

ABACO Modular system

The perfect operation and security requirements established by standard safety and building codes will be guaranteed for ABACO products only if the manufacturer's instructions regarding hardware application range, component combinations, assembly, operating and main

Application range

The ABACO hardware enables the construction of the follolip types of shutters (roller or lip):

- timber, PVC or aluminium windows and door windows;
- monobloc, soffit, flush frame or direct wall mounting;
- single or multiple lip, with overlapped, flush or rebated system.

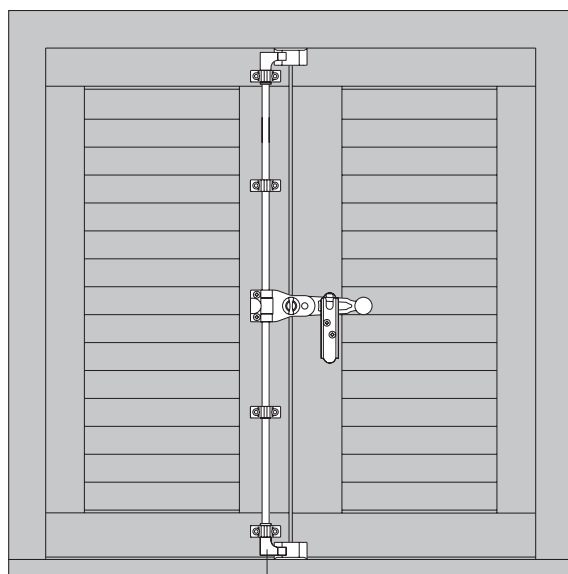
All the accessories can be used on both right and left-handed windows, unless otherwise specified.

Component selection and combination

Proper hardware selection is done in two stages:

- a) selecting the **GR** size of pintles and hinges
- b) determining the number of pintles required (see "Diagrams for the selection of the number of pintles")

The most suitable components for the realisation of a shutter are described in the special technical tables ("Application range" chapter) which indicate the **GR** size of the components to be used, as well as the appropriate fastening screws based on the dimensions of the window, the window construction material and the dimensions of the reveal. The fastening screws are not included in the basic hardware kit (unless otherwise specified).



Espagnolettes and accessories

Pintles

Hinges and supports

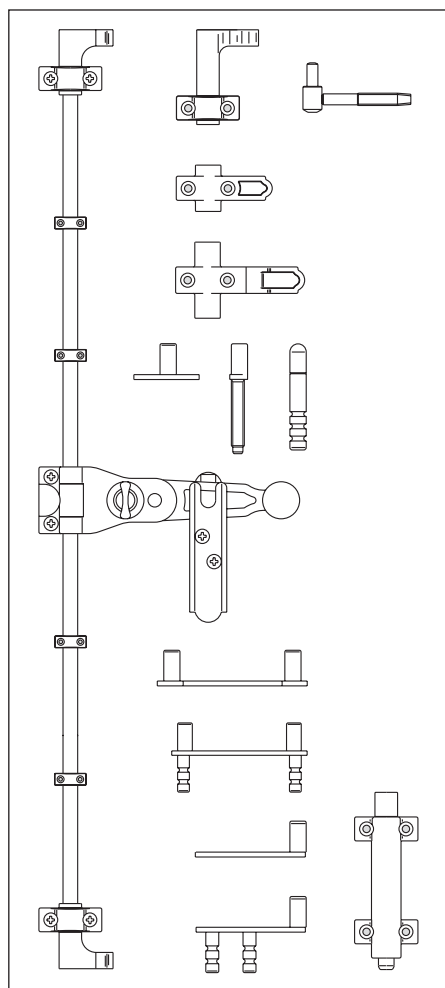
Brackets

Wall catches

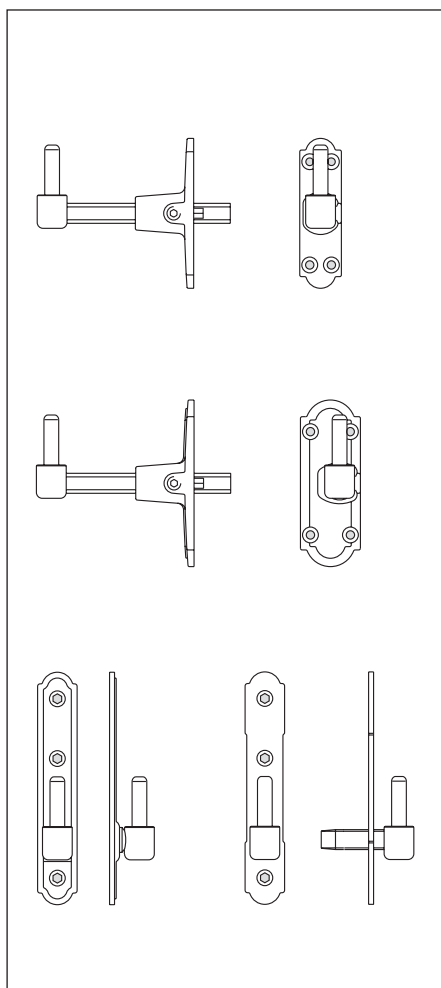


ABACO Modular system

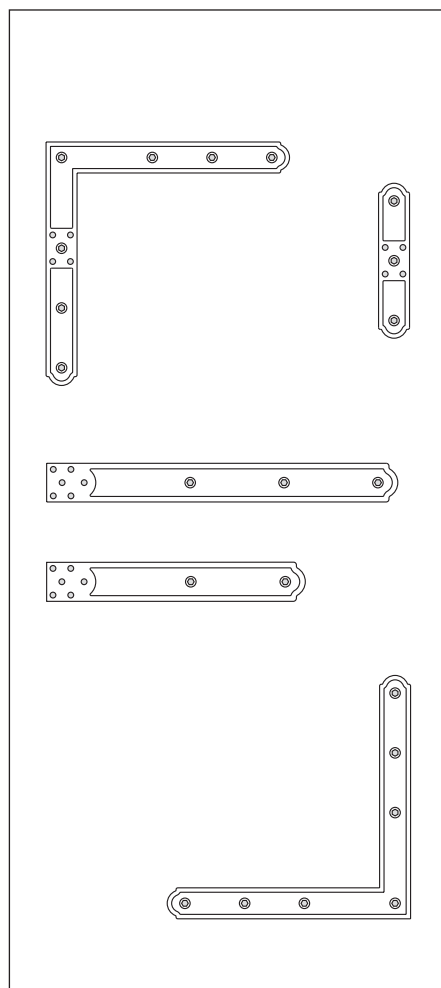
Espagnolettes and accessories



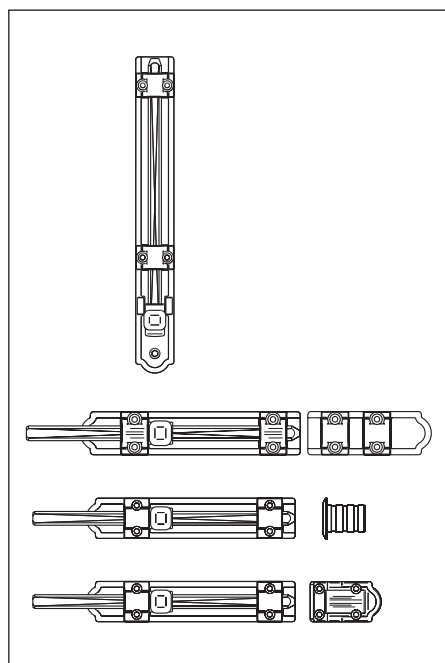
Pintles



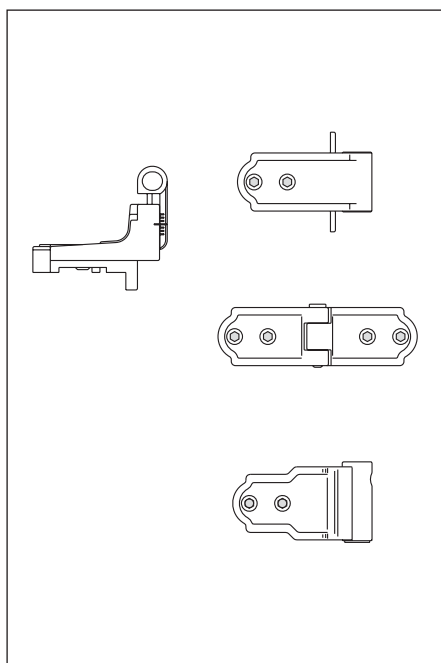
Brackets



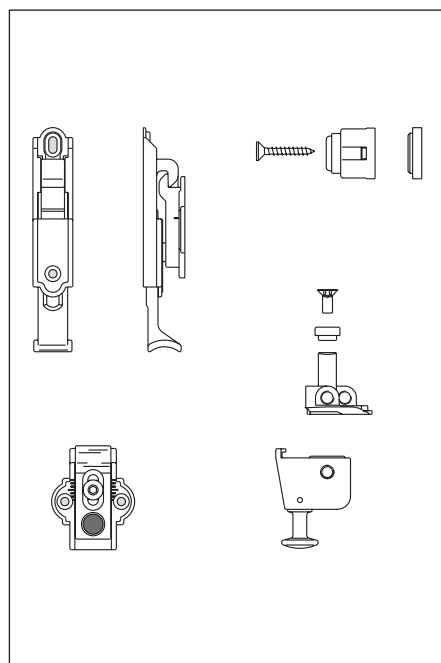
Bolts



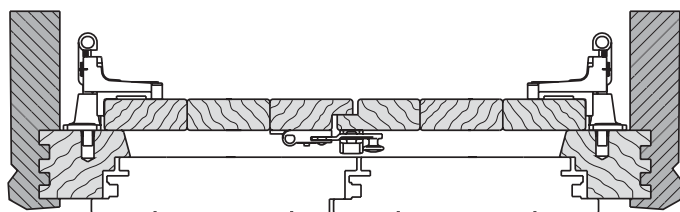
Hinges and supports



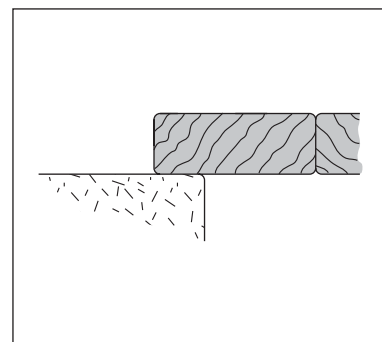
Wall catches



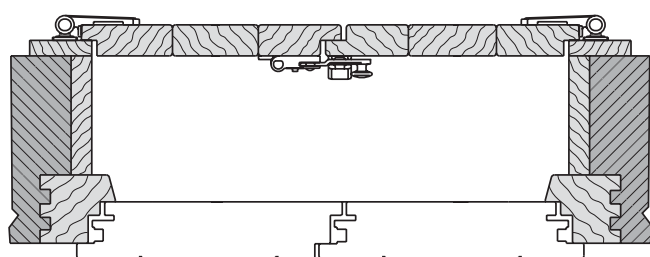
Construction Types and Solutions



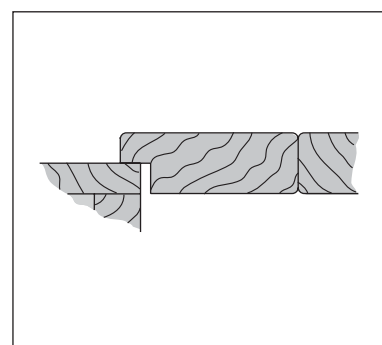
Monobloc shutters with adjustable pintles



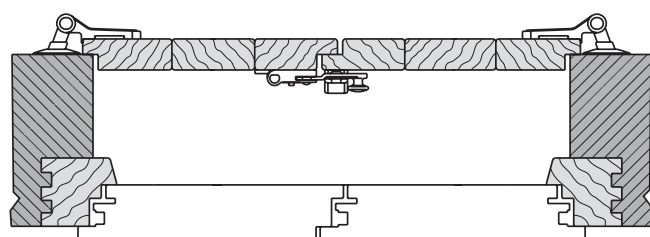
Overlapped type



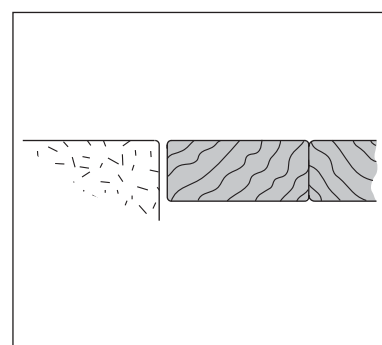
Shutters on wainscoted reveal (imbotte)



Rebated type

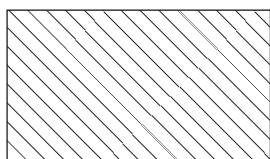


Wall shutters

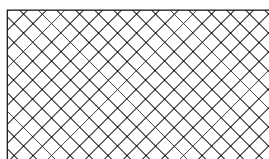


Flush type

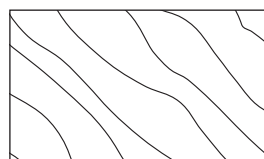
Representation of Building Structures in Dralips



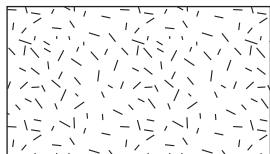
MASONRY cross section



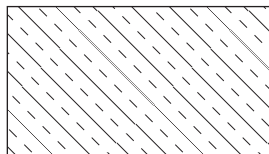
CONCRETE cross section



TIMBER cross section



Dry WALL



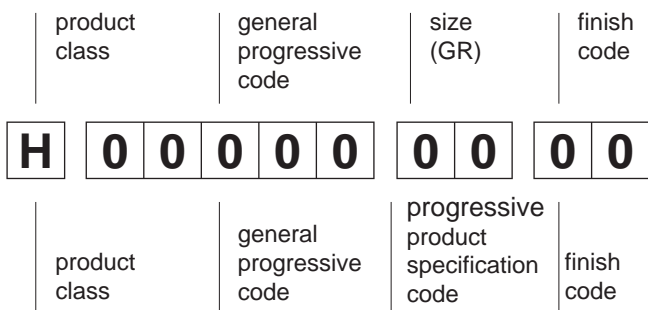
MARBLE cross section

Article Code Structure

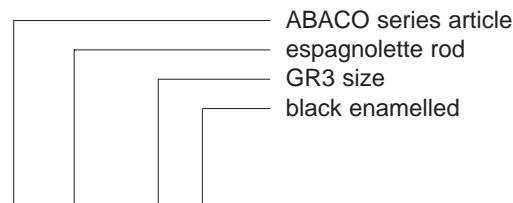
All AGB articles are identified by a ten-digit alphanumeric code.

This code has different meanings depending on whether it refers to structural components or accessories.
The follolip diagram illustrates the coding principle.

COMPONENTS



example (see page 02.2)



H 00900.03.93

ACCESSORIES

List of finishes

Finish	Finish code	Material						
		Steel	Brass	Stainless steel	Aluminium	Nylon	ABS	Zamak
Bichromated	04	ZTR						ZZT
Black zinc plated	09	ZNE						
Silver finish	15	ZSL						ZZS
Black	93	AVN	OVN			NYN	ABN	ZVN

Surface Treatments

The ABACO system components are available in two colours (yellow or black), obtained through the electroplating treatment. The coating, besides having an aesthetic function, protects the hardware from the weather.

The protective galvanic treatment applied to the hardware ensures adequate protection against the weather. Shutters exposed to very severe climatic conditions (i.e. in contact with salinity) require special hardware.

Tropicalized static galvanising

Electrolytic galvanising treatment performed by hanging the pieces separately on appropriate frames.

This process ensures that the minimum local thickness of the electrolytic coating is at least 10 µm.

The galvanic cycle also includes an additional chromate-based conversion coating (passivation) which, besides giving the products a characteristic iridescent yellow tinge, protects them against corrosion.

NB. This treatment is applied to hardware requiring high corrosion resistance.

Minimum time before development of white corrosion products according to SS DIN 50021: 72 h

Minimum time before development of red corrosion according to SS DIN 50021: 240 h

Reference standard UNI ISO 2081 (July 1989)

Coat classification code Fe/Zn 12 c 2C, where:

- Fe basic metal
- Zn electrolytic coating
- 12 thickness of electrolytic coating (µm)
- c chromate-based conversion coating
- 2C class and type of chromate-based conversion coating in compliance with UNI ISO 4520

In particular, according to the I and II statement of UNI ISO 4520, we deduce that "2C" refers to a chromate-based conversion coating with the follolip characteristics:

Type	Iridescent
Colour	Iridescent yellow/ matt white
Coating per surface unit g/m ²	From 0.5 to 1.5 included
Anti-corrosion protection	Considerable, including the protection against certain organic steams

Tropicalized rotary galvanising

Bulk electrolytic galvanising treatment of small parts. As compared with the static galvanising, the electrolytic coating is less thick, with minimum values of 5 micrometers.

Minimum time before development of white corrosion products according to SS DIN 50021: 48 h

Minimum time before development of red corrosion according to SS DIN 50021: 170 h

Reference standard UNI ISO 2081 (July 1989)

Coat classification code Fe/Zn 5 c 2C, where:

- Fe basic metal
- Zn electrolytic coating
- 5 thickness of electrolytic coating (µm)
- c chromate-based conversion coating
- 2C class and type of chromate-based conversion coating in compliance with UNI ISO 4520

In particular, since the rotary application of the galvanising cannot guarantee the same homogeneity and galvanising thickness of the static method the chromate-based conversion coating has the follolip characteristics:

Type	Iridescent
Colour	Iridescent yellow/ matt white
Coating per surface unit g/m ²	From 0.5 to 1.5 included
Anti-corrosion protection	Moderate, for example against the spots from use or against high humidity conditions, softly corrosive.

Black rotary galvanising

Consists in a deposit of min. 5 micron zinc coating, followed by a black chromate treatment.

This treatment is applied to hardware requiring high corrosion resistance and particular colouring.

Minimum time before development of white corrosion products according to SS DIN 50021: 48 h

Minimum time before development of red corrosion according to SS DIN 50021: 170 h

Reference standard UNI ISO 2081 (July 1989)

Coat classification code Fe/Zn 5 c 2C, where:

- Fe basic metal
- Zn electrolytic coating
- 5 thickness of electrolytic coating (µm)
- c chromate-based conversion coating
- 2C class and type of chromate-based conversion coating in compliance with UNI ISO 4520

In particular, since the rotary application of the galvanising cannot guarantee the same homogeneity and galvanising thickness of the static method, the chromate-based conversion coating has the follolip characteristics:

Type	Iridescent
Colour	Iridescent yellow/ matt white
Coating per surface unit g/m ²	From 0.5 to 1.5 included
Anti-corrosion protection	Moderate, for example against the spots from use or against high humidity conditions, softly corrosive.

Tropicalized galvanising with FINIGARD

Static and rotary galvanising treatments, in this case are completed with a sealing of Finigrad, which gives higher corrosion resistance to the product

This treatment ensures excellent resistance against corrosion and is therefore indicated for outdoor applications, even in severe climatic conditions.

Minimum time before development of white corrosion products according to SS DIN 50021: 150 h

Minimum time before development of red corrosion according to SS DIN 50021: 350 h

The "finigrad" protection increases the corrosion resistance and preserve brightness and tone of the finish as well.

Surface Treatments

Black enamelling - Cataphoresis

This cataphoretic treatment gives surfaces an even bright black coating with a pleasing fine-grained effect.

The treatment includes three main phases:

1) Pre-treatment

Consisting of pickling, degreasing, phosphating with zinc salts and passivation. The purpose of these processes is to prepare the surface for the subsequent treatments and to optimise the adhesion of the enamel.

2) Enamelling

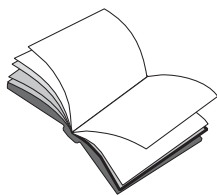
Application of acrylic resin (for outdoor use) in an anodic bath.

3) Reticulation

Baking at 170°C for 25-30 minutes.

When the treatment has been completed the pieces are removed from the frames and visually inspected one by one. The cataphoretic treatment ensures excellent corrosion resistance. Salt-fog corrosion tests indicate no red rust development for 500 hours.

Selection and Proper Use of Products



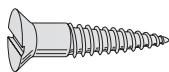
- 1) For **installation**, follow the instructions provided in this catalogue.
Any applications other than those described in the “Application” paragraph, shown in each components page, are not in compliance with the authorised use of the hardware.
As regards the possibility of combining the mechanisms, follow the instructions provided in this catalogue.
Do not exceed the shutter weight, dimension and shape limitations (height/width ratio), shown in the components pages and in the “Application Range” chapter.



- 2) The term **theft-proof** used in the AGB literature refers exclusively to the greater resistance of the component or system to break-in attempts as compared with standard components. However, this is no guarantee of the actual capacity of the hardware to inhibit or hinder housebreaking.



- 3) **Do not use** a hammer for hardware installation.



- 4) **Fasten** the hardware using the screws described in the catalogue.
During assembly, make sure that the screws are tight and that the components are connected properly.
Immediately replace any worn or damaged parts.

- 5) **Do not apply products** which could compromise functionality and long lasting of the hardware.



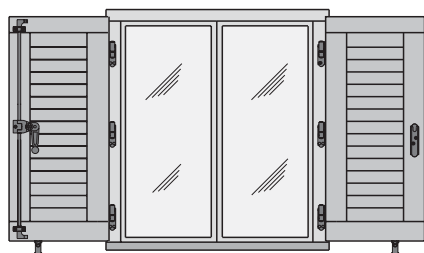
- 6) The protective galvanic treatment applied to the hardware ensures adequate protection against the weather. Shutters exposed to very severe climatic conditions (i.e. in contact with salinity) require special hardware.

The hardware **should not be exposed** to environments subject to aggressive chemical agents, such as rooms where the shutters are exposed to fumes from floor cleaning products or processes that utilise solvents.

The protective properties are impaired if the coating is damaged by impacts, cuts or scratches, or by cleaners containing abrasive substances or solvents.

In the event of application on PVC profiles, remove all metal chips produced by drilling.

Operating and Safety Instructions



- 7) **Do not subject** the shutter to extra loads.

Do not slam the shutters. If there is a strong wind, close the shutters or secure them in the open position (180°) with the wall catches.
Do not use hinge locks in very windy areas.

Do not position any objects within the shutters' operating range.

Accident prevention: crushing hazard.

Do not force the components. If movements are not smooth, make sure that there are no visible obstructions or misalignments of the moving parts.

Maintenance



- 8) **To clean** use a soft dry cloth.

Do not use abrasive products or solvents that may damage the rustproof coating.



- 9) Check the integrity of the hardware periodically, eliminating any traces of oxidation.

Lubricate the moving parts with a silicone spray at least once a year.
Do not use oils or greases.



- 10) If necessary, restore the proper operation of the hardware by making the necessary **adjustments**. If the shutters do not open smoothly or the espagnolette closes with difficulty, check the shutters to make sure no settling has occurred. Adjust the hinges to ensure the perfect alignment and functionality of the shutters.

Note: all mechanism adjustment operations, replacement of parts, hanging and removal of shutters must be carried out by specialised personnel only.

- 11) The warehouse temperature where the hardware is stocked, must be between 5° and 30° C.
The humidity must be between 30% and 60%.

Drive rod



Description

9 mm diameter steel drive rod with semicircular cross-section to facilitate assembly and increase resistance to torsional stress.

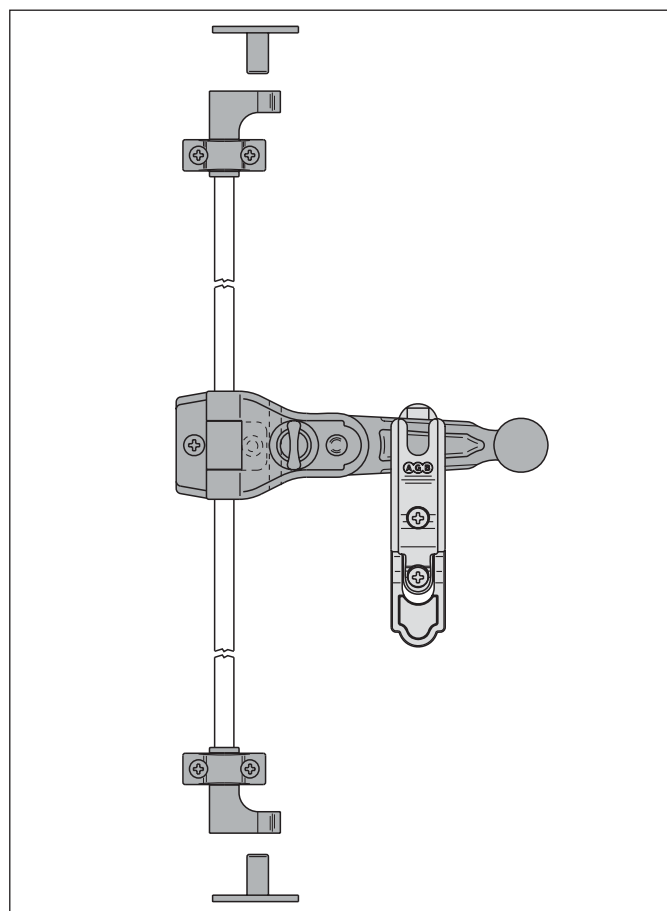
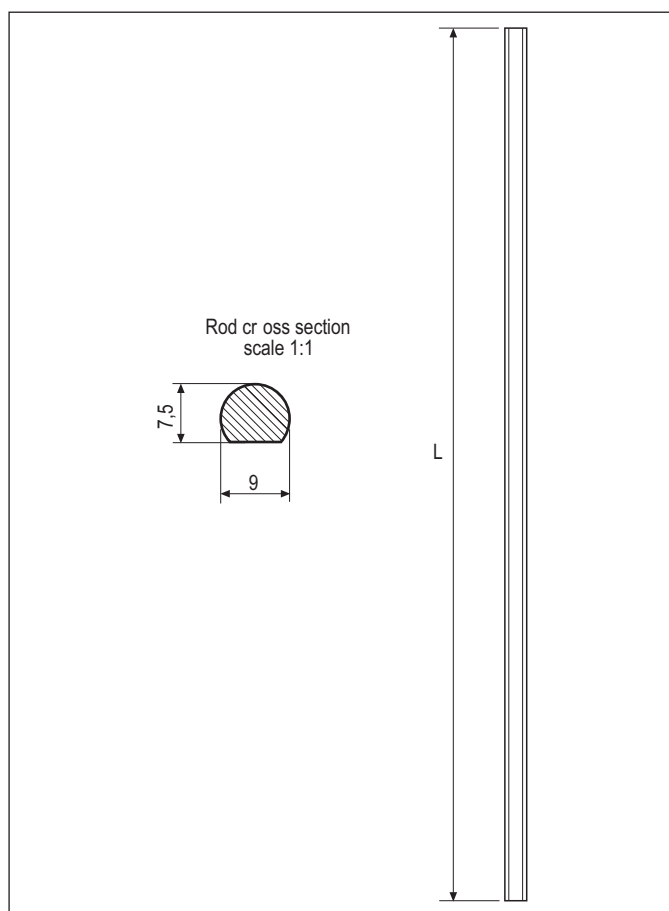
Application

The rod is the same for all ABACO systems, whatever their GR size. The only variable is the rod's length (L), which is calculated with the follolip formula:

$L = \text{shutter height} - \text{hook height}$

- To be used in combination with espagnolettes, straight or bent fastening hooks and vertical bolts.

NB. To avoid excessive bending of the rod, we recommend that you install a rod guide support every 400 mm.

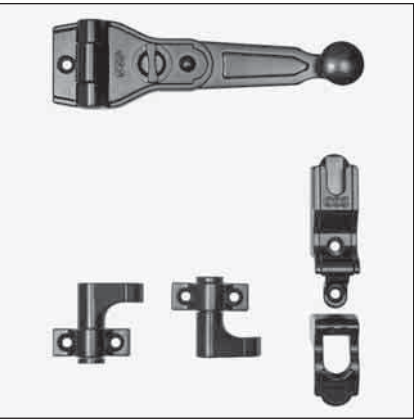


Order Specifications

GR	L (mm)	Article
1	1000	H00900.01.XX
2	1200	H00900.02.XX
3	1400	H00900.03.XX
4	1600	H00900.04.XX
5	1800	H00900.05.XX
6	2000	H00900.06.XX
7	2200	H00900.07.XX
8	2400	H00900.08.XX
9	2600	H00900.09.XX
10	3200	H00900.10.XX

NB. Refer to the price list in force to check the availability of the finishes.

UNICA basic kit



Description

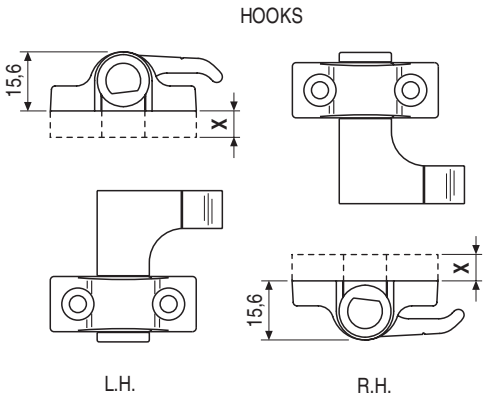
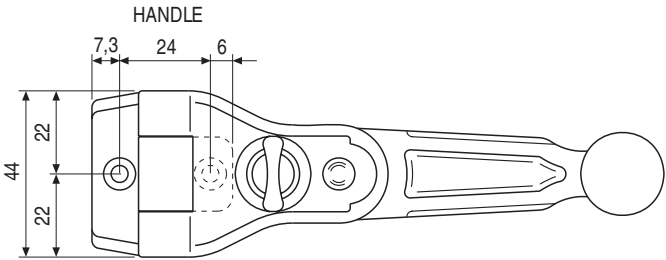
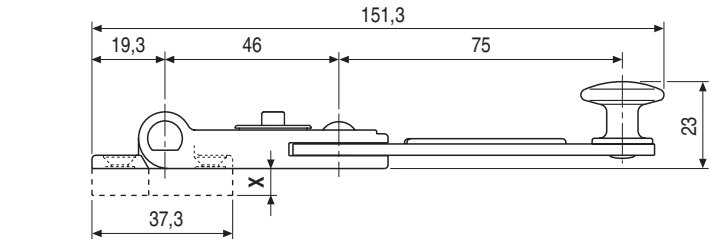
Basic kit featuring espagnolette with 180° rotation and catch suitable to 1 or 2 sashed shutters.
Available in the standart version and pre-adapted with 4 or 7 mm shim for alu and PVC shutters where surmounted profiles are used.

Mounting

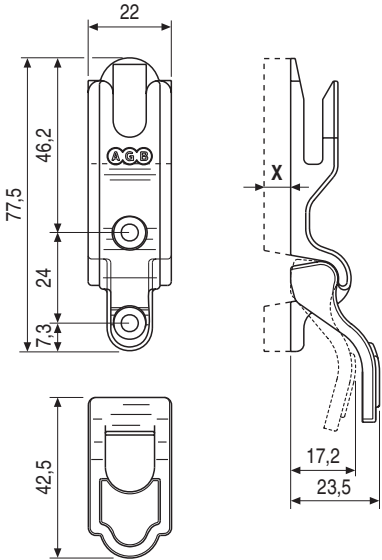
Use screw with suitable thread to the shutter material \varnothing 4x30.

Finish surface treatment

On basis zink plated and then a cataphoresis poccus as a basis for a final polyester powder finish.
These procedures guatantee special wheather-proof and wear-resistant.



HANDLE LOCK - SINGLE AND DOUBLE SASH



Order Specifications

Type	Article	X
UNICA	H00903.15.XX	0 mm
UNICA	H00903.17.XX	4 mm
UNICA	H00903.18.XX	7 mm

NB. Refer to the price list in force to check the availability of the finishes.

UNICA basic kit with bent hooks



Description

Basic kit featuring espagnolette with 180° rotation and catch with greater hooks suitable to 1 or 2 sashed shutters.

Application

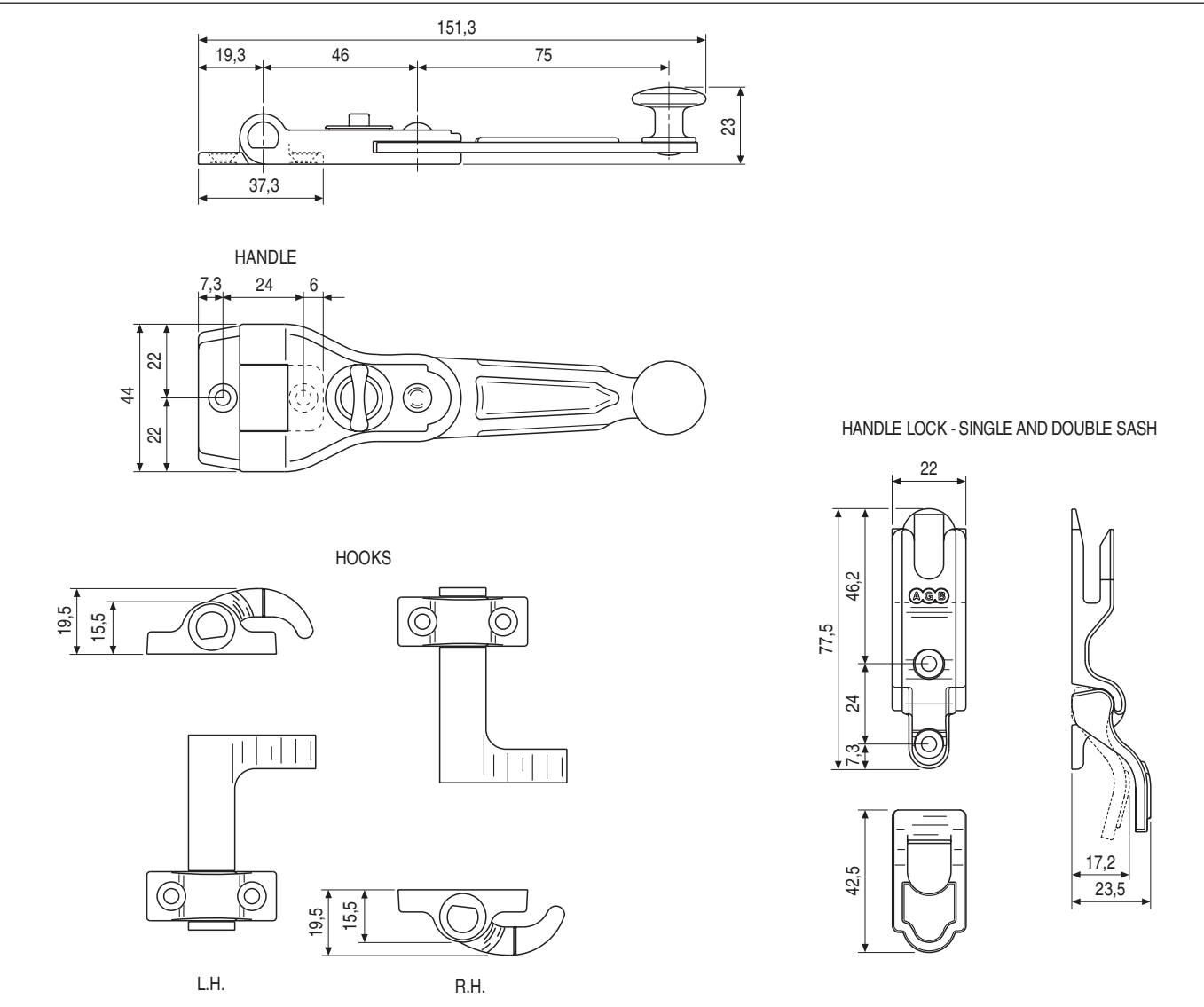
In any case where the shutter requires wide hook catch and more resistance.

Mounting

Use screw with suitable thread to the shutter material \varnothing 4x30.

Finish surface treatment

On basis zink plated and then a cataphoresis pocess as a basis for a final polyester powder finish. These procedures guatantee special wheather-proof and wear-resistant.



Order Specifications

Type	Article
UNICA	H00402.00.XX

NB. Refer to the price list in force to check the availability of the finishes.

UNICA basic kit - with lowered handle



Description

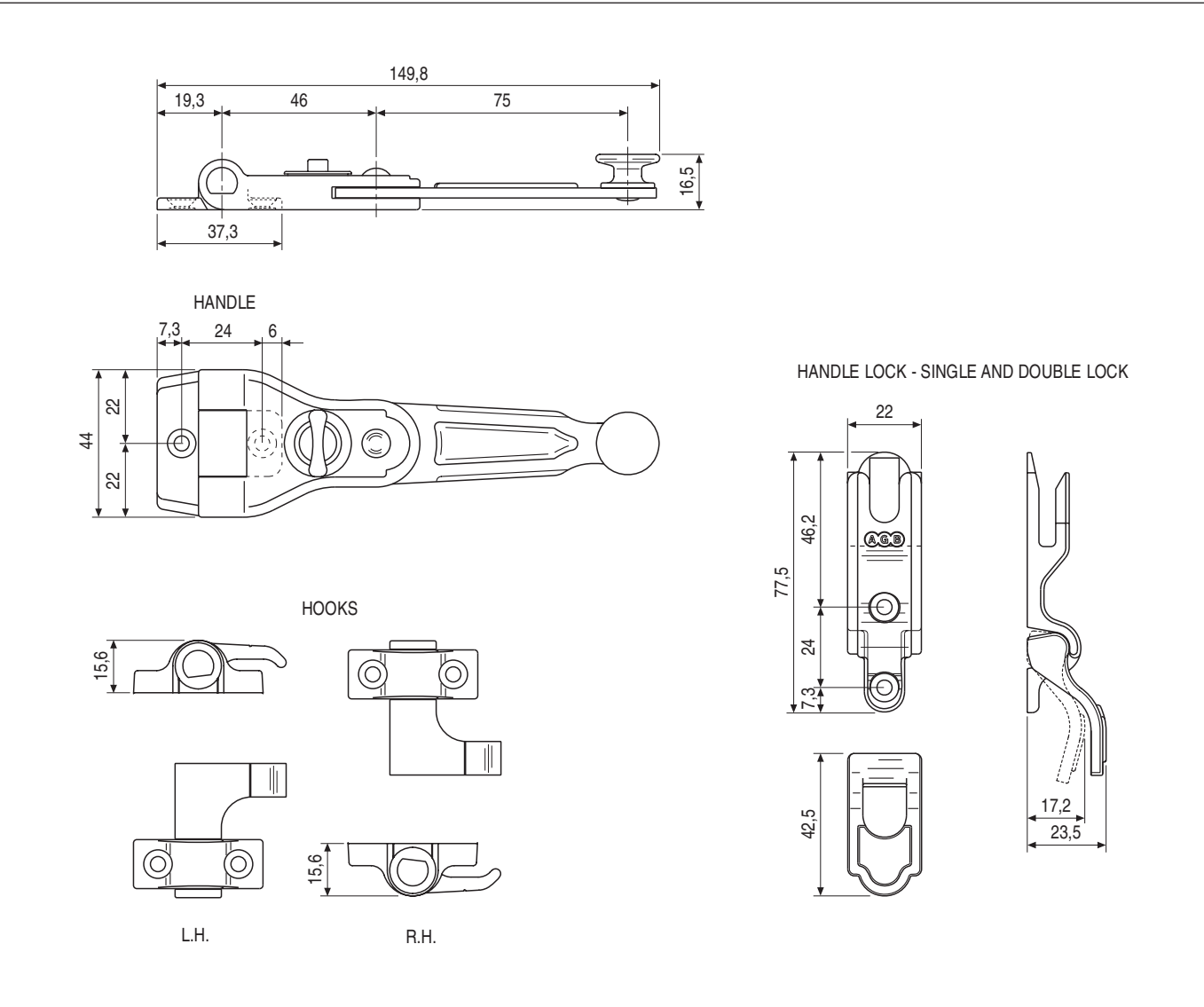
Basic kit featuring espagnolette with 180° rotation and catch suitable to 1 or 2 sashed shutters.
The lowered knob of the handle allows the use on folding sashes.

Mounting

Use screw with suitable thread to the shutter material \varnothing 4x30.

Finish surface treatment

On basis zink plated and then a cataphoresis pocess as a basis for a final polyester powder finish.
These procedures guatantee special wheather-proof and wear-resistant.



Order Specifications

Type	Article
UNICA	H00903.16.XX

NB. Refer to the price list in force to check the availability of the finishes.

UNICA basic kit - long handle



Description

Basic kit featuring espagnolette with 180° rotation and catch suitable to 1 or 2 sashed shutters.

The arm is 90 mm long and allows the closure on the catch in the second sash even when the building typology design a long distance between the two components.

Available in the standard version and pre-adapted with 4 or 7 mm shim for alu and PVC shutters where surmounted profiles are used.

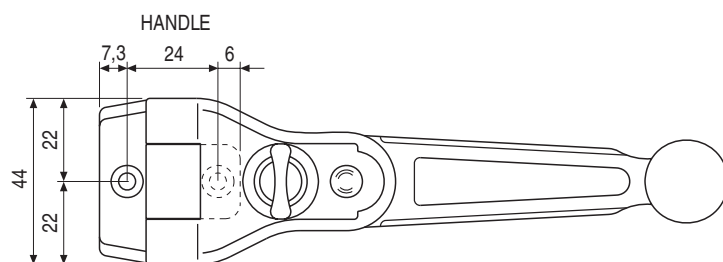
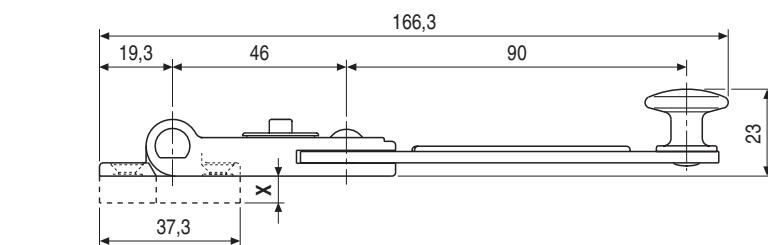
Mounting

Use screw with suitable thread to the shutter material \varnothing 4x30.

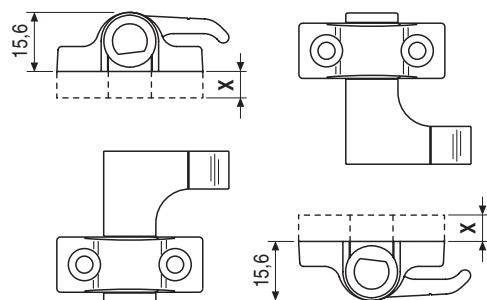
Finish surface treatment

On basis zink plated and then a cataphoresis process as a basis for a final polyester powder finish.

These procedures guarantee special weather-proof and wear-resistant.



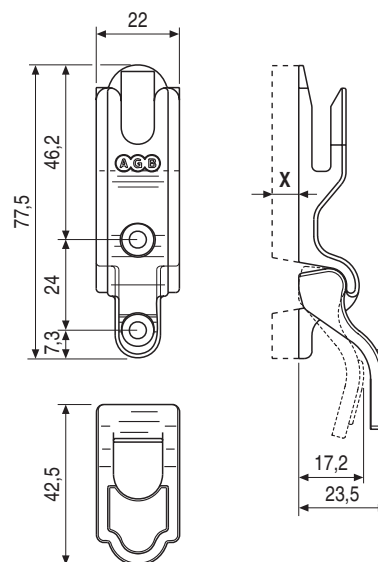
HOOKS



L.H.

R.H.

HANDLE LOCK - SINGLE AND DOUBLE SHAHS



Order Specifications

Type	Article	X
UNICA long	H00903.22.XX	0 mm
UNICA long	H00903.20.XX	4 mm
UNICA long	H00903.21.XX	7 mm

NB. Refer to the price list in force to check the availability of the finishes.

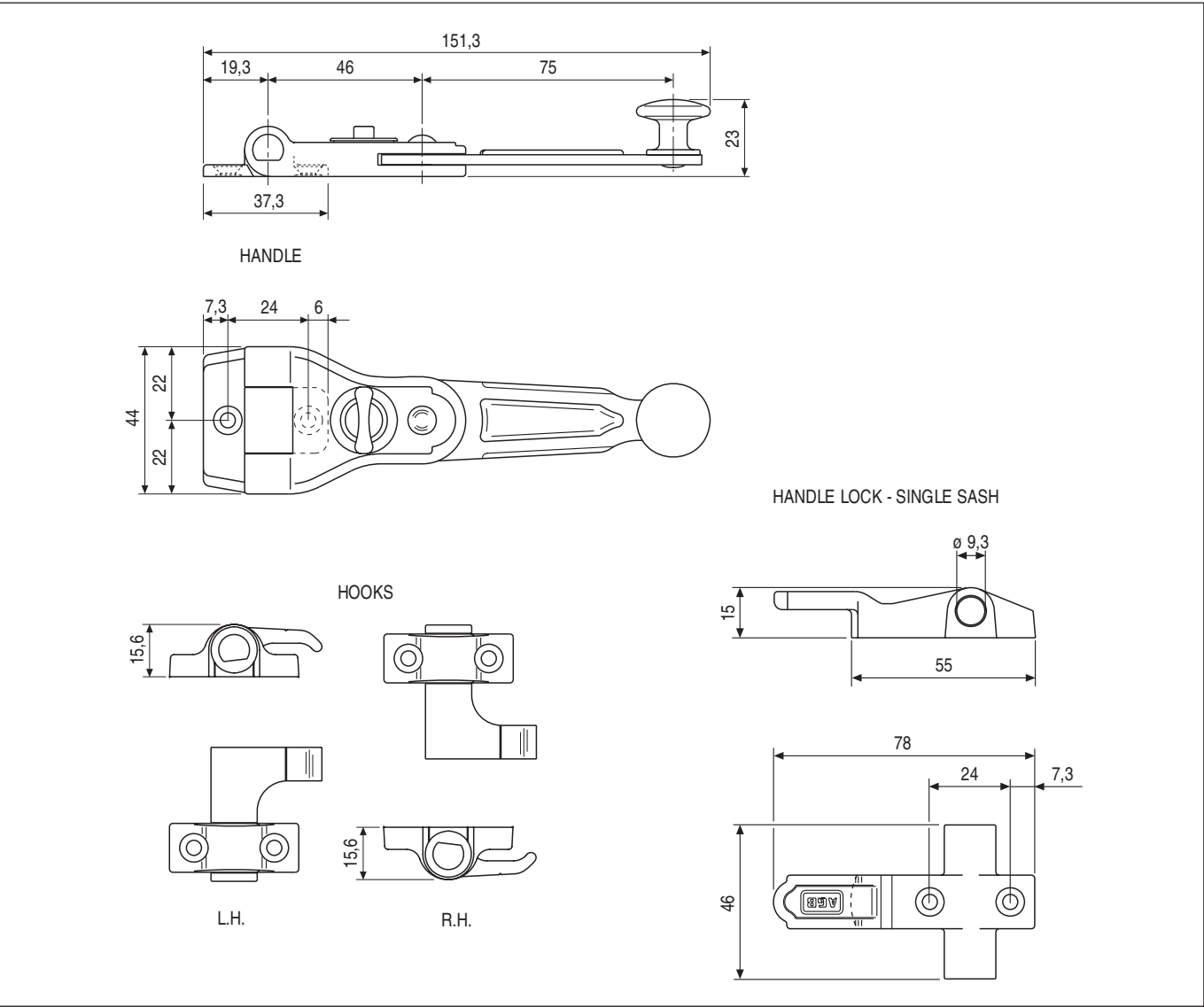
UNICA basic kit - single sash



Description
Basic kit featuring espagnolette with 180° rotation and handle lock.
Suitable for single-sash shutters.

- Components**
- 1 espagnolette.
 - 1 handle lock for single-sash shutter.
 - 1 right-handed closing hook.
 - 1 left-handed closing hook.

Mounting
See instructions provided in the accessories specifications sheets.



Order Specifications

Type	Article
UNICA	H00903.06.XX

NB. Refer to the price list in force to check the availability of the finishes.

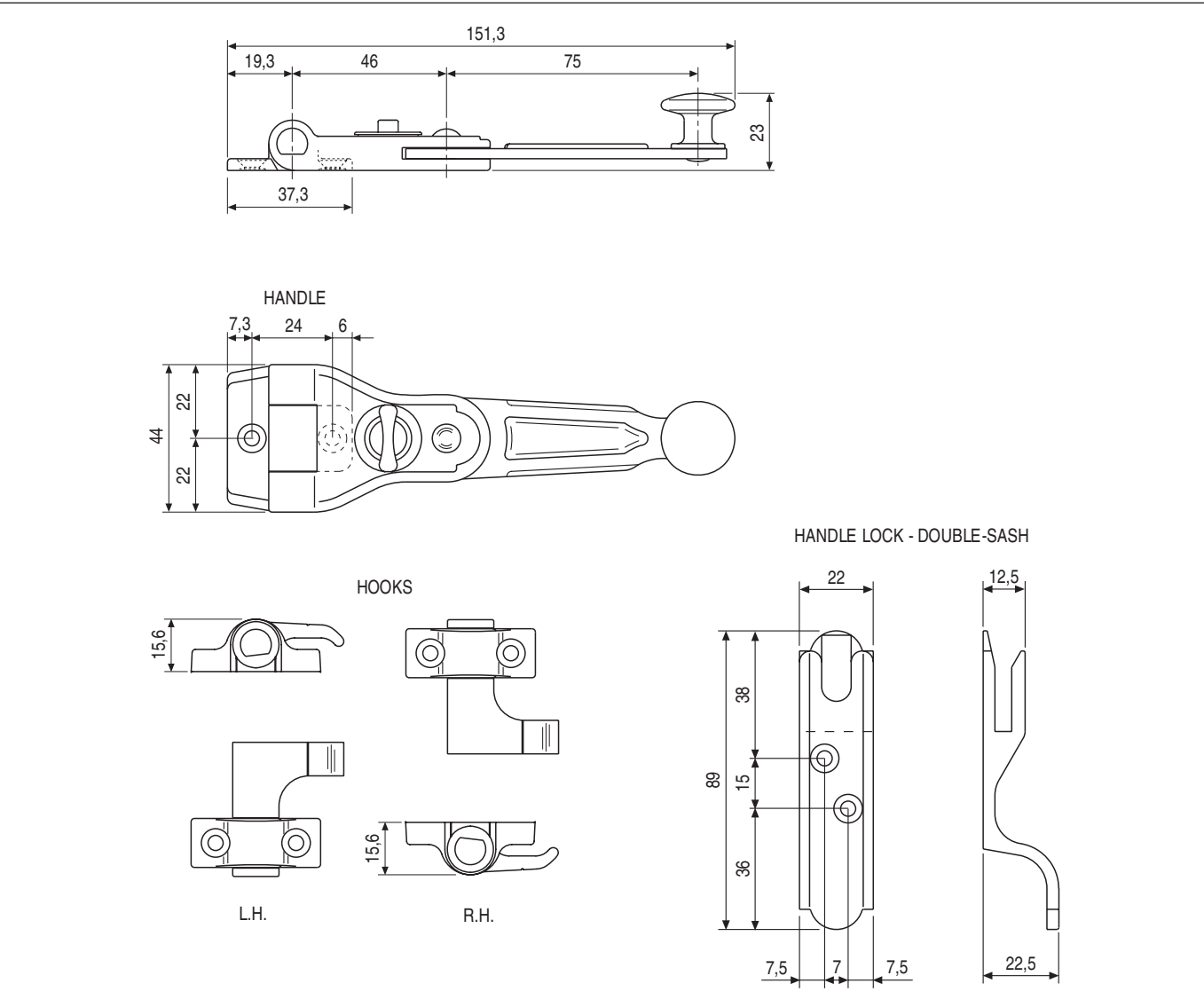
UNICA basic kit - double sash



Description
Basic kit featuring espagnolette with 180° rotation and handle lock.
Suitable for double-sash shutters.

- Components**
- 1 espagnolette.
 - 1 handle lock for double-sash shutter.
 - 1 right-handed closing hook.
 - 1 left-handed closing hook.

Mounting
See instructions provided in the accessories specifications sheets.



Order Specifications

Type	Article
UNICA	H00903.08.XX

NB. Refer to the price list in force to check the availability of the finishes.

Reduced basic kit - single sash



Description

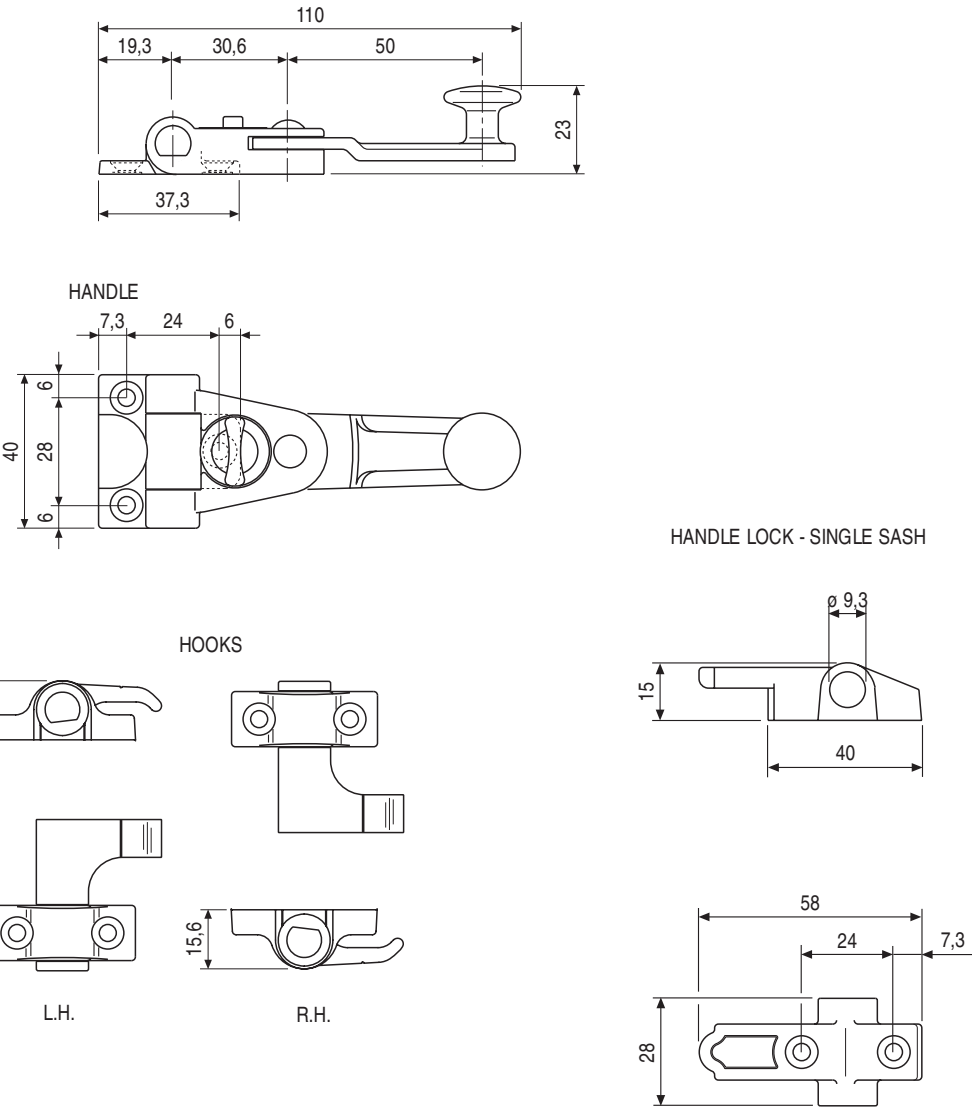
Basic kit featuring espagnolette with 180° rotation and reduced handle lock. Suitable for single-sash shutters.

Components

- 1 espagnolette (reduced).
- 1 handle lock for single-sash shutter (reduced).
- 1 right-handed closing hook.
- 1 left-handed closing hook.

Mounting

See instructions provided in the accessories specifications sheets.



Order Specifications

Type	Article
Reduced	H00903.07.XX

NB. Refer to the price list in force to check the availability of the finishes.

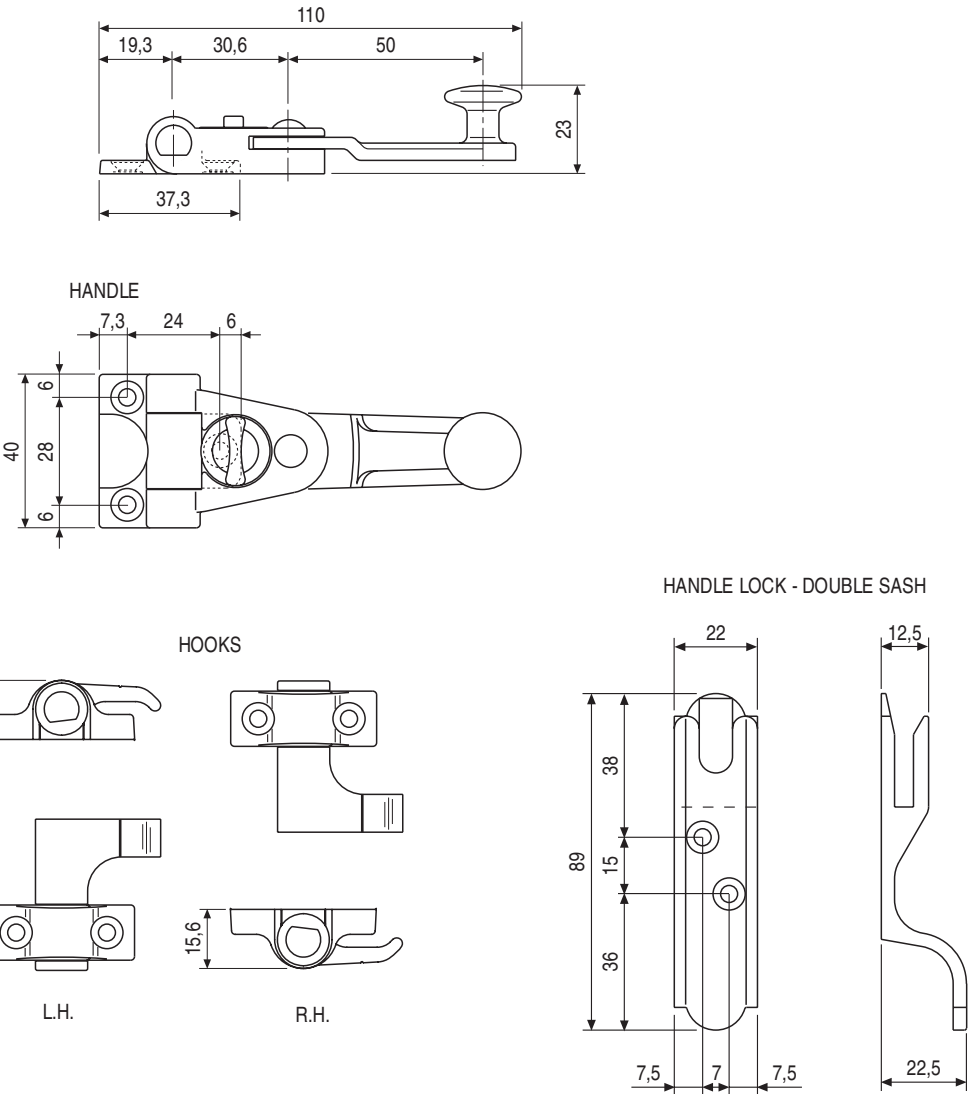
Reduced basic kit - double sash



Description
Basic kit featuring espagnolette with 180° rotation and handle lock.
Suitable for double-sash shutters.

- Components**
- 1 espagnolette (reduced).
 - 1 handle lock for double-sash shutter.
 - 1 right-handed closing hook.
 - 1 left-handed closing hook.

Mounting
See instructions provided in the accessories specifications sheets.



Order Specifications

Type	Article
Reduced	H00903.09.XX

NB. Refer to the price list in force to check the availability of the finishes.

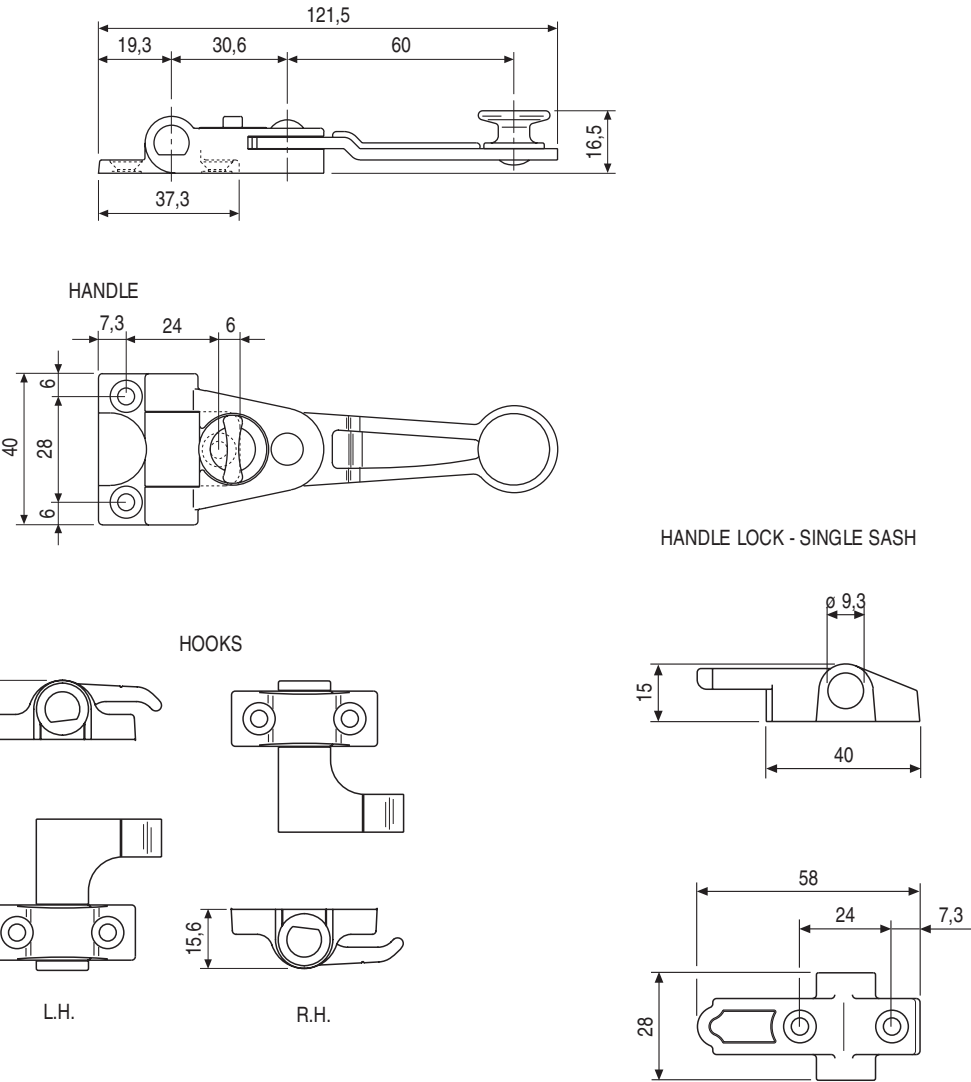
Small basic kit - single sash



Description
Basic kit featuring espagnolette with 180° rotation and reduced handle lock. Suitable for single-sash shutters.

- Components**
- 1 espagnolette (small).
 - 1 handle lock for single-sash shutter (reduced).
 - 1 right-handed closing hook.
 - 1 left-handed closing hook.

Mounting
See instructions provided in the accessories specifications sheets.



Order Specifications

Type	Article
Small	H00903.12.XX

NB. Refer to the price list in force to check the availability of the finishes.

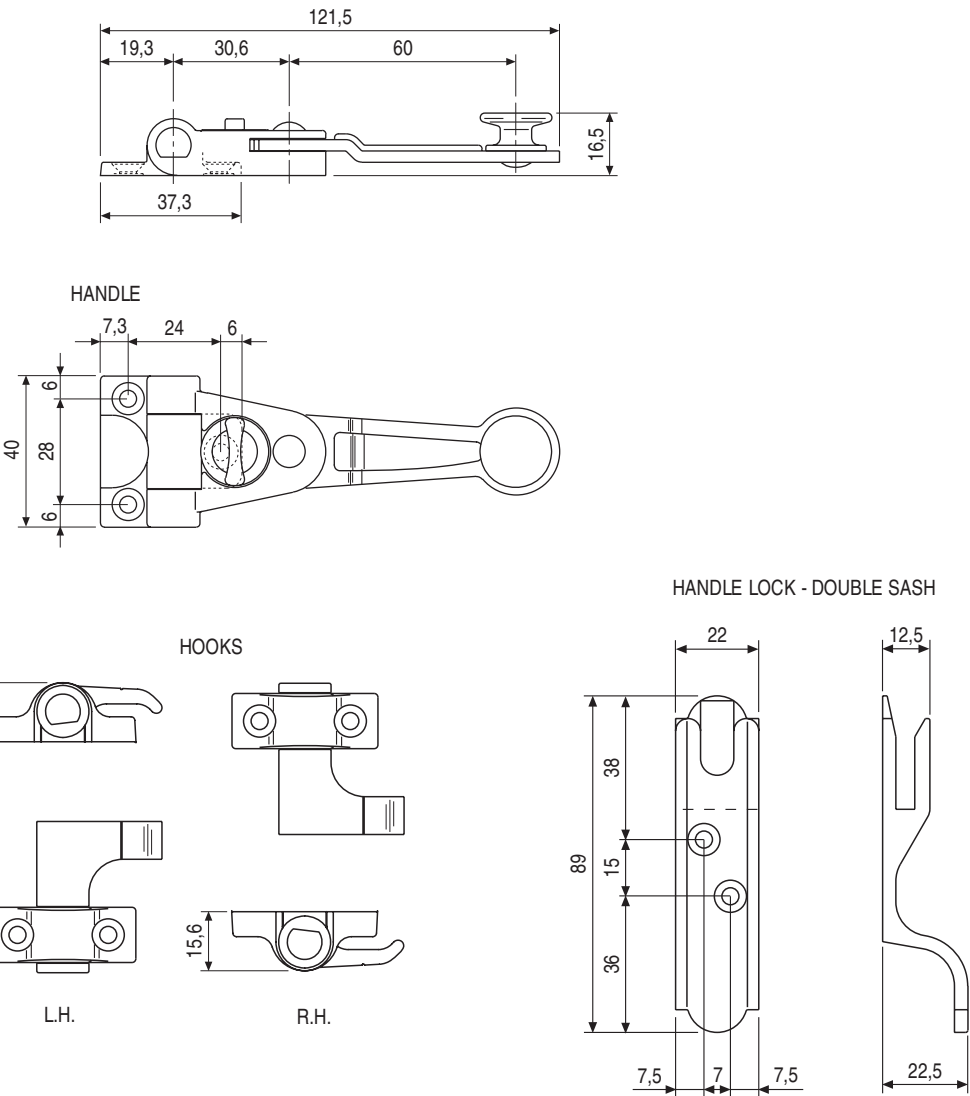
Small basic kit - double sash



Description
Basic kit featuring espagnolette with 180° rotation and handle lock.
Suitable for double-sash shutters.

- Components**
- 1 espagnolette (small).
 - 1 handle lock for double-sash shutter.
 - 1 right-handed closing hook.
 - 1 left-handed closing hook.

Mounting
See instructions provided in the accessories specifications sheets.



Order Specifications

Type	Article
Small	H00903.13.XX

NB. Refer to the price list in force to check the availability of the finishes.

Basic kit for double sash - small handle with articulated catch



Description

Basic kit featuring espagnolette with 180° rotation and catch suitable to 2 sashed shutters.

The knob thickness of only 16,5 mm and catch of 12,5 allows the installation on folding sashes.

The basis of the espagnolette has reduced dimensions and allows the application on narrow profiles.

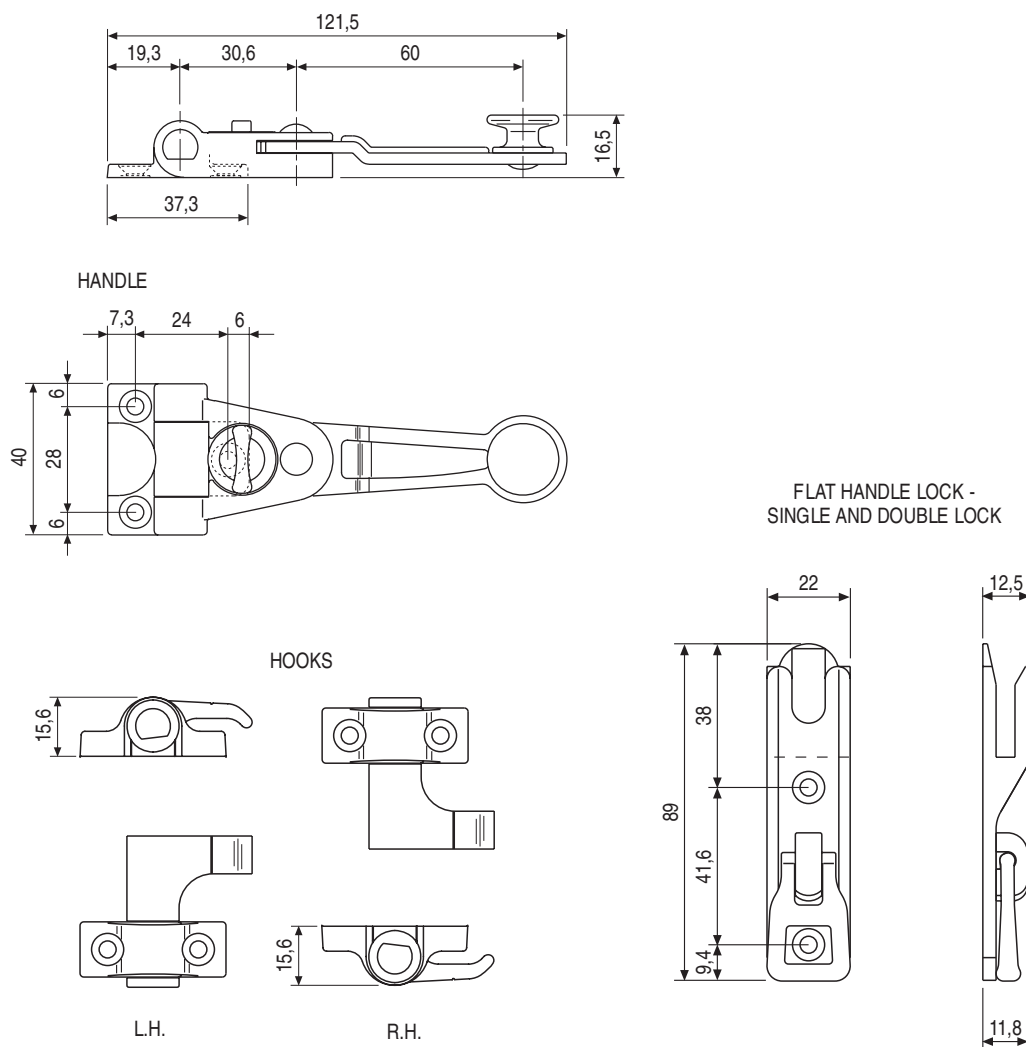
Mounting

Use screw with suitable thread to the shutter material \varnothing 4x30.

Finish surface treatment

On basis zink plated and then a cataphoresis process as a basis for a final polyester powder finish.

These procedures guarantee special weather-proof and wear-resistant.



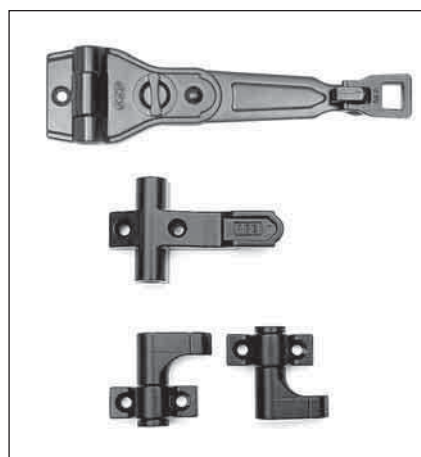
Order Specifications

Article

H00903.19.XX

NB. Refer to the price list in force to check the availability of the finishes.

Flat handle - basic kit for single sash



Description

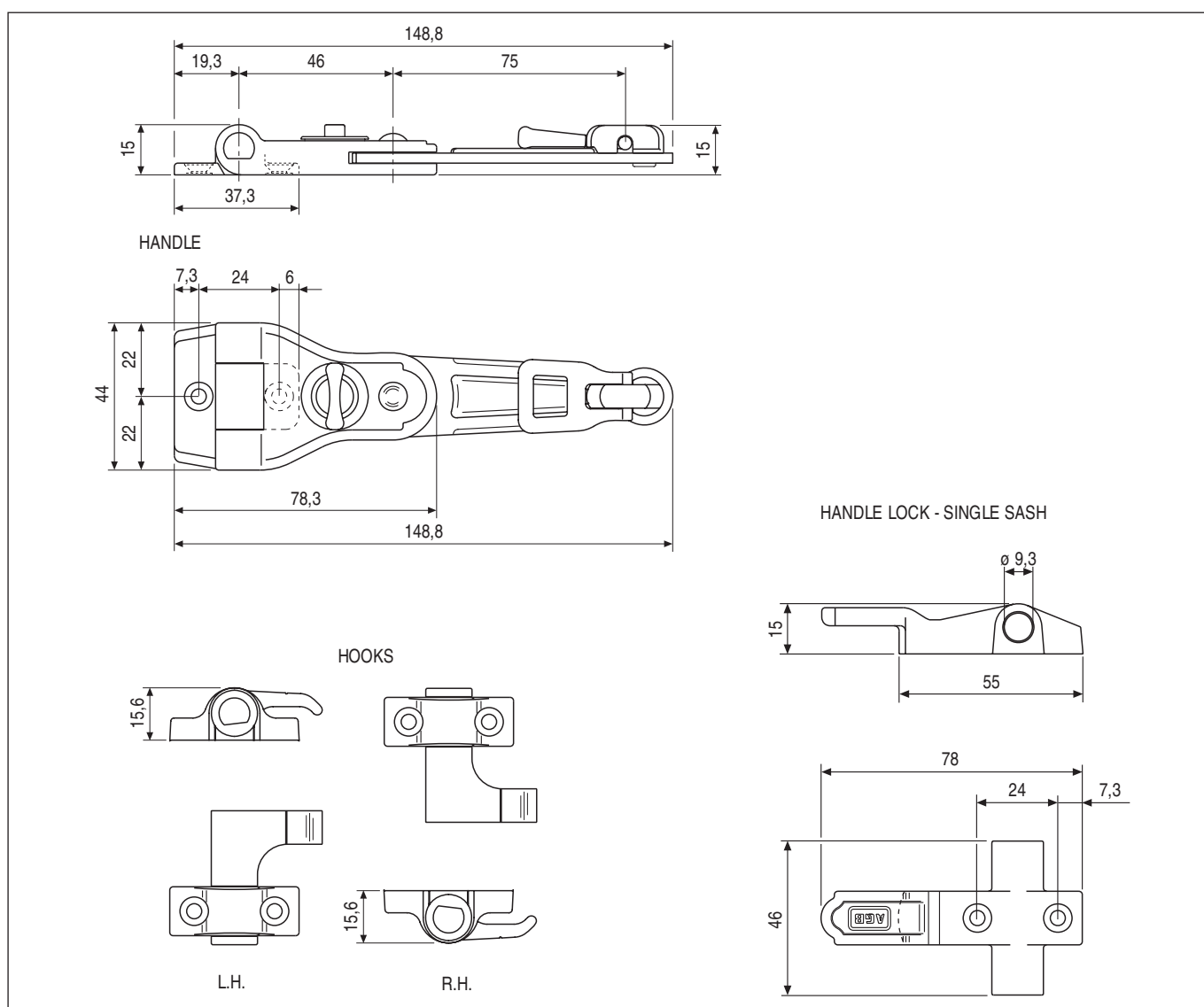
Basic kit featuring articulated espagnolette with 180° rotation and large catch. Suitable for single-sash shutters.

Components

- 1 articulated espagnolette
- 1 catch for single-sash shutter (large)
- 1 right-handed closing hook
- 1 left-handed closing hook

Mounting

See instructions provided in the accessories specifications sheets.



Order Specifications

Article

H00903.10.XX

NB. Refer to the price list in force to check the availability of the finishes.

Flat handle - basic kit for double sash



Description

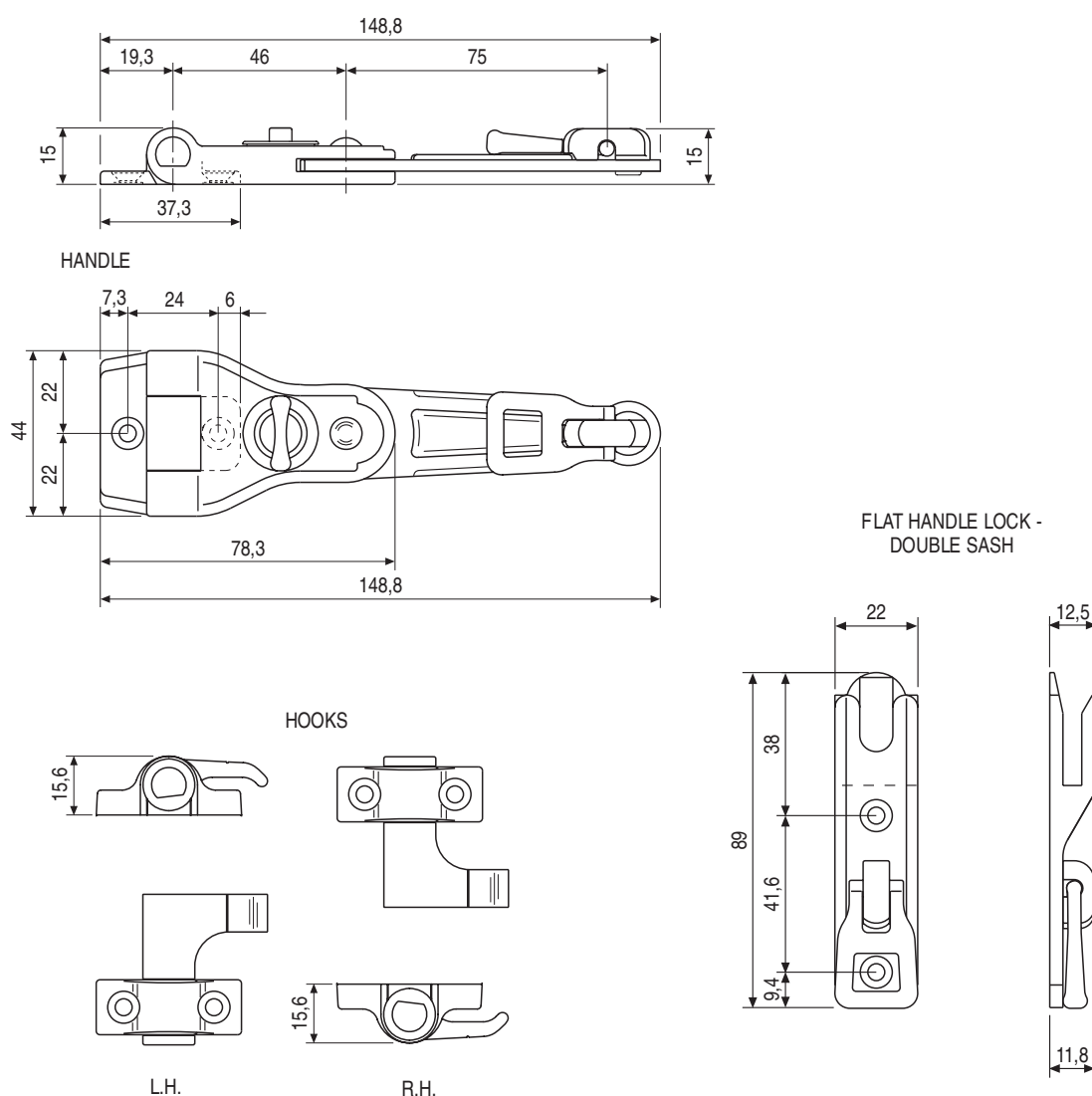
Basic kit featuring articulated espagnolette with 180° rotation and articulated catch. Suitable for double-sash shutters.

Components

- 1 articulated espagnolette
- 1 articulated catch for double-sash shutter
- 1 right-handed closing hook
- 1 left-handed closing hook

Mounting

See instructions provided in the accessories specifications sheets.



Order Specifications

Article
H00903.11.XX

NB. Refer to the price list in force to check the availability of the finishes.

Snap-lock handle - basic kit 2K series



Description

Basis kit including the closing handle with 90° rotation and the automatic snap in lock and two closing hooks. The shape of the espagnolette allows its use on narrow shutters jambs and on shutters with orientable plates.

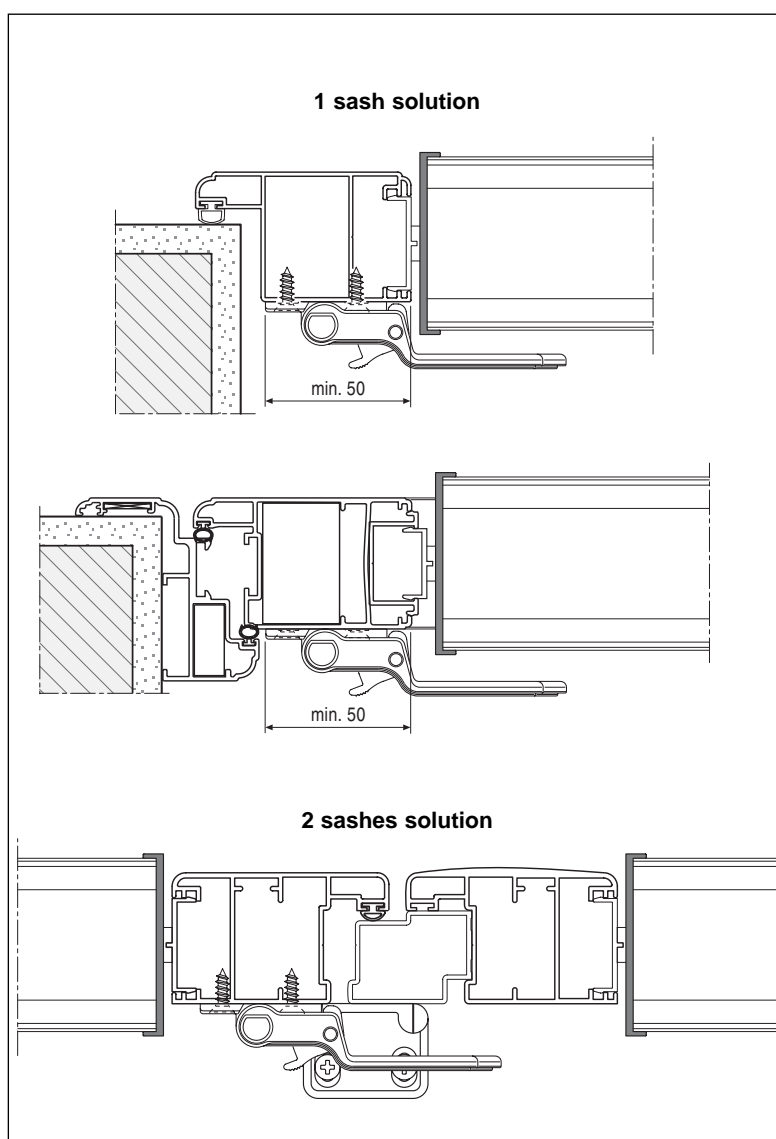
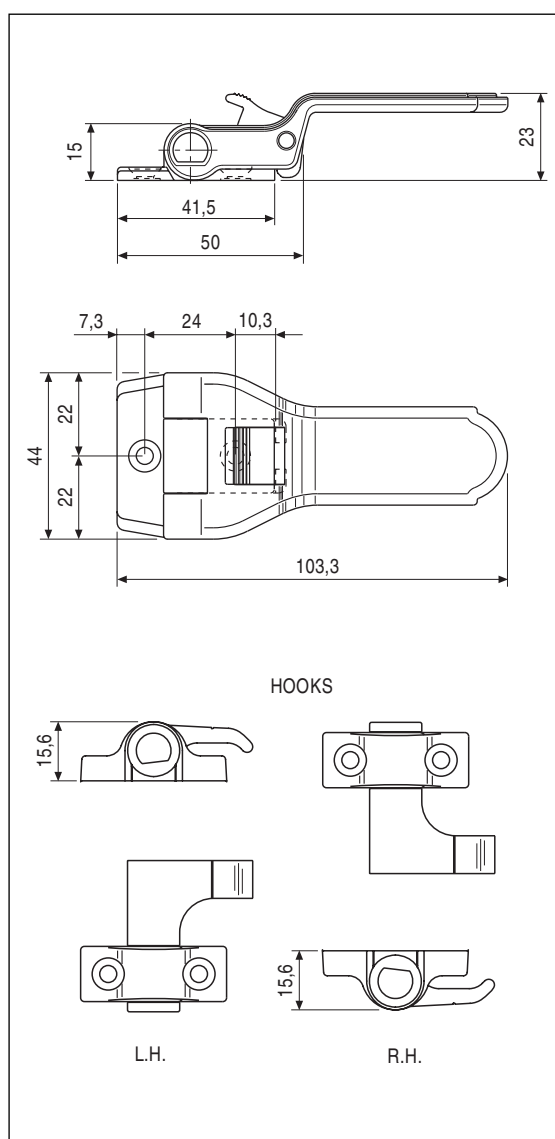
Application

For single and double sash systems with 50 mm wide jambs.

NB. Do not use it with folding sashes.

Mounting

With 4x30 screws with thread suitable to building material.



Order Specifications

Article

H00004.01.XX

NB. Refer to the price list in force to check the availability of the finishes.

Espagnolette UNICA



Description

Handle with 180° rotation and anti-burglar security thumbturn.

Available in the standard version and pre-adapted with 4 or 7 mm shim for alu and PVC shutters where surmounted profiles are used.

It is also available in a basic kit that includes all the accessories required for assembly on single or multiple-sash shutters.

Mounting

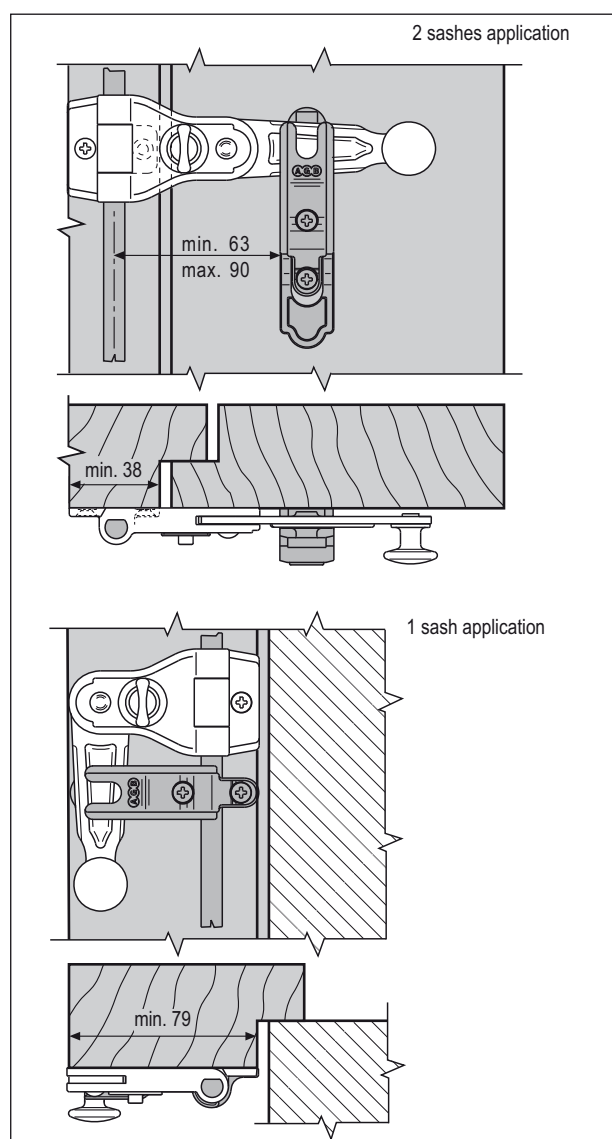
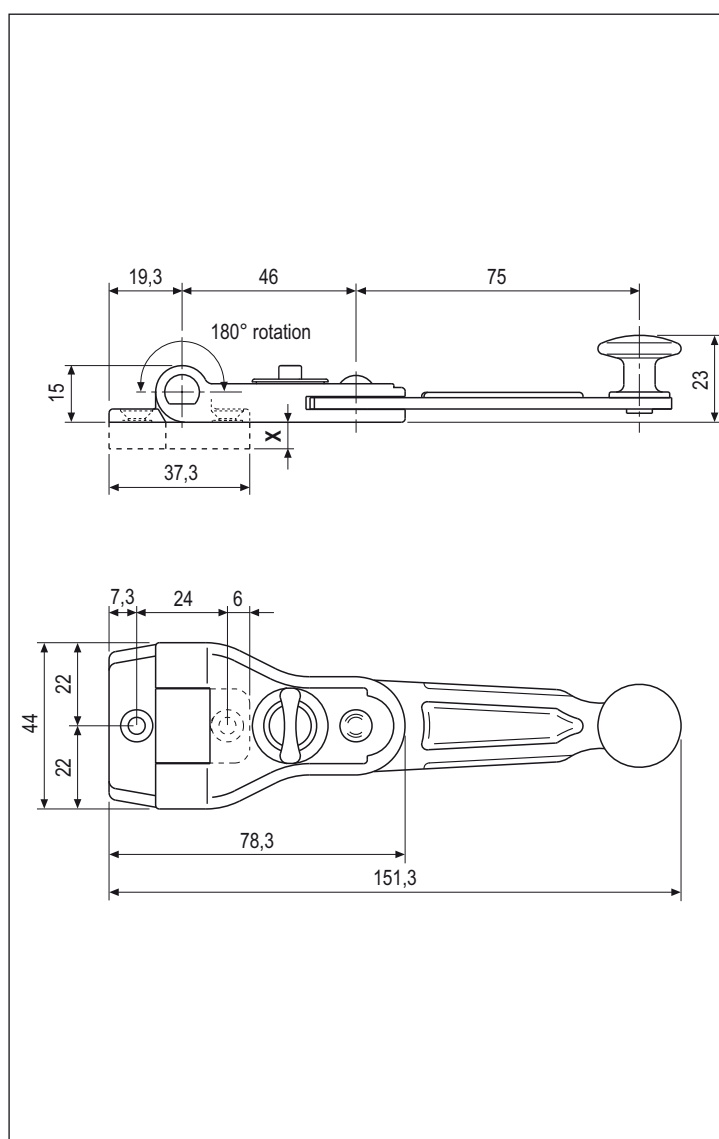
Use screw with suitable thread to the shutter material \varnothing 4x30.

Finish surface treatment

On basis zink plated and then a cathoresis process as a basis for a final polyester powder finish.

These procedures guarantee special weather-proof and wear-resistant.

NB. When adapters should be used please use art. H00901.63.XX and H00901.64.XX (3 and 4 mm respectively).



Order Specifications

Type	Article	X
UNICA	H00901.04.XX	0 mm
UNICA	H00901.73.XX	4 mm
UNICA	H00901.74.XX	7 mm

NB. Refer to the price list in force to check the availability of the finishes.

Espagnolette UNICA - long version



Description

Handle with 180° rotation and anti-burglar security thumbturn.

The arm is 90 mm long and allows the closure on the catch in the second sash even when the building typology design a long distance between the two components.

Available in the standard version and pre-adapted with 4 or 7 mm shim for alu and PVC shutters where surmounted profiles are used.

It is also available in a basic kit that includes all the accessories required for assembly on single or multiple-sash shutters.

Mounting

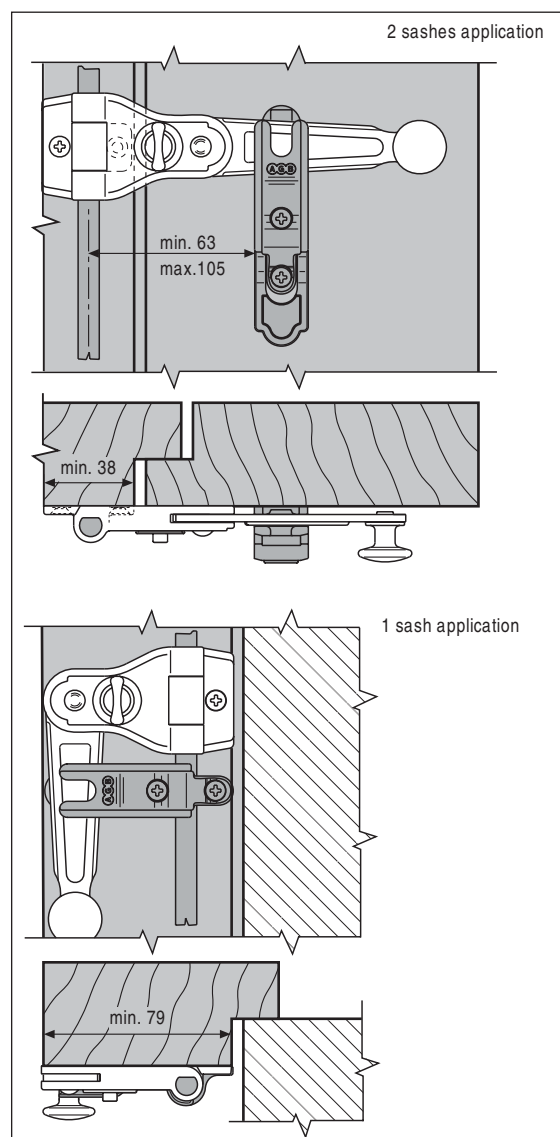
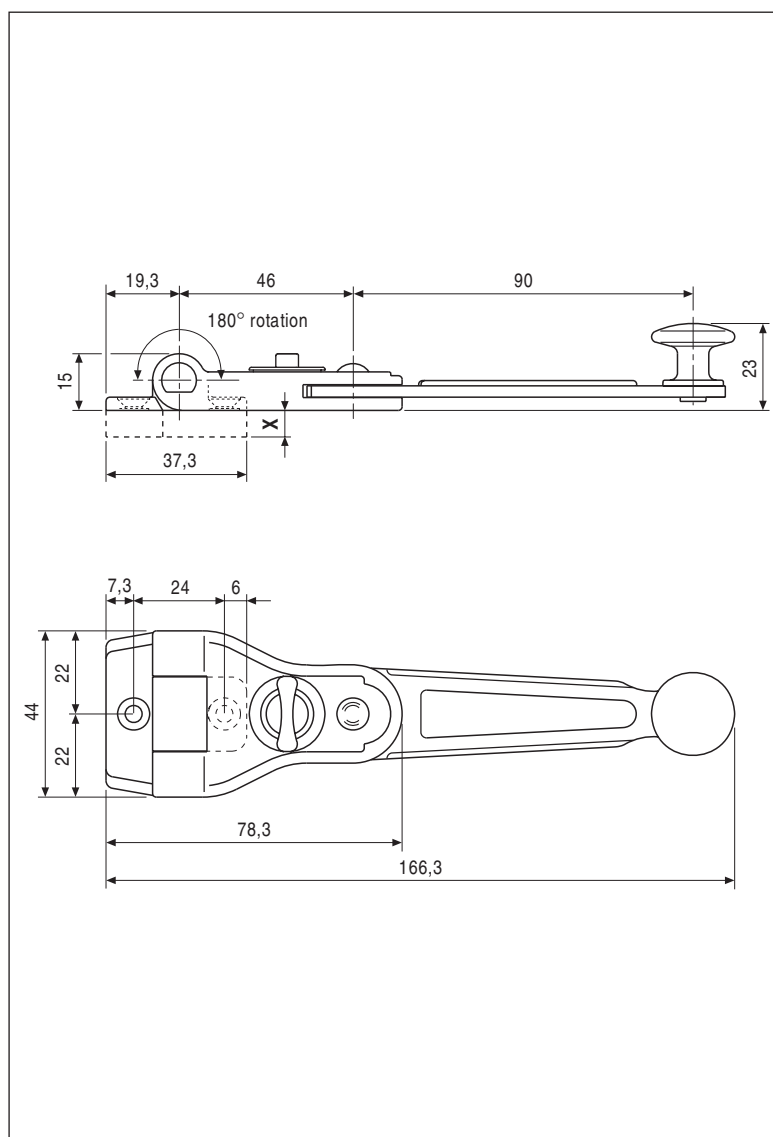
Use screw with suitable thread to the shutter material $\varnothing 4 \times 30$.

Finish surface treatment

On basis zink plated and then a cataphoresis process as a basis for a final polyester powder finish.

These procedures guarantee special weather-proof and wear-resistant.

NB. When adapters should be used please use art. H00901.63.XX and H00901.64.XX (3 and 4 mm respectively).



Order Specifications

Type	Article	X
UNICA long	H00901.88.XX	0 mm
UNICA long	H00901.89.XX	4 mm
UNICA long	H00901.90.XX	7 mm

NB. Refer to the price list in force to check the availability of the finishes.

Small espagnolette



Description

Espagnolette with 180° rotation and anti-burglar security thumbturn. It consists of a fixed support which is fastened to the stile of the shutter, and of a movable part that rotates the rod to enable the fastening and opening of the shutters. It is also available in a basic kit that includes all the accessories required for assembly on single or multiple-sash shutters.

Application

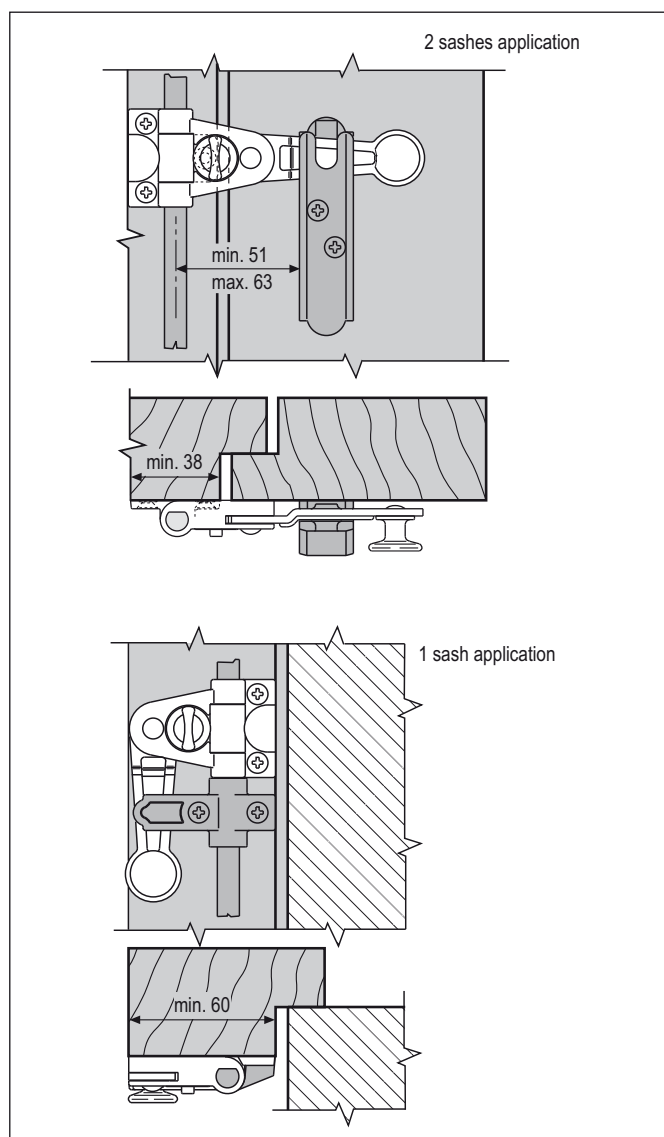
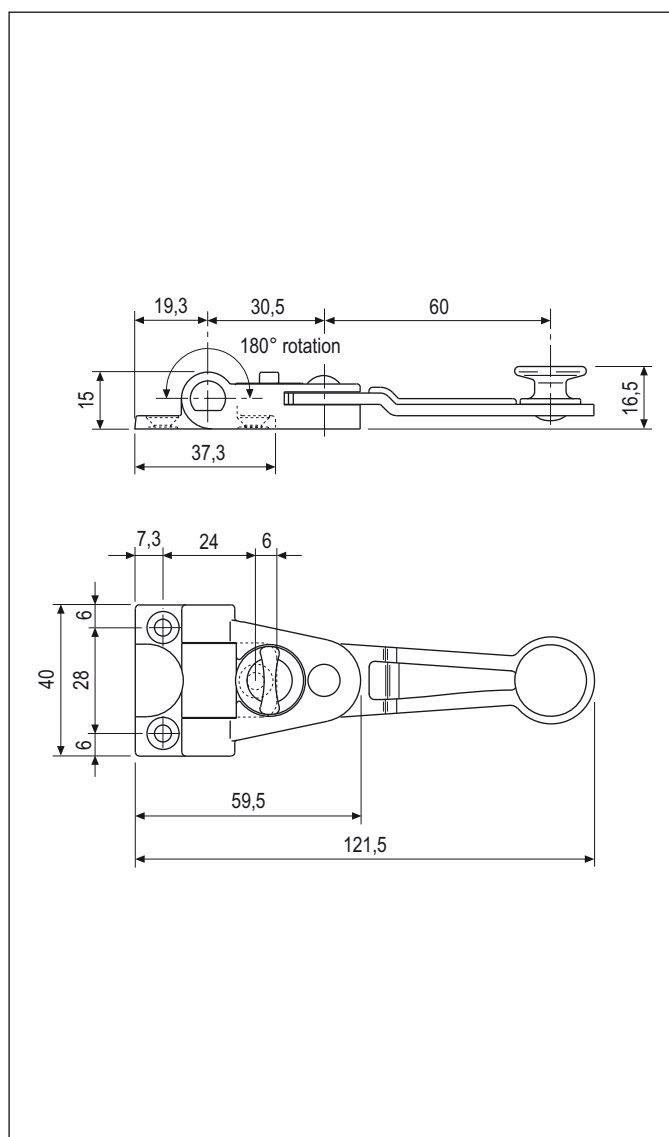
Suitable for all traditional systems with finished stiles of reduced width, at least 60 mm.

- To be used in combination with drive rod and catch for single or double-sash shutters.

Mounting

Use three 4x30 mm screws with thread suitable for the shutter material.

NB. When adapters should be used please use art. H00901.63.XX and H00901.64.XX (3 and 4 mm respectively).



Order Specifications

Type	Article
Small espagnolette	H00901.49.XX

NB. Refer to the price list in force to check the availability of the finishes.

Reduced espagnolette



Description

Handle with 180° rotation and anti-burglar security thumbturn.

It consists of a fixed support which is fastened to the stile of the shutter, and of a movable part that rotates the rod to enable the fastening and opening of the shutters. It is also available in a basic kit that includes all the accessories required for assembly on single or multiple-sash shutters.

Application

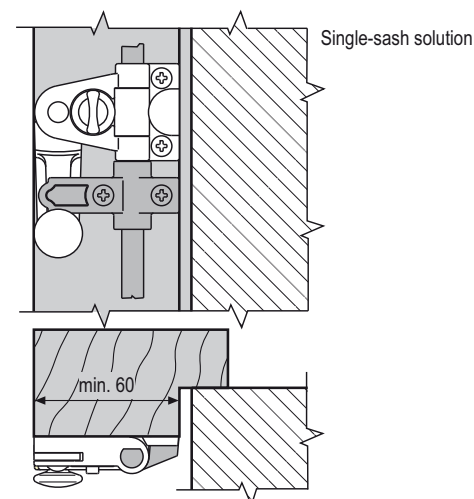
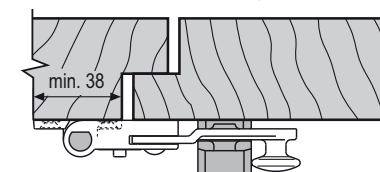
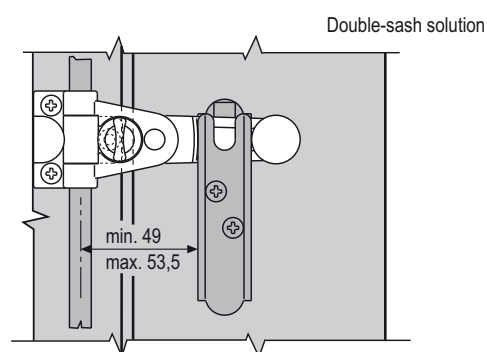
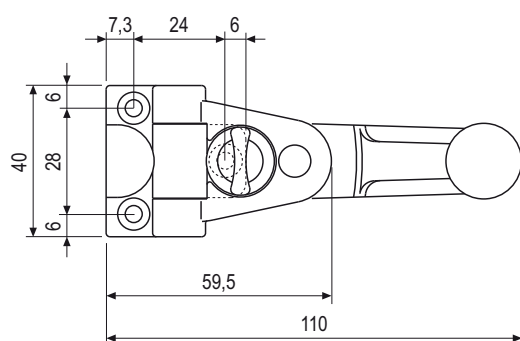
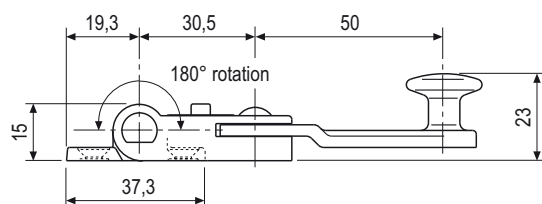
Suitable for all traditional systems with finished stiles of reduced width, at least 60 mm. The shortened espagnolette arm reduces the distance between the drive rod and the catch to a minimum of 49 mm.

- To be used in combination with drive rod and catch for single or double-sash shutters.

Mounting

Use three 4x30 mm screws with thread suitable for the shutter material.

NB. When adapters should be used please use art. H00901.63.XX and H00901.64.XX (3 and 4 mm respectively).



Order Specifications

Type	Article
Reduced espagnolette	H00901.05.XX

NB. Refer to the price list in force to check the availability of the finishes.

Large espagnolette - flat handle



Description

Handle with 180° rotation and anti-burglar security thumbturn.

It consists of a fixed support which is fastened to the stile of the shutter, and of a movable part with a small articulated lever that rotates the rod to enable the fastening and opening of the shutters.

It is also available in a basic kit that includes all the accessories required for assembly on single or multiple-sash shutters.

Application

Especially suitable for shutters with inward folding leaves or monobloc systems where the useful space between shutter and window is less than 23 mm, to a minimum

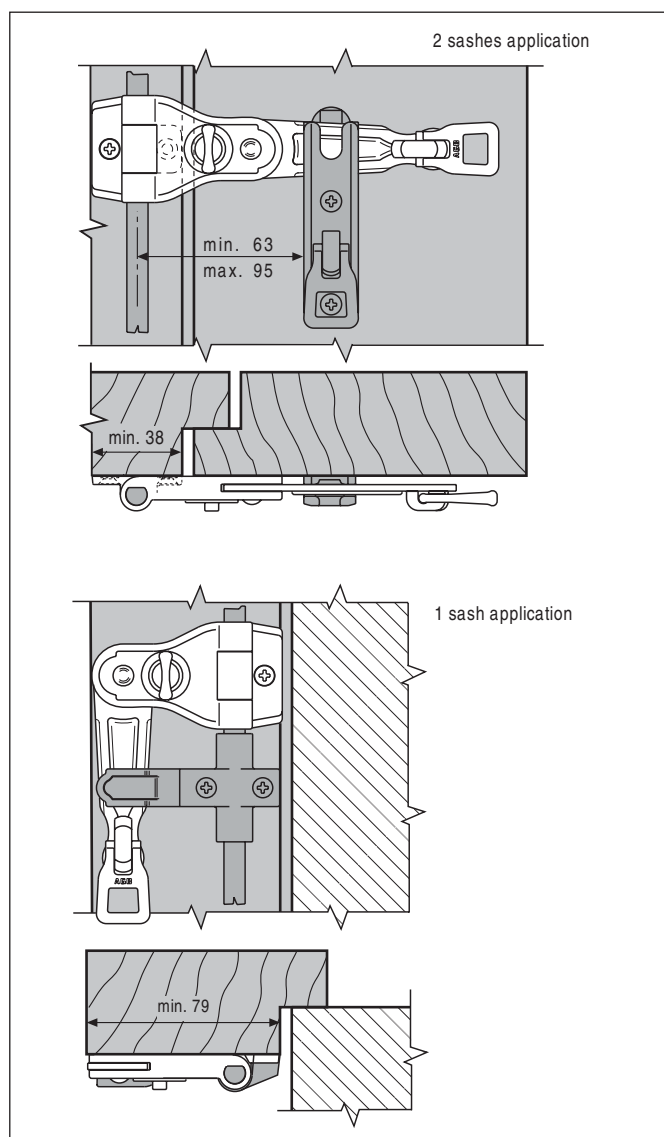
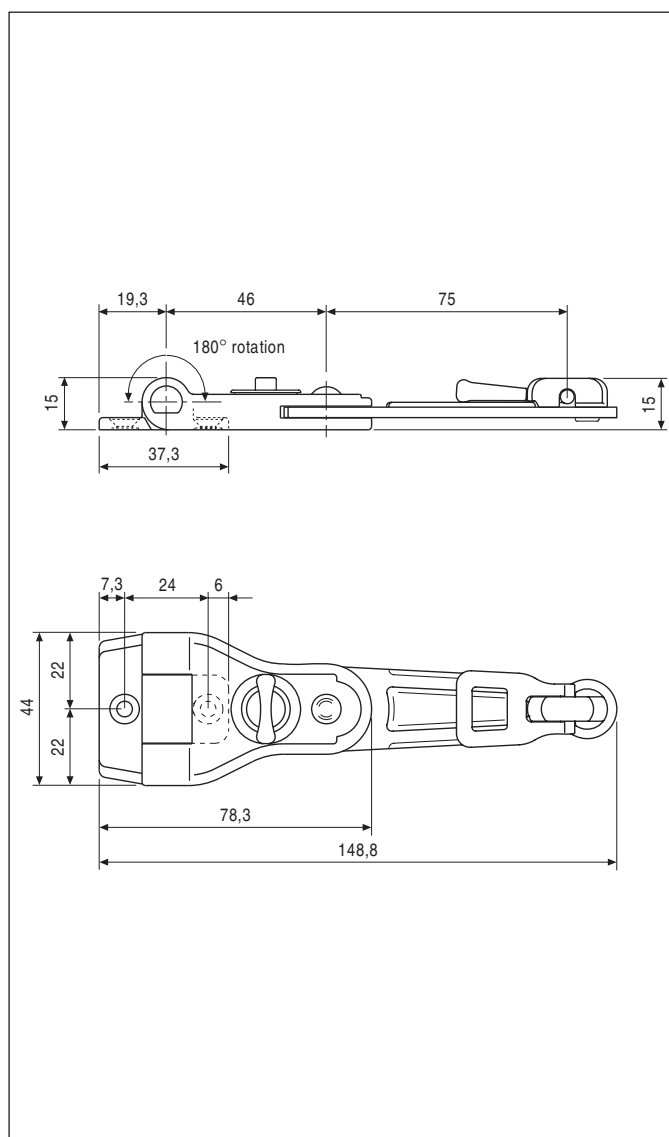
of 15 mm.

For all traditional systems with finished stiles of at least 83 mm width.

- To be used in combination with drive rod and catch for single or double-sash shutters.

Mounting

Use three 4x30 mm screws with thread suitable for the shutter material.



Order specifications

Article

H00901.06.XX

NB. Refer to the price list in force to check the availability of the finishes.

Snap-lock handle 2K series



Description

Closing handle with 90° rotation and the automatic snap in lock. The shape of the espagnolette allows its use on narrow shutters jambs and on shutters with orientable plates. It is available in the basic kit as well, with two closing hooks.

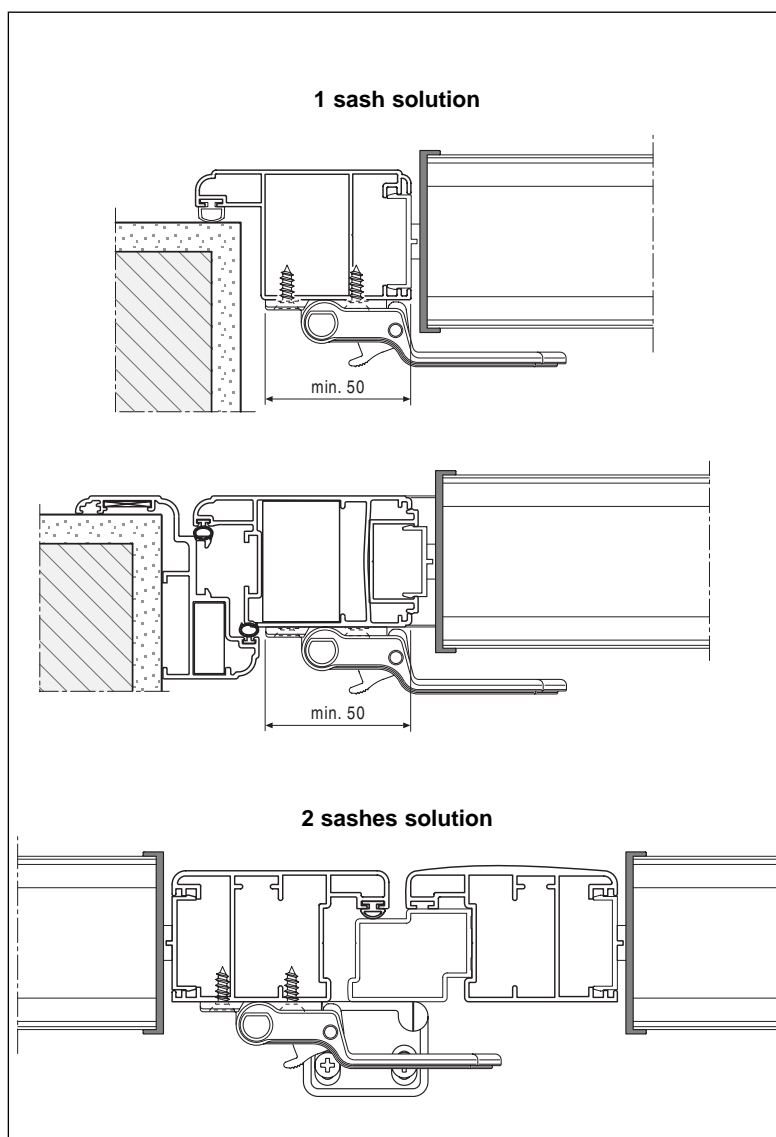
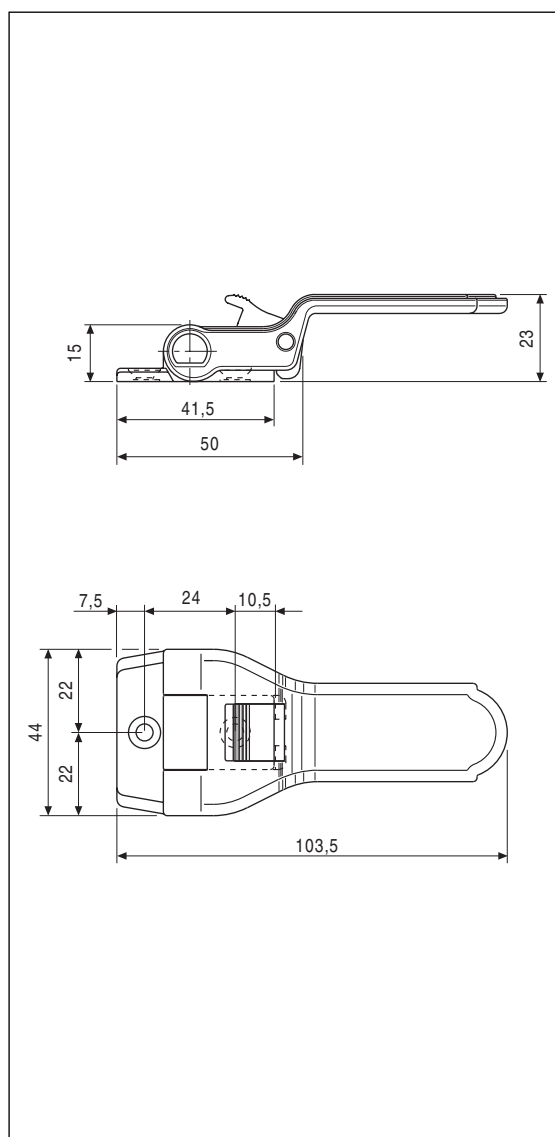
Application

For single and double sash systems with 50 mm wide jambs.

NB. Do not use it with folding sashes.

Mounting

With 4x30 screws with thread suitable to building material.



Order specifications

Article

H00003.01.XX

NB. Refer to the price list in force to check the availability of the finishes.

Catch Handle lock - UNICA



Description

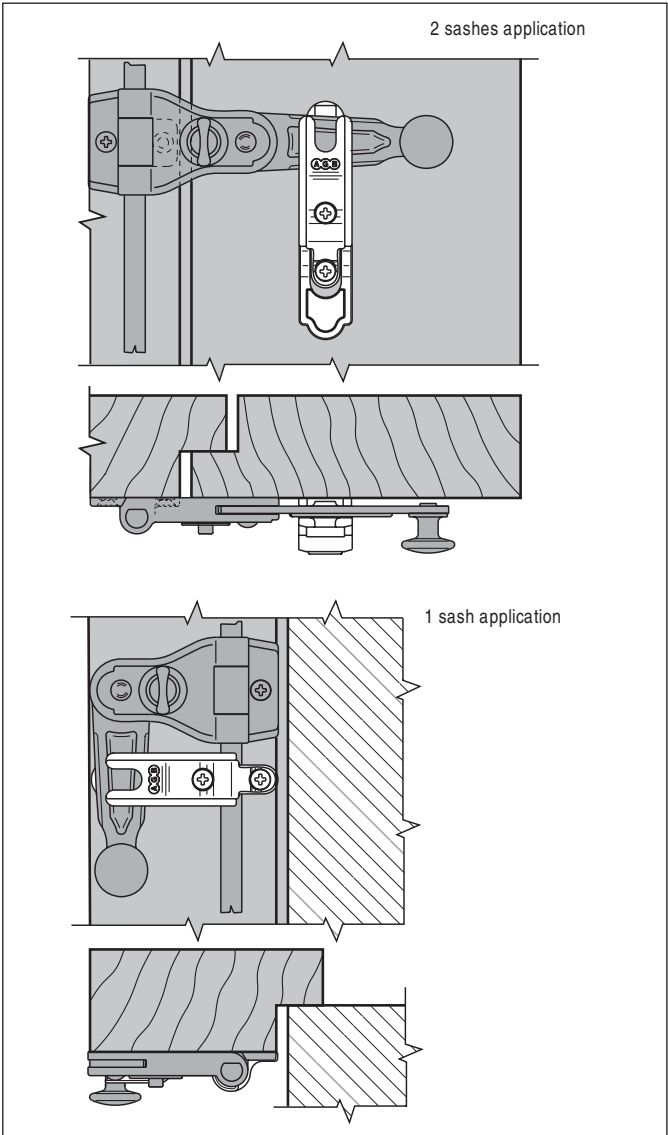
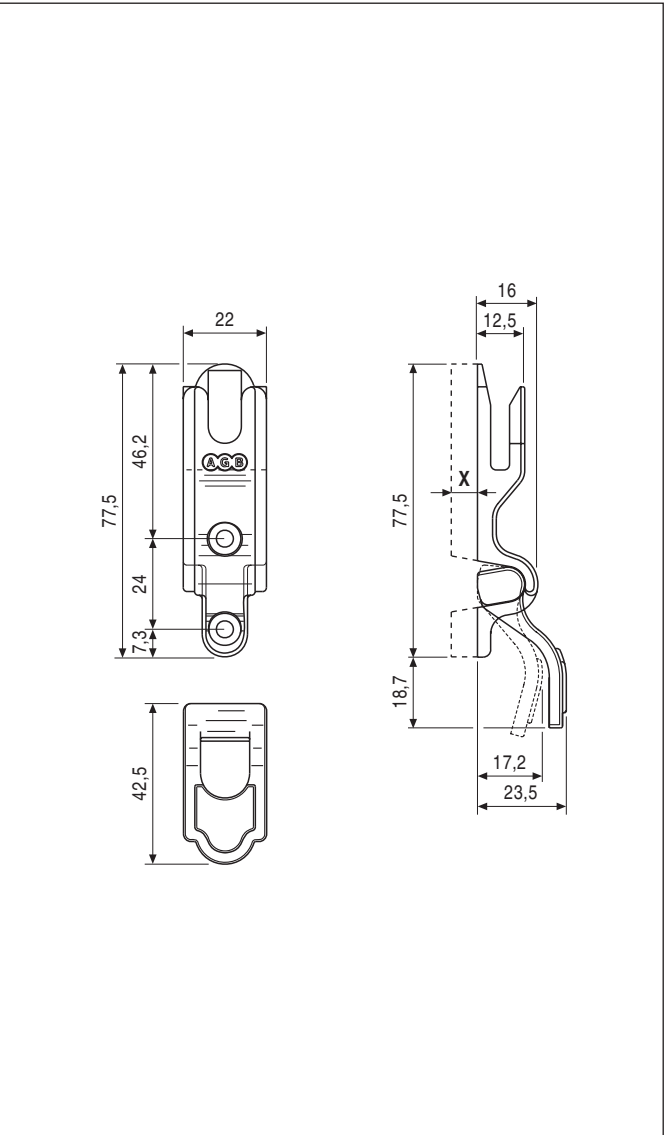
Locking catch suitable for 1 or 2 sashed shutters. Available in 3 different thicknesses.

Application

For double sashes, has to be used with the two components and the pending component works as a pull handle.
On single sash do not use the pending component and the catch must be installed as showed in the drawing

Mounting

Exclusively with Unica Grande, articulated, long and lowered versions. Do not use with reduced and small versions



Order Specifications

Article	X
H00901.57.XX	0 mm
H00901.71.XX	4 mm
H00901.72.XX	7 mm

NB. Refer to the price list in force to check the availability of the finishes.

Catch handle lock for espagnolette - double sash shutter



Description

Catch for double-sash shutters, specially shaped for holding the lips partially open. It must be mounted on the stile of the semi-stationary lip in such a way that the espagnolette is horizontal in the closed position, and there is sufficient space for holding the shutters partially open. It is a standard component in basic kits featuring double-sash espagnolettes.

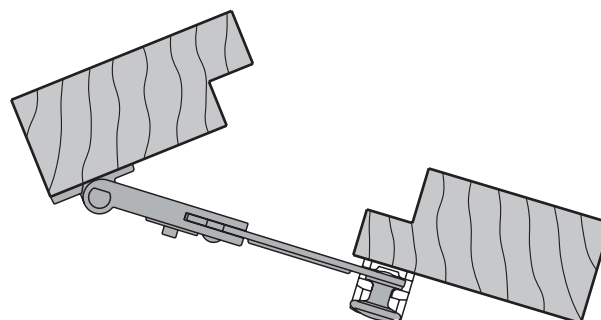
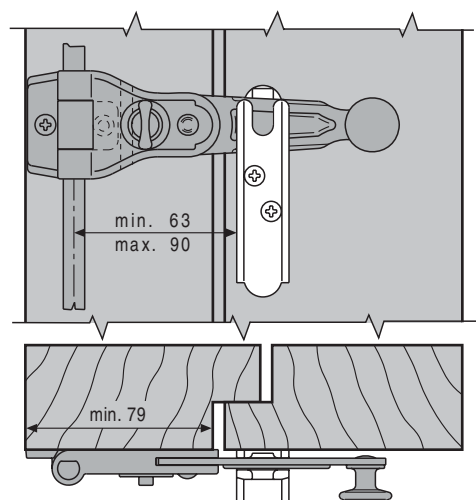
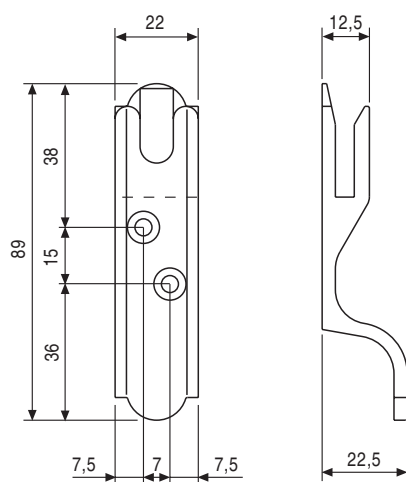
Selection and application

Suitable for double-sash shutters only.

- To be used in combination with large, small or reduced espagnolette.

Mounting

Use two 4x30 mm screws with thread suitable for the shutter material.



Order Specifications

Article

H00901.13.XX

NB. Refer to the price list in force to check the availability of the finishes.

Catch handle lock for small and reduced espagnolette - single sash shutter



Description

Catch for single-sash shutters.
It is a standard component in basic kits featuring small and reduced single-sash espagnolettes.

Application

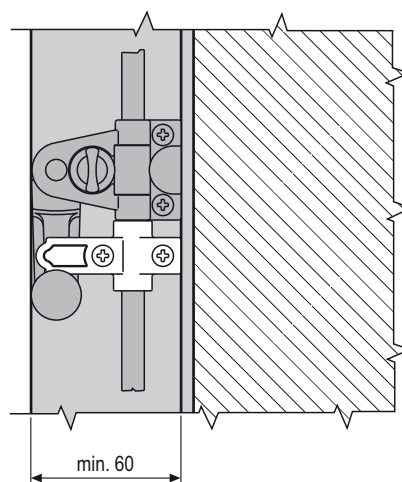
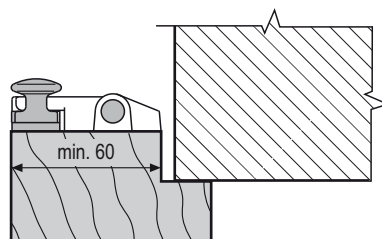
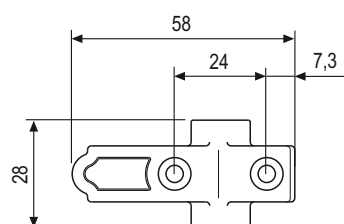
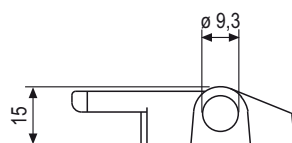
Suitable for all traditional systems with finished stiles of at least 60 mm width.
Especially suitable for single-sash shutters.

NB. The catch must be positioned on the drive rod, right under the espagnolette, before being mounted.

- To be used in combination with drive rod and small or reduced espagnolette

Mounting

Use two 4x30 mm screws with thread suitable for the shutter material.



Order Specifications

Article

H00901.08.XX

NB. Refer to the price list in force to check the availability of the finishes.

Catch handle lock for UNICA espagnolette - single sash shutter



Description

Catch for single-sash shutters. It is a standard component in basic kits featuring large single-sash espagnolettes.

Application

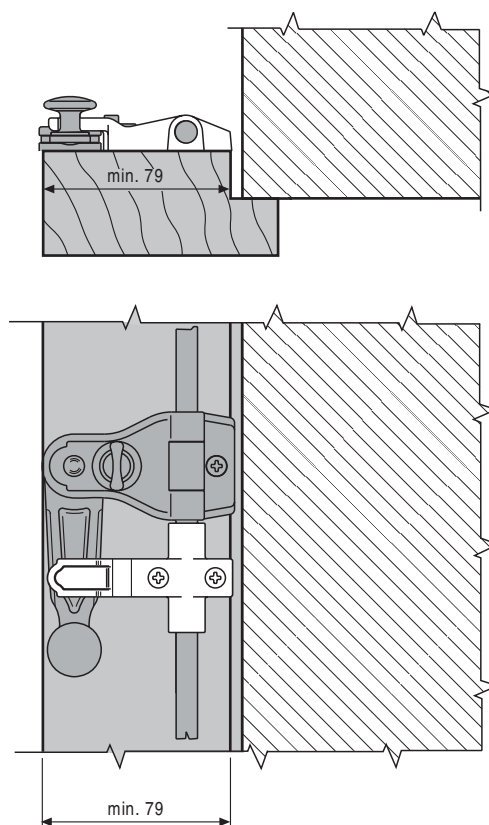
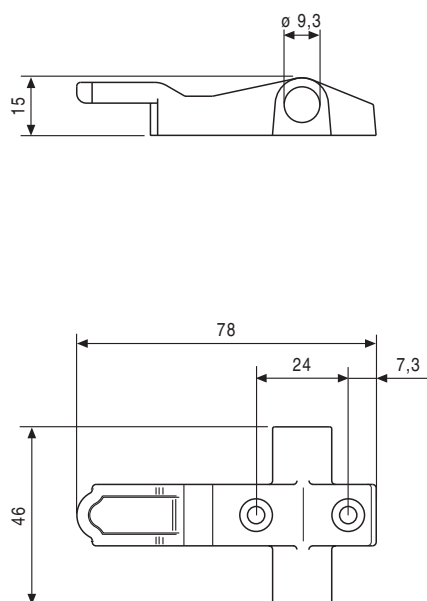
Suitable for all traditional systems with finished stiles of at least 83 mm width. Especially suitable for single-sash shutters.

NB. The catch must be positioned on the drive rod, right under the espagnolette, before being mounted.

- To be used in combination with drive rod and large standard or articulated espagnolette

Mounting

Use two 4x30 mm screws with thread suitable for the shutter material.



Order Specifications

Article

H00901.07.XX

NB. Refer to the price list in force to check the availability of the finishes.

Catch handle lock for UNICA espagnolette with articulated lever - double sash shutter



Description

Catch for double-sash shutters, specially shaped for holding the lips partially open. It must be mounted on the stile of the semi-stationary lip in such a way that the espagnolette is horizontal in the closed position, and there is sufficient space for holding the shutters partially open. It is a standard component in basic kits featuring double-sash espagnolettes with articulated lever.

Application

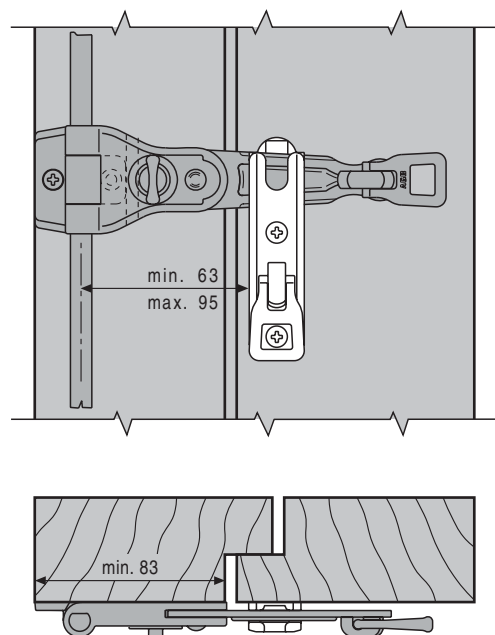
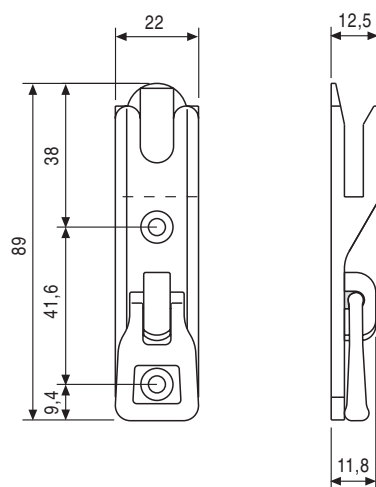
Suitable for double-sash shutters only. Especially suitable for shutters with inward folding leaves or monobloc systems where the useful space between shutter and

window is less than 23 mm, to a minimum of 15 mm.

- To be used in combination with large espagnolette with articulated lever.

Mounting

Use two 4x30 mm screws with thread suitable for the shutter material.



Order Specifications

Article

H00901.27.XX

NB. Refer to the price list in force to check the availability of the finishes.

Rod guide



Description

The guide holds the drive rod in place and prevents its deformation during normal use of the shutters.

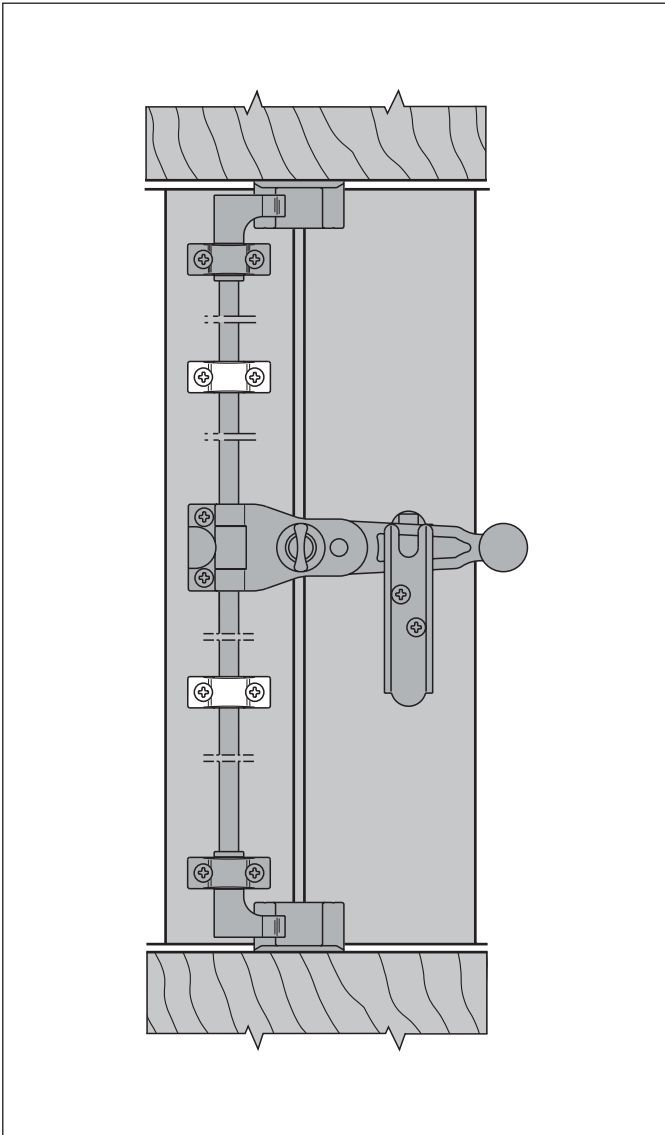
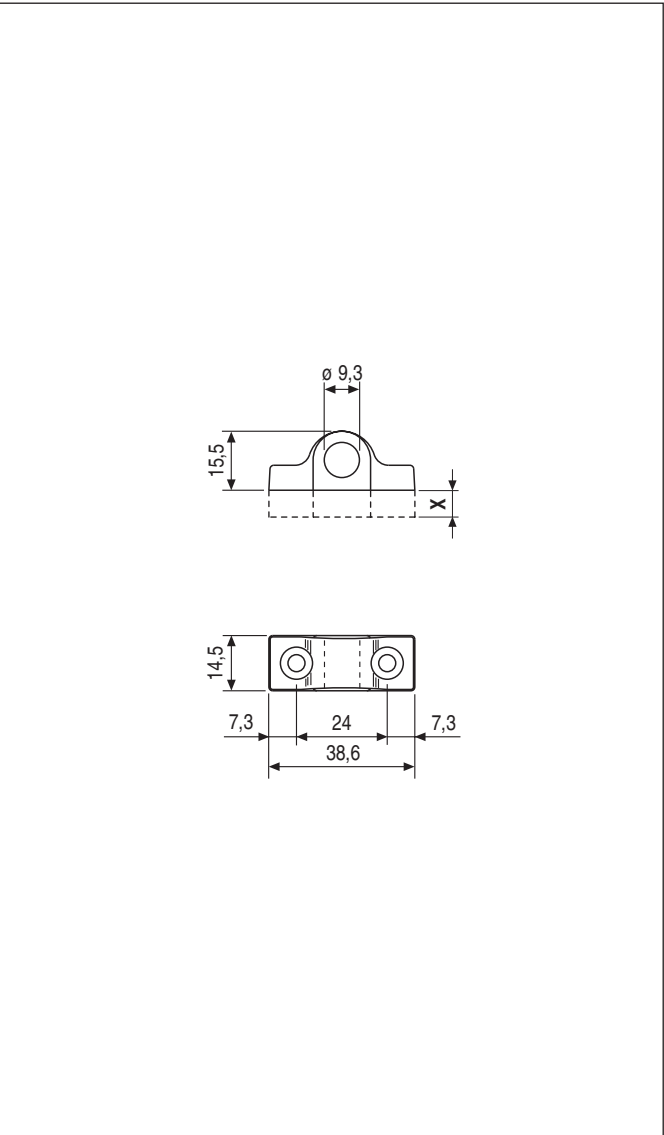
Application

Install the guides at approximate intervals of 400 mm along the length of the rod. The guides should be suitably distributed between the espagnolette and the upper and lower closing hooks.

WARNING: if you use Espagnolettes with 4 or 7 mm thickness, the rod guide must have the same thickness.

Mounting

Use two 4x30 mm screws with thread suitable for the shutter material.



Order Specifications

Article	X
H00901.15.XX	0 mm
H00901.83.XX	4 mm
H00901.84.XX	7 mm

NB. Refer to the price list in force to check the availability of the finishes.

Rod guide and support



Description

Guide and support for the drive rod. It operates as an end support for the rod when no bottom fastener controlled by the espagnolette is required.

NB. This solution will normally require the installation of a bolt.

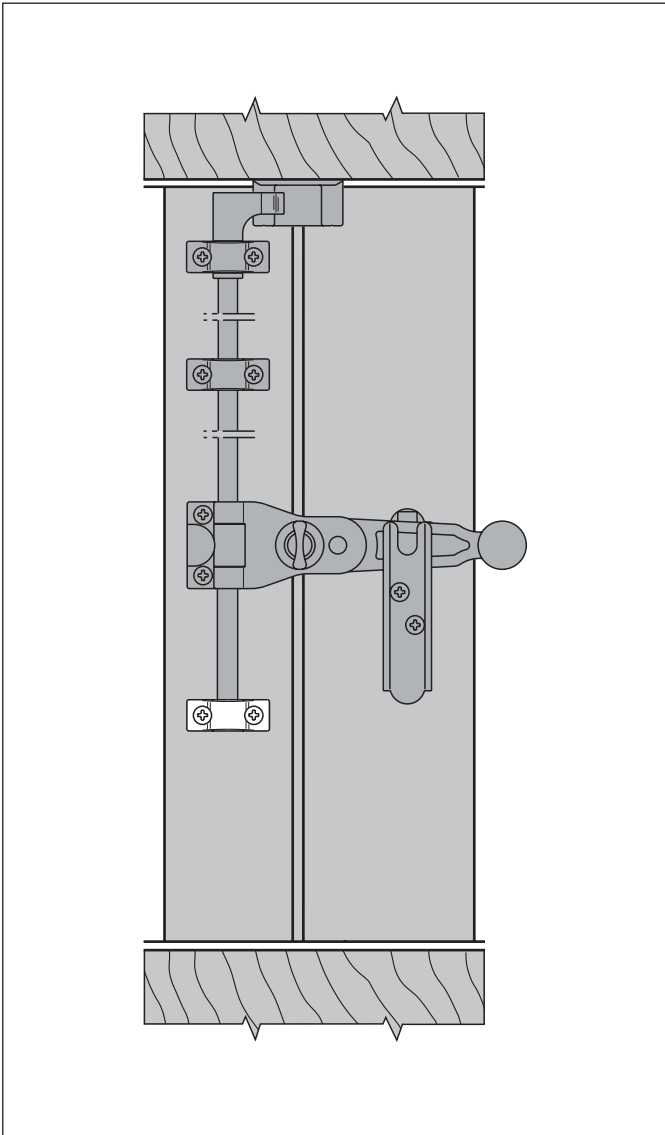
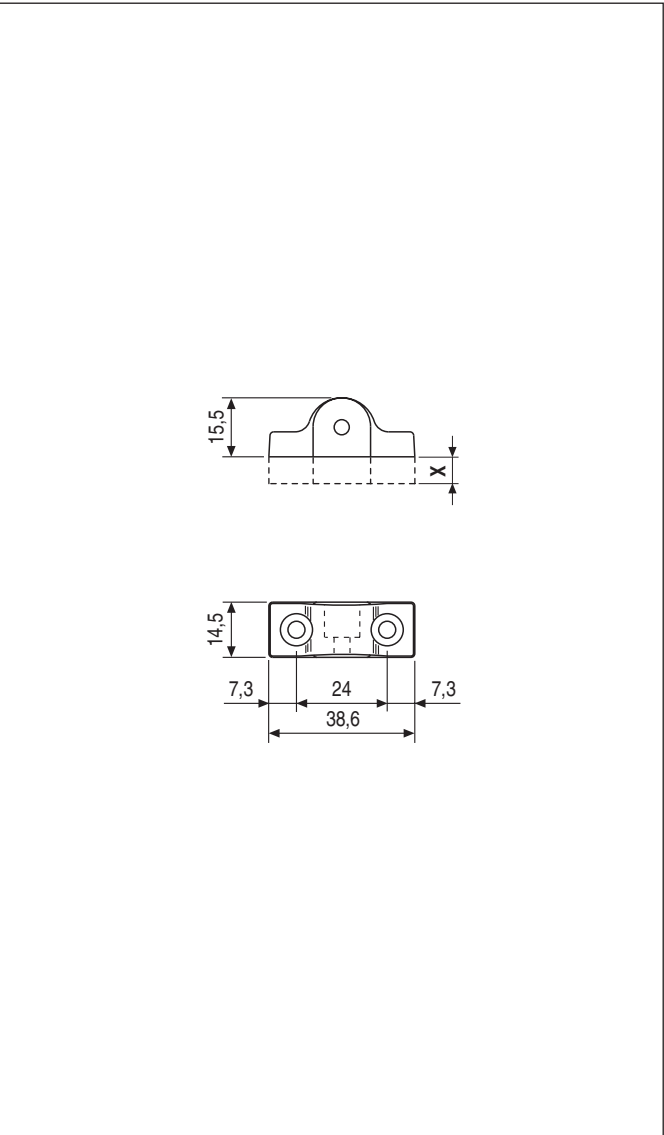
Application

Position the device under the espagnolette, inserting the rod in the hole against the bottom of the guide.

WARNING: if you use Espagnolettes with 4 or 7 mm thickness, the rod guide must have the same thickness.

Mounting

Use two 4x30 mm screws with thread suitable for the shutter material.



Order Specifications

Article	X
H00901.35.XX	0 mm
H00901.85.XX	4 mm
H00901.86.XX	7 mm

NB. Refer to the price list in force to check the availability of the finishes.

Second sash stay



Description

This second sash stay locks the semi-stationary lip on shutters with two or more sashes.

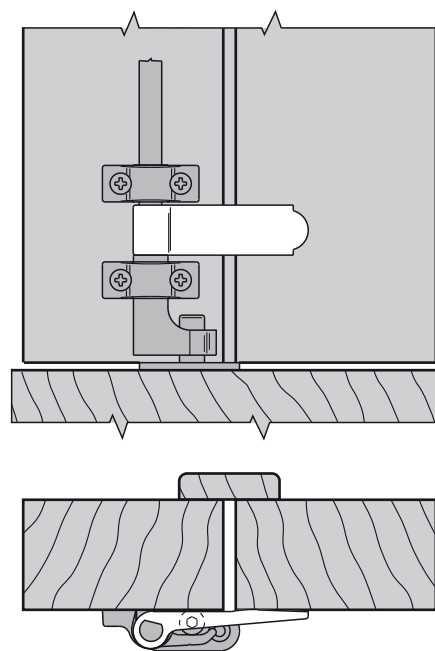
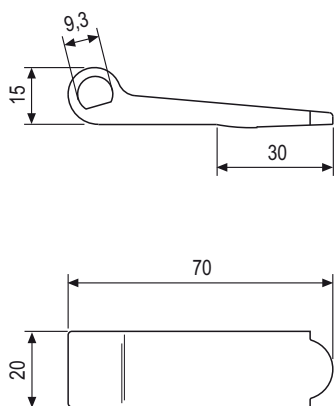
Application

It must be positioned against the lower fastening hook, with a rod guide installed on top of it.

NB. This element is needed when no catch pins are used for multiple-sash shutters, and to keep the shutters from rattling when the wind is up.

Mounting

Insert the drive rod through the hole in the stay.



Order Specifications

Article

H00901.18.XX

NB. Refer to the price list in force to check the availability of the finishes.

Closing hook



Description

Right or left-hand closing hook. It hooks onto the catch pins to lock the shutters.

Application

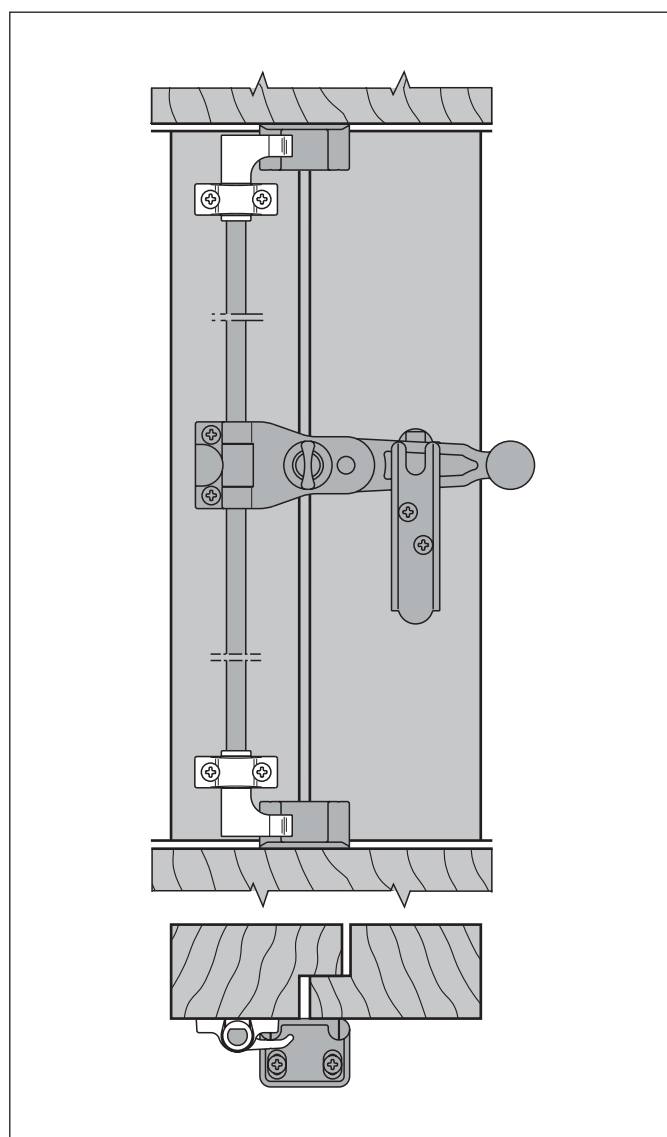
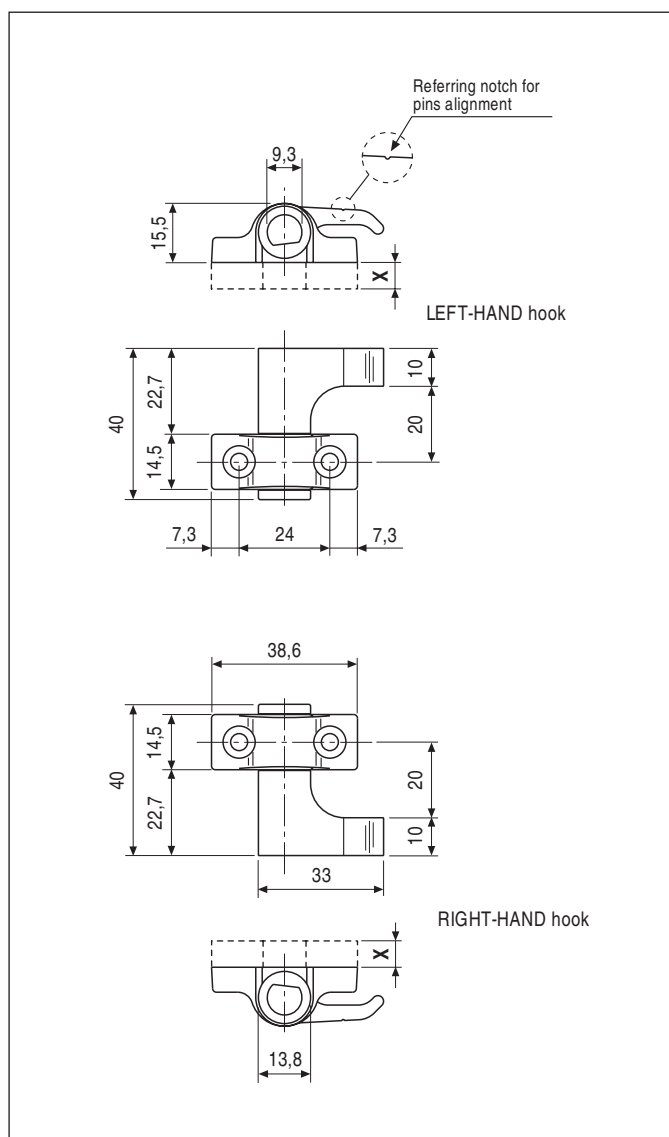
It must be positioned at the ends of the drive rod, making sure that it hooks effectively onto the catch pins.
The rod must be cut to the proper length so that it penetrates all the way to the bottom of the seat in the hook, allolip no play.

- To be used in combination with drive rod and catch pins.

Mounting

Use two 4x30 mm screws with thread suitable for the shutter material.

NB. The thicker version has to be used on Alu or PVC profiles with step



Order Specifications

Type	Article	X
l.h.	H00901.09.XX	0 mm
r.h.	H00901.10.XX	0 mm
l.h.	H00901.69.XX	4 mm
r.h.	H00901.70.XX	4 mm
l.h.	H00901.77.XX	7 mm
r.h.	H00901.78.XX	7 mm

NB. Refer to the price list in force to check the availability of the finishes.

Bent closing hook



Description

Right or left-hand curved closing bent fastening hook.
It hooks onto the catch pins to lock the shutters.

Application

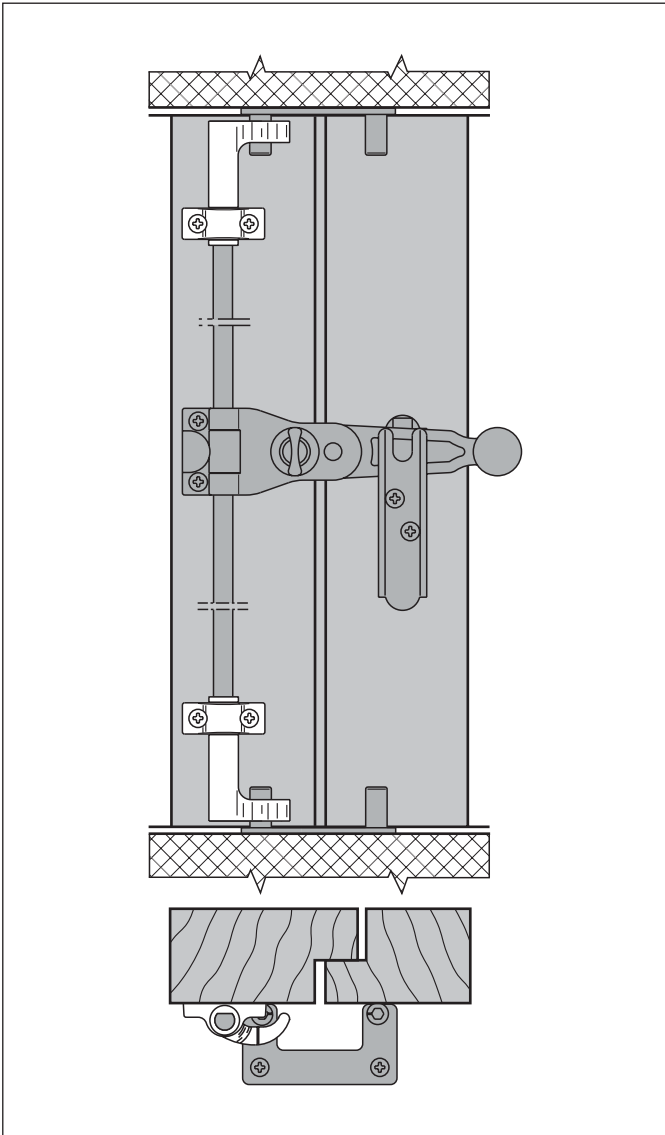
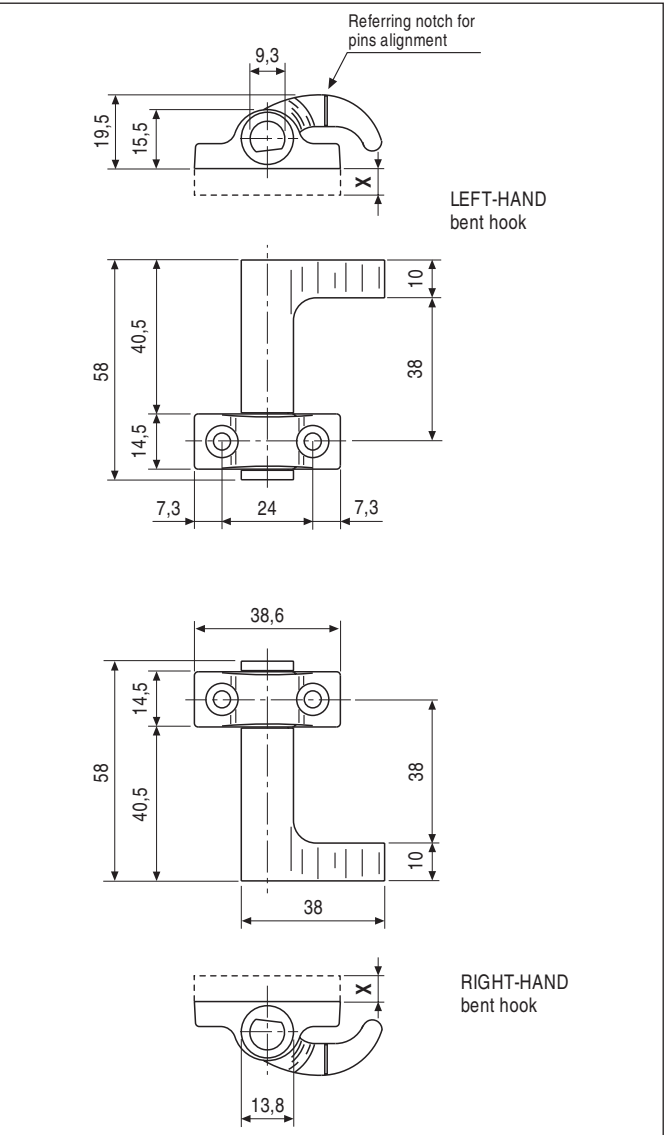
Suitable for shutters requiring ample tolerances in the position of the catch pins, for instance in redevelopment work.
It must be positioned at the ends of the drive rod, making sure that it hooks effectively onto the catch pins.
The rod must be cut to the proper length so that it penetrates all the way to the bottom of the seat in the hook, allolip no play.

- To be used in combination with drive rod and catch pins.

Mounting

Use two 4x30 mm screws with thread suitable for the shutter material.

NB. The thicker version has to be used on Alu or PVC profiles with step.



Order Specifications

Type	Article	X
l.h.	H00901.40.XX	0 mm
r.h.	H00901.41.XX	0 mm
l.h.	H00901.75.XX	4 mm
r.h.	H00901.76.XX	4 mm
l.h.	H00901.79.XX	7 mm
r.h.	H00901.80.XX	7 mm

NB. Refer to the price list in force to check the availability of the finishes.

Corner catch plate



Description

Angular catch plate with elongated screw holes.

Application

Used to facilitate drilling and fastening in case of multiple-lip shutters hinged to the wall or with soffit, where there is no stop rebate on the shutter rail or threshold.

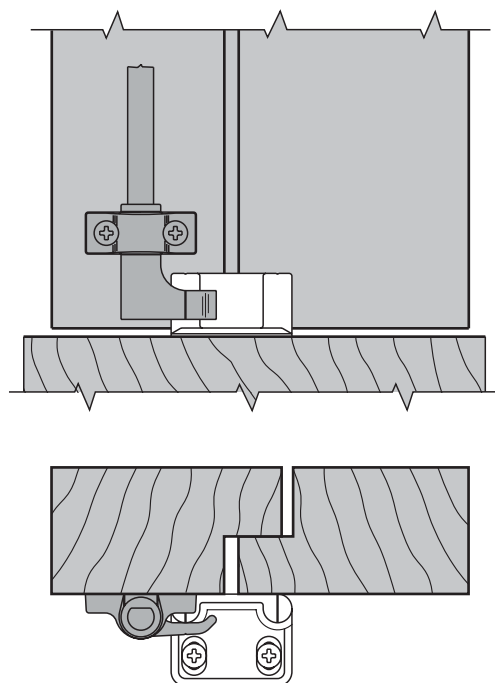
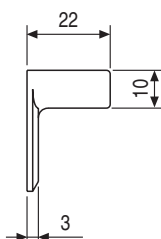
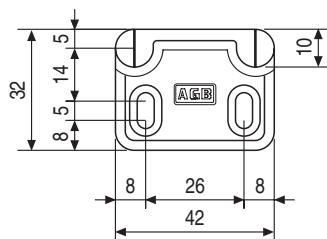
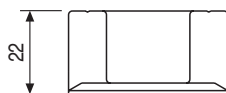
NB. Working tolerances can be compensated by adjusting the position of the screws before tightening them.

- Used in combination with fastening hook.
- Cannot be used in combination with a bent fastening hook.

Mounting

Use two 4x30 mm screws with thread suitable for the frame material.

In case of wall installation, it must be fastened using a suitable anchor.



Order Specifications

Article	
	H00901.26.XX
Basic kit (*)	H00901.45.XX

(*) Contents: 1 straight catch pin + 1 angular catch plate.

NB. Refer to the price list in force to check the availability of the finishes.

Straight catch pin



Description

Straight adjustable steel catch pin can be mounted on timber, aluminium or PVC. It can be adjusted with a 5 mm Allen wrench.

Application

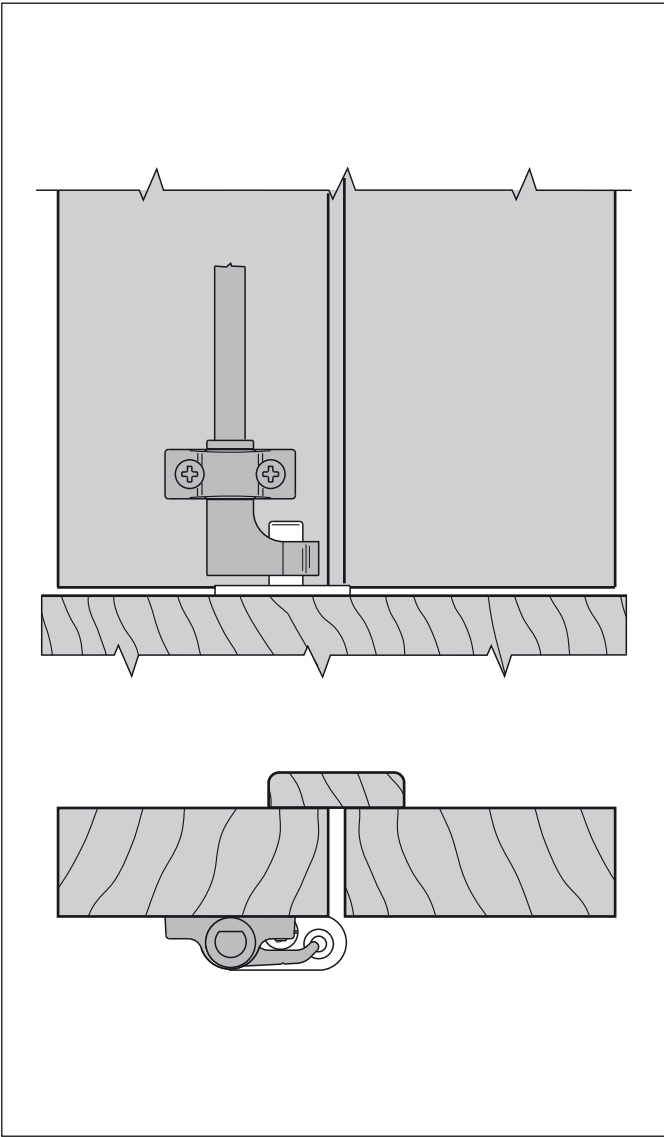
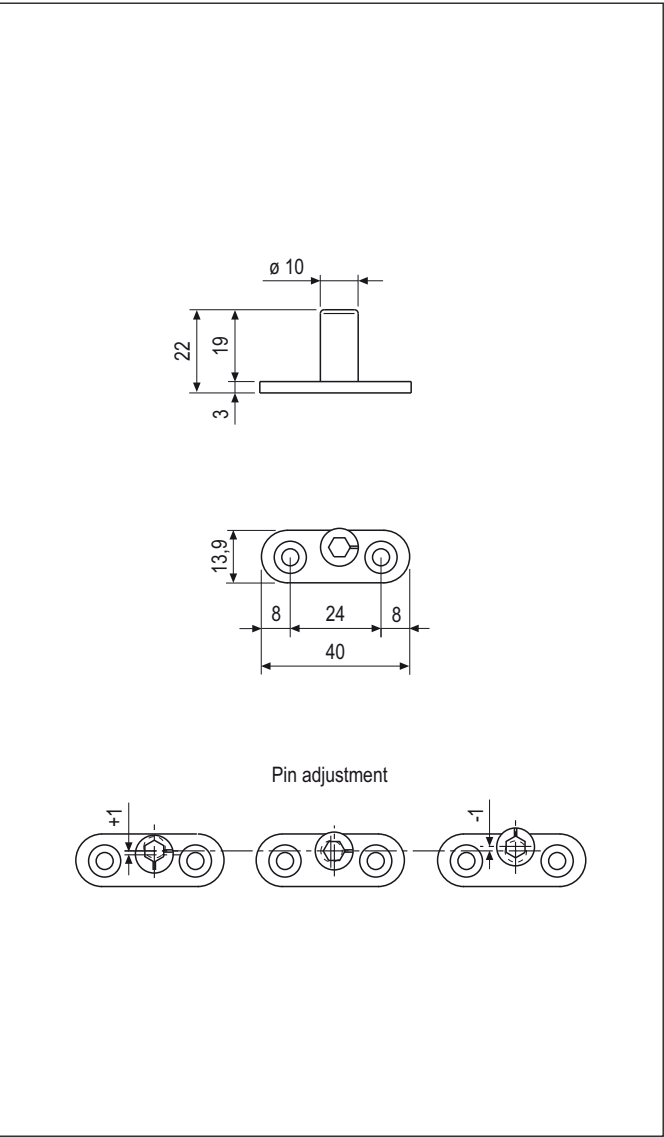
Suitable for overlapped or rebated shutters.

NB. Working tolerances can be compensated by adjusting the pin.

- Used in combination with standard or curved closing hooks.

Mounting

Use two 4x30 mm screws with thread suitable for the frame material.



Order Specifications

	No. of pins	Article
	1	H00901.11.XX
Basic kit	2	H00901.46.XX

NB. Refer to the price list in force to check the availability of the finishes.

Straight \varnothing 6 mm locking pin



Description

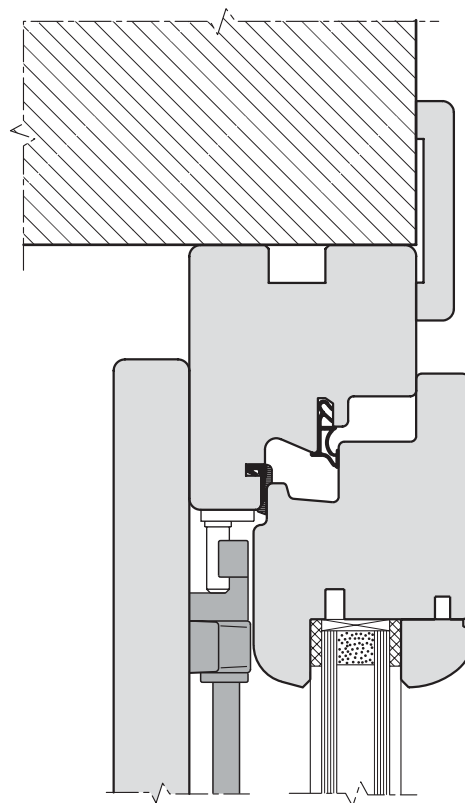
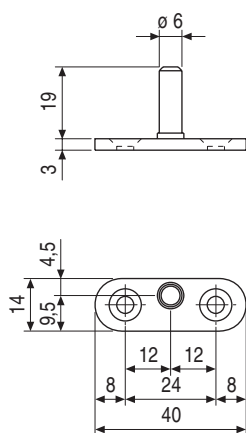
Reduced straight adjustable steel catch pin can be mounted on shutter-sill for 1 or 2 sashes

Application

When hook and pin are not perfectly aligned and more tolerance is required.

Mounting

Use two 4x30 mm screws with thread suitable for the frame material.



Order Specifications

Article

H00901.82.XX

NB. Refer to the price list in force to check the availability of the finishes.

Inclined catch pin



Description

Inclined adjustable steel catch pin can be mounted on timber, aluminium or PVC. It can be adjusted with a 5 mm Allen wrench.

Application

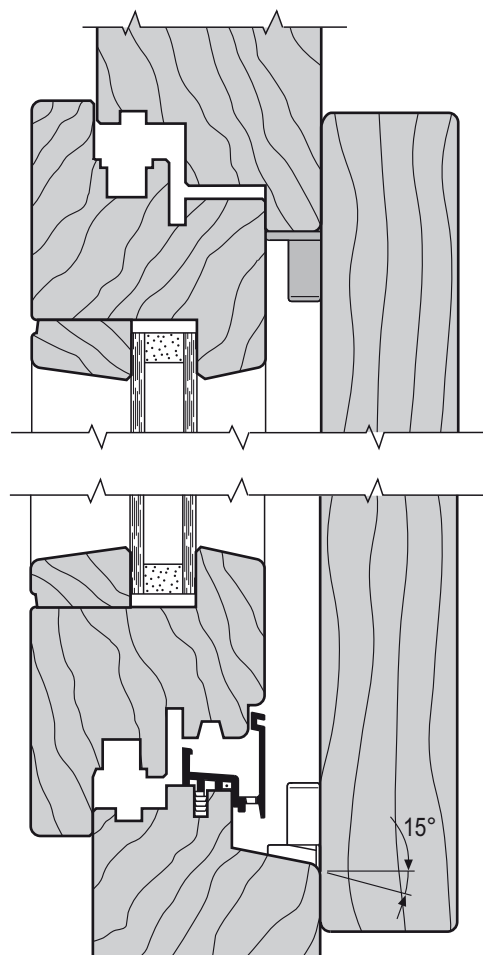
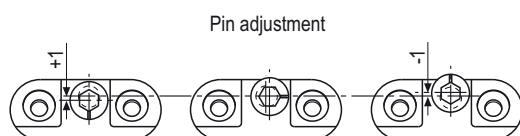
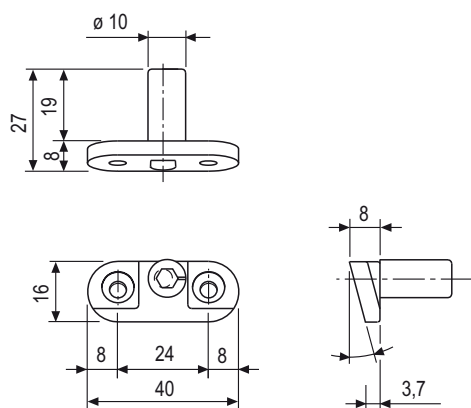
Used on simple monobloc systems with overlapped or rebated shutters that are hinged directly to the window frame. It must be fastened to the sill so as to compensate for the inclination of the drip.

NB. Working tolerances can be compensated by adjusting the pin.

- Used in combination with standard or curved closing hooks.

Mounting

Use two 4x30 mm screws with thread suitable for the frame material.



Order Specifications

Article

H00901.12.XX

NB. Refer to the price list in force to check the availability of the finishes.

Inclined $\varnothing 6$ mm locking pin



Description

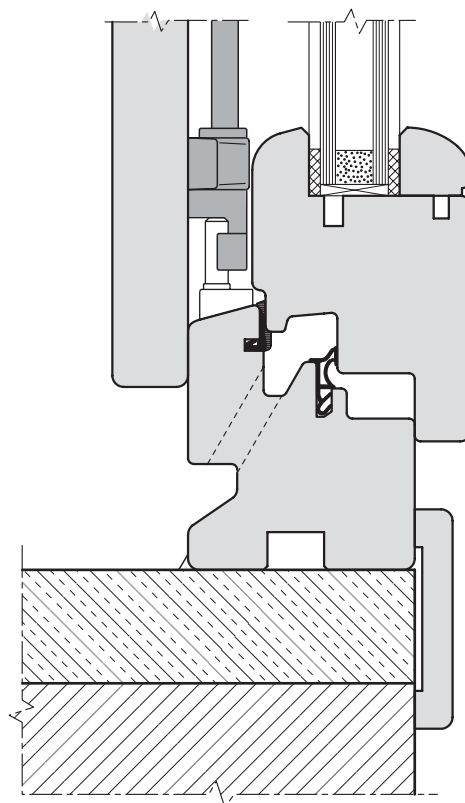
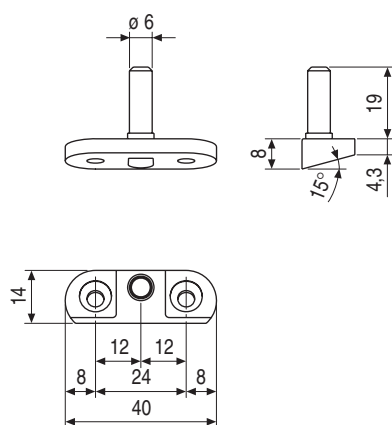
Reduced inclined adjustable steel catch pin can be mounted on frame of monobloc-shuttersII for 1 or 2 sashes.

Application

When hook and pin are not perfectly aligned and more tolerance is required.

Mounting

Use two 4x30 mm screws with thread suitable for the frame material.



Order Specifications

Article

H00901.81.XX

NB. Refer to the price list in force to check the availability of the finishes.

Locking pin for flush or rebated application



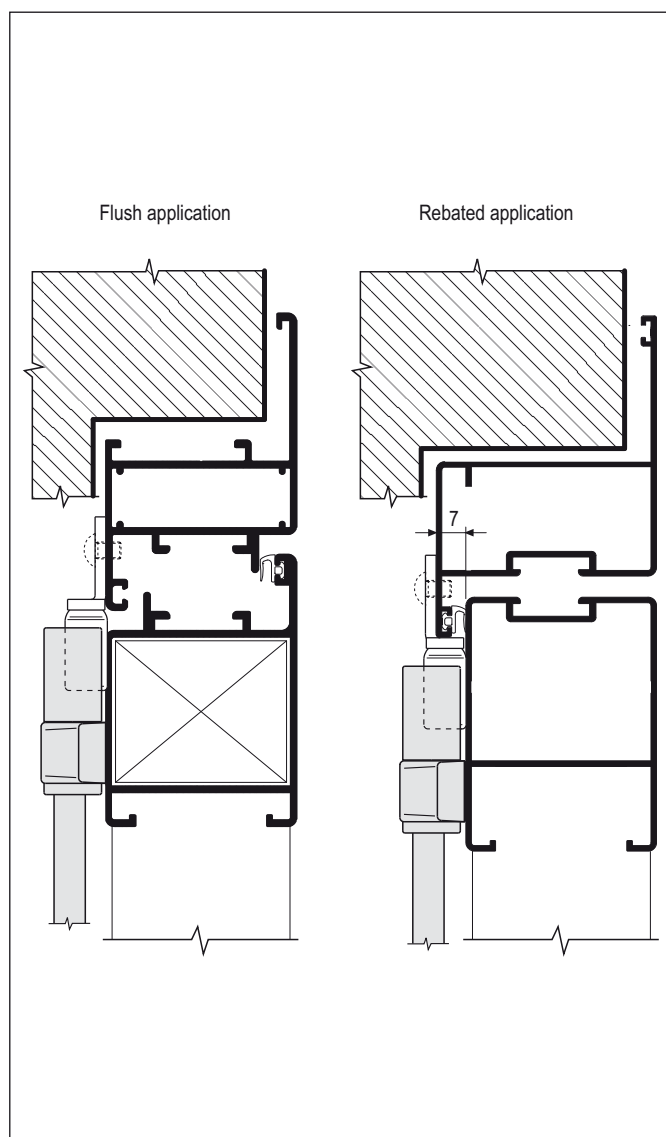
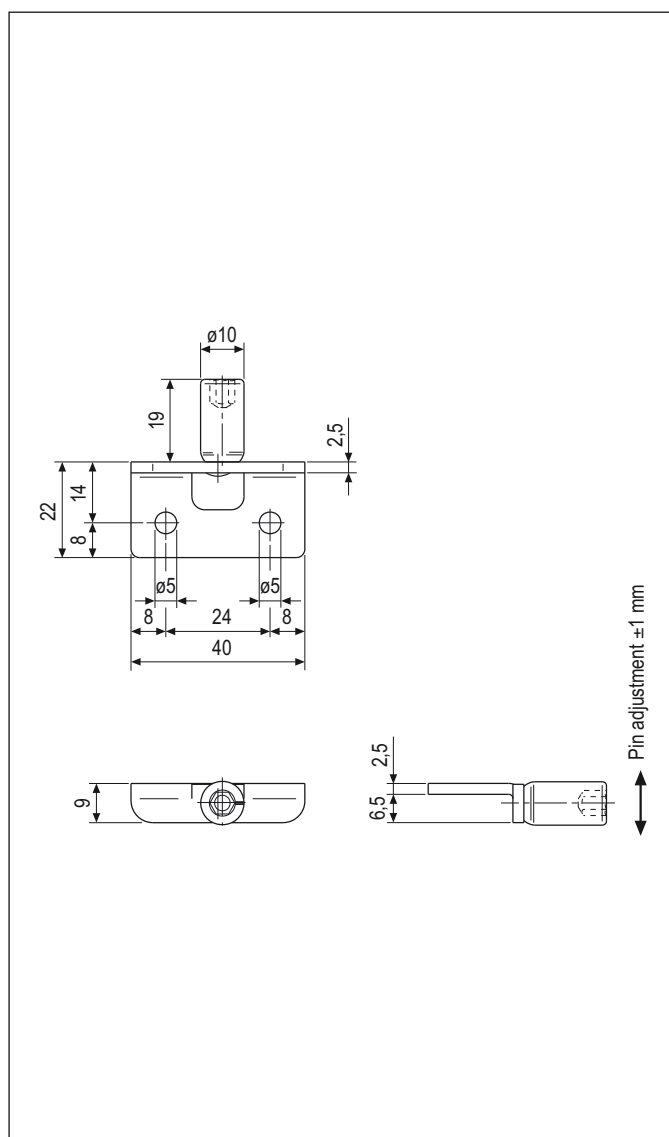
Description

Steel locking pin, pressure adjustment for wood and aluminium fastening. Adjustable with 5 mm Allen wrench.

Application

It has to be used in case of flush application with sash coplanar with the frame.

It can be used even in case of internal rebate of the frame and distance between sash and frame base of 7 mm.



Order Specifications

Article

H00901.53.XX

NB. Refer to the price list in force to check the availability of the finishes.

Eccentric catch pin



Description

Eccentric ABS catch pin with screw and anchor (included) for wall installation.

Application

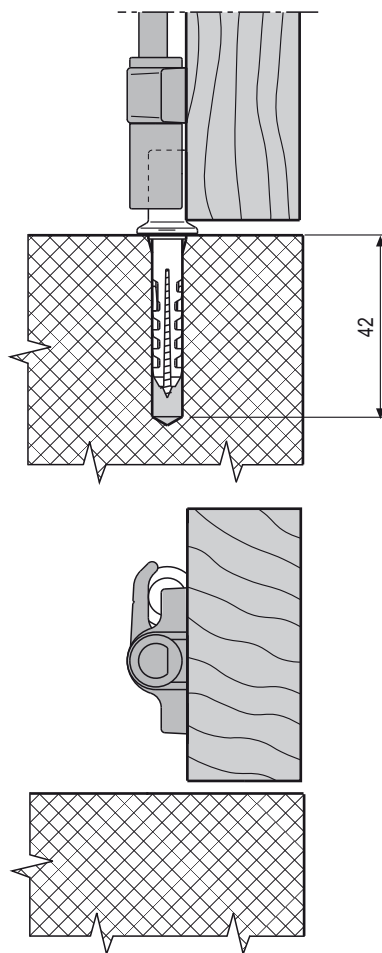
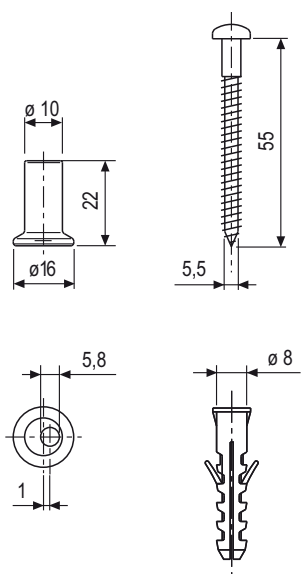
Suitable for single-lip shutters hinged to the wall or with side soffit.

NB. It cannot be used for overlapped shutters flush with the exterior wall.

- Used in combination with standard or curved closing hooks.

Mounting

Fit in an 8x42 mm hole in the threshold/sill.



Order Specifications

Article

H00901.28.XX

NB. Refer to the price list in force to check the availability of the finishes.

10 mm catch pin to be glued



Description

Steel catch pin for marble installation.

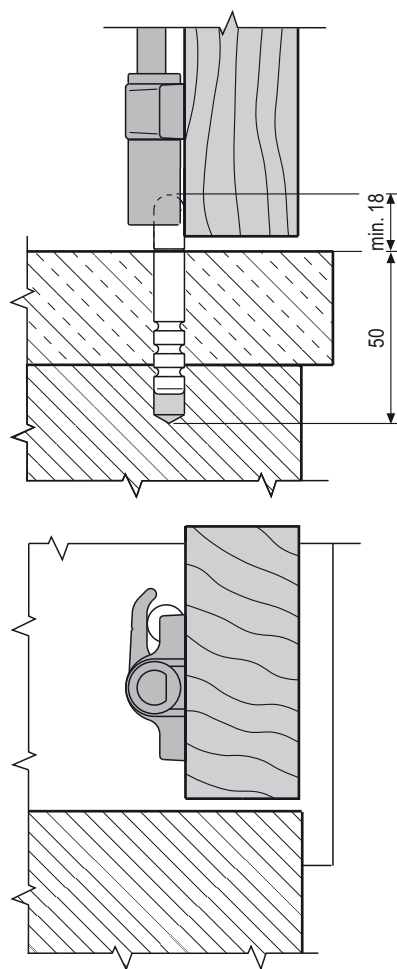
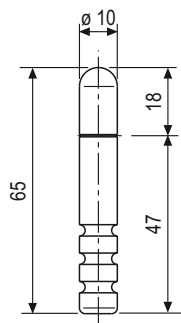
Application

Suitable for single-lip shutters hinged to the wall or with side soffit flush with the exterior wall.

- Used in combination with standard or bent fastening hooks.

Mounting

Fit in an 11x50 mm hole in the threshold/sill and attach with glue or acrylic resin.



Order Specifications

Article

H00901.19.XX

NB. Refer to the price list in force to check the availability of the finishes.

Catch pin with long plate



Description

Catch pin with long plate for wall installation. It can be adjusted with a 5 mm Allen wrench.

Application

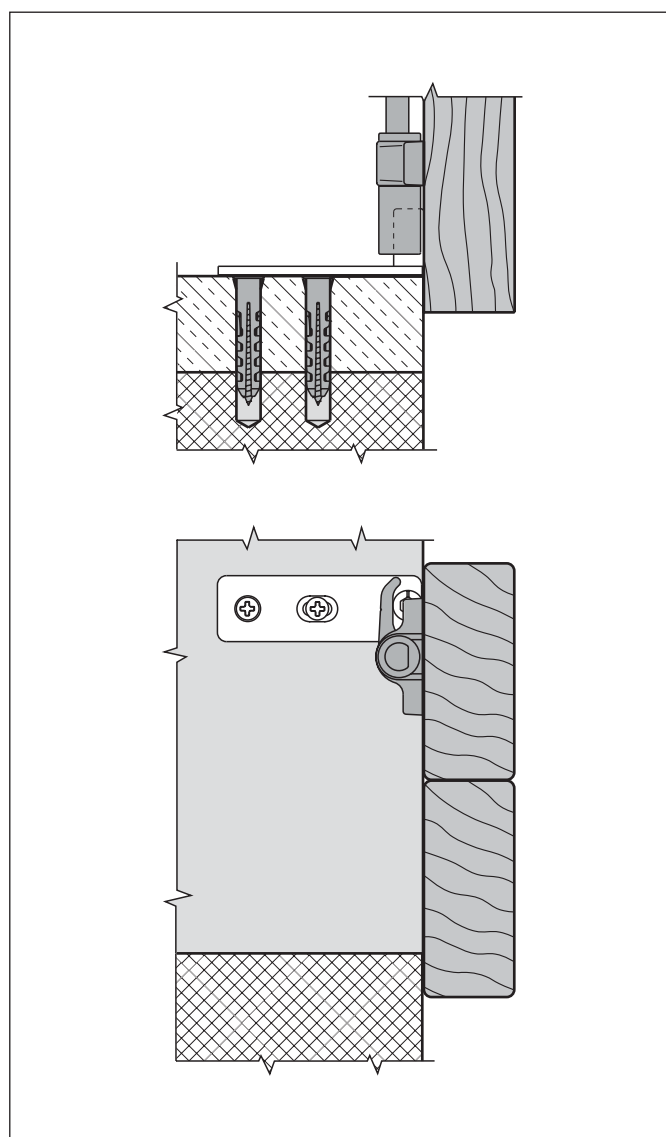
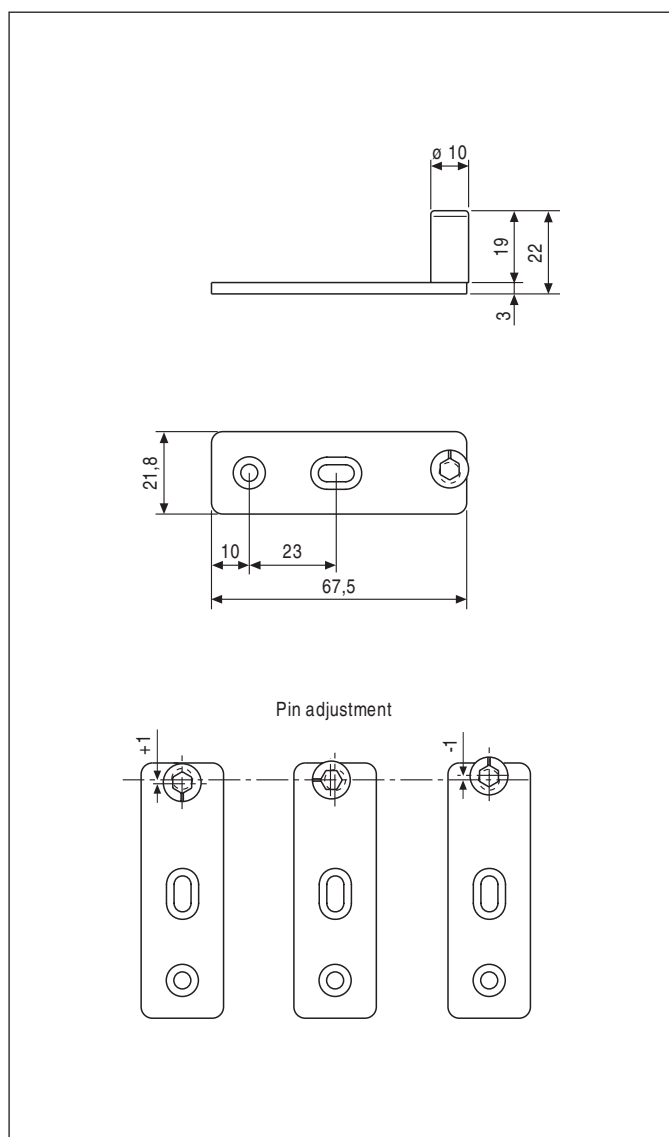
Used to facilitate drilling and fastening in case of single-lip shutters hinged to the wall or with side soffit only, flush with the exterior wall.

NB. Working tolerances can be compensated by adjusting the pin.

- Used in combination with standard or curved closing hooks.

Mounting

Use two 4x30 mm screws and anchors suitable for the material to be drilled.



Order Specifications

Article

H00901.17.XX

NB. Refer to the price list in force to check the availability of the finishes.

M8 catch pin



Description

Steel catch pin with M8 threaded shank, suitable for timber, aluminium or PVC shutters.

Application

Suitable for single-lip monobloc systems with soffit.

NB. It cannot be used for overlapped shutters flush with the exterior wall

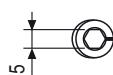
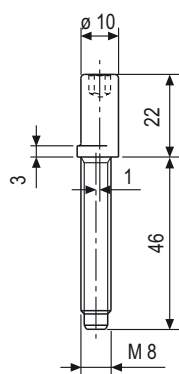
- Used in combination with standard or curved closing hooks.

Mounting

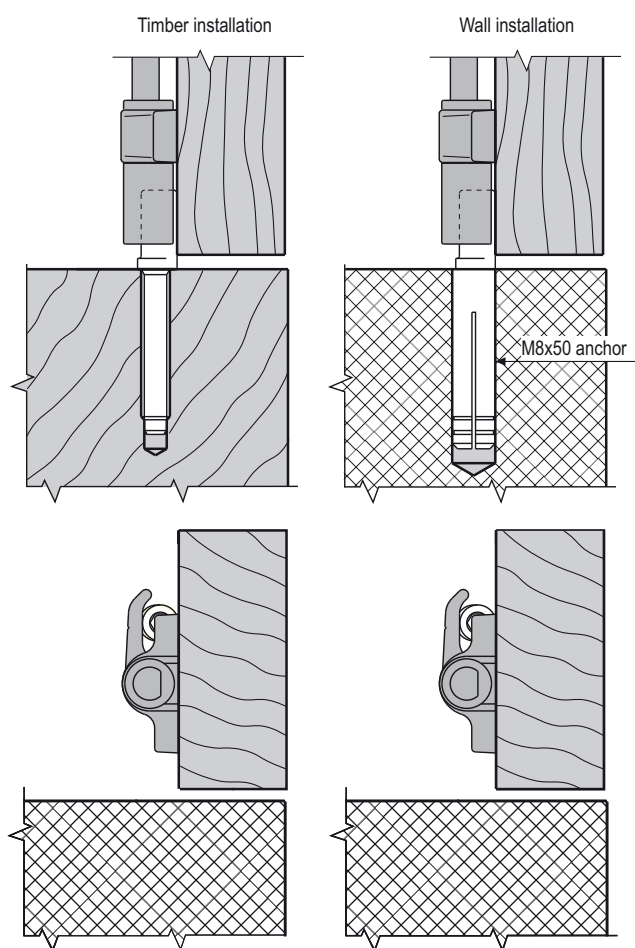
Insert in a 7x48 mm hole and screw it

down using a 5 mm Allen wrench.

In case of wall installation, use an M8x50 brass anchors with 12 mm hole.



Pin adjustment



Order Specifications

Article

H00901.22.XX

NB. Refer to the price list in force to check the availability of the finishes.

Catch pin with long plate for applications with foam insulating panels



Description

Catch pin with long plate for wall installation with foam insulating panels. It can be adjusted with a 5 mm Allen wrench.

Application

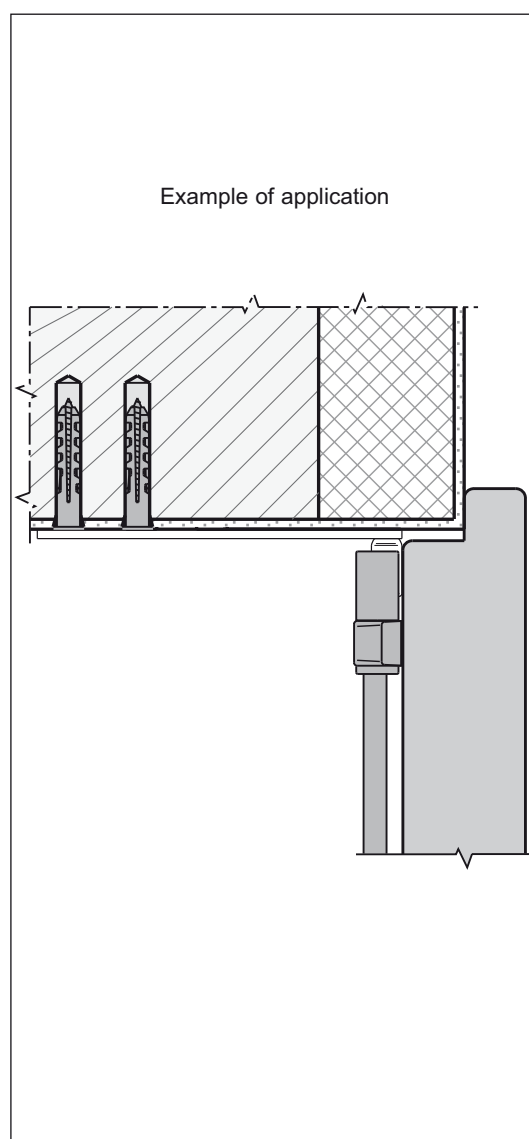
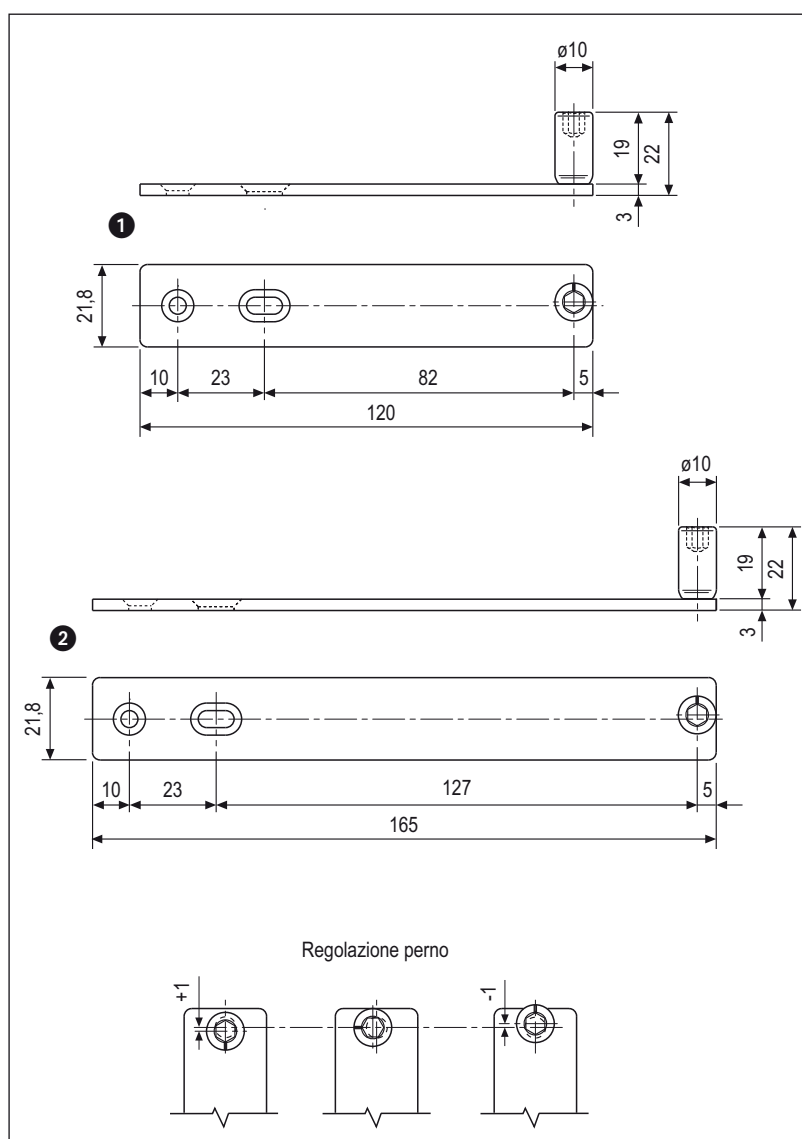
Used to facilitate drilling and fastening in case of single-lip shutters hinged to the wall or with side soffit only, flush with the exterior wall.

NB. Working tolerances can be compensated by adjusting the pin.

- Used in combination with standard or curved closing hooks.

Mounting

Use two 4x30 mm screws and anchors suitable for the material to be drilled.



Order Specifications

Ref.	Article
①	H01901.18.XX
②	H02901.18.XX

NB. Refer to the price list in force to check the availability of the finishes.

Catch pin with long plate to be glued



Description

Catch pin with long glue-on plate for marble installation. It can be adjusted with a 5 mm Allen wrench.

Application

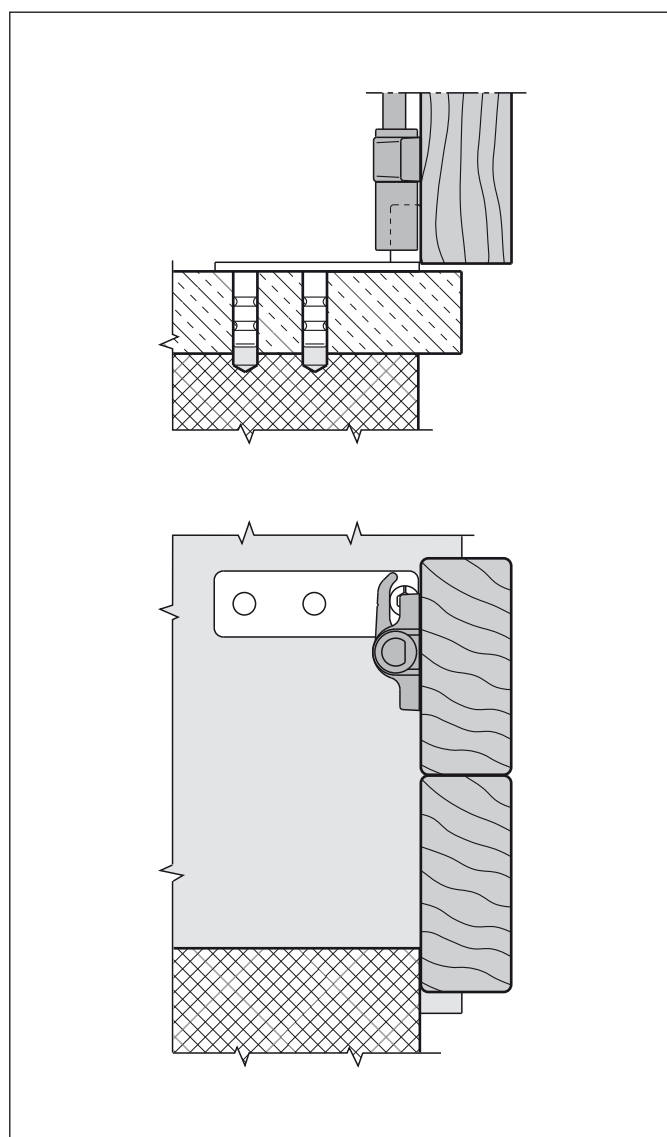
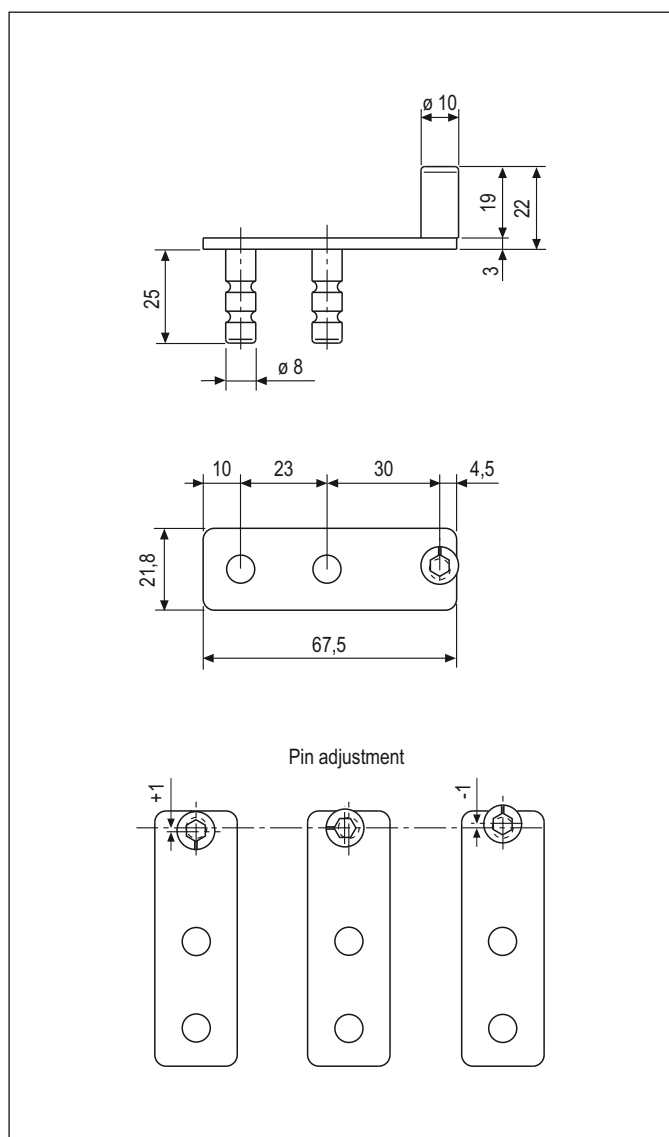
Used to facilitate drilling and fastening in case of single-lip shutters hinged to the wall or with side soffit only, flush with the exterior wall.

NB. Working tolerances can be compensated by adjusting the pin.

- Used in combination with standard or curved closing hooks.

Mounting

Drill two 9x27 mm holes and bind with glue or acrylic resin.



Order Specifications

Article

H00901.23.XX

NB. Refer to the price list in force to check the availability of the finishes.

Double catch pin - 56 mm distance between centres



Description

Double steel catch pin for wall installation. It can be adjusted with a 5 mm Allen wrench.

Application

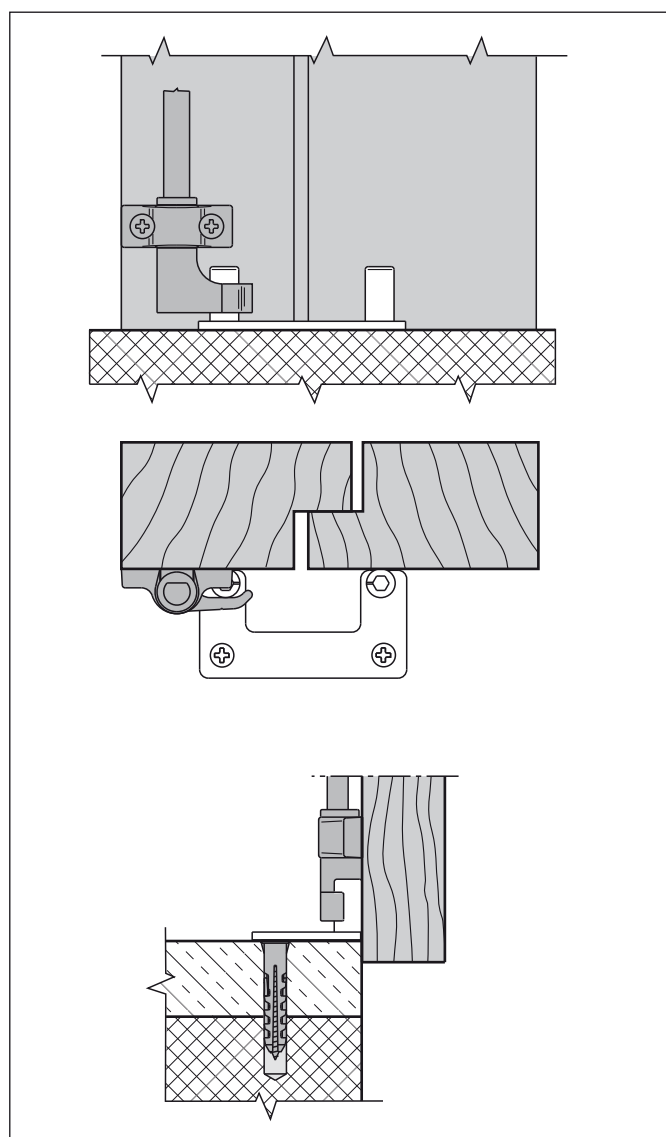
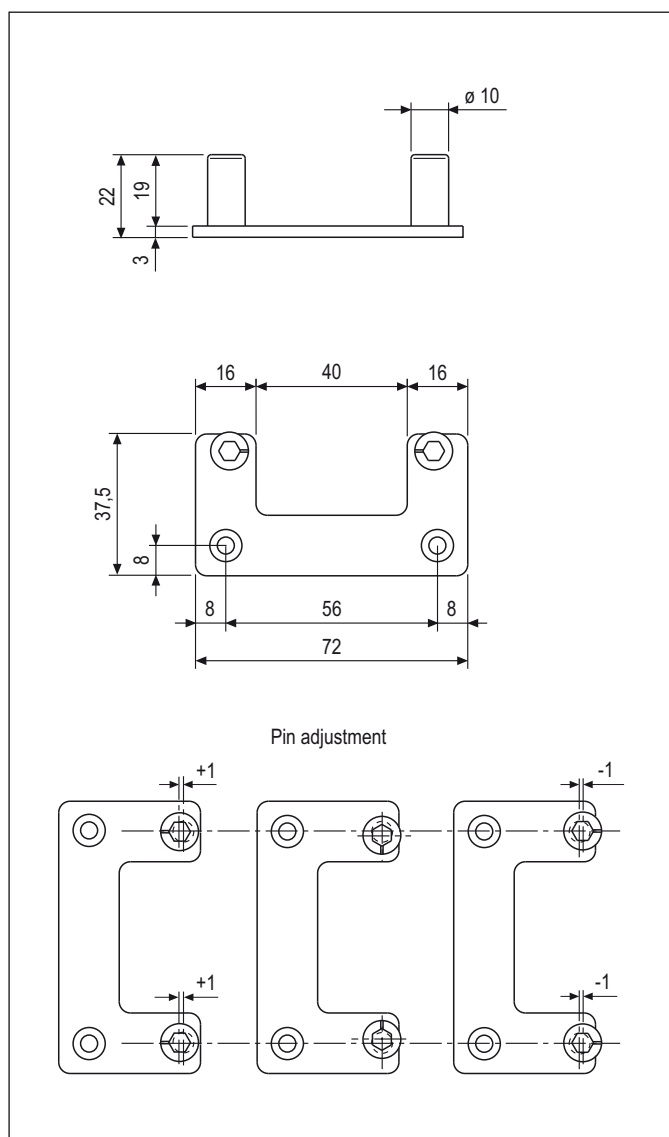
Used to facilitate drilling and fastening in case of multiple-lip shutters hinged to the wall or with side soffit only, flush with the exterior wall, where there is no stop rebate on the shutter rail or threshold.

NB. Working tolerances can be compensated by adjusting the pins.

- Used in combination with standard or curved closing hooks.

Mounting

Use two 4x30 mm screws and anchors suitable for the material to be drilled.



Order Specifications

Article

H00901.24.XX

NB. Refer to the price list in force to check the availability of the finishes.

Double catch pin - 76 mm distance between centres



Description

Double steel catch pin for wall installation. It can be adjusted with a 5 mm Allen wrench.

Application

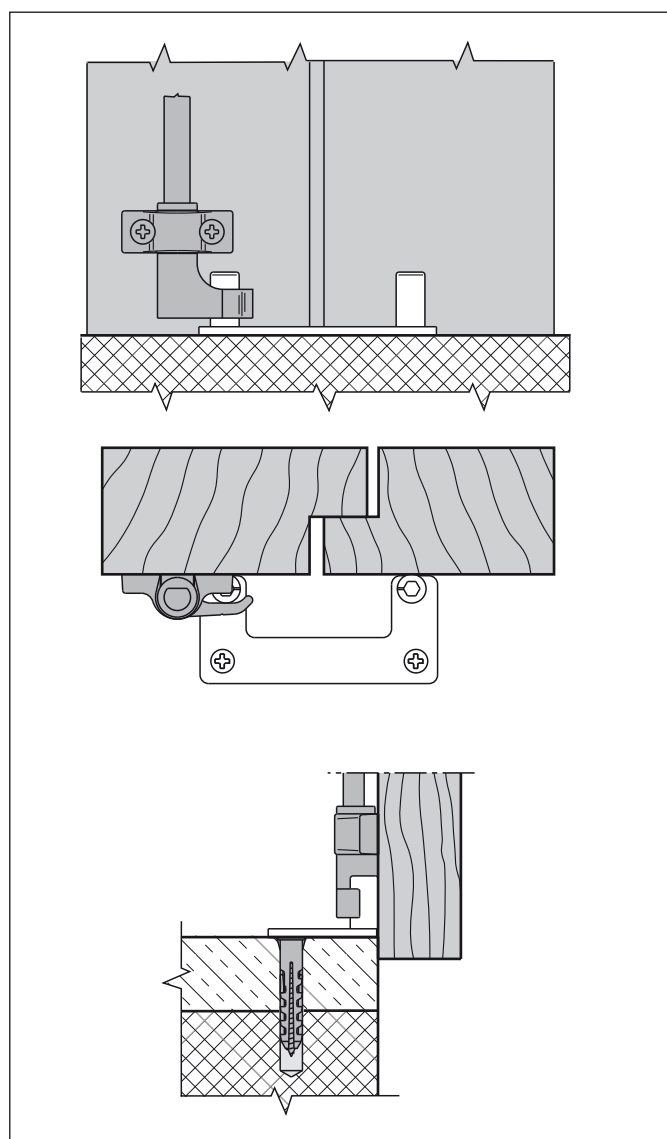
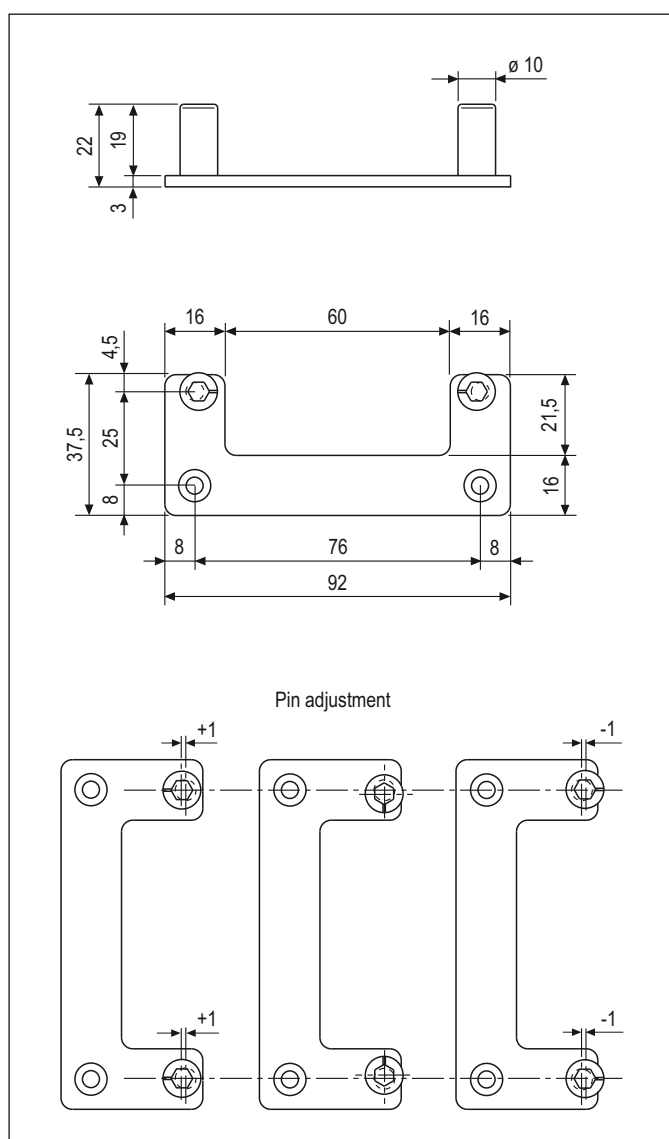
Used to facilitate drilling and fastening in case of multiple-lip shutters hinged to the wall or with side soffit only, flush with the exterior wall, where there is no stop rebate on the shutter rail or threshold.

NB. Working tolerances can be compensated by adjusting the pins.

- Used in combination with standard or curved closing hooks.

Mounting

Use two 4x30 mm screws and anchors suitable for the material to be drilled.



Order Specifications

Article

H00901.16.XX

NB. Refer to the price list in force to check the availability of the finishes.

Double catch pin to be glued - 56 mm distance between centres



Description

Double steel catch pin for marble installation. It can be adjusted with a 5 mm Allen wrench.

Application

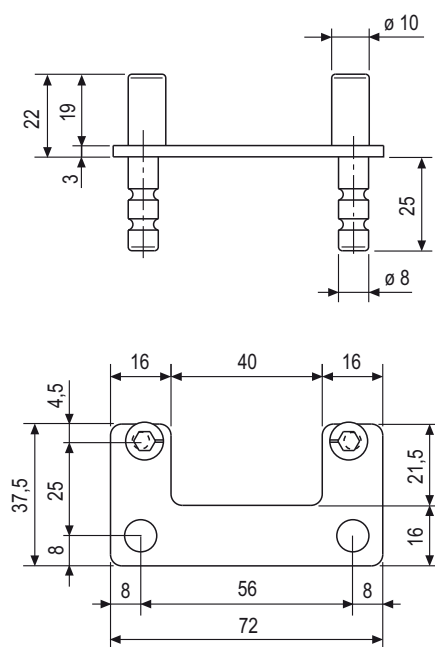
Used to facilitate drilling and fastening in case of multiple-lip shutters hinged to the wall or with side soffit only, flush with the exterior wall, where there is no stop rebate on the shutter rail or threshold.

NB. Working tolerances can be compensated by adjusting the pins.

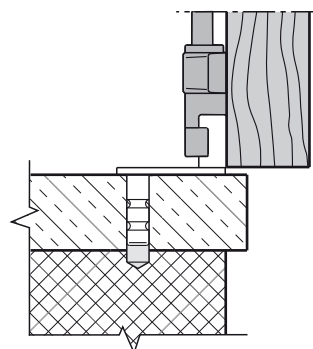
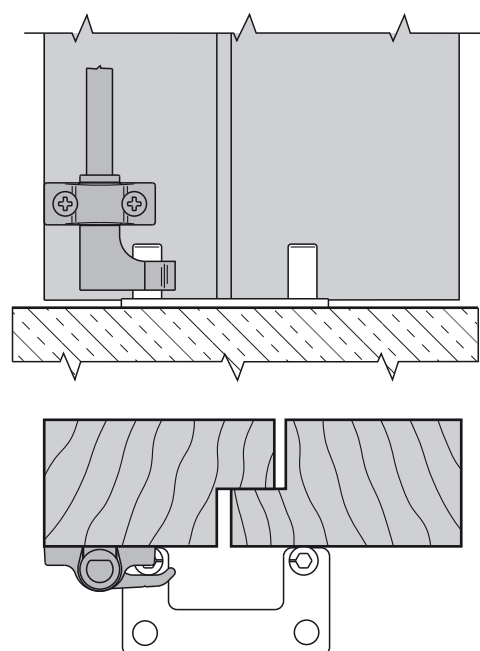
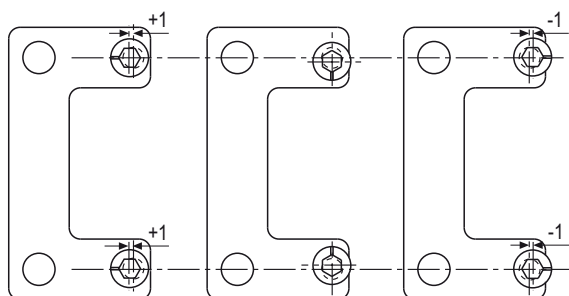
- Used in combination with standard or bent fastening hooks.

Mounting

Drill two 9x27 mm holes and bind with glue or acrylic resin.



Pin adjustment



Order Specifications

Article

H00901.25.XX

NB. Refer to the price list in force to check the availability of the finishes.

Double catch pin to be glued - 76 mm distance between centres



Description

Double steel catch pin for marble installation. It can be adjusted with a 5 mm Allen wrench.

Mounting

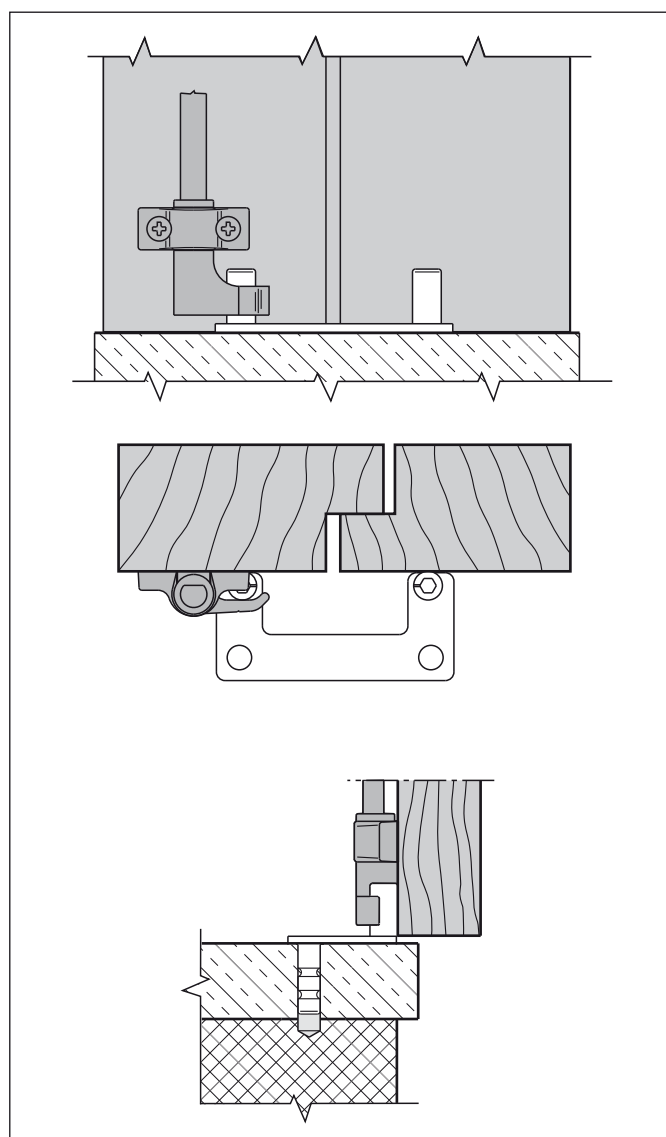
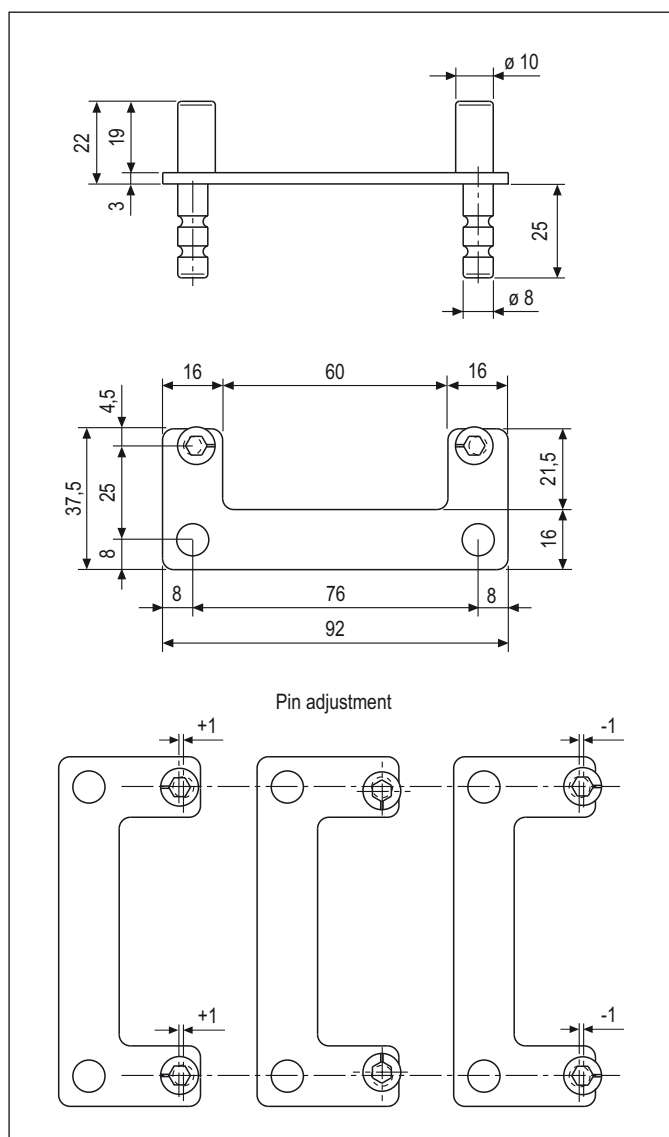
Drill two 9x27 mm holes and bind with glue or acrylic resin.

Application

Used to facilitate drilling and fastening in case of multiple-lip shutters hinged to the wall or with side soffit only, flush with the exterior wall, where there is no stop rebate on the shutter rail or threshold.

NB. Working tolerances can be compensated by adjusting the pins.

- Used in combination with standard or curved closing hooks.



Order Specifications

Article

H00901.14.XX

NB. Refer to the price list in force to check the availability of the finishes.

Double catch pin with spacer



Description

Double steel catch pin with spacer and elongated screw holes. It can be adjusted with a 5 mm Allen wrench.

Application

Suitable for monobloc systems with soffit and 35 mm useful clearance between window and shutter.

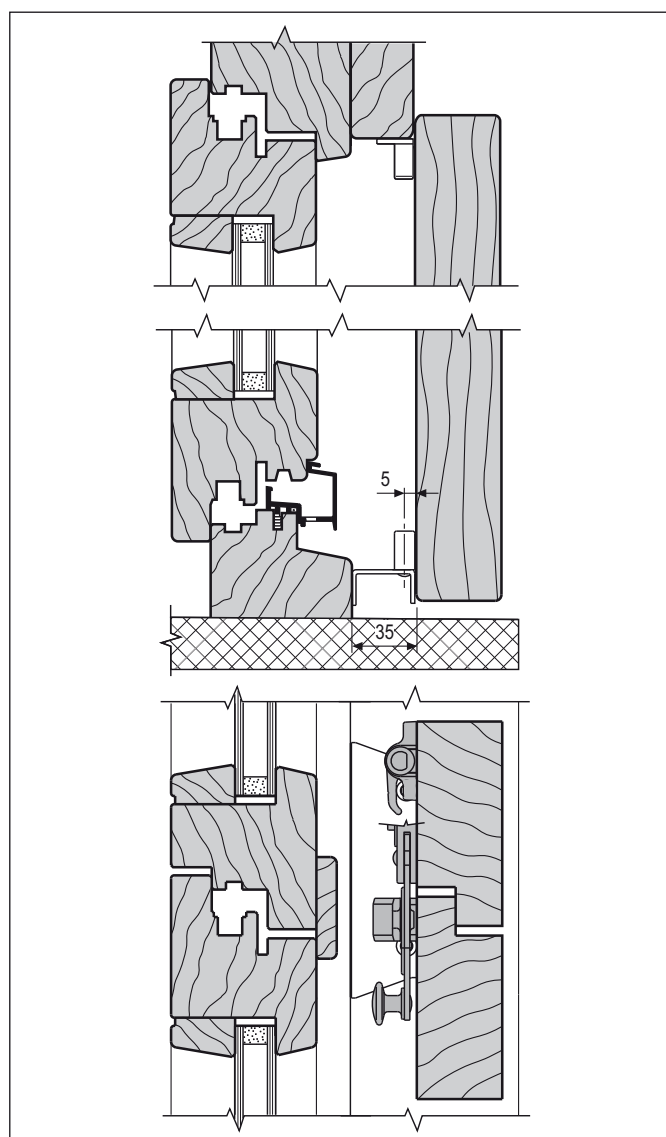
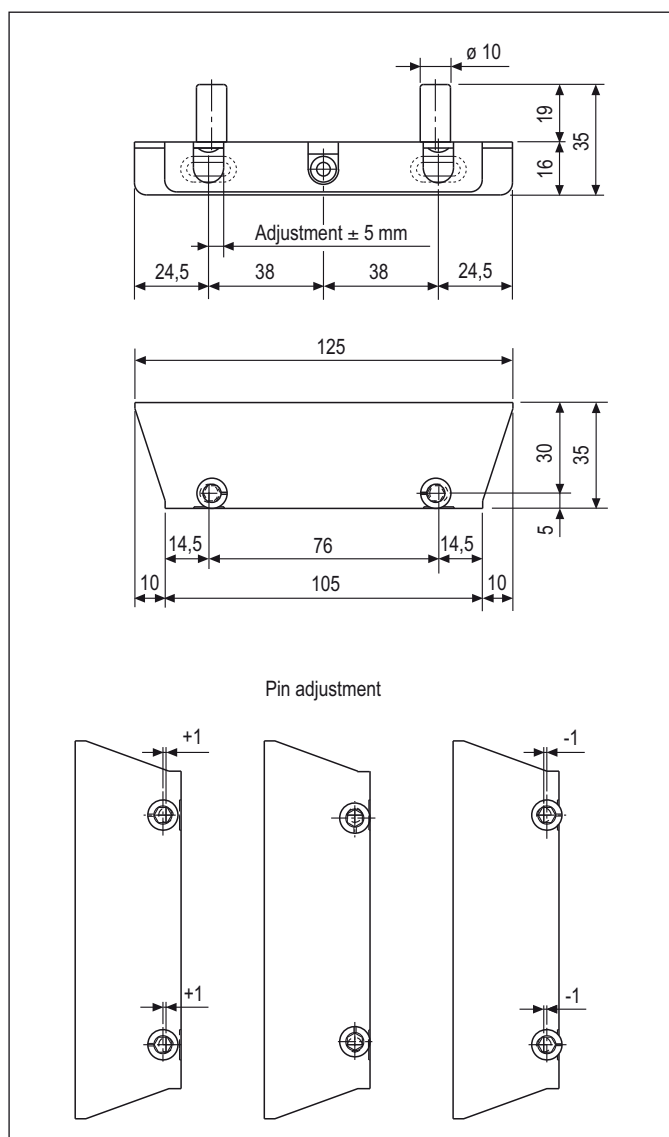
NB. Working tolerances can be compensated by adjusting the pins before fastening the centre screw and tightening the two side screws.

- Used in combination with standard or curved closing hooks.

Mounting

Use three 4x30 mm screws with thread suitable for the shutter material.

It must be attached to the lower rail of the window, possibly resting on the sill.



Order Specifications

Article

H00901.31.XX

NB. Refer to the price list in force to check the availability of the finishes.

Sash fastening blade



Description

Steel fastening blade for semi-fixed sashes of multiple-sash shutters.

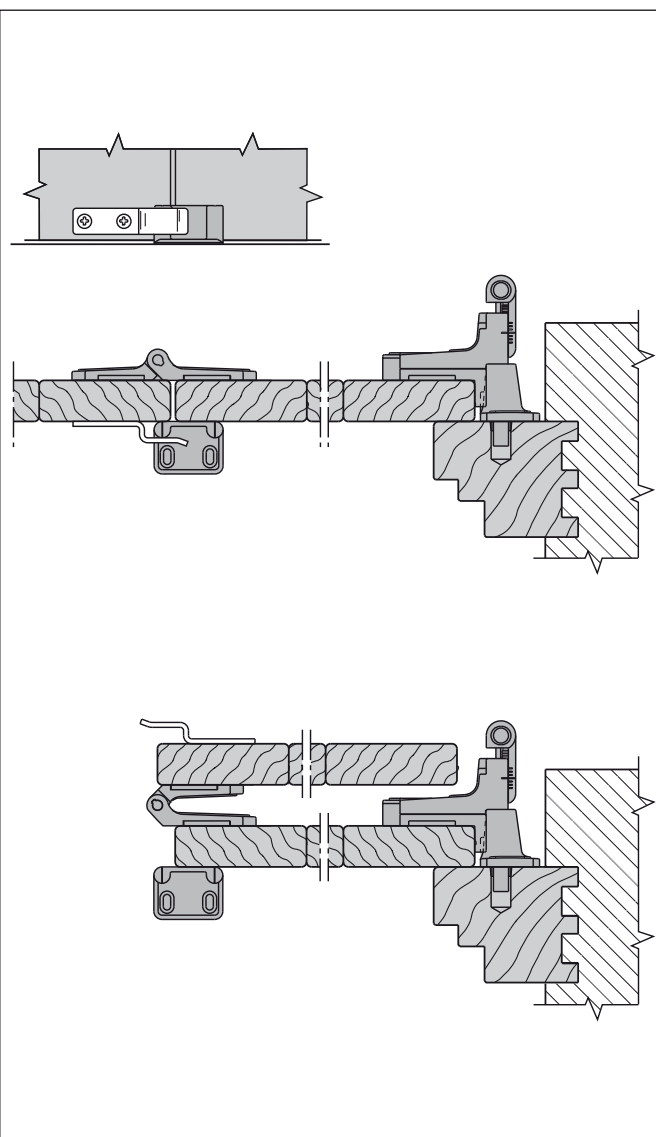
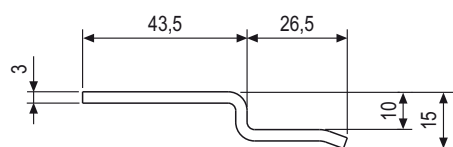
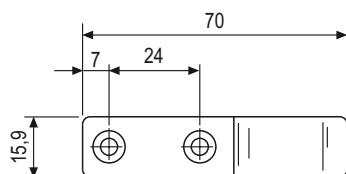
Application

Suitable for shutters with three or more sashes.
Installed on the folding lip so as to engage the catch plate or double catch pins, it enables automatic fastening without requiring the installation of espagnolettes or bolts on the central system point of the third lip.

- Used in combination with all catch pins.

Mounting

Use two 4x30 mm screws with thread suitable for the shutter material.



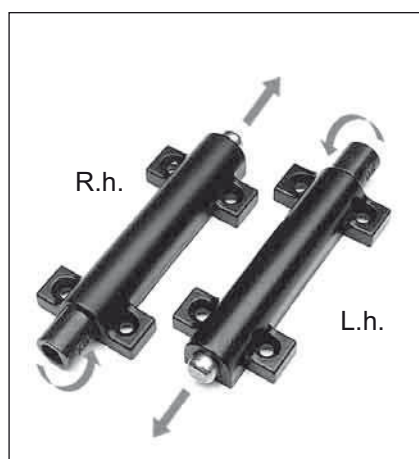
Order Specifications

Article

H00901.39.XX

NB. Refer to the price list in force to check the availability of the finishes.

Vertical extendible locking system



Description

Right or left-hand terminal vertical extendible locking system with steel push rod.

It slides into the bolt striker to lock the shutters. It is a convenient solution when you wish to avoid the installation of protruding catch pins.

Application

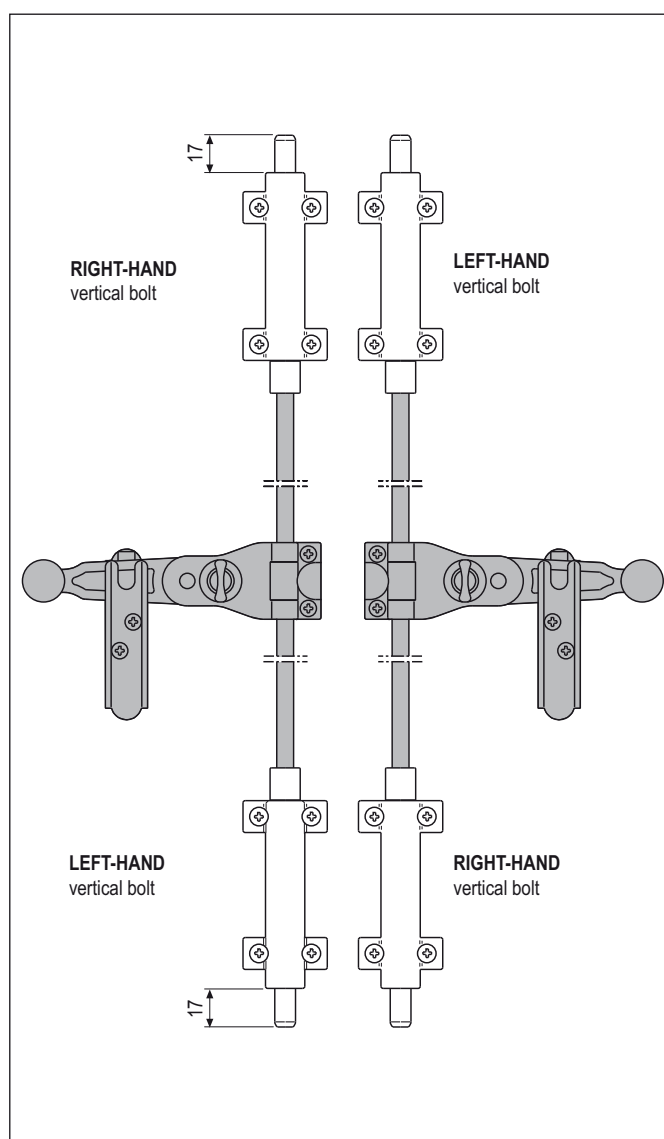
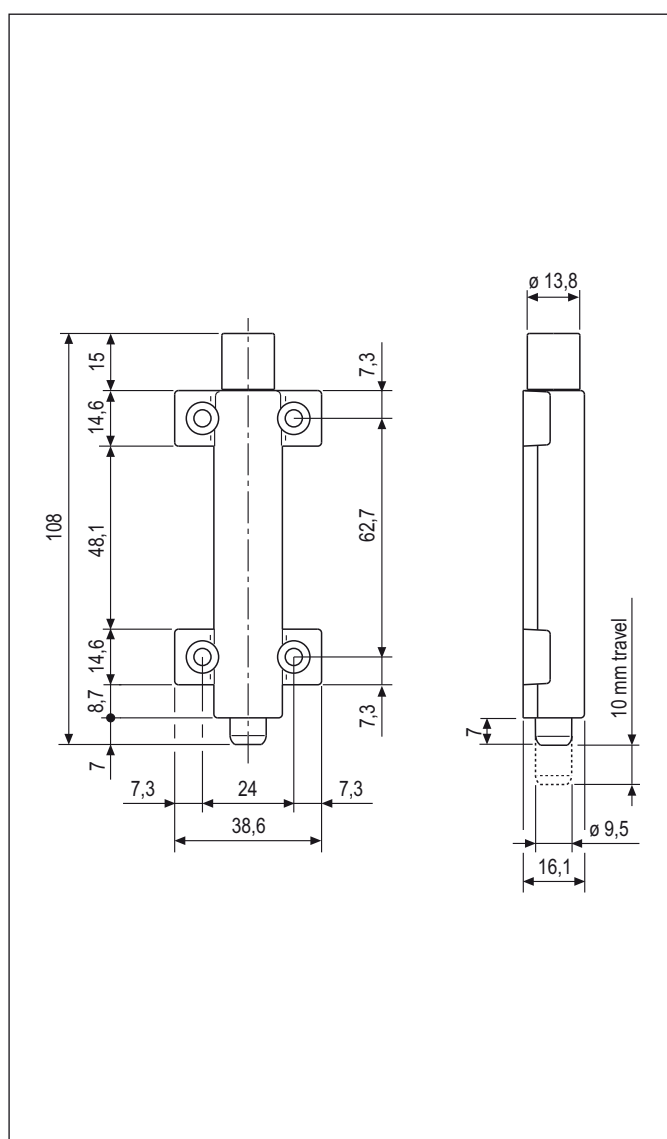
Recommended for door shutters and wherever the installation of catch pins is unsuitable. It must be positioned at the ends of the drive rod, which must be cut to the proper length so that it penetrates all the way to the bottom of the seat in the bolt, allolip no play.

The bolt extends all the way with a rod rotation of 90°.

- If the rod rotates 180°, the vertical bolt must be fitted with a rotation compensator.

Mounting

Use four 4x30 mm screws with thread suitable for the shutter material.



Order Specifications

Article	Type
H00901.21.XX	l.h.
H00901.20.XX	r.h.

NB. Refer to the price list in force to check the availability of the finishes.

180° rotation compensator



Description

Right and left-hand rotation compensator for vertical bolts.

Application

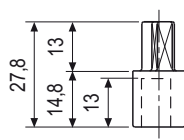
Used with vertical bolts when the espagnolette rotates 180°. It must be inserted in the vertical bolt and positioned at the ends of the drive rod, which must be cut to the proper length so that it penetrates all the way to the bottom of the seat in the compensator, allolip no play.

- Used in combination with vertical bolts.

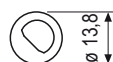
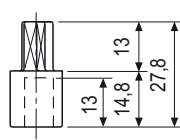
Mounting

Fit it on the fastening rod.

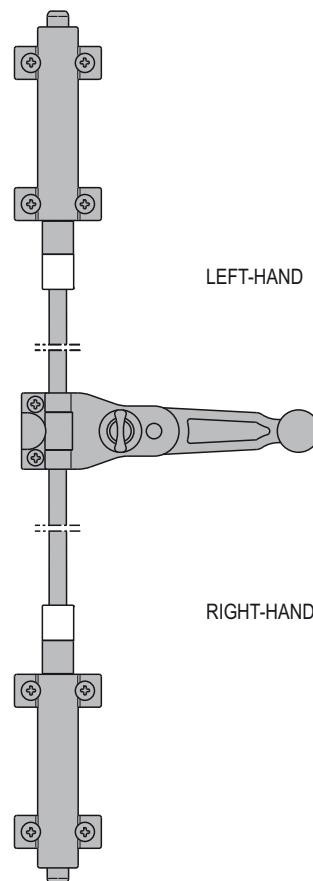
RIGHT-HAND



LEFT-HAND



LEFT-HAND



RIGHT-HAND

Order Specifications

Article	Type
H00901.30.XX	l.h.
H00901.29.XX	r.h.

NB. Refer to the price list in force to check the availability of the finishes.

Bolt striker for threshold



Description

Floor striker for single or double sash shutters fitted with vertical bolts.

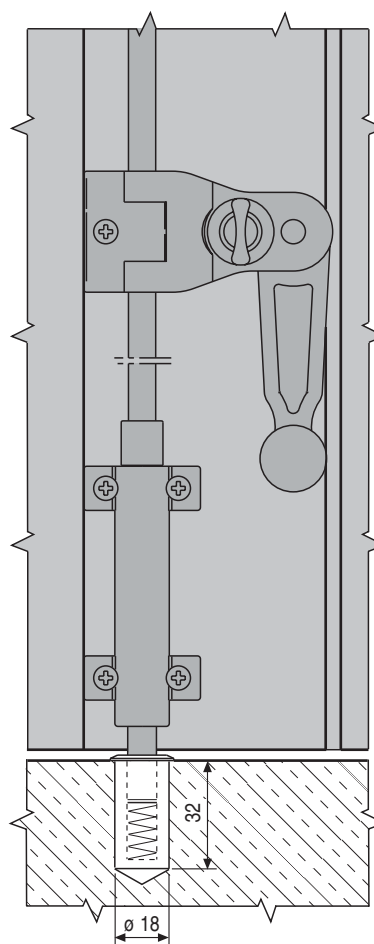
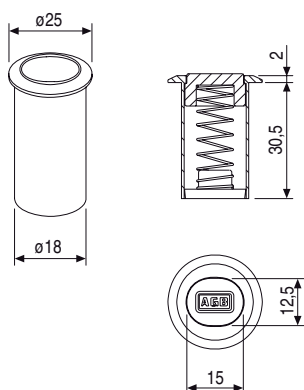
Application

Recommended for door shutters and wherever the installation of catch pins is unsuitable.

- Used in combination with vertical bolts.

Mounting

Fit in a 18x32 mm hole and bind with glue or acrylic resin.



Order Specifications

Article

F01696.00.XX

NB. Refer to the price list in force to check the availability of the finishes.

Shim for handle UNICA



Description

Steel shim for large espagnolette UNICA and snap in 2K serie.

Application

For double-lip shutters, with lips that are not coplanar or have an interior edge trim. Especially suitable for aluminium or PVC shutters with a projecting head profile. It must be installed on the slipping lip between

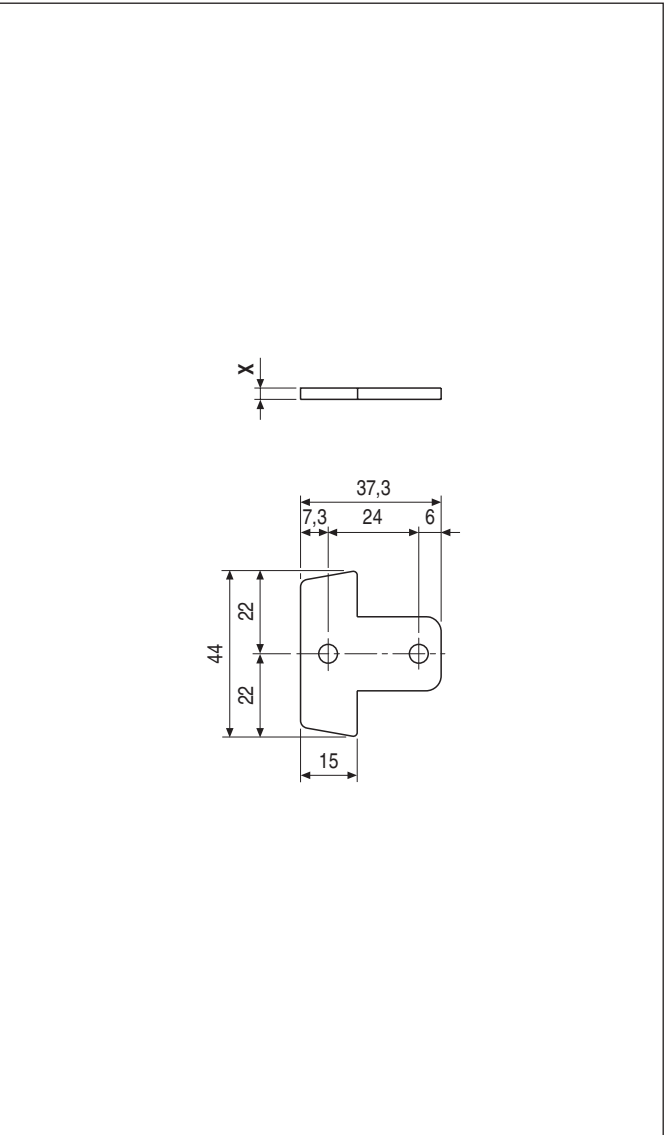
the shutter and the espagnolette.

Mounting

Fasten it together with the espagnolette using proportionally longer screws.

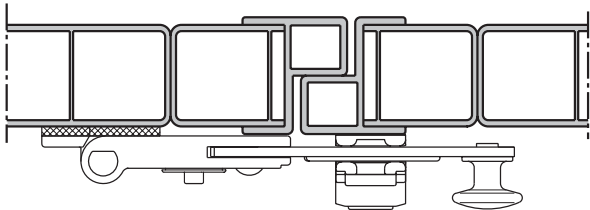
Surface treatment

Transparent varnishing and sealing for weatherproof.



Use coupled with:

- H00901.04.XX
- H00901.06.XX
- H00901.88.XX
- H00903.06.XX
- H00903.08.XX
- H00903.10.XX
- H00903.11.XX
- H00903.15.XX
- H00903.16.XX
- H00903.22.XX
- H00003.01.XX
- H00004.01.XX



Order Specifications

Article	X
H00901.63.XX	3 mm
H00901.64.XX	4 mm

NB. Refer to the price list in force to check the availability of the finishes.

Shim for small and reduced espagnolette



Description

Steel shim used as a support for the small and reduced espagnolettes. Suitable for PVC or aluminium profiles.

Application

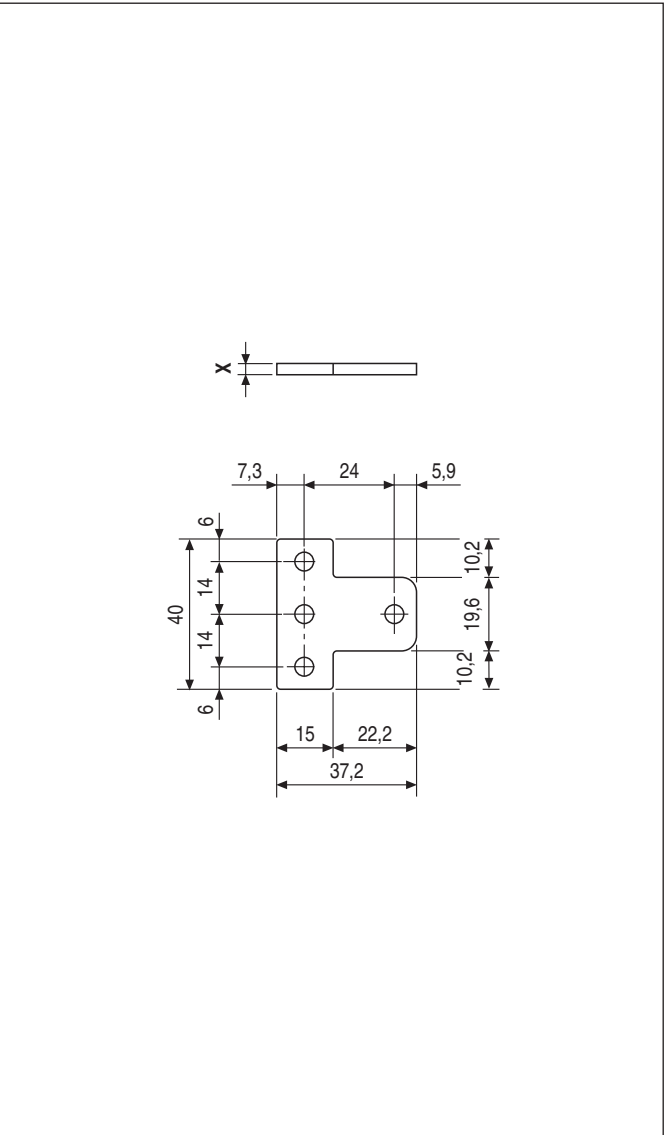
For double-lip shutters, with lips that are not coplanar or have an interior edge trim. Especially suitable for aluminium or PVC shutters with a projecting head profile. It must be installed on the slipping lip between the shutter and the espagnolette.

NB. If a thicker shim is required, two or more shims can be installed one over the other.

- Use in combination with all reduced and small handles, except for the snap in and the UNICA serie.

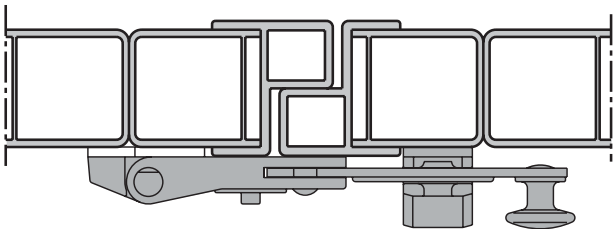
Mounting

Fasten it together with the espagnolette using proportionally longer screws.



Suitable with:

- H00901.05.XX
- H00901.49.XX
- H00903.07.XX
- H00903.09.XX
- H00903.12.XX
- H00903.13.XX
- H00903.19.XX



Order Specifications

Article	X
H00901.36.XX	3 mm
H00901.42.XX	4 mm

NB. Refer to the price list in force to check the availability of the finishes.

Shim for rod guide and closing hooks



Description

Shim for rod guide and fastening hooks.
Suitable for PVC or aluminium profiles.

Application

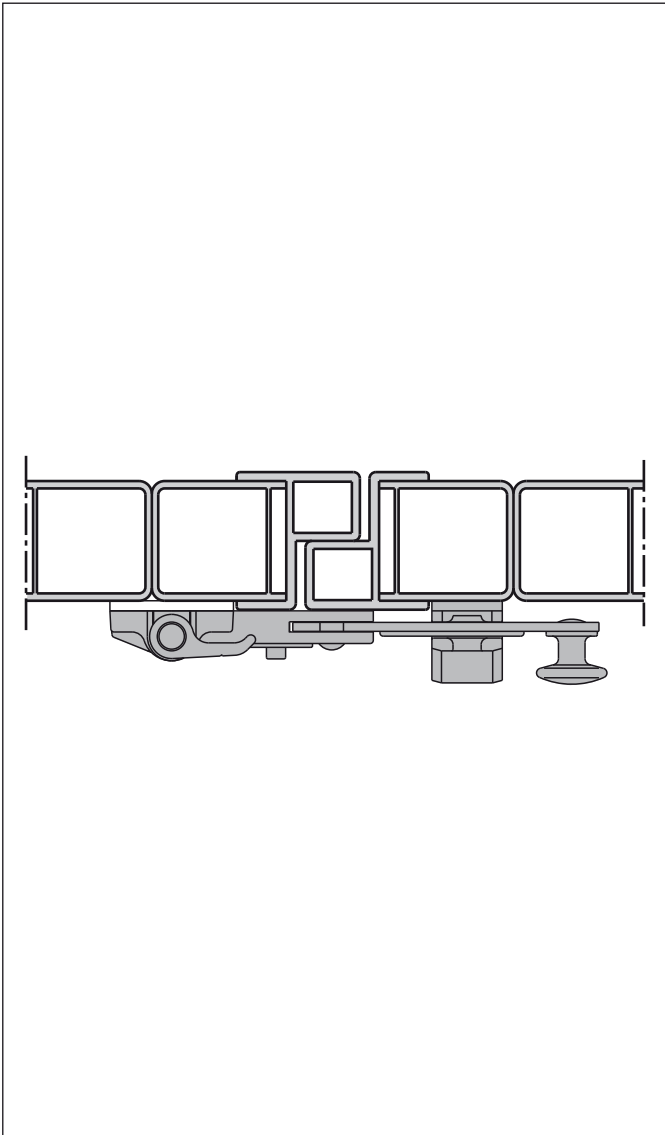
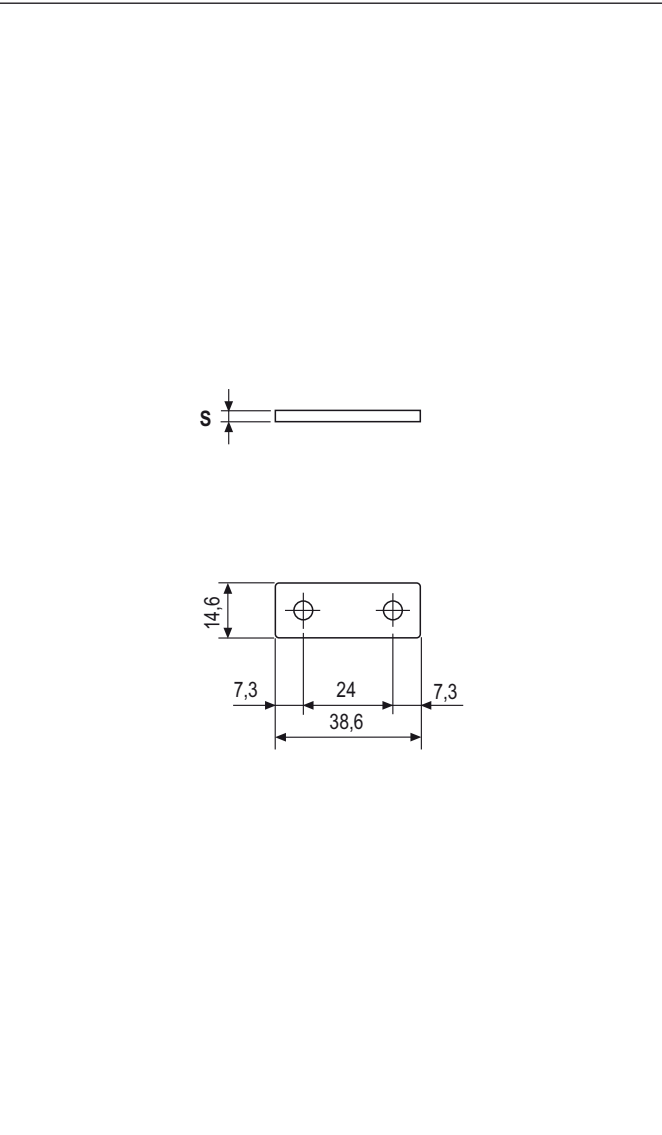
For double-lip shutters, with lips that are not coplanar or have an interior edge trim. Especially suitable for aluminium or PVC shutters with a projecting head profile. It must be installed between the shutter and the rod guide.

NB. If a thicker shim is required, two or more shims can be installed one over the other.

- Used in combination with rod guide, rod guide/support and fastening hooks.

Mounting

Fasten it together with the rod guide and fastening hooks using proportionally longer screws.



Order Specifications

Article	S
H00901.38.XX	3
H00901.44.XX	4

NB. Refer to the price list in force to check the availability of the finishes.

Shim for second sash catch



Description

Shim for second sash espagnolette catch. Suitable for PVC or aluminium profiles.

Application

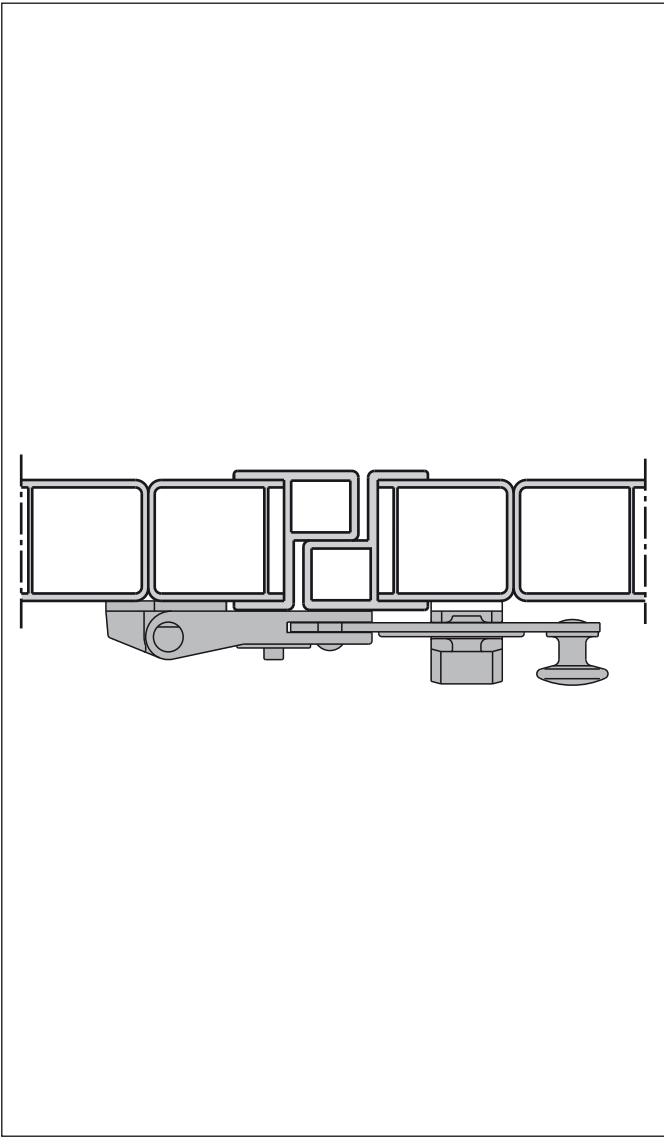
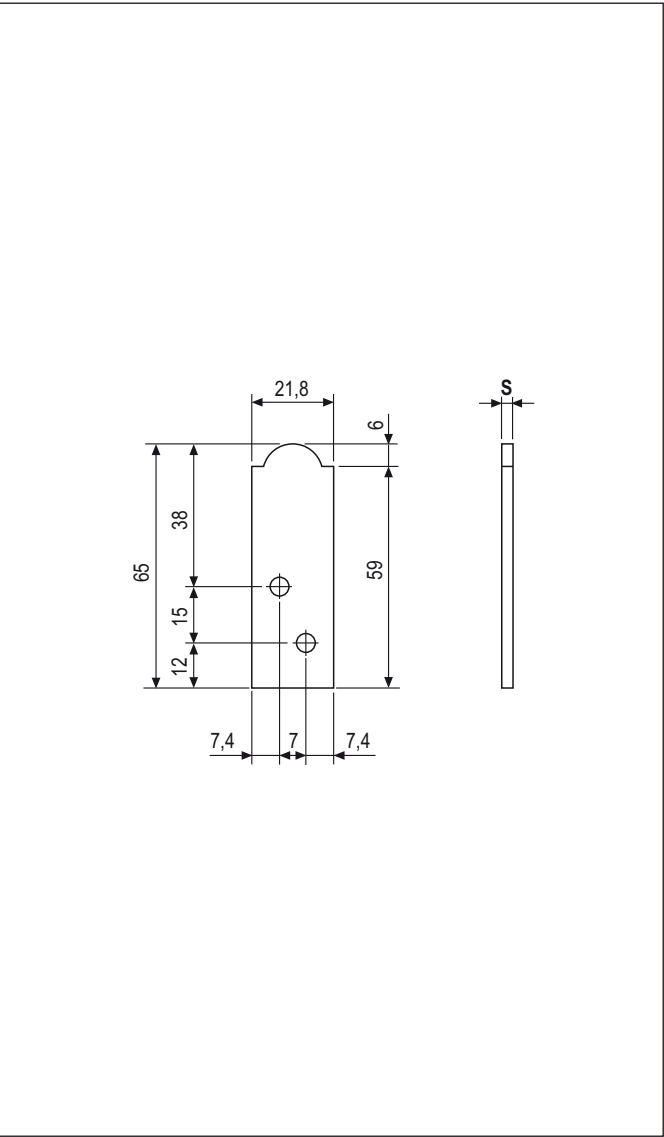
For double-sash shutters, with sash that are not coplanar or have an interior edge trim. Especially suitable for aluminium or PVC shutters with a projecting head profile. It must be installed on the semi-stationary sash between the shutter and the espagnolette catch.

NB. If a thicker shim is required, two or more shims can be installed one over the other.

- Used in combination with the 2-sash catch for espagnolette.

Mounting

Fasten it together with the catch using proportionally longer screws.



Order Specifications

Article	S
H00901.37.XX	3
H00901.43.XX	4

NB. Refer to the price list in force to check the availability of the finishes.

Bent reverse closing hook



Description

Right or left-hand bent reversed fastening hook. It hooks onto the catch pins to lock the shutters.

Application

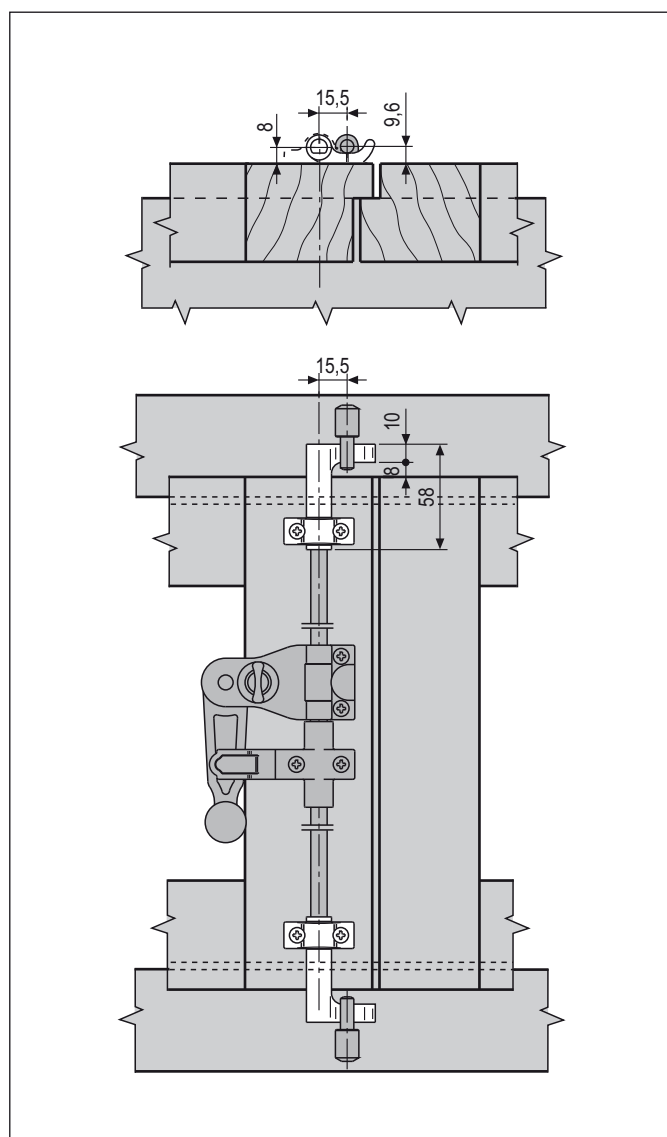
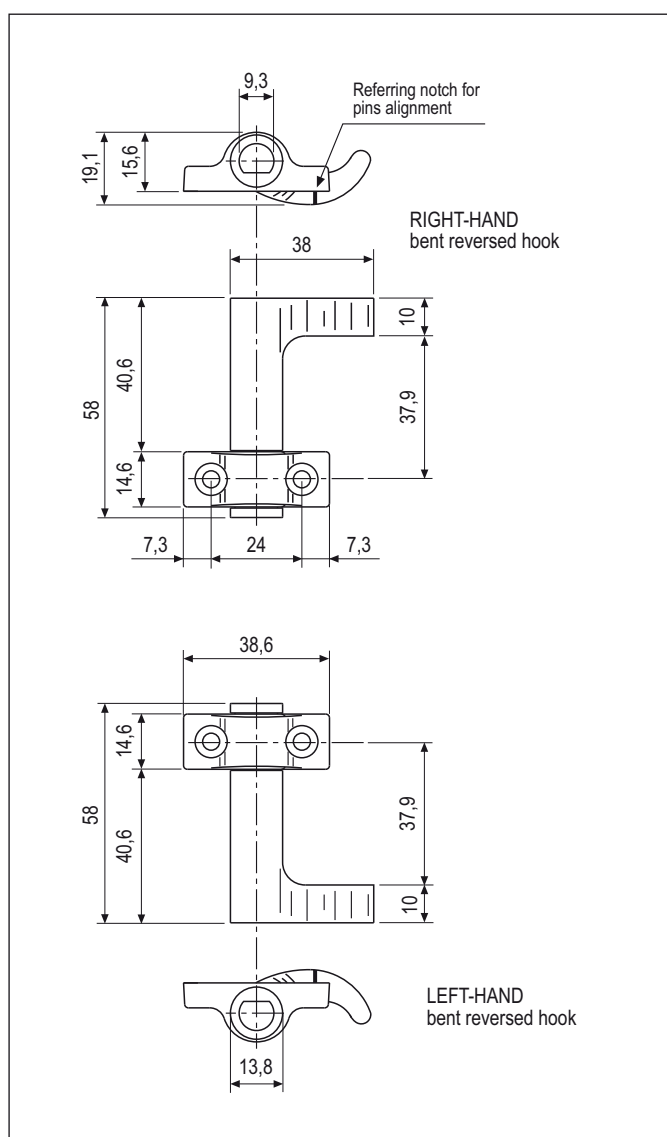
Suitable for shutters that open inward, most commonly used in redevelopment work. It must be positioned at the ends of the drive rod, making sure that it hooks effectively onto the catch pins.

The rod must be cut to the proper length so that it penetrates all the way to the bottom of the seat in the hook, allolip no play.

- To be used in combination with drive rod and screw-in catch pins.

Mounting

Use two 4x30 mm screws with thread suitable for the shutter material.



Order Specifications

Article	Type
H00901.32.XX	l.h.
H00901.33.XX	r.h.

NB. Refer to the price list in force to check the availability of the finishes.

Screw-in catch pin



Description

Adjustable threaded steel catch pin for inslipping shutters.

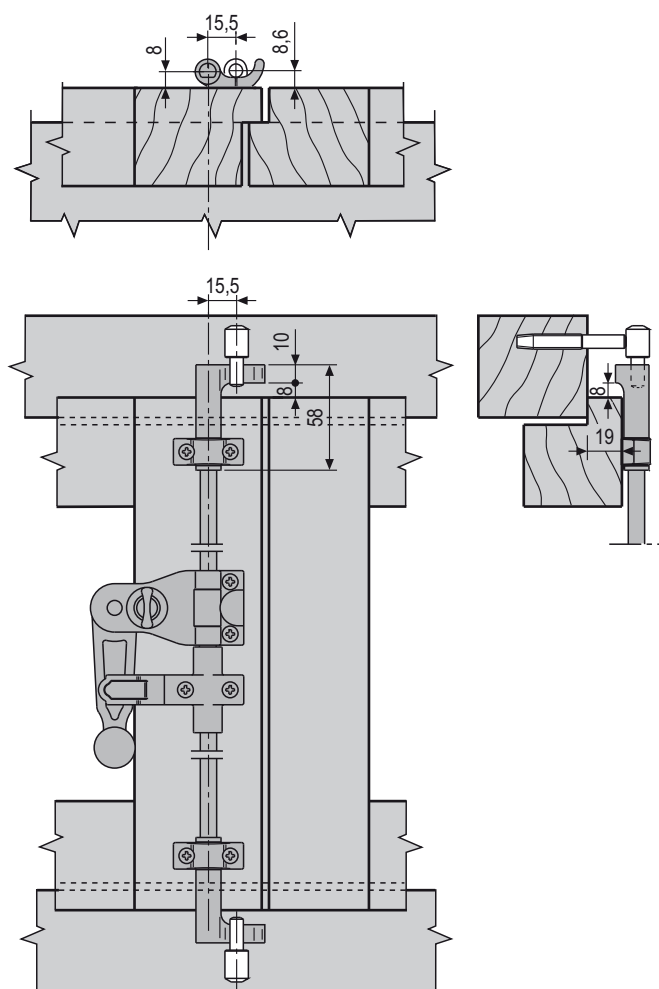
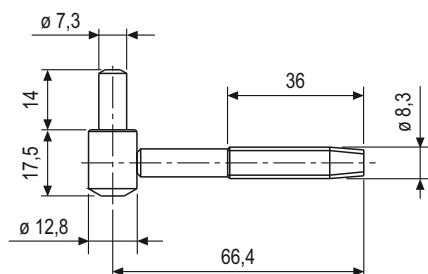
Application

Suitable for window shutters hinged to the window on the inside, or in renovations, when the espagnolette system is adopted as an alternative to other window fastening solutions.

- Used in combination with bent reversed closing hooks.

Mounting

Fit in a 7,2x4 mm hole. The shank is screwed down using tool art. E00013.13.03.



Order Specifications

Article

H00901.34.XX

NB. Refer to the price list in force to check the availability of the finishes.

Vertical bolts



Description

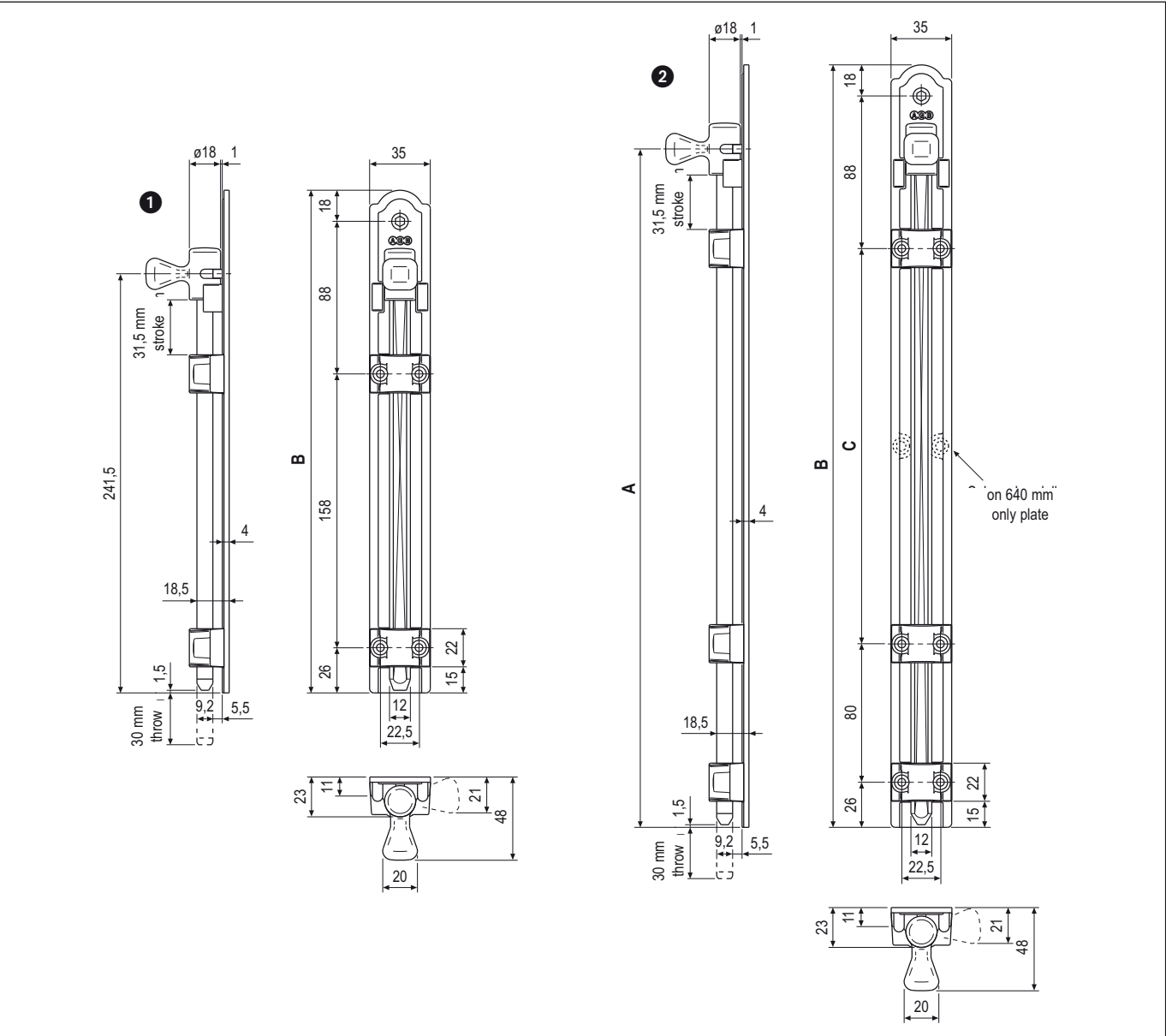
Vertical bolts for shutters with articulated knob and security device to avoid the opening from outside in case of break in attempt.

Application

With know 23 mm high the ABACO bolts are suitable to sash wrapping systems or monoblock systems with reduced space between window and shutter. The blocking device is specially designed to improve the shutter security.

Mounting

According to the desired rod throw and the gap of the shutter, position the bolt on a adequate distance from the edge and fix it with maximum ø4 mm screws.



Order Specifications

Ref.	Bracket size			Article
A	B	C		
1	290			H00960.25.XX
2	440	228		H00960.40.XX
	540	328		H00960.50.XX
	640	428		H00960.60.XX

NB. Refer to the price list in force to check the availability of the finishes.

Vertical bent bolts



Description

Vertical bolts for shutters with articulated knob and security device to avoid the opening from outside in case of break in attempt.

Application

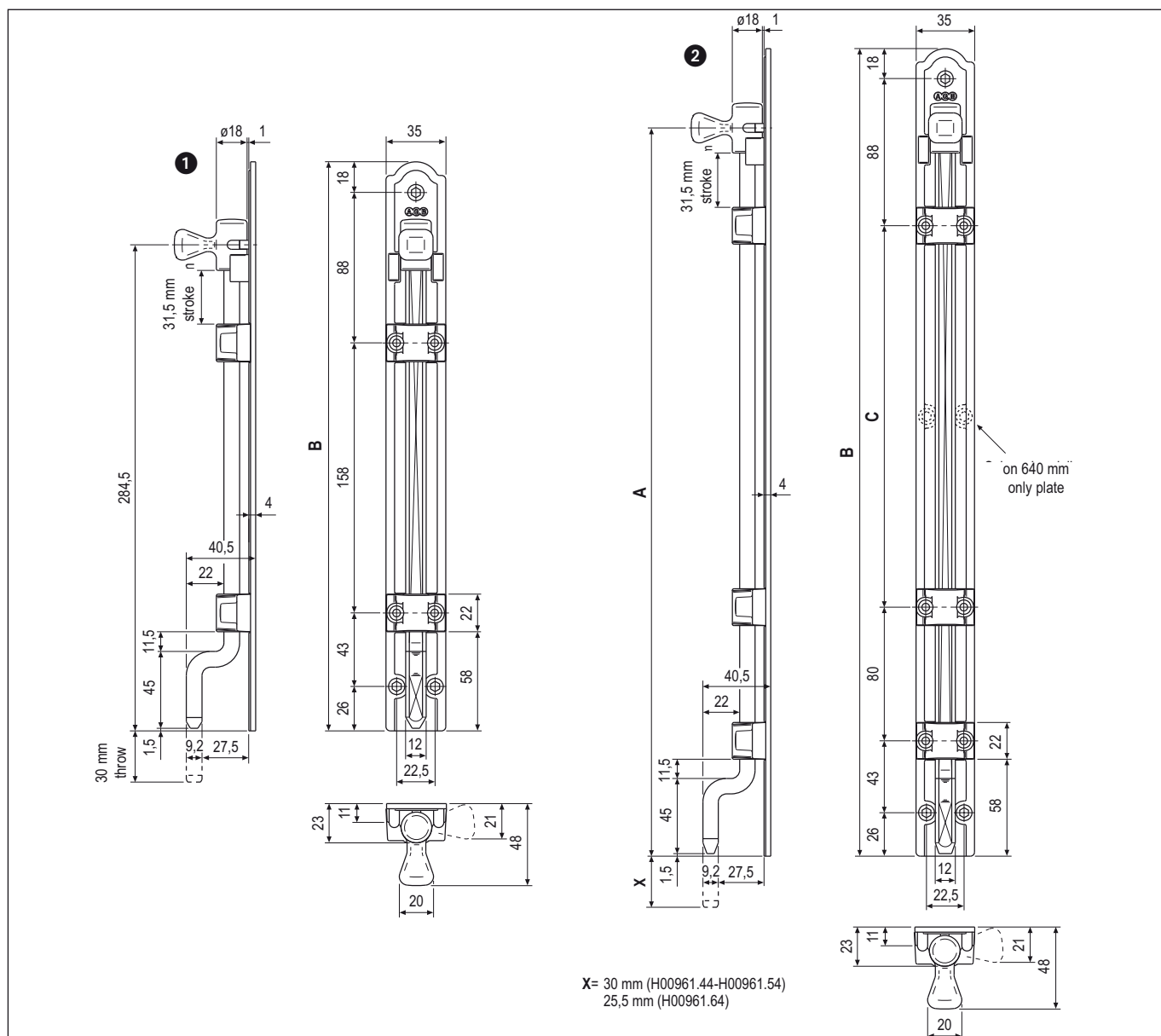
The bent rod allows to increase the distance of the hole from the edge of the threshold or from the upper reveal of the wall.

With know 23 mm high the ABACO bolts are suitable to sash wrapping systems or monoblock systems with reduced space between window and shutter.

The blocking device is specially designed to improve the shutter security.

Mounting

According to the desired rod throw and the gap of the shutter, position the bolt on a adequate distance from the edge and fix it with maximum $\varnothing 4$ mm screws.



Order Specifications

Bracket size

Ref.	A	B	C	Article
1		333		H00961.29.XX
2	434,5	483	228	H00961.44.XX
	534,5	583	328	H00961.54.XX
	634,5	683	428	H00961.64.XX

NB. Refer to the price list in force to check the availability of the finishes.

Security bolt for espagnolette - for single sash



Description

Horizontal bolt for single sash shutters with articulated knob. Improve de security of the sash without injuring the functionality of the espagnolette closing system.

Application

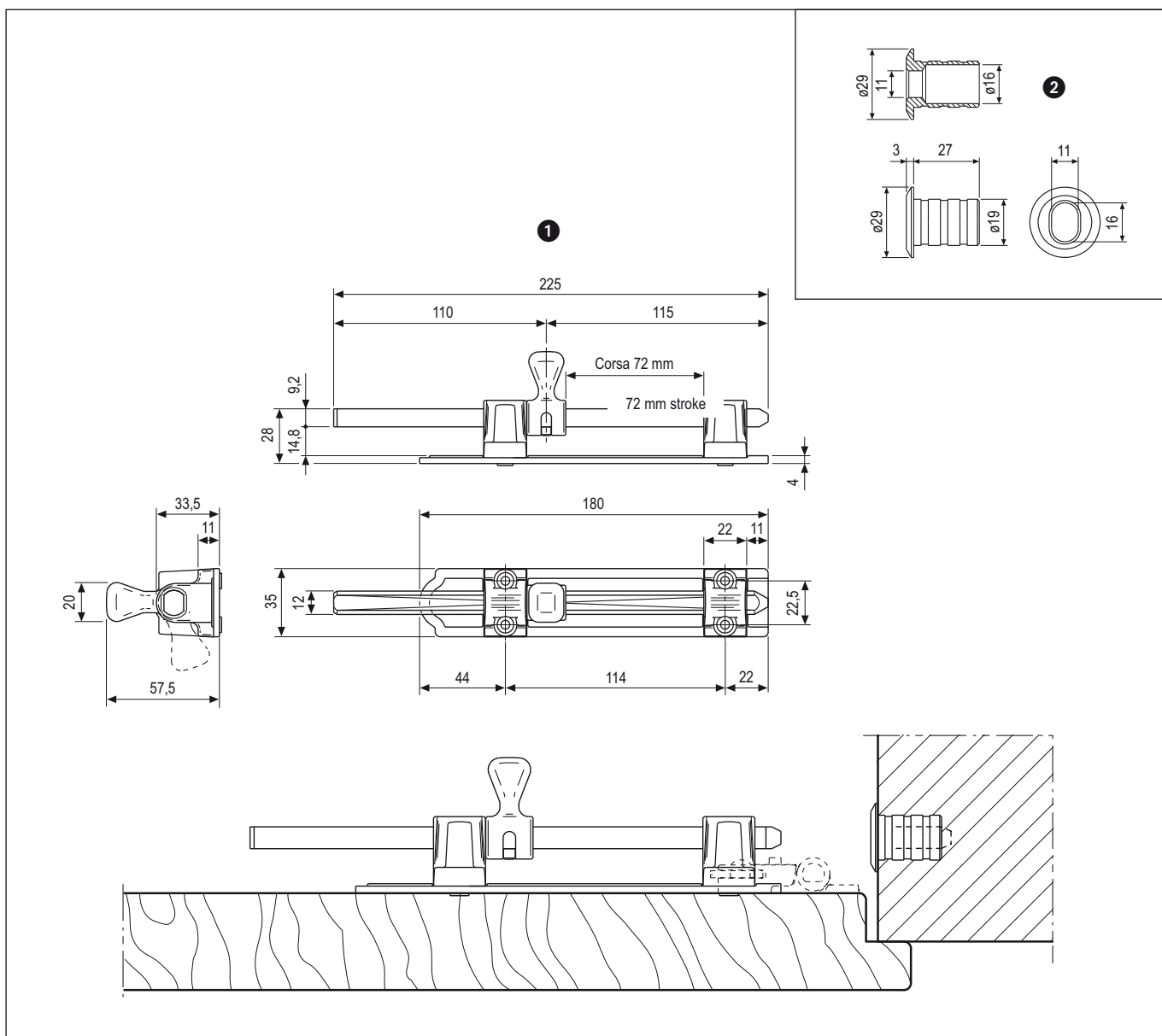
On new or existing shutters, are applied astride the espagnolette in order to improve the security. It is suitable to all espagnolettes on the market.

Mounting

According to the desired rod throw and the gap of the shutter, position the bolt on a adequate distance from the edge and fix it with maximum $\varnothing 4$ mm screws.

Then mark the drilling position for the application of the bushing.

For a better anchoring of the bushing we recommend to use bi-component resins.



Order Specifications

Bracket size	
Ref.	Description
①	Bolt + striker
②	Through striker

NB. Refer to the price list in force to check the availability of the finishes.

Security bolt for espagnolette - for double sash



Description

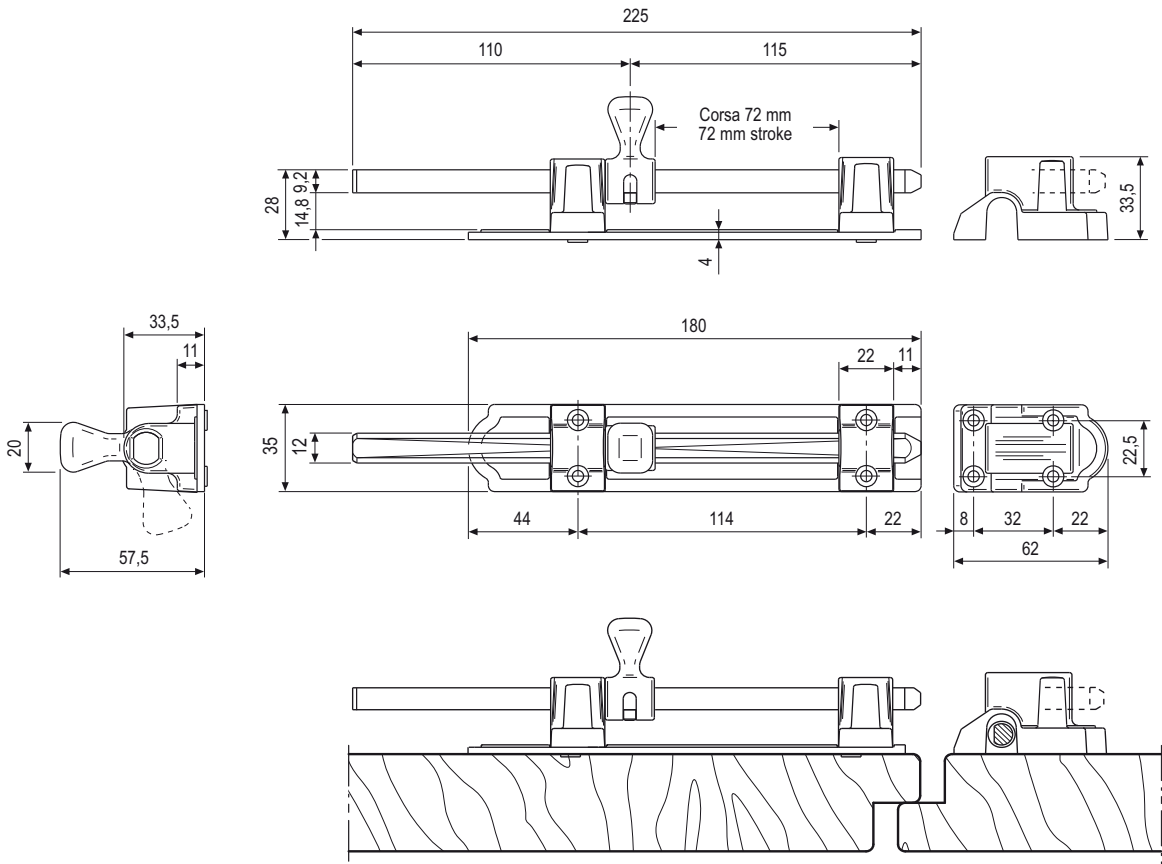
Horizontal bolt for single sash shutters with articulated knob. Improve de secutity of the sash without injuring the functionality of the espagnolette closing system.

Application

On new or existing shutters, are applied astride the espagnolette in order to improve the security of the double sash shutter. It is suitable to all espagnolettes on the market.

Mounting

Position the bolt and the strikerr on the sashes and distance them according to the existing gap between the sashes. Fix with maximum ø4 mm screws.



Order Specifications

Bracket size	Article
225	H00963.23.XX

NB. Refer to the price list in force to check the availability of the finishes.

Horizontal bolts - for double sash



Description

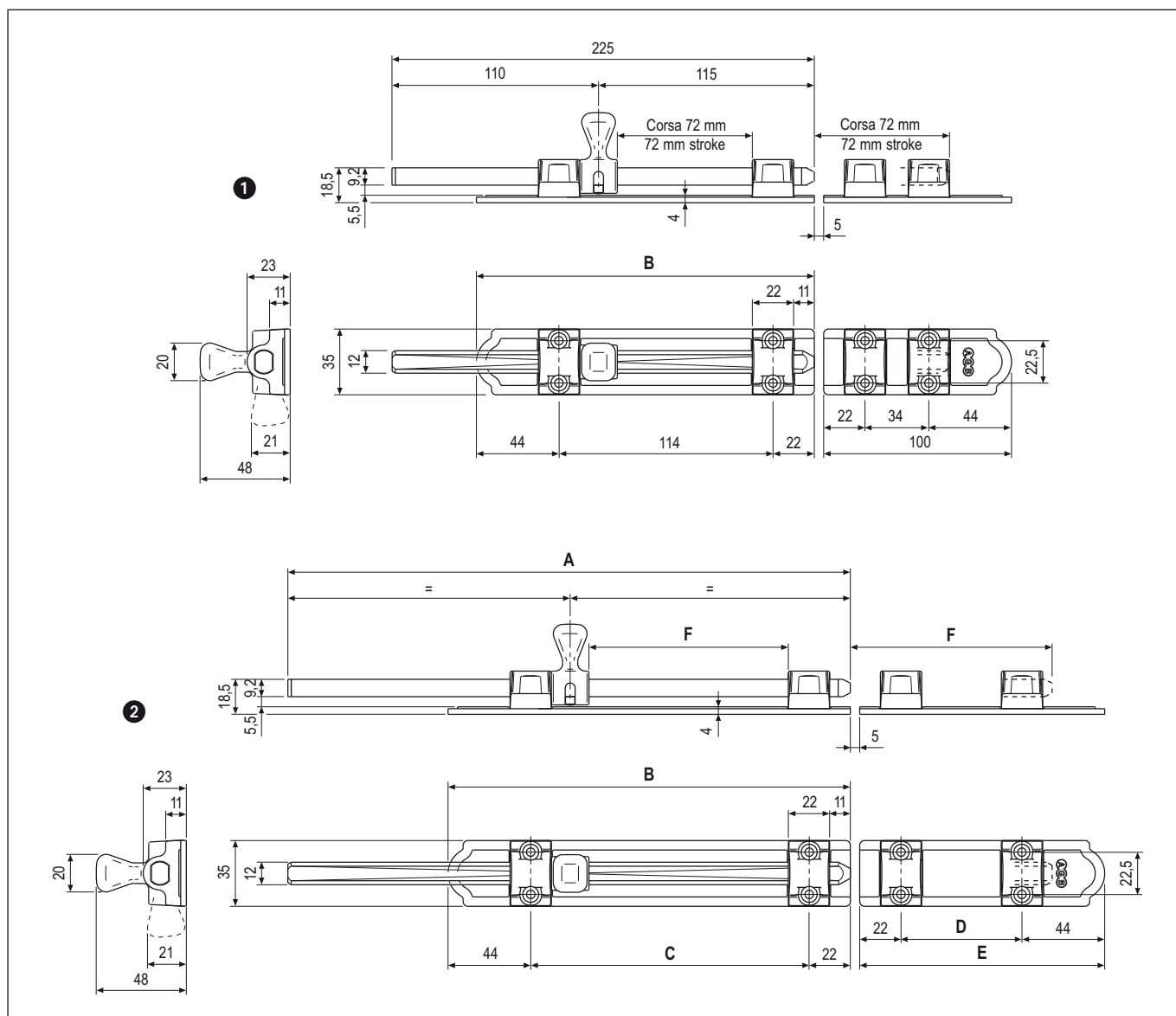
Horizontal bolts with articulated knob for 2 or more sashes shutters

Application

With know 23 mm high the ABACO bolts are suitable to sash wrapping systems or monoblock systems with reduced space between window and shutter. The blocking device is specially designed to improve the shutter security.

Mounting

Position the bolt and the strikerr on the sashes and distance them according to the existing gap between the sashes. Fix with maximum $\varnothing 4$ mm screws.



Order Specifications

Bracket size

Ref.	A	B	C	D	E	F	Article
①		180					H00962.22.XX
②	300	215	149	64	130	107	H00962.30.XX
	400	265	199	114	180	157	H00962.40.XX
	500	315	249	164	230	207	H00962.50.XX

NB. Refer to the price list in force to check the availability of the finishes.

Striker for ABACO vertical bolts



Description

Striker for push rods, adjustable on plate, featuring adjustment fastening screw.

Application

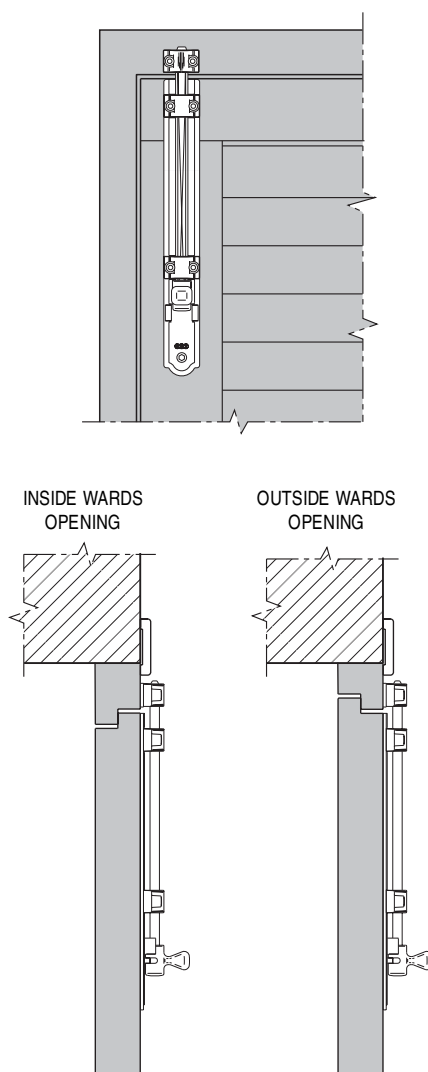
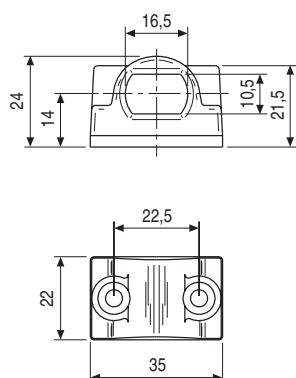
A) On shutters and overlapped or rebated single sash main doors, inside wards opening, as a locking point on the upper transom. The adjustment allows the application on rebates of different thickness up to 37 mm maximum.

B) With minimal adjustment, application allowed even on flush type and therefore for outside wards openings.

The "T" shape makes the striker non handed and allows wide lateral adjustment of the sashes.

Mounting

Execute a $\varnothing 12$ mm hole to house the threaded pin, and afterwards fasten it with screws suitable to the building material. Use anchors of 6 mm or longer (wall type).



Order Specifications

Article

H00964.01.XX

NB. Refer to the price list in force to check the availability of the finishes.

Striker for ABACO vertical bolts - flush sash



Description

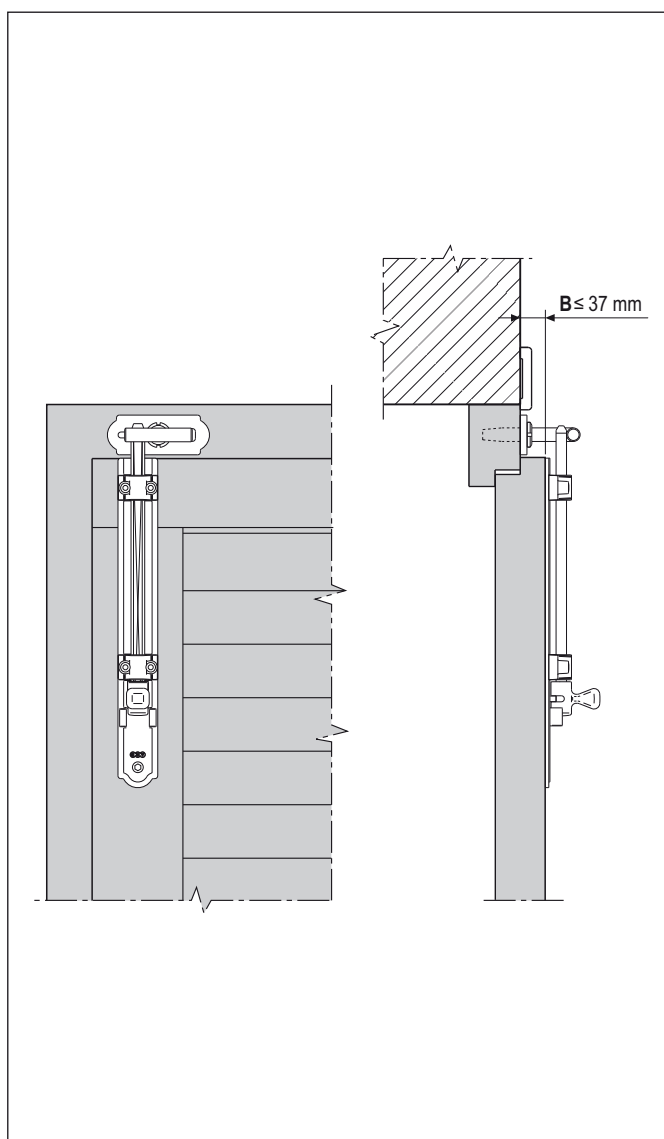
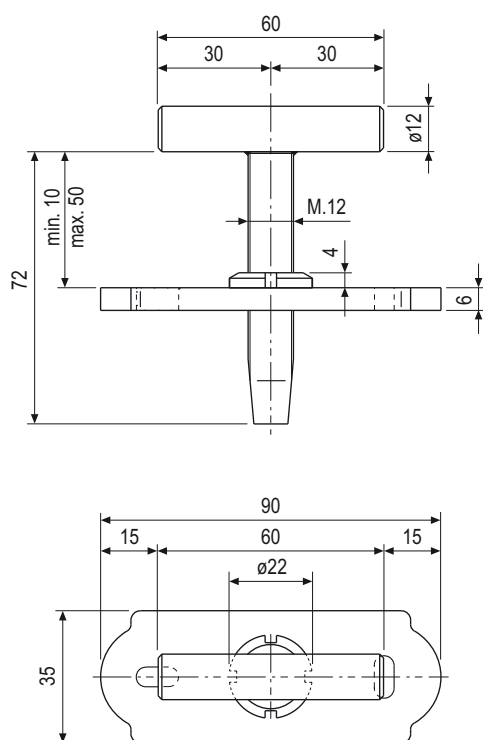
Striker for push rods.

Application

On shutters and main doors where sash and frame are internally coplanar (flush). The shape of the striker hole allows the lateral adjustment of the sashes (± 2 mm referring to the central position).

Mounting

With two $\varnothing 4 \times 35$ mm screws, thread suitable to building material.



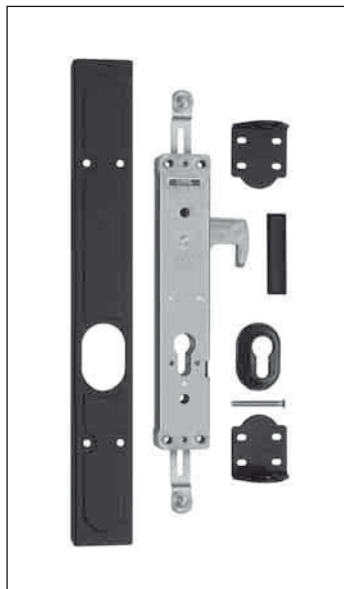
Order Specifications

Article

H00964.02.XX

NB. Refer to the price list in force to check the availability of the finishes.

Basic Kit Ariete Triplex



Description

Basic kit for Ariete lock with hook for 3 point closure. The lock is non-handed and can be coupled to the vertical closing rods, straight or bent.

Contents

- n° 1 lock with hook;
- n° 1 varnished cover;
- n° 1 adapter for cylinder key - key (for the knob adapter please find it in the cylinder);
- n° 2 push rod guides;
- n° 1 screw for cylinder;
- n° 1 plastic cover plate for the hook hole.

NB. The striker for the hook is not included in the kit because has to be chosen according to the shutter building type: Single and double sash, monoblock, masonry, wood, PVC, adjustable or not adj. striker.

Application

The lock can be applied on the wood, PVC or Aluminium. When the profile is not flat, different adapter for lock and push rod guide (H32305.00.99

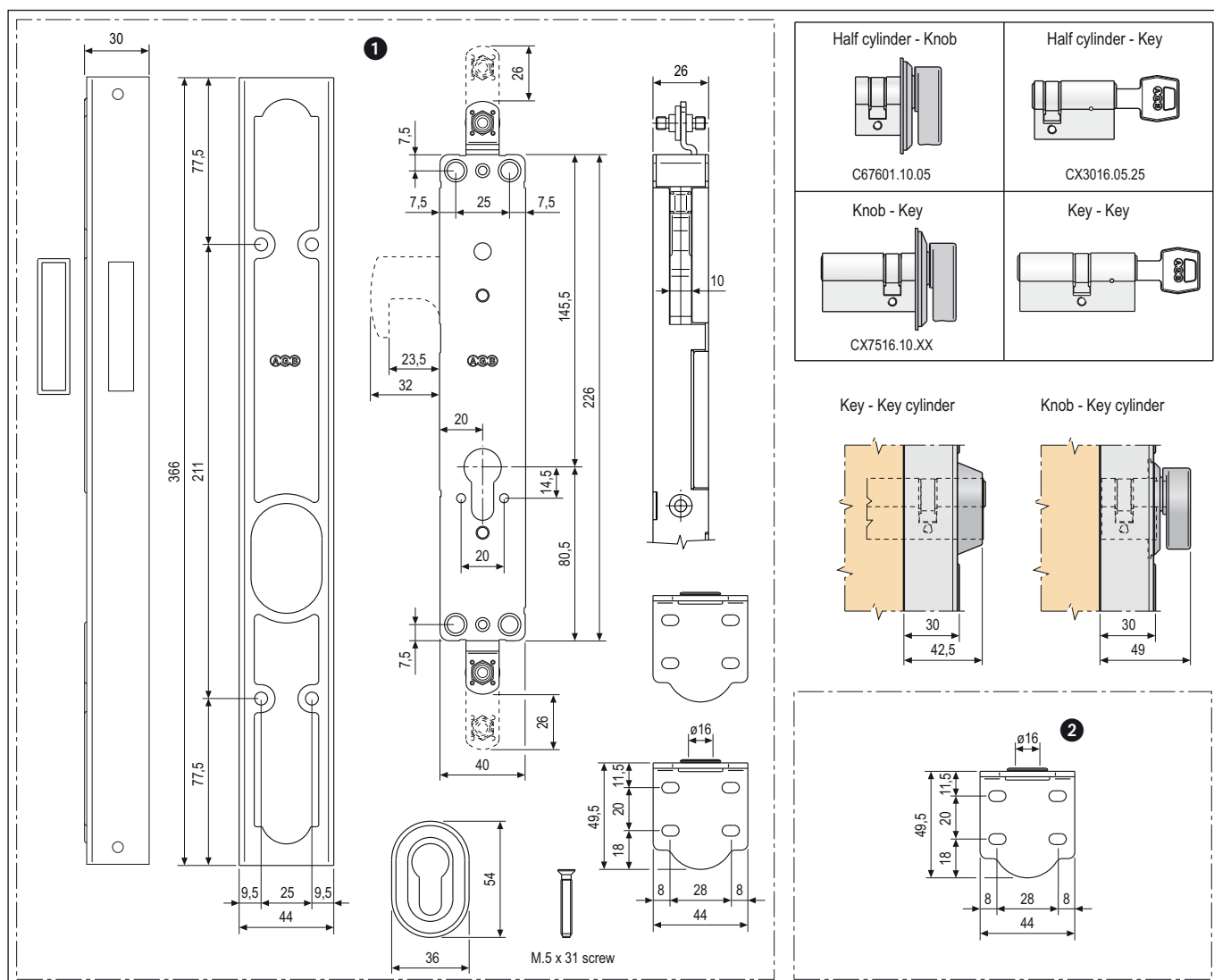
and H32306.00.99) are available. The lock allows different configurations and opening types according to the cylinder: Opening only from inside with knob= C67601.10.05; opening from inside with key= half cylinder CX3016.05.25; Opening from outside with key and from inside with knob= CX7516.10.XX; inside and outside opening with knob= key-key C50016.25.XX

NB. For increase the resistance against the break-in attempts according to the Class 2 certification (regulation 1627-30:2000). Advice: use additional push rod guide H32200.00.99.

Mounting

Two different fastening screws kits are available for the fixing of the lock, the strikers and the push-rod guides.

A kit for the wooden shutters H34400.00.93 and a kit for PVC and Aluminium H34401.00.93

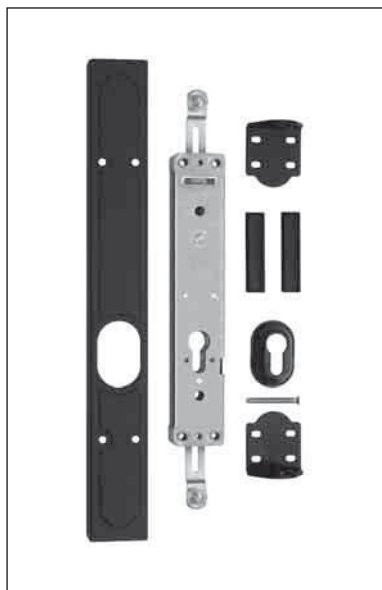


Order specifications

Ref.	Description	Article
1	Basic Kit Ariete Triplex	H34101.00.XX
2	Additional push-rod guide for 1627-30:2000 certification (class 2)	H32200.00.99

NB. Refer to the price list in force to check the availability of the finishes.

Basic Kit Ariete Duplex



Description

Basic kit for Ariete lock with 2 push rods for closure. The lock is non-handed and can be coupled to the vertical closing rods, straight or bent.

Contents

- n° 1 lock without hook;
- n° 1 varnished cover;
- n° 1 adapter for cylinder key - key (for the knob adapter please find it in the cylinder);
- n° 2 push rod guides;
- n° 1 screw for cylinder;
- n° 2 plastic cover plate for the hook hole.

Application

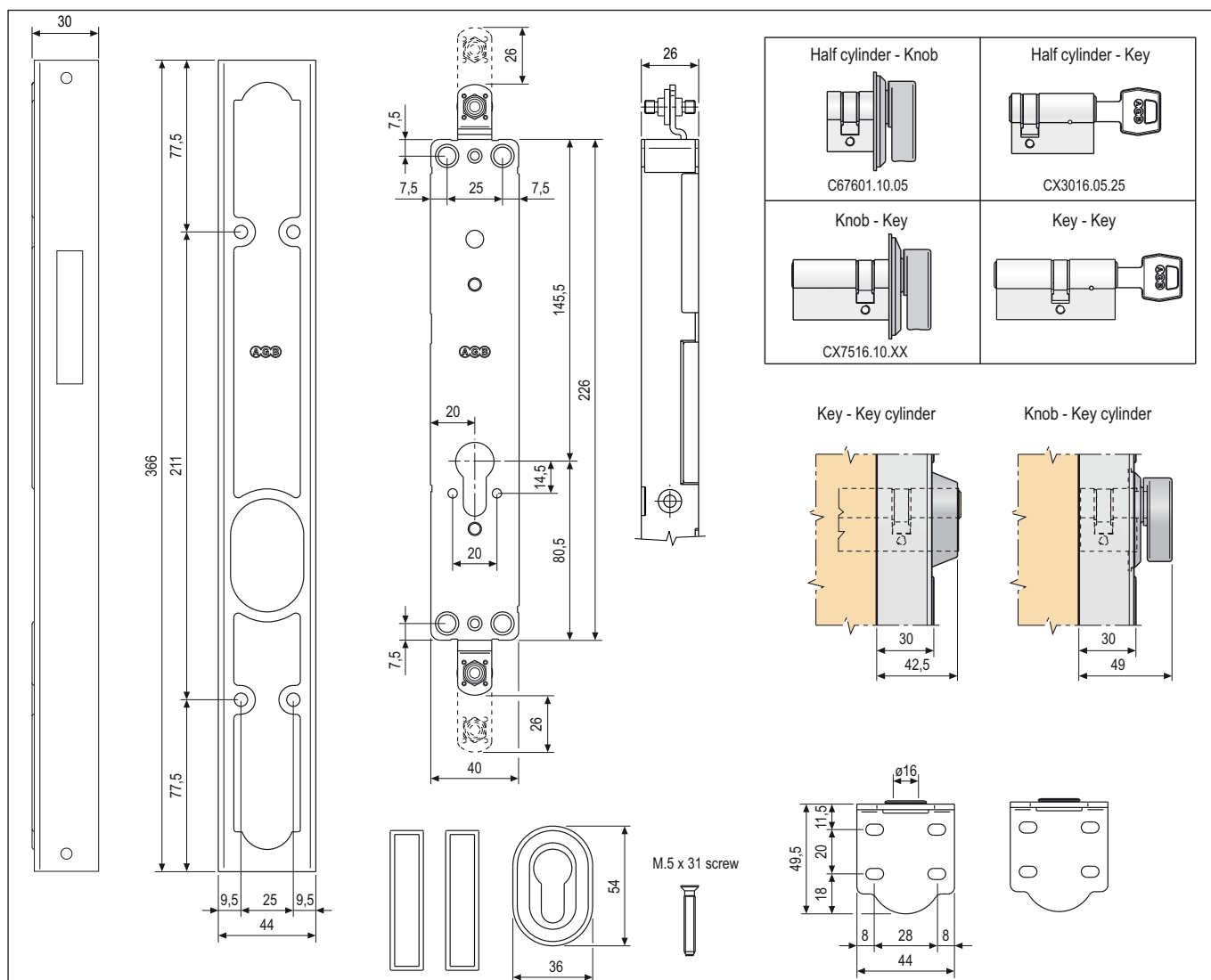
The lock can be applied on the wood, PVC or Aluminium. When the profile is not flat, different adapter for lock and push rod guide (H32305.00.99 and H32306.00.99)

are available. The lock allows different configurations and opening types according to the cylinder: Opening only from inside with knob= C67601.10.05; opening from inside with key= half cylinder CX3016.05.25; Opening from outside with key and from inside with knob= CX7516.10.XX; inside and outside opening with knob= key-key C50016.25.XX.

Mounting

Two different fastening screws kits are available for the fixing of the lock, the strikers and the push-rod guides.

A kit for the wooden shutters H34400.00.93 and a kit for PVC and Aluminium H34401.00.93.



Order specifications

Description	Article
Basic Kit Ariete Duplex	H34201.00.XX

NB. Refer to the price list in force to check the availability of the finishes.

Kit push rods, straight



Description

Basic kit for push rods straight.
The rods are made of aluminium powder varnished. The closing push rod is in hardened steel $\varnothing 9$ against cutting attempts. To make the assembly faster, the rods are supplied already with holes for the coupling with the lock, and with the handle and the protecting caps already assembled.

Contents

- n° 1 top telescopic rod with waterproof caps;
- n° 1 bottom telescopic rod with pull-handle;
- n° 2 push rod striker anti-dust.

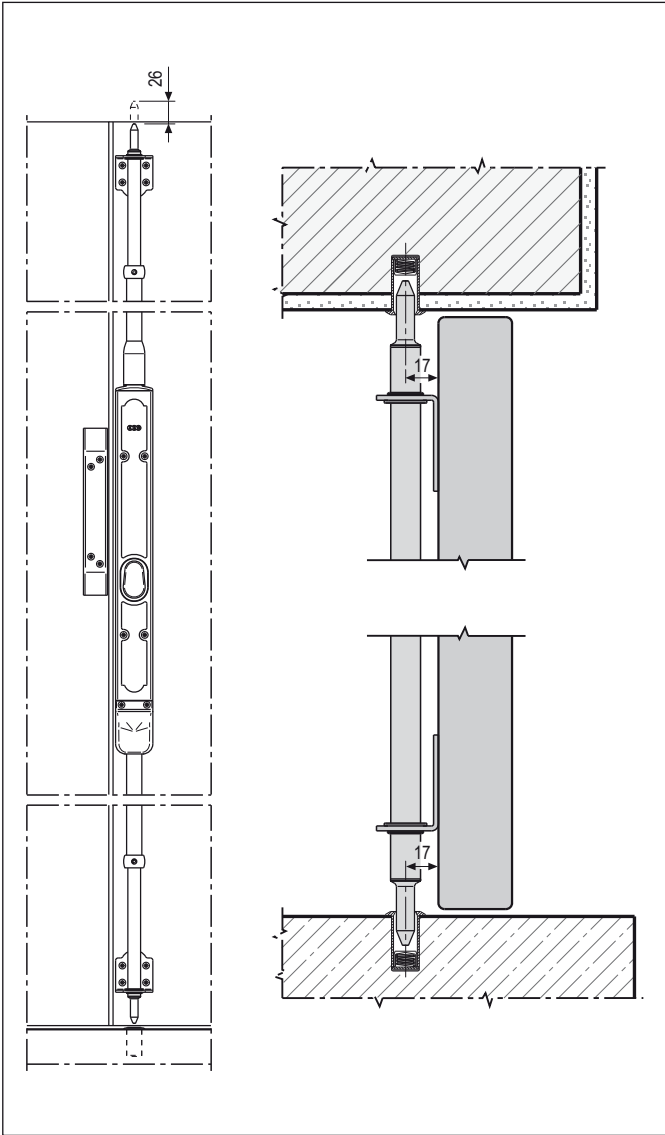
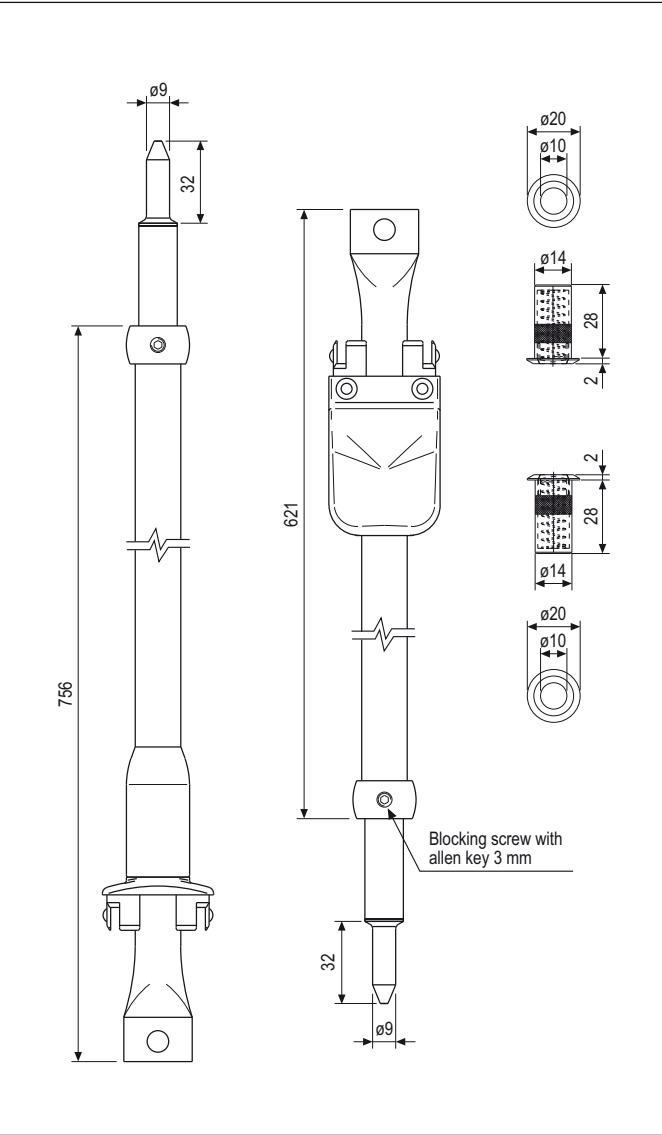
Application

The push rods are telescopic, allowing a height range between 1750 and 2900 mm.

NB. By cutting the push rods we can obtain a RH of 1100 mm minimum.

Mounting

Position the push rods by inserting the holes in the pins of the lock, extend the telescopic rod in order to position the final part of the rod flush with the sash. Do not allow the rod to do all the stroke. The rod must be kept a little backwards referring to the edge of the sash. Then block the screw and of a better aestetichs result turn it on the back, towards the sash panel.



Order specifications

Description	Article	RH
Kit push rods, straight	H35001.09.XX	1750-2900

NB. Refer to the price list in force to check the availability of the finishes.

Kit push rods, bent



Description

Basic kit for push rods bent.
The rods are made of aluminium powder varnished. The closing push rod is in hardened steel $\varnothing 9$ against cutting attempts. To make the assembly faster, the rods are supplied already with holes for the coupling with the lock, and with the handle and the protecting caps already assembled.

Contents

- n° 1 top telescopic rod with waterproof caps;
- n° 1 bottom telescopic rod with pull-handle;
- n° 2 push rod striker anti-dust.

Application

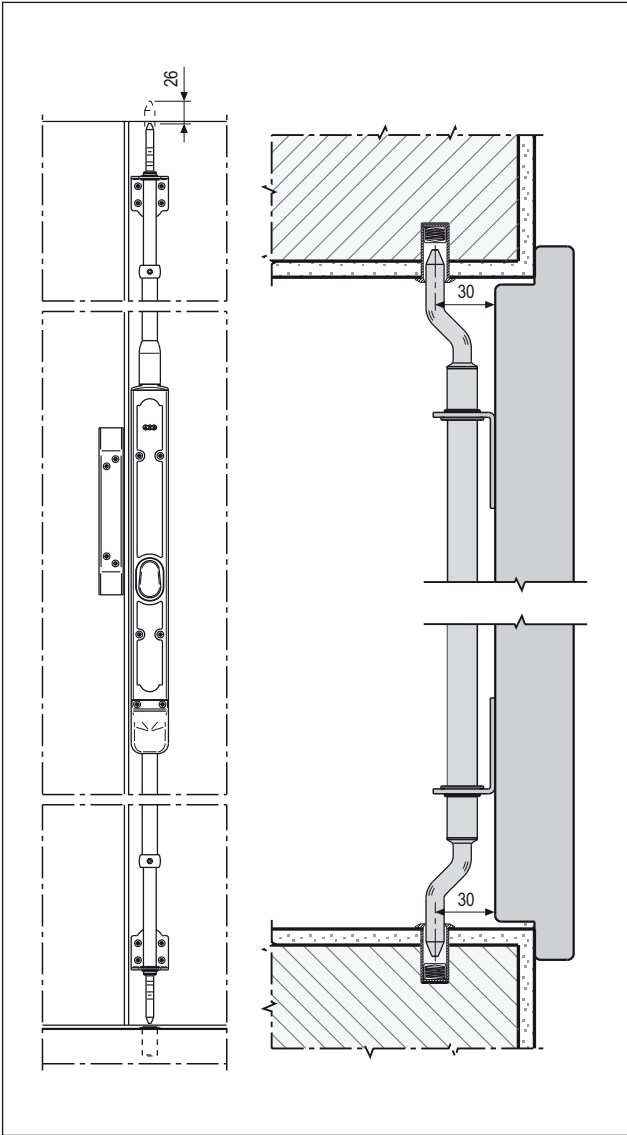
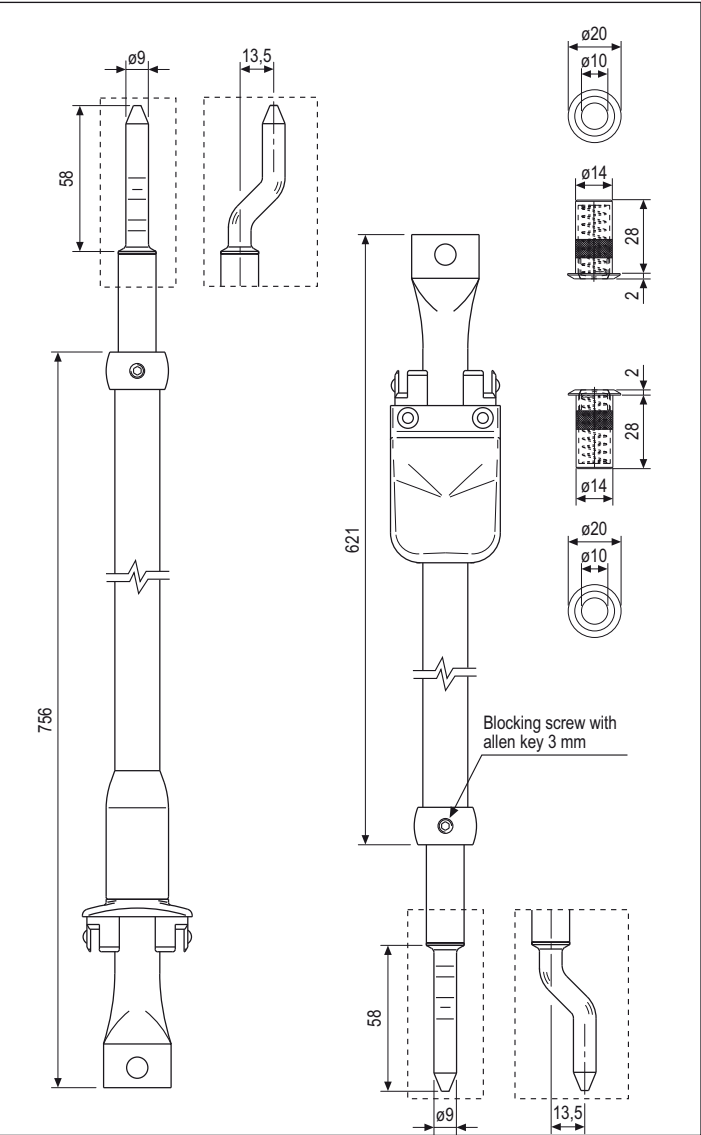
The push rods are telescopic, allowing a height range between 1750 and 2900 mm. The bending on the push rod allows to

increase the distance from the striker and the edge of the wall reveal.

NB. By cutting the push rods we can obtain a RH of 1150 mm minimum.

Mounting

Position the push rods by inserting the holes in the pins of the lock, extend the telescopic rod in order to position the final part of the rod flush with the sash. Do not allow the rod to do all the stroke. The rod must be kept a little backwards referring to the edge of the sash. Then block the screw and of a better aestetichs result turn it on the back, towards the sash panel.



Order specifications

Description	Article	RH
Kit push rods, bent	H35002.09.XX	1800-2950

NB. Refer to the price list in force to check the availability of the finishes.

Kit push rods, upper bent - lower straight



Description

Basic kit for push rods straight.

The rods are made of aluminium powder varnished. The closing push rod is in hardened steel $\varnothing 9$ against cutting attempts. To make the assembly faster, the rods are supplied already with holes for the coupling with the lock, and with the handle and the protecting caps already assembled.

Contents

n° 1 top telescopic rod with waterproof caps:

n° 1 bottom telescopic rod with pull-handle;
n° 2 push rod striker anti-dust.

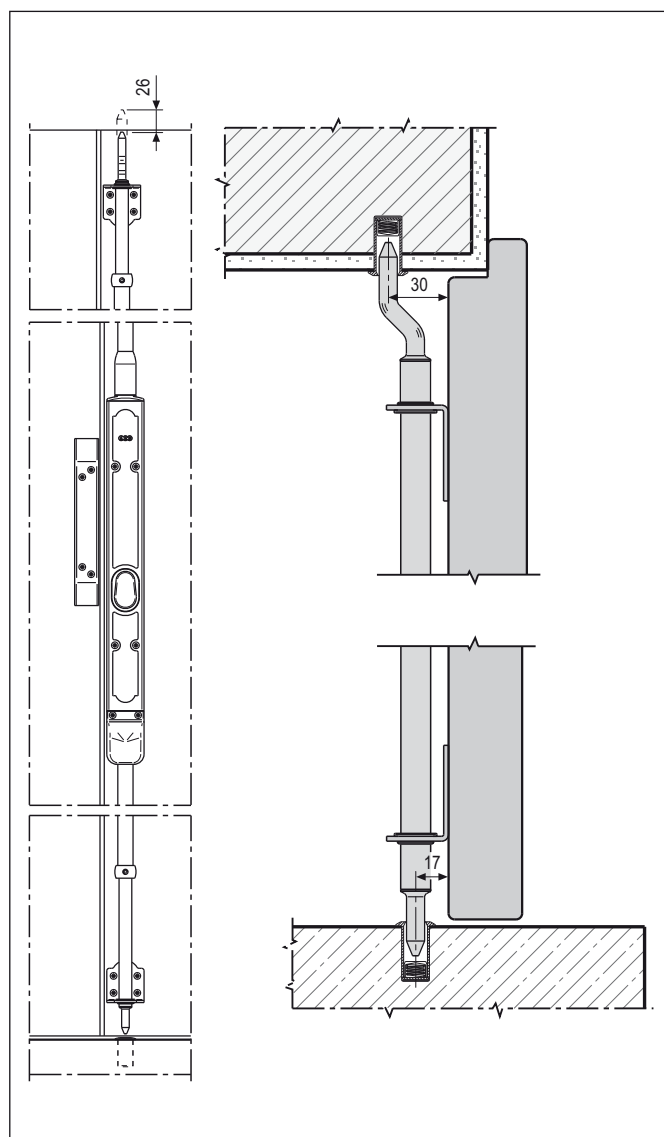
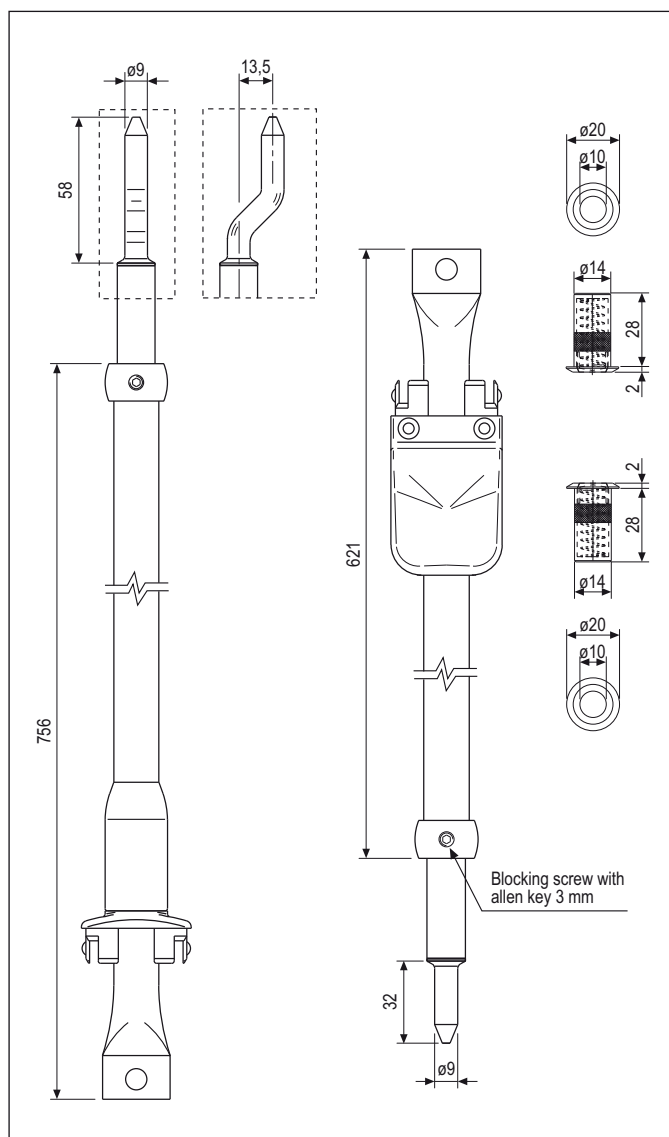
Application

The push rods are telescopic, allowing a height range between 1750 and 2900 mm.

NB. By cutting the push rods we can obtain a RH of 1100 mm minimum.

Mounting

Position the push rods by inserting the holes in the pins of the lock, extend the telescopic rod in order to position the final part of the rod flush with the sash. Do not allow the rod to do all the stroke. The rod must be kept a little backwards referring to the edge of the sash. Then block the screw and of a better aesthetics result turn it on the back, towards the sash panel.



Order specifications

Article	RH
H35003.09.XX	1750-2900

NB. Refer to the price list in force to check the availability of the finishes.

Kit push rods, upper straight - lower bent



Description

Basic kit for push rods bent.
The rods are made of aluminium powder varnished. The closing push rod is in hardened steel $\varnothing 9$ against cutting attempts. To make the assembly faster, the rods are supplied already with holes for the coupling with the lock, and with the handle and the protecting caps already assembled.

Contents

n° 1 top telescopic rod with waterproof caps;
n° 1 bottom telescopic rod with pull-handle;
n° 2 push rod striker anti-dust.

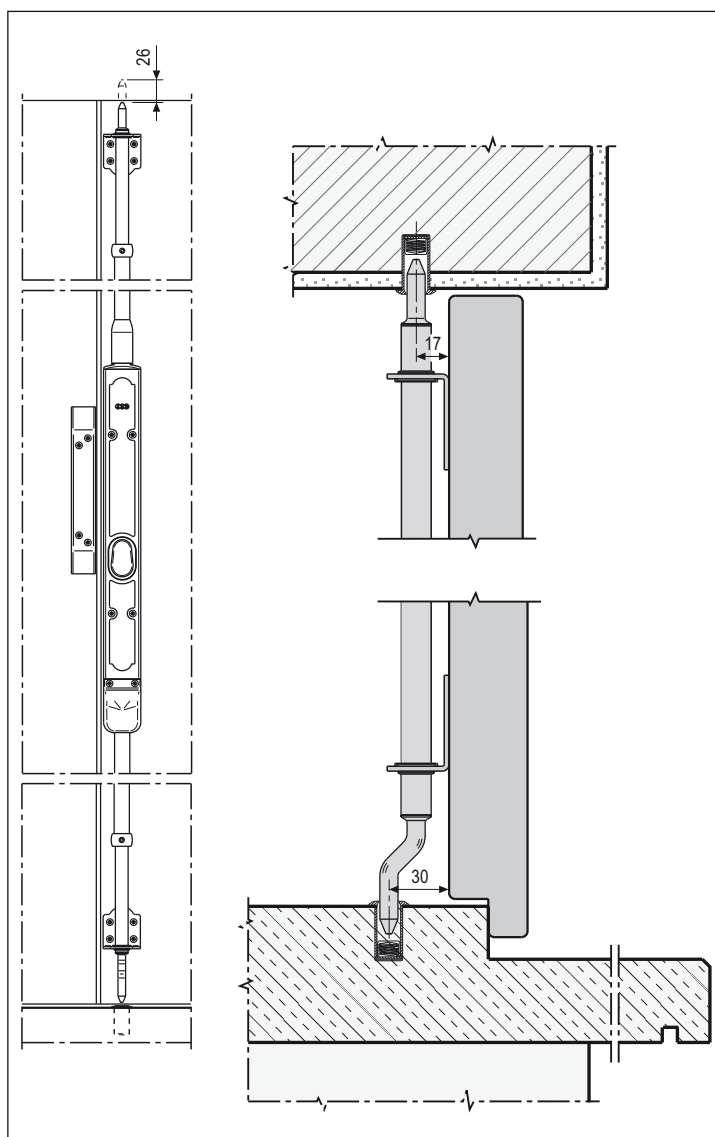
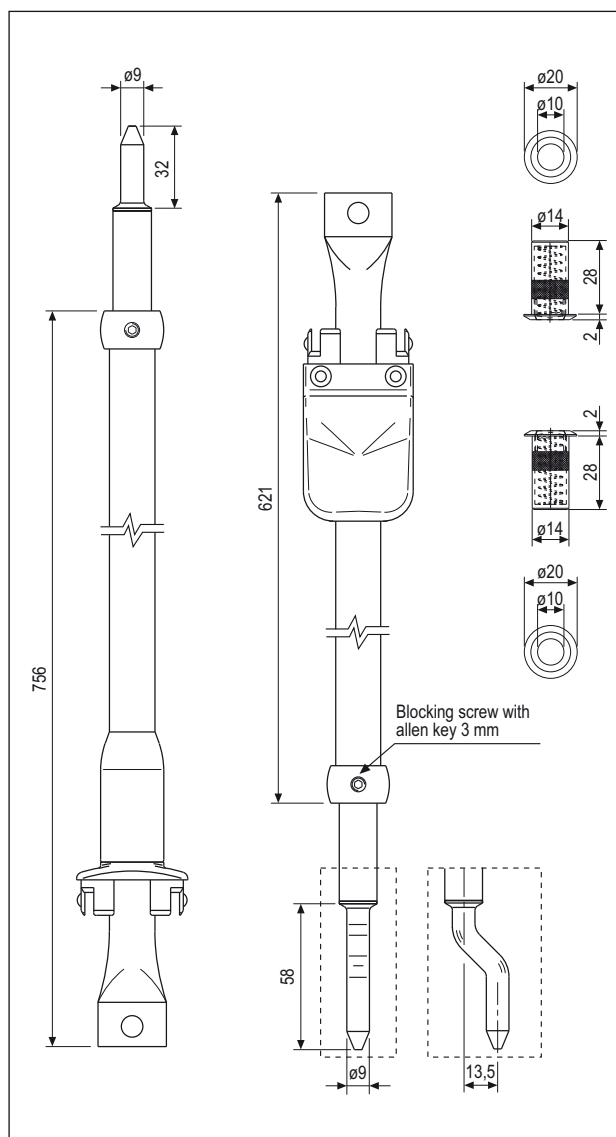
Application

The push rods are telescopic, allowing a height range between 1750 and 2900 mm. The bending on the push rod allows to increase the distance from the striker and the edge of the wall reveal.

NB. By cutting the push rods we can obtain a RH of 1150 mm minimum.

Mounting

Position the push rods by inserting the holes in the pins of the lock, extend the telescopic rod in order to position the final part of the rod flush with the sash. Do not allow the rod to do all the stroke. The rod must be kept a little backwards referring to the edge of the sash. Then block the screw and of a better aestetichs result turn it on the back, towards the sash panel.

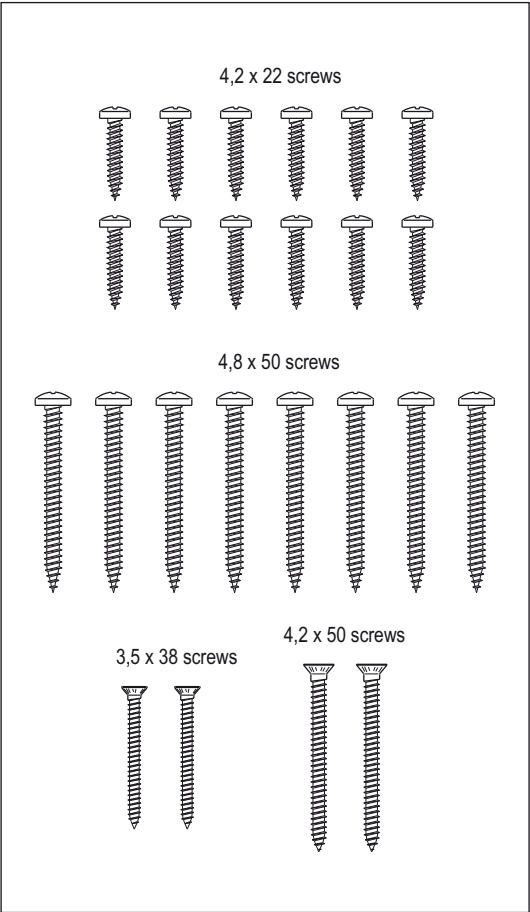
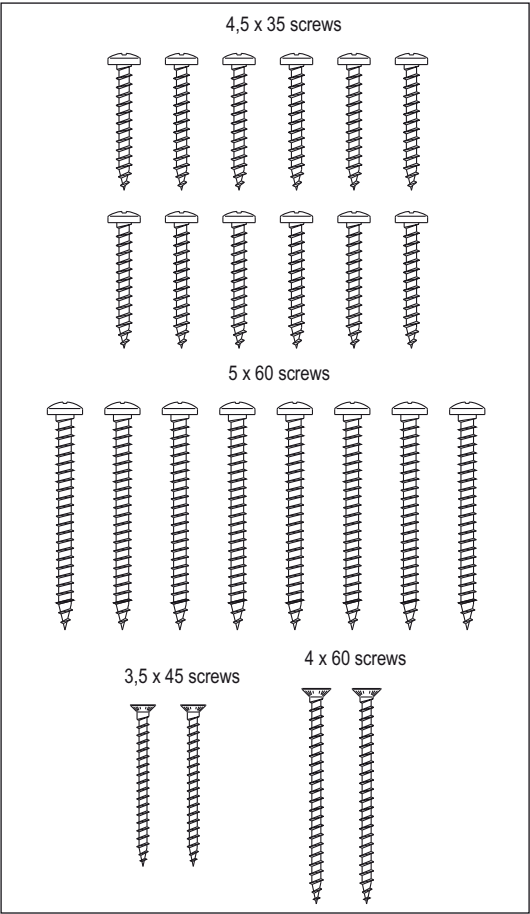


Order specifications

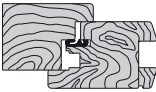
Article	RH
H35002.09.XX	1800-2950

NB. Refer to the price list in force to check the availability of the finishes.

Kit screws



Kit fixing screws for wood



Description

Basic kit including all the screws needed for the assembly of the lock Ariete on wooden shutters. The stainless steel screws are black coloured, except for the 2 3x45 for the pre-assembly of the lock (upper and lower screw holes).

Contents

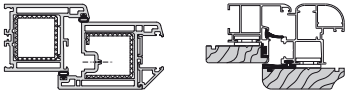
- n° 12 black stainless steel 4,5x35 screws, cylindric head (for push rod guide and single sash striker plate)
- n. 8 black stainless steel 5x60 screws for lock cover and second sash striker fixing;
- n° 2 black stainless steel 4x60 screws for pulling handle;
- n° 2 zinc steel 3,5x45 screws for pre-assembling of the lock case on the shutter.

Order specifications

Article		
H34400.00.XX		

NB. Refer to the price list in force to check the availability of the finishes.

Kit fixing auto-threading screws for PVC and Aluminium



Description

Basic kit including all the screws needed for the assembly of the lock Ariete on PVC and Aluminium shutters. The stainless steel screws are black coloured, except for the 2 3,5x38 for the pre-assembly of the lock (upper and lower screw holes).

Contents

- n° 12 black stainless steel 4,2x22 screws, cylindric head (for push rod guide and single sash striker plate);
- n° 8 black stainless steel 4,8x50 screws for lock cover and second sash striker fixing;
- n° 2 black stainless steel 4,2x50 screws for pulling handle;
- n° 2 zinc steel 3,5x38 screws for pre-assembling of the lock case on the shutter.

NB. See chart here below for the screw-holes to prepare before screw down the stainless steel screws.

Order specifications

Article		
H34401.00.93		

Screw diameter mm	Hole diameter mm
3,5	3
4,2	3,5
4,8	4

TENAX for ø 34 drilling



Description

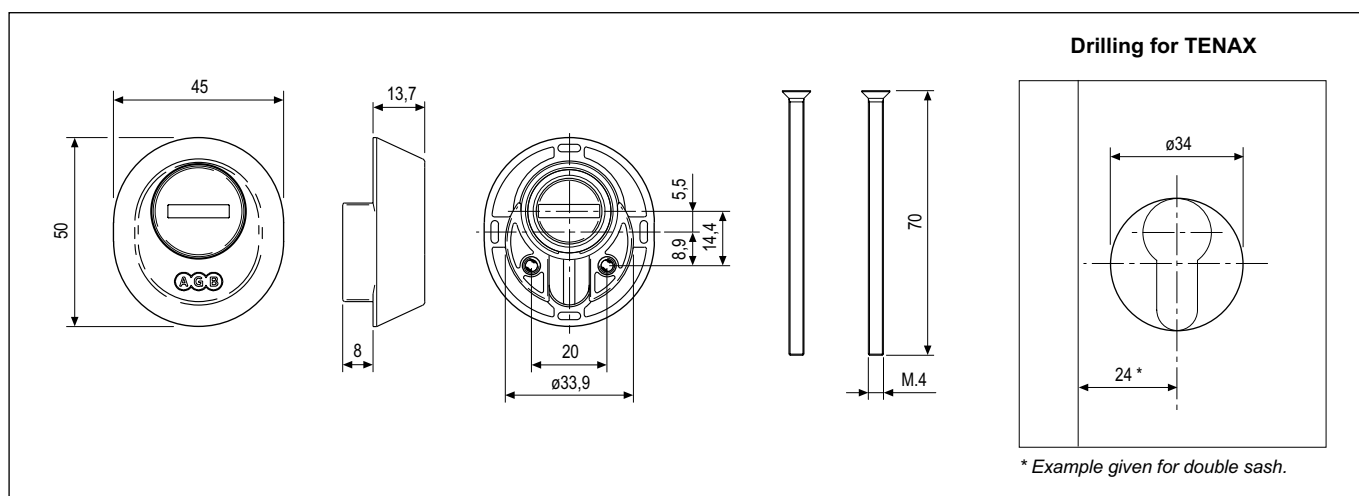
Protective rim guard anti-drilling and anti-tear-out for ø 34 mm through hole. Black embossed finish.

Application

on wooden, Aluminium, PVC doors. When PVC and Aluminium profiles have a step, use an adapter of 3 mm art H32307.03.99

Mounting

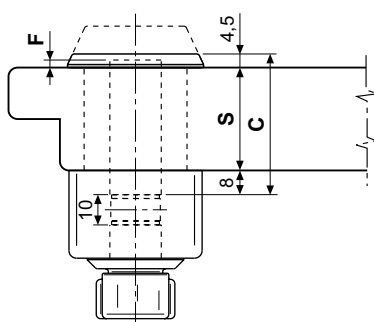
From the inside with M4 screws supplied together with the item.



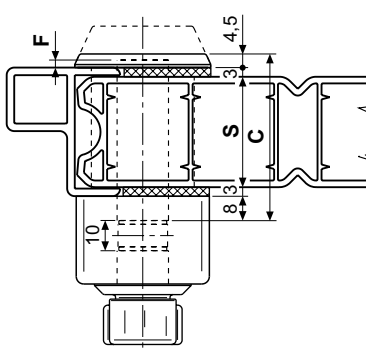
CALCULATE FORMULA FOR CHOOSING THE DIMENSION "C" OF THE CYLINDER ON THE BASIS OF THE THICKNESS OF THE SHUTTER

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5



Formula for wooden panels
C = S + F + 8



Formula for PVC and Aluminium panels
C = S + 3 + 3 + F + 8

Example with Eschutcheon:

Shutter thickness (S) = 40 mm

F Eschutcheon = 4,5

C = 40 + 4,5 + 8 = 52,5 mm

Choose a cilinder of "C" 55 mm (CX7516.10.55)

Example with TENAX:

Shutter thickness (S) = 36 mm

F Tenax = min.1/max. 6

C = 36 + 3 + 3 + 8 + 6 = 56 mm

Choose a cilinder of "C" 55 mm (CX7516.10.55)

Order specifications

Description	Article
TENAX for through hole ø 34	H32308.00.99

Plate kits for insulating panels

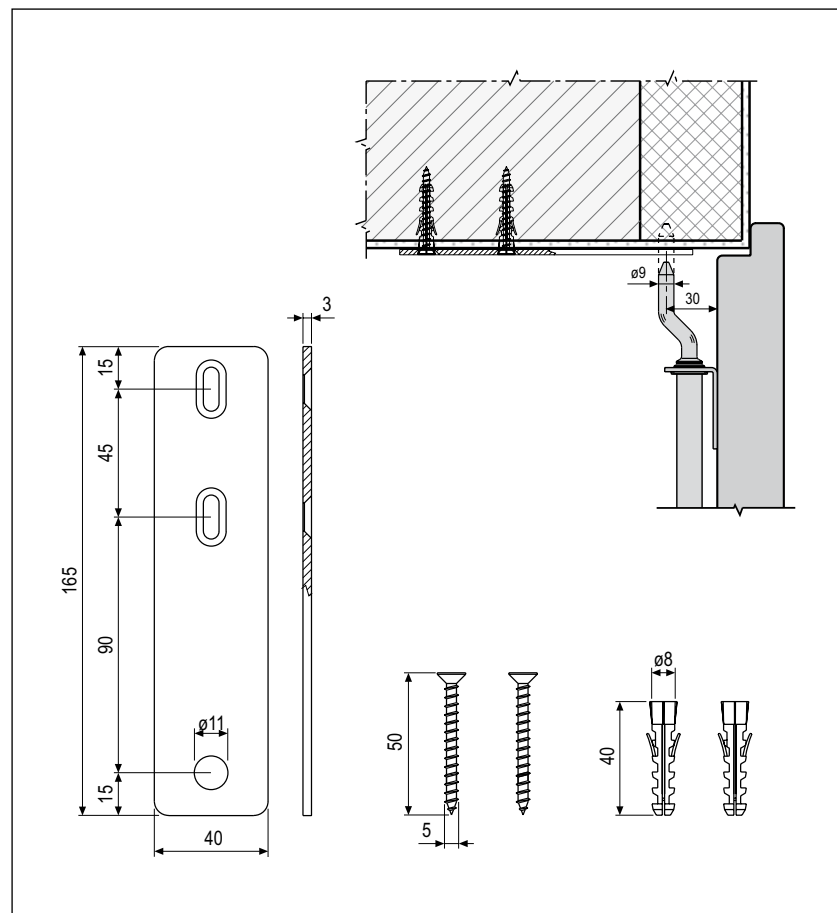
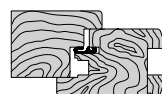


Plate and short screw anchor kit for insulating panels



Description

Striker for Ariete ø9 push rod. The plate is zinc plated and then powder black varnished.

Application

For reveals of walls covered by insulating panels only on the face.

Contents

n°1 plate;
n°2 anchors 8x40;
n°2 zinc plated screws 5x50.

Order specifications

Article	
H34501.00.99	

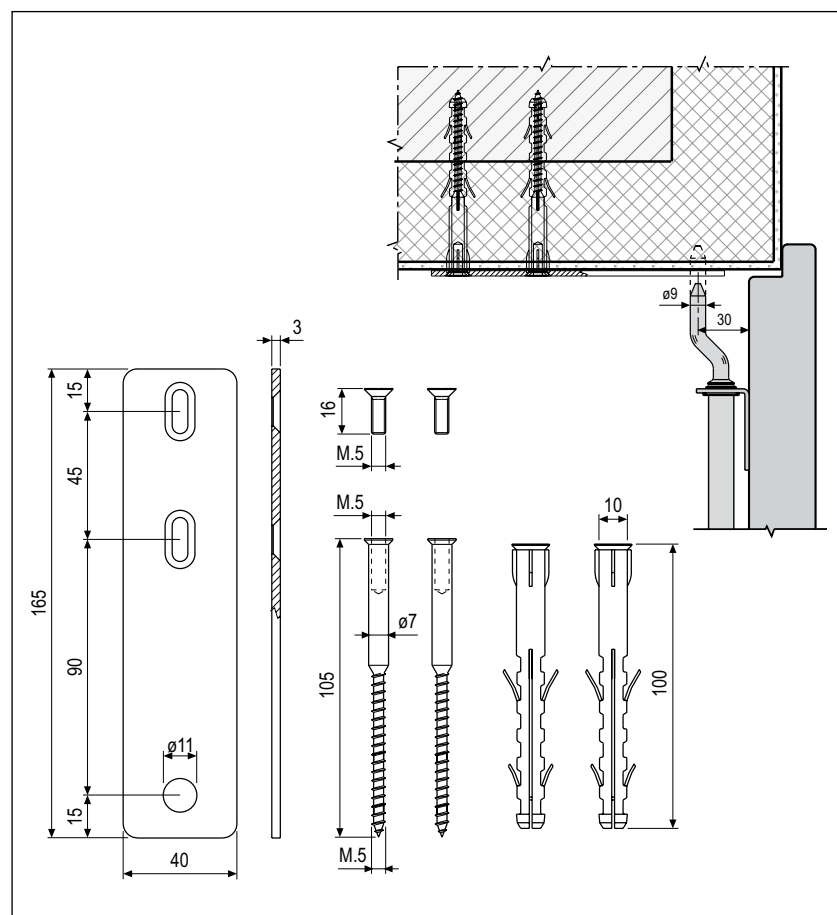
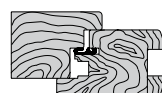


Plate and long screw anchor kit for insulating panels



Description

Striker for Ariete ø9 pushrod. The plate is zinc plated and then powder black varnished.

Application

For reveals of walls covered by insulating panels.

Contents

n°1 plate;
n°2 nylon anchors 10x100;
n°2 zinc plated screws 5x105 with impression T40 and internal thread M5;
n°2 white zinc plated screws M5x16.

Order specifications

Article	
H34502.00.99	

External escutcheon for ø 34 through hole



Description

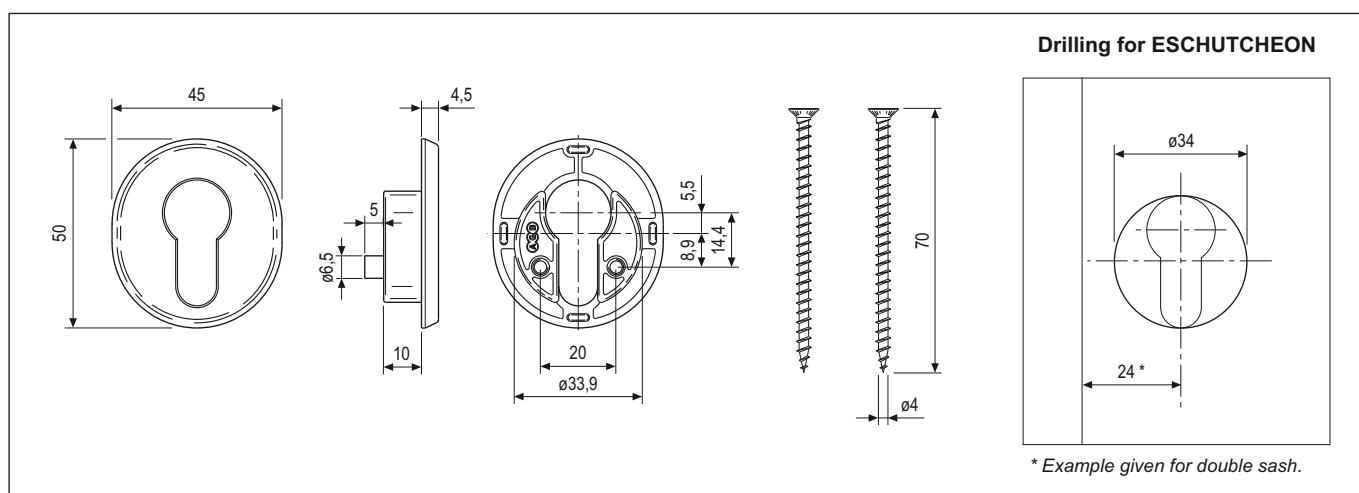
Escutcheon covering the ø 34 mm hole.
Made of plastic material and embossed surface.

Application

on wooden, Aluminium, PVC doors. When PVC and Aluminium profiles have a step, use an adapter of 3 mm art H32307.03.99

Mounting

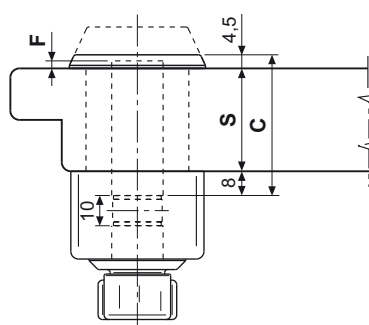
From the inside with ø4x70 screws supplied together with the item.



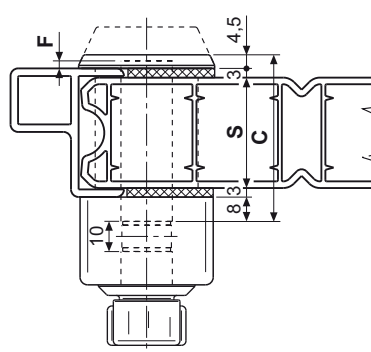
CALCULATE FORMULA FOR CHOOSING THE DIMENSION "C" OF THE CYLINDER ON THE BASIS OF THE THICKNESS OF THE SHUTTER

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5



Formula for wooden panels
C = S + F + 8



Formula for PVC and Aluminium panels
C = S + 3 + 3 + F + 8

Example with Eschutcheon:

Shutter thickness (S) = 40 mm

F Eschutcheon = 4,5

C = 40 + 4,5 + 8 = 52,5 mm

Choose a cilinder of "C" 55 mm (CX7516.10.55)

Example with TENAX:

Shutter thickness (S) = 36 mm

F Tenax = min. 1/ max. 6

C = 36 + 3 + 3 + 8 + 6 = 56 mm

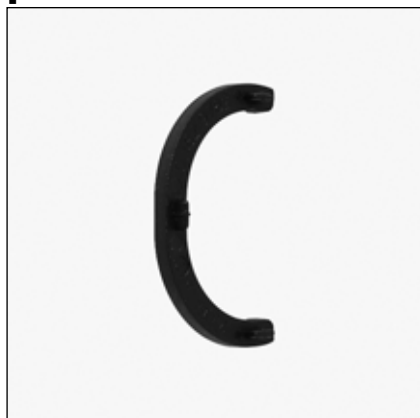
Choose a cilinder of "C" 55 mm (CX7516.10.55)

Order specifications

Description	Article
External escutcheon for ø 34 through hole	H32302.00.XX

NB. Refer to the price list in force to check the availability of the finishes.

Adapter for escutcheon and TENAX on PVC/Aluminium profiles ø 34



Description

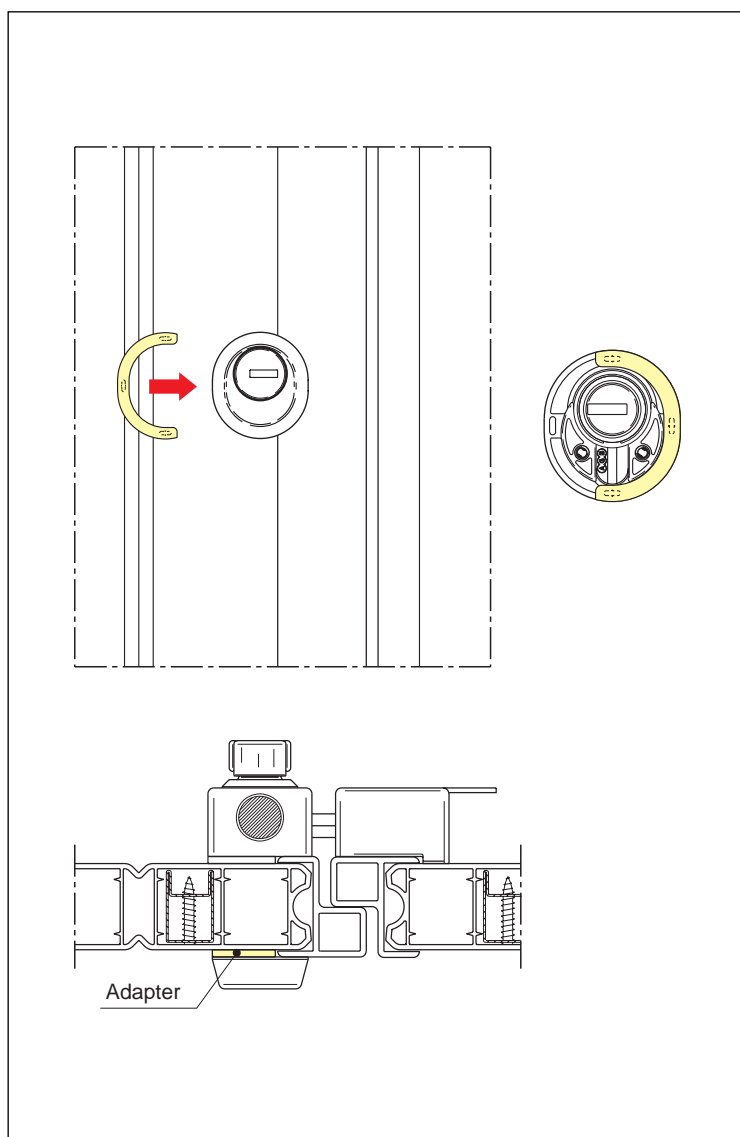
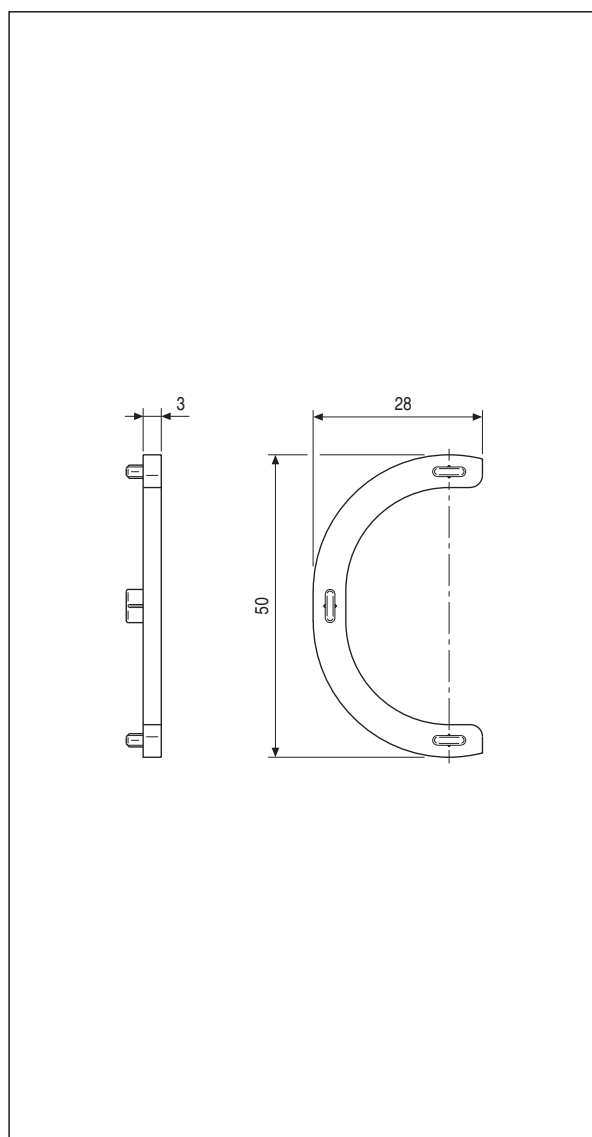
Adapter of 3 mm non handed to be applied under the escutcheons and the TENAX.

Application

In the Aluminium or PVC profiles which have a rebate with overlapping profile.

Mounting

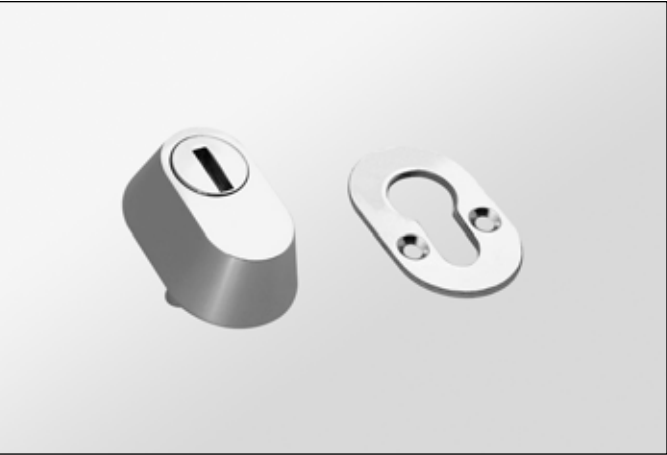
Snapping in the proper seats on Tenax or escutcheons.



Order specifications

Description	Article
Adapter of 3 mm thickness	H32307.03.99

TENAX Oval Shape with internal stud



Characteristics

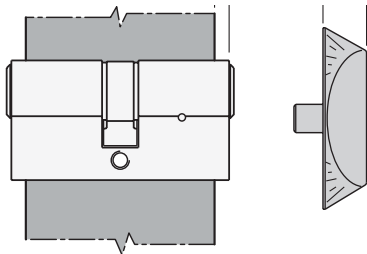
- TENAX: One-piece protective rim guard for cylinders, oval shape version
- One-piece hardened stainless steel body AISI 420 with a strength of 55 HRC
- Difficult grab with burglary tools thanks to the sloping shape
- Anti-scratch surface and high resistance against corrosion (over 1000 hours in salt fog test) (SS DIN 50021; 5% salt; 35°C)
- 5 different sizes (GR) with available thickness from 10 to 18 mm
- gilded PVD and satin chromium plated finishes
- M5 through screws made of hardened steel with $\varnothing 3$ mm hexagonal head.

Order specifications

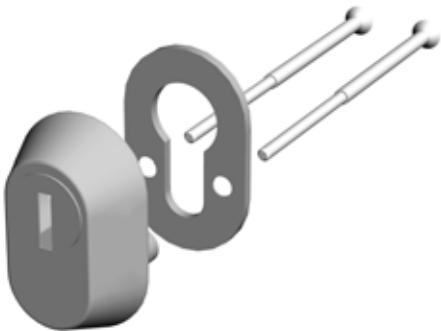
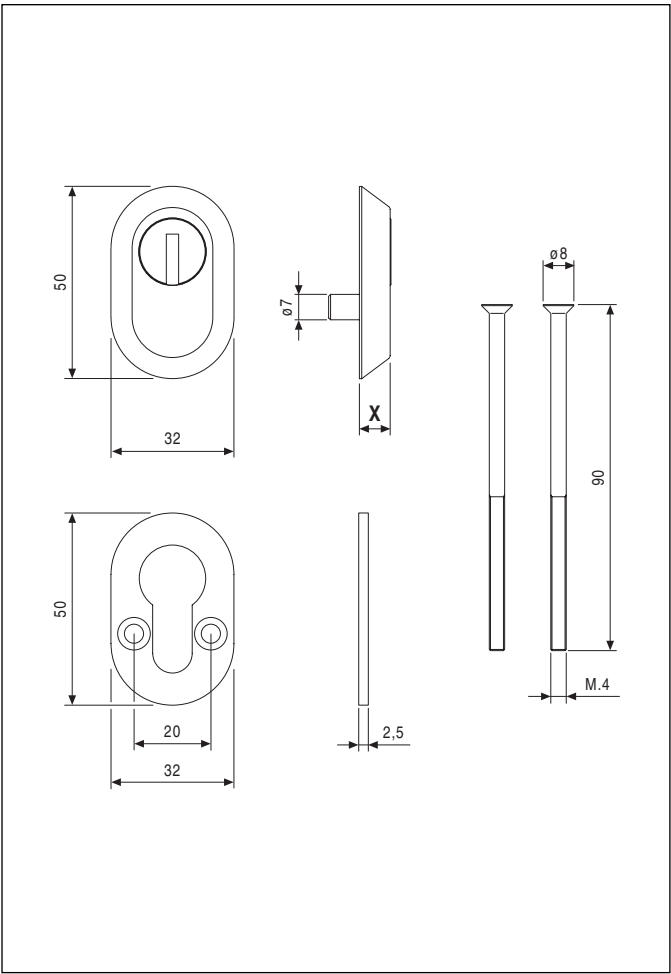
Article	TICKNESS X	PROTRUSION S	GR
C94700.10.XX	10	4	1
C94700.12.XX	12	6	2
C94700.14.XX	14	8	3
C94700.16.XX	16	10	4
C94700.18.XX	18	12	5

X = TENAX thickness flush with the door
S = cylinder projection flush with the door

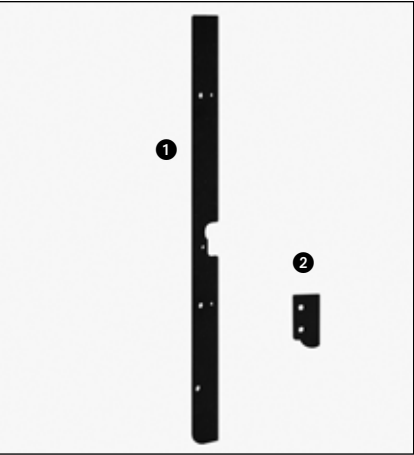
NB. Refer to the price list in force to check the availability of the finishes



GR	X mm	S mm
1	10	0 4
2	12	0 6
3	14	2 8
4	16	4 10
5	18	6 12



Adapters for PVC and Aluminium

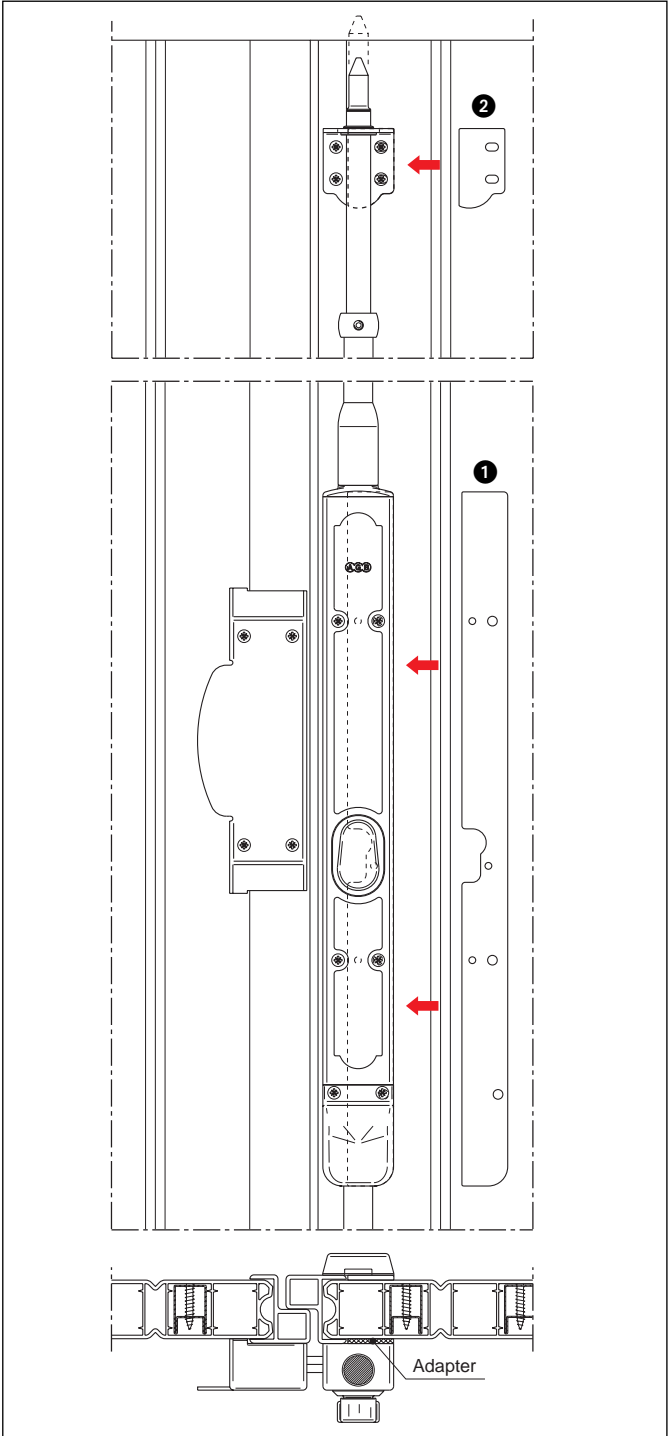
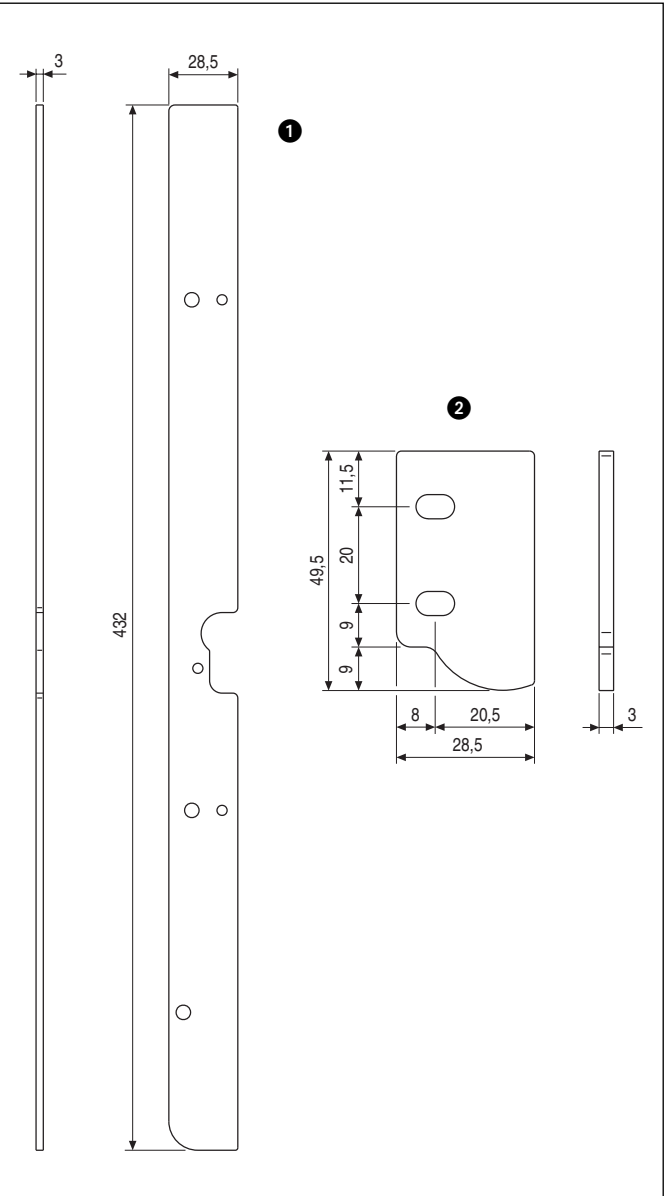


Description

Steel blades of 3 mm thickness for the compensation of the overlapping profile on PVC and Aluminium rebate. Two different blades are available: one for the lock case and one for the push rod guides. Blacktech finish

Mounting

He blade is positioned under the lock and under the push rod guides an is fixed with the same screws, included in the kits.



Order specifications

Ref.	Description	Article
1	Adapter for central box	H32305.00.99
2	Adapter for push rod guide	H32306.00.99

Striker for single sash U27 for hook and wall adapter



Description

Steel striker for hook, for single sash, with covering tray. The striker is painted Blacktech.

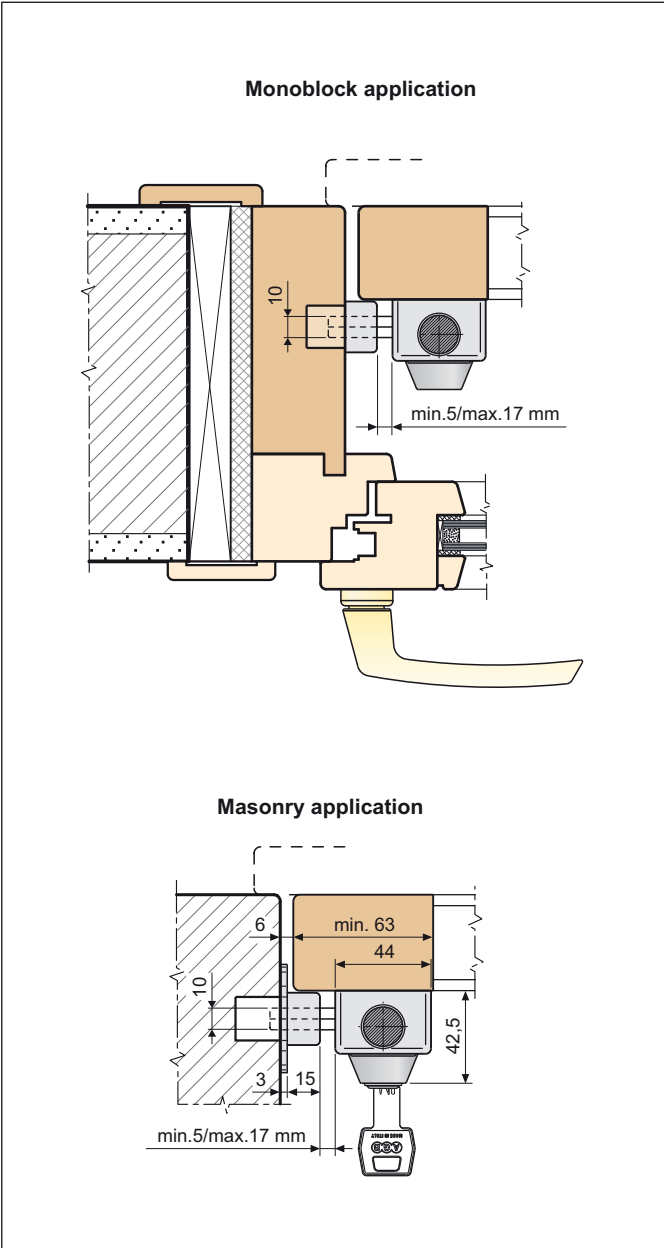
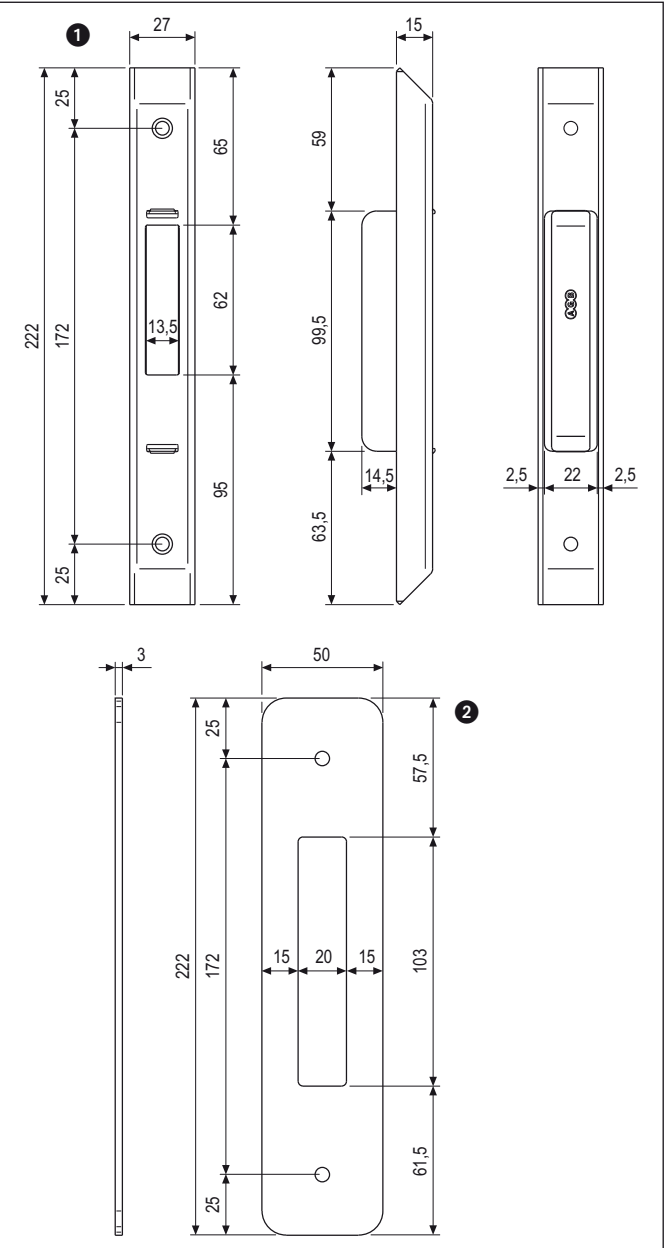
Application

On monoblock type and masonry type shutters. The striker is applied on the wall reveal, centered. In the "padovana" shutters type, can be useful to create the stopping rebate of the sash. On the masonry type applications, when a too wide hole in the wall is made, the adapter H33101.00.99 can be used and

the covering tray H33201.00.99 (to order separately).

Mounting

To the wall: with screw anchors \varnothing 7 and screws included in the screws kit (5x60 wood; 4,8x50 for PVC and Aluminium), on monoblock with the screws included in the screws kit (5x60 wood; 4,8x50 for PVC and Aluminium).



Order specifications

Ref.	Description	Article
1	Striker for hook, single sash	H33101.00.99
2	Wall adapter of wall application	H33201.00.99

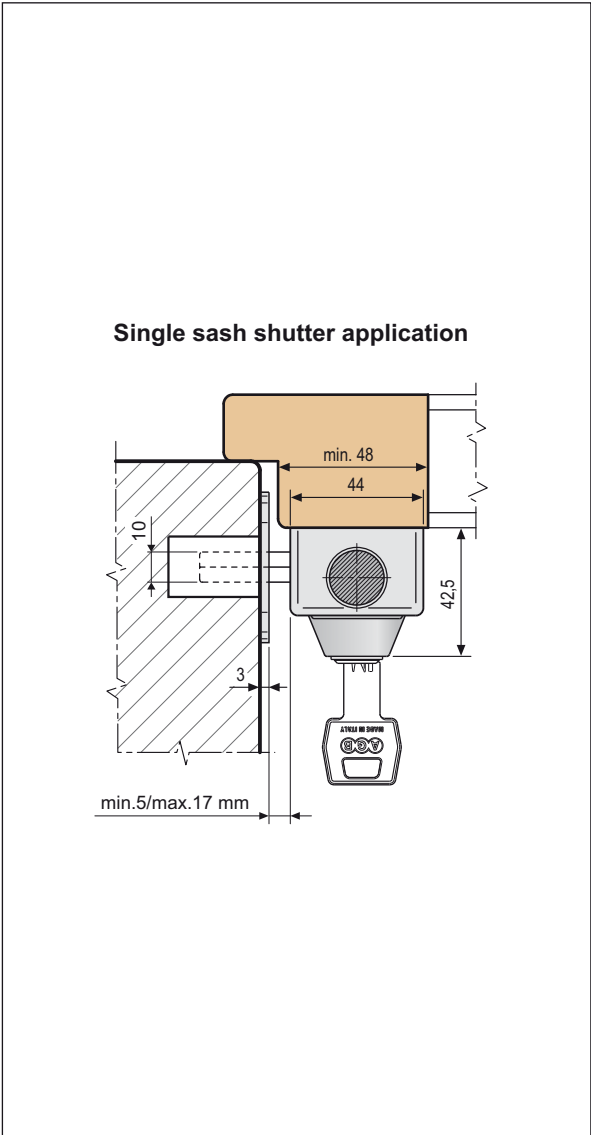
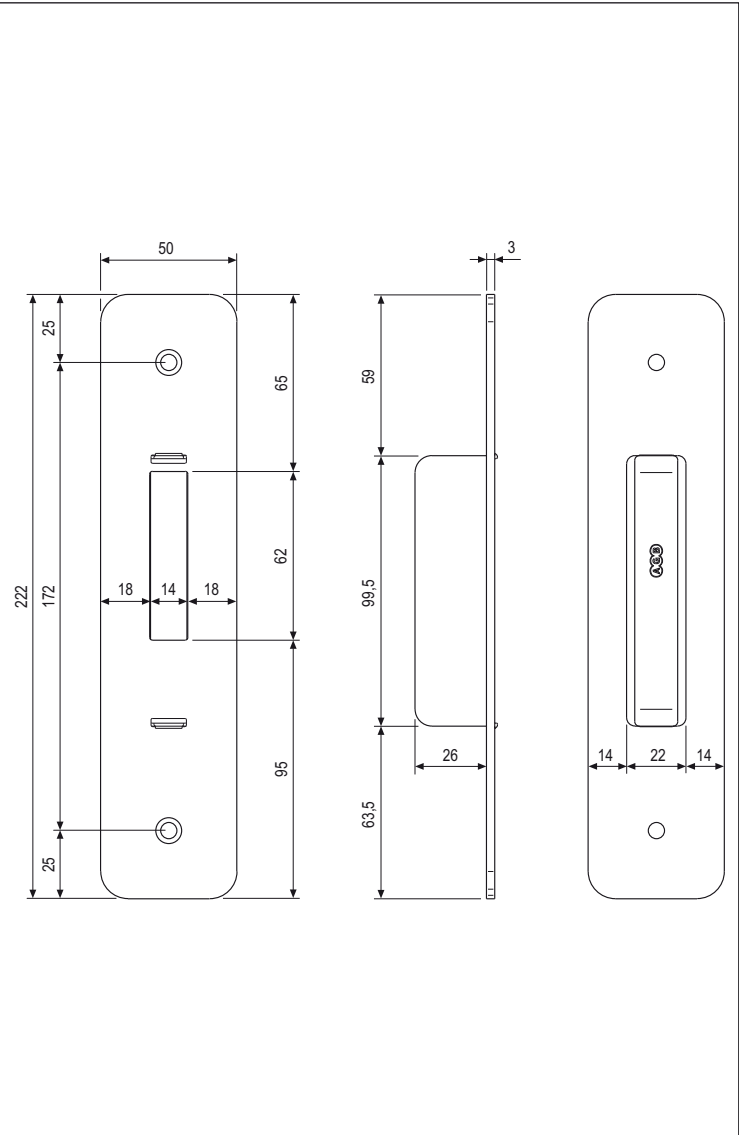
Striker for single sash on wall for hook



Description
Steel striker for hook, for single sash, with covering tray, painted Blacktech.

Application
The the nasonry applications, the widenes of the plate allows to cover a too wide hole made in the wall.

Mounting
With screws anchors \varnothing 7 and screws included in the screws kit (5x60 wood; 4,8x50 for PVC and Aluminium).



Order specifications

Description	Article
Striker plate for single sash on wall for hook	H33101.02.99

Striker for double sash adjustable U30 for hook



Description

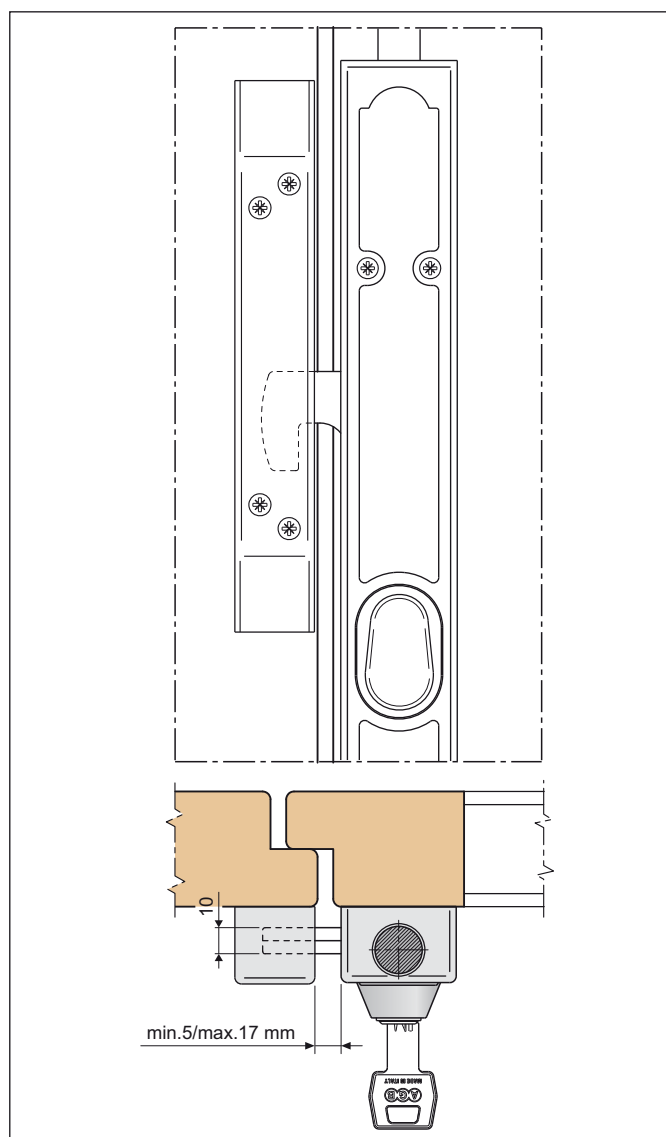
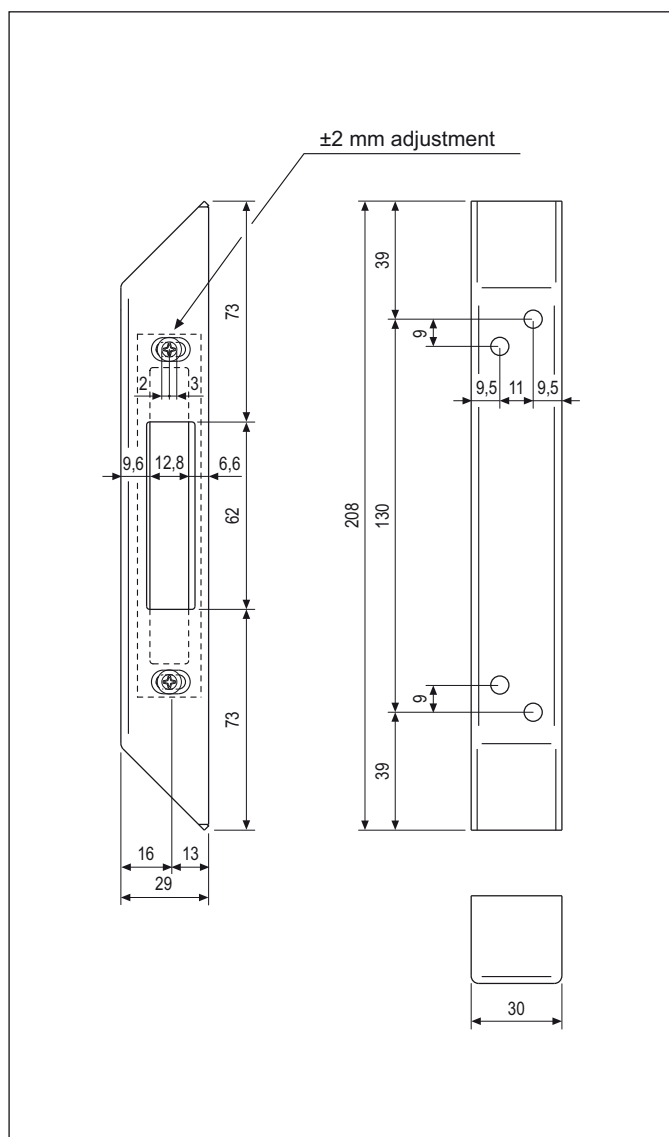
Steel striker for double sash shutters. The striker offers the possibility to adjust on pressure of the striker. Blacktech finish.

Application

On wooden, PVC and Aluminium shutters with flat profile.

Mounting

With screws anchors $\varnothing 7$ and screws included in the screws kit (5x60 wood; 4,8x50 for PVC and Aluminium).



Order specifications

Description	Article
Adjustable striker for double sash	H33001.01.XX

NB. Refer to the price list in force to check the availability of the finishes.

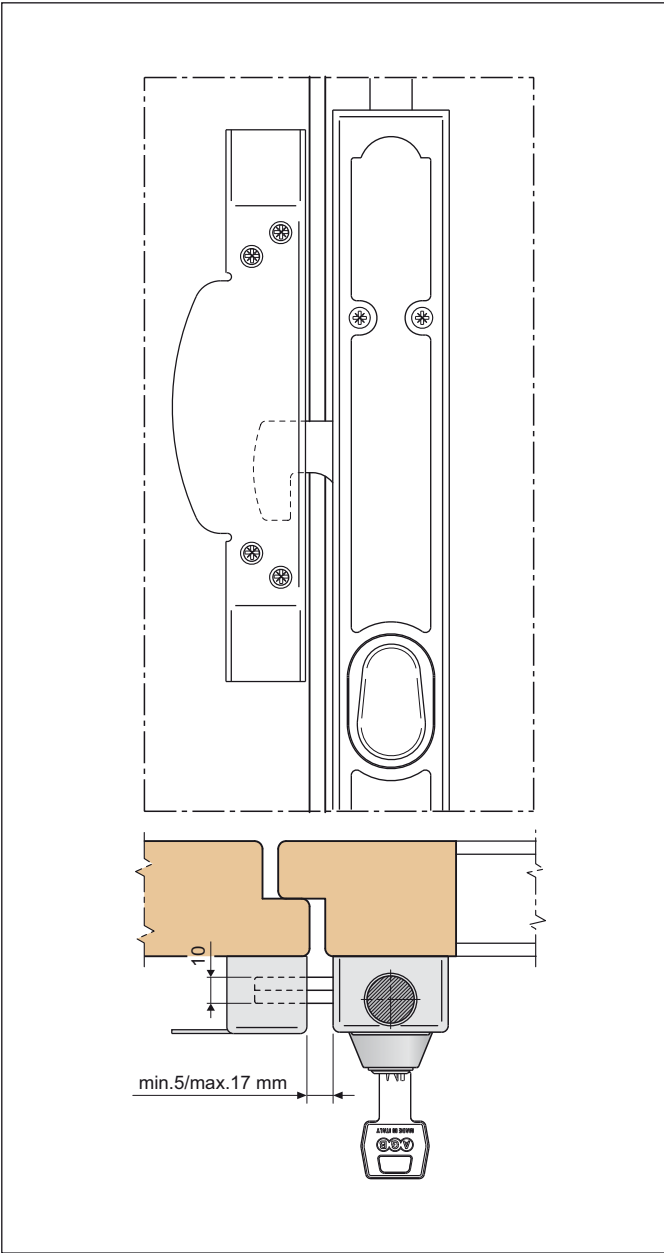
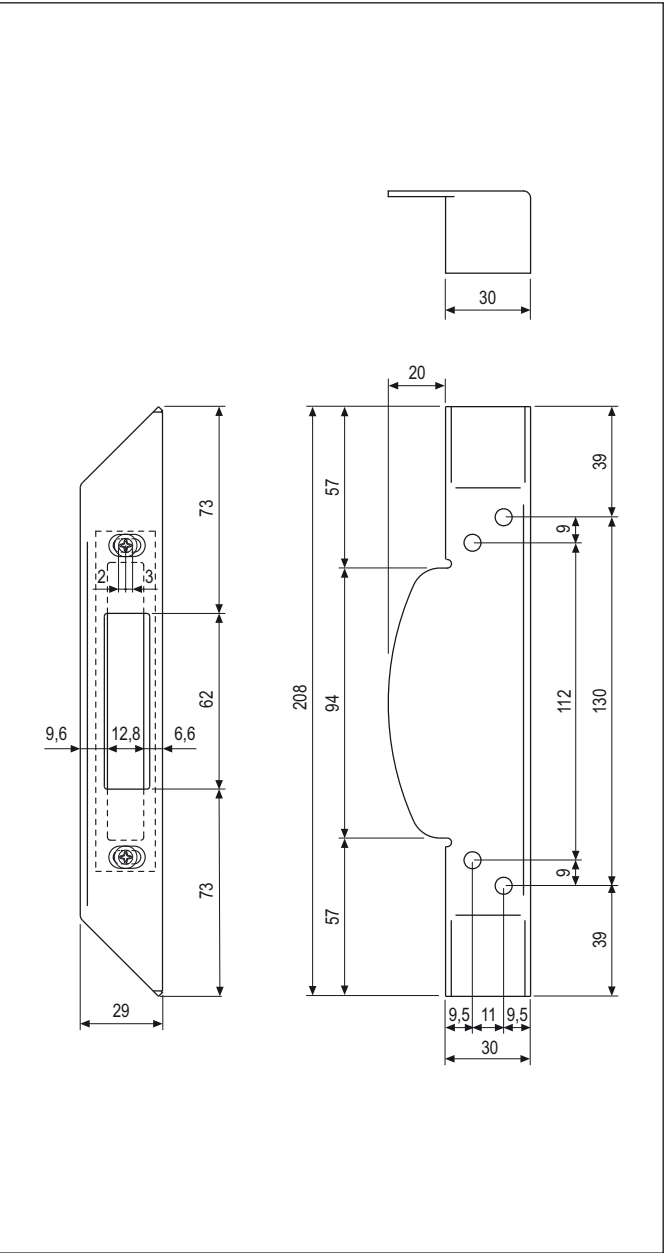
Striker for double sash adjustable U30 for hook with handle



Description
Steel striker for double sash shutters. The striker offers the possibility to adjust on pressure of the striker. Blacktech finish.

Application
On wooden, PVC and Aluminium shutters with flat profile.

Mounting
With screws anchors \varnothing 7 and screws included in the screws kit (5x60 wood; 4,8x50 for PVC and Aluminium).



Order specifications

Description	Article
Adjustable striker for hook with handle	H33001.07.XX

NB. Refer to the price list in force to check the availability of the finishes.

Striker for double sash U36 for hook



Description

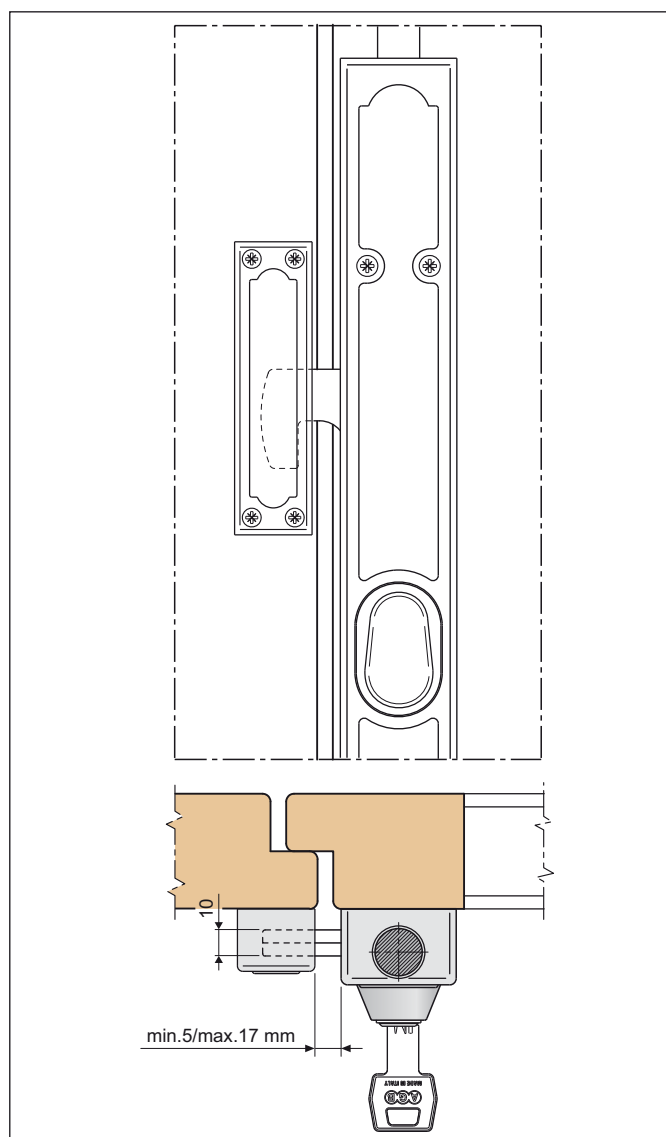
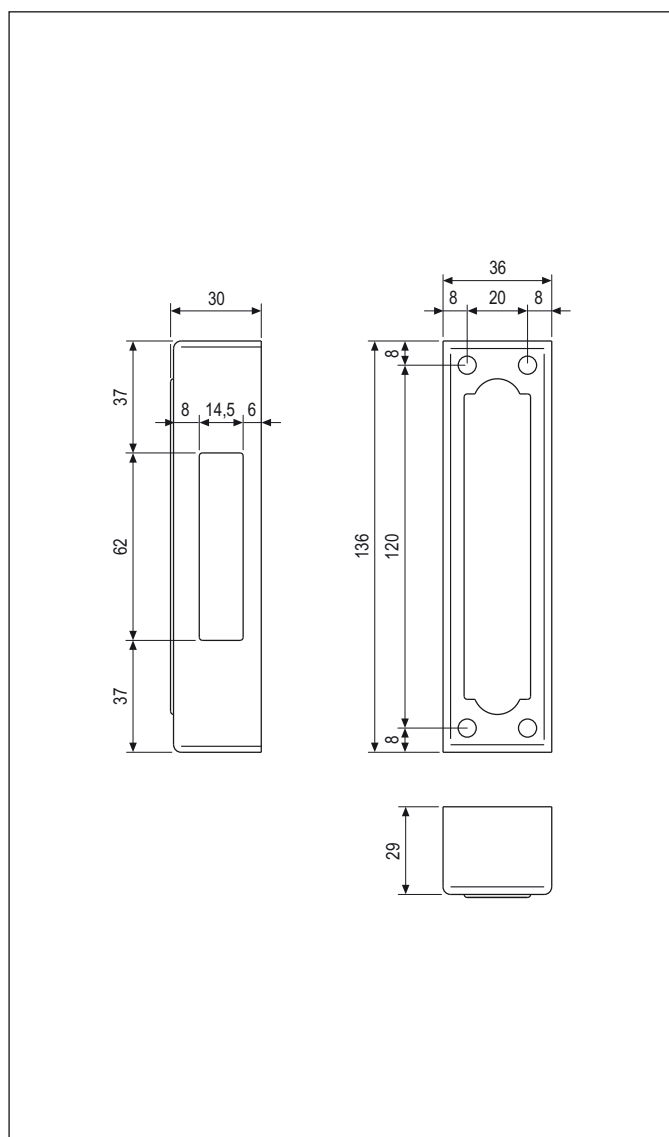
Steel striker for hook, double sash.
The striker is not adjustable.
Blacktech finish.

Application

In the wooden, PVC and Aluminium shutters with flat profile.

Mounting

With screws anchors \varnothing 7 and screws included in the screws kit (5x60 wood; 4.8x50 for PVC and Aluminium).



Order specifications

Description	Article
Fixed striker for double sash	H33003.00.XX

NB. Refer to the price list in force to check the availability of the finishes.

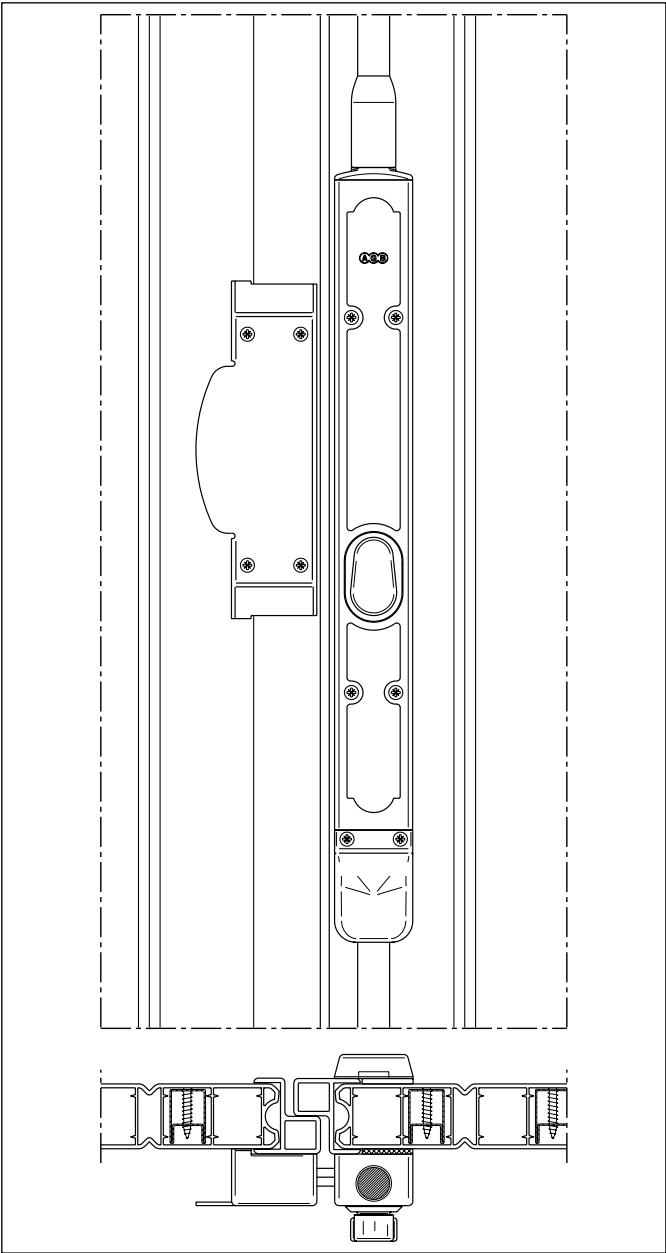
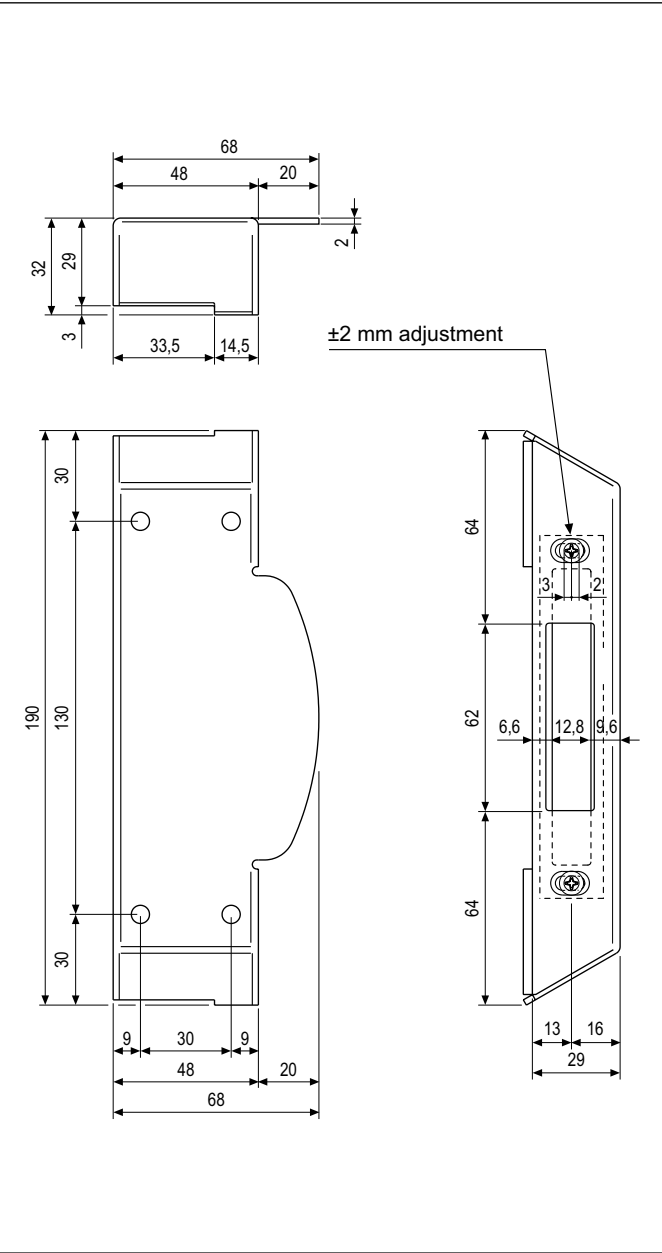
Striker for double sash for PVC and Aluminium, for hook



Description
Striker for double sash for PVC and Aluminium for hook U48.

Application
For double sash PVC of Alu shutters which have a non-flat central profile. The striker has a step on the base of 3 mm. The striker has a handle.

Mounting
With screws anchors \varnothing 7 and screws included in the screws kit (5x60 wood; 4.8x50 for PVC and Aluminium).



Order specifications

Description	Article
Striker for PVC and Aluminium	H33001.05.99

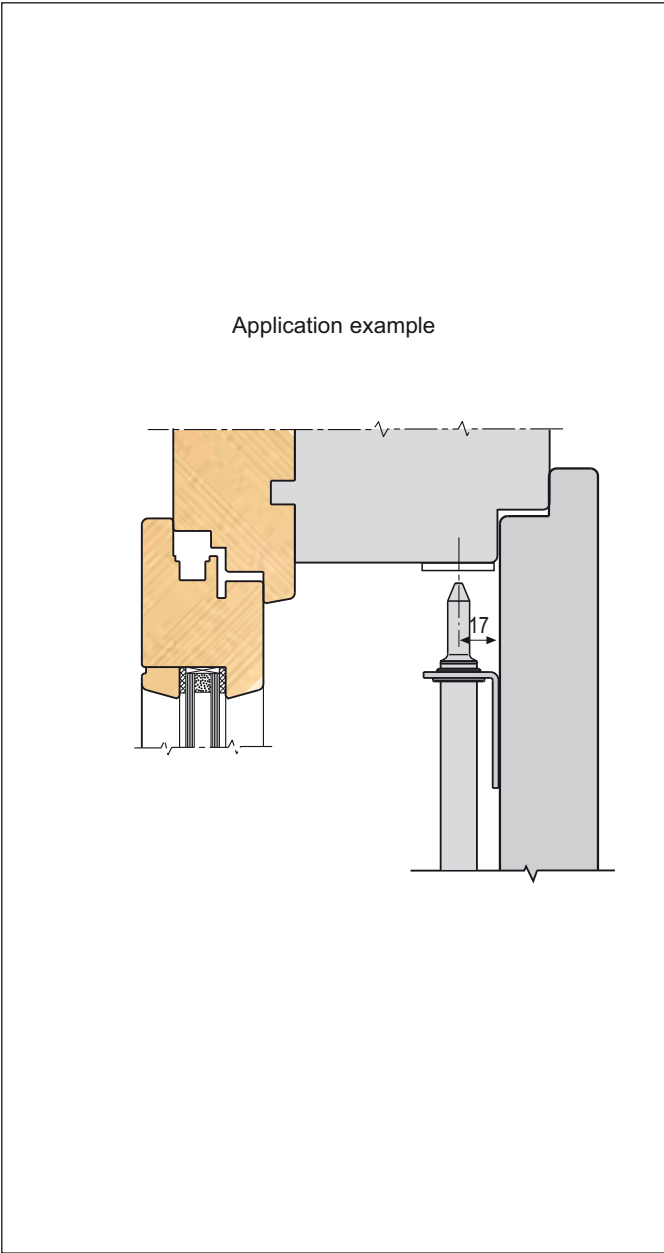
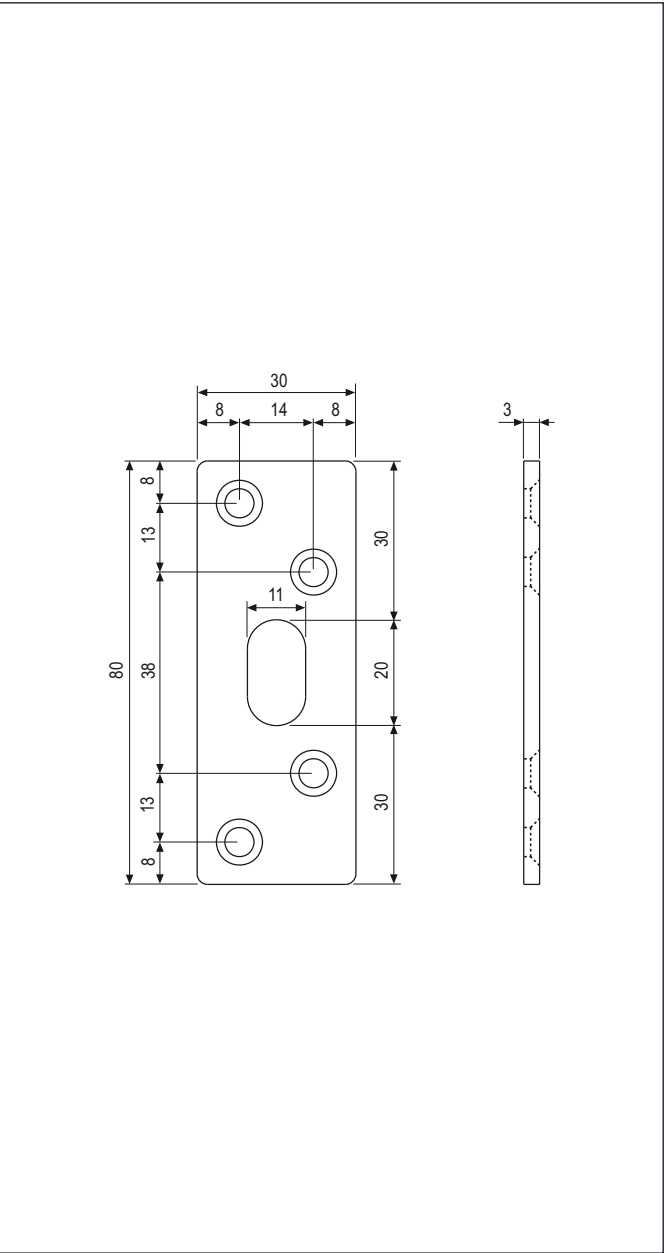
Striker for push rod - double sash shutters



Description
Striketr for push rod of Ariete lock.
Blacktech finish.

Application
On wooden frame.

Mounting
With 4 3,5x30 screws.



Order specifications

Description	Article
Adjustable striker for push rod	H33301.08.99

Threshold striker - 9 mm push rod



Description

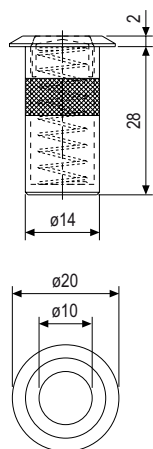
Threshold striker for 1 and 2 sashes.

Application

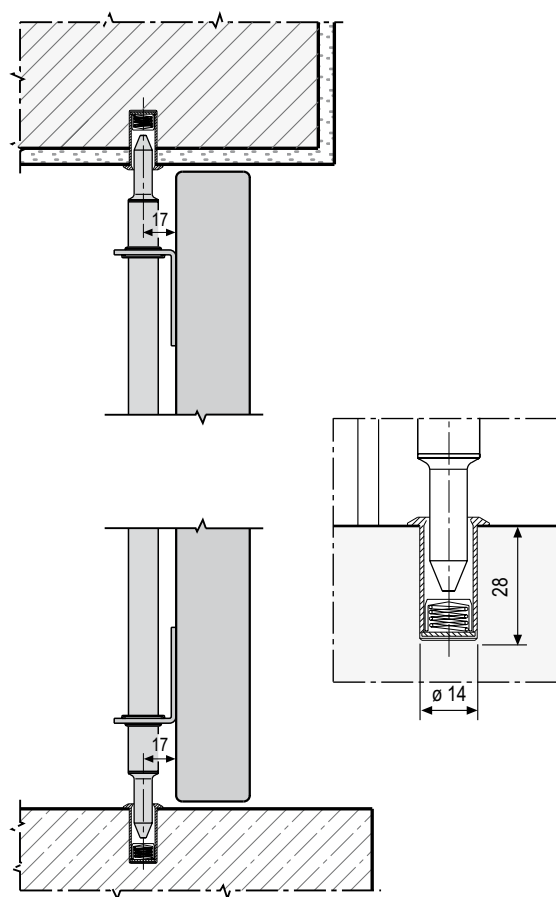
Suggested on systems where pedestrian passage is frequent.

Mounting

Mill the wood $\varnothing 14$ mm x 28 mm deep.
Fix with glue or bicomponent resin.



Application example



Order specifications

Description	Article
Threshold striker for low and top transom	H32211.02.01

Mod. Ariete knob-blind



Description

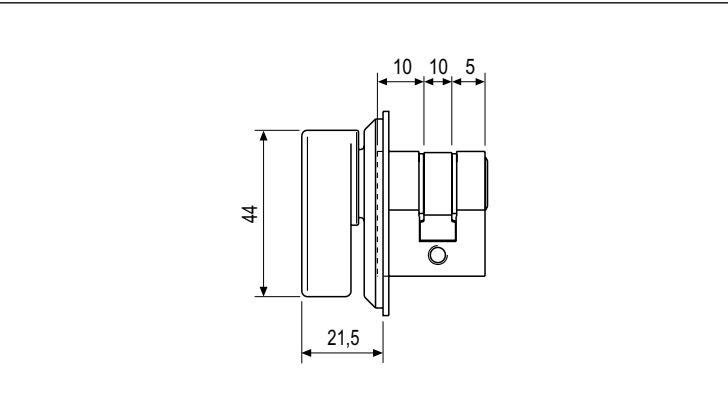
Half cylinder knob-blind for operate the Ariete lock. Supplied with adapter for covering of the lock and the knob already assembled to make the assembly easier and faster. The fixing screw is supplied with Ariete lock kit.

Application

For shutters with closing and opening from the inside only. This model does not allow the opening from outside. The solution half cylinder allows to apply Ariete lock without any milling of the shutter.

Matt nickel plated brass

Article		
C67601	10	05



Mod. SCUDO DCK Knob-Key



Characteristics

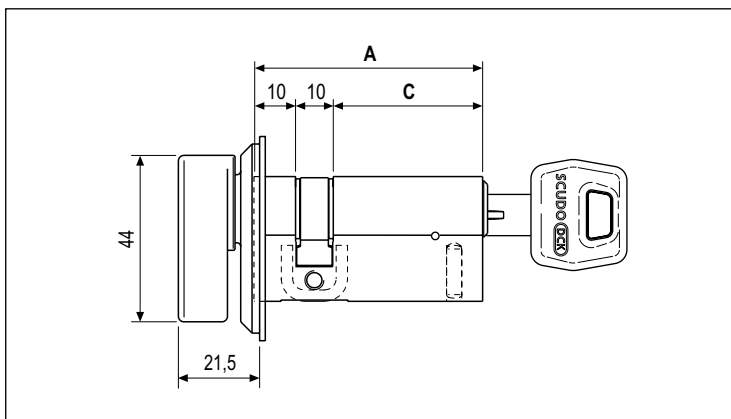
- Brass nickel plated cylinder with knob.
- Designed according to intrinsic security class 5 (UNI EN 1303).
- Key duplication controlled by the manufacturer and protected by PIN code.
- 3 different PIN codes for each cylinder.
- 15 radial and asymmetric tumblers made of hardened stainless steel and fixed pins for the differ.
- 3 hardened steel anti-drill pins on each side.
- 5 high resistance nickel silver flat keys with micro rollers (AGB patent).
- Stainless steel U-shaped anti-burglar insert in the cylinder body.
- Steel anti-pull cam with a 15° slope once the key is pulled out.
- Duplication manual.
- The fixing screw is supplied with the lock.

Matt nickel plated

Article	C	No. of tumblers	S
C27516	10	35	15
C27516	10	40	15
C27516	10	45	15
C27516	10	50	15
C27516	10	55	15
C27516	10	60	15
C27516	10	65	15
C27516	10	70	15
C27516	10	75	15

Application

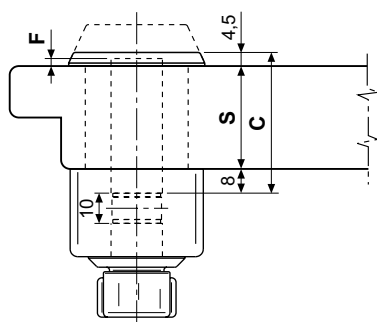
For shutter that can be opened from the outside with key and from the inside with the knob, much easier. Supplied with adapter fot covering of the lock and the knob already assembled to make the assembly easier and faster. The fixing screw is supplied with Ariete lock kit.



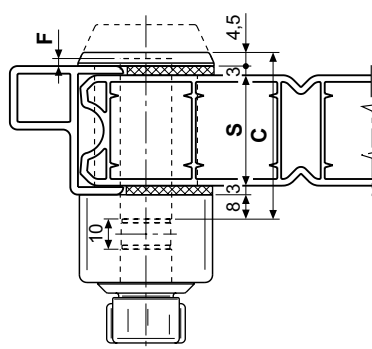
CALCULATE FORMULA FOR CHOOSING THE DIMENSION "C" OF THE CYLINDER ON THE BASIS OF THE THICKNESS OF THE SHUTTER

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5



Formula for wooden panels
 $C = S + F + 8$



Formula for PVC and Aluminium panels
 $C = S + 3 + 3 + F + 8$

Example with Eschutcheon:

Shutter thickness (S) = 40 mm
F Eschutcheon = 4,5
 $C = 40 + 4,5 + 8 = 52,5$ mm
Choose a cilinder of "C" 55 mm (CX7516.10.55)

Example with TENAX:

Shutter thickness (S) = 36 mm
F Tenax = min.1/max. 6
 $C = 36 + 3 + 3 + 8 + 6 = 56$ mm
Choose a cilinder of "C" 55 mm (CX7516.10.55)

Mod. SCUDO 9000 Knob-Key



Characteristics

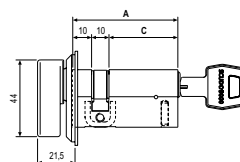
- Matt nickel plated brass cylinder with turn knob and flat reversible nickel silver key.
- Security class 4 (UNI 9570).
- 17 active and idle tumblers made of hardened stainless steel.
- 2 hardened steel anti-drill pins, positioned vertically and offset, plus 1 horizontal pin to prevent removal of drum.
- 5 keys and duplication card, inside a protective cover.
- Stainless steel U-shaped anti-burglar insert in the cylinder body.
- Grip can be personalised with different coloured covers.
- Anti-pull bit (23° inclination).
- The fixing screw is supplied with the lock.

Application

For shutter that can be opened from the outside with key and from the inside with the knob, much easier. Supplied with adapter for covering of the lock and the knob already assembled to make the assembly easier and faster. The fixing screw is supplied with Ariete lock kit.

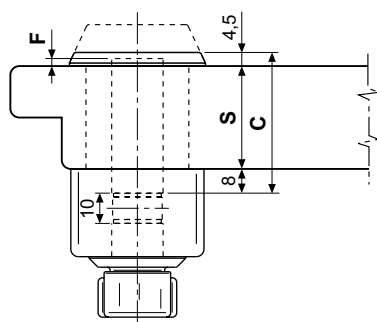
Matt nickel plated

Article	C	No. of tumblers	S
C97516	10	35	17
C97516	10	40	17
C97516	10	45	17
C97516	10	50	17
C97516	10	55	17
C97516	10	60	17
C97516	10	65	17
C97516	10	70	17
C97516	10	75	17



CALCULATE FORMULA FOR CHOOSING THE DIMENSION "C" OF THE CYLINDER ON THE BASIS OF THE THICKNESS OF THE SHUTTER

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5



Formula for wooden panels
 $C = S + F + 8$

Example with Eschutcheon:

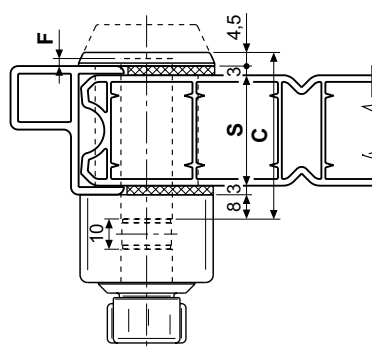
Shutter thickness (S) = 40 mm

F Eschutcheon = 4,5

C = 40 + 4,5 + 8 = 52,5 mm

Choose a cylinder of "C" 55 mm (CX7516.10.55)

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5



Formula for PVC and Aluminium panels
 $C = S + 3 + 3 + F + 8$

Example with TENAX:

Shutter thickness (S) = 36 mm

F Tenax = min. 1/ max. 6

C = 36 + 3 + 3 + 8 + 6 = 56 mm

Choose a cylinder of "C" 55 mm (CX7516.10.55)

Mod. U-Tech Knob-Key



Characteristics

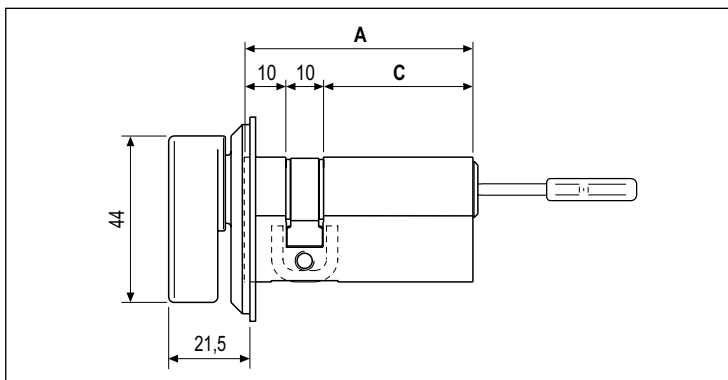
- Security matt nickel plated brass cylinder.
- Double function on key-key model for the opening even when a key is inserted on the opposite side. Useful on KA applications (key alike) for opening with a unique key both the door and the shutter.
- Stainless steel U-shaped anti-burglar insert in the cylinder body.
- Hardened steel anti-drill pins on each key side.
- 6 active pins.
- 5 flat reversible keys with longer neck compatible with protective rim guards, torsion proof, with ergonomic polyethylene grip.
- Grip can be personalised with different coloured covers.
- Card for duplication with double code (key and duplication).
- Steel anti-pull cam with a 15° slope once the key is pulled out.
- The fixing screw is supplied with the lock.

Matt nickel plated

Article		C	No. of tumblers	S Shutter thickness with Tenax
C37516.10.35	10	35	6	21÷26
C37516.10.40	10	40	6	26÷31
C37516.10.45	10	45	6	31÷36
C37516.10.50	10	50	6	36÷41
C37516.10.55	10	55	6	41÷46
C37516.10.60	10	60	6	46÷51
C37516.10.65	10	65	6	51÷56
C37516.10.70	10	70	6	56÷61
C37516.10.75	10	75	6	61÷66
C37516.10.80	10	80	6	66÷71
C37516.10.85	10	85	6	71÷76
C37516.10.90	10	90	6	76÷81
C37516.10.AA	10	100	6	86÷91

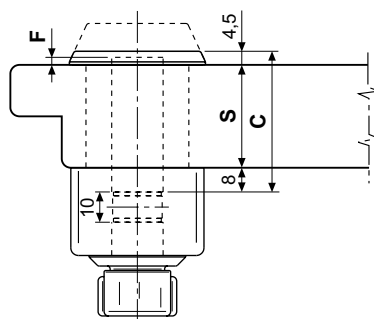
Application

For shutter that can be opened from the outside with key and from the inside with the knob, much easier. Supplied with adapter for covering of the lock and the knob already assembled to make the assembly easier and faster. The fixing screw is supplied with Ariete lock kit.



CALCULATE FORMULA FOR CHOOSING THE DIMENSION "C" OF THE CYLINDER ON THE BASIS OF THE THICKNESS OF THE SHUTTER

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5



Formula for wooden panels
 $C = S + F + 8$

Example with Eschutcheon:

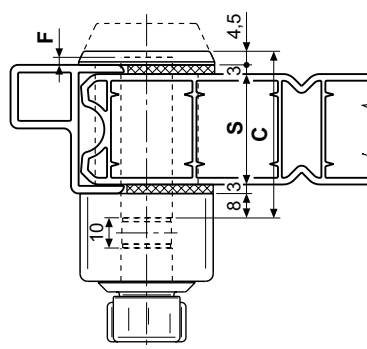
Shutter thickness (S) = 40 mm

F Eschutcheon = 4,5

C = 40 + 4,5 + 8 = 52,5 mm

Choose a cylinder of "C" 55 mm (CX7516.10.55)

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5



Formula for PVC and Aluminium panels
 $C = S + 3 + 3 + F + 8$

Example with TENAX:

Shutter thickness (S) = 36 mm

F Tenax = min. 1/ max. 6

C = 36 + 3 + 3 + 8 + 6 = 56 mm

Choose a cylinder of "C" 55 mm (CX7516.10.55)

Mod. SCUDO 5000 Knob-Key and SCUDO 5000 Knob-Key double function



Characteristics

- Security matt nickel plated brass cylinder.
- Designed according to intrinsic security class 4 (UNI EN 1303).
- 6-7 active pins and counter-pins
- Hardened steel anti-drill pins on key side.
- 5 high resistance nickel silver flat reversible keys with long neck, inside a protective cover.
- Grip can be personalised with different coloured covers.
- Steel anti-pull cam with a 15° slope once the key is pulled out.
- The fixing screw is supplied with the lock.

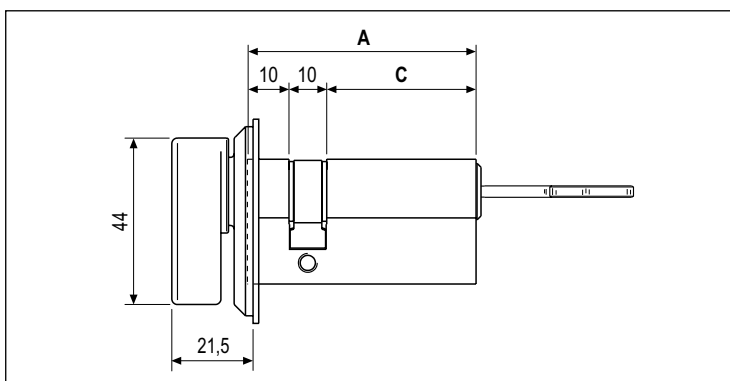
Application

For shutter that can be opened from the outside with key and from the inside with the knob, much easier. Supplied with adapter for covering of the lock and the knob already assembled to make the assembly easier and faster. The fixing screw is supplied with Ariete lock kit.

NB. When a KA (key alike) system is realised, for opening a shutter and entrance door with the same key and in the entrance door is requested a SCUDO 5000 double function, the Ariete cylinder must be double function as well.

Matt nickel plated

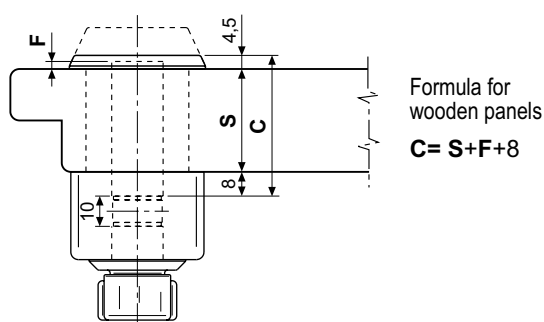
Article	C	No. of tumblers	S
C57516	10	35	7
C57516	10	40	7
C57516	10	45	7
C57516	10	50	7
C57516	10	55	7
C57516	10	60	7
C57516	10	65	7
C57516	10	70	7
C57516	10	75	7
C47516	10	35	6 (double function)
C47516	10	40	6 (double function)
C47516	10	45	6 (double function)
C47516	10	50	6 (double function)
C47516	10	55	6 (double function)
C47516	10	60	6 (double function)
C47516	10	65	6 (double function)
C47516	10	70	6 (double function)
C47516	10	75	6 (double function)



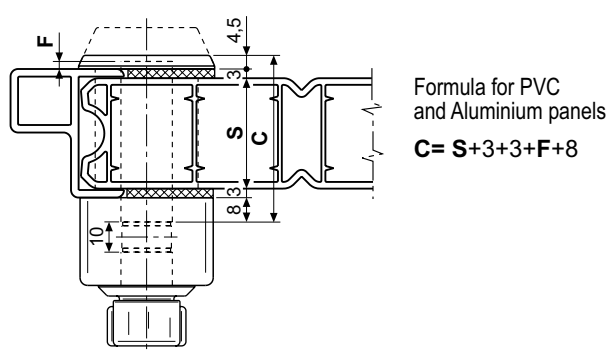
CALCULATE FORMULA FOR CHOOSING THE DIMENSION "C" OF THE CYLINDER ON THE BASIS OF THE THICKNESS OF THE SHUTTER

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5



Formula for wooden panels
 $C = S + F + 8$



Formula for PVC and Aluminium panels
 $C = S + 3 + 3 + F + 8$

Example with Eschutcheon:

Shutter thickness (S) = 40 mm
F Eschutcheon = 4,5
 $C = 40 + 4,5 + 8 = 52,5$ mm
Choose a cilinder of "C" 55 mm (CX7516.10.55)

Example with TENAX:

Shutter thickness (S) = 36 mm
F Tenax = min.1/max. 6
 $C = 36 + 3 + 3 + 8 + 6 = 56$ mm
Choose a cilinder of "C" 55 mm (CX7516.10.55)

Mod. 600 ARIETE Knob-Key



Characteristics

- Brass cylinder with turn knob and profiled nickel plated brass key.
- Security class 2 (UNI 9570).
- 4 or 5 brass tumblers.
- Sintered steel bit.
- 3 keys.
- The fixing screw is supplied with the lock.

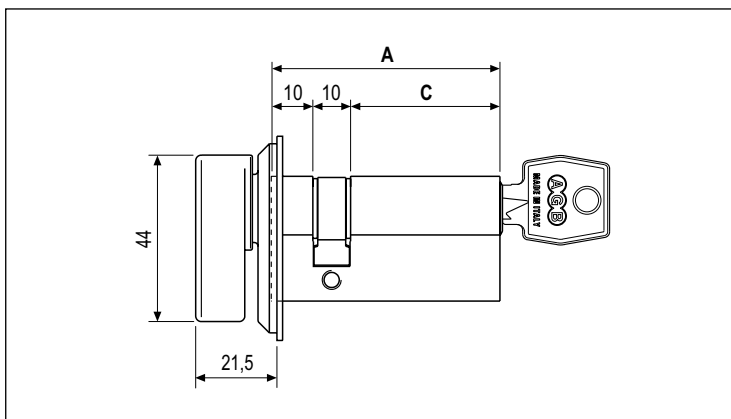
NB. This model cannot be used with Tenax but with escutcheon H32302.00.99.

Application

For shutter that can be opened from the outside with key and from the inside with the knob, much easier. Supplied with adapter for covering of the lock and the knob already assembled to make the assembly easier and faster. The fixing screw is supplied with Ariete lock kit.

Plain brass

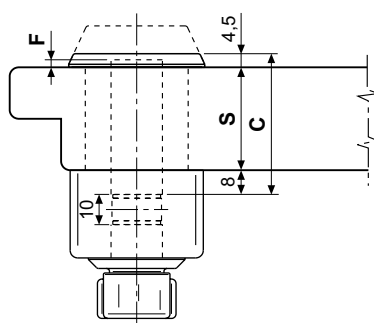
Article	C	No. of tumblers	S	Shutter thickness
C67501	10	35	5	21÷26
C67501	10	40	5	26÷31
C67501	10	45	5	31÷36
C67501	10	50	5	36÷41
C67501	10	55	5	41÷46
C67501	10	60	5	46÷51
C67501	10	65	5	51÷56
C67501	10	70	5	56÷61
C67501	10	75	5	61÷66



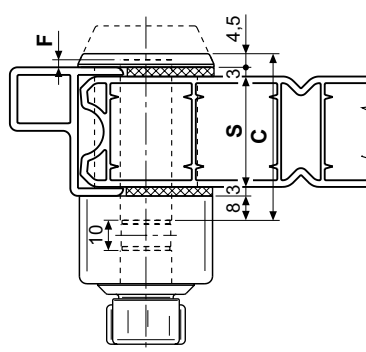
CALCULATE FORMULA FOR CHOOSING THE DIMENSION "C" OF THE CYLINDER ON THE BASIS OF THE THICKNESS OF THE SHUTTER

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5

TENAX	F = min. 1/ max. 6 mm
ESCHUTCHEON	F = 4,5



Formula for wooden panels
C = S + F + 8



Formula for PVC and Aluminium panels
C = S + 3 + 3 + F + 8

Example with Eschutcheon:

Shutter thickness (S) = 40 mm

F Eschutcheon = 4,5

C = 40 + 4,5 + 8 = 52,5 mm

Choose a cylinder of "C" 55 mm (CX7516.10.55)

Example with TENAX:

Shutter thickness (S) = 36 mm

F Tenax = min. 1/ max. 6

C = 36 + 3 + 3 + 8 + 6 = 56 mm

Choose a cylinder of "C" 55 mm (CX7516.10.55)

Adjustable pintle with narrow bracket



Description

Cold-pressed steel pintle, 9,2x12 mm shank with oval-vertical cross section. Two-handed bracket with stainless steel non-removable fastening dowel that uses a 4 mm Allen wrench.

Application

For shutters with useful space between bracket's outer edge and shutter greater than 29 mm.

Designed for simple monoblocs or systems with soffit and reveal to be cleared in order to open the shutter 180°.

For GR size selection, see the "Application Range" tables.

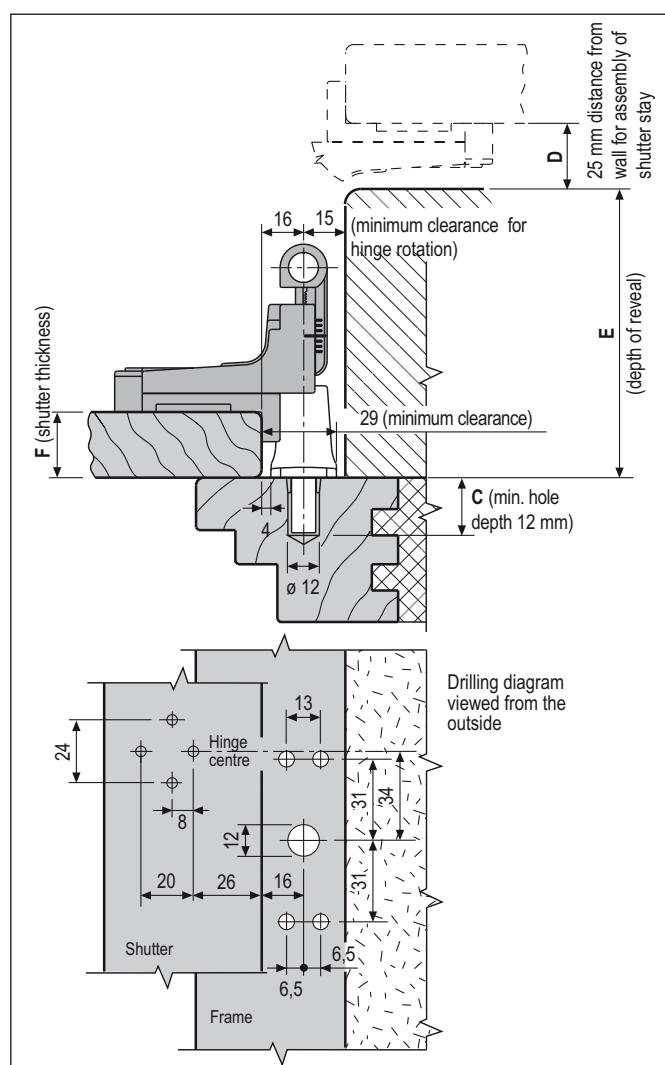
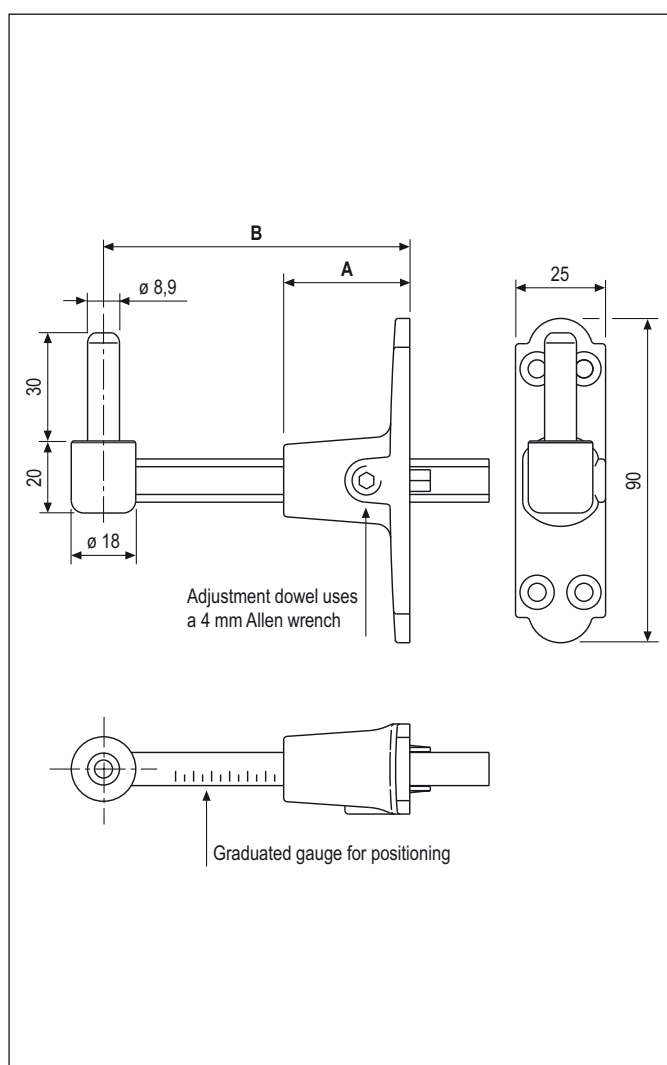
- Used in combination with adjustable hinges and relative supports to be chosen based on the shutter design.

- For special requirements it can also be used with all the other hinges.

Mounting

For the bracket, use four 4,5x35 mm screws with thread suitable for the shutter material.

NB. In order to position the pintle, both the jig H00930.01.01 (separate frame and sash drilling) and H00930.02.01 (simultaneous frame and sash drilling).



Order Specifications

GR	Reveal E (*)	A	B	C	Article
0	62-70	15,5	25÷55	67-B	H00911.00.XX
1	67-125	35	56÷85	97-B	H00911.01.XX
2	97-190	50	86÷115	127-B	H00911.02.XX
3	145-225	65	116÷145	157-B	H00911.03.XX

(*) The values refer to a distance D between the open shutter and the wall of 25 mm. For different distances see the "Application Range" chapter.

NB. Refer to the price list in force to check the availability of the finishes.

Pintle with narrow bracket and vertical adjustment



Description

Cold-pressed steel pintle, 9,2x12 mm shank with oval-vertical cross section. Two-handed bracket with stainless steel non-removable fastening dowel.

Brass pin and lock nut with vertical adjustment.

Application

For shutters with useful space between bracket's outer edge and shutter greater than 29 mm. Designed for simple monoblocs or systems with soffit and reveal to be cleared in order to open the shutter 180°.

For GR size selection, see the “Application Range” tables.

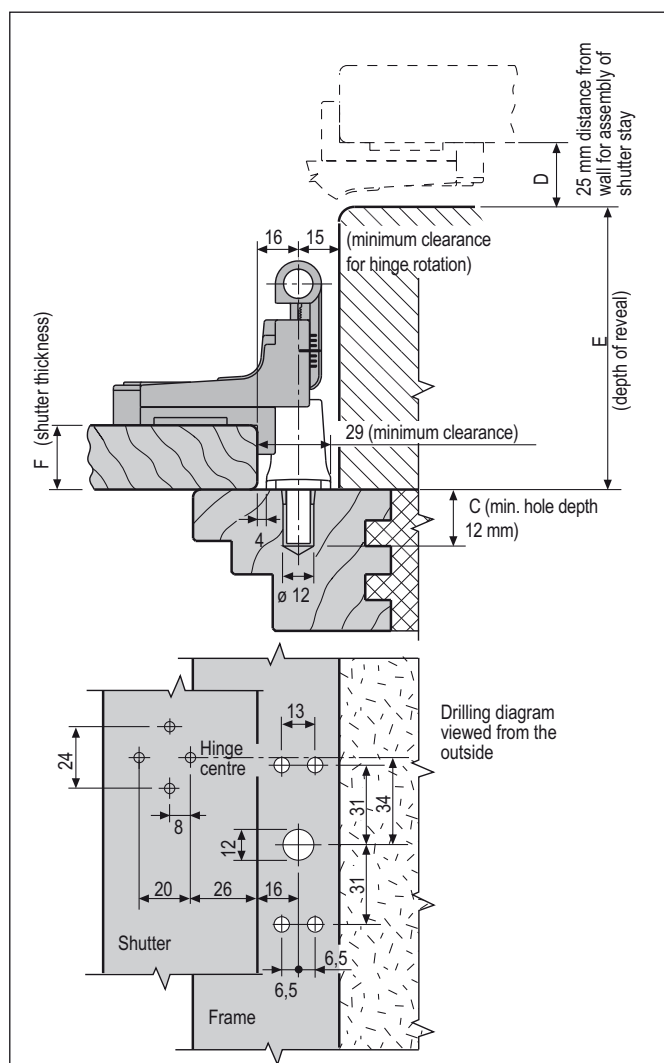
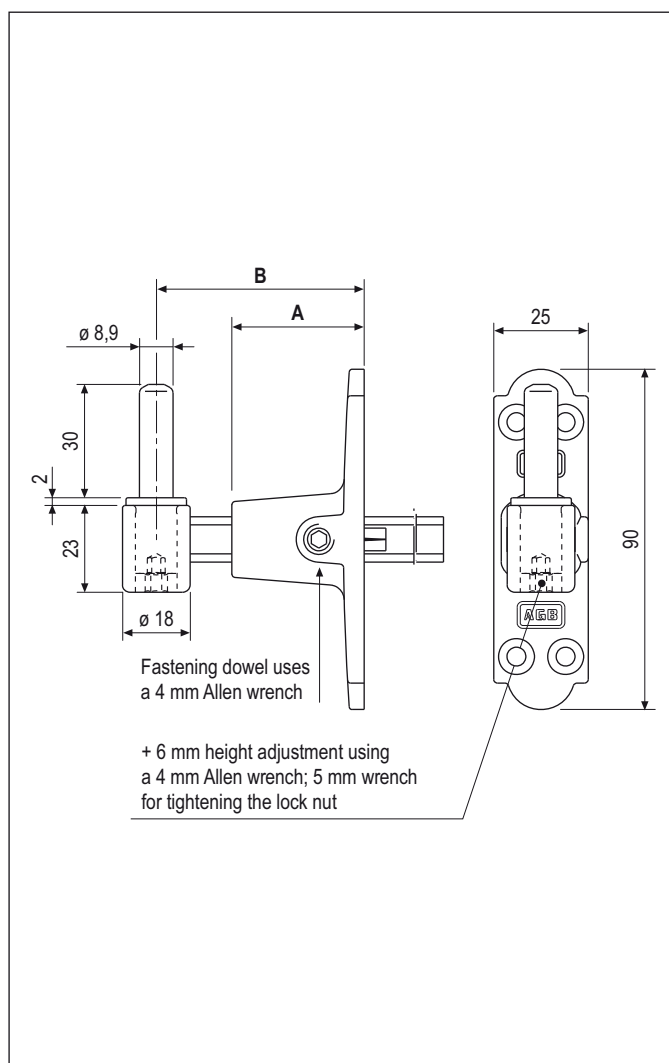
- Used in combination with adjustable hinges and relative supports to be chosen based on the shutter design.

- For special requirements it can also be used with all the other hinges.

Mounting

For the bracket, use four 4,5x35 mm screws with thread suitable for the shutter material.

NB. In order to position the pintle, both the jig H00930.01.01 (separate frame and sash drilling) and H00930.02.01 (simultaneous frame and sash drilling).



Order Specifications

GR	Reveal E (*)	A	B	C	Article
0	62-70	15,5	25÷55	67-B	H01911.00.93
1	67-125	35	56÷85	97-B	H01911.01.93
2	97-190	50	86÷115	127-B	H01911.02.93
3	145-225	65	116÷145	157-B	H01911.03.93

(*) The values refer to a distance D between the open shutter and the wall of 25 mm. For different distances see the "Application Range" chapter.

NB. Refer to the price list in force to check the availability of the finishes.

Adjustable pintle with wide bracket



Description

Cold-pressed steel pintle, 9,2x12 mm shank with oval-vertical cross section.

Two-handed bracket with stainless steel non-removable dowel that uses a 4 mm Allen wrench.

Application

For shutters with useful space between bracket's outer edge and shutter greater than 40 mm. Designed for simple monoblocs or systems with soffit and reveal to be cleared in order to open the shutter 180°.

For GR size selection, see the "Application Range" tables.

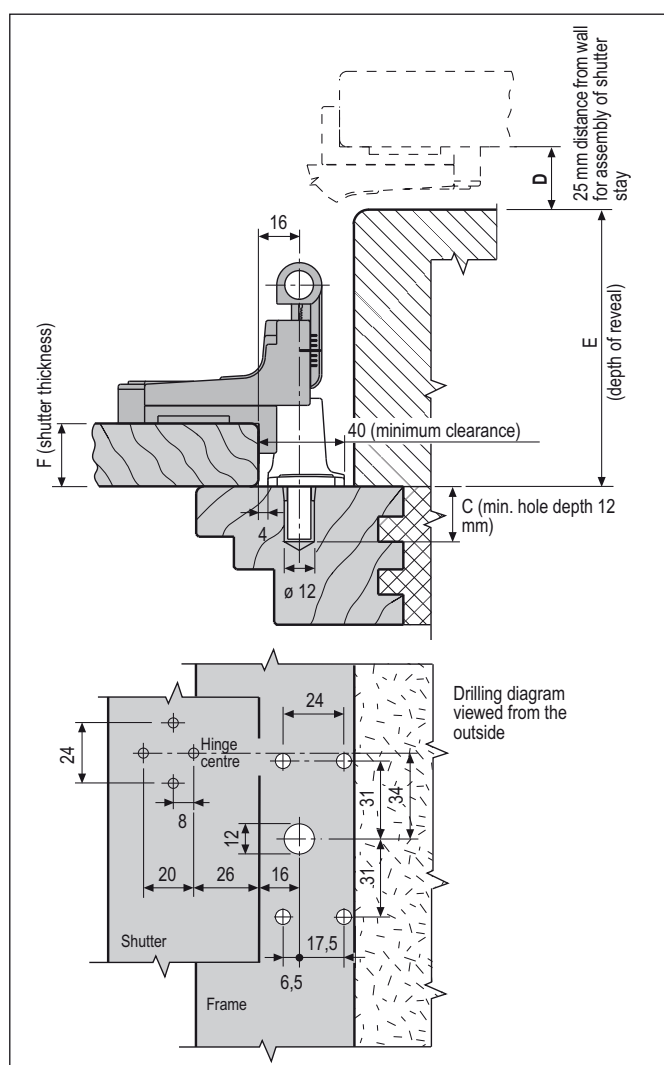
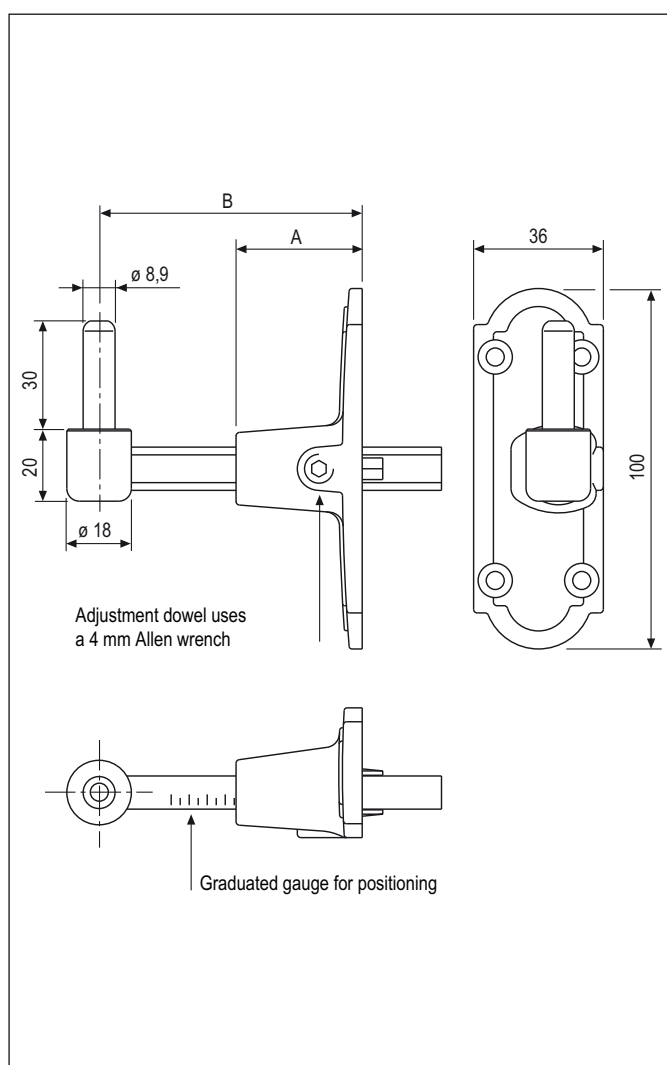
- Used in combination with adjustable hinges and relative supports to be chosen based on the shutter design.

- For special requirements it can also be used with all the other hinges.

Mounting

For the bracket, use four 4,5x35 mm screws with thread suitable for the shutter material.

NB. In order to position the pintle, both the jig H00930.01.01 (separate frame and sash drilling) and H00930.02.01 (simultaneous frame and sash drilling).



Order Specifications

GR	Reveal E (*)	A	B	C	Article
1	67-125	35	56+85	97-B	H00912.01.XX
2	97-190	50	86+115	127-B	H00912.02.XX
3	145-225	65	116+145	157-B	H00912.03.XX

(*) The values refer to a distance D between the open shutter and the wall of 25 mm. For different distances see the "Application Range" chapter.

NB. Refer to the price list in force to check the availability of the finishes.

Pintle with wide bracket and vertical adjustment



Description

Cold-pressed steel pintle, 9,2x12 mm shank with oval-vertical cross section. Two-handed bracket with stainless steel non-removable dowel and height-adjusting screw. Brass pin and lock nut with adjustable height.

Application

For shutters with useful space between bracket's outer edge and shutter greater than 40 mm. Designed for simple monoblocs or systems with soffit and reveal to be cleared in order to open the shutter 180°.

For GR size selection, see the "Application Range" tables.

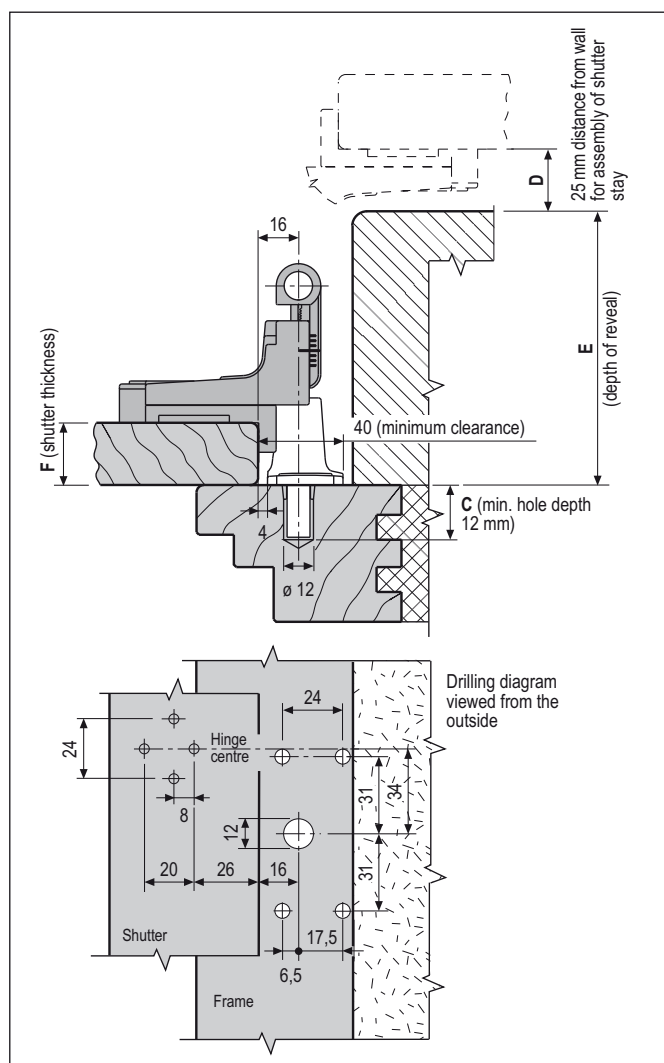
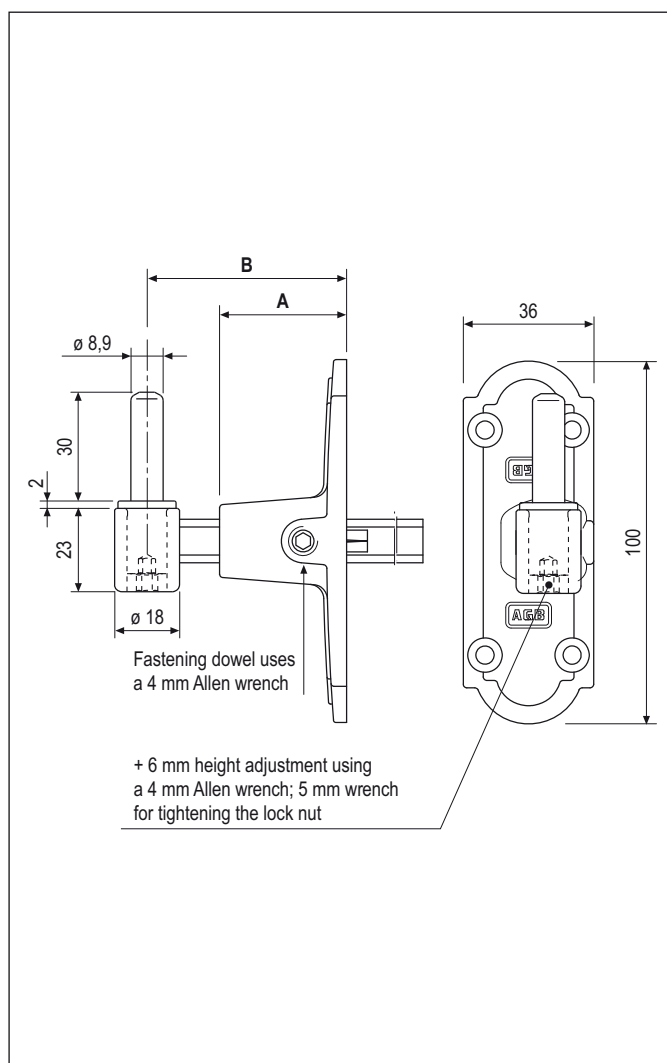
- Used in combination with adjustable hinges and relative supports to be chosen based on the shutter design.

- For special requirements it can also be used with all the other hinges.

Mounting

For the bracket, use four 4,5x35 mm screws with thread suitable for the shutter material.

NB. In order to position the pintle, both the jig H00930.01.01 (separate frame and sash drilling) and H00930.02.01 (simultaneous frame and sash drilling).



Order Specifications

GR	Reveal E (*)	A	B	C	Article
1	67-125	35	56+85	97-B	H01912.01.93
2	97-190	50	86+115	127-B	H01912.02.93
3	145-225	65	116+145	157-B	H01912.03.93

(*) The values refer to a distance D between the open shutter and the wall of 25 mm. For different distances see the "Application Range" chapter.

NB. Refer to the price list in force to check the availability of the finishes.

Threaded pintle with 24 mm plate



Description

Cold-pressed steel pintle with threaded shank that enables the continuous adjustment of the pivot axis from 12 to 45 mm.
24 mm wide shaped steel plate.

Application

For shutters hinged to frames that are flush with the exterior wall or have a slightly recessed reveal, or for monobloc systems with folding shutters.

Used in combination with fixed hinges or hinges with horizontal adjustment, to be chosen based on the shutter design.

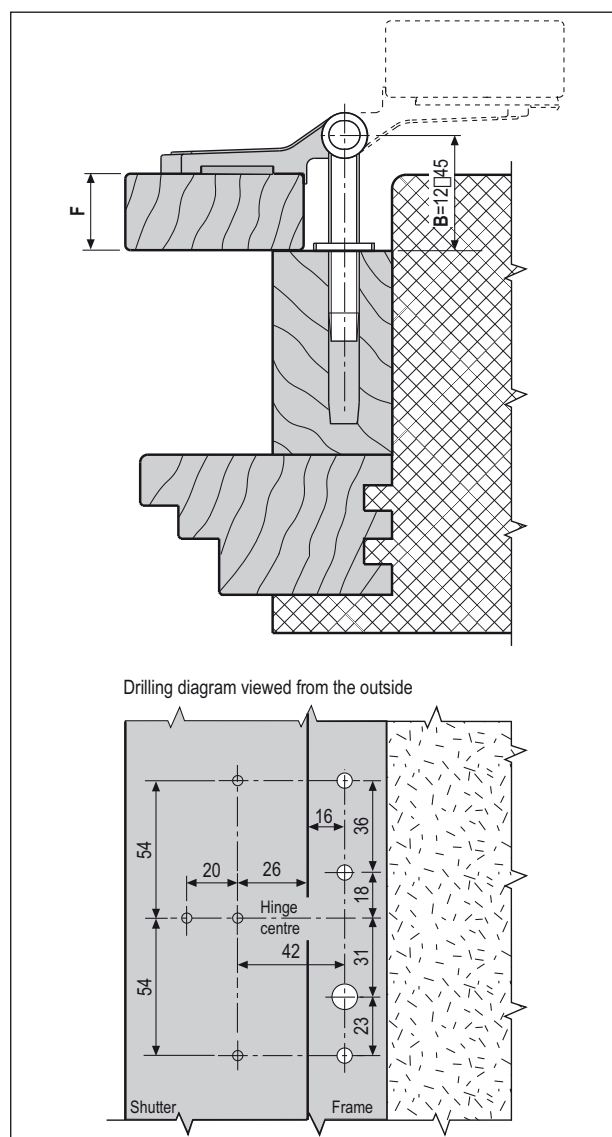
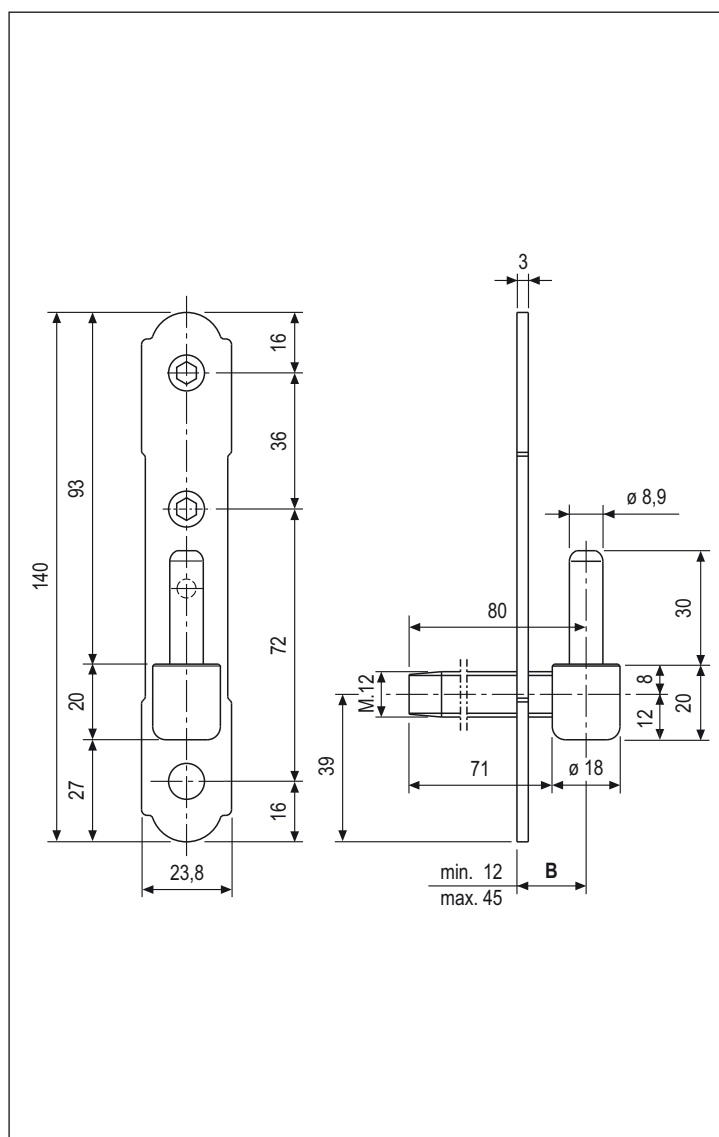
For the mounting, use jig H00930.01.01.

This pintle can be used when the F thickness of the rebate or of the shutter overlap, added

to the H dimension of the hinge neck, ranges from 12 to 45 mm. See also the "Application Range" chapter.

Mounting

Use three 4,5x35 mm screws with suitable thread.



Order Specifications

B	Article
12+45	H00925.45.XX

NB. Refer to the price list in force to check the availability of the finishes.

Threaded pintle with 18 mm plate



Description

Cold-pressed steel pintle with threaded shank that enables the continuous adjustment of the pivot axis from 14 to 45 mm.
18 mm wide shaped steel plate.

Application

For shutters hinged to frames that are flush with the exterior wall or have a slightly recessed reveal, or for monobloc systems with folding shutters.

Used in combination with fixed hinges or hinges with horizontal adjustment, to be chosen based on the shutter design.

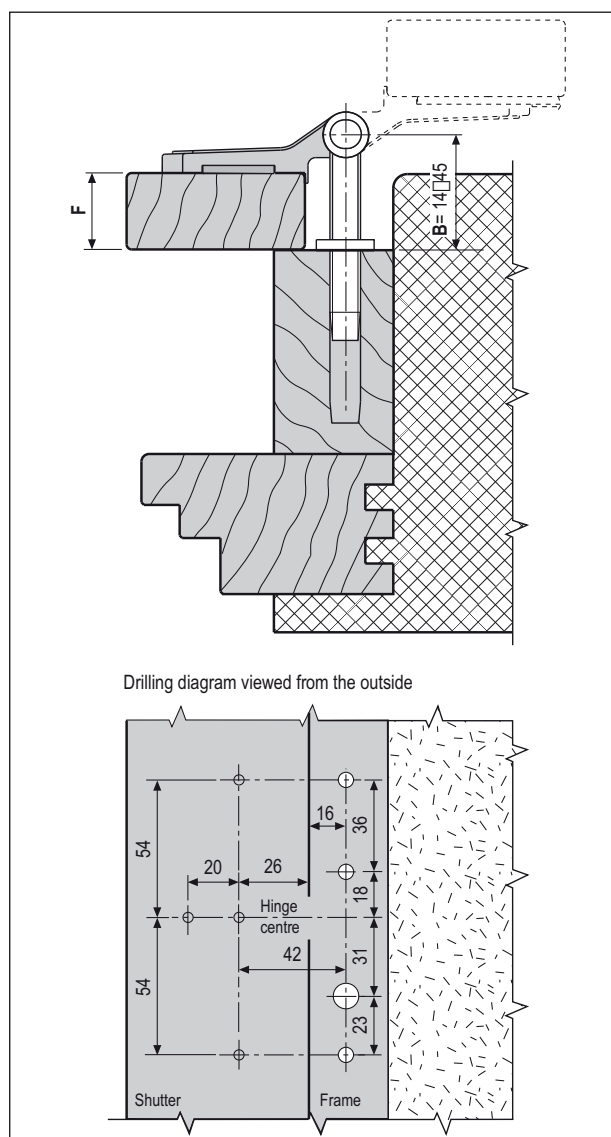
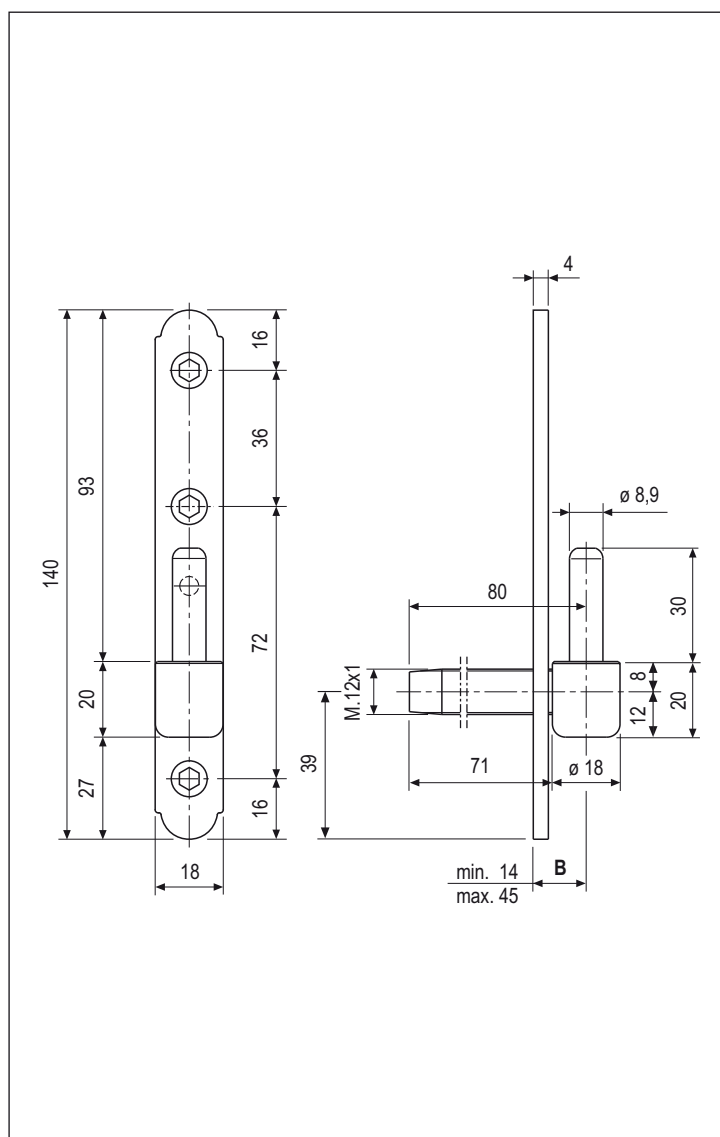
For the mounting, use jig H00930.01.01

This pintle can be used when the F thickness of the rebate or of the shutter overlap,

added to the H dimension of the hinge neck, ranges from 14 to 45 mm. See also the “Application Range” chapter.

Mounting

Use three 4,5x35 mm screws with suitable thread.



Order Specifications

B	Article
14+45	H01925.45.XX

NB. Refer to the price list in force to check the availability of the finishes.

Threaded pintle with 24 mm plate and vertical adjustment



Description

Cold-pressed steel pintle with threaded shank that enables the continuous adjustment of the pivot axis from 12 to 45 mm. Brass pivot with lock nut, adjustable height. 24 mm wide shaped steel plate.

Application

For shutters hinged to frames that are flush with the exterior wall or have a slightly recessed reveal, or for monobloc systems with folding shutters.

Used in combination with fixed hinges or hinges with horizontal adjustment, to be chosen based on the shutter design.

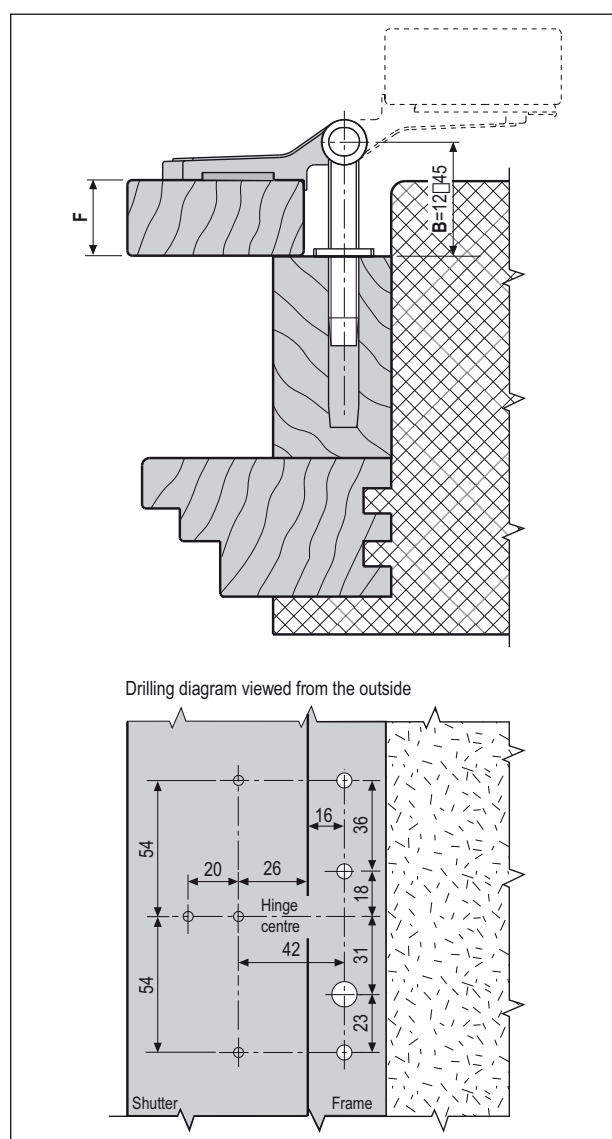
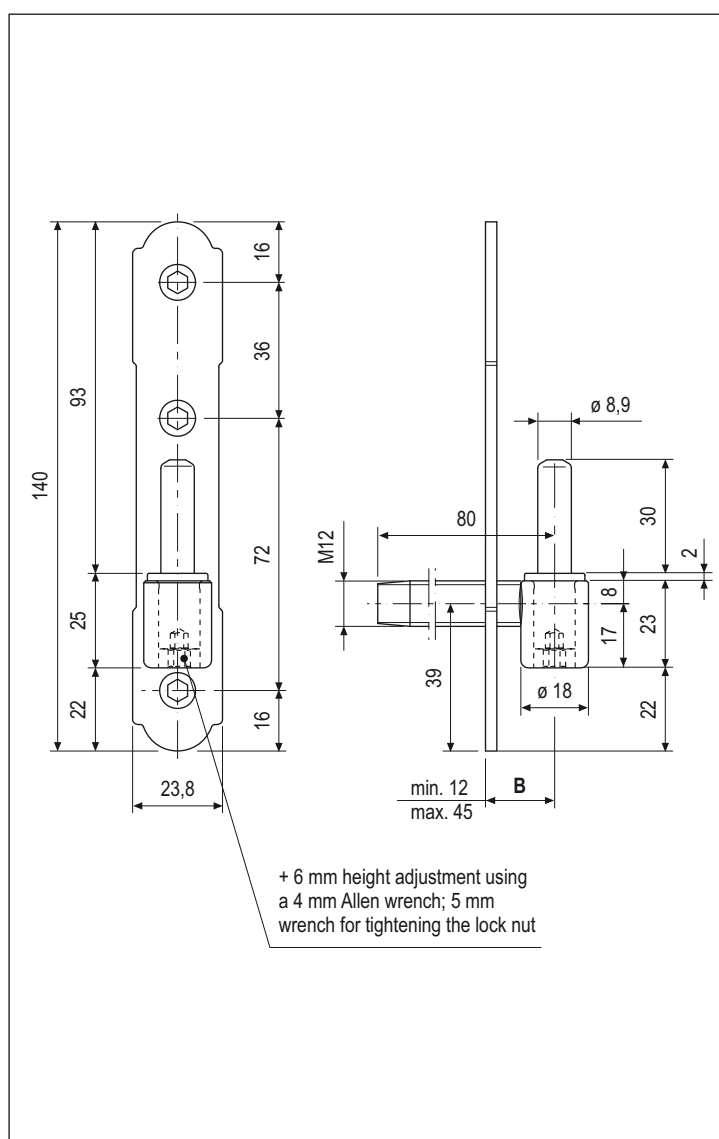
This pintle can be used when the F thickness of the rebate or of the shutter overlap,

added to the H dimension of the hinge neck, ranges from 12 to 45 mm. See also the "Application Range" chapter.

Mounting

Use three 4,5x35 mm screws with suitable thread.

NB. In order to position the pintle, both the jig H00930.01.01 (separate frame and sash drilling) and H00930.02.01 (simultaneous frame and sash drilling).



Order Specifications

B	Article
12+45	H02925.45.93

Fixed pintle with 18 mm plate



Description

Cold-pressed steel pintle welded to an 18 mm wide shaped steel plate, with pivot axis ranging from 22 to 30 mm based on the GR size.

Application

For shutters hinged to the soffit or to narrow frames that are flush with the exterior wall or have a slightly recessed reveal, or for monobloc systems with folding shutters.

Used in combination with fixed hinges or hinges with horizontal adjustment, to be chosen based on the shutter design.

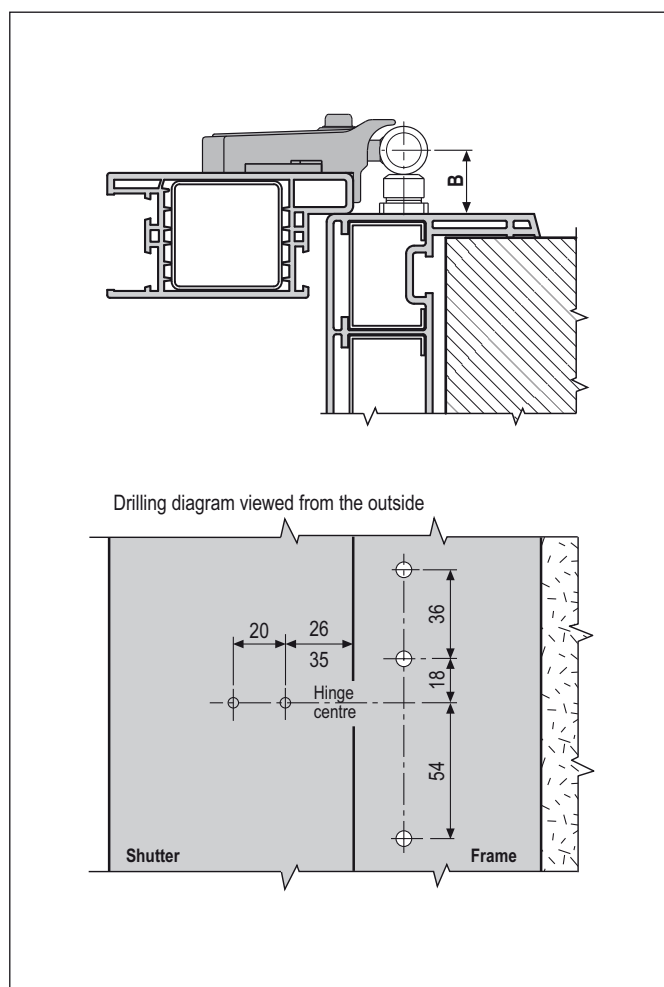
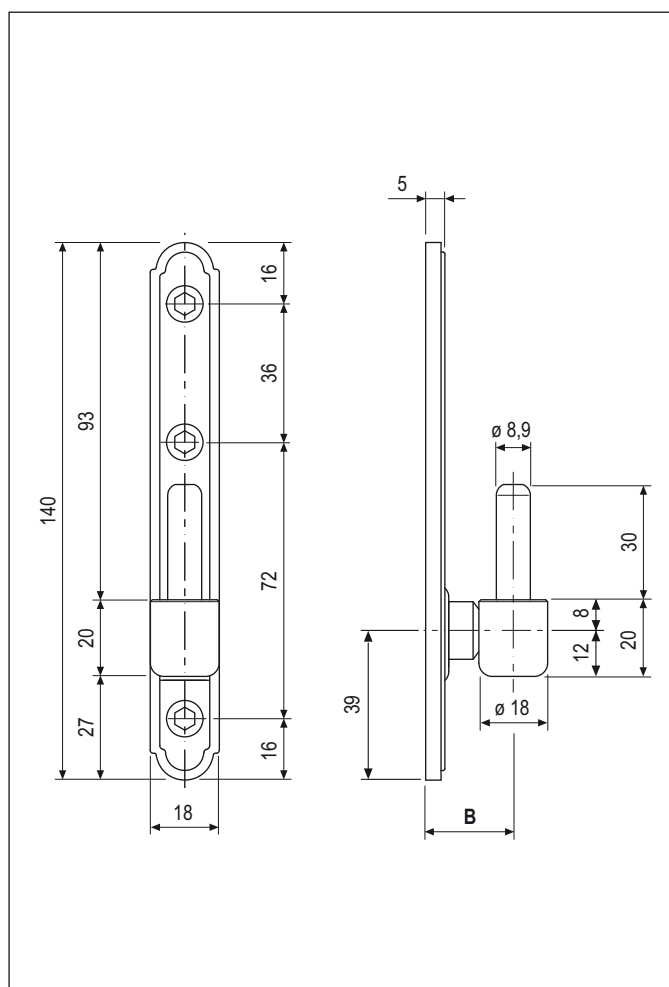
When selecting the GR size, keep in mind that the F thickness of the rebate or of the shutter overlap, added to the H dimension

of the hinge neck, must be equal to the B distance between centres of the pintle. See also the "Application Range" chapter.

Mounting

Use three 4,5x35 mm screws with suitable thread.

NB. In order to position the pintle, both the jig H00930.01.01 (separate frame and sash drilling) and H00930.02.01 (simultaneous frame and sash drilling).



Order Specifications

GR	B	Article
2	15	H01924.15.XX
3	18	H01924.18.93
4	20	H01924.20.93
5	22	H01924.22.93
6	24	H01924.24.XX
7	26	H01924.26.93
8	28	H01924.28.93
9	30	H01924.30.93

NB. Refer to the price list in force to check the availability of the finishes.

Pintle with 18 mm plate and vertical adjustment



Description

Cold-pressed steel pintle welded to an 18 mm wide shaped steel plate, with pivot axis ranging from 22 to 30 mm based on the GR size. Brass pivot with lock nut, adjustable height.

Application

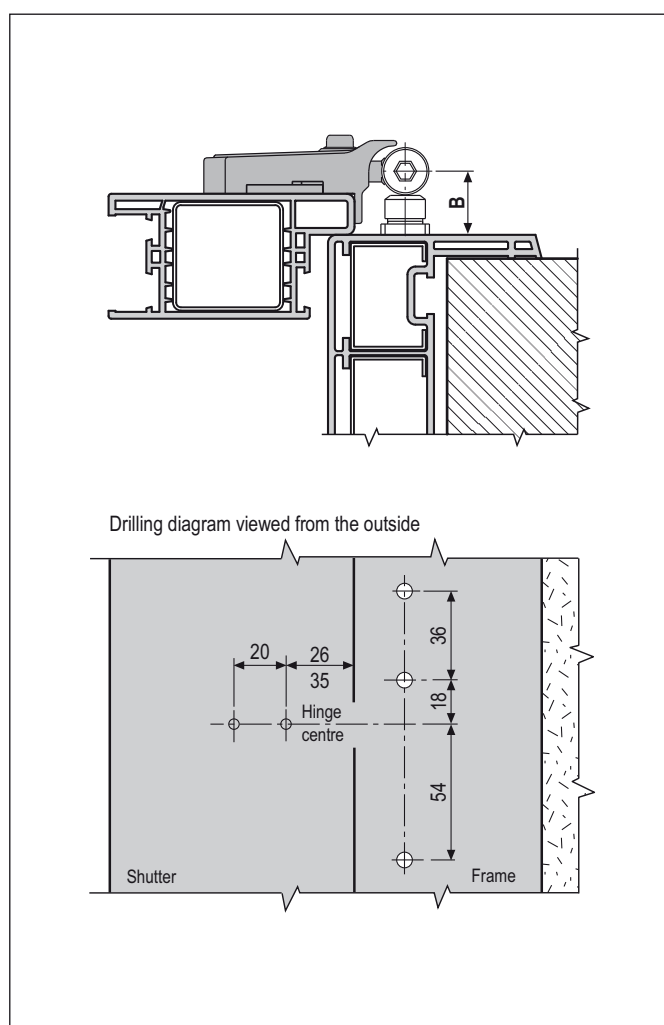
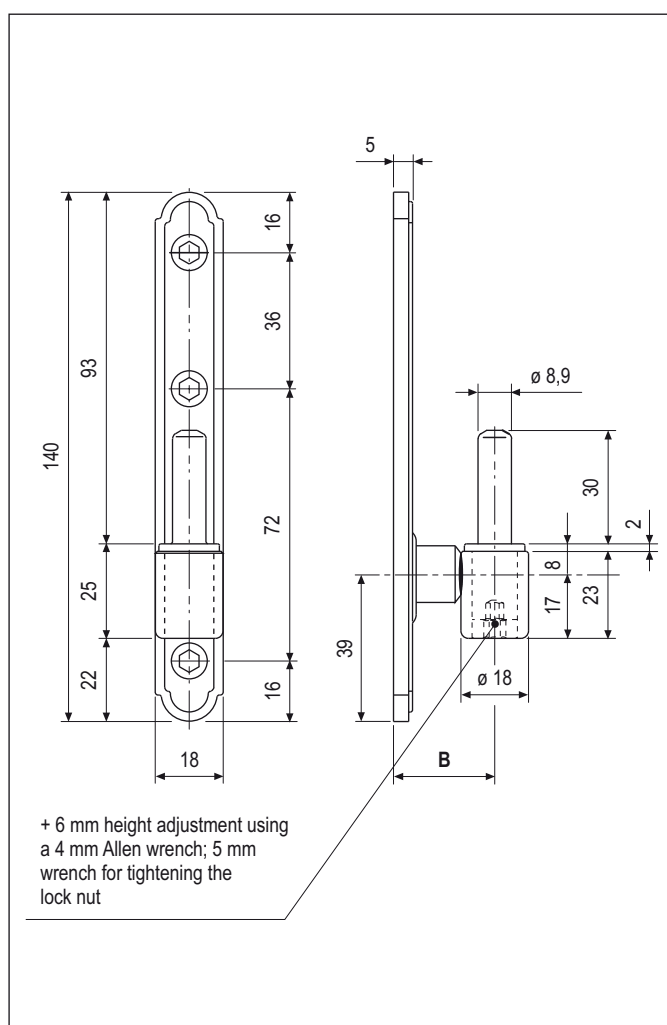
For shutters hinged to the soffit or to narrow frames that are flush with the exterior wall or have a slightly recessed reveal, or for monobloc systems with folding shutters. Used in combination with fixed hinges or hinges with horizontal adjustment, to be chosen based on the shutter design. When selecting the GR size, keep in mind that the F thickness of the rebate or of the

shutter overlap, added to the H dimension of the hinge neck, must be equal to the B distance between centres of the pintle. See also the "Application Range" chapter.

Mounting

Use three 4,5x35 mm screws with suitable thread.

NB. In order to position the pintle, both the jig H00930.01.01 (separate frame and sash drilling) and H00930.02.01 (simultaneous frame and sash drilling).



Order Specifications

GR	B	Article
5	22	H03924.22.93
6	24	H03924.24.93
7	26	H03924.26.93
8	28	H03924.28.93
9	30	H03924.30.93

Fixed pintle with 24 mm plate



Description

Cold-pressed steel pintle welded to a 24 mm wide shaped steel plate, with pivot axis ranging from 12 to 30 mm based on the GR size. Brass pivot with lock nut, adjustable height.

Application

For shutters hinged to the soffit or to frames that are flush with the exterior wall or have a slightly recessed reveal, or for monobloc systems with folding shutters. Used in combination with fixed hinges or hinges with horizontal adjustment, to be chosen based on the shutter design. When selecting the GR size, keep in mind that the F thickness of the rebate or of the

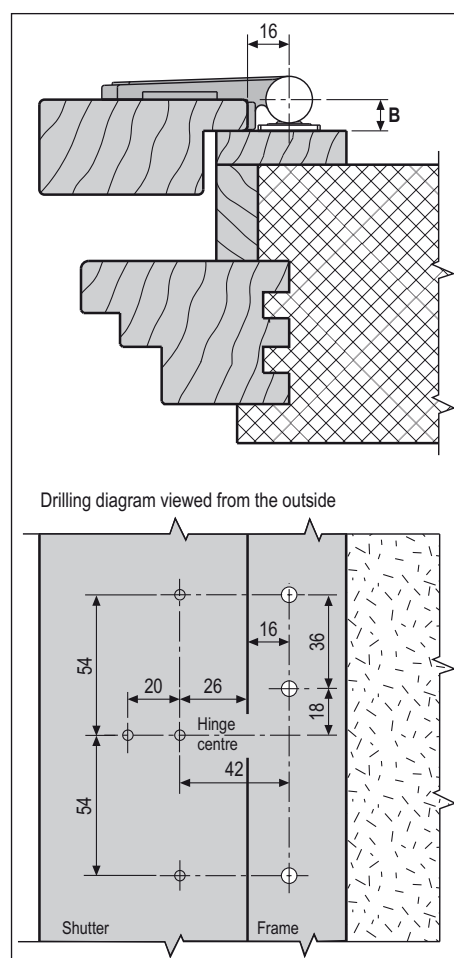
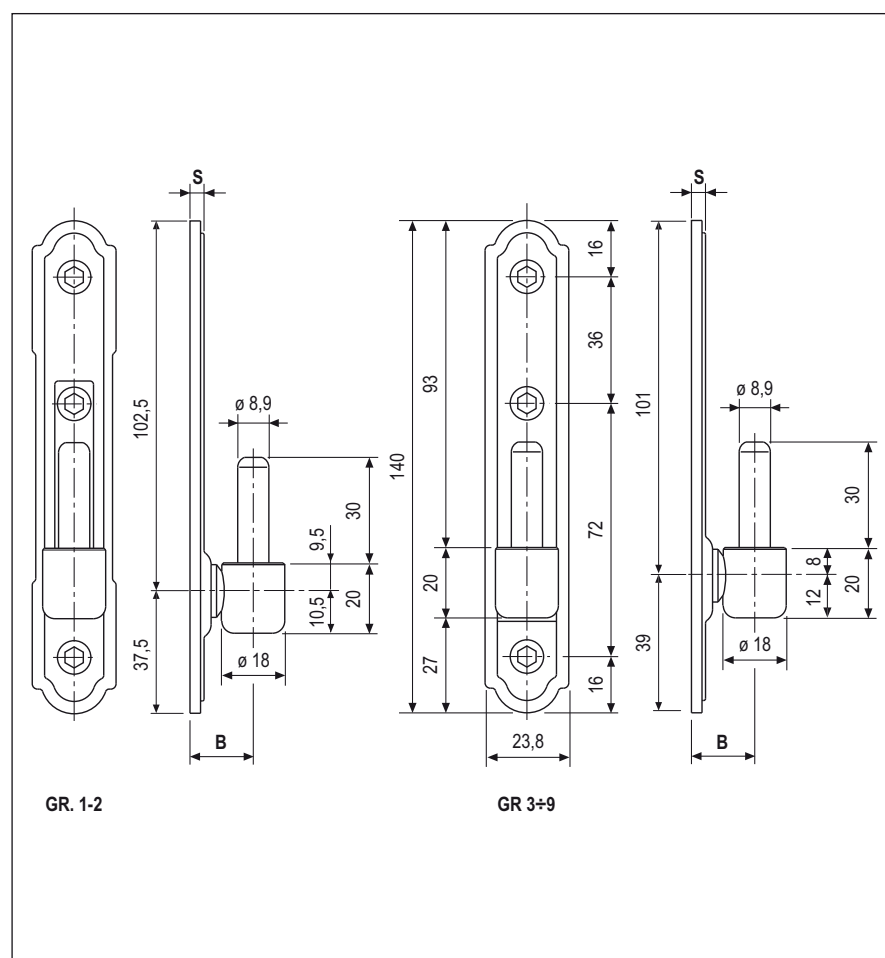
When selecting the GR size, keep in mind that the F thickness of the rebate or of the

shutter overlap, added to the H dimension of the hinge neck, must be equal to the B distance between centres of the pintle. See also the “Application Range” chapter.

Mounting

Use three 4,5x35 mm screws with suitable thread.

NB. In order to position the pintle, both the jig H00930.01.01 (separate frame and sash drilling) and H00930.02.01 (simultaneous frame and sash drilling).



Order Specifications

GR	B	S	Article
1	12	2,7	H00924.12.XX
2	15	4	H00924.15.XX
3	18	4	H00924.18.XX
4	20	4	H00924.20.XX
5	22	4	H00924.22.XX
6	24	4	H00924.24.XX
7	26	4	H00924.26.XX
8	28	4	H00924.28.XX
9	30	4	H00924.30.XX

NB. Refer to the price list in force to check the availability of the finishes.

Pintle with 24 mm plate and vertical adjustment



Description

Cold-pressed steel pintle welded to a shaped steel plate whose width varies according to the GR size. Stainless steel screw for height adjustment.

Application

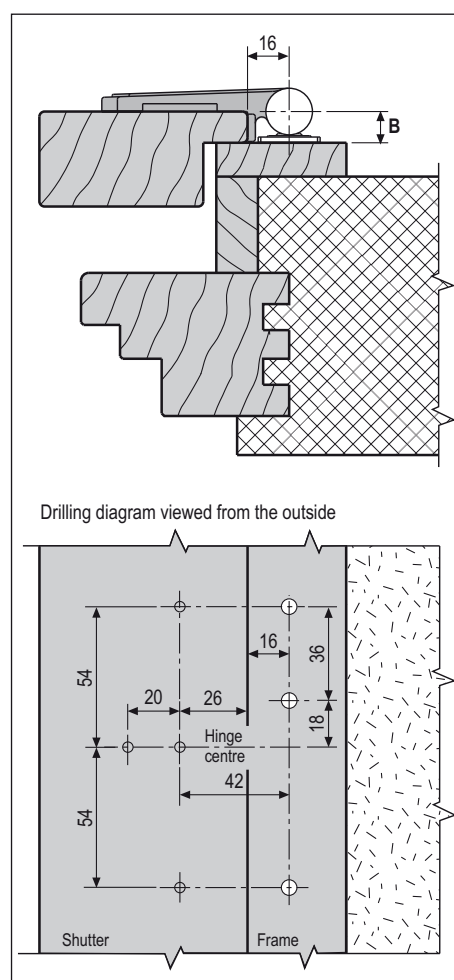
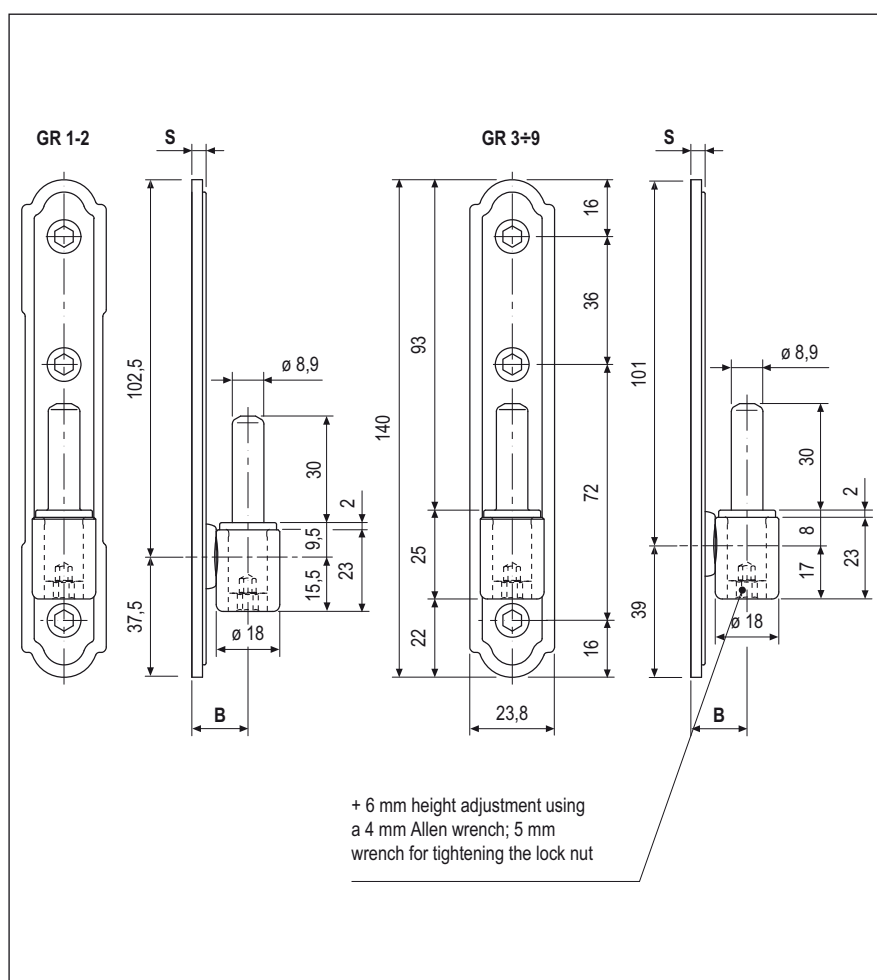
For narrow reveals or frames that are flush with the exterior wall.
The GR size depends on the F thickness of the rebate.

- Used in combination with fixed hinges to be chosen based on the shutter design.

Mounting

Use three 4,5x35 mm screws with thread suitable for the shutter material.

NB. In order to position the pintle, both the jig H00930.01.01 (separate frame and sash drilling) and H00930.02.01 (simultaneous frame and sash drilling).



Order Specifications

GR	B	S	Article
1	12	2,7	H02924.12.93
2	15	4	H02924.15.93
3	18	4	H02924.18.93
4	20	4	H02924.20.93
5	22	4	H02924.22.93
6	24	4	H02924.24.93
7	26	4	H02924.26.93
8	28	4	H02924.28.93
9	30	4	H02924.30.93

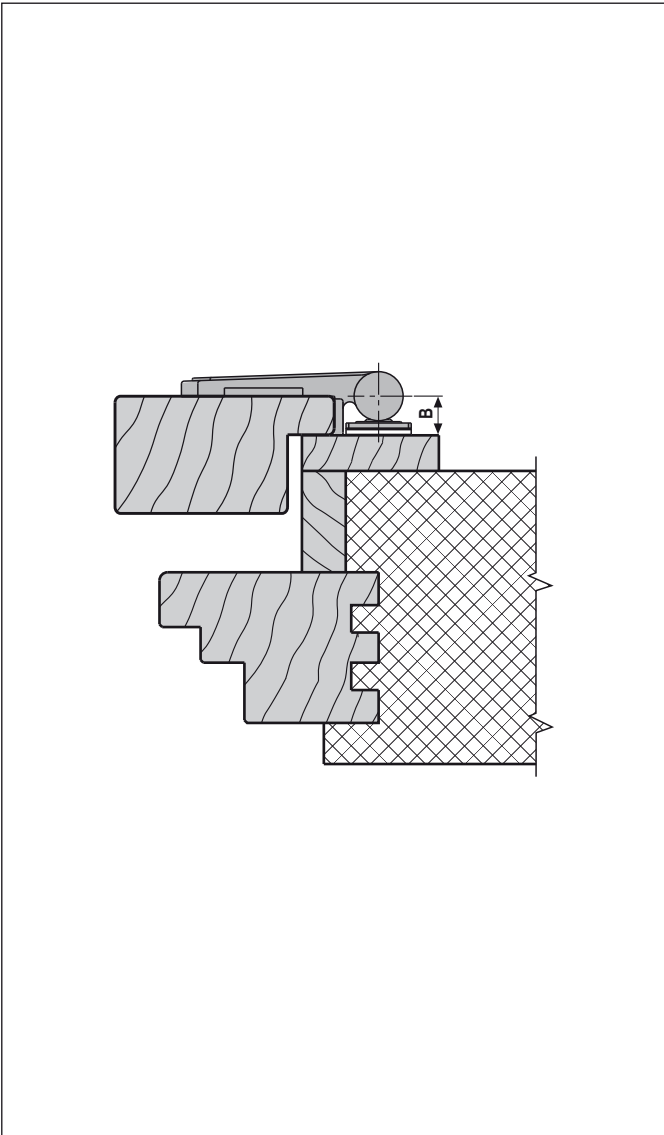
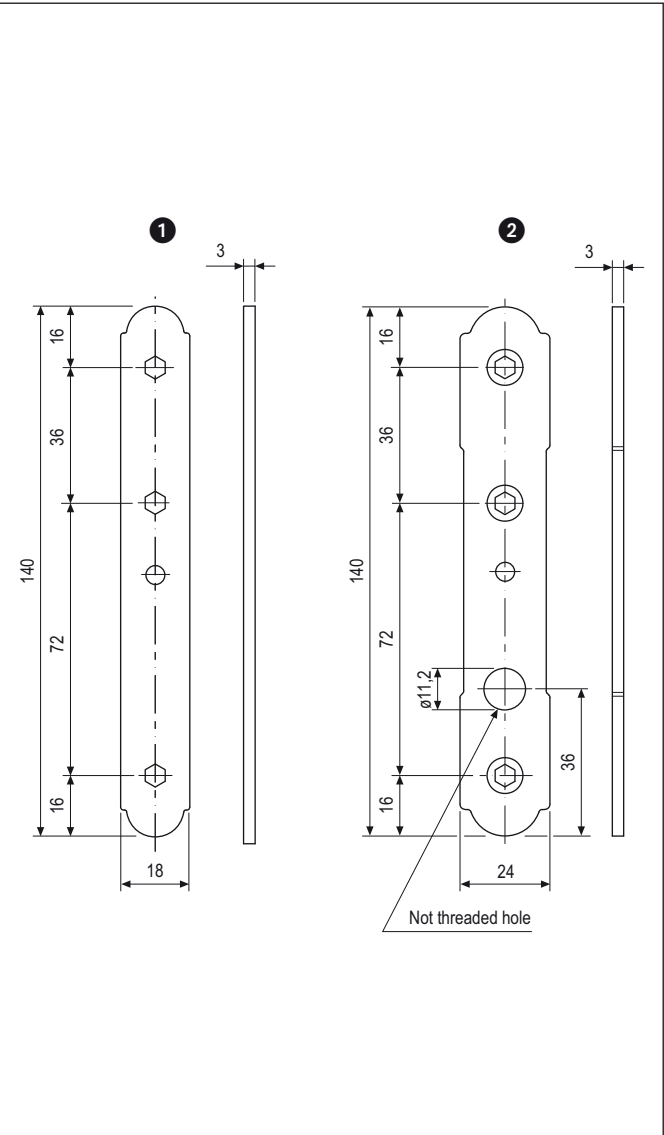
3 mm shim for pintle on 18 and 24 mm plate



Description
3 mm thick steel plate for fixed and adjustable height plate pintles.

Application
To be used with plate pintles (fixed or adjustable) 18 mm (see dralip 1) or 24 mm wide (see dralip 2) in order to increase the axis of the pintle (B).

Mounting
Position it between pintle and shutter frame and fix with 3 4,5x40 mm screws with thread suitable for the shutter material.



Order Specifications

Ref.	Description	Article
1	Shim for 18 mm plate pintle	H00021.01.XX
2	Shim for 24 mm plate pintle	H00021.04.XX

NB. Refer to the price list in force to check the availability of the finishes.

Fixed pintle for masonry



Description

Cold-pressed steel pintle with fixed 9x30 mm pivot. M12 threaded shank available in four different lengths, from 85 to 175 mm, depending on the GR size.

Application

For shutters hinged directly to the wall. Used in combination with Abaco hinges with 19 or 45 mm axis, either fixed or with horizontal adjustment. The length of the shank must be selected based on the drilling angle (30° or 90°), the shutter design (if folding shutters are used) and the composition of the wall.

Mounting

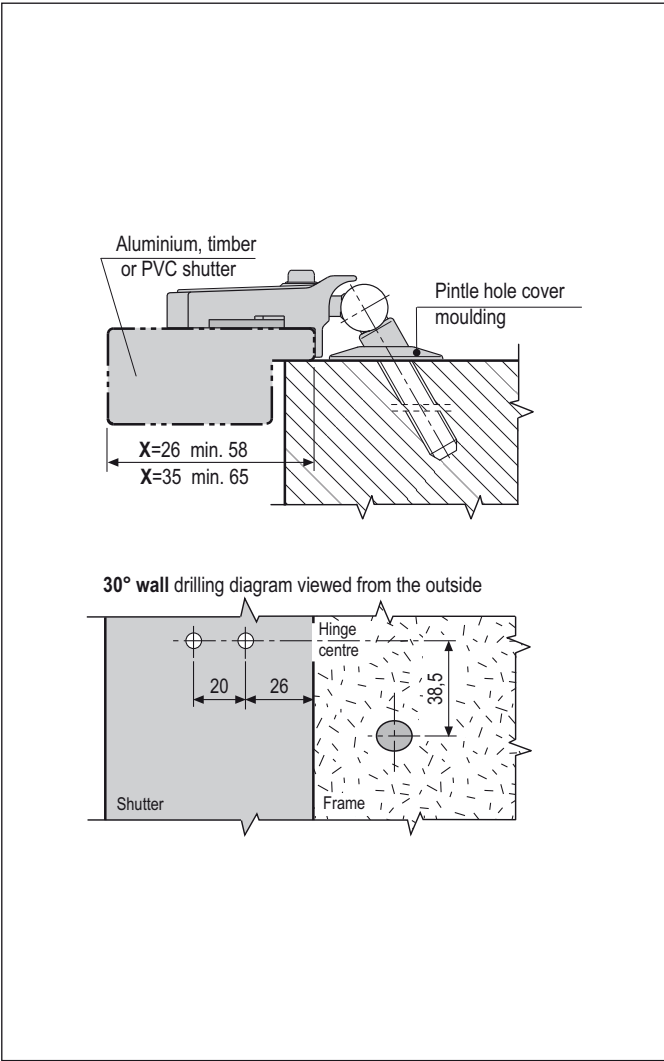
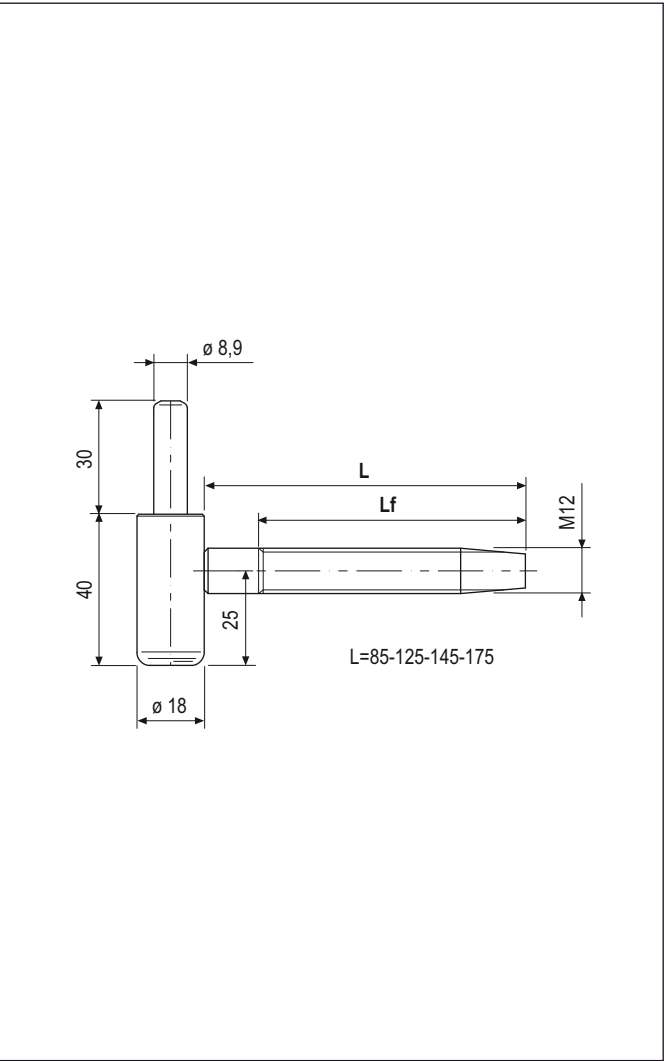
Use a 16 mm diameter anchor or chemical mortar. For proper drilling of the wall use jig art. H00930.05.01 (with fixed or adjustable hinges) or jigs H01149 (with adjustable hinges only).

NB. The moulding to cover the pintle hole, art. H00917.02.93, must be ordered separately.

Accessories



Nylon screw anchor for pintle installation
Art. H00901.47.01 (100 mm length)
Art. H00901.48.01 (135 mm length)



Order Specifications

GR	L	Lf (Thread lenght)	Article
1	85	70	H00928.01.XX
2	125	80	H00928.02.XX
3	145	80	H00928.03.XX
4	175	80	H00928.04.XX

NB. Refer to the price list in force to check the availability of the finishes.

Pintle for masonry with vertical adjustment



Description

18 mm diameter steel pintle with 9x30 mm brass pivot, with vertical adjustment and lock nut. M12 threaded shank available in four different lengths, from 85 to 175 mm, depending on the GR size.

Application

For shutters hinged directly to the wall. Used in combination with Abaco hinges with 19 or 45 mm axis and horizontal adjustment. The length of the shank must be selected based on the drilling angle (30° or 90°), the shutter design (if folding shutters are used) and the composition of the wall.

Mounting

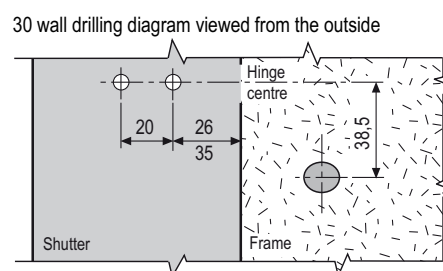
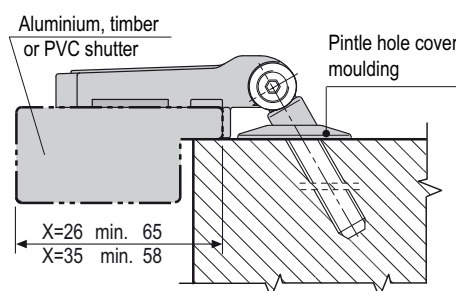
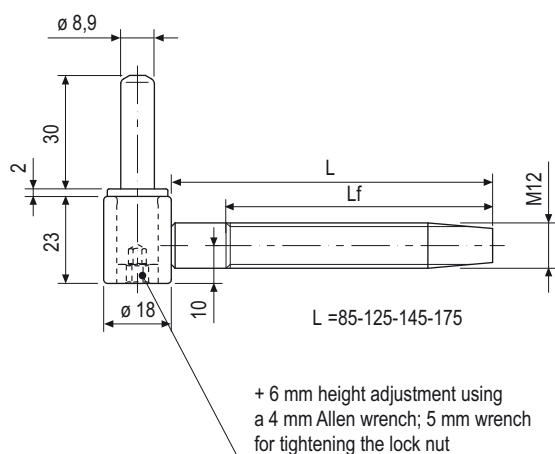
Use a 16 mm diameter anchor or chemical mortar. For proper drilling of the wall use jig art. H00930.05.01 (with fixed or adjustable hinges) or jigs H01149 (with adjustable hinges only).

NB. The moulding to cover the pintle hole, art. H00917.02.93, must be ordered separately.

Accessories



Nylon screw anchor for pintle installation
Art. H00901.47.01 (100 mm length)
Art. H00901.48.01 (135 mm length)



Order Specifications

GR	L	Lf (Thread lenght)	Article
1	85	70	H01928.01.XX
2	125	80	H01928.02.XX
3	145	80	H01928.03.XX
4	175	80	H01928.04.XX

NB. Refer to the price list in force to check the availability of the finishes.

Pintle for masonry with removable pivot and vertical adjustment



Description

18 mm diameter steel pintle with adjustable height, with 9 mm diameter removable pivot and theft-proof fastening dowel. M12 threaded shank available in four different lengths, from 85 to 175 mm, depending on the GR size.

Application

For shutters hinged directly to the wall. Used in combination with fixed Abaco hinges with 19 or 45 mm axis. The removable pivot allows the pintle to be installed even when the shutter is already in place. The length of the shank must be selected based on the drilling angle (30° or 90°), the shutter design (if folding shutters are used) and the composition of the wall.

Mounting

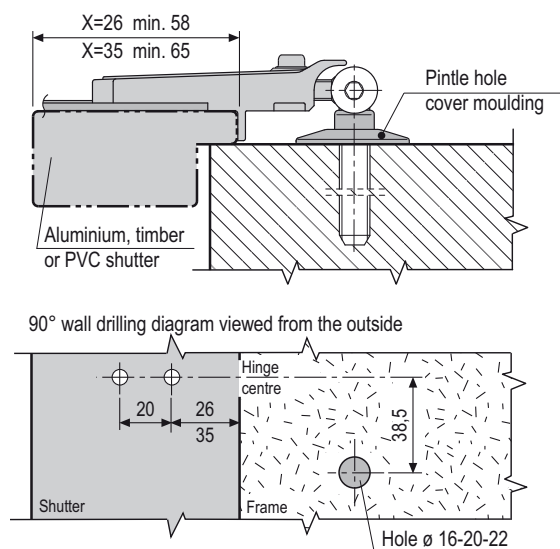
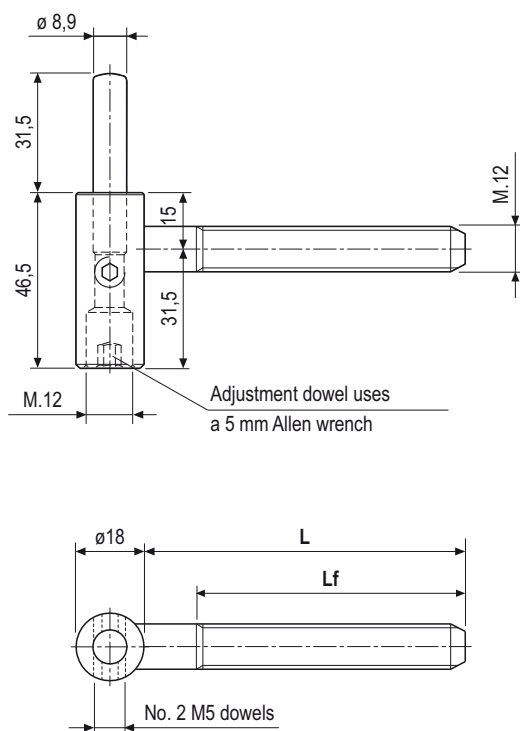
Use a 16 mm diameter anchor or chemical mortar. For proper drilling of the wall use jig art. H00930.05.01 or the H01149 jigs. Adjust the height of the shutter (+ 6 mm max) using a 5 mm Allen wrench.

NB. The moulding to cover the pintle hole, art. H00917.02.93, must be ordered separately.

Accessories



Nylon screw anchor for pintle installation
Art. H00901.47.01 (100 mm length)
Art. H00901.48.01 (135 mm length)



Order Specifications

GR	L	Lf (Thread lenght)	Article
1	85	70	H01149.01.XX
2	125	80	H01149.02.XX
3	145	80	H01149.03.XX
4	175	80	H01149.04.XX

NB. Refer to the price list in force to check the availability of the finishes.

Pintle anchor Kit - with screw pin, "padovana" type



Description

Hinge featuring adjustable pintle anchor with threaded shank and $\varnothing 12$ mm screw pin, removable pin and theft-proof fastening dowel, for fixing on the wall.

Application

For "alla padovana" multiple-leaf shutter masonry systems with horizontal bracket. The removable pin allows to mount the pintle when the shutter is already positioned as well. The fastening dowel, completely inserted on the hinge body, enables to drill even obliquely.

Mounting

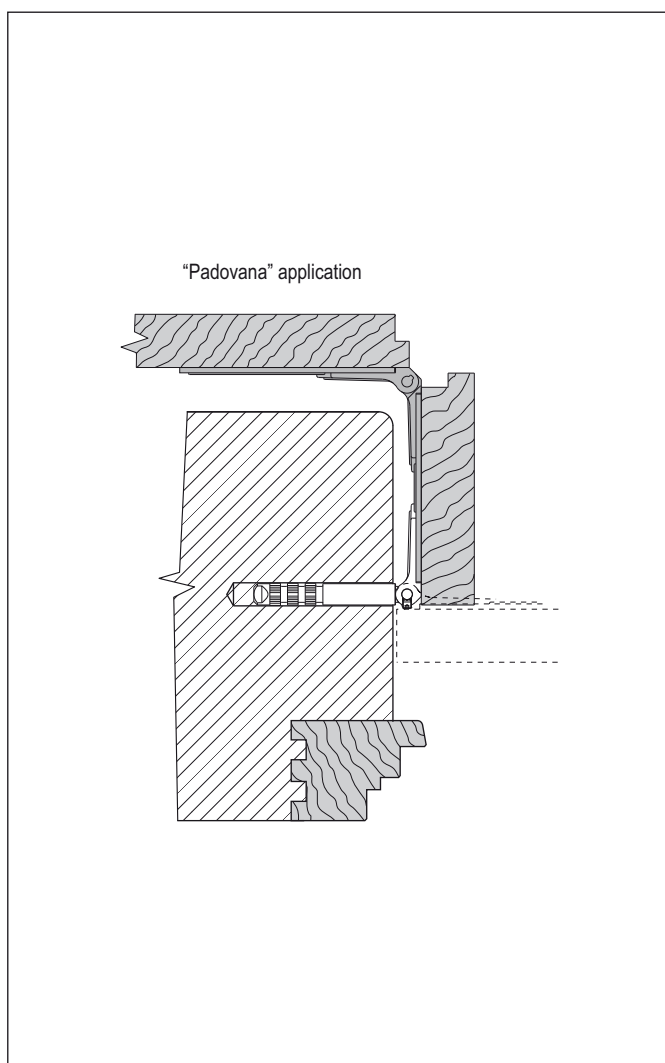
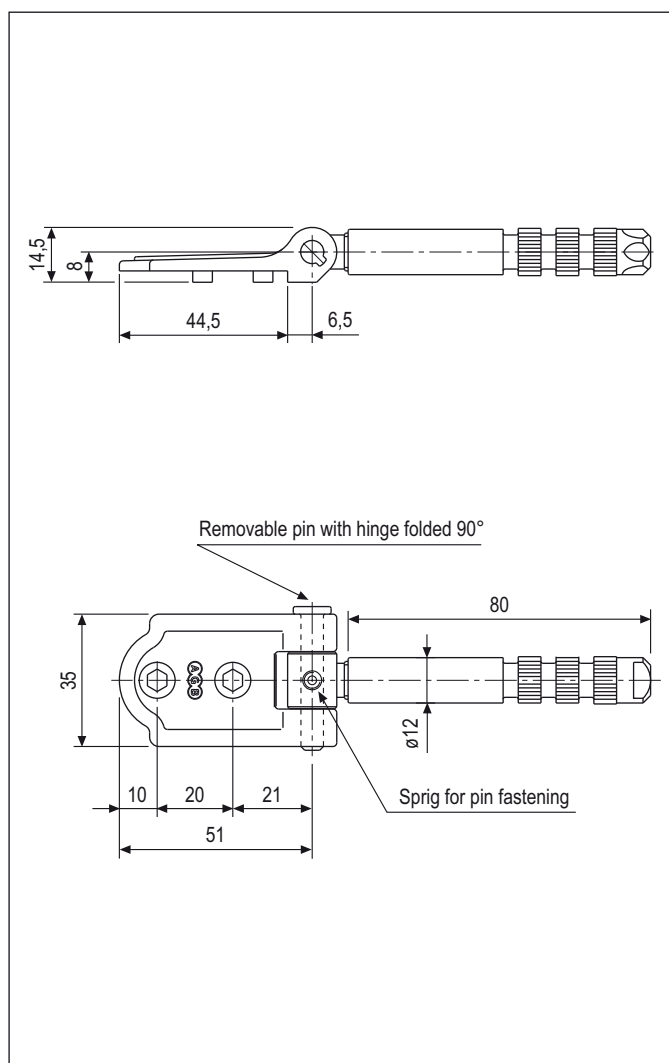
Use:

- theft-proof screws;
- four 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread;
- rivets (PVC and aluminium timber systems only)

The screw pin is fixed by means of chemical mortar.

- We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

NB. Use of wall catch for shutters is necessary.



Order Specifications

Article

H01143.13.93

Pintle anchor Kit - with screw pin, "vicentina" type



Description

Hinge featuring adjustable pintle anchor with threaded shank and $\varnothing 12$ mm screw pin, removable pin and theft-proof fastening dowel, for fixing on the wall.

Application

For "alla vicentina" multiple-leaf shutter masonry systems with horizontal bracket. The removable pin allows to mount the pintle when the shutter is already positioned as well. The fastening dowel, completely inserted on the hinge body, enables to drill even obliquely.

Mounting

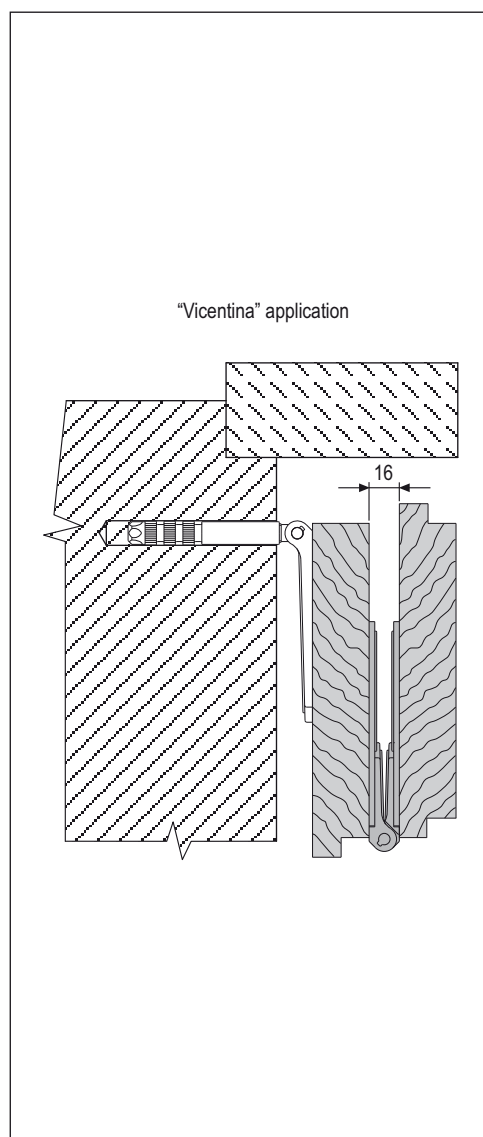
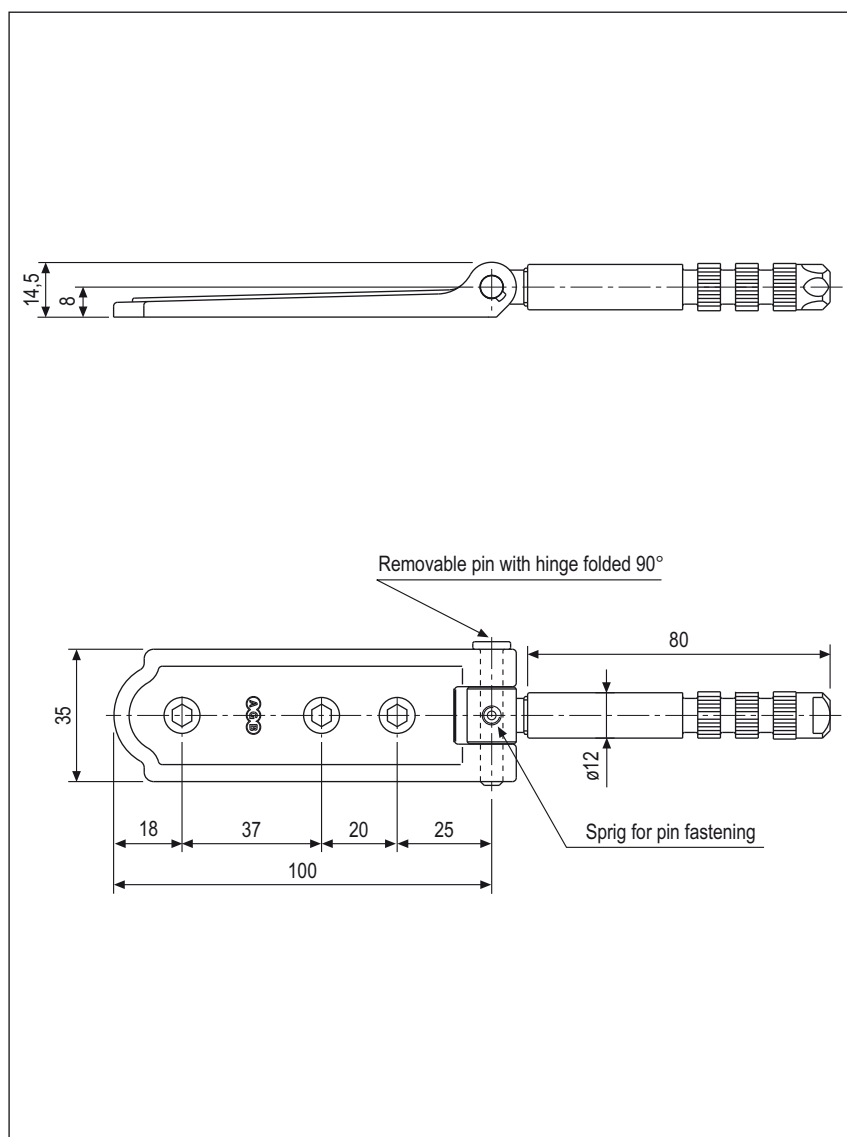
Use:

- theft-proof screws;
- four 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread;
- rivets (PVC and aluminium timber systems only)

The screw pin is fixed by means of chemical mortar

- We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

NB. Use of wall catch for shutters is necessary.



Order Specifications

Article

H02143.13.93

Hinge and pintle kit for chemical anchor



Description

Fixed hinge made of zamak with plastic bushing.

Masonry pintle with movable pin and security grub screw. It is supplied with anchor. The pintle is right and left hand according to the position of the security grub screw.

Application

For masonry application with articulated wooden, PVC or aluminium sashes.

The hinge has to be coupled with the horizontal bracket H00952.xx.xx, the articulated hinge H00931.09.xx and the brackets H00920.xx.xx.

The pintle code is H01144.18.xx (R-h.) or H01145.18.xx (L-h.).

Mounting

Hinge

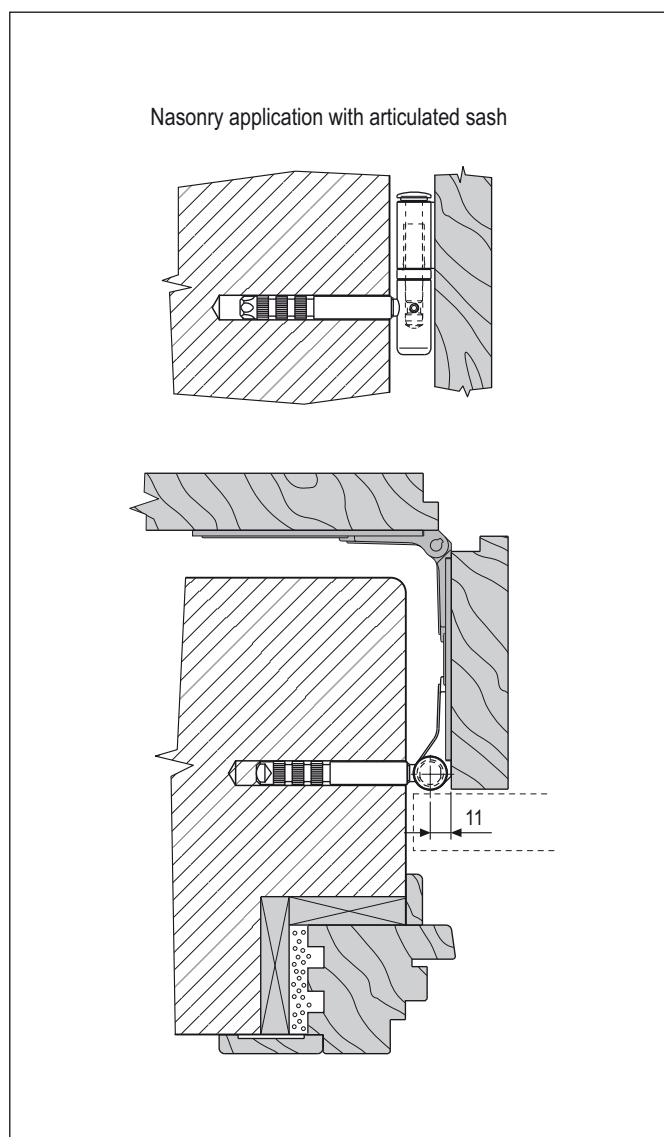
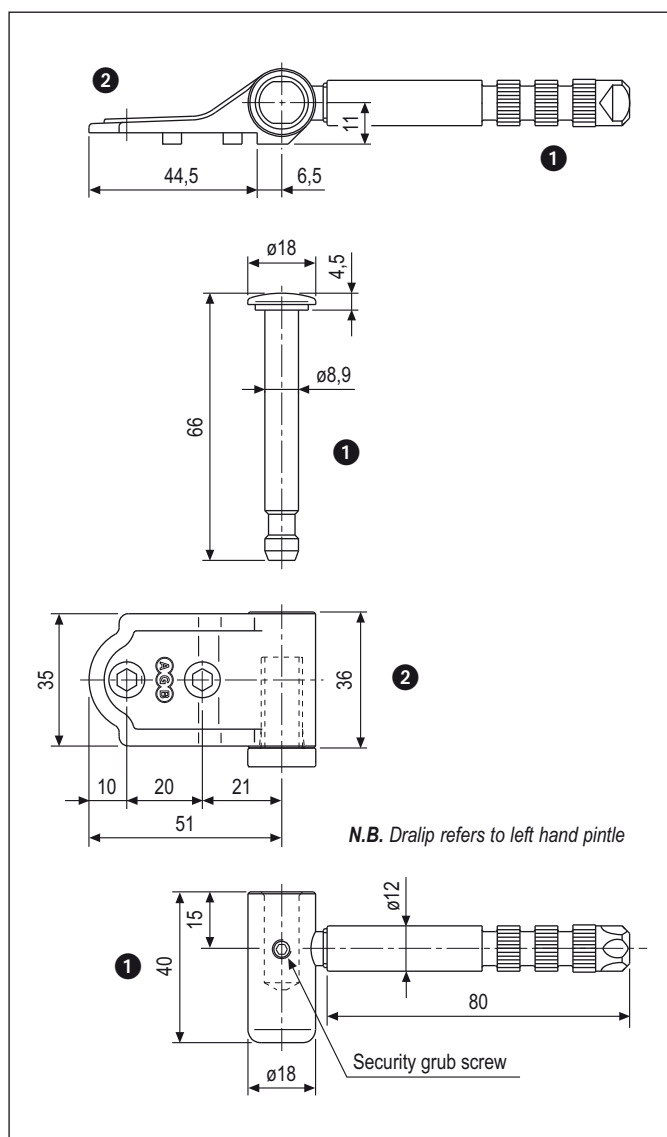
It can be fastened with:

- Antiburglar screws
- With 4,5 mm screws and length as the thickness of the sash, with thread suitable to the building materials
- with rivets (aluminium)

Pintle

The steel anchor can be fixed to the wall with bi-component epoxy resins.

The internal thread of the anchor make the lateral adjustment of the sash and compensate eventual collapses.



Order Specifications

Ref.	Description	Type	Article
1	Pintle	r.h.	H01144.18.93
	Pintle	l.h.	H01145.18.93
2	Hinge		H00144.18.93

Adjustable hinge - with variable neck



Description

Reversible (two-handed) hinge with 2 stainless steel screws that enable horizontal and pressure adjustment using a 4 mm Allen wrench. Hinge reversibility is made possible thanks to a removable self-lubricating plastic bushing.

Application

Designed for simple monoblocs or systems with soffit and reveal to be cleared in order to open the shutter 180°. Used in combination with pintles featuring 9x30 mm pivot, and with supports with 26 mm screw hole. Use with pintles featuring 9 mm diameter pivot.

For GR size selection, see the "Application Range" tables.

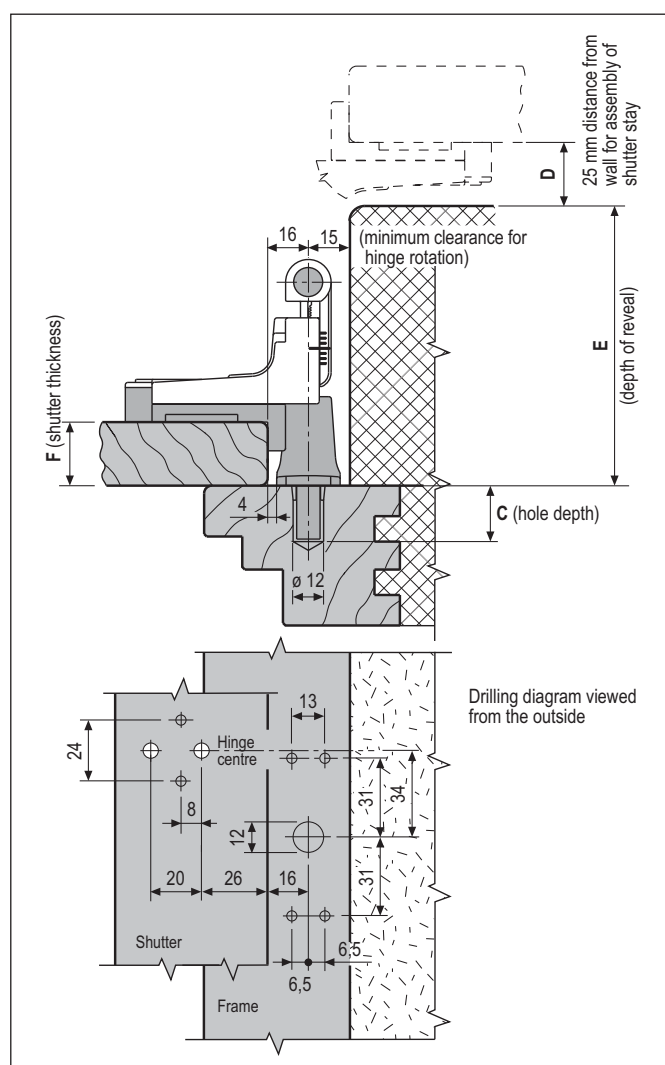
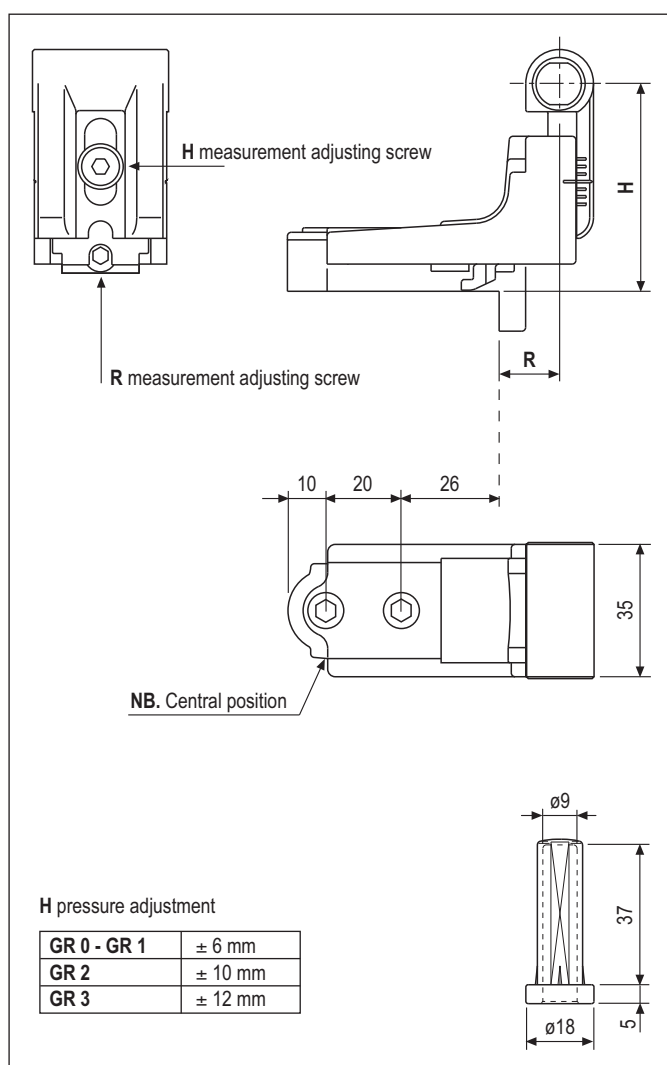
Mounting

After mounting the hinge on the support, fasten using one of the following methods:

- 2 theft-proof screws
- two 4,5 mm screws of suitable length (matching the thickness of the shutter) and thread;
- rivets (only for PVC or aluminium)

• We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

• For direct attachment of the hinge to the shutter (without any brackets) use the compensating shim.



Order Specifications

GR	H			R			Article
	min	centr.	max	min	centr.	max	
0	36	42	48	12	16	20	H00914.00.XX
1	49	55	61	12	16	20	H00914.01.XX
2	62	72	82	12	16	20	H00914.02.XX
3	82	94	106	12	16	20	H00914.03.XX

NB. Refer to the price list in force to check the availability of the finishes.

Adjustable hinge - 19x40 for timber shutters



Description

Two-handed hinge with 40 mm neck and 1 stainless steel screw that enables horizontal adjustment using a 4 mm Allen wrench. Hinge reversibility is made possible thanks to a removable self-lubricating plastic bushing.

Application

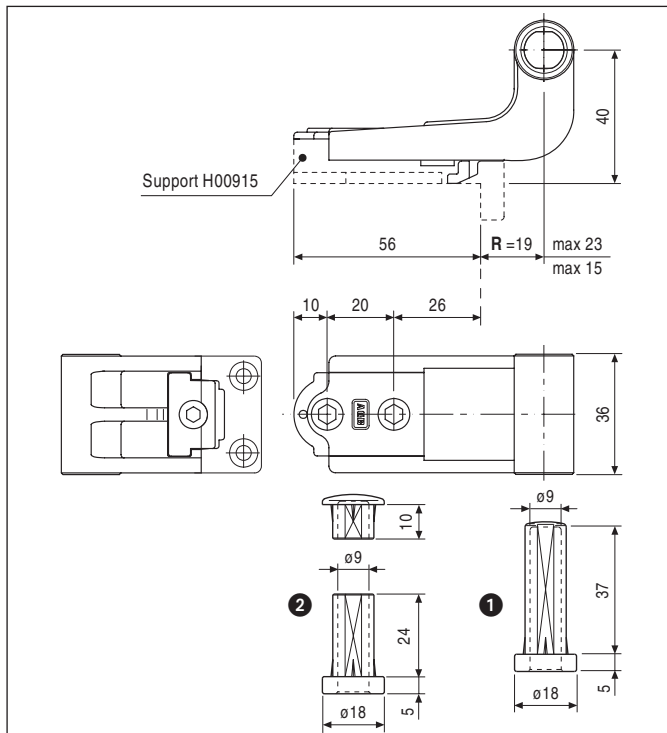
For masonry-mounted flush, overlapped or rebated timber shutters, with outward folding leaves. Suitable also for monobloc systems where narrow reveals must be cleared. Used in combination with hinge supports with screw hole at 26 mm, and with wall-

mounted pintles featuring 9 mm diameter pivot, with the exception of article H01149. Hinge lock art. H00913 can be used only if the pindle is mounted at 90°.

Mounting

Install the support on the shutter and mount the hinge following the instructions for the supports provided in this chapter.

We recommend the use of two theft-proof screws for fastening the hinge to the shutter: this method ensures greater system steadiness and security. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread.





Shutter thickness table

The minimum and maximum values refer to a tolerance of +1/-2 mm, which is made possible thanks to the spring bumper.

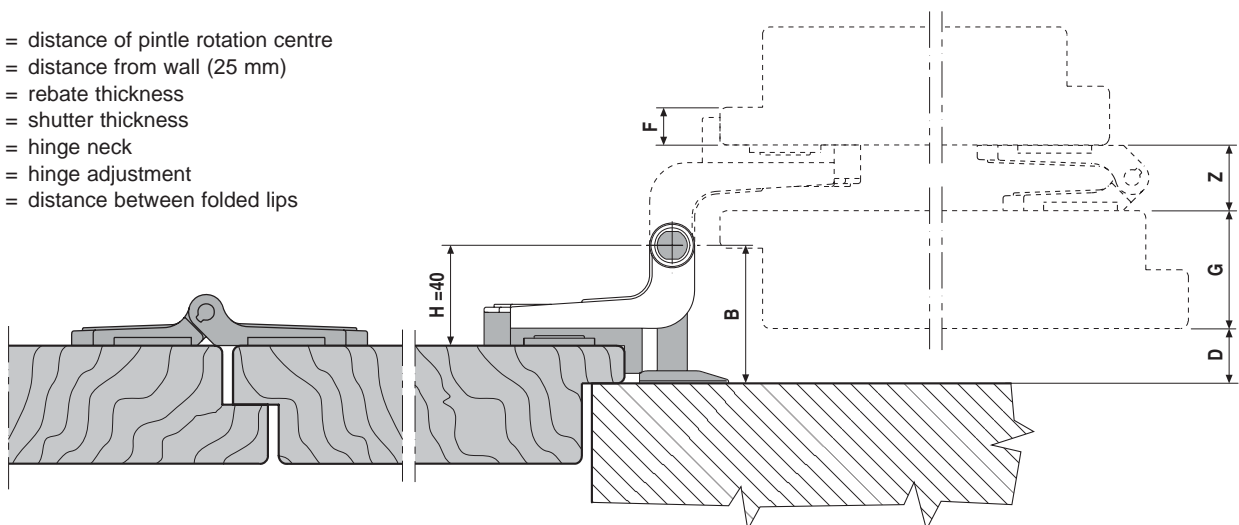
F		0	10	12	14	15	16	18	20	22	24	26	28	30
D	G													
25	min	29	39	41	43	44	45	47	49	51	53	55	57	59
	max	32	42	44	46	47	48	50	52	54	56	58	60	62
30	min	24	34	36	38	39	40	42	44	46	48	50	52	54
	max	27	37	39	41	42	43	45	47	49	51	53	55	57
35	min	19	29	31	33	34	35	37	39	41	43	45	47	49
	max	22	32	34	36	37	38	40	42	44	46	48	50	52
40	min	14	24	26	28	29	30	32	34	36	38	40	42	44
	max	17	27	29	31	32	33	35	37	39	41	43	45	47

$$G = 2H + F - Z - D$$

$$Z \text{ and } D = 25 \text{ mm}$$

SUPPORTS		
Solutions		
Rebated	H00915.01.xx	H00915.02.xx
Flush	H00915.03.xx	H00915.04.xx

- B** = distance of pindle rotation centre
D = distance from wall (25 mm)
F = rebate thickness
G = shutter thickness
H = hinge neck
R = hinge adjustment
Z = distance between folded lips



Order Specifications

NB. Refer to the price list in force to check the availability of the finishes.

Ref.	Article	R min	R centr.	R max
①	H00947.40.XX	15	19	23
②	Version with bushing and cap for pindle with removable pin	15	19	23

Adjustable hinge - 19x40 for PVC shutters



Description

Two-handed hinge with 40 mm neck and 1 stainless steel screw that enables horizontal adjustment using a 4 mm Allen wrench. Hinge reversibility is made possible thanks to a removable self-lubricating plastic bushing.

Application

For masonry-mounted flush, overlapped or rebated PVC shutters, with outward folding leaves. Suitable also for monobloc systems where narrow reveals must be cleared. Used in combination with hinge supports with screw hole at 35 mm, and with wall-mounted pintles featuring 9 mm diameter pivot, with the exception of article H01149. Hinge lock

art. H00913 can be used only if the pintle is mounted at 90°.

Mounting

Install the support on the shutter and mount the hinge following the instructions for the supports provided in this chapter. We recommend the use of two theft-proof screws for fastening the hinge to the shutter: this method ensures greater system steadiness and security. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread, or 2 rivets.

NB. Use of wall catch for shutters is necessary with exception of low capacity models.

Shutter thickness table

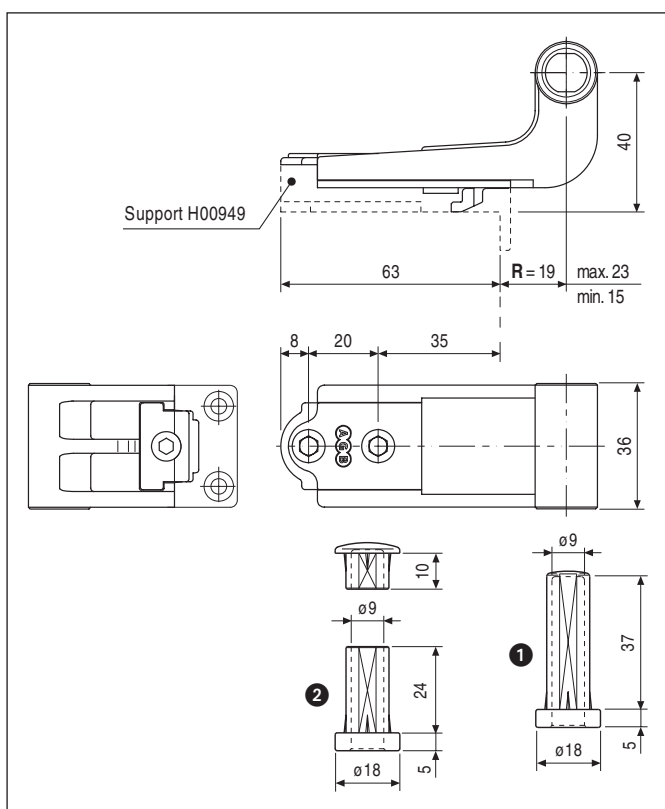
The minimum and maximum values refer to a tolerance of +1/-2 mm, which is made possible thanks to the spring bumper.

F		0	10	12	14	15	16	18	20	22	24	26	28	30
D	G													
25	min	29	39	41	43	44	45	47	49	51	53	55	57	59
	max	32	42	44	46	47	48	50	52	54	56	58	60	62
30	min	24	34	36	38	39	40	42	44	46	48	50	52	54
	max	27	37	39	41	42	43	45	47	49	51	53	55	57
35	min	19	29	31	33	34	35	37	39	41	43	45	47	49
	max	22	32	34	36	37	38	40	42	44	46	48	50	52
40	min	14	24	26	28	29	30	32	34	36	38	40	42	44
	max	17	27	29	31	32	33	35	37	39	41	43	45	47

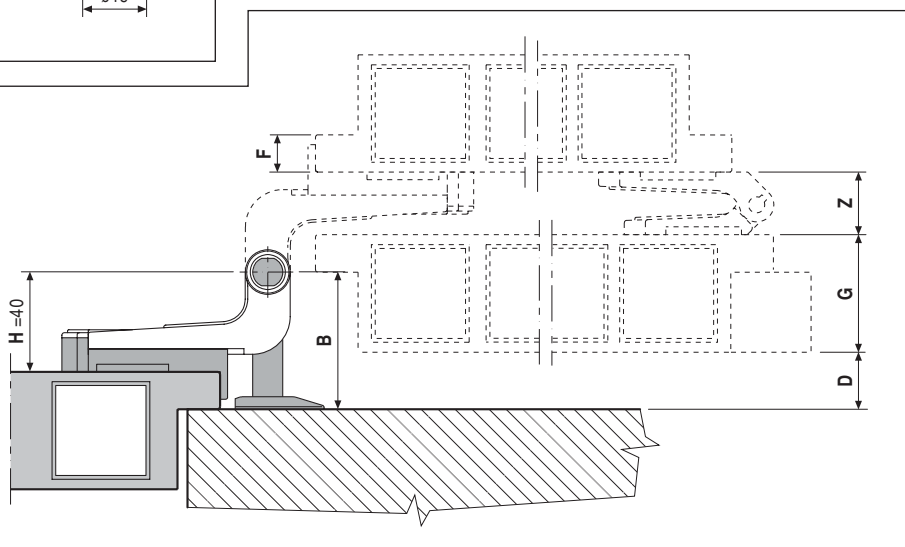
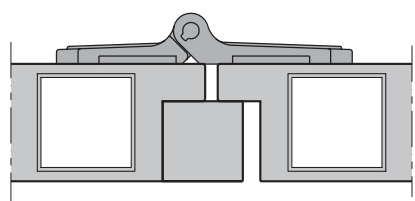
$$G = 2H + F - Z - D$$

Z and D = 25 mm

SUPPORTS		
Solutions		
Rebated	H00949.01.xx	H00949.02.xx
Flush	H00949.03.xx	H00949.04.xx



B = distance of pintle rotation centre
D = distance from wall (25 mm)
F = rebate thickness
G = shutter thickness
H = hinge neck
R = hinge adjustment
Z = distance between folded lips



Order Specifications

NB. Refer to the price list in force to check the availability of the finishes.

Ref.	Article	R min	R centr.	R max
1	H00946.40.XX	15	19	23
2	Version with bushing and cap for pintle with removable pin	15	19	23

Adjustable hinge - 19x25 for timber shutters



Description

Two-handed hinge with 25 mm neck and 1 stainless steel screw that enables horizontal adjustment using a 4 mm Allen wrench. Hinge reversibility is made possible thanks to a removable self-lubricating plastic bushing.

Application

1. On monobloc systems with overlapped or rebated shutters, where narrow reveals must be cleared. The E measurement that must be cleared is equal to shutter thickness G+25 mm.
2. On monobloc systems with flush shutters, where reveals no deeper than 25 mm must be cleared.
3. For masonry-mounted overlapped shutters with outward folding leaves.

Used in combination with hinge supports with

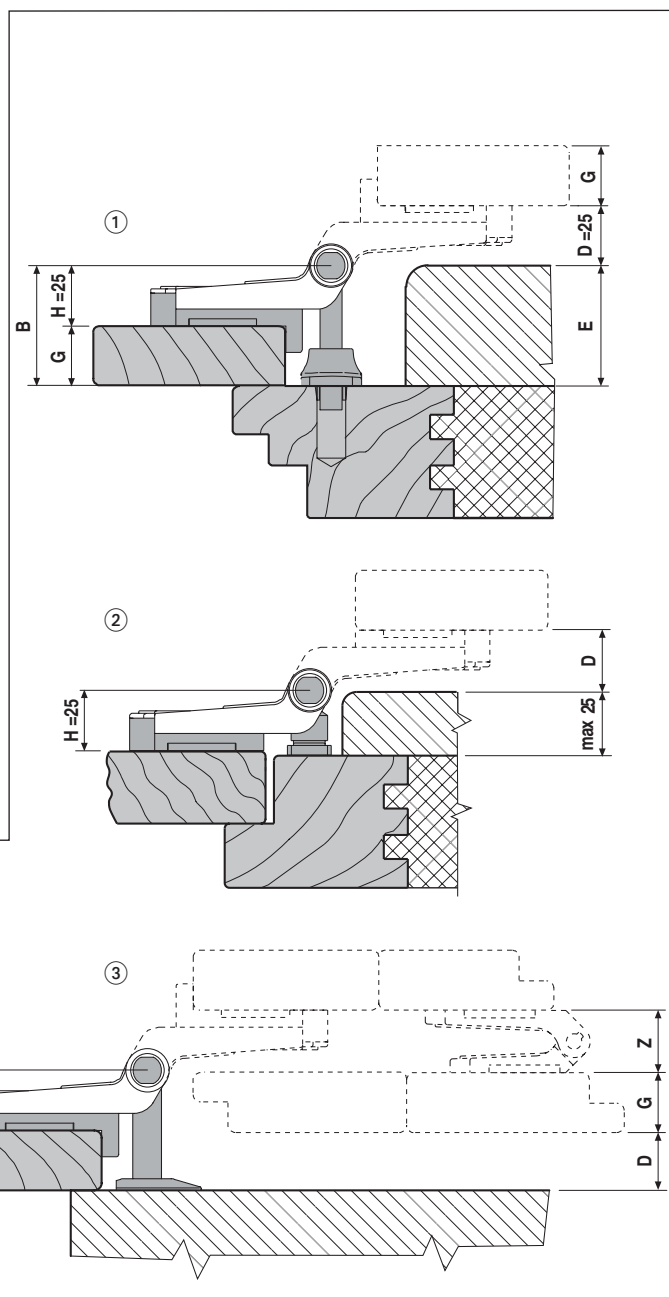
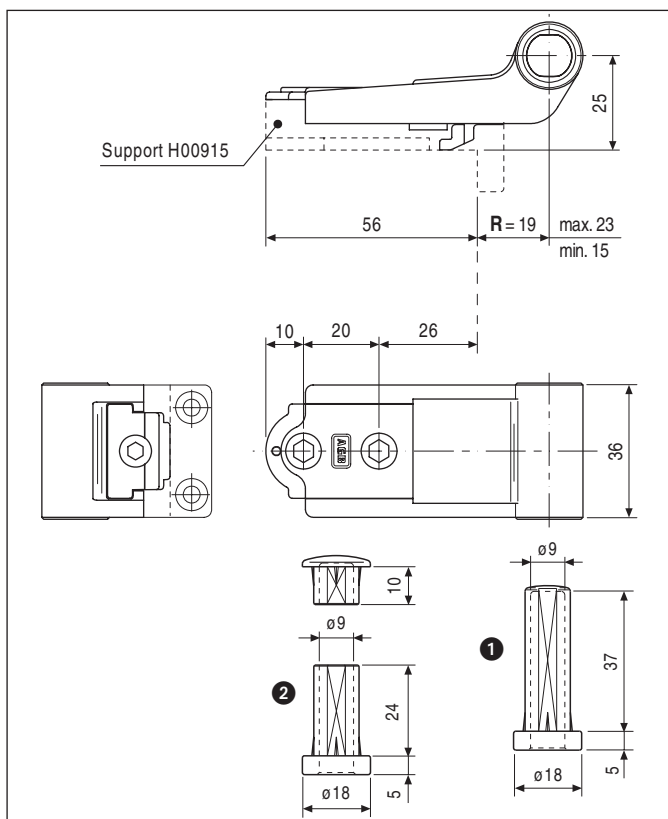
screw hole at 26 mm, and with pintles featuring 9 mm diameter pivot, selected based on the shutter design. Hinge lock art. H00913 can be used only if the pintle is mounted at 90°.

Mounting

Install the support on the shutter and mount the hinge following the instructions for the supports provided in this chapter. We recommend the use of two theft-proof screws for fastening the hinge to the shutter: this method ensures greater system steadiness and security.

Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread.

NB. Use of wall catch for shutters is necessary with exception of low capacity models.



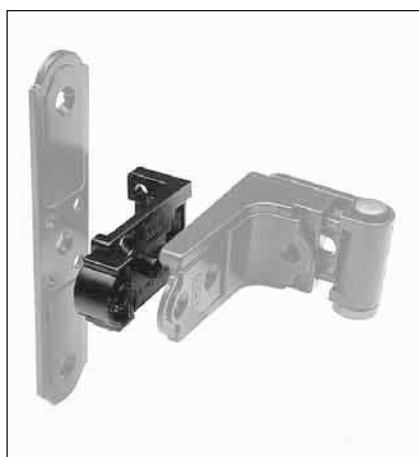
- B = distance of pintle rotation centre
D = distance from wall (25 mm)
F = rebate thickness
G = shutter thickness
H = hinge neck
R = hinge adjustment
Z = distance between folded lips

Order Specifications

NB. Refer to the price list in force to check the availability of the finishes.

Ref.	Article	R min	R centr.	R max
1	H00948.25.XX	15	19	23
2	Version with bushing and cap for pintle with removable pin	15	19	23

Support for adjustable hinges - screw hole 26 mm



Description

Selection of four zamak supports suitable for adjustable hinges that have the first screw hole 26 mm from the shutter rebate.

Application

The support enables coupling of the adjustable hinge with the corner and vertical brackets.

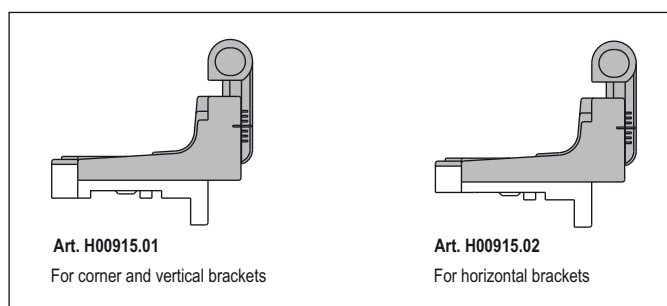
Select it based on the shutter design, keeping in mind that the supports for the rebated solutions are suitable for a rebate thickness (or shutter thickness, in the case of overlapped systems) of at least 15 mm, otherwise the supports for the flush solutions should be used.

NB. The adjustable hinge may be coupled with the support on site, for easier transport operations.

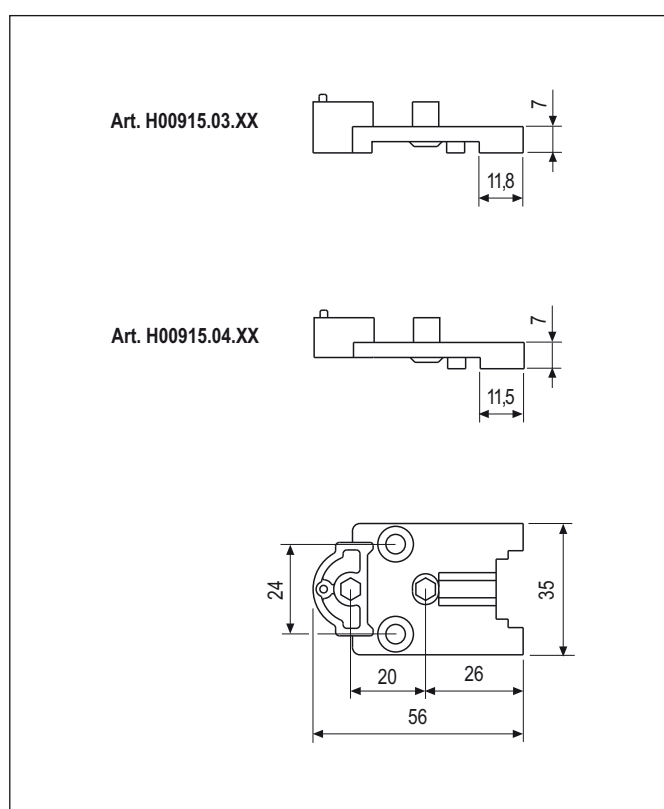
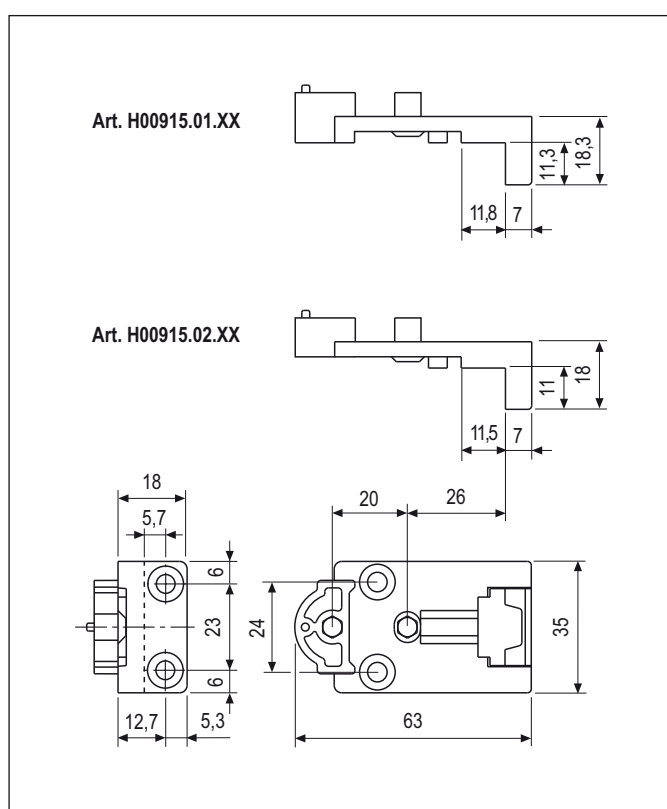
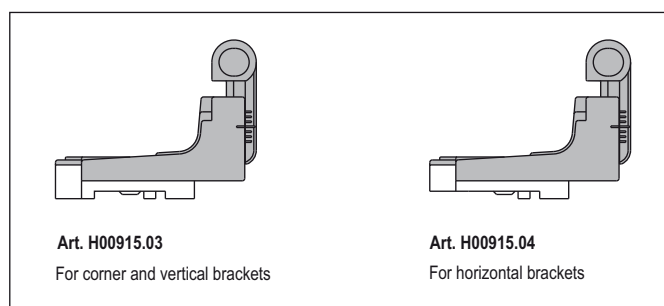
Mounting

Use two 4.5x35 mm screws with suitable thread.

REBATED SOLUTION



FLUSH SOLUTION



Order Specifications

Solution	Article
Rebated, for corner and vertical brackets	H00915.01.XX
Rebated, for horizontal brackets	H00915.02.XX
Flush, for corner and vertical brackets	H00915.03.XX
Flush, for horizontal brackets	H00915.04.XX

NB. Refer to the price list in force to check the availability of the finishes.

Support for adjustable hinges - screw hole 35 mm



Description

Selection of four zamak supports suitable for adjustable hinges that have the first screw hole 35 mm from the shutter rebate.

Application

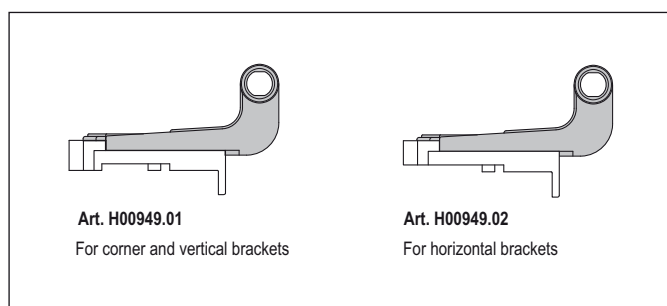
The support enables coupling of the adjustable hinge with the corner and vertical brackets. Select it based on the shutter design, keeping in mind that the supports for the rebated solutions are suitable for a rebate thickness (or shutter thickness, in the case of overlapped systems) of at least 15 mm, otherwise the supports for the flush solutions should be used.

NB. The adjustable hinge may be coupled with the support on site, for easier transport operations.

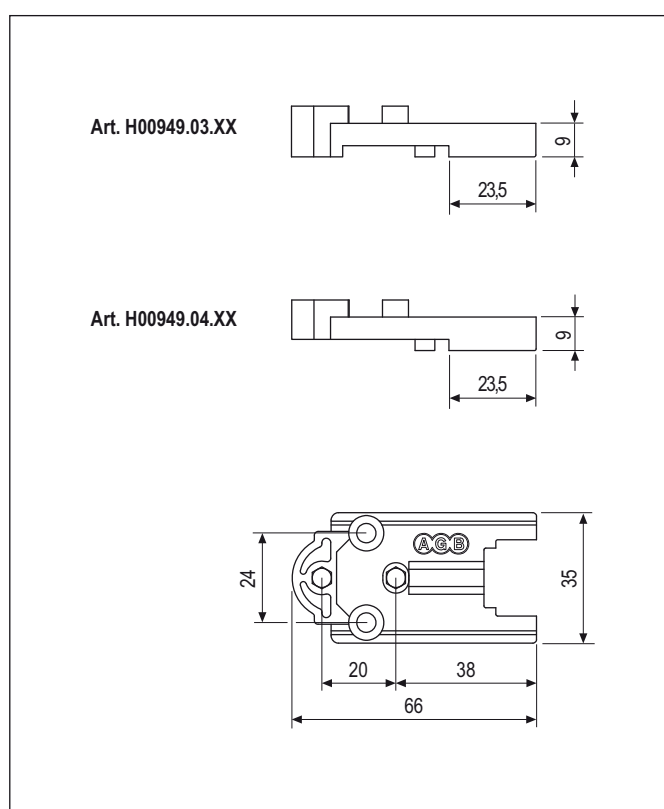
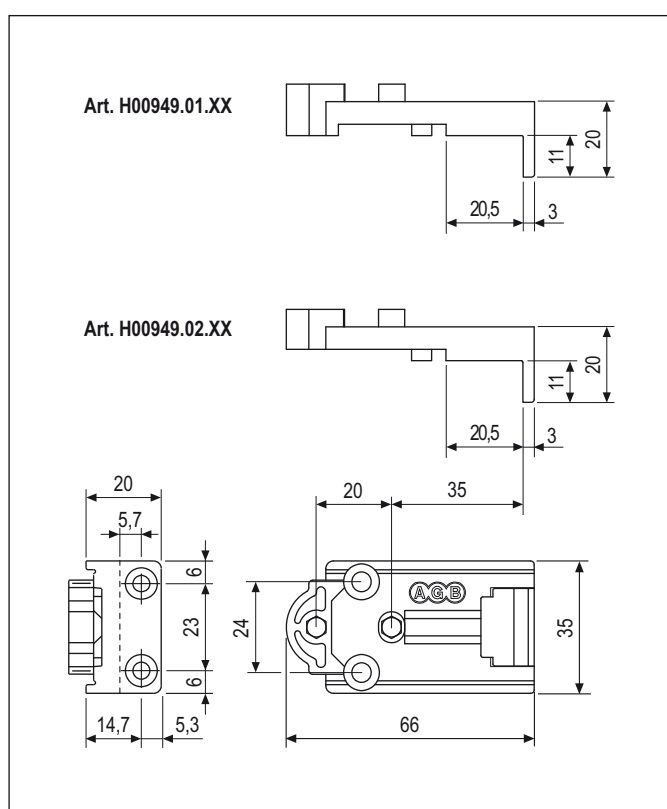
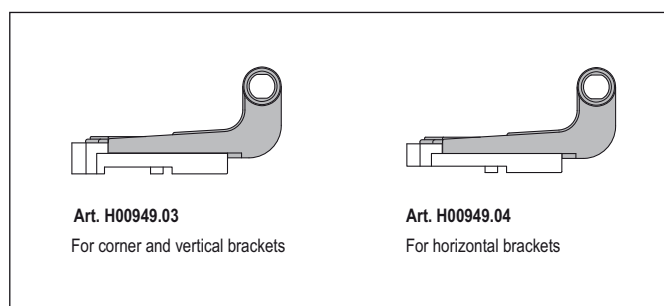
Mounting

Use two 4.5x35 mm screws with suitable thread.

REBATED SOLUTION



FLUSH SOLUTION



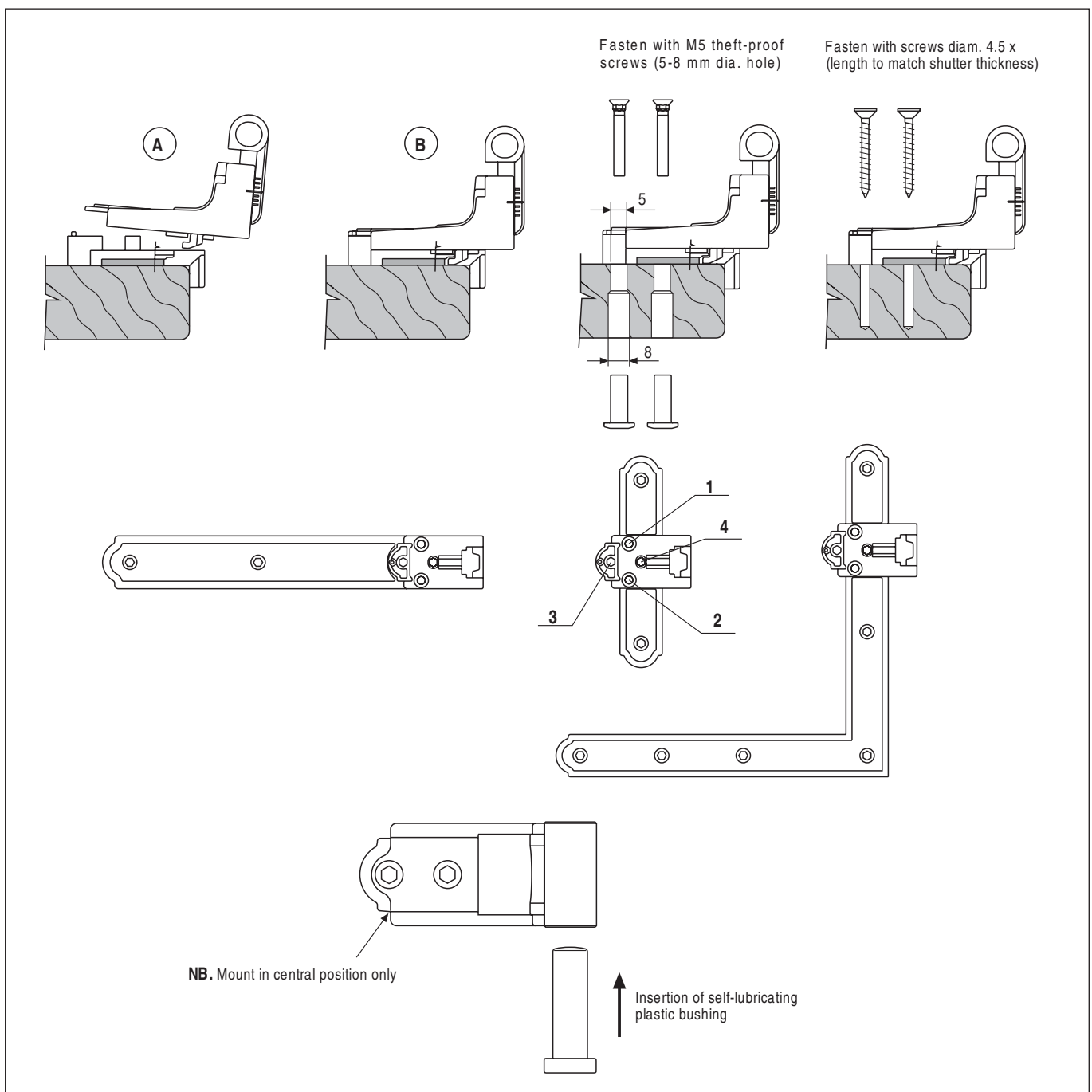
Order Specifications

Solution	Article
Rebated, for corner and vertical brackets	H00949.01.XX
Rebated, for horizontal brackets	H00949.02.XX
Flush, for corner and vertical brackets	H00949.03.XX
Flush, for horizontal brackets	H00949.04.XX

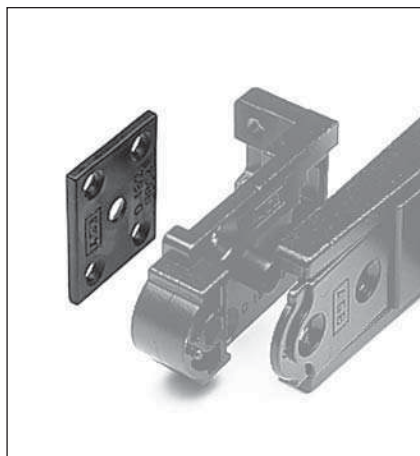
NB. Refer to the price list in force to check the availability of the finishes.

Adjustable hinge installation

- 1) Use the jig to drill the holes in the shutter.
- 2) Fasten the bracket (corner or vertical/horizontal) to the shutter, leaving positions **1**, **2**, and **4** clear.
- 3) Mount the support, selected based on the shutter design (rebated, flush, overlapped) and on the type of bracket employed (corner or vertical/horizontal).
- 4) Fasten the support with screws, engaging positions **1** and **2**.
- 5) Make sure the hinge is in the central position (see dralip on previous page).
- 6) Couple the hinge with the support as shown in figs. **A** and **B**.
- 7) Fasten the hinge with screws in positions **3** and **4**.
- 8) Insert the bushing.



Shim for hinges



Description

Compensating nylon shim for direct hinge attachment to the shutter.

Application

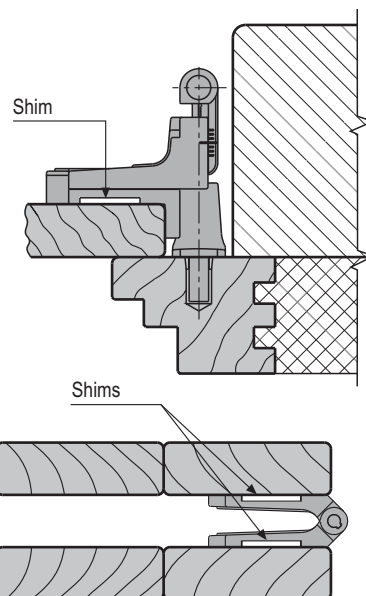
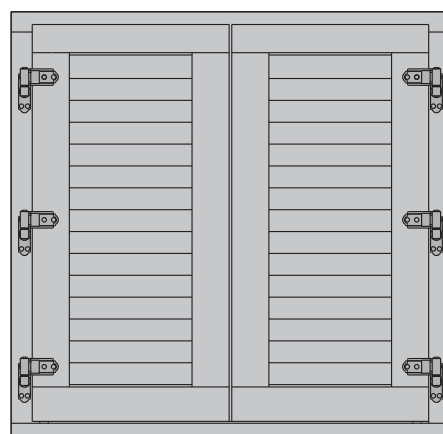
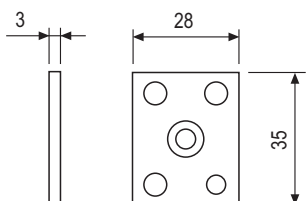
Suitable for all solutions where the hinge can be fastened directly to the shutter without using brackets. It prevents deformations of the support and ensures a solid connection between hinge and shutter.

- Used in combination with the corner and vertical bracket support or with fixed, adjustable or coplanar hinges.

Mounting

In the case of adjustable hinges, it must be fitted to the support before mounting the hinge.

For articles that do not require the support, it must be coupled directly with the hinge body.

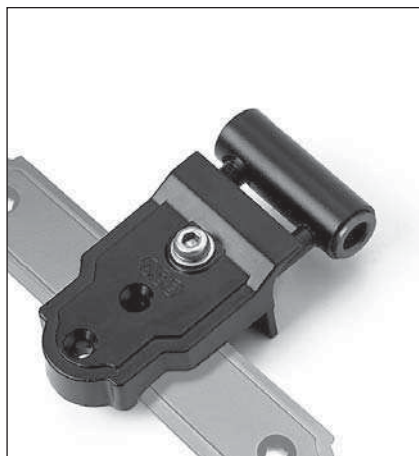


Order Specifications

Article

H00921.00.93

Adjustable rebated hinge - 19x8 for corner and vertical brackets



Description

Rebated hinge consisting of a support and an adjustable cold-pressed steel female part, with a self-lubricating plastic bushing. It can be adjusted horizontally (+4 mm or 6 mm) using a 5 mm Allen wrench.

Application

For rebated or overlapped shutters mounted directly on the wall or soffit, and frames flush with the exterior wall. The hinge, which is designed for both right and left-handed shutters, can be reversed by disconnecting the female body from the support and rotating it 180°.

- Used in combination with wall-mounted pintles (9 mm diameter pivot), pintles with plate, corner and vertical brackets. The

combination must be determined based on the shutter design.

- The **X** measurement must be determined keeping in mind that all the screws must be fastened to a load-bearing structure.

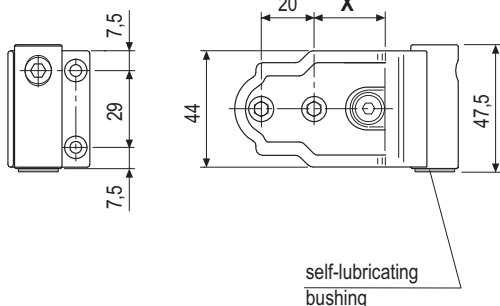
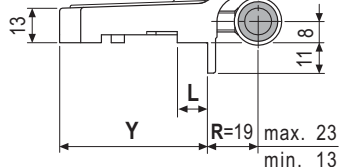
Mounting

We recommend the use of special theft-proof screws. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with thread suitable for the shutter material. Rivets can be used for PVC and aluminium shutters. Use two 3.5x35 mm screws for lateral fastening to the shutter.

- For direct hinge attachment to the shutter (without brackets), use the compensating shim art. H00921.00.93.



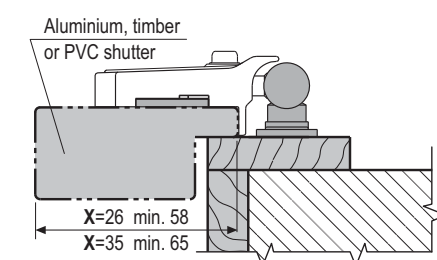
Seat available for hinge lock connection



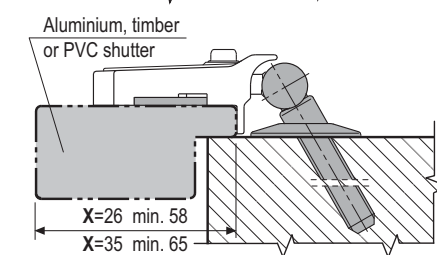
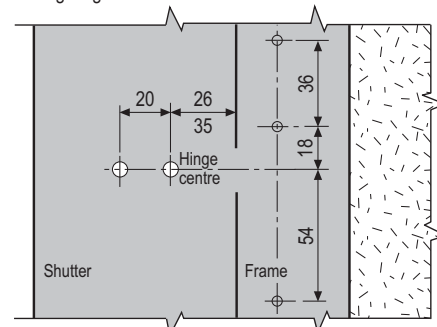
For **X** = 26 **Y** = 56 **L** = 11,5

For $X = 35$ $Y = 63$ $L = 20,5$

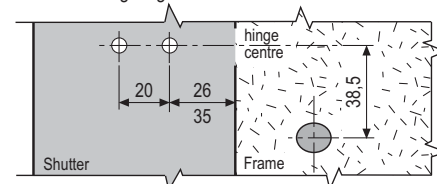
(*) Before adjusting the hinge, make sure the screw is not locked.



Drilling diagram for soffit viewed from the outside



30° wall drilling diagram viewed from the outside



Order Specifications

Ref.	X	min	centr.	max	Article
R.h.	26	13	19	23	H00932.08.XX
L.h.	26	13	19	23	H01932.08.XX
R.h.	35	13	19	23	H00944.08.XX
L.h.	35	13	19	23	H01944.08.XX

NB. Refer to the price list in force to check the availability of the finishes.

Adjustable rebated hinge - 19x8 for horizontal bracket



Description

Rebated hinge consisting of a support and an adjustable cold-pressed steel female part, with a self-lubricating plastic bushing. It can be adjusted horizontally (+ 4 mm or - 6 mm) using a 5 mm Allen wrench.

Application

For rebated or overlapped shutters mounted directly on the wall or soffit, and frames flush with the exterior wall.

The hinge, which is designed for both right and left-handed shutters, can be reversed by disconnecting the female body from the support and rotating it 180°.

- Used in combination with wall-mounted pintles (9 mm diameter pivot), pintles

with plate and horizontal brackets. The combination must be determined based on the shutter design.

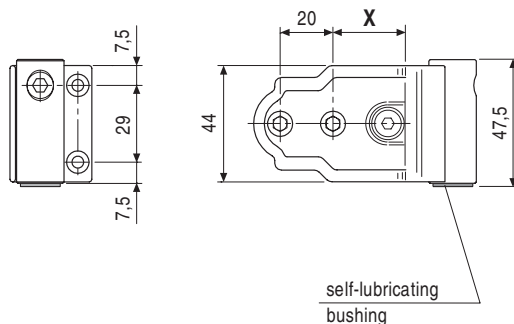
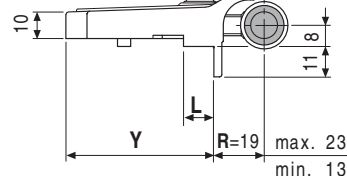
- The **X** measurement must be determined keeping in mind that all the screws must be fastened to a load-bearing structure.

Mounting

We recommend the use of special theft-proof screws. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with thread suitable for the shutter material. Rivets can be used for PVC and aluminium shutters. Use two 3.5x35 mm screws for lateral fastening to the shutter.

(*) Adjustment locking screw

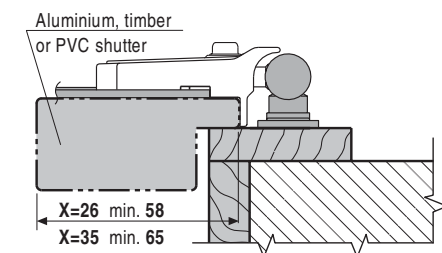
Seat available for hinge lock connection



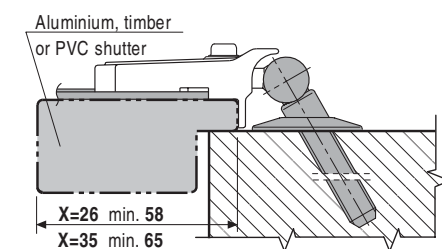
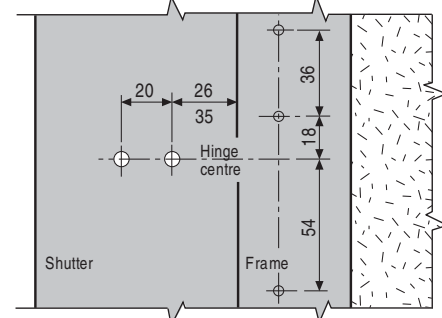
For **X** = 26 **Y** = 56 **L** = 11,5

For $X = 35$ $Y = 63$ $L = 20,5$

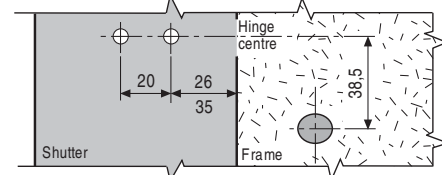
(*) Before adjusting the hinge, make sure the screw is not locked.



Drilling diagram **for soffit** viewed from the outside



30° wall drilling diagram viewed from the outside



Order Specifications

		R			Black finish	Bichromated finish
Ref.	X	min	centr.	max	Article	Article
R.h.	26	13	19	23	H00933.08.93	H00933.08.04
L.h.	26	13	19	23	H01933.08.93	H01933.08.04
R.h.	35	13	19	23	H00945.08.93	H00945.08.04
L.h.	35	13	19	23	H01945.08.93	H01945.08.04

Adjustable rebated hinge - 45x8 for corner and vertical brackets



Description

Rebated hinge consisting of a support and an adjustable cold-pressed steel female part, with a self-lubricating plastic bushing. It can be adjusted horizontally (+ 4 mm or - 6 mm) using a 5 mm Allen wrench.

Application

For rebated or overlapped shutters mounted directly on the wall.

The hinge, which is designed for both right and left-handed shutters, can be reversed by disconnecting the female body from the support and rotating it 180°.

- Used in combination with wall-mounted pintles (9 mm diameter pivot), corner and vertical brackets. The combination must be

determined based on the shutter design.

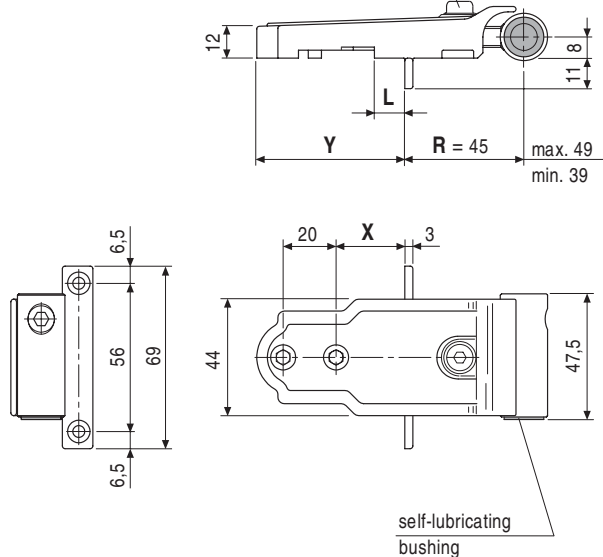
- The **X** measurement must be determined keeping in mind that all the screws must be fastened to a load-bearing structure.

Mounting

We recommend the use of special theft-proof screws. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter), with thread suitable for the shutter material. Rivets can be used for PVC or aluminium shutters. Use two 3.5x35 mm screws for lateral fastening to the shutter.

- For direct hinge attachment to the shutter (without brackets), use the compensating shim.

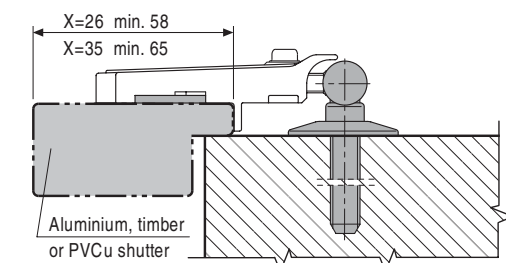
(*) Adjustment locking screw



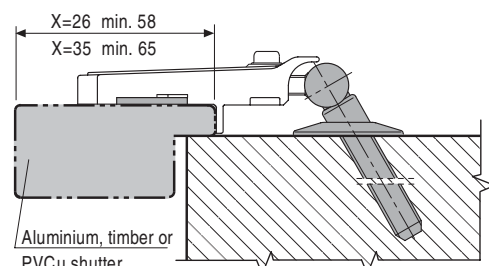
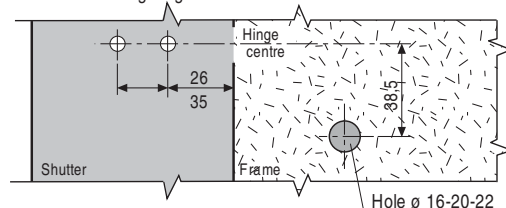
For **X** = 26 **Y** = 56 **L** = 11,5

For $X = 35$ $Y = 63$ $L = 20,5$

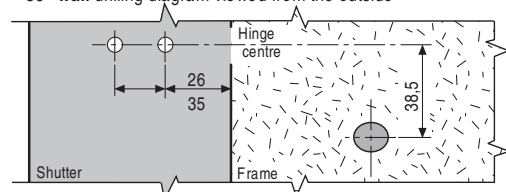
(*) Before adjusting the hinge, make sure the screw is not locked.



90° wall drilling diagram viewed from the outside



30° wall drilling diagram viewed from the outside



Order Specifications

		R			Black finish	Bichromated finish
Ref.	X	min	centr.	max	Article	Article
R.h.	26	39	45	49	H00940.08.93	H00940.08.04
L.h.	26	39	45	49	H01940.08.93	H01940.08.04
R.h.	35	39	45	49	H00942.08.93	H00942.08.04
L.h.	35	39	45	49	H01942.08.93	H01942.08.04

Adjustable rebated hinge - 45x8 for horizontal bracket



Description

Rebated hinge consisting of a support and an adjustable cold-pressed steel female part, with a self-lubricating plastic bushing. It can be adjusted horizontally (+ 4 mm or - 6 mm) using a 5 mm Allen wrench.

Application

For rebated or overlapped shutters mounted directly on the wall.

The hinge, which is designed for both right and left-handed shutters, can be reversed by disconnecting the female body from the support and rotating it 180°.

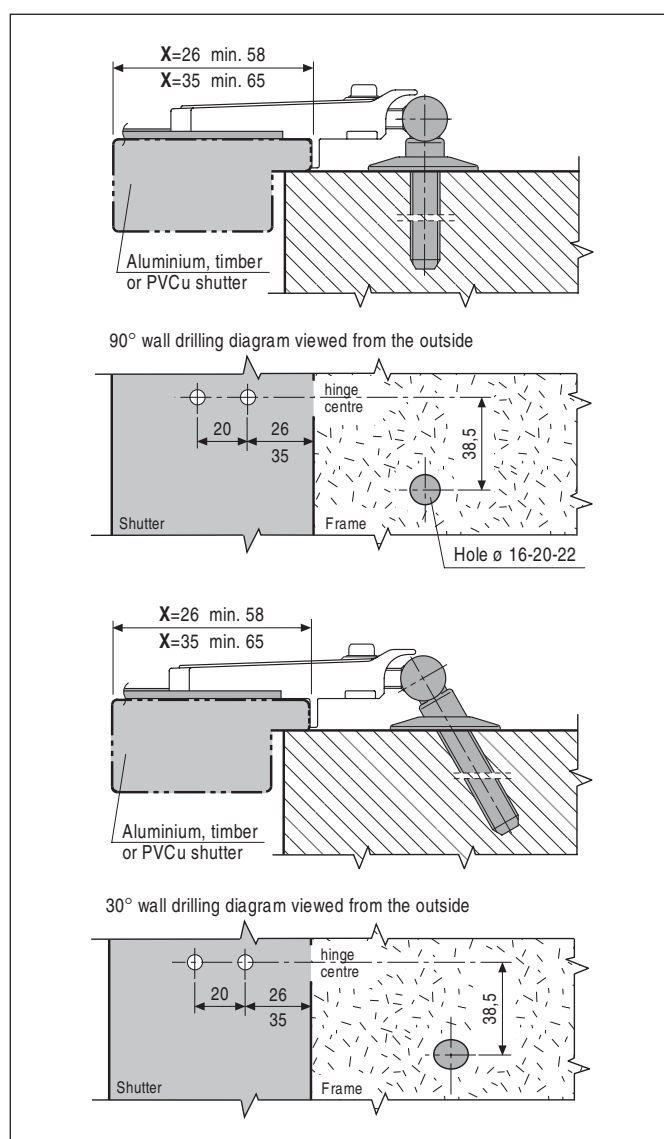
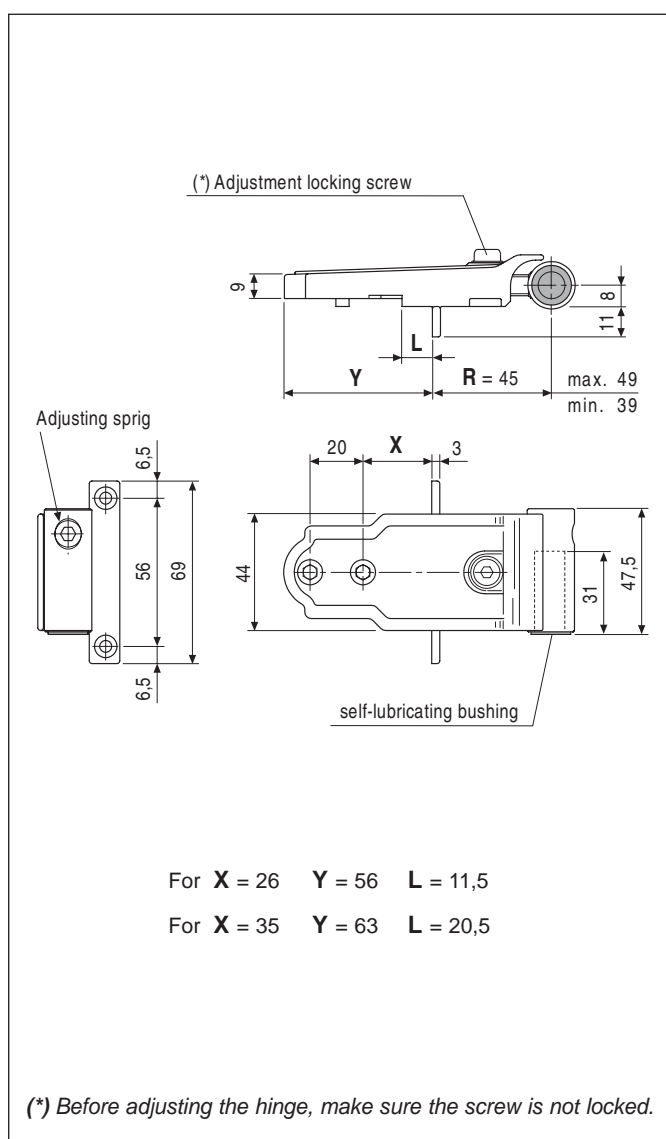
- Used in combination with wall-mounted pintles (9 mm diameter pivot) and horizontal

brackets. The combination must be determined based on the shutter design.

- The **X** measurement must be determined keeping in mind that all the screws must be fastened to a load-bearing structure.

Mounting

We recommend the use of special theft-proof screws. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter), with thread suitable for the shutter material. Rivets can be used for PVC or aluminium shutters. Use two 3.5x35 mm screws for lateral fastening to the shutter.



Order Specifications

Ref.	X	R			Black finish	Bichromated finish
		min	centr.	max	Article	Article
R.h.	26	39	45	49	H00941.08.93	H00941.08.04
L.h.	26	39	45	49	H01941.08.93	H01941.08.04
R.h.	35	39	45	49	H00943.08.93	H00943.08.04
L.h.	35	39	45	49	H01943.08.93	H01943.08.04

Fixed rebated hinge - 16x0 for corner and vertical brackets



Description

Two-handed hinge without neck, with lip for installation on the rebate 16 mm from the rotation axis. It can be reversed thanks to a removable self-lubricating plastic bushing.

Application

For rebated or overlapped shutters mounted on soffit or on frames that are slightly recessed from the exterior wall, forming a narrow reveal. It must be used in combination with a fixed pintle or with the threaded pintle with plate.

It is not suitable for flush shutters.

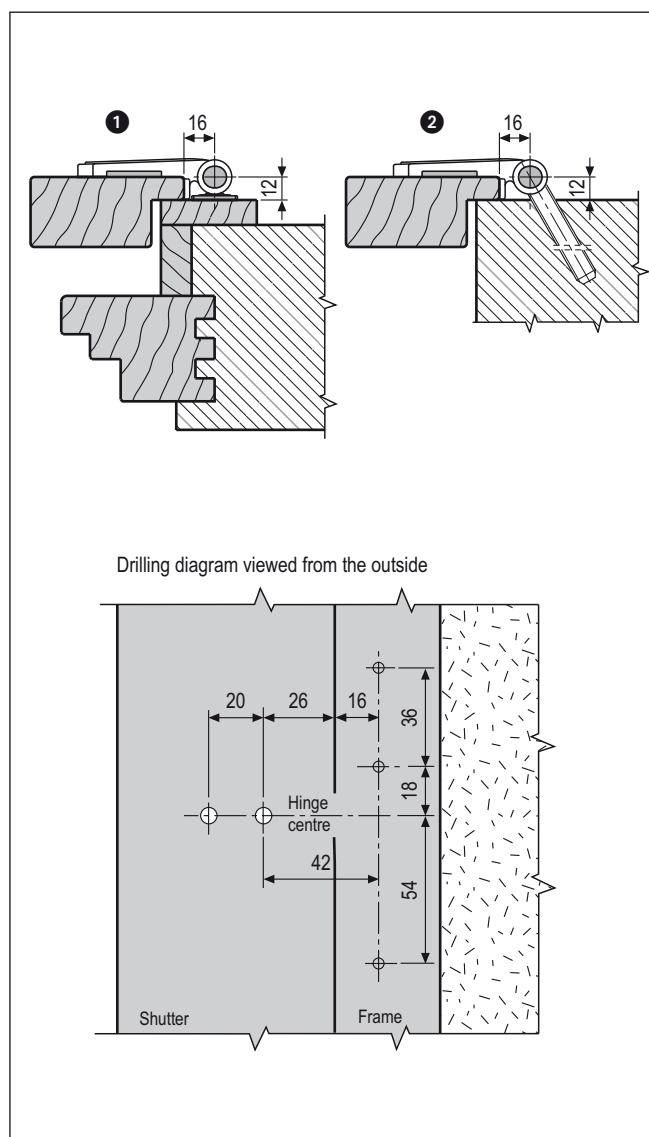
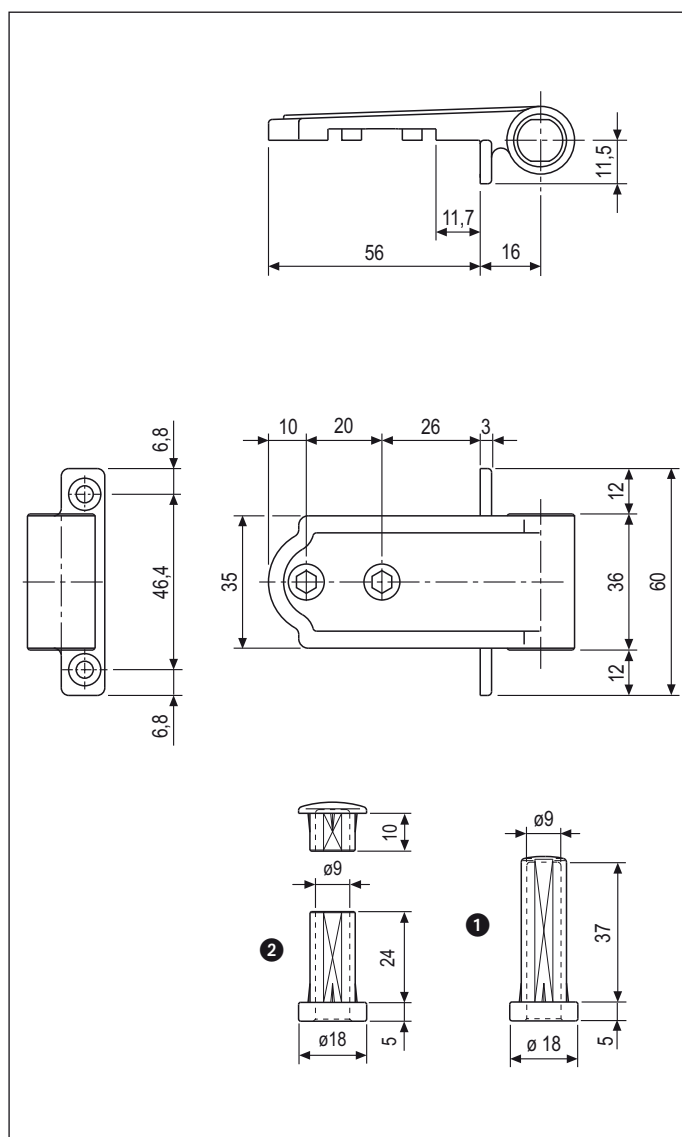
It can be connected with corner and vertical brackets, but not with horizontal brackets. It can also be fastened directly to

the shutter using compensating shim art. H00921.00.93.

Mounting

Mount the corner or vertical bracket on the shutter and then fasten the hinge using 2 theft-proof screws: this solution ensures greater system steadiness and security. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter), with thread suitable for the shutter material. Rivets can be used in case of PVC or aluminium shutters. Fasten the side lip to the rebate using two 3.5x35 mm screws with suitable thread.

NB. Use of wall catch for shutters is necessary with exception of low capacity models.



Order Specifications

Ref.	Article
1	H00927.00.XX
2	Version with bushing and cap for pintle with removable pin H01927.00.XX

NB. Refer to the price list in force to check the availability of the finishes.

Fixed rebated hinge - 16x0 for horizontal bracket



Description

Two-handed hinge without neck, with lip for installation on the rebate 16 mm from the rotation axis. It can be reversed thanks to a removable self-lubricating plastic bushing.

Application

For rebated or overlapped shutters mounted on soffit or on frames that are slightly recessed from the exterior wall, forming a narrow reveal. It must be used in combination with a fixed pintle or with the threaded pintle with plate.

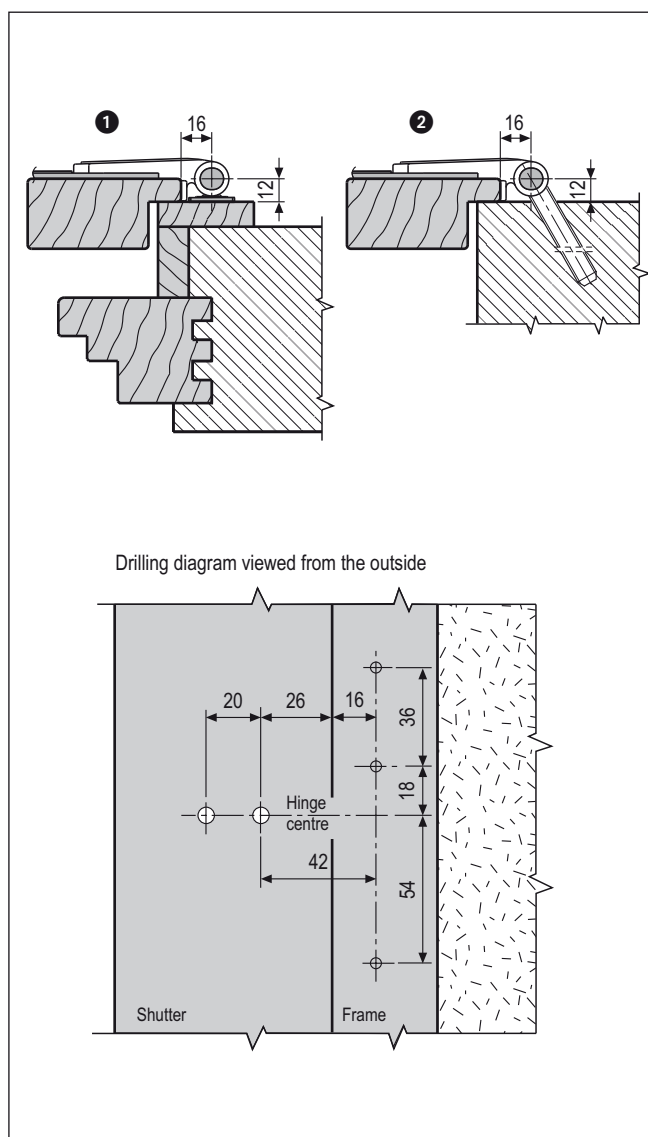
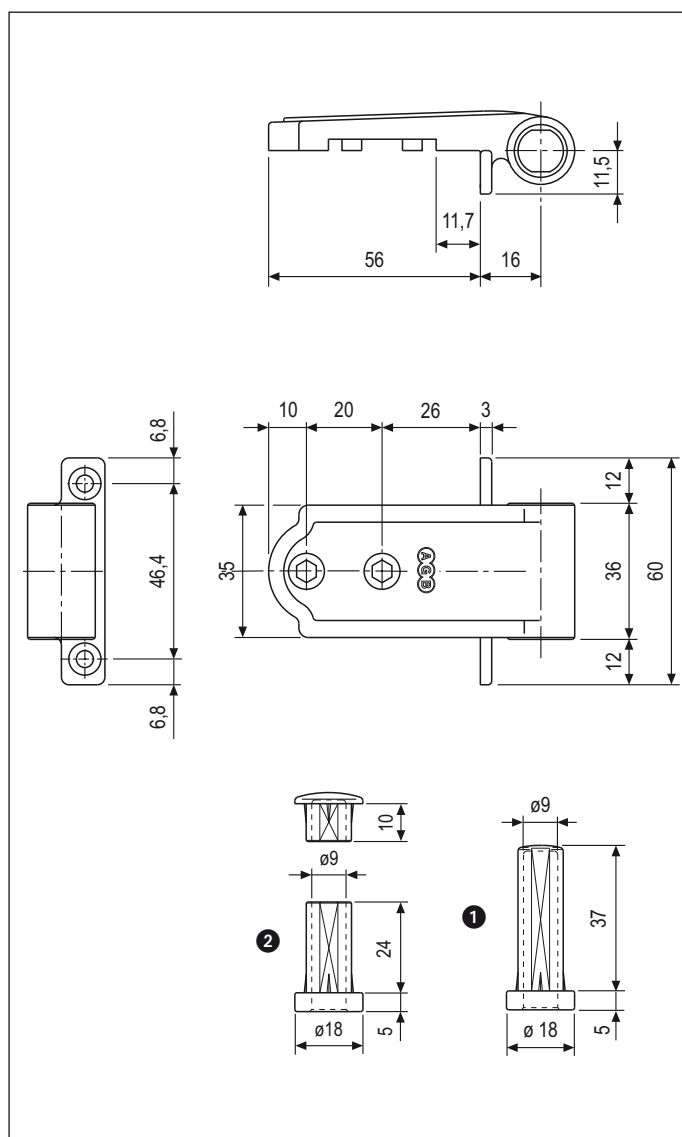
It is also suitable for folding shutters in combination with the appropriate horizontal bracket. It is not suitable for flush shutters. It can only be connected with horizontal

brackets, not with corner or vertical brackets.

Mounting

Mount the horizontal bracket on the shutter and then fasten the hinge using 2 theft-proof screws: this solution ensures greater system steadiness and security. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter), with thread suitable for the shutter material. Rivets can be used in case of PVC or aluminium shutters. Fasten the side lip to the rebate using two 3.5x35 mm screws with suitable thread.

NB. Use of wall catch for shutters is necessary with exception of low capacity models.



Order Specifications

Ref.	Article
①	H00923.00.XX
② Version with bushing and cap for pintle with removable pin	H01923.00.XX

NB. Refer to the price list in force to check the availability of the finishes.

Fixed flush hinge - 16x15 for corner and vertical brackets



Description

Two-handed flush hinge with 15 mm neck. It can be reversed thanks to a removable self-lubricating plastic bushing.

Application

For flush shutters mounted on soffit or on frames that are flush with the exterior wall. It must be used in combination with fixed pintle GR2. It is also suitable for rebated or overlapped shutters, mounted on frames that are slightly recessed from the exterior wall, forming a narrow reveal. In this case it must be used in combination with the threaded pintle with plate.

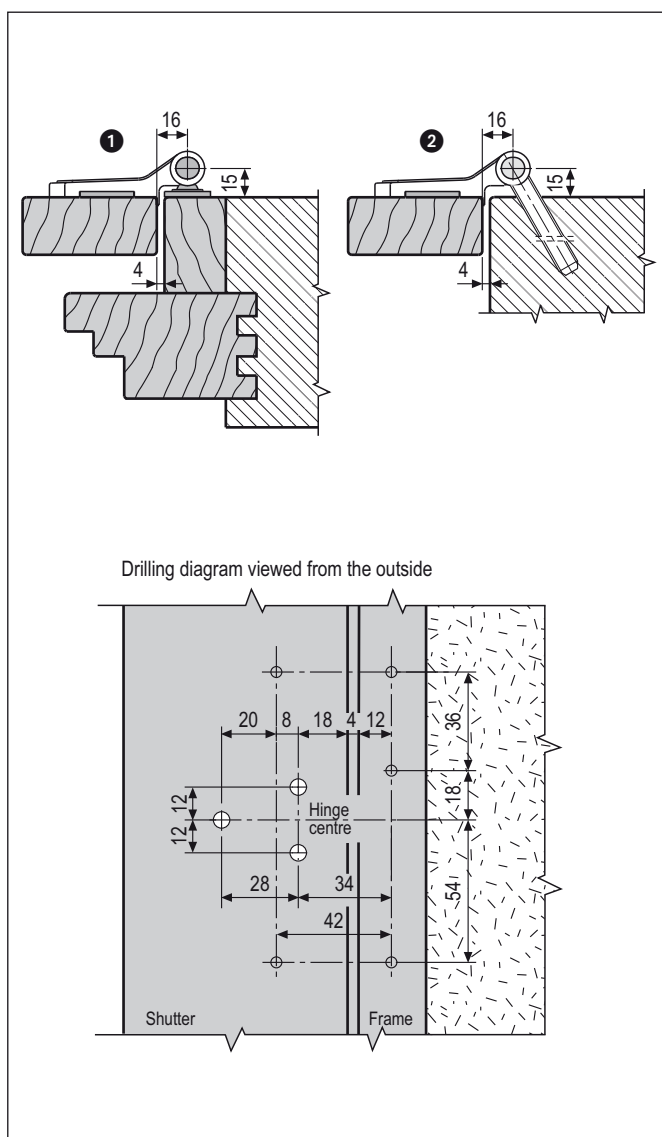
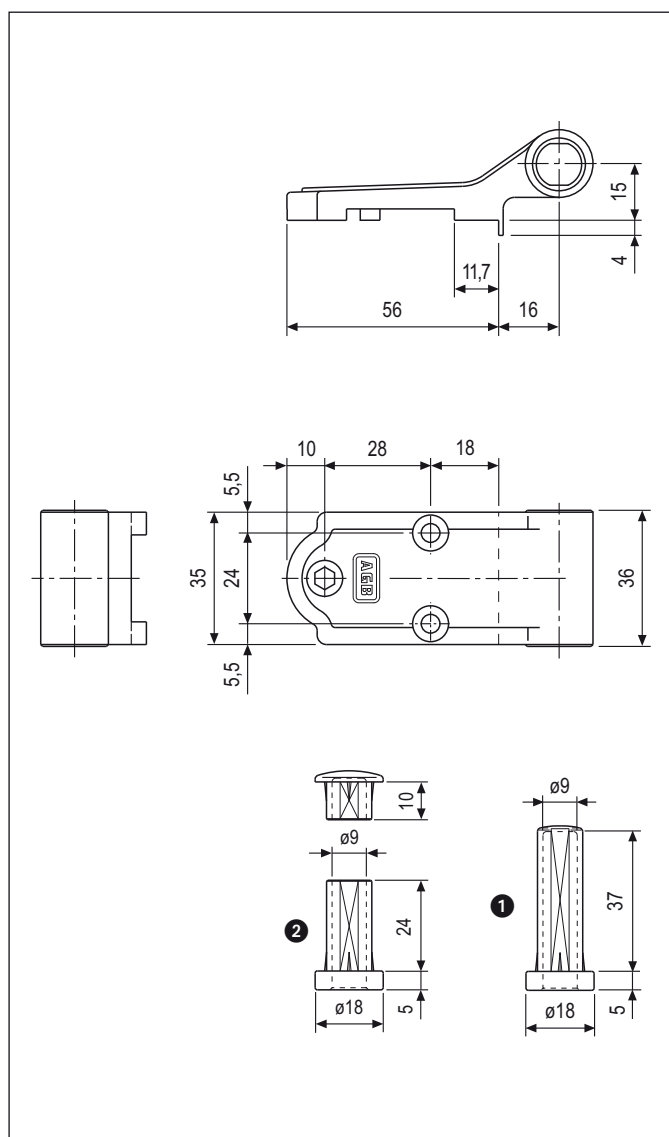
It can be connected with corner as well as vertical brackets, but not with horizontal

brackets. It can also be fastened directly to the shutter using compensating shim art. H00921.00.93.

Mounting

Mount the corner or vertical bracket on the shutter and then fasten the hinge using 3 theft-proof screws: this solution ensures greater system steadiness and security. Alternatively, you can use three 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread. 3 rivets can be used (only for PVC or aluminium shutters).

NB. Use of wall catch for shutters is necessary with exception of low capacity models.



Order Specifications

Ref	Article
1	H00927.15.XX
2	Version with bushing and cap for pintle with removable pin H01927.15.XX

NB. Refer to the price list in force to check the availability of the finishes.

Fixed flush hinge - 16x15 for horizontal bracket



Description

Two-handed flush hinge with 15 mm neck. It can be reversed thanks to a removable self-lubricating plastic bushing.

Application

For flush shutters mounted on soffit or on frames that are flush with the exterior wall. It must be used in combination with fixed pintle GR2. It is also suitable for rebated or overlapped shutters, mounted on frames that are slightly recessed from the exterior wall, forming a narrow reveal. In this case it must be used in combination with the threaded pintle with plate.

It is also suitable for folding shutters in combination with the appropriate horizontal

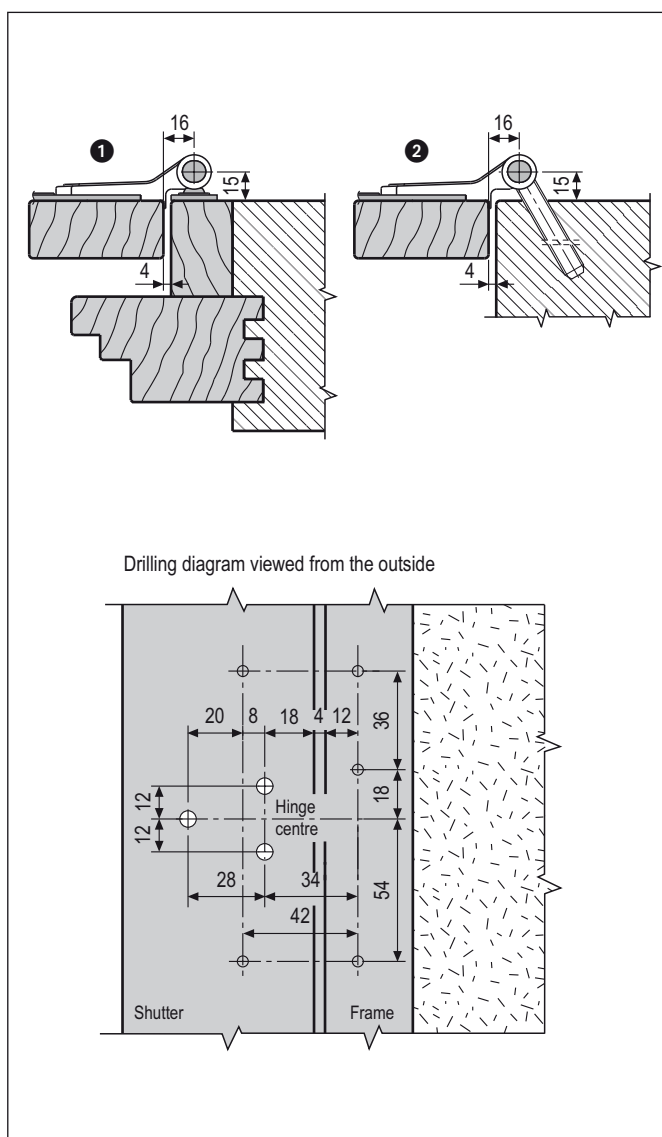
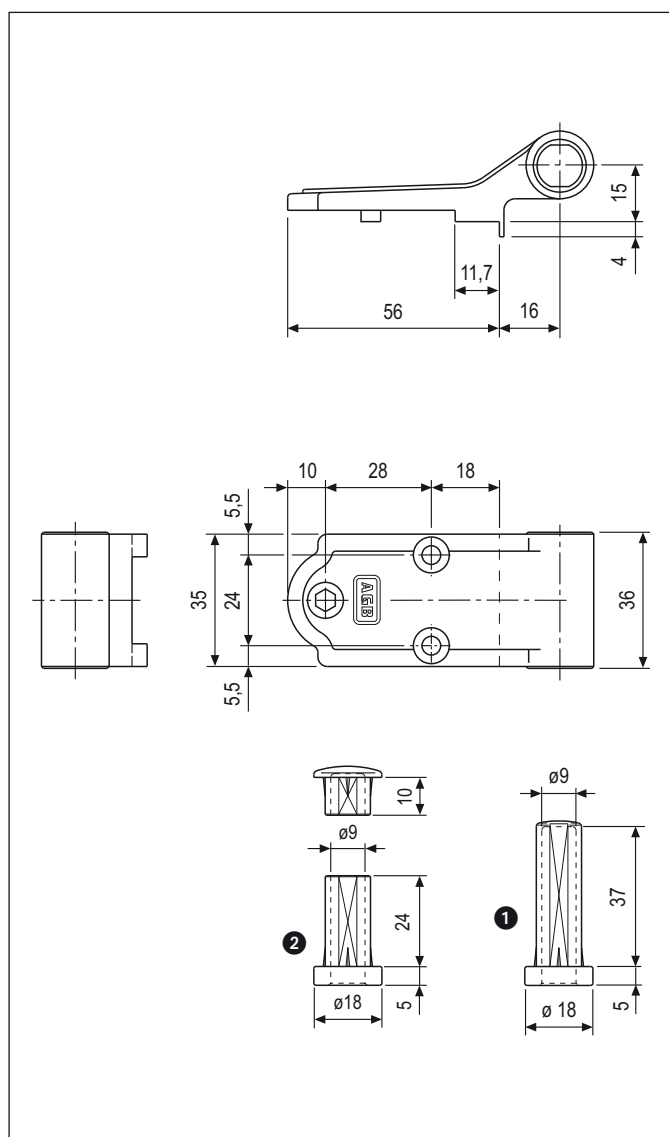
bracket.

It can only be connected with horizontal brackets, not with corner or vertical brackets.

Mounting

Mount the horizontal bracket on the shutter and then fasten the hinge using 3 theft-proof screws: this solution ensures greater system steadiness and security. Alternatively, you can use three 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread. 3 rivets can be used (only for PVC or aluminium shutters).

NB. Use of wall catch for shutters is necessary with exception of low capacity models.



Order Specifications

Ref.	Article
①	H00923.15.XX
② Version with bushing and cap for pintle with removable pin	H01923.15.XX

NB. Refer to the price list in force to check the availability of the finishes.

Fixed rebated hinge - 19x8 for corner and vertical brackets



Description

Two-handed hinge with 8 mm neck, with lip for installation on the rebate 19 mm from the rotation axis. It can be reversed thanks to a removable self-lubricating plastic bushing.

Application

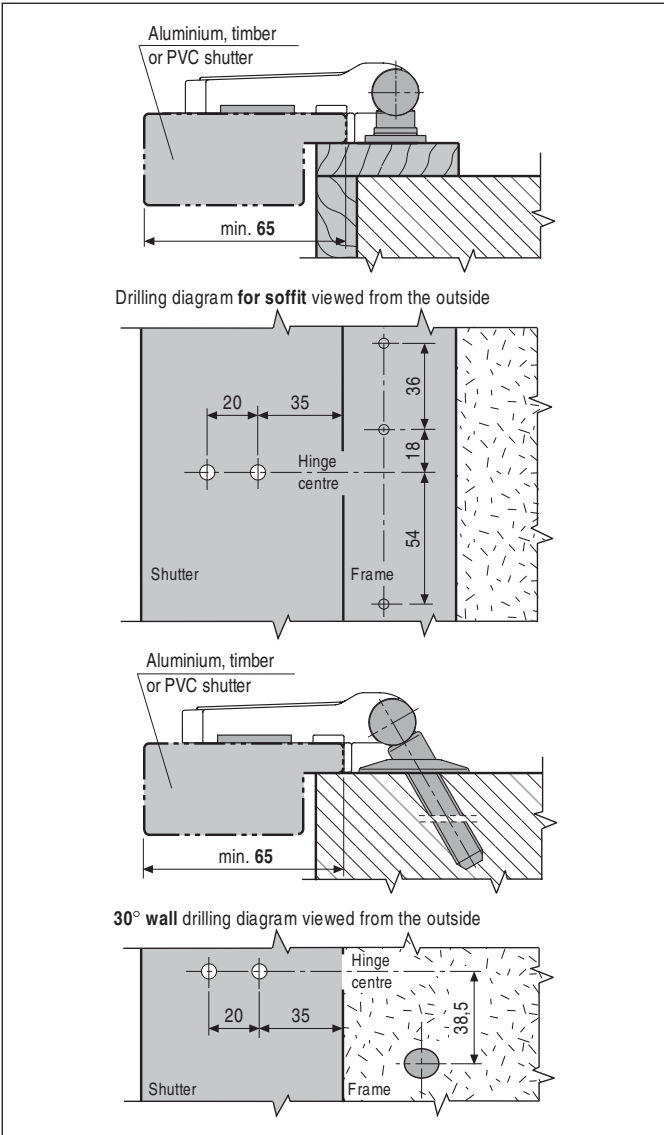
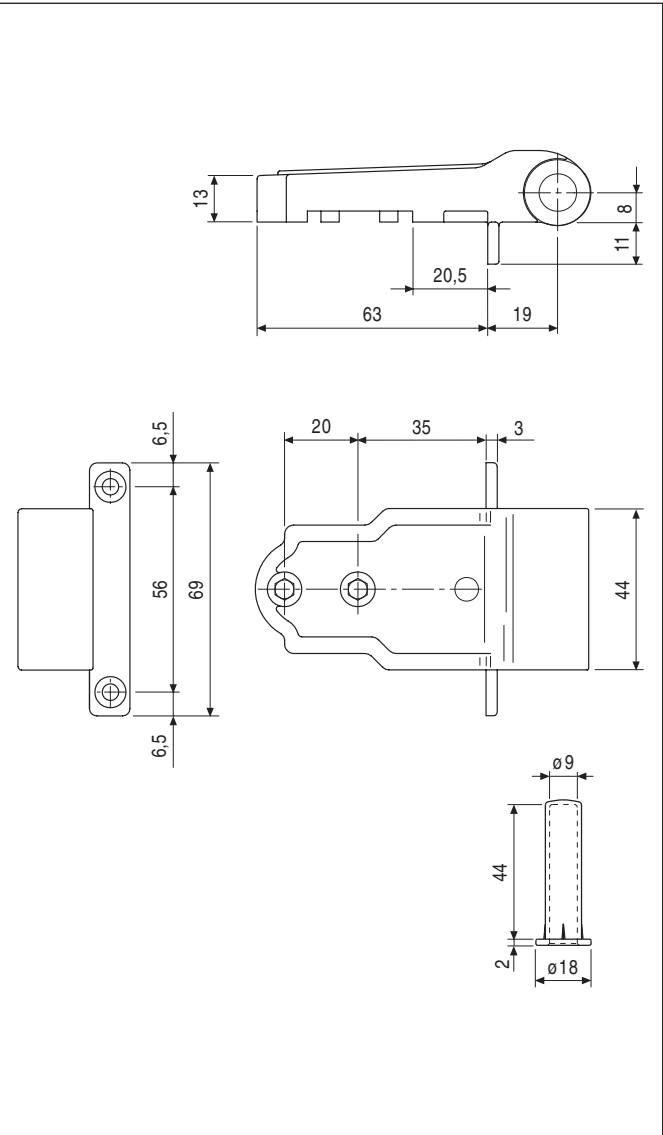
For rebated or overlapped shutters. It is fastened directly to the wall and used in combination with a wall-mounted pintle with 9 mm diameter pivot. It can also be mounted on soffit or on frames that are slightly recessed from the exterior wall, forming a narrow reveal. In this case it must be used in combination with a fixed pintle or with a threaded pintle with plate. It is not suitable for flush shutters. It can be connected with corner and vertical

brackets, but not with horizontal brackets. It can also be fastened directly to the shutter using compensating shim art. H00921.00.93.

Mounting

Mount the corner or vertical bracket on the shutter and then fasten the hinge using 2 theft-proof screws: this solution ensures greater system steadiness and security. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread. Rivets can be used in case of PVC or aluminium shutters. Fasten the side lip to the rebate using two 3.5x35 mm screws with suitable thread.

NB. Use of wall catch for shutters is necessary with exception of low capacity models.



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	H00938.08.93	H00938.08.04

Fixed rebated hinge - 19x8 for horizontal brackets



Description

Two-handed hinge with 8 mm neck, with lip for installation on the rebate 19 mm from the rotation axis. It can be reversed thanks to a removable self-lubricating plastic bushing.

Application

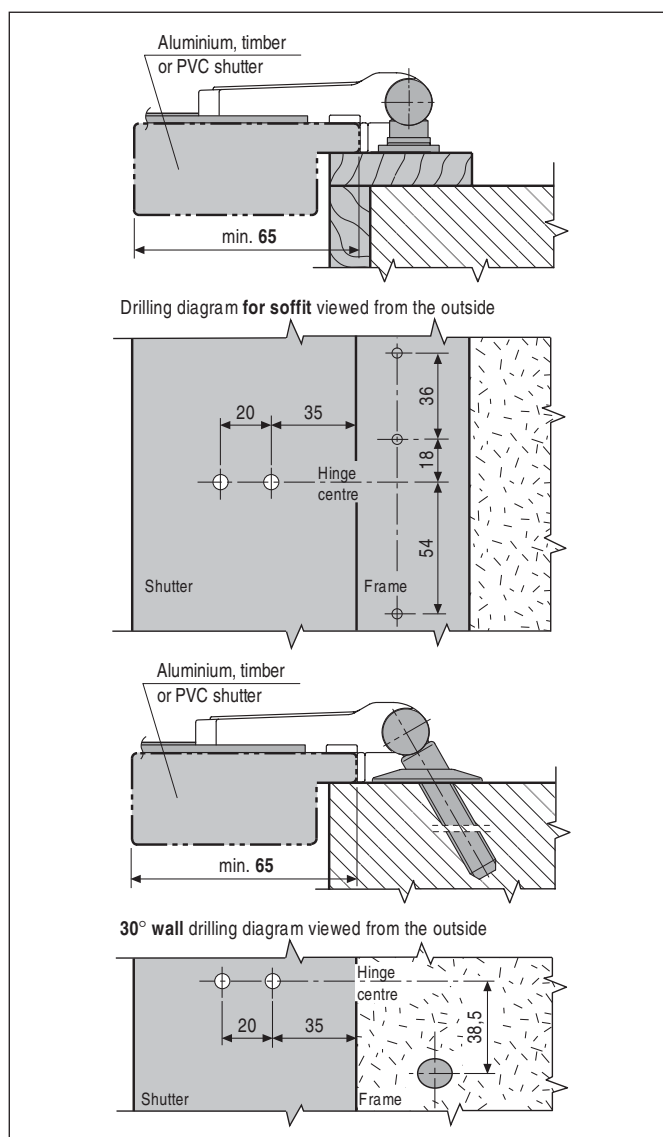
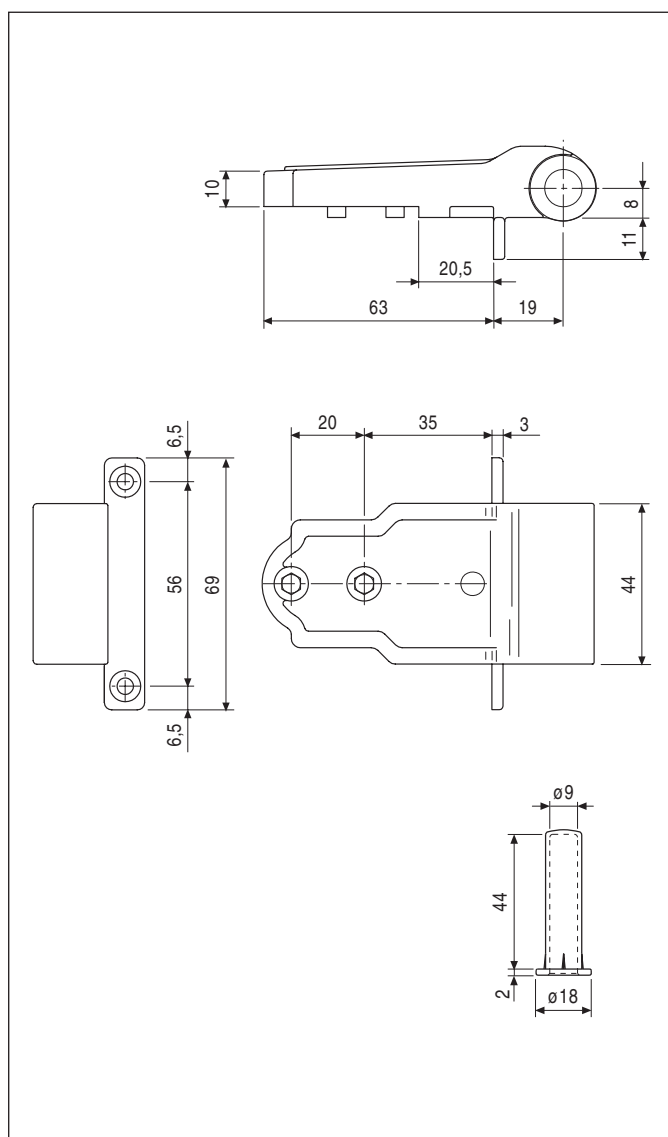
For rebated or overlapped shutters. It is fastened directly to the wall and used in combination with a wall-mounted pintle with 9 mm diameter pivot. It can also be mounted on soffit or on frames that are slightly recessed from the exterior wall, forming a narrow reveal. In this case it must be used in combination with a fixed pintle or with a threaded pintle with plate. It is not suitable for flush shutters.

It can only be connected with horizontal brackets (not with corner or vertical brackets).

Mounting

Mount the horizontal bracket on the shutter and then fasten the hinge using 2 theft-proof screws: this solution ensures greater system steadiness and security. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread. Rivets can be used in case of PVC or aluminium shutters. Fasten the side lip to the rebate using two 3.5x35 mm screws with suitable thread.

NB. Use of wall catch for shutters is necessary with exception of low capacity models.



Order Specifications

Black finish	Bichromated finish
Article	Article
H00939.08.93	H00939.08.04

Fixed rebated hinge 45x8 - for corner and vertical brackets



Description

Two-handed hinge with 8 mm neck, with lip for installation on the rebate 45 mm from the rotation axis. It can be reversed thanks to a removable self-lubricating plastic bushing.

Application

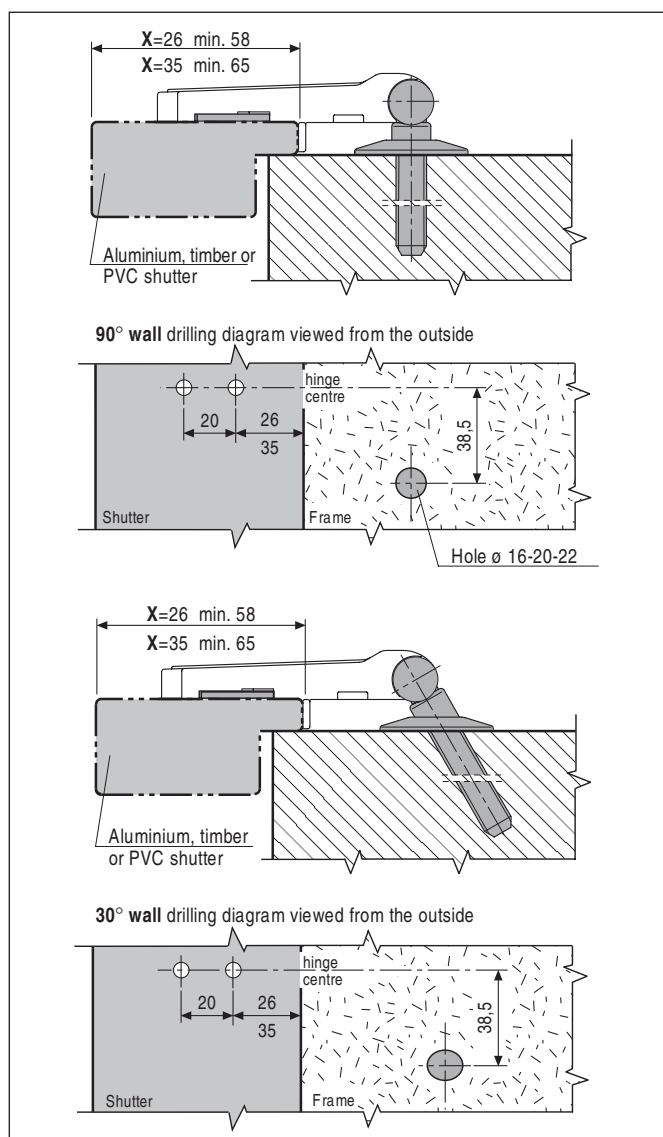
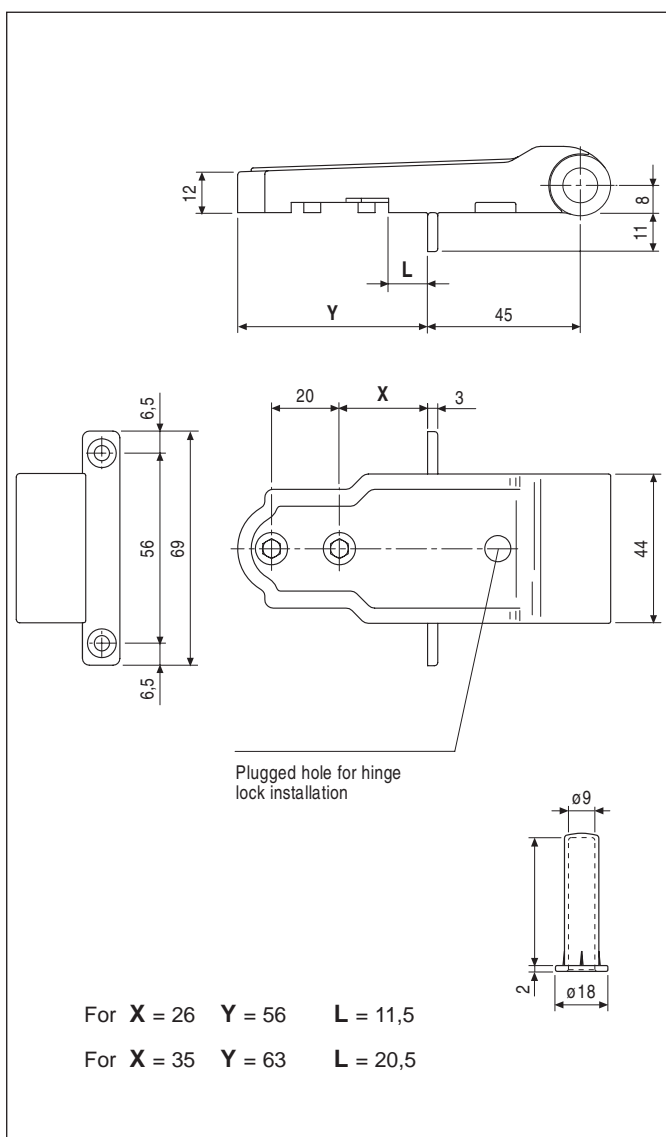
For rebated or overlapped shutters. It is fastened directly to the wall and used in combination with a wall-mounted pintle with 9 mm diameter pivot. It is not suitable for flush shutters. It can be connected with corner and vertical brackets, but not with horizontal brackets. It can also be fastened directly to the shutter using compensating shim art. H00921.00.93. If it is used in combination with the hinge lock, prepare the seat for the fastening screw by pressing with a screwdriver

against the Zamak-plugged hole. The X measurement must be determined keeping in mind that all the screws must be fastened to a load-bearing structure.

Mounting

Mount the corner or vertical bracket on the shutter and then fasten the hinge using 2 theft-proof screws: this solution ensures greater system steadiness and security. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread. Rivets can be used in case of PVC or aluminium shutters. Fasten the side lip to the rebate using two 3.5x35 mm screws with suitable thread.

NB. Use of wall catch for shutters is necessary with exception of low capacity models.



Order Specifications

X	Black finish	Bichromated finish
	Article	Article
26	H00934.08.93	H00934.08.04
35	H00936.08.93	H00936.08.04

Fixed rebated hinge - 45x8 for horizontal brackets



Description

Two-handed hinge with 8 mm neck, with lip for installation on the rebate 45 mm from the rotation axis. It can be reversed thanks to a removable self-lubricating plastic bushing.

Application

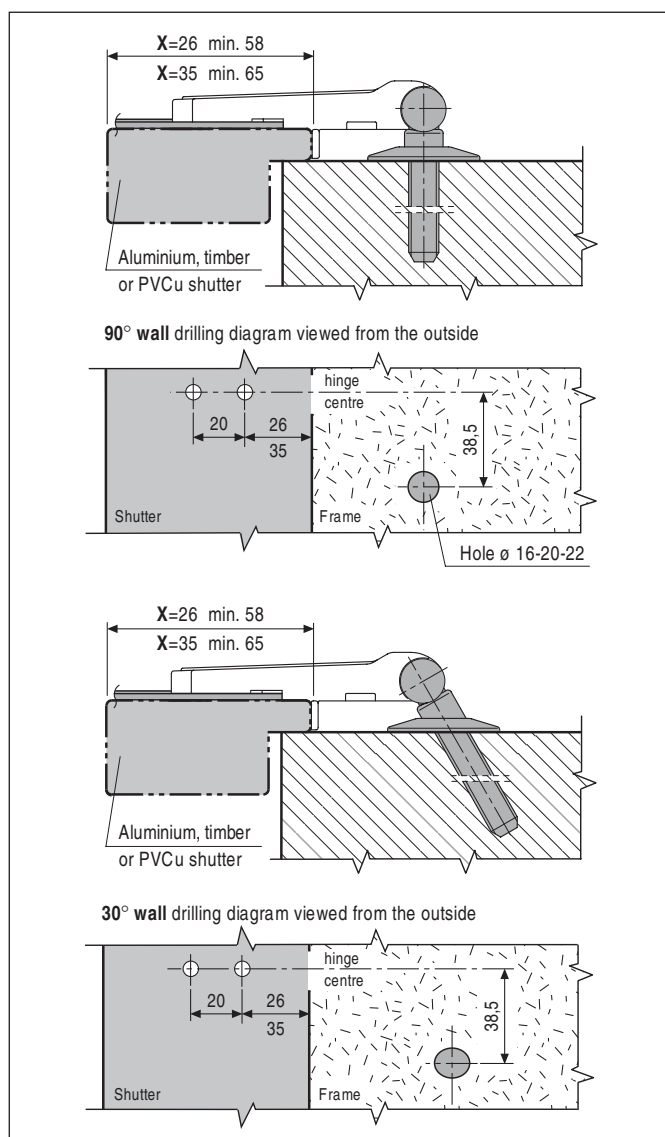
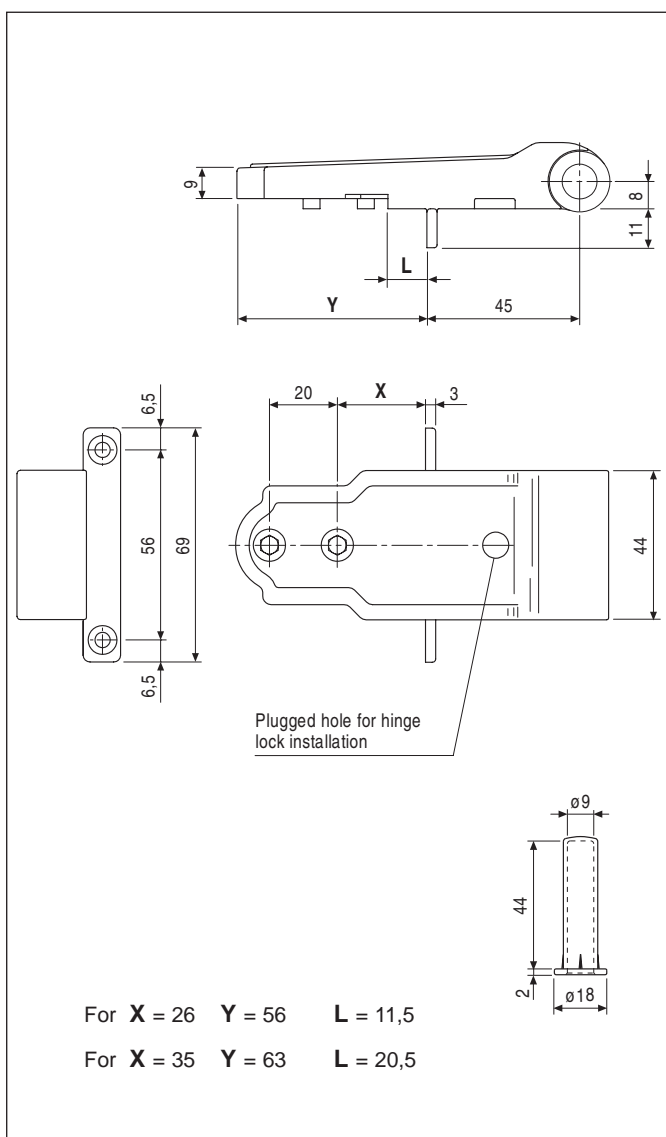
For rebated or overlapped shutters. It is fastened directly to the wall and used in combination with a wall-mounted pintle with 9 mm diameter pivot. It is not suitable for flush shutters. It can only be connected with horizontal brackets (not with corner or vertical brackets). If it is used in combination with the hinge lock, prepare the seat for the fastening screw by pressing with a screwdriver against the Zamak-plugged hole. The X

measurement must be determined keeping in mind that all the screws must be fastened to a load-bearing structure.

Mounting

Mount the horizontal bracket on the shutter and then fasten the hinge using 2 theft-proof screws: this solution ensures greater system steadiness and security. Alternatively, you can use two 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread. Rivets can be used in case of PVC or aluminium shutters. Fasten the side lip to the rebate using two 3.5x35 mm screws with suitable thread.

NB. Use of wall catch for shutters is necessary with exception of low capacity models.



Order Specifications

X	Black finish	Bichromated finish
	Article	Article
26	H00935.08.93	H00935.08.04
35	H00937.08.93	H00937.08.04

Coplanar symmetrical hinge - for 60/25 corner and vertical bracket



Description

Two-handed coplanar symmetrical hinge with theft-proof removable pin. For corner and vertical brackets.

Application

For multiple-leaf shutters that fold outward, fitted with corner or vertical brackets, with the hinge mounted on the inside of the shutter. To reverse the hinge it is necessary to remove and re-install the pin: to perform this operation the hinge must be folded 90° (open shutter).

- Used in combination with corner brackets, vertical brackets or a compensating shim.

Mounting

Use:

- theft-proof screws;

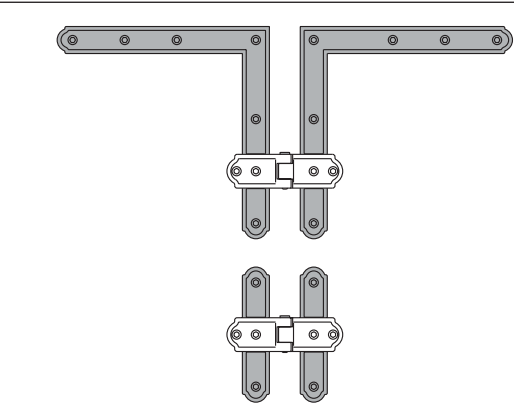
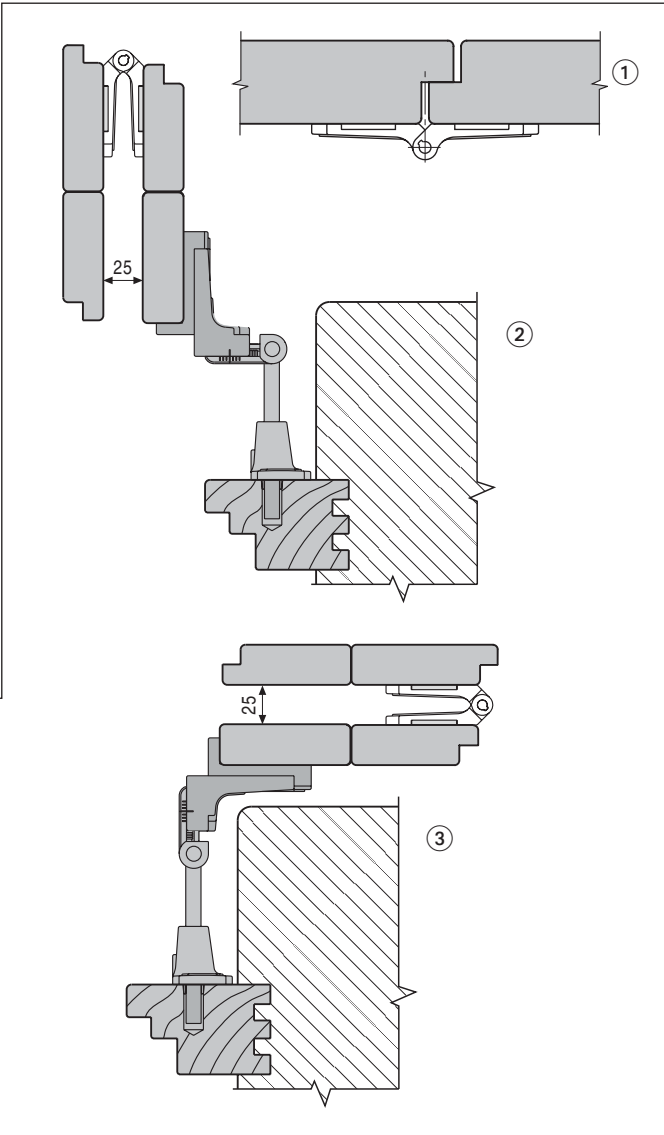
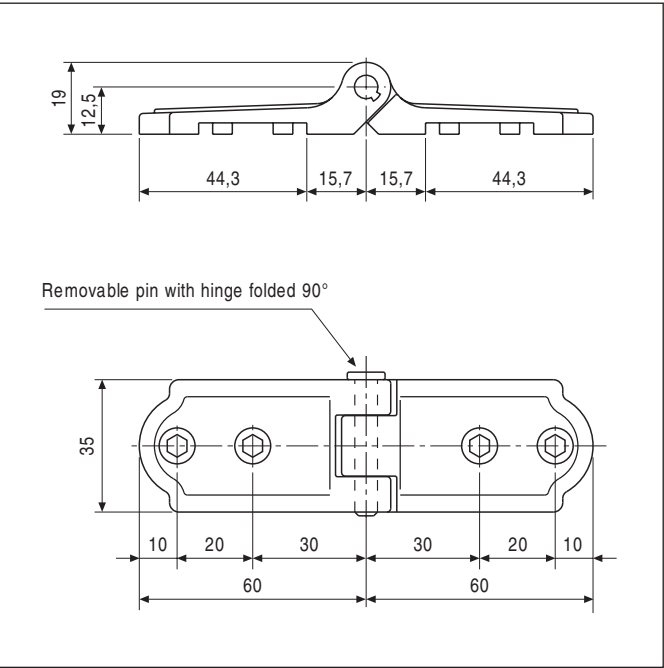
- four 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with thread suitable for the shutter material;
- rivets (for PVC or aluminium shutters only).

- We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

- For direct attachment of the hinge to the shutter (without any brackets) use the compensating shim art. H00121.00.93.

NB. The use of a wall catch for shutters is compulsory.

For loading capacity please refer to the diagram (see Application fields chapters) of the hinge applied to the sash reveal and make sure that the sum of the width of central sash and reveal does not exceed the max indicated dimension.



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	H00931.01.93	H00931.01.04

Coplanar symmetrical hinge - for 60/25 horizontal brackets



Description
Two-handed coplanar symmetrical hinge with theft-proof removable pin, for horizontal brackets.

Application
For multiple-leaf folding shutters fitted with horizontal brackets, with the hinge mounted on the inside of the shutter. To reverse the hinge it is necessary to remove and re-install the pin: to perform this operation the hinge must be folded 90° (open shutter).

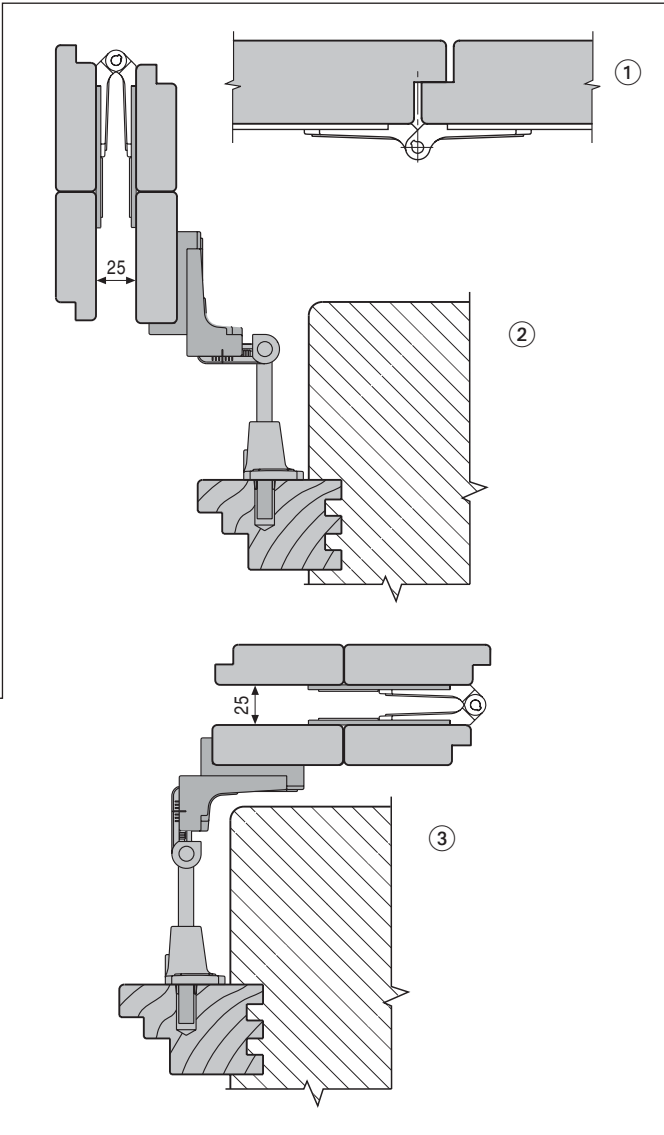
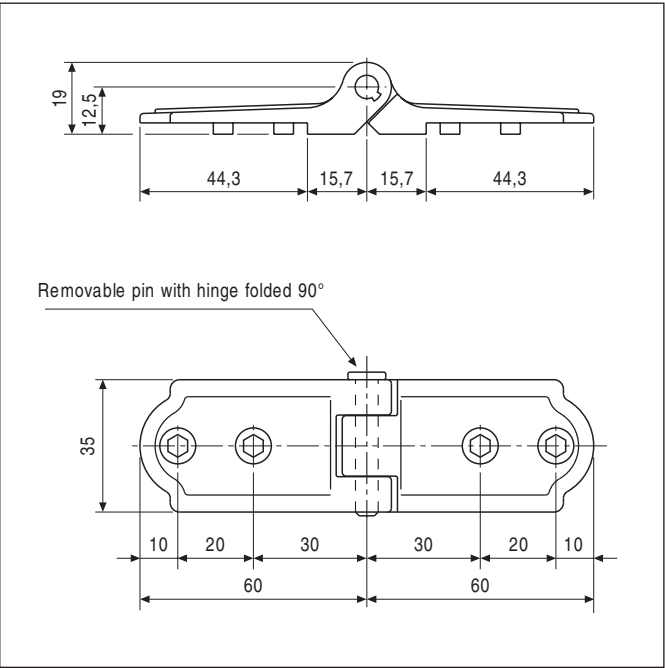
- Used in combination with horizontal brackets.

Mounting
Use:

- theft-proof screws;
 - four 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with thread suitable for the shutter material;
 - rivets (for PVC or aluminium shutters only).
- We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

NB. The use of a wall catch for shutters is compulsory.

For loading capacity please refer to the diagram (see Application fields chapters) of the hinge applied to the sash reveal and make sure that the sum of the width of central sash and reveal does not exceed the max indicated dimension.



Order Specifications

Black finish		Bichromated finish	
Article		Article	
H00931.03.93		H00931.03.04	

Coplanar offset hinge - for 60/25 corner and vertical bracket



Description

Two-handed coplanar offset hinge with theft-proof removable pin, for corner and vertical brackets.

Application

For multiple-leaf folding shutters fitted with corner or vertical brackets, with the hinge mounted on the outside of the shutter.

To reverse the hinge it is necessary to remove and re-install the pin: to perform this operation the hinge must be folded 90° (open shutter).

- Used in combination with corner brackets, vertical brackets or a compensating shim.

Mounting

Use:

- theft-proof screws;

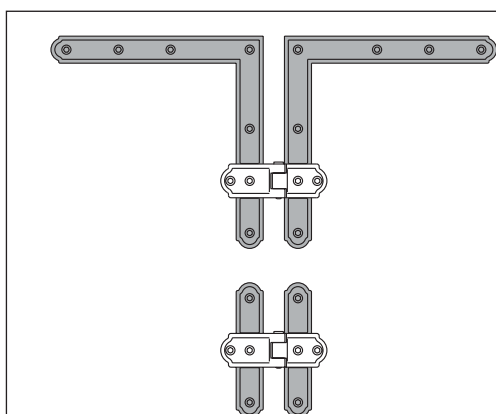
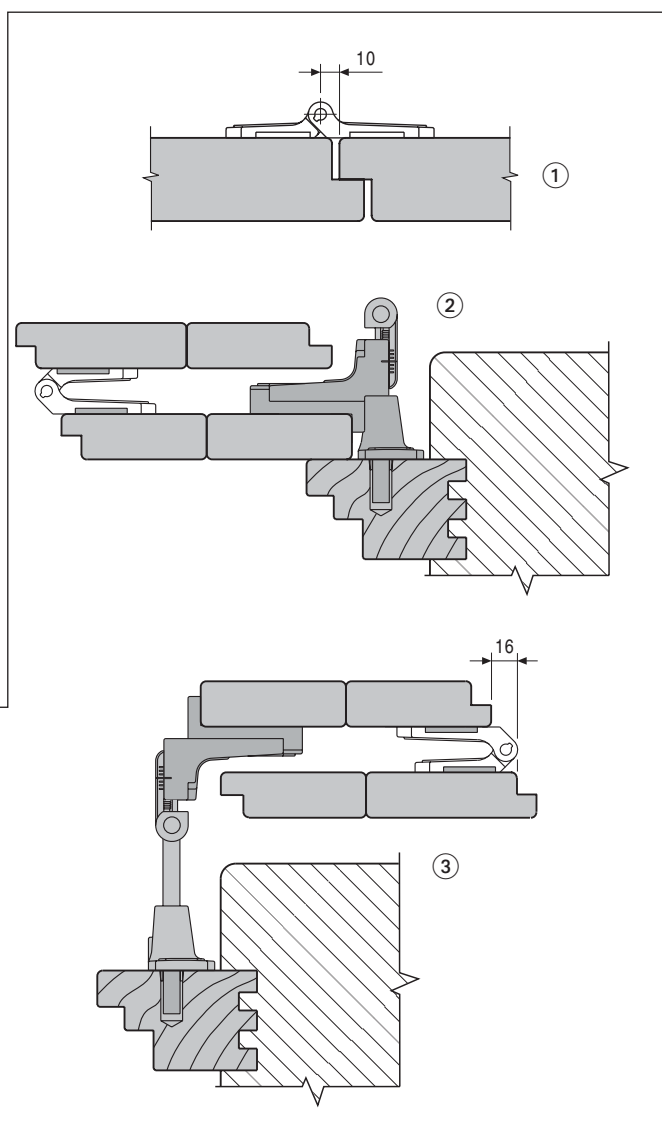
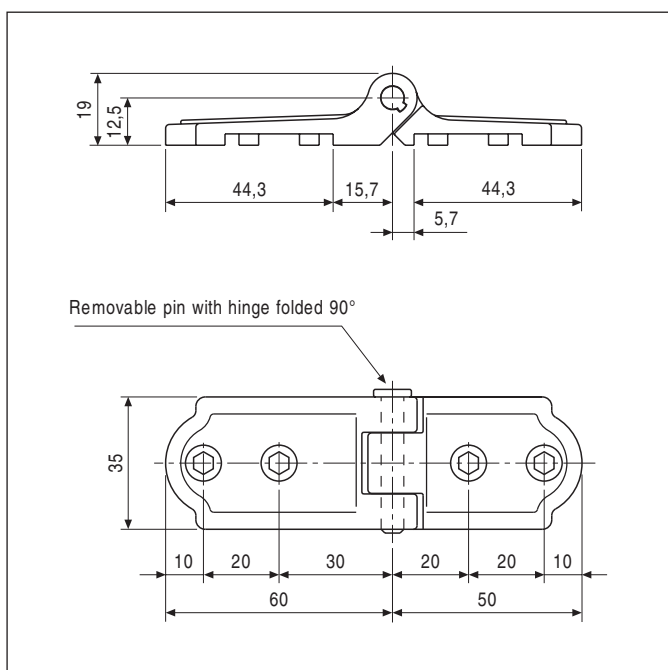
- four 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with thread suitable for the shutter material;
- rivets (for PVC or aluminium shutters only).

- We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

- For direct attachment of the hinge to the shutter (without any brackets) use the compensating shim art. H00921.00.93.

NB. The use of a wall catch for shutters is compulsory.

For loading capacity please refer to the diagram (see Application fields chapters) of the hinge applied to the sash reveal and make sure that the sum of the width of central sash and reveal does not exceed the max indicated dimension.



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	H00931.02.93	H00931.02.04

Coplanar offset hinge - for 60/25 horizontal brackets



Description

Two-handed coplanar offset hinge with theft-proof removable pin, for horizontal brackets.

Application

For multiple-leaf folding shutters fitted with horizontal brackets, with the hinge mounted on the outside of the shutter. To reverse the hinge it is necessary to remove and re-install the pin: to perform this operation the hinge must be folded 90° (open shutter).

- Used in combination with horizontal brackets.

Mounting

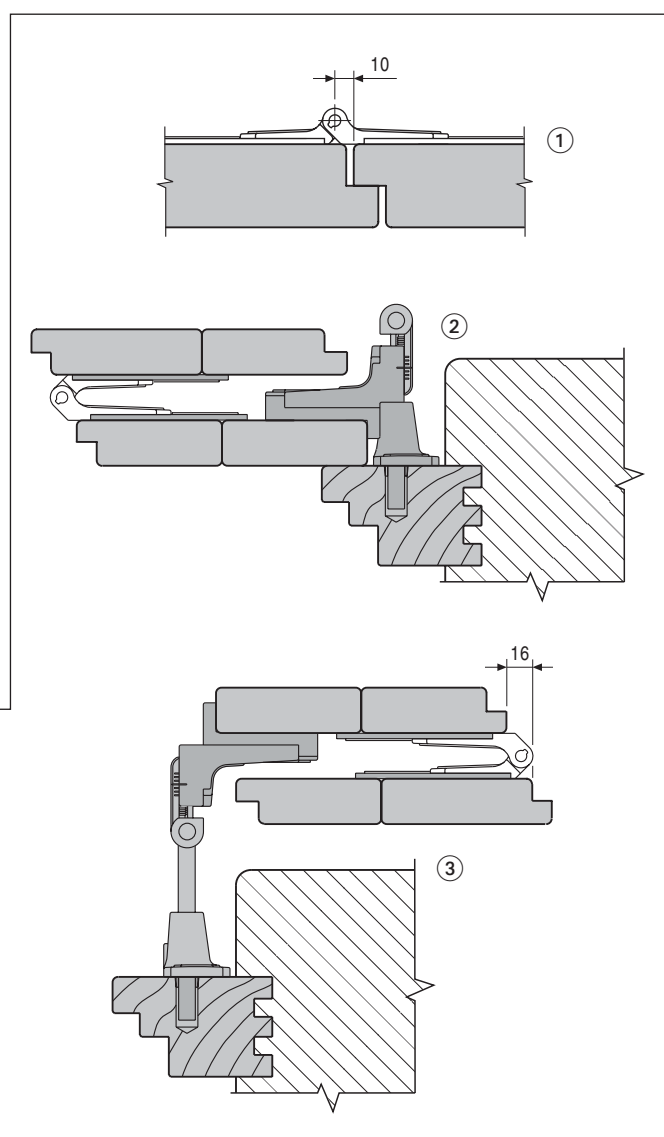
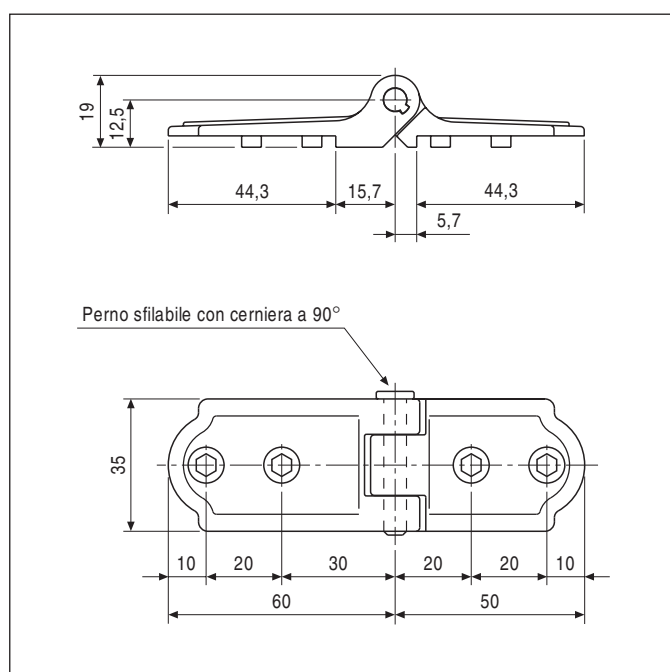
Use:

- theft-proof screws;
- four 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with thread suitable for the shutter material;
- rivets (for PVC or aluminium shutters only).

- We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

NB. The use of a wall catch for shutters is compulsory.

For loading capacity please refer to the diagram (see Application fields chapters) of the hinge applied to the sash reveal and make sure that the sum of the width of central sash and reveal does not exceed the max indicated dimension.



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	H00931.04.93	H00931.04.04

Coplanar symmetrical hinge - for 65/25 corner and vertical bracket, for PVC



Description

Two-handed coplanar symmetrical hinge with increase distance between centres of holes and theft-proof removable pin. For corner and vertical brackets.

Application

For PVC multiple-leaf folding shutters fitted with corner or vertical brackets, with the hinge mounted on the inside of the shutter. To reverse the hinge it is necessary to remove and re-install the pin: to perform this operation the hinge must be folded 90° (open shutter).

- Used in combination with corner brackets, vertical brackets or the compensating shim art. H00921.00.93.

Mounting

Use:

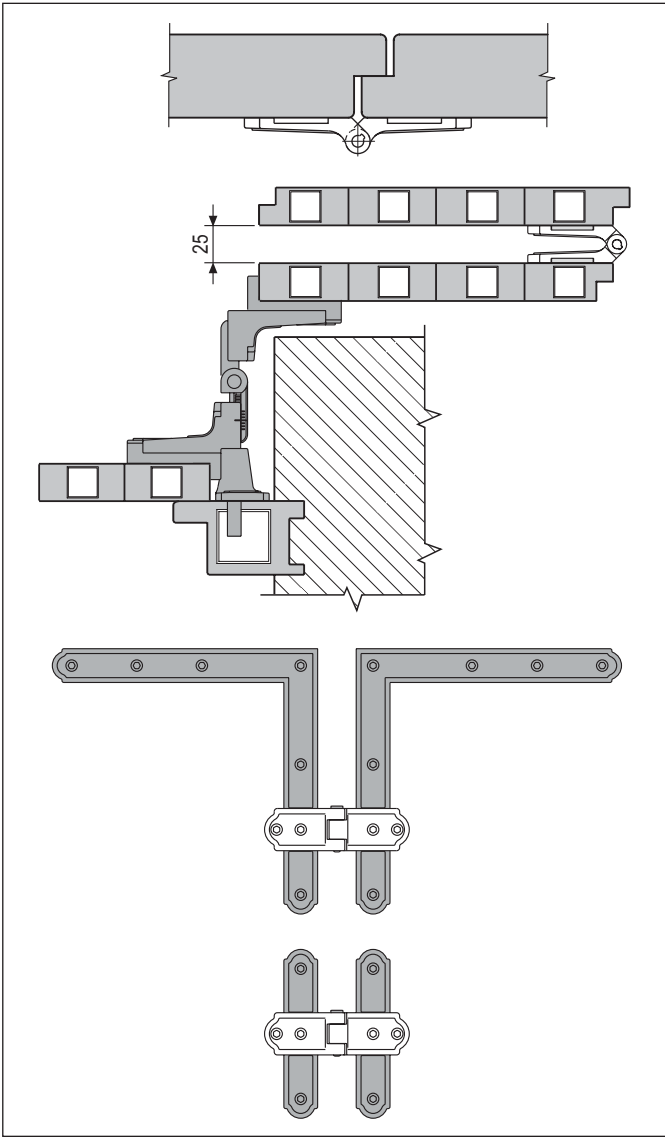
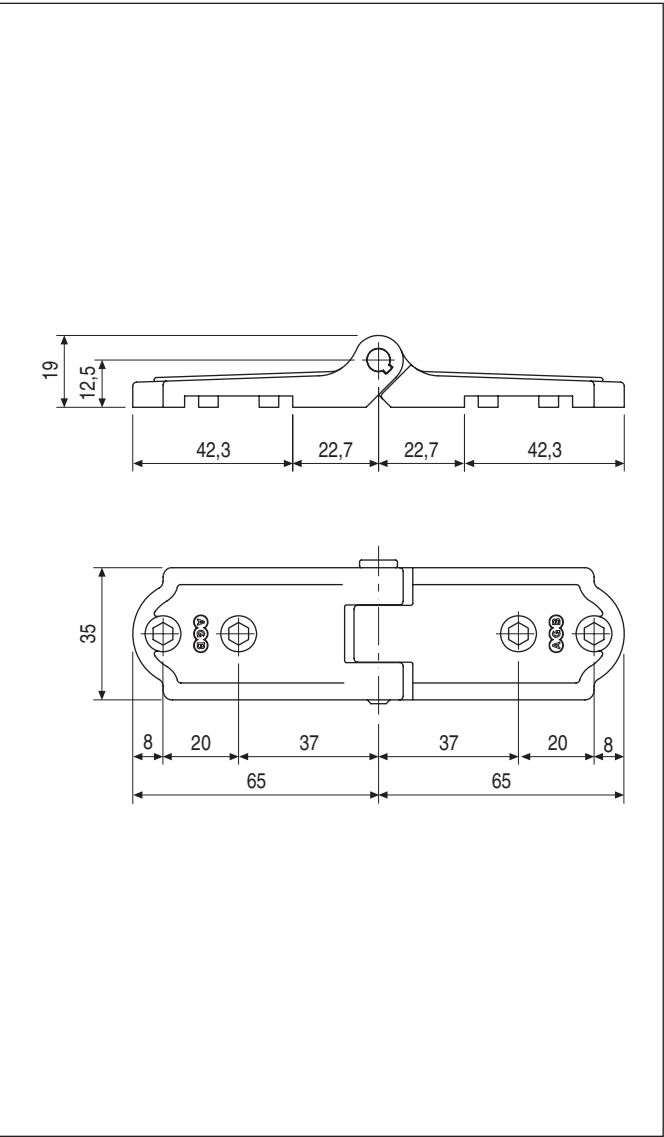
- theft-proof screws;
- four 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread;
- rivets.

- We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

- For direct attachment of the hinge to the shutter (without any brackets) use the compensating shim art. H00921.00.93.

NB. The use of a wall catch for shutters is compulsory.

For loading capacity please refer to the diagram (see Application fields chapters) of the hinge applied to the sash reveal and make sure that the sum of the width of central sash and reveal does not exceed the max indicated dimension.



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	H00931.06.93	H00931.06.04

Coplanar symmetrical hinge - for 65/25 horizontal brackets for PVC



Description

Two-handed coplanar symmetrical hinge with increase distance between centres of holes and theft-proof removable pin, for horizontal brackets.

Application

For PVC multiple-leaf folding shutters fitted with horizontal brackets, with the hinge mounted on the inside of the shutter. To reverse the hinge it is necessary to remove and re-install the pin: to perform this operation the hinge must be folded 90° (open shutter).

Mounting

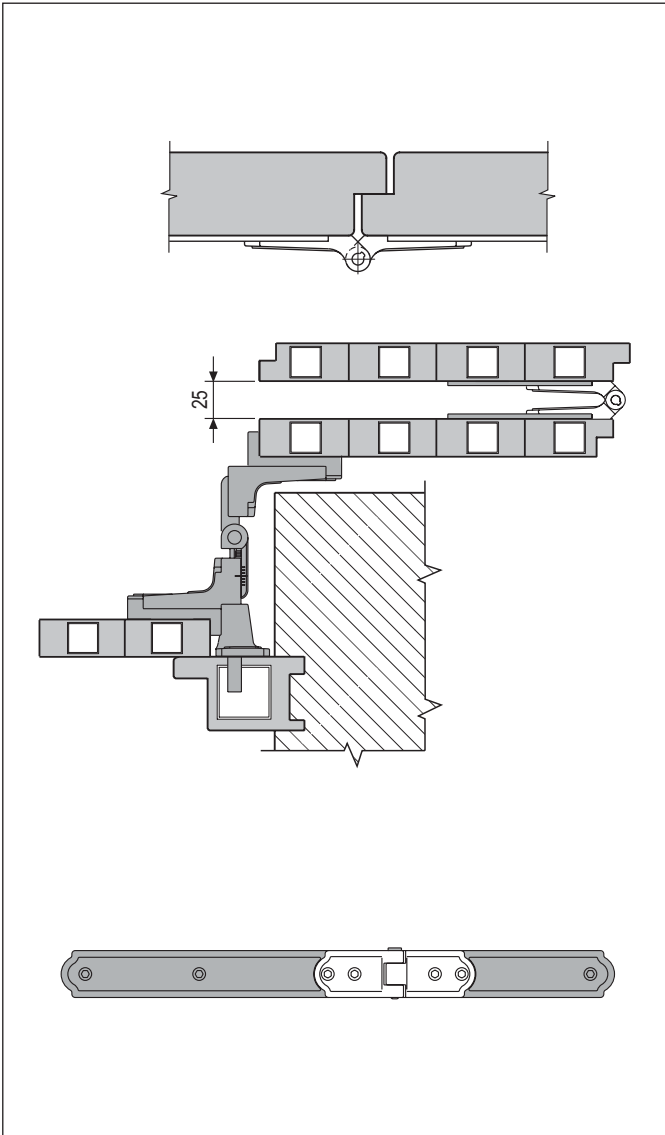
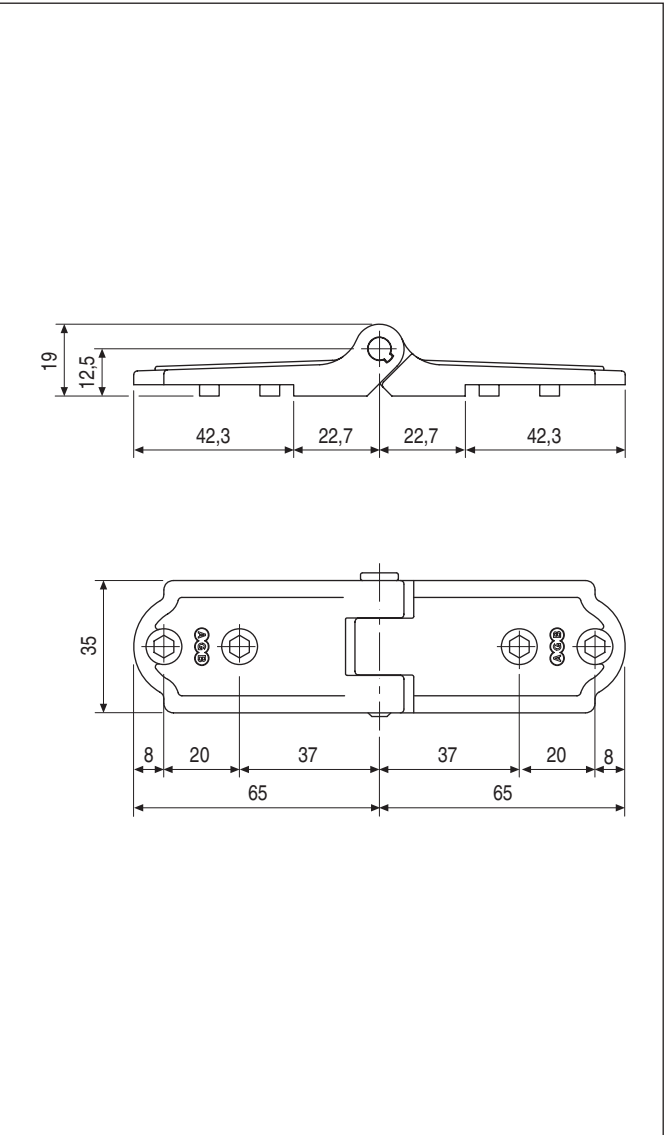
Use:

- theft-proof screws;
- four 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with thread suitable for the shutter material;
- rivets (for PVC or aluminium shutters only).

● We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

NB. The use of a wall catch for shutters is compulsory.

For loading capacity please refer to the diagram (see Application fields chapters) of the hinge applied to the sash reveal and make sure that the sum of the width of central sash and reveal does not exceed the max indicated dimension.



Order Specifications

Black finish		Bichromated finish	
Article		Article	
H00931.07.93		H00931.07.04	

Flat coplanar symmetrical hinge 100/16



Description

Two-handed coplanar symmetrical hinge with theft-proof removable pin.

Application

For multiple-leaf close-folding shutters (16 mm space between folded leaves). The hinge must be installed directly on the shutter without using any supporting element.

Mounting

- Use:
- theft-proof screws;
 - six 4,5 mm screws of appropriate length (matching the thickness of the shutter)

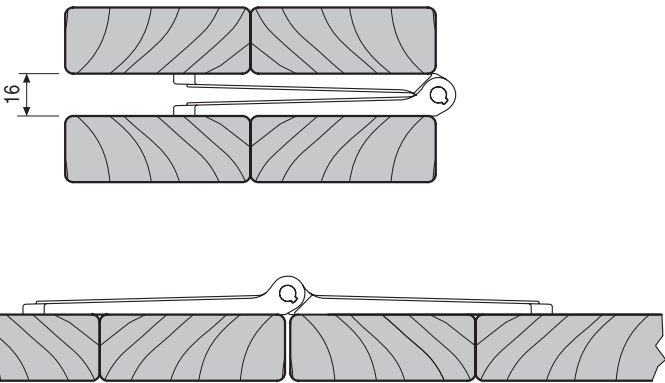
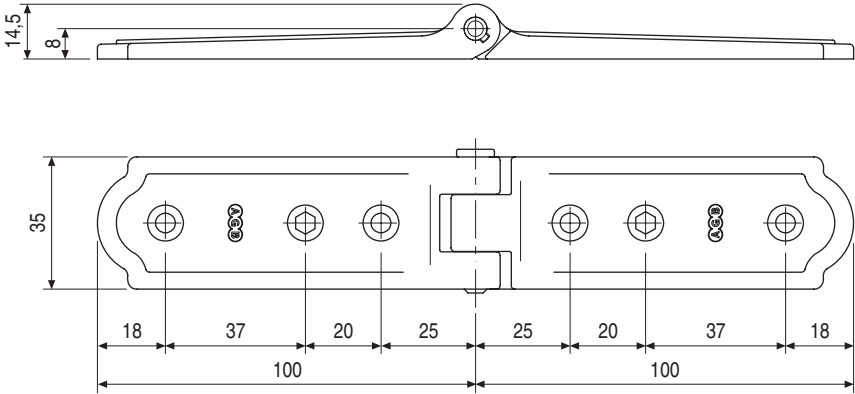
and with suitable thread;

- rivets (for PVC or aluminium shutters only).

- We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

NB. The use of a wall catch for shutters is compulsory.

For loading capacity please refer to the diagram (see Application fields chapters) of the hinge applied to the sash reveal and make sure that the sum of the width of central sash and reveal does not exceed the max indicated dimension.



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	H00931.05.93	H00931.05.04

Flat coplanar symmetrical hinge 65/25



Description
Two-handed coplanar symmetrical hinge with theft-proof removable pin.

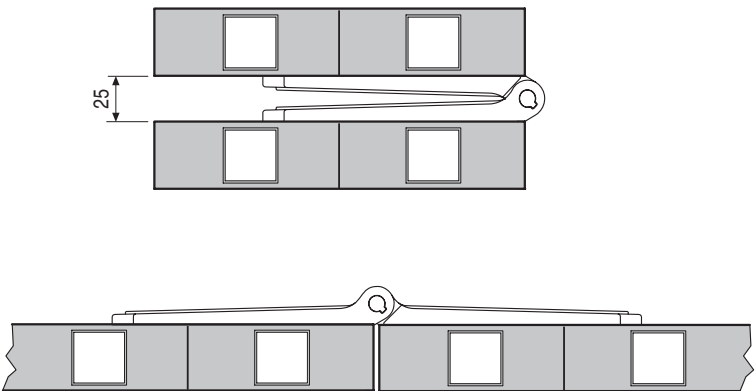
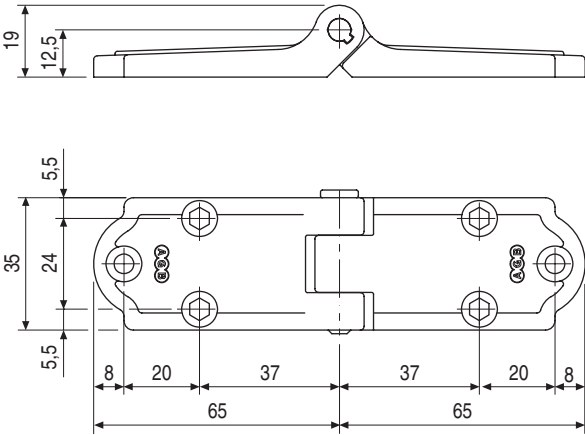
Application
For PVC multiple-leaf folding shutters. The hinge must be installed directly on the shutter without using any supporting element. To reverse the hinge it is necessary to remove and re-install the pin: to perform this operation the hinge must be folded 90° (open shutter).

Mounting
Use:
- theft-proof screws;

- four 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread;
- rivets.
- We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

NB. The use of a wall catch for shutters is compulsory.

For loading capacity please refer to the diagram (see Application fields chapters) of the hinge applied to the sash reveal and make sure that the sum of the width of central sash and reveal does not exceed the max indicated dimension.



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	H00931.08.93	H00931.08.04

Coplanar symmetrical - for 51/16 horizontal brackets



Description

Two-handed coplanar symmetrical hinge with theft-proof removable pin for horizontal bracket.

Application

For multiple-leaf folding shutters “alla vicentina” and “alla padovana” type with horizontal brackets on both sides of the hinge, to be installed directly on the external surface of the shutter. To reverse the hinge it is necessary to remove and re-install the pin: to perform this operation the hinge must be folded 90° (open shutter).

Mounting

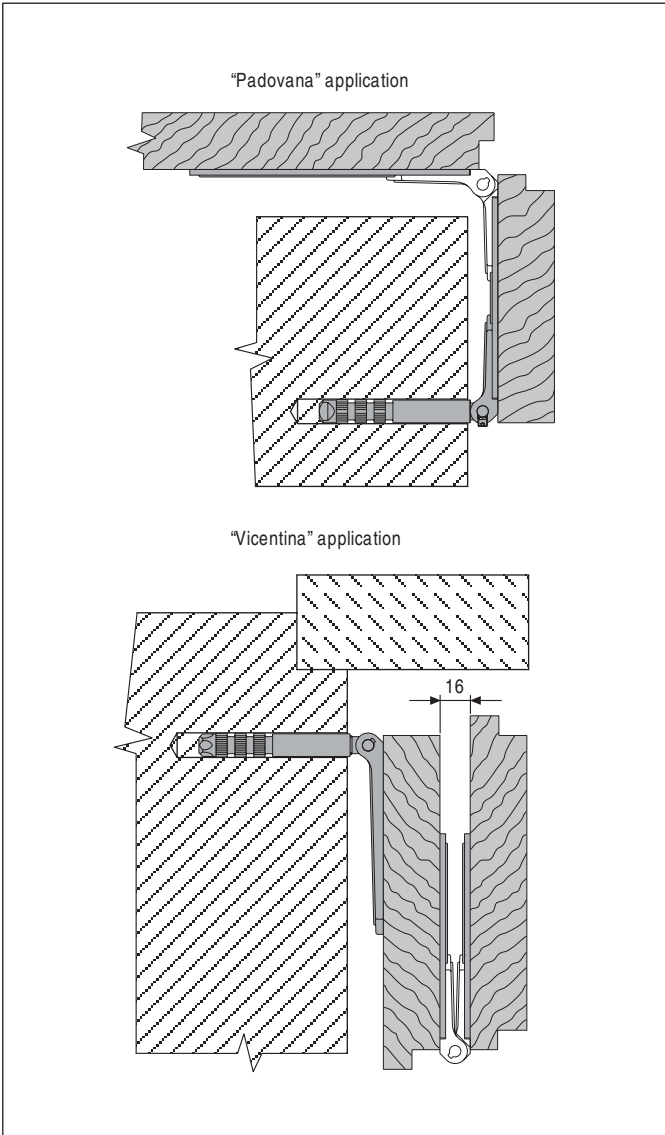
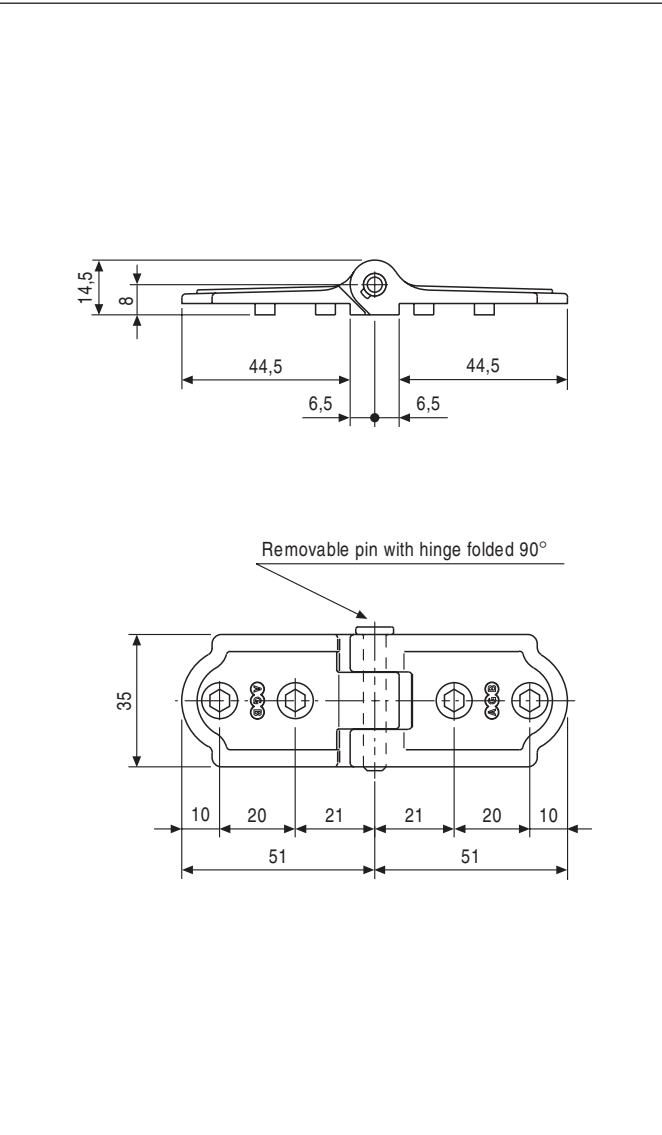
Use:

- theft-proof screws;
- four 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread;
- rivets (PVC and aluminium timber systems only).

• We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

NB. The use of a wall catch for shutters is compulsory.

For loading capacity please refer to the diagram (see Application fields chapters) of the hinge applied to the sash reveal and make sure that the sum of the width of central sash and reveal does not exceed the max indicated dimension.



Order Specifications

Black finish	Bichromated finish
Article	Article
H00931.09.93	H00931.09.04

Coplanar - with 100/16 bracket



Description

Two-handed coplanar symmetrical hinge with theft-proof removable pin for horizontal bracket.

Application

For multiple-leaf folding shutters and “alla padovana” type with horizontal brackets on one side of the hinge only, to be installed directly on the external surface of the shutter. To reverse the hinge it is necessary to remove and re-install the pin: to perform this operation the hinge must be folded 90° (open shutter).

Mounting

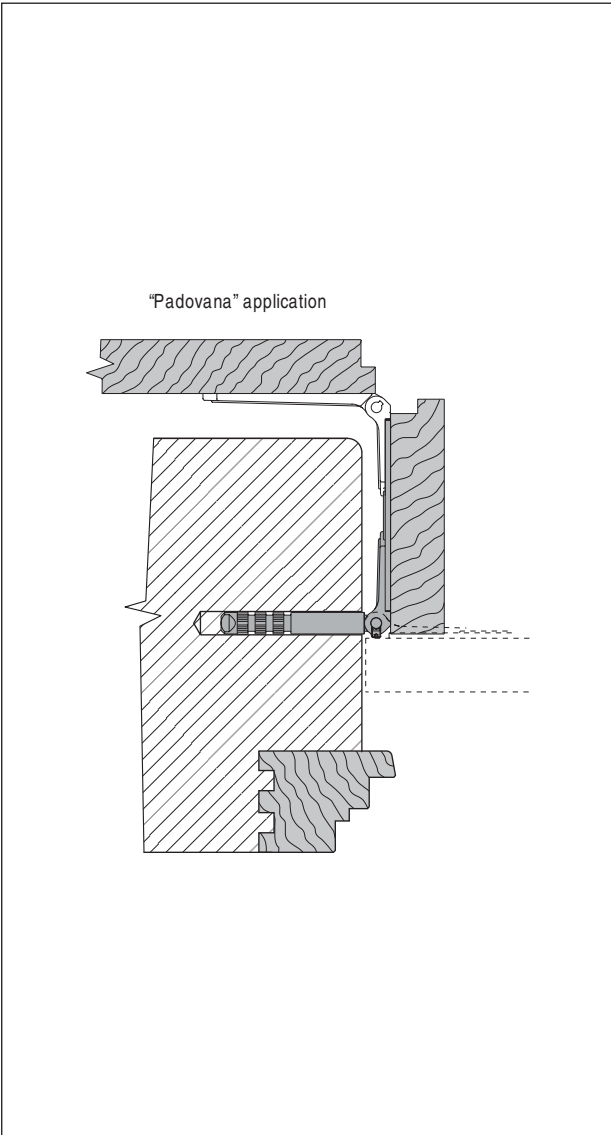
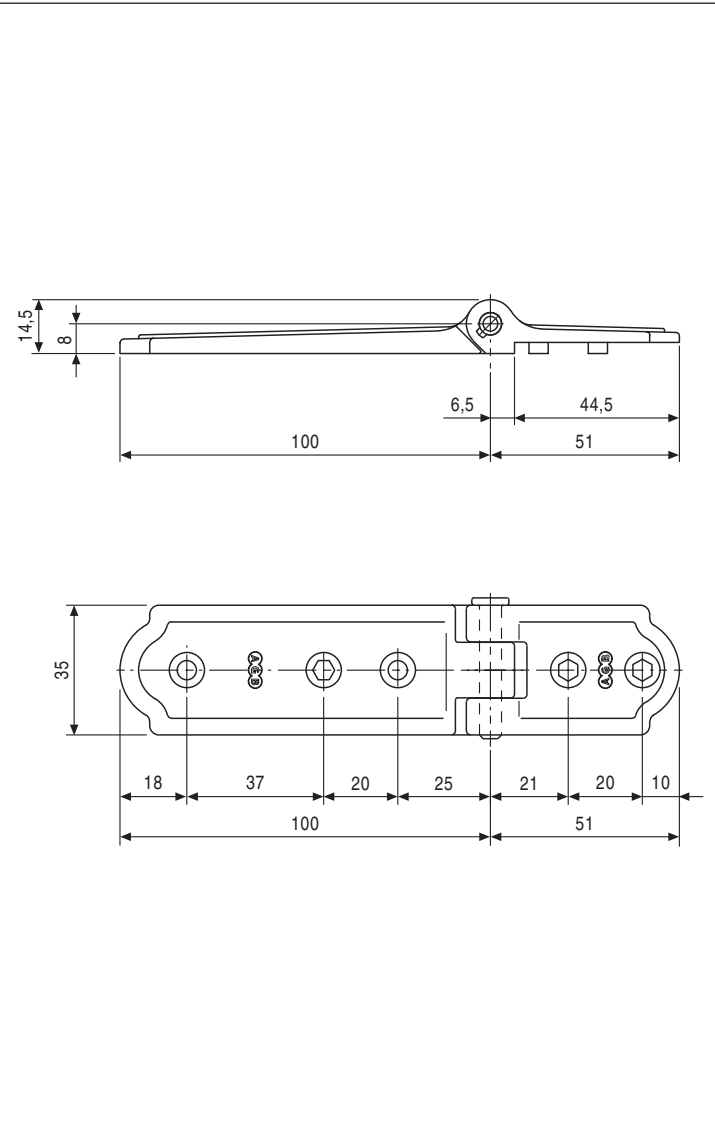
Use:
- theft-proof screws;

- four 4,5 mm screws of appropriate length (matching the thickness of the shutter) and with suitable thread;
- rivets (PVC and aluminium timber systems only)

• We recommend the use of theft-proof screws as they ensure greater system steadiness and security.

NB. The use of a wall catch for shutters is compulsory.

For loading capacity please refer to the diagram (see Application fields chapters) of the hinge applied to the sash reveal and make sure that the sum of the width of central sash and reveal does not exceed the max indicated dimension.



Order Specifications

Black finish	Bichromated finish
Article	Article
H00931.10.93	H00931.10.04

Maxi hinge H60 for exterior opening

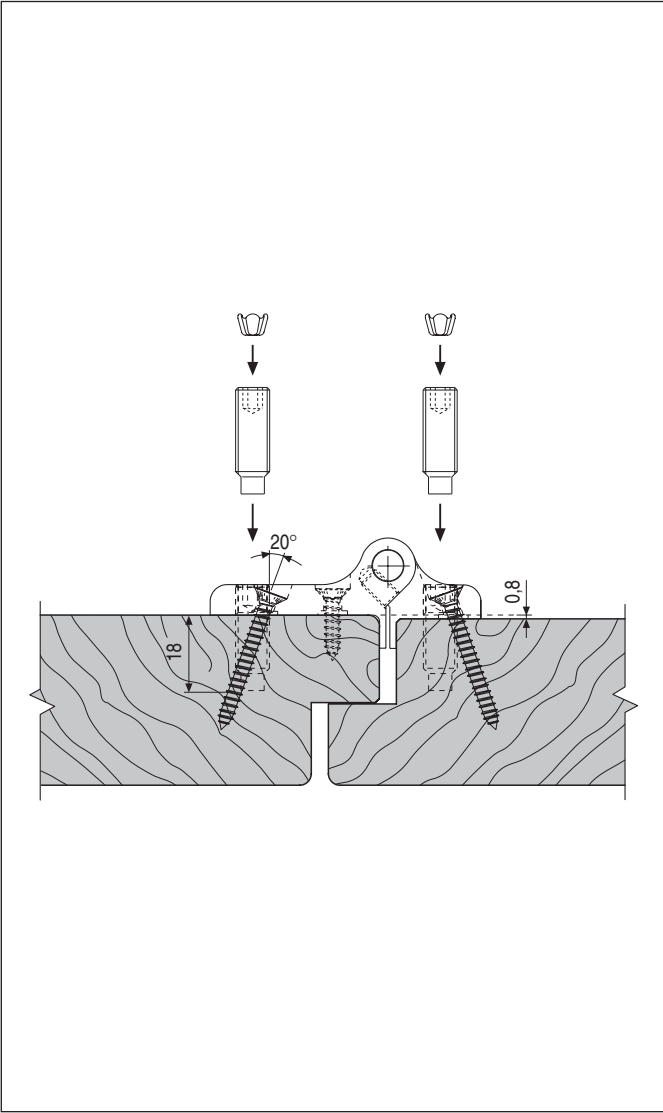
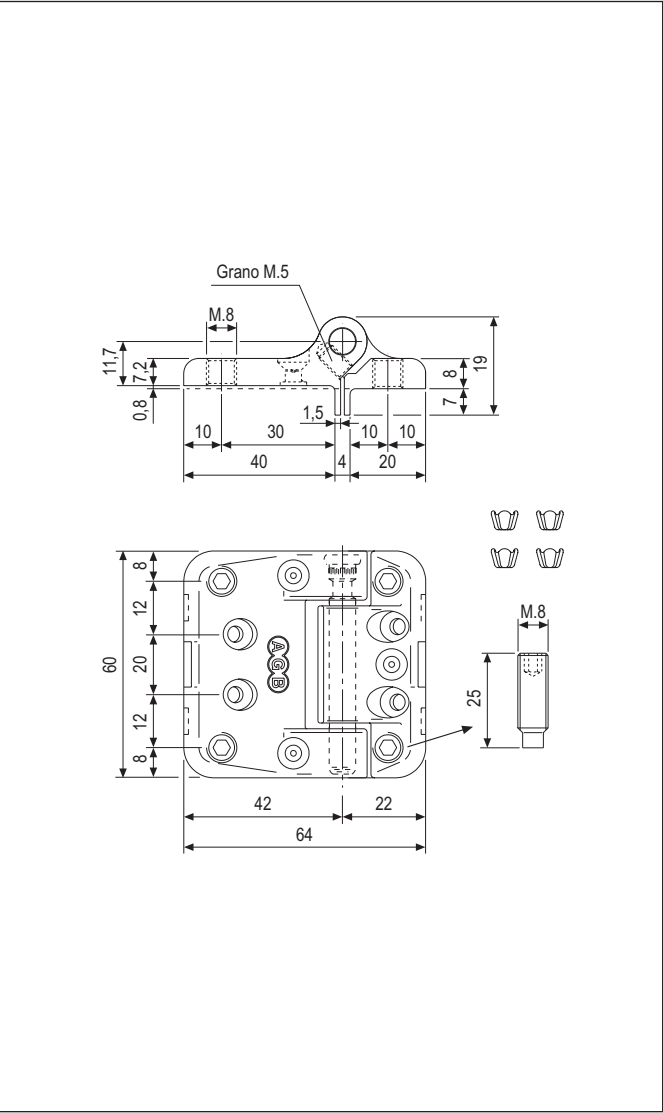


Description
Hinge for external applications, with security grub screw which hinders the extraction of the steel pin. The non coplanar bases avoid the “spring effect” due to the gasket deflection. Maxi has a great loading capacity thanks to 4 loading threaded pins $\varnothing 8 \times 25$ to be screwed down into the wood: once installed, they are covered and sealed by aluminium inserts in order to avoid break in attempts.

Application
There are many applications: windows and doors with external opening (with panic exit handle), flush with the external wall, 3 sashes systems with external opening. The hinges, applied in between the sashes, give automatically 4 mm gap. Maxi is an auto-jig hinge as it leads the drilling for the application of the loading pins.

Mounting
Apply the hinges in between the sashes and fix them firstly with the orthogonal screws (4x20) and then the inclined ones (4x35). Afterwards, by means of the threaded holes of the hinges, drill the wood with $\varnothing 7,2$ mm pin for the housing of the loading pins. Clean the hole with an air jet and screw down them up to the flush of the hinge. Open 90° the sash and position the security grub screw in the proper hole. Insert the proper aluminium caps in the hexagonal base of the pin and hit with a hammer: The aluminium, which is particularly ductile, kneads and fill in the screw base and hinders any unscrelip. Warning: once the caps are inserted, the hinges can not be disassembled.

NB. for the loading capacity please refer to the chapter “Application fields”.



Order Specifications

	Silver finish	Bichromated finish
	Article	Article
	A49403.04.15	A39403.04.04

Maxi hinge H90 for exterior opening

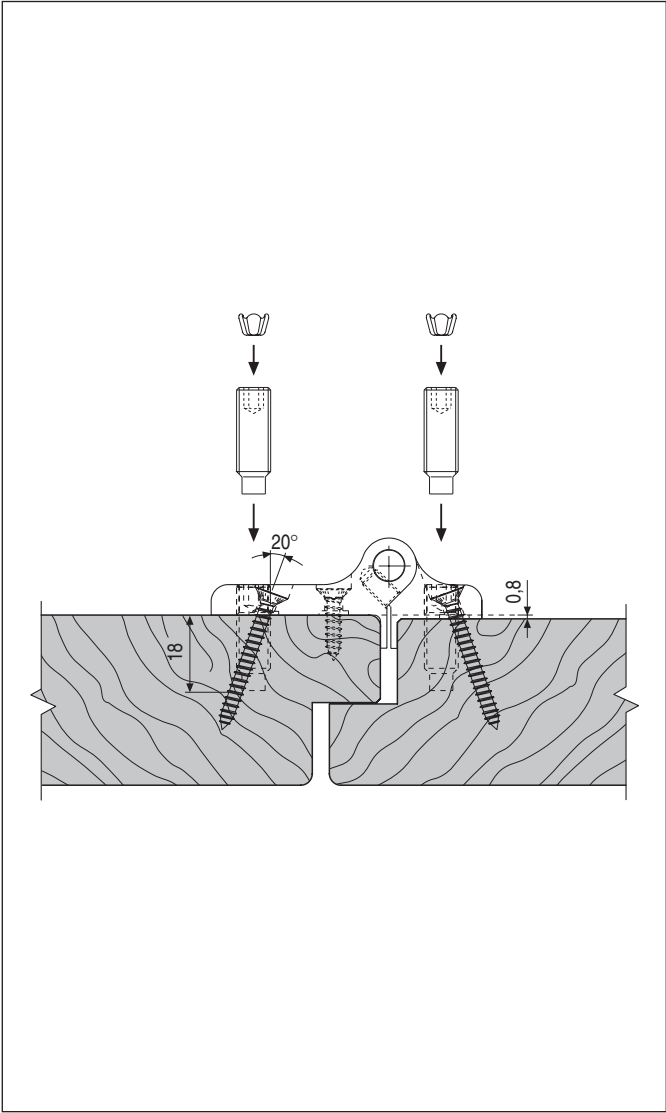
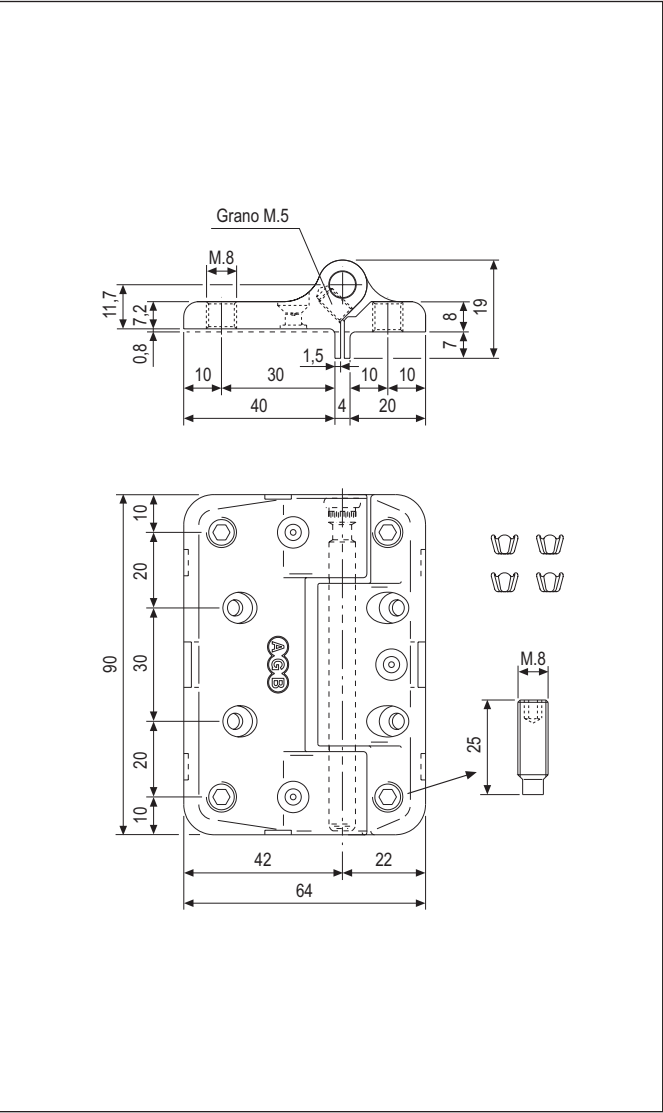


Description
Hinge for external applications, with security grub screw which hinders the extraction of the steel pin. The non coplanar bases avoid the “spring effect” due to the gasket deflection. Maxi has a great loading capacity thanks to 4 loading threaded pins $\varnothing 8 \times 25$ to be screwed down into the wood: once installed, they are covered and sealed by aluminium inserts in order to avoid break in attempts.

Application
There are many applications: windows and doors with external opening (with panic exit handle), flush with the external wall, 3 sashes systems with external opening. The hinges, applied in between the sashes, give automatically 4 mm gap. Maxi is an auto-jig hinge as it leads the drilling for the application of the loading pins.

Mounting
Apply the hinges in between the sashes and fix them firstly with the orthogonal screws (4x20) and then the inclined ones (4x35). Afterwards, by means of the threaded holes of the hinges, drill the wood with $\varnothing 7,2$ mm pin for the housing of the loading pins. Clean the hole with an air jet and screw down them up to the flush of the hinge. Open 90° the sash and position the security grub screw in the proper hole. Insert the proper aluminium caps in the hexagonal base of the pin and hit with a hammer: The aluminium, which is particularly ductile, kneads and fill in the screw base and hinders any unscrelip. Warning: once the caps are inserted, the hinges can not be disassembled.

NB. For the loading capacity please refer to the chapter “Application fields”.



Order Specifications

	Silver finish	Bichromated finish
	Article	Article
	A49403.03.15	A39403.03.04

Hinge for folding shutters (25 mm)



Description

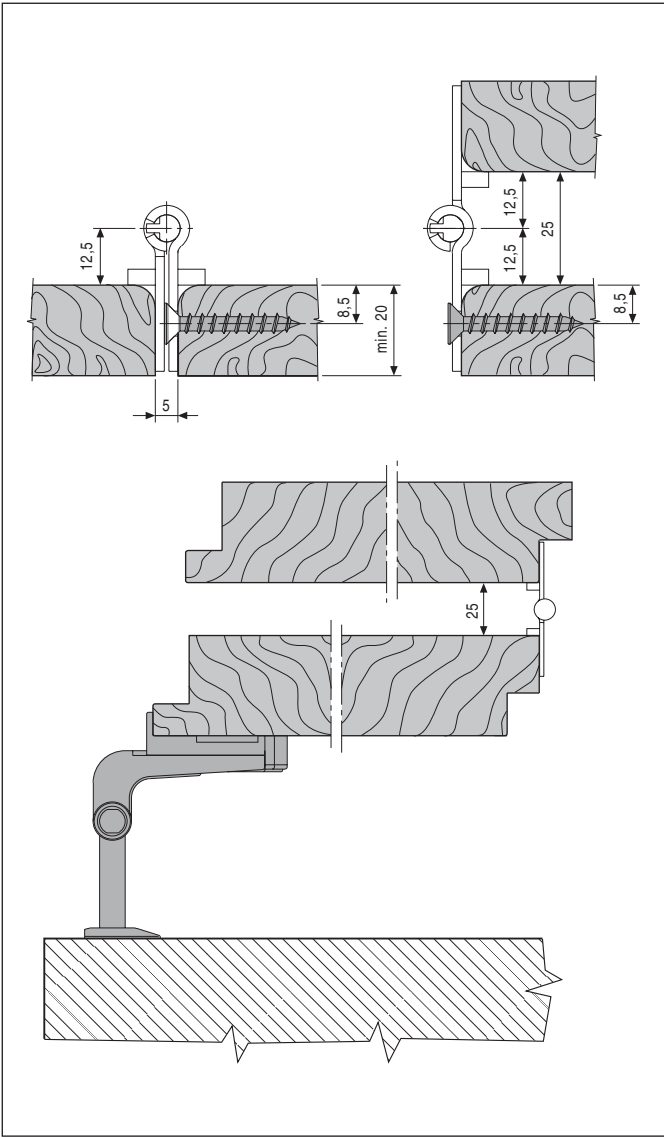
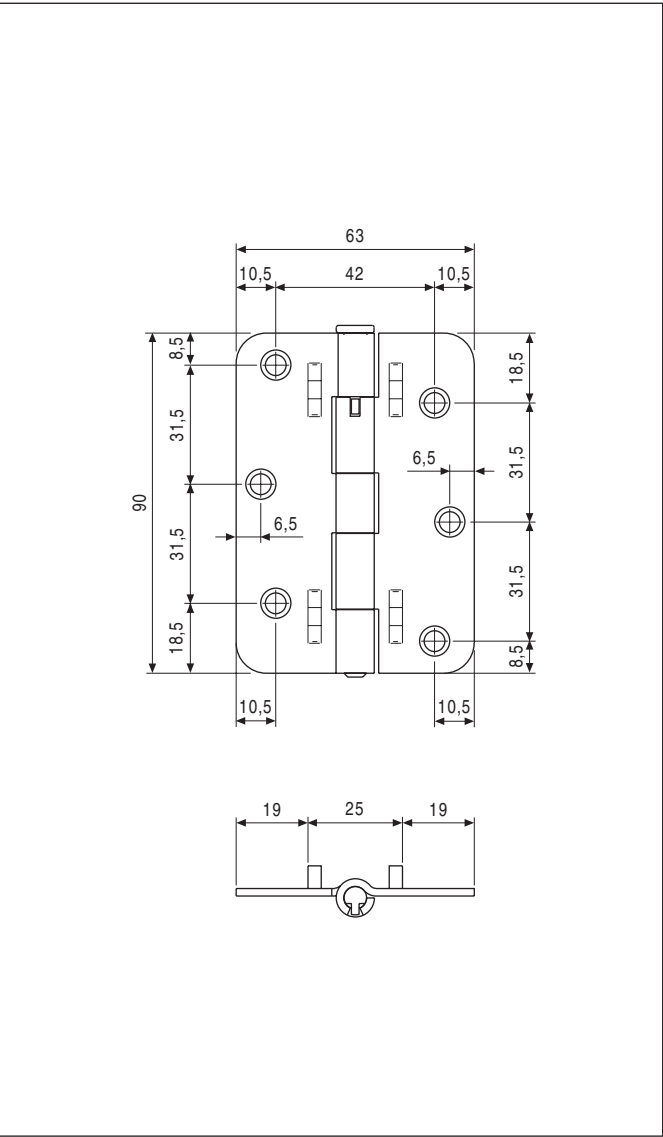
Two-handed full mortise steel hinge with projections to guide assembly and non-removable pin.

Application

For timber, PVC and aluminium shutters with articulated folding leaves. The hinge must be installed on the rebate, in the gap between the leaves. Distance between the leaves with folded hinge: 5 mm; with open hinge: 25 mm, aligned (see installation dralip).

Mounting

Use six 4x30 mm flathead or 3,5x30 mm normal head screws with thread suitable for the shutter material.



Order Specifications

Black finish	Bichromated finish
Article	Article
H00950.25.93	H00950.25.04

Hinge with elbow for folding shutters



Description

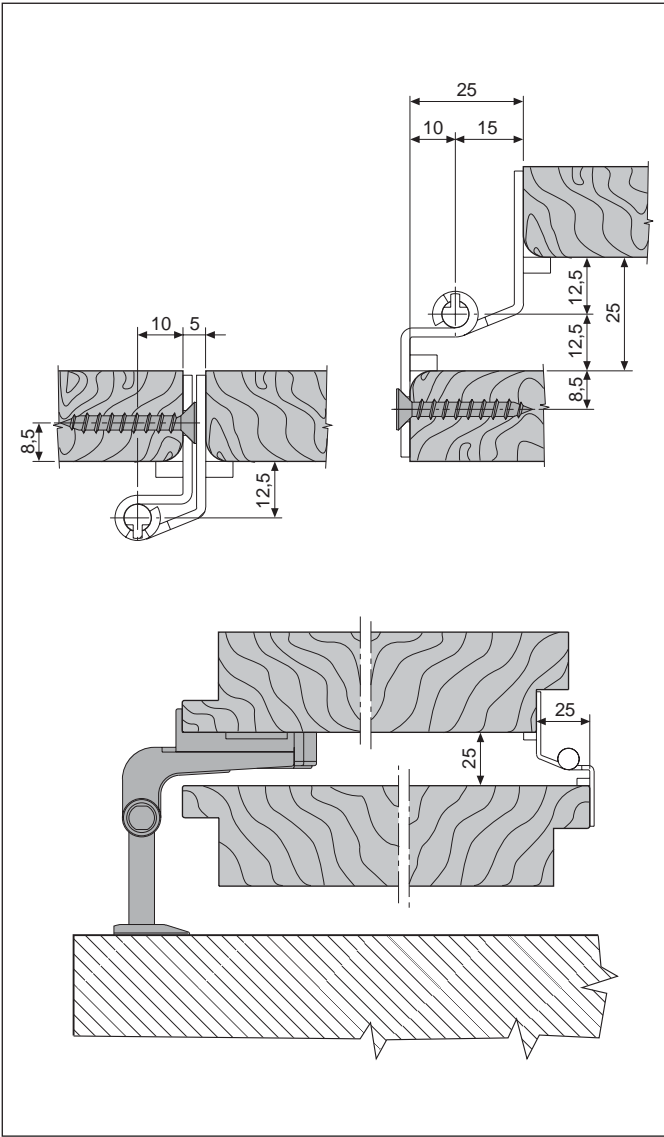
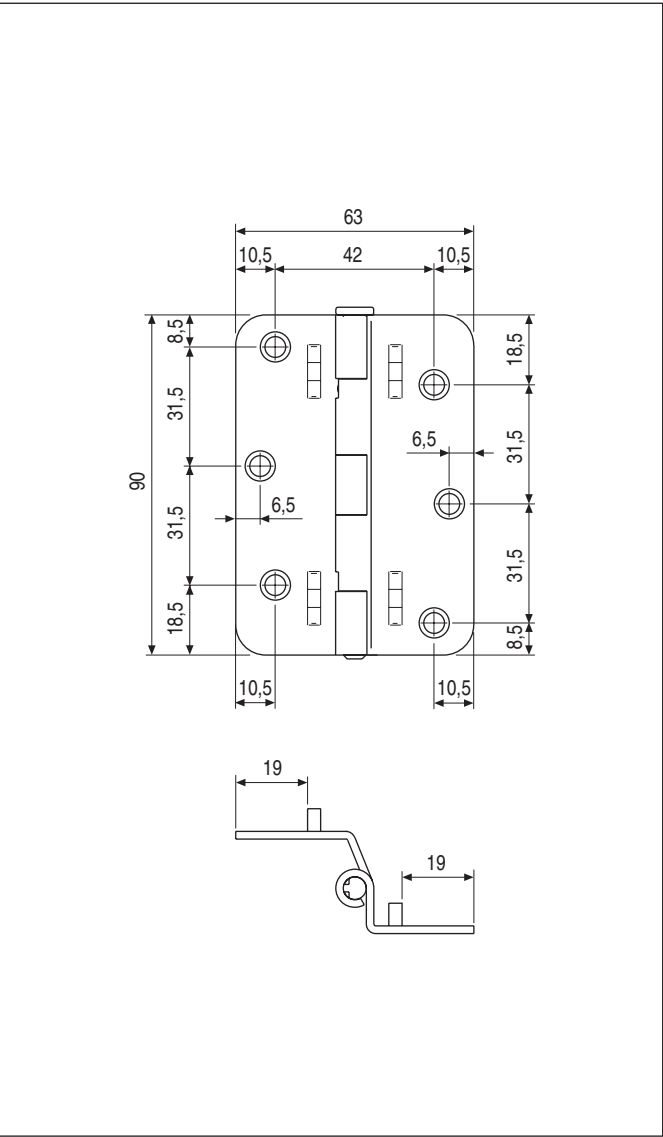
Two-handed full mortise steel hinge with elbow. Projections to guide assembly and non-removable pin.

Application

For timber, PVC and aluminium shutters with articulated outward-folding leaves. The hinge must be installed on the rebate, in the gap between the leaves. Distance between the leaves with folded hinge: 5 mm; with open hinge: 25 mm, offset (see installation dralip). To reverse the hinge it is necessary to remove and re-install the pin: to perform this operation the hinge must be folded 90° (open shutter).

Mounting

Use six 4x30 mm flathead or 3,5x30 mm normal head screws with thread suitable for the shutter material.



Order Specifications

Black finish	Bichromated finish
Article	Article
H00951.25.93	H00951.25.04

Mod. 120 ALA, with coaxial lips without pins



Description

Two-handed steel hinge, 14 mm diameter. The pivot on the male part has a plastic anti-friction jacket to prevent jamming in case of oxidation. The two hinge-fastening blades, made of pressed steel, are aligned in the closed position on the same vertical axis, so that the distance between the closed leaves is only 3 mm.

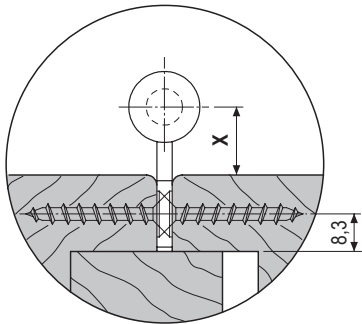
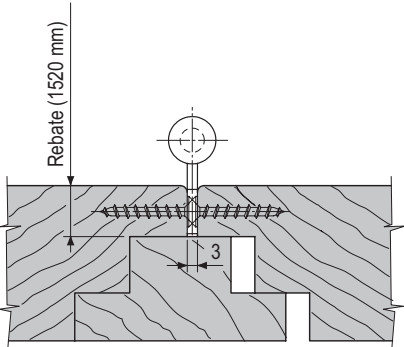
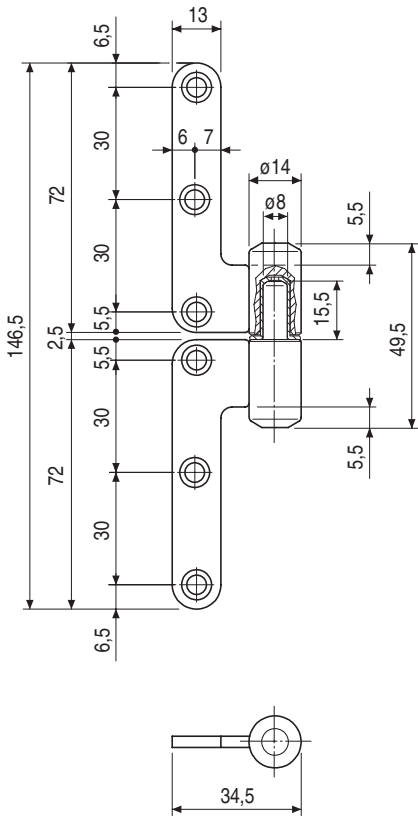
Application

For timber, PVC and aluminium shutters with articulated folding leaves. The hinge must be installed on the exterior rebate, ranging from 15 to 20 mm, in the gap between the leaves.

Mounting

Use six 4x30 mm flathead screws with thread suitable for the shutter material.

NB. Male part with nylon jacket



X = 13,7 (Rebate 15)
10,7 (Rebate 18)
8,7 (Rebate 20)

Order Specifications

Black finish		Bichromated finish	
Article		Article	
E10061.14.93		E10061.14.04	

Mod. 120 ALA, aligned blades, without pins, bigger body



Description

Two-handed steel hinge, 14 mm diameter. The pivot on the male part has a plastic anti-friction jacket to prevent jamming in case of oxidation. The two hinge-fastening blades, made of pressed steel, are aligned in the closed position on the same vertical axis, so that the distance between the closed leaves is only 3 mm.

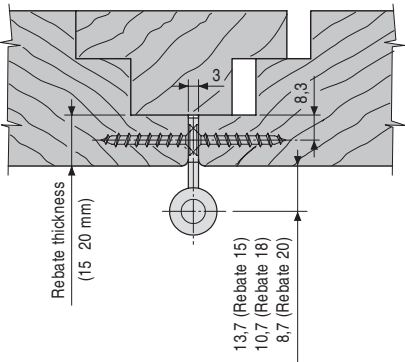
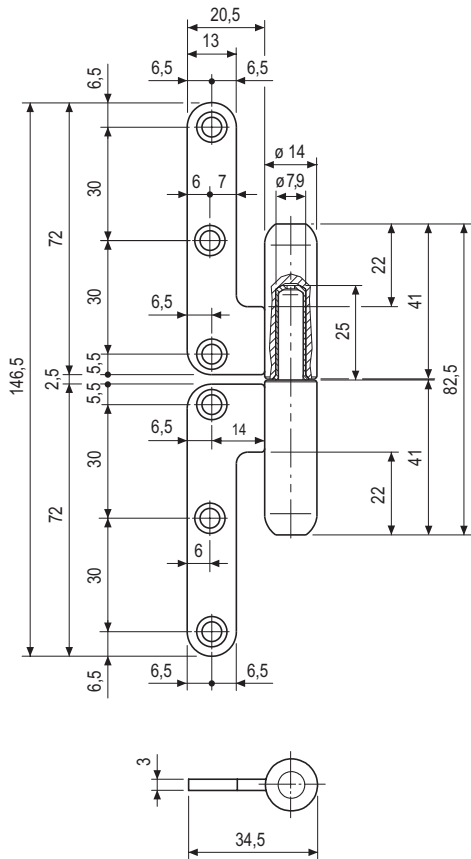
Application

For timber, PVC and aluminium shutters with articulated folding leaves. The hinge must be installed on the exterior rebate, ranging from 15 to 20 mm, in the gap between the leaves.

Mounting

Use six 4x30 mm flathead screws with thread suitable for the shutter material.

NB. Male body with nylon bushing



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	E10161.14.93	E10161.14.04

Mod. 120 ALA, with coaxial lips and pins



Description

Two-handed steel hinge, 14 mm diameter. The pivot on the male part has a plastic anti-friction jacket to prevent jamming in case of oxidation. The two hinge-fastening blades, made of pressed steel, are aligned in the closed position on the same vertical axis, so that the distance between the closed leaves is only 3 mm. Two pins, projecting from the blades with an inclination of 7° , ensure proper anchoring and greater hinge capacity.

Application

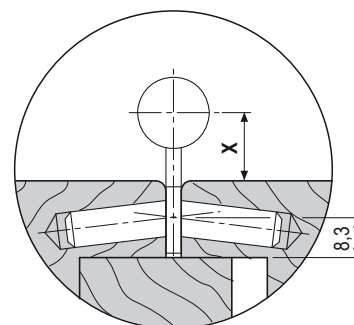
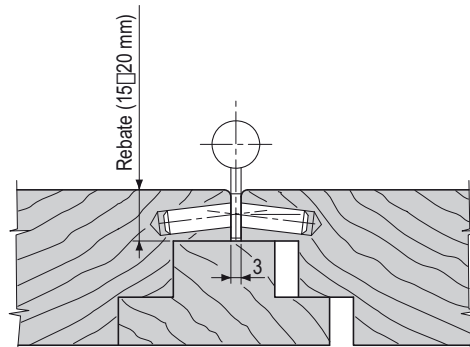
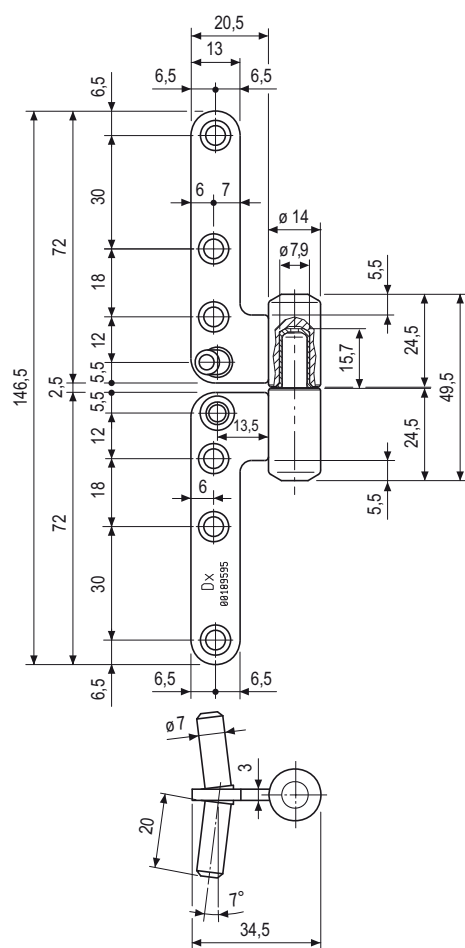
For timber, PVC and aluminium shutters with articulated folding leaves. The hinge

must be installed on the exterior rebate, ranging from 15 to 20 mm, in the gap between the leaves.

Mounting

Drill as shown in the dralip and fasten using four 4x30 mm flathead screws with thread suitable for the shutter material.

NB. Male part with nylon jacket



X= 13,7 (Rebate 15)
10,7 (Rebate 18)
8,7 (Rebate 20)

Order Specifications

Order Specifications		Black finish	Bichromated finish
Type	Article	Article	
r.h.	E10057.14.93	E10057.14.04	
l.h.	E10058.14.93	E10058.14.04	

Mod. 120 ALA, overlapping blades, with pins, bigger body



Description

Two-handed steel hinge, 14 mm diameter. The pivot on the male part has a plastic anti-friction jacket to prevent jamming in case of oxidation. The two hinge-fastening blades, made of pressed steel, are aligned in the closed position on the same vertical axis, so that the distance between the closed leaves is only 3 mm. Two pins, projecting from the blades with an inclination of 7° , ensure proper anchoring and greater hinge capacity.

Application

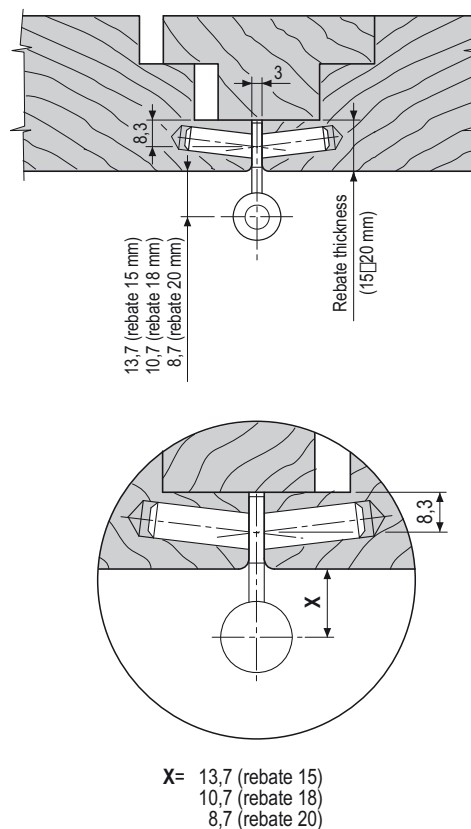
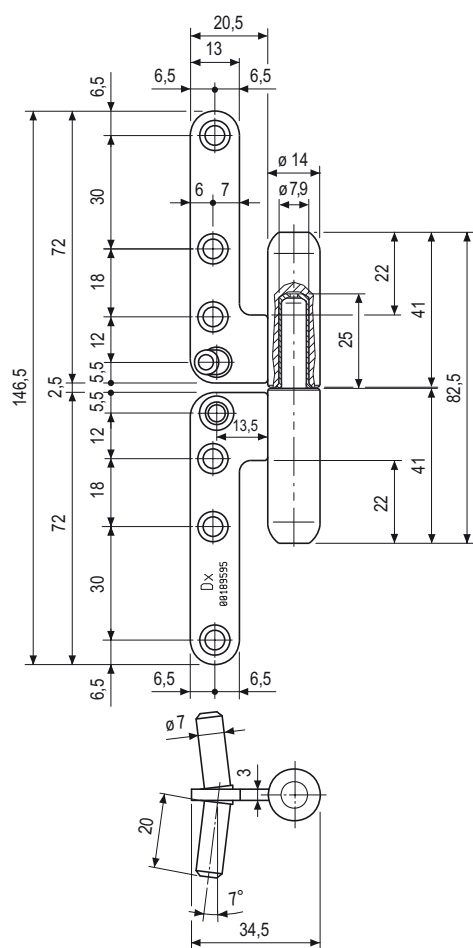
For timber, PVC and aluminium shutters with articulated folding leaves. The hinge must be installed on the exterior rebate.

ranging from 15 to 20 mm, in the gap between the leaves.

Mounting

Drill as shown in the dralip and fasten using four 4x30 mm flathead screws with thread suitable for the shutter material.

NB. Male body with nylon bushing. R.-h. hinge in the dralip.



Order Specifications

	Black finish	Bichromated finish
Type	Article	Article
r.h.	E10157.14.93	E10157.14.04
l.h.	E10158.14.93	E10158.14.04

Mod. 120 ALA, overlapping lips, without pins



Description

Two-handed steel hinge, 14 mm diameter. The pivot on the male part has a plastic anti-friction jacket to prevent jamming in case of oxidation. The two hinge-fastening blades, made of pressed steel, overlap in the closed position, so that the distance between the closed leaves is 7 mm.

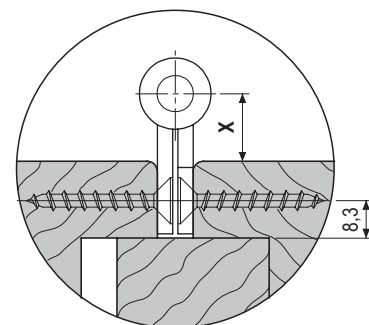
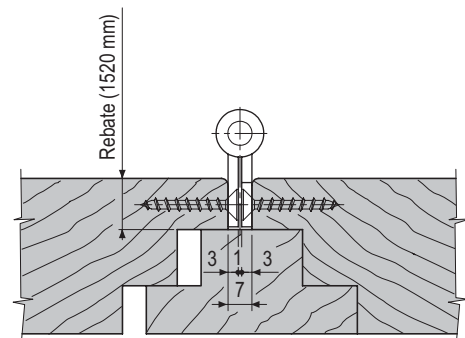
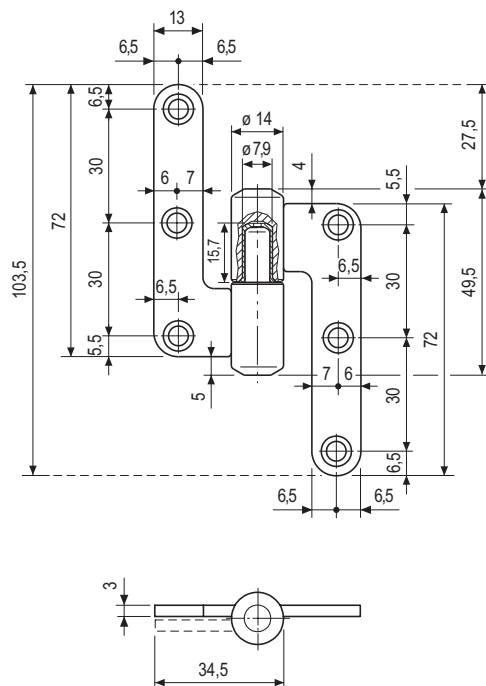
Application

For timber, PVC and aluminium shutters with articulated folding leaves. The hinge must be installed on the exterior rebate, ranging from 15 to 20 mm, in the gap between the leaves.

Mounting

Use six 4x30 mm flathead screws with thread suitable for the shutter material.

NB. Male part with nylon jacket



X = 13,7 (Rebate 15)
10,7 (Rebate 18)
8,7 (Rebate 20)

Order Specifications

	Black finish	Bichromated finish
Type	Article	Article
r.h.	E10062.14.93	E10062.14.04
l.h.	E10063.14.93	E10063.14.04

Mod. 120 ALA, with overlapping lips and pins



Description

Two-handed steel hinge, 14 mm diameter. The pivot on the male part has a plastic anti-friction jacket to prevent jamming in case of oxidation. The two hinge-fastening blades, made of pressed steel, overlap in the closed position, so that the distance between the closed leaves is 7 mm. Two pins, projecting from the blades with an inclination of 7°, ensure proper anchoring and greater hinge capacity.

Application

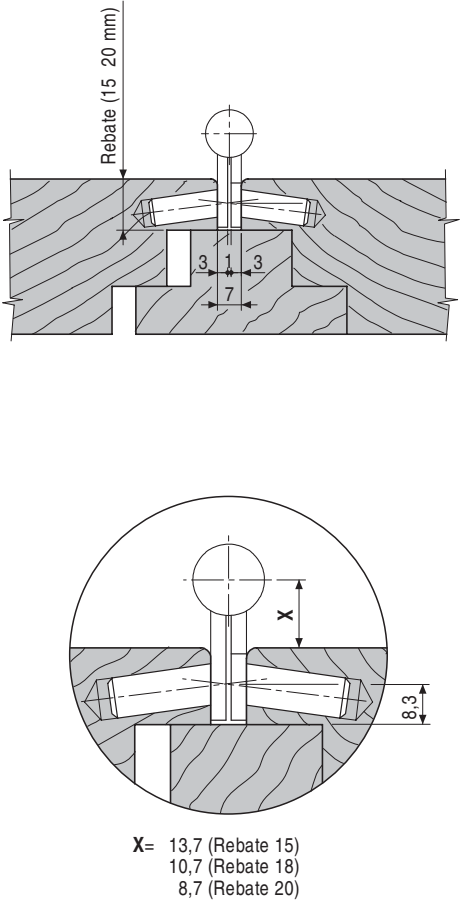
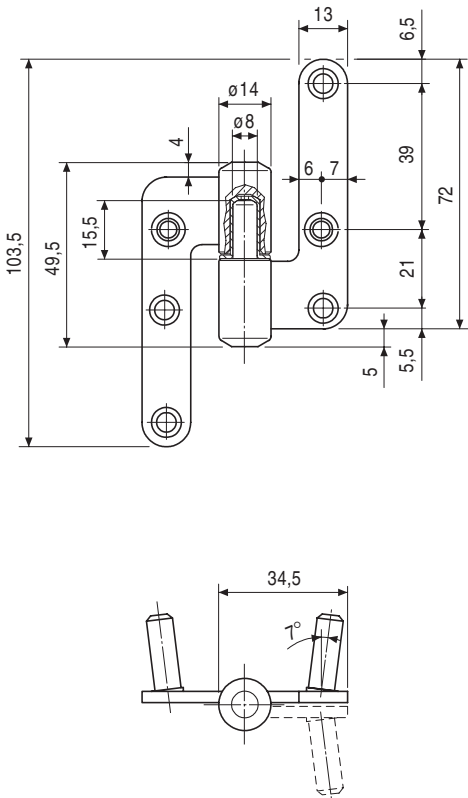
For timber, PVC and aluminium shutters with articulated folding leaves. The hinge must be installed on the exterior rebate,

ranging from 15 to 20 mm, in the gap between the leaves.

Mounting

Drill as shown in the dralip and fasten using four 4x30 mm flathead screws with thread suitable for the shutter material.

NB. Male part with nylon jacket



Order Specifications

Type	Black finish	Bichromated finish
	Article	Article
r.h.	E10059.14.93	E10059.14.04
l.h.	E10060.14.93	E10060.14.04

Mod. 179 ALA with coaxial lips without pins



Description

Non-handed flat head steel hinge, 18 mm diameter. The pivot on the male part has a plastic anti-friction jacket to prevent jamming in case of oxidation. The two hinge-fastening blades, made of pressed steel, overlap in the closed position, so that the distance between the closed leaves is 3 mm only.

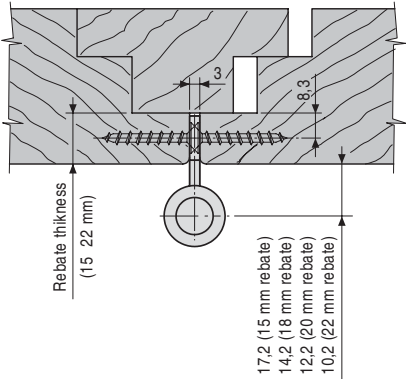
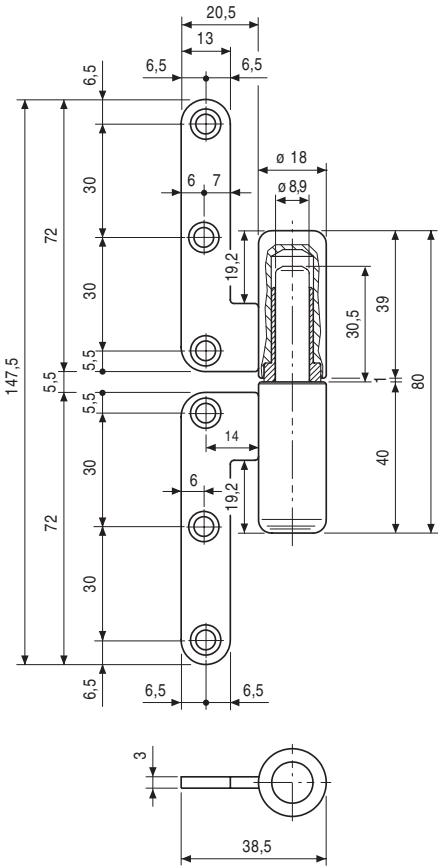
Application

For articulated folding leaves shutters. To be applied to the external rebate, raging from 15 to 20 mm, in the gap between the sashes.

Mounting

With six 4x30 mm screws with reduced head and thread suitable for the shutter material.

NB. Male part with nylon jacket



Order Specifications

Black finish		Bichromated finish	
Article		Article	
E10014.18.93		E10014.18.04	

160 mm horizontal bracket



Description

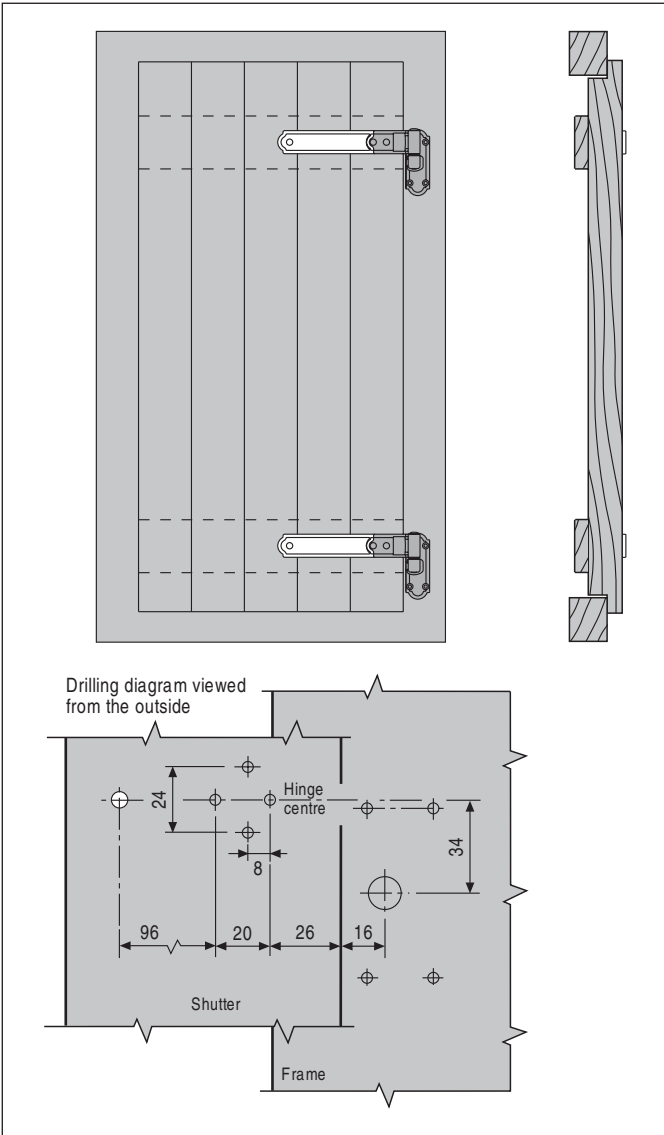
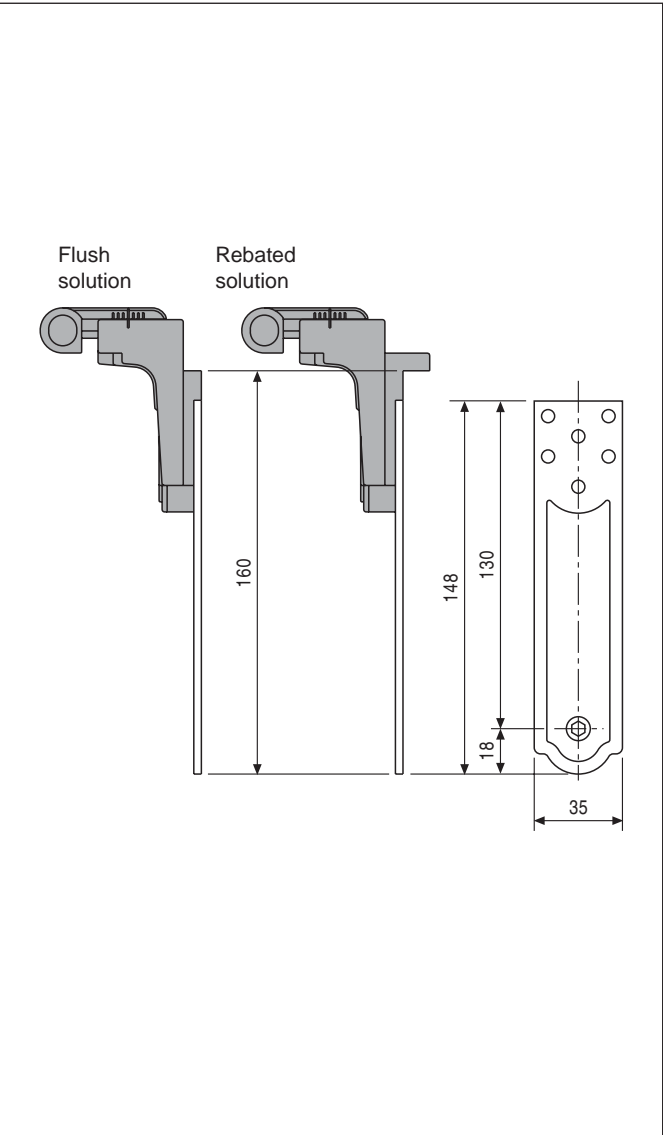
Shaped pressed steel bracket, 160 mm long and 3 mm thick, with holes for hinge connection. The special shape of the inner face of the bracket ensures excellent attachment to the shutter.

Application

Especially suitable for all types of shutters with vertical staves fastened to rails. The bracket in fact reinforces the joint and prevents any yielding of the edge of the shutters. To be used in combination with the supports for adjustable hinges, or attach directly to fixed and coplanar Abaco hinges.

Mounting

Couple the bracket with the relative support or hinge and fasten the whole folloip the instructions provided in the technical specifications for these components. Then secure the bracket with an additional screw. We recommend the use of theft-proof screws as they ensure greater system steadiness and security. Alternatively, you can use 4.5x30 mm screws with thread suitable for the shutter material, or rivets (for PVC or aluminium systems only).



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	H00920.01.93	H00920.01.04

245 mm horizontal bracket



Description

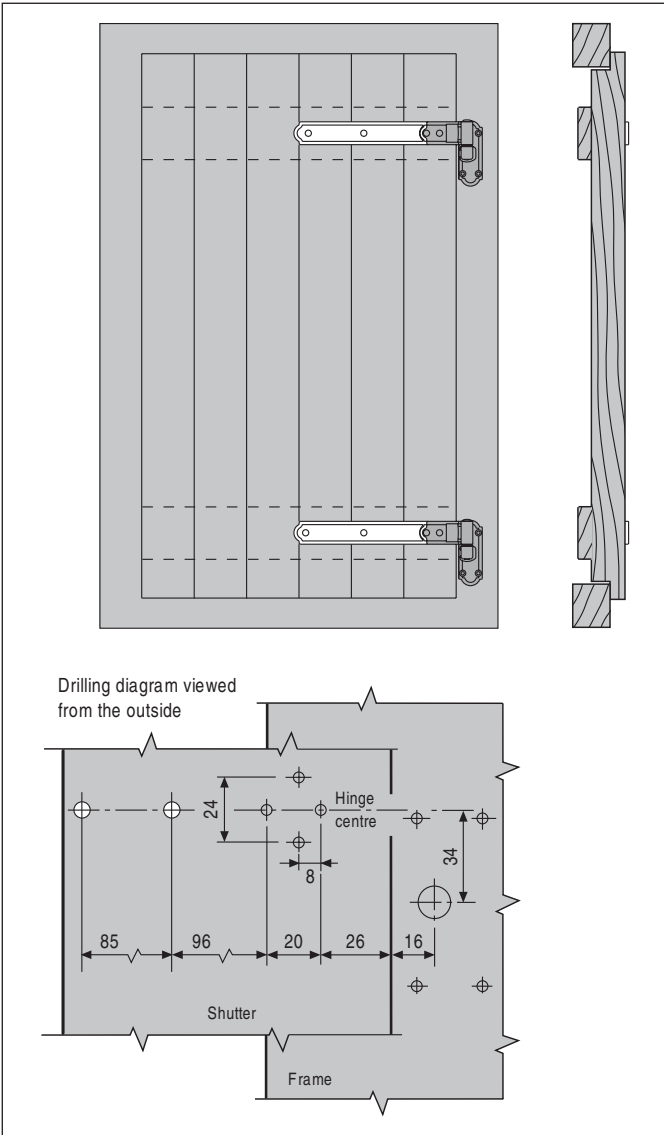
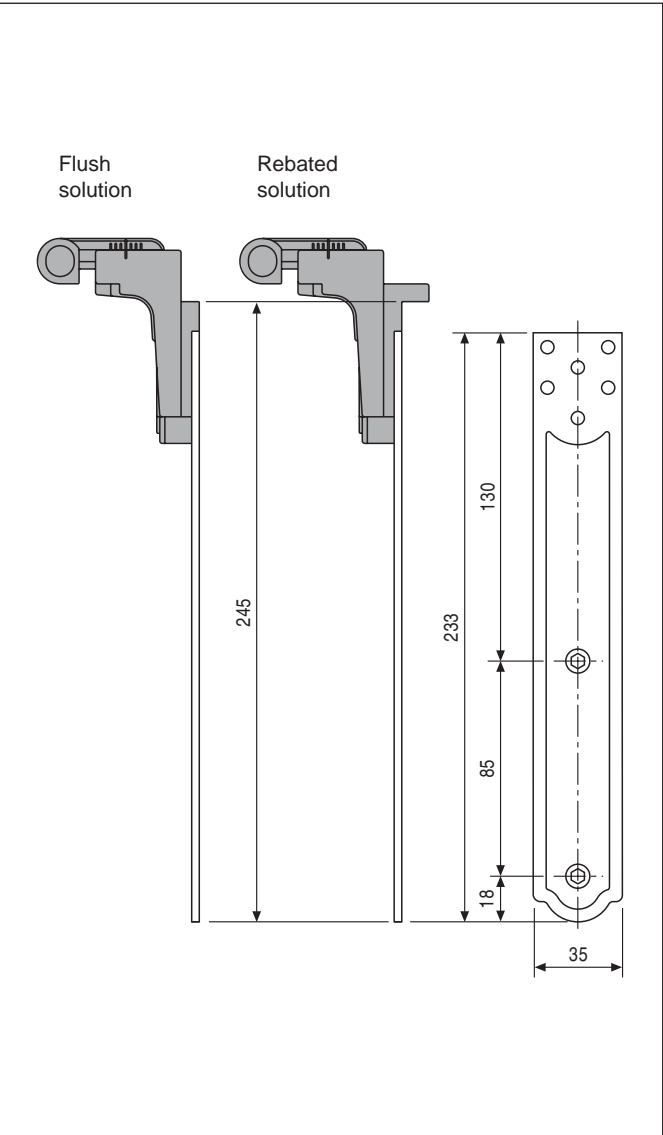
Shaped pressed steel bracket, 245 mm long and 3 mm thick, with holes for hinge connection. The special shape of the inner face of the bracket ensures excellent attachment to the shutter.

Application

Especially suitable for all types of shutters with vertical staves fastened to rails. The bracket in fact reinforces the joint and prevents any yielding of the edge of the shutters. To be used in combination with the supports for adjustable hinges, or attach directly to fixed and coplanar Abaco hinges.

Mounting

Couple the bracket with the relative support or hinge and fasten the whole following the instructions provided in the technical specifications for these components. Then secure the bracket with two additional screws. We recommend the use of theft-proof screws as they ensure greater system steadiness and security. Alternatively, you can use 4.5x30 mm screws with thread suitable for the shutter material, or rivets (for PVC or aluminium systems only).



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	H00920.02.93	H00920.02.04

330 mm horizontal bracket



Description

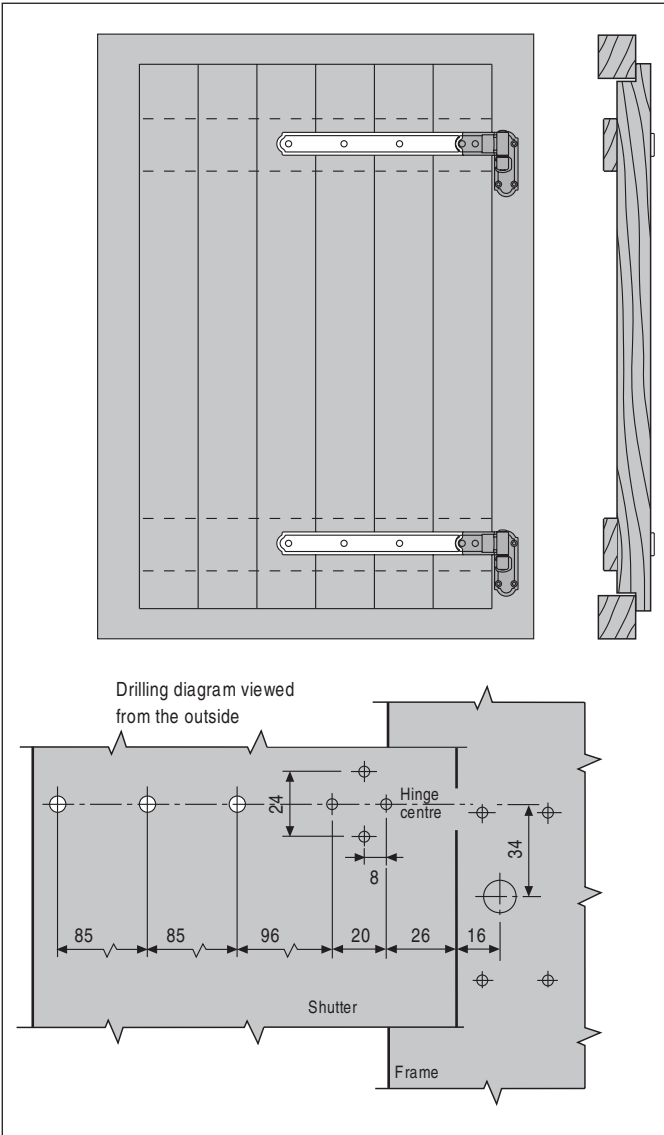
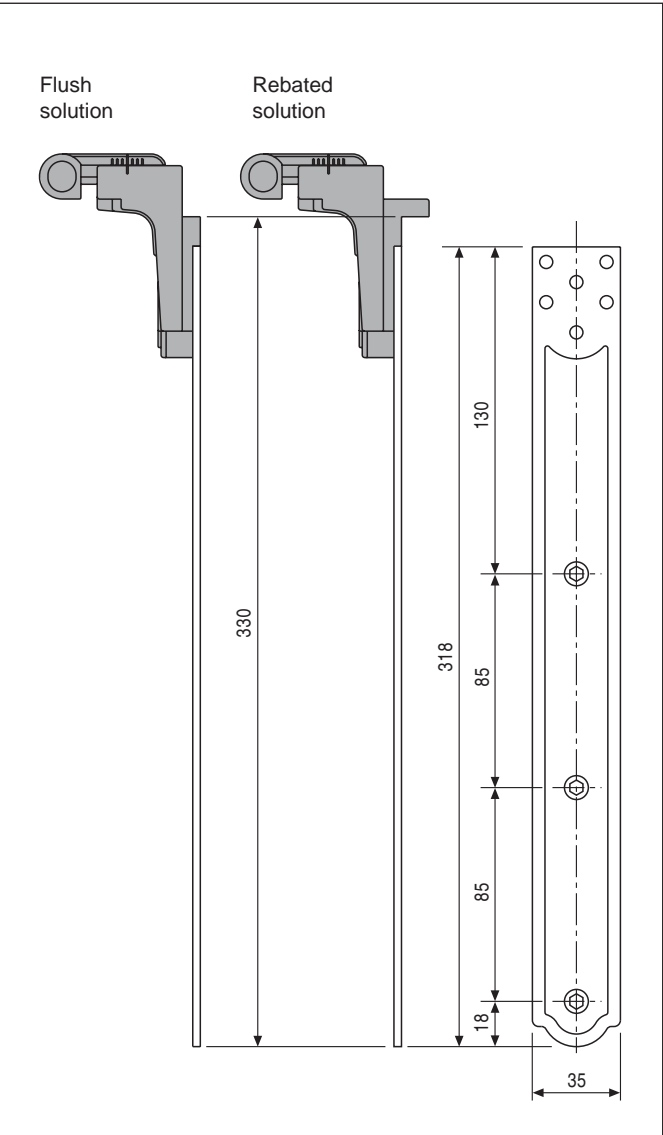
Shaped pressed steel bracket, 330 mm long and 3 mm thick, with holes for hinge connection. The special shape of the inner face of the bracket ensures excellent attachment to the shutter.

Application

Especially suitable for all types of shutters with vertical staves fastened to rails. The bracket in fact reinforces the joint and prevents any yielding of the edge of the shutters. To be used in combination with the supports for adjustable hinges, or attach directly to fixed and coplanar Abaco hinges.

Mounting

Couple the bracket with the relative support or hinge and fasten the whole folloip the instructions provided in the technical specifications for these components. Then secure the bracket with three additional screws. We recommend the use of theft-proof screws as they ensure greater system steadiness and security. Alternatively, you can use 4.5x30 mm screws with thread suitable for the shutter material, or rivets (for PVC or aluminium systems only).



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	H00920.03.93	H00920.03.04

415 mm horizontal bracket



Description

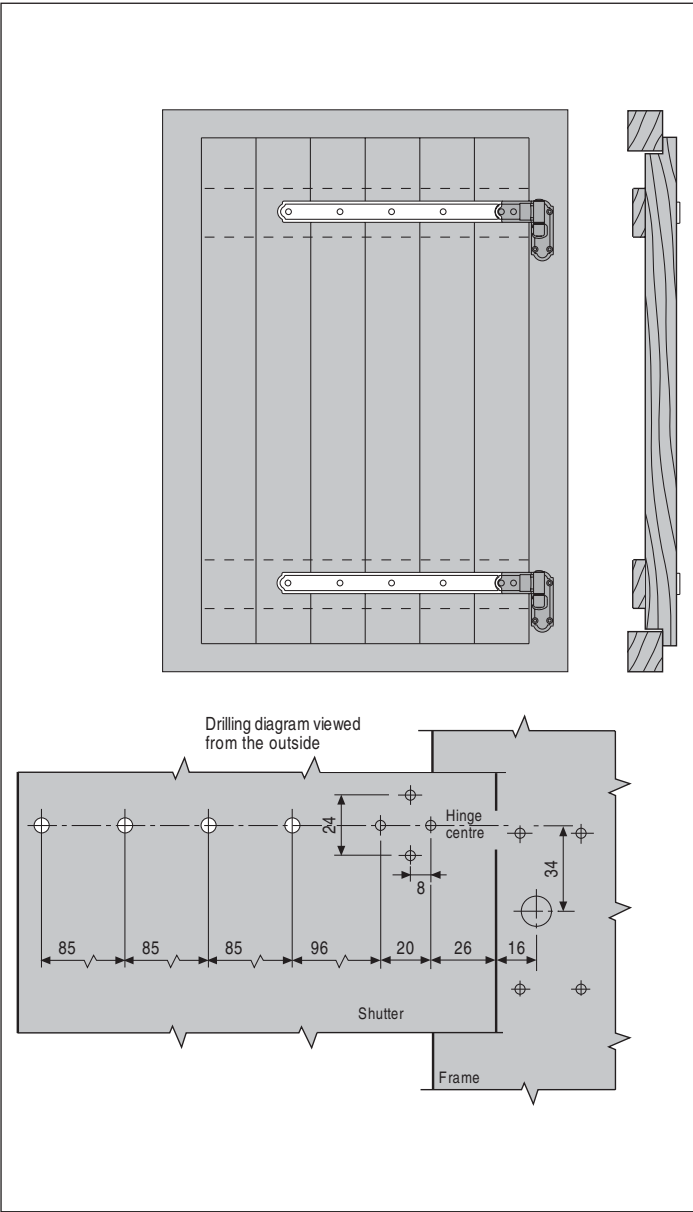
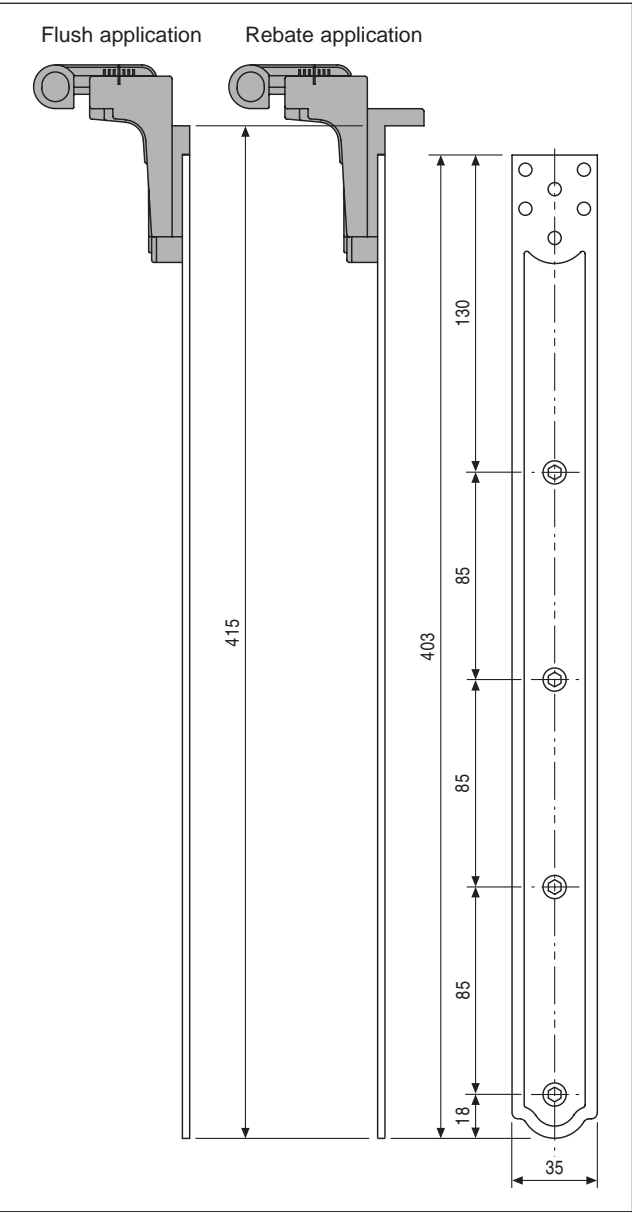
Shaped pressed steel bracket, 415 mm long and 3 mm thick, with holes for hinge connection.
The special shape of the inner face of the bracket ensures excellent attachment to the shutter.

Application

Especially suitable for all types of shutters with vertical staves fastened to rails. The bracket in fact reinforces the joint and prevents any yielding of the edge of the shutters.
To be used in combination with the supports for adjustable hinges, or attach directly to fixed and coplanar Abaco hinges.

Mounting

Couple the bracket with the relative support or hinge and fasten the whole following the instructions provided in the technical specifications for these components. Then secure the bracket with three additional screws. We recommend the use of theft-proof screws as they ensure greater system steadiness and security.
Alternatively, you can use 4.5x30 mm screws with thread suitable for the shutter material, or rivets (for PVC or aluminium systems only).



Order Specifications

Black finish	Bichromated finish
Article	Article
H00920.04.93	H00920.04.04

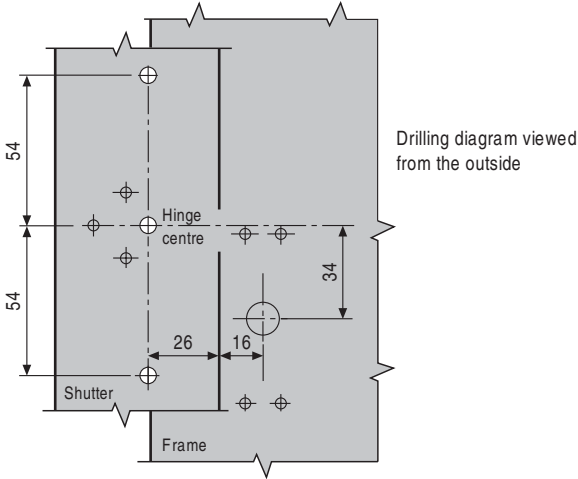
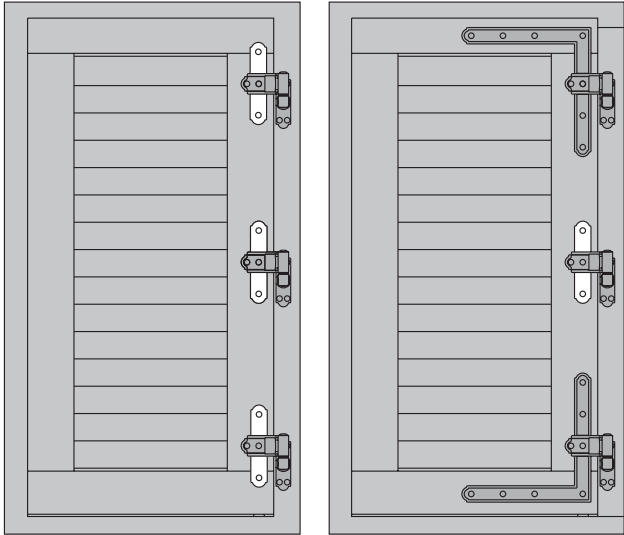
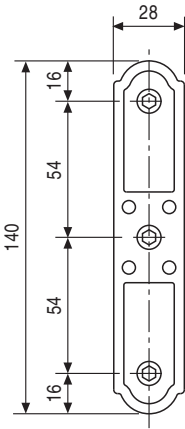
140 mm vertical bracket



Description
Shaped pressed steel bracket, 140 mm long and 3 mm thick, with holes for hinge connection. The special shape of the inner face of the bracket ensures excellent attachment to the shutter.

Application
Used as central hinge bracket in addition to upper and lower corner brackets. It can also be used as an alternative for the corner and horizontal brackets on shutters with load-bearing rails and stiles around the perimeter, and where it is feasible to anchor the hinges to the side stile only. To be used in combination with the supports for

Mounting
Couple the bracket with the relative support or hinge and fasten the whole folloip the instructions provided in the technical specifications for these components. Then secure the bracket with two additional screws.
We recommend the use of theft-proof screws as they ensure greater system steadiness and security. Alternatively, you can use 4.5x30 mm screws with thread suitable for the shutter material, or rivets (for PVC or aluminium systems only).



Order Specifications

Black finish	Bichromated finish
Article	Article
H00918.01.93	H00918.01.04

Horizontal brackets for folding shutters



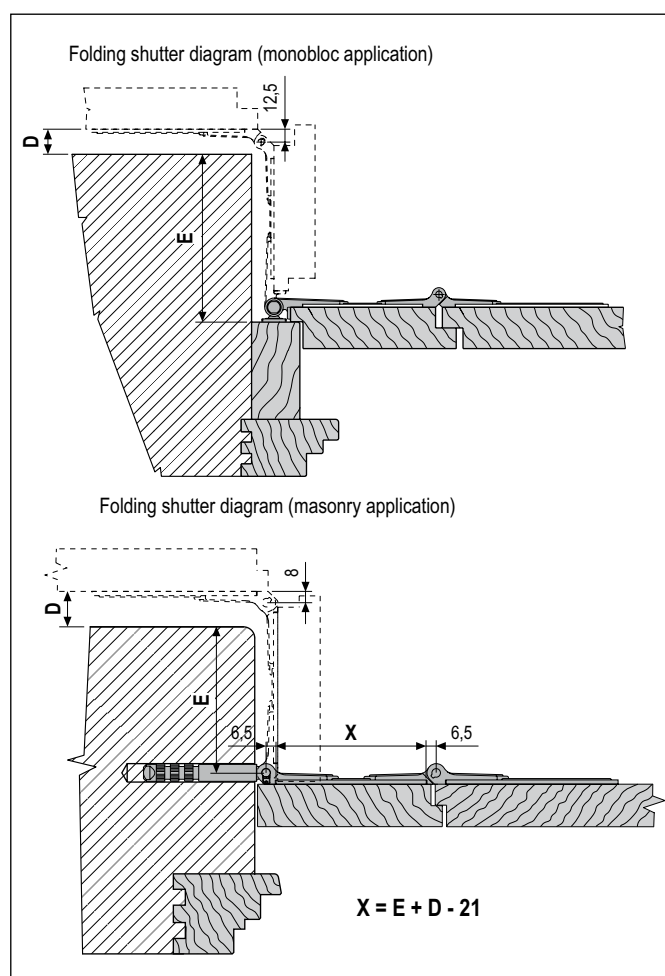
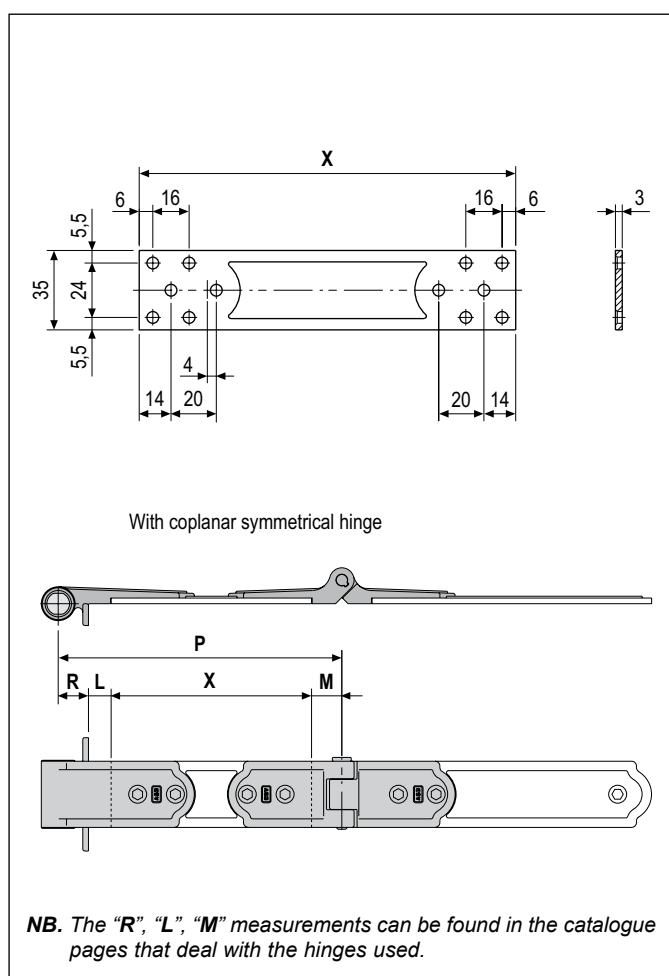
Description

Shaped pressed steel bracket, 3 mm thick and available in 10 different lengths to match the GR size, with holes at the ends for hinge connection. The special shape of the inner face of the bracket ensures excellent attachment to the shutter.

Application

Used on monobloc systems with articulated leaves for clearing reveals with variable depth, depending on the dimensions of the shutter rebate and on the type of hinge. On rebated shutters it is commonly combined with adjustable hinge H00933.08 or fixed hinge H00923.00. On flush shutters it is combined with fixed hinge H00923.15.

- With shutters fixed to the masonry, it can be used in combination with the item H01143.13.XX or H02143.13.XX and the coplanar symmetrical hinge H00931.09.XX



Order Specifications

GR	X	Black finish	Bichromated finish
		Article	Article
1	106	H00952.01.93	H00952.01.04
2	126	H00952.02.93	H00952.02.04
3	146	H00952.03.93	H00952.03.04
4	166	H00952.04.93	H00952.04.04
5	186	H00952.05.93	H00952.05.04
6	206	H00952.06.93	H00952.06.04
7	226	H00952.07.93	H00952.07.04
8	246	H00952.08.93	H00952.08.04
9	266	H00952.09.93	H00952.09.04
10	286	H00952.10.93	H00952.10.04

96 mm corner bracket



Description

Shaped pressed steel corner bracket, 220x220 mm long and 3 mm thick, with holes for hinge connection positioned 96 mm from the corner. The special shape of the inner face of the bracket ensures excellent attachment to the shutter. Right or left-handed versions available.

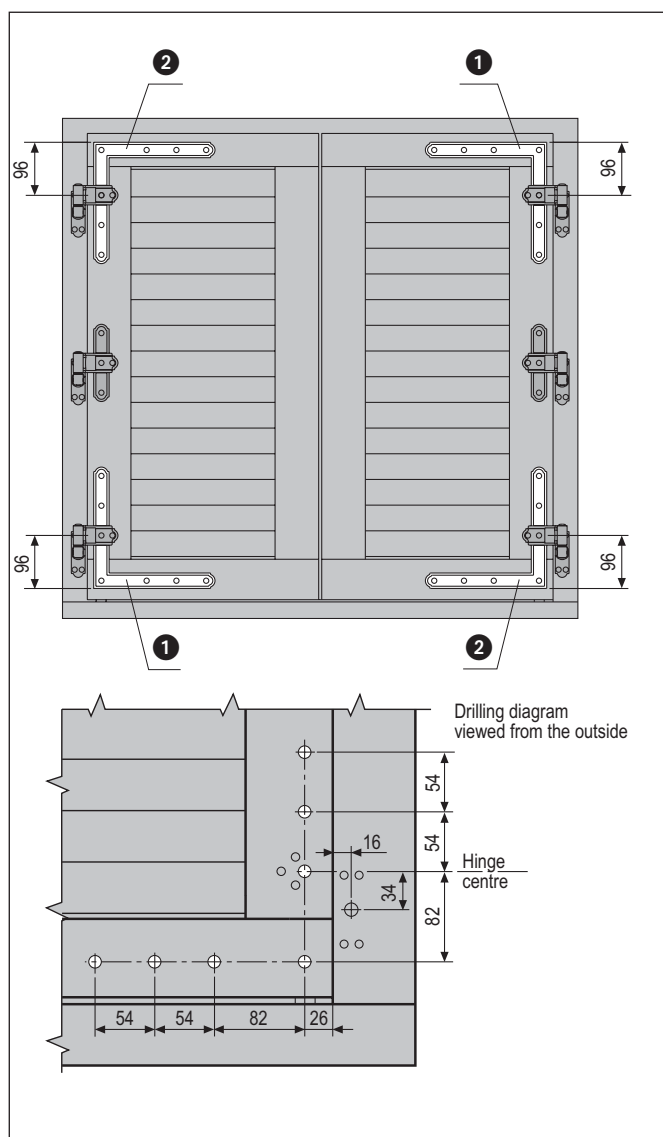
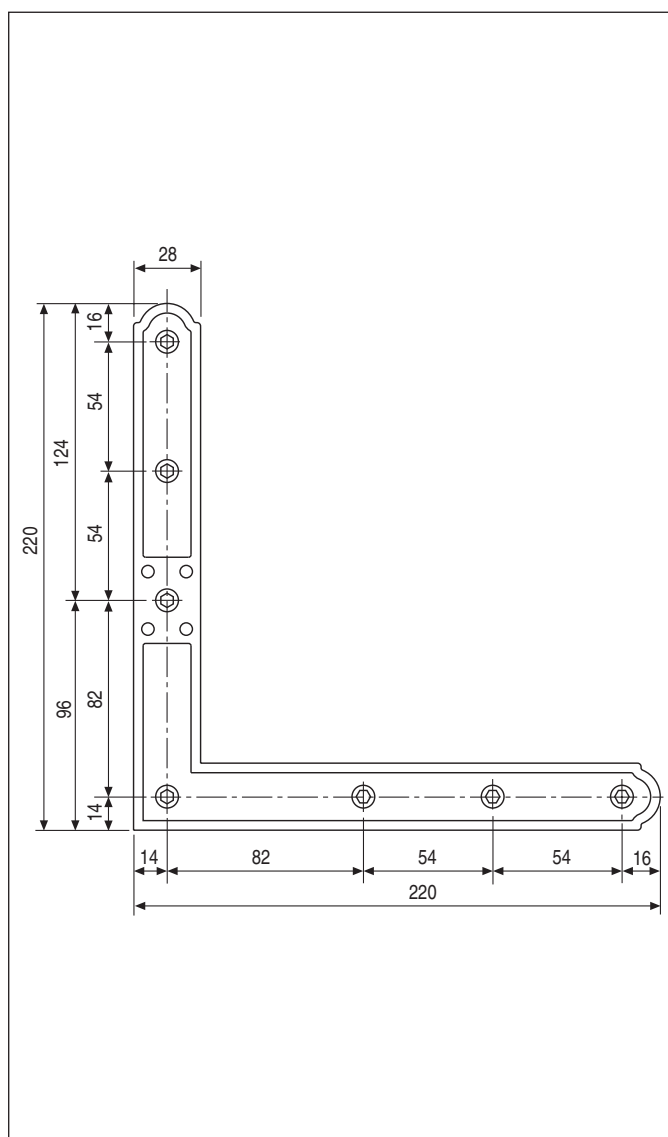
Application

Used to reinforce the joint between the shutter stiles and rails on the hinge side. Specially suitable for blinds where adequate system steadiness might not be guaranteed by the use of hinges that are fixed to the stile only. To be used in combination

with the supports for adjustable hinges, or attach directly to fixed and coplanar Abaco hinges.

Mounting

Couple the corner bracket with the relative support or hinge and fasten the whole folloip the instructions provided in the technical specifications for these components. Then secure the bracket with six additional screws. We recommend the use of theft-proof screws as they ensure greater system steadiness and security. Alternatively, you can use 4.5x30 mm screws with thread suitable for the shutter material, or rivets (for PVC or aluminium systems only).



Order Specifications

Ref.	Type	Black finish	Bichromated finish
		Article	Article
①	Upper r.h. / lower l.h.	H00919.04.93	H00919.04.04
②	Upper l.h. / lower r.h.	H00919.03.93	H00919.03.04

150 mm corner bracket



Description

Shaped pressed steel corner bracket, 220x220 mm long and 3 mm thick, with holes for hinge connection positioned 150 mm from the corner. The special shape of the inner face of the bracket ensures excellent attachment to the shutter. Right or left-handed versions available.

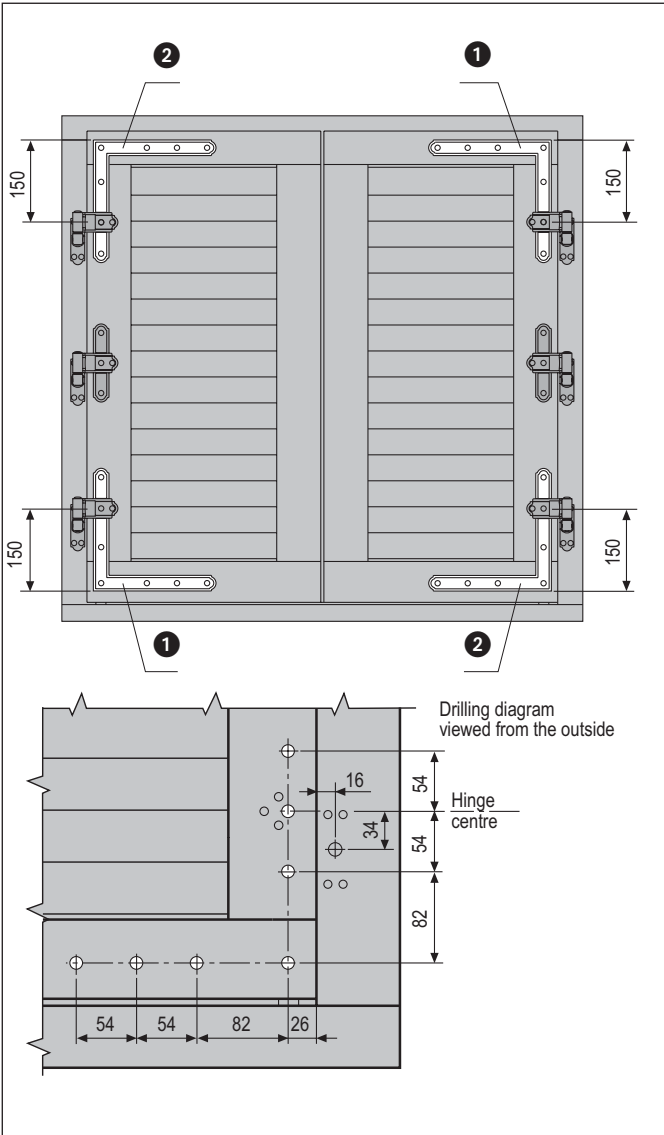
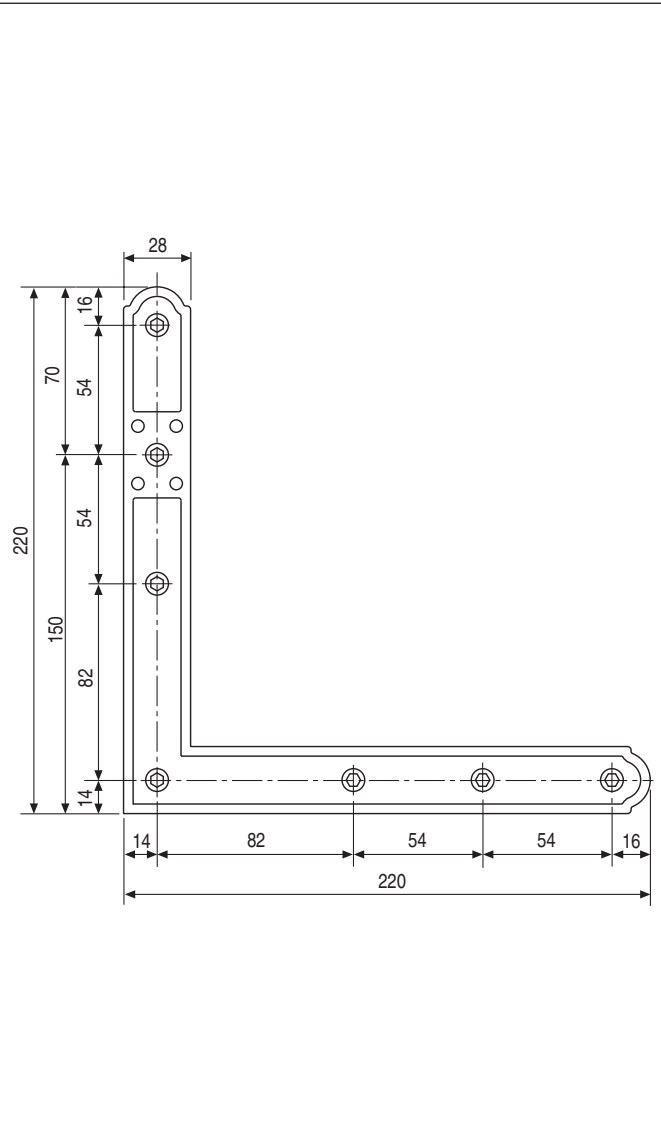
Application

Used to reinforce the joint between the shutter stiles and rails on the hinge side. Specially suitable for blinds where adequate system steadiness might not be guaranteed by the use of hinges that are fixed to the stile only. To be used in combination

with the supports for adjustable hinges, or attach directly to fixed and coplanar Abaco hinges.

Mounting

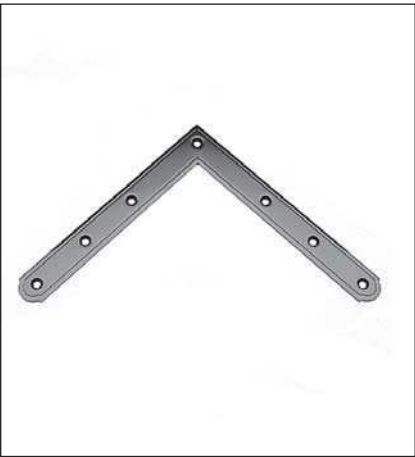
Couple the corner bracket with the relative support or hinge and fasten the whole follopil the instructions provided in the technical specifications for these components. Then secure the bracket with six additional screws. We recommend the use of theft-proof screws as they ensure greater system steadiness and security. Alternatively, you can use 4.5x30 mm screws with thread suitable for the shutter material, or rivets (for PVC or aluminium systems only).



Order Specifications

Ref.	Type	Black finish	Bichromated finish
		Article	Article
1	Upper r.h. / lower l.h.	H00919.02.93	H00919.02.04
2	Upper l.h. / lower r.h.	H00919.01.93	H00919.01.04

Reinforcement corner bracket



Description

Shaped pressed steel corner bracket, 220x220 mm long and 3 mm thick. The special shape of the inner face of the bracket ensures excellent attachment to the shutter. Two-handed version.

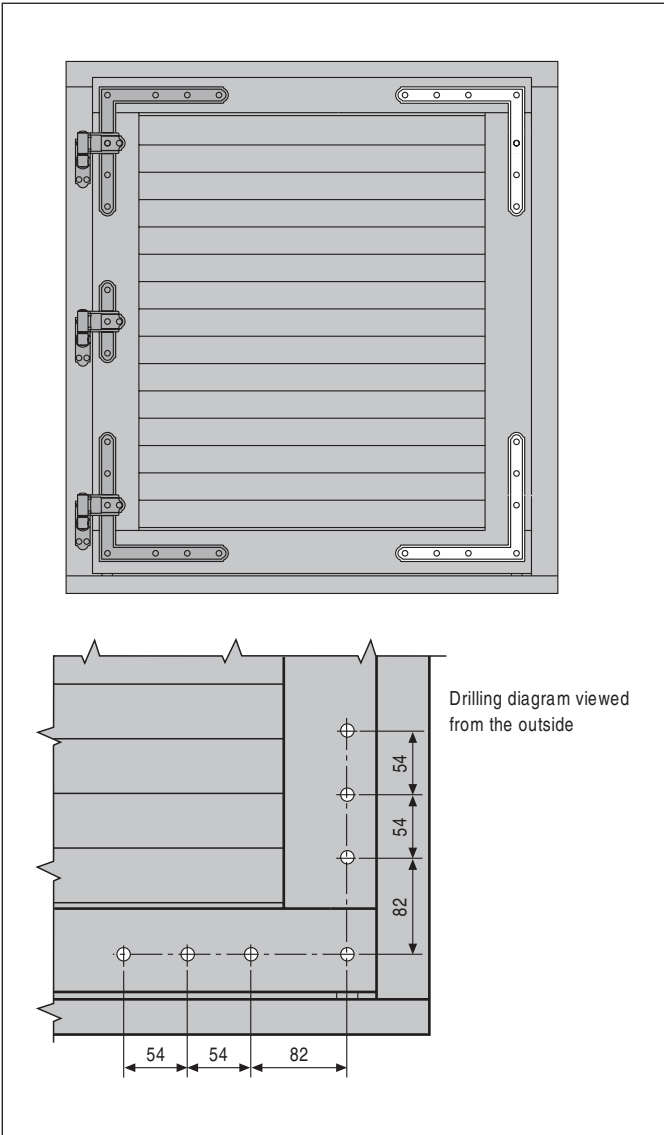
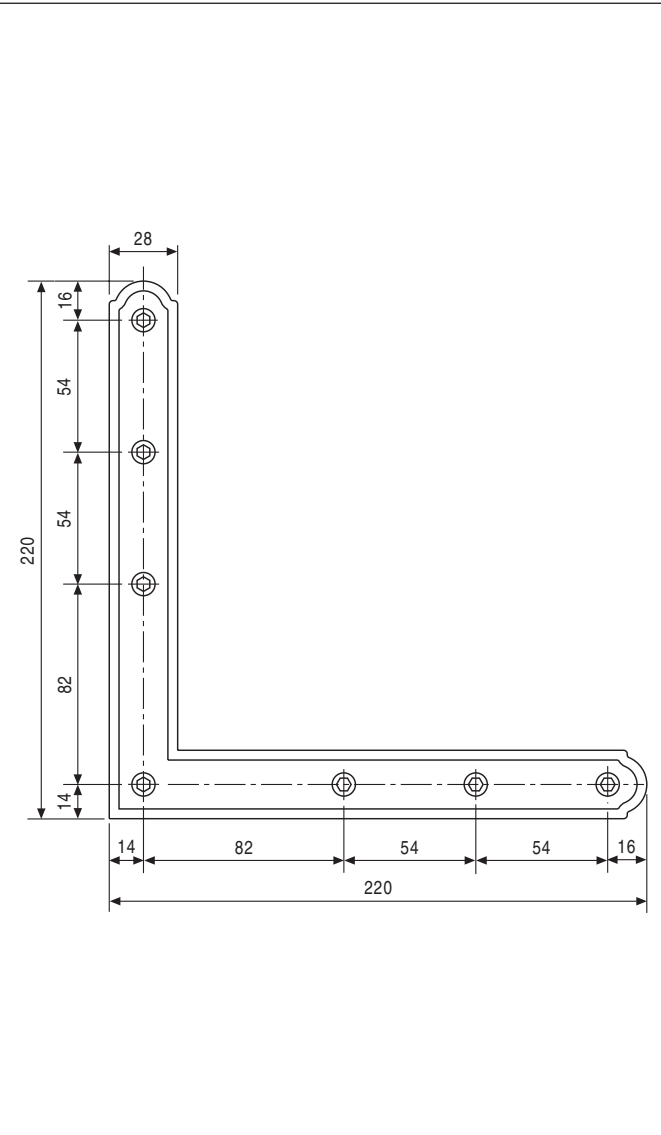
Application

For all shutters where you wish to increase the resistance of the corner joints on the side opposite the hinges. Suitable for shutters with a width of over 1000 mm, and for those with load-bearing perimetrical rails and stiles, where system steadiness is not guaranteed by hinges anchored to the side stile only. It can also be mounted, for aesthetic purposes, on

stationary shutters when corner brackets are installed on the slipping shutters.

Mounting

Use seven 4.5x30 mm screws with thread suitable for the shutter material.



Order Specifications

	Black finish	Bichromated finish
	Article	Article
	H00919.00.93	H00919.00.04

Hinge lock kit



Description

Right or left-handed hinge lock kit with adjustable end of stroke.

Components

- 1 socket-head fastening screw
- 1 plug
- 1 bushing with dowels
- 1 hinge lock body with dowel
- 1 spring bumper

Application

Use only in locations not subject to high winds, on shutters with an area not exceeding 1.5 m², with adjustable pintles and hinges. Used to hold the leaf open at 180°. Easy-to-reach release pin.

- Used in combination with GR 1, 2, 3 adjustable pintles with either narrow or large bracket, and with adjustable hinges.

- For GR 0 pintles with narrow bracket, it can be used only with measurement B > 48 mm, on flush shutters with the GR 1 hinge.

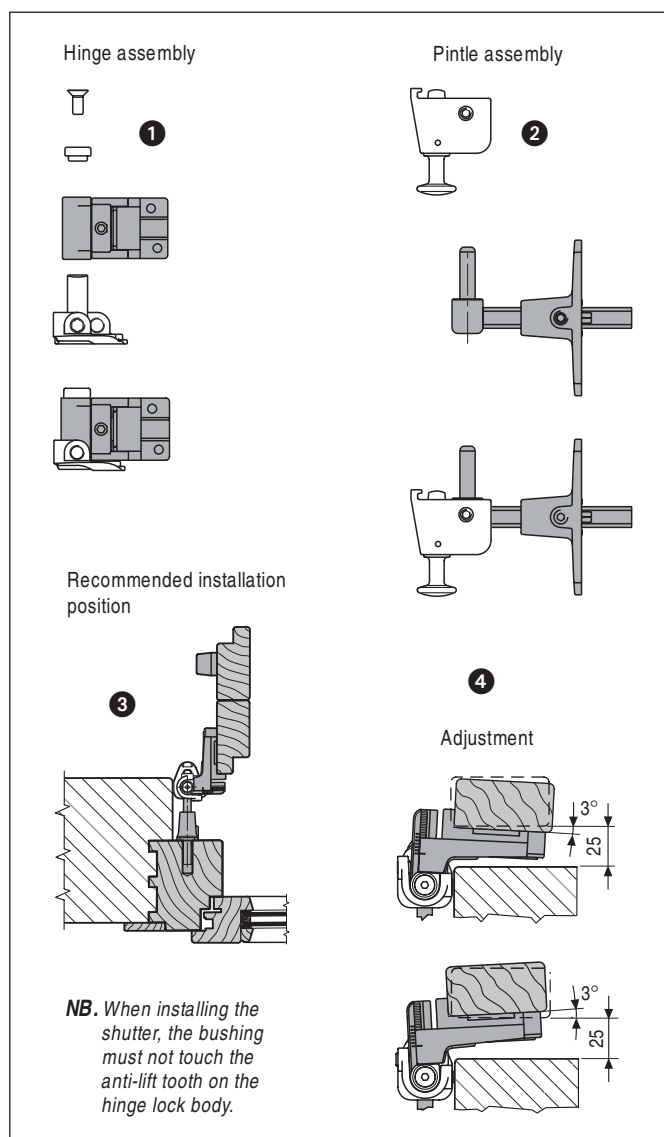
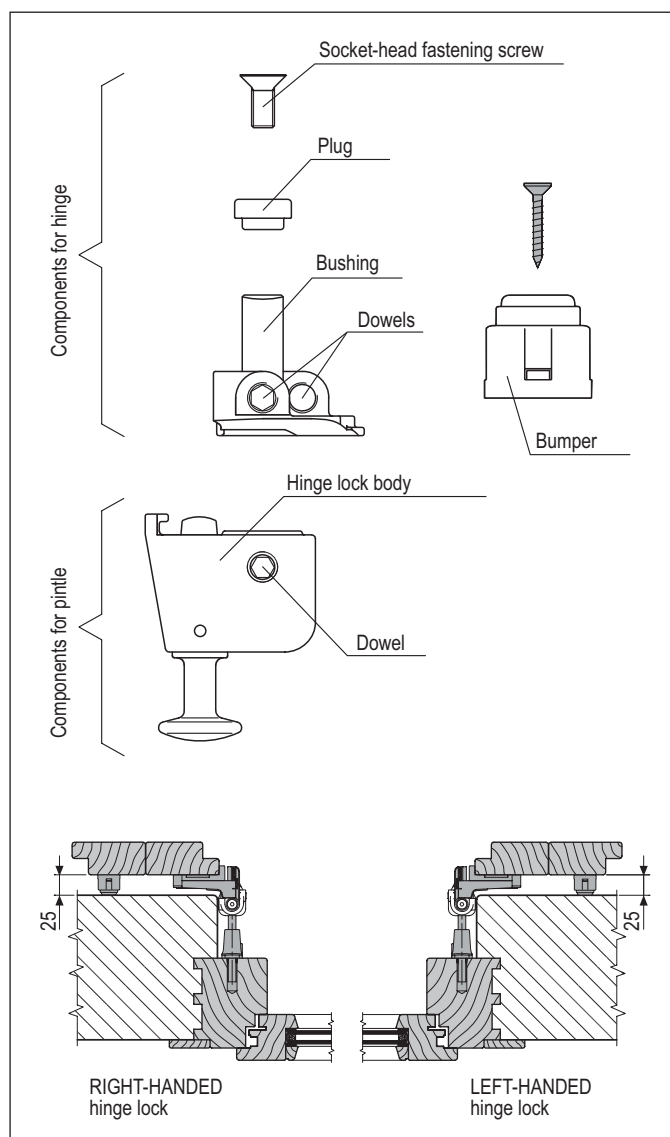
- For pintles with narrow bracket, it can only be used when the clearance between the closed shutter and the reveal is greater than 34 mm.

Mounting

It must be fitted on the pintle or adjustable hinge. See dralip.

FLUSH SHUTTERS: GR 0 pintle minimum adjustment B=48; GR 1 hinge minimum adjustment H=49; 72 mm window reveal thickness; distance between frame and sash (180° open) = 72+25 = 97 mm.

REBATED SHUTTERS: Minimum rebate 17 mm; GR 0 pintle minimum adjustment B=53; GR 0 hinge minimum adjustment H=36



Order Specifications

Ref.	Article
L.h.	H00913.00.XX
R.h.	H00913.01.XX

NB. Refer to the price list in force to check the availability of the finishes.

Wall catch for shutter



Description

Wall-mounted device features automatic engagement to hold shutter open, and manual release. Fitted with a rubber bumper and screw for vertical catch adjustment using a 6 mm Allen wrench, to ensure proper catch operation at all times.

Application

It is especially suitable for door shutters and must be mounted on the stile opposite the one on which the hinges are installed. The reduced dimensions of the striker enable its installation also on the lower rail of window shutters, provided that it can be installed in an accessible position that does not oblige the user to lean out. The minimum distance

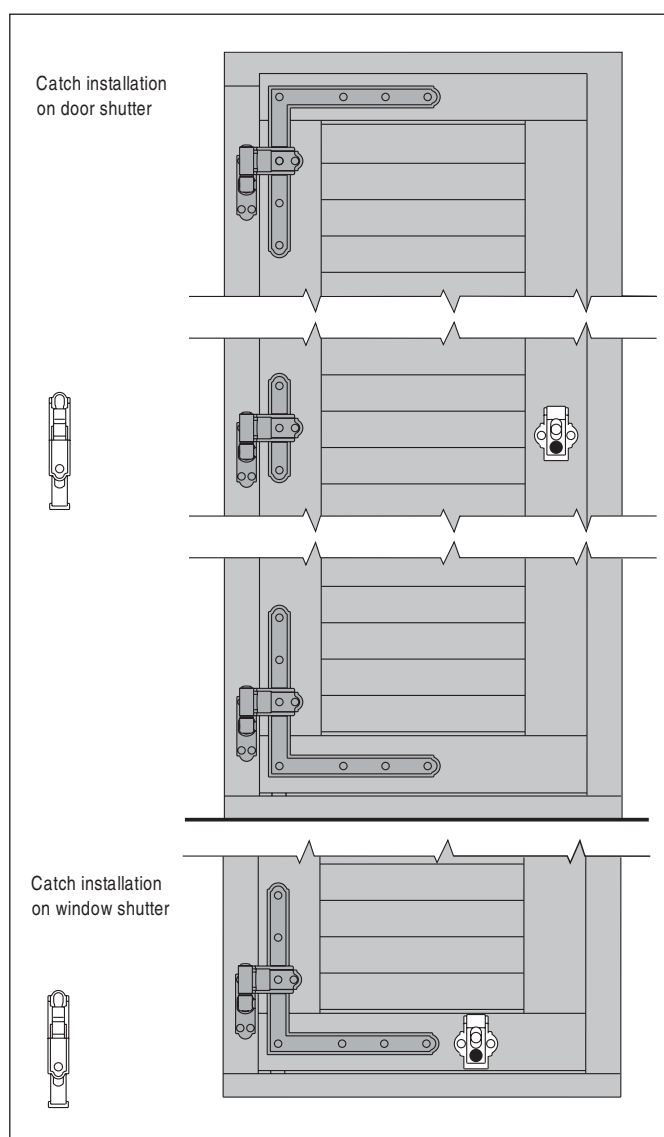
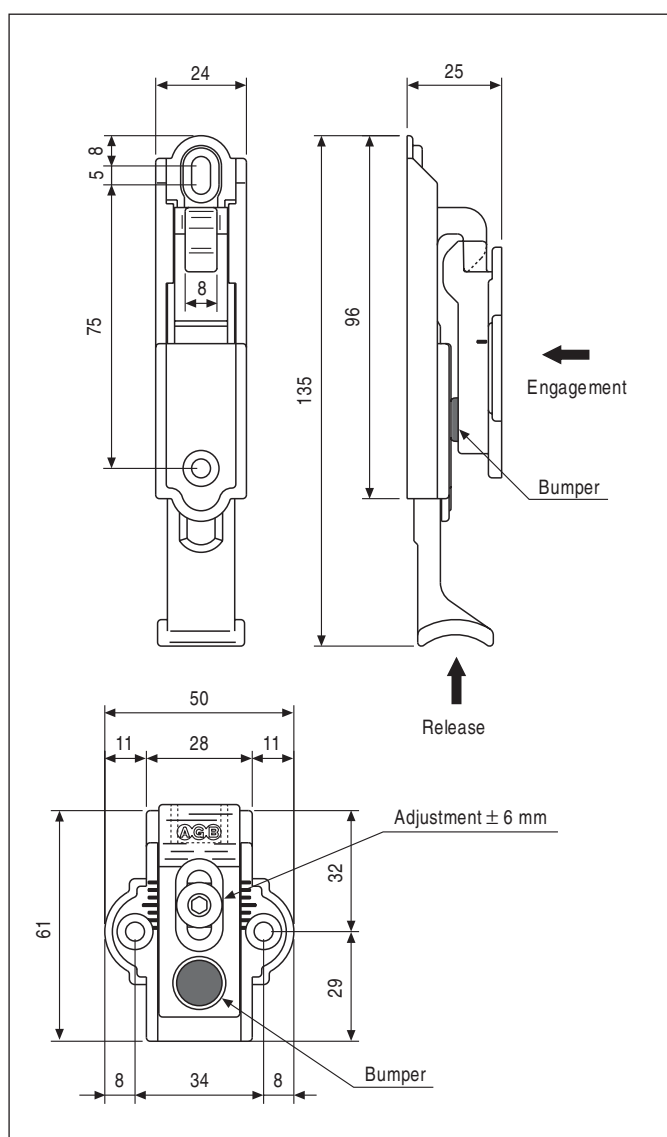
allowed between wall and shutter is 25 mm. 5 and 15 mm stackable shims are available for greater distances.

Mounting

Shutter-mounted striker: use two 4,5x30 mm screws with thread suitable for the shutter material.

Wall-mounted catch: use two 4,5x50 mm screws with 8x40 mm anchors included in the kit. For proper hole positioning use jig art. H00930.03.01.

If shims are used, the length of the screws must be increased proportionally.



Order Specifications

Article
H00926.00.XX

NB. Refer to the price list in force to check the availability of the finishes.

Wall catch with handle Kit



Description

Automatic wall catch with unhooking handle and striker to be fixed on the wall. Choose the hub according to the shutter thickness.

Application

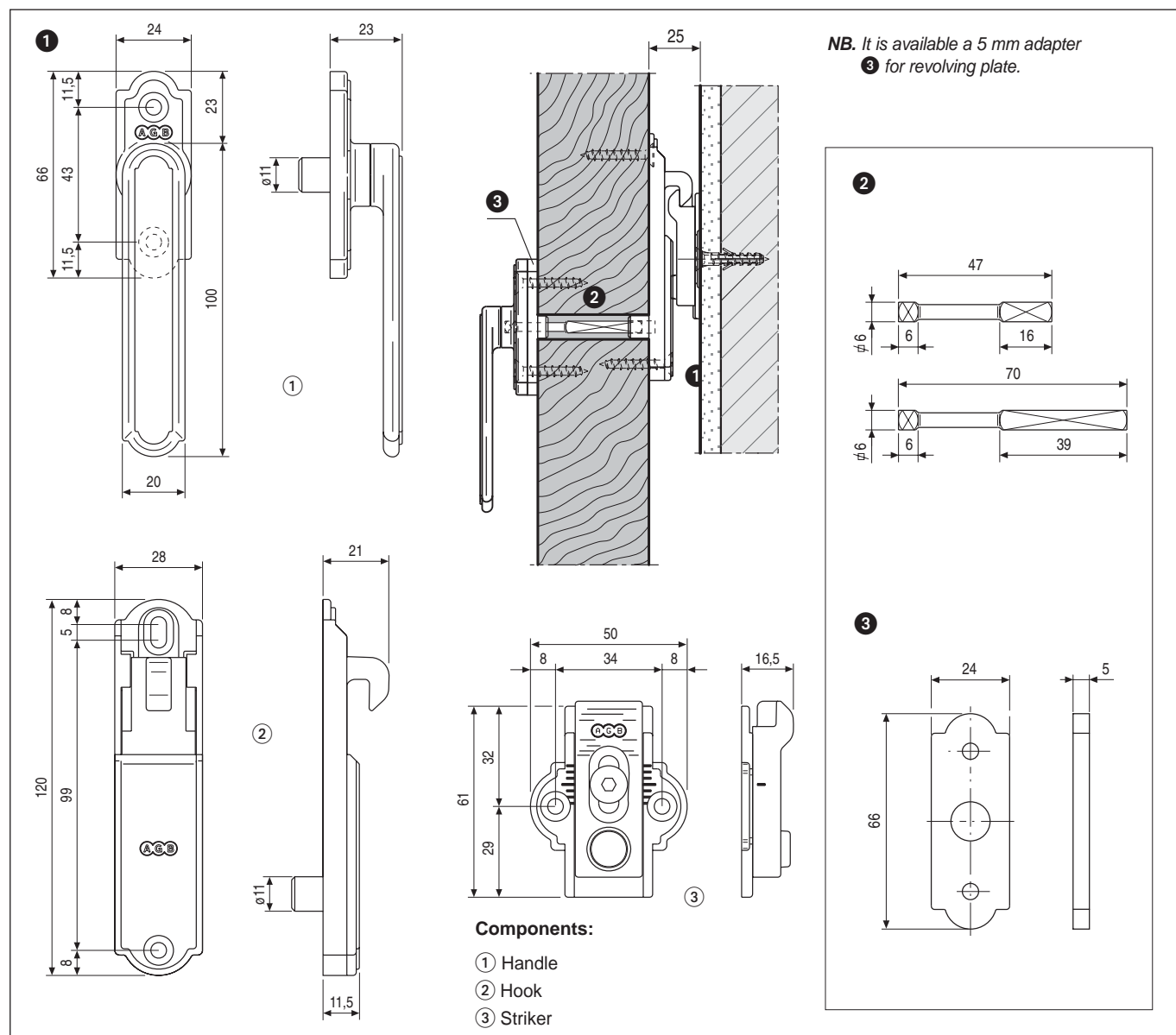
Specially designed for balcony doors with railing without exit. The non handed wall catch can be used horizontally (e.g. with a central transom) or vertically (on staved shutters). The good functioning is guaranteed by the spring for the hook returning.

Mounting

For the good functioning of the wall catch a 25 mm distance between wall and sash is required. When the distance is higher than 25 mm it is necessary to compensate with the proper shim H00926.04.93.

For the correct installation of the Kit, please refer to Mounting instructions art Z90007.11.11 included in the package of the kit and consultable at www.agb.it.

NB. For the correct installation of the Kit, please use the *jigs* (see *Jigs* chapter).



Order Specifications

Ref.	Descrizione	Article	Length	Sash thickness
①	Wall catch	H01926.00.XX		
②	Hub	H01926.38.00	47	from 22 to 38 mm
		H01926.54.00	70	from 39 to 54 mm
③	5 mm adapter for handle base	H01926.04.XX		

NB. Refer to the price list in force to check the availability of the finishes.

Shims for wall catch

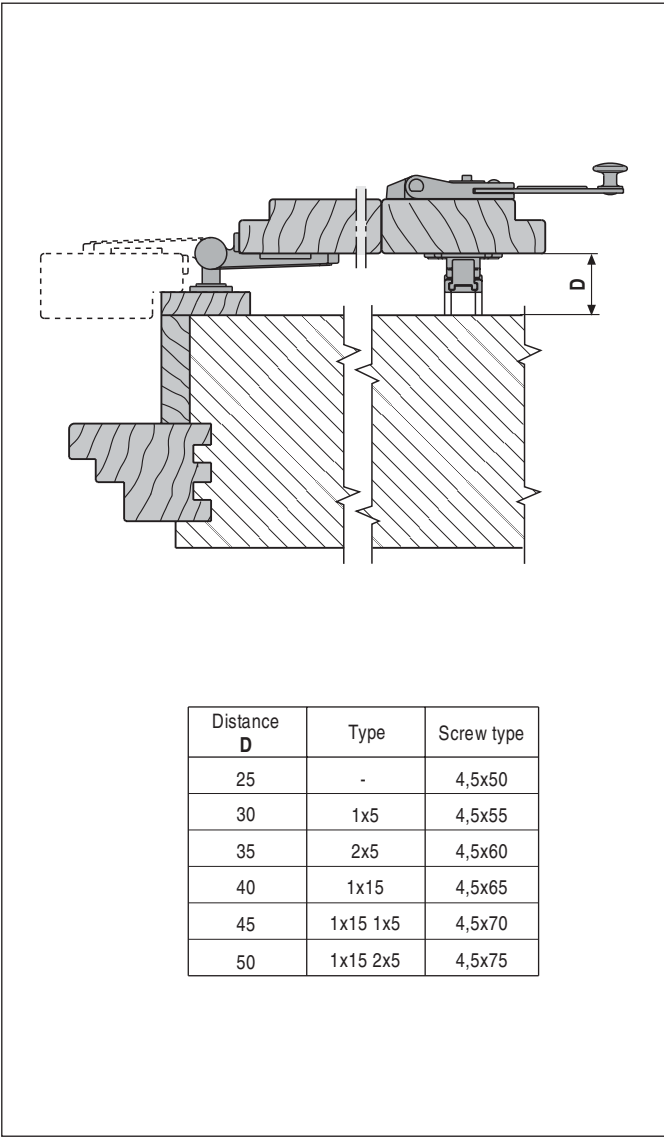
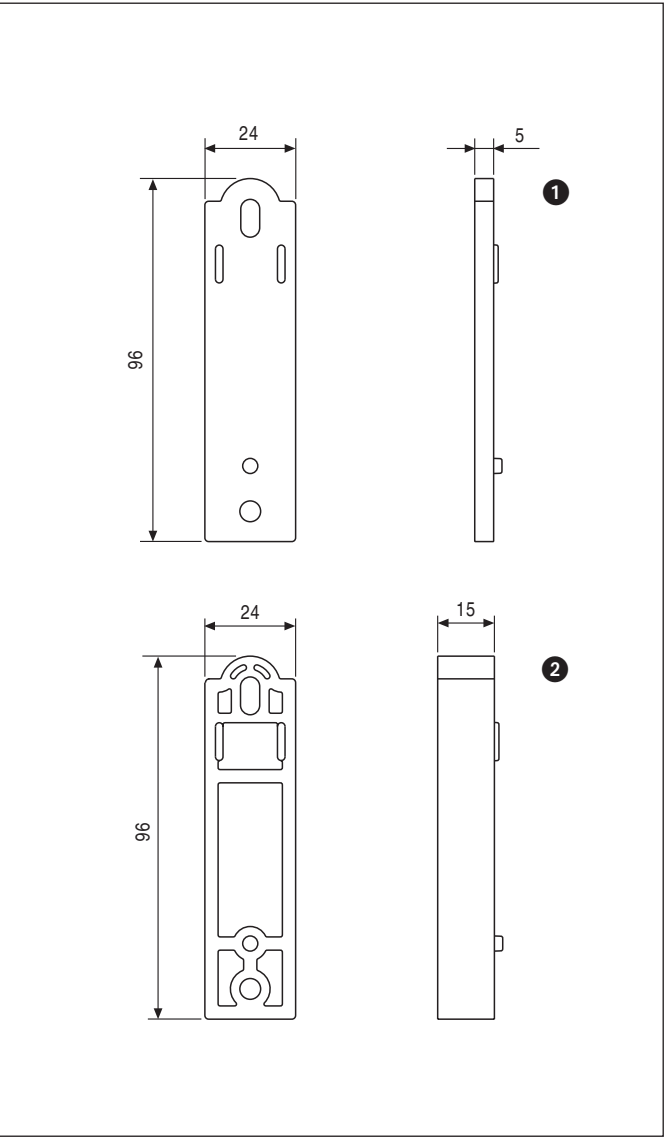


Description
5 mm and 15 mm shims, stackable.

Application
For shutters with automatic wall-mounted catch, with a distance of over 25 mm between the 180° open shutter and the wall.

Mounting
It must be fitted to the back of the catch.

NB. The screws must be chosen based on the shim utilised (see table below).



Order Specifications

Ref.	Article
1 5 mm	H00926.02.XX
2 15 mm	H00926.01.XX

NB. Refer to the price list in force to check the availability of the finishes.

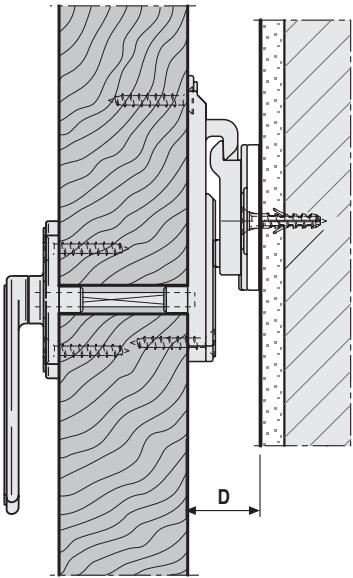
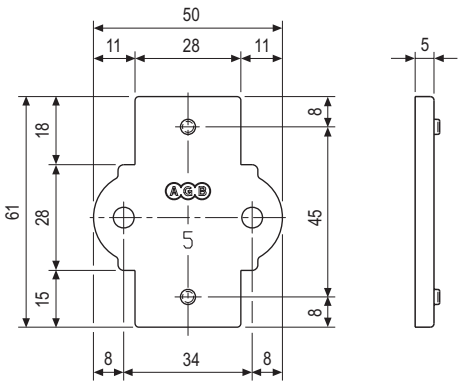
Shim for automatic wall catch striker



Description
5 mm nylon superimposable shim.

Application
To be coupled to the automatic wall catch striker (H00926.00.XX and H019026.00.XX), for shutters having a distance from wall more than 25 mm (when opened on 180°).

Mounting
To be snapped in to the back side of the striker
NB. The screws must be chosen according to the number of applied shims.



Distance D	shims no.	Screw type
25	-	4,5x50
30	1	4,5x55
35	2	4,5x60
40	3	4,5x65
45	4	4,5x70
50	5	4,5x75

Order Specifications

Article
H00926.04.XX

NB. Refer to the price list in force to check the availability of the finishes.

Archimede wall catch

Description

Automatic wall catch, very practical as it is controlled with just one hand and after the opening of the sash is mechanically activated, ready to receive and block the sash for a following opening.

Main characteristics:

The wall catch is available in 4 different measures which allow to block a rebate with minimum thickness of 15 mm up to a maximum of 135 mm (folding sashes with 55 mm thickness and distance between the sashes of 25 mm or sash thickness of 59 and distance of 16 mm).

The little bow and the resting rebate are made of plastic in order to preserve the finish of the shutters. The treatment of the wall catch is Blacktech coating, the dowels and the spring are made of stainless steel.

Archimede allows 2 adjustments: the one of the blocking bow (25 mm) and the one of the resting rebate (15 mm).

The adjustment of the bow makes possible to adapt the wall catch to the sash thickness and the rebate adjustment allows to block the

sash at the right distance from the wall without using adapters (min 20 mm max 35 mm). For all adjustments use 4 mm Allen wrench.

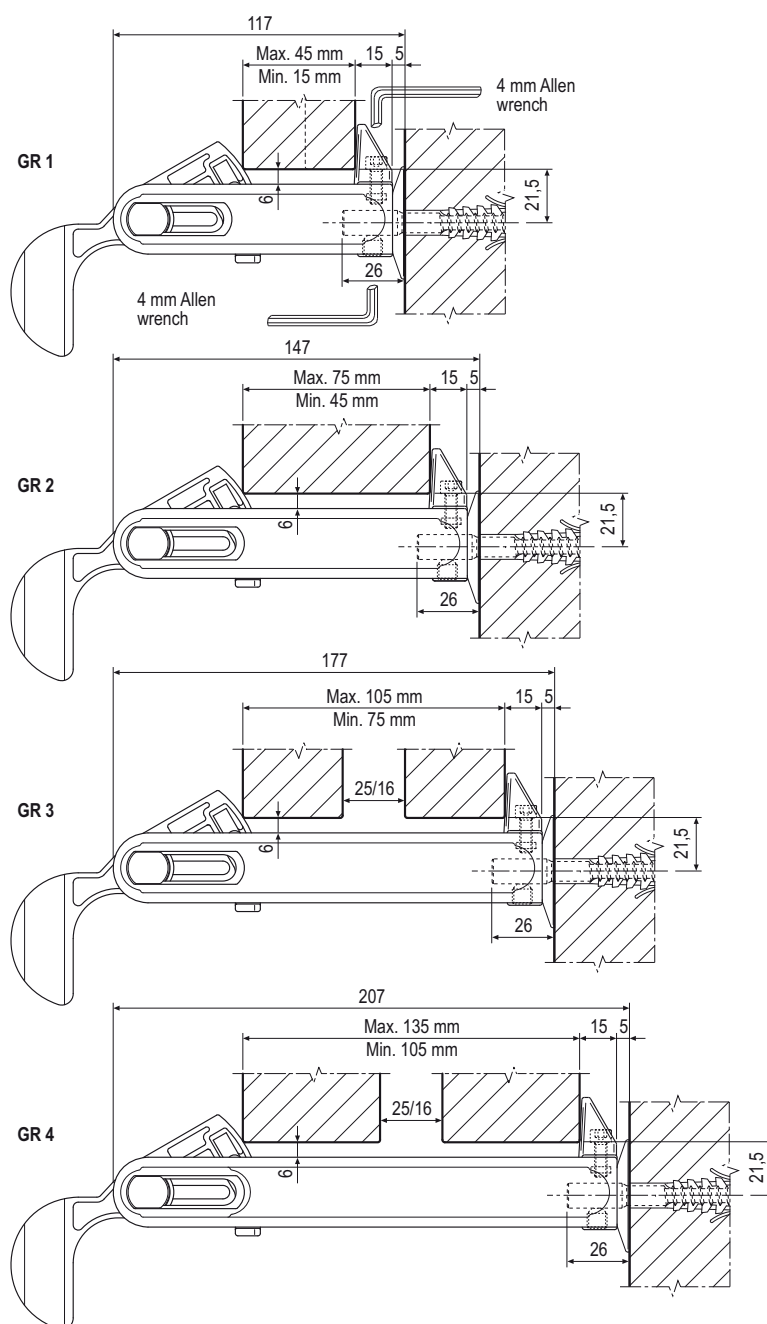
Mounting

Archimede is a wall catch to be fixed to a specific supporting pin which allows to install it on traditional or insulated walls. Just the length of the pin changer according to the thickness of the insulating panel. For every size a plastic screw anchor is available (see page "Pins and screw anchors for wall catches"). The pin head is hexagonal and can therefore be screwed down with automatic screw driver.

The body of the wall catch is then fixed on the pin by means of a dowel.

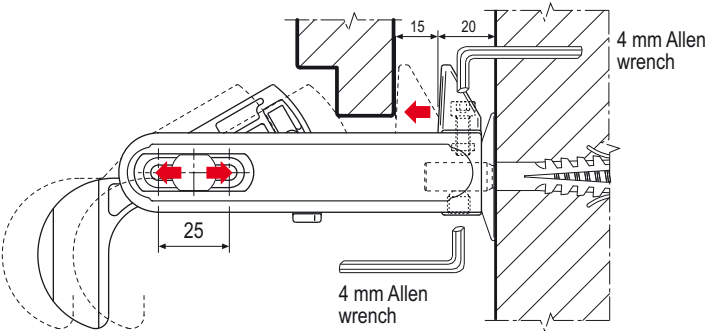
The plastic washer taht covers the hole, allows the compression of the wall catch against the wall, therefore do not loosen the catch on the screw anchor.

NB. For a correct drilling in the wall jig H00930.03.07 is available.

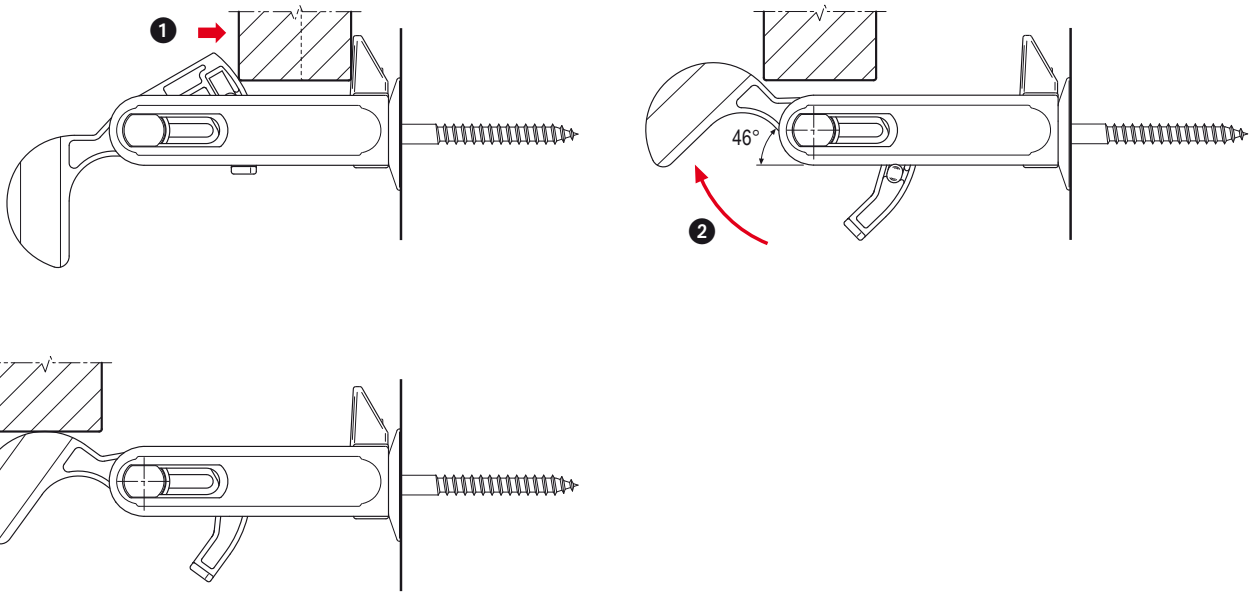


Archimede wall catch

ADJUSTMENT



OPERATIONS



Order Specifications

GR	Article
1	H02926.01.XX
2	H02926.02.XX
3	H02926.03.XX
4	H02926.04.XX

NB. Refer to the price list in force to check the availability of the finishes.

Wall catch for shutters with handle - for insulating applications



Description

Wall catch with un-hooking handle and striker specially designed for walls insulated with foam.

Application

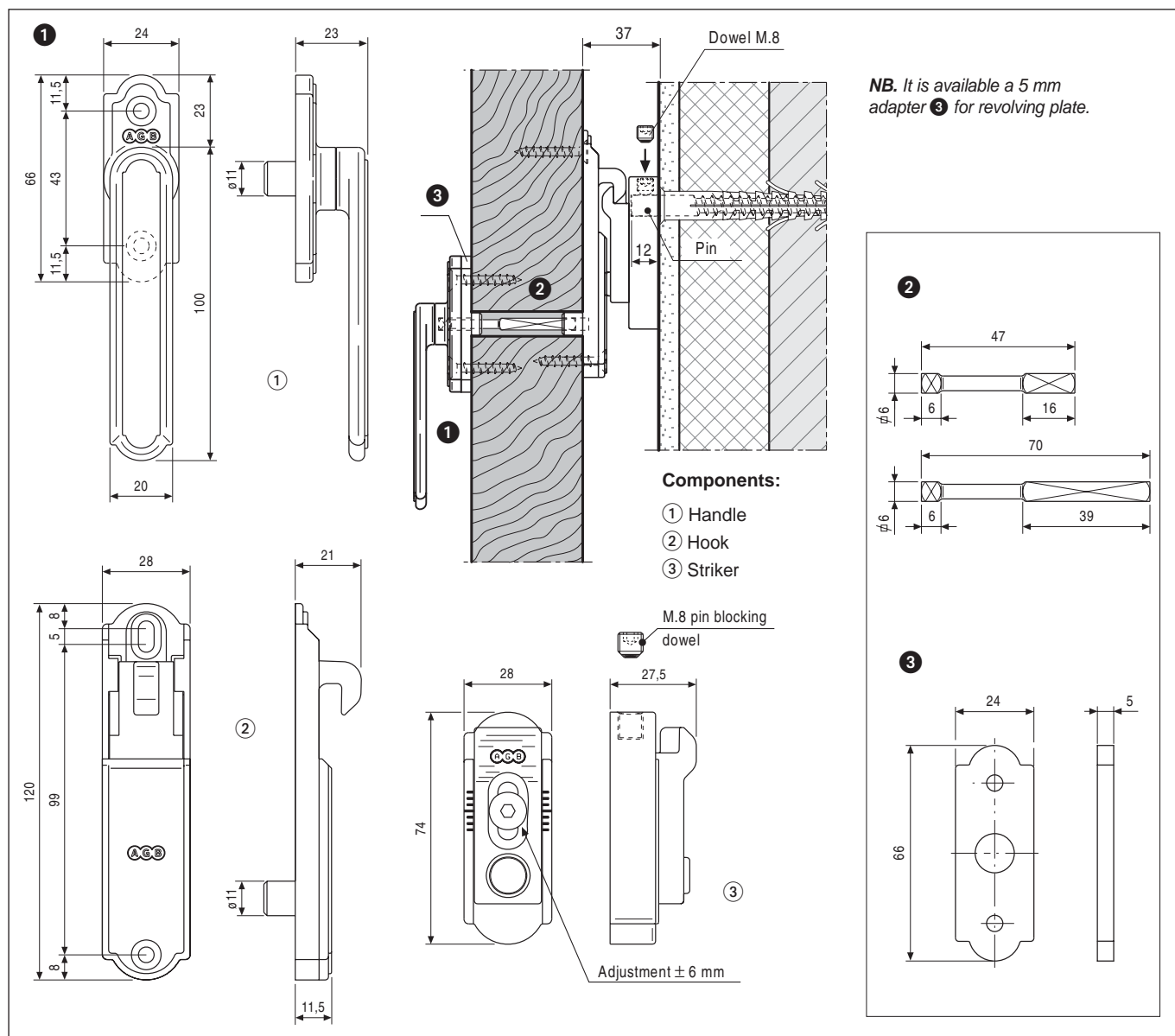
The wall catch with handle is very versatile as all wall catches with hook on wall because allows blocking the shutters built in different ways (therefore all shutters with the same wall catch).

Is specially suitable to balcony doors with railing, where is important to unhook the sash without dangerously lean out.

Mounting

Mount the wall catch with handle on the sash.

The operation requires the through drilling of the shutter with $\varnothing 12$ pin (it is available a Jig H00930.03.09 that guarantees the orthogonal drilling even by working manually with a drill). Afterwards use the jig H00930.03.03 on the the sash and mark a reference point on the wall. This point is then drilled for the installation of the screw anchor and the pin. By positioning the screw-pin as indicated in its technical page, a protruding part of the pin allows to fix the striker with its fastening dowel.



Order Specifications

Ref.	Description	Article	Length	Sash thickness
①	Wall catch	H01926.01.XX		
②	Hub	H01926.38.00	47	from 22 to 38 mm
		H01926.54.00	70	from 39 to 54 mm
③	5 mm adapter for handle base	H01926.04.XX		

NB. Refer to the price list in force to check the availability of the finishes.

Wall catch for shutters - for insulating applications



Description

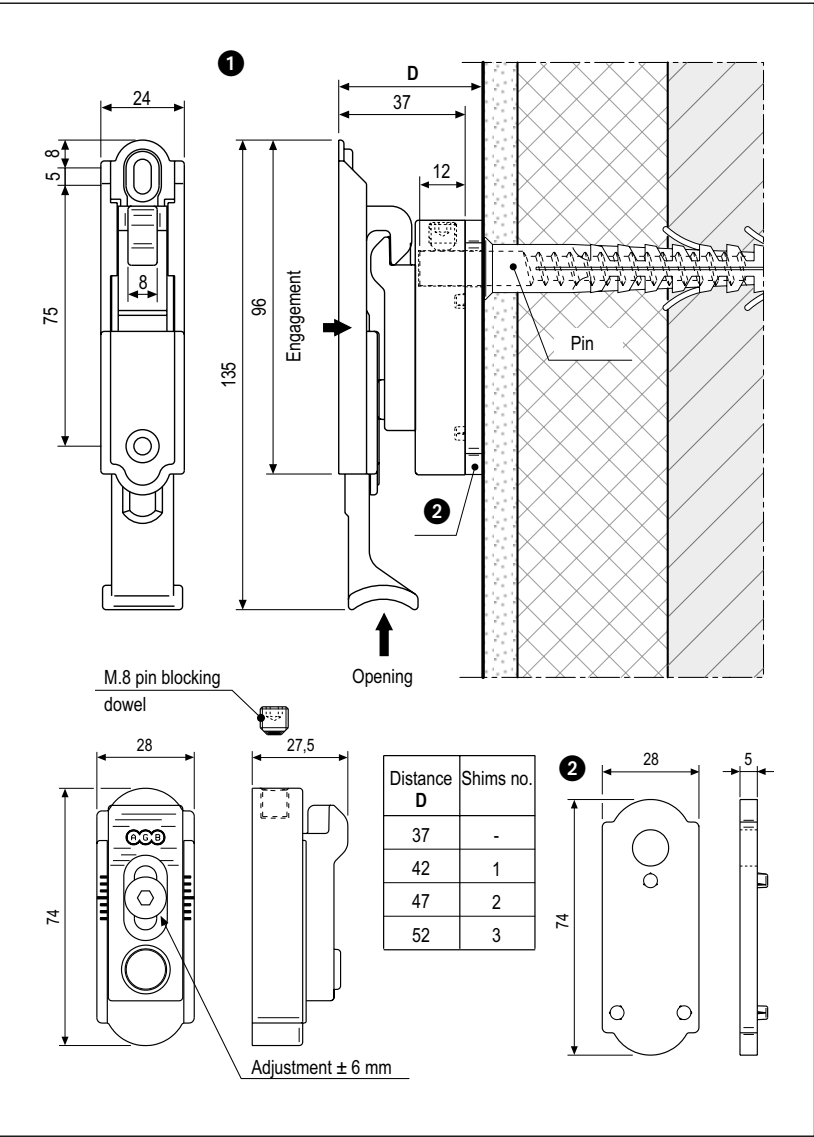
Wall catch with un-hooking system and striker specially designed for walls insulated with foam.

Application

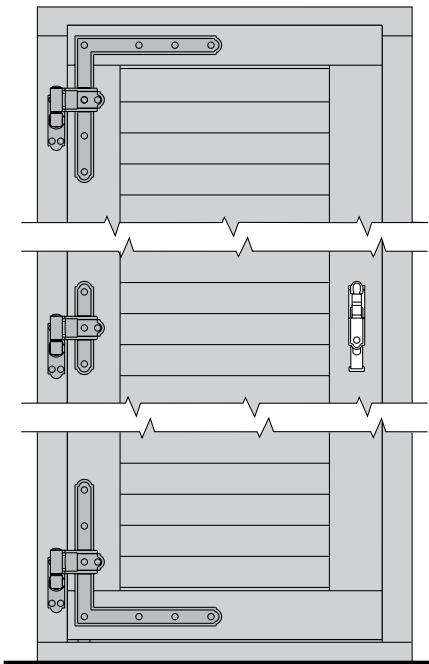
The wall catch with handle is very versatile as all wall catches with hook on wall because allows blocking the shutters built in different ways (therefore all shutters with the same wall catch).

Mounting

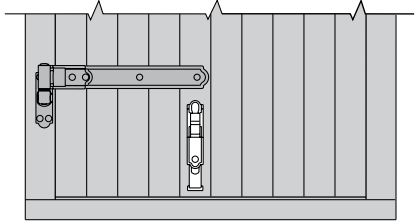
Mount the wall catch with handle on the sash in the position required. Afterwards use the jig H00930.03.03 on the the sash and mark a reference point on the wall. This point is then drilled for the installation of the screw anchor and the pin.
By positioning the screw-pin as indicated in its technical page, a 12 mm protruding part of the pin allows to fix the striker with its fastening dowel.



Catch installation on door shutter



Catch installation on window shutter



Order Specifications

Ref.	Description	Article
1	Wall catch	H00926.03.XX
2	5 mm adapter for handle base	H01926.05.XX

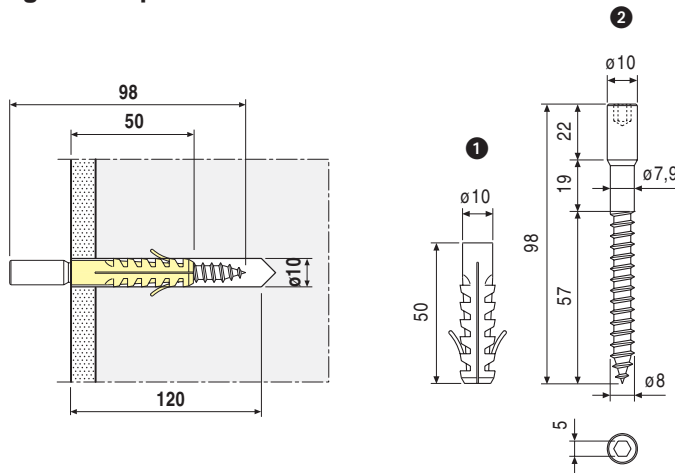
NB. Refer to the price list in force to check the availability of the finishes.

Pins and screw anchor for wall catch

Description

Threaded pins for the installation of wall catches on walls. 4 different sizes of pins are available: GR (size) 1 for traditional walls and the others for insulated walls. The thread of the pins is suitable to plastic screw anchors and with chemical anchor. For each size is available its own screw anchor made of nylon. The pin head has an hexagonal print and is therefore suitable for installation with automatic scerw driver. The body of the wall catch is then fixed to the pin by means of a dowel.

Diagram for pin and screw anchor GR 1



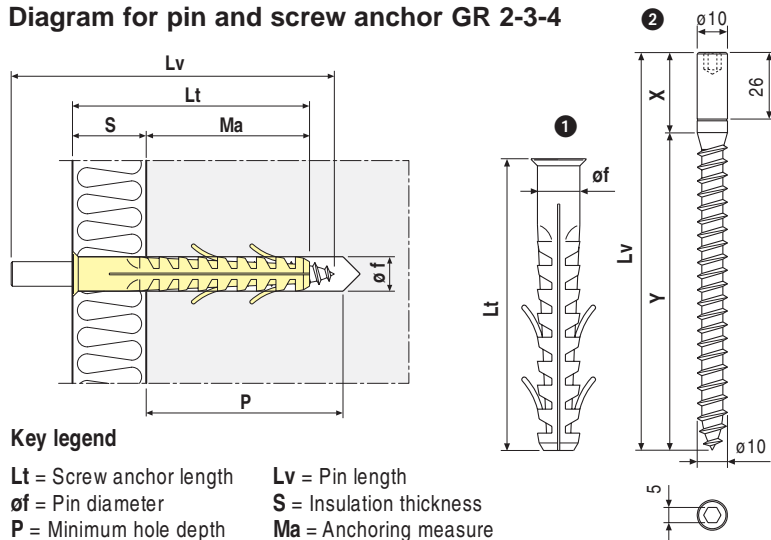
1 Screw anchor

GR	Article
1	H00901.47.10

2 Pin

GR	Article
1	H00904.14.15

Diagram for pin and screw anchor GR 2-3-4



Key legend

Lt = Screw anchor length
of = Pin diameter
P = Minimum hole depth
Lv = Pin length
S = Insulation thickness
Ma = Anchoring measure

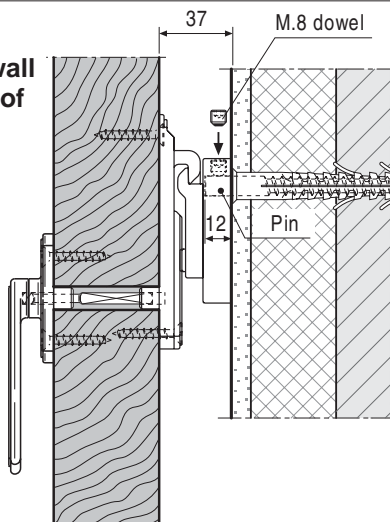
1 Screw anchor

GR	Article	Lt	Ma	S	of	P
2	H00901.47.14	100	70	30	14	90
3	H00901.48.14	135	70	65	14	90
4	H00901.48.15	185	70	115	14	90

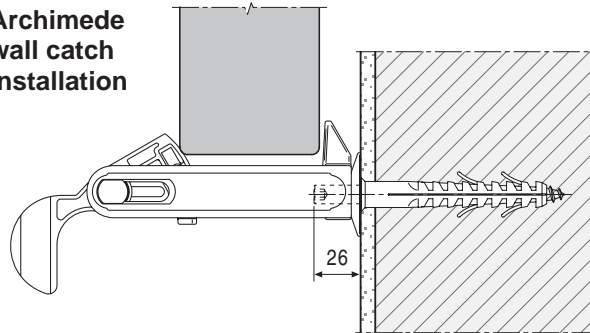
2 Pin

GR	Article	Lv	X	Y
2	H01904.14.15	135	30	105
3	H01904.17.15	170	65	105
4	H01904.22.15	220	115	105

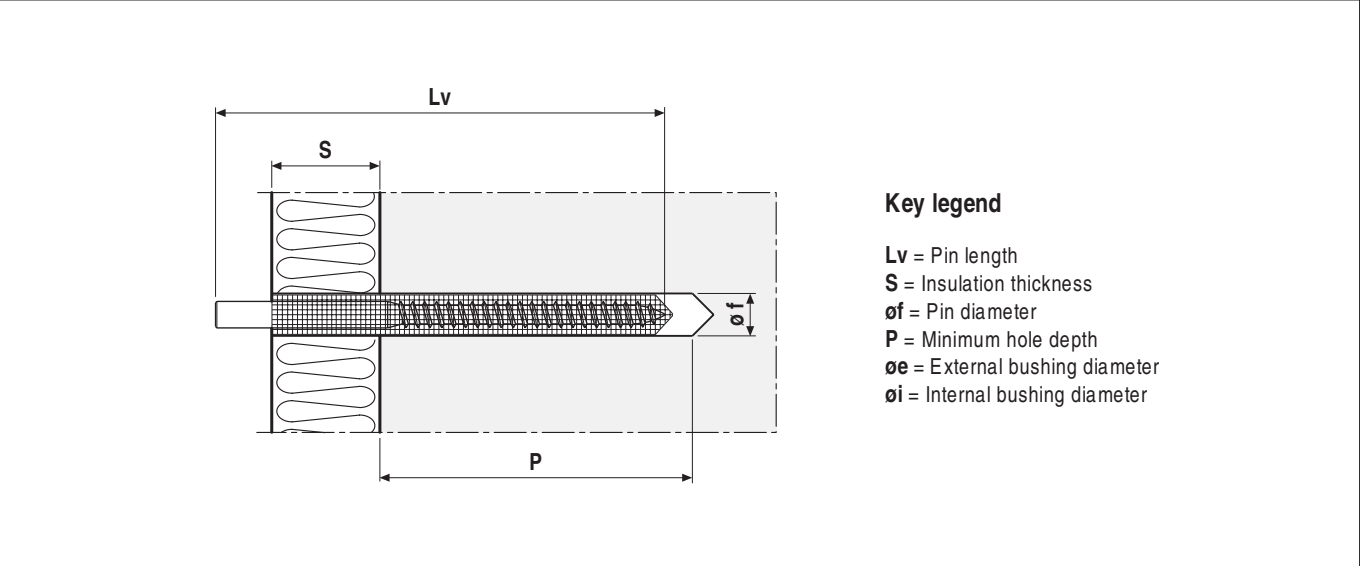
Insulation wall application of wall catch with handle



Archimede wall catch installation



Application on insulated walls: screws for wall catch fixed with chemical resin and steel grid bushing



Application

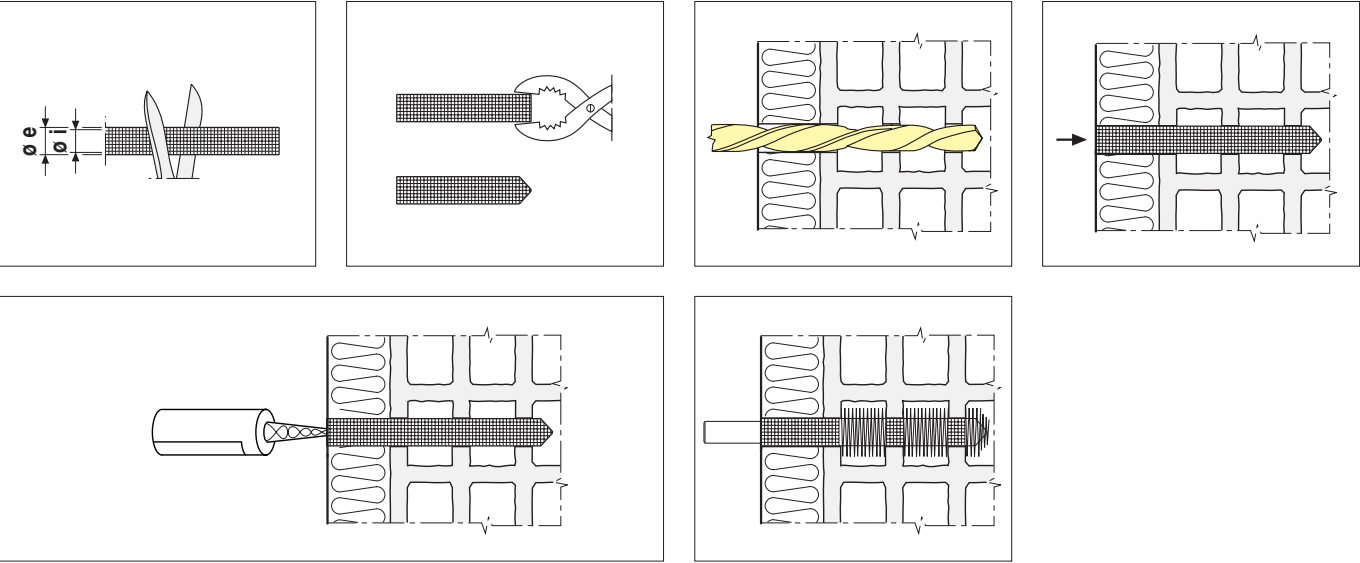


Table - Pin

GR	Article	Lv	S	øf	P	øe	øi
2	H01904.14.15	135	30	16	90	15	12,5
3	H01904.17.15	170	65	16	90	15	12,5
4	H01904.22.15	220	115	16	90	15	12,5

NB. Use steel grid bushing øe 16 mm and øi 12,5 mm. Type Art. 1710152 Mungo or 09147 Fisher.

Supporting kit for rebated shutters



Description

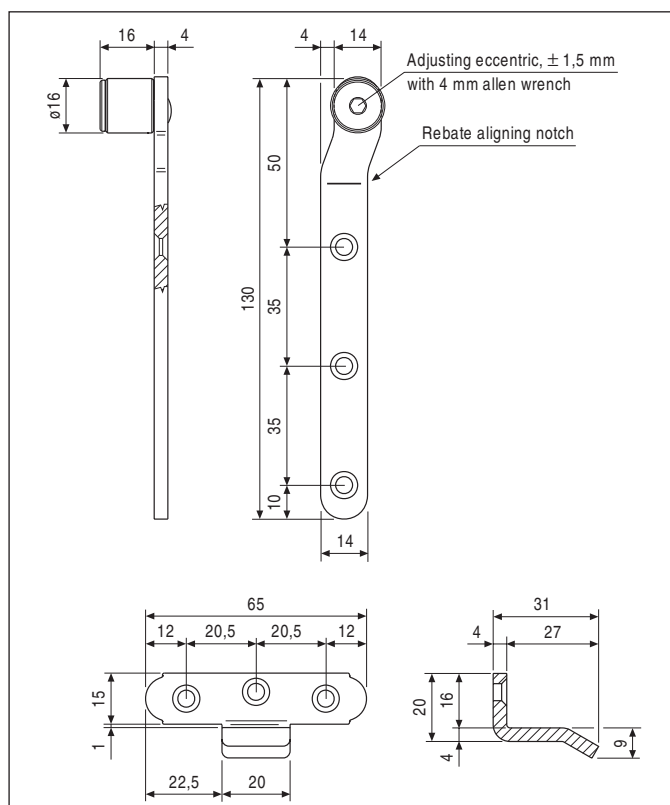
Steel rolling arm with adjusting eccentric and supporting plate.

Application

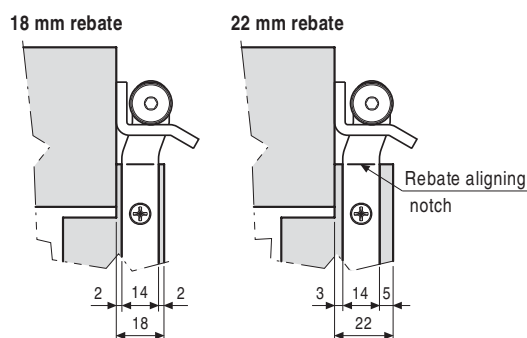
To supporting of rebated shutters. Avoids eventual collapses due to the weight and the considerable dimensions of the sashes. Particularly designed for 3 sash folding shutters.

Mounting

Align the rolling arm to the rebate referring to the proper notch (1) and fix it with 4x30 screws. With the indicated formula (2) calculate the position of the supporting plate in the frame side and fix it referring to the rolling arm with 3x30 screws.



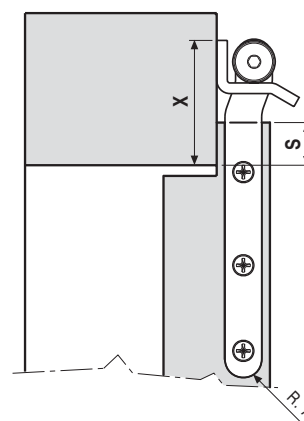
① Arm positioning



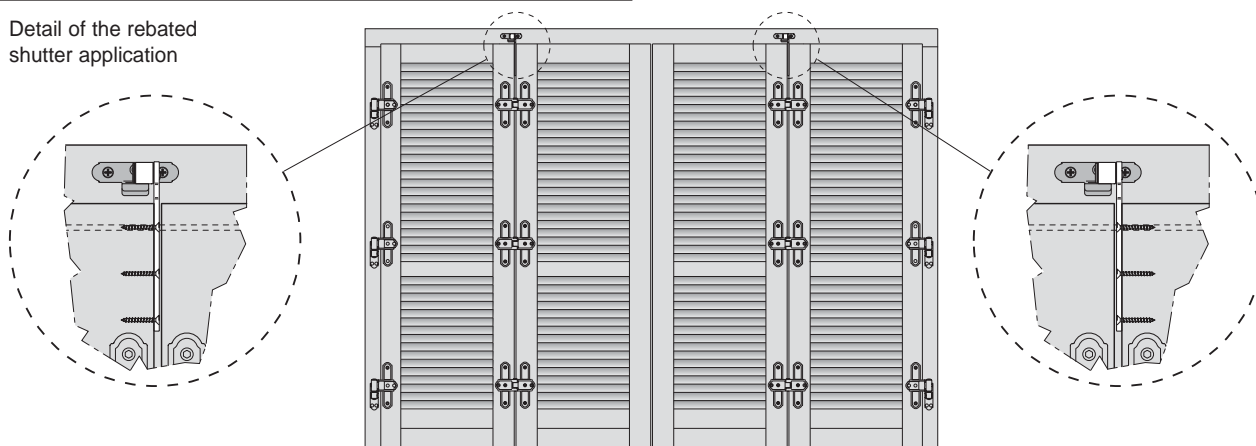
② Rebated shutters application

$$X = S + 31$$

S = surmounting



Detail of the rebated shutter application



Order Specifications

Black finish

Article

H00901.59.93

Supporting kit for flush shutters



Description

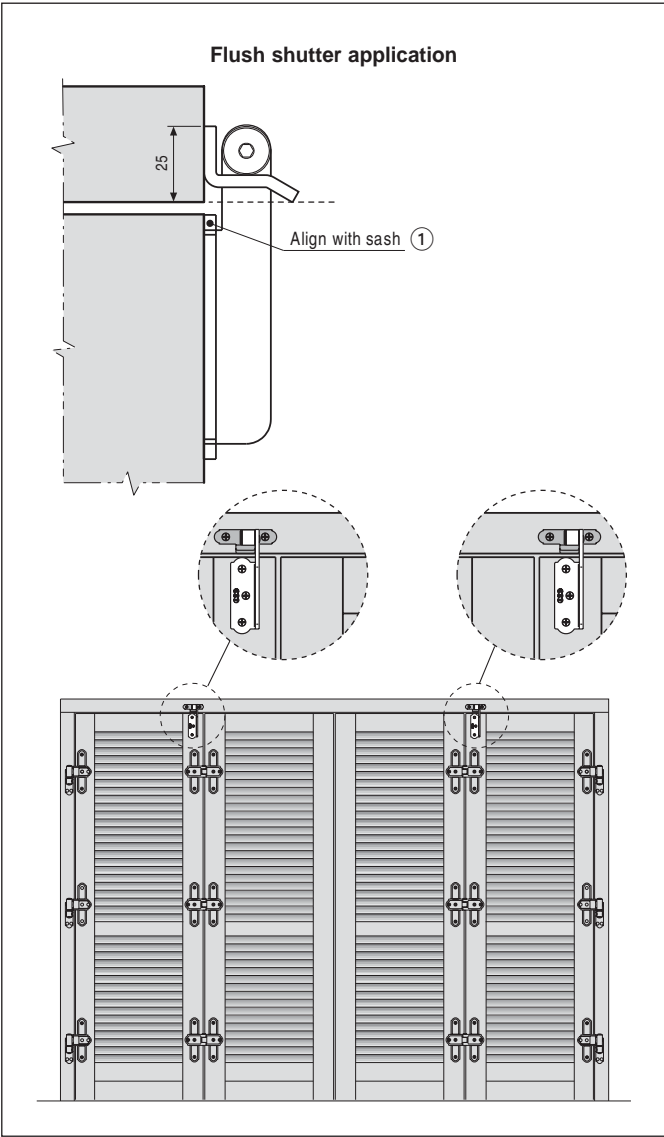
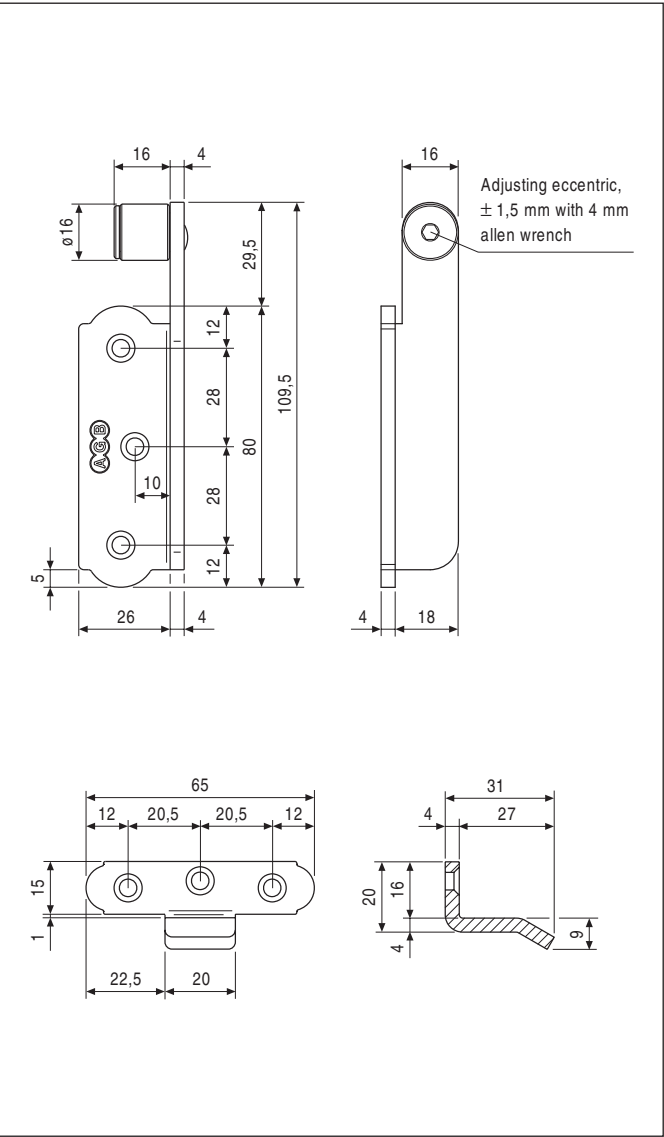
Steel rolling arm with adjusting eccentric and supporting plate.

Application

To supporting of flush shutters. Avoids eventual collapses due to the weight and the considerable dimensions of the sashes. Particularly designed for 3 sash folding shutters.

Mounting

Align the rolling arm to the rebate referring to the proper notch (1) and fix it with 4x30 screws. Align the supporting plate at 25 mm from the edge of the frame (2) and fix it referring to the rolling arm with 3x30 screws.



Order Specifications

Black finish

Article

H00901.60.93

Supporting kit for shutter sill

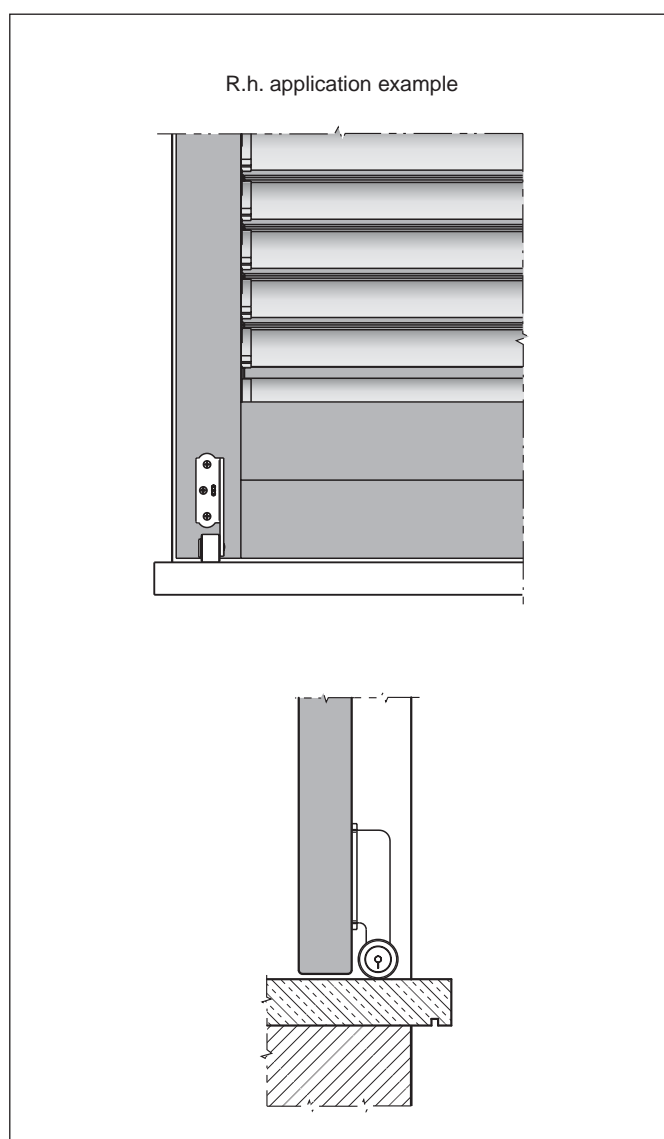
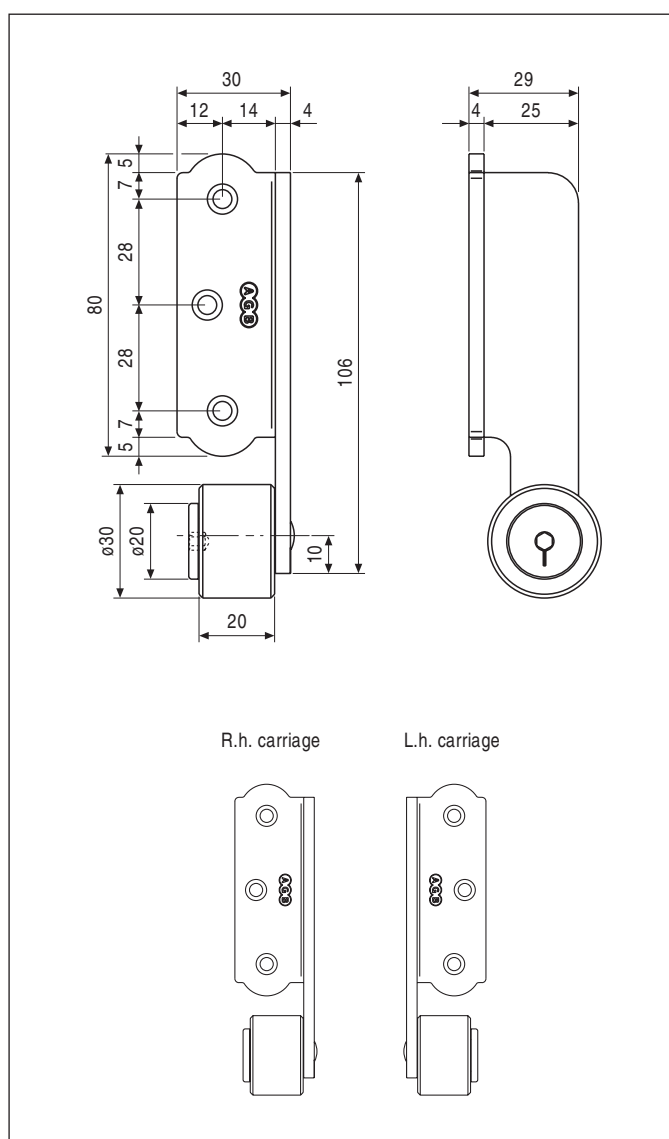


Description

Supporting carriages to be applied with plastic wheel for shutter sashes.

Application

Apply the carriage in the lower part of the sash considering the gap between sill and shutter. The carriage lifts the sash by resting on the sill.



Order Specifications

Type	Article
r.h.	H00901.93.XX
l.h.	H00901.94.XX

NB. Refer to the price list in force to check the availability of the finishes.

Anti-burglar screw and fastening bushing



Description

- ❶ Stainless steel theft-proof screw with hex neck
- ❷ M5 threaded fastening bushing

Application

For all shutters when higher system theft-proof security is required.
The length of the screw depends on the thickness of the shutter.

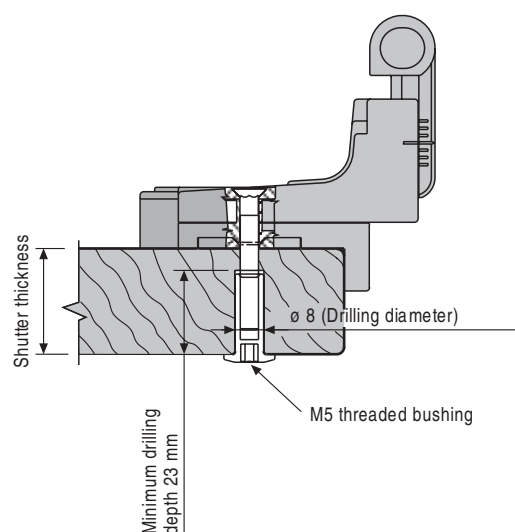
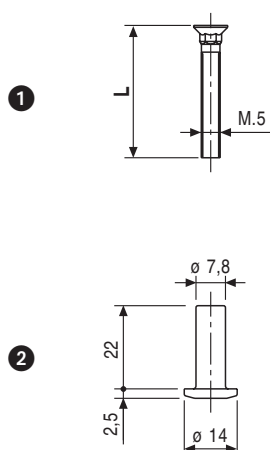
- Use in combination with all accessories featuring hex-shaped screw hole.

Mounting

Drill a 5 mm diameter through hole and widen it internally to 8 mm along the entire length of the bushing (23 mm).

Lock the screw with the bushing using a 4 mm Allen wrench.

NB. When placing the order, specify the items separately with their respective codes (screw + bushing).



Screw	Shutter thickness
M.5x35	25 - 30
M.5x40	30 - 35
M.5x45	35 - 40
M.5x50	40 - 45
M.5x55	45 - 50
M.5x60	50 - 55

Order Specifications (screw) ❶

L	Black finish	Bichromated finish
	Article	Article
25	H00916.25.93	H00916.25.04
30	H00916.30.93	H00916.30.04
35	H00916.35.93	H00916.35.04
40	H00916.40.93	H00916.40.04
45	H00916.45.93	H00916.45.04
50	H00916.50.93	H00916.50.04
55	H00916.55.93	H00916.55.04
60	H00916.60.93	H00916.60.04

Order Specifications (bushing) ❷

	Black finish	Bichromated finish
	Article	Article
	H00916.00.93	H00916.00.04

Spring bumper for shutter



Description

Spring-loaded shutter bumper with rubber head.

Application

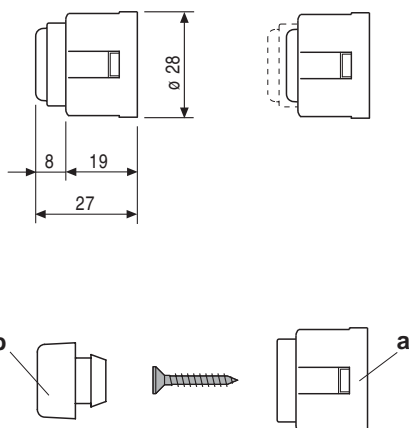
Designed for installation on shutters when the catch has no bumper and the distance between the wide open lip (180°) and the wall is at least 25 mm. 5 mm stackable shims, art. H00922.01.93, are available for greater distances.

NB. The bumper is a standard component of the automatic hinge lock kit. Screws not included.

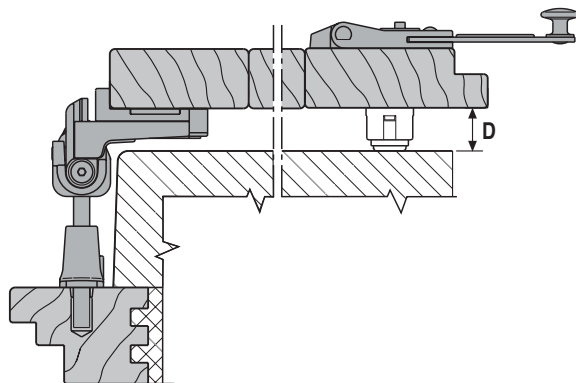
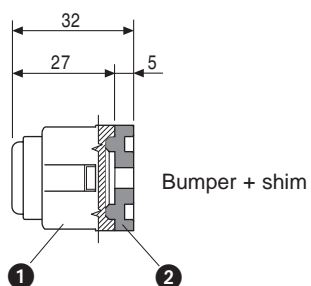
Mounting

Use one 4,5x30 mm screw with thread suitable for the shutter material.

- If one or more shims are used, the length of the screw must be increased in proportion to the D distance (see table below).



NB. Fasten the bumper (a) to the shutter with a suitable screw before mounting the rubber head (b).



Distance D	No. of shims	Screw type
25	-	4,5x30
30	1	4,5x35
35	2	4,5x40
40	3	4,5x45
45	4	4,5x50
50	5	4,5x55

Order Specifications

Ref.	Article
① Bumper	H00922.02.XX
② 5 mm shim	H00922.01.XX

NB. Refer to the price list in force to check the availability of the finishes.

Rubber bumper for shutters and 5 mm bumper shim



Description

- 1 25 mm rubber bumper for shutters
- 2 5 mm shim for bumper

Application

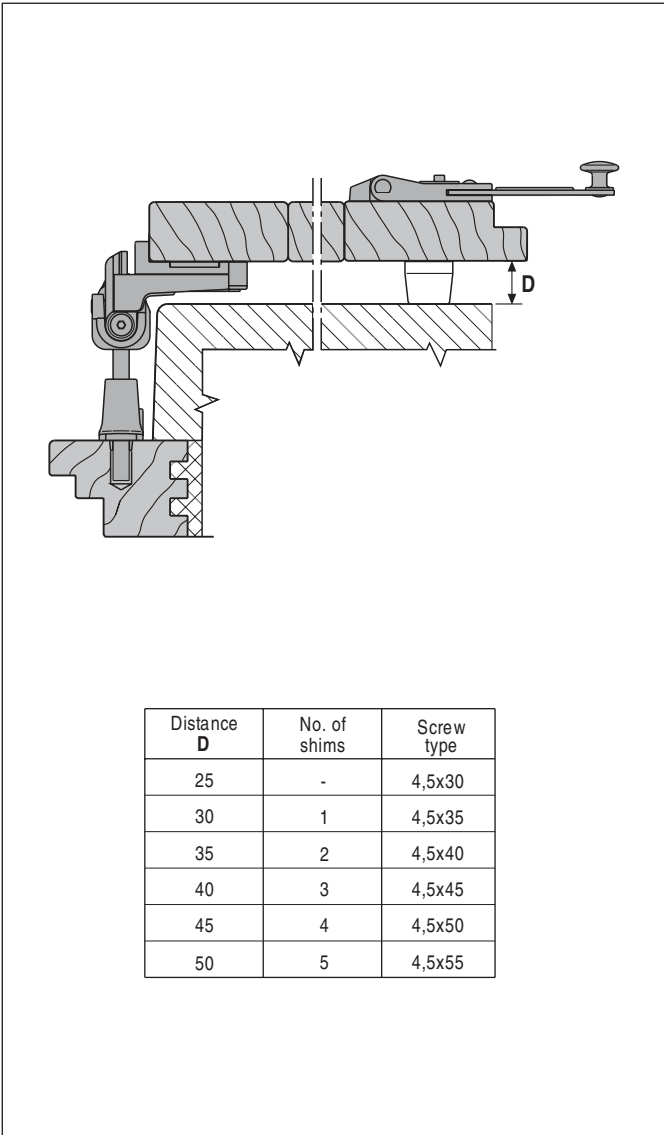
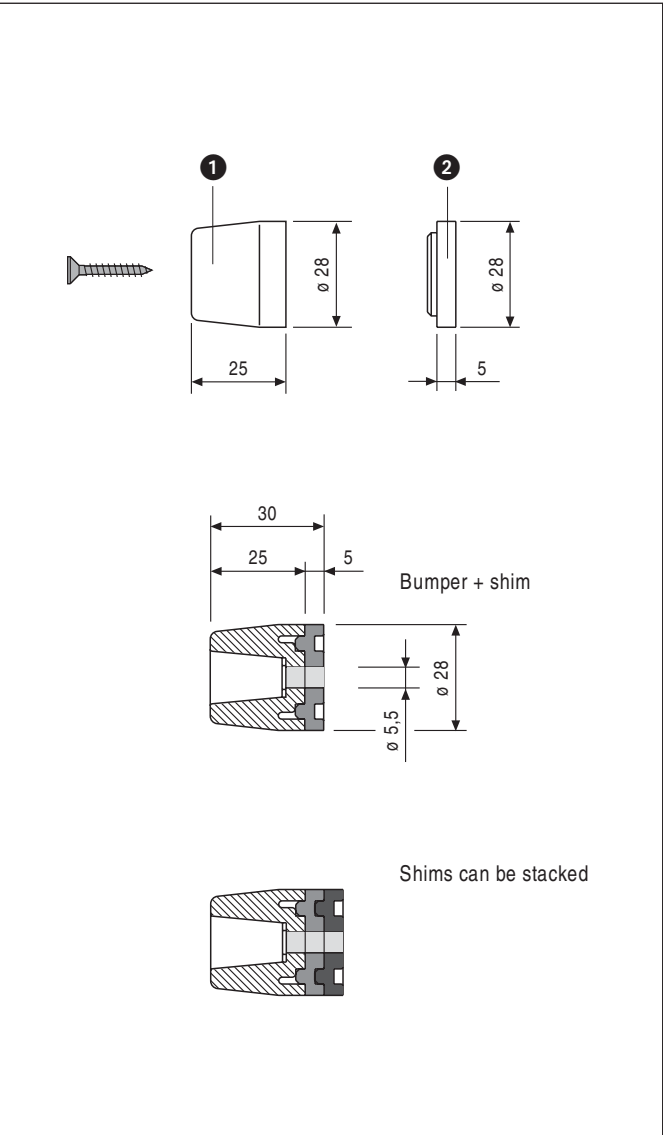
Designed for installation on shutters when the catch has no bumper and the distance between the wide open lip (180°) and the wall is at least 25 mm.

NB. It cannot be used in combination with the automatic hinge lock kit.

Mounting

Use one 4,5x30 mm screw with thread suitable for the shutter material.

- If one or more shims are used, the length of the screw must be increased in proportion to the D distance (see table below).



Distance D	No. of shims	Screw type
25	-	4,5x30
30	1	4,5x35
35	2	4,5x40
40	3	4,5x45
45	4	4,5x50
50	5	4,5x55

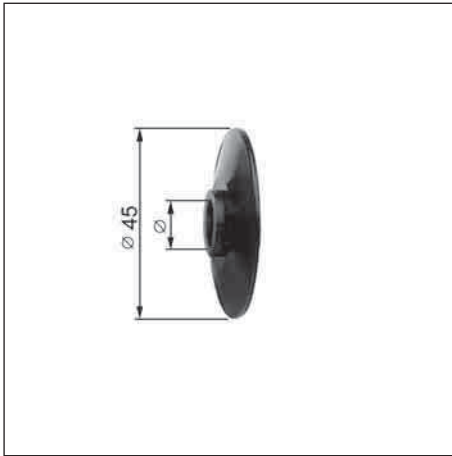
Order Specifications

Ref.	Article
1 Bumper	H00922.00.93
2 5 mm shim	H00922.01.93

Black finish

Accessories

Tip for pintle hole


Description

Nylon moulding

Application

Used to mask the hole where the pintle shank is secured with an anchor or chemical mortar. The moulding must be selected based on the shank diameter (10 or 12 mm).

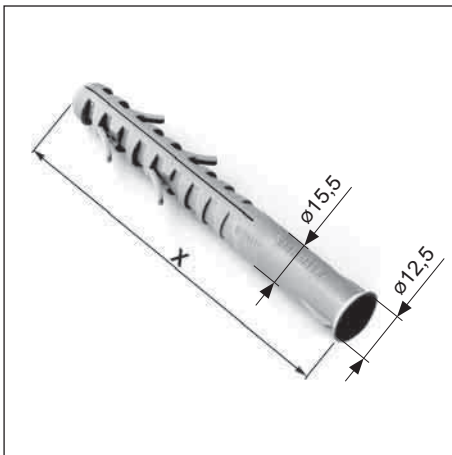
Mounting

Slide the moulding over the shank before installing the pintle on the wall.

Order Specifications

Finish	Article	Ø
Black	H00917.02.93	M10
	H00917.01.93	M12

Screw anchor for pintles


Order Specifications

Material	Article	X	Application
Nylon	H00901.47.01	100	With pin length min. 105 mm
	H00901.48.01	135	With pin length min. 140 mm

Carriage for sliding shutters



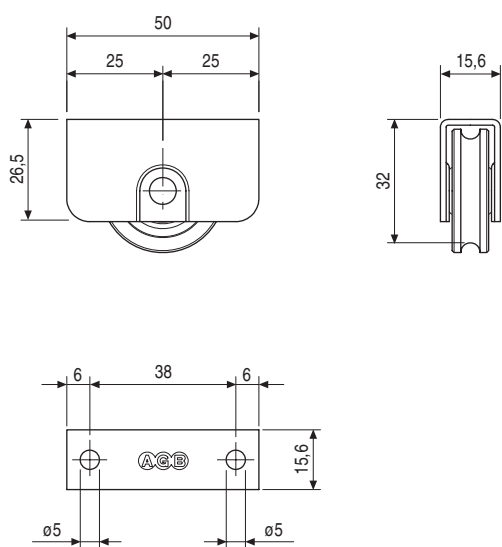
Description

Two-handed steel carriage, 16 or 18 mm wide. Self-lubricating indeformable plastic wheel mounted on shielded ball bearings, with calibrated profile race.

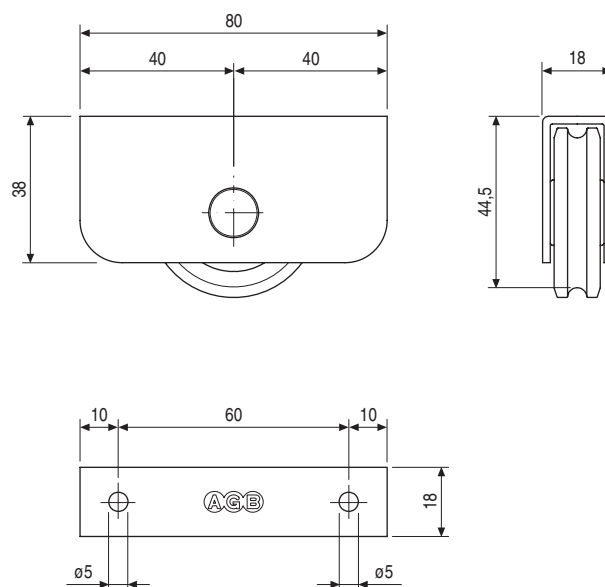
Application

For shutters sliding on the same type of rails used for the Lift & Slide system.

Carriage for sliding shutters with 16 mm forend



Carriage for sliding shutters with 18 mm forend



Order Specifications

Forend	Load kg	Bichromated finish
		Article
16	90 (two carriage)	G00751.00.16
18	130 (two carriage)	G00751.00.18

Low rail

Description

Anodised aluminium track for 150 and 250 kg capacity carriages.

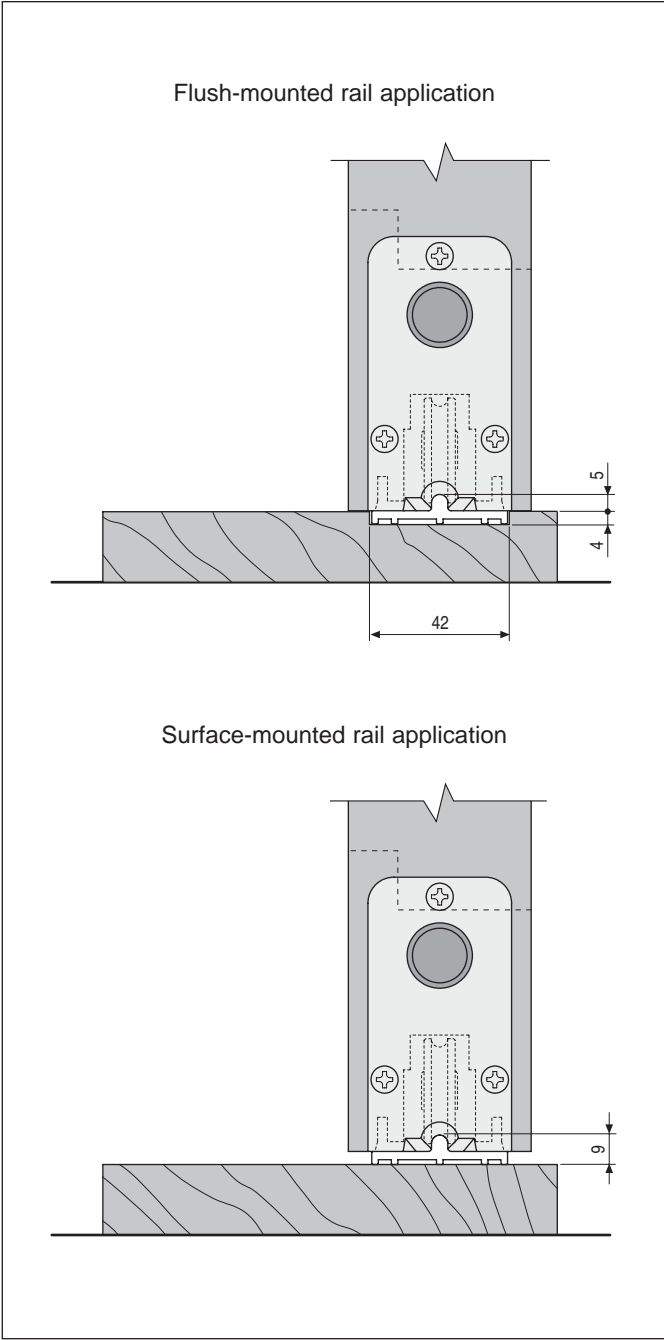
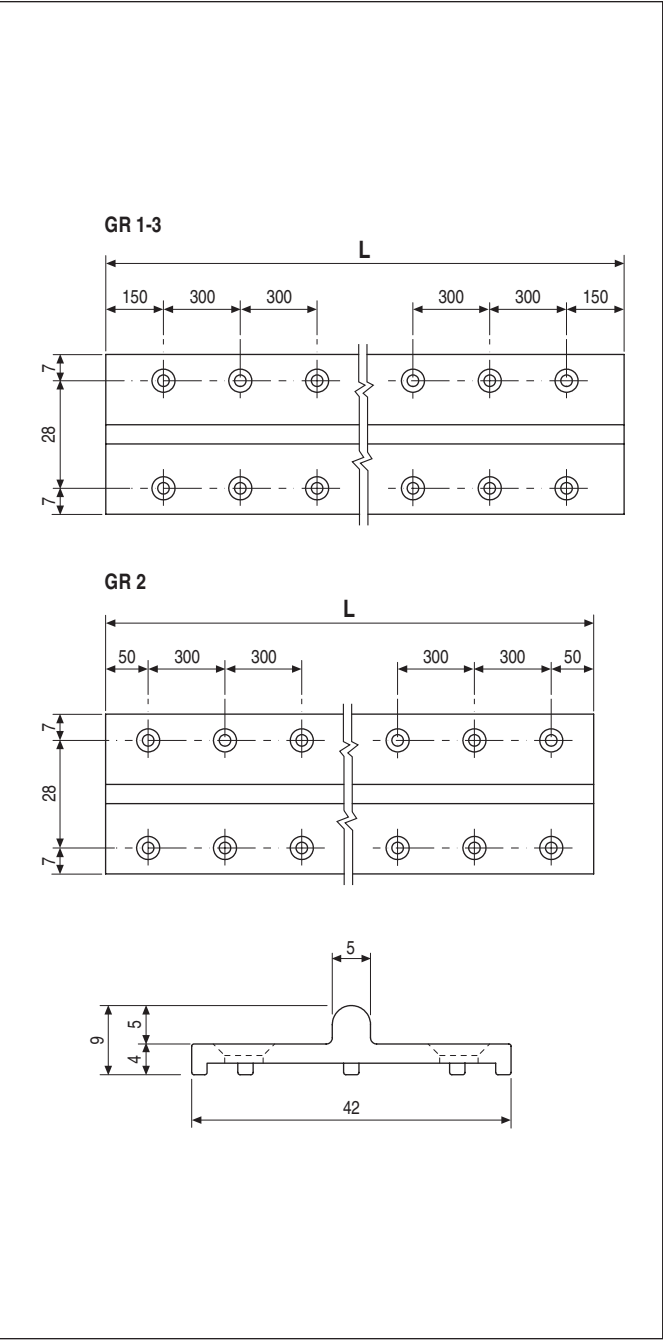
Application

Used for the construction of windows or door windows located in a sheltered position protected from heavy rain, and requiring minimum rail dimensions.

Mounting

The rail can be surface or flush-mounted on marble threshold, wooden sill or floor. Use 4x25 mm screws for anchoring to wood, and suitable plastic anchors for marble threshold or floor installation.

NB. The base should always be sealed with silicone.



Order Specifications

GR	L	Aluminium Silver		Aluminium Brown	
		Article	Finish code	Article	Finish code
1	3000	G00738.01.01	AF1	G00738.01.02	AF5
2	4000	G00738.02.01	AF1	G00738.02.02	AF5
3	6000	G00738.03.01	AF1	G00738.03.02	AF5

High rail

Description

Anodised aluminium track for 150 and 250 kg capacity carriages.

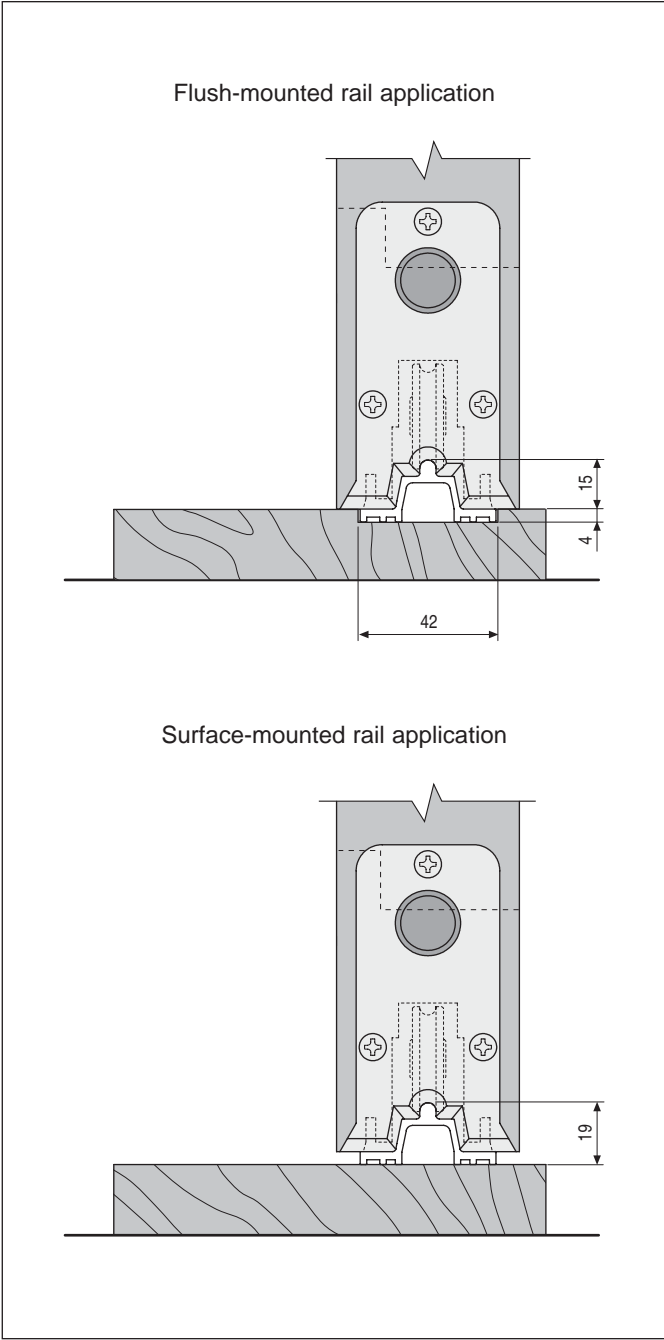
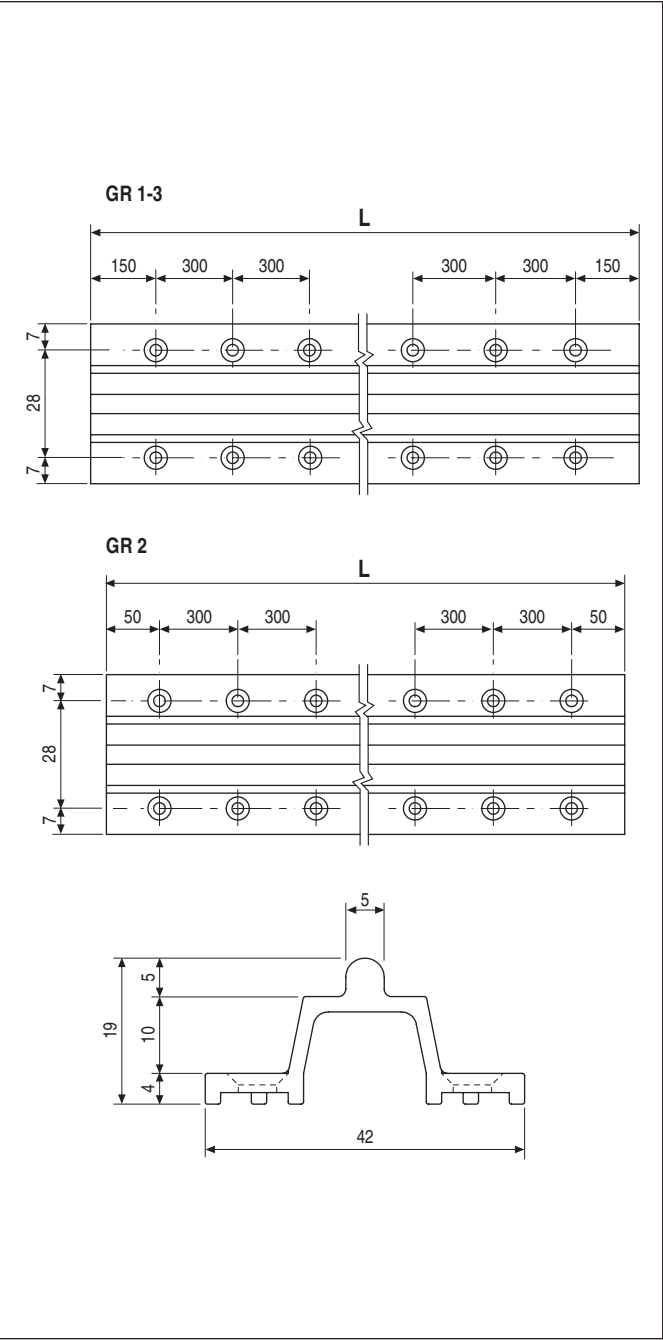
Application

It provides better water tightness than the low rail. It is not recommended for systems with multiple sashes sliding on parallel rails and exposed to heavy rain, as it prevents the water trapped between the rails from

draining.
Mounting

The rail can be surface or flush-mounted on marble threshold, wooden sill or floor. Calculation of the height of the sliding sash depends on the type of installation (see "Information" chapter). Use 4x25 mm screws for anchoring to wood, and suitable plastic anchors for marble threshold or floor installation.

NB. The base should always be sealed with silicone.



Order Specifications

		Aluminium Silver		Aluminium Brown	
GR	L	Article	Finish code	Article	Finish code
1	3000	G00739.01.01	AF1	G00739.01.02	AF5
2	4000	G00739.02.01	AF1	G00739.02.02	AF5
3	6000	G00739.03.01	AF1	G00739.03.02	AF5

Top and low “C” track

Description

Guide profile made of anodized aluminium, with hidden holes every 30 cm for screws.

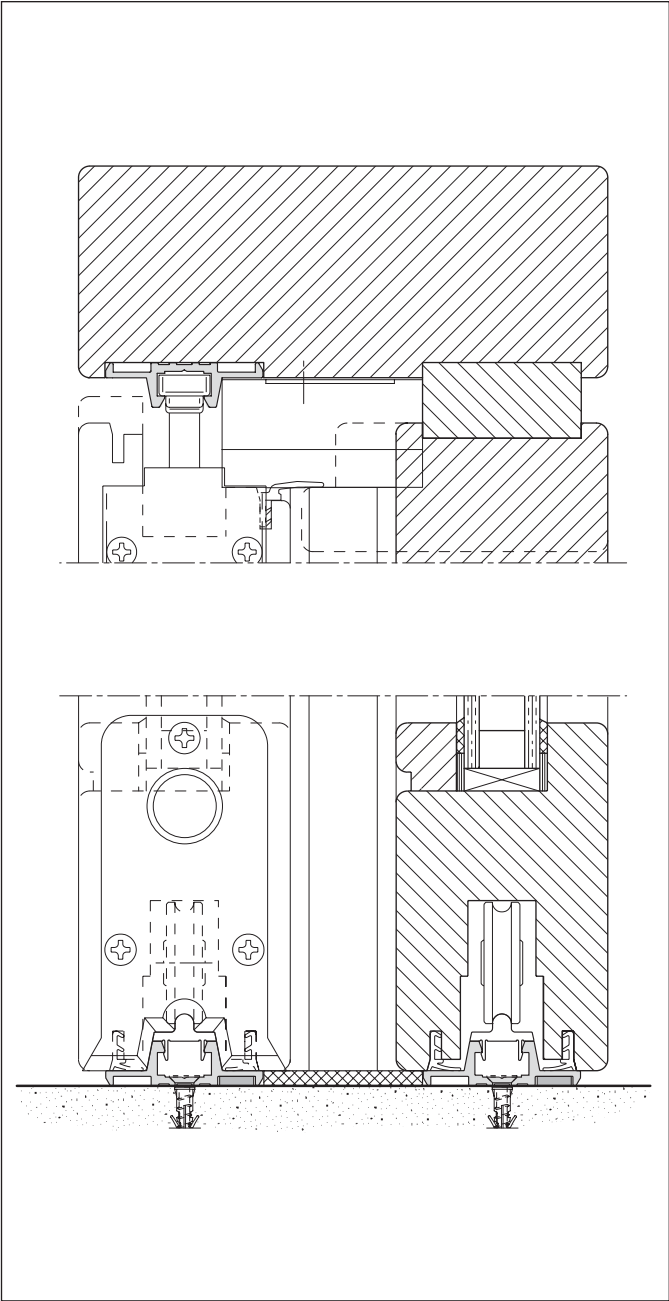
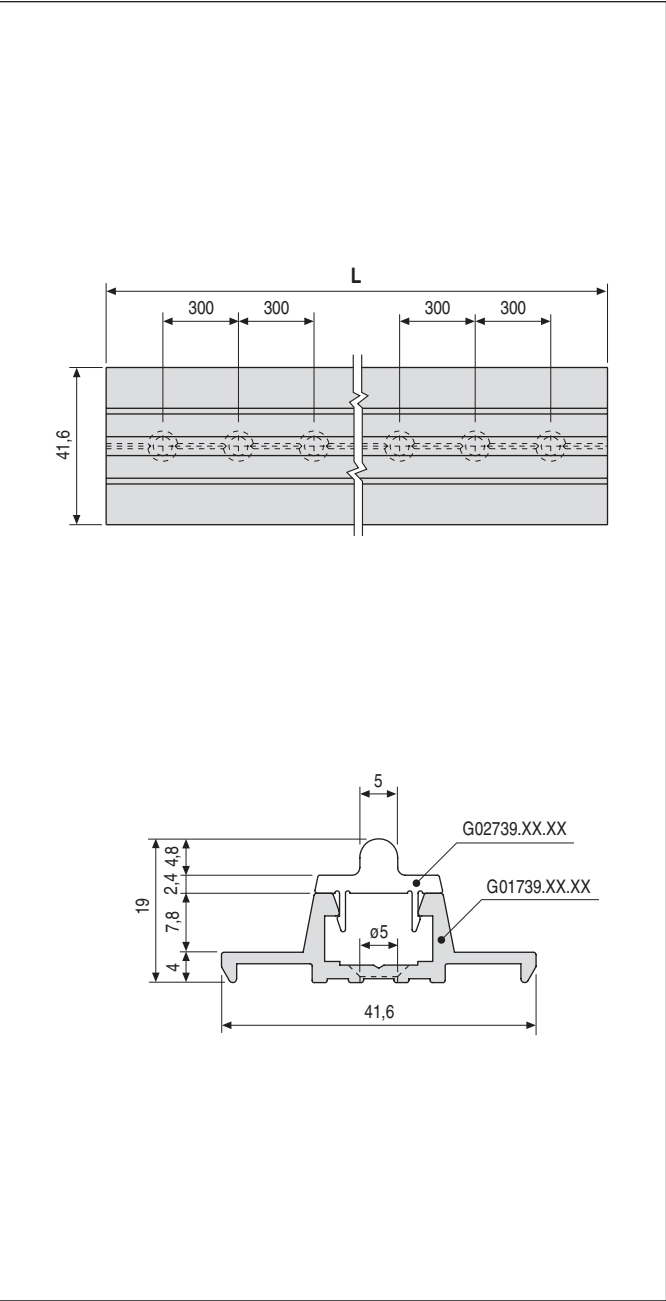
Application

The “C” guide profile can be used as upper guide in which the gliders slide or even as high rail with hidden screws. In this case the “C” track has to be coupled with the snap-in rail for “C” track art. G02739.xx.xx.

On the base of the profile there are two rooms for housing the PVC gasket art. G00733.06.00

Mounting

When used as top guide, use 4x20 mm screws. When used as rail, use ø 6mm anchors and proper screws.



Order Specifications

		Aluminium Silver		Aluminium Brown	
GR	L	Article	Finish code	Article	Finish code
1	3000	G01739.01.01	AF1	G01739.01.02	AF5
2	4000	G01739.02.01	AF1	G01739.02.02	AF5
3	5000	G01739.03.01	AF1	G01739.03.02	AF5
4	6000	G01739.04.01	AF1	G01739.04.02	AF5

Snap-in rail for “C” track rail and low cover threshold with thermal brake

Description

Anodized aluminium profile.

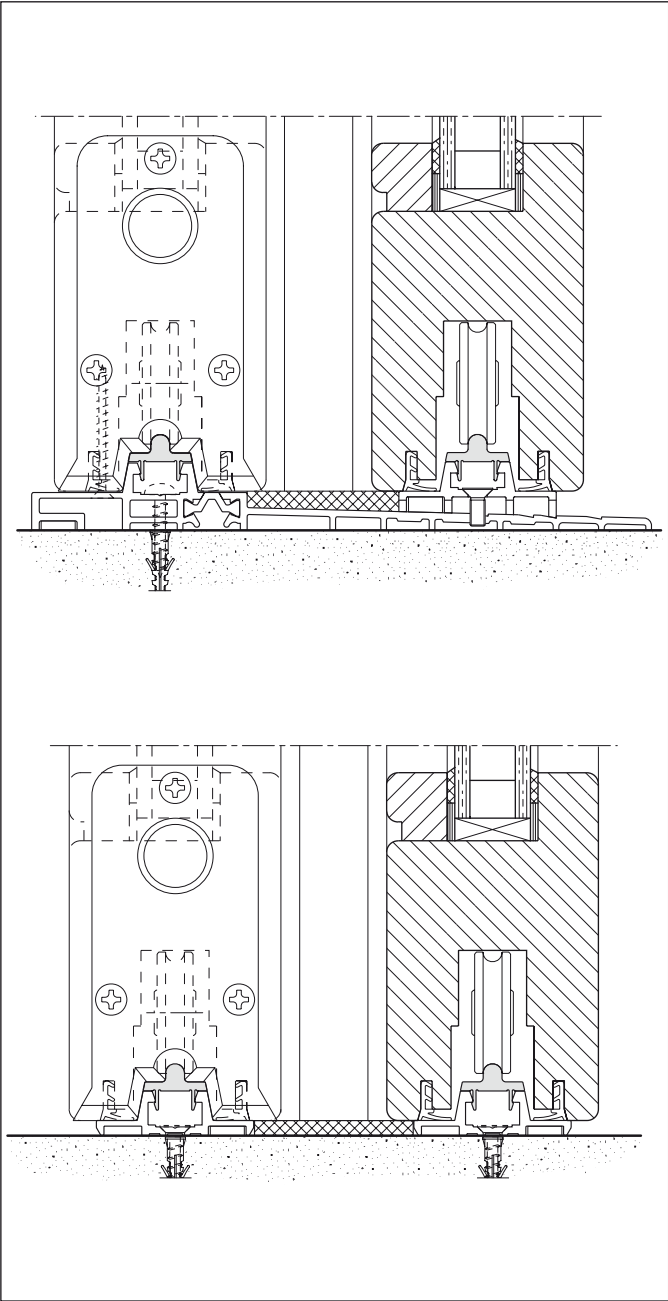
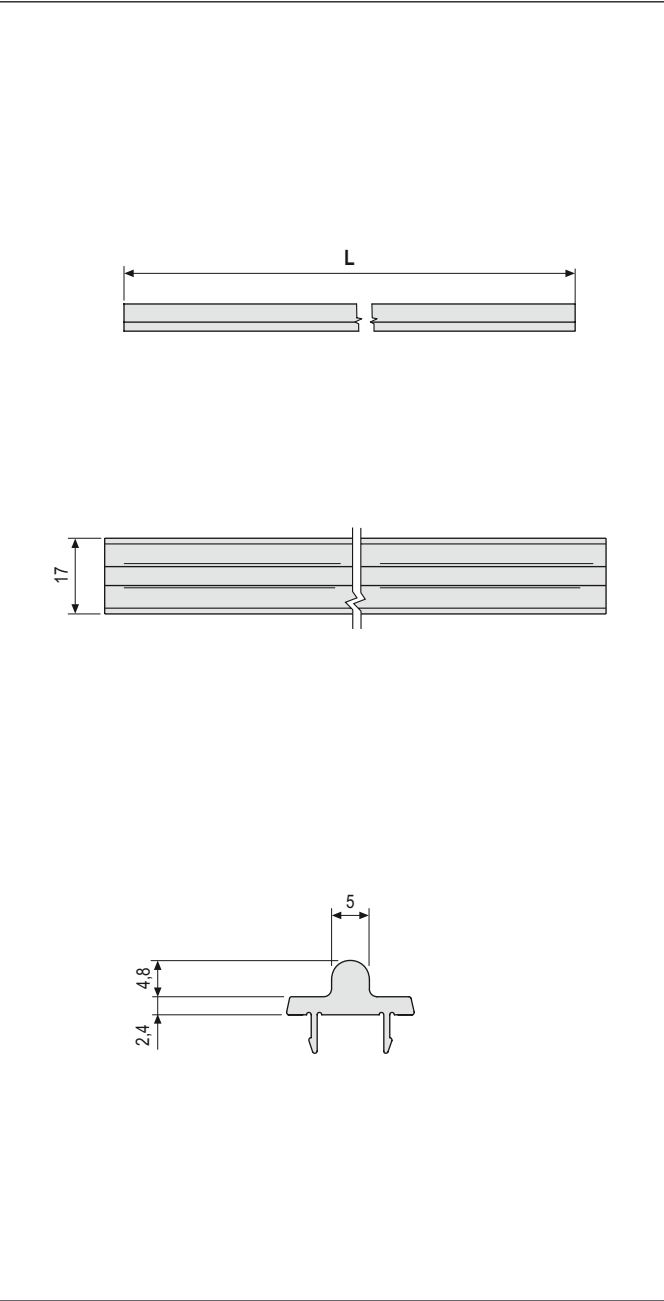
in case of deterioration, it can be replaced with a new one.

Application

Snapped in the “C” track or in the low cover threshold with thermal brake, it is used as rail on which the carriages slide. The main advantage of this system is aesthetic as the fastening screws are hidden by the rail and,

Mounting

Snap-in.



Order Specifications

		Aluminium Silver		Aluminium Brown	
GR	L	Article	Finish code	Article	Finish code
1	3000	G02739.01.01	AF1	G02739.01.02	AF5
2	4000	G02739.02.01	AF1	G02739.02.02	AF5
3	5000	G02739.03.01	AF1	G02739.03.02	AF5
4	6000	G02739.04.01	AF1	G02739.04.02	AF5

High track with removable stainless steel rail

Description

Aluminium profile for high track, supplied with removable stainless steel rail, replaceable, made of stainless steel and PVC gasket for rail. It is available in anodised silver finish and aluminium brown. The stainless steel rail is plain.

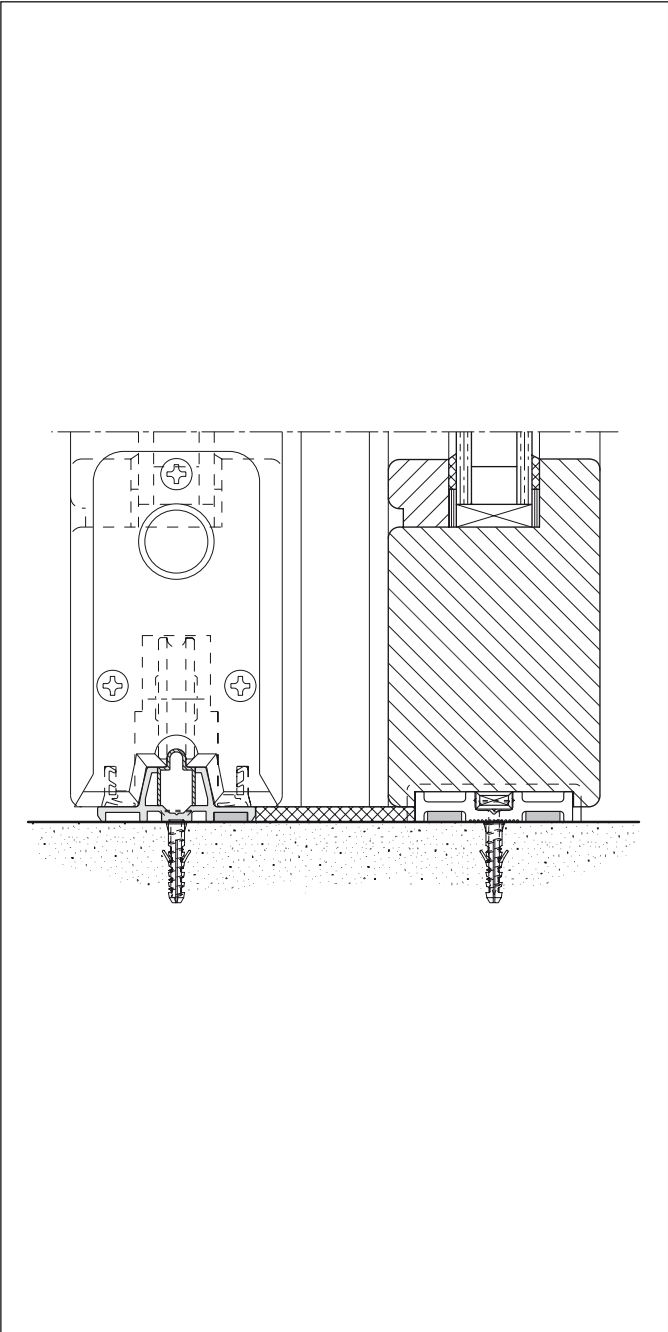
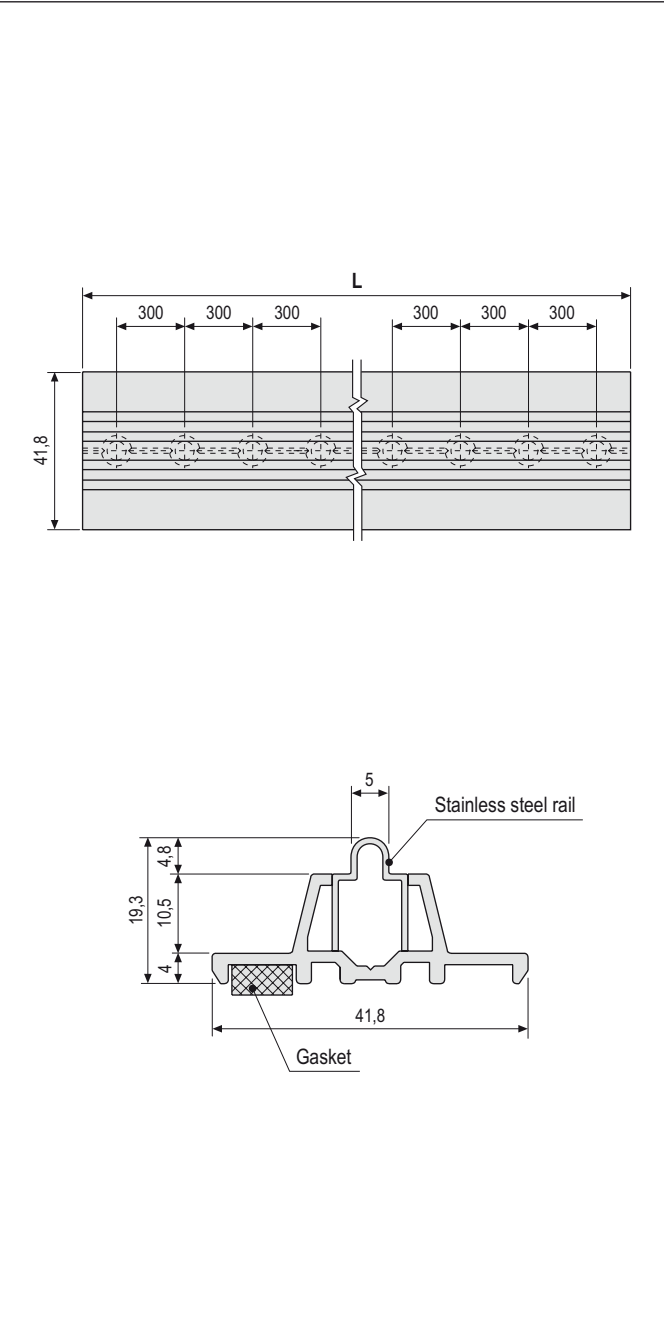
solution is especially designed where many passing are expected thanks to the hardness of the stainless steel profile which resists to the dents, scratches and wear.

Mounting

With anchor of \varnothing 6 mm at least and proper screw.

Application

Use as high track with hidden screws. This



Order Specifications

		Aluminium Silver		Aluminium Brown	
GR	L	Article	Finish code	Article	Finish code
1	3000	G03739.01.01	AF1	G03739.01.02	AF5
2	4000	G03739.02.01	AF1	G03739.02.02	AF5
3	6000	G03739.03.01	AF1	G03739.03.02	AF5

Reduced top guide

Description

Guide profile made of anodized aluminium, with screw holes every 30 cm.

Application

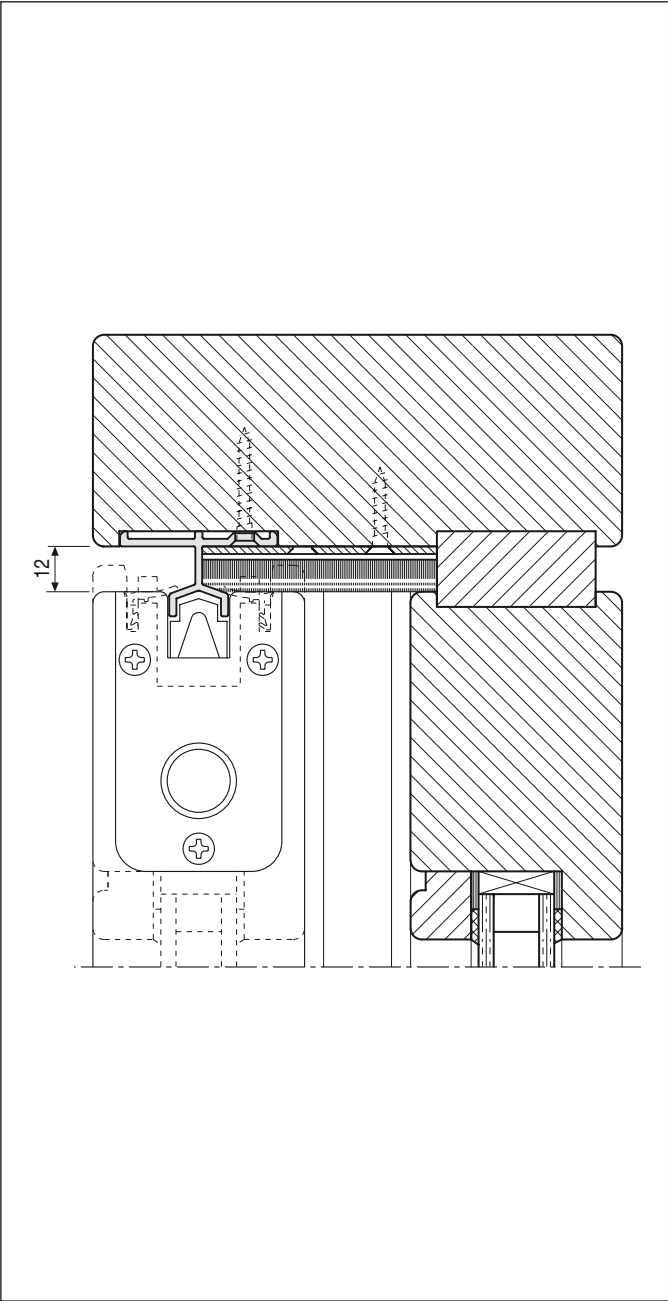
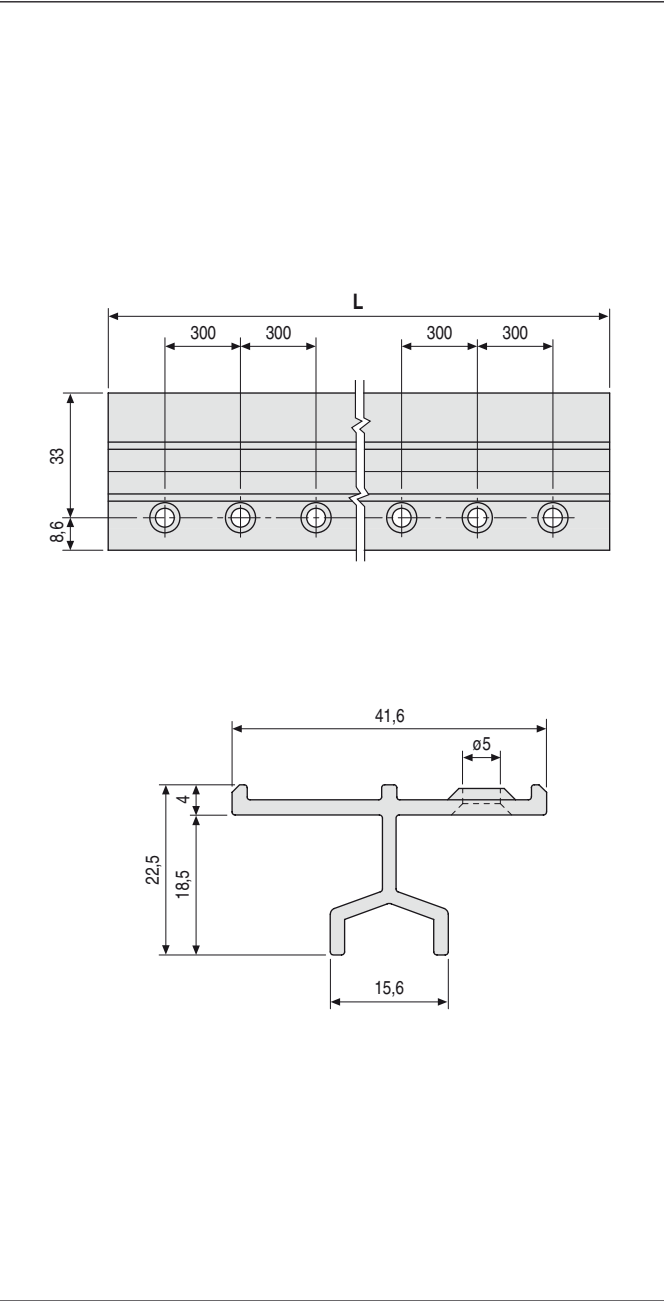
Using the reduced top guide allows aesthetic advantages, thanks to the reduced gap between sash and frame (the aluminium profile is less visible) as well as security advantages as by using high rail or thresholds there is not

enough room to make the carriages to get off their seats in case of break in attempts. The installation of the guide have to be simultaneously done with the sash. It is required the use of the brush insulating strip. No top insulating cap can be used due to the reduced room.

Mounting

Insert the profile inside the upper milling of

the sash; raise the sash up to the working position. Fix all the 4x20 screws by making the sash slide in order to reach all of them.



Order Specifications

		Aluminium Silver		Aluminium Brown	
GR	L	Article	Finish code	Article	Finish code
1	3000	G01734.01.01	AF1	G01734.01.02	AF5
2	4000	G01734.02.01	AF1	G01734.02.02	AF5
3	5000	G01734.03.01	AF1	G01734.03.02	AF5
4	6000	G01734.04.01	AF1	G01734.04.02	AF5

Universal top guide

Description

Anodised aluminium guide profile for the top rail of Lift & Slide sashes.

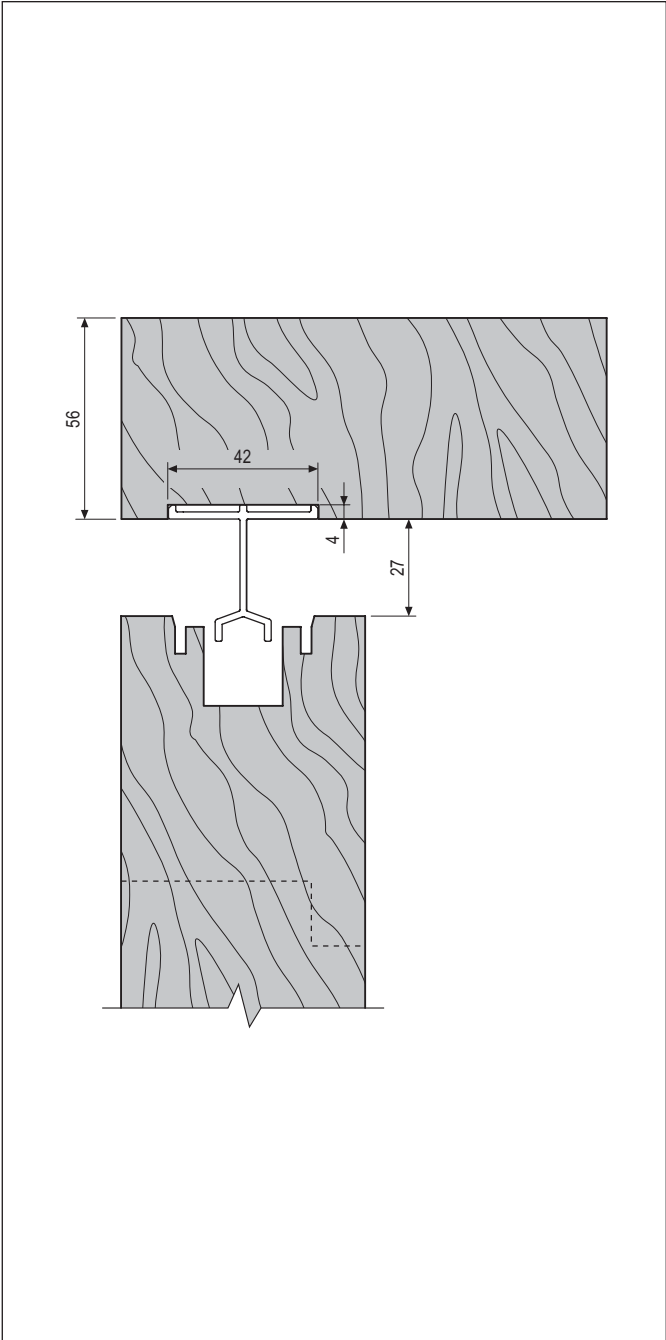
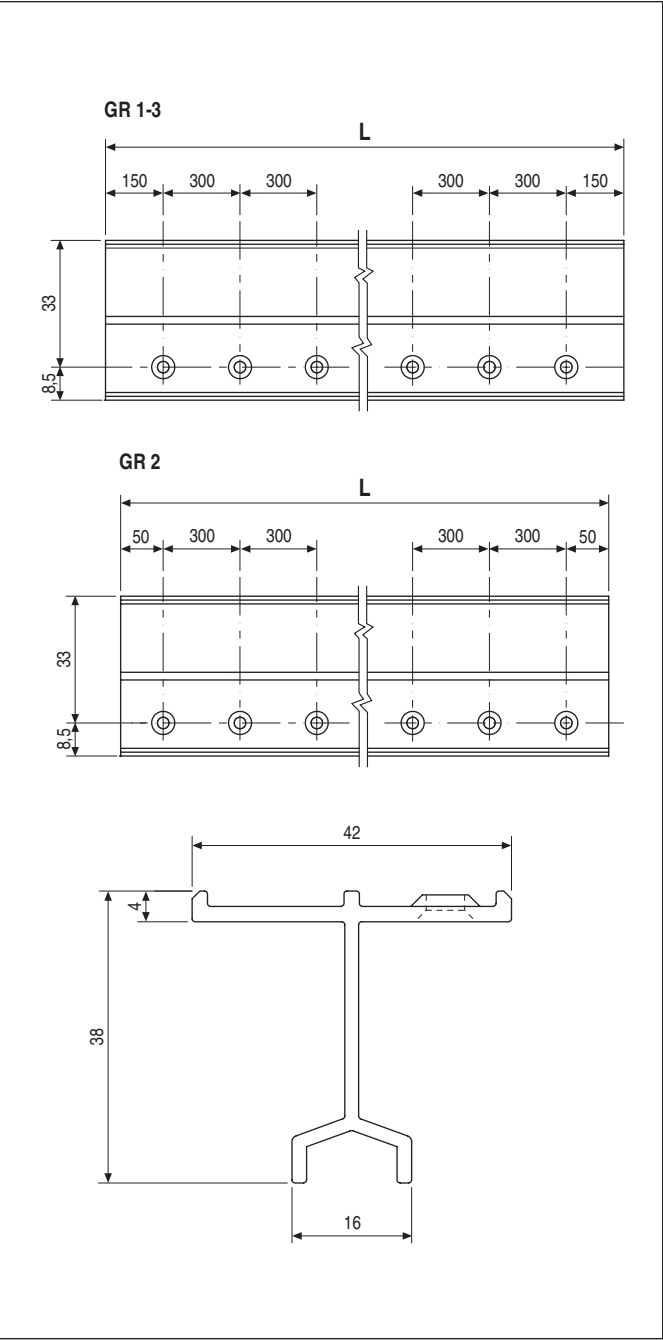
Application

This universal guide can be used with sashes of any thickness. Having no cover wings, a screening gableboard made of the same material as that used for the construction of the door/window must be provided, to be

installed in the head jamb.

Mounting

Insert 4x25 mm screws in the countersunk screw holes that have been provided in the guide at intervals of 30 cm.



Order Specifications

GR	L	Aluminium Silver		Aluminium Brown	
		Article	Finish code	Article	Finish code
1	3000	G00734.01.01	AF1	G00734.01.02	AF5
2	4000	G00734.02.01	AF1	G00734.02.02	AF5
3	6000	G00734.03.01	AF1	G00734.03.02	AF5

End cap for lock

Description

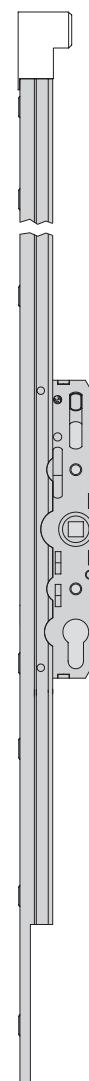
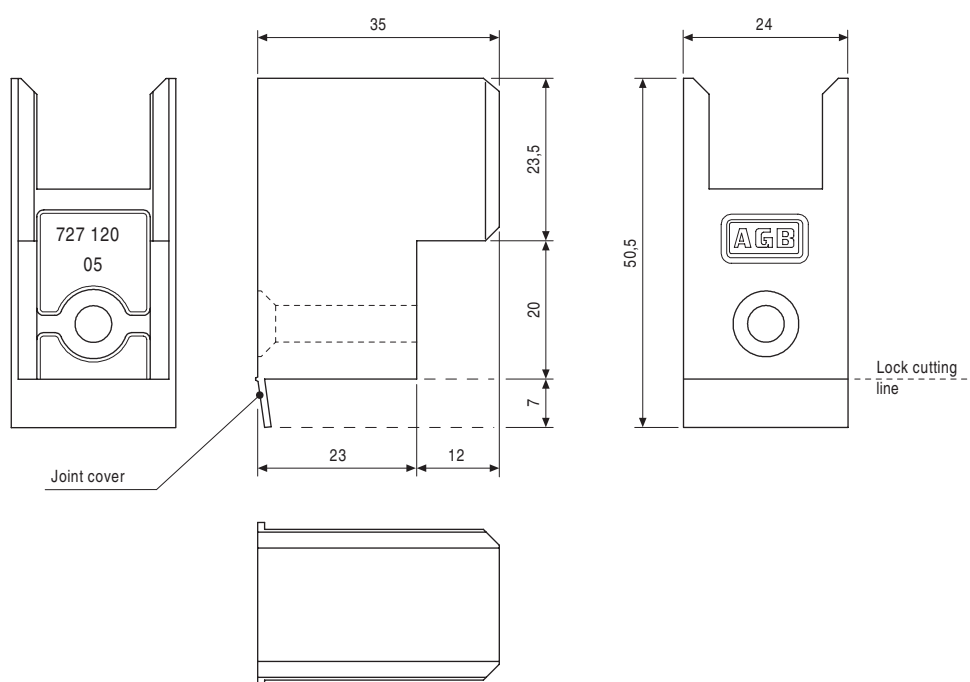
Plastic cap used to cover the top guide sliding groove on the lock side. Inserted in the kit for reduced and high top guide (G00758.01.68).

Mounting

Use 4.5x50 mm screws with thread suitable for the window/door material.

Application

In addition to its function as a cover, it also helps to prevent sash lifting and to partially absorb the sash sliding vibrations.

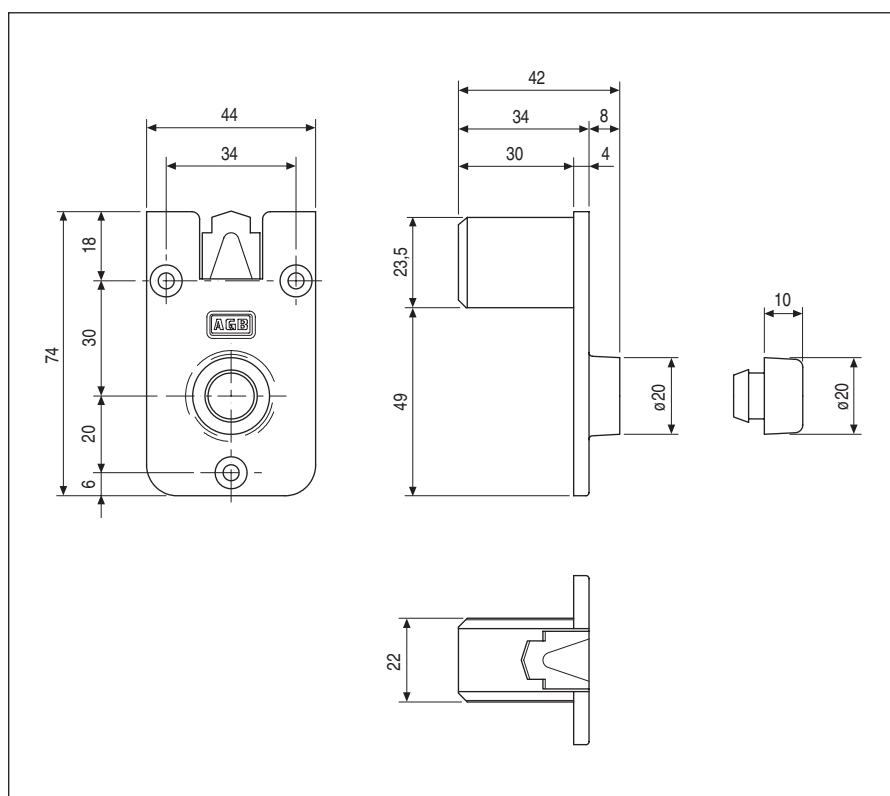


Order Specifications

Article

G00728.00.05

Top end cap with bumper



Description

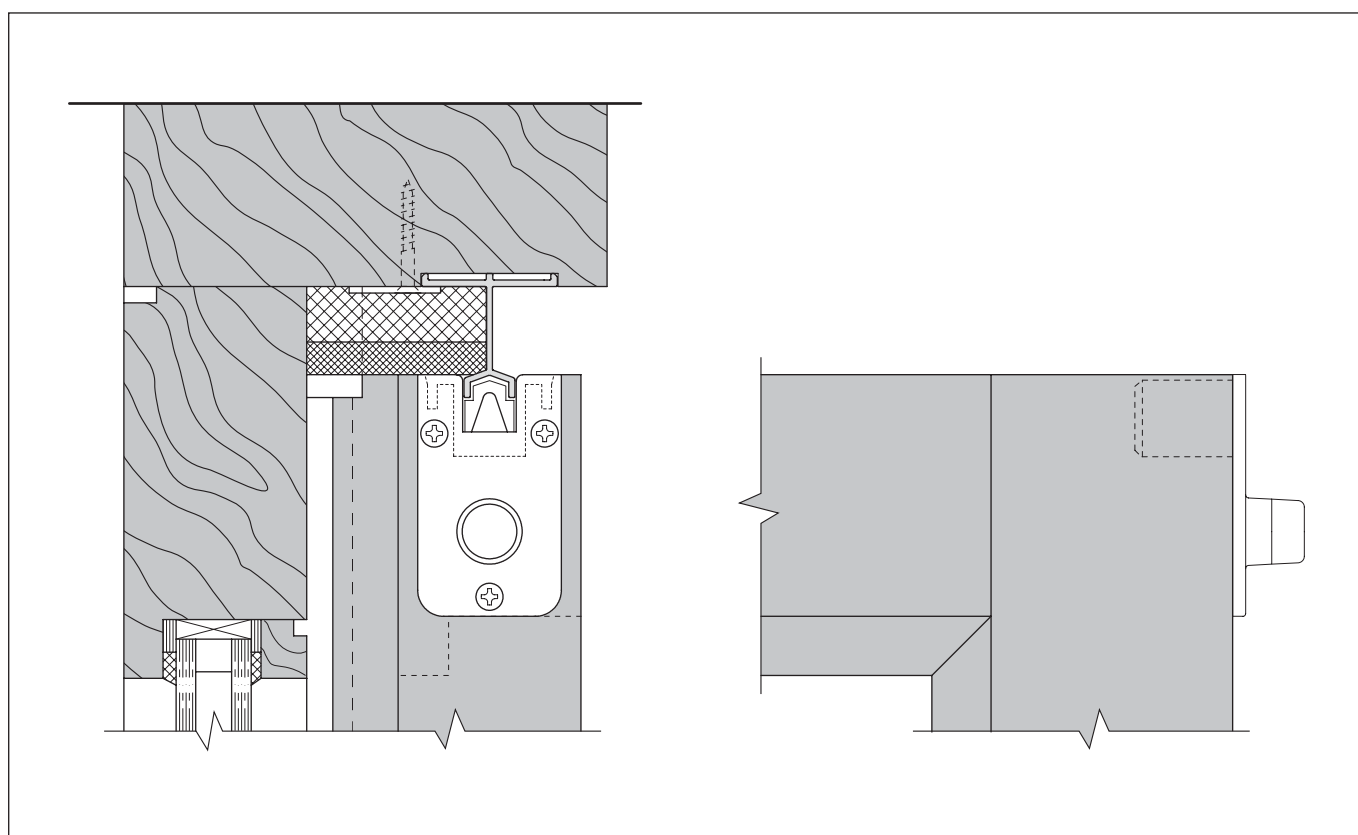
Plastic cap used to cover the top guide sliding groove on the back side. It is inserted in the top reduced or high guide kit (G00758.01.68).

Application

In addition to its function as a cover, it also helps to absorb the sash sliding vibrations and to improve the system's anti-lifting security. It is fitted with a rubber bumper that cushions the impact of the opening sash against the frame.

Mounting

Use 4x25 mm screws with thread suitable for the window/door material.

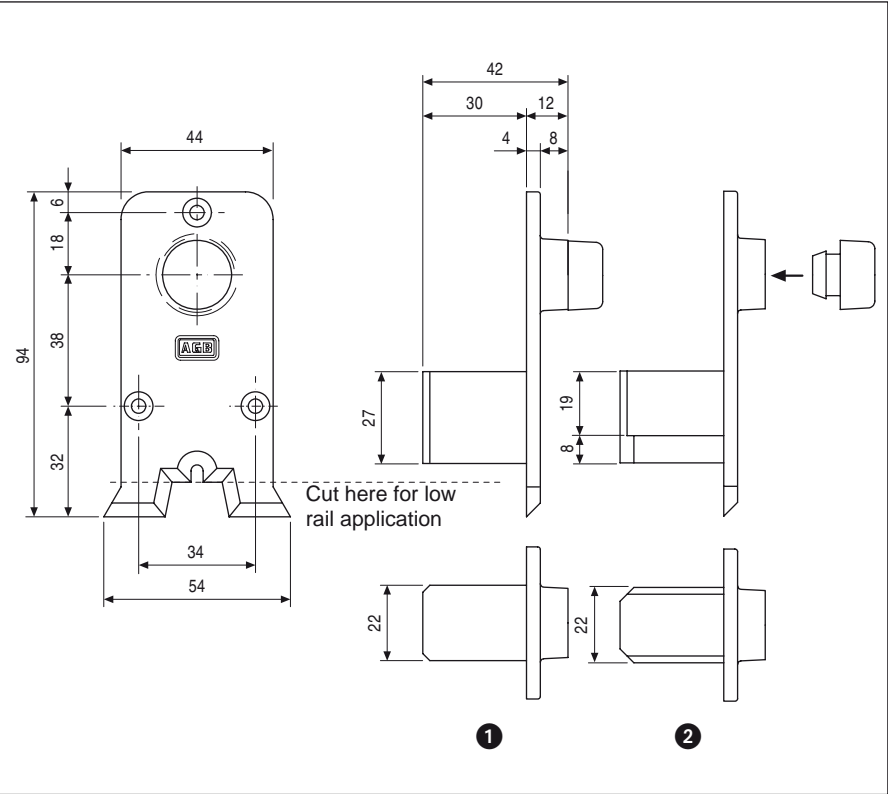


Order Specifications

Article

G00728.00.09

Bottom Rear cover cap - basic kit



Description

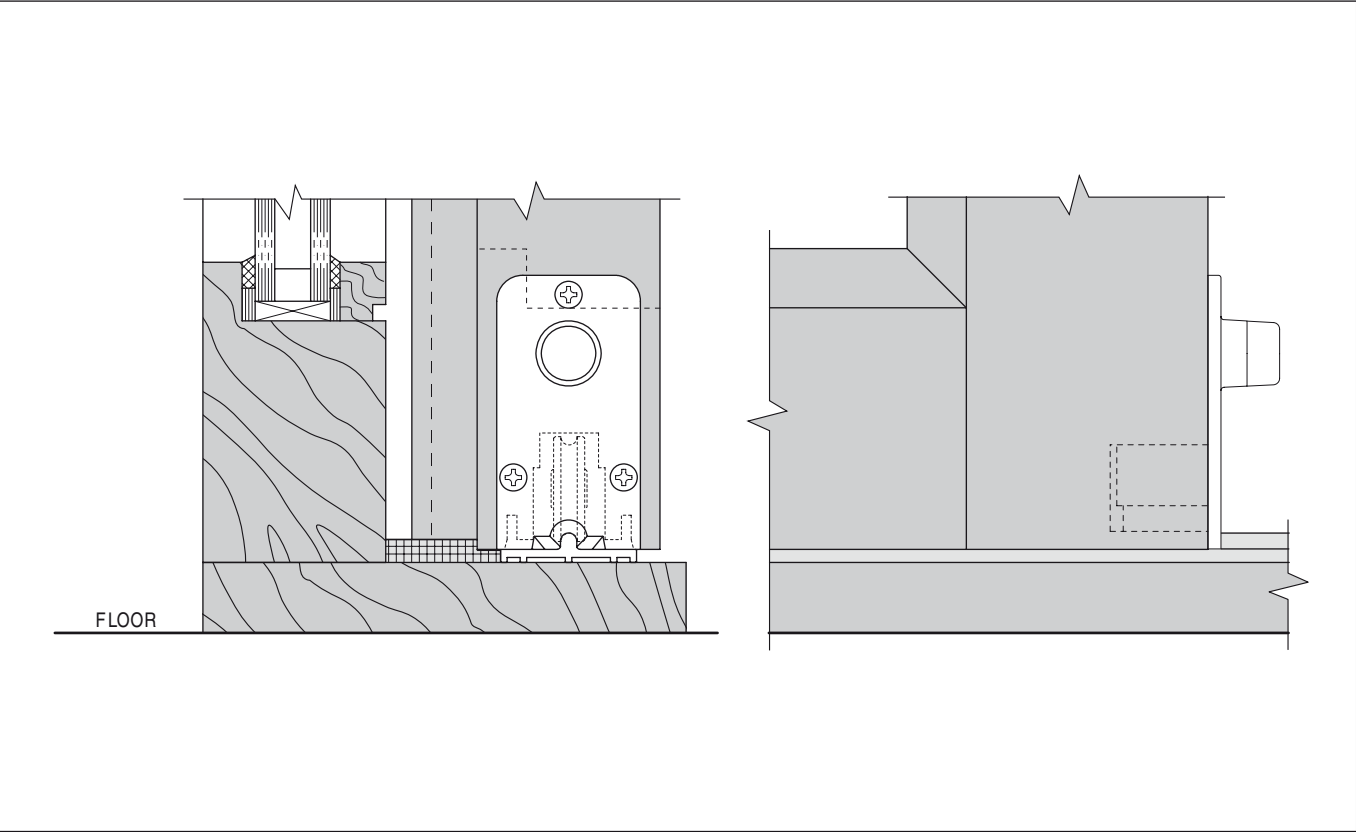
Plastic cap with rubber bumper. It is a standard basic kit component.

Application

It is used to cover the carriage housing groove on the back side of the sash. It also helps to cushion the impact of the opening sash against the frame. There are two distinct versions, for 150 kg and 250 kg, since the carriage housing grooves have different dimensions.

Mounting

Use 4x25 mm screws with thread suitable for the window/door material.



Order Specifications

Ref.	Type	Article		
1	250 kg	G00728.00.11		
2	150 kg	G00728.00.32		

For simultaneous shutter/frame drilling



Description

Two-handed jig made of indeformable plastic material, used for simultaneous drilling of the screw holes for hinge and pintle installation.

Application

The jig can be used for installation of all Abaco hinges and pintles with the exception of the wall-mounted models, on monobloc systems or on those where the frame is flush with the exterior wall, made of timber, PVC or aluminium.

For proper utilisation, see the operating instructions provided with the jig.

A = rebated systems: adjustment based on the thickness of the shutter rebate (11-60 mm); Flush systems: set to zero. Minimum gap allowed: 2,3 mm.

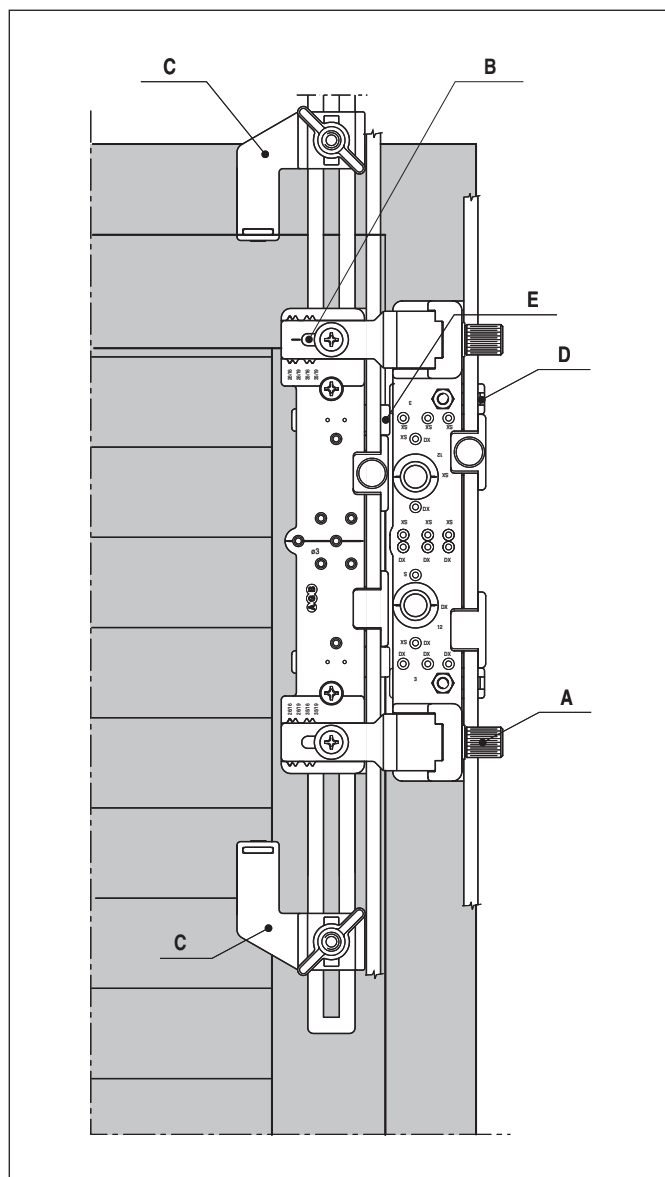
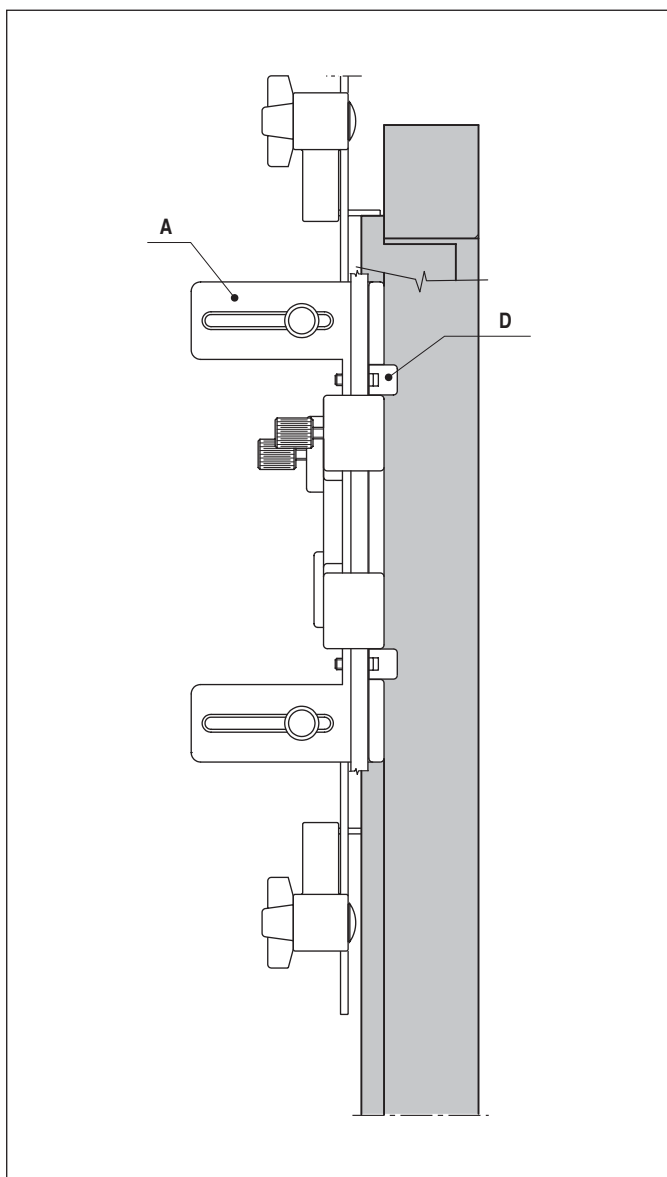
B = Adjustment based on the hinge neck (16/19 mm)

C = Upper and lower references for hinge positioning (min. 98 - max 312 mm).

D = Reference rebate on frame

E = 1st screw hole distance adjustment on rebate (26/35 mm).

NB. This jig cannot be used for the assembling of the pintle H00925.45.XX.



Order Specifications

Article

H00930.02.01

For automatic wall catch



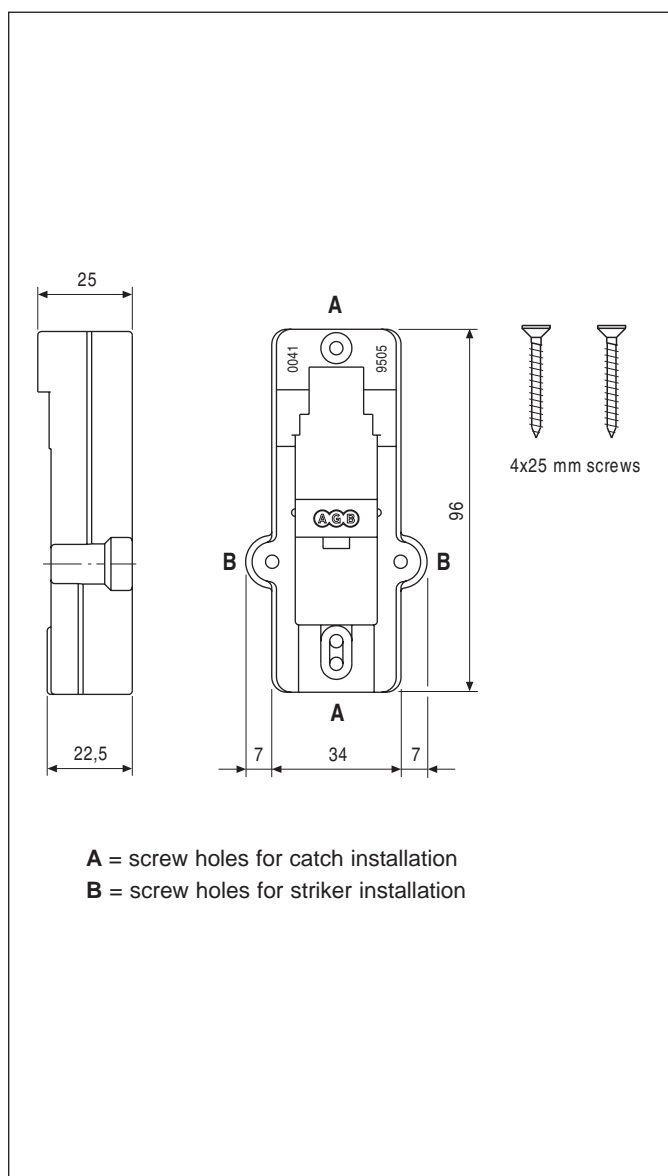
Description

Jig made of indeformable plastic material used to drill the screw holes in the wall for catch installation and in the shutter for striker installation.

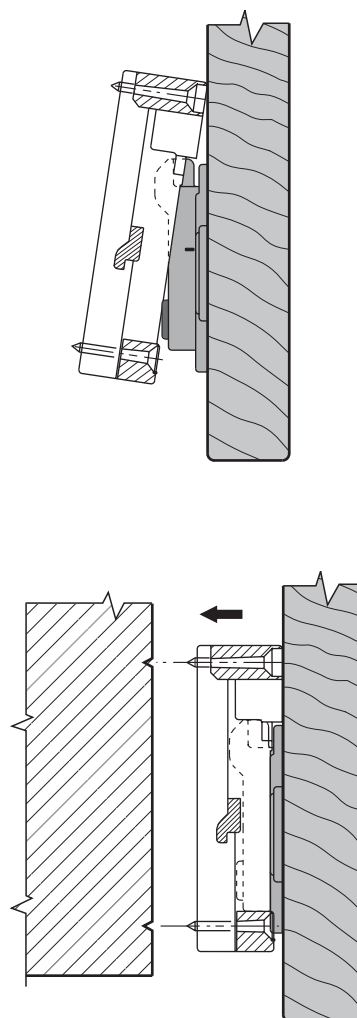
Application

• To mount the catch on the wall, after mounting the striker on the shutter: insert the 4x25 mm screws provided in the two vertical holes **A** in the jig, then fit the jig on the striker as shown in the figure below. Open the shutter wide and press it against the wall, so that the screws leave visible marks on the wall.

• To mount the striker on the shutter, after mounting the catch on the wall: insert the 4x25 mm screws provided in the two horizontal holes **B** in the jig, then fit the jig on the catch. Open the shutter wide and press it against the wall, so that the screws leave visible marks on the shutter.



How to use the jig to install the catch



Order Specifications

Article

H00930.03.01

For striker of the wall catch with handle positioning



Description

Jig for the striker positioning on the wall

Application

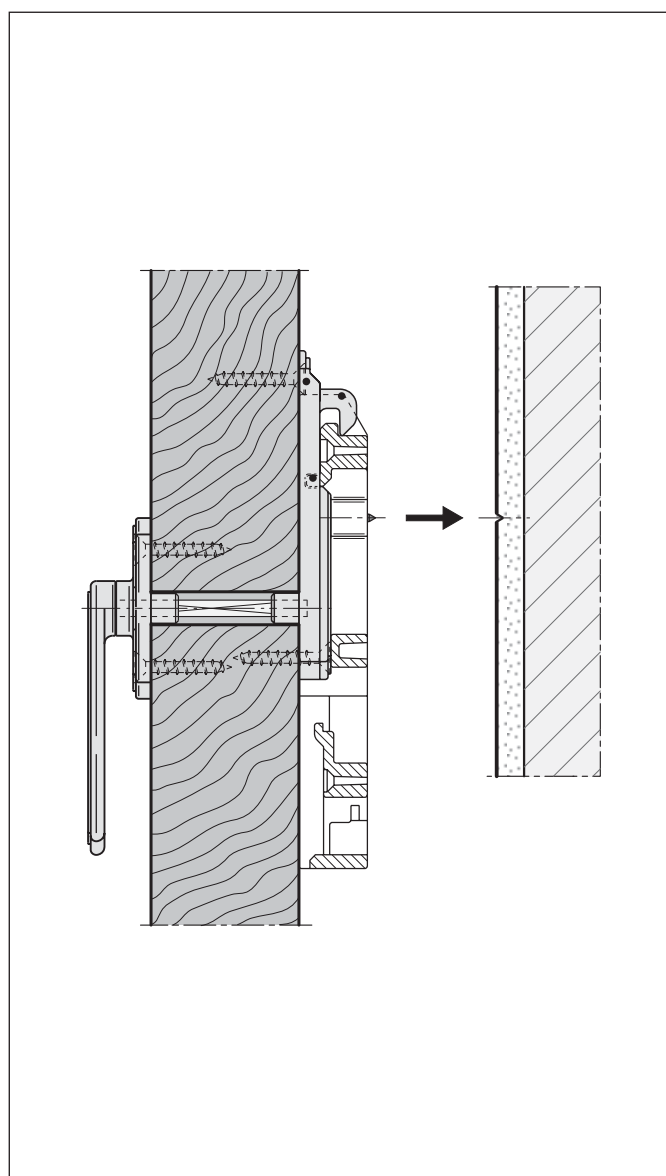
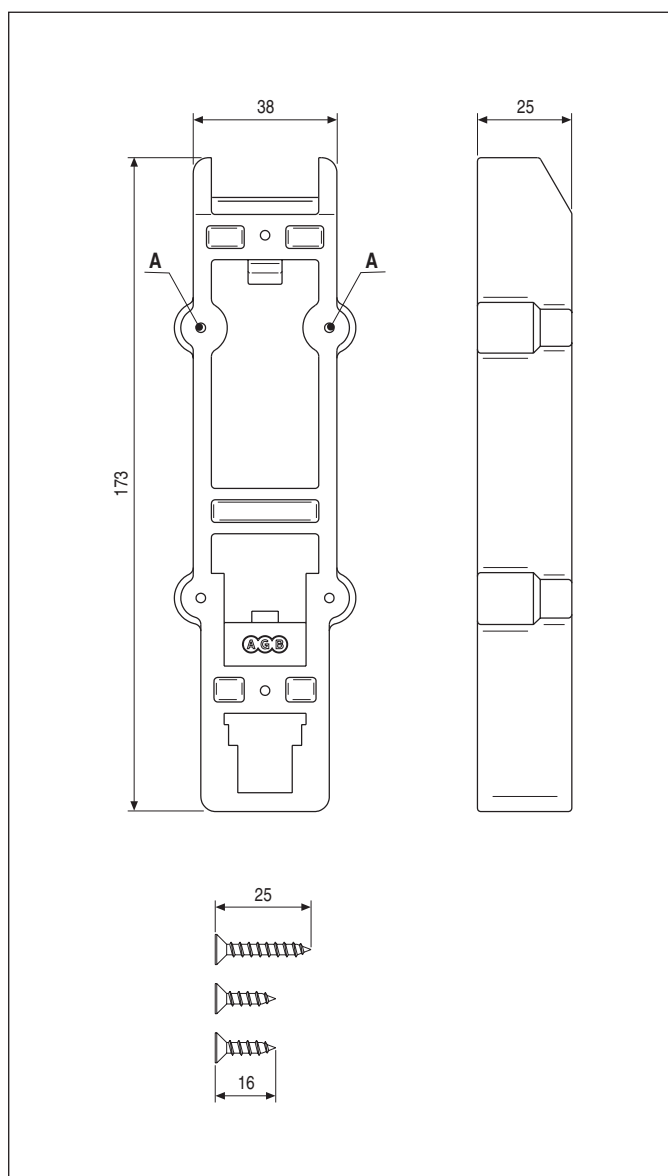
Insert two 4x16 mm screws (included in the package) in the "A" holes of the jig, lift the hook of the wall catch up to the top limit, then hook the jig with the tooth on the proper hole under the hook. Lower the hook up to the bottom limit. Open the sash and push it on the wall until the screws mark two notches on the wall and then execute the holes.

Fix the striker on the wall, by using 4,5x50 mm screws and 8x40 mm anchors.

For the good functioning of the wall catch a 25 mm distance between wall and sash

is required. When the distance is higher than 25 mm it is necessary to compensate with the proper shim H00926.04.93.

NB. For a correct use of the jig, please refer to the mounting instructions Art. Z90007.11.11 included in the package of the wall catch art. H01926.00.XX and consultable at www.agb.it



Order Specifications

Article

H00930.03.03

For wall catch with handle - for sash drilling



Description

Jig for shutter drilling and handle positioning

Application

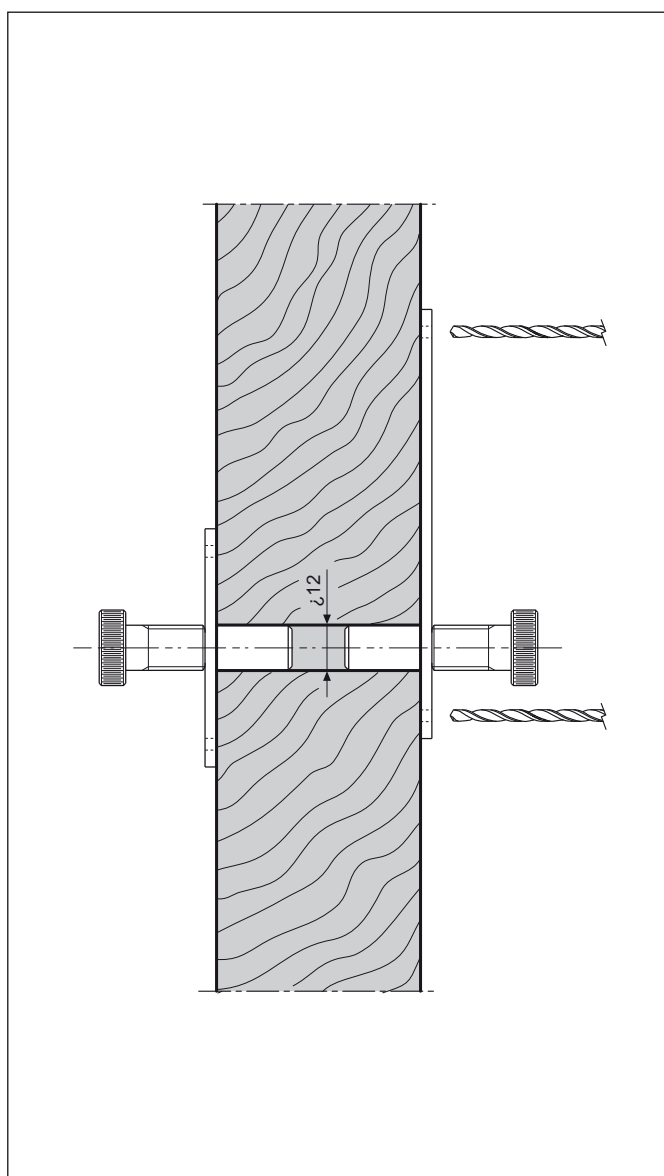
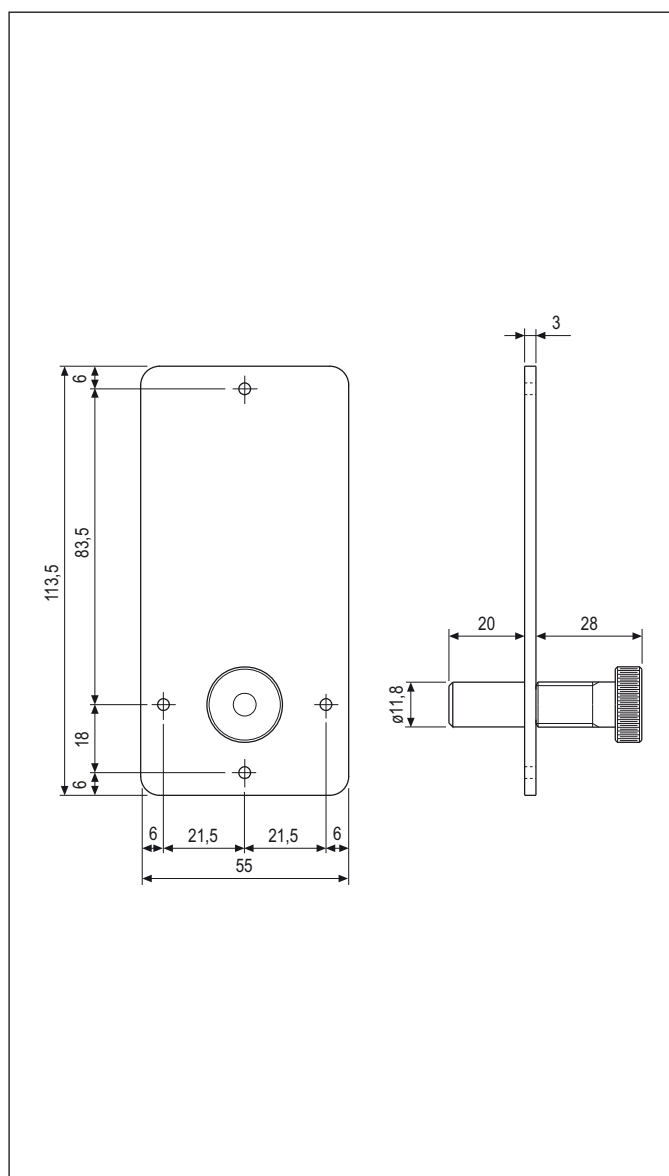
Execute a $\varnothing 12$ mm through hole, where the handle has to be positioned. Insert the centering pin of the jig and execute on the outer side the screws holes for the hook and on the inner side the holes for the handle ($\varnothing 3$ mm pin). Choose the hub according to the shutter thickness and insert it in the proper seat:

- H001926.54.00 (L=70 mm) from 39 to 54 mm door thickness

- H001926.54.00 (L=70 mm) from 39 to 54 mm door thickness.

Clamp components to window using 4,50x30 mm screws.

NB. For correct use of jig see art. Z90007.11.11 mounting instructions in the packaging of wall catch, art. H01926.00.XX, and accessible via the www.agb.it site.

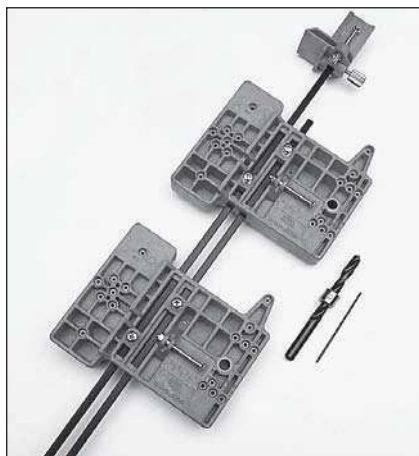


Order Specifications

Article

H00930.03.02

Abaco jigs kit - for separate shutter/frame drilling



Description

Complete jig kit for pintle and hinge positioning, with separate drilling of shutter and frame.

Jigs and upper retainer are made of indeformable plastic material.

Components

- 2 jigs
- 1 adjustable upper retainer
- 2 12x150 mm bits for adjustable pintle hole
- 2 12 mm bit holders
- 2 3x100 mm bits for hinge holes, adjustable pintle bracket and pintles with plate.

Application

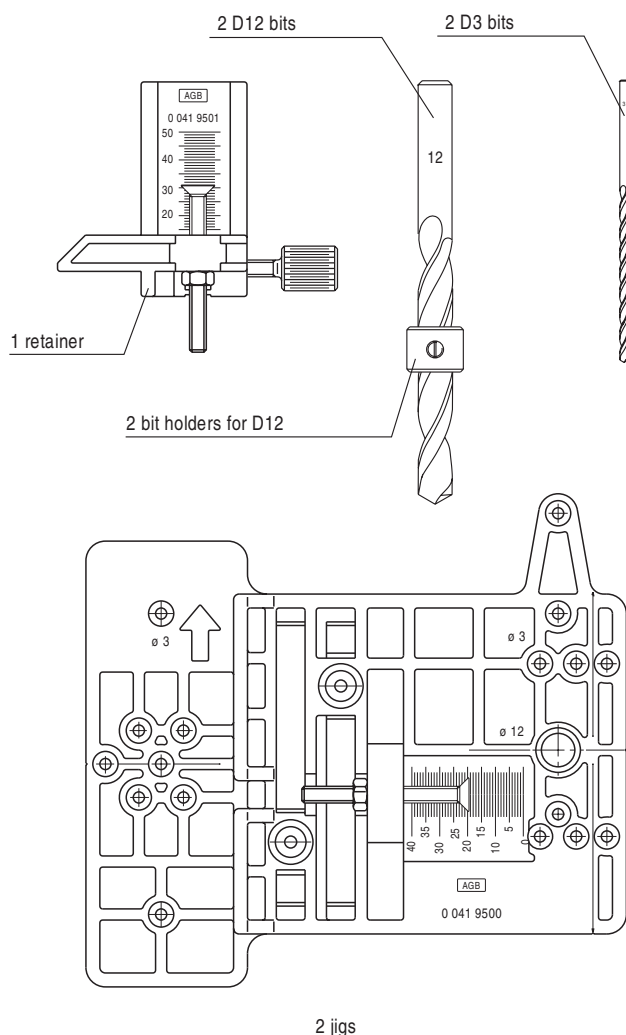
Proper jig positioning is obtained using 2 espagnolette drive rods of suitable length (not included in the kit).

The jigs and upper retainer must be mounted on the rods, adjusted according to directions and fastened with the appropriate screws.

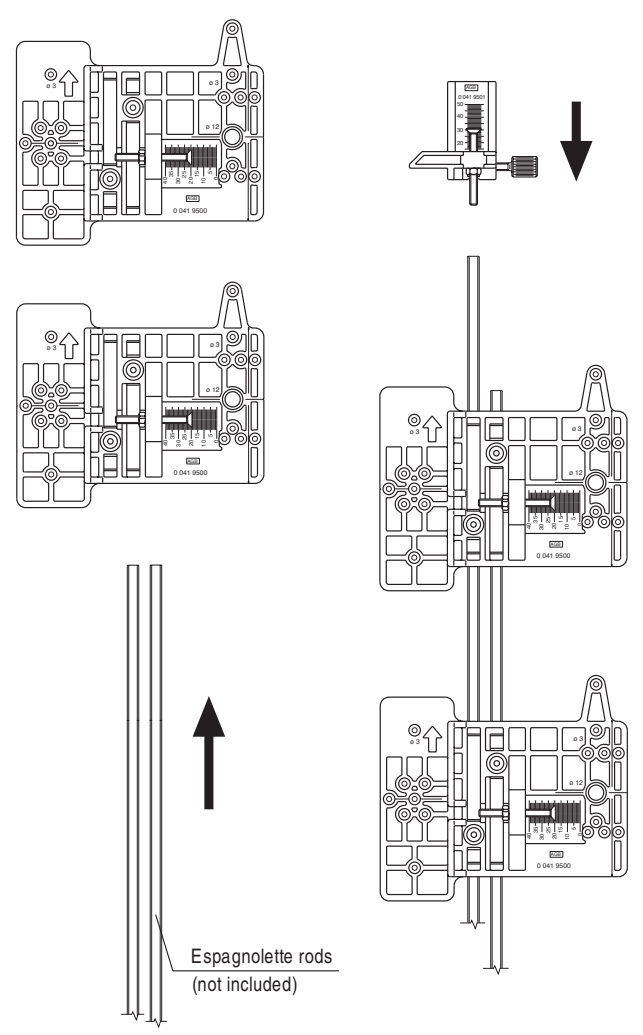
NB. Secure the jigs with a clamp before you start drilling.

Adjustments must be made according to the directions provided in the follolip pages.

Kit contents



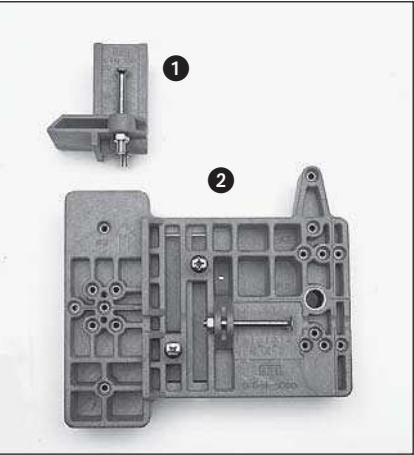
Kit assembly



Order Specifications

Article	
Jig kit	H00930.01.01

Single jig - for separate shutter/frame drilling



Description

- 1) Retainer made of indeformable plastic material, with screw and graduated gauge. Secured with a jig to the espagnolette rod it enables you to adjust the drilling position of the pintles based on the shutter gap or overlap.
- 2) Jig made of indeformable plastic material used to drill, in two consecutive stages, the screw holes for securing the hinges and pintles.

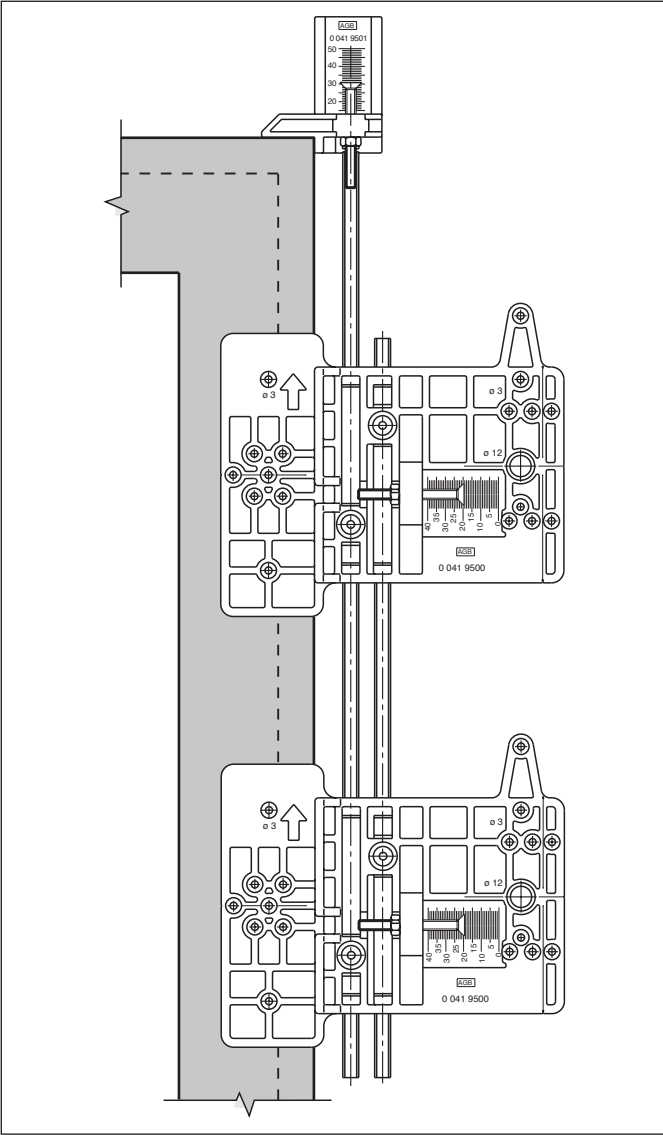
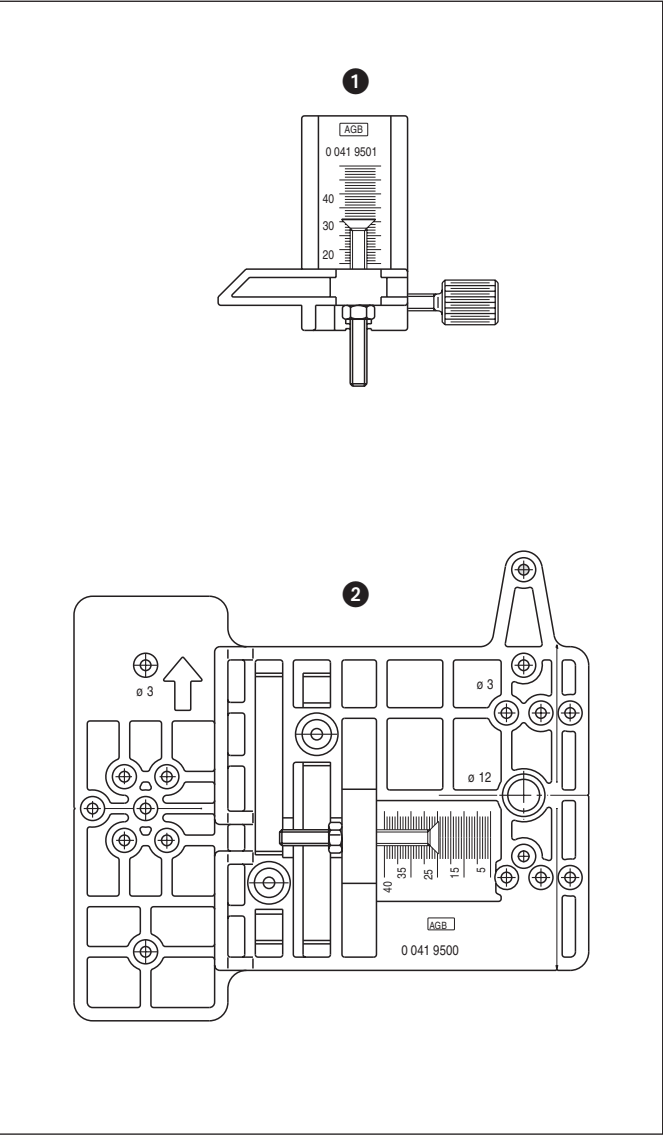
Application

The jig can be used for the installation of:

- adjustable pintles with narrow or large bracket, fixed pintles with plate, threaded pintles with plate

• supports and adjustable hinges for monobloc systems and fixed hinges without neck or with 15 mm neck.

Both the retainer and the jig are included in kit H00930.01.01, but they can be ordered separately to replace worn parts or to obtain a suitable kit for door shutters with 3 or 4 pintles and hinges. Adjust the jig and retainer as shown in the follolip pages and, when you have positioned it properly, secure it to the shutter using a clamp.

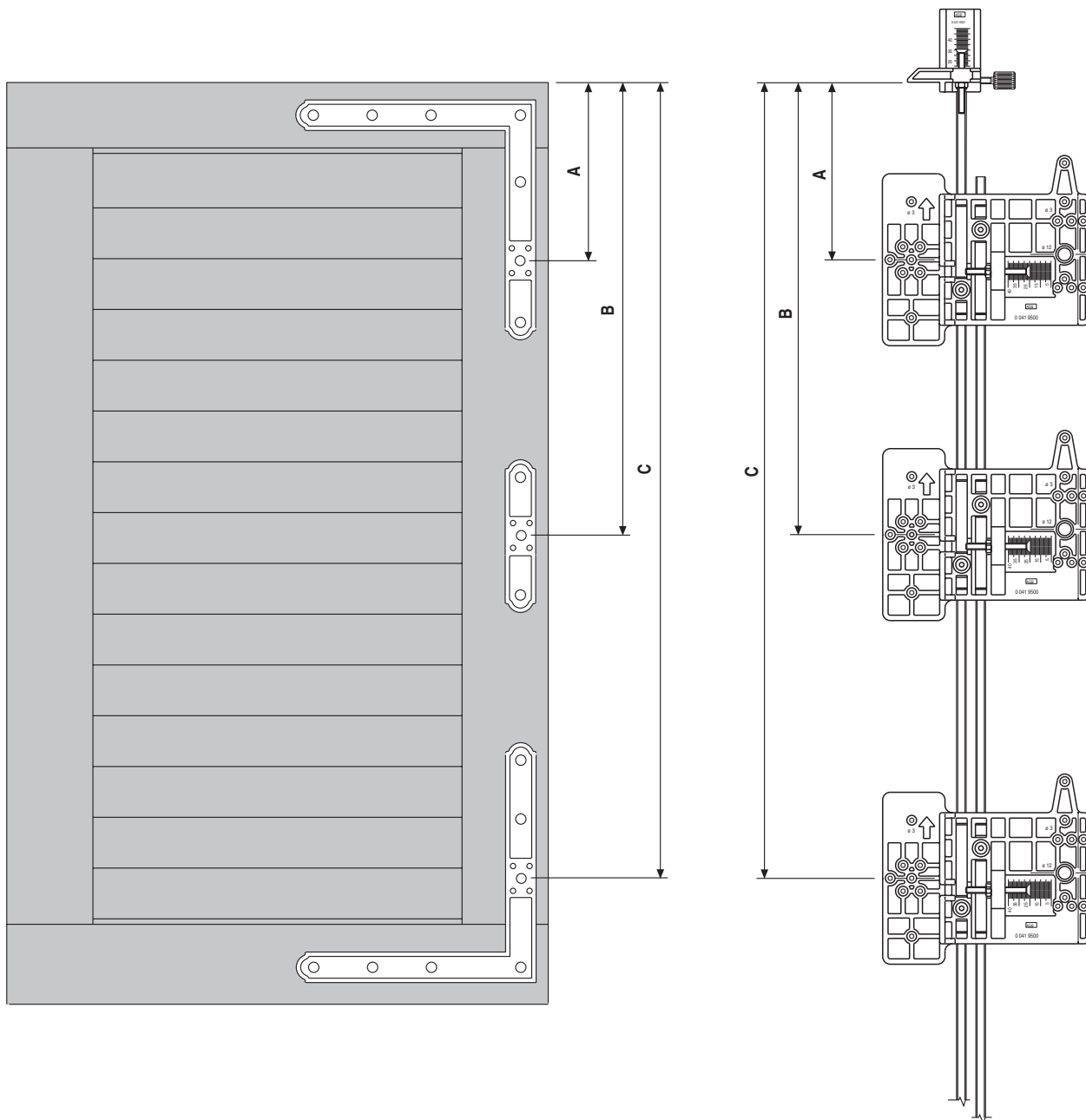


Order Specifications

Ref.	Article
1 Upper stop	H00930.00.02
2 Jig	H00930.00.01

How to use the jigs for drilling the shutter

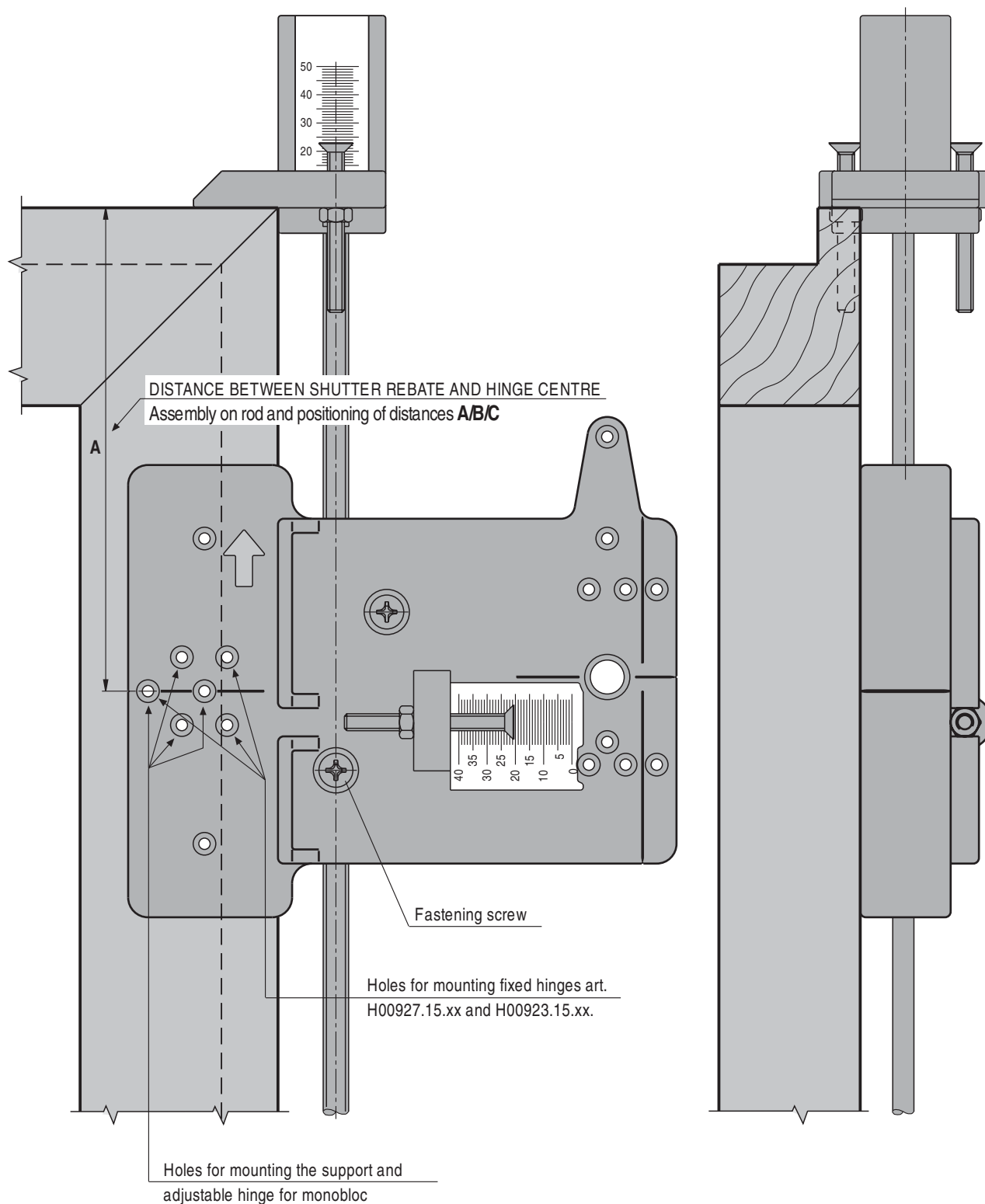
The jig positioning distances (A, B, C) with respect to the upper retainer must be determined based on the type of shutter and, therefore, the type of hardware you need to install (horizontal, vertical or corner brackets).



How to use the jigs for drilling the shutter

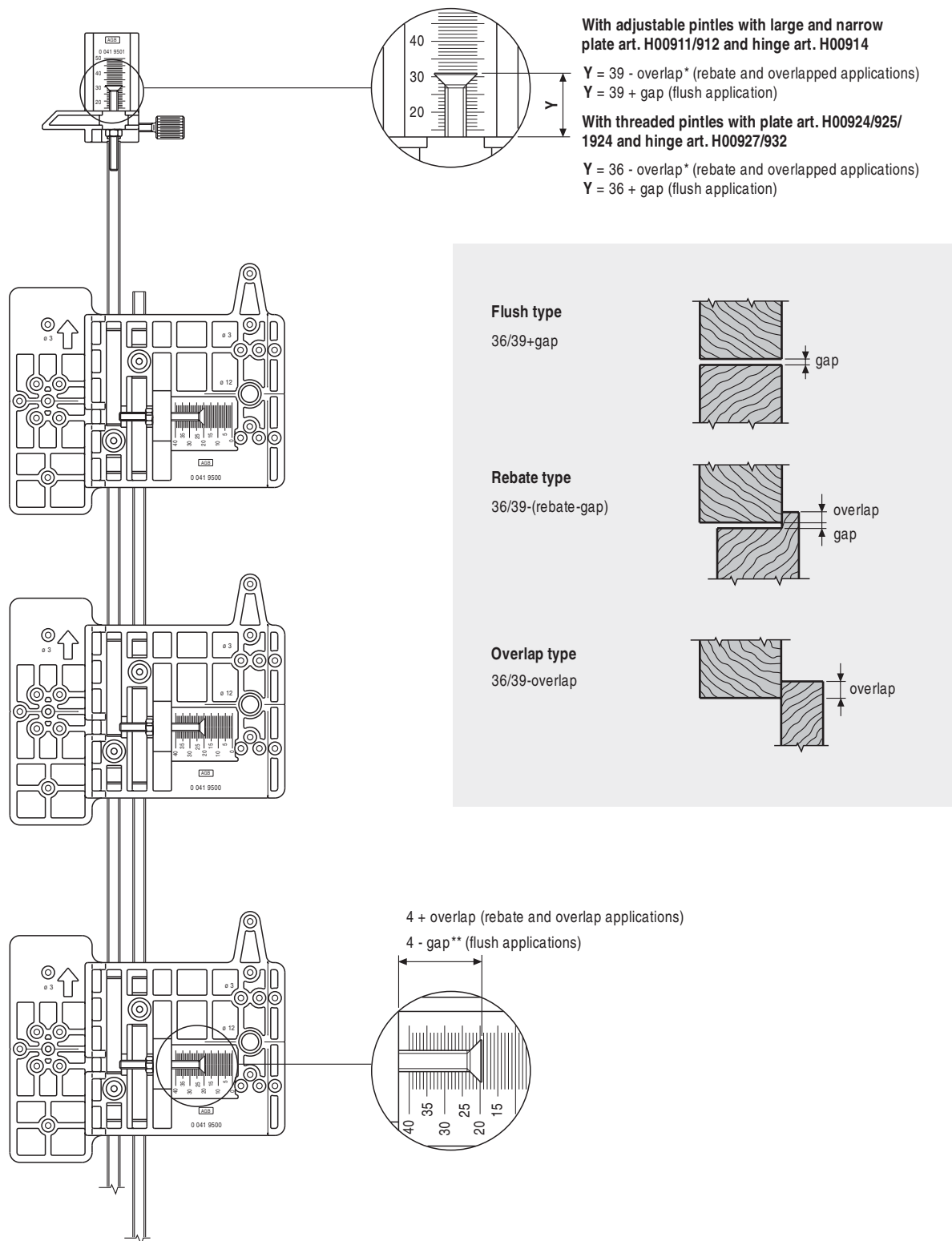
Description

- 1) Position the retainer on the shutter rebate.
- 2) Adjust the distance (A, B or C) between the rebate and the centre of the hinge sliding the jig along the rod and securing it with the appropriate fastening screw.
- 3) Drill where indicated by the holes, based on the type of hinge used (see dralip). The bit diameter is shown on the jig next to the holes. At this stage you can ignore the adjusting screws on the graduated gauge, which must be used when drilling the frame.



How to use the jigs for drilling the frame

In order to drill the holes for mounting the pintles on the frame it is not necessary to change the position of the jigs with respect to the upper retainer. The distances (A, B, C) established in the previous page remain unchanged. By adjusting the screw on the retainer and the one on the jig as shown in the figure below you will obtain the exact drilling position for the pintles.



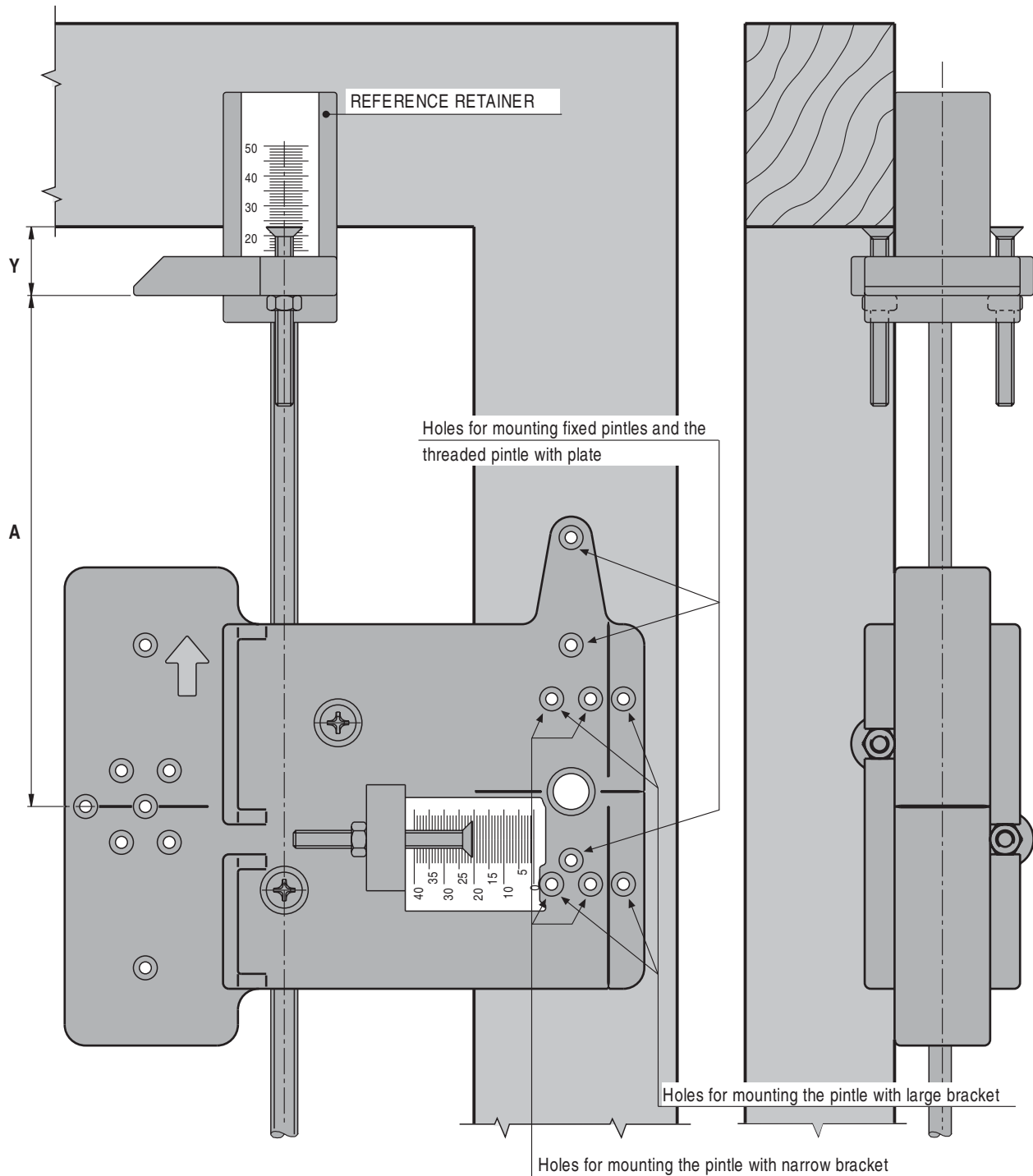
(*) Overlap = rebate - gap

(**) Maximum gap allowed 4 mm

How to use the jigs for drilling the frame

Description

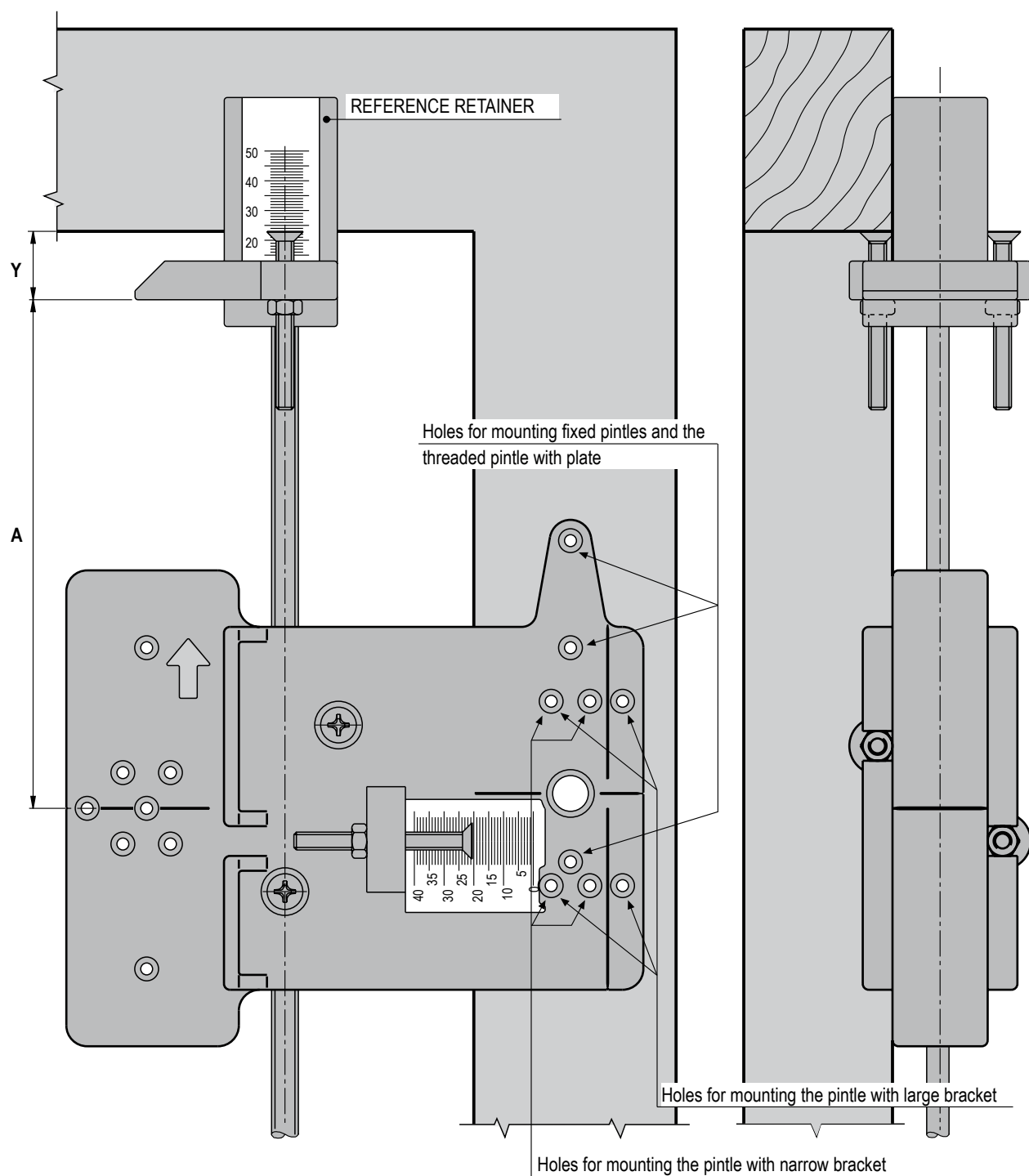
- 3) Set the adjusting screws on the retainer's and jig's graduated gauge, as shown in the previous page
- 4) Position the head of the retainer's adjusting screw to match the rebate on the inside of the head jamb. Make sure not to move the retainer along the rod.
- 5) Position the head of the jig's adjusting screw to match the rebate on the inside of the side jamb. Make sure not to move the jig along the rod.
- 6) Secure the jigs with clamps.
- 7) Drill where indicated by the holes, based on the type of pintle used (see dralip). The bit diameter is shown on the jig next to the holes.



How to use the jigs for drilling the frame

Description

- 4) Set the adjusting screws on the retainer's and jig's graduated gauge, as shown in the previous page
- 5) Position the head of the retainer's adjusting screw to match the rebate on the inside of the head jamb. Make sure not to move the retainer along the rod.
- 6) Position the head of the jig's adjusting screw to match the rebate on the inside of the side jamb. Make sure not to move the jig along the rod.
- 7) Secure the jigs with clamps.
- 8) Drill where indicated by the holes, based on the type of pintle used (see dralip). The bit diameter is shown on the jig next to the holes.



Jig Kit dor Archimede wall catch

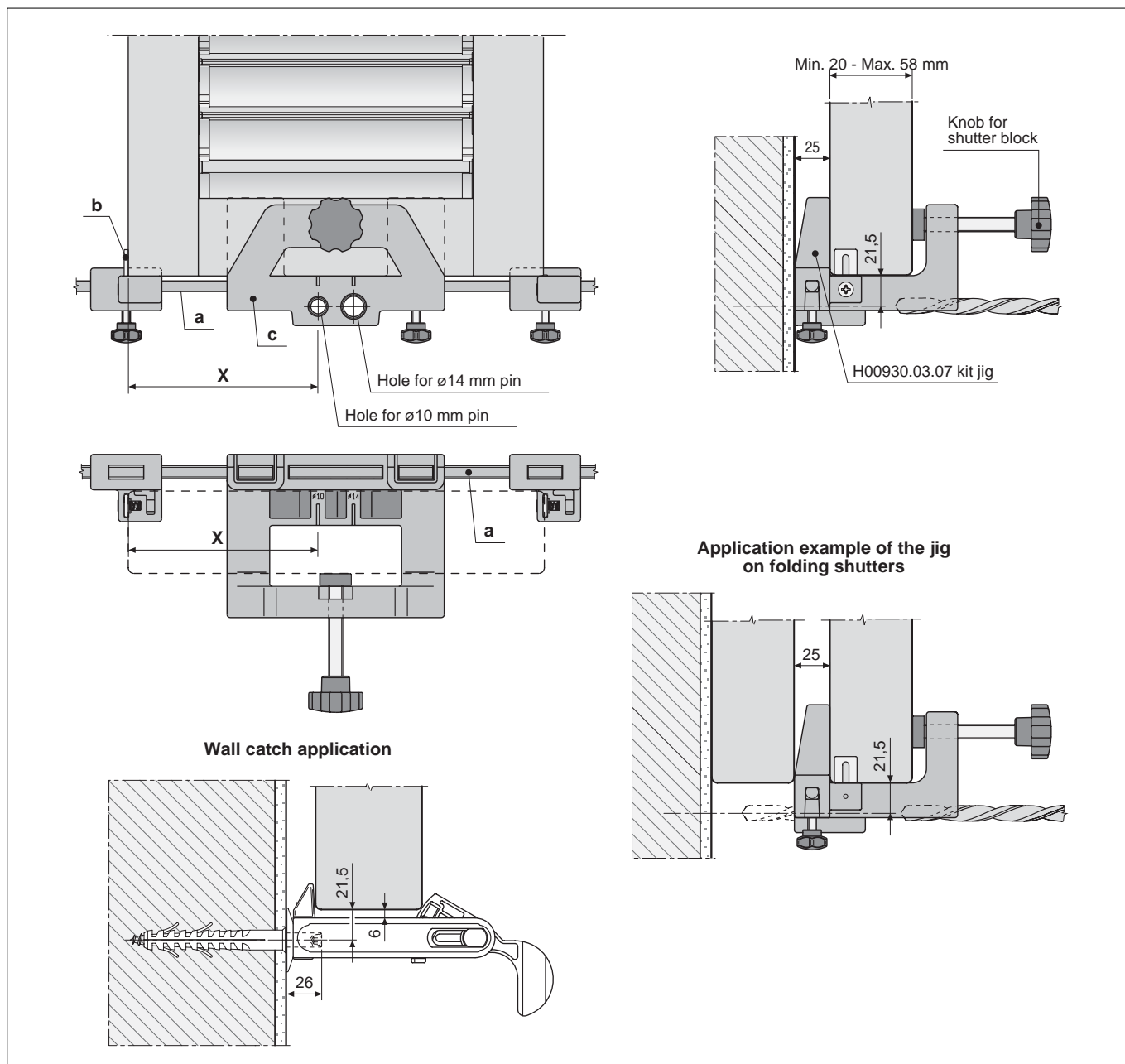
Description

Kit includes a jig to be fixed on the sash for the orthogonal drilling of the wall and the reference blocks.

The jig has 2 guiding holes for the drilling of the $\varnothing 10$ and 14 mm screw anchors.

The jig and the reference blocks can be inserted in a rod (eg. espagnolette rod) to allow the application of the wall catch at the same distance referring to the edge of the sash and the wall.

The jig can work with adapters for sash varying from 22 to 58 mm.



Order Specifications

Article

H00930.03.07

NB. Use steel grid bushing $\varnothing e$ 16 mm and $\varnothing i$ 12,5 mm. Type Art. 1710152 Mungo or 09147 Fisher.

Jig kit for for pintles for masonry (60° pintle inclination)

Description

Complete jig kit for quick and precise positioning of wall-mounted pintles.

Components:

- 1 Wall drilling jig
- 2 Jig rods
- 3 Reference clamp
- 4 Shims screwed onto the reference clamp to determine the gap between the sill and the shutter
- 5 Bubble block

Application

For wall-mounted timber, PVC or aluminium shutters. Suitable for drilling holes with a diameter of 16 mm and 60° inclination.

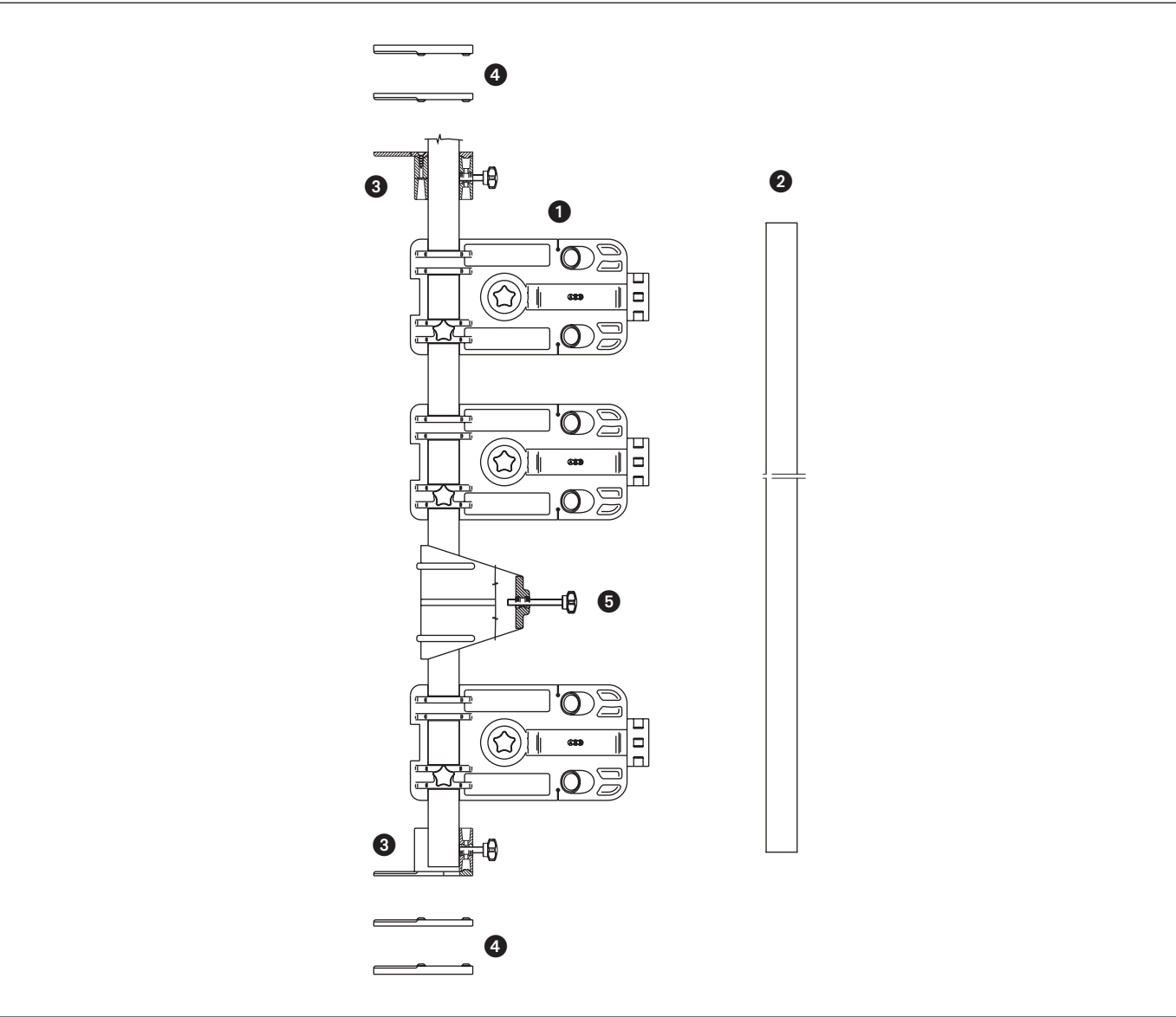
For proper utilisation, see the operating instructions provided with the jig.
For installation on right or left-handed shutters, fold the hinge 90° (open shutter), then remove the pin and re-install it on the opposite side.

Mounting

Use six 4x30 mm flathead screws with thread suitable for the shutter material.

Kit contents

Three jigs, one 1600 mm jig rod, one 2400 mm jig rod, two reference clamps, one bubble blockfour shims for reference clamp (two 4 mm pcs + two 6 mm pcs + two 8 mm pcs).



Order Specifications

	Article
Jig kit	H00930.05.01

Jig art. H01149, 30° inclination

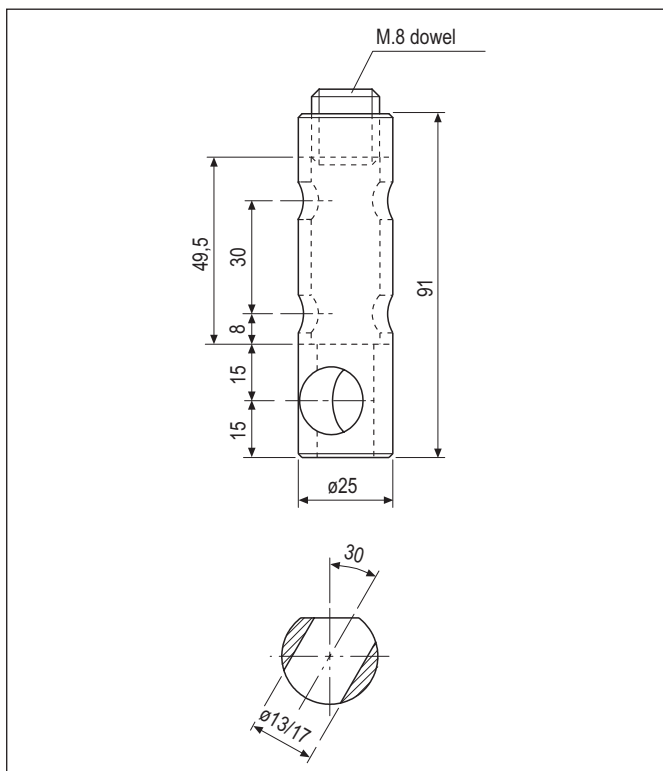


Description

Right or left-handed guide for 30° inclined installation of traditional wall-mounted pintles art. H00149, H00928 and H01149. The latter must be used in combination with side-adjustment hinges type H00932 or H00940. The selection is based on the diameter of the hole to be drilled in the wall (ø13 for installation in concrete using chemical mortar, ø17 for installation with 16 mm diameter screw anchor).

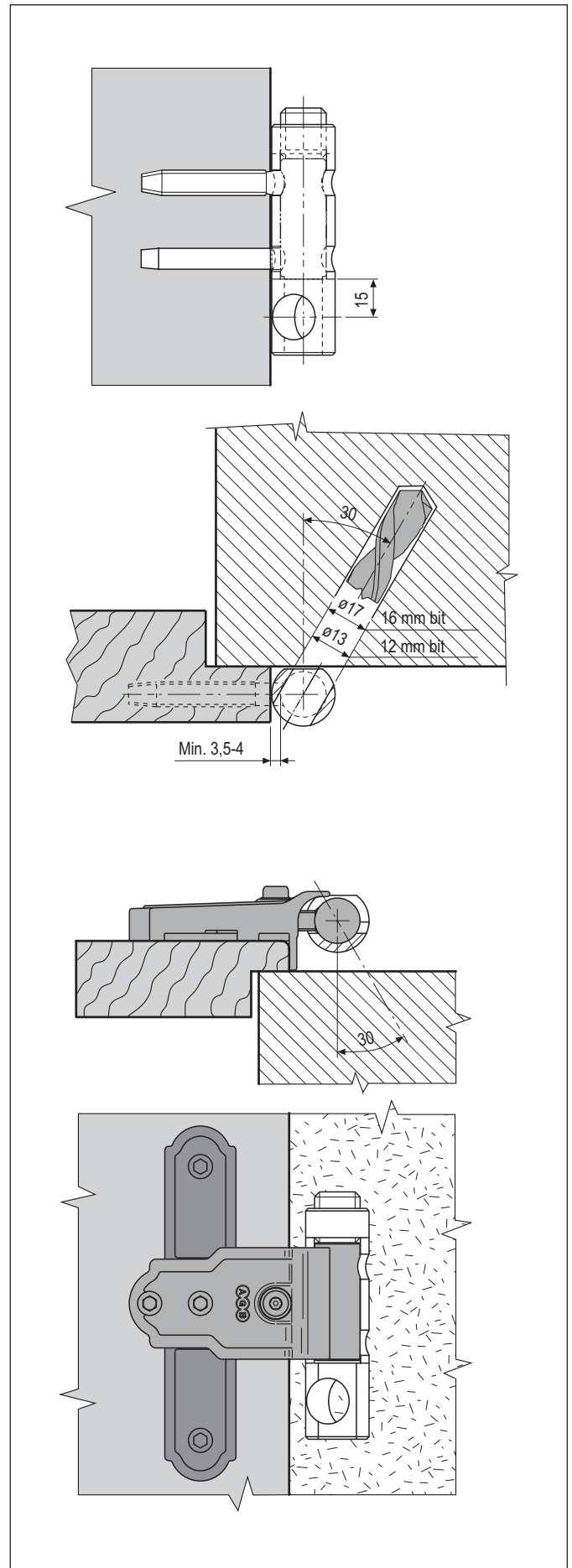
Application

Position the shutter in the opening allip for the gap required, mount the jig on the female section by rotating and securing it with the dowel.



Order Specifications

Type	Article	Type
ø12 mm hole	H01149.12.30	l.h.
	H01149.12.31	r.h.
ø16 mm hole	H01149.16.30	l.h.
	H01149.16.31	r.h.



Jig art. H01180, 30° inclination

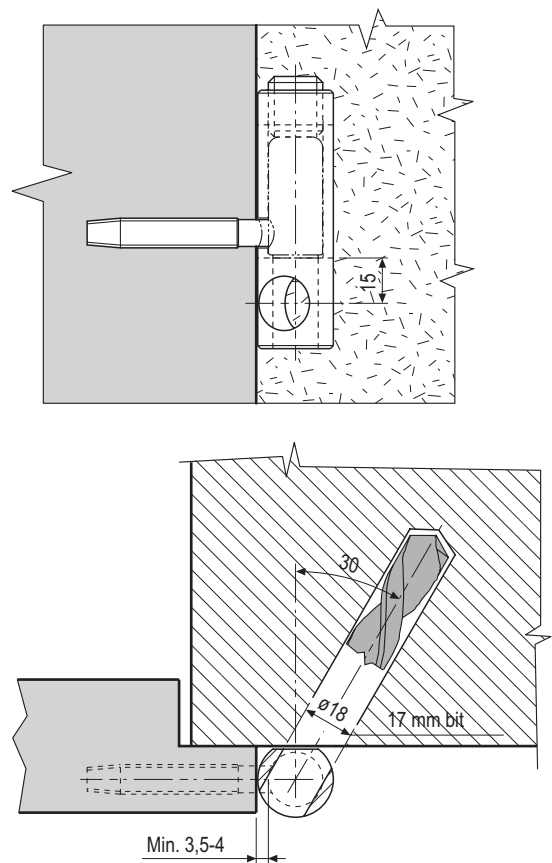
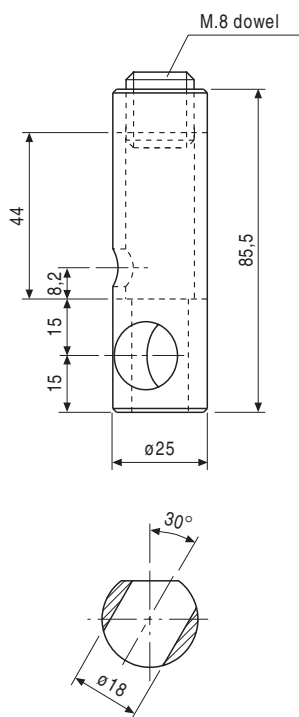


Description

Right or left-handed guide for installation using chemical mortar of traditional wall-mounted pintles art. H00180 with 30° inclination.

Application

Position the shutter in the opening allolip for the gap required, mount the jig on the female section by rotating and securing it with the dowel.



Order Specifications

Type	Article	Type
ø17 mm hole	H01180.17.30	r.h.
ø17 mm hole	H01180.17.31	l.h.

Jig art. H01149, 90° inclination



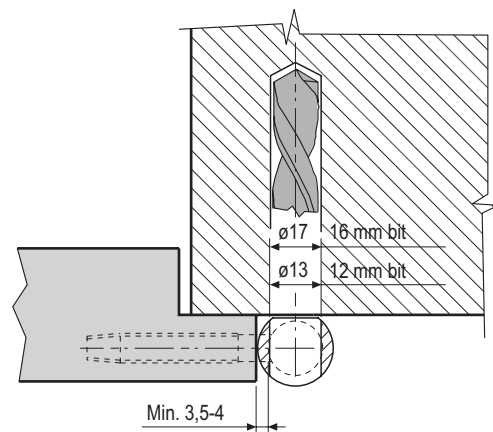
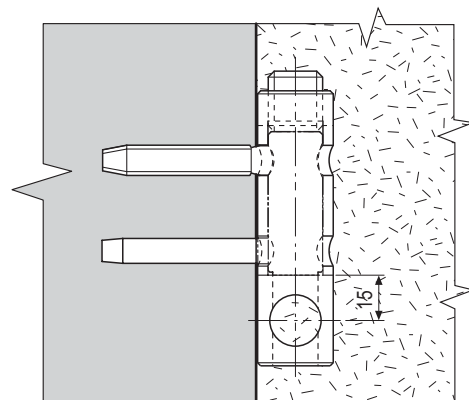
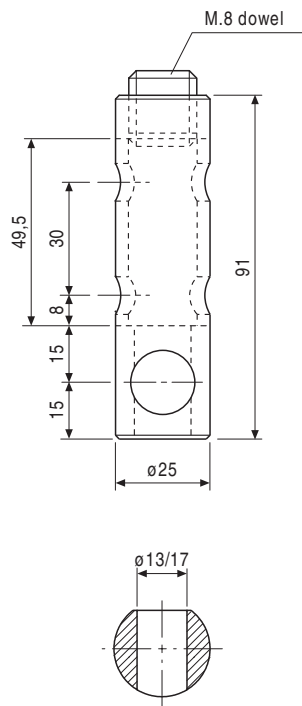
Description

Two-handed guide for right angle installation of traditional wall-mounted pintles art. H00149, H00928 and H01149. The latter must be used in combination with side-adjustment hinges type H00932 or H00940. The selection is based on the diameter of the hole to be drilled in the wall (ø13 for installation in concrete using chemical mortar, ø17 for installation with 16 mm diameter screw anchor).

Application

Position the shutter in the opening allolip for the gap required, mount the jig on the

female section by rotating and securing it with the dowel.



Order Specifications

Type	Article
ø12 mm hole	H01149.12.90
ø16 mm hole	H01149.16.90

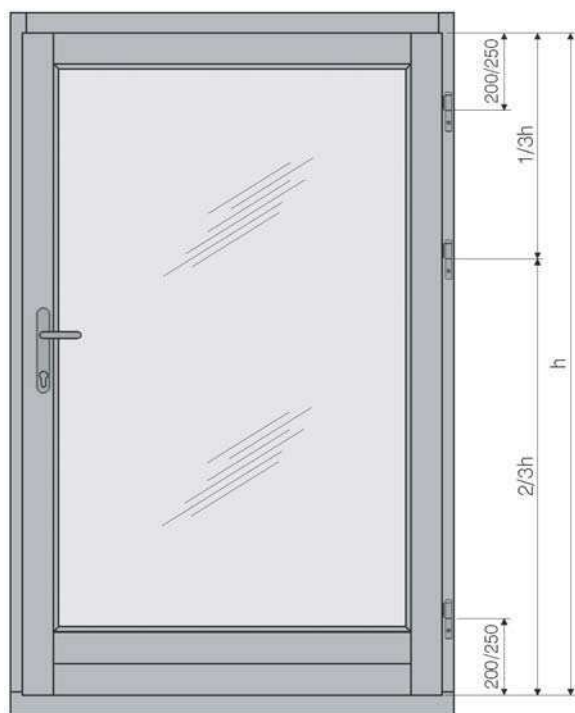
Hinges position

The placing of the hinges define the resisting moment that the sash and the frame need to bear. Here below you can see two drawings that describe the different positions of the hinges on the window or door frame.

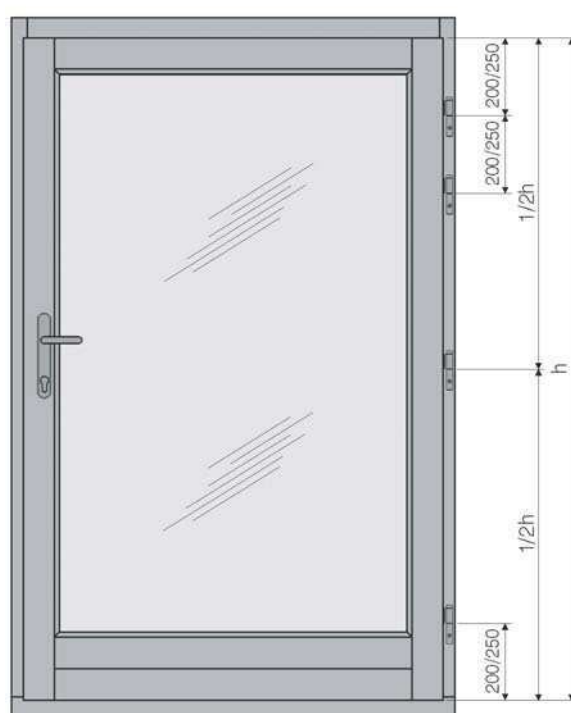
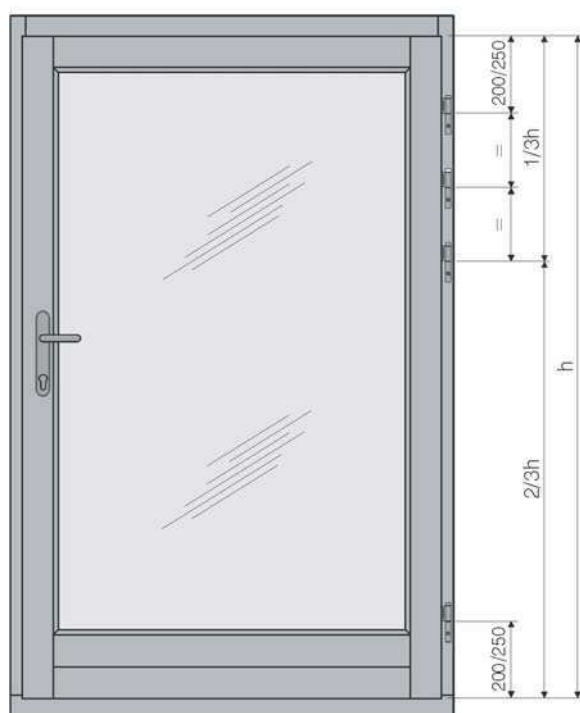
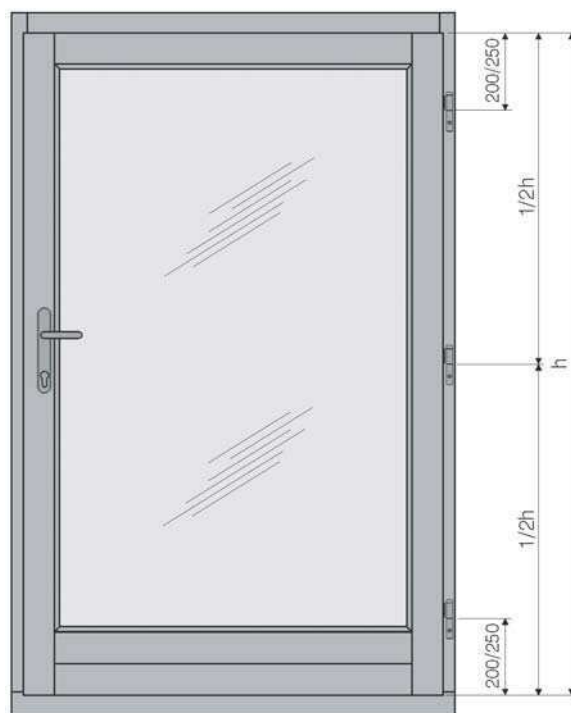
The theory suggests to chose the first solution, in fact, the first alternative permits to have more capacity load for the hinges. The experience suggests the second alternative because it prevents the bending of the sash.

Our diagrams are studied with the security loads, for this reason you can decide between the two solutions.

1) More resistant against the load of the windows



2) More resistant against the bending moment



Selecting the GR size of pintles with bracket and adjustable hinges

1) Using the tables

The tables in the next paragraph show the **GR** size of pintles and hinges based on the three characteristic dimensions of the shutter:

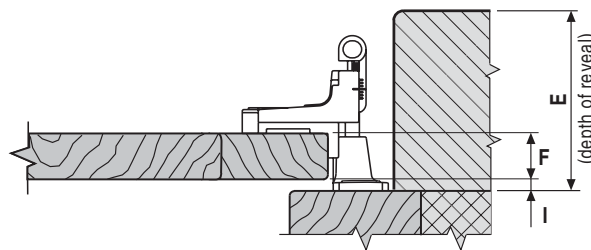
F = Thickness of overlap (= **zero** for flush shutters)

I = Gap between shutter and frame (= **zero** for contacting shutters)

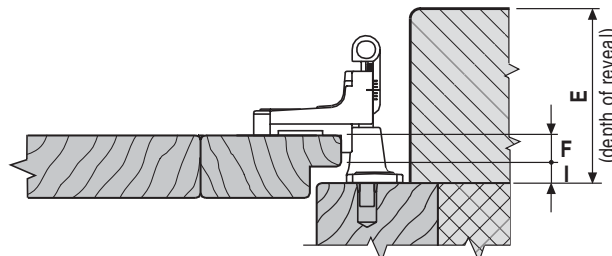
E = Depth of reveal (62 to 225 mm).

NB. For overlap thickness **F** less than 15 mm the "flush" version hinge support is used.

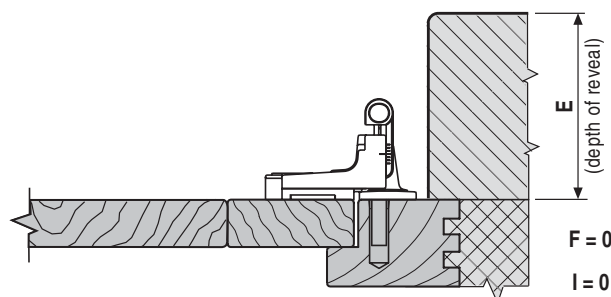
The tables in the next paragraph are calculated based on simple opening shutters (Figure 1) and on the most common values of **I**, calculating a distance **D** between the open shutter and the wall of 25 mm.



Overlapped shutter
(**I** = zero for contacting shutter)



Rebated shutter
(**I** = zero for contacting shutter)



Flush shutter
(**F** = zero; **I** = zero)

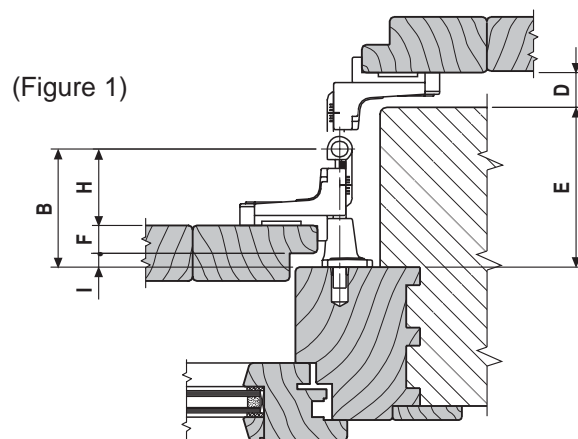
2) Calculation for special measurements

If the **I** and **D** measurements differ from those shown in the tables, or in case of folding shutters (Figures 2-3), it will be necessary first of all to calculate the distance between centres of the **B** pintle and of the **H** hinge using the formulas given below, then calculate the corresponding **GR** sizes using the tables found at the bottom of the pages regarding adjustable pintles and hinges.

- Without folding leaves (figure 1)

$$B = \frac{E + F + D + I}{2}$$

$$H = B - F - I$$

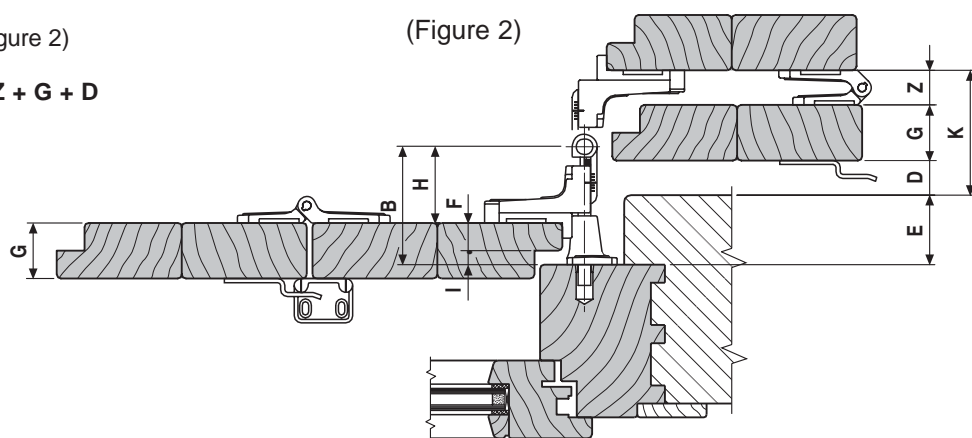


- With leaves folding outward (figure 2)

$$B = \frac{E + F + K + I}{2}$$

$$K = Z + G + D$$

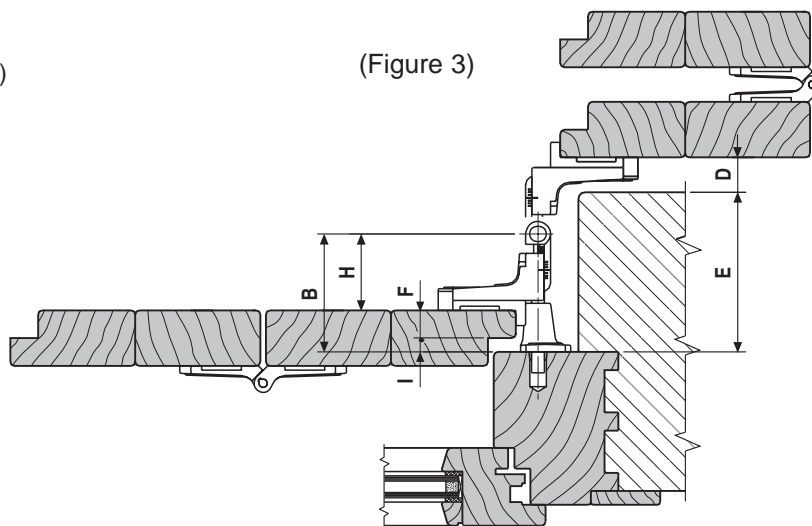
$$H = B - F - I$$



- With leaves folding inward (figure 3)

$$B = \frac{E + F + D + I}{2}$$

$$H = B - F - I$$



Tables for determining the GR size of pintles and hinges

size	measurement B pintle with narrow plate	measurement B pintle with large plate	measurement H adjustable hinges
GR 0	25 ÷ 55	-	36 ÷ 48
GR 1	56 ÷ 85	55 ÷ 85	49 ÷ 61
GR 2	86 ÷ 115	86 ÷ 115	62 ÷ 82
GR 3	116 ÷ 145	116 ÷ 145	83 ÷ 106

(GR) size table for I = zero

F = 0 Flush type	E =	72	85	98	139	145	187		
	pintle:	GR 0	GR 1	GR 1	GR 1	GR 2			
	hinge:	GR 1	GR 1	GR 2	GR 3	GR 3			
F = 12	E =	59	73	85	111	133	151	193	199
	pintle:	GR 0	GR 1	GR 1	GR 1	GR 2	GR 2	GR 3	
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3	GR 3	
F = 15	E =	62	70	87	113	130	154	190	202
	pintle:	GR 0	GR 1	GR 1	GR 1	GR 2	GR 2	GR 3	
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3	GR 3	
F = 18	E =	65	67	91	117	127	157	187	205
	pintle:	GR 0	GR 1	GR 1	GR 1	GR 2	GR 2	GR 3	
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3	GR 3	
F = 20	E =	67	92	118	125	159	185	207	
	pintle:	GR 1	GR 1	GR 1	GR 2	GR 2	GR 3		
	hinge:	GR 0	GR 1	GR 2	GR 2	GR 3	GR 3		
F = 22	E =	69	94	123	161	183	209		
	pintle:	GR 1	GR 1	GR 2	GR 2	GR 3			
	hinge:	GR 0	GR 1	GR 2	GR 3	GR 3			
F = 25	E =	72	97	120	123	164	180	212	
	pintle:	GR 1	GR 1	GR 2	GR 2	GR 2	GR 3		
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3	GR 3		
F = 30	E =	77	102	115	128	169	175	217	
	pintle:	GR 1	GR 1	GR 2	GR 2	GR 2	GR 3		
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3	GR 3		
F = 35	E =	82	107	110	133	170	174	222	
	pintle:	GR 1	GR 1	GR 2	GR 2	GR 3	GR 3		
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 2	GR 3		
F = 40	E =	87	105	112	138	165	179	225	
	pintle:	GR 1	GR 2	GR 2	GR 2	GR 3	GR 3		
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3		
F = 45	E =	92	100	117	143	160	184	220	
	pintle:	GR 1	GR 2	GR 2	GR 2	GR 3	GR 3		
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3		
F = 50	E =	97	122	148	155	189	215		
	pintle:	GR 2	GR 2	GR 2	GR 3	GR 3			
	hinge:	GR 0	GR 1	GR 2	GR 2	GR 3			
F = 55	E =	102	127	150	153	194	210		
	pintle:	GR 2	GR 2	GR 3	GR 3	GR 3			
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3			
F = 60	E =	107	132	145	158	199	205		
	pintle:	GR 2	GR 2	GR 3	GR 3	GR 3			
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3			

NB. This table has been calculated on the basis of a simple shutter with distance **D** equal to 25 mm (see figure 1 on the beginning of the chapter).

(GR) size table for gap l = 5 mm

F = 15	E =	67	92	118	125	159	185	207		
	pintle:	GR 1	GR 1	GR 1	GR 2	GR 2	GR 3			
	hinge:	GR 0	GR 1	GR 2	GR 2	GR 3	GR 3			
F = 20	E =	72	97	120	164	180	212			
	pintle:	GR 1	GR 1	GR 2	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 2	GR 2	GR 3				
F = 25	E =	77	102	115	128	169	175	217		
	pintle:	GR 1	GR 1	GR 2	GR 2	GR 3	GR 3			
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 2	GR 3			
F = 30	E =	82	107	133	170	222				
	pintle:	GR 1	GR 2	GR 2	GR 3					
	hinge:	GR 0	GR 1	GR 2	GR 3					
F = 35	E =	87	105	112	138	165	179	225		
	pintle:	GR 1	GR 2	GR 2	GR 2	GR 3	GR 3			
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3			
F = 40	E =	92	100	117	143	160	184	220		
	pintle:	GR 1	GR 2	GR 2	GR 2	GR 3	GR 3			
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3			
F = 45	E =	97	122	148	155	189	215			
	pintle:	GR 2	GR 2	GR 2	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 2	GR 2	GR 3				
F = 50	E =	102	127	150	194	210				
	pintle:	GR 2	GR 2	GR 3	GR 3					
	hinge:	GR 0	GR 1	GR 2	GR 3					
F = 55	E =	107	132	145	158	199	205			
	pintle:	GR 2	GR 2	GR 3	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3				
F = 60	E =	112	137	163	200					
	pintle:	GR 2	GR 3	GR 3						
	hinge:	GR 0	GR 1	GR 2						

NB. This table has been calculated on the basis of a simple shutter with distance **D** equal to 25 mm (see figure 1 on the beginning of the chapter).

(GR) size table for gap l = 10 mm

F = 15	E =	72	97	120	164	180	212			
	pinle:	GR 1	GR 1	GR 2	GR 2	GR 3				
	hinge:	GR 0	GR 1	GR 2	GR 3	GR 3				
F = 20	E =	77	102	115	128	169	175	217		
	pinle:	GR 1	GR 1	GR 2	GR 2	GR 2	GR 3			
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3	GR 3			
F = 25	E =	82	107	133	170	222				
	pinle:	GR 1	GR 2	GR 2	GR 3					
	hinge:	GR 0	GR 1	GR 2	GR 3					
F = 30	E =	87	105	112	138	165	179	225		
	pinle:	GR 1	GR 2	GR 2	GR 2	GR 3	GR 3			
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3			
F = 35	E =	92	100	117	143	160	184	220		
	pinle:	GR 1	GR 2	GR 2	GR 2	GR 3	GR 3			
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3			
F = 40	E =	97	122	148	155	189	215			
	pinle:	GR 2	GR 2	GR 2	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 2	GR 2	GR 3				
F = 45	E =	102	127	150	194	210				
	pinle:	GR 2	GR 2	GR 3	GR 3					
	hinge:	GR 0	GR 1	GR 2	GR 3					
F = 50	E =	107	132	145	158	199	205			
	pinle:	GR 2	GR 2	GR 3	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3				
F = 55	E =	112	137	163	200					
	pinle:	GR 2	GR 3	GR 3						
	hinge:	GR 0	GR 1	GR 2						
F = 60	E =	117	135	142	168	195				
	pinle:	GR 2	GR 3	GR 3	GR 3					
	hinge:	GR 0	GR 0	GR 1	GR 2					

NB. This table has been calculated on the basis of a simple shutter with distance **D** equal to 25 mm (see figure 1 on the beginning of the chapter).

(GR) size table for gap I = 15 mm

F = 15	E =	77	102	115	128	169	175	217		
	pintle:	GR 1	GR 1	GR 2	GR 2	GR 2	GR 3			
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3	GR 3			
F = 20	E =	82	107	133	170	222				
	pintle:	GR 1	GR 2	GR 2	GR 3					
	hinge:	GR 0	GR 1	GR 2	GR 3					
F = 25	E =	87	105	112	138	165	179	225		
	pintle:	GR 1	GR 2	GR 2	GR 2	GR 3	GR 3			
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3			
F = 30	E =	92	100	117	143	160	184	220		
	pintle:	GR 1	GR 2	GR 2	GR 2	GR 3	GR 3			
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3			
F = 35	E =	97	122	148	155	189	215			
	pintle:	GR 2	GR 2	GR 2	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 2	GR 2	GR 3				
F = 40	E =	102	127	150	194	210				
	pintle:	GR 2	GR 2	GR 3	GR 3					
	hinge:	GR 0	GR 1	GR 2	GR 3					
F = 45	E =	107	132	145	158	199	205			
	pintle:	GR 2	GR 2	GR 3	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3				
F = 50	E =	112	137	163	200					
	pintle:	GR 2	GR 3	GR 3						
	hinge:	GR 0	GR 1	GR 2						
F = 55	E =	117	135	142	168	195				
	pintle:	GR 2	GR 3	GR 3	GR 3					
	hinge:	GR 0	GR 0	GR 1	GR 2					
F = 60	E =	122	130	147	173	190				
	pintle:	GR 2	GR 3	GR 3	GR 3					
	hinge:	GR 0	GR 0	GR 1	GR 2					

NB. This table has been calculated on the basis of a simple shutter with distance **D** equal to 25 mm (see figure 1 on the beginning of the chapter).

(GR) size table for gap I = 20 mm

F = 15	E =	82	107	133	170	222				
	pintle:	GR 1	GR 2	GR 2	GR 3					
	hinge:	GR 0	GR 1	GR 2	GR 3					
F = 20	E =	87	105	112	138	165	179	225		
	pintle:	GR 1	GR 2	GR 2	GR 2	GR 3	GR 3			
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3			
F = 25	E =	92	100	117	143	160	184	220		
	pintle:	GR 1	GR 2	GR 2	GR 2	GR 3	GR 3			
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3			
F = 30	E =	97	122	148	155	189	215			
	pintle:	GR 2	GR 2	GR 2	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 2	GR 2	GR 3				
F = 35	E =	102	127	150	194	210				
	pintle:	GR 2	GR 2	GR 3	GR 3					
	hinge:	GR 0	GR 1	GR 2	GR 3					
F = 40	E =	107	132	145	158	199	205			
	pintle:	GR 2	GR 2	GR 3	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3				
F = 45	E =	112	137	163	200					
	pintle:	GR 2	GR 3	GR 3						
	hinge:	GR 0	GR 1	GR 2						
F = 50	E =	117	135	142	168	195				
	pintle:	GR 2	GR 3	GR 3	GR 3					
	hinge:	GR 0	GR 0	GR 1	GR 2					
F = 55	E =	122	130	147	173	190				
	pintle:	GR 2	GR 3	GR 3	GR 3					
	hinge:	GR 0	GR 0	GR 1	GR 2					
F = 60	E =	127	152	178	185					
	pintle:	GR 3	GR 3	GR 3						
	hinge:	GR 0	GR 1	GR 2						

NB. This table has been calculated on the basis of a simple shutter with distance **D** equal to 25 mm (see figure 1 on the beginning of the chapter).

(GR) size table for gap I = 30 mm

F = 15	E =	92	100	117	143	160	184	220		
	pintle:	GR 1	GR 2	GR 2	GR 2	GR 3	GR 3			
	hinge:	GR 0	GR 0	GR 1	GR 2	GR 2	GR 3			
F = 20	E =	97	122	148	155	189	215			
	pintle:	GR 2	GR 2	GR 2	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 2	GR 2	GR 3				
F = 25	E =	102	127	150	194	210				
	pintle:	GR 2	GR 2	GR 3	GR 3					
	hinge:	GR 0	GR 1	GR 2	GR 3					
F = 30	E =	107	132	145	158	199	205			
	pintle:	GR 2	GR 2	GR 3	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3				
F = 35	E =	112	137	163	200					
	pintle:	GR 2	GR 3	GR 3						
	hinge:	GR 0	GR 1	GR 2						
F = 40	E =	117	135	142	168	195				
	pintle:	GR 2	GR 3	GR 3	GR 3					
	hinge:	GR 0	GR 0	GR 1	GR 2					
F = 45	E =	122	130	147	173	190				
	pintle:	GR 2	GR 3	GR 3	GR 3					
	hinge:	GR 0	GR 0	GR 1	GR 2					
F = 50	E =	127	152	178	185					
	pintle:	GR 3	GR 3	GR 3						
	hinge:	GR 0	GR 1	GR 2						
F = 55	E =	132	157	180						
	pintle:	GR 3	GR 3							
	hinge:	GR 0	GR 1							
F = 60	E =	137	162	175						
	pintle:	GR 3	GR 3							
	hinge:	GR 0	GR 1							

NB. This table has been calculated on the basis of a simple shutter with distance **D** equal to 25 mm (see figure 1 on the beginning of the chapter).

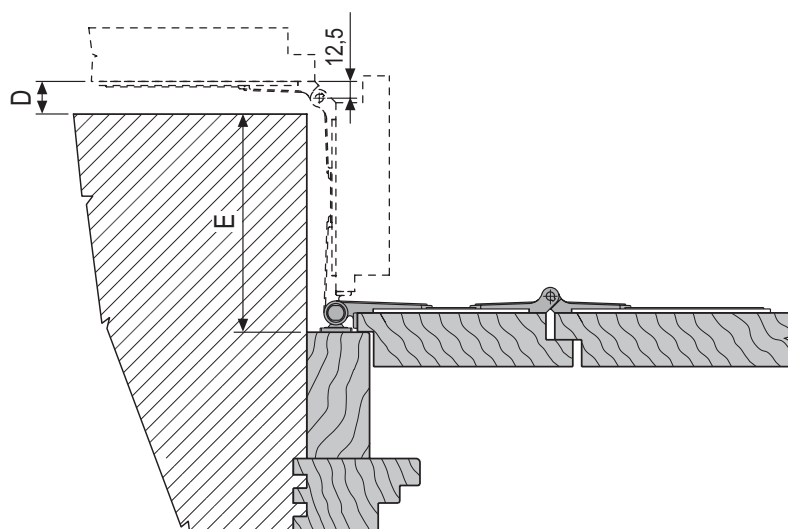
(GR) size table for gap I = 35 mm

F = 15	E =	97	122	148	155	189	219			
	pintle:	GR 2	GR 2	GR 2	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 2	GR 2	GR 3				
F = 20	E =	102	127	150	154	194	214			
	pintle:	GR 2	GR 2	GR 3	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3				
F = 25	E =	107	132	145	158	199	209			
	pintle:	GR 2	GR 2	GR 3	GR 3	GR 3				
	hinge:	GR 0	GR 1	GR 1	GR 2	GR 3				
F = 30	E =	112	137	140	163	204				
	pintle:	GR 2	GR 2	GR 3	GR 3					
	hinge:	GR 0	GR 1	GR 1	GR 2					
F = 35	E =	117	135	142	168	199				
	pintle:	GR 2	GR 3	GR 3	GR 3					
	hinge:	GR 0	GR 0	GR 1	GR 2					
F = 40	E =	122	130	147	173	194				
	pintle:	GR 2	GR 3	GR 3	GR 3					
	hinge:	GR 0	GR 0	GR 1	GR 2					
F = 45	E =	127	150	178	189					
	pintle:	GR 3	GR 3	GR 3						
	hinge:	GR 0	GR 1	GR 2						
F = 50	E =	132	157	184						
	pintle:	GR 3	GR 3							
	hinge:	GR 0	GR 1							
F = 55	E =	137	162	179						
	pintle:	GR 3	GR 3							
	hinge:	GR 0	GR 1							
F = 60	E =	142	167	174						
	pintle:	GR 3	GR 3							
	hinge:	GR 0	GR 1							

NB. This table has been calculated on the basis of a simple shutter with distance **D** equal to 25 mm (see figure 1 on the beginning of the chapter).

Applications with horizontal brackets for folding leaves on rebated shutters

Folding shutter diagram with fixed rebated hinge



Measurement table - with symmetrical hinge

GR	Code	X bracket length	T first leaf width	P hinges' distance between centres	E = depth of reveal cleared, with D=25 mm							
					F=12	F=15	F=18	F=20	F=22	F=25	F=30	F=40
1	H00952.01.xx	106	131	149	149	152	155	157	159	162	167	177
2	H00952.02.xx	126	151	169	169	172	175	177	179	182	187	197
3	H00952.03.xx	146	171	189	189	192	195	197	199	202	207	217
4	H00952.04.xx	166	191	209	209	212	215	217	219	222	227	237
5	H00952.05.xx	186	211	229	229	232	235	237	239	242	247	257
6	H00952.06.xx	206	231	249	249	252	255	257	259	262	267	277
7	H00952.07.xx	226	251	269	269	272	275	277	279	282	287	297
8	H00952.08.xx	246	271	289	289	292	295	297	299	302	307	317
9	H00952.09.xx	266	291	309	309	312	315	317	319	322	327	337
10	H00952.10.xx	286	311	329	329	332	335	337	339	342	347	357

Measurement table - with offset hinge

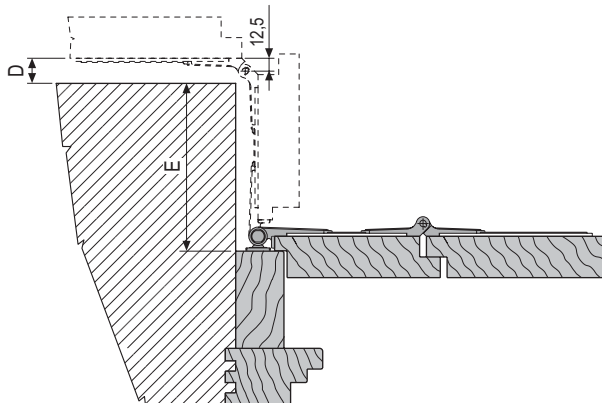
GR	Code	X bracket length	T first leaf width	P hinges' distance between centres	E = depth of reveal cleared, with D=25 mm							
					F=12	F=15	F=18	F=20	F=22	F=25	F=30	F=40
1	H00952.01.xx	106	121	139	139	142	145	147	149	152	157	167
2	H00952.02.xx	126	141	159	159	162	165	167	169	172	177	187
3	H00952.03.xx	146	161	179	179	182	185	187	189	192	197	207
4	H00952.04.xx	166	181	199	199	202	205	207	209	212	217	227
5	H00952.05.xx	186	201	219	219	222	225	227	229	232	237	247
6	H00952.06.xx	206	221	239	239	242	245	247	249	252	257	267
7	H00952.07.xx	226	241	259	259	262	265	267	269	272	277	287
8	H00952.08.xx	246	261	279	279	282	285	287	289	292	297	307
9	H00952.09.xx	266	281	299	299	302	305	307	309	312	317	327
10	H00952.10.xx	286	301	319	319	322	325	327	329	332	337	347

Applications with horizontal brackets for folding leaves on rebated shutters

Example of application with 16x0 fixed rebated hinge - art. H00923.00.93

Measurements (mm):

E	depth of reveal
F	rebate thickness
X	bracket length
P	hinges' distance between centres
T	first leaf width
D = 25	shutter's distance from wall
H = 0	fixed hinge neck
R = 16	fixed hinge axis
L = 11,7	bracket's distance from rebate
12,5	neck of coplanar hinge
M = 15,7	symmetric coplanar hinge axis or
M = 5,7	offset coplanar hinge axis



If another hinge is used, calculate the **H**, **R** and **L** measurements from the catalogue pages.

1. Measuring the reveal to be cleared

Calculate the depth (E) of the reveal to be cleared based on the length of the bracket (X) and the rebate thickness (F):

$$E = X + F - D + H + R + L + M + 12,5$$

With symmetric coplanar hinge:

$$\text{Reveal cleared (E)} = \text{bracket length (X)} + \text{rebate thickness (F)} + 30.9$$

With offset coplanar hinge:

$$\text{Reveal cleared (E)} = \text{bracket length (X)} + \text{rebate thickness (F)} + 20.9$$

2. Measuring the bracket

Calculate the length of the bracket (X) based on the depth of the reveal (E) and the rebate thickness (F):

$$X = E - F + D - H - R - L - M - 12,5$$

With symmetric coplanar hinge:

$$\text{Bracket length (X)} = \text{depth of reveal (E)} - \text{rebate thickness (F)} - 30.9$$

With offset coplanar hinge:

$$\text{Bracket length (X)} = \text{depth of reveal (E)} - \text{rebate thickness (F)} - 20.9$$

3. Width of first leaf

Calculate the width of the first leaf (T) based on the length of the bracket (X):

$$T = X + L + M - 2$$

With symmetric coplanar hinge:

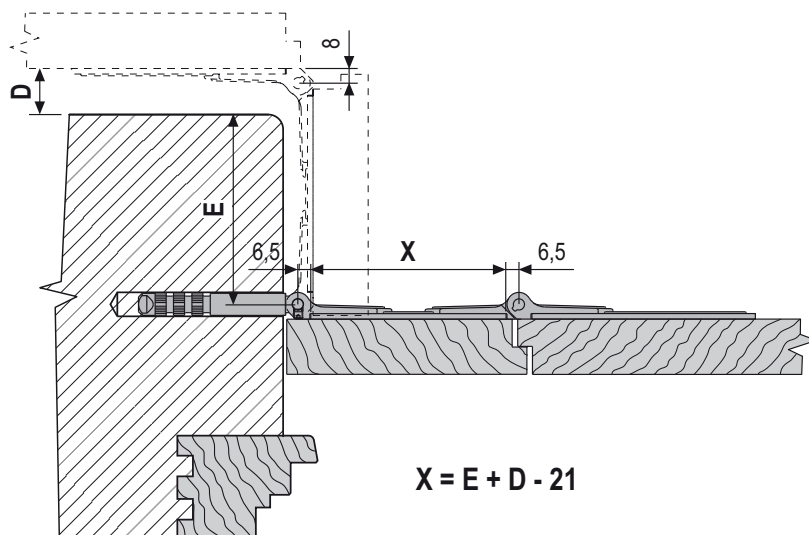
$$\text{Leaf width (T)} = \text{length of bracket (X)} + 25.4$$

With offset coplanar hinge:

$$\text{Leaf width (T)} = \text{length of bracket (X)} + 15.4$$

Applications with horizontal brackets for folding leaves on flush shutters

Folding shutter diagram (masonry application)



Measurement table - with symmetrical hinge

GR	Code	X bracket length	T first leaf width	P hinges' distance between centre	E depth of reveal D=25 m
1	H00952.01.xx	106	131	149	152
2	H00952.02.xx	126	151	169	172
3	H00952.03.xx	146	171	189	192
4	H00952.04.xx	166	191	209	212
5	H00952.05.xx	186	211	229	232
6	H00952.06.xx	206	231	249	252
7	H00952.07.xx	226	251	269	272
8	H00952.08.xx	246	271	289	292
9	H00952.09.xx	266	291	309	312
10	H00952.10.xx	286	311	329	332

Measurement table - with offset hinge

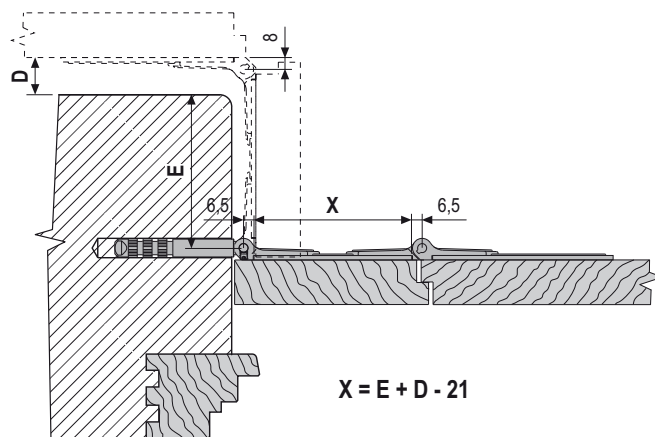
GR	Code	X bracket length	T first leaf width	P hinges' distance between centre	E depth of reveal D=25 m
1	H00952.01.xx	106	121	139	142
2	H00952.02.xx	126	141	159	162
3	H00952.03.xx	146	161	179	182
4	H00952.04.xx	166	181	199	202
5	H00952.05.xx	186	201	219	222
6	H00952.06.xx	206	221	239	242
7	H00952.07.xx	226	241	259	262
8	H00952.08.xx	246	261	279	282
9	H00952.09.xx	266	281	299	302
10	H00952.10.xx	286	301	319	322

Applications with horizontal brackets for folding leaves on flush shutters

Example of application with 16x15 fixed flush hinge - art. H00923.15.93

Measurements (mm):

E	depth of reveal
X	bracket length
P	hinges' distance between centres
T	first leaf width
D = 25	shutter's distance from wall
H = 15	fixed hinge neck
R = 16	fixed hinge axis
L = 11,7	bracket's distance from rebate
12,5	neck of coplanar hinge
M = 15,7	symmetric coplanar hinge axis
or	
M = 5,7	offset coplanar hinge axis



If another hinge is used, calculate the H, R and L measurements from the catalogue pages.

1. Measuring the reveal to be cleared

Calculate the depth (E) of the reveal to be cleared based on the length of the bracket (X):

$$E = X - D + H + R + L + M + 12,5$$

With symmetric coplanar hinge:

$$\text{Reveal cleared (E)} = \text{bracket length (X)} + 30.9$$

With offset coplanar hinge:

$$\text{Reveal cleared (E)} = \text{bracket length (X)} + 20.9$$

2. Measuring the bracket

Calculate the length of the bracket (X) based on the depth of the reveal (E):

$$X = E + D - H - R - L - M - 12,5$$

With symmetric coplanar hinge:

$$\text{Bracket length (X)} = \text{depth of reveal (E)} - 30.9$$

With offset coplanar hinge:

$$\text{Bracket length (X)} = \text{depth of reveal (E)} - 20.9$$

3. Width of first leaf

Calculate the width of the first leaf (T) based on the length of the bracket (X):

$$T = X + L + M - 2$$

With symmetric coplanar hinge:

$$\text{Leaf width (T)} = \text{length of bracket (X)} + 25.4$$

With offset coplanar hinge:

$$\text{Leaf width (T)} = \text{length of bracket (X)} + 15.4$$

Diagrams for determining the number of pintles

The diagrams on the follolip pages will guide you in determining the number of pintles required, based on the shutter dimensions and weight per square meter.

The curves that circumscribe the numeric fields are the results of laboratory tests that provide for a high security factor.

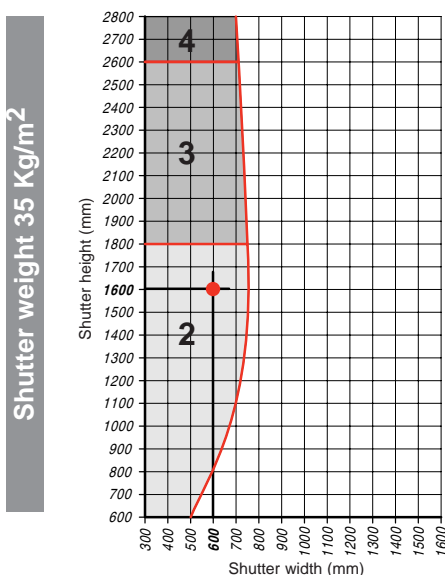
Consider the follolip:

- 1) The fields circumscribed by red lines indicate the number of pintles required in order to guarantee proper shutter operation.
- 2) No applications are allowed in cases that do not fall within the fields marked by a red line.
- 3) The numbers shown in the diagrams are not absolute but must be evaluated based on experience, type of shutters, materials utilised for its construction and tightness of the fastening.

Our Customer Service Department is always at your disposal for any clarification you may require.

Once the type of support to be installed has been selected, proceed as follows to determine the number of pintles:

- a) Measure the shutter
- b) Weigh the shutter
- c) Calculate the weight per square metre
- d) Select the appropriate diagram based on type, pintle GR and shutter weight
- e) Mark the base and height measurements on the diagram. The point where the lines cross shows the number of pintles recommended.



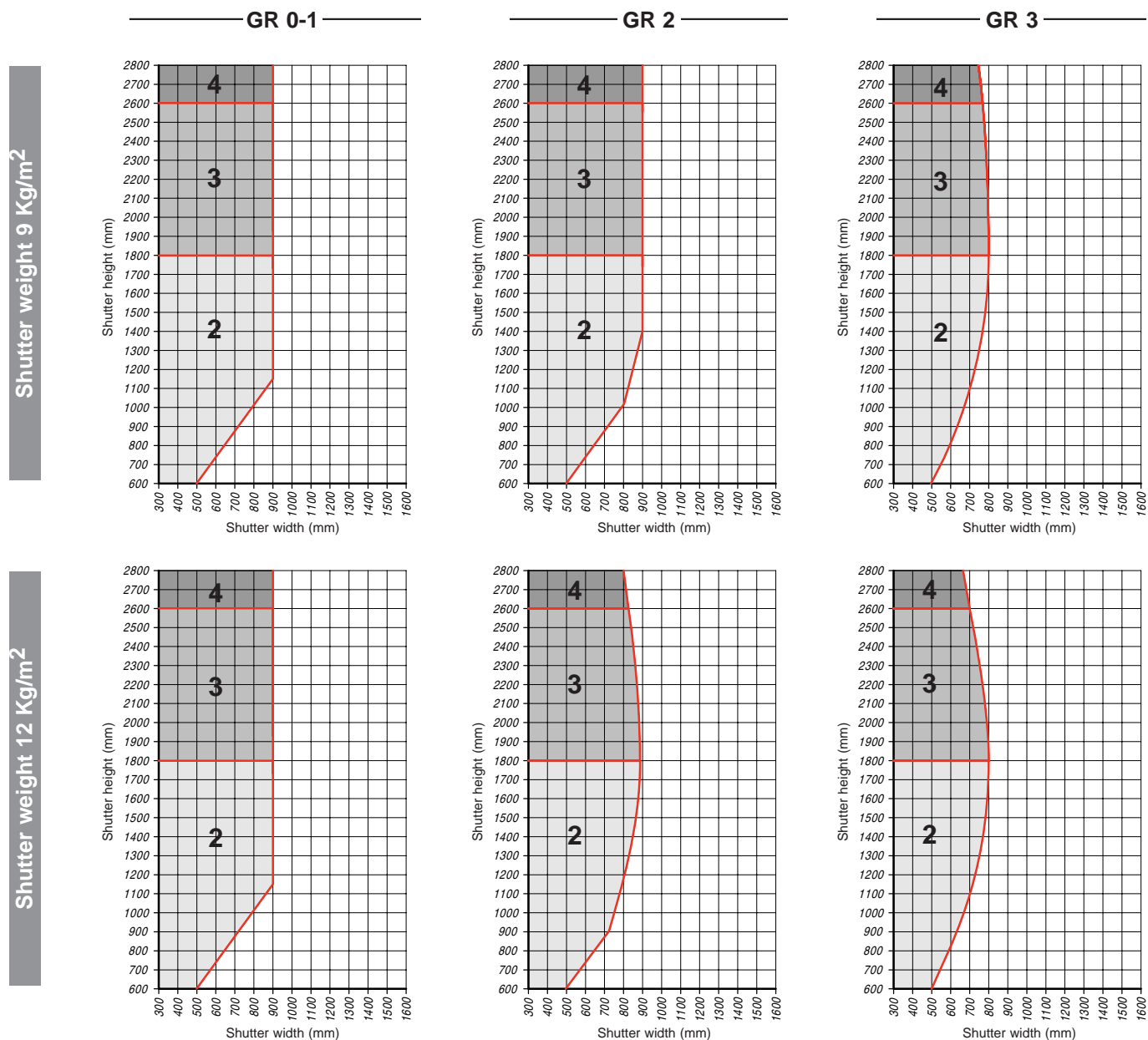
Example for adjustable pintles with narrow bracket (page 10.13)

Shutter measurement:	mm 1600x600
Shutter weight:	Kg 30
Weight per square meter:	Kg 31.2
Number of pintles:	2

- | | |
|---|--------------|
| 4 | n° 4 pintles |
| 3 | n° 3 pintles |
| 2 | n° 2 pintles |

Diagrams for determining the number of pintles:

- Adjustable pintle with narrow bracket

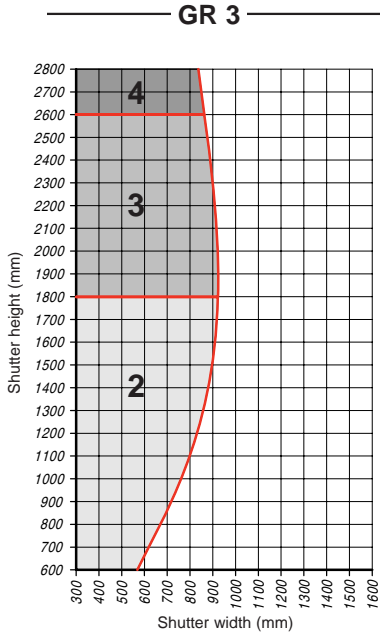
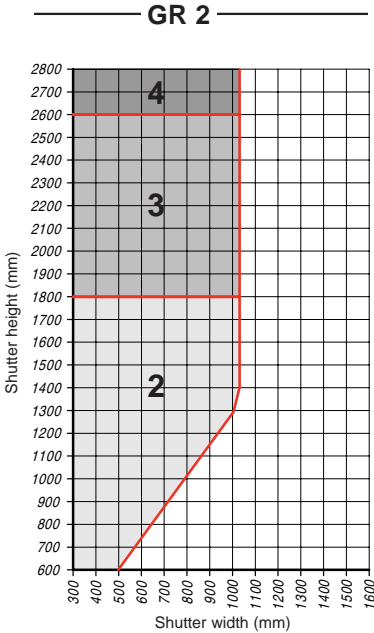
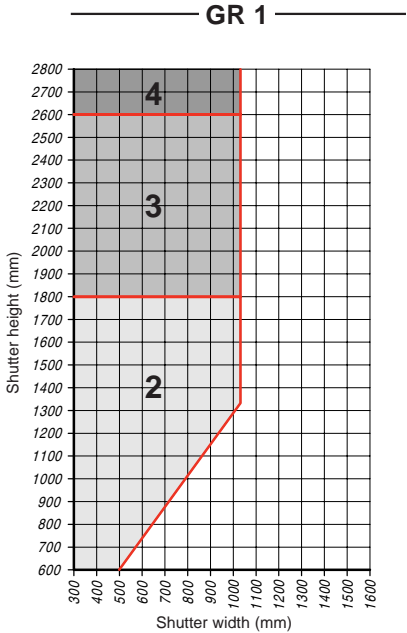


- GR 3 -

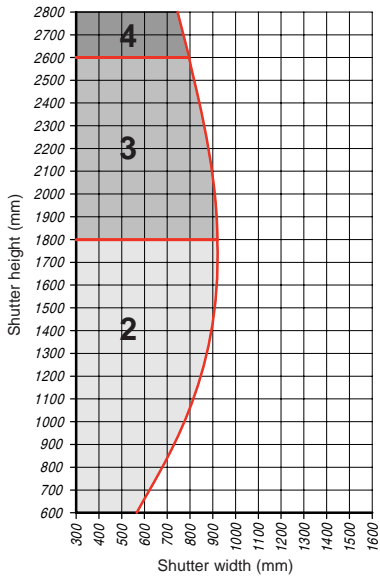
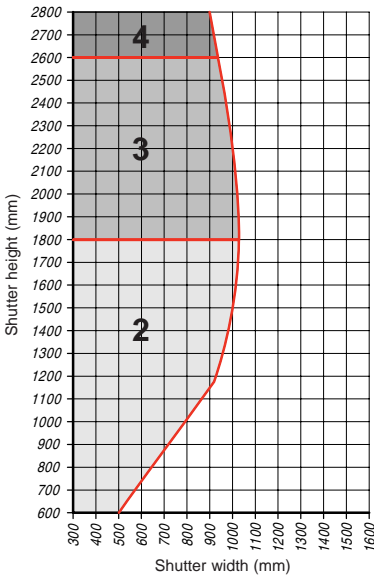
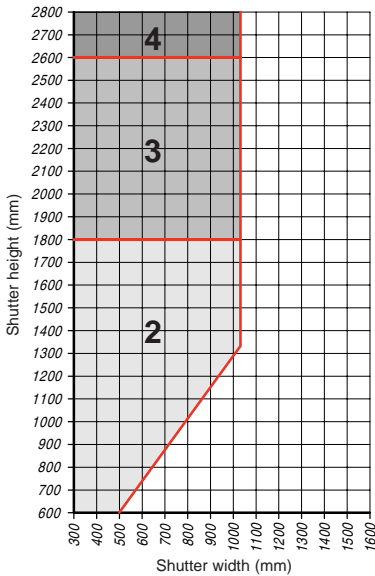
Diagrams for determining the number of pintles:

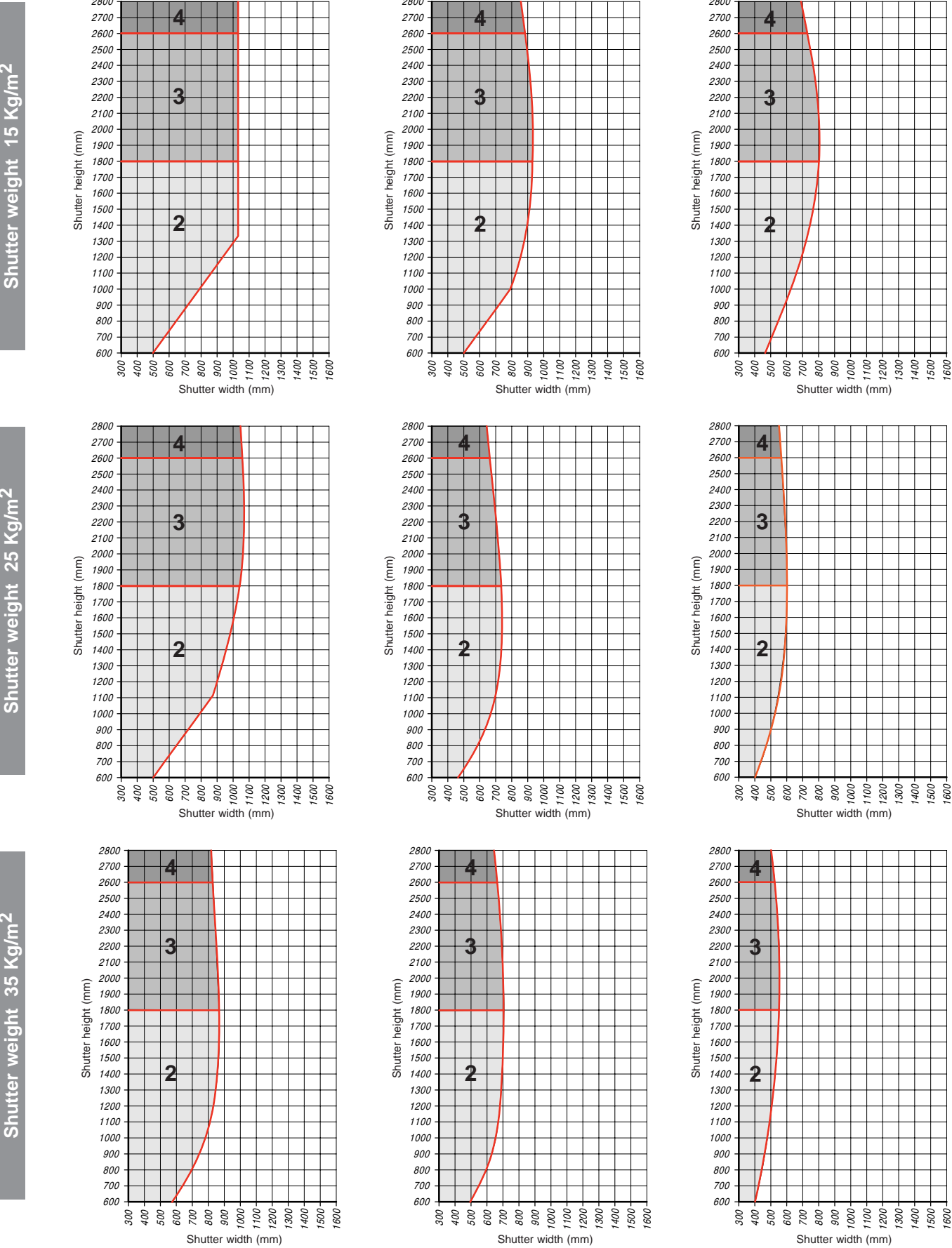
- Adjustable pintle with wide bracket

Shutter weight 9 Kg/m²



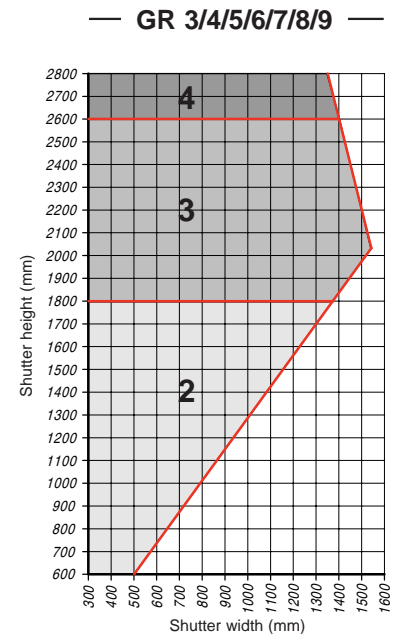
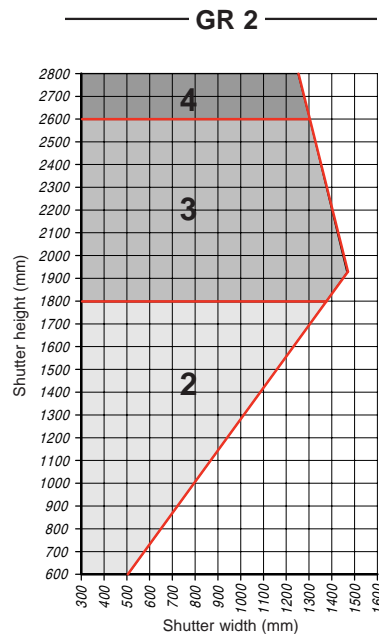
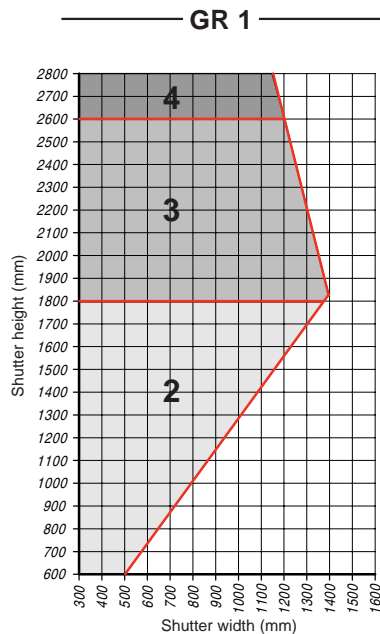
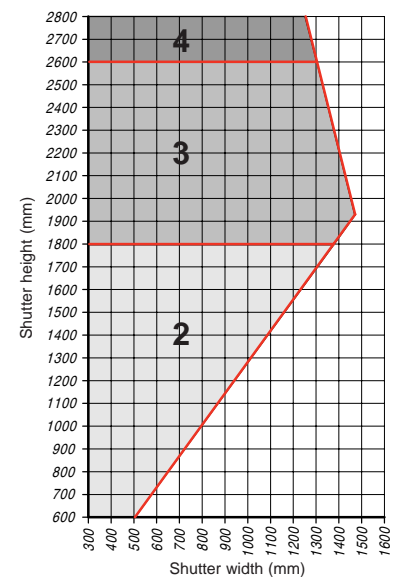
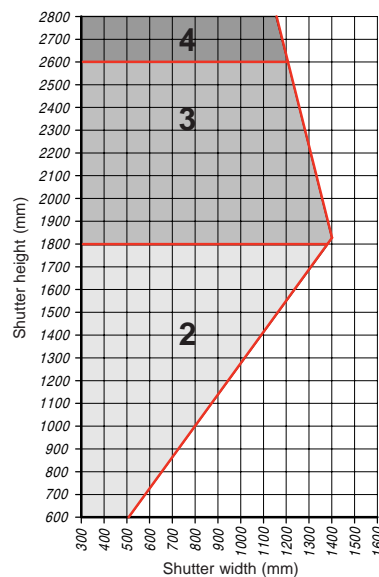
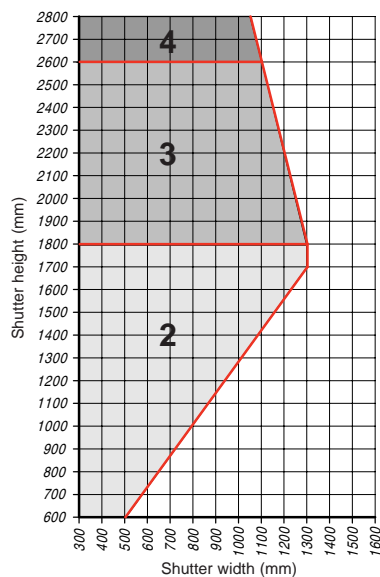
Shutter weight 12 Kg/m²

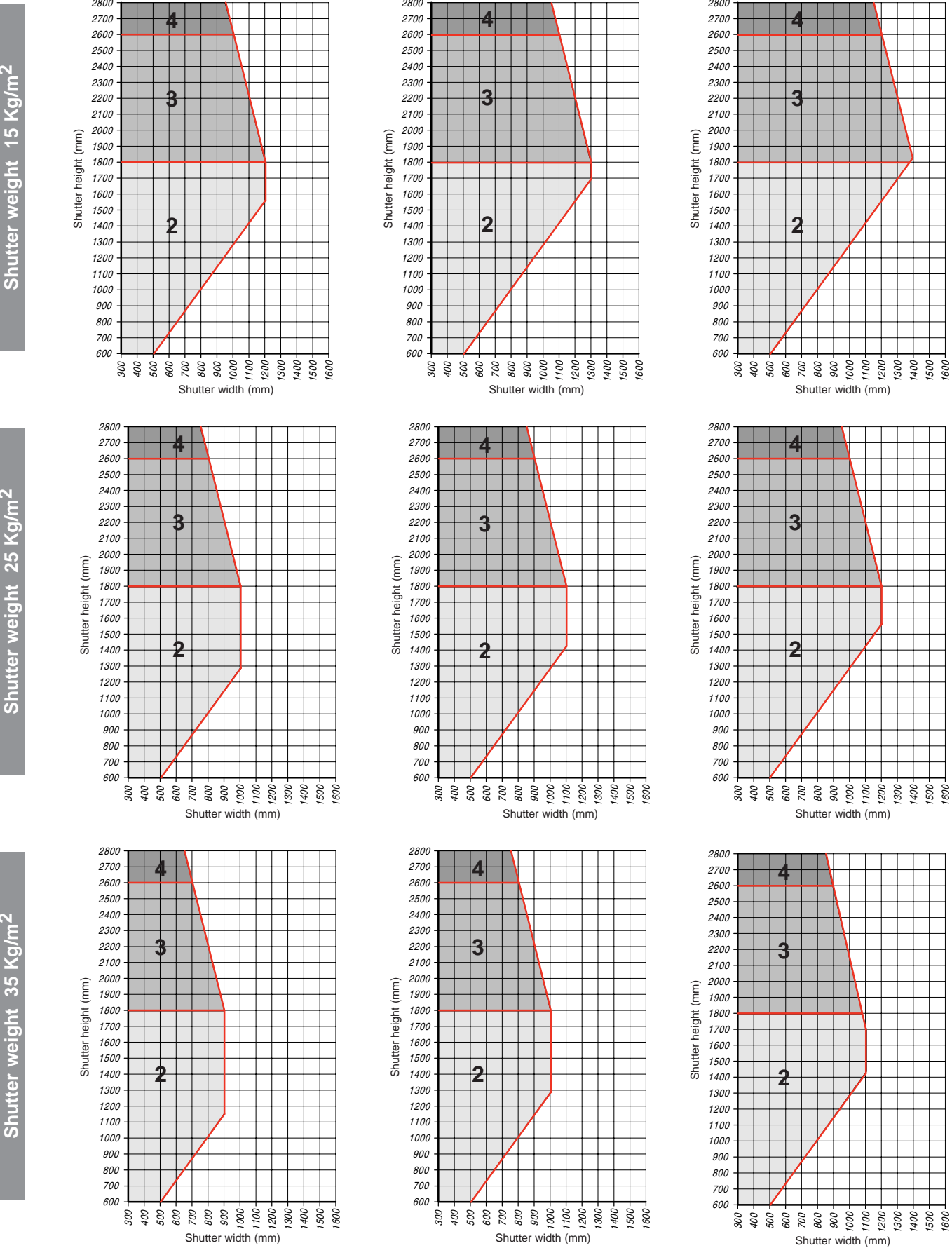




Diagrams for determining the number of pintles:

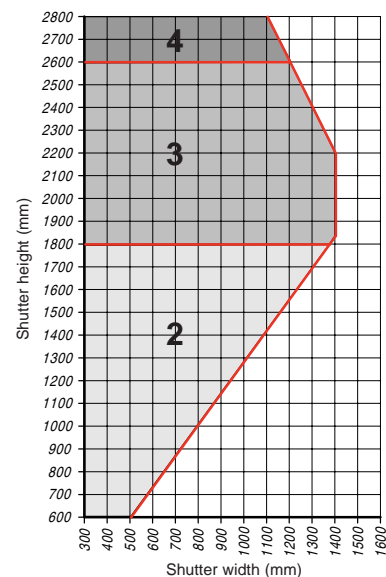
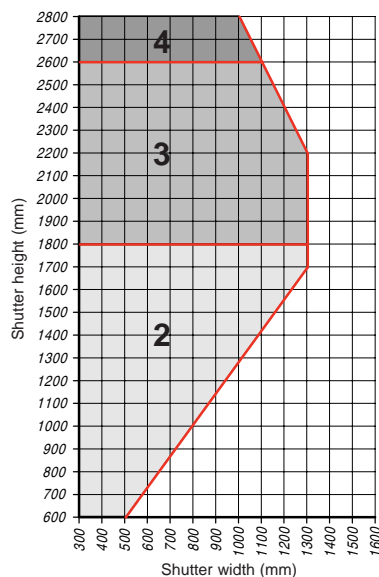
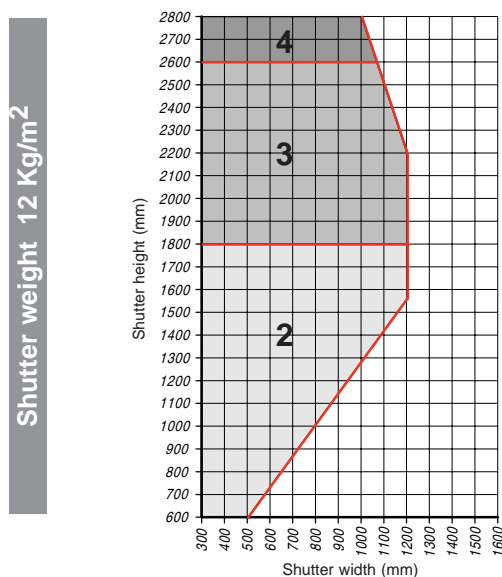
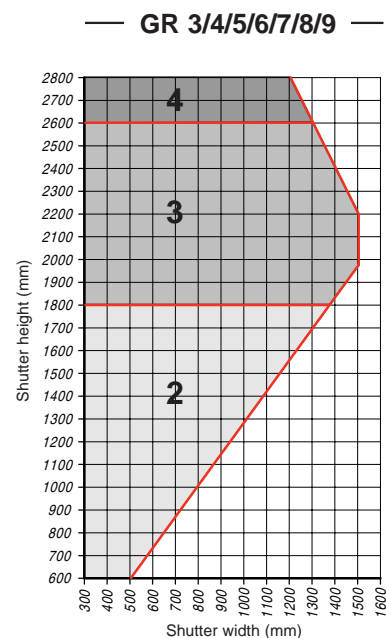
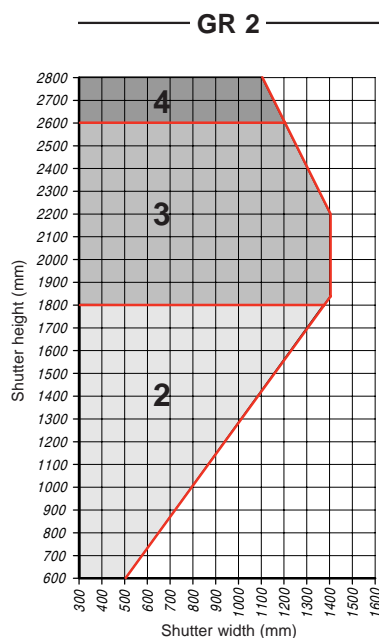
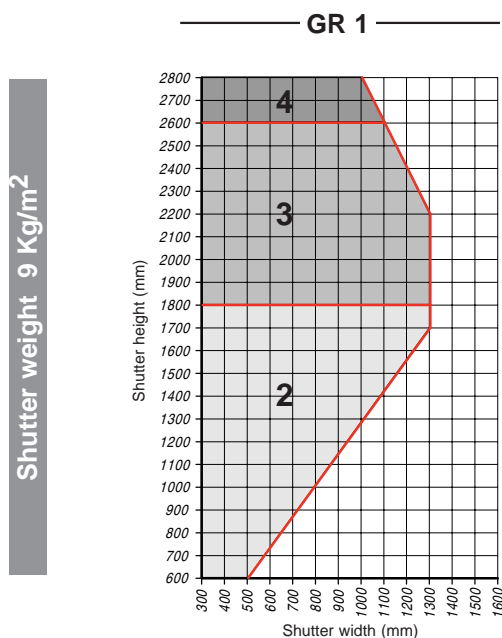
- Fixed pintle with plate
- Fixed hinge 00
- Rebated solution

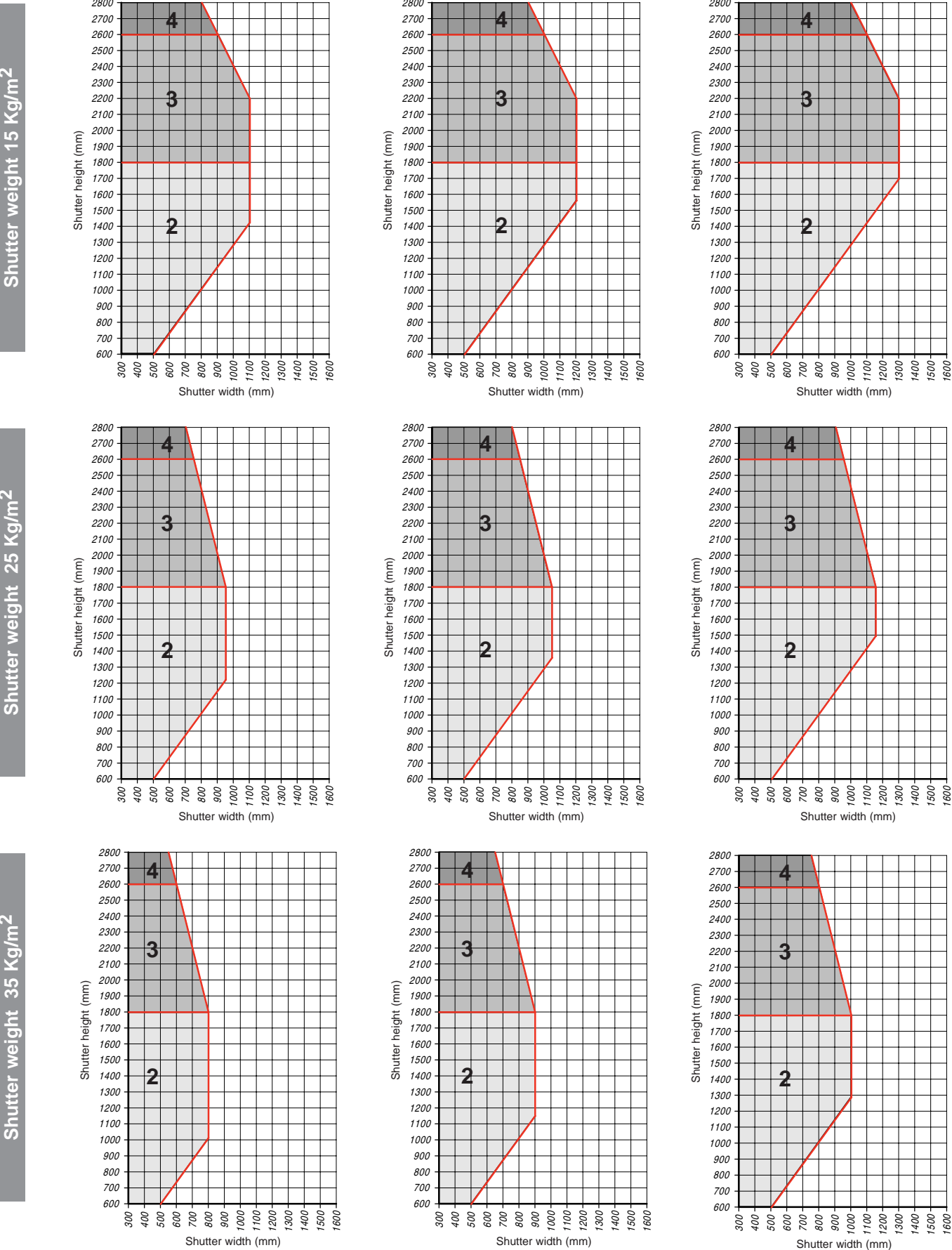
Shutter weight 9 Kg/m²Shutter weight 12 Kg/m²



Diagrams for determining the number of pintles:

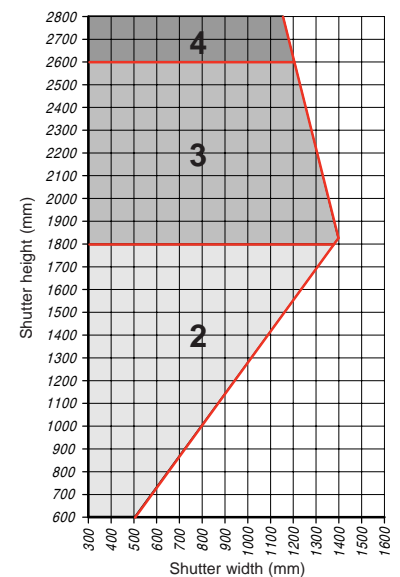
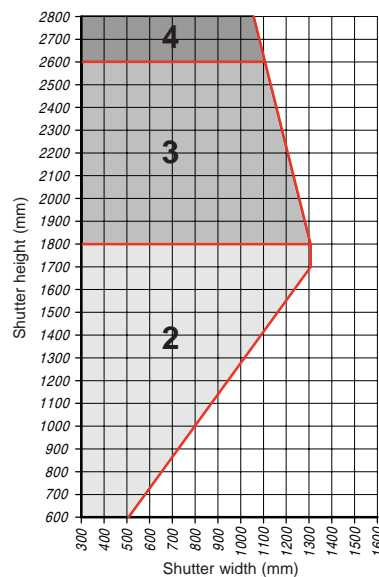
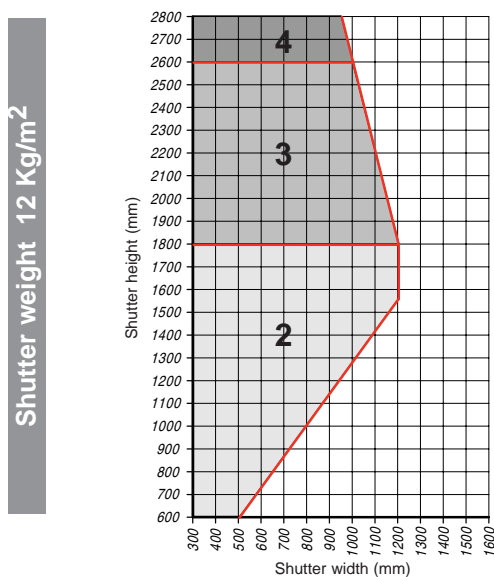
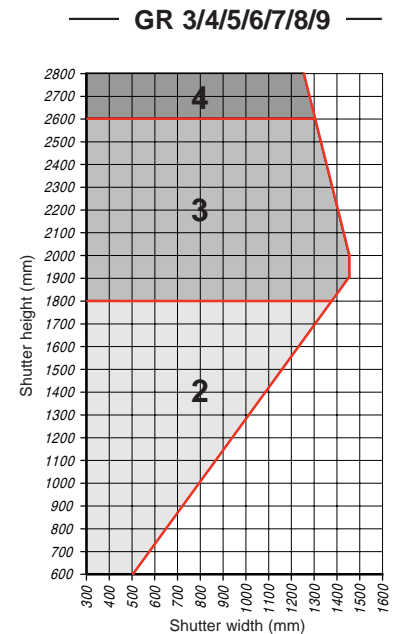
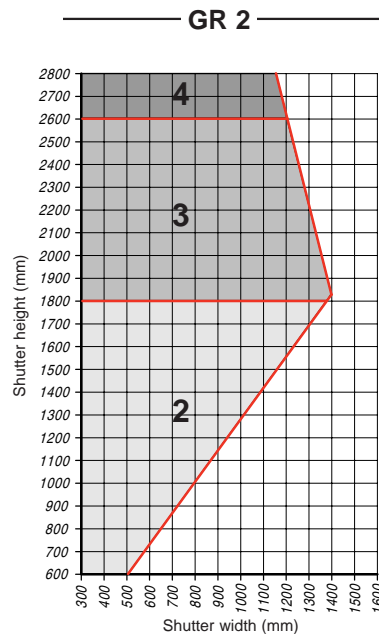
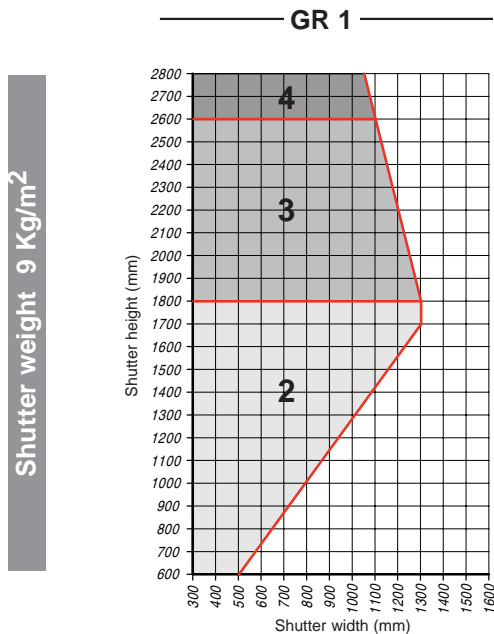
- Fixed pintle with plate
- Fixed hinge 15
- Flush solution

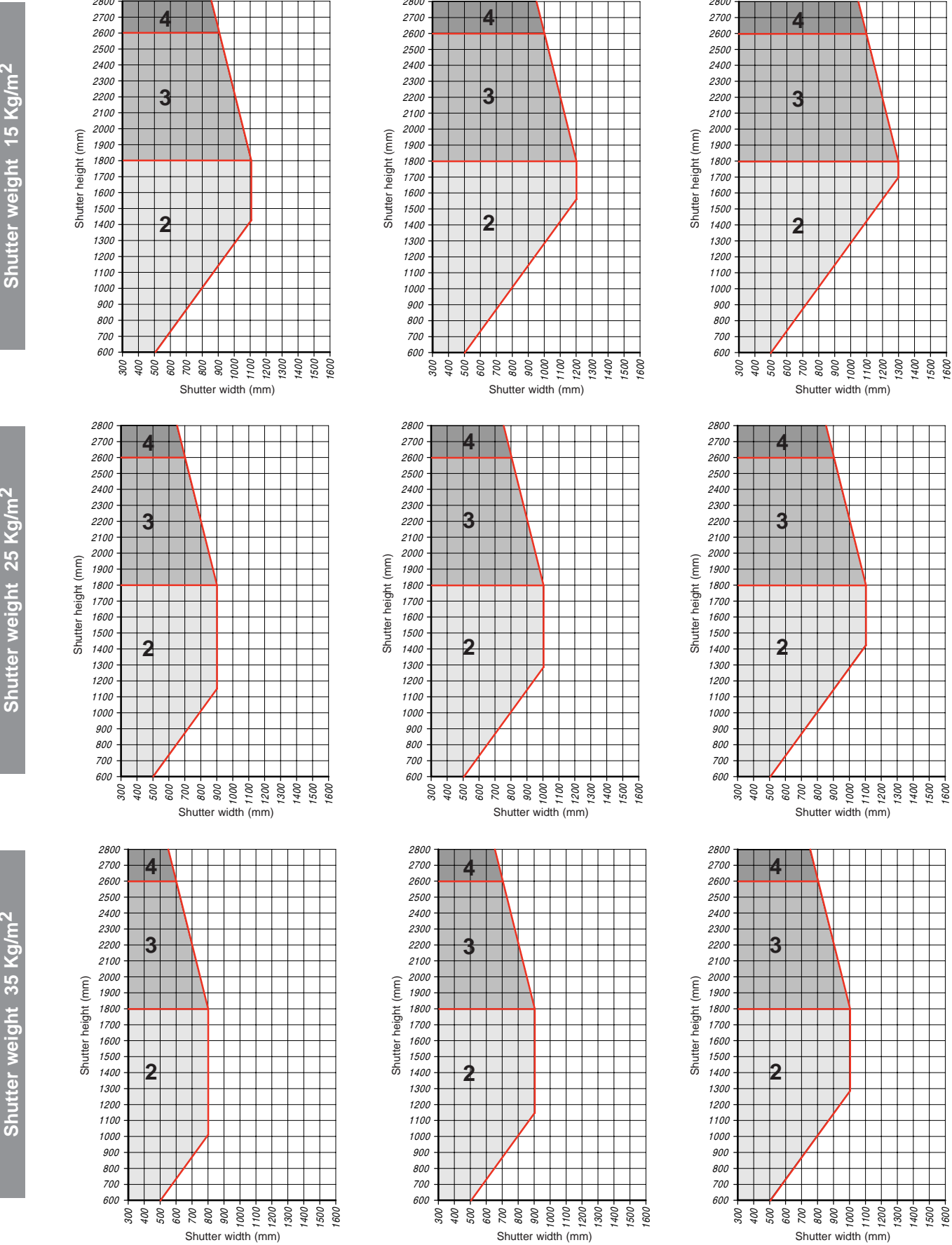




Diagrams for determining the number of pintles:

- Fixed pintle with plate
- Adjustable hinge

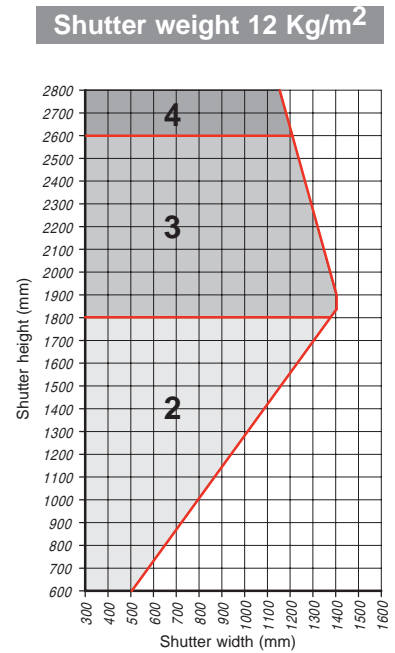
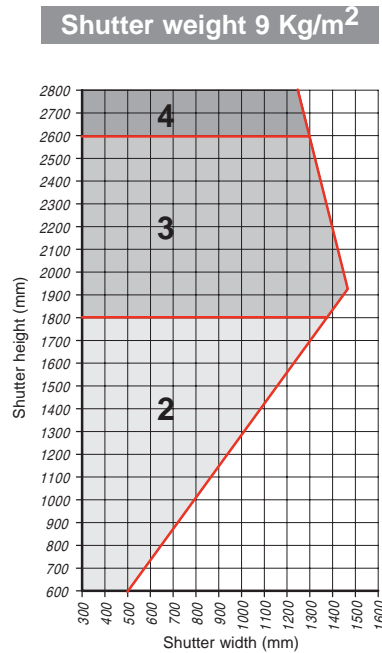




Diagrams for determining the number of pintles:

- Adjustable pintle
- Fixed hinge 00

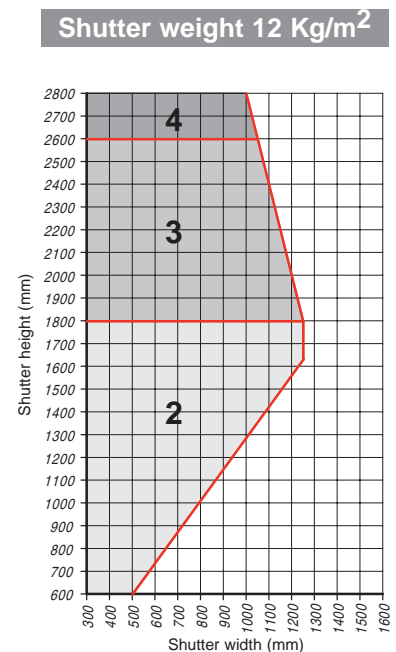
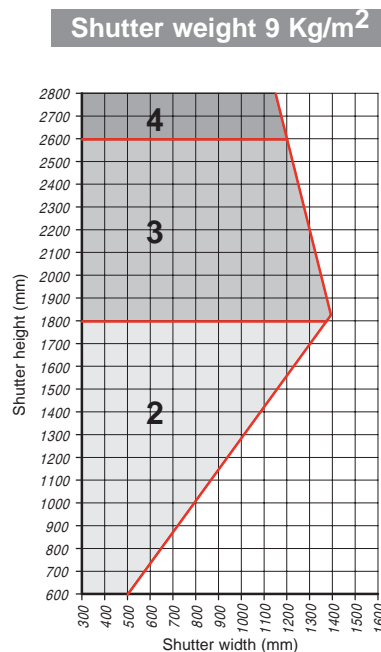
Maximum adjustment:
45 mm



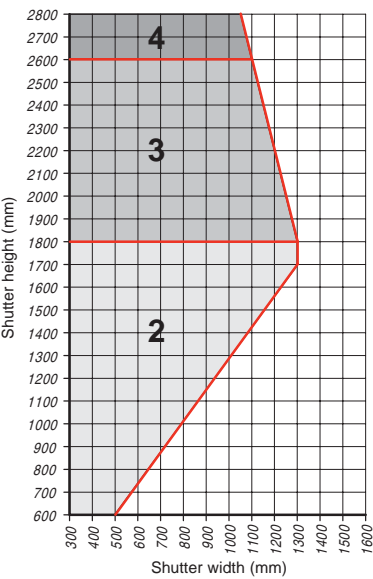
Diagrams for determining the number of pintles:

- Adjustable pintle
- Fixed hinge 15

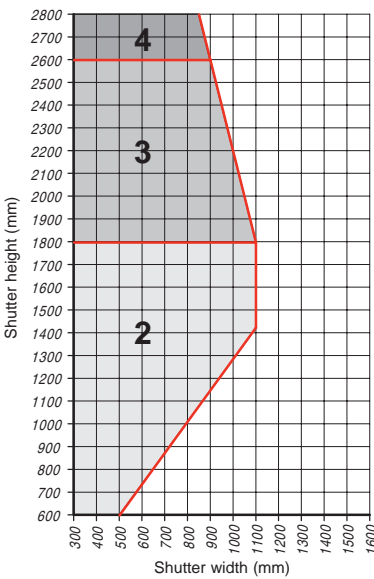
Maximum adjustment:
45 mm



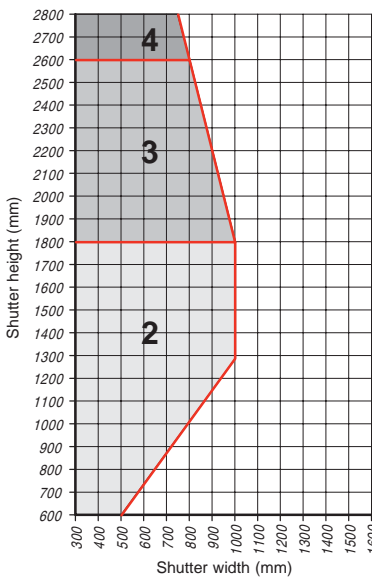
Shutter weight 15 Kg/m²



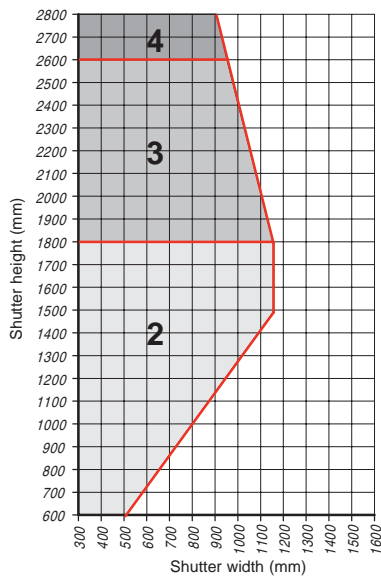
Shutter weight 25 Kg/m²



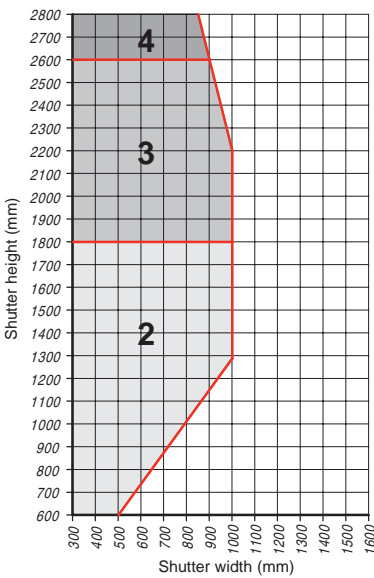
Shutter weight 35 Kg/m²



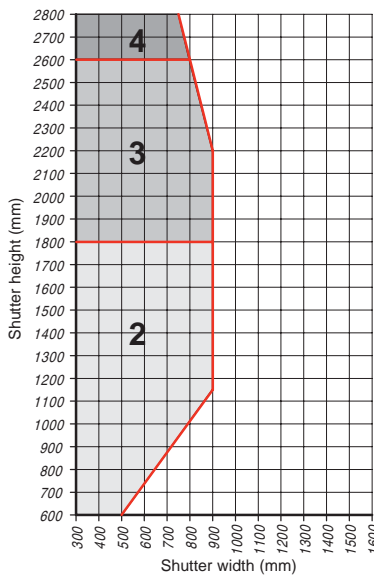
Shutter weight 15 Kg/m²



Shutter weight 25 Kg/m²



Shutter weight 35 Kg/m²

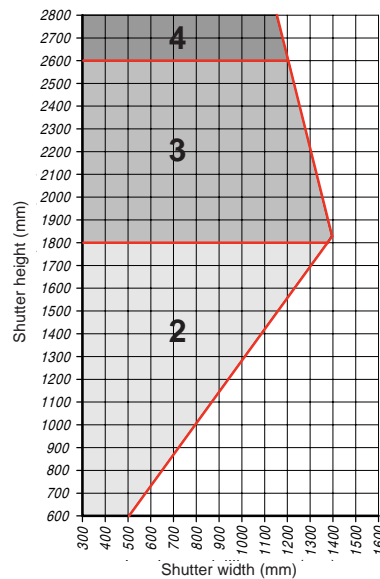


Diagrams for
determining the
number of pintles:

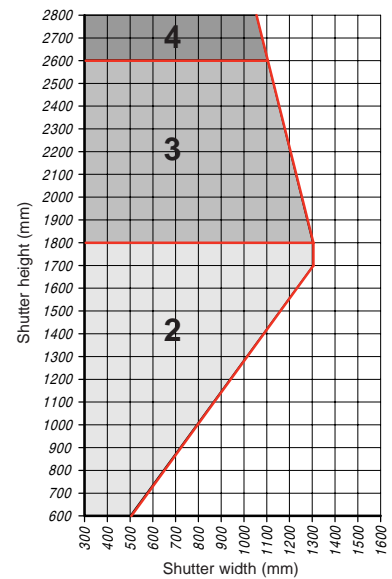
- Adjustable pintle
- Adjustable hinge

Maximum adjustment:
45 mm

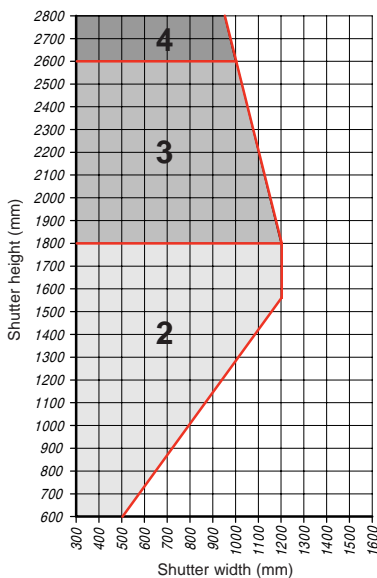
Shutter weight 9 Kg/m²



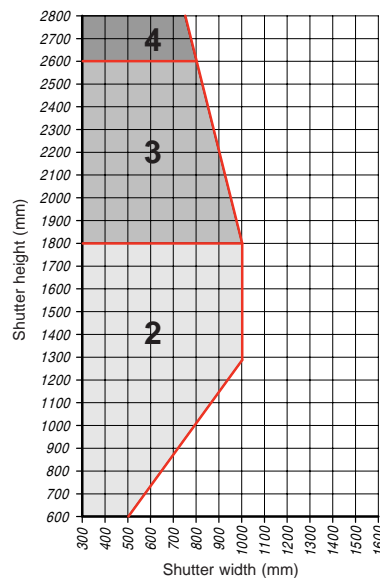
Shutter weight 12 Kg/m²



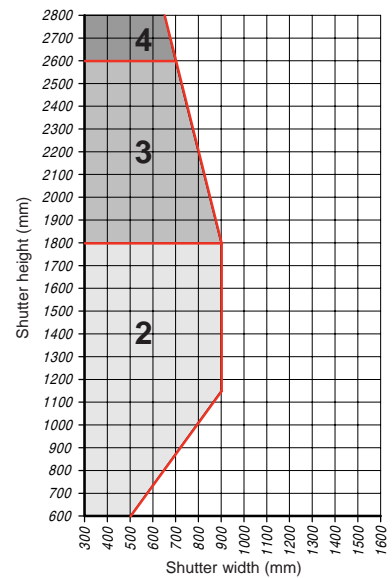
Shutter weight 15 Kg/m²



Shutter weight 25 Kg/m²



Shutter weight 35 Kg/m²



Loading table for Maxi

MAXI HINGE 60 MM														
2400	3	3	3	3	3	3								
2300	3	3	3	3	3	3								
2200	3	3	3	3	3	3								
2100	3	3	3	3	3	3								
2000	3	3	3	3	3	3	3							
1900	3	3	3	3	3	3	3							
1800	3	3	3	3	3	3	3	3						
1700	2	2	2	2	2	2	2	2						
1600	2	2	2	2	2	2	2	2						
1500	2	2	2	2	2	2	2	2						
1400	2	2	2	2	2	2	2	2	2					
1300	2	2	2	2	2	2	2	2	2					
1200	2	2	2	2	2	2	2							
1100	2	2	2	2	2	2								
1000	2	2	2	2	2	2	2	2						
900	2	2	2	2	2	2	2	2	2					
800	2	2	2	2	2	2	2	2	2	2				
700	2	2	2	2	2	2	2	2	2	2				
600	2	2	2	2	2	2	2	2	2	2				
↑ SRH	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	
SRW ⇒														

MAXI HINGE 90 MM														
2400	3	3	3	3	3	3	3	3						
2300	3	3	3	3	3	3	3	3						
2200	3	3	3	3	3	3	3	3						
2100	3	3	3	3	3	3	3	3						
2000	3	3	3	3	3	3	3	3	3					
1900	3	3	3	3	3	3	3	3	3					
1800	3	3	3	3	3	3	3	3	3	3				
1700	2	2	2	2	2	2	2	2	2	2				
1600	2	2	2	2	2	2	2	2	2	2				
1500	2	2	2	2	2	2	2	2	2	2				
1400	2	2	2	2	2	2	2	2	2	2	2			
1300	2	2	2	2	2	2	2	2	2	2	2			
1200	2	2	2	2	2	2	2	2	2					
1100	2	2	2	2	2	2	2	2	2					
1000	2	2	2	2	2	2	2	2	2	2				
900	2	2	2	2	2	2	2	2	2	2	2			
800	2	2	2	2	2	2	2	2	2	2	2	2		
700	2	2	2	2	2	2	2	2	2	2	2	2		
600	2	2	2	2	2	2	2	2	2	2	2	2		
↑ SRH	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	
SRW ⇒														

LEGEND

	Application field with glass weight up to 20 kg/m ² (8 mm glass thickness).
	Application field with glass weight up to 30 kg/m ² (12 mm glass thickness).
	Application field with glass weight up to 40 kg/m ² (16 mm glass thickness).
	Application field with glass weight up to 60 kg/m ² (24 mm glass thickness).
	Application field not allowed*
3	Application field allowed with 3 hinges.
2	Application field allowed with 2 hinges.

Note:

- Tests carried out with 2 hinges for SRH from 600 to 1700 mm and 3 hinges from 1800 to 2400 mm (application: central position).
- Distance from external rebate of the hinge: 100 mm up to 1000 mm SRH and 150 mm from 1000 to 2400 mm.
- Inclined screws only (ø4x35 mm) and M.8 threaded pins (ø7,2 mm pin for drilling).
- Wood: Larch.

*Application field not allowed: the free corner (not hinged) lowers more than 1 mm.