



# Gas tightness testing requirements

This fact sheet outlines the requirement for gas fitters to conduct pressure testing on all gas installations that have been installed, altered, repaired or extended.

Prior to commissioning a gas installation, the licensed gas fitter responsible for the gasfitting work must ensure that all requirements of pressure testing regulations are satisfied. Ensuring the installation is gas-tight and is safe to use.

## Regulations and standards

- Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999, regulation 26(1)(a).
- AS/NZS 5601.1:2022 Gas Installations Part 1: General installations Appendix E3.

### – E3.1 New installations:

- A pipework test, described in clause E4, on the newly installed pipework before any appliances are connected.
- An installation test, described in clause E5, including all appliances prior to connection of the gas supply.
- A final connection test as described in clause E7.

### – E3.2 Additions and alterations to installations:

- A leak test, described in clause E6, prior to commencing work.
- A pipework test, described in clause E4 prior to commencement of gas.
- Either:
  - An installation test as described in clause E5; or
  - A leakage test as described in clause E6.
- A final connection test as described in clause E7.

**There is no allowable leakage rate in Western Australia. All gas installations are required to be gas-tight.**

## Example checklist: Pressure testing procedure for existing domestic and commercial gas installations

AS/NZS 5601.1 Appendix E.6 Leakage test for existing installations	✓
Ensure the installation is depressurised.	
Disconnect the installation at the gas meter or from the cylinder.	
Turn off all appliance pilots and ensure all but the last control device on each appliance is in the open position.	
Place all interlocks in an open position.	
Ensure a suitable test instrument is attached.	
Ensure the installation is pressurised to either the operating pressure or a minimum of 2 kPa, whichever is greater.	
Ensure the pressure source is isolated. Once isolated, allow a minimum of two minutes for the temperature of the testing medium within the consumer piping to stabilise.	
Ensure there is no pressure drop during a test period of five minutes. No pressure drop is allowed.	

**Note:** This example checklist applies to installations with a volume up to 30 litres. For volumes exceeding 30 litres, refer to AS/NZS 5601 Appendix E for extended test durations and stabilisation requirements.

All other pressure testing procedures are outlined in AS/NZS 5601.1 Appendix E (for general installations) or AS/NZS 5601.2 Appendix E (for LPG installations in caravans and boats).

### Best practices for leakage testing

- Use calibrated equipment for pressure testing.
- Follow the exact procedures in AS/NZS 5601 for the type of installation.
- Document the test results and retain records for compliance audits.
- Test before and after any gasfitting work is carried out.
- Do not proceed with commissioning the gas installation until the installation is gas-tight.

### Failure to comply

Leaving gas leaks in a gas installation is unsafe and a breach of the regulations.

Failure to comply with the regulations may result in enforcement action. Enforcement can include infringements, prosecution, suspension or cancellation of your gasfitting permit or authorisation.

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