

# SIMPLIFY CONTROL WITHOUT COMPROMISING QUALITY

Why Honeywell 6-Way Control Valves  
Flawlessly Handle Changeover Pressures



A customer recently asked whether our 6-Way Control Valve can really withstand the higher pressures generated during heating and cooling changeover – without cracking.

**The answer? A resounding yes.**

## FLAWED DESIGNS CRACK

When we looked into what prompted this question, we found this sort of cracking is common in other brands of 6-way valves. It's caused by a flawed configuration, that results in both a lower burst-pressure rating and greater exposure to high pressures.

## PRESSURE RATINGS MATTER

The Honeywell 6-way valve is rated at a working pressure of 600 psi with a 5:1 safety factor – that is, the burst pressure is 5 times the working pressure, or 3,000 psi.

By contrast, other 6-way valves typically have a working pressure of just 200 psi to 230 psi – about 1/3 the strength of a Honeywell valve – this means their burst pressure is also far lower.

## OPERATING DESIGN MATTERS MORE

**How a valve operates plays an even larger role in how much pressure it can handle.**

When a 6-way valve configuration places all the ports in the same plane, the size of the ball's bore hole must be reduced, and the areas between the ports must be used to shut off flow. This traps water in the ball. Any expansion due to temperature change puts all the pressure directly onto the valve body and ball.

To compensate, other manufacturers need to drill a relief port to let water leak from the valve to the A port. By doing so, a valve with an intentional leakage path from the A port to AB port has been created so that flow is always passing through the valve – even when it's supposed to be closed.



Honeywell 6-Way Control Valve



## **SMART DESIGNS HAVE MULTIPLE BENEFITS**

**The configuration of a Honeywell 6-way valve solves several problems at once.**

The AB port is in a different plane, enabling it to stay fully open at all times, so that any pressure buildup is shared between the valve and fan coil. This lets the system act like an expansion tank, using the full volume of the valve and coil to expand as needed. And since this expansion is minimal, it does not create pressure levels that risk cracking the valve.

As a result, the Honeywell 6-Way Control Valve can maintain 0.00% leakage while also remaining protected against the pressures generated during changeover.

**Get the efficiency you need from the name you trust.**

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### **Honeywell Building Technologies**

715 Peachtree St NE  
Atlanta, Georgia 30308  
[buildings.honeywell.com](http://buildings.honeywell.com)

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