

Reversible window hardware

Steelform AB designs and manufactures reversible window hardware. Innovative solutions and substantial product development are at the core of our operations. All products are constructed with fully-automated production in mind and we deliver on time. Since setting up in 1989, we have manufactured and sold hardware to all major window manufacturers in the Nordic region. There is a range of different hardware products to choose from, which can be fitted to the majority of materials such as wood, plastic or aluminium. Our brand is today synonymous with safety and security. Safety fittings that offer personal safety and anti-theft capabilities are fully patented.

Personal safety

Window hinges fitted with child safety restrictors to prevent children from falling out of or prevent accidents when cleaning windows. The safety restrictor allows the window to be open only to the ventilation position. The restrictor also works when the window is reversed for cleaning purposes. It locks automatically when the window is closed. The hinge is designed in such a way so that the window cannot be closed if the restrictor does not work correctly. It can withstand opening forces of up to 90 kg, while the standard is 50 kg.

Anti-theft

The top hung hardware and shoot bolts provide adequate security in compliance with new EU anti-theft directives.

High strength

The bearing hardware is made of high-strength steel. Tests have shown that the hardware can handle sash weights of up to 400 kg.

Balanced operation

When the window is opened and reversed, the fitted hardware maintains a balanced axle of rotation. The horizontal axle of rotation provides smooth and safe operation.

Limited sizes

Each hardware fitting can cope with a wide range of window sizes. There are only four hinge sizes to choose from, which is enough to handle all window sizes from M4 to M16.

Modern design

Hardware boasts modern design with profiled outer support arms.

Easy to operate

A push button can be fitted at the inside of the frame for easy operation of the child safety restrictor.

Easy to fit

The hinge is easy to install as the fastening plate matches and fits flush with the cavity in the frame of the window. The hinge is supported by the lower edge of the cavity when fitting. In this way, it is kept in place despite all the pressure put on it, year after year, by the weight of the sash. The cavity also makes it easy to fit the hinge correctly.

Standards

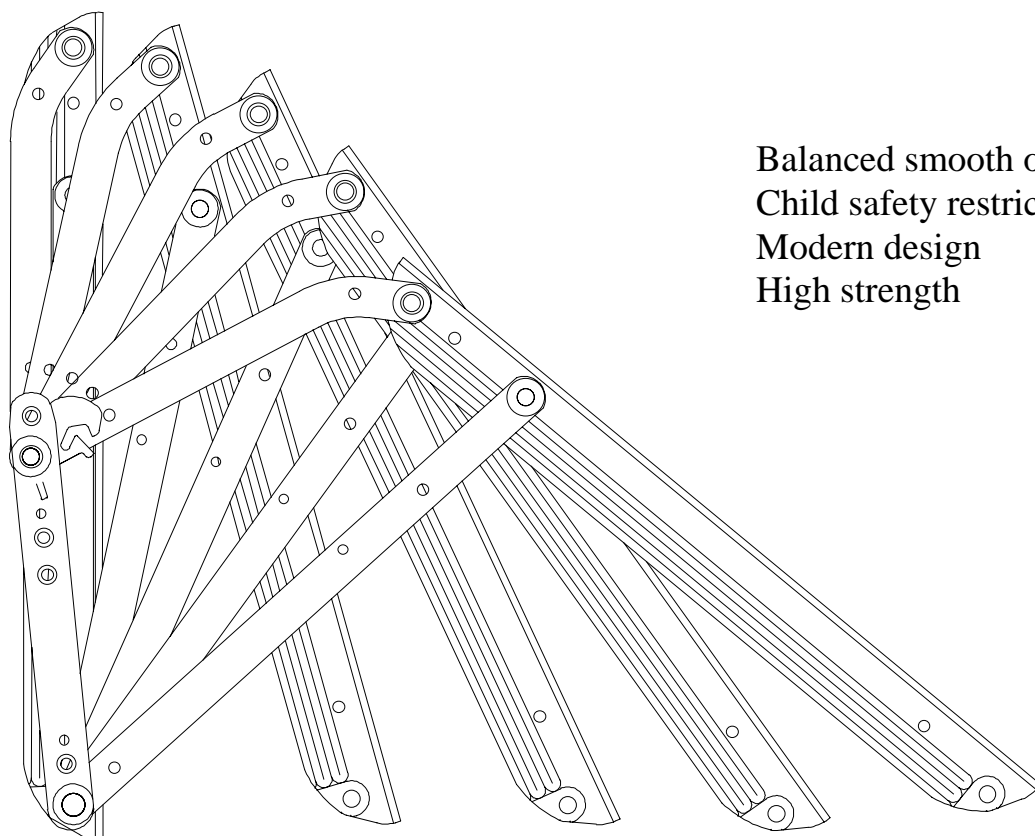
All hardware complies with current Swedish and British legislation for child safety, strength testing and corrosion capability.

Coating treatment

Our hardware has a galvanised, yellow bichromate and water-based lacquer finish (Aquares 3).

Product development

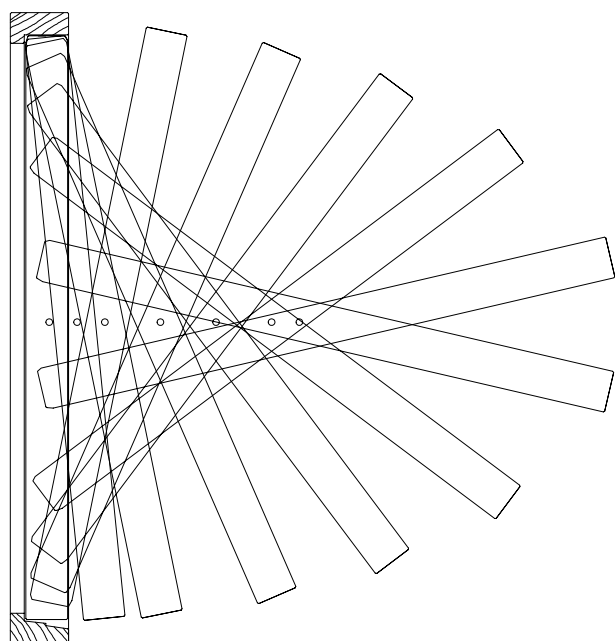
Steelform is a corporate brand that is associated with 30 years of product development and design and the Blomqvist Family. We develop products, processes and machinery for our own use and for our customers.



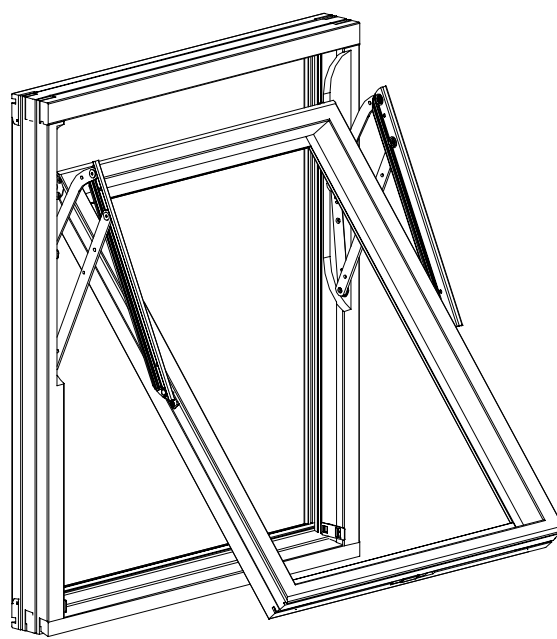
Balanced smooth operation
Child safety restrictor
Modern design
High strength

Movement of window hinge

When the window is opened and rotated, the fitted hardware maintains a balanced axle of rotation. The horizontal axle of rotation provides smooth and safe operation.

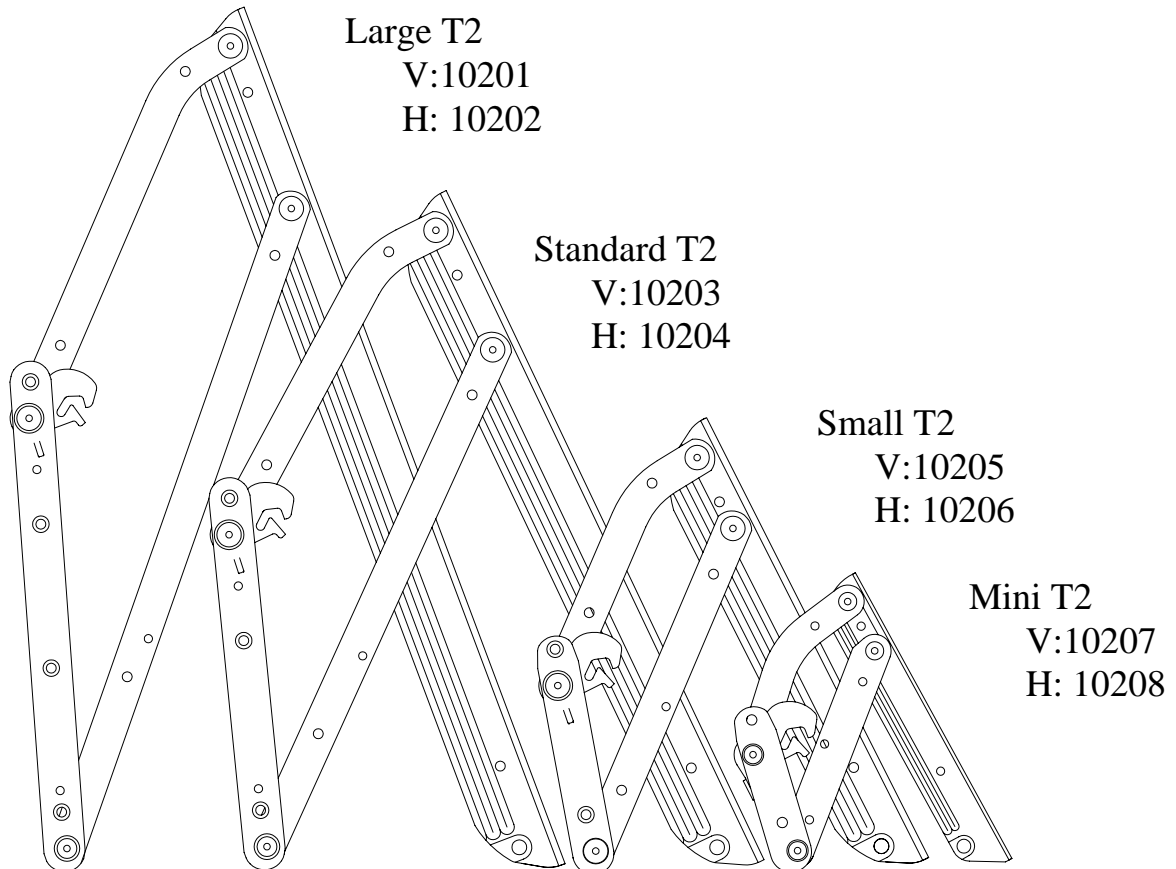


Rotation movement of window



Open window

There are only four hinge sizes to choose from, which is enough to handle all window sizes from M4 to M16.



Art nr	Varuslag	Width (M) Max.	Width Max. mm	Heights (M)	Heights Max. mm	Glass Max. kg	
204	Window hinge Mini T2	18	1800	4	648	35	
				5			
				6			
203	Window hinge Small T2	18	1800	7	944	60	
				8			
				9			
202	Window hinge Standard T2	18	1800	10	1344	60	
				11			
				12			
				13			
201	Window hinge Large T2	16	1600	14	1400	60	
		15	1500	15			1500
		13	1300	16			1602

The Module (M) = 0,1 meter. The size of the window is 15 mm less.

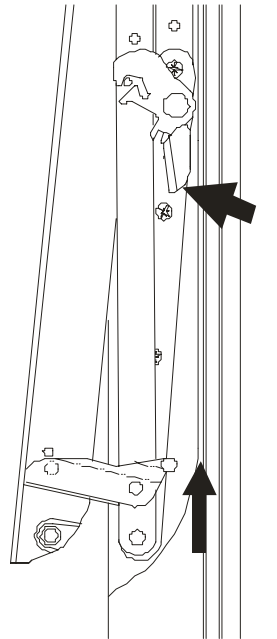
Example: A window has the module 10x10 the size is then 985x985mm (width x height).

The table is applicable if the centrehinge is mounted 10 mm over the centre of the sash.

It is possible to increase the maximum heights measure for every hinge by mounting the centre hinge above the sash centre. The Maximum glassweight for the Normal and the Large hinge can be increased by strengthening the mounting

förstärker beslagens infästning i karmen med en förstärkningsplåt. Art nr 510.

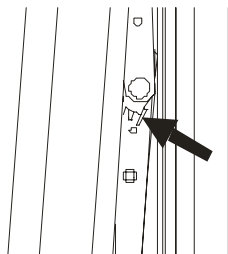
Hinges are fitted with a child safety restrictor to prevent children from falling out or prevent accidents when cleaning the window. The safety restrictor allows the window to be open only to the ventilation position. It also works when the window is rotated for cleaning purposes. The restrictor locks automatically when the window is closed. The hinge is designed in such a way so that the window cannot be closed if the restrictor does not work correctly. It can withstand opening forces of up to 90 kg, while the standard is 50 kg.



The safety restrictor is released by moving the white stay button in the direction of the arrow.

The ventilation restrictor prevents the window from blowing closed. It is released by pressing the white button upwards, while at the same time pressing the window outwards.

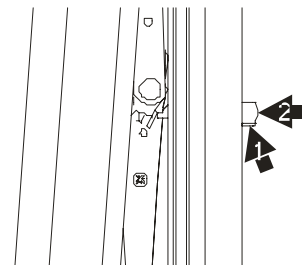
Safety restrictor with plastic button and ventilation restrictor



Safety restrictor is released by pushing the catch in the direction of the arrow.

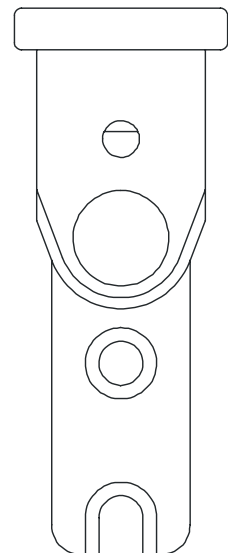
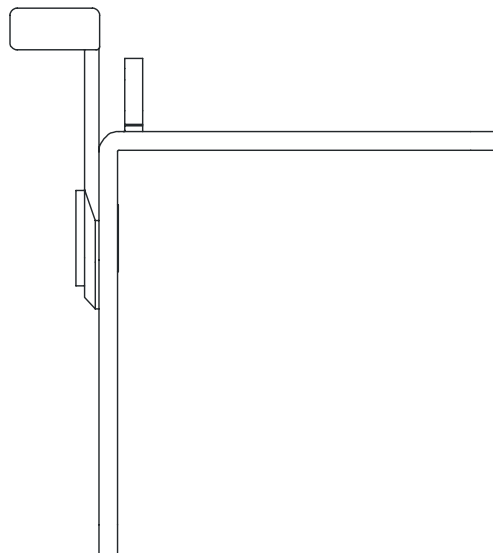
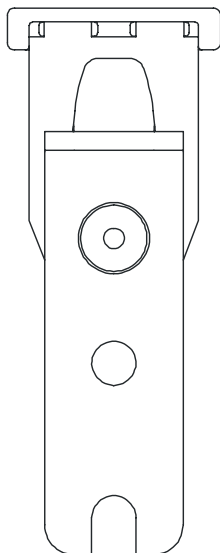
Manoeuvring without a restrictor button

The safety restrictor is released by pressing the Press button. The press button is available with a child safety catch, which has to be pressed in to operate.

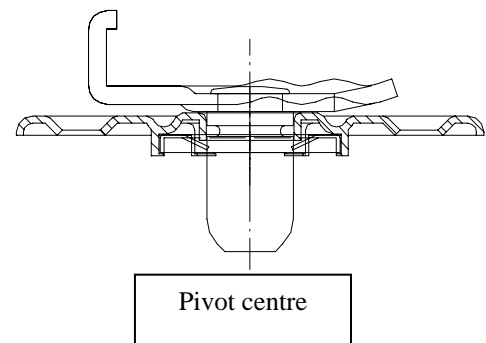
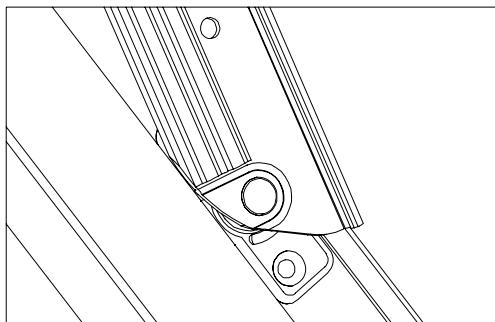
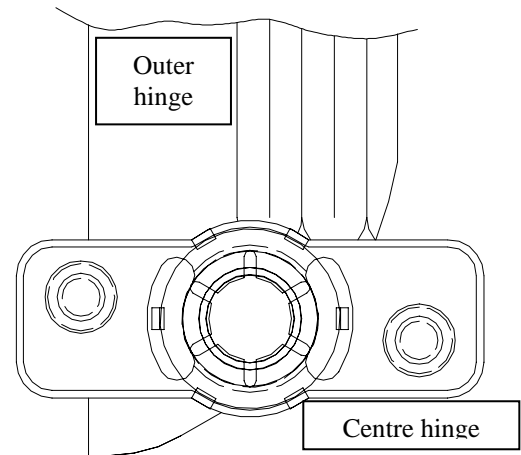
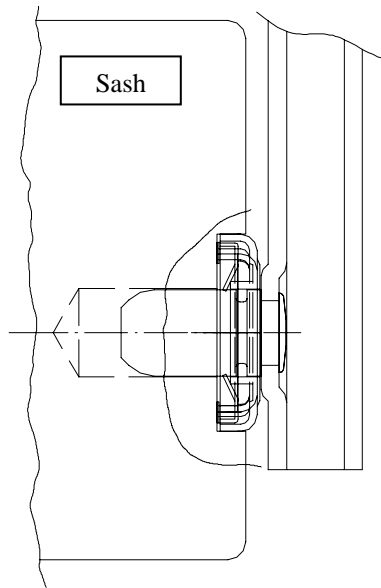


Press button with or without child safety restrictor

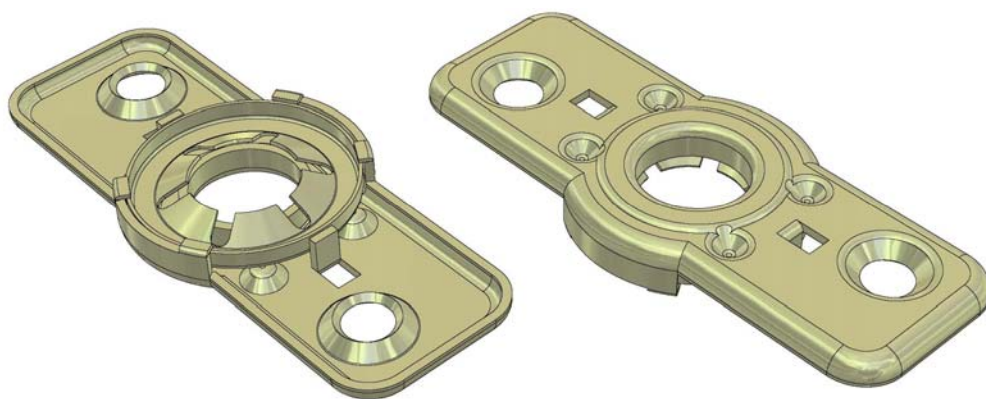
Designed in line with current EU anti-theft legislation. Offers locking capability in all four window corners together with the security shoot bolt.



Top slide bracket, T3 10521

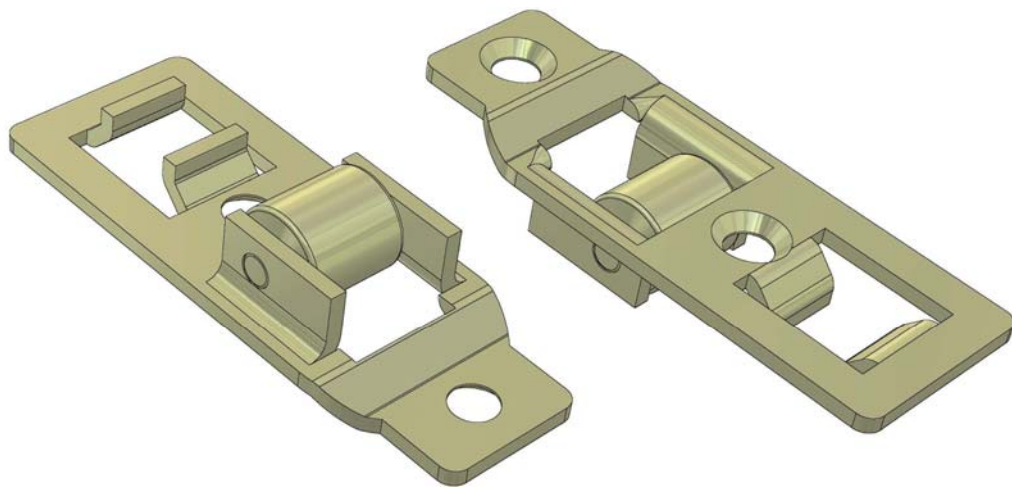
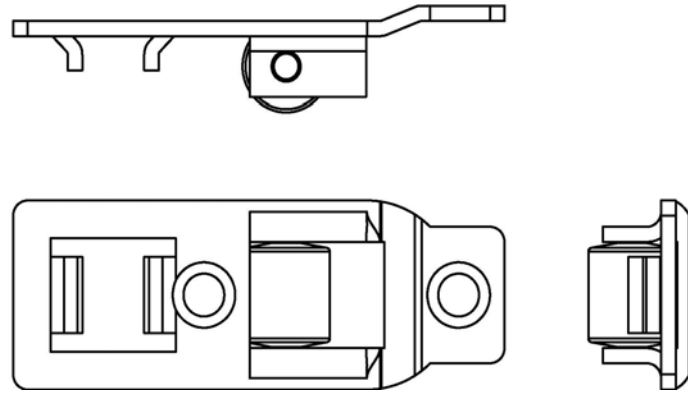


The centre bracket allows for easy and secure installation of the window in the frame. The pivot is automatically locked in place when it is pressed into the pivot opening.

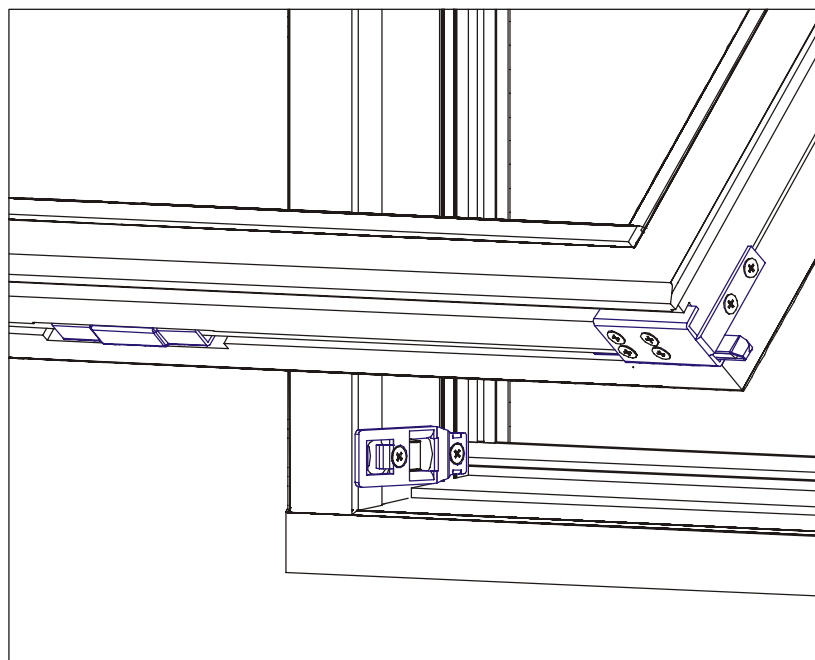


Centre hinge, T3 10511

The roller mechanism in this lock guide allows the shoot bolt to close the frame tight against the weather strip, similar to the way in which a shoot bolt with a rotating cylinder operates.

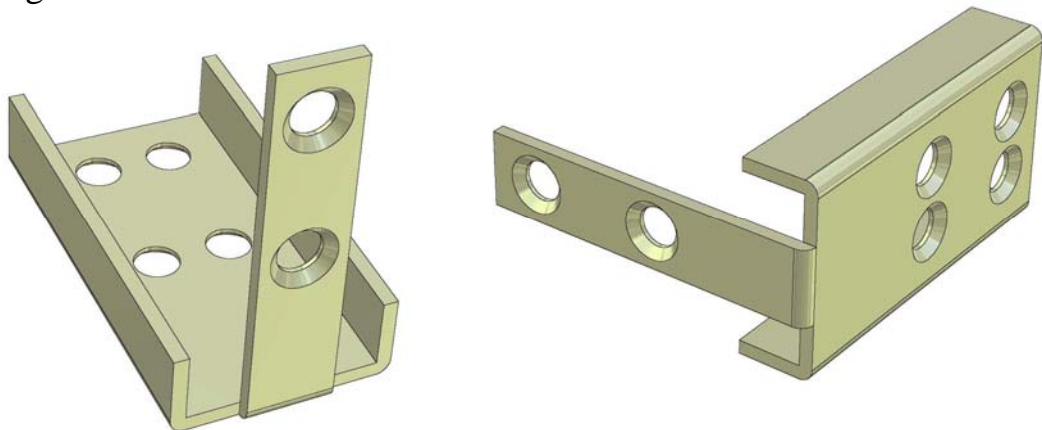
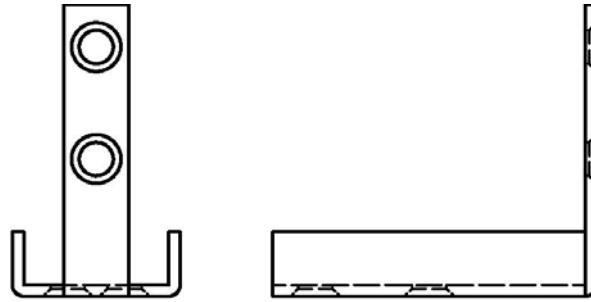


Lock guide, T3 17103

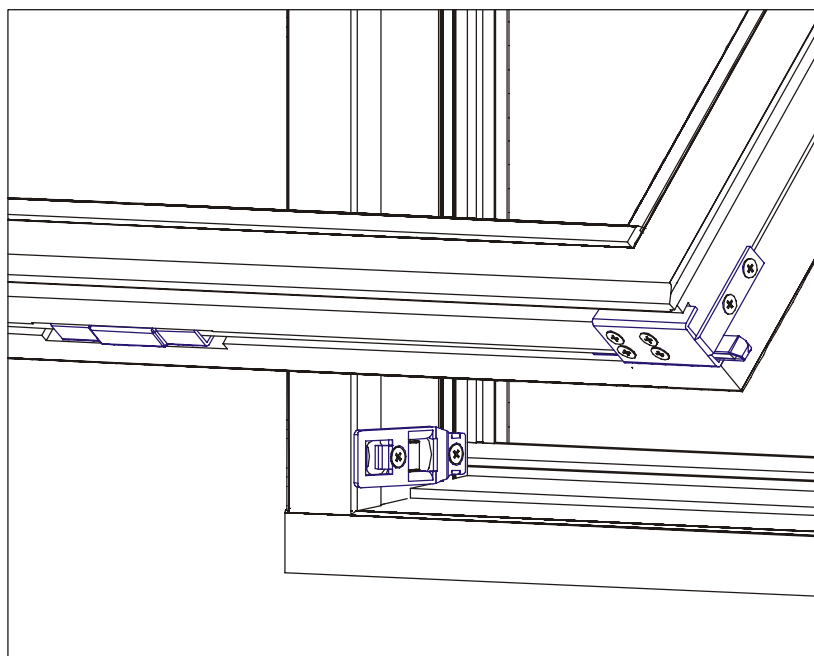


Espagnolette guide, shoot bolt and lock guide

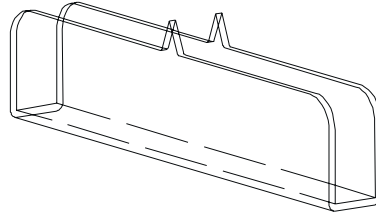
The espagnolette guides are screwed into both the bottom and sides of the sash to offer greater stability. This provides greater anti-theft capabilities and the sash can cope with larger glass pane weights.



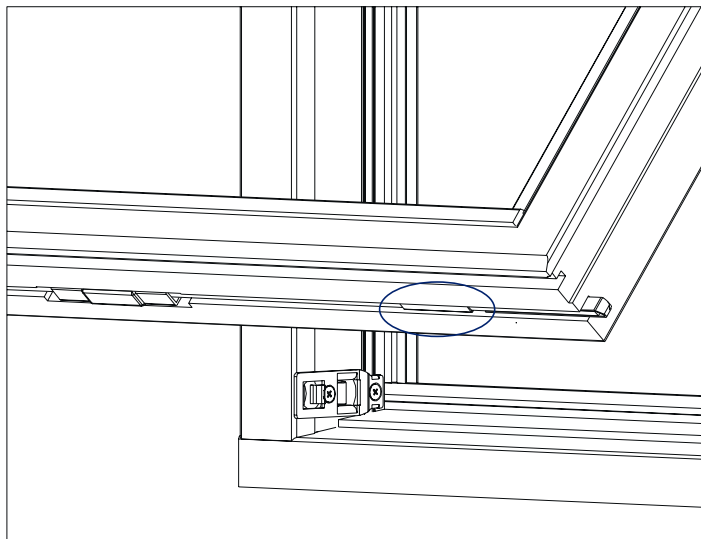
Espagnolette guides T1 17102



Espagnolette guides, shoot bolt and lock guide plate



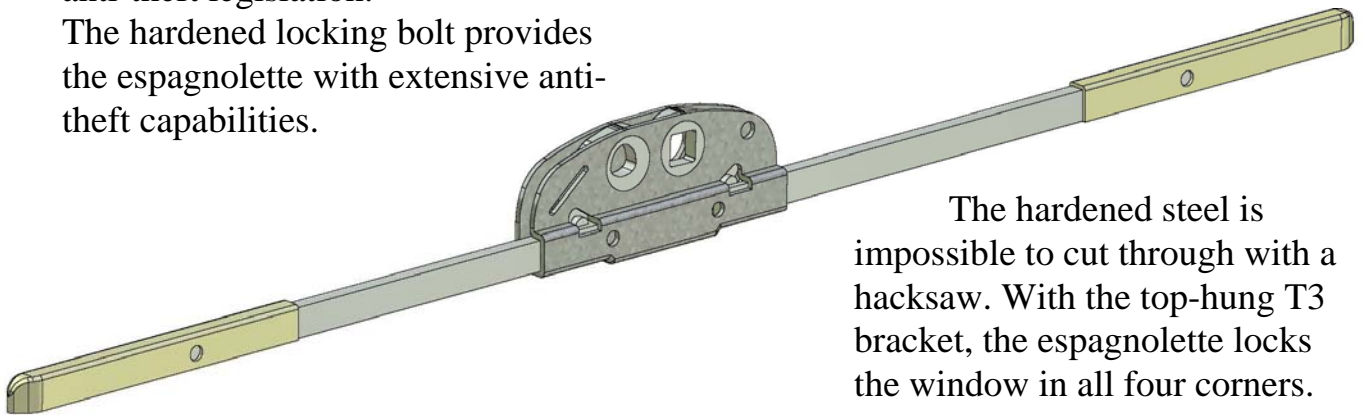
Espagnolette guides, T2 17143



Espagnolette guides, shoot bolt and lock guide plate

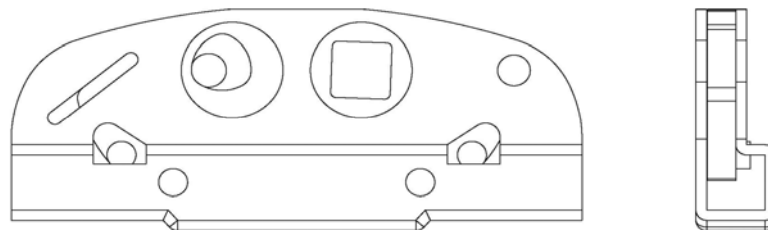
Designed in line with current EU anti-theft legislation.

The hardened locking bolt provides the espagnolette with extensive anti-theft capabilities.

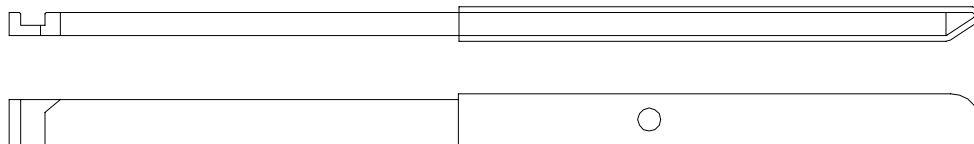


The hardened steel is impossible to cut through with a hacksaw. With the top-hung T3 bracket, the espagnolette locks the window in all four corners.

Lock case, espag rods and hardened shoot bolt 17105-17120

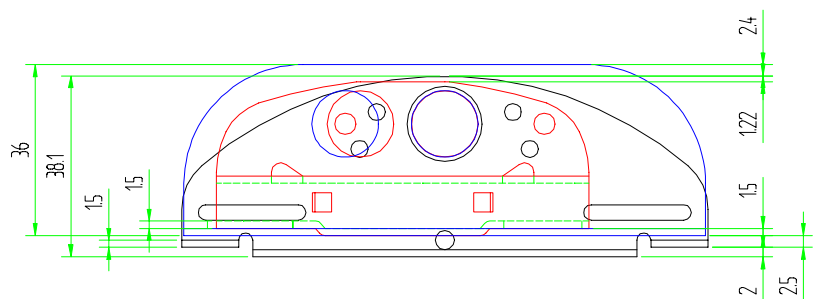


Lock case 17101

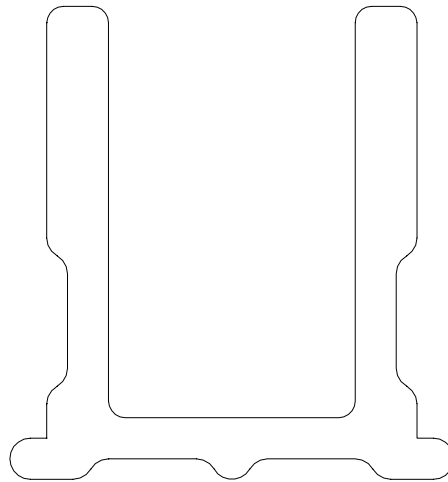


Espag rods 17300-17420

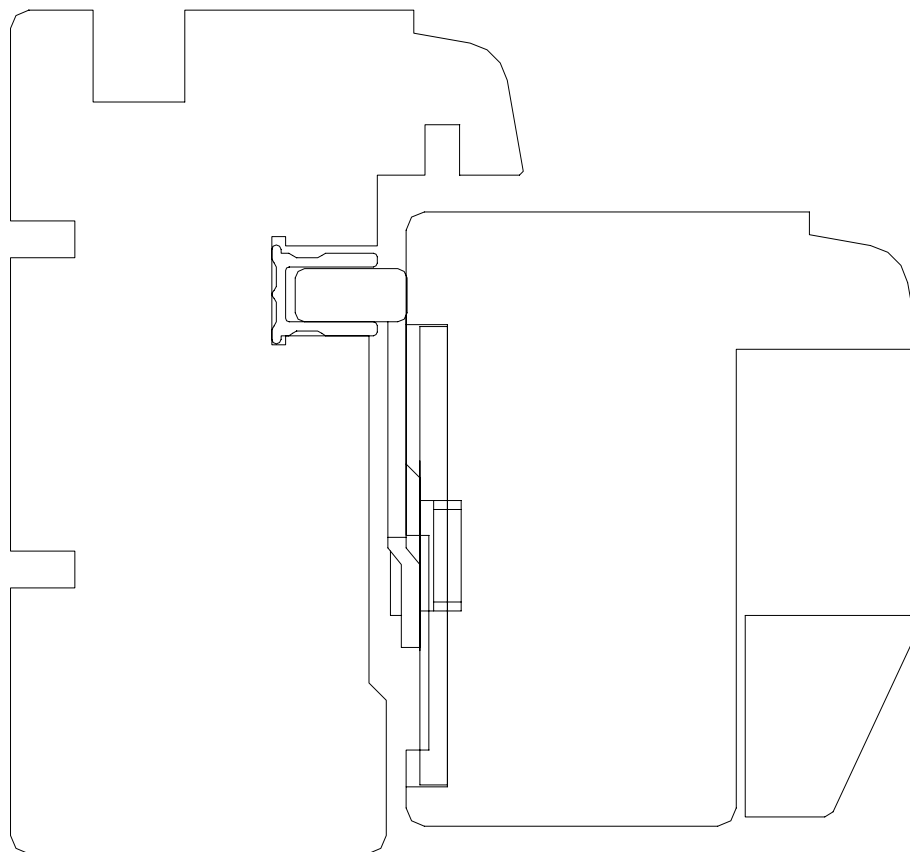
The lock case, despite its small size, allows the rods to move up to 38 mm. However, the lock handle only needs to be turned slightly for it to operate fully (approx 68 degrees).



Fix 3055 (blue), Fix 5600 (black) and Lock case, T1 (red)



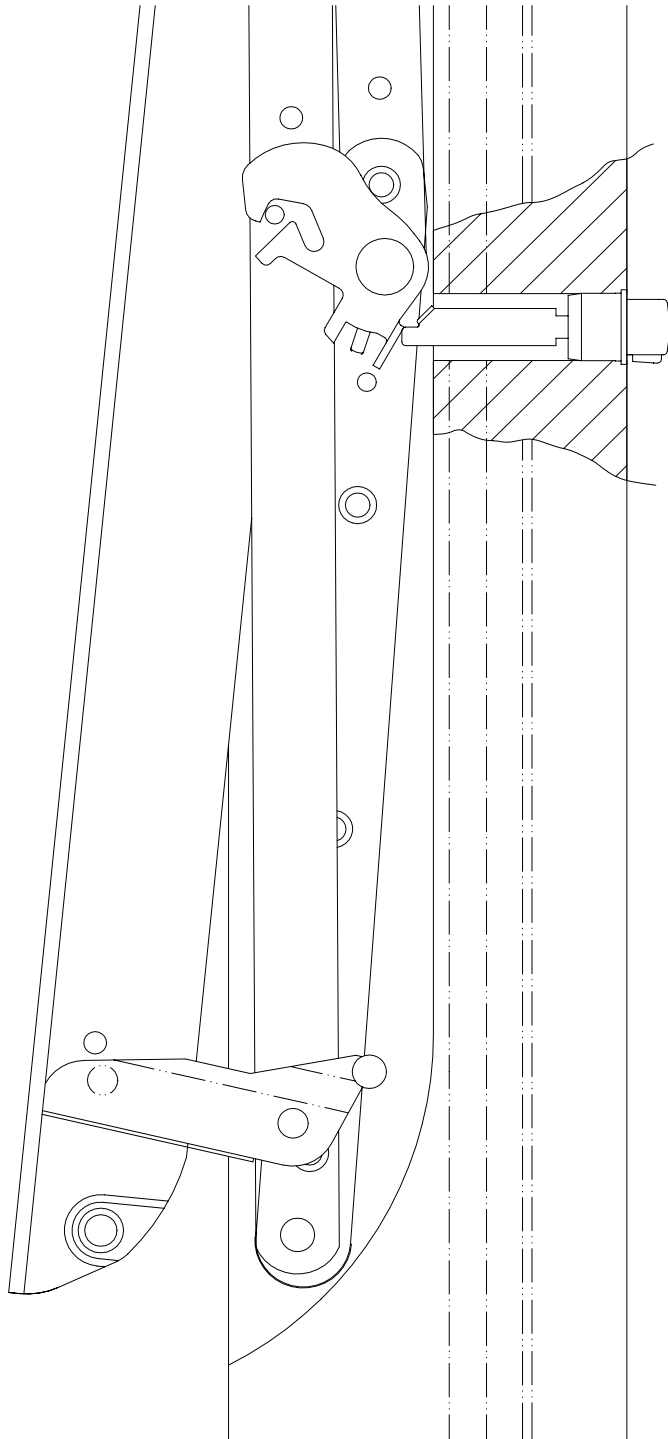
U-profile, T1 for hardware 15103-15115



U-profile, T1 inserted in frame with upper hardware in sash

The safety restrictor that prevents unintentional opening of the window beyond the ventilation position is easy to operate. For even easier operation, a press button can be fitted to the inside of the frame.

The ventilation restrictor prevents the window from blowing closed when ventilating. All operations take place from the left hand side of the frame.



Lock catch, Press button 10512, Ventilation restrictor 10515-10520

Specifications
Reversible window hardware

Window hinges are available in four different sizes.

Windows are often manufactured in line with a standard modular system.

The various hardware sizes are adapted to cope with different modules (see table 1).

The module (M) corresponds to 0,1 meter, while the outer size of the window is 15 mm narrower.

Example: A window with a 10x10 module has an exterior dimension of 985 x 985mm (width x height).

Table 1

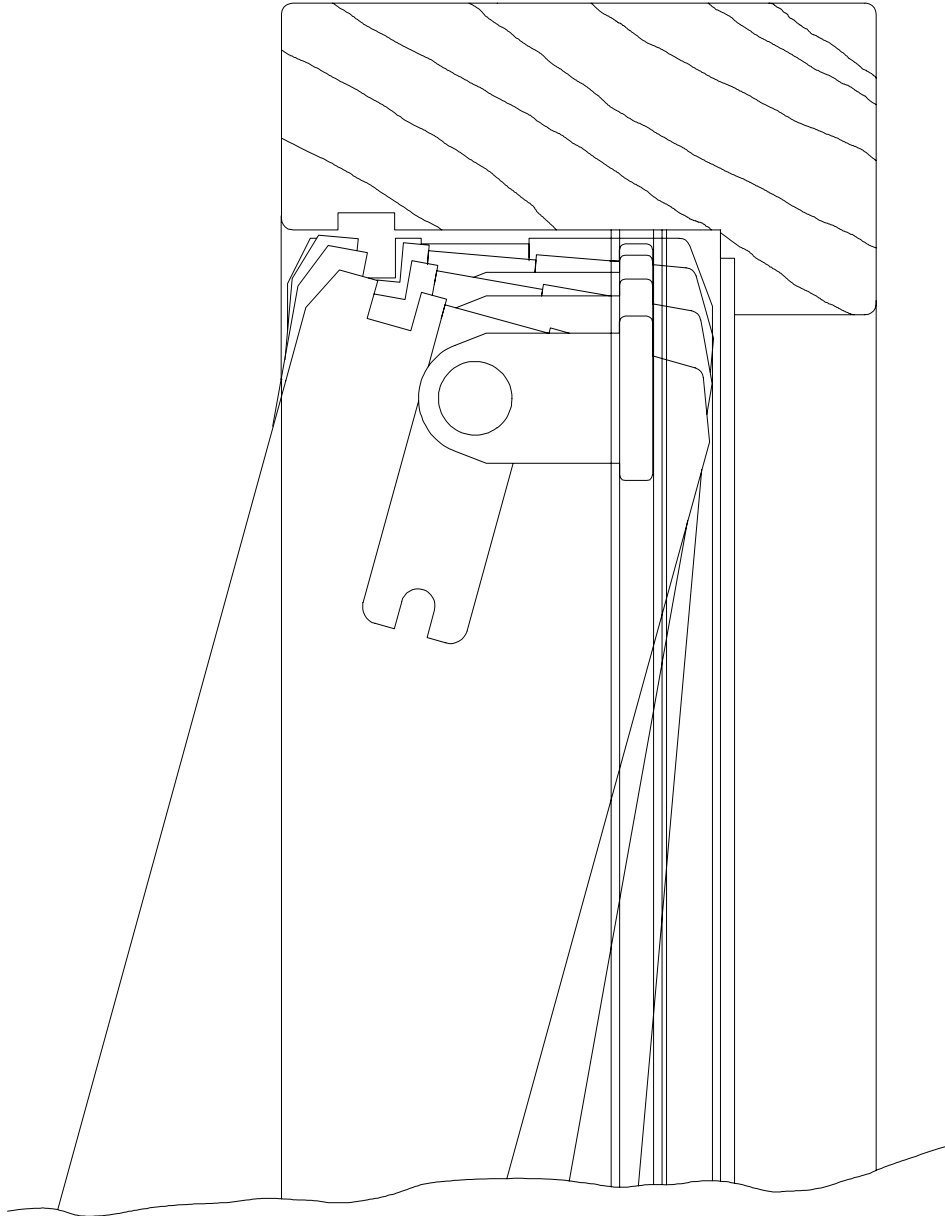
Window hardware for T2 model

Art. no.	Item	Width (M) Max.	Width Max. mm	Height(M)	Height Max. mm	Glass Max. kg
204	Hinge Mini T2	18	1800	4	648	35
				5		
				6		
203	Hinge Small T2	18	1800	7	944	60
				8		
				9		
202	Hinge Normal T2	18	1800	10	1344	60
				11		
				12		
				13		
201	Hinge Large T2	16	1600	14	1400	60
		15	1500	15	1500	
		13	1300	16	1602	

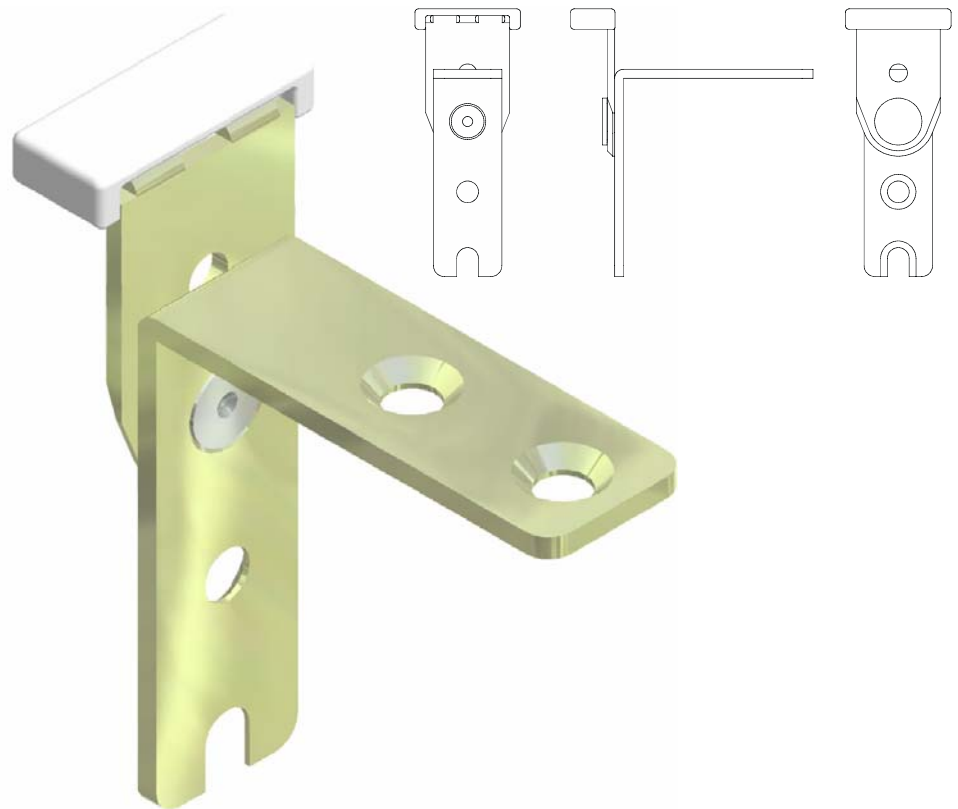
Sizes apply where centre brackets are fitted 10 mm above the center of the window frame.

It is possible to increase the maximum height of each hinge by fitting the centre bracket above the middle of the frame.

The maximum pane weight for the standard and large hinge can be increased if the hinge fixing point in the frame is strengthened with a reinforcement plate (Art. no. 510).



Glide function, top slide bracket, 10502



Top slide bracket, T1 10502

