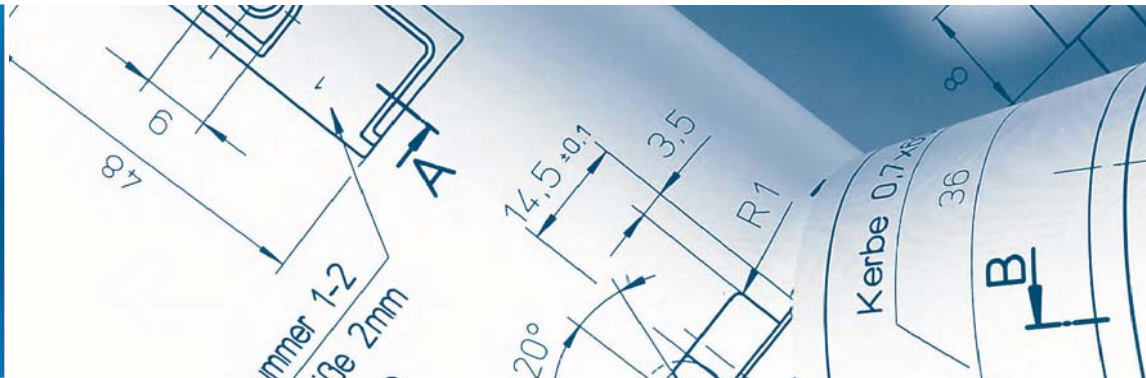




MACO
ESPAGS
ESPAGNOLETTES



Mach 3 Shootbolt Espagnolette
Product Specification Guide



Mach 3 Shootbolt Espagnolette



Mach 3 Shootbolt Espagnolette Features

- Rapid-Fit shootbolt system.
- Single piece telescopic design.
- 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 the same lockcase as the RAIL espag.
- No new striker plates are required.
- Maco silver chromate to 360 hours corrosion resistance.
- Reduced number of components need to be ordered and stocked.
- Suitable for all eurogroove applications.
- Enables the sash and frame to be geared independently.



Mach 3 Shootbolt Espagnolette

Material Specification

Faceplate:	Cold rolled mild steel DC 01 C690 material number 1.0330 to DIN EN 10139	Zinc plated (6-15 µm) silver passivated (chrome 3) and wax coated
Drive Tracks:	Cold rolled mild steel DC 01 C690 material number 1.0330 to DIN EN 10139	Zinc plated (6-15 µm) silver passivated (chrome 3) and wax coated
Mushroom Cams:	Machine steel 9smNpB28 to DIN 1651	Zinc plated (6-15 µm) silver passivated (chrome 3) and wax coated
Shootbolts:	Zinc die-cast from Zamac Z430 complying with DIN 1743 material specification number 2141 (Za430 to DIN EN 12844)	Zinc plated (6-15 µm) silver passivated (chrome 3) and wax coated
Lockcase:	Zinc die-cast from Zamac Z410 complying with DIN 1743 material specification number 2141 (Za410 to DIN EN 12844)	Zinc plated (6-15 µm) silver passivated (chrome 3) and wax coated
Spindle Follower:	Zinc die-cast from Zamac Z430 complying with DIN 1743 material specification number 2141 (Za430 to DIN EN 12844)	Dupont Stollaquid D1330 black KTL coating
Reversing Wheels:	Quality Steel 34-3 material number 1.0213 to DIN 1654	Zinc plated (6-15 µm) silver passivated (chrome 3) and wax coated
Striker Plates:	Zinc die-cast from Zamac Z410 complying with DIN 1743 material specification number 2141 (Za410 to DIN EN 12844)	Zinc plated (6-15 µm) silver passivated (chrome 3) and wax coated



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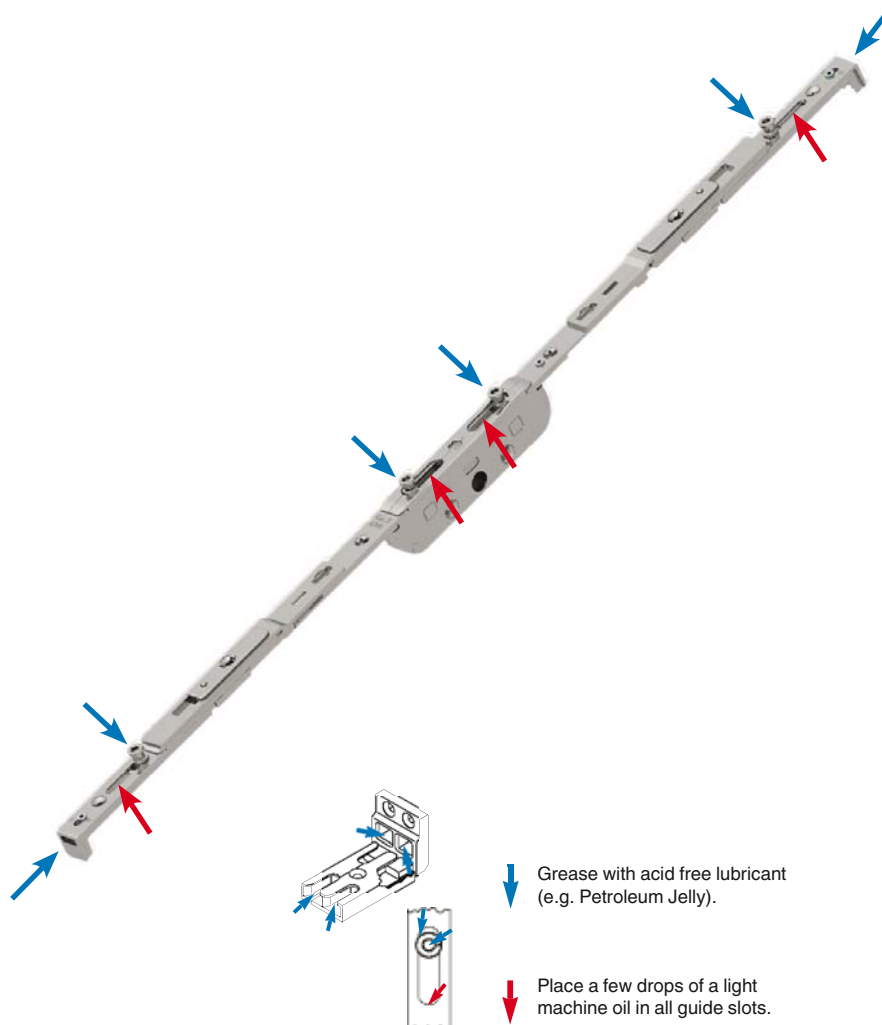
Maintenance

To ensure that your windows function correctly, it is important that the following maintenance procedure is carried out at least once a year.

All fittings must be checked periodically for tightness and security, and adjusted where necessary by a suitably qualified person.

Parts exposed when the window is open must be wiped down to remove residue of old lubrication, swarf and grime. Locking cams, shootbolts and striker plates should be given a minute smear of petroleum jelly or equivalent. Faceplates and sliding bars should be lubricated with a suitable acid and resin free grease, or oil.

Ammonia based and abrasive cleaning fluids should not be used on any hardware, only use cleaners that have no effect on the corrosion protection properties of the fittings.



↓ Grease with acid free lubricant (e.g. Petroleum Jelly).

↓ Place a few drops of a light machine oil in all guide slots.



Mach 3 Shootbolt Espagnolette

Operating Life:

The Maco Mach 3 shootbolt espagnolette has been cycle tested to 50,000 operations when installed in a PVC-u window. Under normal use, the Mach 3 service life is expected to out live the 25 year predicted life for the PVC-u window and not be susceptible to mechanical fatigue failure.

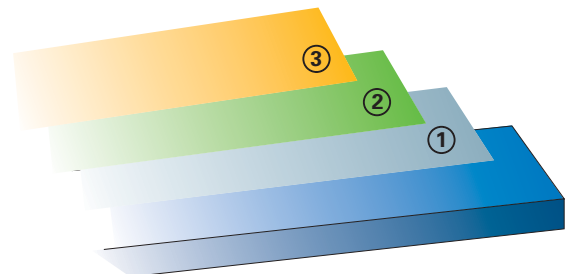
Corrosion Performance:

Maco applies a triple stage environmentally friendly surface protection coating to the Mach 3 shootbolt espagnolette.

When subjected to a salt spray corrosion test in accordance with ISO 9227: 1990 the Maco surface protection coating is approved to 360 hours corrosion resistance.

Mach 3 from Maco will meet the requirements of Class 4 when assessed against BS. EN. 1670: 1998 making it suitable for use in saline environments.

- ① Fine Zinc coating at least 6µm
- ② Silver passivated (chrome 3)
- ③ MACO wax coating

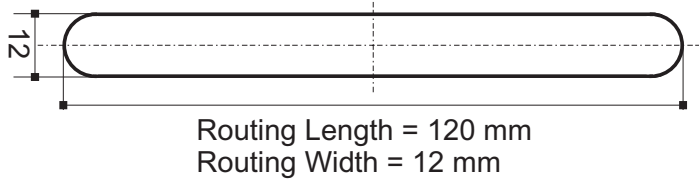




Mach 3 Shootbolt Espagnolette

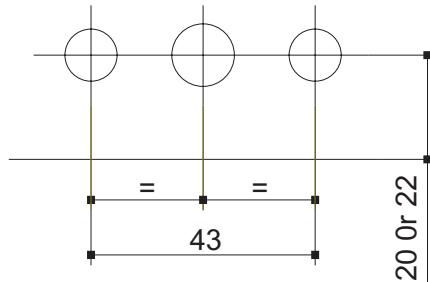
Sash Preparation:

Machine a 12 mm wide 120 mm wide slot centrally to the eurogroove with a 12 mm DIA. cutter.



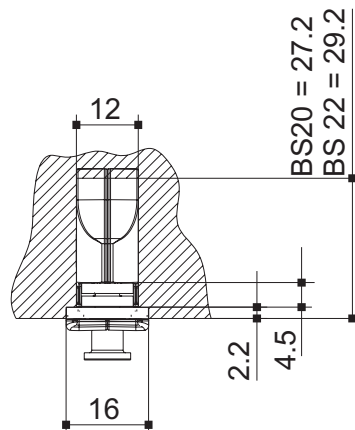
Handle Hole Drilling:

Drill the handle holes to match the appropriate lockcase backset.



Backset Selection:

The lockcase depth is 7.2 mm more than the backset the rear of the lockcase should not interfere with the reinforcing or the back wall of the profile.



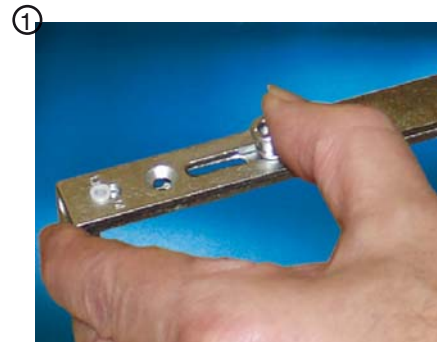


Mach 3 Shootbolt Espagnolette

Installing Mach 3 into the Sash:

To install Mach 3 into the sash follow these 4 easy steps

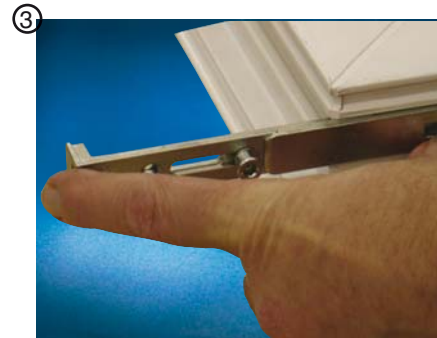
- ① Set the shootbolt throw (10 or 13mm) to the necessary size for your profile system.



- ② Locate Mach 3 into the sash
NOTE: The handing is shown on the side of the lockcase, with the handle holes on the sash facing upwards install the Mach 3 with the corresponding handing facing upwards.



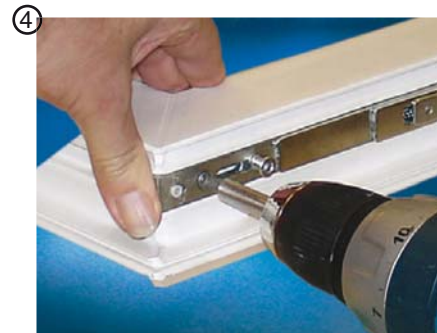
- ③ Push both end pieces fully into the corners of the eurogroove.



- ④ Screw Mach 3 into the sash.

NOTE: It is recommended that the screw order is as follows:

- ① either side of the lockcase.
- ② the shootbolt end screws.
- ③ all other screw fixings.





Mach 3 Shootbolt Espagnolette

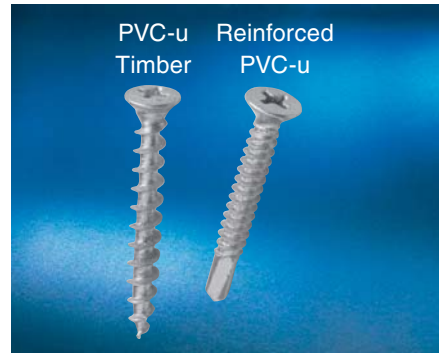
Screw Fixings:

Care needs to be taken in the selection of the correct screws, use 4.3 mm DIA. CSK. screws for fixing into PVC-u profile systems and Timber windows.

On reinforced PVC-u windows, use a 3.9 mm DIA. CSK. screw with a self-drill point.

To ensure the correct fixing for the screw it is important that they are not over tightened and are inserted with torque controllable screwdrivers.

Please talk to your screw supplier for more detailed information.



Handle Fixing:

Fit the handle in the open position and insert the M5 handle screws.

Care should be taken not to over tighten the handle screws causing the profile to deform and the lock case to twist, as this will increase the handle pressure.

NOTE: If the handle does not align up with the drive gear, do not re-drill the handle holes with Mach 3 fitted into the profile.

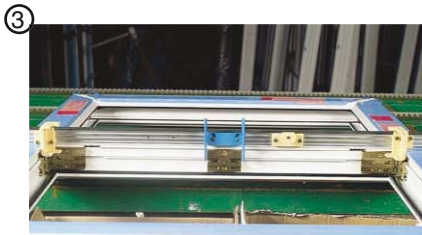




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Installing Striker Plates:

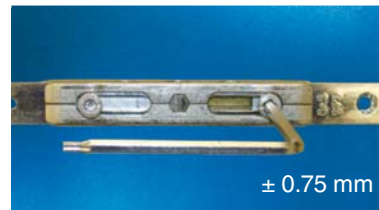
- ① Position the shootbolt and mushroom striker plates into the opening corners of the frame and screw into position.
- ② Position the centre mushroom strike centrally to the drive gear and screw in position.
- ③ Alternatively, a locating jig is available to automatically position the striker plate centrally on the frame.



Cam Adjustment:

The mushroom cams are positioned in the central position, when used with the correct Macho striker plate they give the correct gasket compression setting.

Should adjustment of the gasket compression be necessary then they can be adjusted with a 4 mm Allen key.



TECHNOLOGY IN MOTION



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