

2020 BALANCING COST SURVEY

THERMOSTATIC VALVE COST SAVINGS VS. MANUAL BALANCING VALVES

The CircuitSolver[®] thermostatic balancing valve generates significant cost savings through the elimination of manual balancing labor when compared to traditional manual balancing valves.

CIRCUITSOLVER[®] VS. MANUAL VALVES

Thermostatic and self-actuating, CircuitSolver[®] uses thermostatic actuator technology to automatically and continuously adjust flow through a domestic hot water recirculation system. Installed at the end of each branch before the return line, the CircuitSolver[®] constantly monitors the temperature of the water flowing through it.

When the water temperature is below the valve's factory-specified set-point, the CircuitSolver[®] modulates open to allow cool water to flow to the return. As the back-filling water temperature approaches the valve's set-point, the CircuitSolver[®] modulates closed to direct hot water to other branches still in need of it. Through this entirely hands-off method, a DHWS using CircuitSolver[®] valves is balanced in a short time and can adapt to evolving system needs.

In comparison, when balancing a system using manual balancing valves, multiple contractors must 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 and may still result in future callbacks as system demands evolve. When compared to the CircuitSolver[®] automatic balancing valve, manual valves are simplistic, antiquated, and generate excessive labor costs.

SAMPLE MANUAL BALANCING COSTS:

In the Spring of 2020, we surveyed plumbing contractors nation-wide on domestic hot water system balancing costs. The survey collected data on total costs associated with balancing a system including total 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	2 contractors x 12 hours x \$65/hour	\$1,560
<i>Total Cost</i>		\$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 have received callbacks for re-balancing of a system. It can be extrapolated from this data that the CircuitSolver[®] would result in an even greater cost savings over time when considering the elimination of callbacks.

CIRCUITSOLVER[®] BENEFITS

- Temperature solution to a temperature problem
- Instant hot water supply at each fixture
- Eliminates "guess-timation" of manual valves
- Automatic balancing with no callbacks
- Dynamic balancing for dynamic systems
- No balancing contractor required
- NSF-61 Certified lead-free
- Long service life & 3 year warranty