



WATER VOLUME CODE COMPLIANCE

Eemax® tankless electric water heating products enable code compliance and help meet requirements for water and energy efficiency.

REGION: United States MARKET: Service Water Heating BUILDING CODE: International Energy Conservation Code

International Energy Conservation Code (IECC)

IECC is a building code created by the International Code Council in 2000. It is a model code adopted by many states and municipal governments in the United States to establish minimum design and construction requirements for energy efficiency.

Pipe & Water Volume Codes

- C404.5 Efficient heated water supply piping
- C404.5.1 Water volume determination
- C404.5.2 Maximum allowable pipe volume method

THE CHALLENGE

Code compliance dictates that the volume from the nearest source of heated water to the termination of the fixture supply shall be as follows:

Water volume in public lavatory faucet piping shall not exceed **2 ounces**.

Water volume for other plumbing fixtures or plumbing appliances shall not exceed **0.5 gallons**.

Water heaters, circulating water systems, and heat trace temperature maintenance systems shall be considered sources of heated water.

C404.5.2.1, Water volume determination

The volume shall be the sum of the internal volumes of pipe, fittings, valves, meters, and manifolds between the

nearest source of heated water and the termination of the fixture supply pipe. The volume in the piping shall be determined from the "Volume" column in Table C404.5.1 (below).

The volume contained within fixture shutoff valves, within flexible water supply connectors to a fixture fitting, and within a fixture fitting *shall not be included* in the water determination.

Where heated water is supplied by a recirculating system or heat-traced piping, the volume *shall include* the portion of the fitting on the branch pipe that supplies water to the fixture.

Table C404.5.1
Piping Volume and Maximum Piping Lengths

| Nominal Pipe Size (inches) | Volume (liquid ounces per foot length) | Maximum Piping Length (feet) | |
|----------------------------|--|------------------------------|-------------------------------|
| | | Public lavatory faucets | Other fixtures and appliances |
| 3/8 | 0.75 | 3 | 50 |
| 1/2 | 1.5 | 2 | 43 |
| 3/4 | 3.0 | 1/2 | 21 |
| 1-1/4 | 8.0 | 1/2 | 8 |



THE SOLUTION

Designing a distributed point-of-use water heating system with Eemax tankless electric water heating products will save water, save energy, and save money while delivering safe, consistent, temperature stable hot water.



EEMAX PRODUCT FAMILIES THAT SUPPORT IECC C404.5 COMPLIANCE

LavAdvantage™

Thermostatic tankless electric water heater with silent operation and an industry leading low flow activation at 0.2 GPM.

AccuMix II™

Meets UPC 407.3 for public handwashing with an integrated ASSE 1070 compliant mixing valve.

FlowCo™

Non-thermostatic tankless electric water heater ideal for single sensor or metered faucet and other fixed-flow applications.

MiniTank™

Compact in design, available in 4 sizes, ready to install right out of the box, and can be connected to either a hot or cold water feed.



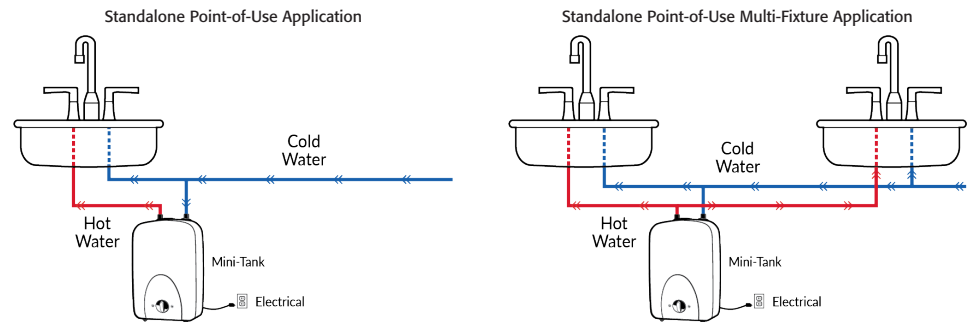
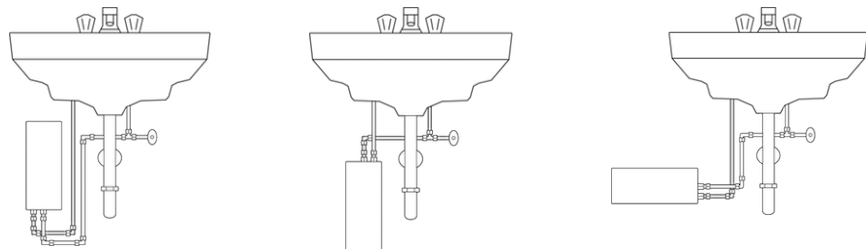
BENEFIT TO HANDWASHING APPLICATIONS

Installer | Easy to install and operate with enhanced troubleshooting interfaces to reduce time and labor. Inlet and outlet fittings suit common plumbing connections. Supported by a knowledgeable customer service team.

User | Safe and consistent hot water on demand. Temperature stability is ensured with our proprietary active energy management and power modulating controls.*

FLEXIBLE INSTALLATIONS AND FEATURES

- 
Self
Diagnostics
- 
SafeStart™
Technology
- 
Energy
Management*
- 
Field
Adjustable*
- 
Mount in any
Orientation
- 
Compact
Size



* Varies by family.

