

What is claimed is:

1. A dispenser for dispensing a specified volume of water at a specified temperature into a waiting user vessel, comprising:
 - 5 a water line for receiving water from a water source;
 - a first holding tank for storing water at a first predetermined temperature, the first holding tank having a first inlet for receiving water, a first temperature sensor, a first outlet having a first pump, and a first heater for maintaining water within the first holding tank at a first predetermined temperature;
 - 10 a second holding tank, separate from the first holding tank, for storing water at a second temperature different from the first predetermined temperature, the second holding tank having a second inlet, a second temperature sensor, and a second outlet having a second pump;
 - a first recirculation valve in fluid communication with the first outlet, wherein the
15 first recirculation valve is operable to selectively divert water from the first outlet between a first recirculation loop which returns water to the first holding tank or a first water dispense line;
 - a water dispense port in fluid communication with the first water dispense line and a second water dispense line connected to the second outlet, wherein the water dispense port is
20 configured to dispense water from the first holding tank and the second holding tank into the vessel;
 - a first flowmeter positioned between the first outlet and the water dispense port in fluid communication with the water from the first holding tank;
 - a second flowmeter positioned between the second outlet and the water dispense port
25 and in fluid communication with the water from the second holding tank;
 - an electronic controller for receiving input from the first temperature sensor, the second temperature sensor, the first flowmeter and the second flowmeter and controlling the first pump, the second pump, and the first recirculation valve in order to recirculate water in the first holding tank and the second holding tank and subsequently dispense the specified
30 volume of water through the water dispense port.
2. The dispenser of claim 1, wherein the first predetermined temperature is greater than the second temperature.

3. The dispenser of claim 2, wherein the first predetermined temperature is at least 20 degrees Fahrenheit greater than the second temperature.

5 4. The dispenser of claim 2, wherein the first predetermined temperature is between 202 and 212 degrees Fahrenheit.

5. The dispenser of claim 2, wherein the specified temperature is above the second temperature and below the first predetermined temperature.

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6. The dispenser of claim 1, wherein the second temperature is room temperature.

7. The dispenser of claim 1, wherein the water source is a pressurized water
15 supply line.

8. The dispenser of claim 1, further comprising a means for determining the boiling temperature of water and adjusting the first predetermined temperature.

20 9. The dispenser of claim 8, wherein the means for determining the boiling temperature of water and adjusting the first predetermined temperature comprises a barometer.

10. The dispenser of claim 1, wherein the first outlet further includes a first outlet
25 valve and the second outlet further includes a second outlet valve, wherein each of the first outlet valve and the second outlet valve are selectively controlled by the electronic controller.

11. The dispenser of claim 1, wherein the first pump and the second pump are variable speed pumps.

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12. The dispenser of claim 1, wherein the first recirculation valve comprises two or more distinct valves.

13. The dispenser of claim 1, further comprising a dispense valve controlled by the electronic controller to close the water dispense port.

14. The dispenser of claim 1, wherein the second holding tank includes a second
5 heater for maintaining water within the second holding tank at the second temperature.

15. The dispenser of claim 14, wherein the second temperature is above 90 degrees Fahrenheit.

10 16. The dispenser of claim 1, further comprising a second recirculation valve connected to the first outlet, wherein the second recirculation valve is operable to selectively divert water from the second outlet between a second recirculation loop which returns water to the second holding tank or a second water dispense line and wherein the second recirculation valve is controlled by the electronic controller.

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17. The dispenser of claim 16, wherein the second recirculation valve comprises two or more distinct valves.

18. The dispenser of claim 1, wherein the at least one of the first inlet and the
20 second inlet is in fluid communication with the water line.

19. A method of operating a dispenser having a first holding tank and a second holding tank to dispense a specified volume of water at a specified temperature into a waiting user vessel, comprising:

25 at least partially filling the first holding tank by electronically opening a first water inlet valve connected to a pressurized water supply line and the second holding tank by electronically opening a second water inlet valve connected to the pressurized water supply line;

heating and periodically recirculating the water in the first holding tank using a first
30 heater and a first pump, a first recirculation valve and a first recirculation loop until a first temperature sensor determines the temperature of the water contained in the first holding tank is at a first predetermined temperature;

heating and periodically recirculating the water in the second holding tank using a second heater and a second pump, a second recirculation valve and a second recirculation loop until a second temperature sensor determines the temperature of the water contained in the second holding tank is at a second predetermined temperature;

5 electronically calculating, using the temperatures reported by the first temperature sensor and the second temperature sensor, the volume of water to be dispensed from the first tank (V_1) and the second holding tank (V_2) in order to dispense the specified volume of water at the specified temperature into a waiting user vessel;

 electronically actuating the first recirculation valve to divert water from the first pump
10 through a first flow meter to a water dispense port;

 operating the first pump and receiving first electronic signals from the first flow meter to dispense the volume of water V_1 from the first holding tank through the water dispense port and into the user vessel;

 electronically actuating the second recirculation valve to divert water from the second
15 pump through a second flow meter to a water dispense port; and

 operating the second pump and receiving second electronic signals from the second flow meter to dispense the volume of water V_2 from the first holding tank through the water dispense port and into the user vessel.

20 20. The method of claim 19, wherein said operating the first pump and said operating the second pump occur at least partially at the same time.

 21. The method of claim 19, wherein volume V_1 and volume V_2 add up to the specified volume.

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 22. The method of claim 19, further comprising the steps of:

 recirculating the water in the second holding tank using the second pump, the second recirculation valve and the second recirculation loop immediately prior to said operating the first pump.

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23. The method of claim 22, further comprising the steps of:
recirculating the water in the first holding tank using the second pump, the second recirculation valve and the second recirculation loop immediately prior to said operating the first pump.

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24. The method of claim 19, wherein at least one of the first recirculation valve and the second recirculation valve comprises two or more distinct valves.