

# WHY INTELLIGENT DESIGNERS

ARE EMBRACING INTELLIGENT TOILETS



## INTRODUCTION

Bidets are relatively commonplace in markets such as Europe, Asia and the Middle East, however in Australia, UK and the USA it's not often you will find these stand-alone, toilet-adjacent units. It is unclear why this is the case given the hygiene and sustainability advantages a bidet affords, yet the likelihood of a bidet being specified in an Australian bathroom has reached an all-time low in recent years leading to an almost complete absence of the utility in new projects.

Why Australia, the UK and USA have lagged behind Europe, Asia and the Middle East is a mystery. A lack of available space in the average bathroom is one theory, as is the more conservative approach to bathroom etiquette in comparison to European and Asian markets.

In addition, traditionally bidets were uncomfortable to use, utilised cold water, needed a towel for drying and required the user to move across to the bidet from the toilet suite. Overall neither convenient nor hygienic.

## INTELLIGENT TOILETS

Fast forward to today and now with the introduction of intelligent toilets to the Australian market - where compact, streamlined one-piece toilets include an integrated bidet - architects, designers and specifiers are reassessing the use of this technology in bathroom design in order to provide a better user experience, improved hygiene and superior sustainability on projects.

Intelligent toilets address the combination of technology, culture, personal hygiene and bathing habits as well as contributing to environmental sustainability through a reduction in water consumption and toilet paper waste.

## INCLUSIVE DESIGN ETHICS

Inclusive design ethics require that today's designs consider the requirements of users from diverse cultural backgrounds, age groups, physical and mental abilities.

With one in four Australians born overseas and every second Australian having an overseas-born parent,<sup>1</sup> along with an influx of tourists from South East Asia and the Middle East<sup>2</sup>, commercial and residential projects at all levels require the inclusion of products and services that meet the enhanced needs and expectations of these international customers.

Multiculturalism is dominant in Australia and our more diverse population has led to an increased demand for a hygienic device like a bidet to be present in a bathroom - almost regardless of the context. This is especially true in high-end accommodation like boutique apartments and luxury suites in hotels, where overseas visitors from Europe, Asia and the Middle East have an expectation of luxury products such as a premium bidet to be available.



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## AGEING POPULATION

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Between 1994 and 2014, the proportion of Australians aged 85 years and over almost doubled from 1.0% of the total population in 1994 to 1.9% in 2014.<sup>3</sup> The trend towards an ever-increasing aging population places increased pressure on the industry to meet the needs for the elderly in all aspects of design.

Intelligent toilets can benefit the elderly and less mobile people, making independent toileting possible and affording the user greater independence. Features such as higher toilet pans for easy wheelchair transfer and electronic remote control can benefit individuals with limited mobility or those requiring assistance.

## OPTIMUM HYGIENE AND BATHING HABITS

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Intelligent toilets provide superior hygienic qualities to traditional toilets. The new rimless toilets can be easily cleaned, inside and out, helping to significantly reduce bacteria build up. As germs are most easily spread through hand contact, providing hands free operation can help to greatly reduce the spread of germs.

## SUSTAINABLE DESIGN

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Ultimately, intelligent toilets save paper as well as water and contribute to environmental certification.

The integrated bidet functionality reduces the need for toilet paper and can even eliminate it, saving money and allowing users to reduce their carbon footprint by reducing their paper waste over time. For example, the production of one toilet roll requires 140 litres of water on average during the manufacturing process, so reduced toilet tissue consumption contributes to further water savings.

A dual-flush actuator delivers 4.5/3 litre dual flush with an average of 3.3 litres per flush. Compared with a traditional 6 litre toilet, often found in commercial facilities, this offers a saving on average of 22,700 litres of water annually.<sup>4</sup>

## SMART FUNCTIONALITY

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Compared to the traditional style, stand-alone bidets, an intelligent toilet combines the bidet into the toilet unit freeing up valuable bathroom space; offers multiple flush options including hands-free flushing as well as bidet functionality managed using a one-touch remote control unit mounted beside the toilet. Rimless design and improved flushing systems provide cleaner and more efficient flushing to eliminate bacteria and if the unit is wall-hung, cleaning beneath is easy.

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## VEIL. WHEN TECHNOLOGY MEETS ART: WALL-HUNG INTELLIGENT TOILET BY KOHLER

Designed by Kohler, the Veil Wall-Hung Intelligent Toilet offers the perfect balance of form and function to encapsulate the essence of the modern intelligent toilet and the benefits and features most sought out by designers and users alike.

Balanced curves and ultra-responsive controls set the Veil Intelligent Toilet apart, creating the epitome of minimalist and ergonomic design with customised features fine-tuned to offer optimum hygiene and the ultimate individual comfort.

### Key features include:

- Multiple flushing options for improved hygiene: features automatic flush; touchless flush (hand over flush panel); one touch flush (via remote or side of pan) and manual flush.
- Remote control: Designed to fit easily in the hand for one-touch control of the full menu of cleansing features.
- Multi-function bidet wand: Multiple spray functions in a single wand for personalised cleansing comfort ranging from soft wash, pulsating wash and spiral wash.
- Bidet wand dual sanitising function: The nozzle is automatically cleaned with sterilised water after each use and automatically sanitises with UV light every 24 hours.
- Rimless dynamic flushing system: 360 degree all-around flushing system dispensing an exceptionally clean and efficient flush.
- Heated ergonomically designed seat: Eliminates seat pressure points and enhances seat comfort. With the addition of antibacterial properties for optimum hygiene.
- Warm air drier: Blows warm air after washing.
- Built-in Deodoriser – built-in deodoriser neutralises odours.
- LED Nightlight – illuminates the toilet to serve as a night-light.

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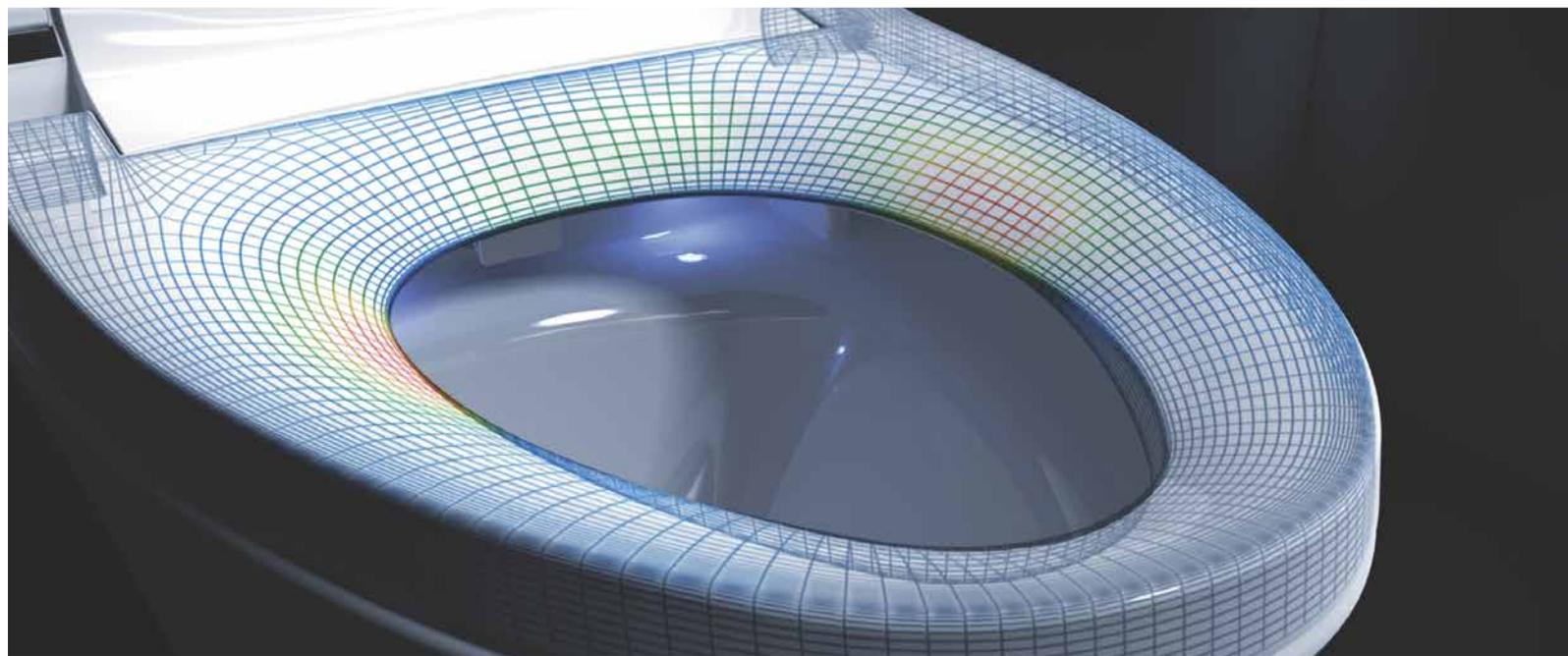
## KOHLER

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Kohler is a recognised global leader in kitchen and bathroomware design. Its diversity of products and powerful portfolio of brands leads the way in design, craftsmanship and innovation – underlined by a singular level of quality.

Founded 143 years ago, the company is now one of the oldest and largest privately-held companies in the United States that has now grown to include a series of brands in four distinct businesses – Kitchen and Bath, Global Power, Interiors & Hospitality and Real Estate.

Kohler Kitchen and Bathroom's global mindset is reflected in its commitment to bring unique sophistication and craftsmanship into the bathroom space with an extensive range of bold, innovative products - including baths, tapware, toilets and basins – including the distinctive Artist Editions basin collection.



## WHY KOHLER

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By using smart, water-saving designs and advanced technologies, KOHLER hospitality products help today's designers and architects create some of the world's most innovatively built environments found in luxury resorts and hotels the world over.

## REFERENCES

<sup>1</sup> <https://www.humanrights.gov.au/face-facts-cultural-diversity>

<sup>2</sup> <https://www.austrade.gov.au/ArticleDocuments/3814/Data-Alert-11March2014-Strong-inbound-tourist-arrivals.pdf.aspx>

<sup>3</sup> <http://www.abs.gov.au/ausstats/abs@.nsf/0/1CD2B1952AFC5E7ACA257298000F2E76?OpenDocument>

<sup>4</sup> <http://www.worldwatch.org/node/6403>