

Model 803 Prepiped Hi-Low Tempered Water Mixing System with Recirculation and SEA Basic Digital System Eng. No. 86603

CAPACITIES – MODEL 803

Pressure Drop PSI	5	10	20	30	45	60	80
Valve Number	Capacity						
803-GPM	43	60	85	103	125	144	165
803-LPM	163	227	322	390	473	545	624

1/2 gpm when properly installed in recirculated system.

Mixing valve shall be incorporated into a completely assembled and tested pre-piped manifold system which includes a recirculating pump, circuit setting balancing valve, aquastat, circulator switch box, thermometers, ball valves, mounting strut, SEA Basic Digital System and test connection.

803 Master water mixing valve shall be of the thermostatic type with liquid-filled thermal motor. It shall have lead free brass body construction with replaceable corrosion-resistant components. Valve construction shall employ a sliding piston control mechanism. Sliding piston and liner shall be of stainless steel material. Valve shall come equipped with union end stop and check inlets with removable stainless steel strainers. Valve shall provide three way protection against hot or cold supply line failure and thermostat failure.

FINISH: Brass
Rough Chrome
Other

TEMP. RANGE **SET POINT**

70° to 100°F 80°F
90° to 120°F 110°F
110° to 140°F 130°F
Special _____

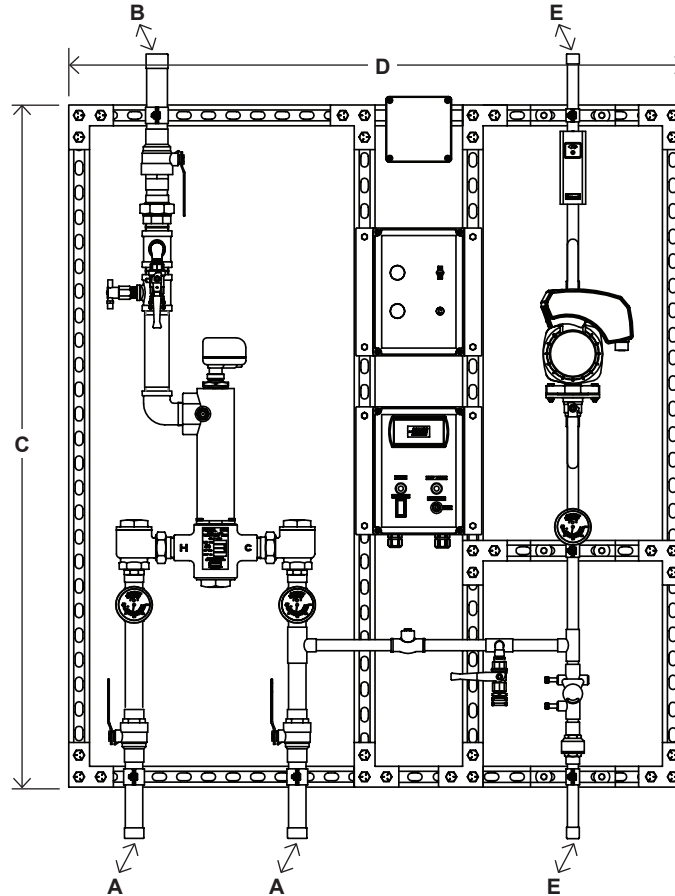
PUMP OPTIONS

- Bell & Gossett PL 30B
- Bell & Gossett PL 36B
- Bell & Gossett PL 55B
- Taco 2400 Series
- _____ (Include ft/head and GPM)
- Grundfos UP26 Series
- _____ (Include ft/head and GPM)

Digital mixing system package shall include digital monitoring of the inlet, outlet temperatures via either the building management system or webbased interface. System shall have local digital temperature adjustment and local pump control. System shall provide continuous data logging, password protected control box and lock-out security key system. System shall maintain set temperature in the event of power loss to the system. Package shall be factory assembled and tested.

Unit supplied with the following:

- A single Type J Thermocouple
- Modbus TCP/IP Protocol
- RJ-45 Communication Connection (Cable not included)
- Nema 4 ABS box attached with Stainless Steel Mounting Plate with 1/4" holes
- 9 ft. 120 VAC Power Cord
- Pump switch box for local pump on/off capability



DIMENSIONS

Valve Number	A	B	C	D	E
803	1-1/4" SWT	1-1/2" SWT	56"	51"	Specified by engineer

Dimensions are for reference purposes only. For rough-in dimensions please refer to Lawler's Revit/BIM models found at temperedwater.com.

All connections are sweat connections.

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Setting The Mixing Valve To The System

1. After installations be sure to flush the system thoroughly.
2. Make sure the hot water supply is heated to normal design temperature.
3. Close and tag all fixtures to ensure they are not used during this procedure.
4. Turn off the recirculating pump.
5. Create a draw on the system greater than the minimum flow rating of the mixing valve. All open fixtures must be tagged to ensure they are not tampered with or used during this procedure.
6. Allow water to flow through the mixing valve until the water temperature is stable. If necessary, readjust the mixing valve in accordance with the TEMPERATURE ADJUSTMENT section of the installation manual.
7. Once the temperature is set, start the recirculating pump and allow the system to reach set temperature.
8. Measure the water temperature at the return pump and adjust the aquastat to shut off the pump should the return water exceed the set point by 2 degrees F. Set the low limit switch to restart the return pump when return water drops 5 degrees F below the set temperature.
9. Set the balancing valve in the full open position.
10. Shut off all fixtures and ensure there is no draw on the system. The cold inlet to the mixing valve should be warm.
11. Allow the system to run in this condition for at least 30 minutes.
12. In some cases, an increase in water temperature may occur during a no draw period. If this occurs, slowly close the balancing valve until the water temperature is back to the original set temperature.