

# ASSE Comparison

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





## 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<br>Type T - Thermostatic<br>Type T/P - Combination  | Type P - Pressure Balancing,<br>Type T - Thermostatic,<br>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<br>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<br>T = 20% up/down<br>T/P = 50% up/down   | P = 50% up/down<br>T = 20% up/down<br>T/P = 50% up/down   | No pressure change test  |
| Temperature Change Test (Hot)          | P = Does not test for temperature change<br>T = 25°F hot water increase<br>T/P = 25°F hot water increase  | P = Does not test for temperature change<br>T = 25°F hot water increase<br>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<br>T = 20K control dial/80K sensor<br>T/P = 20K control dial/80K sensor  | 100,000 cycles – all  | Not applicable   |
| Applicable POWERS Products units       | e700 Type T/P - bath & shower<br>LFe480, LFG480 - Type T/P - lavatory<br>e420 Type T/P - bath & shower, lavatory<br>e427 - Type T - high capacity bath & shower<br>900 Type P - bath & shower<br>410 Type P - bath & shower<br>LFLM495 - lavatory | e700 Type T/P - bath & shower<br>e420 Type T/P - bath & shower<br>e427 Type T - high capacity bath & shower<br>900 Type P - bath & shower<br><br>410 Type P - bath & shower | LFMM430 Series - Master Mixing Valves<br>LFLM490 Series for multiple lavatories<br>LFSH1430 Single Valve Hi/Los<br><br>IntelliStation<br><br>Supply Fixtures<br>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 (TAFFR)                           | 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 | No Temperature control requirement                                | 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 ½" and ¾" devices<br>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<br>LFLM495 - lavatory  | LF480, LFG480-Type T/P-lavatory<br>LFLM495 - lavatory             | ES150 - Eye/face washes<br>ES200 - Drench showers<br>ES400 - Combination                               |



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