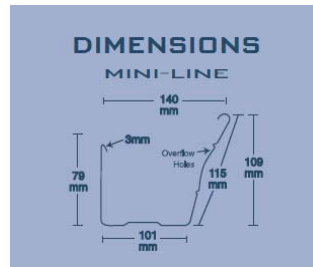


ACE MINI-LINE

INSTALLATION GUIDE / HANDY HINTS

Please note - Ace Gutters Pty Ltd supply Rainwater Product Installations Guides to assist our customers. Ace Gutters are not responsible for the design of a roof drainage system and or the installation of a gutter system. These responsibilities are held by the relevant trade professionals.



FLOW RATE:
Volume in 1m length 2.5 litres / second.
7.3 litres measures to overflow holes.

ORDERING OF MATERIALS

Prior to ordering your Ace Mini-Line and accessories we recommend that you draw a plan of your building, measuring each section of the building separately. This is important as it will assist you in determining the number of stop ends, nozzles and external and internal angles required.

To further assist you when ordering your materials please allow an additional 200mm past the end of the fascia for every length of guttering that requires an external angle.

Bracketing, internal and or external brackets are generally fixed at 1.0m intervals.

Listed below are guidelines on the installation process itself, however please contact our **Technical Sales Area on 02 9584 4766** should you require further information.

The INSTALLATION process

EXTERNAL ANGLES



Determine your starting point / corner, then nail or screw the outer piece of the external angle to the fascia via the slots (both sides), with the top of the angle 20mm below the top of the fascia (minimum fall 1:500mm).

To determine your required fall (general rule 1mm fall for every 500mm) nail or screw the outer of your second external angle to the next corner. To assist you in achieving an accurate fall you can use a string line, fixing the string line to the high end of the fascia and then running the string line to the opposite corner, making sure that the string line is taut. For example if a particular run of gutter is 12.0 metres in length, fit the external angle at the low end 24 mm (12000mm divided by 500mm = 24mm) lower than the angle that has been fitted at the high end.

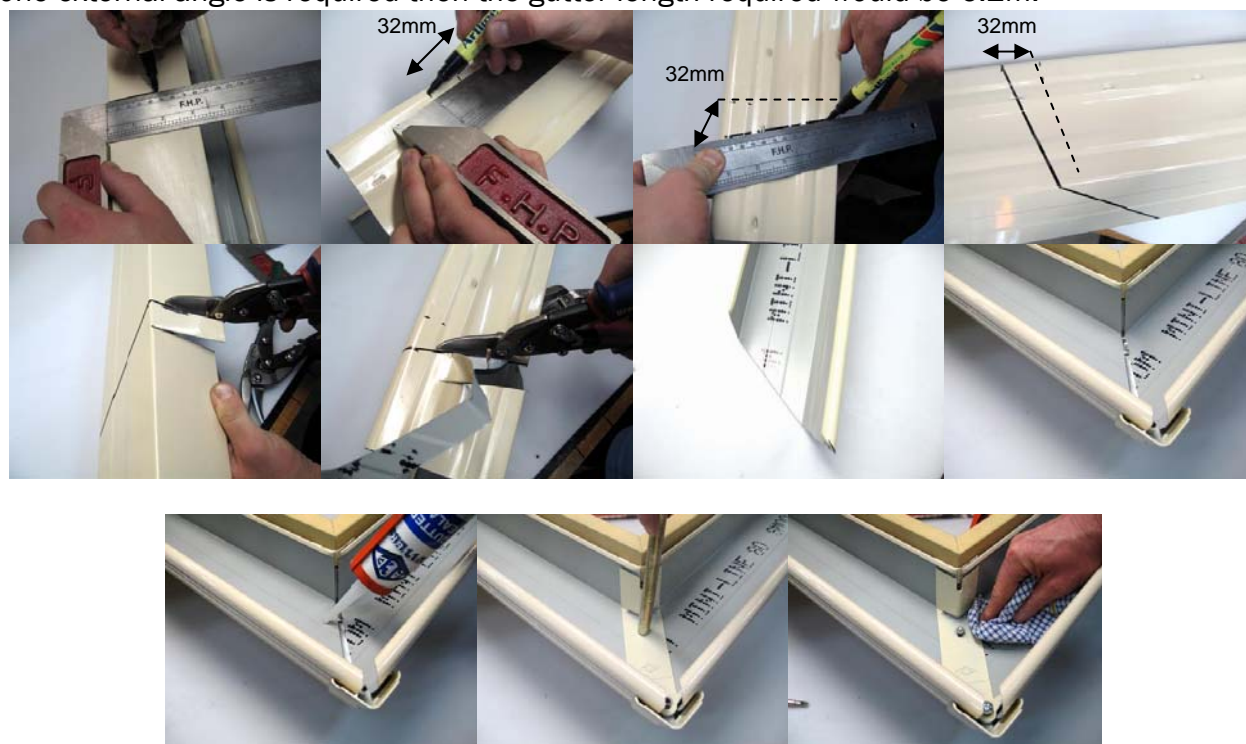
JOINERS if required - fix outer sections at line level.

EXTERNAL ANGLES

Prior to attaching your guttering to the fascia we recommend you pre cut your angles and nozzle outlets on the ground.

For external angles measure your gutter to the same length as your fascia length, and then add 200mm for each external corner cut required.

For example, if your fascia is 6.0m in length and there are two external corners required, one at either end, then you need to cut your gutter length to 6.4m, the additional 400mm of material (200mm each end) allowing you to then cut your two angles at 45 degree. If only one external angle is required then the gutter length required would be 6.2m.



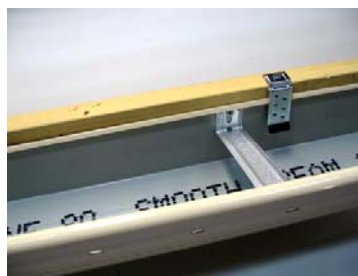
BRACKETS

When installing Ace Mini-Line there are three types of brackets available to choose from

- (i) a *concealed bracket* is the most commonly used bracket, spaced at 1.0m intervals. Fix metal or timber suspension clips at approximately 1m centres on top of the fascia (checking the level of the fascia) slide back edge of gutter up into the adjusting teeth, falling towards the downpipe at 1:500mm.

The use of suspension clips is highly recommended if you are working alone.

Insert your concealed brackets fixing the brackets by either nailing or screwing through the bracket and gutter into the fascia.



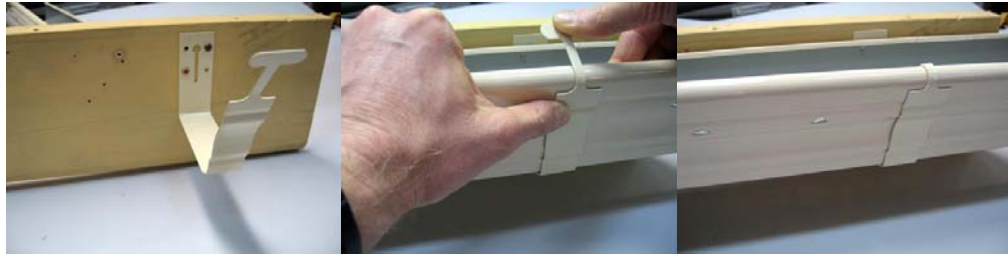
- (ii) another popular bracketing system used in conjunction with our metal or timber suspension clip is the “overstrap” bracketing system.

With the suspension clips fitted at 1.0m intervals (by snapping the clip over the top of the steel fascia and then applying pressure down with heel of the palm and into place).



Having placed your overstrap brackets at 1.0m centres into the gutter whilst the gutter is on the ground you then lift the gutter up into the suspension clip engaging the back edge of the gutter into the suspension clip (adjust fall) then fold the strap over the top of the timber.

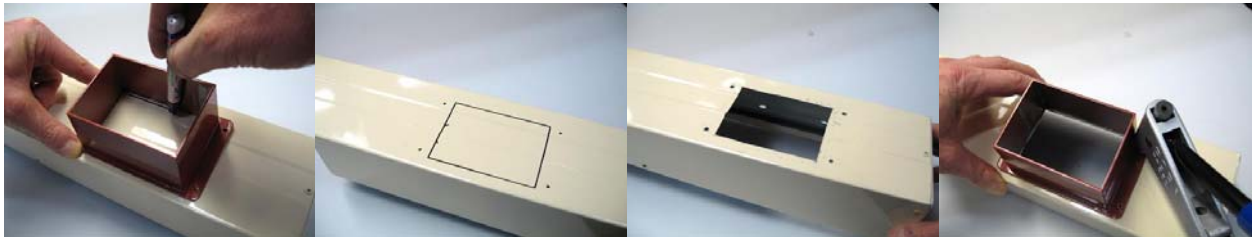
- (iii) External pre painted gutter brackets are also available. External brackets are fitted and centred along the string line, fixed to the fascia by nail or screw and then the gutter is rolled into the brackets, fixed again by either a nail or screw through the back of the gutter.



HOW TO FIT A NOZZLE

Place your nozzle on the bottom of the gutter and mark around the inside of the nozzle with a marker, at the same time marking your rivet holes, then cut out the marked area using snips, drilling $1/8^{\text{th}}$ holes for the rivets (the cut out for 90mm is 96mm x 63mm).

Apply approximately a 6mm strip of Ace Neutral Cure Sealer around the flanges of the nozzle and place the nozzle over the cut out section and then fixing the nozzle to the gutter using pop rivets. Clean off any excess sealer with a cloth.



STOP ENDS

When fitting stop end plates insert your stop end into the end of the gutter, then drill 4 holes, two into the back of the gutter, one into the bottom of the gutter and one into the front of the gutter, then separate the stop end from the gutter, apply sealer around the end of the gutter and then re insert the stop end plates. Fix by inserting pop rivets through the four pre drilled holes. Clean of any excess sealer with a cloth.

