
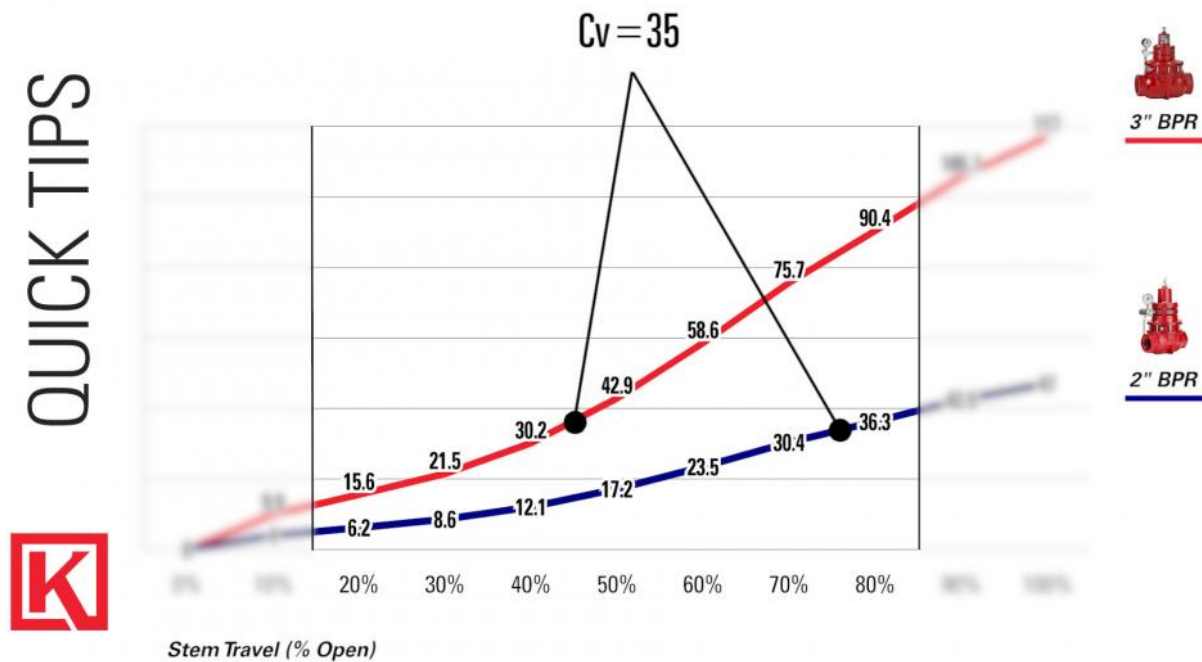


What is Valve Flow Coefficient (Cv)?

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What is Valve Flow Coefficient (Cv)?2:16

Valve Flow Coefficient (Cv) is a valve's capacity for a liquid or gas to flow through it. It is technically defined as "the volume of water at 60°F (in US gallons) that will flow through a valve per minute with a pressure drop of 1 psi across the valve."

In simpler terms, the larger the opening in a valve, the larger the Cv. As a valve is opening, the Cv increases until the valve is fully open, where it reaches its highest possible Cv, or 100% open Cv.

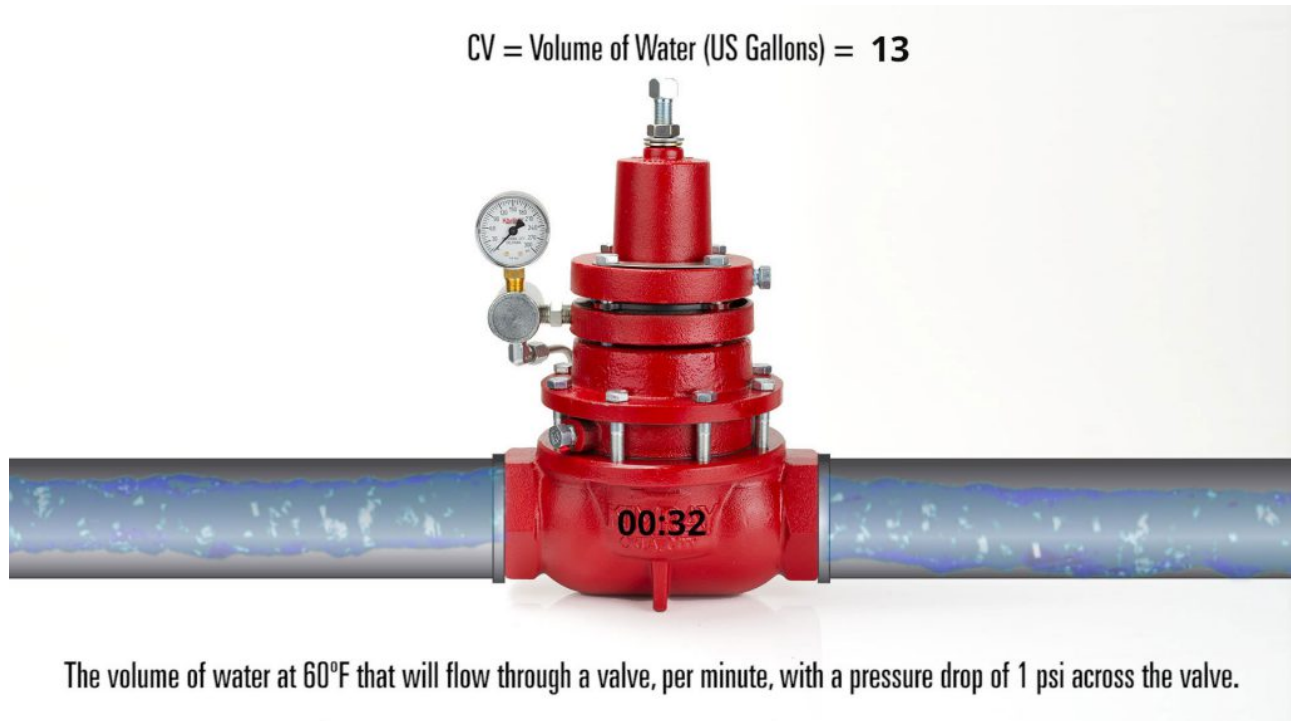
Example of Valve Flow Coefficient (Cv)

On the right, we have a Cv chart showing flow curves for two different valves: a 2-inch and 3-inch Kimray back pressure regulator. As the stem opens, the CV increases. The maximum Cv for the 2-inch valve is 47; the maximum for the 3-inch valve is 117.

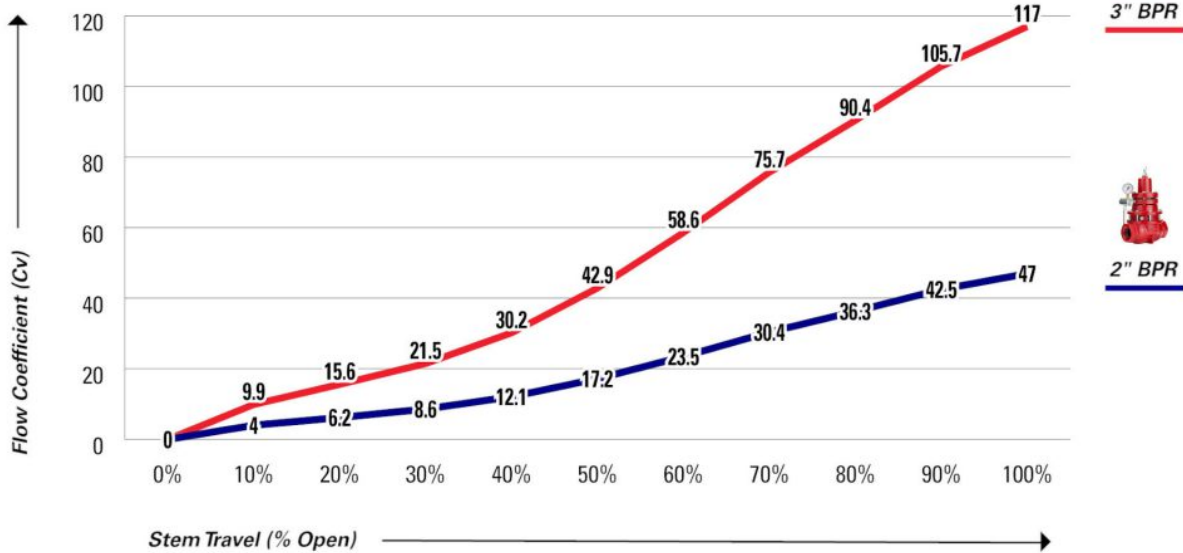
We recommend you select a valve for which the Cv falls between 20% and 80% open stem travel. For example, if you used our valve sizing calculator and came up with a Cv value of 14, you would want to choose the 2-inch valve because in the 3-inch valve, 14 would fall outside of the recommended range.

If you calculated a Cv value of 47, you would want to choose the 3-inch valve because in the 2-inch, 47 would fall outside of our recommended range.

If you calculated a Cv of 35, it falls in the range for both valves. In this case we would recommend the 3-inch because it falls closer to the middle of the flow curve.



Flow Coefficient (Cv) at Stem Travel (% Open)



Use the Valve Flow Coefficient Calculator

To determine what size valve to use in your application, use the [Cv calculator in our sizing program](#) at kimray.com. This will also provide you a list of applicable valves based on your Cv.

If you have further questions about selective a valve, [contact your local Kimray store or authorized distributor](#).

Mike Fick

Mike Fick serves as a Product Manager at Kimray, and is responsible for Kimray's line of liquid level control products and low pressure control valves. He collaborates with Kimray's engineering, manufacturing, and quality teams to optimize the performance of our products and make a difference for our customers.

