



The aluminium shutter frame shall be of the hinged type. It shall be made of a tubular 71 mm wide and 30 mm thick mullion and transom module frame. The aluminium frames shall be assembled on a 45° mitre cut by pin corner cleat.

Depending on the size, it shall have an intermediary transom 72 mm high by 30 mm wide assembled by aluminium connectors.

The shutter shall be closed by an espagnolette bolt system.

The fixation of the hinged shutters shall be obtained by hook and band hinges screwed on or riveted to the frame and the hinge pins screwed on or embedded in the shell.

### **Full length infill panel hinged shutters:**

The shutter infills shall be made up of 80 mm tubular vertical or horizontal aluminium slats. The slats shall be clipped together and fitted into the frame rebate.

### **Fixed full length hinged louvred shutter:**

The louvred shutter infills shall be made up of 48 mm high and 6 mm thick aluminium slats which shall be fitted into two aluminium guide rails before assembly in the opening frame.

### **Mixed fixed louvred shutter/full infill hinged shutter:**

In the upper section, the louvred shutter infills shall be made up of 48 mm high and 6mm thick horizontal aluminium slats. The slats shall be fitted into two aluminium guide rails before assembly in the opening frame. In the lower section, the infill shall be obtained with 80mm tubular horizontal or vertical louvred shutter, clipped under a middle transom profile.

### **Hinged projecting Niçois-style louvred shutter:**

The louvred shutter infills shall be made up of 48 mm high and 6 mm thick aluminium slats which shall be fitted into two aluminium guide rails before assembly in the opening frame.

The projecting part shall have the same infill as the fixed part. It shall be positioned in the lower section (window) or in the central section (French window) and shall open on a “Niçois-style” butt-hinge with a double arch. The projecting leaf can be blocked in an open position by a shutter hook.

Composite lock system.

### **Z-bar hinged shutter:**

The shutter shall be made of vertical aluminium slats linked and braced by Z-bar (2 horizontal and 1 diagonal batten) in aluminium. The shutter shall look like traditional wooden shutters.

It shall be closed by an espagnolette bolt system.

The fixation of the hinged z-bar shutters shall be obtained by bolted hook and band hinges and hinge pins screwed on or embedded in the shell.

The shutter infills shall be obtained by 28 mm tubular aluminium slats, which shall be:

- Clipped together with an 80 mm spacing.

or

- Interlocked with a 73 mm, 82 mm or 85 mm spacing.

The slats shall be closed on the edge by a finishing U-profile.

The rigidity of the shutter shall be guaranteed by the “z-bar” aluminium profiles fixed to the aluminium slats.



The aluminium shutter frame shall be of the sliding type suspended from a 42 mm x 42 mm aluminium top rail. It shall be made of a tubular 71 mm wide and 30 mm thick mullion and transom module frame. The aluminium frames shall be assembled on a 45° mitre cut by pin corner cleat.

Depending on the size, it shall have an intermediary transom 72 mm high by 30 mm wide assembled by aluminium connecting pieces.

The rail profile shall be wall-mounted for exterior fitting OR mounted on the underside of a lintel or projecting.

The sliding panels shall be guided:

- In the upper section, by an aluminium rail equipped with a sliding track system and travelling stop.
- In the lower section; by occasional sliding pins on the ground, guided by a U-shaped aluminium profile in the lower section of the sliding panel OR by guide roller on the opening frame and U-shaped profile on the ground.

The visible accessories can be in the same finish as the shutter.

The sliding panels shall be locked by:

- By reversible left and right slide bolt locks on each leaf.
- or
- By sliding recessed pull operation.
- or
- By 1 or 2 point lock mechanism with cylinder.

### **Full length infill panel sliding shutters:**

The shutter infills shall be obtained by 80 mm tubular vertical or horizontal aluminium slats. The slats shall be clipped together.

### **Fixed full length sliding louvred shutter:**

The shutter infills shall be made up of 48 mm high and 6 mm thick aluminium louvres which shall be fitted into two aluminium guide rails before assembly in the opening frame.

### **Rotating slat louvred sliding shutter:**

The shutter infills shall be made using double rotating slats, 70 mm high and 19.50 mm thick fitting into the slat holder, also allowing the opening and closing of the slats.

### **Mixed fixed louvred infill/full infill sliding shutter:**

In the upper section, the shutter infills shall be made up of 48 mm high and 6mm thick horizontal aluminium slats. The slats shall be fitted into two aluminium guide rails before assembly in the opening frame.  
In the lower section, the infill shall be obtained with 80mm tubular horizontal or vertical slats, clipped under a middle transom profile.



The aluminium covering panel shall be of the following type:

- fixed

or

- Sliding, suspended on an upper aluminium rail.

It shall be made of a 43 mm wide and 30 mm visible front mullion and transom module frame. The aluminium frames shall be assembled on a 45° mitre cut by pin corner cleat.

### **Fixed panels**

The aluminium louvred shutter slats shall be:

- Of an upside-down Y shape, 60 mm high and 41 mm wide. They shall be superimposed to provide complete covering.

Or

- Straight and rectangular, 12 mm high and 41 mm wide, for partial covering with a 30 mm spacing.

Or

- Slanted, 71 mm high and 12 mm wide, for partial covering. The slats shall be superimposed at an angle of 42°.

The slats shall be individually fixed by stainless steel screws to the mullions.

### **Sliding panels**

The sliding covering panels shall be suspended from a rail 42 mm x 40 mm high rail.

The rail profile shall be wall-mounted for exterior fitting OR mounted on the underside of a lintel or projecting.

The sliding panels shall be guided:

- In the upper section, by an aluminium rail equipped with a sliding track system and travelling stop.

- In the lower section, by a continuous rail profile fixed to the shell. They shall be guided by a lower transom profile in the opening frame equipped with a double row of brush gaskets.

The aluminium louvred shutter slats shall be:

- Of an upside-down Y shape, 60 mm high and 41 mm wide. They shall be superimposed to provide complete covering.

Or

- Straight and rectangular, 12 mm high and 41 mm wide, for partial covering with a 30 mm spacing.

Or

- Slanted, 71 mm high and 12 mm wide, for partial covering. The slats shall be superimposed at an angle of 42°.

The slats shall be individually fixed by stainless steel screws to the mullions.