

Capac Test With Mixing Valve Trial 2

Equipment

SHEM 80E tank

LF1170 Mixing Valve

HOBO Energy Logger Pro

2 12-bit thermistors

Minol Minomess 130 Volumetric Flow Meter

Setup

One temperature probe was stuck through the T&P valve hole in the top of the tank to monitor the tank temperature. The second one was inserted through the wall of a pex tube to monitor the water temperature coming out of the heat exchanger. The mixing valve temperature was set to around 110-113°F.

Results

See Heat Test Trial 2.pdf in the same folder as this file

The test again produced around 61 gallons of hot water. This is very similar to trial number 1 which produced 58 gallons. The discrepancy could be caused by differing flows because of the lack of a flow meter plumbed into the system. A flow meter will be plumbed into the system for subsequent tests. This test also shows that at an average flow rate of 1.38 GPM, the average temperature difference between the tank temperature and the temperature coming out of the heat exchanger is around .94°F.

Conclusion

The tank produced 61 gallons of 110°F water starting from 161°F. The average temperature difference between the tank temperature and the water coming out is .94°F.