



## **ASSE COMPARISON**

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A Comparison of ASSE 1016, 1017, 1062,  
1069, 1070, 1071

**POWERS™**

Water Tempering Innovation Since 1891



## A Comparison of ASSE 1062, 1069, 1070 and 1071 with revised 1016 and 1017 standards.

### ASSE Standards

Standard	ASSE 1016 - 1996*	ASSE 1016 - 2005*	ASSE 1017 - 2003
Status	Model Code Adopted	Current	Current
Title	Individual Thermostatic, Pressure Balancing, and Combination Pressure Balancing, Thermostatic control valves for individual fixtures	Automatic Compensating valves for individual showers and tub-shower combinations	Temperature Activated Mixing Valves for hot water distribution systems
Category	Point-of use, bather interface	Point-of use, bather or bather attendant interface	Tempered water distribution
Application	Bath & shower	Shower or tub-shower combination only	Hot water source/boiler
Types	Type P - Pressure Balancing Type T - Thermostatic Type T/P - Combination	Type P - Pressure Balancing, Type T - Thermostatic, Type T/P - Combination	Thermostatic only
Valve Temp Range - Outlet	Full cold to 105°F minimum	Full cold to 105°F minimum, 120°F maximum	Minimum adjustable range 105°F - 120°F
Temperature Tolerance	± 3°F	T/P and P = ±3.6°F T = +5.4°F, -9.0°F	±3°F to ±7°F (depending on valve size/capacity)
Pressure Change Test (Hot & Cold)	P = 50% up/down T = 20% up/down T/P = 50% up/down	P = 50% up/down T = 20% up/down T/P = 50% up/down	No pressure change test
Temperature Change Test (Hot)	P = Does not test for temperature change T = 25°F hot water increase T/P = 25°F hot water increase	P = Does not test for temperature change T = 25°F hot water increase T/P = 25°F hot water increase	25°F hot water increase
Flow Test	Not applicable	Minimum 2.25 gpm	Not applicable
Minimum Tested Flow to Provide Control	2.5 gpm	2.5 gpm	50% of flow @ 10psid
Cold Water Failure Allowance	P, T, T/P < 0.5 gpm within 5 seconds before 120°F	P, T, T/P < 0.5 gpm within 5 seconds before 120°F	Not applicable
Life Cycle	P = 100,000 cycles T = 20K control dial/80K sensor T/P = 20K control dial/80K sensor	100,000 cycles – all	Not applicable
Applicable POWERS Products	e700 Type T/P - bath & shower e480 - Type T/P - lavatory e420 Type T/P - bath & shower, lavatory e427 - Type T - high capacity bath & shower 900 Type P - bath & shower 410 Type P - bath & shower LM495 - lavatory	e700 Type T/P - bath & shower e420 Type T/P - bath & shower e427 Type T - high capacity bath & shower 900 Type P - bath & shower 410 Type P - bath & shower	430 Series - Master Mixing Valves LM490 Series for multiple lavatories 1430 Single Valve Hi/Los Powerstation Supply Fixtures Hi/Los-Multi-valve

\* Some products undergoing ASSE listing process.

Shaded sections of chart denote changes from ASSE 1016 - 1996 to ASSE 1016 - 2005.

ASSE 1062 - 2006	ASSE 1069 - 2005	ASSE 1070 - 2004	ASSE 1071
Current	Current	Current	In Development
Temperature Actuated, Flow Reduction valves for individual fixture fittings (TAFR)	Automatic Temperature Control Mixing Valves	Water Temperature Limiting Devices	Temperature Activated Mixing valves for plumbed emergency equipment
In-line high temperature limit devices	Point-of-use distribution Adjustment by installer	Point-of-use or distribution	Point-of-use or distribution
Faucets, shower heads, tub spouts dramatically reduce flow when temperature exceeds actuation point	Gang showers, sitz baths, spas, gang lavatories	Sinks, lavatories, baths	Eye washers, eye/face washes, drench showers and combination units
Thermostatic only	Thermostatic only	Thermostatic only	Thermostatic only
Not applicable	100°F - 115°F	105°F - 110°F	65°F - 95°F
Maximum actuation temperature 120°F or less	+ 5°F lasting more than 1.5 seconds within first 5 seconds - 9°F lasting more than 1 second within first five seconds	± 7°F	Varies depending on capacity. Also, hot water control has a tighter tolerance than cold water control.
Not applicable	20% up and down for cold & hot supply	20% up and down for cold & hot supply	Not applicable
Not applicable	25°F hot water increase	25°F hot water increase	25°F hot water increase
0.25 gpm within five seconds when temp. exceeds 120°F and one second once actuation temperature exceeds 129°F	Must be 90% of manufacturer's published flow	Must be 90% of manufacturer's published flow	HW Failure, CW flow = manufacturer's rated by-pass flow @ 30 psid
Not applicable	2.5 gpm or less	Manufacturer's minimum stated flow	3.0 gpm or manufacturer's stated minimum
Not applicable	0.5 gpm for 1/2" and 3/4" devices 1.0 gpm for 1" devices and larger	0.2 gpm or 20% of minimum flow, whichever is greater before 120°F	CW failure, HW flow gpm not to exceed 0.5
125,000 cycles	100,000 cycles	100,000 cycles	Not applicable
HT115	*e427 & e428 for sitz baths and gang showers *LM495 - lavatory	*e480 - Type T/P - lavatory LM495 - lavatory	ES150 - Eye/face washes ES200 - Drench showers ES400 - Combination units

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