



2009 June 1st.

Amilibia y de la Iglesia certify that:

All the fittings included in the attached technical catalogue for shutters have been manufactured and controlled according to our technical drawings and specifications.

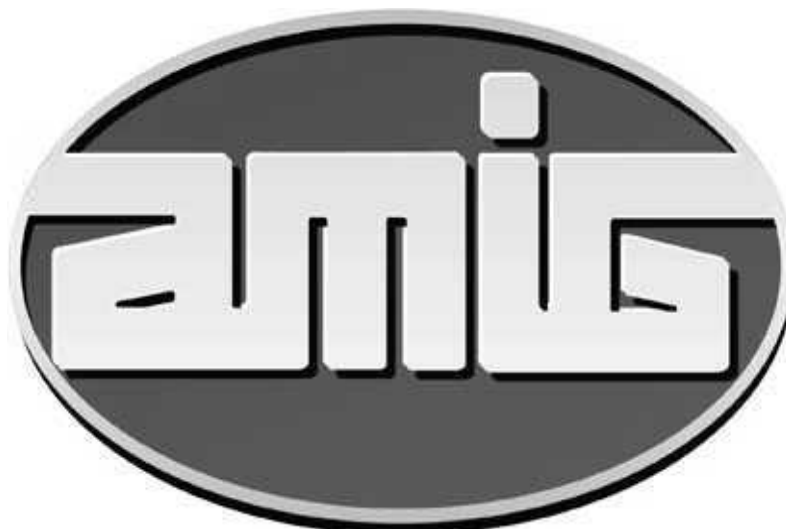
The material used in the manufacturing process is a first quality material which ensures the good working of the fitting installed in the shutters following the weight recommendations of the technical brochure.

The special black finished of this range of products guarantee a rust resistance in SALT spray test higher than 96 hours as the American standard ASTM B 117 (ISO 9227).

Quality Department.

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Fax Export 34-946 300 295



TECHNICAL CATALOGUE

"TECHNICAL" BLACK FITTINGS **for** **SHUTTERS**

Important note:

The present catalogue replaces and cancels all the previous ones.

JANUARY, 2007



TECHNICAL CATALOGUE



CONTENTS

<u>DESCRIPTION</u>	<u>Page</u>
1.- Shutting handle: characteristics and positioning.....	1 - 4
2.- Closing supports.....	5 - 6
3.- Vertical lock bolts.....	7
4.- Reverse closing hooks for interior shutters.....	8
5.- Latch for multiple-leaf folding shutters.....	9
6.- Fastening plate for multiple-leaf folding shutters.....	10
7.- Adjustable strap hinges.....	11
8.- Adjustable and fixed strap hinges with plate.....	12
9.- Wall strap hinge.....	13
10.- Supports for adjustable strap hinges.....	14 - 16
11.- Adjustable hinges.....	17
12.- Supports for adjustable hinges.....	18
13.- Fixed hinges.....	19 - 20
14.- Symmetrical hinges for multiple-leaf folding shutters.....	21
15.- Asymmetrical hinges for multiple-leaf folding shutters	22
16.- Wedge supplements.....	23 - 24
17.- Wedge supplements for PVC or Aluminium profiles.....	25 - 26
18.- Catch for shutters	27 - 29
19.- Spring doorstop for shutters.....	30
20.- Brackets.....	31 - 33
21.- Vertical & horizontal plates.....	34
22.- Continuous plates for multiple-leaf folding shutters.....	35 - 38
23.- Application field for adjustable hinges and adjustable strap hinges.....	39 - 41
24.- Jig for the adjustable strap hinge.....	42



TECHNICAL FITTINGS for SHUTTERS



SHUTTING HANDLE "Standard size"

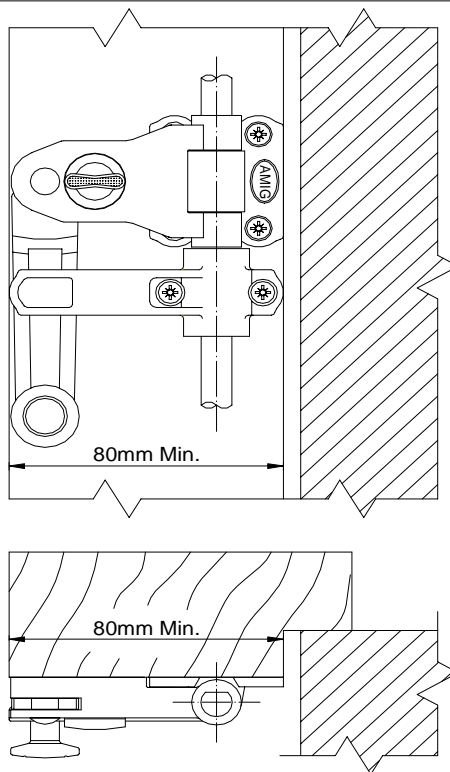
FOR 1 and 2 LEAVES

REF. 2902 / 2904

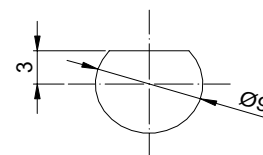
POSITIONING AND MEASUREMENTS

REF. 2902

Shutting handle "Standard size"
for 1 leaf

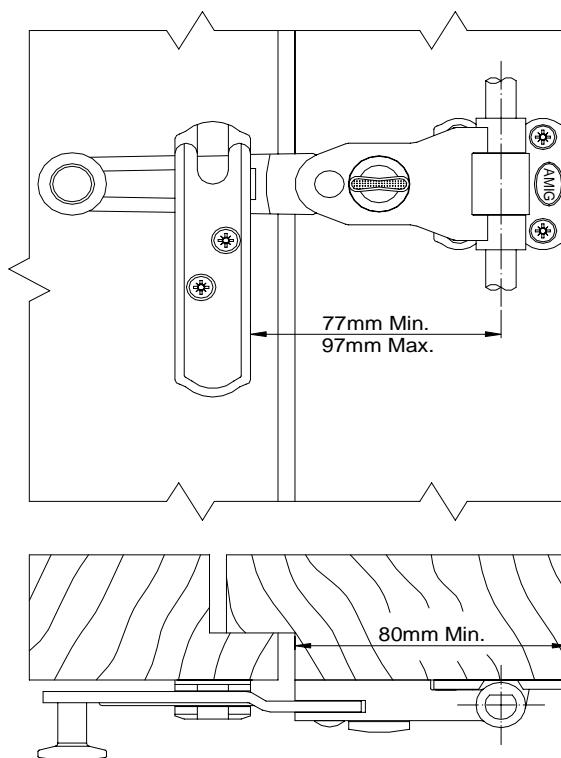


Section of the closing bar

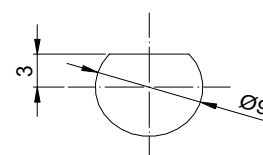


REF. 2904

Shutting handle "Standard size"
for 2 leaves



Section of the closing bar





TECHNICAL FITTINGS for SHUTTERS



SHUTTING HANDLE "Small size"

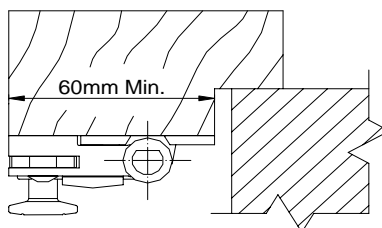
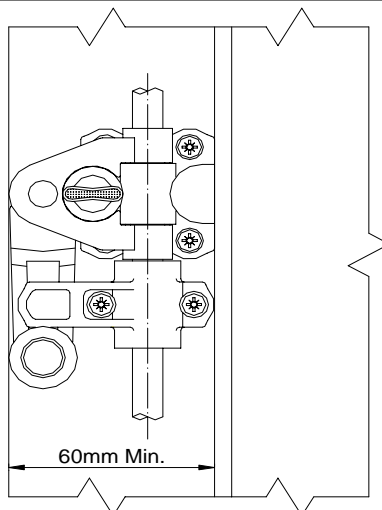
FOR 1 and 2 LEAVES

REF. 2903 / 2905

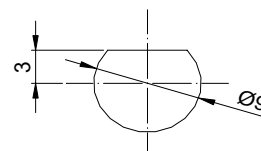
POSITIONING AND MEASUREMENTS

REF. 2903

Shutting handle "Small size"
for 1 leaf

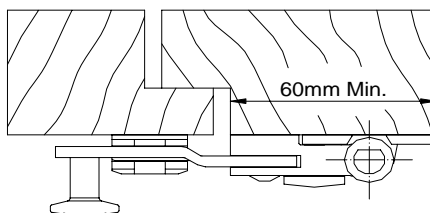
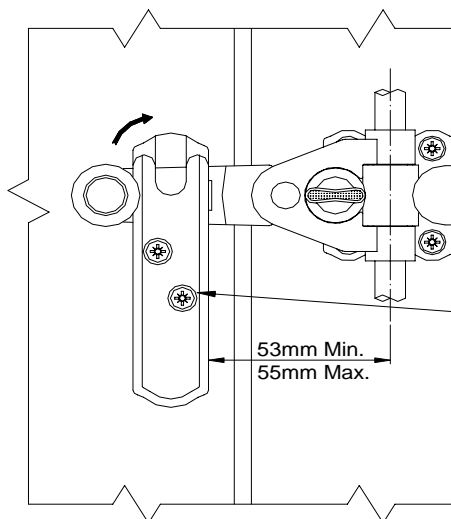


Section of the closing bar

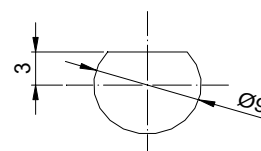


REF. 2905

Shutting handle "Standard size"
for 2 leaves



Section of the closing bar



Positioning sketch of the handle lock:

- 1° Fit the first screw (do not screw right in).
- 2° Make sure that it works correctly: the arm of the handle must not bump into the handle lock during its turning.
If it is correct, screw the second screw and tighten the first one.
- 3° If the working is not correct; turn the handle lock until it does not bump into the handle arm and screw the second screw, then tighten the first one.



TECHNICAL FITTINGS for SHUTTERS



SHUTTING SPRING HANDLE

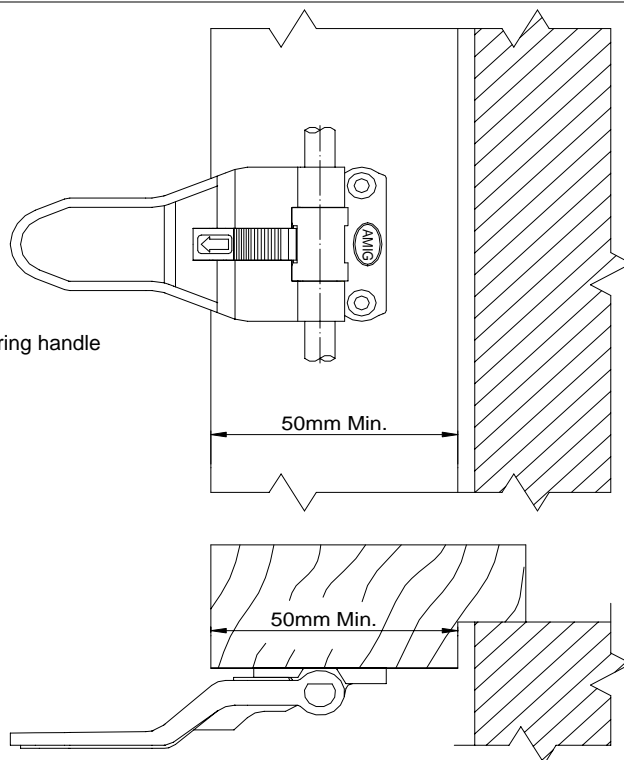
FOR 1 and 2 LEAVES

REF. 2915

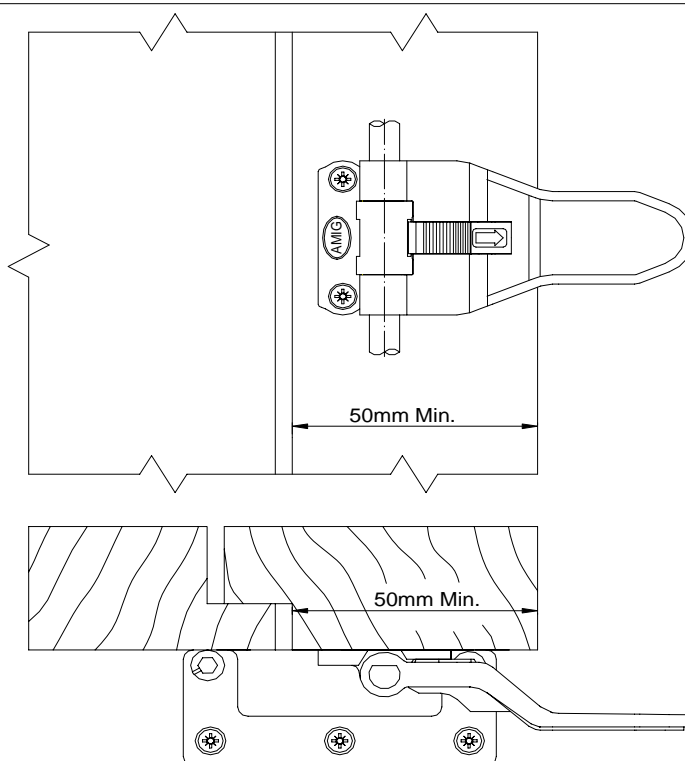
POSITIONING AND MEASUREMENTS

REF. 2915

Shutting spring handle
for 1 leaf



Shutting spring handle
for 2 leaves





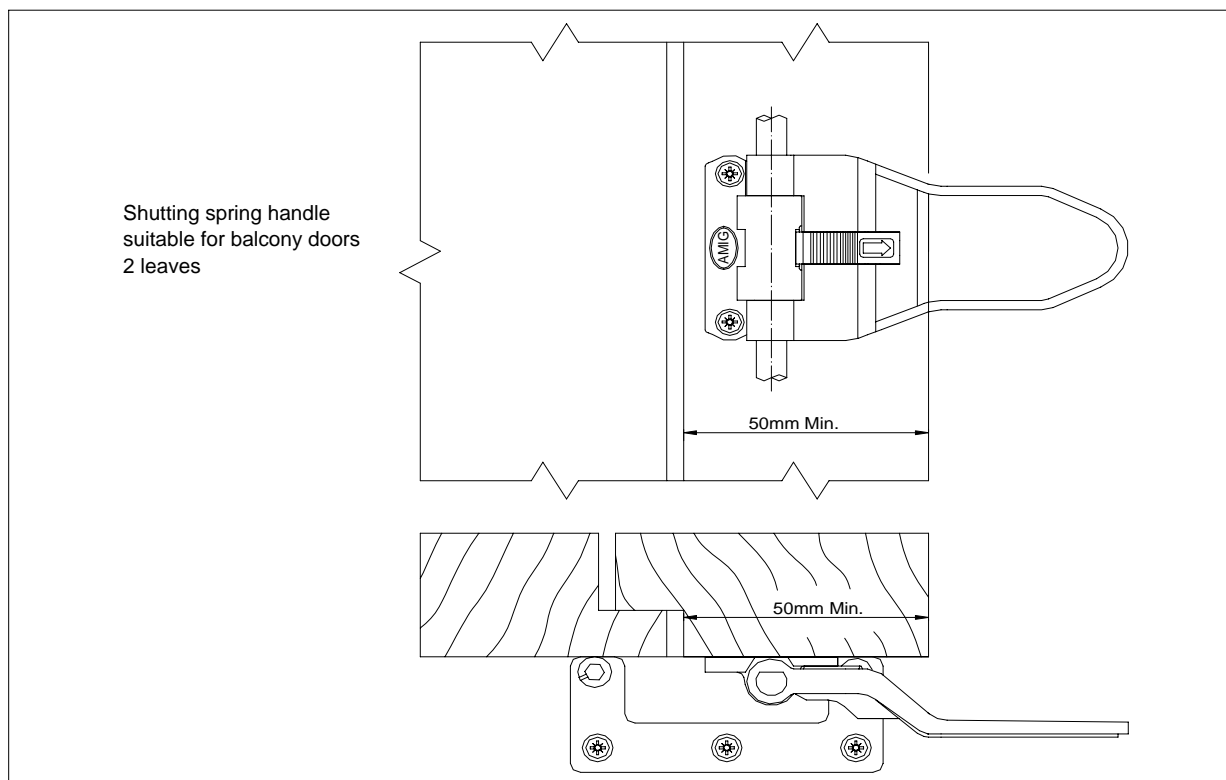
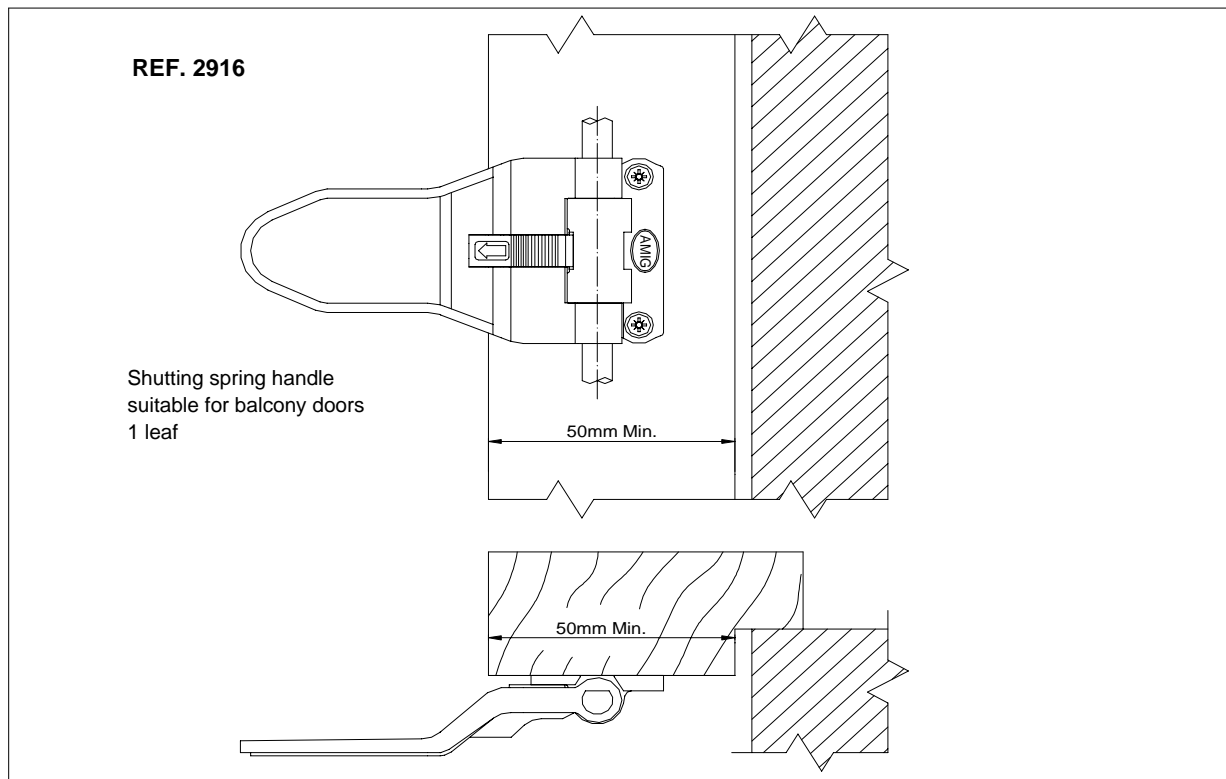
TECHNICAL FITTINGS for SHUTTERS



SHUTTING SPRING HANDLE SUITABLE FOR BALCONY DOORS 1 and 2 LEAVES

REF. 2916

POSITIONING AND MEASUREMENTS





TECHNICAL FITTINGS for SHUTTERS



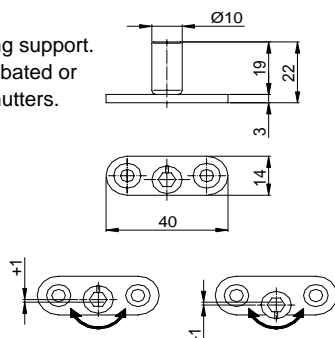
ACCESSORIES CLOSING SUPPORTS

REF. 2907 / 2908 / 2909 / 2910

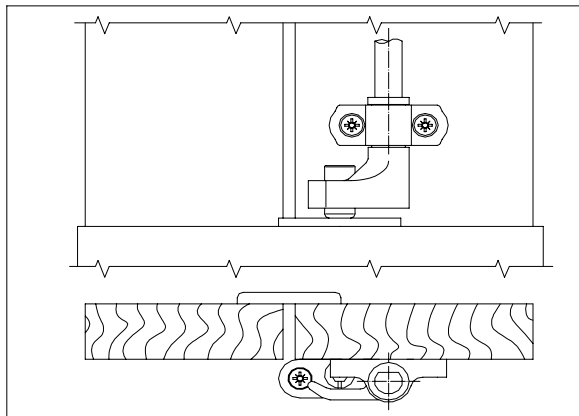
POSITIONING AND MEASUREMENTS

REF. 2907

Straight closing support.
Suitable for rebated or
overlapped shutters.

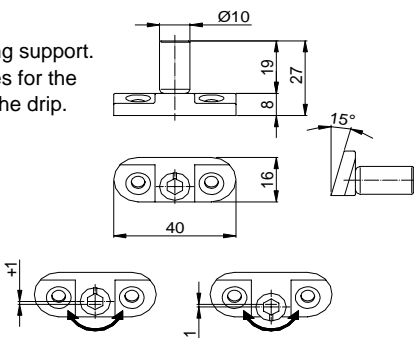


Adjustment by means of an Allen wrench metric 5 mm.

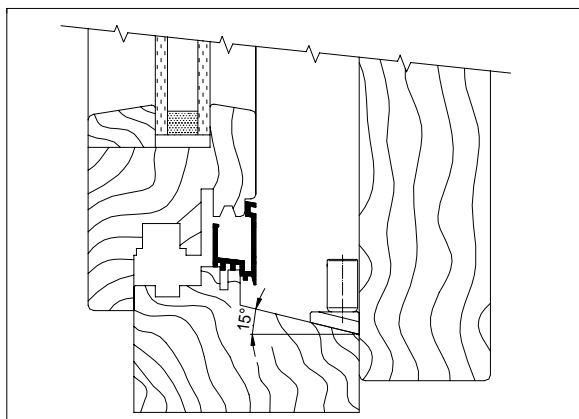


REF. 2908

Inclined closing support.
It compensates for the
inclination of the drip.

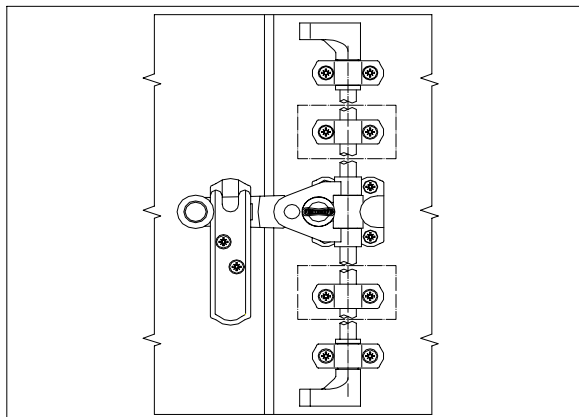
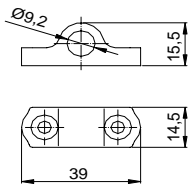


Adjustment by means of an Allen wrench metric 5 mm.

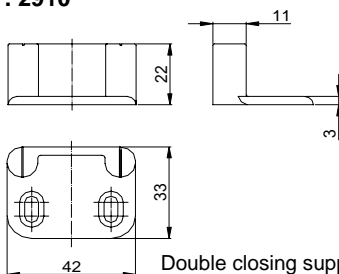


REF. 2909

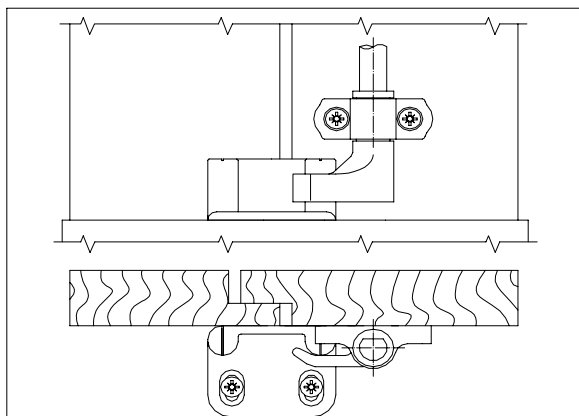
Guide support for the
closing bar.
It prevents the
deformations of the
lengthy closing bars,
during normal use of
the shutters.



REF. 2910



Double closing support.
Suitable for multiple-leaf folding
shutters (see page 10).
It can be used as a doorstop.





TECHNICAL FITTINGS for SHUTTERS

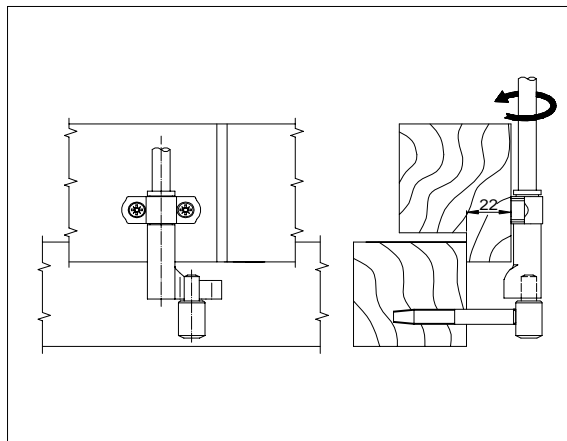
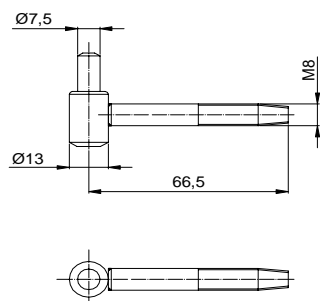


ACCESSORIES CLOSING SUPPORTS

REF. 2911 / 2912 / 2913 POSITIONING AND MEASUREMENTS

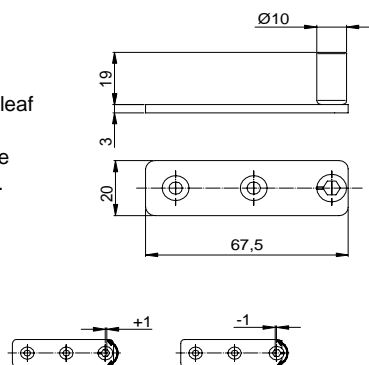
REF. 2911

Threaded closing support.
Suitable for shutters which opens toward the interior.

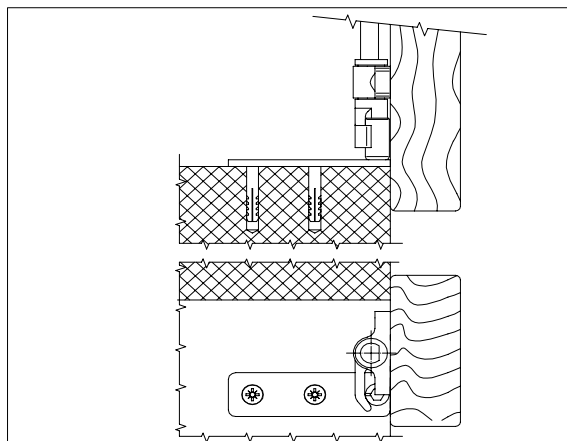


REF. 2912

Closing support with plate.
Suitable for one leaf shutters and the support has to be fixed on the wall.

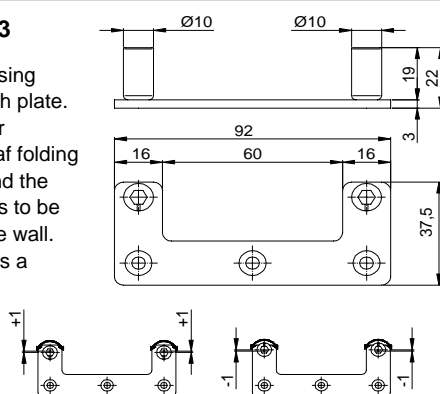


Adjustment by means of an Allen wrench metric 5 mm.

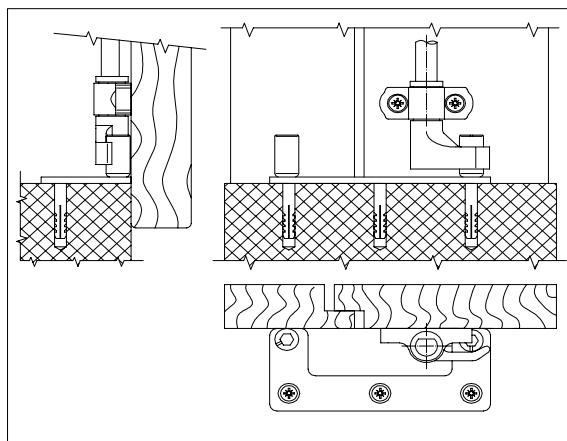


REF. 2913

Double closing support with plate.
Suitable for multiple-leaf folding shutters and the support has to be fixed on the wall.
It is used as a doorstop.



Adjustment by means of an Allen wrench metric 5 mm.





TECHNICAL FITTINGS for SHUTTERS



VERTICAL BOLT LOCK

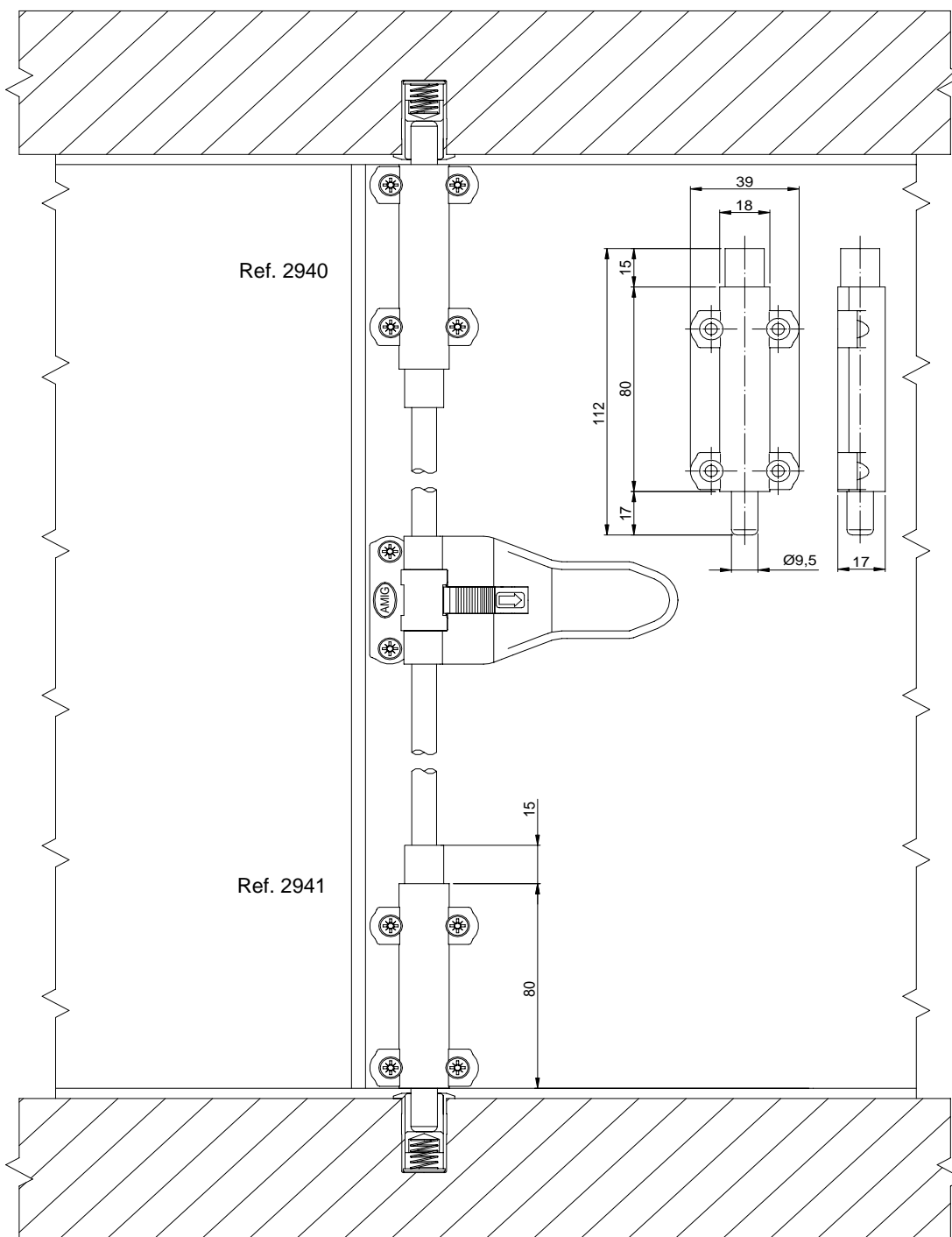
(Right & left)

REF. 2940 / 2041

POSITIONING AND MEASUREMENTS

REF. 2940 / 2941

The vertical bolt lock allows that the shutting handle turns 180°, and at the same time it is only necessary that it turns 90° to achieve that the bolt comes in or come out to the frame.
its use is recommended together with the shutting spring handles Ref. 2915 / 2916.





TECHNICAL FITTINGS for SHUTTERS



REVERSE CLOSING HOOKS FOR INTERIOR SHUTTERS

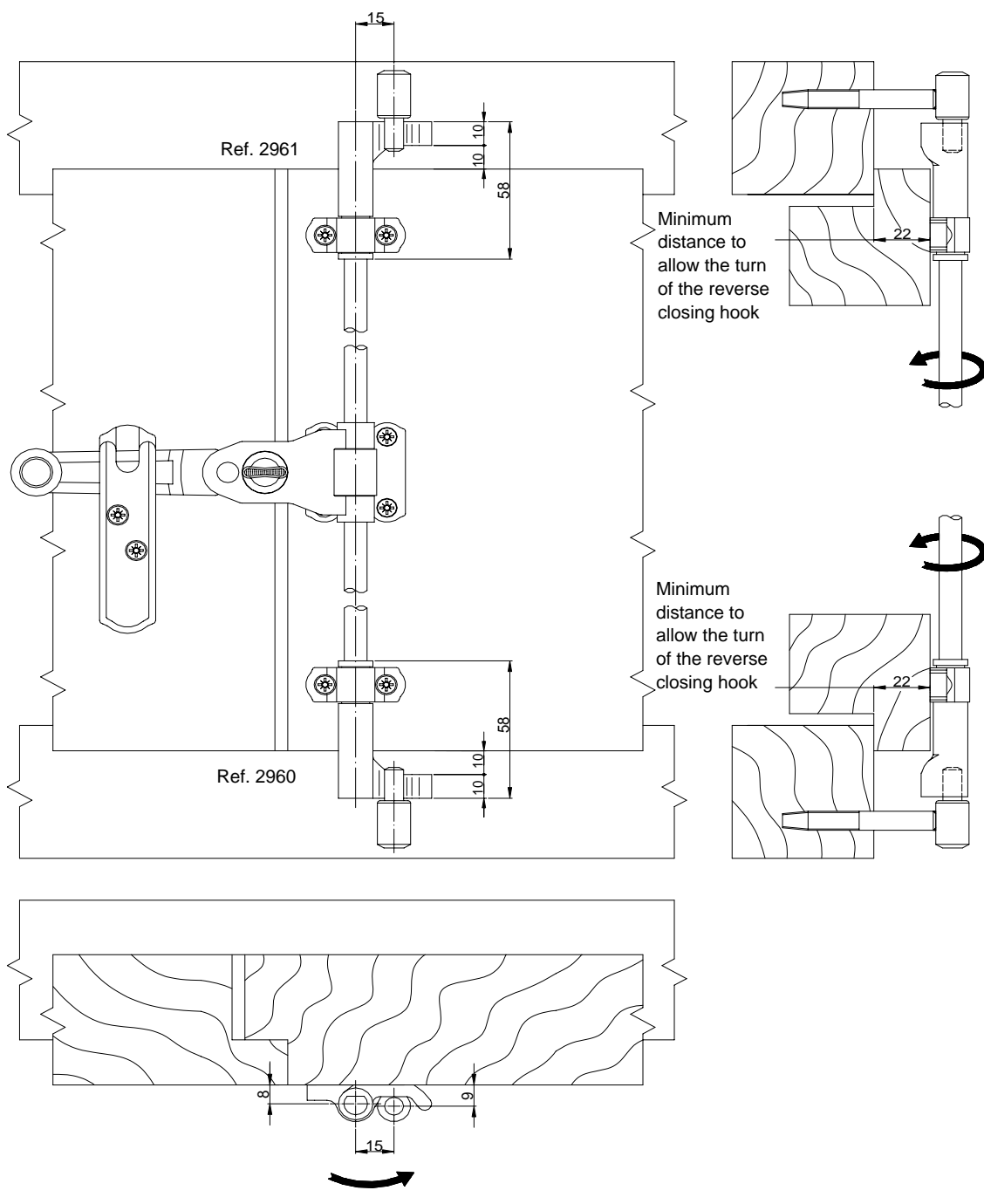
REF. 2960 / 2961

POSITIONING AND MEASUREMENTS

REF. 2960 / 2961

It must be used together with the threaded closing support (**Ref. 2911**).

The distances of the sketch below has to be kept in mind, in order to get a perfect positioning.





TECHNICAL FITTINGS for SHUTTERS

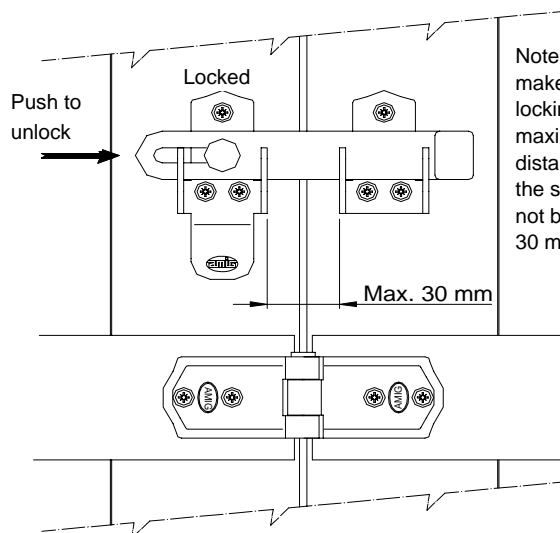
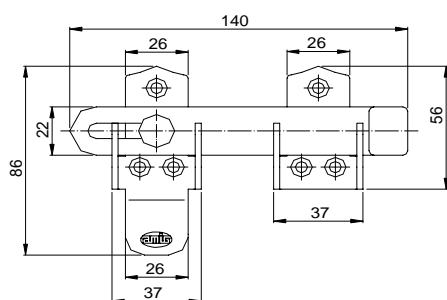


LATCH FOR MULTIPLE-LEAF FOLDING SHUTTERS

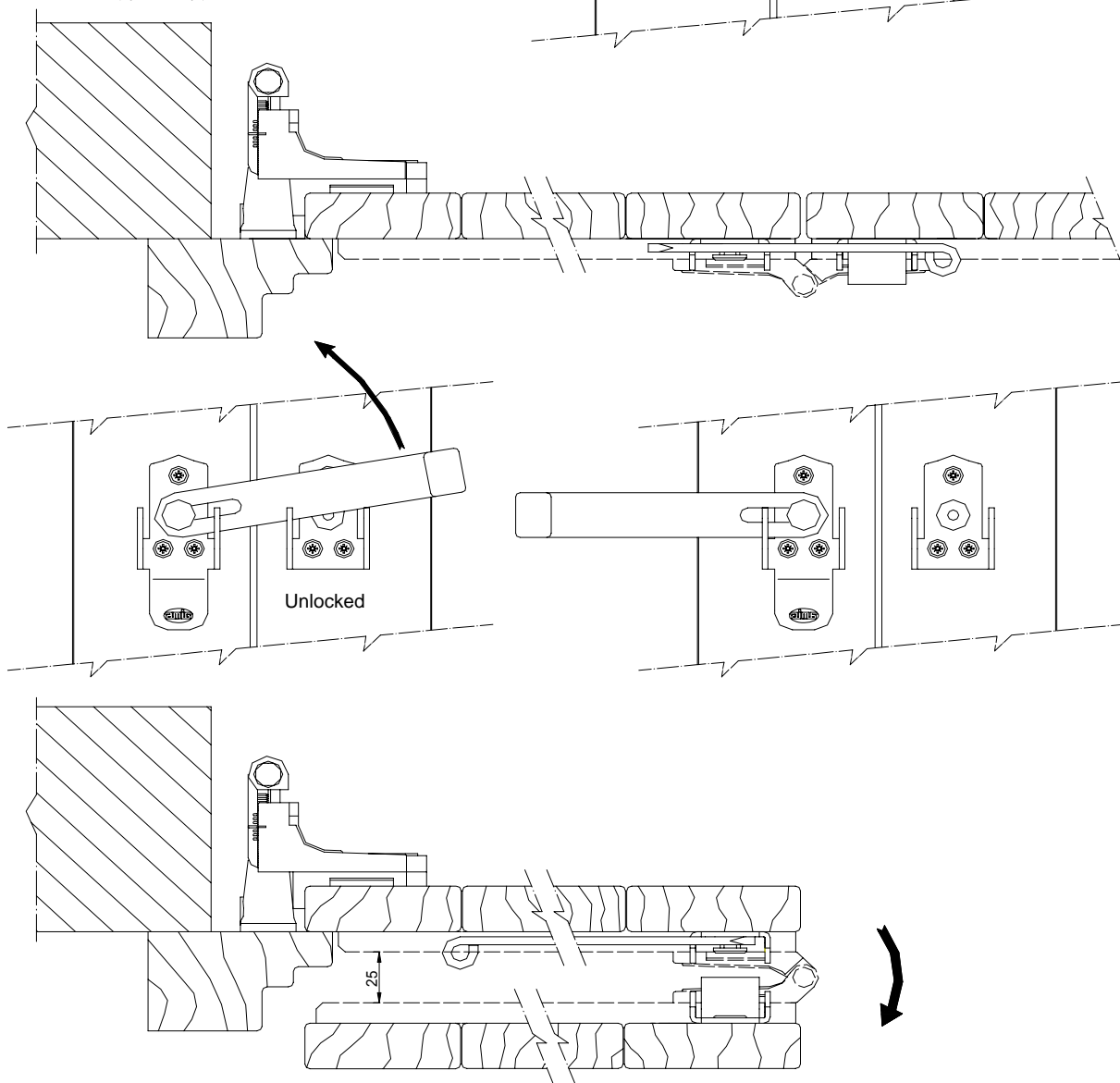
REF. 50 POSITIONING AND MEASUREMENTS

REF. 50

Application for the closing of multiple-leaf shutters together with SYMMETRICAL hinges, which are fitted on the INSIDE of the shutter.



Note: In order to make sure the locking, the maximum distance between the supports can not be more than 30 mm.





TECHNICAL FITTINGS for SHUTTERS



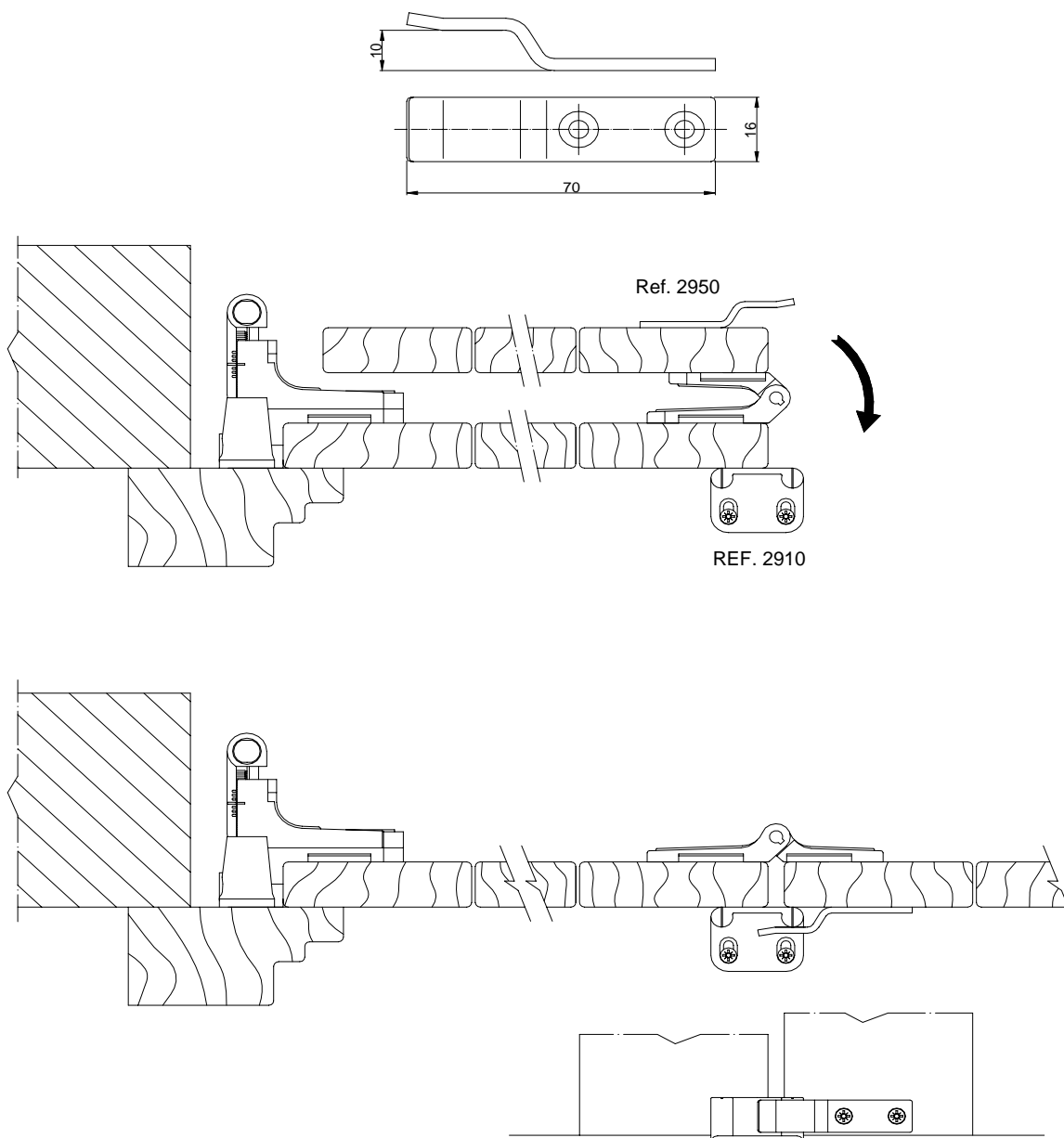
FASTENING PLATE FOR MULTIPLE-LEAF FOLDING SHUTTERS

REF. 2950

POSITIONING AND MEASUREMENTS

REF. 2950

Application for the closing of multiple-leaf shutters together with asymmetrical hinges, which are fitted on the OUTSIDE of the shutter. This way, there is no need for bolts to lock the multiple-leaf. It must be fitted together with the closing support **Ref.2910**.





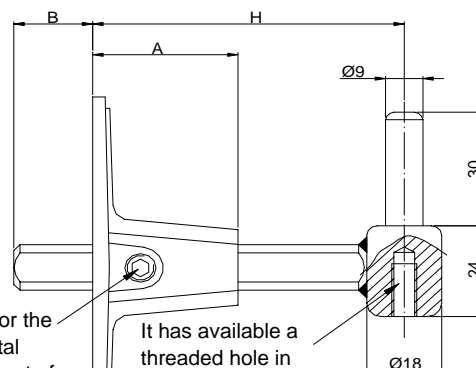
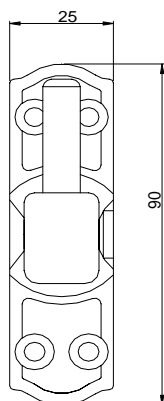
TECHNICAL FITTINGS for SHUTTERS



ADJUSTABLE STRAP HINGES

REF. 2974 / 2975 / 2976 / 2977

POSITIONING AND MEASUREMENTS



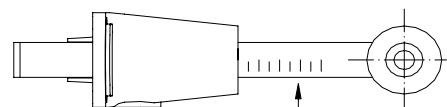
Screw for the horizontal adjustment of the axle, by means of an Allen wrench metric 4 mm.

It has available a threaded hole in case of fit the support Ref.2914 (see page 14).

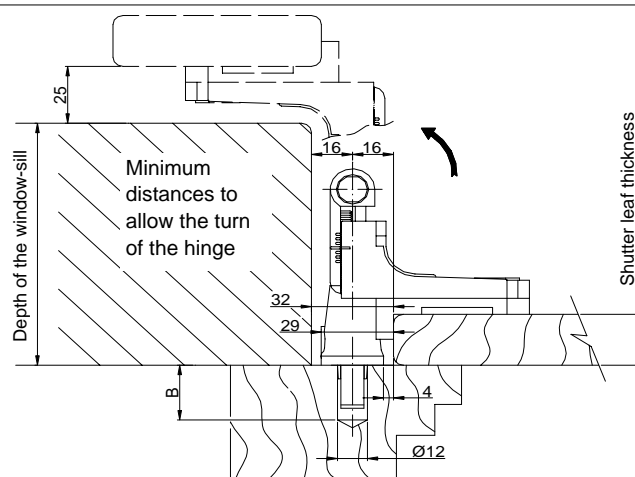
IMPORTANT:

THE MAXIMUM AND MINIMUM REGULATIONS MUST BE OBSERVED DURING THE ASSEMBLY.

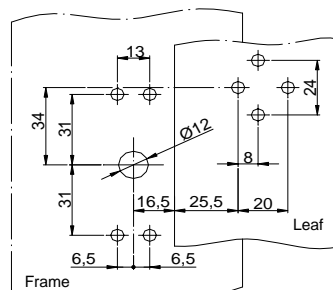
Reference	Height of the base	Horizontal regulation H		Drill hole depth
	A	min.	max.	B
2974	15,5	30	55	64 - H
2975	35	55	85	94 - H
2976	50	85	115	124 - H
2977	65	115	145	154 - H



Scale for the horizontal regulation of the axle.



Sketch to drill the frame and the leaf.





TECHNICAL FITTINGS for SHUTTERS



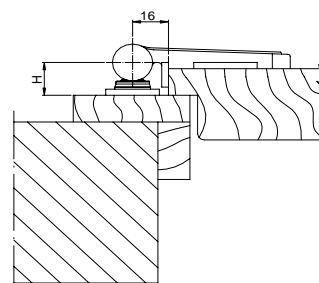
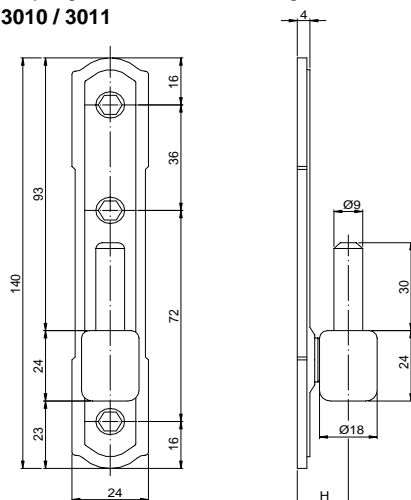
ADJUSTABLE AND FIXED STRAP HINGES WITH PLATE

REF. 2980 / 2981 / 2982 / 2983 / 2984 / 2990 / 2991
POSITIONING AND MEASUREMENTS

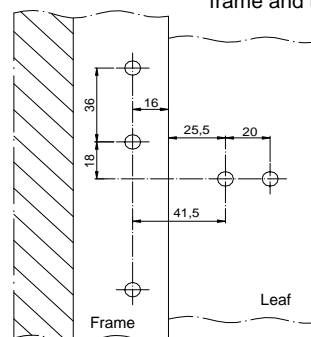
REF. 2980 / 2981 / 2982 / 2983 / 2984

Reference	Height of the axle H (mm)	*Thickness of the shutter overlap (mm)
2980	16	13
2981	19	16
2982	21	18
2983	23	20
2984	26	22

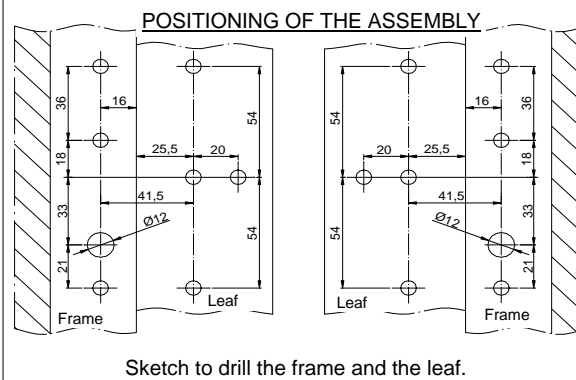
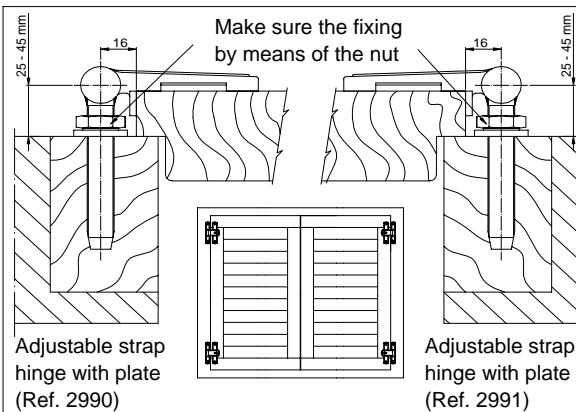
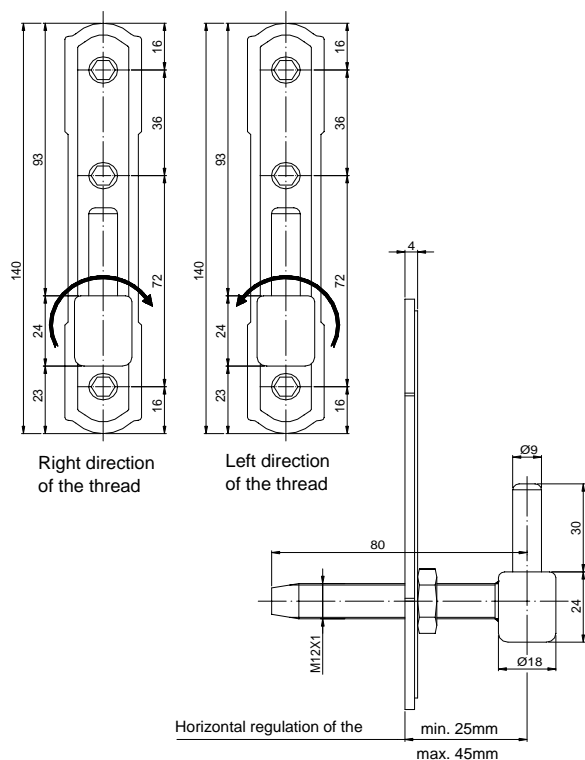
* Assembly together with the fixed hinges
Ref. 3010 / 3011



Sketch to drill the
frame and the leaf.



REF. 2990 / 2991



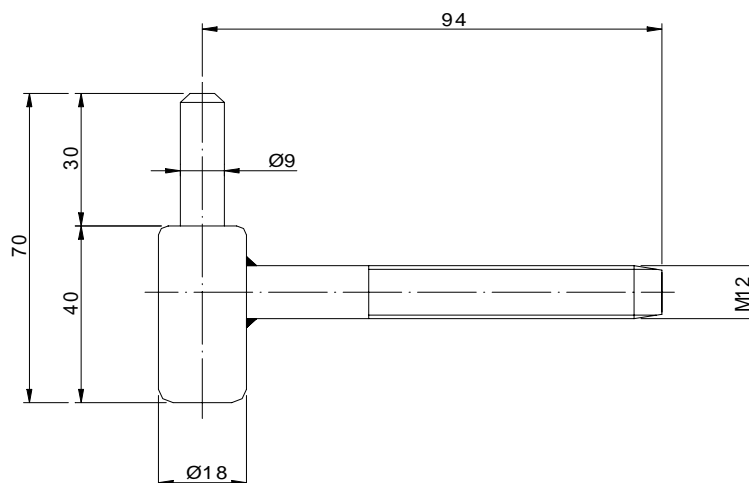


TECHNICAL FITTINGS for SHUTTERS

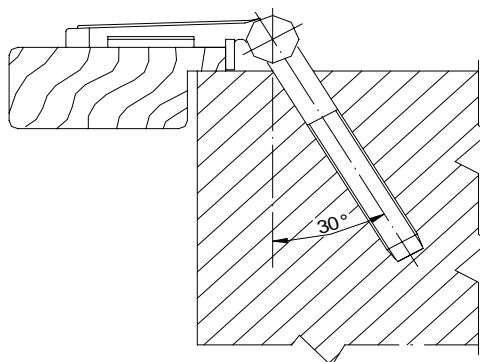
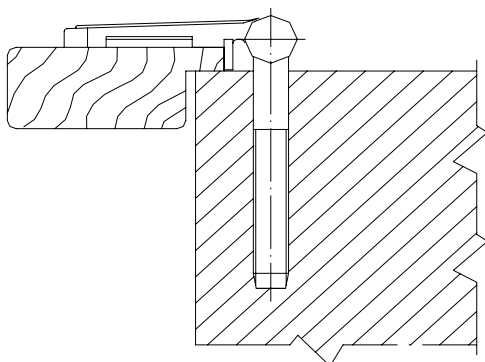


WALL STRAP HINGE REF. 2995 POSITIONING AND MEASUREMENTS

REF. 2995



The strap hinge is fixing in the wall by means of rawlplug or chemical cement.
It can be fixed in the wall at 30° or 90°; it depends on the composition of the wall.





TECHNICAL FITTINGS for SHUTTERS

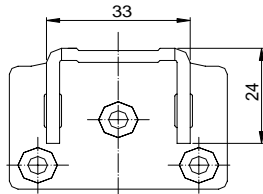
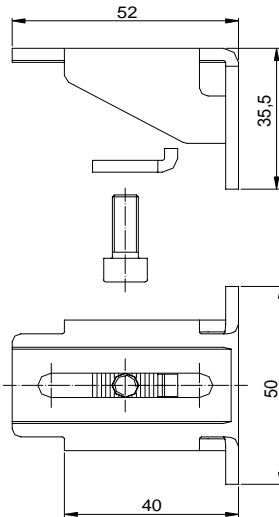


SUPPORT FOR ADJUSTABLE STRAP HINGE

REF. 2914

POSITIONING AND MEASUREMENTS

REF. 2914

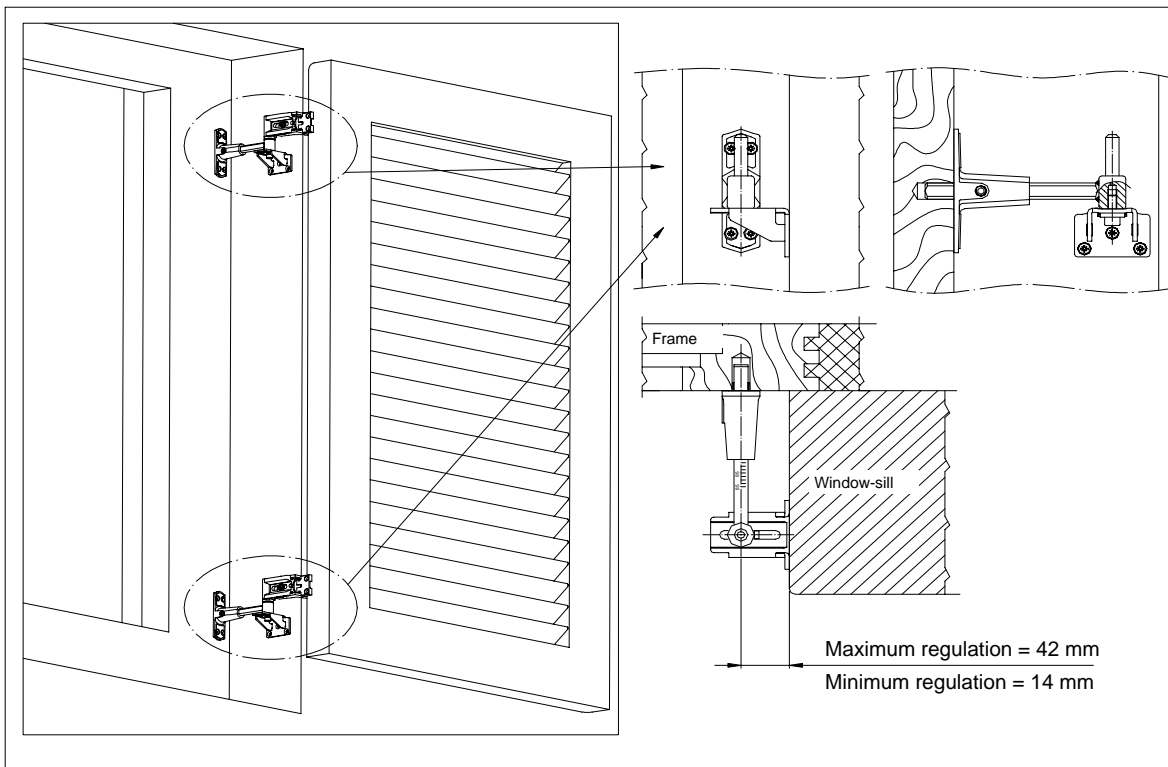
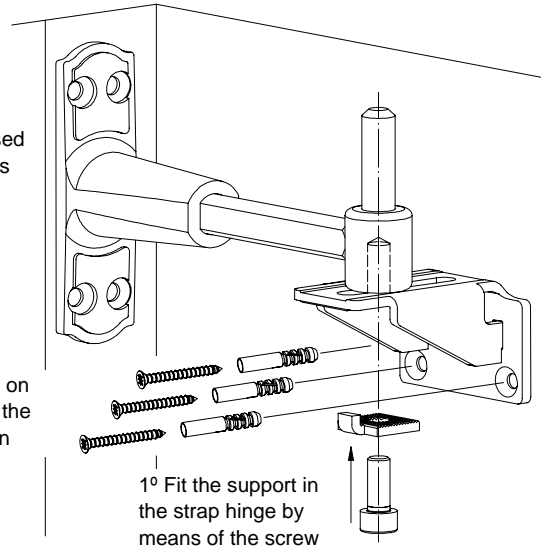


Important: It CAN NOT be used when the automatic catch has been assembled in the strap hinge (see page 15 and 16).

2° Fix the support on the window-sill at the necessary position

Nota: In case of use, it should be fitted at least one support per leaf, principally in the top strap hinge of the leaf.

Reinforcement support for adjustable strap hinges (Ref. 2974, 2975, 2976 y 2977). Its use is recommended for door systems (balcony) or heavy shutters, and it is compulsory for window-sills which ones have a depth more than 180 mm.



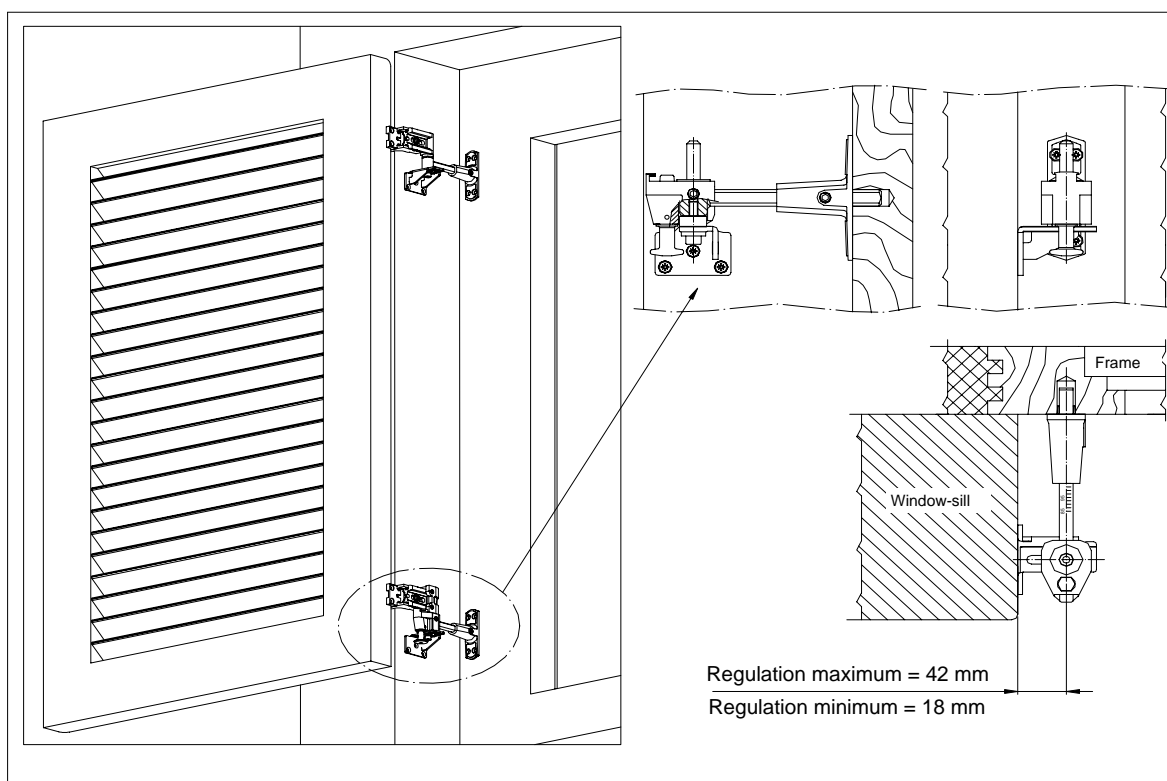
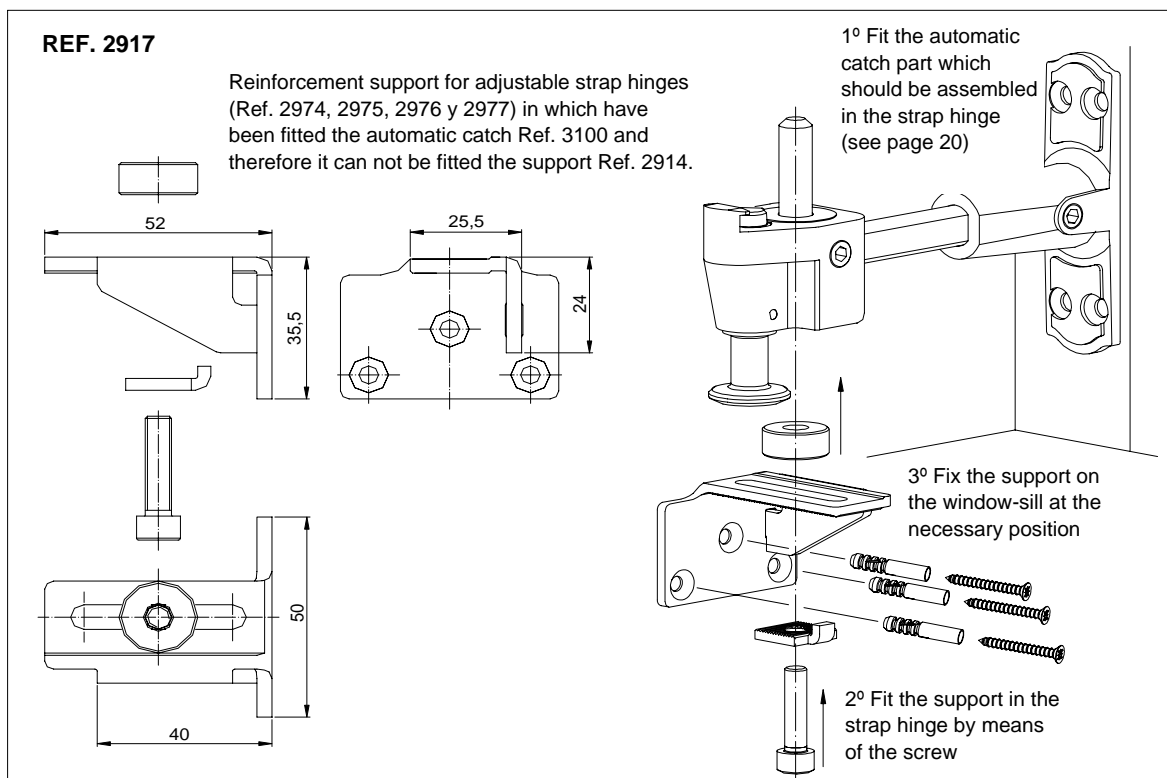


TECHNICAL FITTINGS for SHUTTERS



LEFT SUPPORT FOR ADJUSTABLE STRAP HINGE with AUTOMATIC CATCH

REF. 2917 POSITIONING AND MEASUREMENTS





TECHNICAL FITTINGS for SHUTTERS



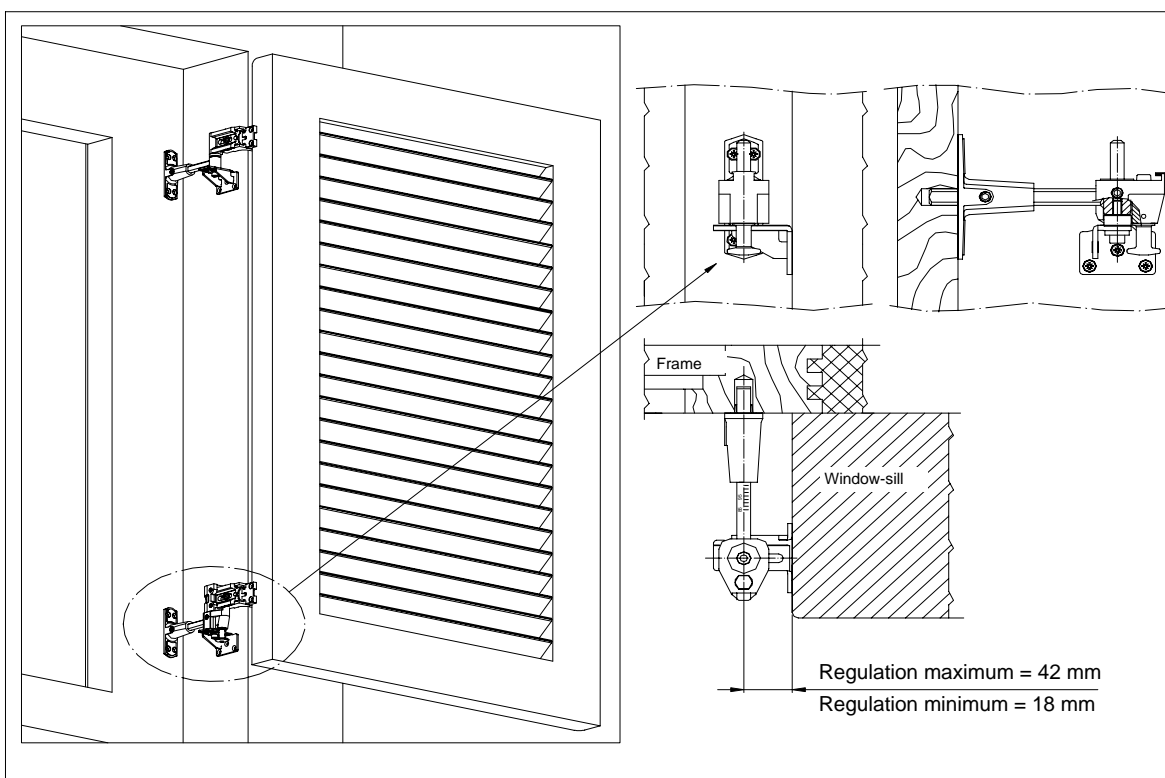
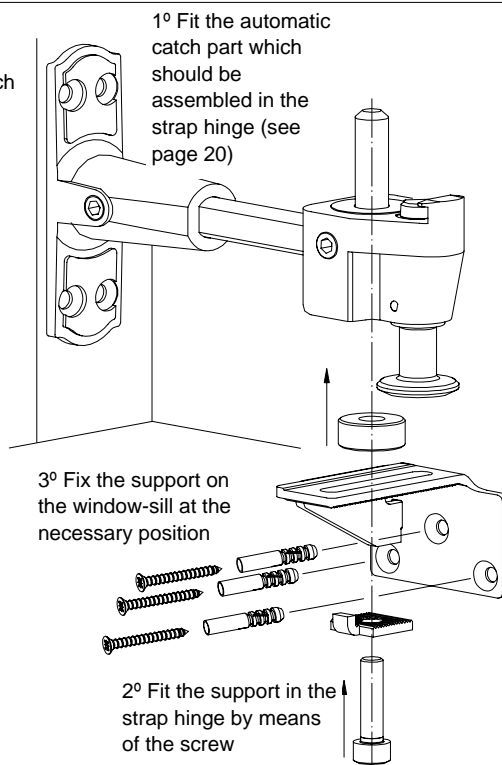
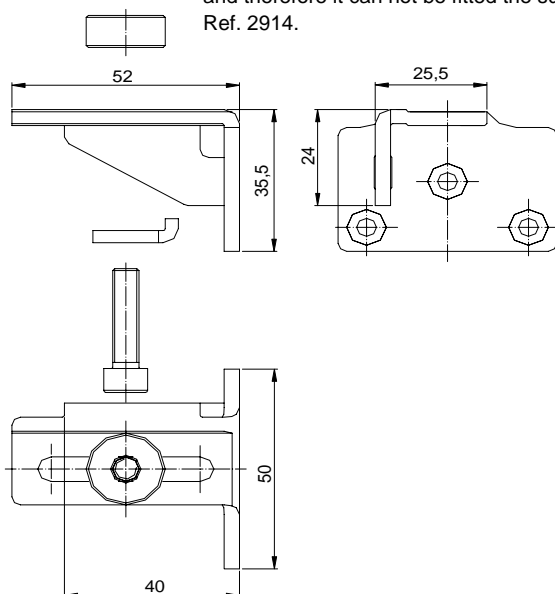
RIGHT SUPPORT FOR ADJUSTABLE STRAP HINGE with AUTOMATIC CATCH

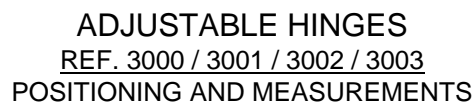
REF. 2918

POSITIONING AND MEASUREMENTS

REF. 2918

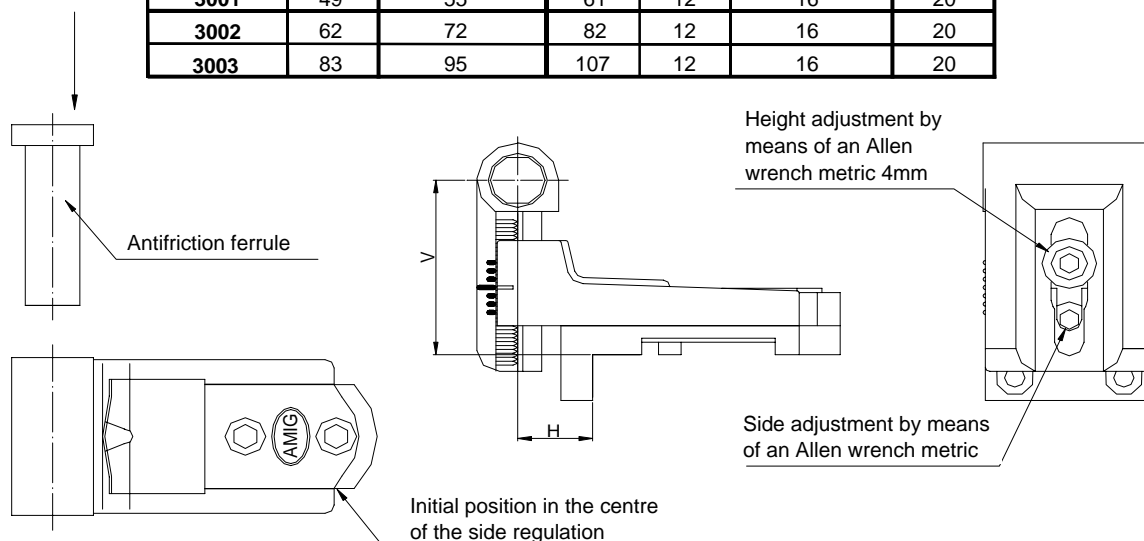
Reinforcement support for adjustable strap hinges (Ref. 2974, 2975, 2976 y 2977) in which have been fitted the automatic catch Ref. 3101 and therefore it can not be fitted the support Ref. 2914.



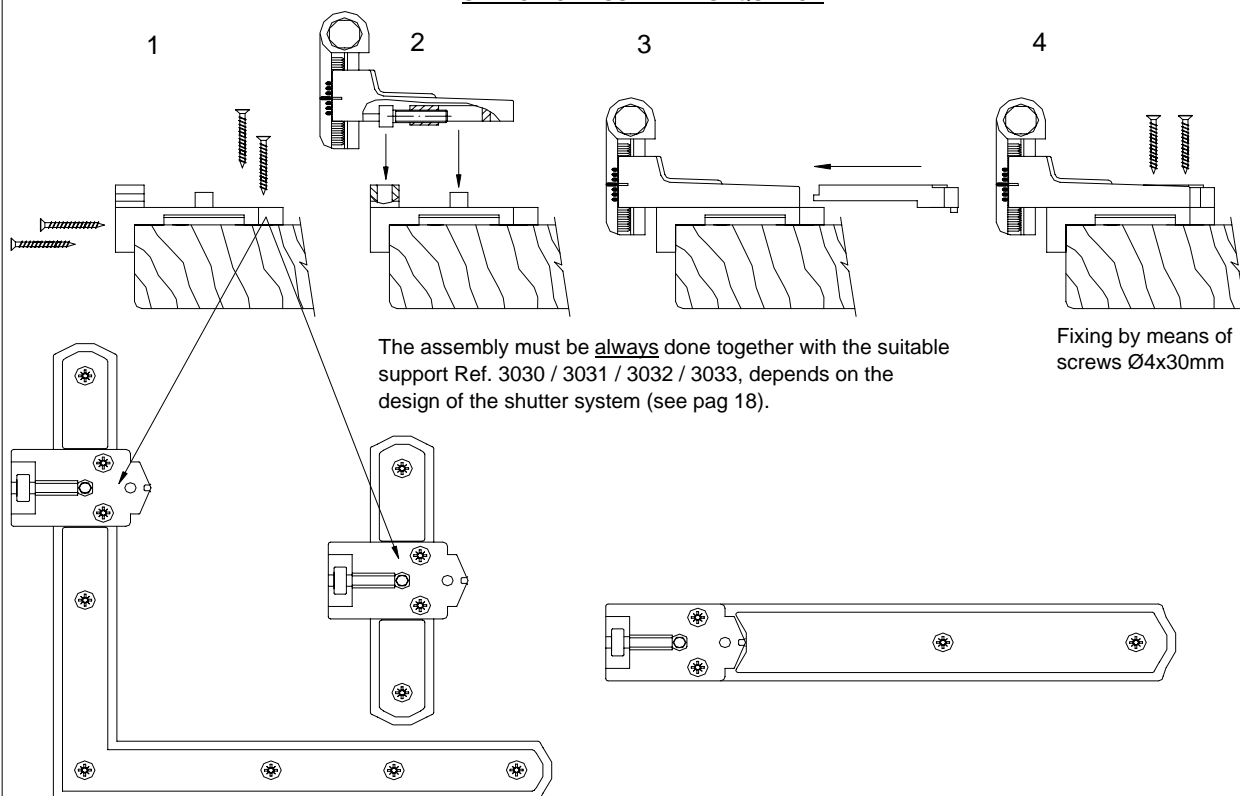


REF. 3000 / 3001 / 3002 / 3003

Reference	Height adjustment V			Side adjustment H		
	min.	Central posit.	max.	min.	Central posit.	max.
3000	36	42	48	12	16	20
3001	49	55	61	12	16	20
3002	62	72	82	12	16	20
3003	83	95	107	12	16	20



SKETCH OF ASSEMBLY SEQUENCE





TECHNICAL FITTINGS for SHUTTERS



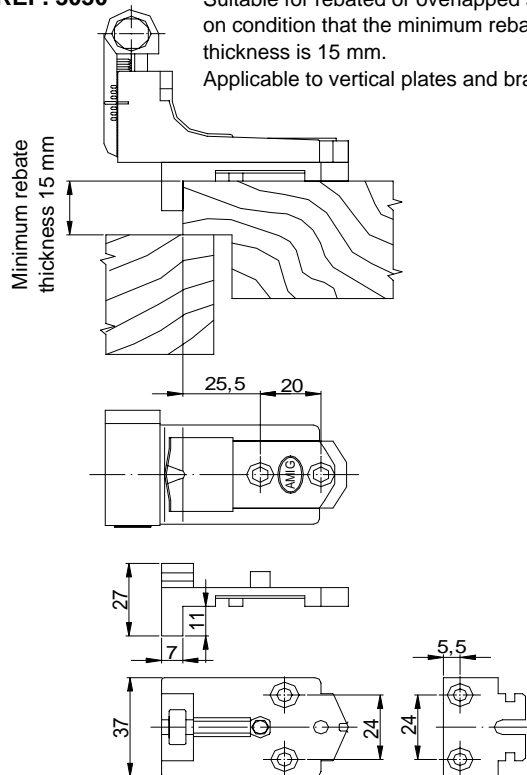
SUPPORTS FOR ADJUSTABLE HINGES

REF. 3030 / 3031 / 3032 / 3033

POSITIONING AND MEASUREMENTS

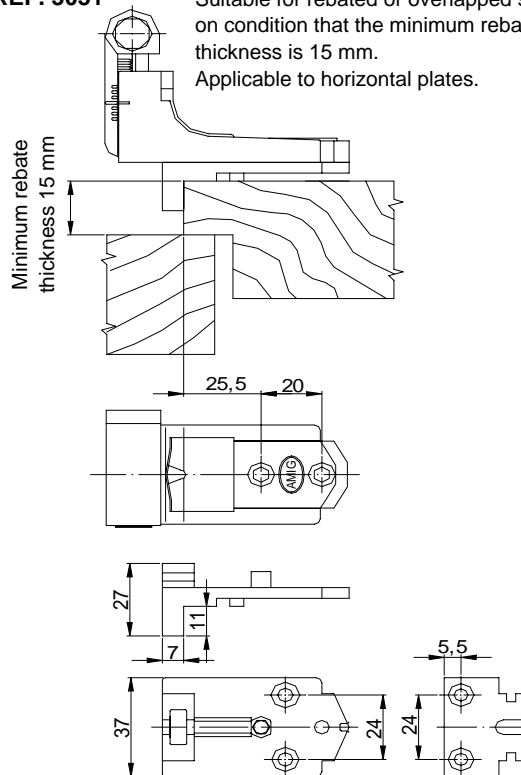
REF. 3030

Suitable for rebated or overlapped shutters; on condition that the minimum rebate thickness is 15 mm.
Applicable to vertical plates and brackets.



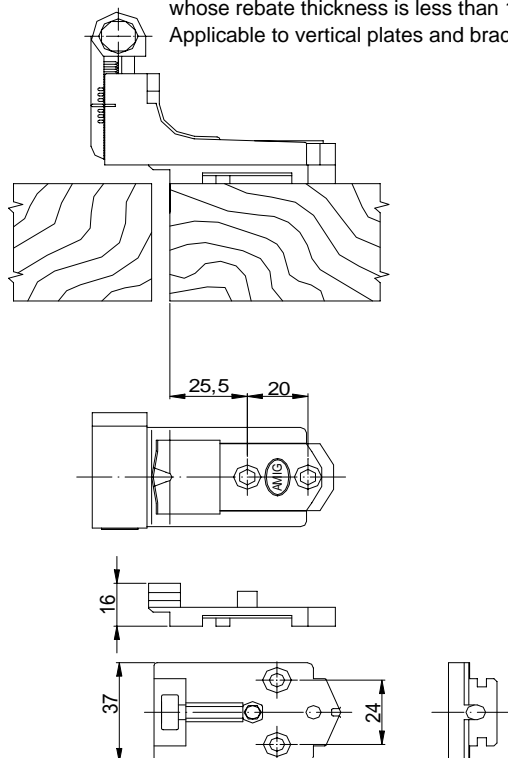
REF. 3031

Suitable for rebated or overlapped shutters; on condition that the minimum rebate thickness is 15 mm.
Applicable to horizontal plates.



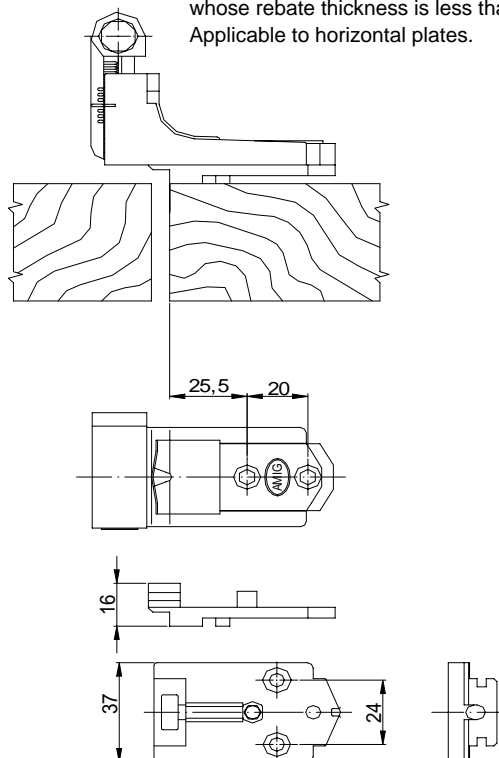
REF. 3032

Suitable for flush shutters. Also for shutters whose rebate thickness is less than 15 mm.
Applicable to vertical plates and brackets.



REF. 3033

Suitable for flush shutters. Also for shutters whose rebate thickness is less than 15 mm.
Applicable to horizontal plates.





REF. 3010 / 3011

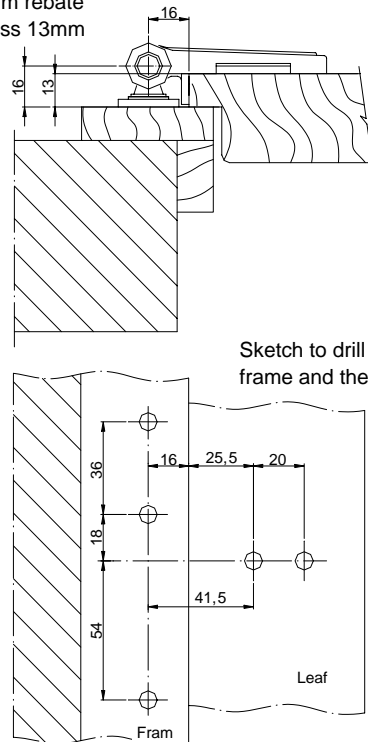
POSITIONING AND MEASUREMENTS

REF. 3010

Suitable for rebated or overlapped shutters.
Applicable to vertical plates and brackets.



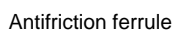
Minimum rebate
thickness 13mm



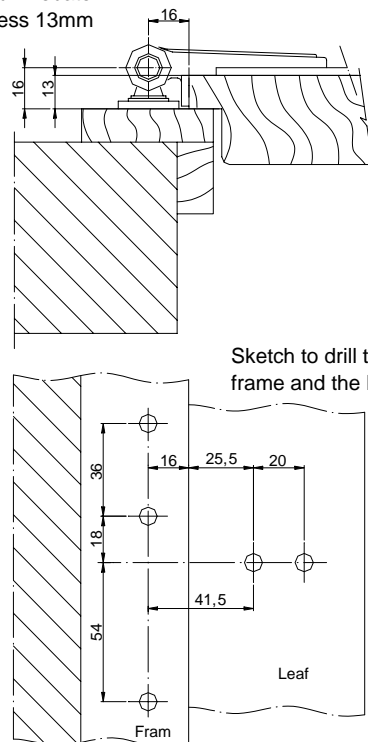
Sketch to drill the
frame and the leaf.

REF. 3011

Suitable for rebated or overlapped shutters.
Applicable to horizontal plates.



Minimum rebate
thickness 13mm



Sketch to drill the
frame and the leaf.



TECHNICAL FITTINGS for SHUTTERS



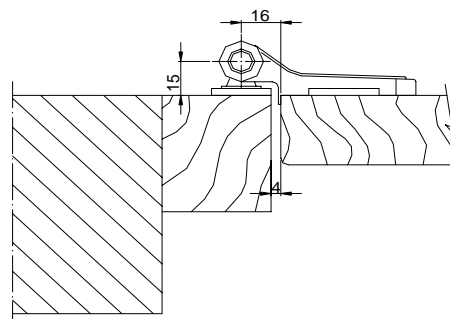
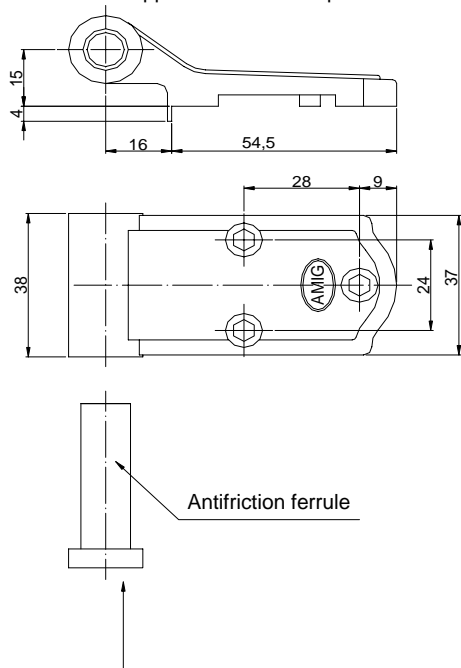
FIXED HINGES 16x15 FOR FLUSH SHUTTERS

REF. 3015 / 3016

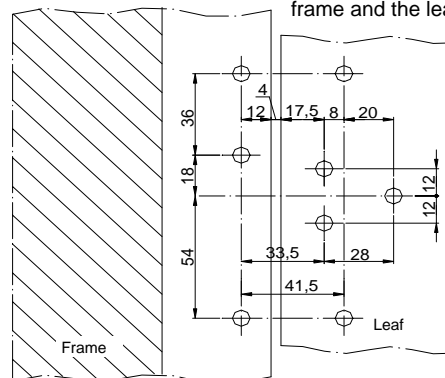
POSITIONING AND MEASUREMENTS

REF. 3015

Suitable for flush shutters together with the fixed strap hinge **Mod. 2980**.
Applicable to vertical plates and brackets.

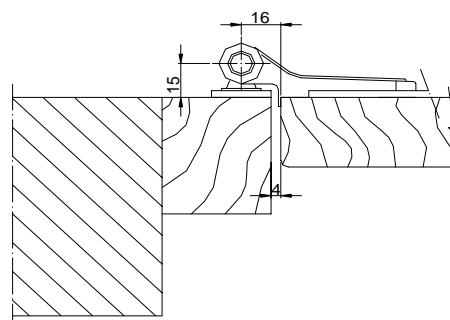
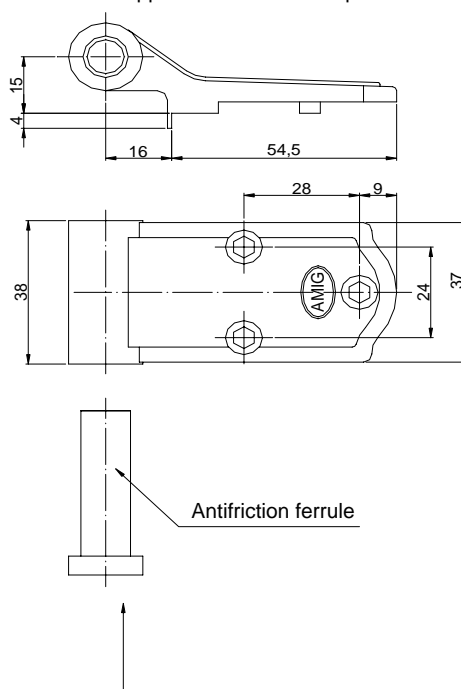


Sketch to drill the frame and the leaf.

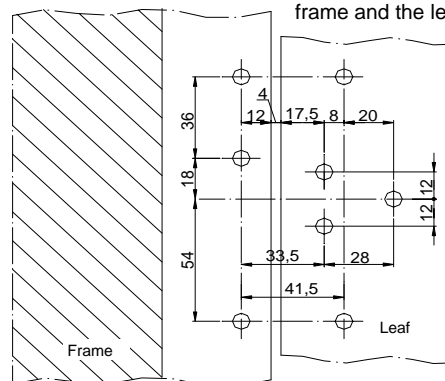


REF. 3016

Suitable for flush shutters together with the fixed strap hinge **Mod. 2980**.
Applicable to horizontal plates.



Sketch to drill the frame and the leaf.





TECHNICAL FITTINGS for SHUTTERS

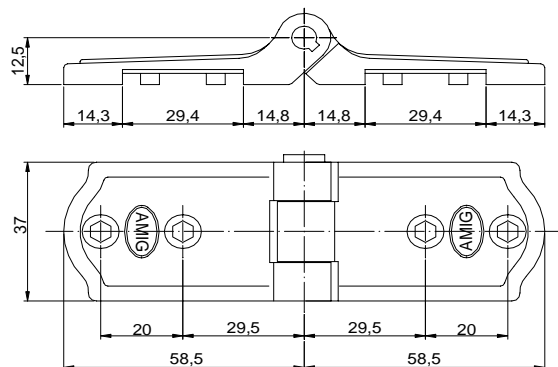


SYMMETRICAL HINGES FOR MULTIPLE-LEAF FOLDING SHUTTERS

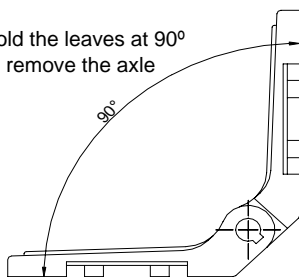
REF. 3020 / 3021

POSITIONING AND MEASUREMENTS

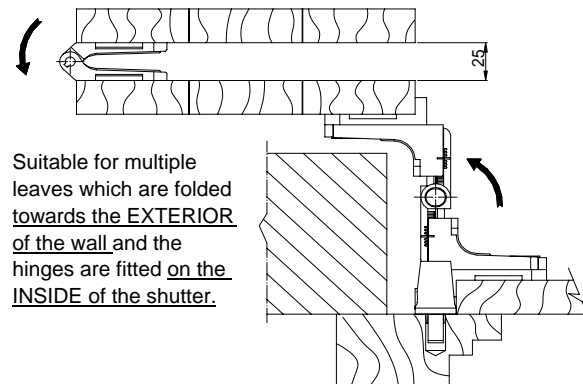
REF. 3020



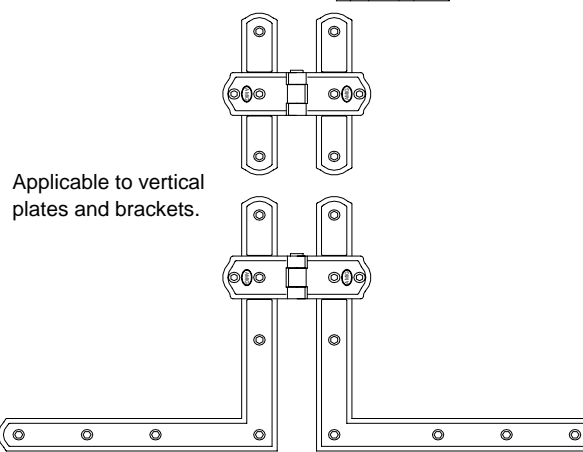
Fold the leaves at 90°
to remove the axle



To reverse the hinge, the axle has to be removed and re-installed through the other side.

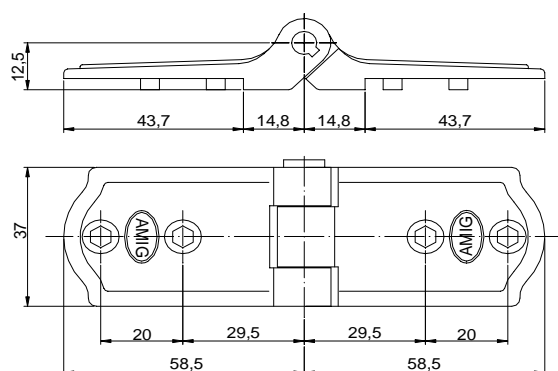


Suitable for multiple
leaves which are folded
towards the EXTERIOR
of the wall and the
hinges are fitted on the
INSIDE of the shutter.

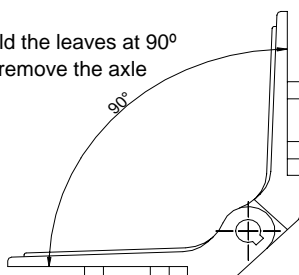


Applicable to vertical
plates and brackets.

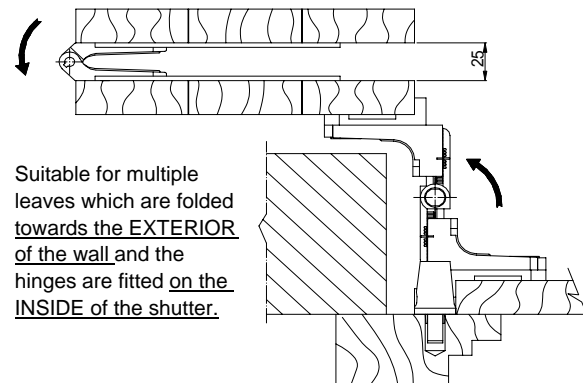
REF. 3021



Fold the leaves at 90°
to remove the axle

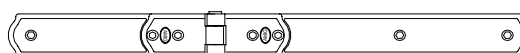


To reverse the hinge, the axle has to be removed and re-installed through the other side.



Suitable for multiple
leaves which are folded
towards the EXTERIOR
of the wall and the
hinges are fitted on the
INSIDE of the shutter.

Applicable to horizontal plates.





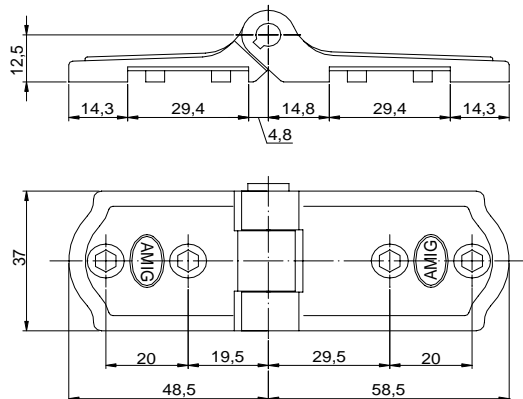
TECHNICAL FITTINGS for SHUTTERS



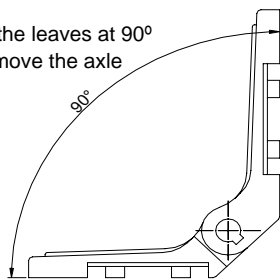
ASYMMETRICAL HINGES FOR MULTIPLE-LEAF FOLDING SHUTTERS

REF. 3025 / 3026
POSITIONING AND MEASUREMENTS

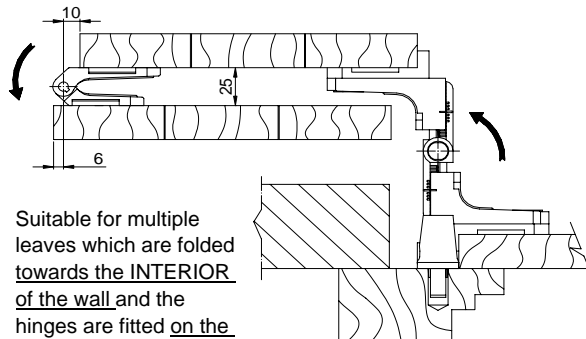
REF. 3025



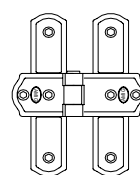
Fold the leaves at 90°
to remove the axle



To reverse the hinge, the axle has to be removed and re-installed through the other side.

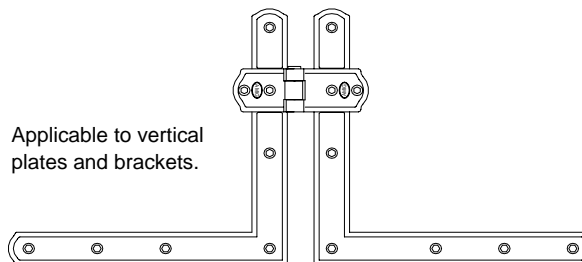


Suitable for multiple leaves which are folded towards the INTERIOR of the wall and the hinges are fitted on the OUTSIDE of the shutter.

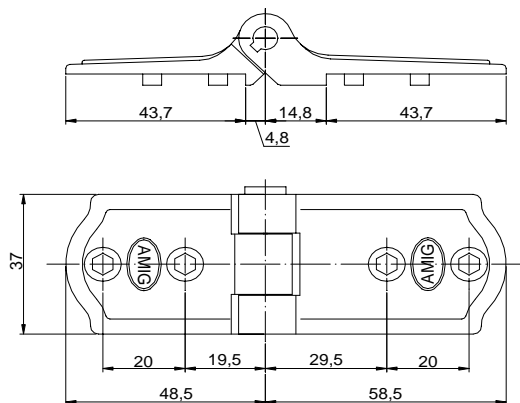


Note:
The distances of the sketch have to be observed during the hinge assembly.

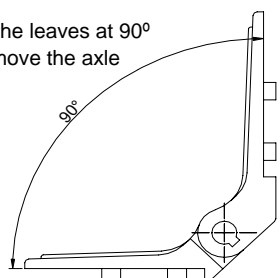
Applicable to vertical plates and brackets.



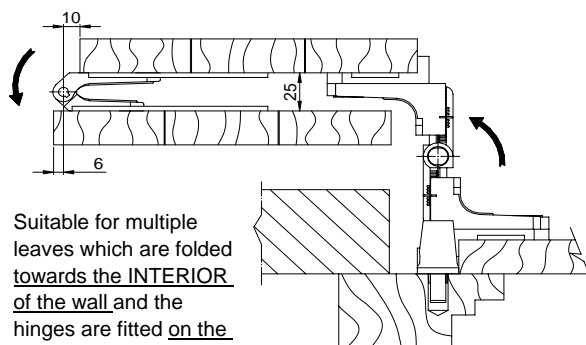
REF. 3026



Fold the leaves at 90°
to remove the axle



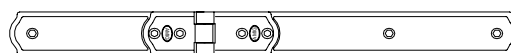
To reverse the hinge, the axle has to be removed and re-installed through the other side.



Suitable for multiple leaves which are folded towards the INTERIOR of the wall and the hinges are fitted on the OUTSIDE of the shutter.

Note:
The distances of the sketch have to be observed during the hinge assembly.

Applicable to horizontal plates.





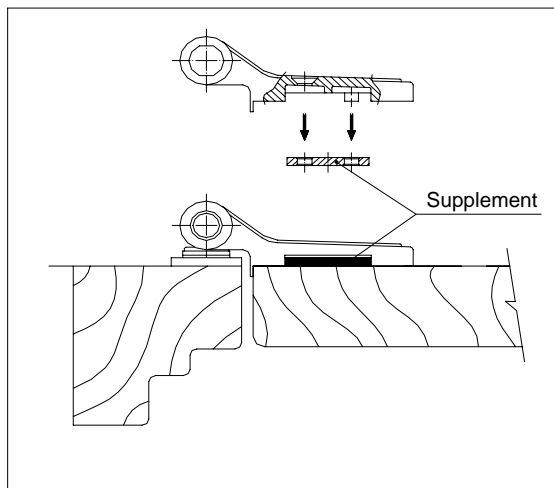
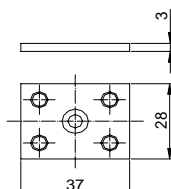
TECHNICAL FITTINGS for SHUTTERS



ACCESSORIES WEDGE SUPPLEMENTS REF. 3040 / 3041 / 3042 POSITIONING AND MEASUREMENTS

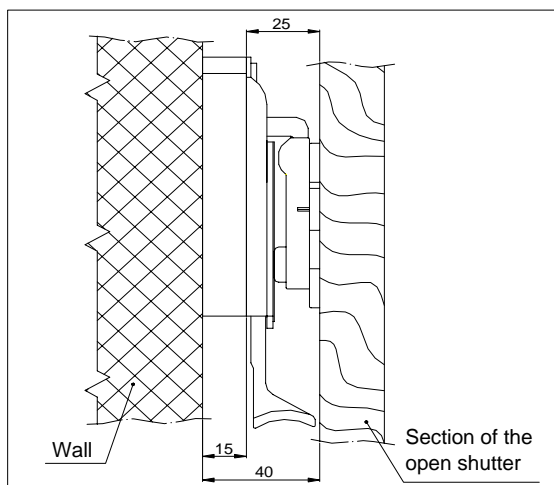
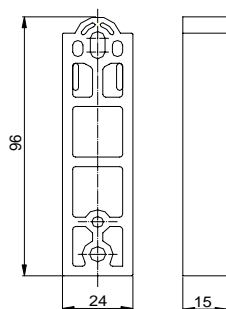
REF. 3040

Wedge supplement for hinges.
Suitable for all of them hinges
which can be fixed on the
shutter without the necessity of
using plates or brackets (for the
adjustable hinges, the wedge
supplement has to be fitted in
the support of the hinge).



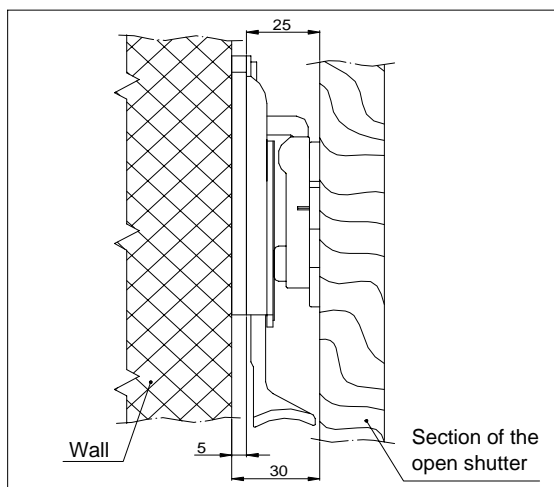
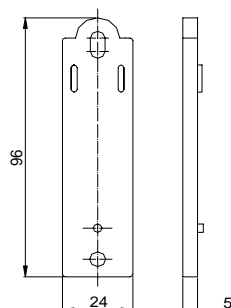
REF. 3041

Wedge supplement of
15 mm for the wall catch
Ref. 3102.
Suitable for shutter
systems whose distance
between the wall and the
open shutter is bigger
than 25 mm.



REF. 3042

Wedge supplement of
5 mm for the wall catch
Ref. 3102.
Suitable for shutter
systems whose
distance between the
wall and the open
shutter is bigger than
25 mm.





TECHNICAL FITTINGS for SHUTTERS



ACCESSORIES

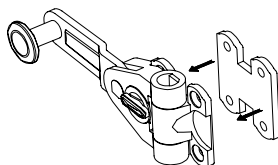
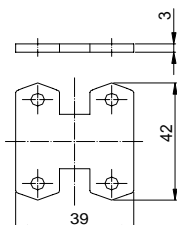
WEDGE SUPPLEMENTS

REF. 3200 / 3201 / 3202 / 3203 / 3204 / 3205

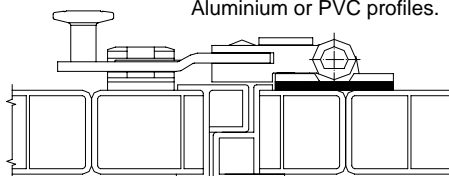
POSITIONING AND MEASUREMENTS

REF. 3200

Wedge supplement of 3 mm for the shutting handles.

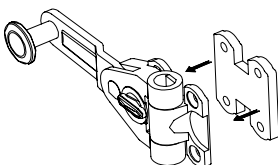
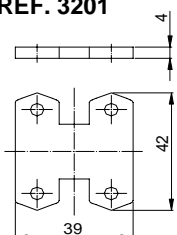


Suitable for the assembly on Aluminium or PVC profiles.

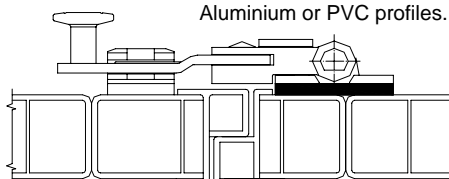


REF. 3201

Wedge supplement of 4 mm for the shutting handles.

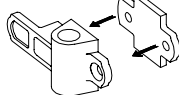
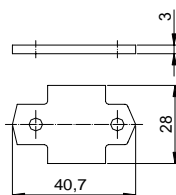


Suitable for the assembly on Aluminium or PVC profiles.

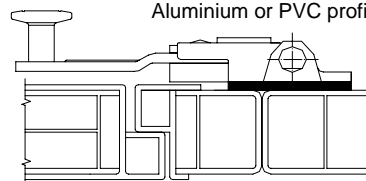


REF. 3202

Wedge supplement of 3 mm for the lock of shutting handle Ref. 2903.

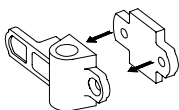
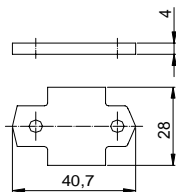


Suitable for the assembly on Aluminium or PVC profiles.

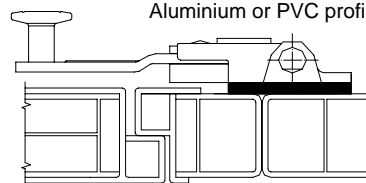


REF. 3203

Wedge supplement of 4 mm for the lock of shutting handle Ref. 2903.

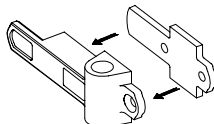
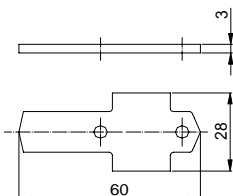


Suitable for the assembly on Aluminium or PVC profiles.

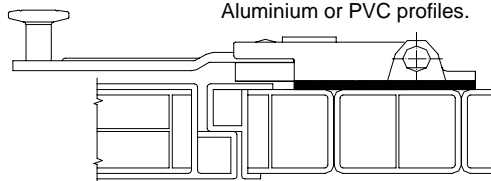


REF. 3204

Wedge supplement of 3 mm for the lock of shutting handle Ref. 2902.

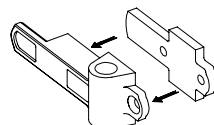
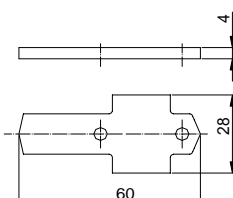


Suitable for the assembly on Aluminium or PVC profiles.

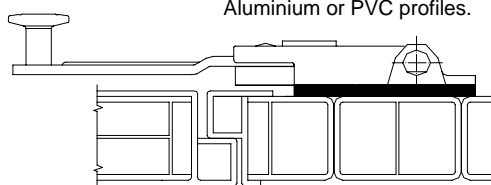


REF. 3205

Wedge supplement of 4 mm for the lock of shutting handle Ref. 2902.



Suitable for the assembly on Aluminium or PVC profiles.





TECHNICAL FITTINGS for SHUTTERS



ACCESSORIES

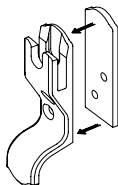
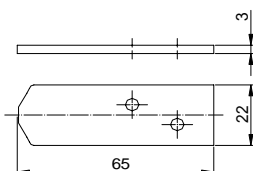
WEDGE SUPPLEMENTS

REF. 3206 / 3207 / 3208 / 3209 / 3210 / 3211

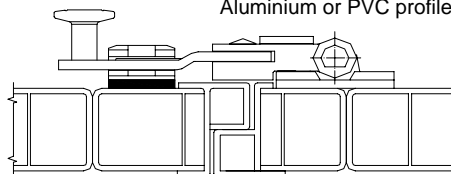
POSITIONING AND MEASUREMENTS

REF. 3206

Wedge supplement of 3 mm for the lock of shutting handle Ref. 2904 y 2905.

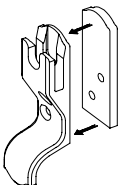
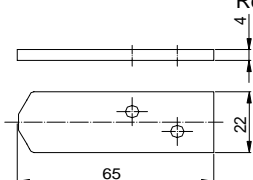


Suitable for the assembly on Aluminium or PVC profiles.

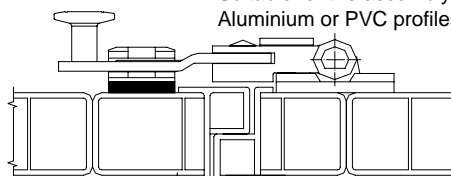


REF. 3207

Wedge supplement of 4 mm for the lock of shutting handle Ref. 2904 y 2905.

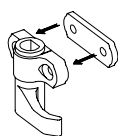
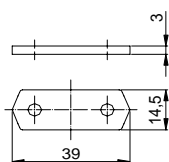


Suitable for the assembly on Aluminium or PVC profiles.

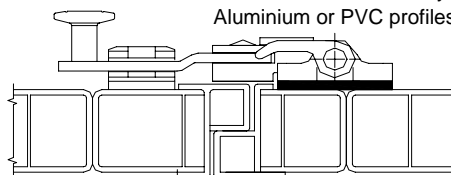


REF. 3208

Wedge supplement of 3 mm for the hooks of shutting handle.

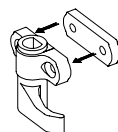
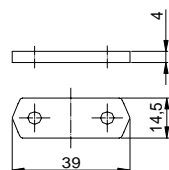


Suitable for the assembly on Aluminium or PVC profiles.

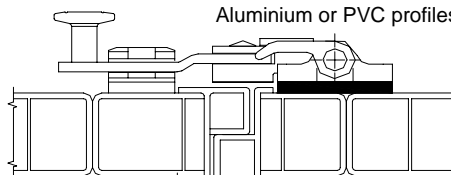


REF. 3209

Wedge supplement of 4 mm for the hooks of shutting handle.

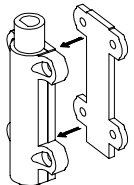
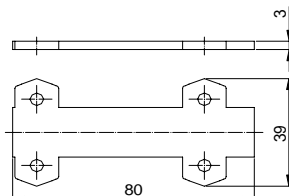


Suitable for the assembly on Aluminium or PVC profiles.

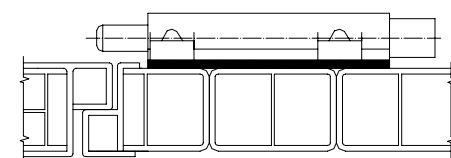


REF. 3210

Wedge supplement of 3 mm for the vertical bolt locks Ref. 2940 y 2941.

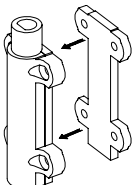
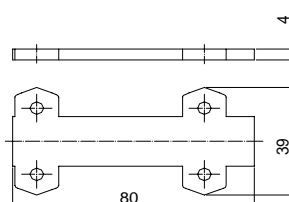


Suitable for the assembly on Aluminium or PVC profiles.

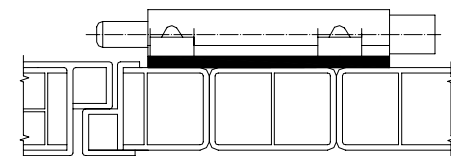


REF. 3210

Wedge supplement of 4 mm for the vertical bolt locks Ref. 2940 y 2941.



Suitable for the assembly on Aluminium or PVC profiles.





TECHNICAL FITTINGS for SHUTTERS



AUTOMATIC AND ADJUSTABLE CATCH for SHUTTERS ANTIELEVATION ANTIEXTRACTION

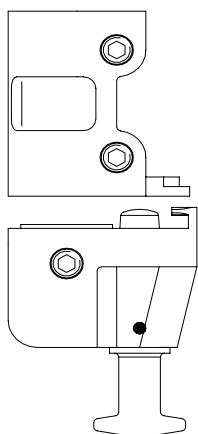
REF. 3100 / 3101

POSITIONING AND MEASUREMENTS

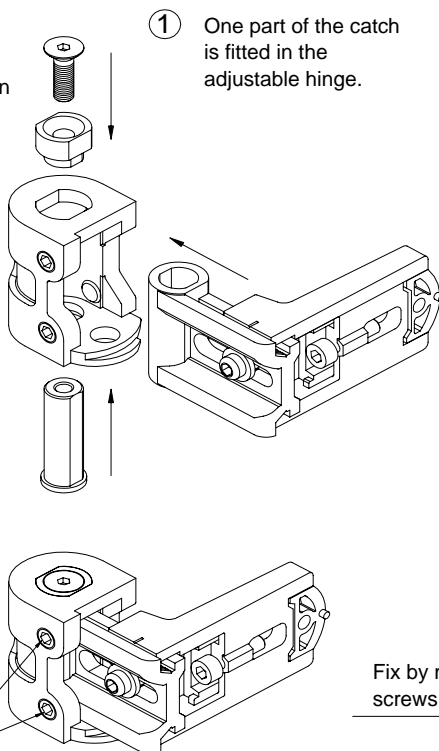
REF. 3100 / 3101

Left or right catch for shutters which automatically holds the shutter in the open position and at the same time allows that the shutter is let go of by hand.

The automatic and adjustable catch only can be fitted in the adjustable hinge and adjustable strap hinge.

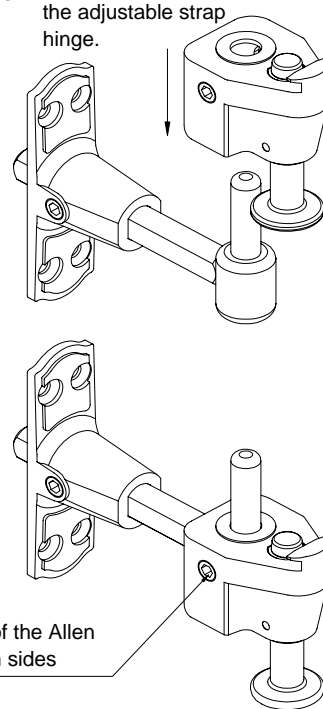


Fix by means of the Allen screws for both sides



① One part of the catch is fitted in the adjustable hinge.

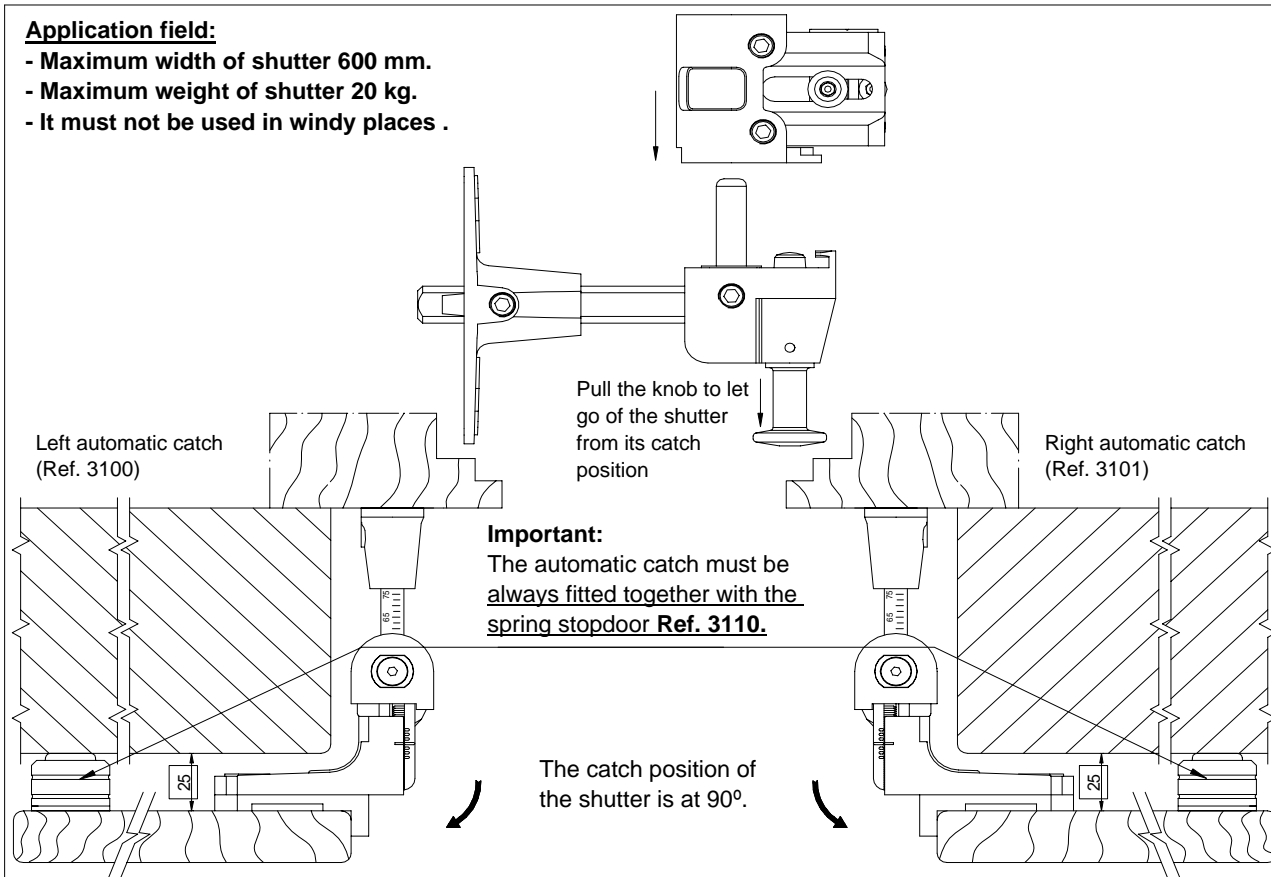
② The other part is fitted in the adjustable strap hinge.



Fix by means of the Allen screws for both sides

Application field:

- Maximum width of shutter 600 mm.
- Maximum weight of shutter 20 kg.
- It must not be used in windy places .



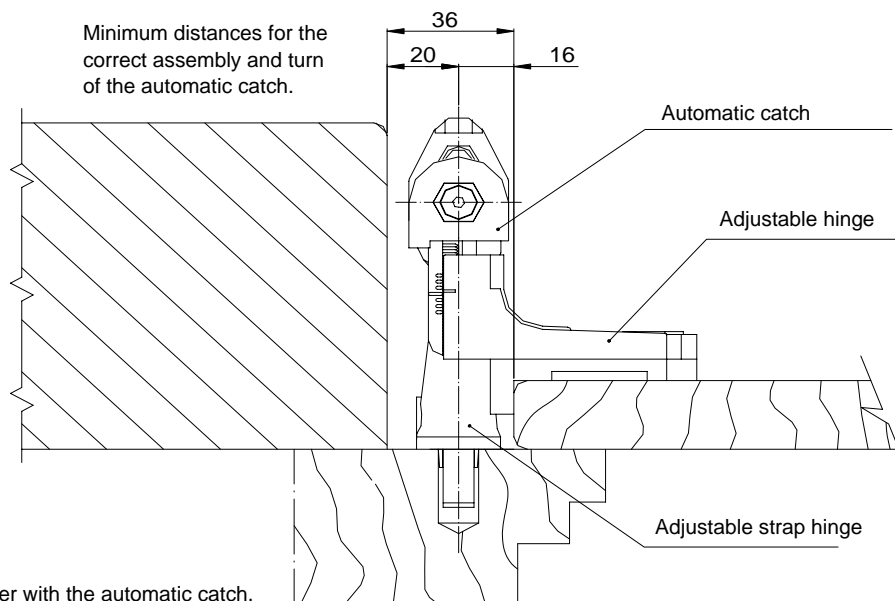


TECHNICAL FITTINGS for SHUTTERS

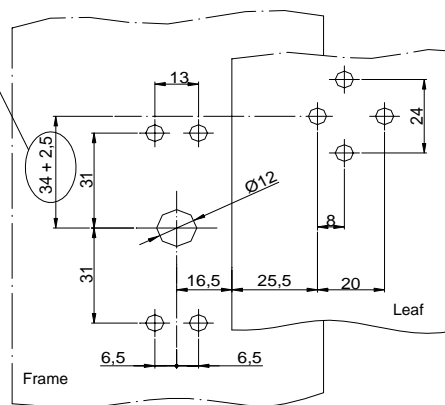


ASSEMBLY OF THE AUTOMATIC CATCH for SHUTTERS TOGETHER WITH THE ADJUSTABLE HINGE AND THE STRAP HINGE

If the **automatic catch** is fitted, the distance in height between the adjustable hinge and the strap hinge is increased in **2,5 mm**, in order to achieve a correct assembly. So, The increase of distance must be kept in mind during the drilling of the frame and the leaf.



Together with the automatic catch, the distance in height must be increased 2,5 mm.





TECHNICAL FITTINGS for SHUTTERS

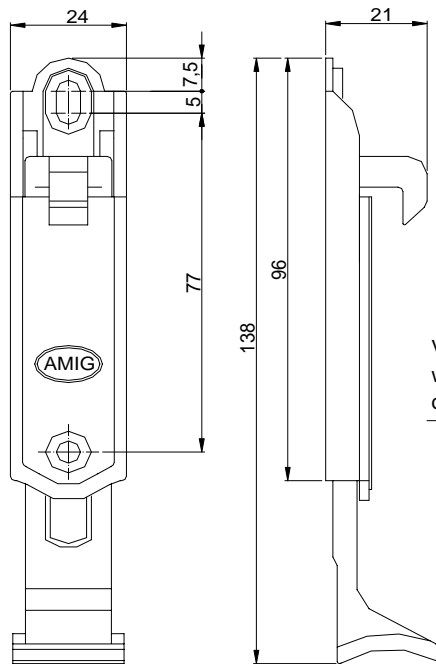


AUTOMATIC AND ADJUSTABLE WALL CATCH for SHUTTERS

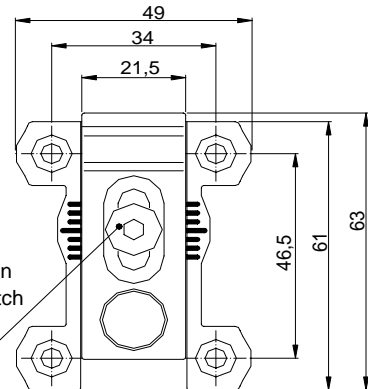
REF. 3102

POSITIONING AND MEASUREMENTS

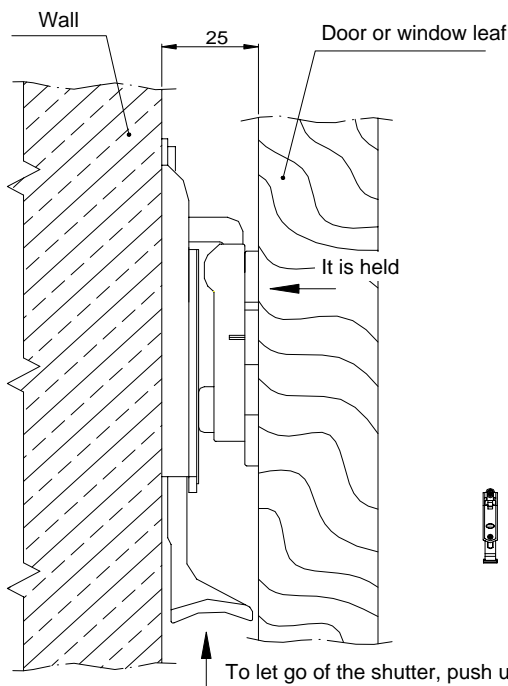
REF. 3102



Wall catch for shutters which automatically holds the shutter in the open position and at the same time allows that the shutter is let go of by hand. The automatic and adjustable wall catch is fixed on the wall and the shutter.

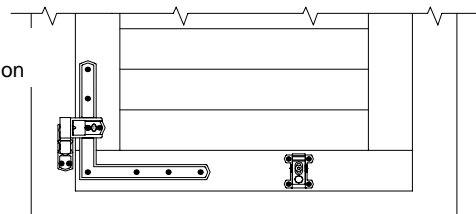


Vertical adjustment by means an Allen wrench, in order to make sure the catch of the shutter in any moment.

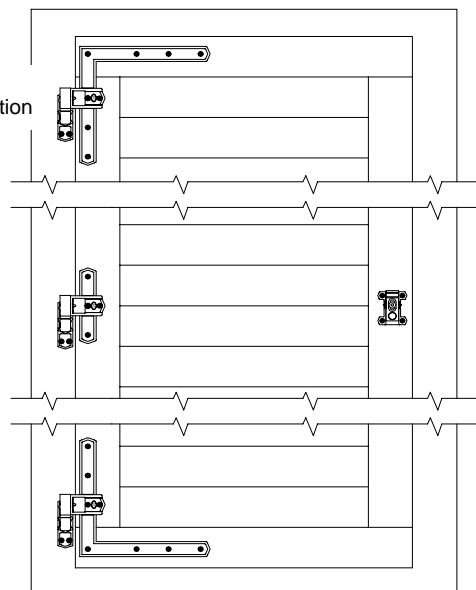


The minimum distance between the wall and the leaf must be 25 mm. For bigger distances, it should be used the wedge supplements of 10 and 5 mm Ref. 3041 and 3042 (see page 23).

Window application



Door application





TECHNICAL FITTINGS for SHUTTERS

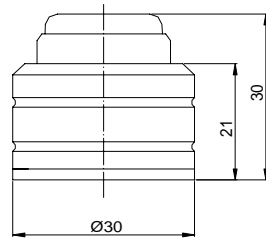


SPRING DOORSTOP FOR SHUTTERS

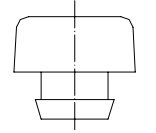
REF. 3110

POSITIONING AND MEASUREMENTS

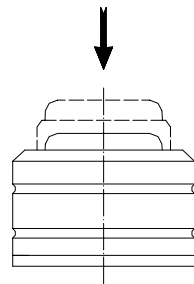
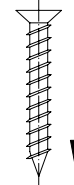
REF. 3110



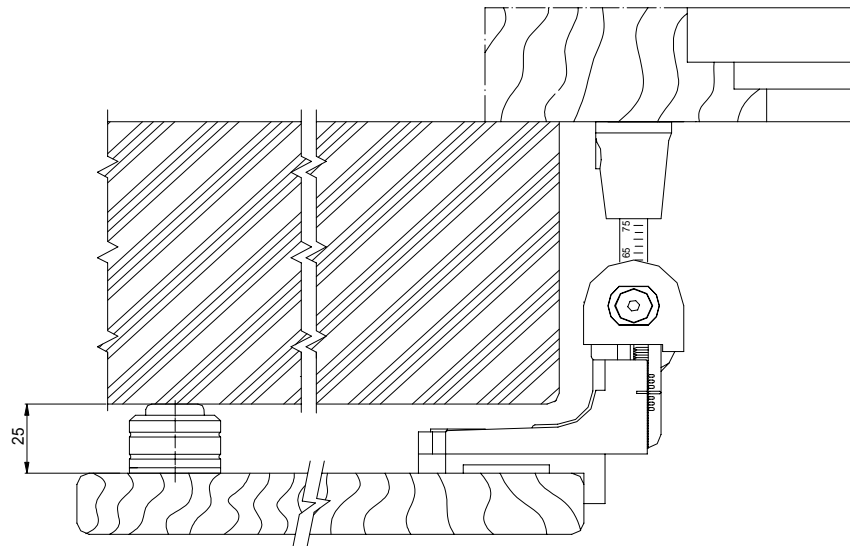
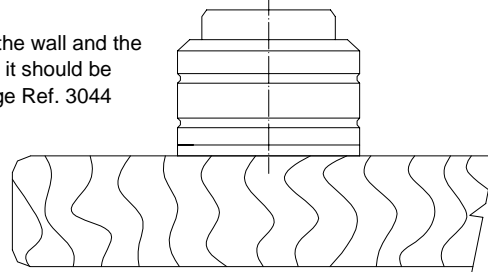
Suitable for shutters in which ones the distance between the wall and the open leaf is 25 mm.



Sketch of fixing in the leaf, by means of one screw Ø 4 x 30 mm.



Note:
If the distance between the wall and the leaf is more that 25 mm, it should be used the thickness wedge Ref. 3044 (see page 24).



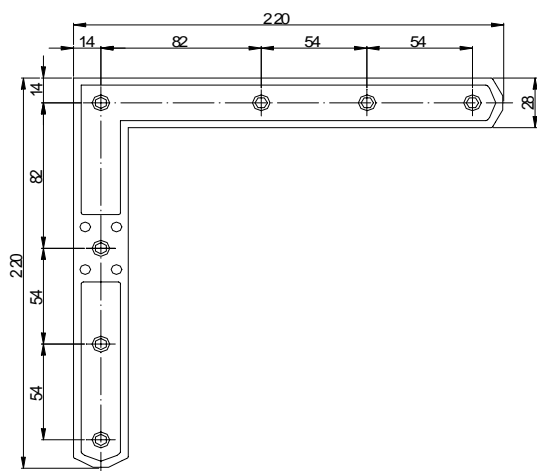


TECHNICAL FITTINGS for SHUTTERS

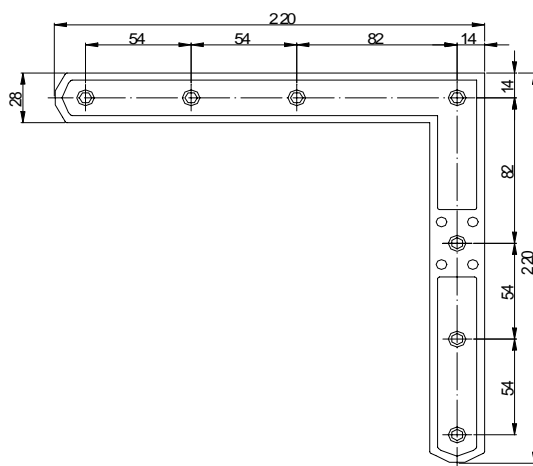


BRACKETS of 100 mm REF. 3092 / 3093 POSITIONING AND MEASUREMENTS

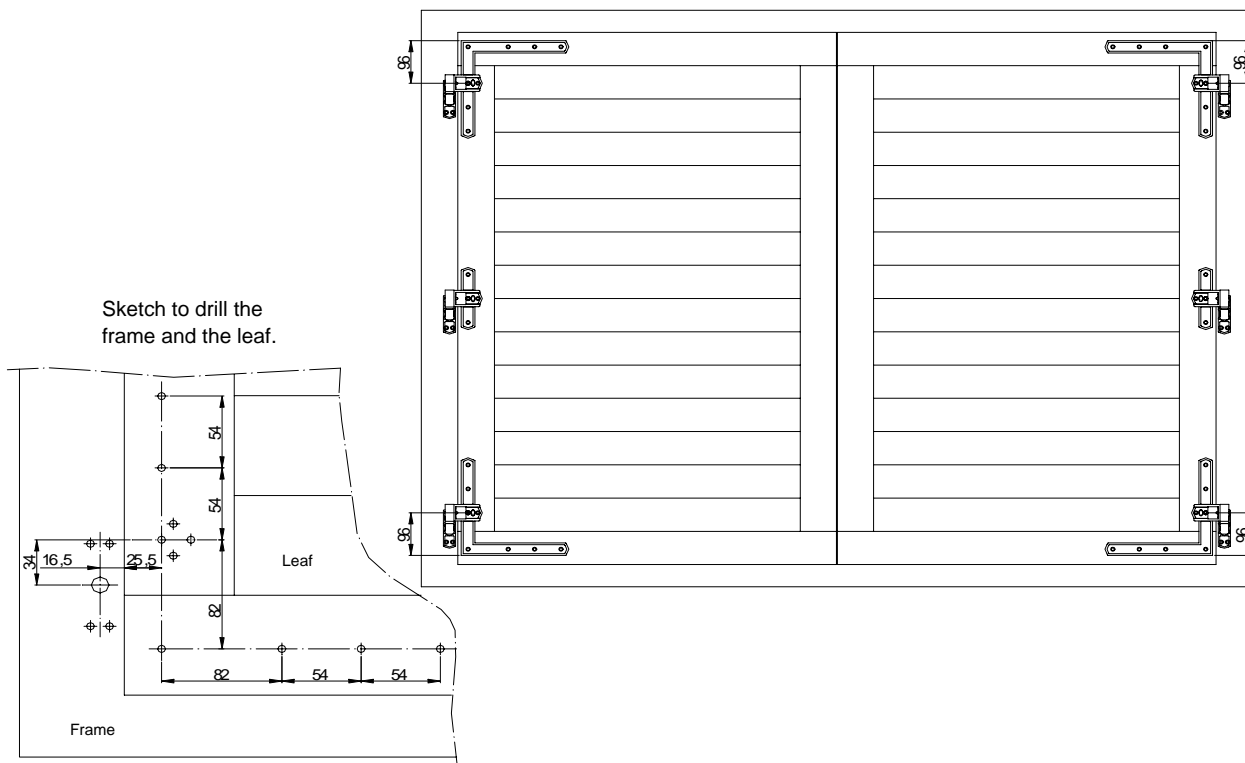
REF. 3093



REF. 3092



Sketch to drill the
frame and the leaf.





TECHNICAL FITTINGS for SHUTTERS

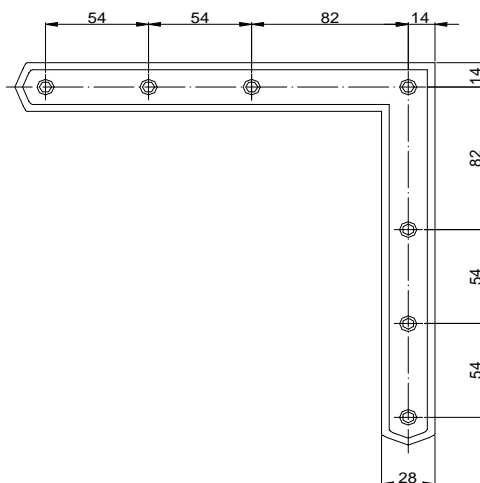


REINFORCEMENT BRACKET of 220 X 220 mm

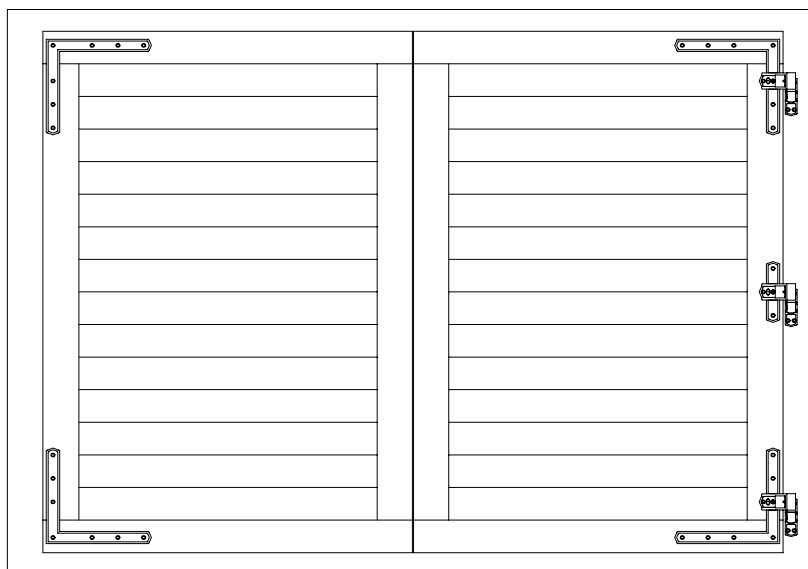
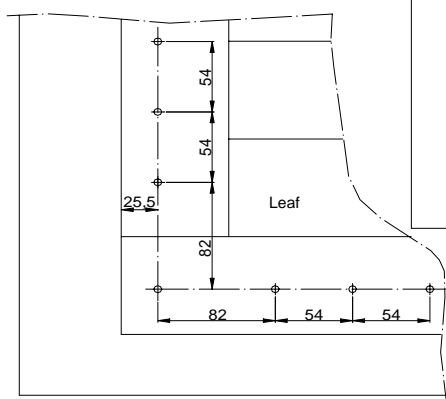
REF. 3095

POSITIONING AND MEASUREMENTS

REF. 3095



Sketch to drill the leaf.





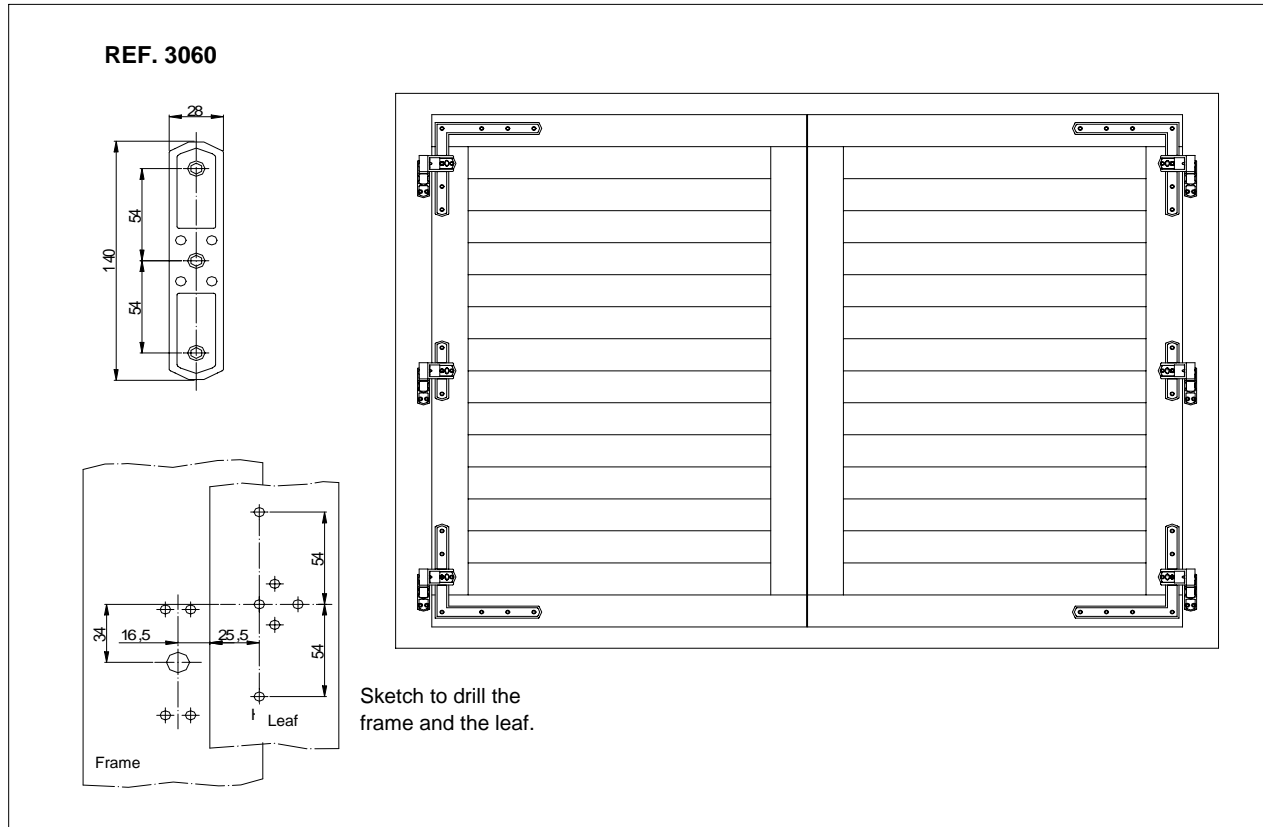
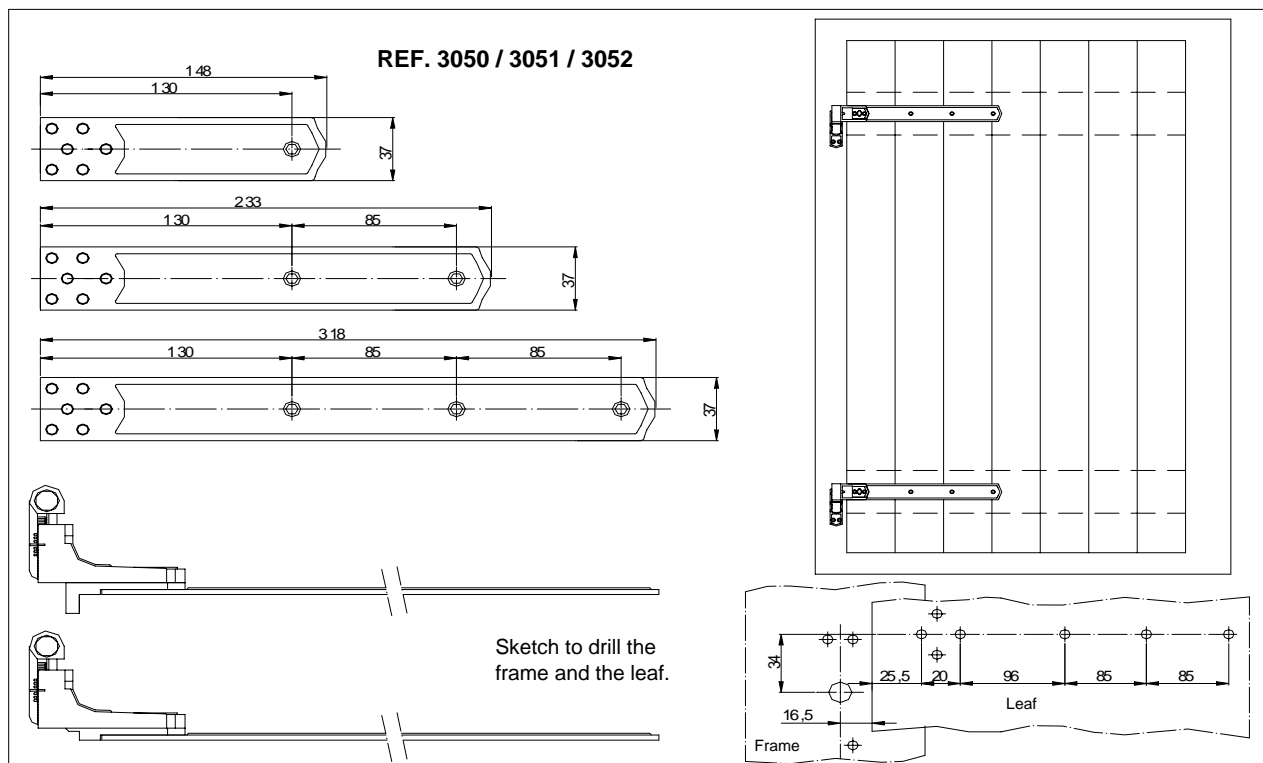
TECHNICAL FITTINGS for SHUTTERS



VERTICAL & HORIZONTAL PLATES

REF. 3050 / 3051 / 3052 / 3060

POSITIONING AND MEASUREMENTS





TECHNICAL FITTINGS for SHUTTERS



CONTINUOUS PLATES FOR MULTIPLE FLUSH LEAVES with SYMMETRICAL HINGES

REF. 3075 / 3076 / 3077
POSITIONING AND MEASUREMENTS

REF. 3075 / 3076 / 3077

Application field of the continuous plates for flush leaves, using symmetric hinges (Ref.3021) and fixed hinges 16x15 (Ref.3016).

1.- Length of the plate:

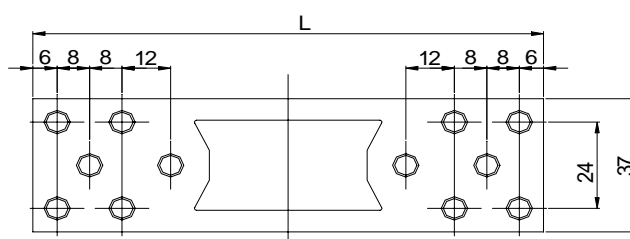
$$P + 25 = 15 + 27,5 + \text{Plate length} + 15,5 + 12,5$$

$$\text{Plate length} = P - 45,5$$

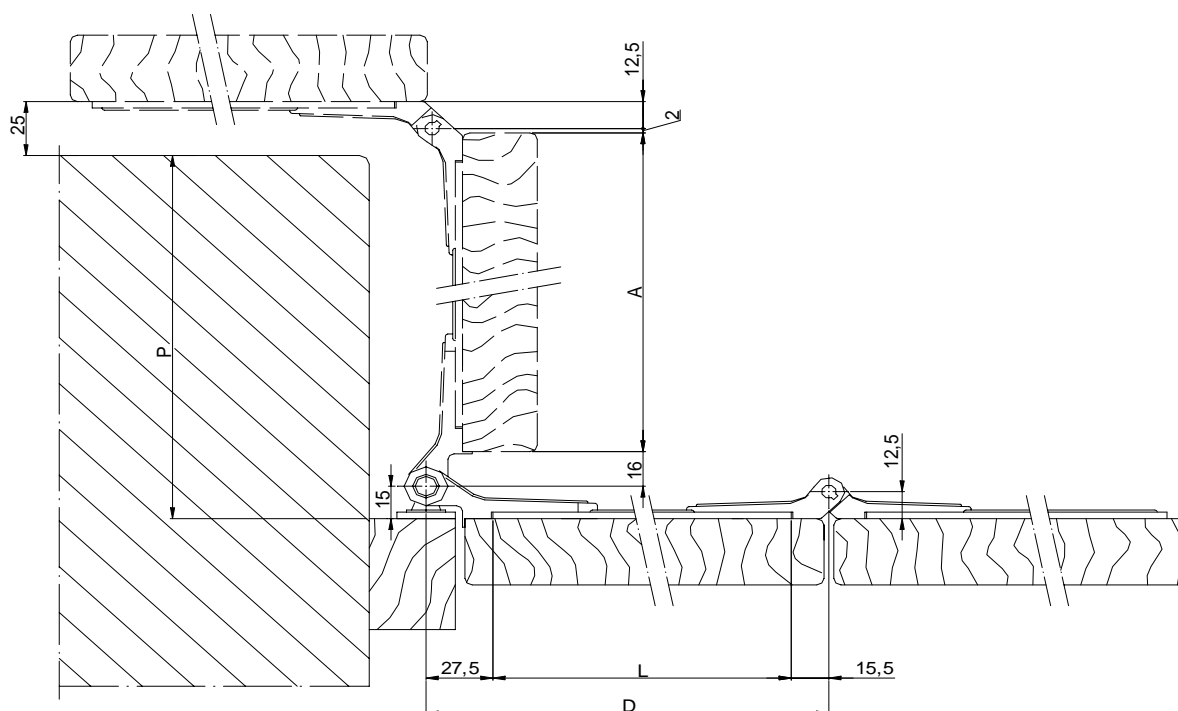
2.- Width of the plate:

$$P + 25 = 15 + 16 + \text{Leaf width} + 2 + 12,5$$

$$\text{Leaf width} = P - 20,5$$



Reference	Length of the plate L	Distance between axles D	Width of the leaf A	Depth window-sill P
3075	226	269	251	271
3076	246	289	271	291
3077	266	309	291	311





TECHNICAL FITTINGS for SHUTTERS



CONTINUOUS PLATES FOR MULTIPLE FLUSH LEAVES with ASYMMETRICAL HINGES

REF. 3075 / 3076 / 3077
POSITIONING AND MEASUREMENTS

REF. 3075 / 3076 / 3077

Application field of the continuous plates for flush leaves, using asymmetric hinges (Ref.3026) and fixed hinges 16x15 (Ref.3016).

1.- Length of the plate:

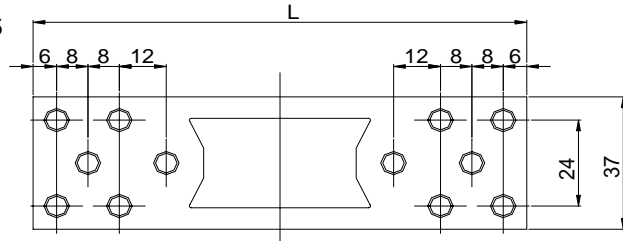
$$P + 25 = 15 + 27,5 + \text{Plate length} + 5,5 + 12,5$$

$$\text{Plate length} = P - 35,5$$

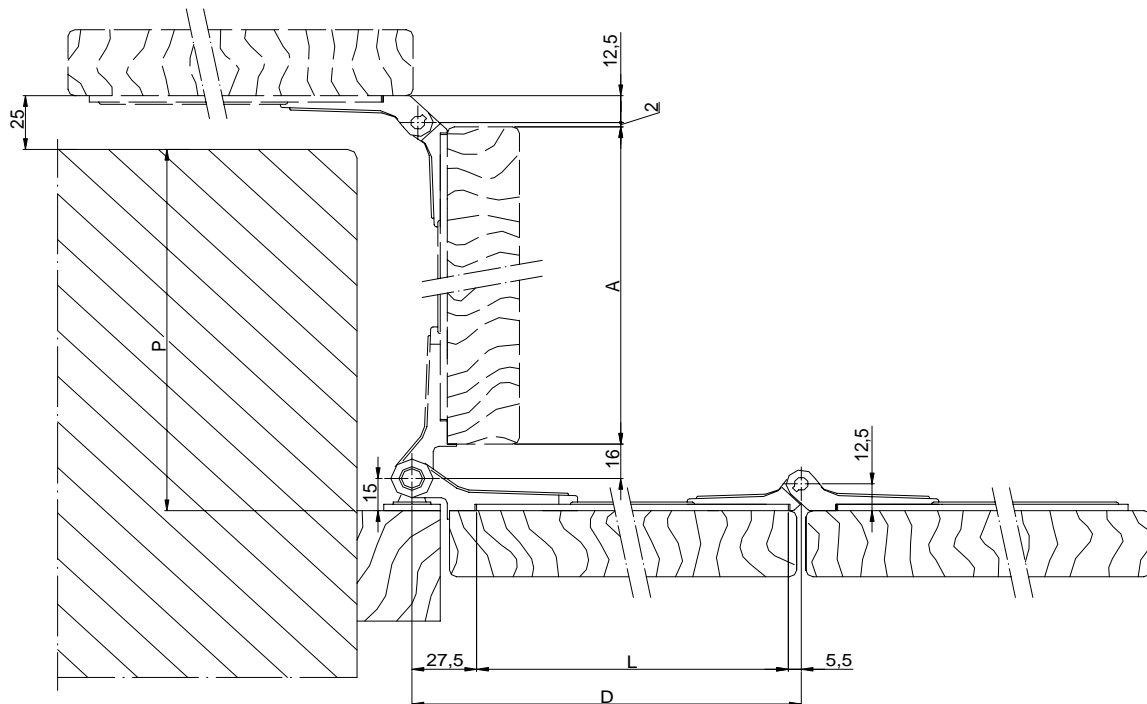
2.- Width of the plate:

$$P + 25 = 15 + 16 + \text{Leaf width} + 2 + 12,5$$

$$\text{Leaf width} = P - 20,5$$



Reference	Length of the plate L	Distance between axles D	Width of the leaf A	Depth window-sill P
3075	226	259	241	261
3076	246	279	261	281
3077	266	299	281	301





TECHNICAL FITTINGS for SHUTTERS



CONTINUOUS PLATES FOR MULTIPLE REBATED LEAVES with SYMMETRICAL HINGES

REF. 3075 / 3076 / 3077
POSITIONING AND MEASUREMENTS

REF. 3075 / 3076 / 3077

Application field of the continuous plates for rebated leaves, using symmetric hinges (Ref.3021) and fixed hinges 16x0 (Ref.3011).

1.- Length of the plate:

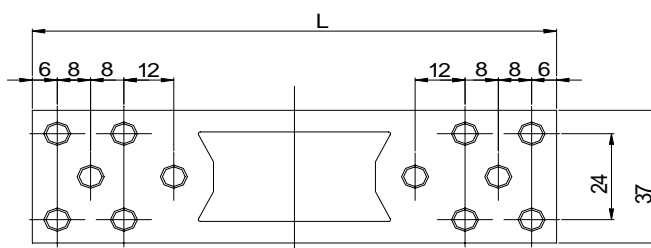
$$P + 25 = H + 27,5 + \text{Plate length} + 15,5 + 12,5$$

$$\text{Plate length} = P - H - 30,5$$

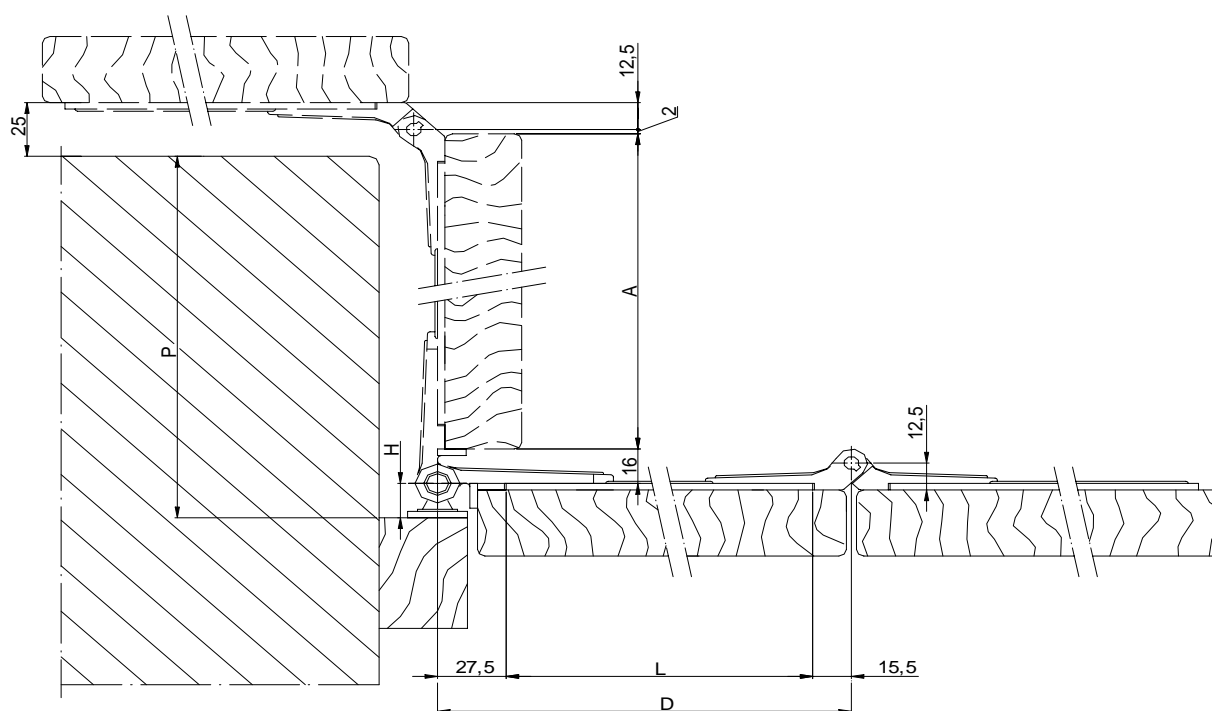
2.- Width of the leaf:

$$P + 25 = H + 16 + \text{Leaf width} + 2 + 12,5$$

$$\text{Leaf width} = P - H - 5,5$$



Reference	Length of the plate L	Distance between axles D	Width of the leaf A	Depth of the window-sill P				
				H = 16	H = 20	H = 25	H = 30	H = 40
3075	226	269	251	272	276	281	286	296
3076	246	289	271	292	296	301	306	316
3077	266	309	291	312	316	321	326	336





TECHNICAL FITTINGS for SHUTTERS



CONTINUOUS PLATES FOR MULTIPLE REBATED LEAVES with ASYMMETRICAL HINGES

REF. 3075 / 3076 / 3077
POSITIONING AND MEASUREMENTS

REF. 3075 / 3076 / 3077

Application field of the continuous plates for rebated leaves, using asymmetric hinges (Ref.3026) and fixed hinges 16x0 (Ref.3011).

1.- Length of the plate:

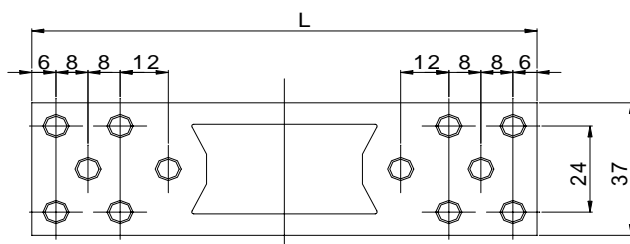
$$P + 25 = H + 27,5 + \text{Plate length} + 5,5 + 12,5$$

$$\text{Plate length} = P - H - 20,5$$

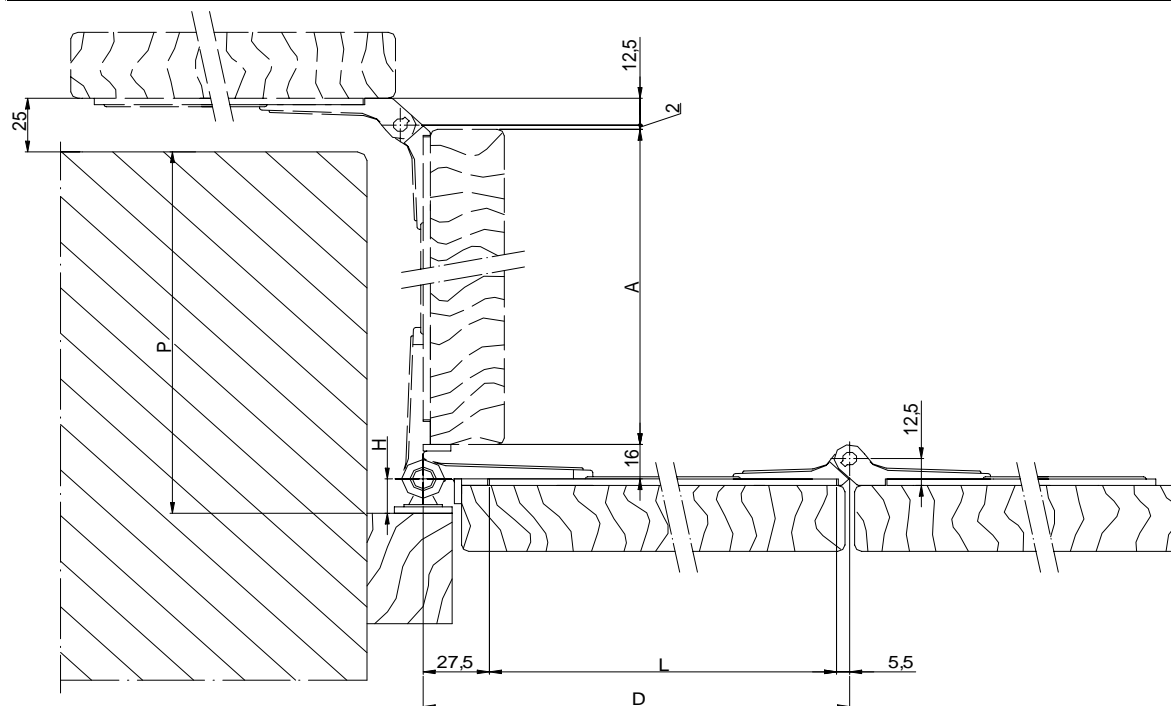
2.- Width of the leaf:

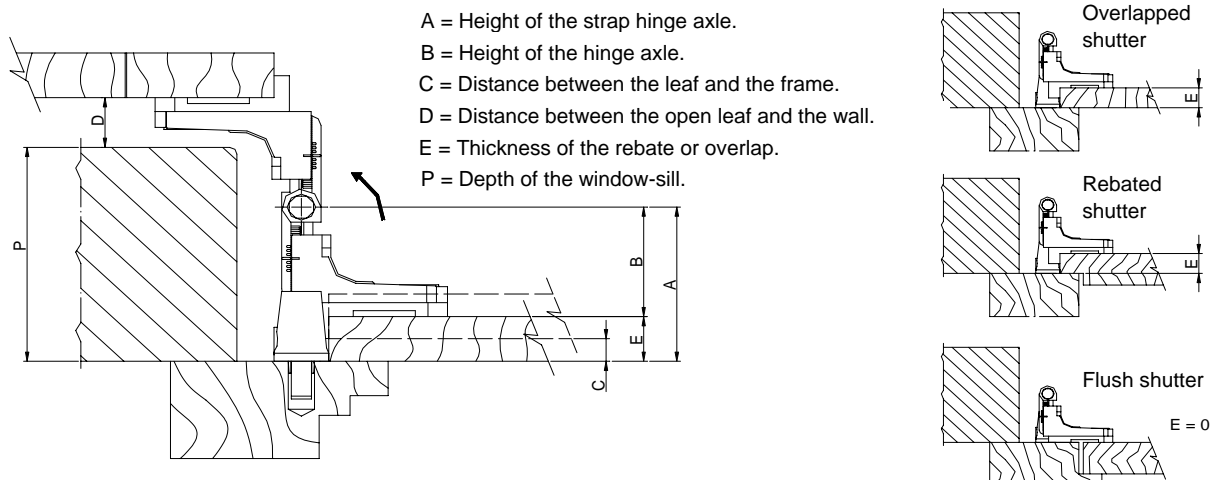
$$P + 25 = H + 16 + \text{Leaf width} + 2 + 12,5$$

$$\text{Leaf width} = P - H - 5,5$$



Reference	Length of the plate L	Distance between axles D	Width of the leaf A	Depth of the window-sill P				
				H = 16	H = 20	H = 25	H = 30	H = 40
3075	226	259	241	262	266	271	276	286
3076	246	279	261	282	286	291	296	306
3077	266	299	281	302	306	311	316	326





P=	73	82	98	140	190					
E= 0	Hinge (Ref.)	3001	3001	3002	3003					
	Strap hinge (Ref.)	2974	2975	2975	2976					
P=	67	74	82	108	128	150	185	200		
E= 10	Hinge (Ref.)	3000	3000	3001	3002	3002	3003	3003		
	Strap hinge (Ref.)	2974	2975	2975	2975	2976	2976	2977		
P=	62	70	87	113	124	155	180	205		
E= 15	Hinge (Ref.)	3000	3000	3001	3002	3002	3003	3003		
	Strap hinge (Ref.)	2974	2975	2975	2975	2976	2976	2977		
P=	67	92	118	122	160	178	210			
E= 20	Hinge (Ref.)	3000	3001	3002	3002	3003	3003			
	Strap hinge (Ref.)	2975	2975	2975	2976	2976	2977			
P=	69	94	120	162	176	212				
E= 22	Hinge (Ref.)	3000	3001	3002	3003	3003				
	Strap hinge (Ref.)	2975	2975	2976	2976	2977				
P=	72	97	116	123	165	175	215			
E= 25	Hinge (Ref.)	3000	3001	3001	3002	3003	3003			
	Strap hinge (Ref.)	2975	2975	2976	2976	2976	2977			
P=	77	102	110	128	170	220				
E= 30	Hinge (Ref.)	3000	3001	3001	3002	3003				
	Strap hinge (Ref.)	2975	2975	2976	2976	2977				
P=	82	107	110	133	165	175	225			
E= 35	Hinge (Ref.)	3000	3001	3001	3002	3002	3003			
	Strap hinge (Ref.)	2975	2975	2976	2976	2977	2977			
P=	87	100	112	138	160	180	225			
E= 40	Hinge (Ref.)	3000	3000	3001	3002	3002	3003			
	Strap hinge (Ref.)	2975	2976	2976	2976	2977	2977			
P=	92	96	117	143	154	185	220			
E= 45	Hinge (Ref.)	3000	3000	3001	3002	3002	3003			
	Strap hinge (Ref.)	2975	2976	2976	2976	2977	2977			
P=	97	122	148	154	190	215				
E= 50	Hinge (Ref.)	3000	3001	3002	3002	3003				
	Strap hinge (Ref.)	2976	2976	2976	2977	2977				
P=	102	127	145	153	195	210				
E= 55	Hinge (Ref.)	3000	3001	3001	3002	3003				
	Strap hinge (Ref.)	2976	2976	2977	2977	2977				
P=	107	132	140	158	200	205				
E= 60	Hinge (Ref.)	3000	3001	3001	3002	3003				
	Strap hinge (Ref.)	2976	2976	2977	2977	2977				

It will be more effective, if the first or the only support is fixed in the top strap hinge of the leaf.



TECHNICAL FITTINGS for SHUTTERS



APPLICATION FIELD FOR ADJUSTABLE HINGES and ADJUSTABLE STRAP HINGES (1st part) (FOR REBATED, OVERLAPPED or FLUSH SHUTTERS)

In case of using different distances than in the previous table, or the distance between the outside of the leaf in open position and the wall is different than 25 mm; it should be used the following formulas:

$$A = \frac{P + E + D}{2} \quad B = A - E$$

In case of the leaf is not in touch with the frame ($C \neq 0$), it should be kept in mind this gap in the formula:

$$A = \frac{P + E + D + C}{2} \quad B = A - E - C$$

2) Applicaton field of the supports Ref. 2914 / 2917 / 2918 for the adjustable hinge supports, according to the dimensions and the weight of the shutter.

It could be considered the following criterions:

1° For one leaf shutters (width until 700 mm):

- Height of the leaf more than 2100 mm and weight more than 15 Kg/m², it should be fitted at least one support.
- Height of the leaf between 1400 y 2100 mm and weight more than 20 Kg /m², it should be fitted at least one support.
- Height of the leaf between 600 y 1400 mm and weight more than 25 Kg/m², it shold be fitted at least one support.

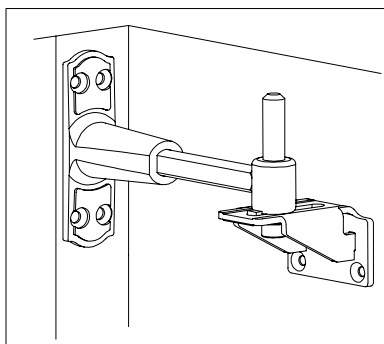
2° For multiple-leaf folding shutters (width until 700 x 2 mm):

- Height of the leaf more than 2100 mm and weight more than 10 Kg/m², it should be fitted at least one support.
- Height of the leaf between 1400 y 2100 mm and weight more than 15 Kg /m², it should be fitted at least one support.
- Height of the leaf between 600 y 1400 mm and weight more than 20 Kg/m², it should be fitted at least one support.

NOTE:

The number of shupperts that should be fitted, it must be considered according to depth of the window-sill, the weigth of the leaf and its dimensions.

It will be more effective, if the first or the only support is fixed in the top strap hinge of the leaf.



3) The number of hinges that should be fitted, depends on the dimensions of the shutter.

It could be considered the following criterions:

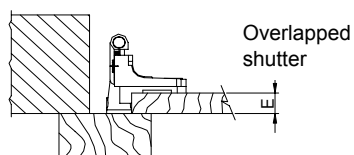
- 1° For leaves whose height is until 1400 mm: 2 hinges.
- 2° For leaves whose height is between 1401 y 2000 mm: 3 hinges (two of them in the 1/3 of the top).
- 3° For leaves whose height is more than 2001 mm: 4 hinges.



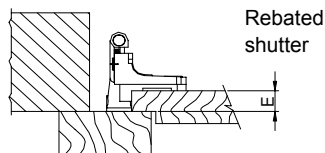
TECHNICAL FITTINGS for SHUTTERS



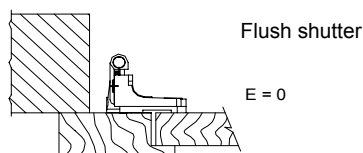
APPLICATION FIELD FOR ADJUSTABLE HINGES and ADJUSTABLE STRAP HINGES (FOR MULTIPLE-LEAF FOLDING SHUTTERS)



Overlapped shutter



Rebated shutter

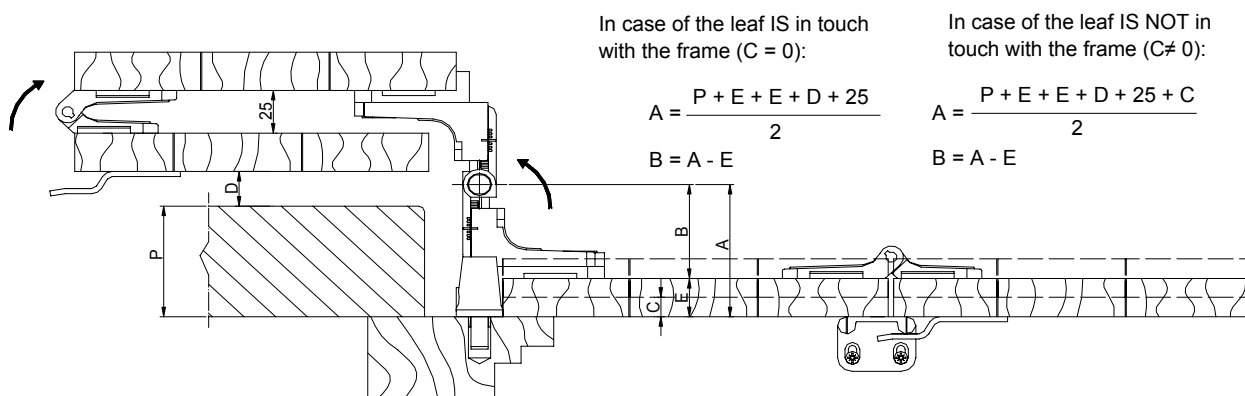


Flush shutter

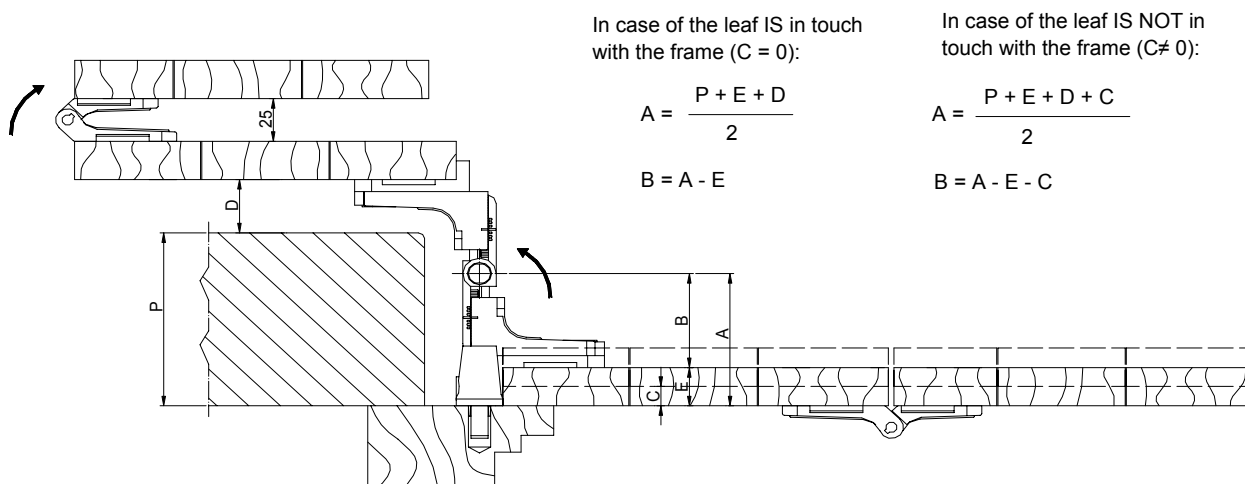
E = 0

A = Height of the strap hinge axle.
B = Height of the hinge axle.
C = Distance between the leaf and the frame.
D = Distance between the open leaf and the frame.
E = Thickness of the rebate or overlap.
H = Distance between the folded leaves.
P = Depth of the window-sill.

1.- For leaves which are folded towards the INTERIOR of the wall and the asymmetric hinges are fitted on the OUTSIDE of the shutter.



2.- For leaves which are folded towards the EXTERIOR of the wall and the symmetric hinges are fitted on the INSIDE of the shutter.



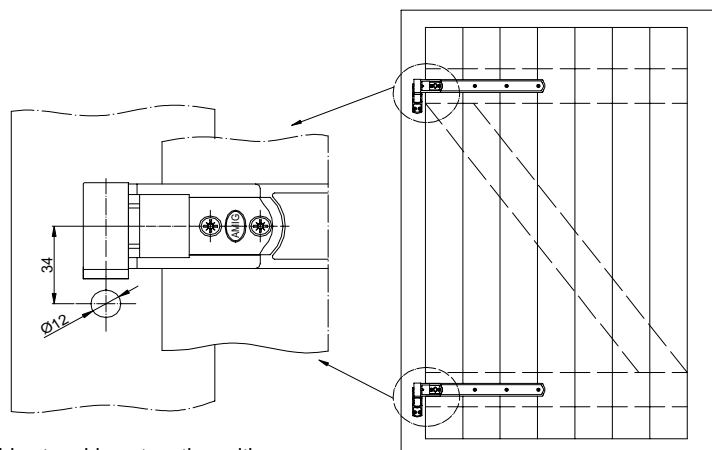
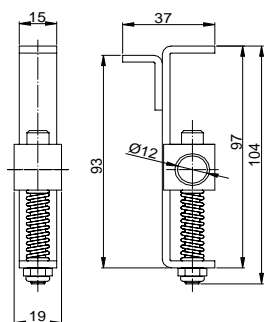


TECHNICAL FITTINGS for SHUTTERS



JIG FOR THE ADJUSTABLE STRAP HINGE POSITIONING AND MEASUREMENTS

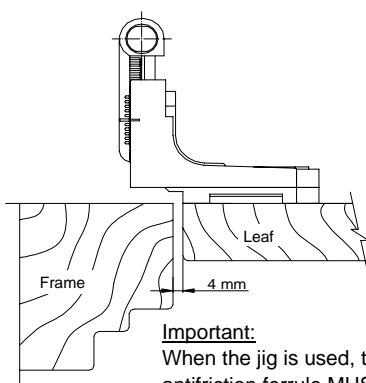
The jig helps to make in a quick and exact way, the drill hole necessary for the suitable fitting of the strap hinges Ref. 2974, 2975, 2976, 2977, 2990 y 2991.



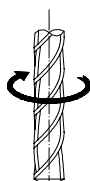
Note: the jig can be used for the fitting of the adjustable strap hinge together with whatever the hinges in which that strap hinge can be fitted.

SKETCH OF ASSEMBLY SEQUENCE

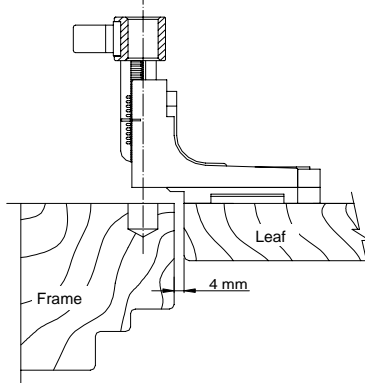
1° Once the hinge has been fixed in the leaf, this is placed in relation to the frame according to the design of the system (flush, rebated or overlapped). The jig is assembled in the hinge, so it is fitted the axle of the hinge by action of the jig spring.



Important:
When the jig is used, the antifriction ferrule **MUST NOT** be removed from the hinge.



2° The position of the hole Ø 12 mm is marked using the jig, in order to show the exact point.



3° After removing the jig, the drill hole is finished until the necessary depth; then the strap hinge can be fitted the frame in its suitable position.

