

SOUTH ISLAND GUIDE

RAINWATER SYSTEMS

SPOUTING & FASCIA



RAINWATER SYSTEMS: SPOUTING & FASCIA

THE NATURAL CHOICE FOR STYLE AND STRENGTH IN RAINWATER SYSTEMS

As a long-time innovator in rainwater systems, Steel & Tube has a range of products to enhance any building. For any style of home, rural and industrial building, there are proven systems that are strong, practical, affordable and very attractive.

FEATURES

STYLE AT HOME

With a range of spouting profiles to complement conventional and contemporary styled homes, or the option of a concealed fascia gutter system, you are certain to find a look you'll love. Our range of residential spoutings are suited to any roof type or pitch, and can be attached to the Multiline External metal fascia system using our patented bracket system. Alternatively, they can be fastened directly to a timber fascia using concealed brackets. Make your choice from a wide range of modern and traditional colours, or unpainted Zinalume for economy and the latest style statements. Selected products are also available in copper for a timeless alternative.

READY FOR THE BIG JOBS

With a range of standard industrial spoutings, or custom design and manufacture for larger projects, designers have peace of mind when selecting products for commercial and industrial applications.

IT'S EASY TO LOOK GOOD

To make it easy to get a great looking finish, selected products feature accessories such as ready-made stop-ends and corners, and optional Flush-Fit end laps.

DURABILITY

Products selected and maintained in accordance with Steel & Tube Roofing Products' recommendations on environmental categories, will meet the performance expectations in regard to durability as expressed in the New Zealand Building Code.

DRINKING WATER

All pre-painted and metallic coated products supplied by Steel & Tube are guaranteed as being suitable for the collection of drinking water.

QUALITY

Steel & Tube's operations are all certified to a minimum standard of ISO 9002 for the manufacturing, marketing and delivery of metal roofing and rainwater products.

MATERIALS

New Zealand is exposed to a wide range of environmental conditions, from harsh West Coast beaches through moderate inland locations to industrial and geothermal sites. All rainwater systems are available in a range of finishes to suit any environment. Prior to selecting a product from this guide discuss the particular site conditions with your preferred supplier to ensure the profile and finish will perform to your expectations.

PROTECTIVE FILM

To ensure the surface is not damaged during transport and handling, prepainted materials have a protective strippable film. This should be removed during installation, and before prolonged exposure to sunlight.

COMPATIBILITY

Contact with or water run off from dissimilar metals such as lead, copper or stainless steel should be avoided with any Colorsteel or Zinalume product. In particular avoid discharging copper spouting or downpipes from upper storeys onto lower roof sections. Monel rivets should not be used.

COLOUR MATCHED PAINT

The use of colour matched paint for the touching up of scratches is not recommended, as the paint has different weathering characteristics to pre-painted materials. Accessories should be colour matched before installation.

MAINTENANCE AND WARRANTIES

MAINTENANCE

Few products are absolutely maintenance-free and all are subject to the cumulative effects of weather, dust, salt and other airborne deposits – some of which are extremely aggressive. In order to ensure the maximum service life from the chosen coating system, the property owner should note: Normal rainwashing will remove some atmospheric debris, but manual washing is required for areas that do not receive adequate rainwashing, specifically the underside of spouting, and the fascia surface, which is sheltered by the spouting attached to it.

As high-risk areas, these require regular manual washing as a condition of the warranty:

Environment	Very Severe	Severe	Moderate
Washing Required	Monthly	Every three months	Every six months

Surfaces may be washed with water and a soft bristled brush. For hard to access areas, waterblasting at pressures up to 20mPa may be more appropriate. In all cases spouting should be cleaned out at least every six months; more frequently in marine areas or where fallout from leaves etc, is severe. Refer to New Zealand Steel's *Specifiers & Builders Guide* for more information.

WARRANTIES

Depending on material and environment, products may be eligible for a **WarrantyPlus** of up to 10 years covering paint surfaces, up to 10 years against perforation of spouting as a result of corrosion, and up to 15 years against perforation of fascia as a result of corrosion. Note that selecting a suitably durable material is important – refer to your preferred supplier, Steel & Tube, or New Zealand Steel's *Specifiers & Builders Guide* for further information.

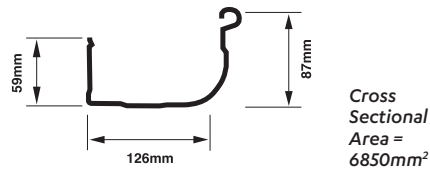


RAINWATER SYSTEMS

TRADITIONAL

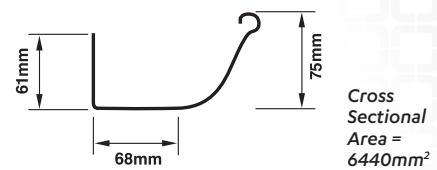


MULTILINE QUAD



- **Multiline Quad** captures the colonial look with its gentle radiused front and strong swaging, blending traditional design with the styles of today.
- **Multiline Quad** has an optional slotted overflow system.
- **Multiline Quad** is fitted using fully concealed brackets.

125 QUARTER ROUND

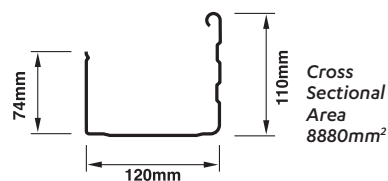


- **125 Quarter Round** is a classic quarter round with a smooth, uncluttered appearance to suit either traditional or modern aesthetics.
- **125 Quarter Round** can be fitted with concealed brackets to enhance the clean, smooth lines or with external brackets for a timeless look.

CONTEMPORARY

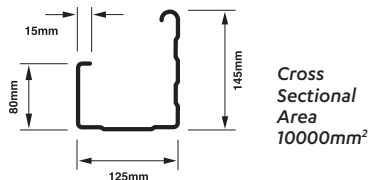


MULTILINE SQUARE



- **Multiline Square** is ideal for use where modern square lines are required, and has a high face to better cover the end view of domestic roofing systems.
- **Multiline Square** has an optional slotted overflow system.
- **Multiline Square** is fixed using concealed clips to maintain a clean, uncluttered appearance.

PLUMBLINE

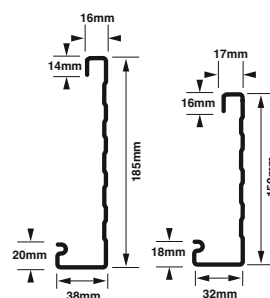


- **Plumblin** provides a large capacity domestic spouting which is also at home on smaller commercial work.
- **Plumblin** has a strong profile with a double swaged face and swaged base.
- **Plumblin** is fixed using concealed clips for emphasis of its bold lines.

FASCIA SYSTEMS



MULTILINE FASCIA – EXTERNAL



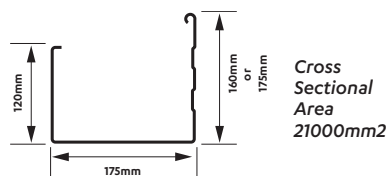
- An attractive and economical advance over timber fascias, **Multiline Fascia** can be fitted with a range of spoutings for contemporary or traditional appearances.
- **Multiline Fascia** uses a uniquely designed rafter bracket to prevent denting and damage in metal fascias due to differential movement of trusses and rafters.

Steel & Tube's fascia systems are available exclusively through recommended installers.

COMMERCIAL GUTTERS

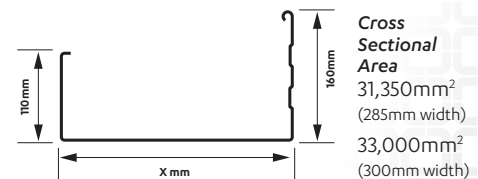


175 GUTTER



- The most commonly specified commercial gutters are 175mm and 300mm however as each are specifically folded the dimensions can be varied greatly to suit any application provided appropriate fixing brackets are sourced.
- Standard pressed internal brackets are available for the 175 gutter, however for extra strength specially fabricated steel external brackets are recommended (colour matched if required).

300 GUTTER



- Steel & Tube provide details regarding industrial gutter bracket design and placement, as part of the Steel & Tube's roofing and cladding solutions information, visit your local branch or www.steelandtube.co.nz.

Note: All profile dimensions are nominal

DESIGN

DRAINAGE REQUIREMENTS

As the primary function of a spouting or guttering system is the dispersal of rainfall from a roof area into a stormwater drain, it is important to have adequate sizing and placement of downpipes. The drainage requirements are influenced by a wide range of factors, including regional rainfall intensity and roof pitch. Note that while most urban areas in New Zealand are subject to 100mm/hr rainfall intensity, some are not – your Territorial Authority can confirm. Designers should refer to Acceptable Solution E1/AS1 of the New Zealand Building Code for further information.

Typical maximum areas for residential spoutings and popular downpipe sizes are summarised in the table below. For example:

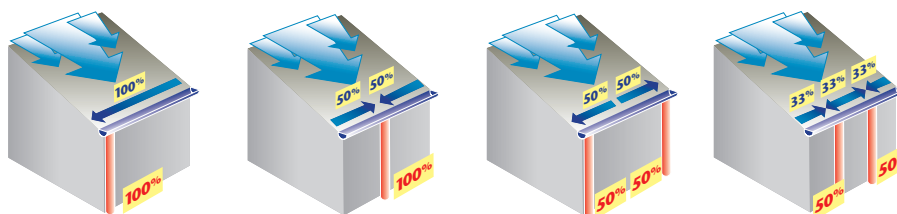
- Select spouting = Multiline Quad
- Select rainfall = 100mm/hr
- Select roof pitch = 30°

Therefore, outlets should take a maximum of 54m² of roof area each.

Roof Pitch	Typical Maximum Roof Area (m ²) per outlet													
	Spouting									Downpipes				
	Multiline Quad, 125 Quarter Round			Multiline Square			Plumblin			Round (mmø)			Rectangular (mmxmm)	
	Regional Rainfall Intensity mm/hr			Regional Rainfall Intensity mm/hr			Regional Rainfall Intensity mm/hr							
	100	150	200	100	150	200	100	150	200	65	75	100	100 x 50	75 x 50
<10°	65	43	33	89	59	44	100	67	50	60	85	155	100	73
10-24°	59	39	30	81	54	40	91	61	45	60	85	155	100	73
25-34°	54	36	27	74	50	37	83	56	42	50	70	130	80	61
35-44°	50	33	25	68	45	34	77	51	38	40	60	10	70	50
45-55°	46	31	23	63	43	32	71	48	36	35	50	90	60	43

DOWNPIPE PLACEMENT

Downpipe placement can have a substantial impact on the effective roof area being served by a downpipe or section of spouting.



Proportion Of Roof Area Drained By	A: One Downpipe At End Of Run	B: One Downpipe At Centre Of Run	C: Two Downpipes At Ends Of Run	D: Two Downpipes At Third Points
Each spouting section drains	100%	50%	50%	33%
Each downpipe drains	100%	100%	50%	50%

FALL

To perform satisfactorily spoutings should have a consistent fall towards the nearest outlet to promote drainage and avoid ponding. The recommended minimum fall for external spoutings is 1:500, or 2mm fall for every metre of run.

HANDLING, STORAGE AND INSTALLATION

HANDLING AND STORAGE

Care must be taken to avoid damage by handling and storage. The product should be handled with care to preserve the quality of the finish and stored clear of the ground on site. Do not drag any other building materials or roof sheeting over the fascia or spouting. Due care must be taken when lifting long lengths.

Note:

Trademarks apply to the following products presented in this publication: Multiline, Plumblin, Colorsteel, Zinalume.

INSTALLATION

- Cutting must be done by shear using tin snips, or by hacksaw.
- Fasteners must be compatible with the materials used.
- The use of abrasive disc cutters or grinders above or adjacent to the products by roofers or other trades, is against trade practice and must be avoided, otherwise swarf staining will result.
- Do not use black lead pencils for marking products.
- During fixing, the spouting must be cleaned of all loose debris.
- At all times, contact with wet concrete, lime, mortar acids and treated timber must be avoided.
- On completion, the whole area can be cleaned by hosing and soft brushing.
- Residential spoutings should have brackets spaced at a maximum of 900mm under normal conditions.