

Daylight Systems

Industrial Rainwater Systems



rainwater

115mm Deepstyle System

160mm Industrial Half Round Gutter

110mm, 160mm & 200mm Downpipes



rainwater

Brett Martin Daylight Systems offer an extensive range of rainwater management systems to suit every designer's needs. Brett Martin rainwater systems remove water from the roofs of the largest to the smallest industrial, commercial and agricultural buildings.

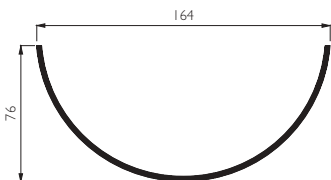


160mm High Capacity Industrial Half Round Gutter System

Ideally suited to industrial, commercial and agricultural buildings.

The high capacity 160mm Industrial Half Round System features:-

- Double seals to gutter fittings
- Multi-fix brackets featuring four fixing points for good support
- Clean lines which enhance the features of buildings
- Easy connection to 110mm downpipe



Roof Drainage Requirements

The area of the roof determines the number and position of outlets required to drain the collected rainwater. By using the flow chart below, calculated on a 75mm/hour maximum rainfall, the required outlets can be calculated.

160mm Industrial	Roof Drainage Capacity		
Gutter Width - 160mm	1:600 Gutter Fall	Outlet at Centre	Outlet at End
Downpipes - 110mm Diameter	Flow Capacity Max Roof Area	6.47 L/sec 310m ²	3.23 L/sec 155m ²

Colour Availability

- Black
- Brown
- Grey



Rainwater Downpipes 110mm, 160mm and 200mm

The Industrial Rainwater Downpipe Systems have been developed for use in conjunction with all types of roof drainage and are available in 110mm, 160mm and 200mm diameter, either plain ended or single socketed. High quality PVC fittings, including bends, branches, access pipes and clips ensure the systems retain the adaptability essential in the planning of an industrial rainwater scheme.

DOWNPIPES COLOUR AVAILABILITY	Industrial Downpipes 68mm, 110mm, 160mm, 200mm			
	68mm	110mm	160mm	200mm
Black	•	•	•	•
Brown	•	•	•	•
Grey	•	•	•	•
White	•	•	•	•
Terracotta	•	•	•	•

Fabrication Service

To enable our customers to get exactly the right item we can fabricate one off fittings to your requirement, on receipt of authorised dimensional drawings.

Fittings to adapt from PVC to Asbestos are also available. Full details are available on request.



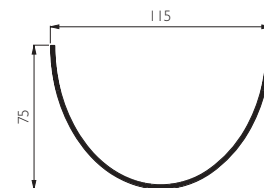
115mm Deepstyle Gutter System

Ideal for smaller industrial, commercial and agricultural buildings.

115mm Deepstyle Rainwater System:-

- Comes complete with its own 68mm downpipe system
- Offers an economical alternative for small buildings
- Holds a large capacity in a small gutter

The system is characterised by an easy fix clip system, which facilitates simple installation whilst external fixing lugs allow easy access for the use of cordless power tools. Deepstyle is aesthetically pleasing and has been designed to minimise the number of components required.

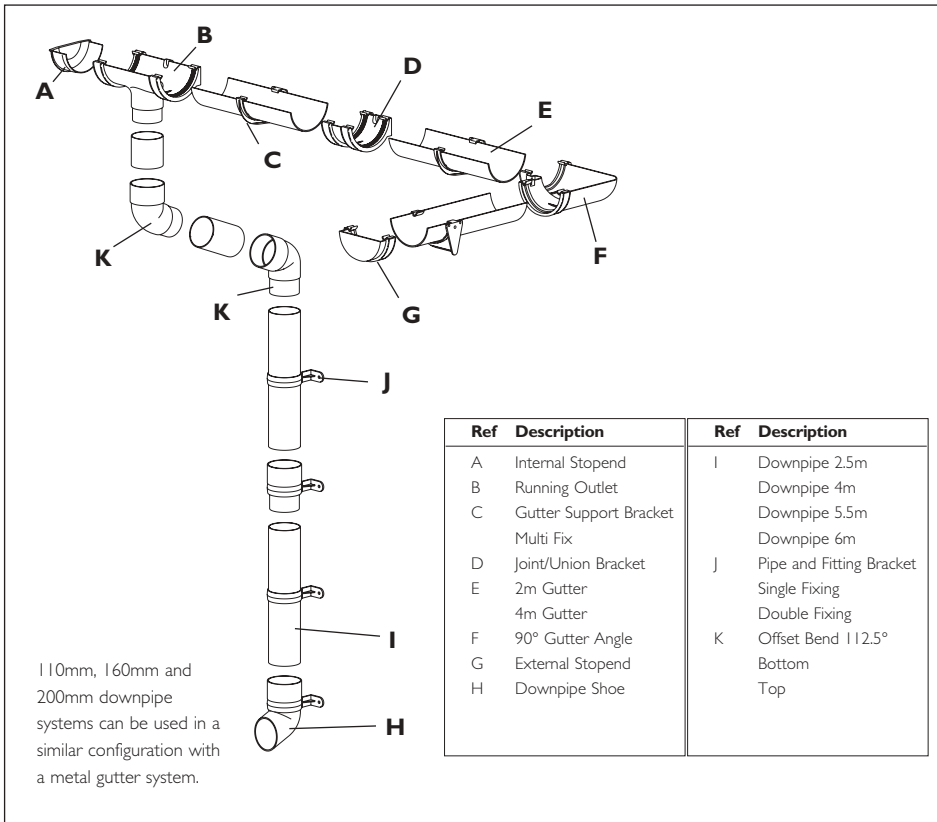


115mm Deepstyle	Roof Drainage Capacity		
Gutter Width - 115mm	1:600 Gutter Fall	Outlet at Centre	Outlet at End
Downpipes - 68mm Diameter	Flow Capacity Max Roof Area	4.58 L/sec 220m ²	2.30 L/sec 110m ²

Colour Availability

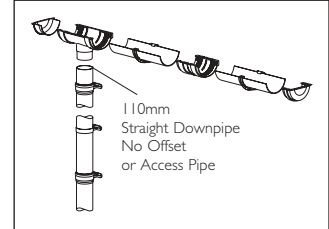
- White
- Black
- Brown
- Grey

* 110mm, 160mm and 115mm systems are all available ex-stock through distributors or direct. 200mm systems take approximately 4-6 weeks to complete.

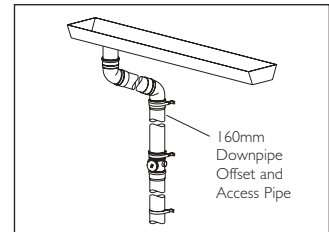


Common Installation Details

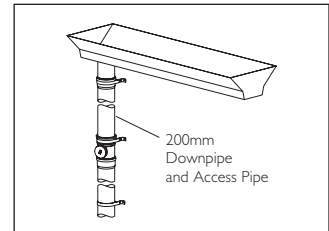
Agricultural Installation



Metal Box Gutter Installation



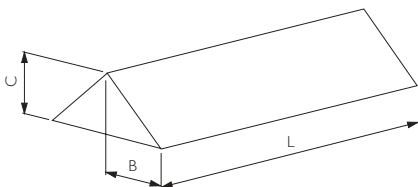
Valley Gutter Installation



Rainwater System Selection

The amount of rainwater collected by a given roof area will determine the type of gutter system as well as the number and positions of the outlets. The effective roof area must be calculated and checked against the gutter flow capacity of the rainwater system to be used.

Roof Area Calculation



The following formula is used to calculate the effective roof area:

$$E = (B + C/2) \times L$$

- Where:
- B = half roof span (m)
 - C = ridge to eaves height (m)
 - L = slope length (m)
 - E = effective roof area (m²)

For more complex roofs and in situations with walls above abutting roofs please contact the sales office for advice.

Gutter Installation Sequence

Rainwater systems are supported by joint brackets, outlets and external angles as well as gutter support brackets. These should all be fixed to the fascia. If this is not possible specialist rafter mounted bracket systems are available. Please contact the sales office for full details.

1. Position the running outlet vertically above the drain inlet or gully which will take rainwater to the underground drainage system.
2. Fix the outlet in position on the fascia. As far as possible secure fittings through all available fixing holes. If the gutter is to have a 1:600 fall, the outlet, fixings and gutter should be positioned to allow for a fall of 25mm in every 15m run of gutter.
3. Fix the gutter support bracket furthest from the outlet ensuring the desired fall is accommodated.
4. Stretch a line taught between the fixed outlet and support bracket to establish a fixed gutter line.
5. Fix the remainder of the fittings to the fascia following this line. A joint bracket

is required at the junction between two lengths of gutter.

6. When all fittings have been fixed fit the gutter ensuring all nibs or clips are fully engaged.
7. When a length of gutter has been installed ensure that each end is not inserted into a fitting beyond the 'EXPANSION ALLOWANCE' line. This accommodates the thermal movement that will occur within the system.

Gutter Support Spacing

Gutter support spacing should normally NOT EXCEED 900mm. For roofs with a pitch exceeding 35° and/or with SMOOTH SURFACES and/or subject to HEAVY SNOW LOADING, support spacing should NOT EXCEED 600mm. Various gutter angles incorporate fixing positions which can be drilled for fixing. If the angle is fixed to the fascia board, adjacent support brackets should be no more than 900mm away. If the angle is not fixed the brackets should be no more than 150mm away. Ensure that whatever surface the support brackets are to be attached to, it can rigidly support the system.

Snow Loading

Heavy snowfalls can create hazards on steep roof pitches and on smooth roof surface finishes when the accumulated snow slips down and off the roof. Additional support brackets (maximum 600mm centres) can cope with some extra snow load. Where 160mm industrial gutter is fitted, the multi fix fascia bracket (BR60) must be used. However, the combination of heavy load and the slip likely to be encountered on roofs, of all pitches, in mountainous and northerly regions, necessitate the fitting of snow boards close to eaves to prevent damage to the installation. Wherever fixing holes are provided in any gutter fittings, these must be utilised during installation.

Downpipe Installation

When installing a downpipe system it is essential that the position of the support brackets be spaced at a maximum of 1.8m in vertical stacks. Support should be given to bends and offsets. Downpipe installation MUST accommodate thermal movement. This accommodation of approximately 10mm is made at the top of each 68mm pipe section, but at the bottom of each 110mm, 160mm and 200mm pipe section. Spigot to socket joints in the 68mm systems require the insertion of a piece of pipe of length equal to the socket depth to produce a secure fit.

Downpipe Installation Exceeding 10m in Height

Galvanised metal brackets MUST be used to support the installed weight of 110mm, 160mm and 200mm systems of height greater than 10m. If the downpipe is to be run in a horizontal position due to the design constraints of the building please contact our technical departments for specific support details.

Storage

All rainwater components should be stored under conditions which will prevent damage and preserve appearance. Gutter sections, pipes and fittings should be kept in a cool, dry store, with lengths of gutter and pipe stacked horizontally on a smooth, level and continuous base to avoid distortion. Stacks should be no more than 1.2m high to prevent overloading and damage to bottom layers in the stack. Where gutters, pipes or fittings are stored outdoors, leave all items in their packaging until installed to maintain their original appearance.

Technical and Installation Instructions

Full technical and installation instructions are listed in the Brett Martin Rainwater Technical Guide and on our website www.daylightsystems.com

The company's technical departments are always available to answer any queries and offers a complete design service.



114mm Squarestyle



112mm Roundstyle

The complete Brett Martin Rainwater range also includes 114mm Squarestyle and 112mm Roundstyle Domestic rainwater systems.

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All reasonable care has been taken in the compilation of the information contained within this literature. All recommendations on the use of our products are made without guarantee as conditions of use are beyond the control of Brett Martin Daylight Systems. It is the customer's responsibility to ensure that the product is fit for its intended purpose and that the actual conditions of use are suitable. Brett Martin Daylight Systems pursues a policy of continuous product development and reserves the right to amend specifications without prior notice.

