



TECHNICAL NOTES

Drainage Audit Requirements

As part of the self-certification process all drainage plumbing work must be tested.

For all major drainage plumbing work licensed plumbing contractors are responsible for ensuring that requests for audit are made the day prior to the day the drain will be ready. This means that all drainage plumbing work including the alteration of more than 5 metres of existing drainage plumbing and sewer conversions must be tested. Alterations to drainage plumbing less than 5 metres is considered to be minor work which must be tested however a request for audit is not required.

Contractors are responsible for the provision of all the necessary equipment, material and labour required for the testing of plumbing work.

Testing of Drainage Plumbing Work

Clause 13.3 of Part 2 of AS/NZS 3500:2003 provides that drains must be tested. In considering the most appropriate test medium, consideration should be given to any water restrictions that may apply. In areas affected by water restrictions plumbers are encouraged to use the air test.

To enable the testing of sanitary and drainage plumbing, all pipes that are concealed in the slab should be glued in place and an appropriate cap should also be glued over any open ended pipe. In addition, all protruding pipes should be securely capped to stop the ingress of building by-products.

Water Test

A water test shall be applied to a drain in the following manner:

- (a) The head of water on any drain is not to exceed 3m.
- (b) The drain should be filled with water to the highest level in the section being tested.
- (c) The water should then be maintained at this level for a period of -
 - 10 minutes for vitrified clay drains, by the addition of measured quantities of make-up water as set out in AS/NZS 3500.
 - 5 minutes for drains of any other material.
- (d) If the level of water is maintained for the period set out in (c) the drain is considered to have passed the test.
- (e) If the level is not maintained for the period specified, the drain will fail the test and a rectification notice will be issued to the licensed plumbing contractor responsible for the work.

Air Test

Clause 13.3.2 of AS/NZS 3500 2:2003 allows air testing to be used as an alternative to a water test. The application of the air test has been revised. The procedure for air pressure testing a drain is now as follows:

- (a) the air pressure test shall consist of applying a pressure of 5kpa to the drain.
- (b) this pressure should be held for 3 minutes to allow the air temperature to stabilise at 5kpa.
- (c) the pressure should then hold for 1 minute.
- (d) The drain is considered to have passed if the pressure remains constant for the entire 1 minute period.
- (e) If there is any drop in pressure the drain will fail the test and a rectification notice will be issued to the licensed plumbing contractor responsible for the work.

Air testing kits are available at most plumbing suppliers.

Drainage Audit Checklist

As part of a drainage audit, plumbing compliance officers will examine the following:

- Drain venting
- Drain connection point
- Approved materials
- Gradient
- Bedding and bedding materials
- Cover requirements
- Backfill material
- Infiltration protection
- Pipe sizing
- Support
- Surcharge protection
- Pits and inspection chambers
- Boundary trap requirements
- Concrete support of disconnector and floor waste gullies



Summary

- All drainage plumbing work must be tested as part of the certification process.
- All concealed pipes should be glued and securely capped.
- Air pressure test should be applied at a minimum 5kpa for a period of 1 minute from the time the air temperature stabilises.
- It is the Licensed Plumbing Contractors responsibility to ensure the necessary equipment is available to test the drain as part of an audit.
- Air testing kits are available at most plumbing suppliers.



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