

Continuous Group Limited - Building Product Information – 100FS copper downpipe system

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 copper downpipe system is an external downpipe system designed to collect and drain water from a spouting or rainwater head. To complete the installation of this system the following components are required.

Table 1

System Components	Component - Material
100mm Form Series Copper downpipe	Manufactured from 0.55mm Copper – ¾ Hard (Grade C12200) copper that complies with BS EN 1172 as per E1/AS1 Table 4 and AS1566
100mm Strap Bracket	Manufactured from 0.55mm Copper – ¾ Hard (Grade C12200) copper that complies with BS EN 1172 as per E1/AS1 Table 6 and AS1566
100mm 3 piece adjustable off-set brackets	Diecast brass / copper plated
100mm Bends	Handmade or preformed welded copper
Fastenings/Fixings	Brass screws with a minimum 2.8mm depth head height and minimum 8 gauge screw thickness. 3.2 x 8.0mm copper rivet fasteners.
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 an external downpipe system designed with the following system specifications when installed as per instructions.

Table 2

System details	Specification / Installation
Pre-Installation design	Designers must review system capacities required before specifying this system by utilising online calculators available on the NZMRM website
Outlet Cross Section Capacity	7690mm ²
Maximum Bracket Spacing	2400mm (it is recommended that brackets are placed within 400mm of bends, tees and drain connections)
Angle of installation	Vertically and/or no less than 5 degrees of fall

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Scope of use

100mm copper downpipe system is an external downpipe system designed to collect and channel water that runs out of the gutter or rainwater head. It is intended that the system will be 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 spouting, rainheads or cladding with incompatible materials. The system cannot run-off onto incompatible materials. Material Compatibility, Contact and Run off to be adhered to in accordance with E2/AS1 Table 20, 21 & 22.
3. The system cannot be used as an “Internal downpipe”.
4. The system can be used for gravity feed purposes and used if the lines are “Charged” with water. (Occurs when rainwater collection tanks are above ground level). If Charged, the downpipe seam requires welding to seal the downpipe and a fernco/adaptor is required.
5. The System uses various components as specified in *table 1*. These components make up the entire system and cannot be substituted under any circumstances.
6. Site locations must be evaluated in areas with high wind &/or salt &/or thermal/industrial atmospheric conditions. These types of 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

(Link to Care and Maintenance Document below under “Supporting Documentation”)

1. Inspection of the system is required every 3 months to check for buildup of residue and organic matter inside and outside of the system.
2. Wash the surface of the System at a minimum of every 6 months and immediately after inspection if required.
3. Remove any debris from the inside of the downpipe at least 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	Table 20,21 & 22
AS/NZS 2179.1.2014	Section: 3.5 & Table 3.3
B2/AS1	Table 1: Durability Requirements of Nominated Building Element
NZBC C3	Fire Rating Compliance
NZBC F2	Section: F2.3.1
AS/NZS 4020:2018	Test of Products for use in contact with drinking water
Code of practice V23.09	Sections as noted in reference to further installation best practice

E1/AS1 Table 6 and AS1566

100mm 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 (AS1566)”.

- Manufactured from copper sheet to BS EN 1172 or 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 to eliminate the risk of galvanic corrosion.

- All materials shown in table 1 of this BPIR are compatible with each other.

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

- Downpipe size is bigger than 50mm diameter.

Continuous Group Limited - Building Product Information – 100FS copper downpipe system**E2/AS1 Table 20: “Material Selection”**

- The product is classified as “Sheltered” and material selection shown in Table 1 of this BPIR meets the requirements of table 20 for exposure Zones B,C, D & E for “Copper” and “uPVC” materials..

E2/AS1 Table 21 & Table 22: “Compatibility of material in contact and subject to run-off.”

- All of the materials shown in table 1 of this BPIR 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 3.5 and Table 3.3: “The minimum base metal thickness (BMT) of vertical or graded downpipes of cross sectional areas less than 75,000mm shall be as specified in Table 3.3 or 3.4 as appropriate.”

- 100FS downpipes meets the minimum BMT specification required as detailed in table 3.3.

NZBC C3 Fire affecting areas beyond the fire source: This Copper System will meet the performance of this building code requirement.

NZBC F2 Hazardous Building Materials F2.3.1: “The quantities of gas, liquid, radiation or solid particles emitted by materials used in the construction of buildings, shall not give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere of any space”

- The system manufactured from copper as shown in Table 1 of this document 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”.

- 10 year warranty is provided with this downpipe system 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, to minimise the risk of injury or inconvenience due to flooding, and to avoid potential monetary loss and property damage – including to the contents of buildings.

Roof drainage design requires consideration of: Outlet and downpipe capacity.

5.3.2A Rainfall intensity**5.3.2B** North Island Rainfall Intensity Map**5.3.2C** South Island Rainfall Intensity Map

5.7.1 Placement of downpipes significantly affects gutter and downpipe calculations. Diagram 5.7.1A of the Code of Practice is adhered to.

5.7.2 The use of Table 5.7.2A of the Code of Practice to be utilised in identifying the size of downpipe that is required together with the online calculators noted below.

5.7.3 Online Downpipe Calculator.

Continuous Group Limited - Building Product Information – 100FS copper downpipe system**Supporting documentation**

The following additional documentation supports the above statements:

Document name	Weblinks
Form Series Brochure & Specification Document	Form Series Downpipes Brochure and Specification 2021.pdf
Maintenance Document	National maintenance document.pdf
Material Compatibility 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

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Table 3 - Continuous Group 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 Ltd. (NZBN# 9429030330535) 141 Queens Street, Leamington, Cambridge waikato@continuous.co.nz
Continuous Group Bay of Plenty	Continuous Group BOP Ltd. (NZBN# 9429048508520) 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	Wellington Continuous Spouting Ltd. (NZBN# 9429043333974) 8 Hollands Crescent, Naenae, Lower Hutt wellington@continuous.co.nz
Continuous Group Nelson/Marlborough	Top of the South Continuous Spouting Ltd. (NZBN# 9429037834142) 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
Continuous Group Mid/South Canterbury	Continuous Spouting South Ltd. (NZBN# 9429050107209) 126 Dobson Street, Ashburton canterbury@continuous.co.nz
Continuous Group Central Otago	Continuous Spouting South Ltd. (NZBN# 9429050107209) 5 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.