

Instrument Valve Size Difference Between 10K and 6K

If you have ever noticed the size difference between instrument valves you may have wondered why? Well, the easiest way to explain the differences is to look at the code to which the valves were designed. The Aircom – MacWeld instrument valves have a CRN (Canadian Registration Number) registered and designed to the ASME B16.34 - Valves Flanged, Threaded and Welding End standard.

The ASME B16.34 standard applies to new construction. It covers pressure-temperature ratings, dimensions, tolerances, materials, nondestructive examination requirements, testing, and marking for cast, forged, and fabricated flanged, threaded, and welding end and wafer or flangeless valves of steel, nickel-base alloys, and other alloys. This standard is to be used in conjunction with equipment described in other volumes of the ASME B16 Series of Standards as well as with other ASME standards, such as the Boiler and Pressure Vessel Code and the B31 Piping Codes. Careful application of these B16 standards will help users to comply with applicable regulations within their jurisdictions, while achieving the operational, cost and safety benefits to be gained from the many industry best-practices detailed within these volumes.

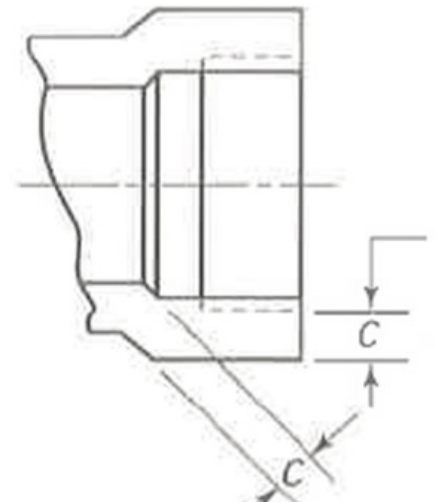


Photo from ASME B16.34-2013

One important table to reference when interpreting the sizing difference specifically between traditional 316 Stainless Steel 6,000* psi (Class 2500) and 10,000* psi (Class 4500) instrument needle valves is table 4 - Minimum Wall Thickness for Socket Welding and Threaded Ends. Dimension "C" specifies the minimum.

Minimum Wall Thickness "C" (inches)		
NPS	Class 2500	Class 4500
1/4"	0.26"	0.29"
1/2"	0.32"	0.44"

Table compiled with material from ASME B16.34-2013

Image 1. shows a 1/2" NPT Aircom – MacWeld valve being measured. As the image depicts the approximate "C" measurement is 0.515". This value is +0.075" above the minimum wall thickness values.

It is in Aircom and MacWeld's best interests to provide quality products and products built to the latest engineering standards. For further information on this topic or instrument valves, contact us directly.



Image 1.

