



## Bidet douche seats and toilets

Bidet douche toilet seats and toilet pans with integral douche sprays are becoming more popular. This technical note clarifies the installation requirements and in particular the backflow protection provisions which have changed with the adoption of the Plumbing Code of Australia 2022.

### Applicable legislation

The Plumbing Code of Australia (PCA) 2022 was adopted as the standards that apply to plumbing work in Western Australia on 1 May 2023. Specification 41, Cross-connection hazards, in the PCA lists the levels of hazard and individual backflow protection required under S41C4.

Bidet douche seats and those integral to toilet pans are covered under S41C4(3)(f) which states, where the outlet in any position is not 25 mm above the overflow level of the pan, high hazard protection is required.

The high hazard backflow prevention device can be an integral part of the product or installed separately on the water supply inlet.

### Suitable devices for high hazard protection against back siphonage

Unlike a bidet with the spray at the bottom of the bowl and subject to back pressure, a bidet douche seat is only subject to back siphonage.

In the PCA 2022, part B5 covers cross-connection control and B5D2(2) states that each hazard must be isolated from the drinking water supply by a device selected from AS/NZS 3500.1:2021, section 4.

AS/NZS 3500.1:2021, table 4.4.1 lists the suitability of devices including the hazard rating and whether a device protects against back siphonage, back pressure or both.

The suitability of air gaps (AG) and atmospheric vacuum breakers (AVB) has changed in AS/NZS 3500.1:2021 and these non-testable devices are now suitable for high hazard protection against back siphonage only.

Products incorporating these devices as integral components are now available, however it is recommended that an additional non-testable dual-check valve is installed on the water supply inlet as additional protection from the high hazard.

A high hazard backflow protection device such as a reduced pressure device (RPZD) must be installed on the water supply inlet of bidet douche seats that do not have either an integral AG or AVB.



**Photo 1:** Typical example of a bidet douche seat

### How to determine if a seat or toilet has an integral high hazard backflow device

All Bidet douche seats must be WaterMark certified and listed on the WaterMark database to the WaterMark Technical Specification-051 (WMTS-051:2021).

The details of any internal backflow devices within the seat must be listed under the 'view product detail' tab on the WaterMark database, see example on page 2.

The link to the database is on the Australian Building Codes Board's web site:

<https://watermark.abcb.gov.au>

## How to search the WaterMark data base for products with integral high hazard devices

Screen shot 1 below shows one pathway to the list of all bidet douche seats certified to specification WMTS-051. The search can be refined by adding details in the other fields, such as the WaterMark licence number, brand name or product ID. When all details are entered click the search tab.

The screenshot shows the 'WaterMark Product Search' interface. At the top, there is a search bar labeled 'Search By' with the placeholder text 'Licence number, product Model ID, Model name or Brand name' and a 'Search' button. Below this is an 'Advanced search' section with three dropdown menus: 'Product Type', 'Specification' (set to 'WMTS-051:2021'), and 'Licence Holder'.

Screen shot 1: WaterMark product search criteria from the WaterMark tab using WMTS-051 as specification

Active Product Authorised Product, Safe to install	Active Product Authorised Product, Safe to install	Active Product Authorised Product, Safe to install
<b>Licence:</b> 011111 <b>EXP:</b> 29/10/2028  <b>Model ID:</b> XXXX <b>Model Name:</b> XXXX <b>Brand:</b> XXXX  <a href="#">View product detail</a>	<b>Licence:</b> 022222 <b>EXP:</b> 29/10/2028  <b>Model ID:</b> XXXX <b>Model Name:</b> XXXX <b>Brand:</b> XXXX  <a href="#">View product detail</a>	<b>Licence:</b> 033333 <b>EXP:</b> 29/10/2028  <b>Model ID:</b> XXXX <b>Model Name:</b> XXXX <b>Brand:</b> XXXX  <a href="#">View product detail</a>

Screen shot 2: Examples of WaterMark product search results in the WaterMark database

When the desired product is found, click on the blue 'view product detail' tab. This tab lists the product details including specifications of any integral backflow provisions under the heading 'Description' or 'Scope of Use'.

Seats with a description of either an AG, as per the example 1 below in red text or an AVB, as per example 2 below in blue text, is sufficient evidence of acceptable, integral high level backflow protection. Seats that do not have either an integral AG or AVB must have a high hazard backflow protection device such as an RPZD installed on the water supply inlet.

### Certificate

00XXX

### Model ID

00XXXX

### Model Name

Bidet douche

### Brand Name

XXXXX

### DtS Installation

Yes

### Categories

Bidet douche seats

### Description/Scope of use (must list either an air gap or atmospheric vacuum breaker as shown below)

1. DN15 solenoid integral break tank with an air gap (AG) complying with AS 2845.2. Includes separate backflow prevention device, dual check valve in accordance with AS/NZS 2845.1 to be installed on the inlet; **or**
2. DN15 composite solenoid integral AS/NZS 2845.1 compliant high hazard atmospheric vacuum breaker (AVB). Includes separate backflow prevention device, dual check valve in accordance with AS/NZS 2845.1 to be installed on the water supply inlet.

## Containment protection

Hazard ratings for containment protection at the property boundary are determined by water services providers in Western Australia. Licensed plumbing contractors seeking clarification or advice on containment protection should contact the relevant water services provider, for example the Water Corporation.

### Notes

The technical note series is issued by the Plumbers Licensing Board to assist the plumbing industry to comply with the Plumbers Licensing and Plumbing Standards Regulations 2000 (the Regulations) applicable to plumbing work in Western Australia.

Each technical note is to be read in conjunction with Part 6 of the Regulations that currently adopt the Plumbing Code of Australia (PCA) and the deemed to satisfy provisions of AS/NZS 3500:2021, parts 0, 1, 2 and 4 but modified in certain matters to suit the State's building approach and other local conditions.

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