"CAST IRON" Style Rainwater Systems

Applications

FloPlast Rainwater Systems are suitable for all applications and types of building, including domestic, commercial and industrial.

Composition

All products are manufactured from unplasticised polyvinyl chloride (PVC-U) and comply with the material requirements of either BS EN 12200-1:2000, BS EN 607:2004 or BS EN 1462:2004 as relevant.

Rainwater gutters and pipes are manufactured by a continuous extrusion process. Fittings are produced on high-pressure injection moulding machines. All fittings are manufactured to close tolerances allowing accurate incorporation of design features.

Accreditation

All of our profiles are manufactured to BS EN 607:2004 (Gutters and fittings) BS EN 12200-1:2000 & BS EN 1329-1:2000 (Downpipes and fittings) BS EN 1462:2004 (Gutter brackets) within a quality management system assessed and registered by British Standards as meeting the requirements of BS EN ISO 9001:2000 (Certificate Number FM:501414).

Supply

Products are available from a national network of distributors and stockists. For details of your local stockist contact our Sales Office on 01795 421422.

Specification, Technical Advice and Design Guidance

A free advisory service is available to offer technical assistance regarding product and installation details. Those involved with the building industry may take advantage of design services provided by the company for customers who have made a commitment to use or specify FloPlast products.

Installation

1 Plan your installation using the component diagrams to assist you in selecting the correct type and quantity of products required.

- Fascia brackets should be spaced at a maximum of one metre apart on straight gutter runs. (800mm in the case of the Niagara system).
- Angles and stopends should have a fascia bracket within 150mm of the fitting.
- A supporting pipe clip should be used on shoes, branches and bends where necessary.
- Support downpipes below offset and at maximum intervals of 1.8 metres.

2 Where necessary remove the old gutter and replace old fascia board with FloPlast low maintenance PVC-UE co-extruded fascia board.

3 Establish the position of the running outlet, usually over an existing drain, and fix securely to fascia board.

4 Fix a fascia bracket 100mm short of furthest point from the outlet. Allow for a fall to the outlet (1:350 is recommended) using a string line.

5 Fixings:

- Fix fascia and union brackets at required intervals.
- Fascia brackets should be positioned so as to avoid the fixing screws splitting the top edge of any timber fascia board. All brackets should be secured to the fascia board with two 25mm x 5mm (1" x 10) screws.
- Unions should be fixed using two 25mm x 5mm (1" x 10) screws.
- Outlets and angles should be fixed using two 25mm x 5mm (1" x 10) screws where possible.
- Rainwater downpipe clips, sockets, shoes and hoppers should be fixed using two x FC50 fixings. The FC50 is a 12 gauge x 50mm Stainless Steel bolt, that requires 12mm, 12 point star head socket to tighten it. When using these fixings to attach the Ogee and Rectangular Hopper we advise that a 3/4" tap washer is used. It is attached to concrete, brick, block etc in the same way as any other screw by using a plug type fixing, and into timber by pilot drilling a starter hole first.

6 Lubricate all gutter seals with FloPlast silicone spray lubricant to ensure an easy fit and to allow for movement caused by expansion and contraction.

7 Working from the running outlet insert the back edge of the gutter under the retaining lip of the wrap around clip. Using slight downward pressure on the gutter, snap the front edge of the retaining clip over the front of the gutter. (Ensure that the marked expansion allowance is kept.)

8 Use a union bracket or angle to join to next gutter length in order to build up a gutter run. Use a stopend to complete the run.

9 Downpipe installation starts at the outlet. If an offset is required use two offset bends with or without a short piece of pipe, alternatively use an adjustable offset bend. Ensure a 6mm gap is left at the top of the downpipe for expansion.

Pipe connectors if required should be secured to the wall with a pipe clip.

At the base of the pipe, fit a shoe or connect downpipe to underground drainage system using a 110mm x 68mm reducer (SP96 or D96).

Capacity of Drainage

To select the gutter size appropriate to your requirements, two factors must be taken into consideration.

- Roof Area
- Gutter Flow Capacity

Snow loading statement: In areas of high snow risk, FloPlast recommend using Snow Guard; this will assist in the slow release of melting snow into gutters and prevent snow slippage which is particularly prevalent where slate tiles are installed.

Carrying Capacities for Gutter

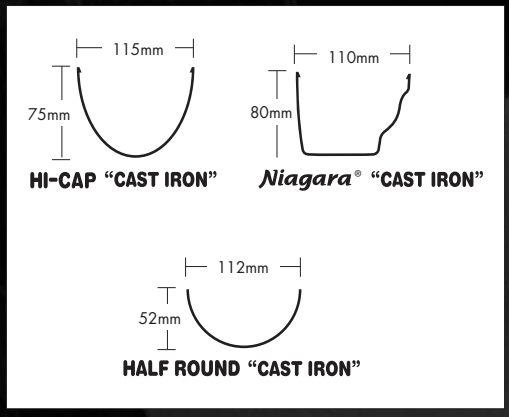
The carrying capacity of gutters varies under differing conditions. The main variables are whether or not the gutter is fitted to a fall and whether the outlet is placed in the centre or at one end of the gutter run.

Gutter flow rates will vary according to the type and configuration of downpipe system being used, however downpipe sizing is not a normal design consideration, as the downpipe systems manufactured by FloPlast have flow capacities approximately ten times greater than the gutter systems they drain.

The carrying capacities in litres per second for gutters, taking into account the major variables, are specified in the performance table on page 26 of our PVC-U Rainwater Systems brochure.

Design Data

All gutter dimensions are nominal.



Pipe Dimensions	Normal Size	Actual OD
Circular	68mm (2½")	68.48mm
Square	65mm (2½")	65mm

For more information on design factors, expansion tests, roof area calculating and flow rates, please see our current PVC-U Rainwater Systems brochure or visit our website at **www.floplast.co.uk**