

Espagnolettes & Shootbolts

Security has played an increasingly important role in window design over the last twenty years, and this is highlighted by the widespread use of multi-point locking systems. Not content with the standard espagnolette, most specifiers now prefer a shootbolt product for increased security, with a locking mechanism working around three edges of the window.

These products have to suit all the varying profile details now available and also all the differing window fabrication methods.

Titon's Espagnolette & Shootbolt range features a wide portfolio of products, each offered with numerous variations of lock depth, backset and mushroom height.





Espagnolettes & Shootbolts

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	Requires Eurogroove	Croppable	Non Croppable	Capable of achieving BS7950	Backsets	Mushroom heights	One piece assembly	Low handle height	Tricoat (dependent on quantity)
Maco Inline	Y		Y		20 or 22	7.7, 9 or 10.5	Y		Y
Maco Offset			Y		20 or 25	7.7 or 9	Y		Y
Maco R.A.I.L. & R.A.I.L. Reach	Y		Y	Y	20 or 22	7.7, 9 or 10.5	Y	Y	Y
Maco Mk1 Shootbolt	Y	Y		Y	20 or 22	7.7, 9 or 10.5		Y	Y
Maco Mk2 Shootbolt	Y	Y	Y	Y	20 or 22	7.7 or 9		Y	Y
Maco Mk3 Shootbolt	Y	Y	Y	Y	20 or 22	7.7 or 9	Y	Y	Y
PN Hook	Y	Y			25, 28 or 40	Hook	Y		

Please check for current availability

Maco Inline

Multi-point locking systems

For use on PVCu, timber or aluminium windows

Multipoint locking espagnolette for side hung or top hung applications with adjustable mushroom cams. Designed for profiles with eurogroove, the Maco Inline Espagnolette is available in various non-croppable lengths with two backsets and three cam heights.

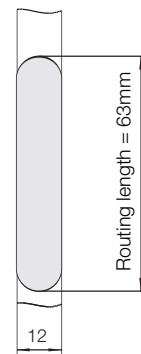
The Maco Inline Espagnolette is compatible with all standard espag handles with 43mm fixing centres with a 7mm square spindle.



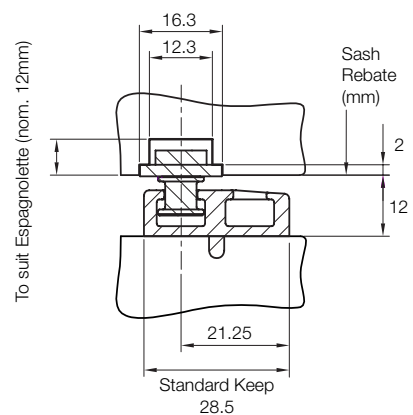
Features and Benefits

- Suitable for use on windows with a 16mm eurogroove
- Mushroom head cams aid security
- Keeps can be supplied without night-vent position
- Adjustable locking cams
- Can be fitted in either a standard or shallow a eurogroove
- 7.7, 9 or 10.5mm cam heights
- 20 and 22mm backset versions available
- Available in sizes ranging from 100mm to 1200mm
- Keeps/striker plates are profile related, please phone for suitability

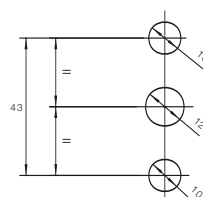
Lockcase Routing Detail



Profile Detail



Handle Fixing Detail



Details

Maco Inline Espagnolette - 20mm backset version

Length	7.7mm mushroom height	9mm mushroom height	10.5mm mushroom height
100	MA 58486 SC	MA 58488 SC	MA 204251 SC
260	MA 58493 SC	MA 58494 SC	MA 58495 SC
400	MA 58501 SC	MA 58502 SC	MA 58500 SC
600	MA 58508 SC	MA 58509 SC	MA 58507 SC
800	MA 58515 SC	MA 58516 SC	MA 58514 SC
1000	MA 58522 SC	MA 58523 SC	MA 58521 SC
1200	MA 58528 SC	MA 58529 SC	-

Maco Inline Espagnolette - 22mm backset version

Length	7.7mm mushroom height	9mm mushroom height	10.5mm mushroom height
100	MA 58490 SC	MA 58492 SC	MA 204253 SC
260	MA 58496 SC	MA 58497 SC	MA 58498 SC
400	MA 58504 SC	MA 58505 SC	MA 58503 SC
600	MA 58511 SC	MA 58512 SC	MA 58510 SC
800	MA 58518 SC	MA 58519 SC	MA 58517 SC
1000	MA 58525 SC	MA 58526 SC	MA 58524 SC
1200	MA 58530 SC	MA 58531 SC	MA 204258 SC

Size capacity

100 to 1200mm espagnolette lengths

Manufactured from

Mild steel

Finish

Silver Chromate

Tricoat (high corrosion resistance) also available

Recommended screws

Espagnolette/Shootbolt - 4mm/No.8 countersunk head
Handle fitting - M5 Machine Screw or suitable alternative
For Tricoat finish ensure Tricoat screws are used

Performance

(Full test details available on request) Conforms to BS644, BS4873 and BS 7412:2002 corrosion resistance, tested in accordance with BS EN 1670:1998

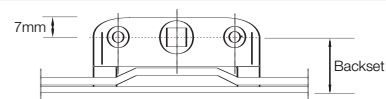
When ordering please specify:

1. Espagnolette type
2. Sash size (preferably espagnolette length)
3. Backset size
4. Cam size
5. Profile name and number

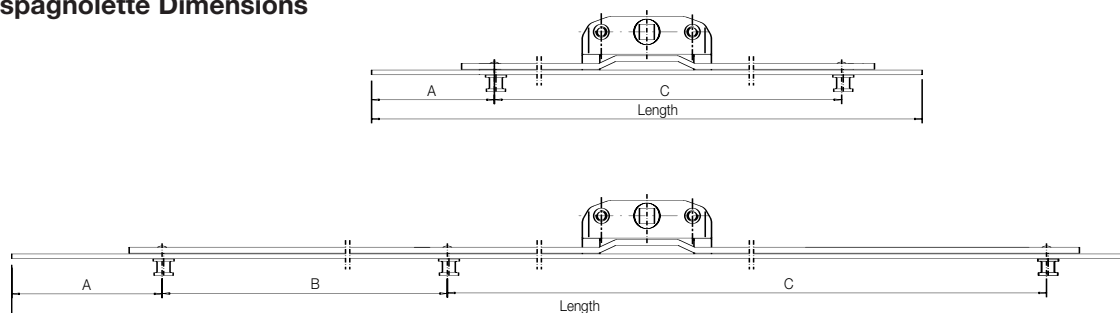
More information

enquiries@titon.co.uk / 01206 713801

Lockcase Dimensions



Espagnolette Dimensions



Length	BS	A - mm	B - mm	C - mm	Length	BS	A - mm	B - mm	C - mm
100	20mm	N/A	N/A	N/A	100	22mm	N/A	N/A	N/A
260	20mm	58	N/A	164	260	22mm	58	N/A	164
400	20mm	71	N/A	278	400	22mm	71	N/A	278
600	20mm	71	N/A	498	600	22mm	71	N/A	498
800	20mm	71	N/A	678	800	22mm	71	N/A	678
1000	20mm	71	294	584	1000	22mm	71	294	584
1200	20mm	71	394	684	1200	22mm	71	394	684

Maco Offset

Multi-point locking systems

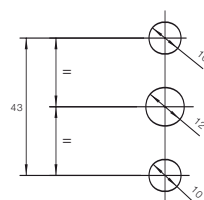
For use on PVCu, timber or aluminium windows

Multipoint locking espagnolette for side hung or top hung applications with adjustable mushroom cams. Designed for profiles with or without a eurogroove, the Maco Offset Espagnolette is available in various noncroppable lengths with two backsets and two cam heights.

The Maco Offset Espagnolette is compatible with all standard espagnolette handles with 43mm fixing centres with a 7mm square spindle.



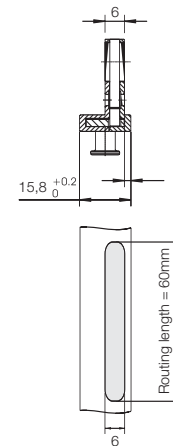
Handle Fixing Detail



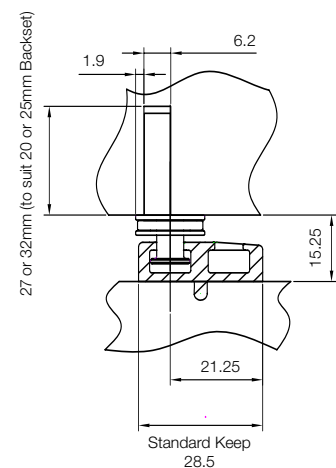
Features and Benefits

- Suitable for use on windows with or without a 16mm eurogroove
- Mushroom head cams aid security
- Keeps can be supplied without night-vent position
- Adjustable locking cams
- Can be fitted in a eurogroove
- 7.7 or 9mm cam heights
- 20 and 25mm backset versions available
- Available in sizes ranging from 310mm to 1200mm
- Keeps/striker plates are profile related, please phone for suitability

Lockcase Routing Detail



Profile Detail



Details

Maco Offset Espagnolette - 20mm backset version

Length	7.7mm mushroom height	9mm mushroom height
310	MA 57151 SC	MA 57157 SC
400	MA 57152 SC	MA 57158 SC
600	MA 57153 SC	MA 57159 SC
800	MA 57154 SC	MA 57160 SC
1000	MA 57155 SC	MA 57161 SC
1200	MA 57156 SC	MA 57162 SC

Maco Offset Espagnolette - 25mm backset version

310	MA 57163 SC	MA 57169 SC
400	MA 57164 SC	MA 57170 SC
600	MA 57165 SC	MA 57171 SC
800	MA 57166 SC	MA 57172 SC
1000	MA 57167 SC	MA 57173 SC
1200	MA 57168 SC	MA 57174 SC

Size capacity

310 to 1200mm espagnolette lengths

Manufactured from

Mild steel

Finish

Silver Chromate

Tricoat (high corrosion resistance) also available

Recommended screws

Espagnolette/Shootbolt - 4mm/No.8 countersunk head
Handle fitting - M5 Machine Screw or suitable alternative
For Tricoat finish ensure Tricoat screws are used

Performance

(Full test details available on request) Conforms to BS644, BS4873 and BS 7412:2002 corrosion resistance, tested in accordance with BS EN 1670:1998

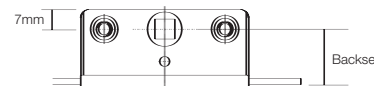
When ordering please specify:

1. Espagnolette type
2. Sash size (preferably espagnolette length)
3. Backset size
4. Cam size
5. Profile name and number

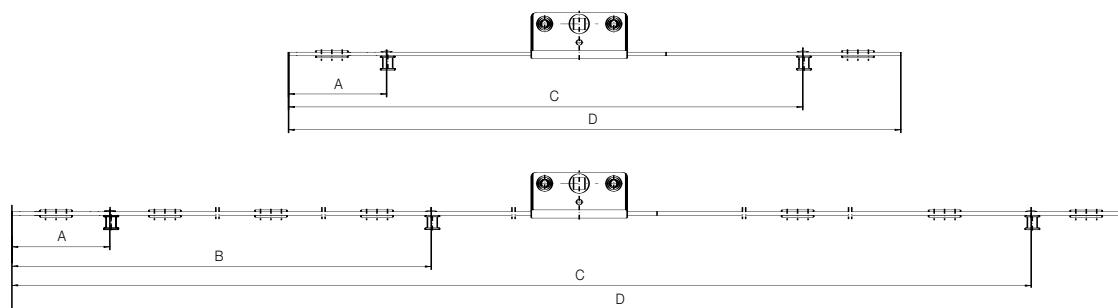
More information

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Lockcase Dimensions



Espagnolette Dimensions



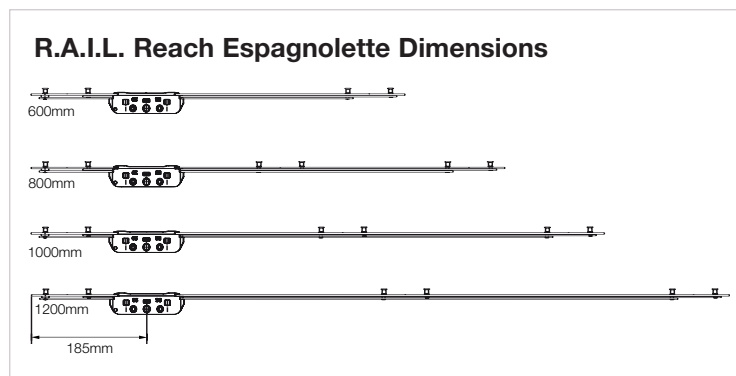
Length	BS	A - mm	B - mm	C - mm	D - mm	Length	BS	A - mm	B - mm	C - mm	D - mm
310	20mm	61	N/A	230	291	310	25mm	61	N/A	230	291
400	20mm	61	N/A	320	381	400	25mm	61	N/A	320	381
600	20mm	61	N/A	520	581	600	25mm	61	N/A	520	581
800	20mm	61	N/A	720	781	800	25mm	61	N/A	720	781
1000	20mm	61	346	920	981	1000	25mm	61	346	920	981
1200	20mm	61	446	1120	1181	1200	25mm	61	446	1120	1181

Maco R.A.I.L. and R.A.I.L. Reach Multi-point locking systems

For use on PVCu, timber or aluminium windows

Multipoint locking espagnolette for side hung or top hung applications with adjustable mushroom cams, designed for profiles with eurogroove. Available in a range of lengths with two backsets and three

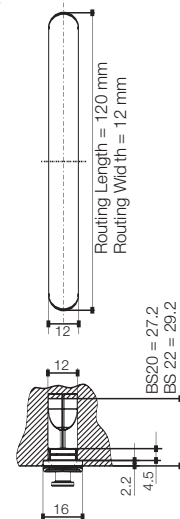
cam heights. The Maco R.A.I.L. Espagnolette is compatible with all standard espag handles with 43mm fixing centres with a 7mm square spindle and is capable of achieving BS7950.



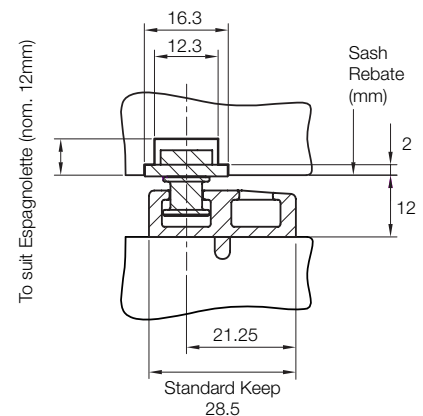
Features and Benefits

- Reverse action locking system which clamps to both sides of the striker plate
- Designed for BS7950 security windows
- No shootbolt required
- Fits into eurogroove
- R.A.I.L. Reach version available for low handle height situations
- 7.7, 9 or 10.5mm cam heights
- 20 and 22mm backset versions available
- Available in sizes ranging from 200mm to 1200mm

Lockcase Routing Detail



Profile Detail



Details

Maco R.A.I.L. Espagnolette - 20mm backset version

Length	7.7mm mushroom height	9mm mushroom height	10.5mm mushroom height
200	MA202693SC	MA202705SC	MA202691SC
400	MA202694SC	MA202706SC	MA202690SC
600	MA202695SC	MA202707SC	MA202689SC
800	MA202696SC	MA202708SC	MA202688SC
1000	MA202697SC	MA202709SC	MA202687SC
1200	MA202698SC	MA202710SC	MA202686SC

Maco R.A.I.L. Espagnolette - 22mm backset version

200	MA202699SC	MA202711SC	MA202685SC
400	MA202700SC	MA202712SC	MA202684SC
600	MA202701SC	MA202713SC	MA202683SC
800	MA202702SC	MA202714SC	MA202682SC
1000	MA202703SC	MA202715SC	MA202681SC
1200	MA202704SC	MA202716SC	MA202679SC

Maco R.A.I.L. Reach Espagnolette - 20mm backset version

600	MA206827SC	MA206837SC	-
800	MA206828SC	MA206838SC	-
1000	MA206829SC	MA206839SC	-
1200	MA206830SC	MA206840SC	-

Maco R.A.I.L. Reach Espagnolette - 22mm backset version

600	MA206831SC	MA206842SC	-
800	MA206832SC	MA206844SC	-
1000	MA206835SC	MA206845SC	-
1200	MA206836SC	MA206846SC	-

Size capacity

200 to 1200mm espagnolette lengths (standard)
600 to 1200mm espagnolette lengths (Reach).

Manufactured from

Mild steel

Finish

Silver Chromate
Tricoat (high corrosion resistance) also available

Recommended screws

Espagnolette/Shootbolt - 4mm/No.8 countersunk head
Handle fitting - M5 Machine Screw or suitable alternative
For Tricoat finish ensure Tricoat screws are used

Performance

(Full test details available on request) Conforms to BS644, BS4873 and BS 7412:2002 corrosion resistance, tested in accordance with BS EN 1670:1998

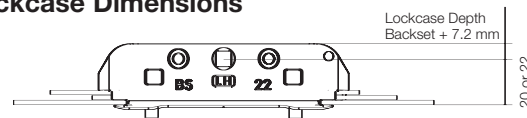
When ordering please specify:

1. Espagnolette type
2. Sash size (preferably espagnolette length)
3. Backset size
4. Cam size
5. Profile name and number

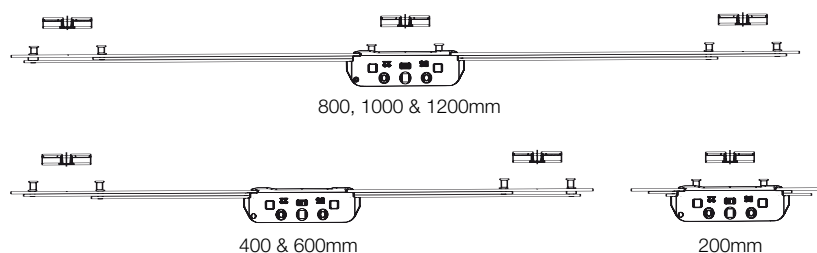
More information

enquiries@titon.co.uk / 01206 713801

Lockcase Dimensions



R.A.I.L. Espagnolette Dimensions



Maco Mk1 Shootbolt

Multi-point security locking systems

For use on PVCu, timber or aluminium windows

Multipoint locking shootbolt espagnolette for side hung or top hung applications with adjustable shootbolts and mushroom cams, designed for profiles with eurogroove. The Maco Shootbolt Espagnolette has a separate centre lock box with various different types of croppable

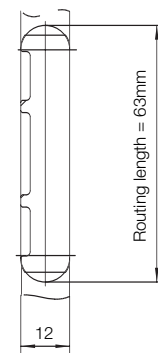
extensions with two backsets and three cam heights. The Maco Shootbolt Espagnolette is compatible with all standard espag handles with 43mm fixing centres with a 7mm square spindle and is capable of achieving BS7950.



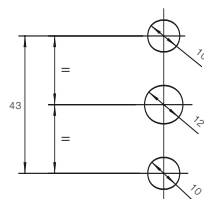
Features and Benefits

- Designed to give greater security in line with BS 7950 and Secured By Design
- Suitable for use on windows with a 16mm eurogroove
- Integral shootbolts with selectable 10 or 13mm bolt throw
- Interlocking keeps for improved strength
- Suitable for sash rebate sizes from 320mm to 1400mm
- Fitting extension pieces will enable larger sash rebate sizes
- 20 or 22mm backset versions available
- 7.7, 9 or 10.5mm mushroom cam heights
- Can be used to offer a low handle height on sash for limited access situations
- Blanking plug available to remove night-vent position on keep
- Adjustable compression via mushroom headed cams
- Keeps / striker plates are profile related, please phone for suitability

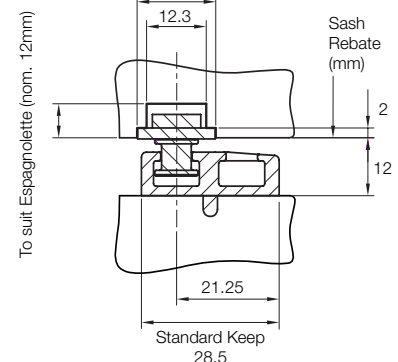
Lockcase Routing Detail



Handle Fixing Detail



Profile Detail



Details

Lockbox	Backset	Mushrooms Cams		Product Code	
MK I	20	0		MA11262SC	
MK I	22	0		MA11263SC	
Shootbolt Extensions	Size	Mushrooms Cams	7.7mm Cams	9mm Cams	10.5mm Cams
PVCu					
320 - 400	GR 0	0	MA58177SC	MA58177SC	MA58177SC
401 - 800	GR 1	1	MA58160SC	MA58161SC	MA58157SC
801 - 1100	GR 2	2	MA58162SC	MA58163SC	MA58158SC
1101 - 1400	GR 3	2	MA58164SC	MA58165SC	MA58159SC
Timber					
320 - 400	GR 0	0	MA58170SC	MA58170SC	N/A
401 - 800	GR 1	1	MA58171SC	MA58174SC	N/A
801 - 1100	GR 2	2	MA58172SC	MA58175SC	N/A
1101 - 1400	GR 3	2	MA58173SC	MA58176SC	N/A
Extra Height Extensions					
PVCu & Timber					
250mm	-	1	MA11804SC	MA101530SC	N/A
400 - 600mm	-	1	MA102858SC	MA102859SC	N/A

1 shootbolt strike per extension. 1 mushroom strike per cam.

Size capacity

320 - 1400mm sash rebate size
250mm extension available
400 to 600mm extension available

Manufactured from

Mild steel

Finish

Silver Chromate
Tricoat (high corrosion resistance) also available

Recommended screws

Espagnolette/Shootbolt - 4mm/No.8 countersunk head
Handle fitting - M5 Machine Screw or suitable alternative
For Tricoat finish ensure Tricoat screws are used

Performance

(Full test details available on request) Conforms to BS644, BS4873 and BS 7412:2002 corrosion resistance, tested in accordance with BS EN 1670:1998

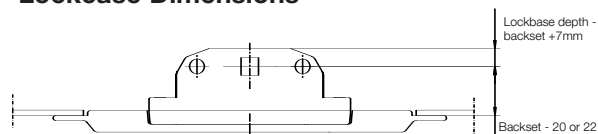
When ordering please specify:

1. Espagnolette type
2. Sash rebate size
3. Backset size
4. Cam size
5. Profile name and number

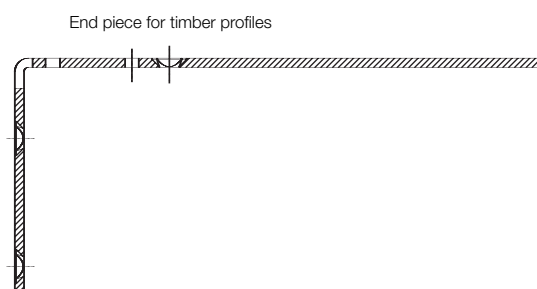
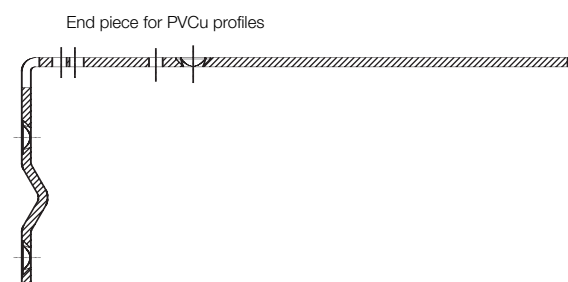
More information

enquiries@titon.co.uk / 01206 713801

Lockcase Dimensions



End Detail



Maco Mk2 Shootbolt

Multi-point security locking systems

For use on PVCu, timber or aluminium windows

Multipoint locking shootbolt espagnolette for side hung or top hung applications with adjustable shootbolts and mushroom cams, designed for profiles with eurogroove. The Maco Shootbolt Espagnolette has a separate centre lock box with locking cams and various different types of croppable and non croppable

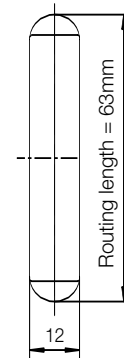
extensions with two backsets and three cam heights. The Maco Shootbolt Espagnolette is compatible with all standard espag handles with 43mm fixing centres with a 7mm square spindle and is capable of achieving BS7950. Predominately for use on PVCu profiles.



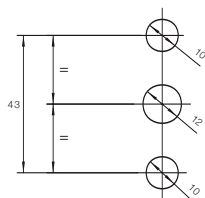
Features and Benefits

- Designed to give greater security in line with BS 7950 and Secured By Design
- Suitable for use on windows with a 16mm eurogroove
- Integral shootbolts with selectable 10 or 13mm bolt throw
- Interlocking keeps for improved strength
- Suitable for sash rebate sizes from 500mm to 1400mm (non croppable) and 382mm to 1400mm (croppable)
- 20 or 22mm backset versions available
- 7.7 or 9 mushroom cam heights
- Croppable version can be used to offer a low handle height on sash for limited access situations
- Blanking plug available to remove night-vent position on keep
- Features centre locking point
- Adjustable compression via mushroom headed cams
- Keeps / striker plates are profile related, please phone for suitability

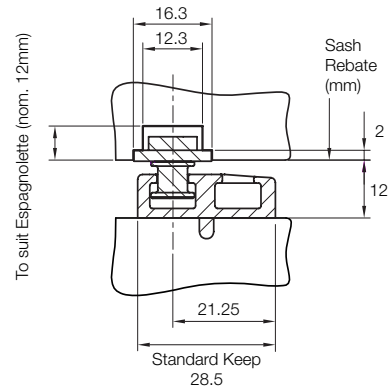
Lockcase Routing Detail



Handle Fixing Detail



Profile Detail



Details

Maco Mk2 Shootbolt Espagnolette - rapid fix non croppable lock box

Lock box	Mushrooms	7.7mm mushroom height	9mm mushroom height
20mm Backset	2	MA11033SC	MA11035SC
22mm Backset	2	MA11034SC	MA11037SC

Other croppable codes on request

Maco Mk2 Shootbolt Espagnolette - rapid fix non croppable extension pieces

Extension pieces to suit sash rebate size	Size	Mushrooms per extension	7.7mm mushroom height	9mm mushroom height
500-600	Gr.1	0	MA58140SC	MA58140SC
601-700	Gr.2	1	MA58141SC	MA58149SC
701-800	Gr.3	1	MA58142SC	MA58150SC
801-900	Gr.4	1	MA58143SC	MA58151SC
901-1000	Gr.5	1	MA58144SC	MA58152SC
1001-1100	Gr.6	1	MA58145SC	MA58153SC
1101-1200	Gr.7	1	MA58146SC	MA58154SC
1201-1300	Gr.8	1	MA58147SC	MA58155SC
1301-1400	Gr.9	1	MA58148SC	MA58156SC
250mm extension piece	-	1	MA11804SC	MA101530SC
400-600mm extension piece	-	1	MA206508SC	MA206509SC

Size capacity

500 - 1400mm sash rebate size
250mm extension available
400 to 600mm extension available

Manufactured from

Mild steel

Finish

Silver Chromate
Tricoat (high corrosion resistance) also available

Recommended screws

Espagnolette/Shootbolt - 4mm/No.8 countersunk head
Handle fitting - M5 Machine Screw or suitable alternative
For Tricoat finish ensure Tricoat screws are used

Performance

(Full test details available on request) Conforms to BS644, BS4873 and BS 7412:2002 corrosion resistance, tested in accordance with BS EN 1670:1998

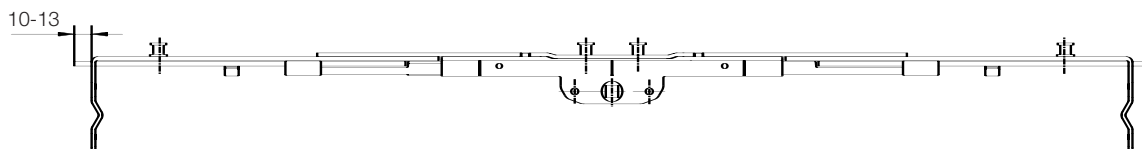
When ordering please specify:

1. Espagnolette type
2. Sash rebate size
3. Backset size
4. Cam size
5. Profile name and number

More information

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Shootbolt (Non Croppable) Detail



Maco Mk3 Shootbolt

Multi-point security locking systems

For use on PVCu, timber or aluminium windows

One piece adjustable shootbolt espagnolette for side hung or top hung applications with adjustable shootbolts and mushroom cams, designed for profiles with eurogroove. The Maco Shootbolt Espagnolette is available in a range of sizes of croppable extensions with a choice of

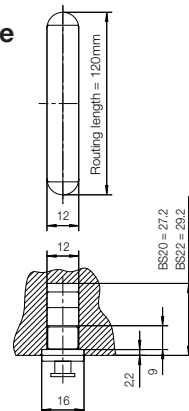
two backsets and two cam heights. The Maco Shootbolt Espagnolette is compatible with all standard espag handles with 43mm fixing centres with a 7mm square spindle and is capable of achieving BS7950. Predominately used on PVCu profiles.



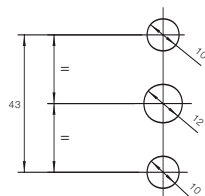
Features and Benefits

- **Rapid assembly time**
- **Single piece telescopic system**
- **All screw fixings on one face**
- **Reduced screw fixings**
- **Central mushroom cams**
- **Compression adjustable mushroom cams**
- **Adjustable throw shootbolts**
- **Croppable version available for low handle height requirements**
- **Uses same lockcase as R.A.I.L. Espag**
- **No new striker plates are required**
- **Suitable for all eurogroove applications**
- **Enables sash and frame to be geared independently**
- **Exceeds BS7950 security requirements**
- **Suitable for sash rebate sizes from 525mm to 1425mm**
- **20 or 22mm backset versions available**
- **7.7 or 9mm mushroom cam heights**

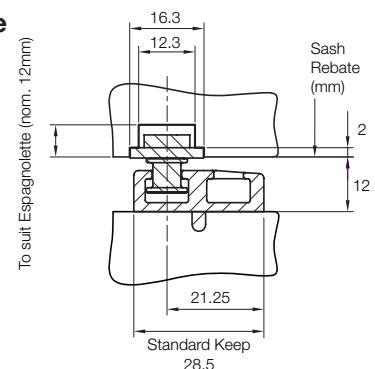
Lockcase Routing Detail



Handle Fixing Detail



Profile Detail



Details

Maco Mk3 Shootbolt Espagnolette - Telescopic - 20mm Backset

To suit sash rebate size	Size	Mushrooms per Espagnolette	7.7mm mushroom height	9mm mushroom height
525-600	Gr.1	2	MA204920SC	MA204927SC
600-675	Gr.2	4	MA204921SC	MA204928SC
675-825	Gr.3	4	MA204922SC	MA204929SC
825-975	Gr.4	4	MA204923SC	MA204930SC
975-1125	Gr.5	4	MA204924SC	MA204931SC
1125-1275	Gr.6	4	MA204925SC	MA204932SC
1275-1425	Gr.7	4	MA204926SC	MA204933SC

Maco Mk3 Shootbolt Espagnolette - Telescopic - 22mm Backset

To suit sash rebate size	Size	Mushrooms per Espagnolette	7.7mm mushroom height	9mm mushroom height
525-600	Gr.1	2	MA204941SC	MA204948SC
600-675	Gr.2	4	MA204942SC	MA204949SC
675-825	Gr.3	4	MA204943SC	MA204950SC
825-975	Gr.4	4	MA204944SC	MA204951SC
975-1125	Gr.5	4	MA204945SC	MA204952SC
1125-1275	Gr.6	4	MA204946SC	MA204953SC
1275-1425	Gr.7	4	MA204947SC	MA204954SC

Size capacity

525 to 1425mm espagnolette lengths

Manufactured from

Mild steel

Finish

Silver Chromate

Tricoat (high corrosion resistance) also available

Recommended screws

Espagnolette/Shootbolt - 4mm/No.8 countersunk head
Handle fitting - M5 Machine Screw or suitable alternative
For Tricoat finish ensure Tricoat screws are used

Performance

(Full test details available on request) Conforms to BS644, BS4873 and BS 7412:2002 corrosion resistance, tested in accordance with BS EN 1670:1998

When ordering please specify:

1. Espagnolette type
2. Sash rebate size
3. Backset size
4. Cam size
5. Profile name and number

More information

enquiries@titon.co.uk / 01206 713801

Shootbolt Detail



PN Hook

Multi-point locking system

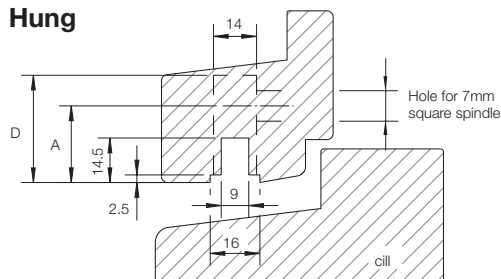
For use on timber windows

Multipoint locking espagnolette for side hung or top hung applications with hook bolts, designed for profiles with eurogroove. The PN Hook Espagnolette is available in various croppable lengths with a

choice of three backsets. The PN Hook Espagnolette is compatible with all standard espag handles with 43mm fixing centres with a 7mm square spindle.



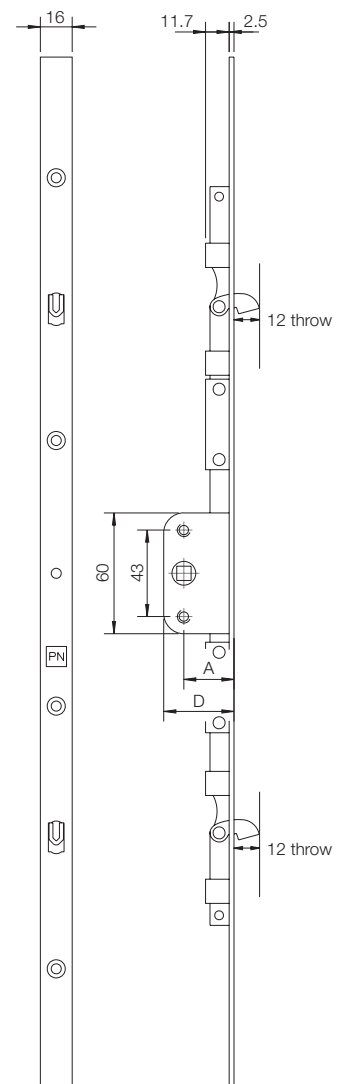
Profile Detail Top Hung



Features and Benefits

- Fits standard eurogroove
- Works in a minimal air gap
- 25, 28 or 40mm backset versions available
- Croppable
- Keeps are designed for PN Combi and Uni systems but can be adapted to other sections
- Suitable for top or side hung

Dimensions



Details

Espagnolette Sizes	Locking Points	Backset	Product Code
PN Hook Espagnolette - 25mm backset version			
413-513	2	25	5430-0-03-60
613-913	2	25	5431-0-03-60
913-1313	2	25	5432-0-03-60
PN Hook Espagnolette - 28mm backset version			
413-513	2	28	5440-0-03-60
613-913	2	28	5441-0-03-60
913-1313	2	28	5442-0-03-60
PN Hook Espagnolette - 40mm backset version			
1800-2050	4	40	5435-0-03-60
Keeps			
Description			
Side Hung Keep			5488-0-03-00
Top Hung Keep			5479-0-89-00

Manufactured from

Plated mild steel

Recommended screws

4mm (No.8) Countersunk Head

Finishes

Eloc 6

Keeps – (Side Hung) Eloc 6, (Top Hung) Stainless Steel

More information

enquiries@titon.co.uk / 01206 713801