



Tempering Solutions for ASSE 1070 Applications



Whirlpools

Lavatories

Bidets

watts.com

WATTS[®]

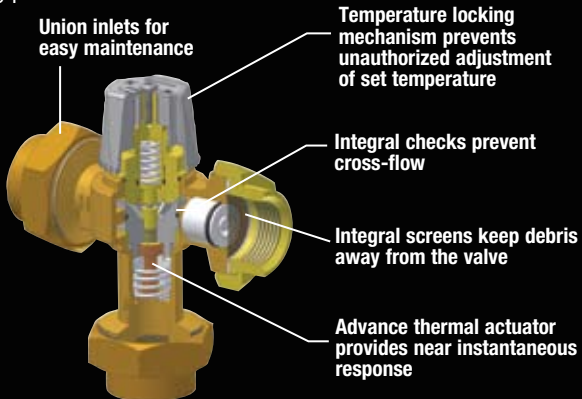


**120°F
Maximum**

MMV Whirlpool Valve

The Series MMV-WP models are Watts innovative solution to address safe tempered water to whirlpool tubs and baths as defined by the performance standard ASSE 1070. While most tempering valves require the setting of a handle-rotation stop to limit final delivery temperature, the MMV-WP's unique design limits water delivery temperature to 120°F*, regardless of inlet supply pressure and temperature. This ensures safe water, even if the handle-rotation stop is not initially set or later readjusted after routine maintenance. The MMV-WP features durable bronze construction, integral checks to prevent cross flow, and inlet screens to filter out debris. Five connection options are available including PEX, Sweat, Threaded, CPVC and Quick Connect in 1/2" and 3/4" sizes.

* ±3°F



International Residential Code - 2006

Section P2713.3 Bathtub and Whirlpool Bathtub Valves

"The hot water supplied to bathtubs and whirlpool bathtubs shall be limited to 120°F (49°C) by a water temperature-limiting device that conforms to ASSE 1070, except where such protection is otherwise provided by a combination tub/shower valve in accordance with Section P2708.3"

International Plumbing Code - 2006

Section 424.5 Bathtub and Whirlpool Bathtub Valves

Same as IRC-2006 Section P2.

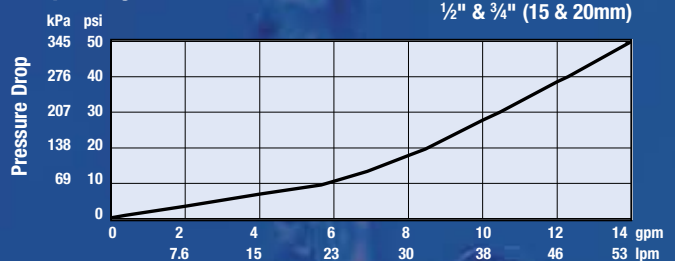
International Plumbing Code - 2006

Section 408.3 Bidet Water Temperature

"The discharge water temperature from a bidet fitting shall be limited to a maximum temperature of 110°F (43°C) by a water temperature limiting device conforming to ASSE 1070"



Capacity

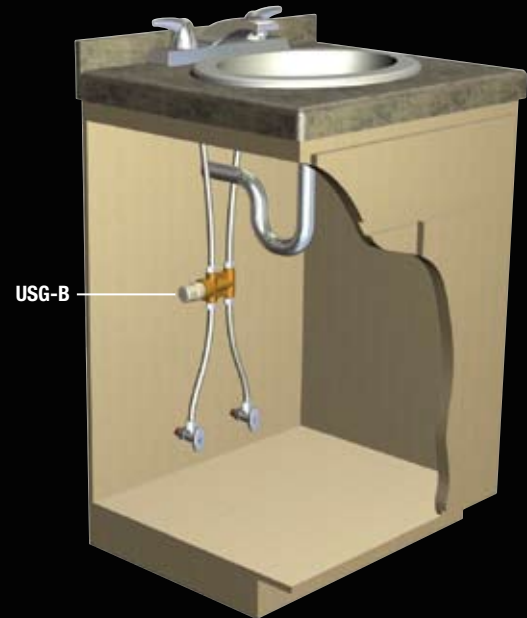
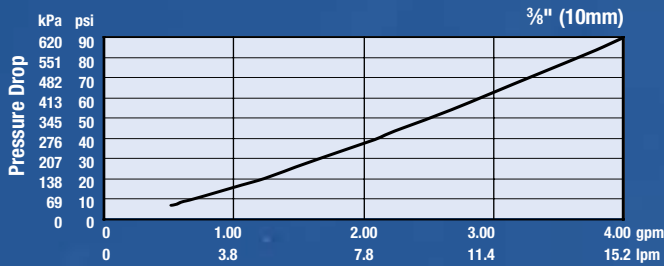




USG-B Lavatory Valve

Ideal for tempering water to sinks in public rest room facilities, the Under Sink Guardian features Watts' patented "H" pattern design with an integral cold water bypass saving considerable time and money during installation. The Series USG is available in bronze (USG-B) construction and features integral checks to prevent cross flow and inlet screens to filter out debris. Precise temperature control ensures safe water delivery temperature at all times.

Capacity



International Plumbing Code - 2006

Section 416.5

Tempered water for public hand washing facilities

"Tempered water shall be delivered from public hand-washing facilities through an approved water temperature limiting device that conforms to ASSE 1070"

Most Asked Questions on ASSE 1070

What is meant by water temperature limiting device?

One that restricts or limits the maximum temperature of the hot water supplying a fixture/fitting(s). Simply put, it's tempering the hot side of a valve in order to limit the maximum outlet temperature available to the user when mixed with cold water.

What is the scope of ASSE 1070?

What are the applications?

ASSE 1070 is for devices that limit water temperature to a fixture or fixtures such as sinks, lavatories, or bathtubs to reduce the risk of scalding. It is not intended to provide protection from thermal shock.

Is an ASSE 1070 valve the final tempering device?

Yes and no. The device can be the final tempering device or it can have water further tempered downstream (with the addition of cold water). In this instance, the valve is supplying tempered water to the hot side of a two-supply fitting and then further mixing with cold water at the point-of-use.

Does ASSE 1070 cover single or multiple fittings?

ASSE 1070 covers devices that supply single or multiple point-of-use fixtures.

Can the user adjust an ASSE 1070-listed device?

Yes, it may be adjusted by the user or may be inaccessible to the user and set by the installer or building owner.

What is the maximum temperature allowed by an ASSE 1070 device?

A valve will be rejected, if at any time during Temperature Variation Test, the outlet temperature exceeds 120°F. Each valve must have an adjustable and lockable means to limit the setting of the device to the hot position.

What are the differences between ASSE 1070 and ASSE 1016?

ASSE 1016 covers three valve types (P – pressure balancing, T – thermostatic and T/P – combination). ASSE 1070 covers a single valve type, which is very similar to an ASSE 1016 type T valve, with a couple of exceptions. The temperature control requirements are not as stringent for a 1070 device ($\pm 7^\circ\text{F}$ allowable) versus a 1016 valve ($\pm 3.6^\circ\text{F}$) due to the less critical nature of the application (showering versus hand washing or bathing).

Another important difference, and where 1070 is more stringent than 1016, is minimum tested flow. ASSE 1016 devices are tested for temperature control at a minimum flow of 2.5 gpm, the standard showerhead rating. ASSE 1070 devices are tested at the “manufacturers stated minimum flow”. Because public rest room facilities require faucets outfitted with low flow aerators, most manufacturers rate their valves at a minimum flow of 0.5 gpm. This is important because accurate control at low flows is critical to the users safety.

How does ASSE 1070 differ from ASSE 1069?

An ASSE 1069 listed valve supplies water to a single pipe/tempered fitting and does not allow further tempering downstream. Examples would be push-button or infrared metering showers. Because the primary application for 1069 is showers, the temperature control requirement is more stringent than 1070. Actually, it is exactly the same for that of an ASSE 1016 type T valve, $\pm 3.6^\circ\text{F}$ (2.0°C).

Finally, an ASSE 1069 valve cannot be adjusted by the user (installer or building owner only) where a 1070 valve can, and is intended to reduce the risk of thermal shock as well as scalding. A 1070 valve is not required to reduce the risk of thermal shock.

MODEL	ORDER CODE		DESCRIPTION
<i>Whirlpool/Bidet</i>	$\frac{1}{2}$ "	$\frac{3}{4}$ "	
MMV-UT-WP	0206043	0206072	Union Threaded Connection, 120°F maximum
MMV-US-WP	0206070	0206071	Union Sweat, 120°F maximum
MMV-PEX-WP	0206701	0206074	Union PEX, 120°F maximum
MMV-CPVC-WP	0206044	0206073	Union CPVC, 120°F maximum
MMV-QC-WP	0204047	0206075	Union Quick-Connect, 120°F maximum

<i>Lavatory</i>			
USG-B-M1	0204130		$\frac{3}{8}$ " Compression



A Watts Water Technologies Company



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