

## Pre-installation check.

It is always good practice to check for the following before proceeding with the installation:

- Product is in good order – no freight damage.
- All parts are accounted for:
  - Folding Arm Unit with roller attached
  - Roll of fabric flap – attach to the extending bar
  - Cassette end caps, fixing brackets (top or face fix), crank handle (optional)
  - Wind sensor (optional), remote control for wireless motor
  - Hooding and hooding brackets (optional)
- Sizes are as per ordered

## Pre-Installation

Installation of a Folding Arm Awning is normally a 2 man operation. Before installing the fixing brackets, consider the overall dimensions of the awning, taking note of the position of the arm supports. **Fixing Brackets MUST be installed adjacent to the arm supports – this is where most of the cantilever force is exerted.** Awnings over 4 metres wide will have an additional centre fixing bracket.

Ensure a minimum space of 500mm between the open awning and any fixed obstacle. The awning must be installed at a minimum height of 2500 mm.

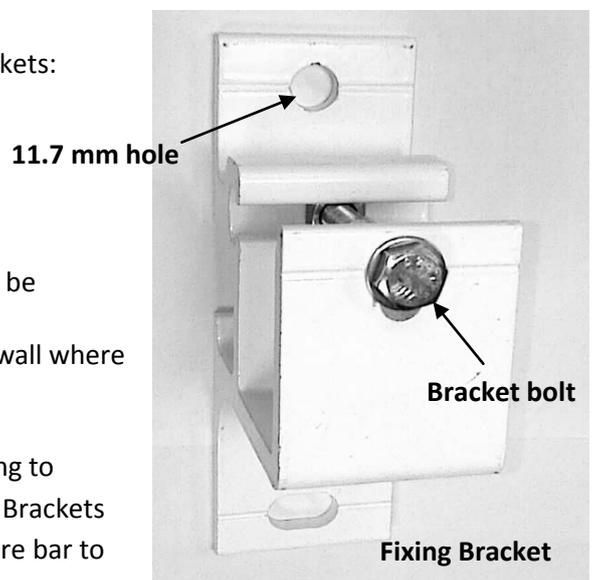
Take note of the following before installing the fixing brackets:

- Dimension of awning
- Dimension of arm support
- Number of arm supports
- Side of awning where control is located
- Dimensions of the wall/ ceiling where awning is to be installed.
- Consider the type of fixing/anchor for the type of wall where the awning is to be installed.

Check to ensure that the wall is NOT off-square. Use a string to check alignment, and pack the fixing brackets accordingly. Brackets must be installed level and square. This will allow the square bar to sit properly, and the bracket bolt to be secured easily.

Type of fastener / anchor used to secure the fixing brackets:

As there are many types of wall substrate, the correct fastener used needs to be chosen with extreme care. Below is a table showing the extraction load (kN) on each bracket. Even though there are 2 fasteners per bracket, it is prudent to assume most of the extraction force will be on the top fastener of the bracket. The calculations were made based on the blind width and projection and taking into account Class 2 wind resistance as per standard EN 13561 (minimal wind loading).



Projection/ Arm Length	Width (m)						
	3	3.5	4	4.5	5	5.5	6
	Extraction load on each bracket(kN) based on supplied brackets						
1.6	0.63	0.72	0.54	0.60	0.66	0.72	0.78
1.85	0.82	0.94	0.71	0.79	0.87	0.95	1.03
2.1	1.05	1.20	0.90	1.01	1.11	1.21	1.31
2.35	1.30	1.49	1.12	1.24	1.37	1.50	1.62
2.6	1.57	1.80	1.35	1.51	1.66	1.81	1.97
2.85		2.14	1.61	1.79	1.98	2.16	2.34
3.1		2.53	1.90	2.12	2.33	2.55	2.76
3.6			2.23	2.47	2.71	2.96	3.20
Qty Fixing Brackets supplied	2	2	3	3	3	3	3

Note: The above information is a guide and the fixtures are into strong substrate - therefore, if the substrate is in doubt, order additional brackets.

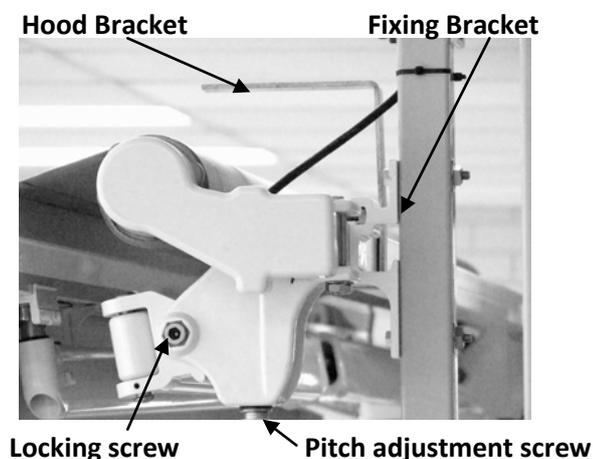
For comparison, a M10 50mm DynaBolt embedded into 32MPa concrete has a maximum tensile load of 5.9 kN. DynaBolts are not suitable for hollow bricks. It is recommended that some research be done for the correct anchor type for the substrate you are fixing the brackets before starting the installation. A good source of information on anchor selection is the Ramset Product Guide Book or visit the website.

## Fitting the blind

The fixing brackets are positioned adjacent to the arm supports and fitted horizontally level. Use two 10mm bolts (stainless steel if in a corrosive environment) per fixing bracket. If there are more than 2 brackets, fix the outer brackets first, then pull a string line to ensure all other brackets are fixed in alignment.

Fix the Hood Brackets (if required) onto the square bar at locations that will not foul with the fixing brackets. Carefully lift the blind and lower the square bar into the bracket. The square bar should sit in snugly, across all brackets. The bracket bolt should just clear square tube. Slide in the square nut, tighten and lock the bracket with the bracket bolt.

**Caution - Never extend the blind without locking the brackets. Never fully extend the arm – fabric will loose tension.** Extend the arms of the blind to check for awning projection angle and front extending bar is level.



If the blind has no pitch control, loosen the locking screw at the bottom of the arm bracket, and turn the pitch adjustment screw (loosening the screw will lower the front). You will need someone to

take the weight off the arm whilst adjusting the pitch. Retighten the locking screw when adjustment has been completed.

Insert the fabric flap into the bottom of the front extending bar. Insert end caps onto front bar and end covers of the folding arm awning.

Install the hood if required.

## Installation by fixing onto the roof rafters:

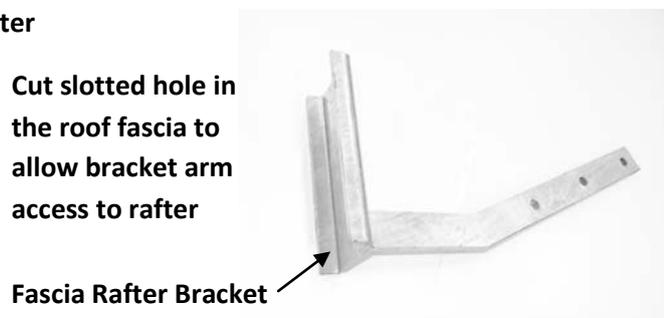
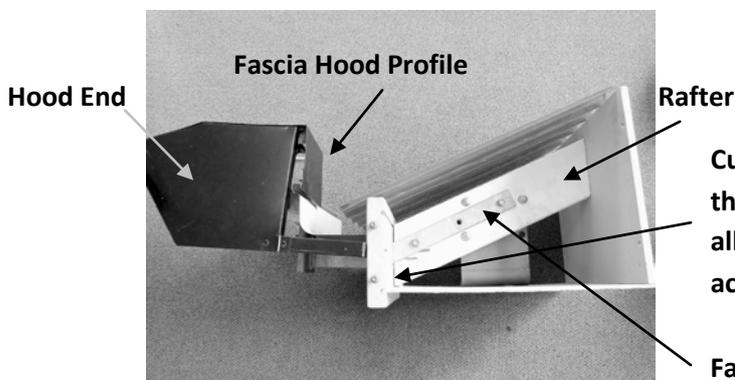
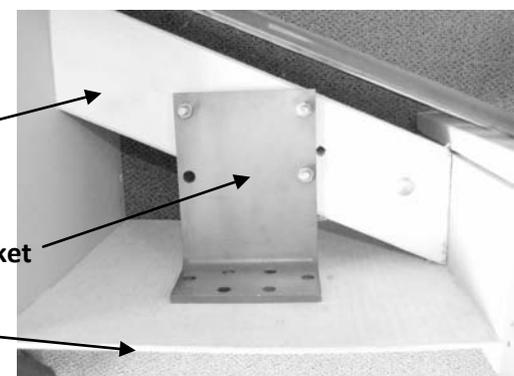
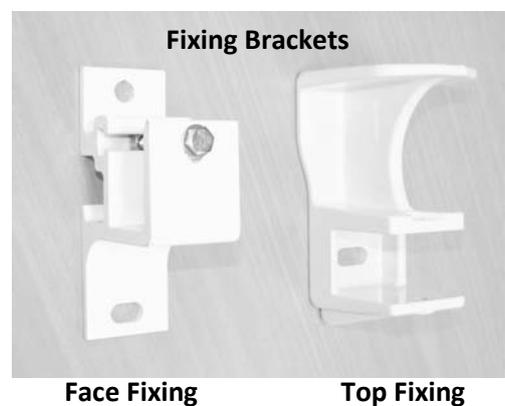
The roof rafters can be used as anchoring points. **Caution: The end rafters at the corner of a house are not load bearing – you need to go 2 rafters in.** This method of installation is a lot more involved as it requires parts of the roof tiles to be removed to expose the rafters.

Keep in mind that the aim is to install the fixing brackets securely and to enable the square tube to fit in snugly and level when fitted into the fixing brackets.

There are 2 types of rafter brackets – the L-Plate Rafter Bracket for the top fixing bracket and the Fascia Rafter Bracket for the face fixing bracket.

The Fascia Rafter Bracket is designed to allow the awning to be fixed in front of a roof gutter. The L-Plate Rafter Bracket is used when there is insufficient anchoring on the wall and the ceiling height is sufficient.

Choose the rafters that are as close to the awning arm support as possible. Use coach bolts to secure brackets to rafters.



**Caution: Like all out door blinds, it is prudent to retract the blind in the presence of strong winds.**