

Installation of backflow prevention devices (BPDs)

Power and Water has developed and implemented a Backflow Prevention Policy. The aim of this policy is to assist Power and Water in providing a good quality, safe and reliable drinking water supply.

Power and Water requires testable backflow prevention devices to be installed on medium and high hazard properties as containment protection at the water meter installation. BPDs must be installed as specified in the Australian Standard AS/NZS 3500:1 "Plumbing and Drainage – Water Services". This customer information handout and the Backflow Prevention Manual provide more information on installation requirements.

Hazard Assessment and BPD Selection

The hazard rating of a property and the selection of the correct BPD must be undertaken by a suitably qualified hydraulic consultant or a licensed plumber who holds a Backflow Tester Accreditation.

Installation of BPDs as per AS/NZS 3500:1

Section 4 "Cross-connection Control and Backflow Prevention" of AS/NZS 3500:1 is very specific about the selection, installation and commissioning of BPDs. These requirements and procedures must be strictly adhered to.

The following is a brief summary of installation requirements:

- Containment devices shall be located as close to the water meter outlet or property boundary as possible. There shall be no branch connections between the meter and the device.
- BPDs shall not be buried in the ground.
- No heat shall be applied to any device during installation.
- With the exception of fire services, in-line strainers shall be fitted immediately upstream of the BPD. Ensure strainers are correctly installed
- Resilient seated isolating valves shall be installed immediately upstream of the line strainer (with the exception of fire services) and immediately downstream of the device.
- Unprotected bypasses must not be installed around BPDs.
- All in-line devices shall be installed with connections to allow easy removal and replacement.
- Vented testable BPDs shall not be located in cabinets without drainage or in pits.
- Devices with a relief drain must maintain free ventilation to the atmosphere and must not be installed in areas subject to ponding of water.
- Relief drain outlets must be located not less than 300mm above the surrounding surface.

Where the continuous supply of water is essential, devices shall be installed in parallel to permit shutdown of a device.

All devices shall be readily accessible for ease of maintenance and testing without the need to work from ladders or scaffolding.

Power and Water Standard Drawings for water meter installations and the Backflow Prevention Manual provide additional advice and guidance on backflow requirements.

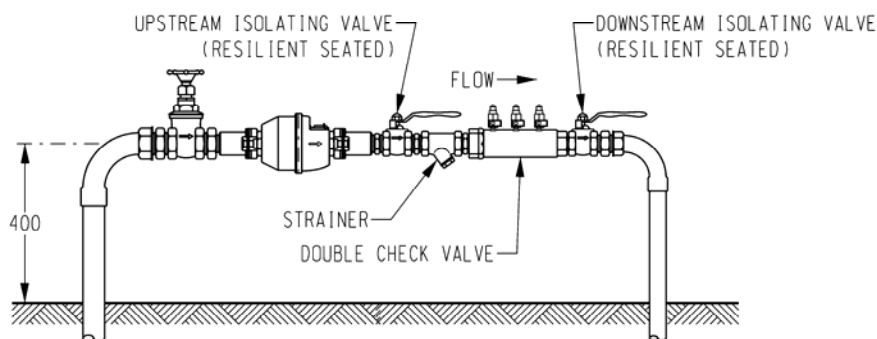
Certification and registration of devices

BPDs may be installed by a licensed plumber however test and certification shall only be undertaken by a licensed plumber who holds a Backflow Tester Accreditation.

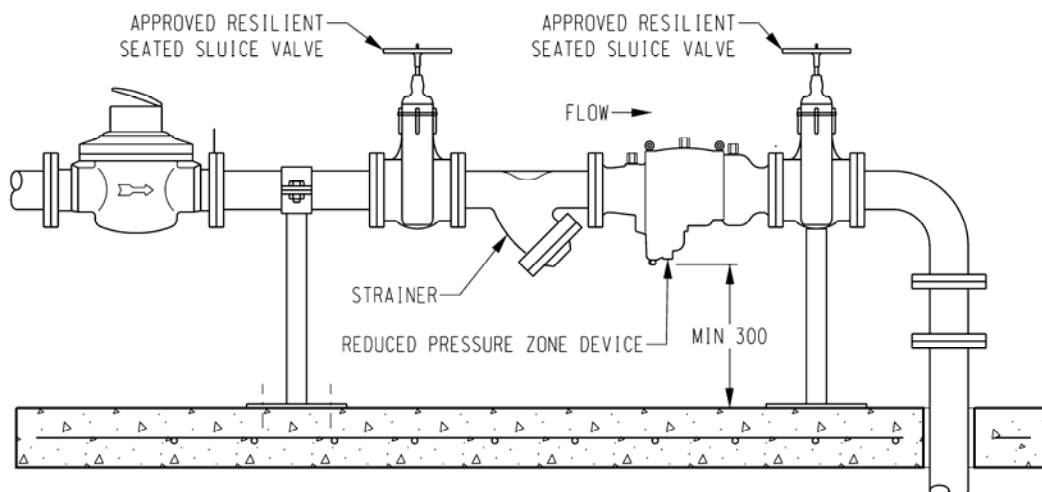
Power and Water maintain a Backflow Register for testable backflow prevention devices installed as boundary protection. To allow the device to be registered, the Backflow Prevention "Notice of Installation" and "Valve Test Certification Report" must be completed and forwarded to Power and Water as specified in the Backflow Prevention Manual. Power and Water will forward reminder notices to property owners when a BPD is due for annual testing and certification.

Typical installations

The illustrations below are typical installations as shown in AS/NZS 3500:1.



TYPICAL INSTALLATION OF A DOUBLE-CHECK VALVE



TYPICAL INSTALLATION OF A REDUCED PRESSURE ZONE DEVICE

For further information

For more information call Services Development (Northern Region) on (08) 8995 5801, Services Development (Southern Region) on (08) 8951 7312 or the Manager Trade Waste on (08) 8995 5807.