Embrace the Technology®

CircuitSolver®

A ThermOmegaTech® brand

Comparable Cost Savings

Thermostatic Balancing Valve vs. Manual Balancing Valves

Domestic Hot Water Recirculation System Balancing

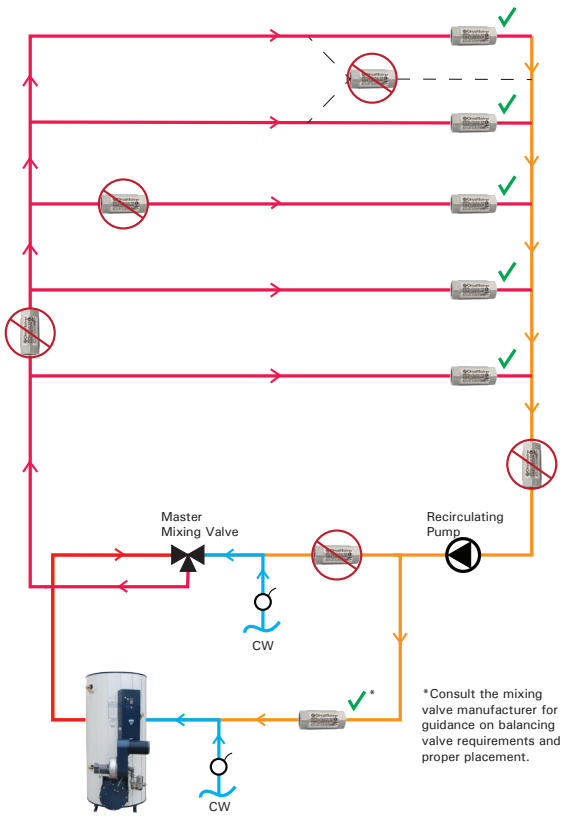
When balancing a Domestic Hot Water System (DHWS), the goal is to ensure hot water is consistently available at every fixture throughout a building on-demand.

This can be difficult with manual balancing methods, which can deplete time, money, and labor resources.

Multiple contractors must manually balance one valve at a time, often revisiting the same valve several times to adjust for inadequate flow or temperature throughout the system.

The manual balancing process is both laborious and time-consuming. In the end, it may still result in future callbacks as system demands evolve because they cannot react to dynamic changes in the DHWS.

In comparison, thermostatic balancing valves like ThermOmegaTech's **CircuitSolver® valves use thermal actuator technology to automatically and continuously adjust flow** through a domestic hot water recirculation system.



These self-actuating valves are installed at the end of each branch or riser before the return line to monitor the water temperature and will modulate open and closed to maintain a set temperature in each supply line.

How CircuitSolver® Valves Operate

During the initial start-up of a DHWS, the valves are wide open and will begin to close once the system temperature requirements are met. During post-startup operation, each valve operates independently, establishing flow as needed to meet the system's variable hot water demands throughout the day. The valves will never fully close, always allowing a small amount of bypass of flow to the return to avoid dead-heading the recirculation pump during low usage.

CircuitSolver® is a temperature device that solves a temperature problem. Through this entirely hands-off method, a DHWS using CircuitSolver® valves is balanced in a short time and can dynamically adapt to evolving system needs.

Compared to these thermostatic balancing valves, **manual valves are simplistic, antiquated, and produce high labor costs.**

The Savings

We surveyed plumbing contractors nationwide on domestic hot water system balancing costs and determined that CircuitSolver® thermostatic balancing valves generate significant cost savings by eliminating manual balancing labor.

The survey collected data on total costs associated with balancing a system, including labor time, employee salaries, required contractors per job, frequency of callbacks, and materials used. Below are the findings on the average cost of balancing the DHWS of a 10-story building.

CIRCUITSOLVER® BALANCING SAVINGS

ITEM	CALCULATION	COST
Manual Balancing Valve	10 valves x $70 each	$700
Labor	Contractors x 12 hours x $65/hour	$1,560
Total Cost		**$2,260**

When directly compared to this system, the implementation of CircuitSolver® valves would result in a **44% SAVINGS,** due to the elimination of manual balancing labor.

In addition, **58% of survey respondents indicated that they had received callbacks to re-balance a MANUAL system.** Therefore, it can be extrapolated from this data that installations utilizing CircuitSolver® valves would result in even more significant cost savings over time.

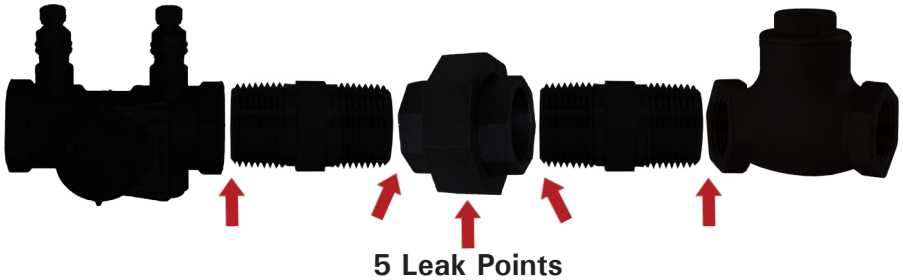
Maximize Savings with the CircuitSolver® Union

The CircuitSolver® Union (CSU) can provide even deeper savings. This compact solution adds a union with an integrated O-ring face seal for a leak-free connection and an optional integrated check valve to the standard balancing valve. These additions reduce the number of components that need to be installed and minimize leak points.

CSU vs. Discrete Balancing Valve Assembly



1 Leak Point



5 Leak Points

You can **SAVE $65-80** on additional materials and labor costs **PER VALVE.**

When comparing the cost savings of ThermOmegaTech's CircuitSolver® Union Valve with competitors' manual valves, the savings are clear.

- Fewer components = reduced cost
- Less leak-points
- Simple Installation
- Sleek design

See how CircuitSolver® from ThermOmegaTech® can help you save money on your upcoming projects! Call 877-379-8258 or visit CircuitSolver.com.

Rev: 04/2/2025