



Performance of Barb to Tube Connection

Tensile pull and burst tests were performed by an independent laboratory under controlled conditions to provide comparative performance data for the various barb styles and sizes offered by Value Plastics. The data from this test utilized each barb style connected to PVC tube.

The values shown are the means of a statistically significant sample quantity of each configuration. Value Plastics® barbed fittings specifically designed for use with the tubing size indicated were used in these tests. No oversized barbs, solvents, adhesives, or secondary fasteners of any kind were used.

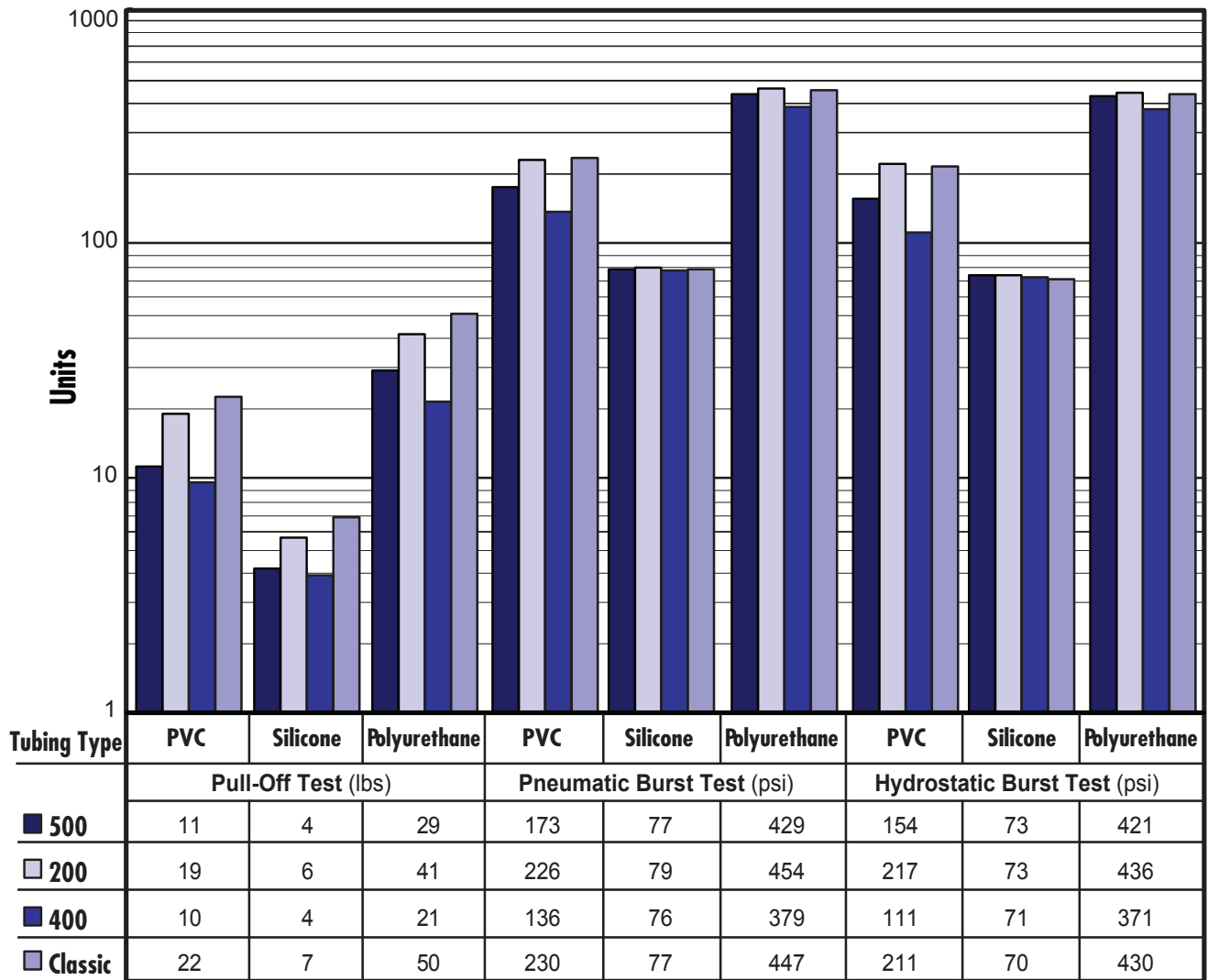
Tensile Pull Test: Tensile properties were measured to determine the force required to remove the barbed fitting from the tubing. Tensile specimens were mounted axially in a holding fixture and tested at a rate of 20 inches per minute. Failure mode was tubing separating from the barb.

Hydrostatic Burst Test: Hydrostatic burst testing was performed in general accordance with ASTM D1599. Failure mode was either tubing separating from the barb, the tubing bursting, or a combination of the two.



The data presented here is for reference only. It was compiled to provide our customers with a means of comparing the characteristics of components at the time of publication. The particular conditions of your use and application of our products are beyond our control. Thus, it is imperative that you test our products in your specific application to determine their suitability. All information is provided without implied or expressed warranty or guarantee by Value Plastics® or other manufacturers. None of the information provided constitutes a recommendation or endorsement of any kind by Value Plastics®.

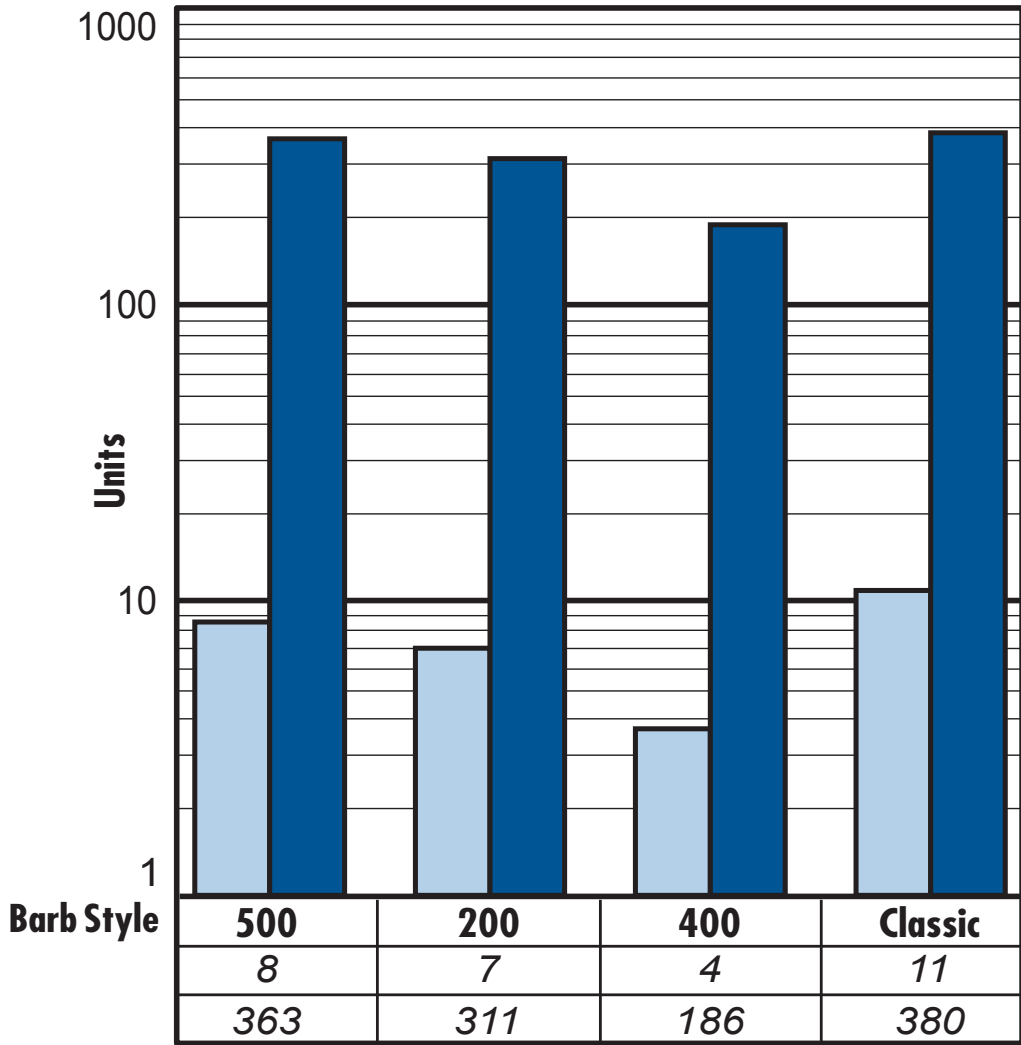


Graph 1: Barb Performance vs. Material





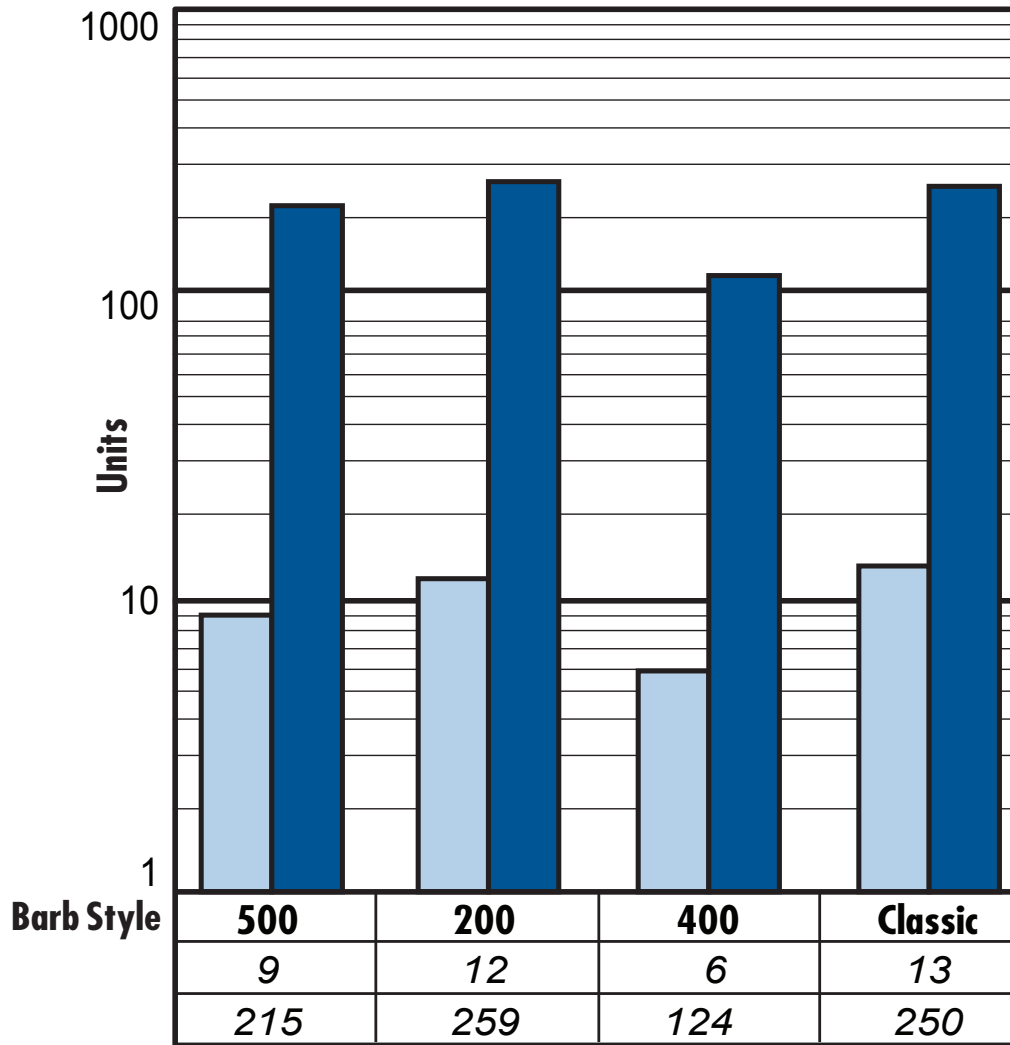
Graph 2: 1/16" Barb Performance

Performance of barb to tube connections	 Hydrostatic Burst Test (psi)
	 Tensile Pull Test (lbs)





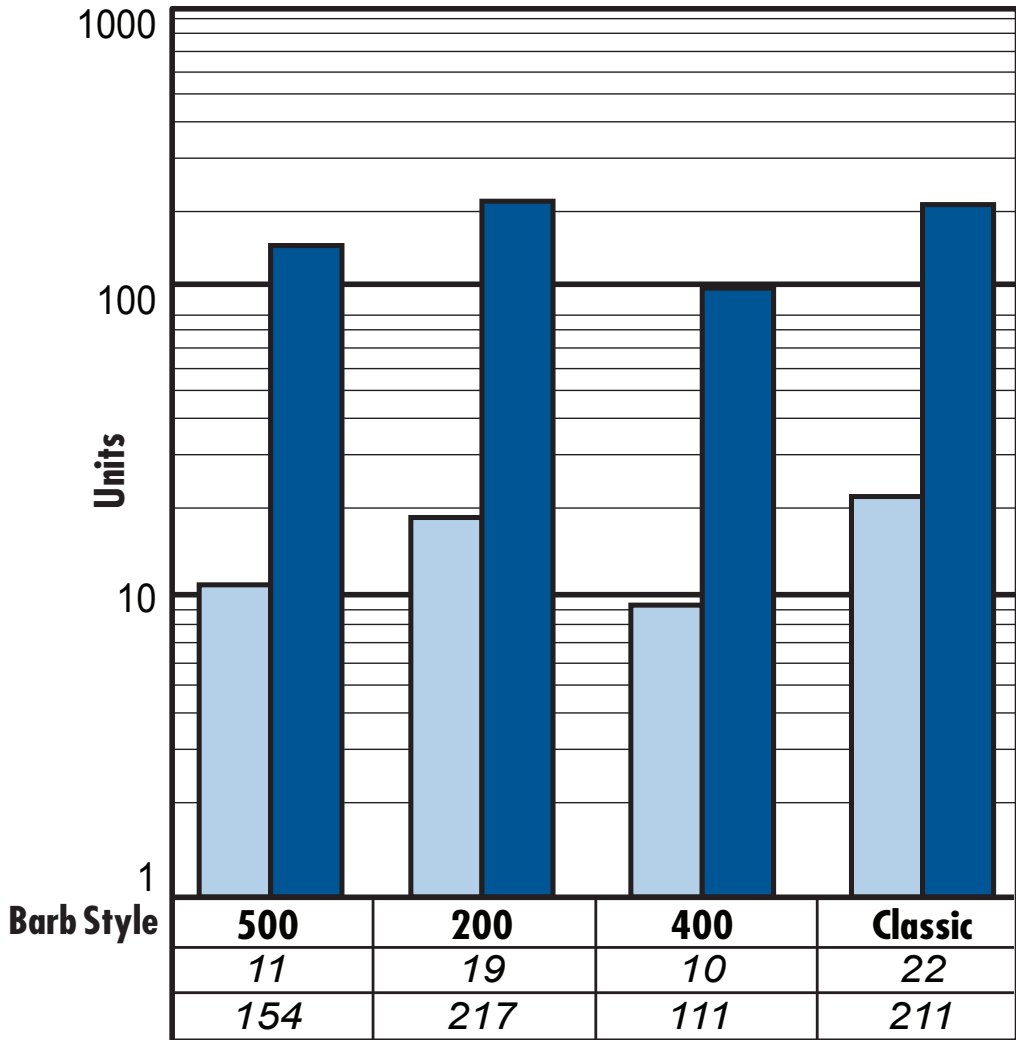
Graph 3: 3/32" Barb Performance

Performance of barb to tube connections	 Hydrostatic Burst Test (psi)
	 Tensile Pull Test (lbs)

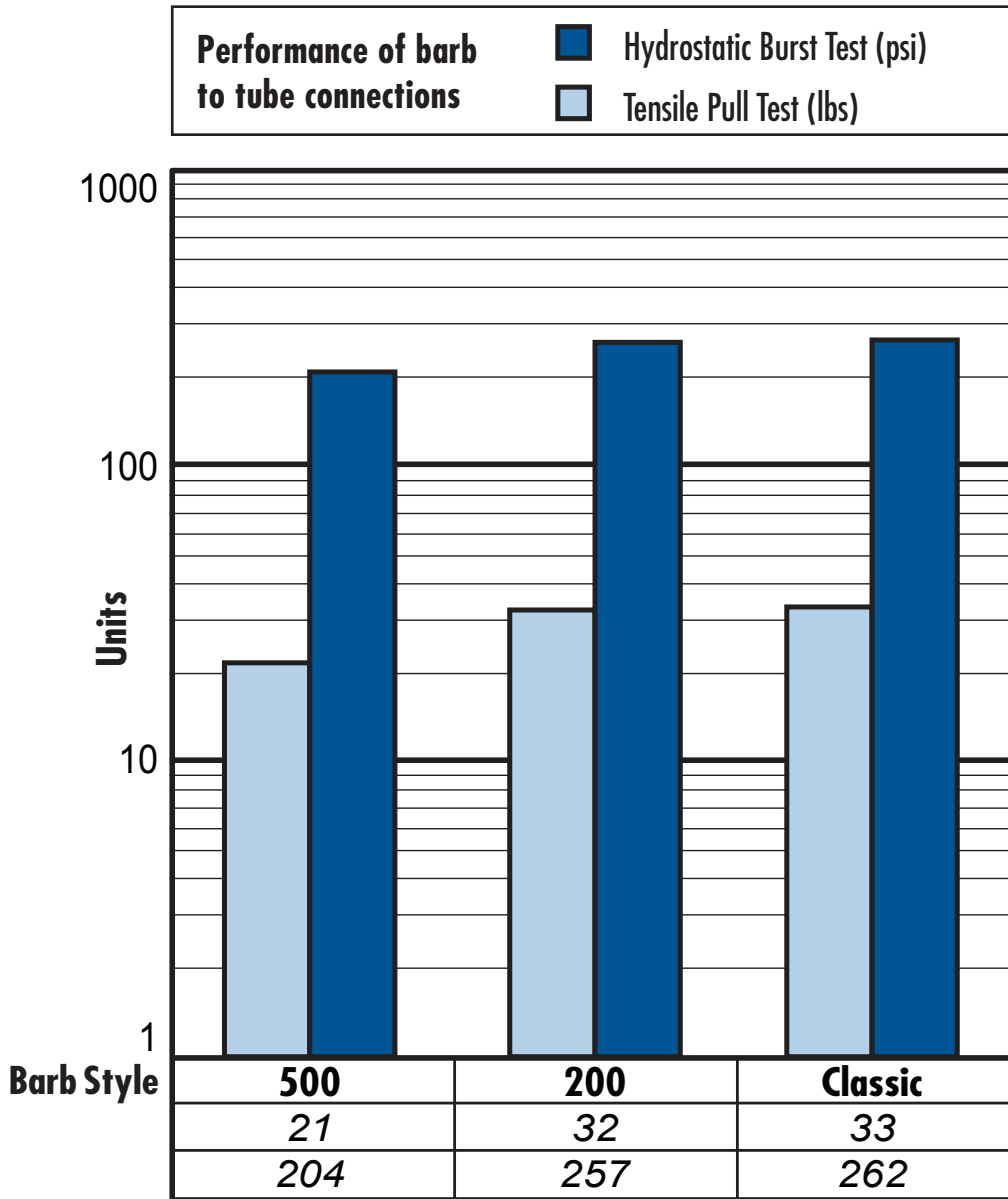


Graph 4: 1/8" Barb Performance

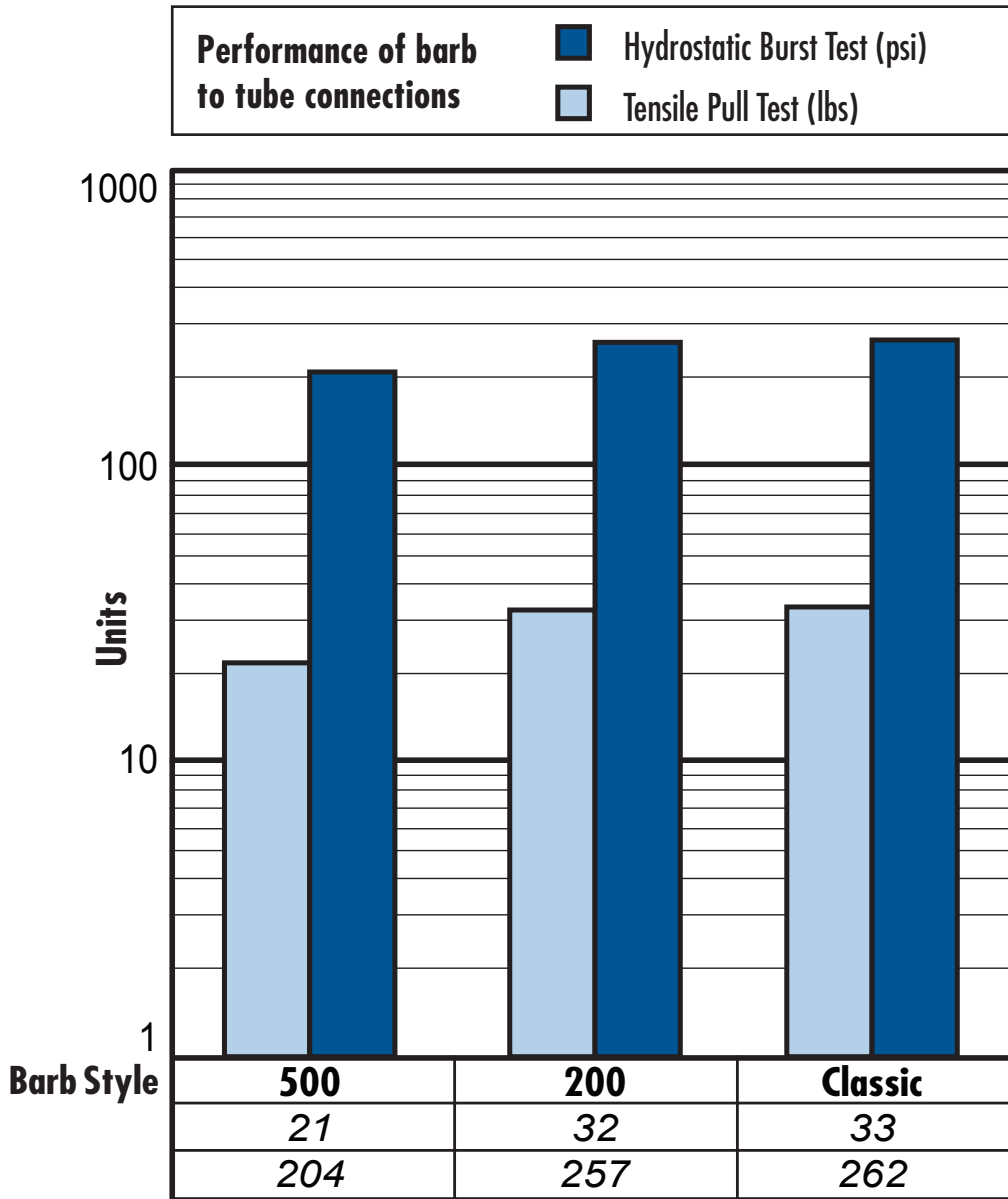
Performance of barb to tube connections	 Hydrostatic Burst Test (psi)
	 Tensile Pull Test (lbs)





Graph 5: 5/32" Barb Performance

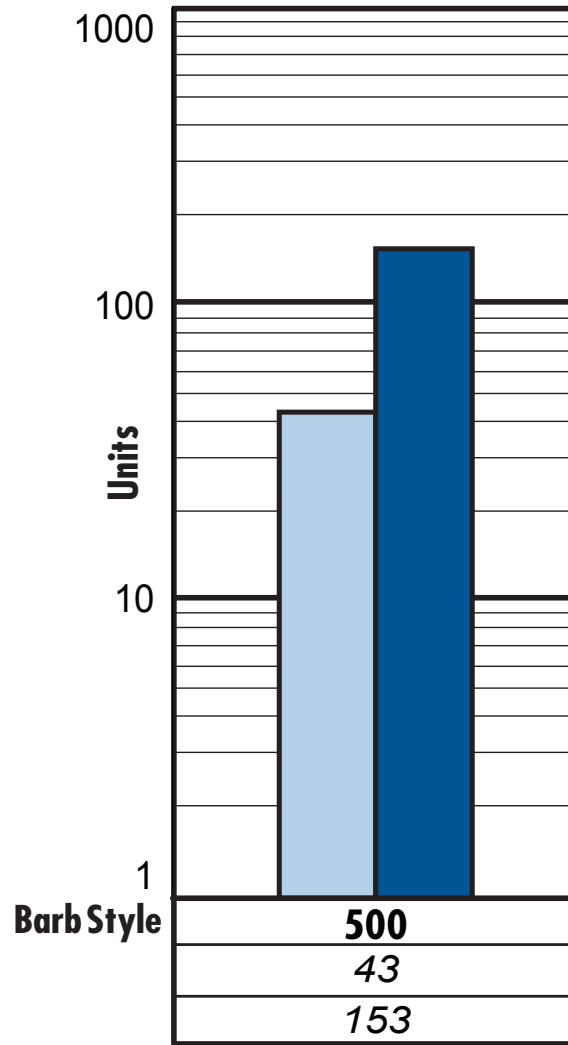


Graph 6: 5/32" Barb Performance

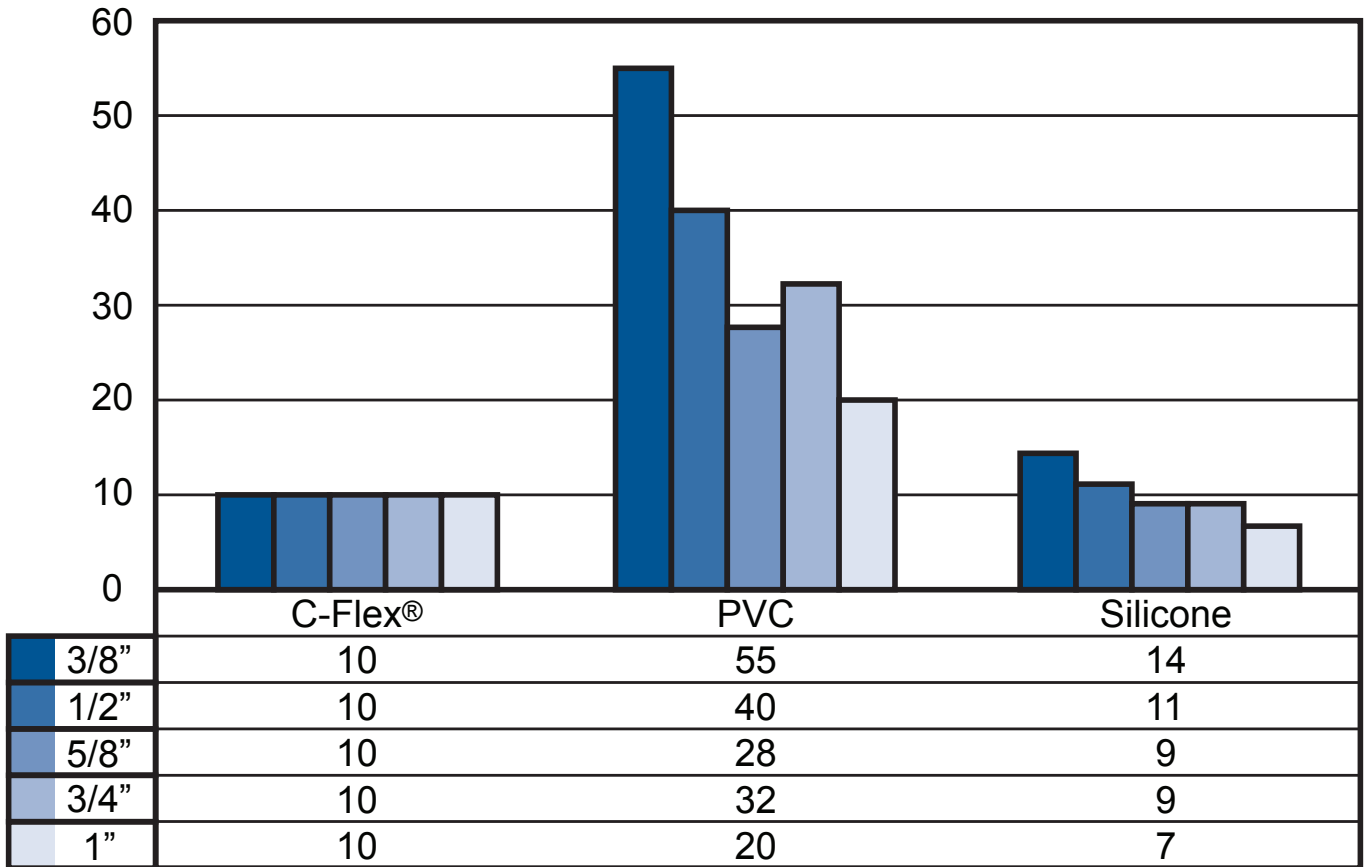


Graph 7: 1/4" Barb Performance

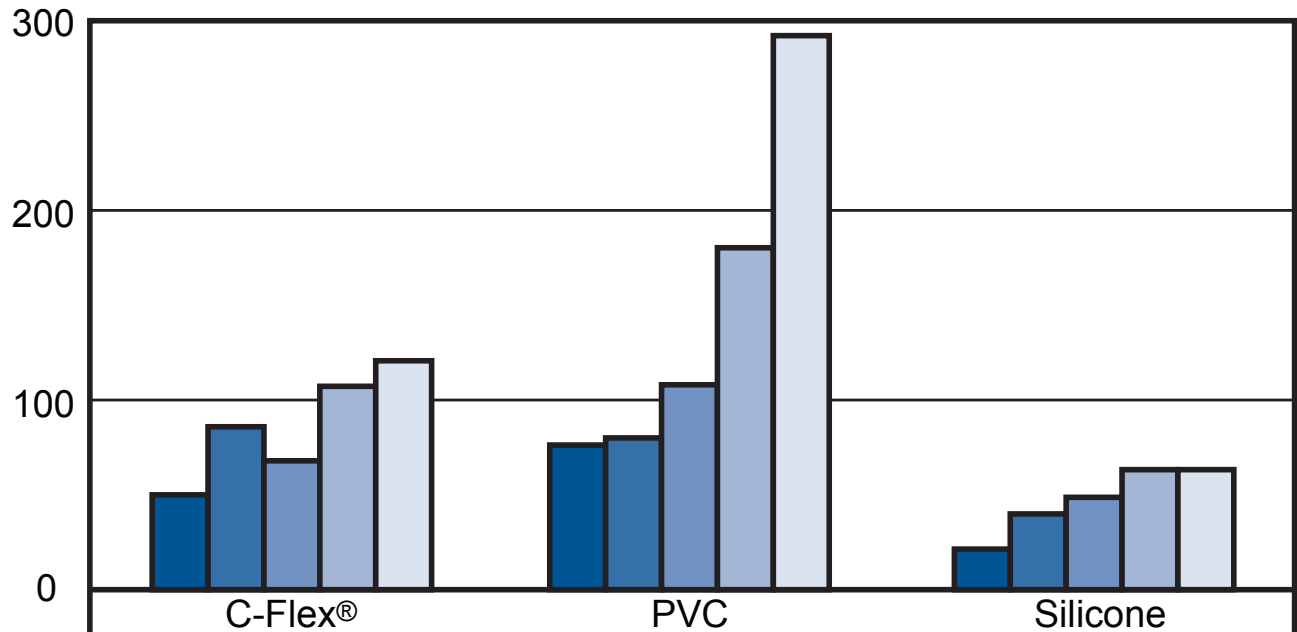
Performance of barb to tube connections	 Hydrostatic Burst Test (psi)
	 Tensile Pull Test (lbs)



Graph 8: 600 Series Barb Leak Tests



Graph 9: 600 Series Barb Tensile Pull Tests



	C-Flex®	PVC	Silicone
3/8"	49	80	27
1/2"	89	81	43
5/8"	63	105	49
3/4"	106	179	64
1"	121	295	64

