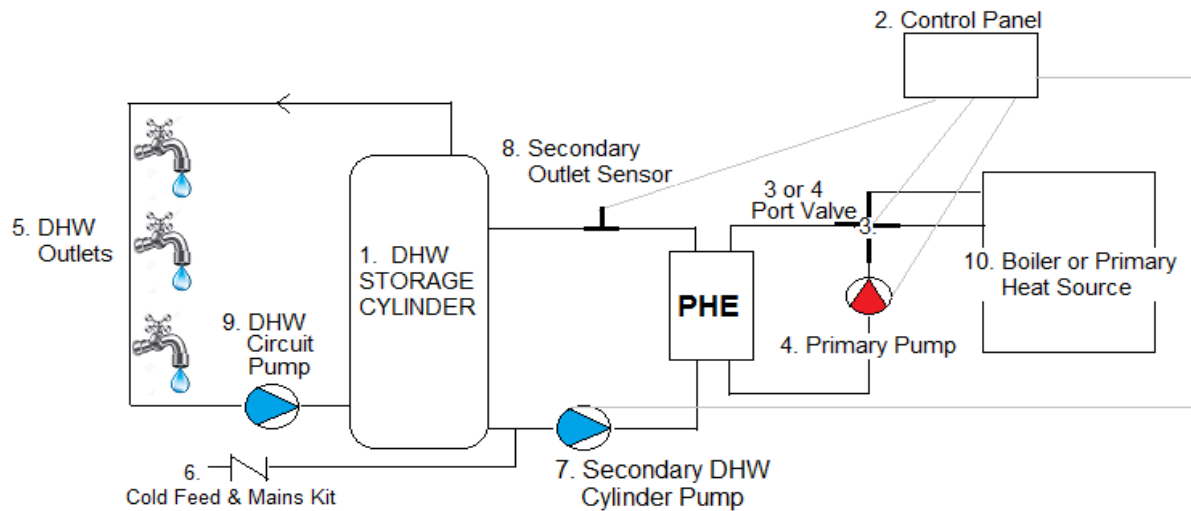


SEMI INSTANTANEOUS DHW SYSTEM USING A PHE and CYLINDER



NOTE; POSSIBLE LAYOUT WHEN USING A PHE WITH A DHW CYLINDER

1. DHW Cylinder to be heated.

To start, we need to know the volume of water in the cylinder, the demand from the DHW circuit, the time it will take to empty the cylinder and the time it will take to re heat the cylinder from cold to start calculating the most suitable PHE.

2. System Control Panel.

The control panel will sense the secondary flow temperature leaving the plate heat exchanger and send a signal to the modulating 3 or 4 port valve to close or open depending on demand.

3. Primary 3 or 4 port valve.

This valve will open or close as demand (temperature) increases or decreases on the secondary flow out of the PHE.

4. Primary Heating Pump.

This pump will circulate water at the correct design flow rate

5. Secondary Domestic Hot Water Outlets

These outlets will be taps, showers, kitchen appliances etc.

6. Secondary Cold Feed & Mains Kit.

This is the point where fresh water enters the DHW circuit to replenish used water.

7. Secondary DHW Cylinder Pump.

This pump maintains the correct flow between the cylinder & PHE.

8. Secondary Temperature Sensor.

This will sense the DHW flow temperature out of the PHE to the outlets and tell the control panel to open or close the 3 or 4 port valve allowing more or less hot water through on the Primary side of the PHE.

9. Secondary DHW System Pump.

This pump circulates DHW around the circuit to the outlets.

10. Boiler or Primary heat source.