

# Changes to Standard

## AS/NZS 3500.1 Plumbing and Drainage Part 1: Water Services

### AS/NZS 3500.1 2018 published

AS/NZS 3500.1 *Plumbing and Drainage Part 1: Water Services* has been updated. This new version came into effect on 29 June 2018. This document provides information on the key changes in the updated Standard. This Standard was last updated in 2015.

### What work does this Standard apply to?

This Standard specifies the requirements for the design, installation and commissioning of cold water services. It applies to new installations as well as alterations, additions and repairs.

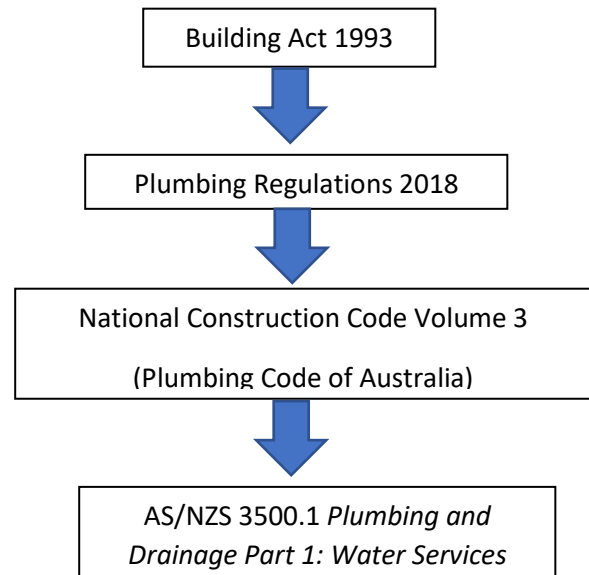
Relevant work includes drinking water, non-drinking water, fire services, rainwater, irrigation, water storage tanks, pumps and treated greywater systems. Some sizing requirements for heated water services are also included in this Standard.

### When does this Standard have to be used?

All plumbing work on cold water services in Victoria must comply with this Standard. The only exception is where a performance solution is used.

### This Standard is part of Victorian law

How this works is shown below:



The *Plumbing Regulations 2018* require that plumbing work is carried out in accordance with the *National Construction Code, Volume 3*.

Part B1 of the *National Construction Code, Volume 3* states that: The design, construction, installation, replacement, repair, alteration and maintenance of cold water services must be in accordance with AS/NZS 3500.1.

Where a plumber does not follow AS/NZS 3500.1 for this work, they are required to use a performance solution. For further information on performance solutions, please read the VBA's [industry guide](#).

## Changes and impact

Key changes from the 2015 version of the Standard include:

- **Soft solder**

*Clause 2.4.1 (e)*

It is no longer permitted to use soft solder for new joints. For the repair of existing joints, soft solder should not contain more than 0.1% lead.

- **UV protection of plastic pipes**

*Clause 2.4.3*

This clause now requires plastic pipes and fittings (except solid black PE and PE-X) to be protected from direct sunlight. This is already part of most manufacturer's installation requirements, so will not affect the majority of installations.

- **Emergency showers**

*Clause 3.2.1*

Emergency showers (for purposes such as chemical removal) are now formally exempt from maximum flow rate requirements.

- **Backflow prevention**

*Clause 4.6.2.1 (c)*

Vented testable backflow prevention devices may be located in pits where there is sufficient drainage. In the 2015 version, these devices could not be located in pits.

- **Separation between services**

*Clause 5.2.2 (d)*

This new clause gives a 25mm minimum separation between an above ground water service and sanitary plumbing and drainage.

However, this clause is overridden by AS/NZS 3500.2 clause 3.6.2, which requires minimum 100mm separation between above ground water pipes and any discharge pipe.

*Clause 5.2.3.1*

New requirement for a minimum separation of 100mm between a cold water service and an underground extra-low voltage electrical supply.

*Clause 9.3.2.2*

New requirement for a minimum separation of 100mm from any other non-drinking water service.

- **Pipe sizing**

*Table 5.6.4*

This table has been expanded and now provides maximum spacing of brackets and clips for DN 200 pipes.

*Tables A1 and A3*

These tables provide typical internal diameters compared to DN measurements for copper and polyolefin pipes. They have been expanded to include pipe sizes up to DN 200.

*Table A2*

This table is new and provides typical internal diameters compared to DN measurements for stainless steel pipes.

- **Non-drinking water**

*Clause 9.3.2.2*

New requirement for a minimum separation of 100mm from any other non-drinking water service.

*Clause 9.5*

This new clause allows the installation of a temporary bypass line for a non-drinking water service during the construction of a building. This applies where a building will have a non-drinking water service, but this service has not yet been provided.

*Clause 9.7.1*

This clause has been changed to allow standard threads to be used for non-drinking water hose taps. Victorian practitioners should be aware that this clause does not apply in Victoria. In Victoria, a non-standard inlet thread and a standard hose connection outlet for these taps are required.

- **Rainwater systems**

*Clause 16.5*

Rainwater systems must now be commissioned in the same way as other non-drinking water services. This process is designed to check for any cross connection between the rainwater system and other water supplies.

The VBA strongly encourages practitioners to consult the complete standard in order to ensure they comply with all Deemed-to-Satisfy requirements.

The full text of AS/NZS 3500.1:2018 can be accessed at the SAI Global website:

<https://infostore.saiglobal.com/>