

DF BOX RANGE

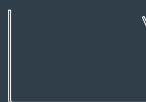
ARCHITECTURAL RAINWATER SYSTEMS



The DF gutter range of aluminium box gutters come in two sizes. DF pressed box gutters eliminate the need for gutter brackets allowing quicker installation than bracketed box gutters. The DF Range of aluminium folded box gutters offer an attractive aesthetic suiting modern, contemporary developments.

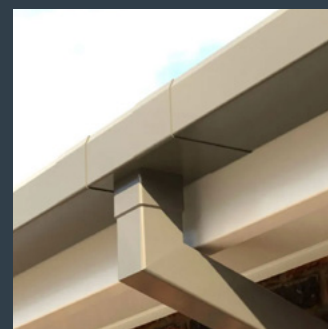


System 120



System 75

Profile	System 120	System 75
Nominal size (mm)	140x120	140x90
Wall thickness	2mm	2mm
Gutter capacity	5.48 l/s	3.31 l/s
Outlet type and capacity		
76.2mm round	2.66 l/s	2.25 l/s
76.2mm square	3.32 l/s	2.81 l/s
101.6mm round	4.83 l/s	3.31 l/s
101.6mm square	5.94 l/s	4.10 l/s
152.4mm round	-	-
101.76 x 76.2mm	4.46 l/s	3.45 l/s



SPECIFICATION CLAUSES



NBS Source
PARTNER



uniclass

SYSTEM 120

PPC finish	Click here for clause	Contact Dales
Anodised finish	Click here for clause	Contact Dales

SYSTEM 75

PPC finish	Click here for clause	Contact Dales
Anodised finish	Click here for clause	Contact Dales

SYSTEM 120 COMPONENTS



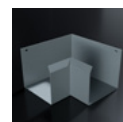
76.2mm
dia. outlet



76.2mm
sq. outlet



90° external
corner



90° internal
corner



101.6mm
dia. outlet



101.6mm
sq. outlet



135° external
corner



135° internal
corner



Joint strap



Stop end

SYSTEM 75 COMPONENTS



76.2mm
dia. outlet



76.2mm
sq. outlet



90° external
corner



90° internal
corner



101.6mm
dia. outlet



101.6mm
sq. outlet



135° external
corner



135° internal
corner



Joint strap



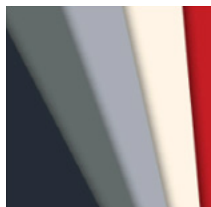
Stop end

Dales Fabrications Ltd, Crompton Road, Industrial Estate, Ilkeston, Derbyshire, DE7 4BG
Email: sales@dales-eaves.co.uk Tel: 0115 930 1521 dales-eaves.co.uk

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COLOUR & FINISH



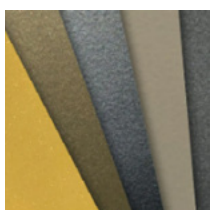
Standard (PPC)



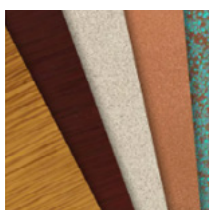
RAL & BS (PPC)



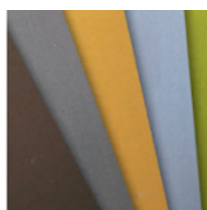
Metallic (PPC)



Anodite (PPC)



Special (PPC)



Anodised Aluminium

Dales manufacture standard gutters & pipes in either Anodised Aluminium or Architectural Polyester Powder Coating finishes. Details of the huge range of colours and finishes available can be found at www.dales-eaves.co.uk/finishes

ANODISED ALUMINIUM COLOUR RANGE

Details of the anodised colour ranges available can be at www.dales-eaves.co.uk/finish/anodised. Please also refer to Dales terms and conditions relating to anodised aluminium finishes.

POLYESTER POWDER COATINGS:

Dales recommend Syntha Pulvin (Sherwin Williams) architectural polyester powder coatings for aluminium products coated at its Syntha Pulvin Approved & ISO 9001:2015 Quality Assured coating facility in Ilkeston. All powder coated items are coated in accordance with the stringent standards demanded by Syntha Pulvin as part of their accreditation process which meets or exceeds the minimum requirements of BS 12206-1 2004.

Dales also supply aluminium products in Interpon D (Akzo Nobel) and Drylac (Tiger) architectural polyester powder coatings using only each manufacturer's Third Party Approved Applicators.

GUARANTEES:

Dales products, whether supplied in anodised or architectural polyester powder coated finish can usually be provided with guarantees, dependant on their geographical location and specific environment, and subject to terms and conditions.

DESIGN & SPECIFICATION SERVICE

On receipt of project drawings, we assign a Project Manager to each project. They provide a single point of contact throughout the life of the project, from initial design to completion. To discuss the requirements for your project, our Project Management Team can be contacted on Tel: 0115 930 1521.

ROOF DRAINAGE AND GUTTER SYSTEM DESIGN

Dales Project Managers can provide a gutter system designed to suit your individual project requirements incorporating gutter and outlet and positioning advice in accordance with BS EN 12056-3 for a given design rate of rainfall. To use this service please contact a member of our project management team on t. 0115 930 1521.

PROFESSIONAL INDEMNITY INSURANCE

Dales Fabrications hold full Design/Professional Indemnity Insurance with a first-class security in the London market. This allows architects and specifiers to use our products with confidence.

BS EN ISO 9001: DESIGN & MANUFACTURE

Dales Fabrications have been working within the constraints of BS EN ISO 9001 accreditation since 1993. Our ISO 9001: Design & Manufacture certificate is available to at www.dales-eaves.co.uk/accreditations

FLOW CAPACITIES

All published flow capacities contained in this literature are calculated in accordance with the recommendations contained in BS EN 12056-3: 2000. Dales policy is not to issue high, although genuine, experimental results which include no margin of safety.

PRICING, ORDERING & LEAD TIMES

For a quotation, please confirm the gutter profile and quantities required (if known). If you don't know the quantities needed, please send the roof plans, elevations and roof eaves section to: enquiries@dales-eaves.co.uk. Should you wish to speak to a member of the Dales Project Management Team please contact Dales on t.0115 930 1521.

Should you wish to place an order, please email orders@dales-eaves.co.uk. Depending on the size of your order, you may be eligible to apply for a credit account.

Current lead times for all the standard gutter profiles shown in this literature are available in Dales Standard Colours in less than two weeks and in the extended BS and RAL Colours in approximately two weeks. Other colour ranges (Metallic, Anodite and Special) may take longer. For these gutters in an Anodised finish please give us a ring on t. 0115 930 1521.

For lead times for 152.4mm pipes (either dia or sq) and for SecretFix VR pipe systems, please call us on Tel: 0115 930 1521 to discuss your requirements.

MARINE SPECIFICATION:

It is the specifier's responsibility to ensure that Marine Specification is specified in the contract particulars, and our Project Managers can assist by advising on and providing appropriate NBS Specification clauses.

Any guarantee which the polyester paint manufacturer or anodiser will offer is determined by them on an individual project basis upon completion of a questionnaire submitted by the customer and possible site visit, both of which must be completed prior to any order being placed. It should be borne in mind that if the goods are on the seafloor, or within 1km of the sea, then a paint manufacturer may not offer a guarantee, but anodisers might.

In locations with high levels of UV light, such as the coast, anodised finish is recommended purely from a performance criteria. If a polyester powder coating finish is preferred then Dales recommend Qualicoat 2 Marine specification should be used.

For a Marine Specification guarantee to be considered, a minimum of 60 microns of paint must be applied to both internal and external surfaces, and stainless steel fixings are required throughout.

ACUTELY EXPOSED OR INDUSTRIAL ENVIRONMENTS

For acutely exposed marine or industrial environments Marine Specification can be further upgraded in several ways, which includes one or more of the following:

- changing the base aluminium alloy to a ship-building alloy,
- changing the powder coating to Qualicoat 2 specification,
- amending secondary supports to all aluminium,
- changing fixings to A4 stainless steel (provided such suitable fixings are available) or moving to an anodised finish.

If you consider that your project may be in an acutely exposed marine or industrial environment, please contact one of our Directors or Project Managers to discuss this further. Please bear in mind it is not always possible to guarantee products installed in harsh environments.

FIRE: ALUMINIUM & FINISHES

Dales manufacture standard gutters & pipes in either Anodised Aluminium or Architectural Polyester Powder Coating finishes.

Under Classification Reaction to Fire EN BS 13501-1:2018 Anodised Aluminium is classified as A1 non-combustible and makes 'no contribution to fire'. Polyester Powder Coatings are A2 s1, d0, under EN BS 13501-1: 2018, which is also classified as non-combustible under the requirements for walls of relevant buildings over 18m as required by Building Regulations Part B: Fire Safety.

Syntha Pulvin (Sherwin Williams), Interpon D (Akzo Nobel) & Drylac (Tiger) are independent manufacturers of Architectural Polyester Powder Coatings and each state that all their PPC products are: A2 s1, d0 very limited combustibility (EN 13501-1 Classification of reaction to fire). Fire test evidence conducted by independent test laboratories, can be supplied on request.

PURPOSE-MADE HOPPERS AND OTHER SPECIALS

Dales are a specialist manufacturer of both standard and bespoke items and we are happy to help specifiers achieve their design ideas.

If you have a suitable project please email drawings to techinfo@dales-eaves.co.uk

PREFERRED INSTALLER NETWORK

Our network of Preferred Installers are available to provide a full supply and fix package. When a price is requested Dales can advise which Preferred Installers will be suitable dependant on the size and type of products to be installed.

LIGHTNING CONDUCTIVITY

Dales aluminium gutters and down-pipes can usually be rendered electrically continuous using the Dales lightning conductivity clip, as part of a lightning protection system. This can be discussed with a Dales project manager and details can be provided.

Aluminium gutters and pipes are not suitable as the sole lightning protection system for any building and should only be utilised as part of an overall lightning protection design. Specifiers should refer to the latest EN BS standard concerning the protection of structures against lightning for further information.

ASSOCIATED PRODUCTS

FASCIA PROFILES

Dales design and manufacture fascia profiles to almost any shape, size or proportion including curved and elliptical designs. As part of our specification service preliminary drawings can be prepared for integration into your project drawings. All systems are designed on an individual project basis and a 25 year guarantee may be available, subject to terms and conditions. Example drawings can be downloaded at www.dales-eaves.co.uk/eaves-detailing

SOFFIT SYSTEMS

Dales offer a variety of soffit systems, from secret fix panels to secret-fix planks, more details are available at www.dales-eaves.co.uk/aluminium-soffit-systems

RAINSCREEN PANELS

Dales design and manufacture aluminium rainscreen panels on a bespoke basis to suit each individual project, more detail available at www.dales-eaves.co.uk/rainscreen-panels

SUPPORT SYSTEMS

More information of the various support systems that Dales can provide is available at www.dales-eaves.co.uk/support-systems

WALL COPINGS

Dales design and manufacture aluminium wall copings on a bespoke basis to suit each individual project, more details are available at www.dales-eaves.co.uk/wall-copings

CURVING SYSTEMS

The visual effect of a finished curved system, whilst technically demanding and costly, always gives a finished project a 'landmark' quality. Dales have a long heritage of designing and manufacturing curved products since the business was first established in 1977.

When specifying curved systems, it is recommended that one of our Directors or experienced Project Managers meet with the project design team to discuss the possibilities, use the chat facility or call us on t.0115 930 1521

MODULATION TO GRID OR CURTAIN-WALLING

Gutter systems are most often supplied in standard lengths, usually 3m, and modulation with grid or curtain-walling mullions is not normally considered necessary. If modulation is required, it should be identified in the NBS Specification clause and Dales Project Managers can assist and advise on any costing implications that may arise due to modulation.

INSTALLATION, OPERATION & MAINTENANCE INFORMATION

As part of the Dales Project Management: Design & Specification Service a full technical guide is issued to site that includes A3 copies of all Dales detail proposal drawings in full colour and generic system fixing instructions as a comprehensive Technical Guide. This also includes a comprehensive 'Fixings Identification List' that identifies where each fixing is supposed to be used, the same information is noted on the detail proposal drawings too.

It is the customer's responsibility to request a full O&M pack from Dales, which will include a complete detail drawings pack and the relevant generic fixing instructions complete with the maintenance schedule and any guarantee originally requested in the original customer order.

DURABILITY & LOADINGS

DURABILITY

Dales systems are designed to give a low maintenance life of 60 years in rural and suburban conditions & up to 25 years in industrial conditions, dependant on the exact environment. For advice on marine environments please see above.

LOADINGS: GENERAL

Dales gutter systems are designed to accommodate loadings induced when the system is operating at full capacity in line BS 9101:2017. Snow guards are recommended where snow loads are anticipated. (see BS EN 12056-3: 2000 National Annex NB clause NB.4).

FIXINGS

Fixings present a potential weak link in any system, as such Dales take the process of fixing selection as seriously as the design of the system itself. All fixings have been selected after careful consultation with manufacturers and rigorous testing for both ultimate strengths and potential incompatibility issues. All necessary fixings are supplied as part of the complete package from Dales.

THERMAL MOVEMENT

Dales design all systems to accommodate the extremes of temperature typical in the UK. For overseas projects, please contact Dales to discuss the requirements of your project.

SUSTAINABILITY

ALUMINIUM: THE SUSTAINABLE CHOICE

More on the sustainability of aluminium is available here.

ENVIRONMENTAL POLICY

Our environmental policy is available to view here.

RESPONSIBLE SOURCING

Our Responsible Sourcing policy is available to view here.

R10 311 Dales System 120 Gutter System

Guidance for Quantity Surveyors

As all corners, transitions and junctions etc are factory manufactured, these components do need to be measured as "extra over" items within the bills of quantities. Please contact Dales on tel: 0115 930 1521 or email techinfo@dales-eaves.co.uk for further clarification.

R10 RAINWATER DRAINAGE SYSTEMS

311 Aluminium Gutters



Manufacturer: Dales Fabrications Ltd, Crompton Road Industrial Estate, Ilkeston, Derbyshire. DE7 4BG. Tel: 0115 930 1521, Fax: 0115 903 7625. Email: techinfo@dales-eaves.co.uk Website: www.dales-eaves.co.uk. The supplier shall design and manufacture the system in accordance with BS EN ISO 9001:2015 and hold Professional Indemnity Insurance to cover their design activities. The Design of the system, including components, support structure, fixings and sealant, shall accommodate typical loadings/stresses in accordance with relevant British Standards.

Product Reference: Dales System 120 Gutter.

Material: Aluminium Sheet to BS EN 485/515/573: Grade 1050 AH14, supplied by BS EN ISO 9002 registered stockist to ensure traceability.

Nominal Size: 140x120 mm

Wall Thickness: 2mm

Finish: Polyester Powder coated to BS 12206-1:2004, coated only by Syntha Pulvin Approved and BS EN ISO 9002 registered applicators : Polyester Powder coating must be A2 s1, d0 limited combustibility (EN 13501-1: 2018 Classification of reaction to fire)

Colour:(Specify RAL/BS Colour ref & Gloss-level from Dales' standard range (available from www.dales-eaves.co.uk/finishes)

Fixings: Fixings recommended for the purpose and supplied by Dales Fabrications Ltd.

Accessories: Corners/Transitions/Junction/Stopends/Outlets/Special items to be designed and factory manufactured specifically for the application.

Method of Jointing:

Gutter: Joint straps secured in accordance with manufacturers instructions, joints assembled dry with 8mm expansion gap and sealed with low modulus silicone sealant after assembly. Sealant to be provided by Dales Fabrications Ltd.

Method of Fixing: Fixings as recommended for the purpose and supplied by Dales Fabrications Ltd, through pre-punched holes in the back of the gutter and accessories.

R10 311 Dales System 120 Gutter System in Anodised Finish

Guidance for Quantity Surveyors

As all corners, transitions and junctions etc are factory manufactured, these components do need to be measured as "extra over" items within the bills of quantities. Please contact Dales on tel: 0115 930 1521 or email techinfo@dales-eaves.co.uk for further clarification.

R10 RAINWATER DRAINAGE SYSTEMS

311 Aluminium Gutters



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Product Reference: Dales System 120 Gutter.

Material: Aluminium anodising quality sheet: J57S UP to EN1396: Alloy 5005H14AQ, supplied by BS EN ISO 9002 registered stockist to ensure traceability & responsible sourcing

Nominal Size: 140x120 mm

Wall Thickness: 2mm

Finish: Anodised after fabrication to min. 25 microns to BS3987 by United Anodisers or equivalent

Colour:

Natural Silver	Colour Ref: UA-100A	(Specify or delete)
Anolok Bronze™:	Colour Ref: _____	(Specify particular colour code or delete)
Anolok™ II Blue Grey:	Colour Ref: _____	(Specify particular colour code or delete)
UV Dye:	Colour ref: UA- _____ - _____	(Specify particular colour code or delete)

See also <https://www.unitedanodisers.com/index.php/about-anodising/colour-swatches.html>

Fixings: Fixings recommended for the purpose and supplied by Dales Fabrications Ltd.

Accessories: Corners/Transitions/Junction/Stopends/Outlets/Special items to be designed and factory manufactured specifically for the application.

Method of Jointing:

Gutter: Joint straps secured in accordance with manufacturers instructions, joints assembled dry with 8mm expansion gap and sealed with low modulus silicone sealant after assembly. Sealant to be provided by Dales Fabrications Ltd.

Method of Fixing: Fixings as recommended for the purpose and supplied by Dales Fabrications Ltd, through pre-punched holes in the back of the gutter and accessories.

R10 311 Dales System 75 Gutter System

Guidance for Quantity Surveyors

As all corners, transitions and junctions etc are factory manufactured, these components do need to be measured as "extra over" items within the bills of quantities. Please contact Dales on tel: 0115 930 1521 or email techinfo@dales-eaves.co.uk for further clarification.

R10 RAINWATER DRAINAGE SYSTEMS

311 Aluminium Gutters



Manufacturer: Dales Fabrications Ltd, Crompton Road Industrial Estate, Ilkeston, Derbyshire. DE7 4BG. Tel: 0115 930 1521, Fax: 0115 903 7625. Email: techinfo@dales-eaves.co.uk Website: www.dales-eaves.co.uk. The supplier shall design and manufacture the system in accordance with BS EN ISO 9001:2015 and hold Professional Indemnity Insurance to cover their design activities. The Design of the system, including components, support structure, fixings and sealant, shall accommodate typical loadings/stresses in accordance with relevant British Standards.

Product Reference: Dales System 75 Gutter.

Material: Aluminium Sheet to BS EN 485/515/573: Grade 1050 AH14, supplied by BS EN ISO 9002 registered stockist to ensure traceability.

Nominal Size: 140x90 mm

Wall Thickness: 2mm

Finish: Polyester Powder coated to BS 12206-1:2004, coated only by Syntha Pulvin Approved and BS EN ISO 9002 registered applicators : Polyester Powder coating must be A2 s1, d0 limited combustibility (EN 13501-1: 2018 Classification of reaction to fire)

Colour:(Specify RAL/BS Colour ref & Gloss-level from Dales' standard range (available from www.dales-eaves.co.uk/finishes)

Fixings: Fixings recommended for the purpose and supplied by Dales Fabrications Ltd.

Accessories: Corners/Transitions/Junction/Stopends/Outlets/Special items to be designed and factory manufactured specifically for the application.

Method of Jointing:

Gutter: Joint straps secured in accordance with manufacturers instructions, joints assembled dry with 8mm expansion gap and sealed with low modulus silicone sealant after assembly. Sealant to be provided by Dales Fabrications Ltd.

Method of Fixing: Fixings as recommended for the purpose and supplied by Dales Fabrications Ltd, through pre-punched holes in the back of the gutter and accessories.

R10 311 Dales System 75 Gutter System in Anodised Finish

Guidance for Quantity Surveyors

As all corners, transitions and junctions etc are factory manufactured, these components do need to be measured as "extra over" items within the bills of quantities. Please contact Dales on tel: 0115 930 1521 or email techinfo@dales-eaves.co.uk for further clarification.

R10 RAINWATER DRAINAGE SYSTEMS



311 Aluminium Gutters

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Material: Aluminium anodising quality sheet: J57S UP to EN1396: Alloy 5005H14AQ, supplied by BS EN ISO 9002 registered stockist to ensure traceability & responsible sourcing

Nominal Size: 140x90 mm

Wall Thickness: 2mm

Finish: Anodised after fabrication to min. 25 microns to BS3987 by United Anodisers or equivalent

Colour:

Natural Silver	Colour Ref: UA-100A	(Specify or delete)
Anolok Bronze™:	Colour Ref: _____	(Specify particular colour code or delete)
Anolok™ II Blue Grey:	Colour Ref: _____	(Specify particular colour code or delete)
UV Dye:	Colour ref: UA-_____ - _____	(Specify particular colour code or delete)

See also <https://www.unitedanodisers.com/index.php/about-anodising/colour-swatches.html>

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