



BALANCING UPGRADE EVENS OUT HOT WATER TEMPS IN CUSTOM HOME PROJECT AT-A-GLANCE

Location:

Milton, Massachusetts

Contractor:

MacDougall Plumbing and Mechanical, LLC.

Lead:

Paul MacDougall

Product Focus:

ThermoSetter™

Challenge:

Long wait times for hot water

“IF THERE IS A MISTAKE, WE ARE GOING TO STAND BEHIND IT AND MAKE IT RIGHT. IT HELPS US GROW OUR BUSINESS, BECAUSE THE HOMEOWNERS TRUST WE WILL STAND BY THE RESULT, GOOD OR BAD. WE AREN'T AFRAID ABOUT TRYING NEW TECHNOLOGY, IF IT MAKES SENSE FOR OUR CUSTOMERS. THIS HAS BEEN OUR APPROACH SINCE PAUL SR. FOUNDED THIS COMPANY.”

~PAUL MACDOUGALL~

Overview:

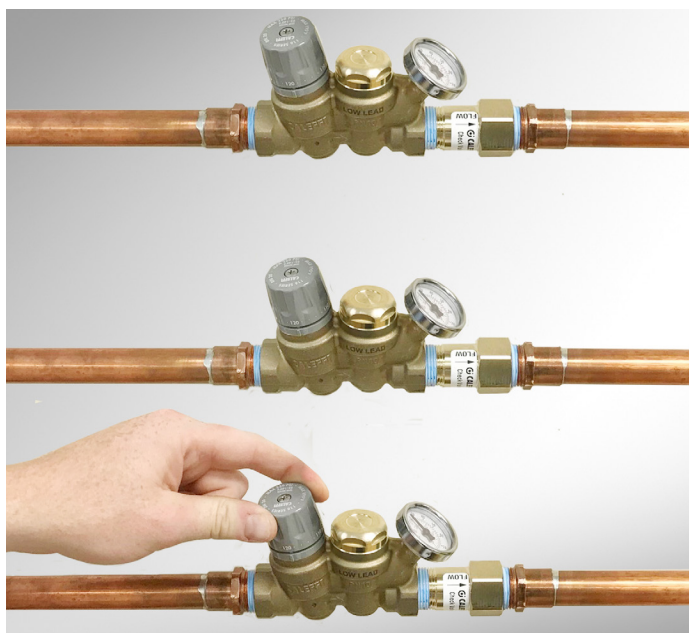
When you are working on balancing a domestic hot water recirculation line in a 24,000 square foot house, you need the right tools and a plumber who won't settle for “good but not great.” Paul MacDougall with MacDougall Plumbing and Mechanical was up against a tricky install and found a solution with a mix of persistence and Caleffi ThermoSetter balancing valves.

BALANCING UPGRADE EVENS OUT HOT WATER TEMPS IN CUSTOM HOME

THE PROBLEM WITH WATER

In a Milton, Massachusetts custom home, the residents were noticing long wait times for hot water at some fixtures and others had warm water creep on the cold outlets. In a two bedroom ranch house it might be easy enough to pipe the lines differently to address the problem. In a light-commercial-scale home with 12 bathrooms, that type of renovation would be very disruptive.

The general contractor specified home-run piping for each cluster of fixtures, to minimize service parts throughout the house. In order to move that much pipe out of the central mechanical room, some of the chases and joist spaces were crowded with plumbing lines. While the pipes were well insulated, there was some thermal cross-over between hot and cold lines.



MacDougall's first troubleshooting step to address the few faucets that never got hot was to see what happened when the recirculation was set to constant, not controlled by an aquastat. While this reduced wait times at some fixtures another problem arose. The constantly hot lines were also providing some unneeded space heat near the distribution lines throughout the home.

BALANCING UPGRADE EVENS OUT HOT WATER TEMPS IN CUSTOM HOME

They knew they needed a balancing fix, but weren't looking for a traditional balancing valve. MacDougall knew all twelve individual branches needed individual regulation. Having balanced flow rates in hydronic systems in the past with Caleffi QuickSetters, he asked Capco Energy Supply if they had a valve for his application. Working with Dan Davis Sales, they recommended the Caleffi ThermoSetter balancing valves that control flow based on temperature, instead of pressure independent or fixed flow rate valves.

FIXING THE PROBLEM

They kept the central, home-run distribution, but added the ThermoSetters. With the ability to set the valves to specific temperatures for each line they combined the ideal, central serviceability with the performance that the homeowner was looking for at each fixture.

"We stopped heating up their floors and the furthest bathroom (1,500 feet of linear pipe away from the mechanical room) gets hot water now." -Paul MacDougall



MacDougall was happy with the results. "We just roughed out another huge house, and we went with the ThermoSetter immediately. We are also adding a Caleffi Legiomix to that one, too."

BALANCING UPGRADE EVENS OUT HOT WATER TEMPS IN CUSTOM HOME

He adds, “If you have an issue on the plumbing or hydronics side, you can always find an answer in the Caleffi idronics manuals. I have a desk set as a reference now. Dan Davis has

also been great to get our whole shop up to speed. When you get that type of support, that is the company you want to work with.”



CS21-005

WANT TO LEARN MORE?

We are committed to your success and are here to help. Check out our website [CALEFFI.US](https://caleffi.us) to explore an expansive collection of product information, training webinars, BIM objects, and our expansive library of educational idronics™ journals.

INQUIRES:

SALES:
sales@caleffi.com

TECHNICAL SUPPORT:
techsupport.us@caleffi.com

CALEFFI
Hydronic Solutions