SHOPFITTER'S GUIDE

CONSTRUCTION OF ALUMINIUM FRAMED GLAZED DOORS FOR CDS-SL-800 AND CDS-SL-1000 AUTOMATIC SLIDING DOOR OPERATORS

It is important that the following recommendations for the construction of the door or doors and transom be observed. They ensure a trouble-free installation for the automatic door-controlled entrance.

TOP OF DOOR

The following describes a door with **R4 top rail** section and **R1 stiles**; the same principles apply where other sections are used. See special instructions where R4 stiles are used. For any other door type, please consult a specialist.

STEP 1

Hardwood timber packing must be installed above the box section and runs the full width of the door, level with the line at the top of the rail, and must run full width of the connection between the R4 and R1 stile.

Reason: the sliding door carrier is bolted to the top of the door, and the timber filler prevents the top lips bending when the carrier bolt is tightened.

STEP 2

Inside the box section of the R4 top rail, install a **6 mm thick aluminium plate**, securely fixed with CSK screws or CSK rivets to both sides of the top of the door, at least **300 mm** long measured from the join between the R4 and R1 — not against the glazing fin.

Reason: the bolts securing the carriers are fixed to this plate, which is drilled and tapped on site. The weight of the door is carried at both these points.

STEP 3

Secure the top and bottom of the door stiles with a continuous **6 mm threaded tie rod**, bolted securely at both ends.

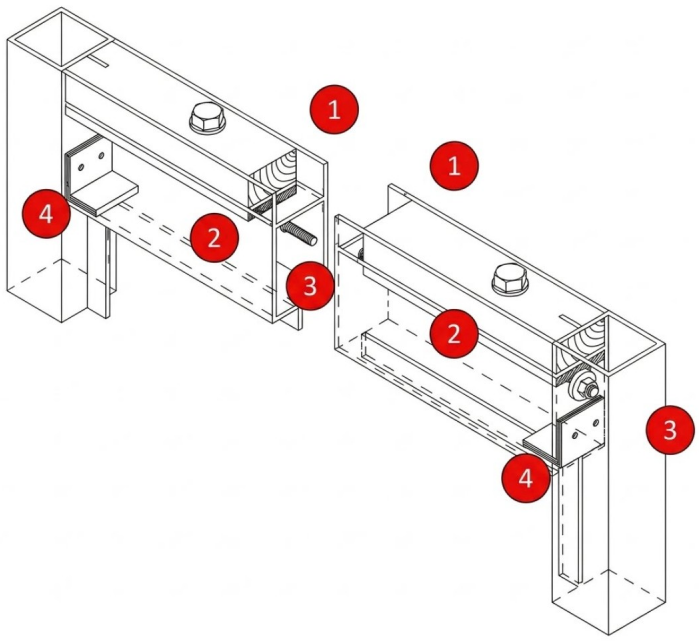
Reason: this holds the door stiles firmly in position and keeps the door square.

STEP 4

Fix an aluminium angle inside the R4 box section with 4.1 mm or 5 mm pop rivets above the glazing fin, secured to the inside upright section of the R1 stiles. Silicone the glass to the glazing fins before the glazing beads are fitted.

Reason: the angle stops the door stiles dropping below the R4 section and jamming on the floor guide. Glass fitted this way makes a strong door and prevents twisting and sagging.

WARNING Failure to fix Steps 3 and 4 properly leads to endless problems where door stiles drop away from the top rail.



1. **Hardwood timber packing** min. 300 mm each side
2. **6 mm aluminium plate** CSK-fixed inside box section
3. **6 mm threaded tie rod** bolted at both ends
4. **Aluminium angle** pop-riveted to R1 stile

Top of door construction (R4 top rail with R1 stiles), isometric view. Numbers refer to Steps 1–4. The CDS-SL operator is fitted with two bolts on the top.

DOOR SIZE CALCULATION

Door height	Clear opening (ffl to soffit of transom) + 22 mm
Door width	Clear opening + width of fixed mullions

SPECIAL INSTRUCTIONS FOR R4 TOP RAILS AND STILES

Fix hardwood timber packing as described in Step 1. The timber must be fitted against the inside face of the R4 stile box section, not against the glazing fin. Fit a 6 mm thick reinforcing plate as in Step 2, inside the box section, not against the glazing fin.

This fitting is critical: the carrier fixing bolt is fitted at 100 mm centre from the outside edge of the door stile.

BOTTOM OF DOOR

STEP 1A Secure the stiles with the tie rod and angle bracket inside the box section of the R4 bottom rail, as described in Steps 3 and 4 above.

STEP 2A Fit a "U" channel with an inside dimension of 21 mm, using countersunk pop rivets, to the web in the R4 section for the full length of the door width. The channel is available from aluminium suppliers at 25 × 25 × 3 mm outside dimensions. Cut the inside of the stile section to accommodate the channel for the full width of the door, and trim the legs of the channel level with the bottom of the door.

TRANSOM

The transom can be constructed from any material, but it must be strong enough to carry the weight of the control unit (**35 kg**) plus the weight of the door or doors. The fitting surface must be **not less than 150 mm high**, and its length is double the actual door opening plus 100 mm.

For aluminium shop fronts we recommend the following construction:

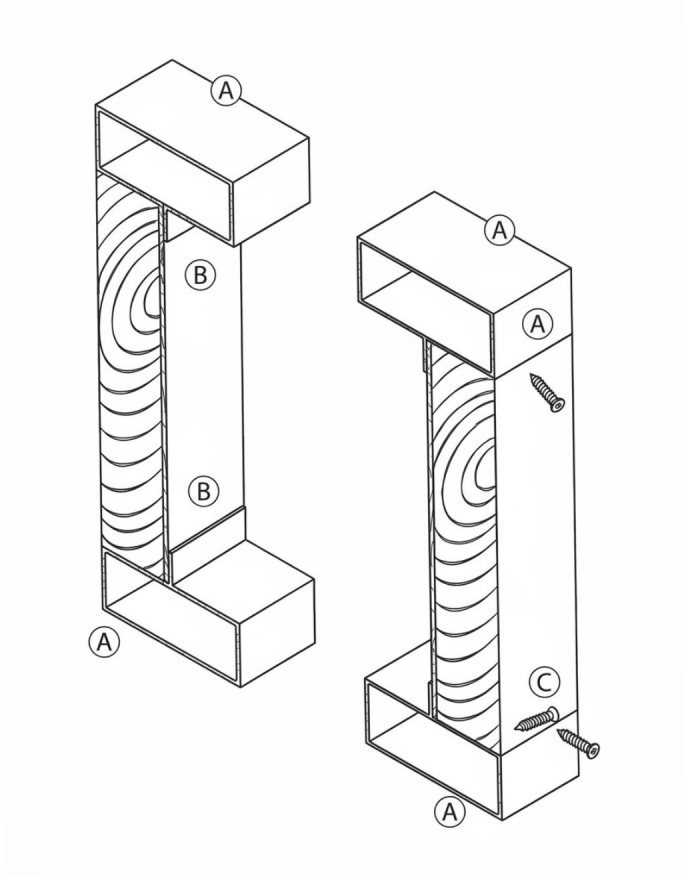
(A) Two lengths of 26B section, each double the actual door opening plus 100 mm.

(B) Face the rebate fins towards each other. Securely fix an infill of super wood, 44 mm thick and 186 mm high, between the 26B sections, making sure the inside face that carries the control gear is flush.

(C) Fit the super wood to the aluminium section with screws drilled and countersunk at an angle through the super wood into the 26B section. Fit screws to both top and bottom sections at 200 mm centres.

Reason: the weight of the track and the door or doors is carried at this point, and this fixing prevents the super wood pulling away from the 26B section. The total minimum height must not be less than 150 mm (for a 100 mm pelmet, 150 mm).

Where other materials are used for the transom, such as timber or concrete, the minimum height can be 150 mm. The surface must be level for the full length of the fitting area.



A **Two lengths of 26B**
double the door opening + 100 mm

B **Super wood infill**
44 mm thick × 186 mm high, rebate fins facing each other, inside face flush

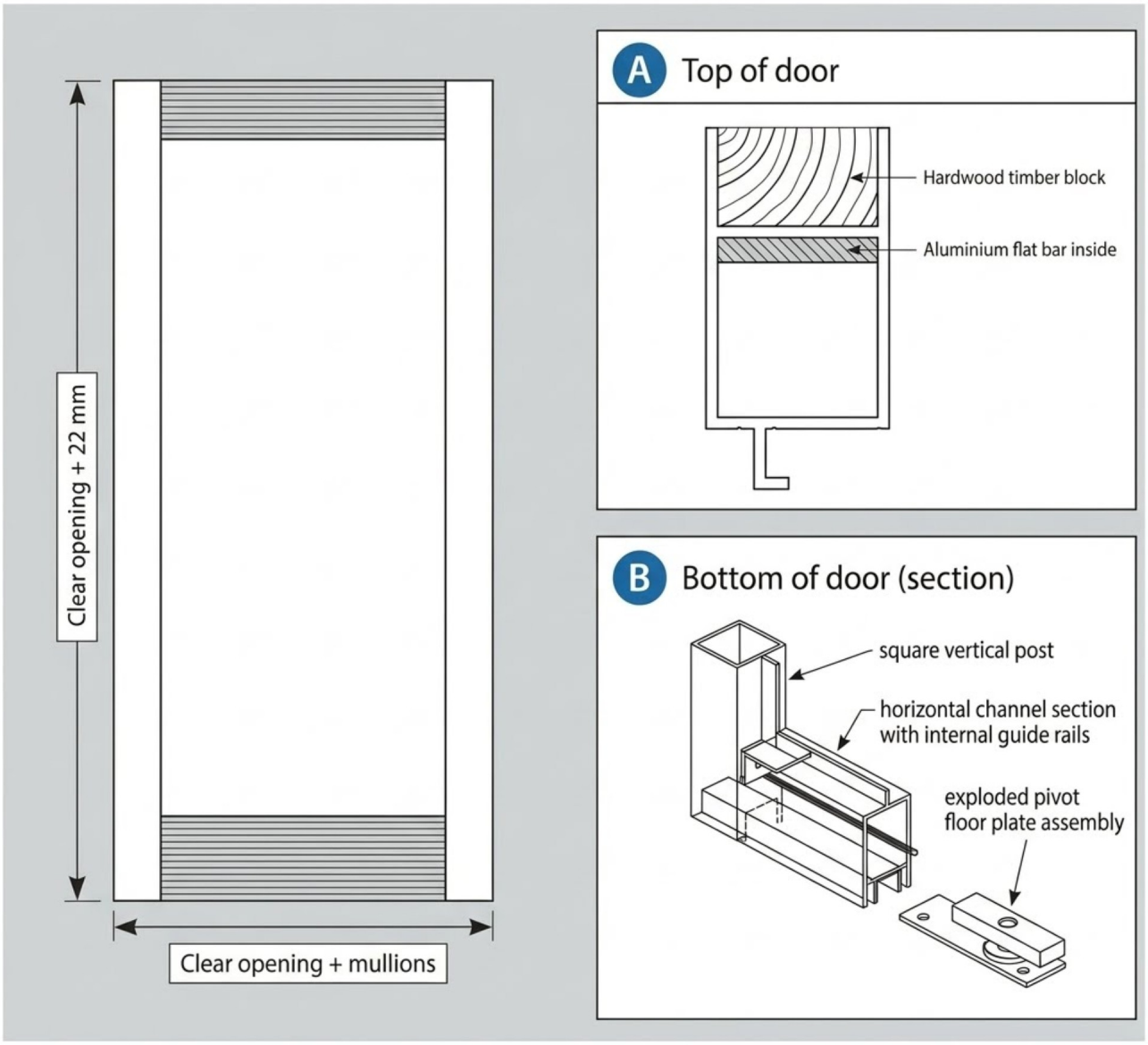
C **Countersunk screws**
drilled at an angle through the super wood into the 26B, 200 mm centres, top and bottom

Fitting surface for the control gear: min. 150 mm high, flush and level.

Recommended aluminium transom construction, isometric view. Letters refer to points A–C above.

PREPARATION BY SHOPFITTER

Door height	Clear opening + 22 mm
Door width	Clear opening + width of mullions
Top of door	Hardwood timber block; aluminium flat bar inside the box section, 150 mm long



Preparation of top and bottom of door by shopfitter: door height = clear opening + 22 mm; door width = clear opening + mullions.