BUILDING PRODUCT INFORMATION REQUIREMENTS

100mm Form Series copper downpipe system

Product information supplied by Continuous Group Limited under the Building (Building Product Information Requirements) Regulations 2022.

PRODUCT AND MANUFACTURER DETAILS

Product name	100mm Form Series copper downpipe system
Product identifier	100FSCU-SYS
Manufacturer's name & address	Refer to Table 3 for Continuous Group branded manufacturing locations and/or supply.
Manufacturer's email address	cg@continuous.co.nz
Manufacturer's web address	www.continuous.co.nz
Place of manufacture	Aotearoa New Zealand
Warnings & bans	No

PRODUCT DESCRIPTION

100mm Form Series copper downpipe system is a roll-formed round copper downpipe system with a 100mm nominal diameter. To complete the installation of this system the following components are required.

TABLE 1 — SYSTEM COMPONENTS

SYSTEM COMPONENT	COMPONENT — MATERIAL
100mm Form Series downpipe	Manufactured from 0.55mm Copper — ¾ Hard (Grade C12200) that complies with BS EN 1172 as per E1/AS1 Table 4 and AS 1566
100mm Strap Bracket	Manufactured from 0.55mm Copper — ¾ Hard (Grade C12200) that complies with BS EN 1172 and AS 1566
100mm 3-piece adjustable off-set brackets	Diecast aluminium or copper
100mm bends	Handmade or preformed welded copper
Fastenings / fixings	Minimum Class 4 screw and/or rivet, compatible with the substrate and bracket material. Brass screws and copper rivet fasteners. Note: stainless steel fixings and components are not compatible with these materials.
Sealant	Recommended: Selleys (Admil) Mastersil SMP25, silane based adhesive. Acceptable: industrial grade 100% silicone fit for external application.

SPECIFICATIONS & INSTALLATION REQUIREMENTS

100mm Form Series copper downpipe system is designed with the following system specifications when installed as per instructions.

TABLE 2 — SYSTEM DETAILS

SYSTEM DETAILS	SPECIFICATION / INSTALLATION
Pre-installation design	Designers must review downpipe capacities required before specifying this system, using the online calculators available on the NZMRM website and Table 5.7.2A of the NZMRM Code of Practice.
Inside diameter	99mm (±1mm)
Outside diameter	100.2mm (±1mm)
Cross-sectional capacity	7,690mm^2
Bracket types	Strap bracket — copper. Clamp bracket — diecast aluminium or copper. 3-piece adjustable off-set brackets.
Bracket offset from wall	35–40mm on strap brackets; 33–133mm on clamp brackets. Measured between the wall and the back of the downpipe once installed.
Maximum bracket spacing	300mm from the dropper or first bend, then 2400mm centreline spacing. Brackets are also recommended within 400mm of bends, tees and drain connections.
Available fittings	95° bends, 30° bends, spreader tees, branch tees, joiners, drain covers
Sealed	No. Roll-formed lock-seamed downpipe — not sealed and not designed for head pressure. It cannot be used within the building envelope, for charged lines, or where water is collected into storage tanks. Where the water tank head height is higher than the top of the stormwater drain, use the Ezi-Flo Series instead.
Finish ranges	Copper (natural).
Exposure zones	Suitable in Zones B, C, D and E (all copper products).
Warranty	20-year material and perforation warranty (Zones B, C, D, E), provided maintenance conditions are met.

SCOPE OF USE

100mm Form Series copper downpipe system is an external downpipe system designed to collect and drain water from a spouting or gutter system to a stormwater drain. It is intended that the system is positioned outside of the building envelope.

Limitations of the use of this building product

1. All Continuous Group downpipe systems should only be installed by a trade professional.
2. The system cannot be installed onto cladding with incompatible materials, and cannot run off onto incompatible materials. Material compatibility, contact and run-off to be adhered to in accordance with E2/AS1 Tables 20, 21 & 22. Stainless steel fixings and components are not compatible with these materials.

3. The system uses various components as specified in Table 1. These components make up the entire system and cannot be substituted under any circumstances.
4. The Form Series is roll-formed and lock-seamed and is not designed for head pressure. It cannot be used within the building envelope, for charged lines, or where water is collected into storage tanks. Where the water tank head height is higher than the top of the stormwater drain, the Ezi-Flo Series must be used.
5. Timber fixing points are required for downpipe brackets where soft claddings are used (for example polystyrene with plaster).
6. Site locations must be evaluated in areas with high wind and/or salt and/or thermal/industrial atmospheric conditions. These locations may require specific engineering design (SED). Designers must consult metal supplier's information for specific durability requirements (reference E2/AS1 Table 20).

MAINTENANCE REQUIREMENTS

Refer to the Care and Maintenance Document listed under "Supporting documentation".

1. Inspection of the system is required every 3 months to check for build-up of residue and organic matter, and to check that the downpipe is draining freely.
2. Wash the exterior surface at a minimum interval of every 6 months, and immediately after inspection if required.

RELEVANT BUILDING CODE CLAUSES

COMPLIANCE / REGULATION	DETAIL
E1/AS1 Surface water	Sections 4.1.1, 4.1.2 & 4.2.1
E2/AS1 External moisture	Tables 20, 21 & 22
AS/NZS 2179.1:2014	Sections 2.4.2, 3.5 and Table 3.3
NZBC C3	Fire rating compliance
NZBC F2	Section F2.3.1
AS/NZS 4020:2018	Testing of products for use in contact with drinking water
B2/AS1	Table 1: Durability requirements of nominated building element
NZMRM Code of Practice V23.09	Sections as noted, in reference to further installation best practice

100mm Form Series copper downpipe system contributes to compliance by —

E1/AS1 section 4.1.1: "Materials for downpipes shall comply with the standards stated in Table 4."

Manufactured from copper sheet to BS EN 1172 and AS 1566, which is an acceptable material standard for downpipes.

E1/AS1 section 4.1.2: "Downpipes, gutters, roofing, fastenings and all adjoining components shall be of the same or a compatible material."

All materials shown in Table 1 are compatible with each other.

E1/AS1 section 4.2.1: "Downpipes sized using Table 5 are acceptable. Other downpipes are acceptable provided their cross-sectional area is no less than that required by Table 5, and they permit passage of a 50mm diameter sphere."

The downpipe permits passage of a 50mm diameter sphere and its cross-sectional capacity is shown in Table 2.

E2/AS1 Table 20: "Material selection."

The system is classified as "sheltered" and the material selection shown in Table 1 meets the requirements of Table 20 for exposure Zones B, C, D & E for "copper" materials.

E2/AS1 Tables 21 & 22: "Compatibility of material in contact and subject to run-off."

All of the materials shown in Table 1 are compatible in contact and run-off with each other, provided they are installed and run off onto compatible materials.

AS/NZS 2179.1:2014 section 2.4.2: "Copper and copper alloys used for rainwater goods shall comply with AS 1566."

Downpipes are manufactured from copper that complies with AS 1566 as shown in Table 1.

AS/NZS 2179.1:2014 section 3.5 and Table 3.3: "The minimum base metal thickness (BMT) of vertical or graded downpipes of cross-sectional areas less than 75,000mm² shall be as specified in Table 3.3 or 3.4 as appropriate."

100FS copper downpipes meets the minimum BMT specification required as detailed in Table 3.3.

NZBC C3 — fire affecting areas beyond the fire source:

The system, manufactured from copper as shown in Table 1, will meet the performance requirements of this building code clause.

NZBC F2 hazardous building materials, F2.3.1:

The system, manufactured from copper as shown in Table 1, will meet the performance requirements of F2.3.1.

AS/NZS 4020:2018: "Testing of products for use in contact with drinking water."

Water that is in contact with material used in manufacturing the Continuous Group system is safe for human consumption.

B2/AS1 Table 1:

Durability requirements of nominated building element — requires external downpipes to have a durability of 5 years. A 20-year material and perforation warranty is provided in exposure Zones B, C, D and E, provided the maintenance conditions are met.

NZMRM Code of Practice V23.09

This information is included to assist with further information outside of building code compliance.

5 The objective of roof drainage systems is to maintain a weatherproof building and to minimise the risk of injury or damage. Roof drainage design requires consideration of outlet and downpipe capacity. All stormwater drains are to be in accordance with Code of Practice section 5.4 and E1/AS1 section 3.

5.4.1, 5.4.2 & 5.7 Downpipe calculations are to be carried out in accordance with these sections.

5.7.2 Table 5.7.2A of the Code of Practice is to be used in identifying the size of downpipe required.

SUPPORTING DOCUMENTATION

The following additional documentation supports the above statements.

DOCUMENT NAME	WEBLINK
Downpipe brochure & specification document	Continuous Group Downpipe Brochure and Specification 2021.pdf
Maintenance document	Continuous Group Maintenance Document.pdf
Material compatibility — material selection	Continuous Group Material Compatibility - Material Selection v1.pdf
Material compatibility in contact	Continuous Group Material Compatibility - Compatibility of materials in contact v1.pdf
Material compatibility subject to run-off	Continuous Group Material Compatibility - Compatibility of materials subject to run off v1.pdf
Warranty document	Continuous Group Warranties

TABLE 3 — MANUFACTURING &/OR SUPPLY LOCATIONS

LOCATION	COMPANY DETAILS
Continuous Group Northland	Northland Continuous Spouting Ltd. (NZBN 9429032689105) 2 Sammaree Place, Kerikeri northland@continuous.co.nz
Continuous Group Auckland	Continuous Spouting Auckland Ltd. (NZBN 9429034029862) 94 Takanini School Road, Takanini, Auckland auckland@continuous.co.nz
Continuous Group Waikato	Continuous Waikato and Bay of Plenty (NZBN 9429030330535) 141 Queens Street, Leamington, Cambridge waikato@continuous.co.nz
Continuous Group Bay of Plenty	Continuous Waikato and Bay of Plenty (NZBN 9429030330535) 31B Enterprise Drive, Papamoa, Tauranga bop@continuous.co.nz
Continuous Group Gisborne	Streetwise Spouting Ltd. (NZBN 9429042306276) 4 Leith Street, Gisborne gisborne@continuous.co.nz
Continuous Group Hawke's Bay	Rooftech Hawke's Bay Ltd. (NZBN 9429035443889) 2/7 Cadbury Road, Onekawa, Napier hawkes_bay@continuous.co.nz
Continuous Group Taranaki	Gutter Solutions Ltd. (NZBN 9429036739240) 46 Jellicoe Street, Whanganui East taranaki@continuous.co.nz
Continuous Group Whanganui / Manawatu	Gutter Solutions Ltd. (NZBN 9429036739240) 46 Jellicoe Street, Whanganui East manawatu@continuous.co.nz
Continuous Group Wellington / Kapiti Coast / Wairarapa	Wellington Continuous Spouting Ltd. (NZBN 9429043333974) Unit B, 1 Prosser Street, Porirua wellington@continuous.co.nz
Continuous Group Nelson / Marlborough / Buller	Continuous Spouting South Ltd. (NZBN 9429050107209) 7 Fuji Court, Stoke, Nelson nelson@continuous.co.nz
Continuous Group Westland	Continuous Spouting South Ltd. (NZBN 9429050107209) 51-57 Revel Street, Hokitika westland@continuous.co.nz
Continuous Group Christchurch / North Canterbury	Continuous Spouting South Ltd. (NZBN 9429050107209) 16 Westland Place, Izone Industrial Estate, Rolleston canterbury@continuous.co.nz

LOCATION	COMPANY DETAILS
Continuous Group Mid / South Canterbury	Continuous Spouting South Ltd. (NZBN 9429050107209) Unit 5 / 9 Holmglen Street, Washdyke, Timaru canterbury@continuous.co.nz
Continuous Group Central Otago	Continuous Spouting South Ltd. (NZBN 9429050107209) 7 Connelly Way, Cromwell otago@continuous.co.nz
Continuous Group Coastal Otago	Continuous Spouting South Ltd. (NZBN 9429050107209) 8 Benson Close, Mosgiel otago@continuous.co.nz
Continuous Group Southland	Continuous Spouting South Ltd. (NZBN 9429050107209) 72 Leet Street, Invercargill southland@continuous.co.nz

Continuous Group are members of the NZ Metal Roofing Manufacturers Incorporated and the Roofing Association New Zealand.