

TECHNICAL DATA SmartFLO Guttering

www.smartflo.com.au

Definition

Parts Guide

SmartFLO Guttering is an all purpose eaves guttering system that performs its intended function of collecting surface water from a roof and discharging it via downpipes to storage tanks or drains. The system comprises of a fully-formed tubular section, being the gutter, and a range of modular assembly components. The Guttering profile is designed to complement traditional to ultra modern architecture blending in with the building and its environment.

- **Minimal Maintenance** – to maintain adequate catchment over long periods.
- **Longevity** – SmartFLO Guttering will out last most conventional guttering systems due to the self-shedding of leaves and consequent reduction in corrosive activity.
- **Strength** – SmartFLO Guttering is by far stronger than any other Colorbond guttering available on the market.
- **Cleaner water** – due to it's superior design SmartFLO Guttering eliminates most debris from the roof making it the first choice for most people whom harvest rainwater.
- Gum nuts, sticks, stones and pine needles do not have the correct aerodynamic qualities for wind to clear the gutter. These must be brushed off as required.

Gutter Manufactured in NSW from strong 0.55mm Bluescope® Colorbond steel



Filters GE AES 145, injection moulded, colour matched and are only visible from above.



Corners GE AES 145, injection moulded, Internal & External corners, 90 degrees, colour matched, smooth contoured lines.



Stopends GE AES 145, injection moulded, colour matched and smooth contoured lines



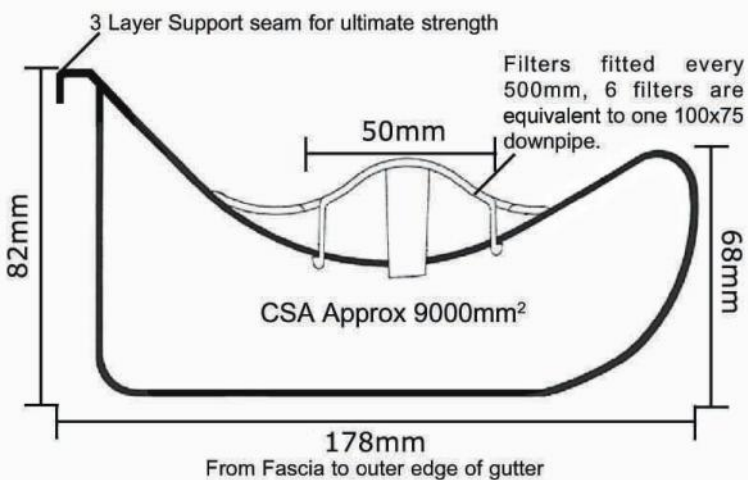
Brackets Bracket :-
Manufactured from strong 1.22mm. Bluescope® Zinalume steel



Sticktab :-
3M 4943F Industrial Stick-Tabs, Double coated acrylic foam closed cell 60mm X 13mm X 1.1mm

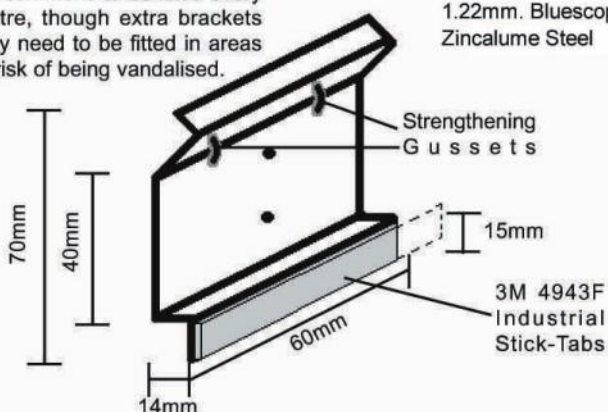
Accessories & Optional Extras

- Screws** Timber - Class 3 25mm gal
Steel - Class 3 16mm gal
- Metal Fascia Support Brackets** To strengthen metal fascias for maximum support & strength.
- Downpipe spouts** 90mm Round 100 x 75, 100 x 50 or as specified.
- Touch-up paint** To suit Colorbond® colours.
- Special Corners** As per requirement other than 90 degrees. POA
- Installation Instruction Manual** Available on website



Recommend to be fixed every metre, though extra brackets may need to be fitted in areas at risk of being vandalised.

1.22mm. Bluescope® Zinalume Steel



Performance Characteristics

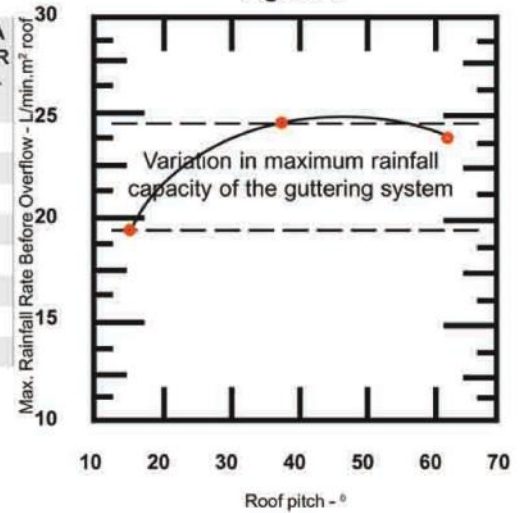
These results are based upon the formula in Appendix A of CSIRO technical Paper No 1 which relates to an eaves gutter having one downpipe outlet at the end of the length.

Table 1.

LOCALITY	1 IN 20 YEAR STORM (mm/hr)	CATCHMENT AREA PER DOWNSPIPE (m ²)	CATCHMENT AREA PER LINEAR METER OF GUTTER (m ²) - ROOF PITCH 15°	CATCHMENT AREA PER LINEAR METER OF GUTTER (m ²) - ROOF PITCH 35°
ADELAIDE	123	78	8.8	11.9
BRISBANE	251	38	4.3	5.9
CANBERRA	137	72	7.9	10.7
DARWIN	285	34	3.8	5.3
HOBART	99	96	10.8	14.8
MELBOURNE	127	78	8.5	11.6
PERTH	146	67	7.4	10.1
SYDNEY	214	45	5.0	6.9

All information provided herein was compiled using 50mm roof overhang.

Figure 1.



SmartFLO Guttering - Catchment Rate = 1080 Litres per hour per linear metre (Roof Pitch 15°)
 SmartFLO Guttering - Catchment Rate = 1458 Litres per hour per linear metre (Roof Pitch 35°)

As a design characteristic during extended periods of intense rainfall, SmartFLO gutter is designed to overflow at the front safely away from the building structure.

Regulatory Requirements.

SmartFLO Guttering meets all necessary specifications set out in the Building Code of Australia (1986) , Australian Standard AS/NZS2179 1:1994 and AS3959 - Construction of Buildings in Bush Fire Prone Areas

Testing

In tests performed in the Fluid Mechanics Laboratory at the University of Newcastle, Australia by the Universities Research Division TUNRA, the SmartFLO Guttering System was found to handle severe stormwater run-off and to significantly outperform conventional guttering systems in a number of important areas including :

- The ability to shed leaves by the action of moderate winds (3 knots) between rainfall events.
- The ability to operate effectively when leaves sit in the gutter, partly blocking the outlets during rainfall events.
- The ability to shed leaves drastically increasing the service life of the guttering system.
- The added strength gained by the closed profile reduces the risk of damage and deformity under normal building maintenance activities.

The SmartFLO Low Maintenance Guttering System was found to be superior to conventional systems, offering vastly improved operational characteristics. The ability to shed leaves in light to moderate winds eliminates the need for regular cleaning and drastically slows the rate of corrosion and extends the service life. Even when small amounts of debris remain on the gutter between storms, the gutter can still cope with rainfall run-off equivalent to that occurring during a 1/20 year storm (150mm/hr). A full copy of these results is available upon request.

Physical Properties

Weight per metre - 2.321 kg

Bluescope Colorbond core-strip coil used in manufacture. 0.55mm thick x 497.5mm wide

Disclaimer : The information supplied in this technical data sheet was correct at the time of publication, however SmartFLO does not guarantee it's accuracy. All information is subject to change at any time without notice. The above tables are a guide only and should not be used for specification purposes. Should more detailed information be required for specification purposes it is recommended to obtain the professional assistance of a person qualified in the field of fluid dynamics or mechanics (hydraulic/chemical engineer).