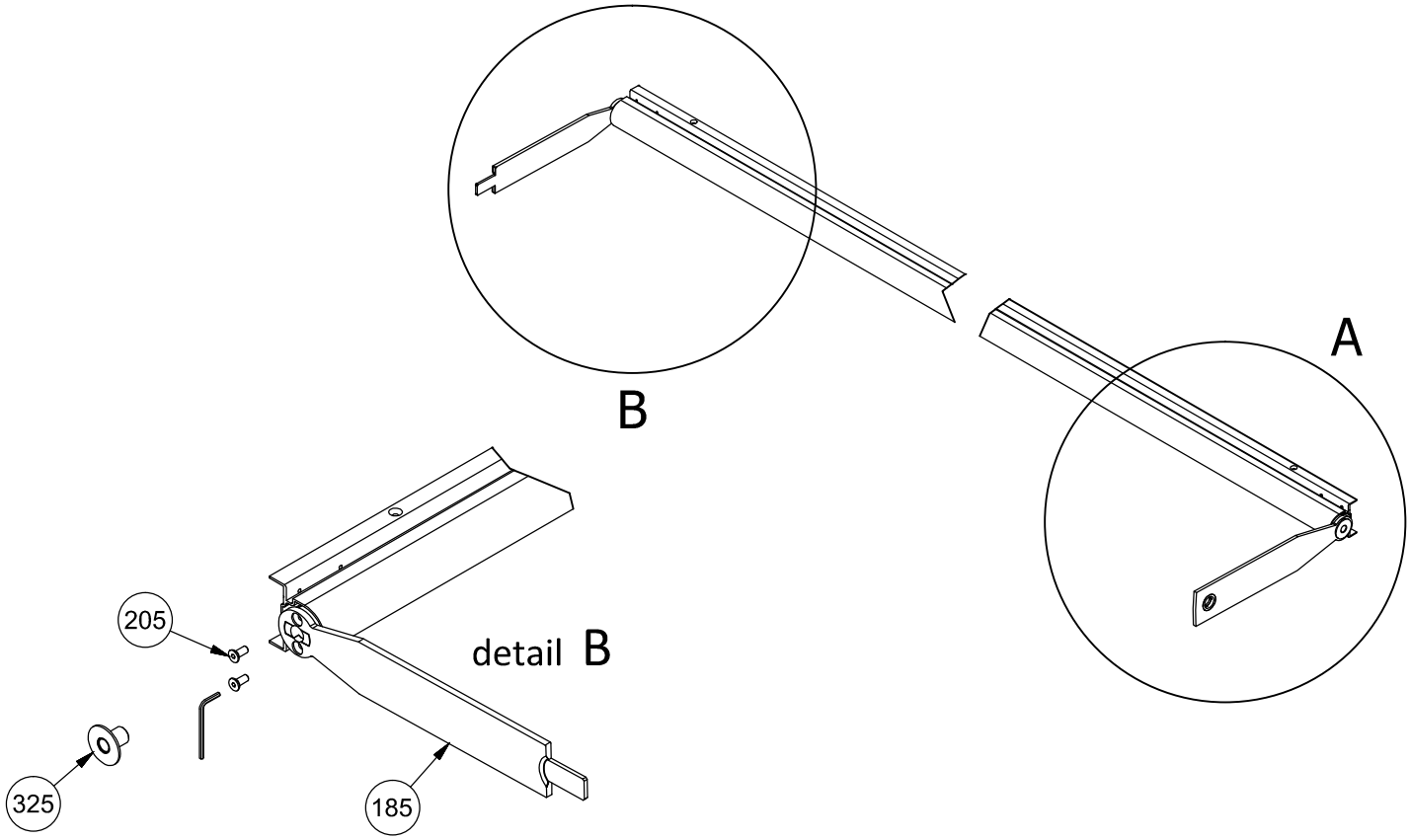
ASSEMBLING THE HARDWARE IN THE DOOR LEAF

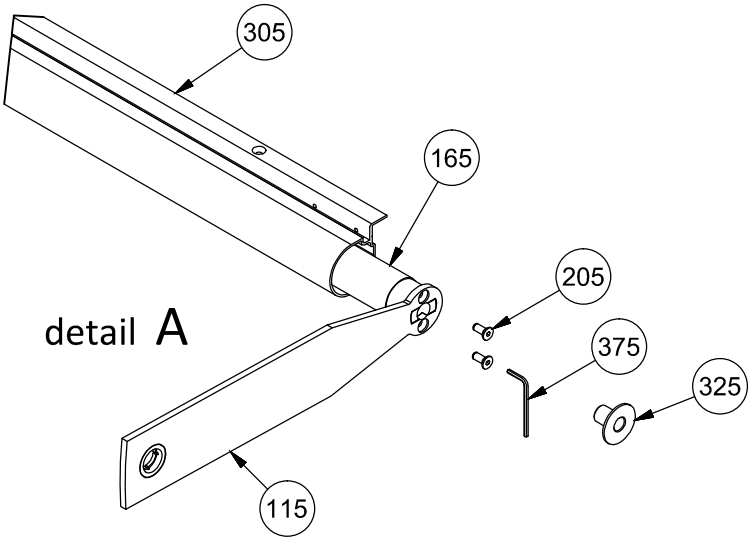


Parts list		
ref.	qty	description
155	1	Upper plate with carriage
175	1	Lower plate
210	5	Screws TSPcr Ø4x40

ASSEMBLING CONNECTING ROD WITH UPPER AND LOWER ARM

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.





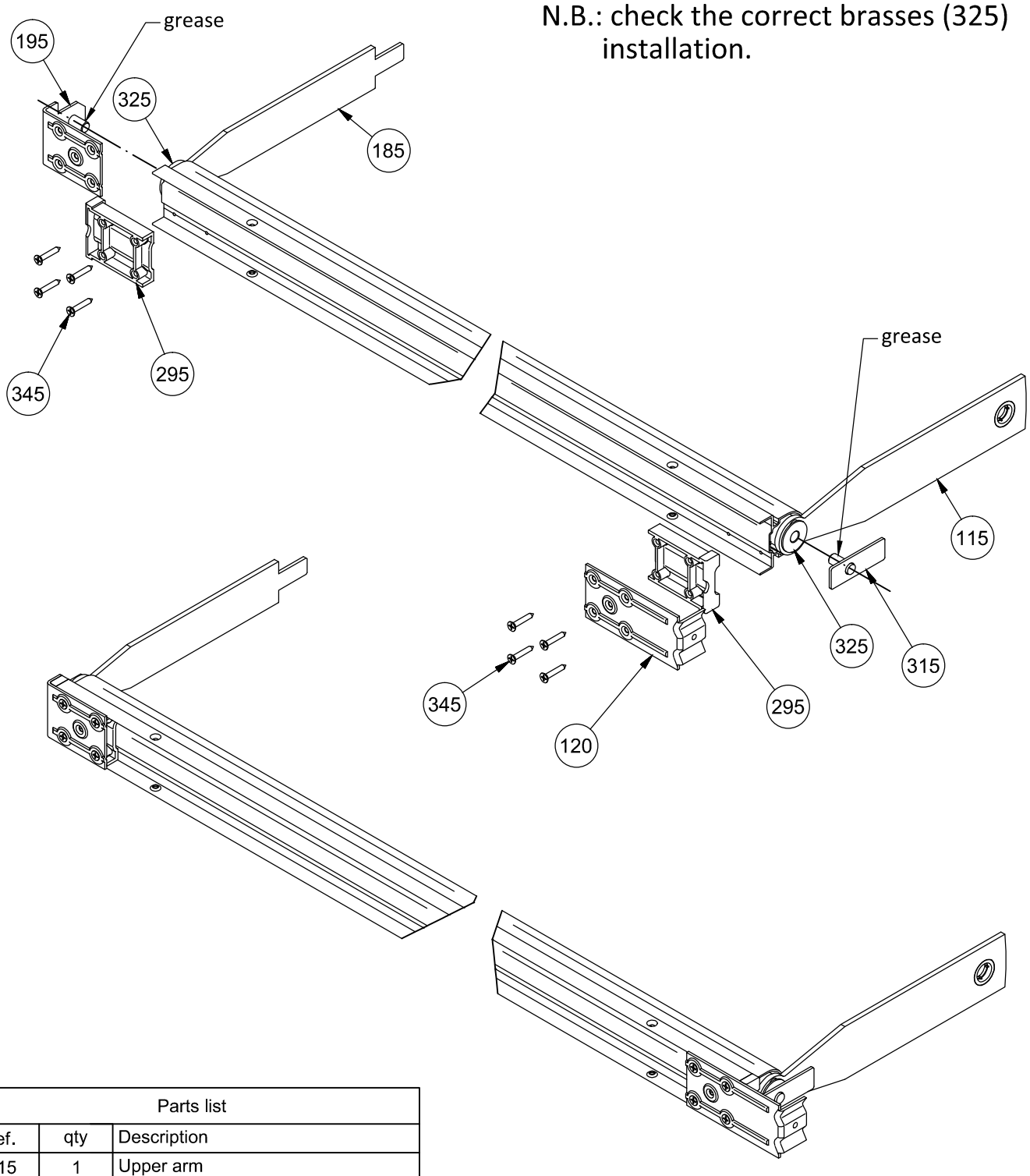
Attention!

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
205	4	Screw TSPei M4x10 - ISO 10642
305	1	Doorpost
325	2	Rod rotation brass
375	1	Hexagonal key mm 2,5

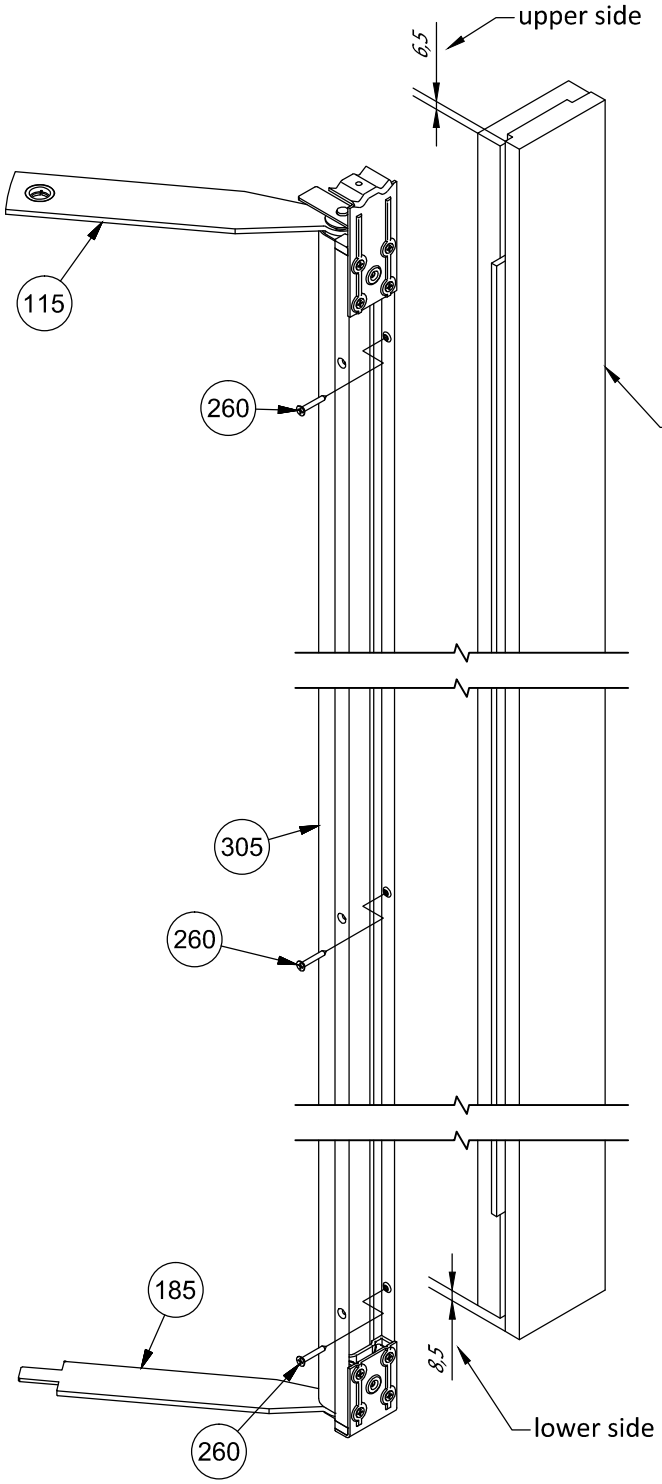
ASSEMBLY OF CONNECTING ROD WITH HINGE-SIDE BRACKET

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

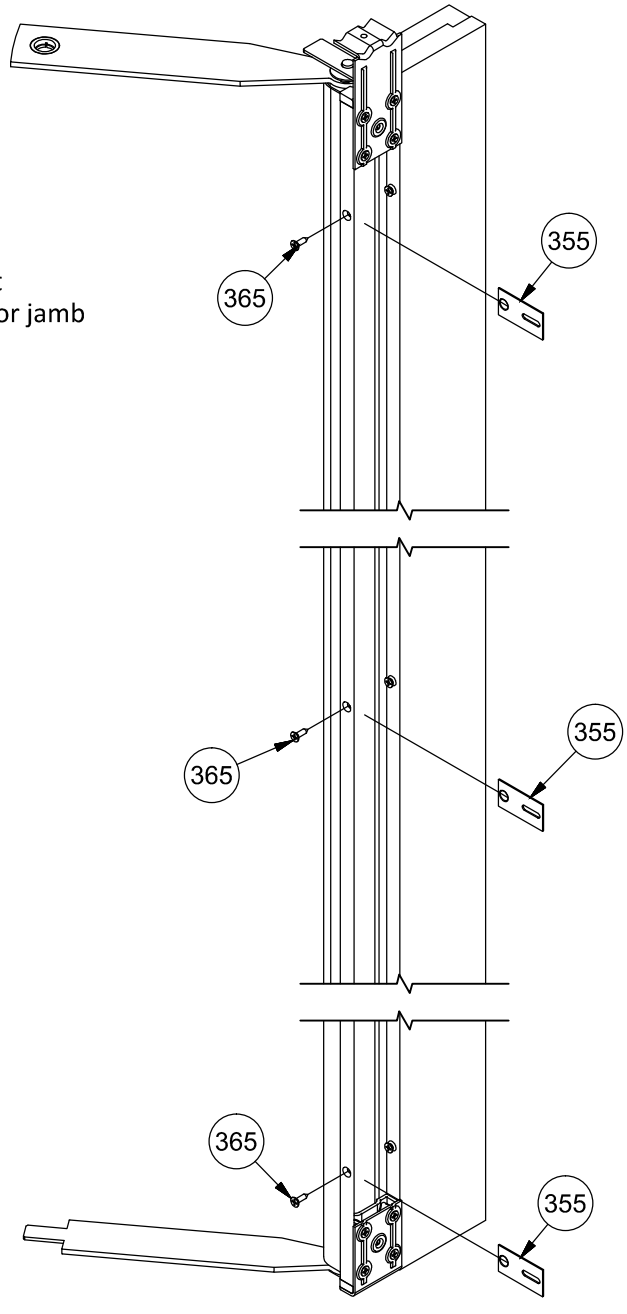


Parts list		
ref.	qty	Description
115	1	Upper arm
120	1	Hinge-side bracket
185	1	Lower arm
195	1	Lower Bracket
295	2	Spacer
315	1	Upper pivot
325	2	Rod rotation brass
345	8	Screw TSPcr Ø3,5x22

ASSEMBLY THE DOORPOST TO HINGE-SIDE DOOR JAMB



assembling door jamb

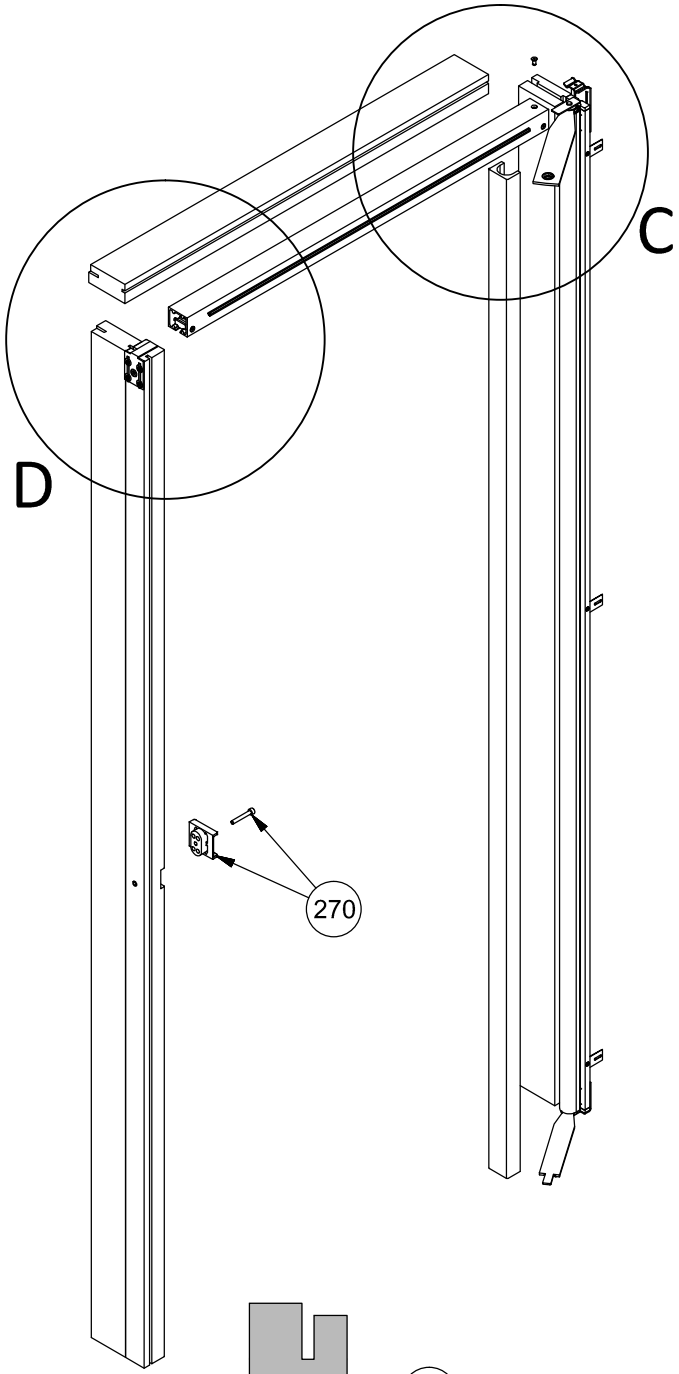


assembling fixing clamp

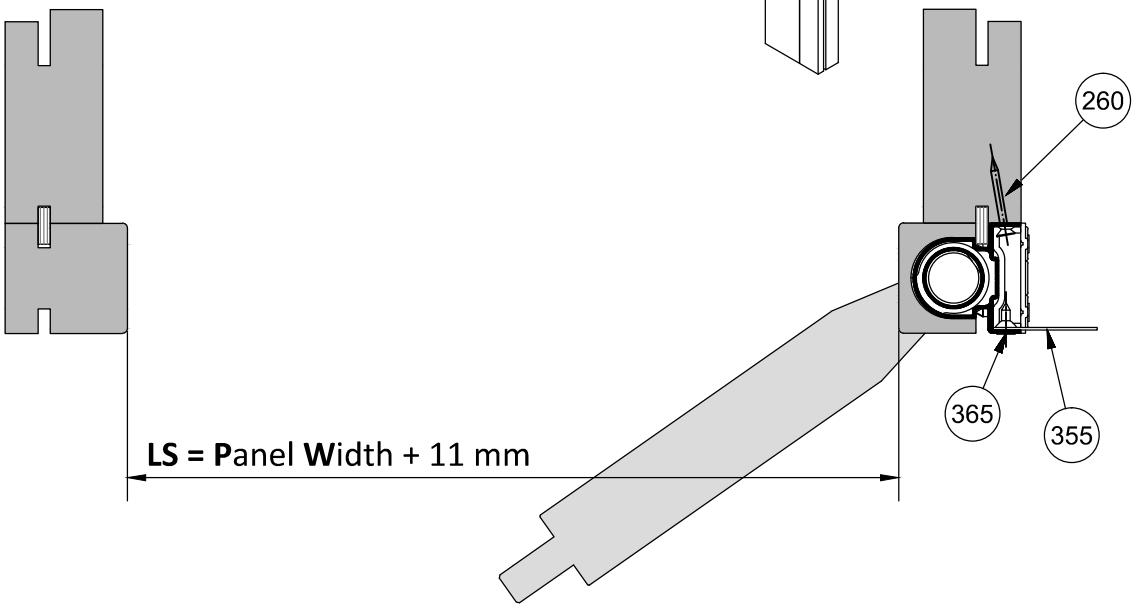
Parts list		
ref.	qty	Description
115	1	Upper arm
185	1	Lower arm
260	3	Screw TSPcr Ø3,5x30 - DIN 7505-A
305	1	Doorpost
355	3	Fixing clamp
365	3	Screw TSPcr Ø3,5x13 - ISO 7050

ASSEMBLY FRAME TO TRACK

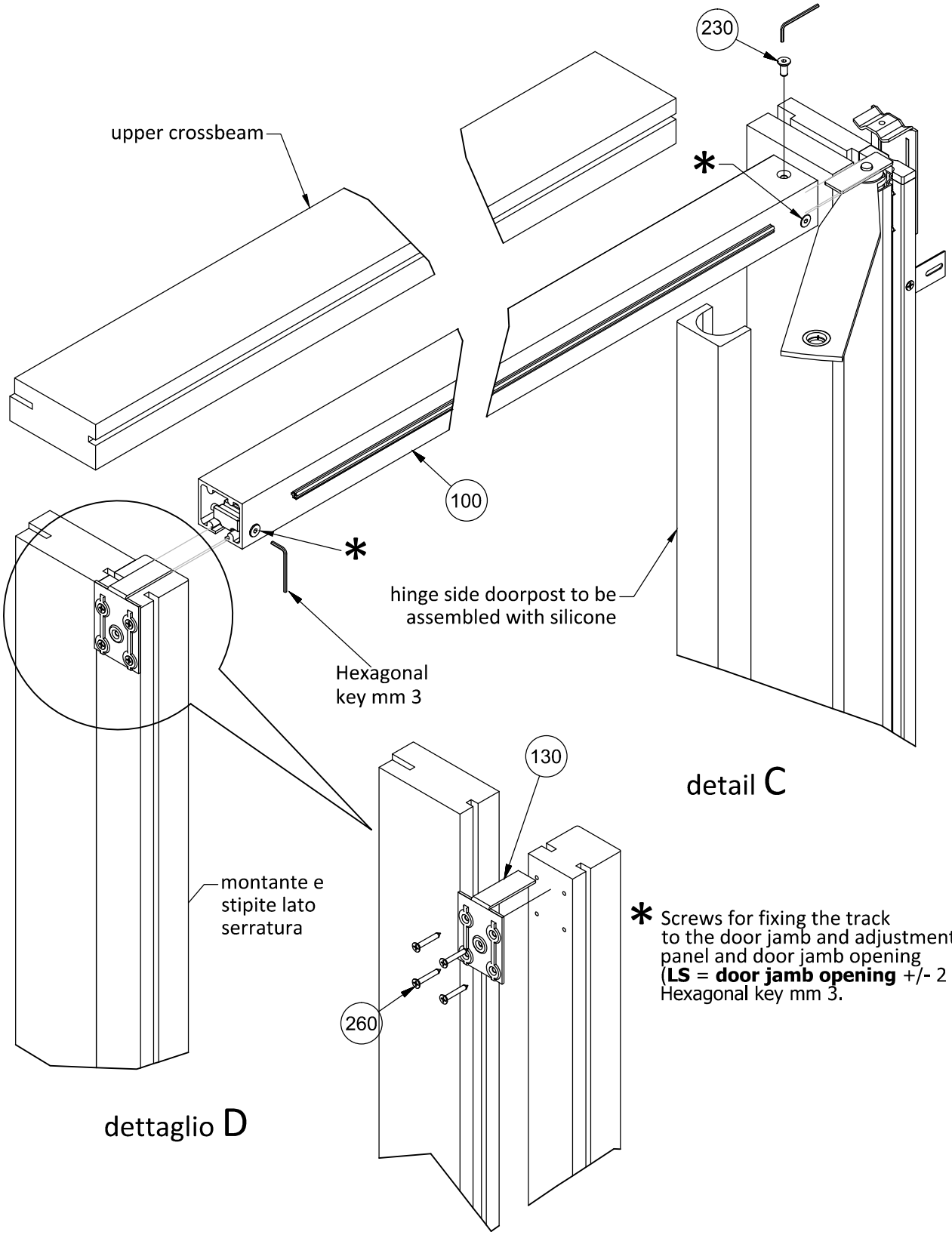
N.B. Details C-D
see pages 27



Parts list		
ref.	qty	description
260	3	Screw TSPcr Ø3,5x30 - DIN 7505-A
270	1	Set for lock mediana evolution
355	3	Fixing clamp
365	3	Screw TSPcr Ø3,5x13 - ISO 7050



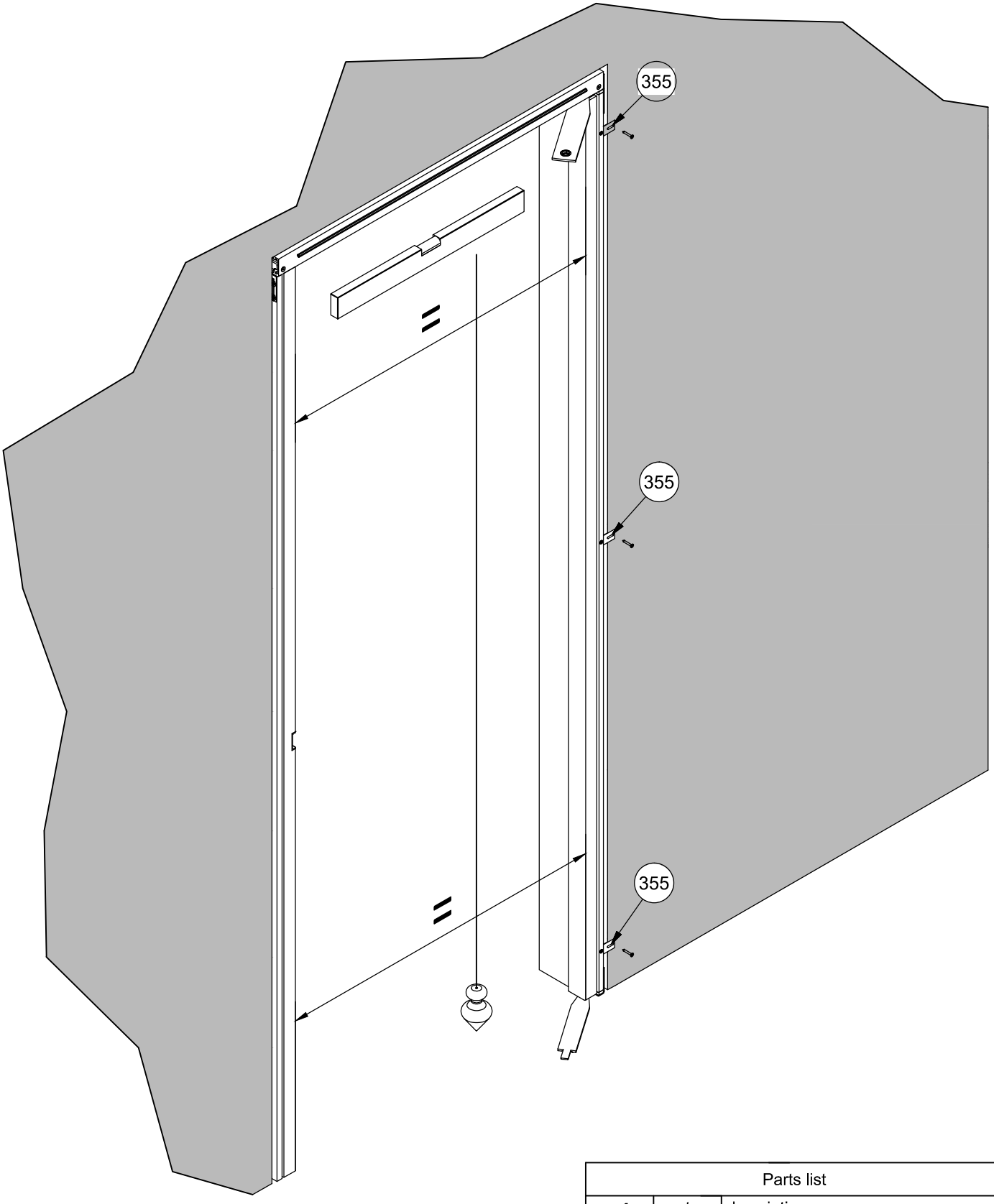
ASSEMBLY FRAME TO TRACK



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

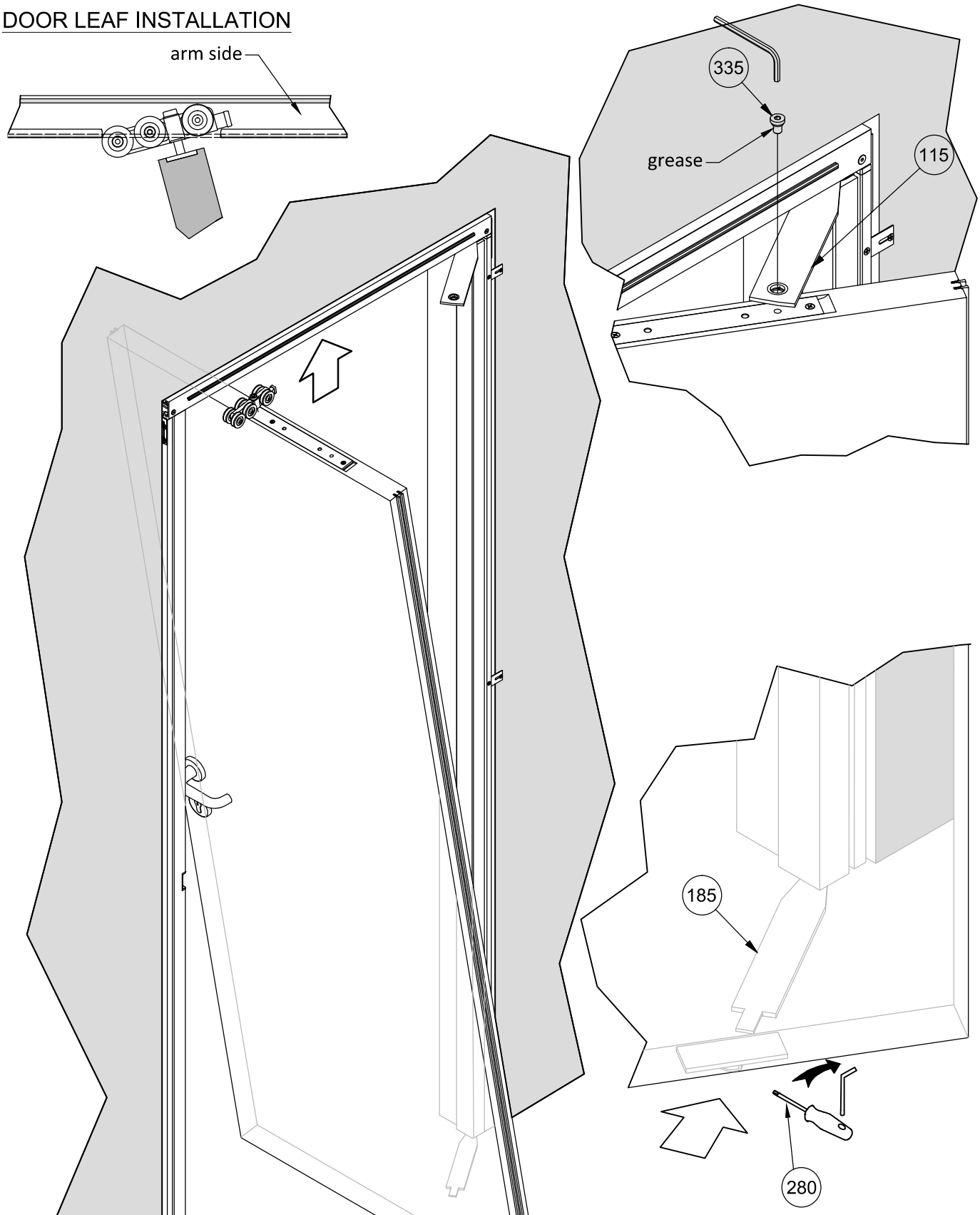
COMPLETE DOOR JAMB INSTALLATION

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



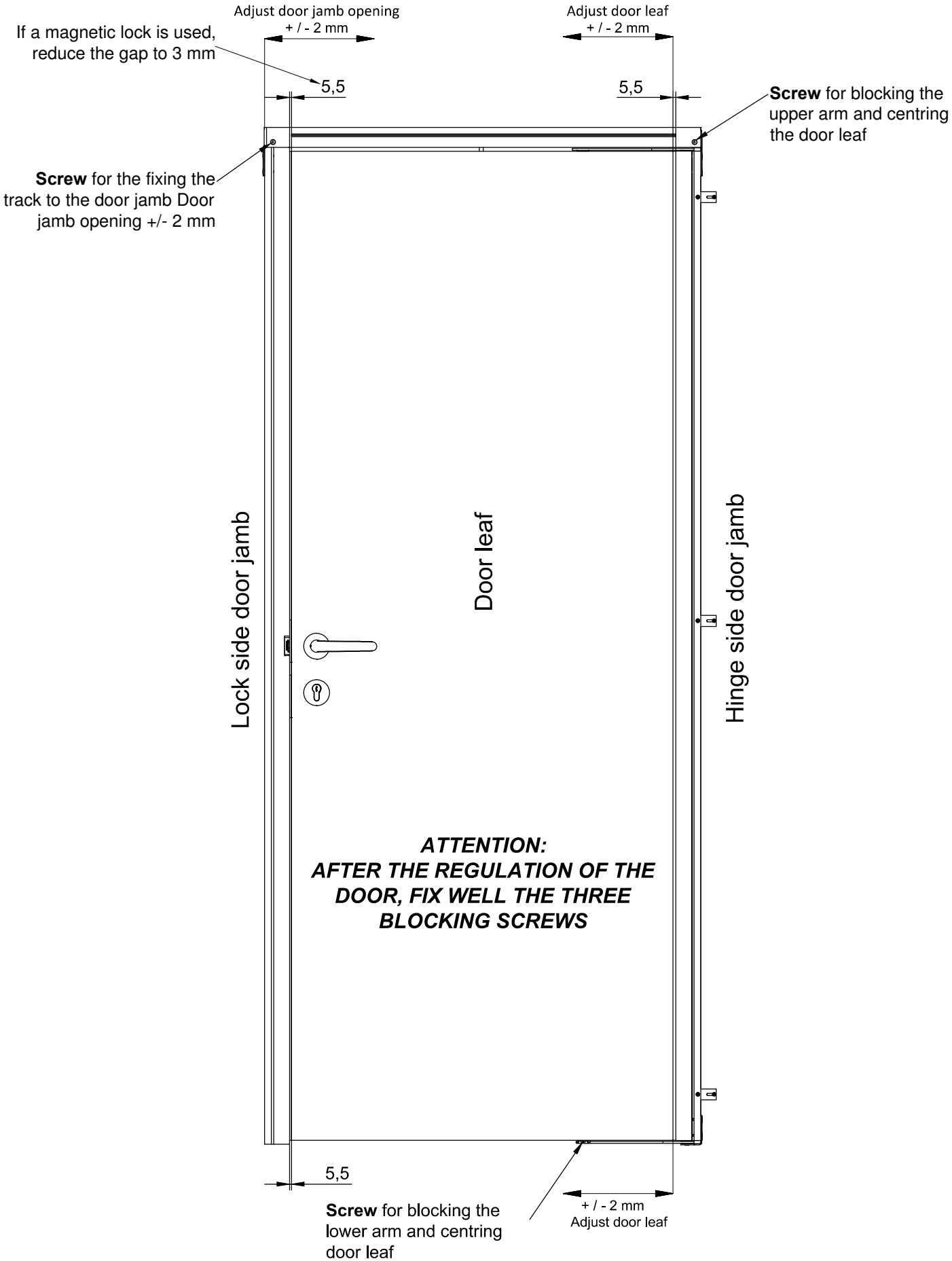
Parts list		
ref.	qty	description
355	3	Fixing clamp

DOOR LEAF INSTALLATION

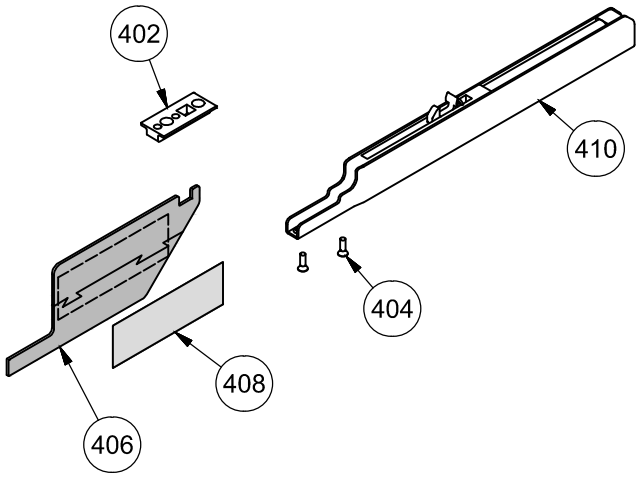


Parts list		
ref.	qty	description
115	1	Upper arm
185	1	Lower arm
280	1	Hexagonal screwdriver 2,5 mm
335	1	Fixing pin upper arm

ADJUSTING DOOR LEAF AND DOOR JAMB



"SOFT OPENING" INSTALLATION (OPTIONAL)

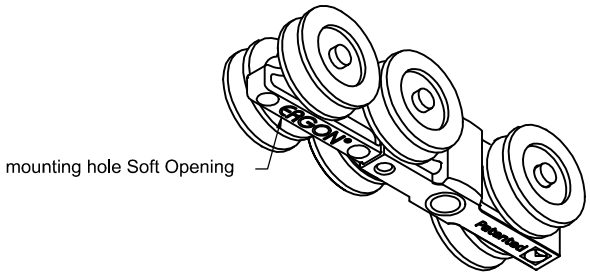


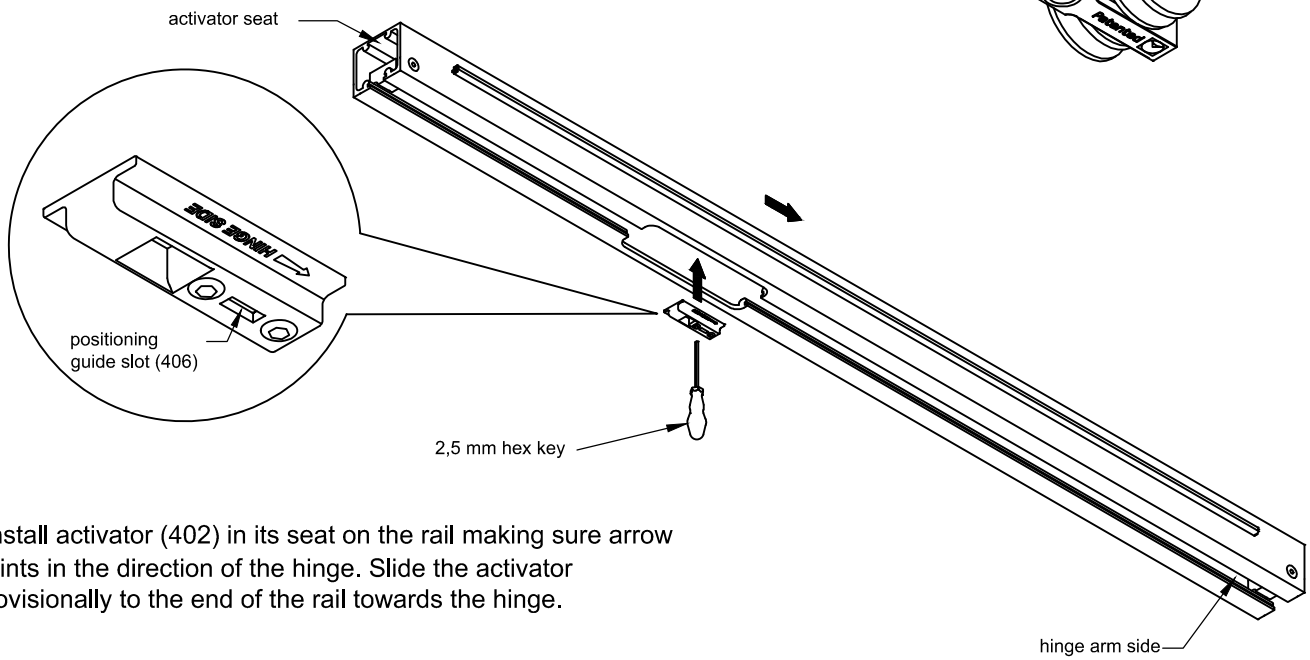
Parts list		
ref.	qty	description
402	1	Activator
404	2	Screw TSP+ M3x8 - ISO 7046
406	1	Activator positioning template
408	1	Sticker
410	1	Soft Opening

Installation

1) Assemble jambs and trackand fix to wall.

2) Ensure that the wheel unit is equipped with Soft Opening mounting hole.



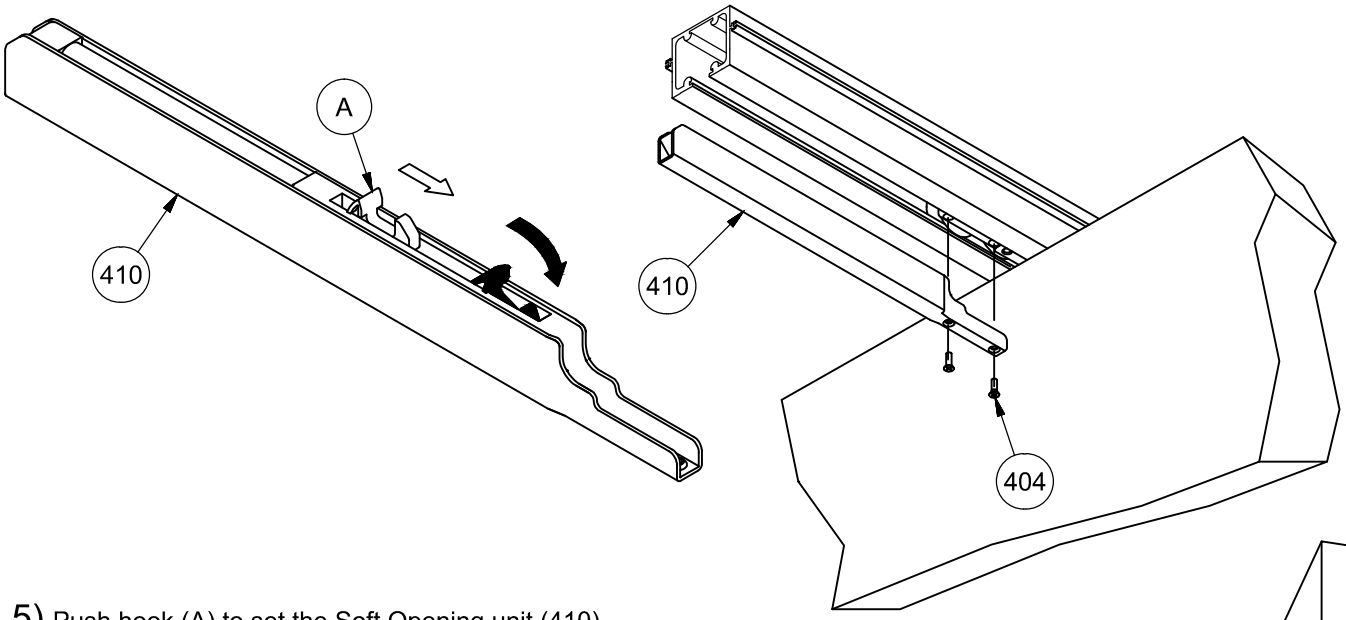


3) Install activator (402) in its seat on the rail making sure arrow points in the direction of the hinge. Slide the activator provisionally to the end of the rail towards the hinge.

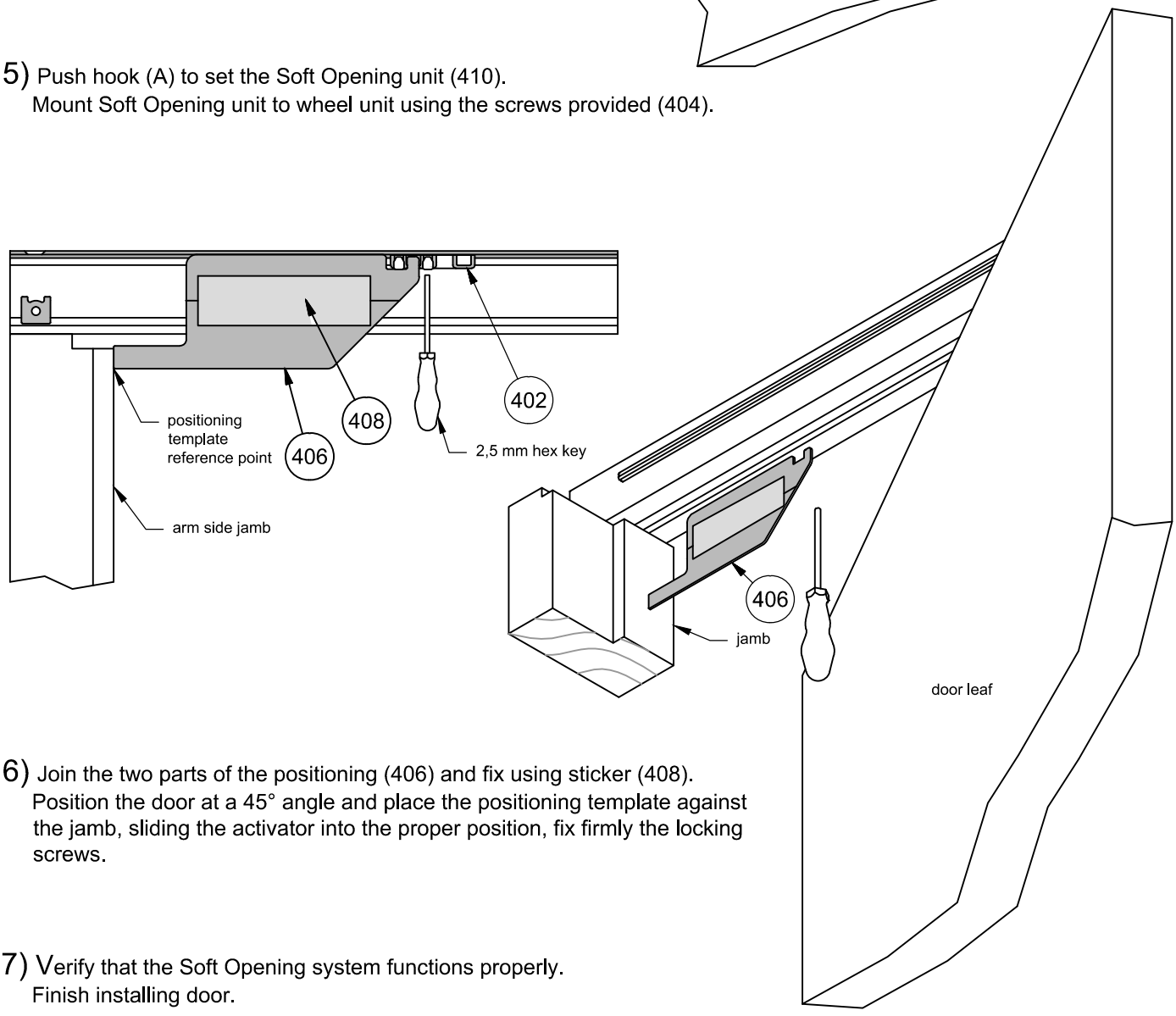
4) Hang the door and mount the hinge arm. Adjust the door normally and open it all the way.

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

"SOFT OPENING" INSTALLATION (OPTIONAL)



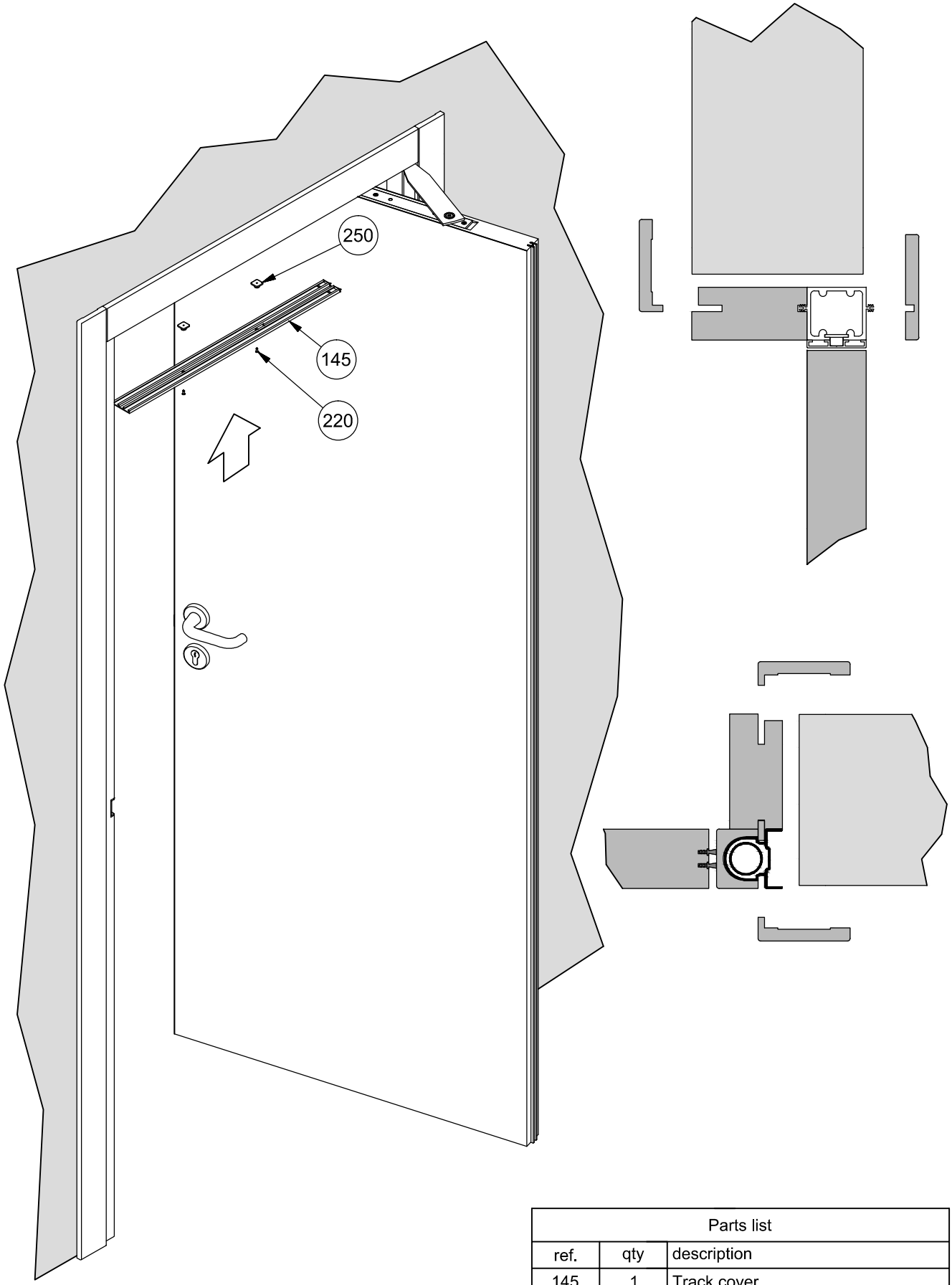
5) Push hook (A) to set the Soft Opening unit (410).
Mount Soft Opening unit to wheel unit using the screws provided (404).



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.

FRAME AND TRACK COVER INSTALLATION



Parts list		
ref.	qty	description
145	1	Track cover
220	2	Screw TSPcr Ø3x10 - DIN 7505-A
250	2	Insert for cover track fixing

The company reserved the right to make, at any time, without prior notice, all technical changes it considers appropriate to improve the quality and the correct functionality of the products.

CELEGON
SMART OPENING SYSTEMS

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