



aquatherm

state of the pipe

aquatherm green pipe system

Scope

Supply and install aquatherm Green Pipe System, complete with pipes, system components, fittings and accessories, as piped hot and cold potable water systems to the layout shown on the drawings. All aspects of this work shall be in strict accordance with aquatherm Green Pipe System technical literature and installation requirements and recommendations (check www.aquatherm.co.nz, or call 09 570 7204 for the latest editions), [BRANZ Appraisal No.539 \(2016\)](#), other relevant product manufacturers' recommendations, and with all relevant Standards, Regulations and Acts.

Aquatherm Green Pipe SIA Global 'Watermark Certificate of Conformity - Level1', [Certificate No:WMKA02437](#).

No substitutions are permitted for aquatherm Green Pipe System products.

Pipe

Aquatherm Green Pipe SDR 7,4 S: fusiolen PP-R polypropylene random, green coloured pipe. Hot & cold potable water pipework. Pipe diameters (16mm - 75mm) as shown on the drawings. DHW circulating systems Aquatherm Green pipe (MF) faser (20mm- 200mm)

Aquatherm Green Pipe SDR 11: fusiolen PP-R polypropylene random, green coloured pipe, blue stripe. Cold potable water pipework for main feeds. Pipe diameters (20mm - 250mm) as shown on the drawings.

Co-operation

Co-operate with other trades to ensure that all preliminary and preparatory works are completed to specification and as shown on the drawings prior to installation.

Co-ordinate with all trades to install aquatherm pipe system components and accessories to the required locations, routes and clearances shown on the drawings and as required.

Workmanship

All aquatherm pipe system installation shall be carried out by aquatherm certified trained installers, familiar with the specified products and installation techniques, under the direct supervision of a NZ certified Registered Plumber, in accordance with the manufacturer's specifications and to the requirements of NZBC G12/AS1, or to AS/NZS 3500.1 and AS/NZS 3500.4 for specific design installations.

Store aquatherm pipe system component and accessories under cover on a flat surface in accordance with the manufacturer's recommendations. Keep products clean and dry, and protect from damage and contamination, and out of direct sunlight. Do not use damaged or defective products.

Handle aquatherm pipe system components and accessories in accordance with the manufacturer's

recommendations.

Provide all necessary equipment for pipe cutting, thermal welding, general installation and system testing, in accordance with the manufacturer's installation requirements.

Adequately protect all surrounding work surfaces during installation. Any damage to fittings or finished surfaces shall be made good by the appropriate trade at the Plumber's expense.

Installation

All aquatherm Green Pipe System hot & cold water pipework, components, fixtures, fittings, and accessories shall be sized and installed in strict accordance with the manufacturer's requirements, relevant Standards and Acts, and to the layout, details, and schedules shown on the drawings.

All pipework installation requirements and techniques including but not limited to; cutting, joining and support, shall be in accordance with aquatherm Green Pipe System technical manual and as detailed or noted on the drawings. In-ground pipes shall be installed to NZS 3500 requirements. All cutting, checking and holing of timber framing for pipework shall be in accordance with NZS 3604, holes shall be correctly sized to allow pipework to expand and contract. Pipework shall be installed and supported in such a manner as to eliminate hammer and flow noise.

Set-out pipework neatly, and firmly support in place with aquatherm proprietary fastening clamps and brackets at the required support intervals. Make allowance for all probable thermal movement and linear expansion to the pipework as necessary.

Pipework shall be run straight and true to line, parallel with and at right angles to structural elements, and with the minimum number of bends - avoid diagonal piping. Neatly align support brackets, fittings and components to multiple pipe runs.

Install exterior pipes on stand-off brackets. Fixings to the exterior or damp locations shall all be hot dip galvanized unless otherwise noted. Do not install aquatherm Green Pipe where exposed to direct sunlight unless UV protected.

Pipe joints concealed within or below a concrete slab or screed shall be thermally welded only - do not mechanically joint.

Sleeves for pipes penetrating concrete or masonry shall be uPVC, 20mm minimum larger internal diameter than the external diameter of the pipe, set at right angles to the surface, finished flush, and packed and mastic sealed.

Install all other necessary system components, fittings and fixtures to complete the hot and cold water system as shown on the drawings.

Weather-seal wherever pipes, screws, bolts or other fastenings penetrate an external surface; seal with gaskets, flashings (and over-flashings if necessary) or mastic as appropriate.

Fire protect all pipework that penetrate fire rated floors and walls with intumescent foaming sealant for joints up to 10mm, and with intumescent stopping putty for gaps over 10mm. Where required fit approved intumescent type fire collars to pipes located such that the fire rating of the wall or ceiling is maintained.

Pipework insulation: preformed hollow sections to the pipe diameters with a minimum wall thickness as recommended by aquatherm Green Pipe, and installed to the manufacturer's recommendations.

Connect pipework to the main supply and to all hot & cold water fittings & outlets as necessary in preparation for system testing.

Completion

Check that all aquatherm pipework has been installed correctly, with all welds properly formed, in accordance with the manufacturer's requirements and as shown on the drawings.

Check for damage and faults and repair as necessary. Charge the system and flush pipework free of trapped air and foreign matter with clean, fresh water, and leave filters clean and free of contaminants.

Fully pressure test the completed system to aquatherm system requirements and leave leak-free.

Insure aquatherm BEST check list has been completed. Issue to the Owner a copy of the aquatherm pipe system maintenance requirements and a copy of the aquatherm pipe system BEST programme, Warranty for the installed system, complete with Test Records.

Leave the works area clean and free of rubbish, remove rubbish and waste material from the site.

Issue all As-Built Documentation required to the relevant parties.