Embrace the Technology®

CircuitSolver®

A ThermOmegaTech® brand

# Comparable Cost Savings

## Thermostatic Balancing Valve vs. Manual Balancing Valves

### Domestic Hot Water Recirculation System Balancing

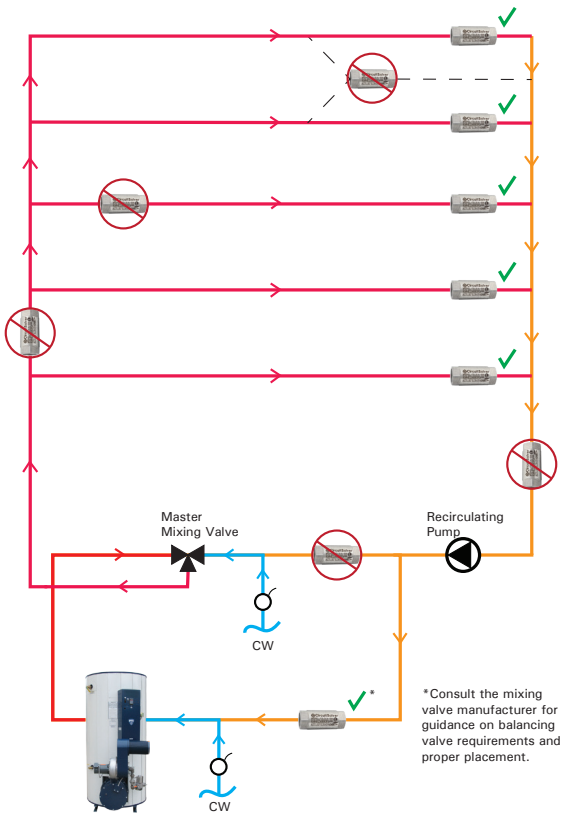
When balancing a Domestic Hot Water System (DHWS), the goal is to ensure hot water is consistently available at every fixture throughout a building on-demand.

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.

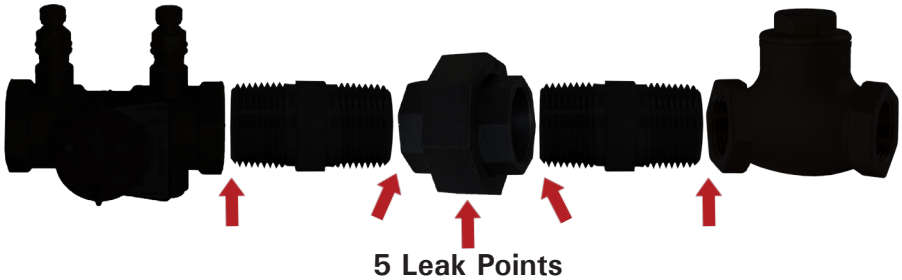
In addition, **58% of survey respondents indicated that they had received callbacks to re-balance a MANUAL system.** Therefore, it can be extrapolated from this data that installations utilizing CircuitSolver® valves would result in even more significant cost savings over time.

## 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.

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