

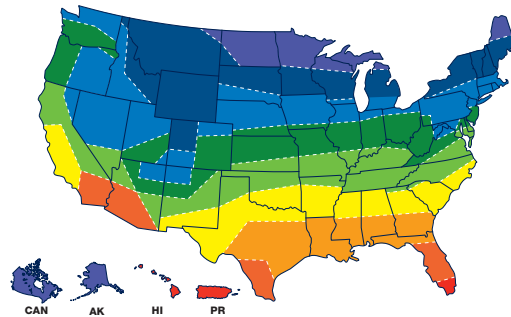
## The simple solution to ensure hot water output.

The most common challenge faced with a tankless water heater is when the water flow exceeds the power capacity of the heater resulting in reduced water temperature. To solve this issue, Eemax created a simple fitting that threads on the outlet side of the heater. The fitting contains an insert which limits the flow rate at a chosen level while causing almost no pressure loss below that level. With the Inline Flow Regulator installed, the Eemax heater will provide the desired output temperature regardless of the number of hot water outlets opened.












### STEP 1: Calculate the maximum design flow rate that your heater can handle

- Determine the power rating (kW) of your heater.
- Use either the groundwater temperature map or measure your incoming water temperature.
- Determine the desired output temperature (For handwashing or showers use 105°F)
- Calculate the required Rise in Temperature °F.
- Choose the part with the insert size closest to your maximum flow rate.



#### Average Inlet Temperature

|                                                                                       |      |                                                                                       |      |
|---------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------|------|
|    | 37°F |    | 62°F |
|   | 42°F |   | 67°F |
|  | 47°F |  | 72°F |
|  | 52°F |  | 77°F |
|  | 57°F |                                                                                       |      |

These are general temperature zones, actual inlet temperature may be affected by local variations and seasonal changes.

| TOTAL GALLONS PER MINUTE (GPM) DEMAND | 5                   | 15 kW | 22 kW | 29 kW | 37 kW | 44 kW | 51 kW | 59 kW | 66 kW |
|---------------------------------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                       | 4                   | 12 kW | 18 kW | 23 kW | 29 kW | 35 kW | 41 kW | 47 kW | 53 kW |
|                                       | 3                   | 9 kW  | 13 kW | 18 kW | 22 kW | 26 kW | 31 kW | 35 kW | 40 kW |
|                                       | 2                   | 6 kW  | 9 kW  | 12 kW | 15 kW | 18 kW | 20 kW | 23 kW | 26 kW |
|                                       | 1.5                 | 4 kW  | 7 kW  | 9 kW  | 11 kW | 13 kW | 15 kW | 18 kW | 20 kW |
|                                       | 1                   | 3 kW  | 4 kW  | 6 kW  | 7 kW  | 9 kW  | 10 kW | 12 kW | 13 kW |
|                                       |                     | 20°F  | 30°F  | 40°F  | 50°F  | 60°F  | 70°F  | 80°F  | 90°F  |
|                                       | RISE IN TEMPERATURE |       |       |       |       |       |       |       |       |

### STEP 2: Install the Flow Regulator on the outlet side of the heater

- There are two models to choose from based on 1/2" or 3/4" NPT threads and flow rating.
- The device can be threaded directly on the outlet of the heater or anywhere in the piping between the heater and outlet.

**Example.** Nashville, TN office break room with a kitchen sink and a dishwasher. 57°F incoming water requires 60°F rise to achieve hot water for dishwasher. Based on the chart at 60°F rise, an 18 kW heater will produce up to 2 GPM flow. The heater has 3/4" outlet threads, so using the IFR 3-4 with the 2.0 GPM insert is the best choice.