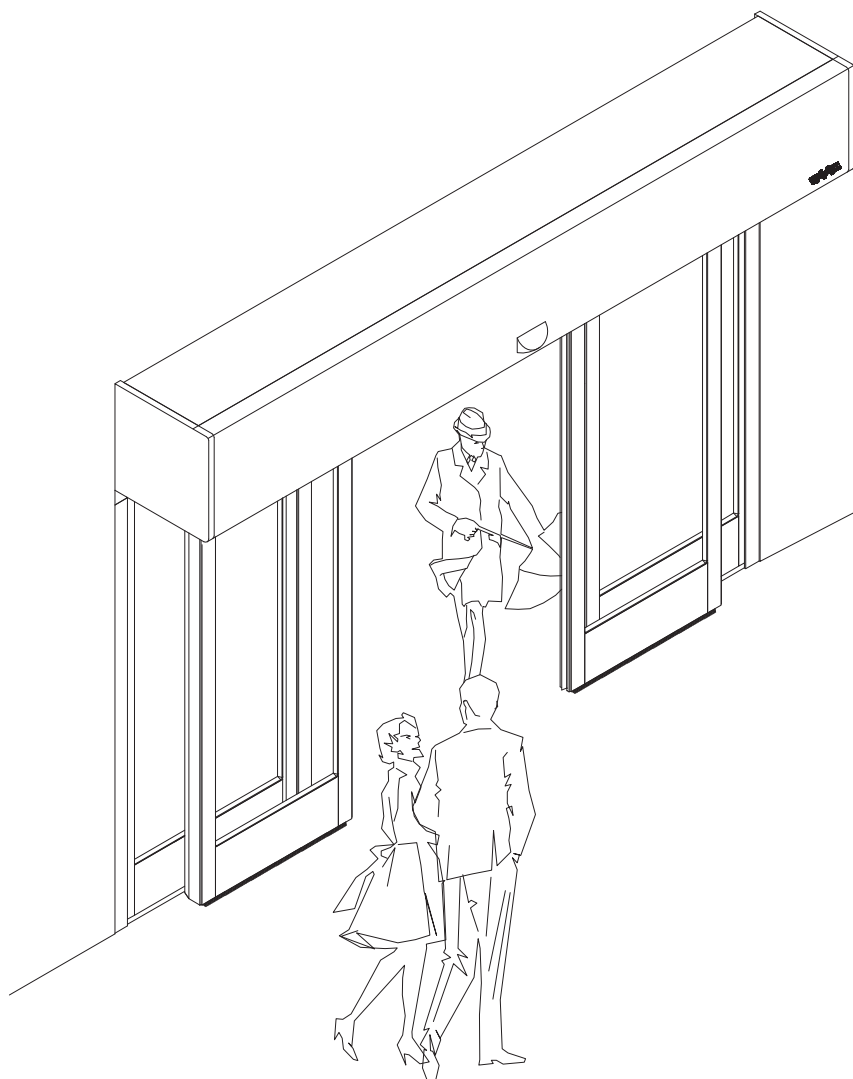


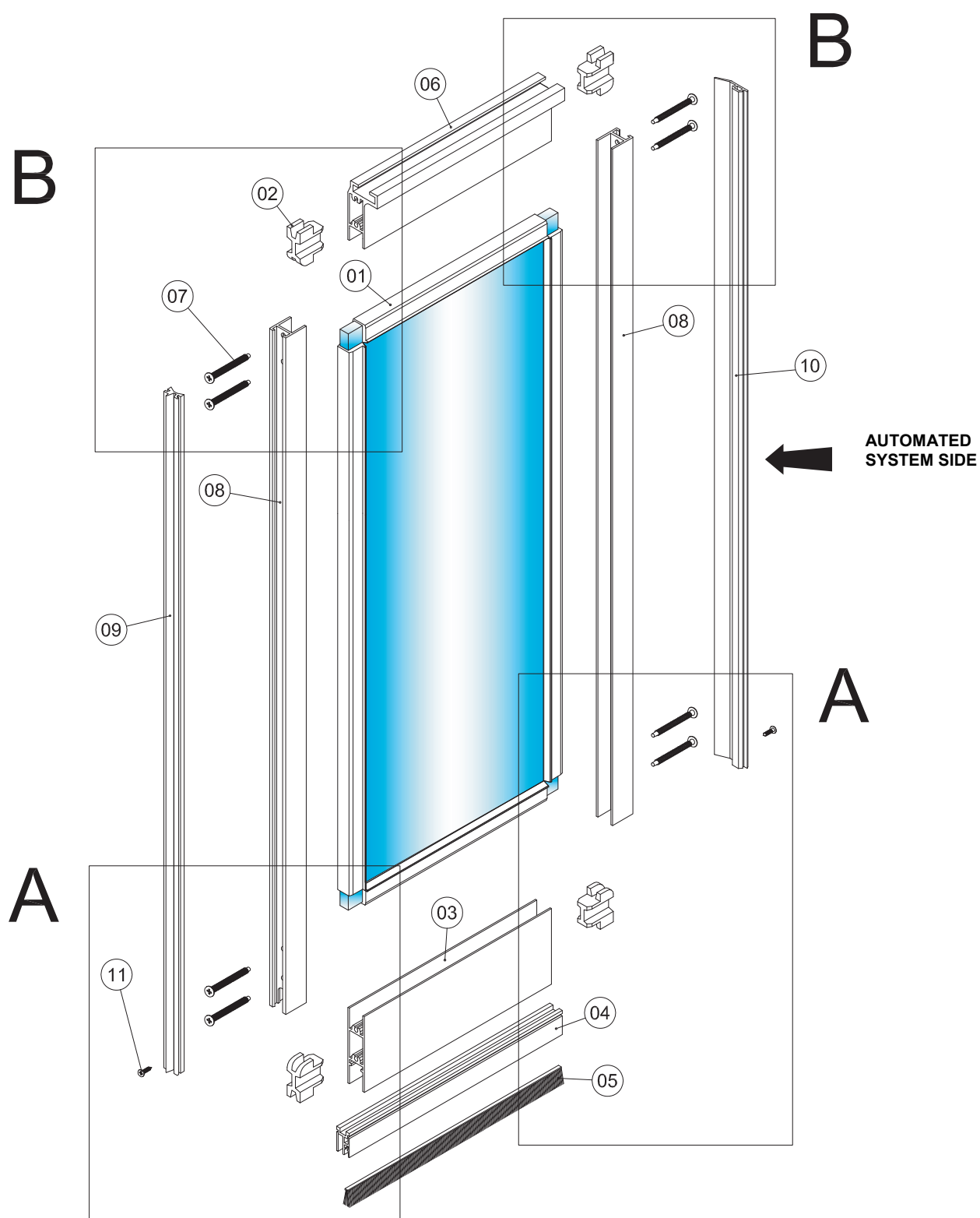
# TK20 SERIES

## ASSEMBLY MANUAL

*English*



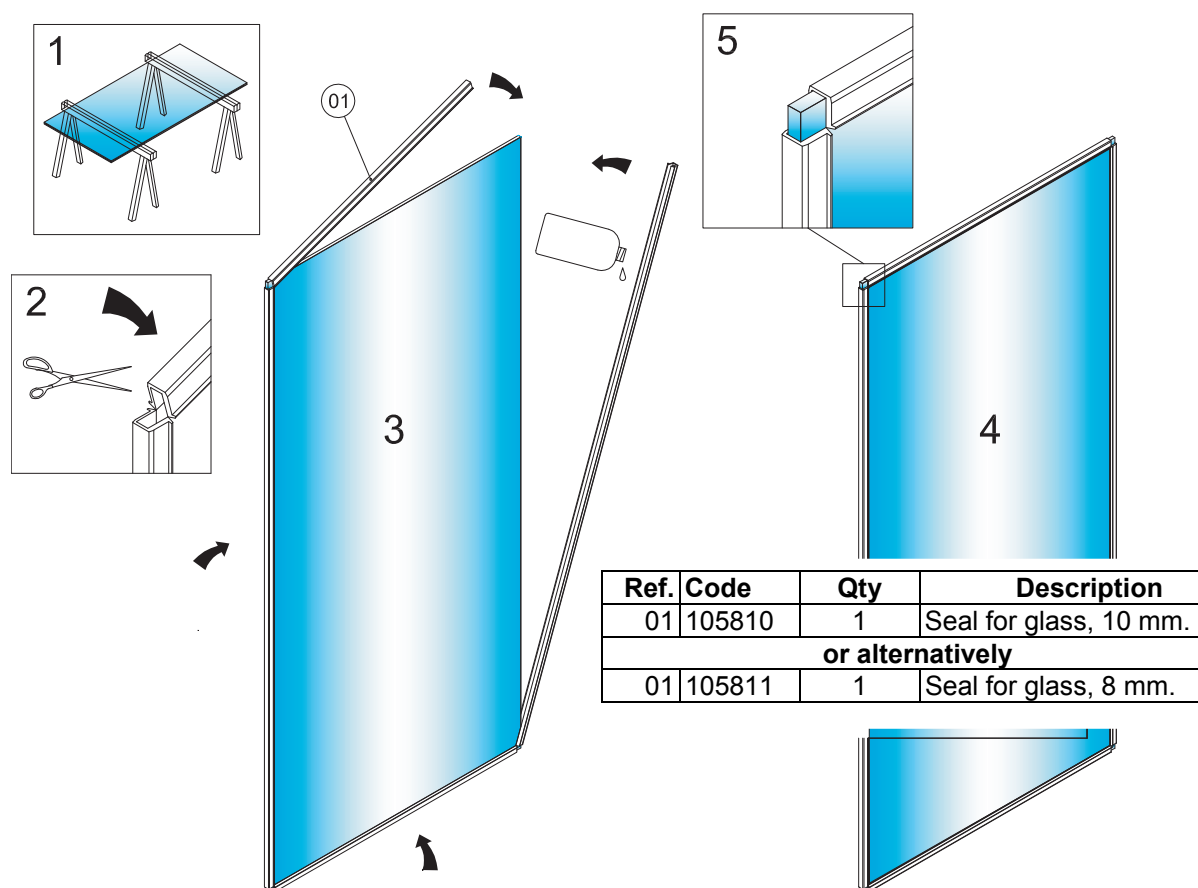
## EXPLODED VIEW OF MOBILE LEAF



## ASSEMBLY OF SEAL ONTO THE GLASS PANELS (MOBILE LEAF AND FIXED LEAF)

Tools and materials to be used for assembly: supporting trestles for glass panels, scissors, lubricant or liquid soap

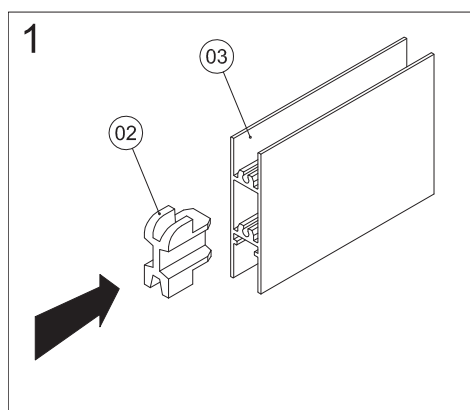
Place the glass panel horizontally on the two support trestles (see fig. 1) after cutting the U seal (ref. 01) to the correct size, suitable for the thickness of the glass panel used, as indicated in the cutting list. Lubricate this with lubricating oil or liquid soap; then, with the scissors, make 3 partial cuts in the piece of seal just lubricated, starting from the bottom of the "U", as indicated in fig. 2 and referring, for the position of the cuts, to the edges of the glass panel (see fig. 5), being careful to leave the rubber intact near the tops of the U, so as not to separate the parts corresponding to the four sides of the glass panel and leaving just one edge completely open, on the seal perimeter (see fig. 3). Then proceed with assembly as indicated in fig. 3, inserting the sides of the seal, one at a time, onto the corresponding sides of the glass panel. On finishing this operation, the seal will cover all sides of the glass panel apart from just the edges which remain visible (see figs. 4-5). Obviously, be careful to cut away the surplus part of the seal before inserting the last side of the seal onto the glass panel.



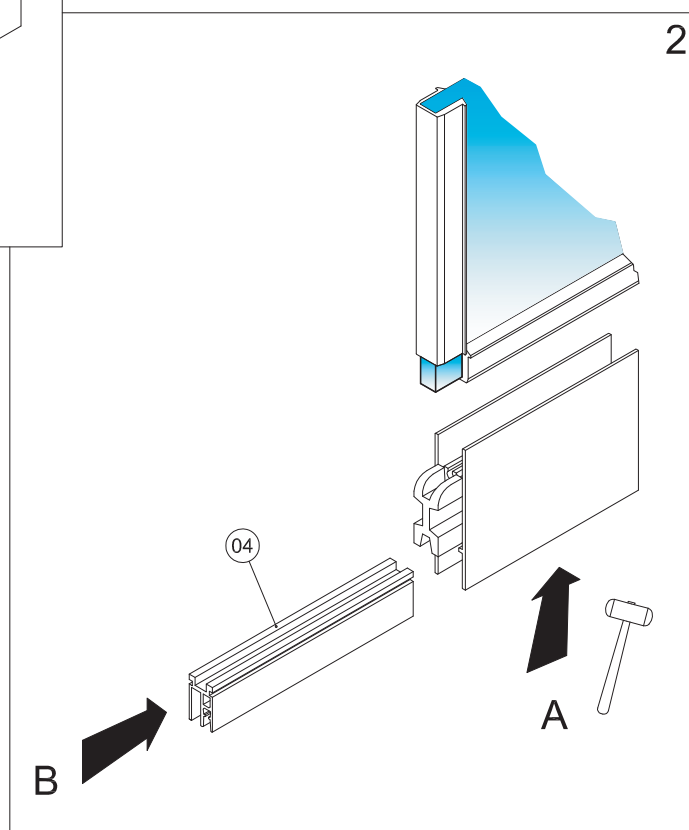
## ASSEMBLY OF THE LOWER CROSS-PIECE - DETAIL "A"

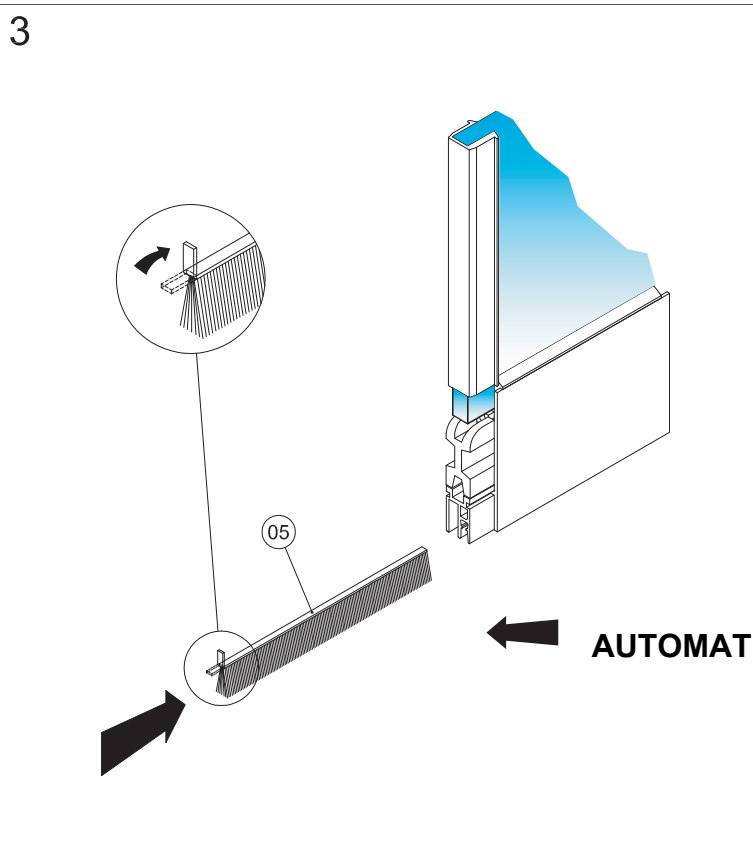
Tools and materials to be used for assembly: plastic-headed hammer

After positioning the seal on the glass panel (see page 3), assemble the lower cross-piece onto the glass. Slip the two plastic plugs (ref. 02) into their appropriate seats on the two sides of the cross-piece (ref. 03), as indicated in fig.1; then, using the plastic-headed hammer, fit the cross-piece thus assembled onto the lower side of the glass panel, already fitted with the seal (see fig. 2A), until it comes into contact with it. Then insert the brush-holding profile (ref. 04) into the lower groove of the cross-piece (see fig. 2B) and the brush (ref. 05) into the appropriate guide on the profile itself (see fig. 3 - page 4), being careful, for the latter, to turn both ends 90° for a distance of approximately 10 mm each, from which the hairs have been cut beforehand, as indicated on the following page in fig. 3. Remember that the brush must then be positioned towards the inner face of the cross-piece (be sure to refer to the TK20 assembly drawings).

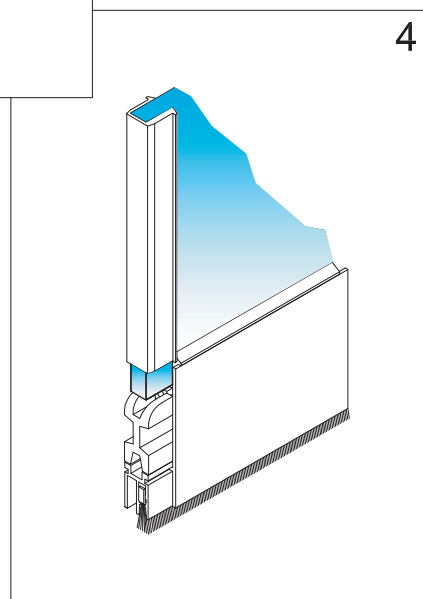


Ref.	Code	Qty	Description
02	105817	2	Plug
03	105806	1	Lower cross-piece of mobile leaf
04	105814	1	Brush-holding profile





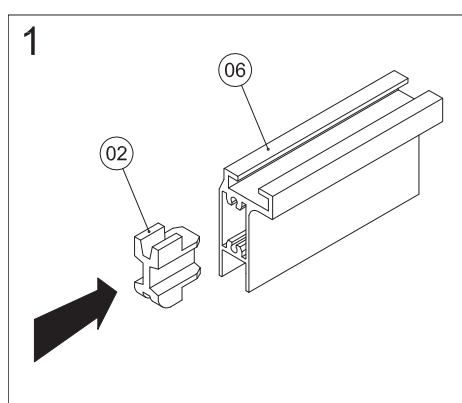
Ref.	Code	Qty	Description
05	105346	1	Brush



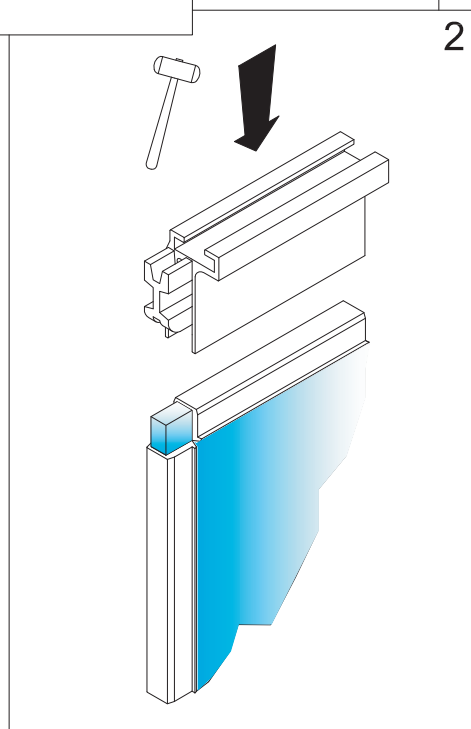
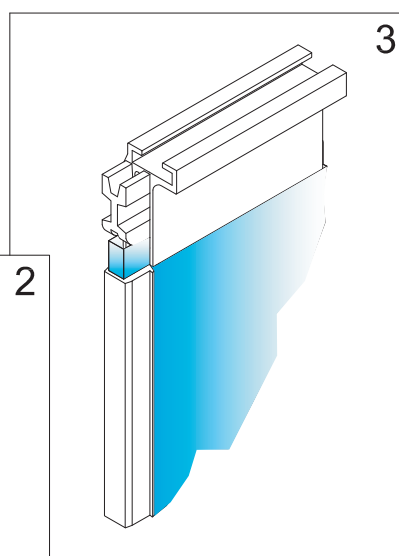
## ASSEMBLY OF UPPER CROSS-PIECE - DETAIL "B"

Tools and materials to be used for assembly: plastic-headed hammer

Slip the two plastic plugs (ref. 02) into their appropriate seats on the two sides of the upper cross-piece (ref. 06) as indicated in fig.1; then, using the plastic-headed hammer, fit the cross-piece thus assembled onto the upper side of the glass panel, already fitted with the seal (see fig. 2), until it comes into contact with the seal.



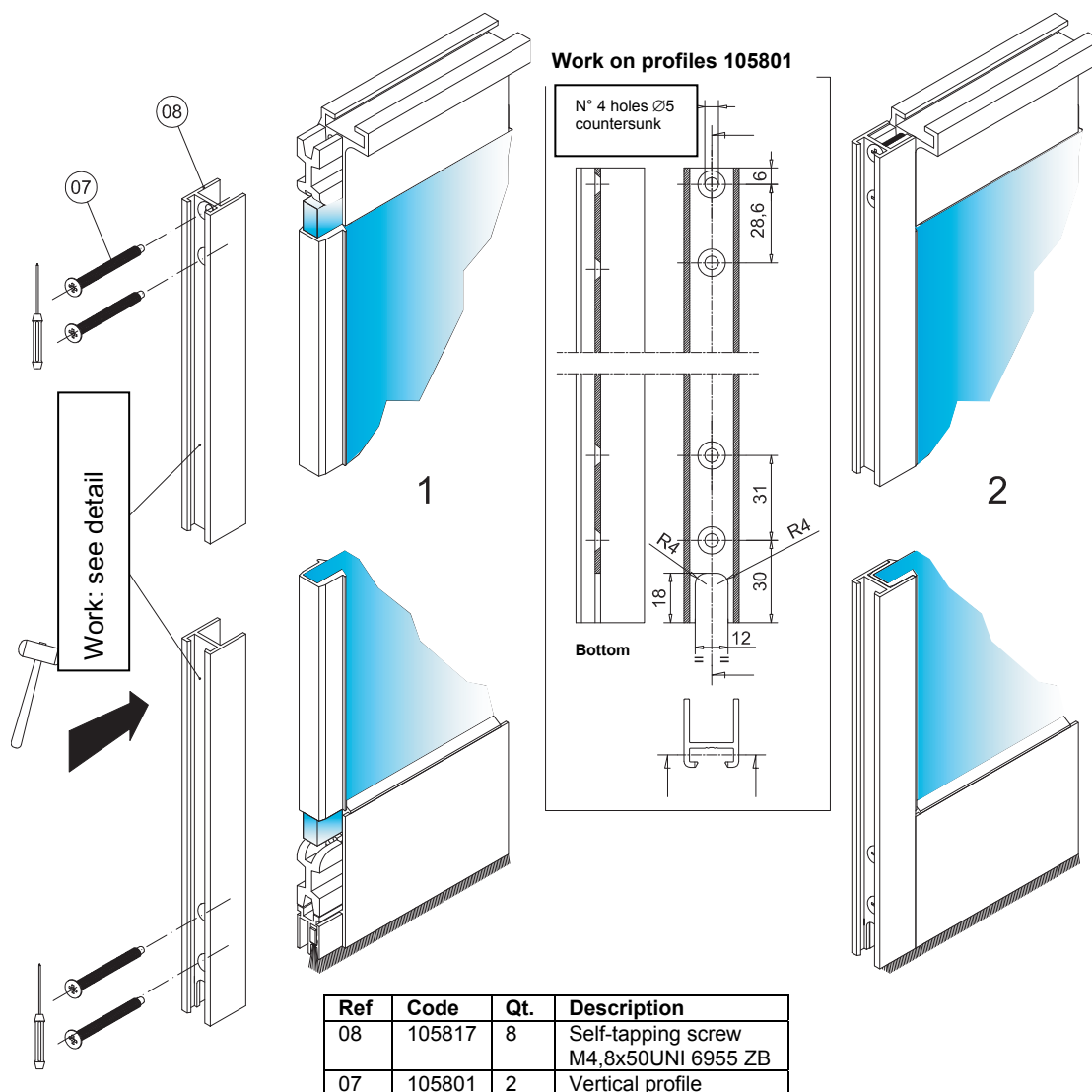
Ref	Code	Qt.	Description
02	105817	2	Plug
06	105805	1	Upper cross-piece of mobile leaf



## ASSEMBLY OF UPRIGHTS - DETAILS "A" AND "B"

Tools and materials to be used for assembly: plastic-headed hammer, Phillips screwdriver, 8 self-tapping screws M4.8 x 50 UNI 6955 ZB (included in the assembly kit for 1 mobile leaf)

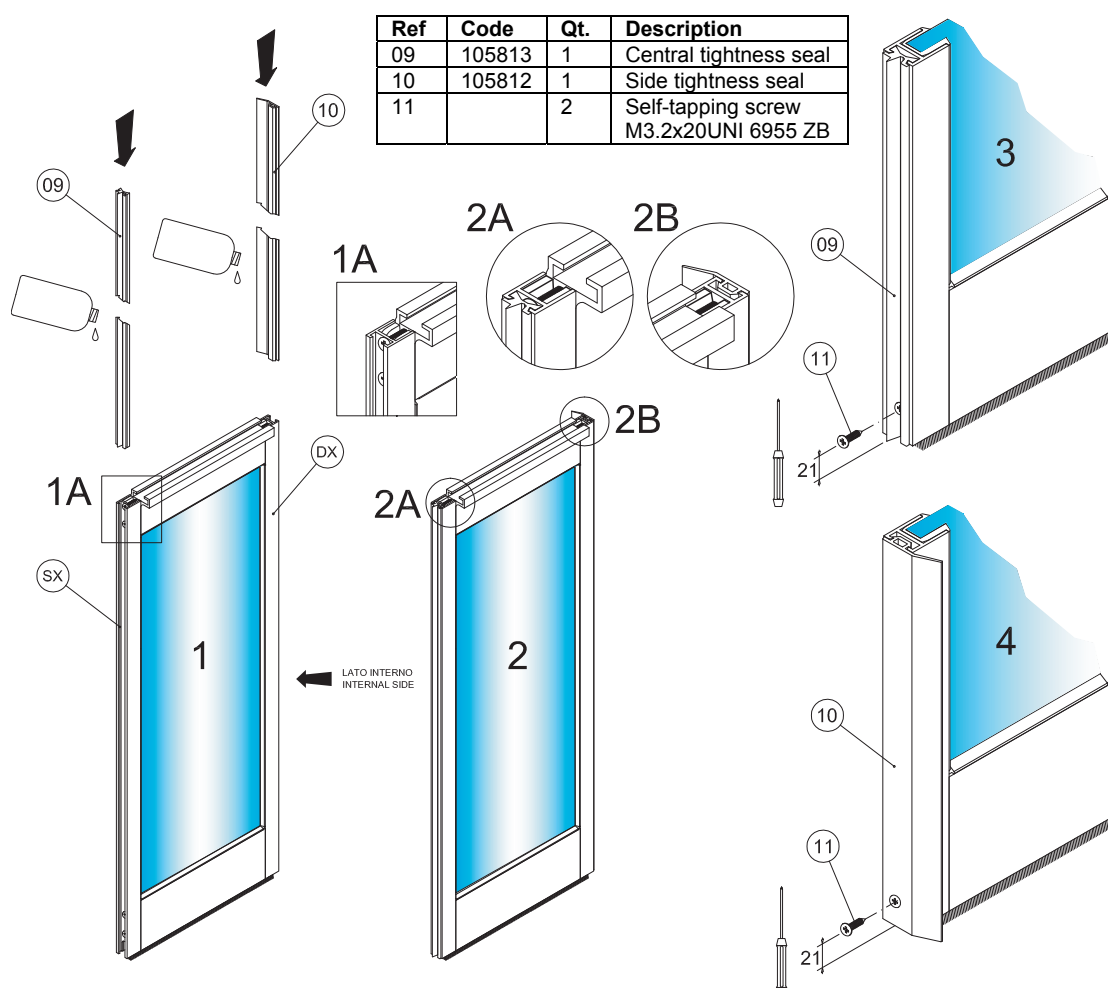
Insert the left-hand upright (ref. 08) onto the left side of the glass panel already fitted with the seal (see fig. 1), until it comes into contact with the lower and upper cross-pieces, using the plastic-headed hammer; then fix it to the cross-pieces already fitted onto the glass panel, tightening the appropriate screws (ref. 07) with the Phillips screwdriver, as indicated in figs. 1 and 2. Similarly, fit the right-hand upright onto the right side of the glass panel.



## ASSEMBLY OF FRAME SEALS - DETAILS "A" AND "B"

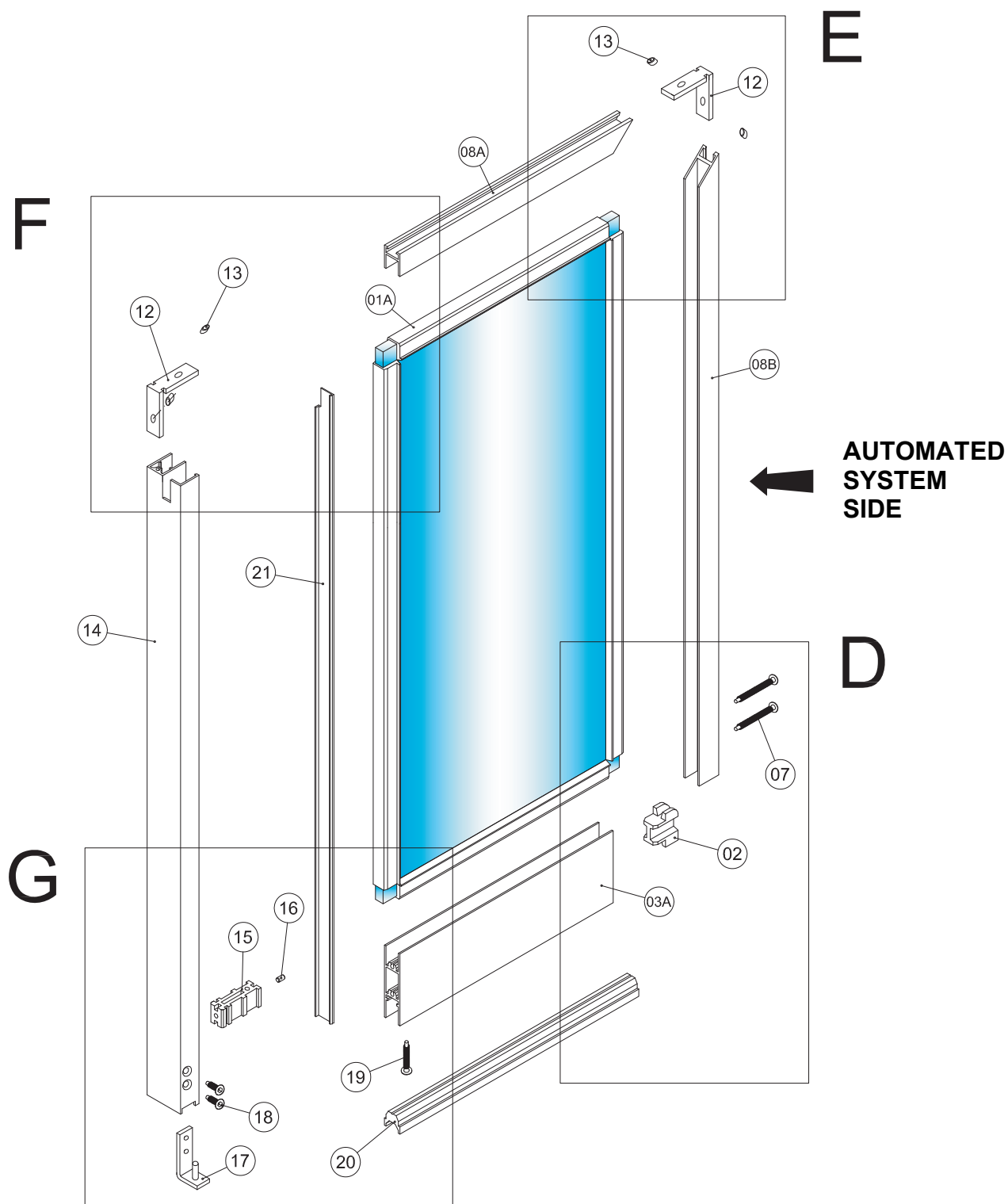
Tools and materials to be used for assembly: Phillips screwdriver, scissors, lubricant or liquid soap, 2 self-tapping screws M3.2x20 UNI 6955 ZB (not included in the assembly kit)

After finishing assembly of the framework, insert the central tightness seal (ref. 09) onto the left-hand upright of the leaf (always referring to the position of the upper cross-piece - see detail 1A), with the insertion side as indicated in fig. 2A, and lubricating it appropriately with lubricating oil or liquid soap to facilitate its movement; then, in the same way, insert the side tightness seal (ref. 10) onto the right-hand upright of the leaf (always referring to the position of the upper cross-piece - see detail 1 A), with the insertion side as indicated in fig. 2B. To avoid slippage in the housing, fix both seals to the base of the uprights with two screws (ref. 11) as indicated in figs. 3-4.





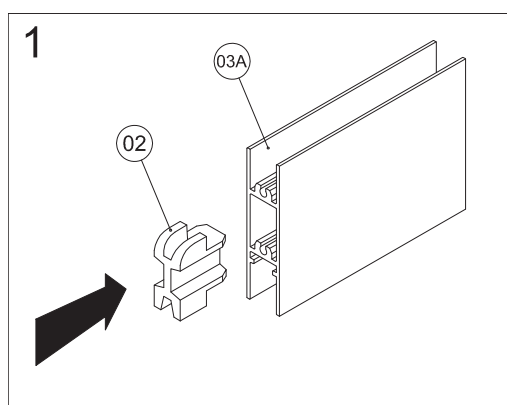
## EXPLODED VIEW - FIXED LEAF AUTOMATED SYSTEM SIDE



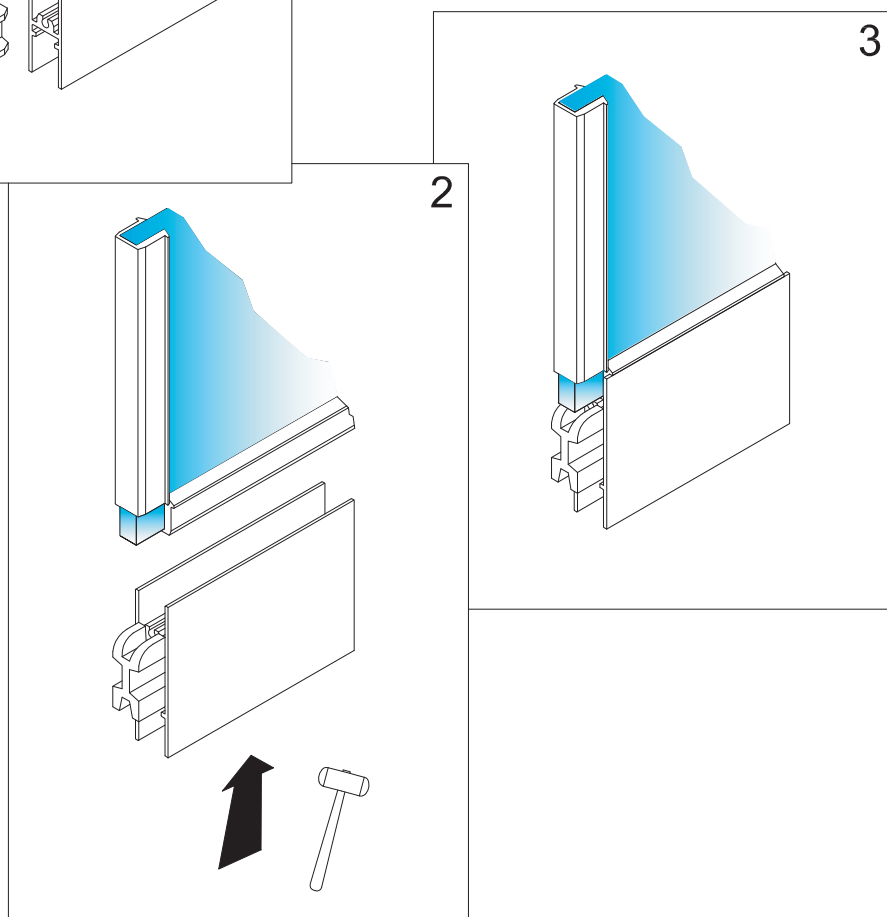
## ASSEMBLY OF LOWER CROSS-PIECE - DETAIL "D"

Tools and materials to be used for assembly: plastic-headed hammer

After positioning the seal on the glass panel of the fixed leaf (see page 3), assemble the lower cross-piece onto the glass panel. Slip the plastic plug (ref. 02) into its appropriate seat on one of the two sides of the cross-piece (ref. 03A) as indicated in fig.1; then, using the plastic-headed hammer, fit the cross-piece thus assembled onto the lower side of the glass panel, already fitted with the seal (see fig. 2), until it comes into contact with it, being careful, for the subsequent stages of assembly, that the plug just fitted into the cross-piece is on the right side of the glass panel, assuming that you are looking at the glass panel from the automated system side.



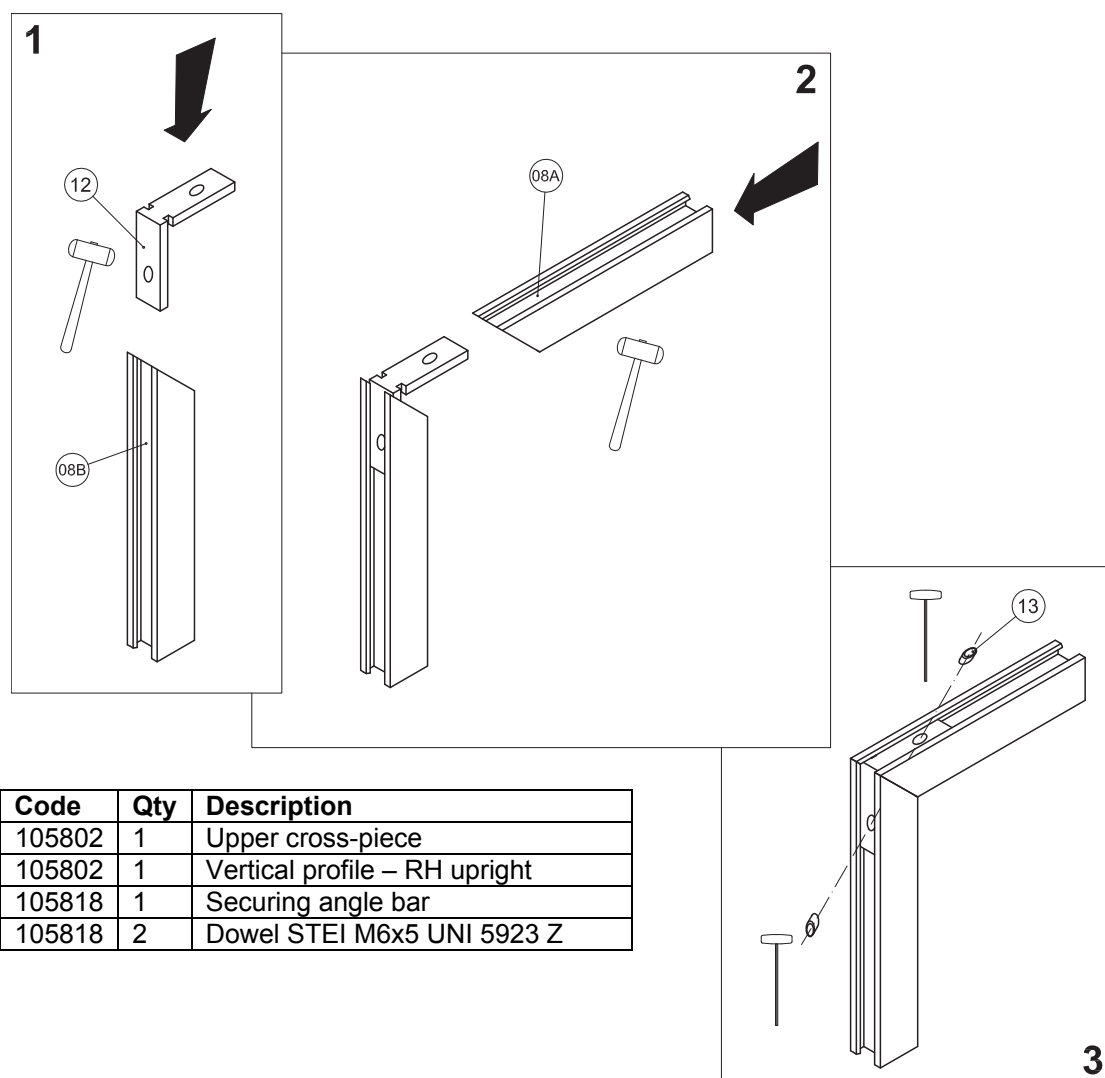
Ref	Code	Qt.	Description
02	105818	1	Plug
03A	105806	1	Lower cross-piece of fixed leaf



## ASSEMBLY OF UPPER CROSS-PIECE AND RH UPRIGHT - DETAIL "E"

Tools and materials to be used for assembly: plastic-headed hammer, 2.5 mm Allen key, 2 STEI M6x5 UNI 5923 Z dowels (included in the assembly kit for 1 fixed leaf)

Using the plastic-headed hammer, insert the securing angle bar (ref. 12) into the appropriate seat on the RH upright (ref.08B), with the bevelled side at 45°, until it comes into contact (see fig. 1). In the same way, insert into the appropriate seat on the upper cross-piece, and again with the bevelled side at 45°, the flange of the securing angle bar already assembled (which protrudes from the upright), until the cross-piece comes into contact with the upright, so as to form a right angle (see figs. 2 and 3). Then fix the angle bar to the upright and the cross-piece, tightening the dowels in their respective threaded holes, positioned on the angle bar itself, with the Allen key, as indicated in fig. 3.

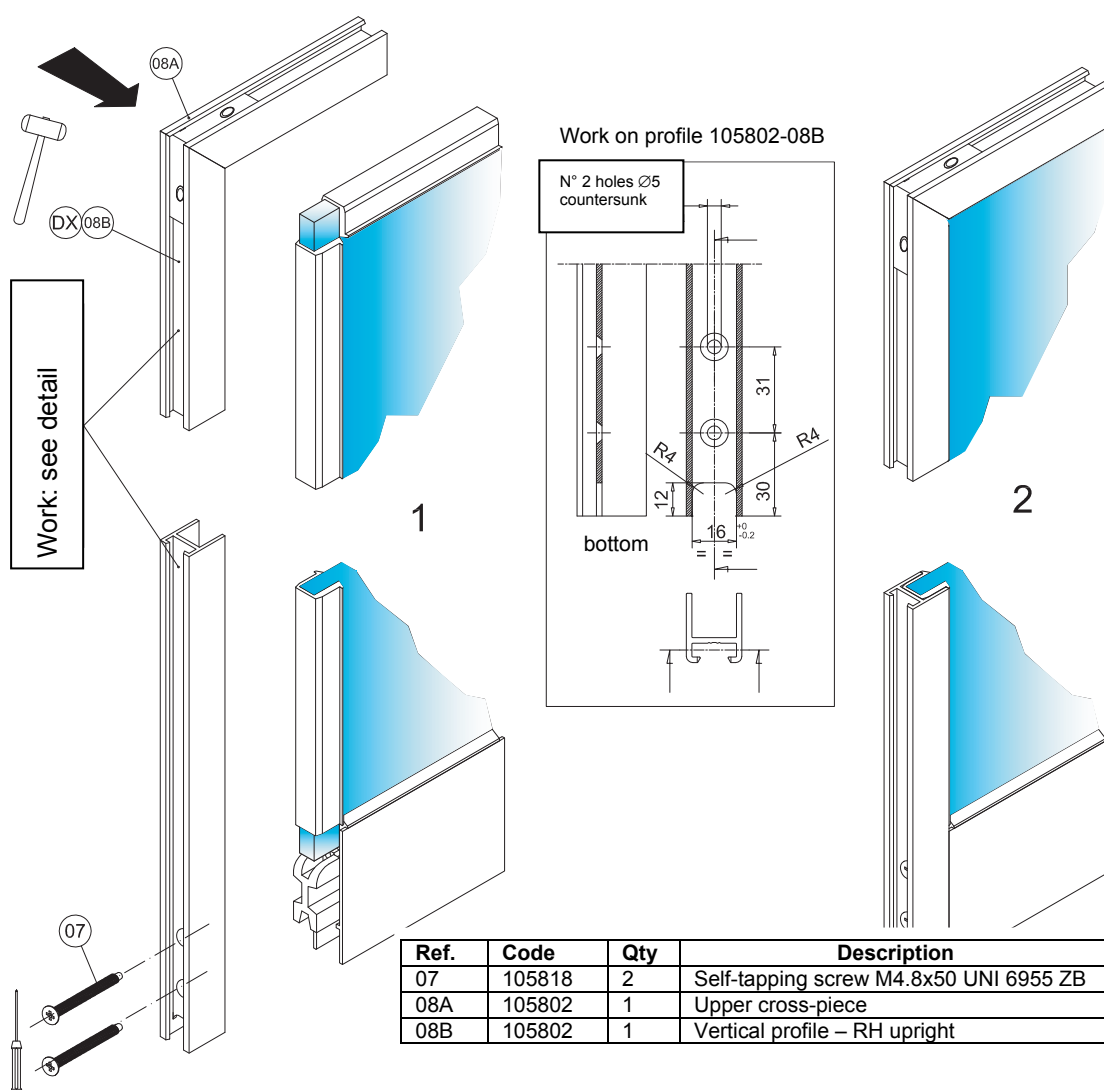


Ref.	Code	Qty	Description
08A	105802	1	Upper cross-piece
08A	105802	1	Vertical profile – RH upright
12	105818	1	Securing angle bar
13	105818	2	Dowel STEI M6x5 UNI 5923 Z

## ASSEMBLY OF RH UPRIGHT - DETAILS "D" and "E"

Tools and materials to be used for assembly: plastic-headed hammer, Phillips screwdriver, 2 self-tapping screws M4.8x50 UNI 6955 ZB (included in the kit for 1 fixed leaf)

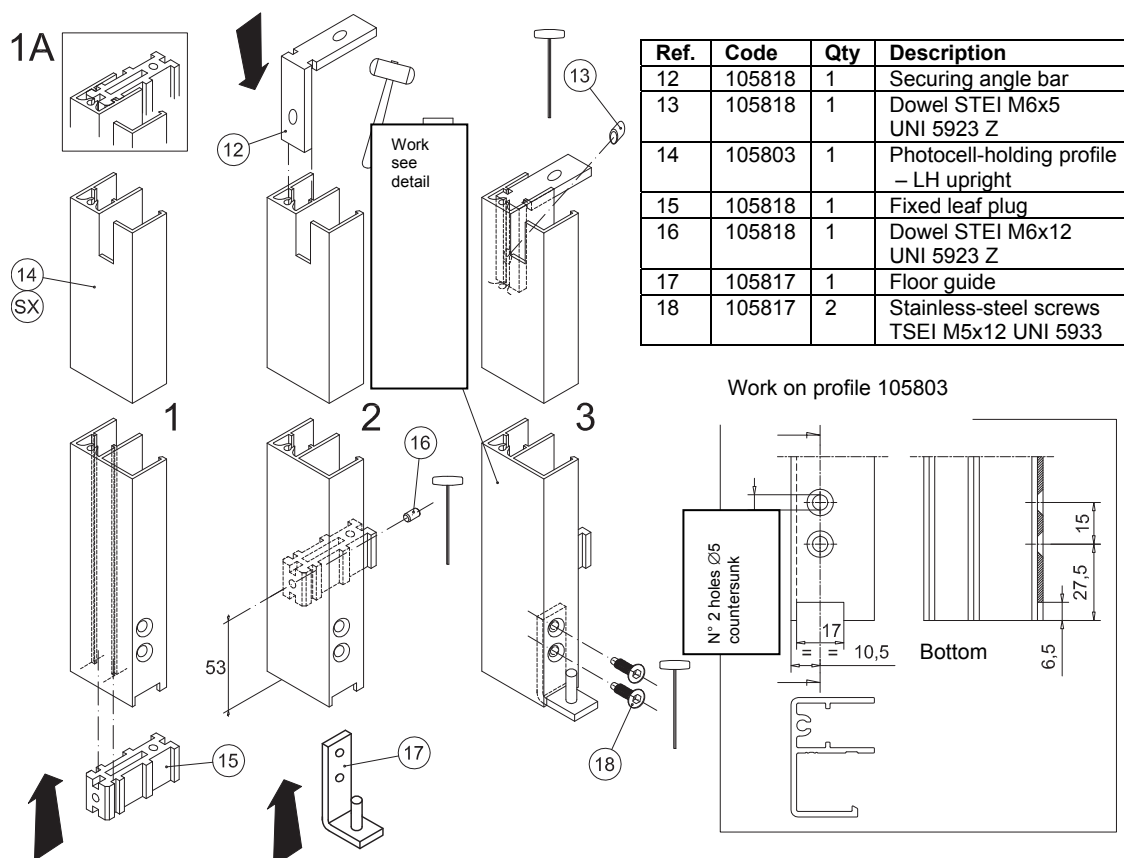
Using the plastic-headed hammer, fit the upper cross-piece (ref. 08A) and the RH upright (ref. 08B), already assembled with the angle bar (see page 11), onto the upper and right-hand sides, respectively, of the glass panel (already fitted with the seal (see fig. 1), until the right-hand upright comes into contact with the lower cross-piece which has previously been fitted onto the glass panel (for the position of the upright refer to the exploded view on page 9), fixing it by means of the appropriate screws (ref. 07), tightening them with the Phillips screwdriver, as indicated in fig.1.



## ASSEMBLY OF LH UPRIGHT - DETAILS "F" AND "G"

Tools and materials to be used for assembly: plastic-headed hammer, Allen key 2.5 mm, 2 dowels STEI M6x5 UNI 5923 Z (included in the assembly kit for 1 fixed leaf), 1 dowel STEI M6x12 UNI 5923 Z (included in the assembly kit for 1 fixed leaf), 2 stainless-steel screws TSEI M5x12 UNI 5933 (included in the assembly kit for 1 mobile leaf)

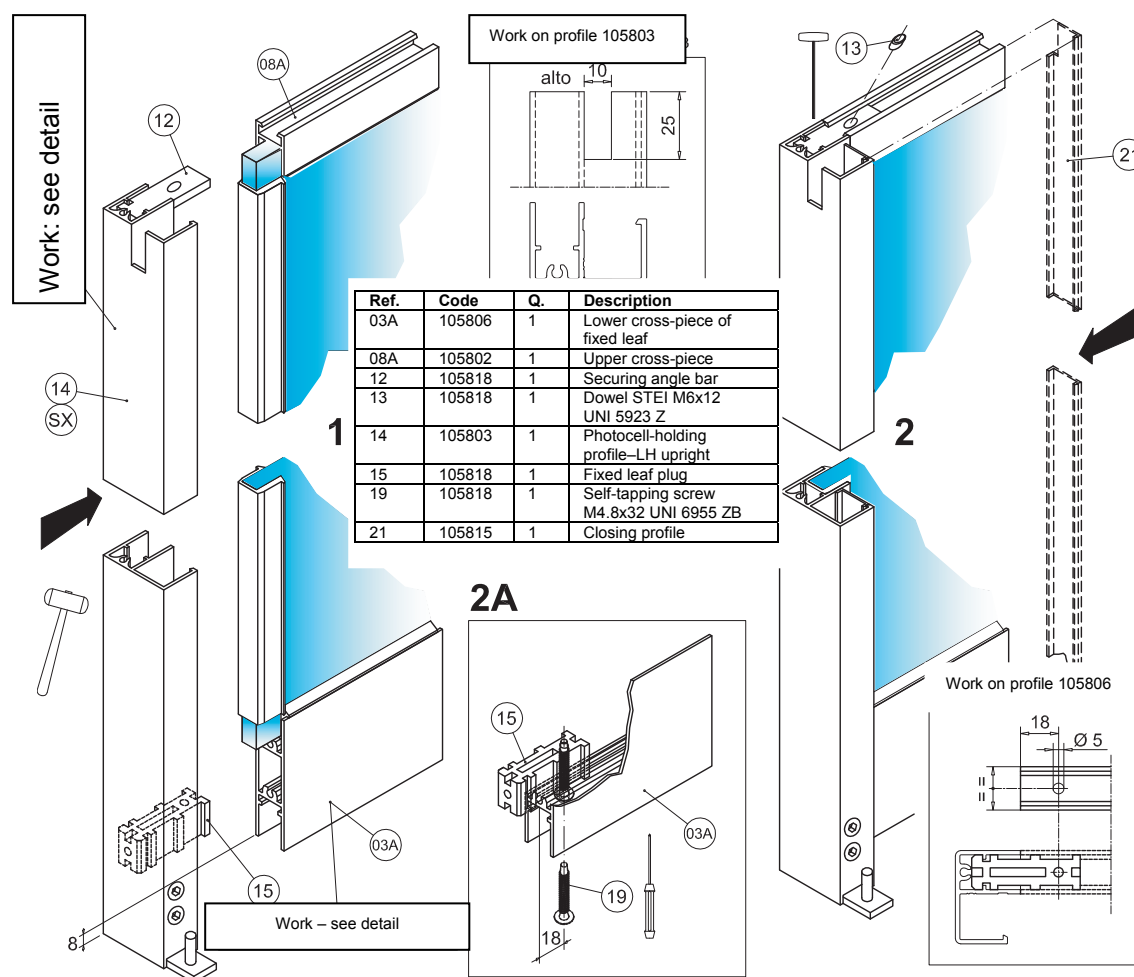
Insert the plug for the fixed leaf (ref. 15) into the lower part of the photocell holding profile - LH upright (ref. 14), being careful to first ensure that the grooves on the plug meet those on the profile (see fig. 1 and detail 1A) and then sliding it up to the correct height, shown in fig. 2, which corresponds to the seat of the lower cross-piece already assembled onto the glass panel. Then fix the plug onto the profile, inserting the dowel (ref. 16) into the appropriate hole on the plug and then tightening it against the profile, using the Allen key. Continue by first inserting the floor guide into the base of the upright and then tightening the two screws (ref. 18) in the appropriate holes on the upright with the Allen key (see figs. 2 and 3). Then, using the plastic-headed hammer, fit the securing angle bar to the top of the photocell-holding profile (see fig. 2) and secure it by fully tightening the dowel (ref. 13) with the Allen key, as indicated in fig. 3.



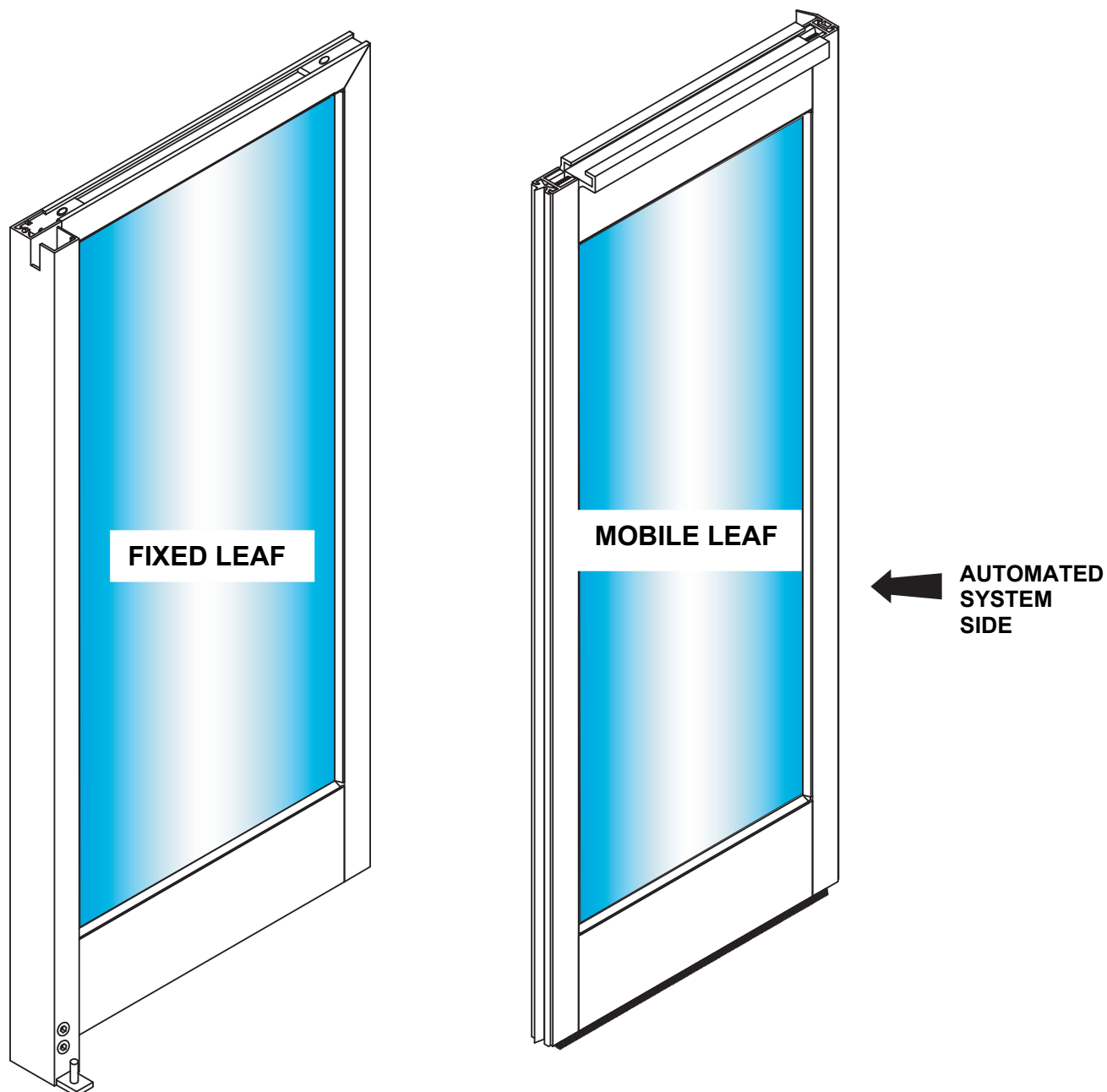
## ASSEMBLY OF LH UPRIGHT - DETAILS "F" AND "G"

Tools and materials to be used for assembly: plastic-headed hammer, Phillips screwdriver, Allen key 2.5 mm, 1 self-tapping screw M4.8x32 UNI 6955 ZB (included in the assembly kit for 1 mobile leaf)

Insert the photocell-holding profile - LH upright (ref. 14) onto the left side of the glass panel (already fitted with seal), using the plastic-headed hammer and being careful to insert the upper flange of the securing angle bar (ref. 12), already assembled on the upright, into the appropriate seat on the upper cross-piece (ref. 08A) and the plastic plug (ref. 15) (also already secured onto the upright) into the corresponding seat of the lower cross-piece (ref. 03A) as indicated in figs. 1 and 2. Then fix the upright to the cross-pieces, tightening the dowel (ref. 13) in the angle bar with the Phillips screwdriver and the screw (ref. 19) in the lower cross-piece and in the plug, as indicated in detail 2A. Then complete the assembly by slipping the closing profile (ref. 21) into the relevant seat on the photocell-holding profile, as indicated in fig. 2. (It is better to perform this procedure with the leaf in place).



## ASSEMBLED LEAVES



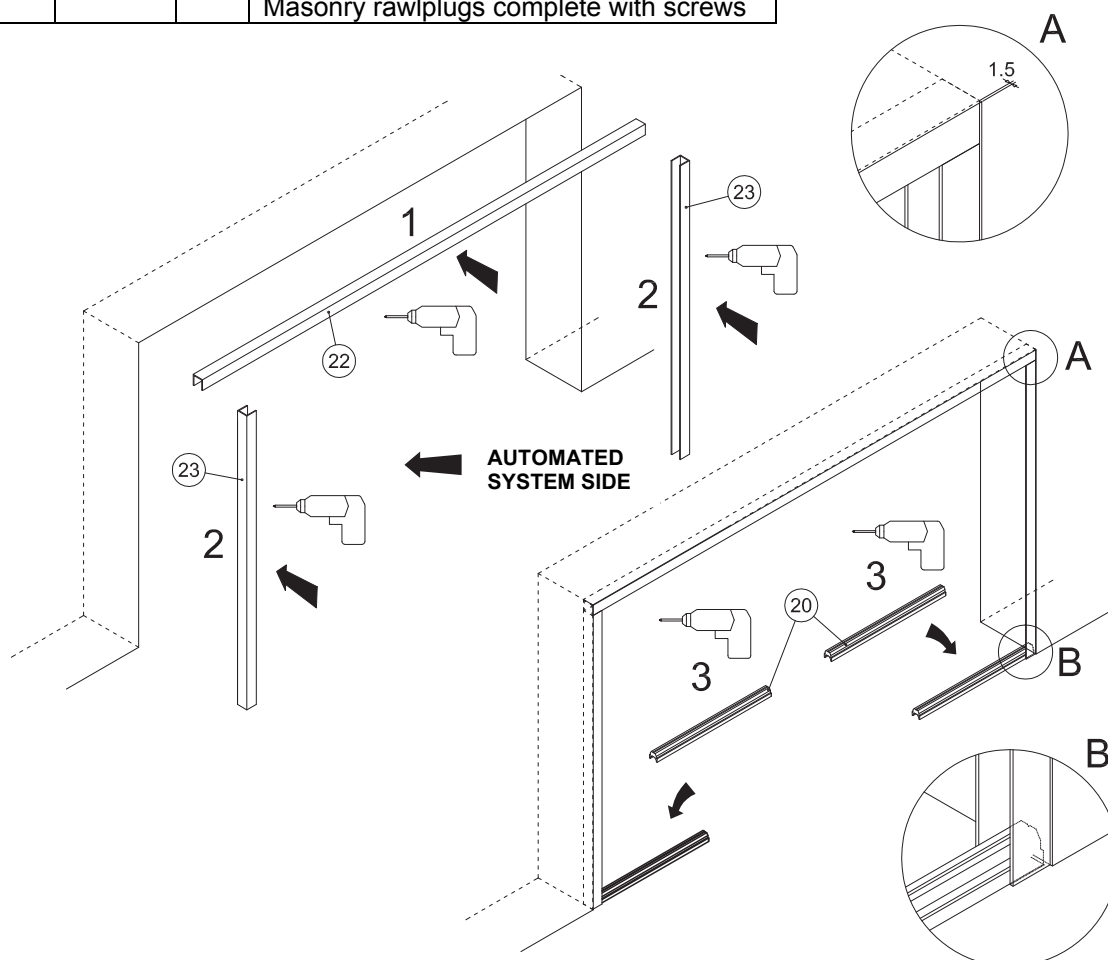
## INSTALLATION OF 2 FIXED LEAVES + 2 MOBILE LEAVES – DWG. 01-01A-01B

### POSITIONING THE WALL AND FLOOR PROFILES

Tools and materials to be used for assembly: Phillips screwdriver, rawlplugs complete with Phillips screws

Fix the securing horizontal profile (ref. 22) to the wall using the rawlplugs and the screwdriver with the appropriate head for the purpose, as indicated in fig. 1 and in detail A. Then do the same with the vertical profiles (ref. 22), referring to the same figures. After that, place the unit in position, securing the two cross-piece hook-on profiles (ref. 20) into the floor, sliding their ends into the vertical profiles already secured in the wall (see fig.3) and being careful to push them into contact with the bottom of the "C" of the vertical profiles, as indicated in detail B.

Ref.	Code	Qty	Description
20	105807	1	Cross-piece hook-on profile
22	105808	1	Profile for wall fitting - Cross-piece
23	105808	2	Profile for wall fitting – Upright
			Masonry rawlplugs complete with screws





## INSTALLATION OF 2 FIXED LEAVES + 2 MOBILE LEAVES – DWG. 01-01A-01B

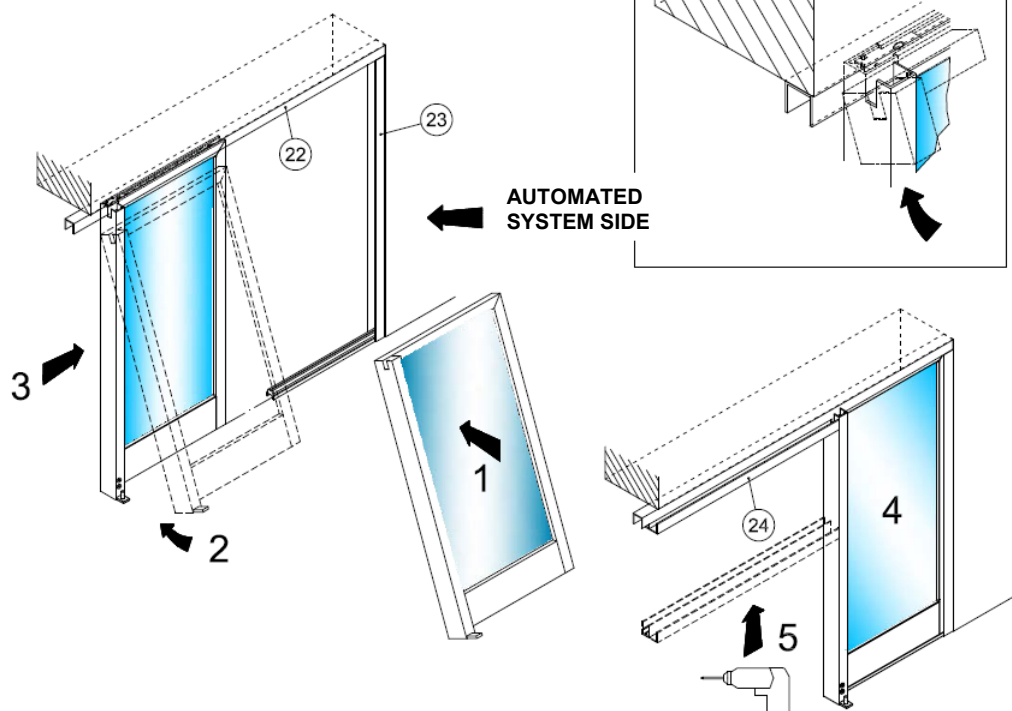
### POSITIONING OF FIXED LEAF AND CLOSING PROFILE BETWEEN THE FIXED LEAVES

Tools and materials to be used for assembly: Phillips screwdriver, self-tapping screws

Position the already assembled fixed leaf close to the horizontal profile (ref. 22) already secured in the masonry, keeping it in an inclined position (see figs. 1 and 2) and fitting the upper cross-piece of the leaf into the profile, being careful to line up the milling with the flange of the "U" of the profile (ref. 22) positioned towards the inside part of the window or door frame (see part. 2A). Now slip the leaf upwards, almost touching the bottom of the horizontal profile (ref. 22), then slide it onto the cross-piece hook-on profile (ref. 20) secured in the floor, moving it towards the vertical profile already fitted into the wall (ref. 23) (see fig. 3) until it comes into contact with the bottom of this. The leaf at this point will be in position, with 3 sides fixed and only the side with the photocell-holding profile free (see fig.4). It only remains to fix, using screws and the screwdriver, the closing profile between the fixed leaves as indicated in fig. 5 and then repeat the same procedures performed earlier for the other fixed leaf.

Ref.	Code	Qty	Description
20	105807	1	Cross-piece hook-on profile
22	105808	1	Profile for wall fitting - Cross-piece
23	105808	2	Profile for wall fitting – Upright
24	105803	1	Closing profile between fixed leaves
			Self-tapping screws

2A



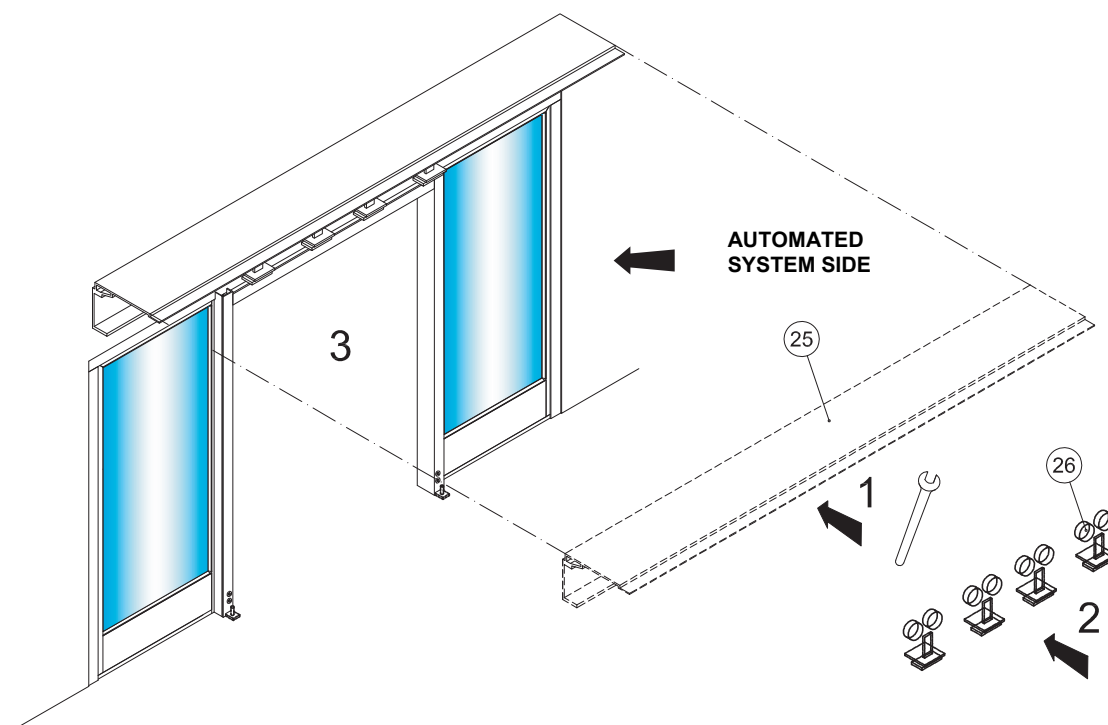
## INSTALLATION OF 2 FIXED LEAVES + 2 MOBILE LEAVES – DWG. 01-01A-01B

### POSITIONING THE HEAD PROFILE OF THE AUTOMATED SYSTEM

Tools and materials to be used for assembly: drill with masonry bit, rawlplugs complete with threaded stud and hexagonal nut, ring spanner for rawlplugs

After drilling the series of holes in the masonry envisaged for the type of head profile chosen (for the positions and the size of the holes, refer to the TK20 assembly drawings and to the detailed drawing of the head profile enclosed with the assembly kit), secure the head profile (ref. 25) to the wall, tightening the hexagonal fixing nuts with the spanner (see figs.1 and 3). Then assemble the carriages (ref. 26) (see figs. 2 and 3) and all the accessories envisaged for the automated system.

Ref.	Qty	Description
25	1	Head profile of the automated system
26	4	Carriages (2 for each mobile leaf)
		Rawlplugs with stud and hexagonal nut

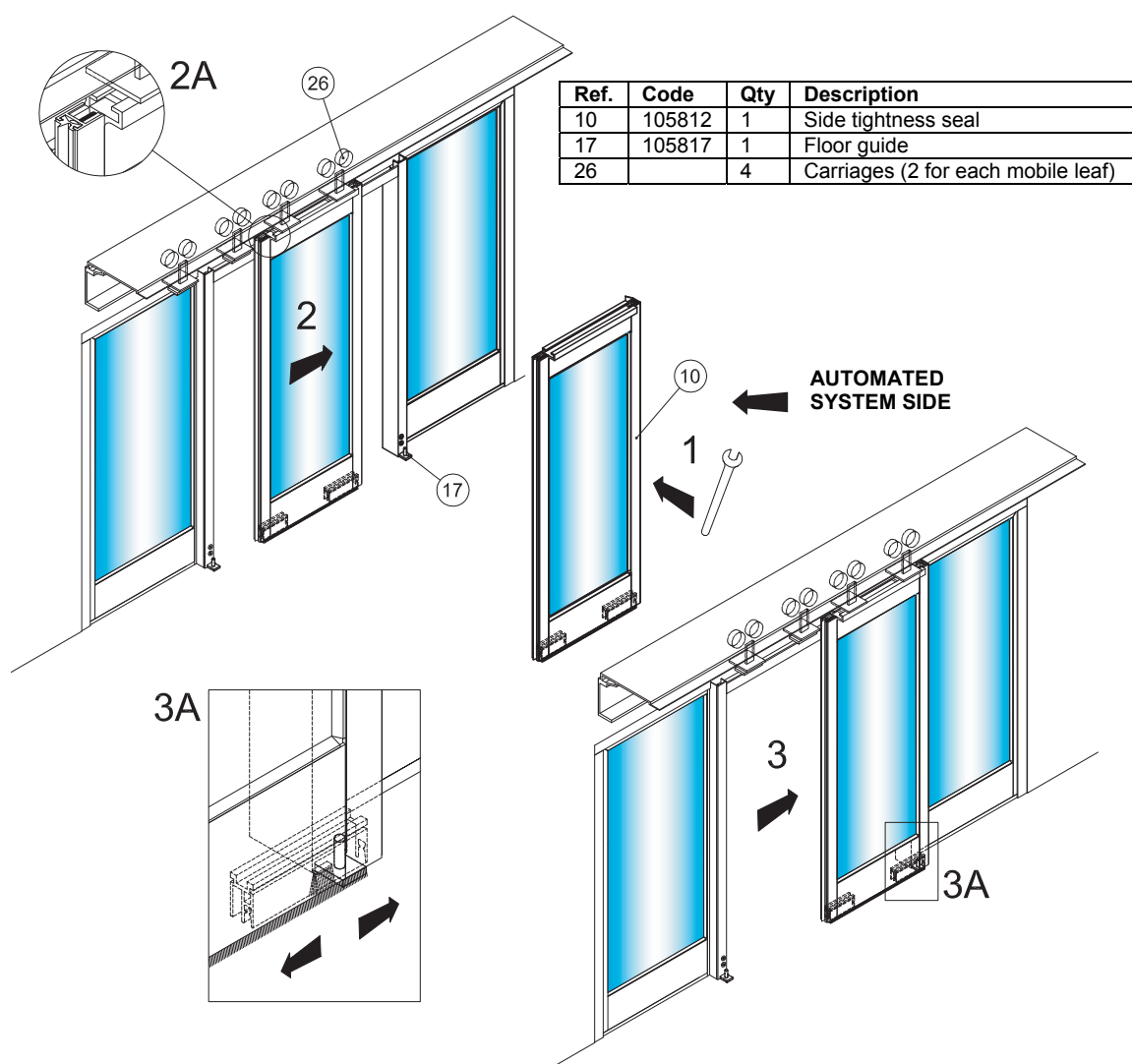


## INSTALLATION OF 2 FIXED LEAVES + 2 MOBILE LEAVES – DWG. 01-01A-01B

### POSITIONING THE MOBILE LEAF

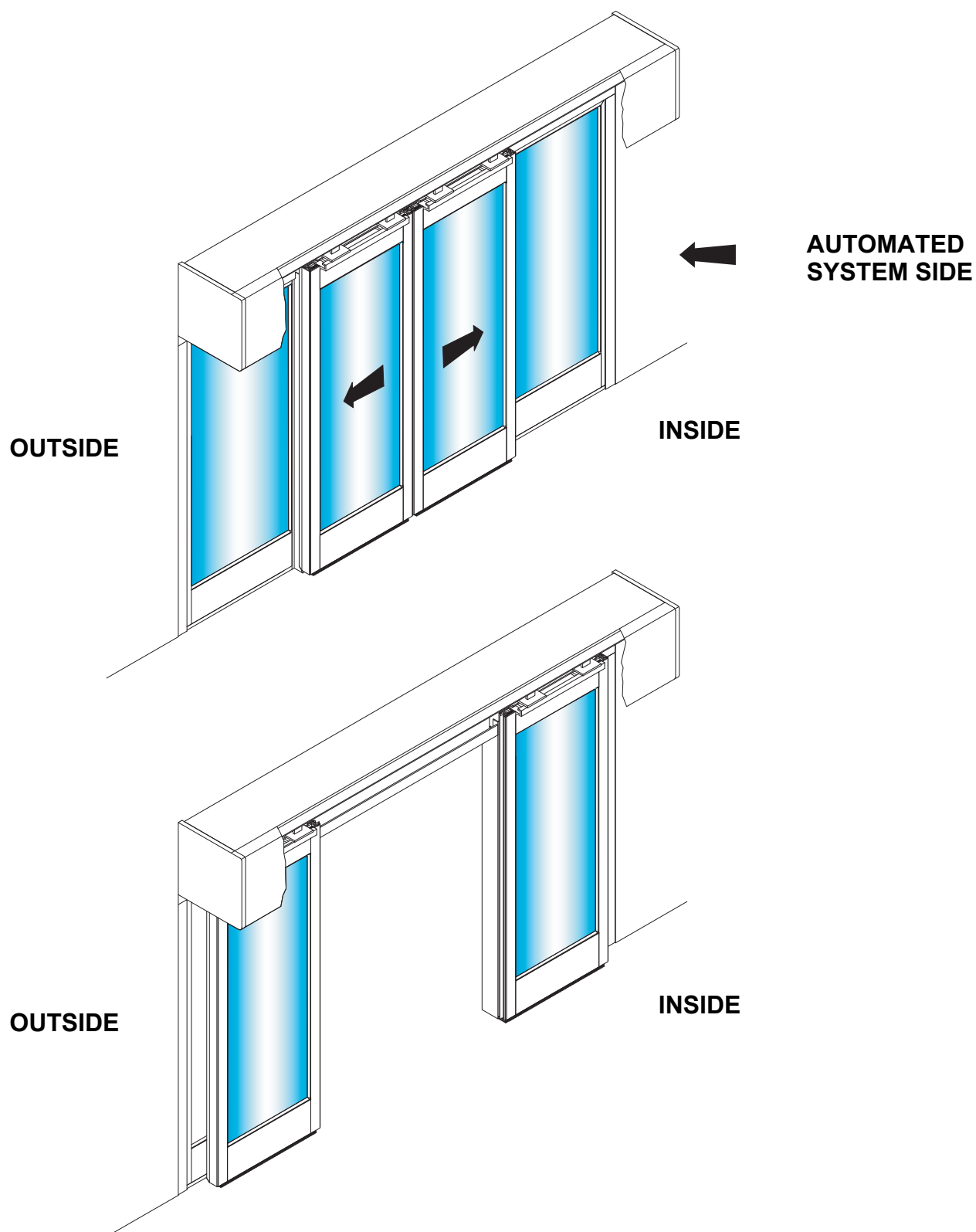
Tools and materials to be used for assembly: ring spanner for carriage travel limit nuts.

Position the RH mobile leaf right up against the two carriages furthest to the right (ref. 26) (looking at the automated system from a frontal position) then secure it to these, before fitting the travel limits into the appropriate seat on the upper cross-piece of the mobile leaf and then fully tightening the relative nuts with the ring spanner (see figs. 1 detail 2A). At this point, move the mobile leaf thus fitted to the right so that the pin of the floor guide (ref. 17) can slide into the appropriate seat in the brush-holding profile (see figs. 2 and 3 and detail 3A); for this purpose, slightly raise the lower part of the side tightness seal of the right-hand upright of the leaf (ref. 10), to permit the pin to slide inside the leaf profile. Proceed in the same way for assembly of the LH leaf.



## INSTALLATION OF 2 FIXED LEAVES + 2 MOBILE LEAVES – DWG. 01-01A-01B

### ASSEMBLED SLIDING SYSTEM



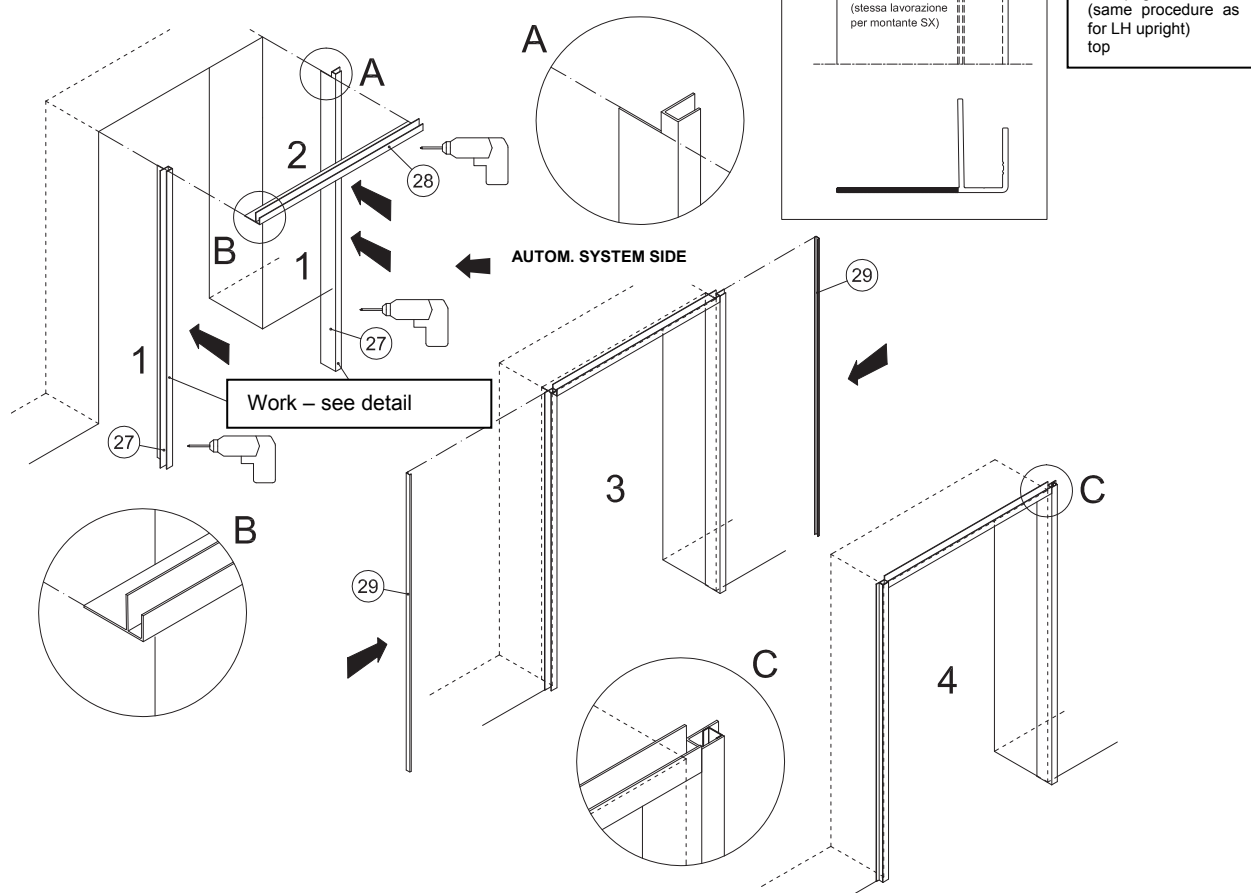
## INSTALLATION OF 1 MOBILE LEAF – DWG. 02-02A-02B -- 2 MOBILE LEAVES – DWG. 03-03A-03B – 1 FIXED LEAF + 1 MOBILE LEAF – DWG. 04-04-04B

### POSITIONING THE PROFILES IN THE WALL

Tools and materials to be used for assembly: Phillips screwdriver, rawlplugs complete with Phillips screws

Fix the vertical securing profiles (ref. 27) to the wall, using the rawlplugs and the screwdriver, until they come into contact with the masonry and resting them on the floor, as indicated in figs. 1 and 3 and in detail A. Then proceed in the same way with the horizontal profile (ref. 28), referring to figs. 2 and 3 and to detail B. Then finish placing the unit in position, slipping the respective closing profiles into the appropriate seats on the vertical profiles (ref. 29), as indicated in fig. 3 and in detail C.

Ref.	Code	Qty	Description
27	105804	2	Profile for wall fitting – Upright
28	105804	1	Profile for wall fitting – Cross-piece
29	105816	2	Closing profile
			Masonry rawlplugs complete with screws



## INSTALLATION OF 1 MOBILE LEAF – DWG. 02-02A-02B – 1 FIXED LEAF + 1 MOBILE LEAF – DWG. 04-04-04B

### POSITIONING THE MOBILE LEAF STOP-POINT PROFILE

Tools and materials to be used for assembly: scissors, lubricant or liquid soap, Phillips screwdriver, rawplugs complete with Phillips screws

Insert the tightness seal (ref. 09) into the leaf stop point profile (ref. 30) (see fig.1), with the insertion side as indicated in detail A and suitably lubricating it with oil lubricant or liquid soap, to facilitate its movement. Then fit the profile, complete with seal, onto the corresponding wall profile (ref. 27) (see fig. 2 and detail A) and then secure, in their turn, the two profiles thus formed (see fig.3) to the masonry using the rawplugs and a suitable screwdriver, until the two profiles come into contact with the edge of the wall as indicated in fig. 4 and in detail B. Then complete positioning of the unit, slipping the respective closing profile (ref. 29) into the appropriate seat on the vertical profile (ref.27), as indicated in fig. 4 and in detail B.

Ref.	Code	Qty	Description
09	105813	1	Tightness seal
27	105804	1	Profile for wall fitting - Upright
29	105816	1	Closing profile
30	105809	1	Leaf stop point profile

