

Support and fixing of plastic water services

Plumbing Advisory Note

Issued June 2024

What is required to be booked for audit with the OTR?

Appropriately licensed plumbers are required to book an audit for **ALL** Non-drinking water in-wall installations, at which time, all in-wall pipework will be audited.

For more information, view the link below:

- [Categories for plumbing audit bookings \(PDF, 61.1KB\)](#)

Concealed piping in walls

To protect pipework from abrasions and damage due to movement and friction the following must occur:

Timber - Uninsulated water services require a collar of lagging material, or neutral cure silicone sealant to fill the annular space (max 25mm Dia) in holes or notches.

Metal wall framework - Water services located in steel frames are required to be protected with suitable grommets, insulation, or a short sleeve of oversized pipe secured in the framework, these are not an above ground fixing. When installing pipework in metal wall framework further consideration should be applied to ensure spacing and sizing of holes complies with AS/NZS 3500.1 5.5.2.1. This is to ensure the integrity of the metal framework.

Note for both: Stud clips fixings that are designed to insert around the pipe and isolate contact from the timber or steel frame meet the requirements of an above ground fixing - silicone or lagging does not.

Spacing of brackets and clips

All water services are required to be supported and fixed at intervals not less than specified in AS/NZS3500.1:2021 clause 5.7 Table 5.7.4 – Spacing of brackets and clips. See Table 1 on the next page for more information.

Maximum spacing of brackets and clips on PEX water pipes is a common non-compliance in installations. Plumbers are reminded of the minimum requirements on the next page.

Legislative requirements

The *National Construction Code Series Volume Three, Plumbing Code of Australia (PCA)* - **Section B: Water services** specifies performance requirements related to installing water services.

- *AS/NZS3500.1:2021 Water Services, clause 5.7 Support and Fixing above ground. Table 5.7.4.*
- *AS/NZS3500.4:2021 Heated Water Services, clause 4.5 Support and Fixing above ground. Table 4.5.4*

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Table 1: Water services - spacing of brackets and clips

Nominal pipe size (DN)	Maximum spacing of brackets and clips (mm)			
	Copper, copper alloy, and stainless steel pipes	Galvanized steel and ductile iron pipes	PVC-U, PVC-C, PVC-M, PVC-O, PE, PE-X, PP, and PB pipes	
			Horizontal or graded pipes	Vertical pipes
10	1500	-	500	1000
15	1500	2000	500	1200
16	-	-	500	1200
18	1500	-	600	1200
20	1500	2000	700	1400
22	-	-	700	1400
25	2000	2000	700	1500
32	2500	2000	850	1700

NOTE: Due to water pressure effects, additional brackets, clips or hangers may be required to prevent movement.

All heated water services are required to be supported and fixed at intervals not less than specified in *AS/NZS3500.4:2021 clause 4.5 Table 4.5.4 – Spacing of brackets and clips*. See Table 2 below.

Table 2: Heated water services - spacing of brackets and clips

Nominal pipe size (DN)	Maximum spacing of brackets and clips (mm)		
	Copper, copper alloy, and stainless steel pipes	PE-X, PB, PVC-C and PP-R PE/AL/PE PE-X/AL/PE-X pipes	
		Horizontal or graded pipes	Vertical pipes
10	1500	500	1000
15	1500	600	1200
16	-	600	1200
18	1500	600	1200
20	1500	700	1400
22	-	700	1400

NOTE: Due to water pressure effects, additional brackets, clips or hangers may be required to prevent movement.

Plumbers may need to check manufacturers' specifications to ensure additional support is not required for some products.

Brackets, clips or hangers only

Water services installed above ground must be kept in position by brackets, clips or hangers. Silicone, plastic grommets, chips of wood are not an approved fixing solution for supporting pipes.

Non-compliant in-wall

Silicone has been used as a means of fixing.



Compliant in-wall

Grommets and stud clips have been used as means of fixing.



Separation of above-ground services

AS/NZS 3500 - Part 1: Water Services and AS/NZS 3500 - Part 4: Heated Water Services for 2021 has changed the proximity requirements to other services, to ensure the two standards align.

Table 3: Updated minimum requirements to other services

Type of service	Other services	Minimum separation (mm)
Water service	Electrical conduit, cable, wire, consumer gas pipes	25
Water service	Water service	25
Sanitary	Electrical conduit, cable, wire, consumer gas pipes or water services	25
Stormwater	Electrical conduit, cable, wire, consumer gas pipes or water services	25
Heated water	Electrical conduit, cable, wire, consumer gas pipes or other services	25
Non drinking water	Electrical conduit, cable, wire, consumer gas pipes or other services	25

A separation minimum of at least 25mm is required between any above-ground water service and any of the following services:

- Electrical or telecommunications conduits/wires or cables
- Consumer gas pipes
- Sanitary plumbing and drainage
- Storm water drainage
- Other above-ground water services
- Any other services.



Contact the Office of the Technical Regulator for more information

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