



Product Bulletin

Zilmet ZEP Sizing for Tankless Heaters

March 2, 2020

Standard Sizing:

- The ZEP1 sizing for 2 gallons of water applies to the volume of water within the heat exchanger of the tankless water heater as defined in the manufacturer's specification. Water outside the tankless heater is not taken into account because the line to the fixtures is only hot when there is a demand for hot water (thus an open system). So standard sizing of the ZEP1 relates to only the water in the heater.

Recirculation Loop:

- To account for a recirc loop, add the volume of water in the return line only, and not in the line to the fixtures for the reason as stated above. The volume of water in a 1 foot length of copper pipe is as follows:
- Add the volume of water calculated in the recirc loop to the water in the heat exchanger for the Total System Volume.

PIPE SIZE (inches)	VOLUME PER FOOT	
1/2	0.013	gallons
3/4	0.027	gallons
1	0.045	gallons
1 1/4	0.068	gallons

* Type M copper pipe

$$\begin{aligned}
 &\text{Heat Exchanger Volume (gallons)} \\
 &+ \\
 &\text{Return Line Distance (feet) x} \\
 &\text{Volume per foot (gallons)} \\
 &= \\
 &\text{Total System Volume (gallons)}
 \end{aligned}$$

Increased Volumes:

- If Total System Volume is greater than 2 gallons, we have the new ZEP2 and ZEP3 for larger applications.
- Covers up to 5gal and 10gal
- All models will be in our new price book

Model	Total System Volume (Tankless + Recirc)
ZEP1	2 gallons
ZEP2	5 gallons
ZEP3	10 gallons



ZEP1, ZEP2, and ZEP3