

Bidet douche seats - backflow prevention requirements

**Consumer, Building and Occupational Services
Plumbing Standards, Technical Regulation Unit**

Purpose

The purpose of this Regulatory Note is to provide clarification on the backflow protection requirements related to the installation of bidet douche seats and toilets that feature integral douche spray wands. This follows important changes to backflow protection provisions within the National Construction Code (NCC) 2022 and changes to device hazard ratings within AS/NZS 3500.1:2021 Water services.

Some products require the installation of additional high hazard protection while other products feature integral devices that require no further protection. This document explains the selection process required to determine the correct solution.

- The backflow prevention requirements related to handheld douche wand and trigger spray hose installations can be found in the [Handheld douche wand and trigger spray hose assemblies – Backflow prevention requirements Technical Note](#), accessible on the CBOS website.

Background

In recent years the use of bidet douche seats and toilets with integral spray wands has increased significantly, driven not only by personal preference of general consumers but also as important quality-of-life appliances supporting degrees of independent living for those cared for through the Department of Veteran's Affairs, aged care facilities, and various National Disability Insurance Scheme (NDIS) providers.

It is vital that consumers, designers, plumbers and permit authorities all understand the varying connection requirements of these appliances and particularly in respect to the provision or otherwise of backflow prevention devices.

Regulatory requirements

The NCC Volume 3 – Plumbing Code of Australia (PCA) 2022 details the mandatory requirements for plumbing systems. The PCA 2022 came into effect in Tasmania on 1 May 2023.

Cross-connection hazard ratings and relevant Deemed-to-Satisfy (DtS) solutions are detailed within the PCA - Specification 4I. In respect to toilet douche seats, the determination of hazard rating in the first instance centres on the position of the fully extended wand outlet; relative to the overflow level of the pan (see image 1).



Image 1: Bidet douche seat

Low Hazard product description

PCA S4IC4(1)(g) – A toilet douche seat where the outlet in all positions **is at least 25mm above** the overflow level of the pan is a Low Hazard installation for the purposes of individual protection.

- A product that can satisfy this requirement does not require any additional backflow prevention.

High Hazard product description

PCA S4IC4(3)(f) – A toilet douche seat where the outlet in all positions **is not 25mm above** the overflow level of the pan is a High Hazard installation for the purposes of individual protection.

For products where the douche wand is located below the overflow level of the pan, you must then consider the following:

- Where the product does not have any compliant integral backflow devices, that installation must then be fitted with an additional high hazard backflow device in accordance with AS/NZS 3500.1
- Where the douche seat has compliant integral backflow protection, no additional high hazard device is required.

The Explanatory Information within PCA S4IC4 states that for the purposes of S4IC4(3)(f) a high hazard backflow prevention device can either be an integral part of the device or installed separately. While Explanatory Information is not an integral part of the NCC the directive to comply with AS/NZS 3500.1 validates the position.

The following sections describe integral protection in more detail and how to identify compliant products.

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Integral protection against back-siphonage

The PCA B5D2(2)(b) and Schedule 2 Referenced Documents specify that having determined an Individual Hazard Rating, an appropriate backflow prevention device is to be selected and installed in accordance with AS/NZS 3500.1:2021 Section 4.

- A bidet douche seat outlet is only subject to potential back-siphonage.
- AS/NZS 3500.1:2021 now lists Atmospheric Vacuum Breaker (AVB) valves and Air Gaps (AG) as providing high hazard protection against back-siphonage.

As described above, some manufacturers offer bidet douche seats that feature integral high hazard protection devices, while some other products have no integral protection.

High Hazard Devices – no integral protection

- For bidet douche seats that do not feature integral high level protection, a suitable high hazard device selected from AS/NZS 3500.1:2021 Section 4 must be installed at the inlet to the device (for example, a reduced pressure zone device).

High Hazard Devices – with integral protection

- Some appliances feature integral backflow protection through the provision of Air Gaps (AG) and Atmospheric Vacuum Breakers (AVB). As per AS/NZS 3500.1:2021, both these integral non-testable devices are now listed as providing high hazard rating

protection against back-siphonage conditions. The provision of either of these devices as integral components of the product satisfies PCA B5D2(2)(b).

- Manufacturer installation instructions may also recommend the fitting of a supplied non-testable dual check valve at the inlet connection.

For compliant products with integral backflow protection, no other additional high level backflow device is required.

How to identify if a bidet douche seat features a compliant integral backflow device

A bidet douche seat with compliant integral backflow prevention must show through its certification at least one of the following:

- Integral minimum air gap (AG) compliant with AS 2845.2
- Integral atmospheric vacuum breaker (AVB) compliant with AS 2845.1

In either instance the manufacturer may also include a separate dual check valve compliant with AS 2845.1.

The following steps demonstrate the basic process required to check the compliance status of a bidet douche seat.

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Step 1

Prior to specifying or installing a bidet douche seat, confirm that the product holds WaterMark certification (image 2).



Image 2: WaterMark certification label

Step 2

Find the WaterMark licence number (highlighted in image 3) on the packaging, product literature or installation instructions.



Image 3: highlighted WaterMark

Step 3

Go to the [WaterMark website](#) and type the licence number into the search field.

Image 4: WaterMark product search

Step 4

Review the certificate details provided and confirm that any integral protection is compliant.

Category of work

Having determined the compliance status of a bidet douche seat, installing plumbers must confirm the type of work in accordance with

the [Director's Determination – Categories of Plumbing Work](#). The following should be regarded as a basic guide to installations. Where you are unsure always discuss with your Plumbing Surveyor.

- A bidet douche seat holding a WaterMark license with an outlet that in all positions **is 25mm above** the overflow level of the pan, is a low hazard device and does not require any additional backflow prevention device to be fitted. This is Category 2 work requiring no pre or post notification to Council (where no alteration of water supply or relocation of fixtures is included).
- A bidet douche seat with WaterMark certification and an outlet that in all positions **is not 25mm above** the overflow level of the pan, but incorporates integral backflow protection compliant with AS 2845 that is fitted as part of a replacement toilet suite or added to an existing toilet suite is Category 2 work requiring submission of a Form 80 - Notice of Low Risk Plumbing Work to the council following installation.
- A bidet douche seat with WaterMark certification and an outlet that in all positions **is not 25mm above** the overflow level of the pan **and does not include compliant integral backflow prevention**, requires an additional high hazard testable backflow prevention device to be fitted. This is Category 4 work requiring pre and post notification to Council.

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Boundary containment protection

Where a bidet douche seat is specified and an additional high hazard backflow prevention device for individual protection is required to be installed, the following applies in respect to Boundary Containment Protection:

- Class 1, 2, 7a and 10 buildings – the site is deemed to be Low Hazard as per provisions within the PCA S41C6, however in these instances and until further notice, plumbers are required to confirm boundary containment protection requirements with TasWater prior to job commencement. If TasWater require the existing boundary device to be raised to a higher protection level, then the installation must comply with the PCA and AS/NZS 3500.1 and all valves tested annually in accordance with AS/NZS 2845.3.
- For all other installations, the determination of boundary backflow containment device shall be assessed in accordance with the PCA and AS/NZS 3500.1

Document development history

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