

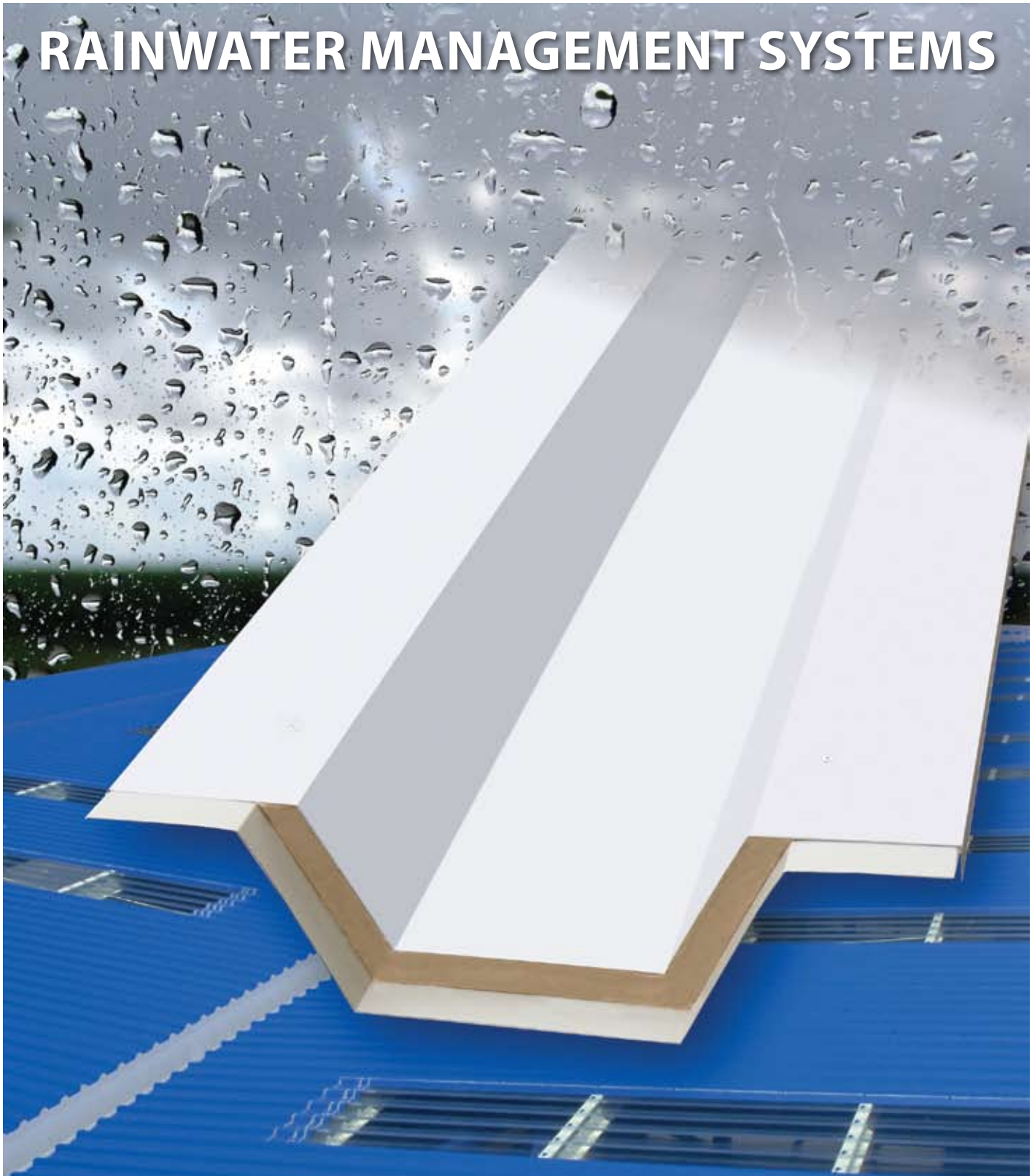
DUGGAN



DUGGAN PROFILES & STEEL SERVICE CENTRE Ltd.

Issue 1 - July 2008

RAINWATER MANAGEMENT SYSTEMS



**MEMBRANE COATED
INSULATED GUTTERS
AND ACCESSORIES**

Membrane Coated Insulated Gutters

Duggan Profiles & Steel Service Centre membrane coated Insulated Gutters are a single component system comprising a PVC membrane lined weather skin with bonded PIR rigid insulation and a steel internal liner sheet. The standard range is designed to reduce heat loss and the incidence of condensation in applications where the environment is non corrosive (If to be used in hygiene sensitive and high humidity areas, please consult our Sales Department). This bespoke system is available for manufacture to individual project requirements with options available on both materials specifications and component dimensions. The benefits of the system include:

- Project specific design, layout, dimensions and material specifications.
- Lengths available to customer's requirements up to and including 8m long.
- The Gutter cross section is manufactured to project requirements and is limited only by machining and material limitations

- When installed the system comprises a continuously sealed gutter with no through penetration.
- Suitable for conventional or siphonic drainage systems
- Through the use of the most up to date 3D software and manufacturing techniques an extensive range of bespoke ancillaries can be produced, including Corner units, T-sections, Sumps, Transition pieces etc. allowing the most challenging project demands to be satisfied.
- In-house support available to architects and contractors on available design configurations
- Standard and thermally-broken options available
- Material warranty available on specific options
- System can be manufactured to achieve project specific thermal insulation efficiency values
- PIR insulation used as standard
- Ease of ordering – Details can be received from the leading CAD systems including the leading Steel Detailing Systems.
- Site Assembly Layout supplied with delivery to site for ease of installation

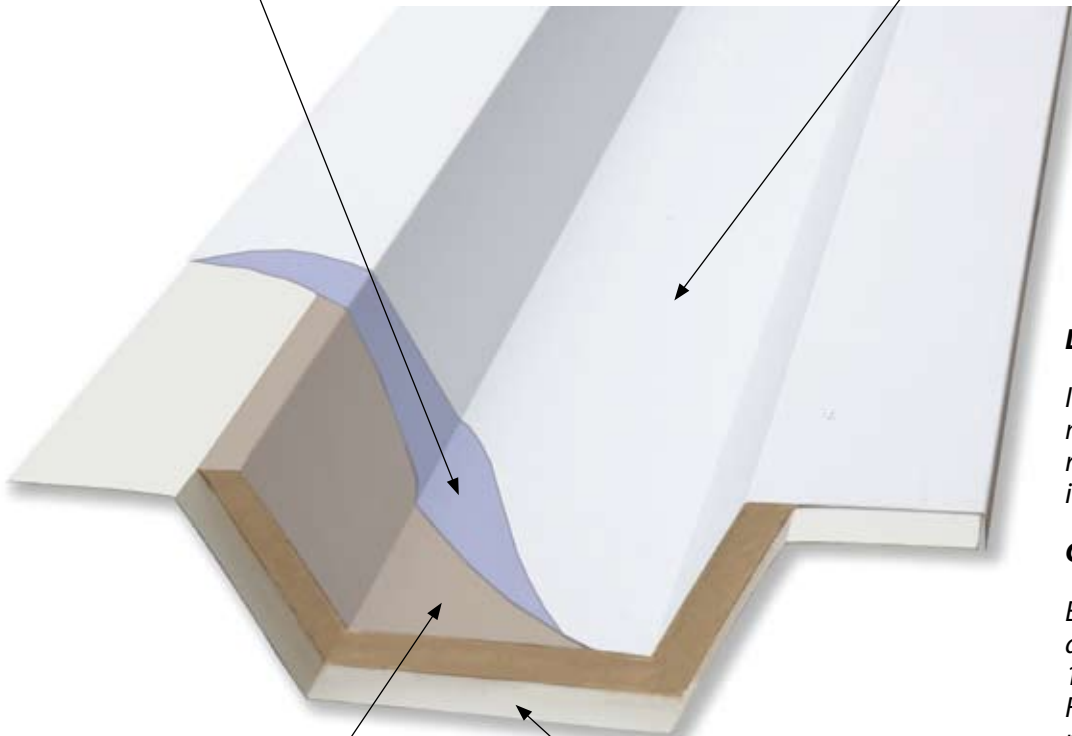
Membrane Coated Insulated Gutter Specifications

External Weather Sheet:

Hot-dip zinc coated steel.
A range of thicknesses available.

Coating – External Weather Sheet:

PVC laminate single ply grey membrane. A range of membrane thicknesses are available.



Lengths:

Insulated gutters are manufactured to customer's requirements up to and including 8 metres long.

Girths:

External weather sheet is available in widths up to 1500mm.
For girths exceeding this please contact D.P. & S.S.C.

Insulation:

The insulation used is PIR rigid insulation board. The insulation thickness may be specified to achieve the required "U" value. 30 and 50mm Insulation is stocked as standard with other depths available on extended lead times. Please consult with D.P. & S.S.C. to check availability prior to ordering an off-standard depth.

Internal Liner Sheet:

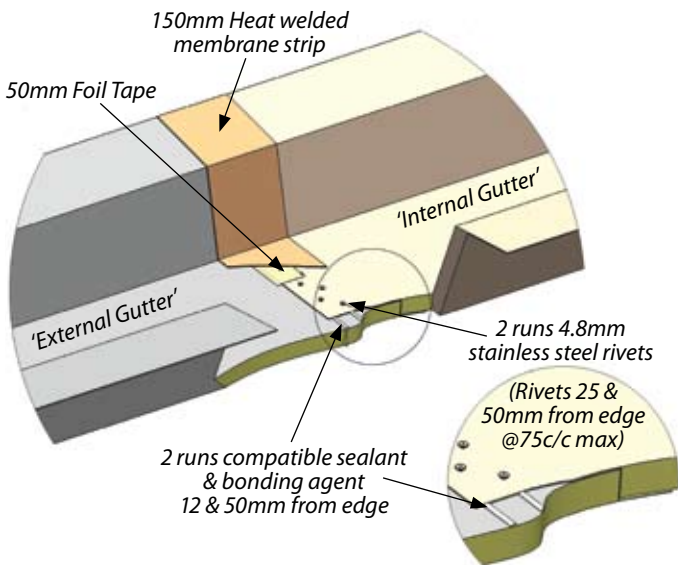
Substrate zinc coated steel.
A range of thicknesses available.
The standard internal liner coating is white polyester.

Composition:

Duggan Profiles & S.S.C. Insulated Gutters comprise an external membrane lined weather skin, PIR rigid insulation and an internal liner skin. The specification of each can be configured to suit the individual design requirements. The inside and outside gutter skins are bonded to the insulation and the flanges where the surfaces come together are joined by clinching or riveting. For applications requiring thermal breaks please consult with D.P. & S.S.C.

Joints:

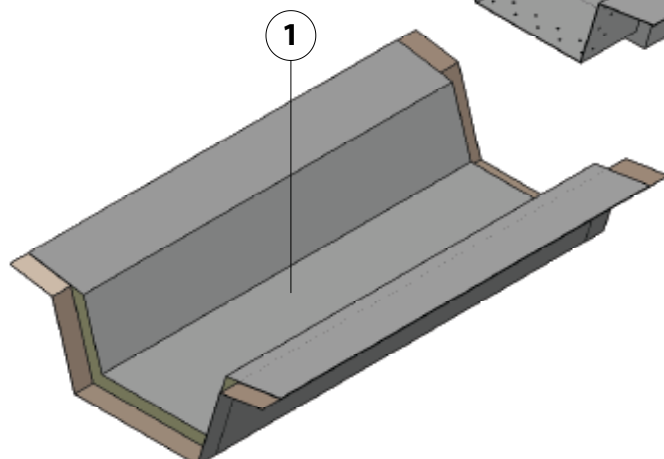
Each gutter includes an overlap which forms a lapped joint with the abutting gutter section. Stainless steel rivets, compatible sealant and a heat welded membrane strip secure and seal the joint.



How gutters join...

- During installation 2 'external' gutters (1 & 3) are positioned first as below and the 'internal' gutter (2) fits in between.
- Fix and seal the joint with pop rivets and compatible sealant.
- Apply Foil Tape
- Apply a heat welded membrane strip over the joint.

150mm overlap either end of 'internal' gutter for joining



Welding Strip:

1.5mm thick x 150mm wide grey PVC, supplied if ordered, in rolls. The standard joint is made on site by heat welding 50mm to weather sheet of each gutter. Customers should specify if Welding Strip is required when ordering gutters.



Sealants:

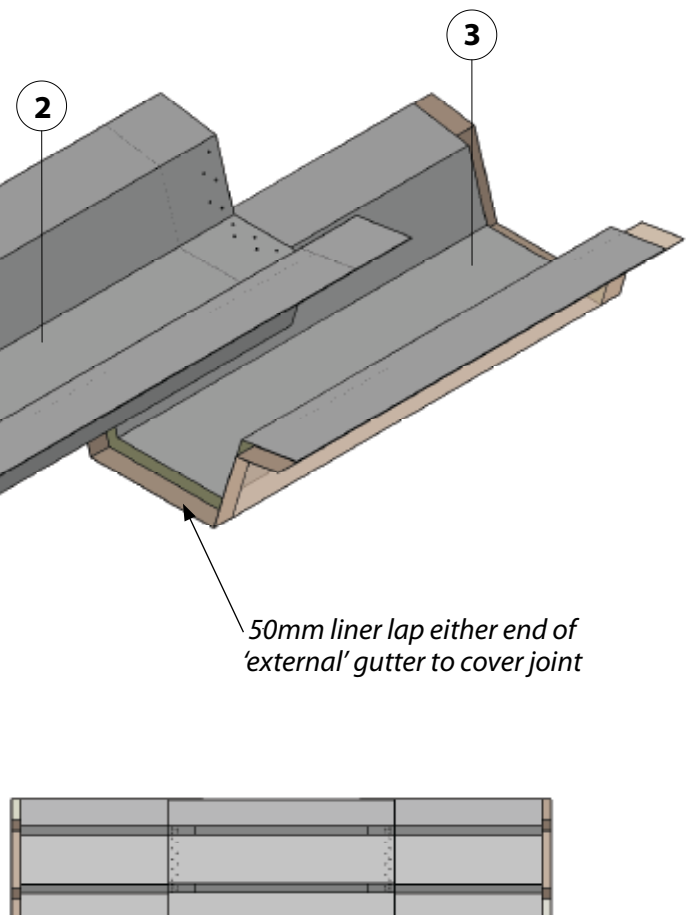
D.P. & S.S.C. recommends the use of Soudal Soudaseal 240FC or equivalent.

Fixings:

4.8mm Stainless Steel, length dependant on material thicknesses being fixed and as per manufacturer recommendations.

Supports:

D.P. & S.S.C. Insulated gutters are not structural members and as such require support from the steel frame. Where continuous support is not available off adjacent steelwork Gutter Straps, 50 x 6mm flat bar folded to gutter profile, may be used at 1500mm centres.



Plan of run

Membrane Gutter Accessories:

Outlets:

Standard 100 and 150mm Outlets are available in membrane type material for heat welding directly to the gutter.



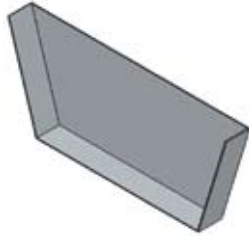
Customised Outlets:

Generally manufactured in Aluminium to customer's specifications



Stop ends:

These are supplied loose for fitting on site. The material is that used for the gutter external weather skin. Stop ends are uninsulated as standard but may be supplied insulated on customer request.



Packaging:

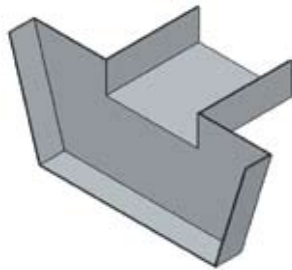
D.P. & S.S.C. Insulated Gutters are typically bundled in bales of 4-6 units, polythene wrapped and strapped for delivery to site. Care must be taken to avoid damage to units during offloading and handling on site.

Gutter Markings:

During fabrication an ID Mark is applied to each gutter. These facilitate ease of identification and installation on site. These ID Marks are compiled on a site erection layout which is forwarded with the gutters to the customer.

Weir overflow outlets:

These are positioned at the ends of the gutter and are used to assist the discharge of water in the event of inadequate drainage through the normal drainage channels. These are supplied loose for fitting on site. The standard unit is made from the same material as the gutter external weather skin.



Site Erection Layout:

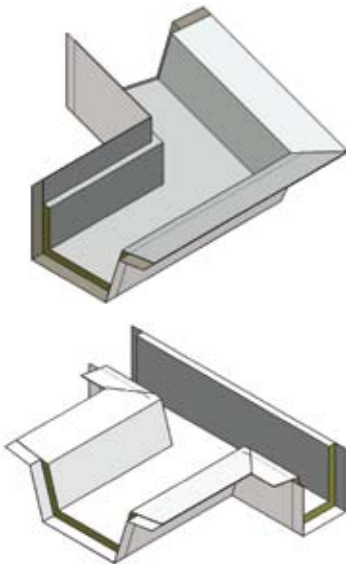
A layout showing the erection sequence of gutters on site is supplied with each order.

Ordering Information

For ease of ordering D.P. & S.S.C. provides a range of options for the convenience of its customers. Our Order Forms provides a fast and efficient means of ordering, simply fill it in and fax it to us. We can also accept details in many of the leading CAD formats as well as utilizing data exported from both StruCAD and Tekla Structures.

Factory fabrications:

Corner units, Tee pieces, Transition pieces, Sumps, Special Outlets etc. are factory made by D.P. & S.S.C. to suit project requirements. Where possible the same material is used for both gutter and fabricated units. In instances where this is not practical components are made from materials compatible with those of the gutter.



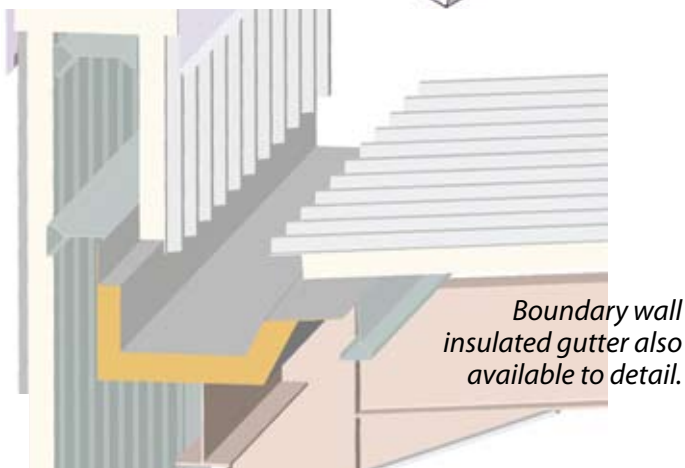
Customer Support

D.P. & S.S.C. offers technical guidance to customers on all aspects of manufacture and use of our product range. Our internal sales team provides a friendly and efficient service from initial enquiry through to site delivery and after sales.

Area Sales Managers

D.P. & S.S.C. has a network of regionally based Sales Managers who are available to discuss your project personally and offer advice directly, or refer queries to specialist in-house personnel.

Contact your area manager for assistance.



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