

## Our Single Barb Concept

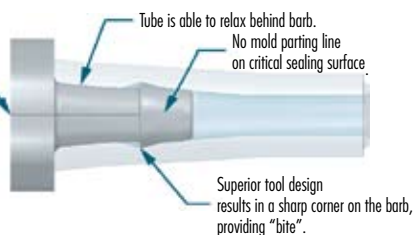
Many designers are not aware of the benefits of using a single barb versus a multi-barb fitting, but the barb design greatly affects the security of your tube connection.

Because of the shape of a barb, it is impossible to injection mold any but the first barb without a parting line. The parting line creates a potential leak path that becomes more pronounced as the tooling wears, increasing the likelihood of failure.

Two other problems exist with multiple barb fittings. First, it is impossible to fabricate tooling that creates a perfectly sharp edge on each barb of a molded multi-barb fitting — a feature critical to the performance of the connection.

### SINGLE BARB MOLD PART LINE:

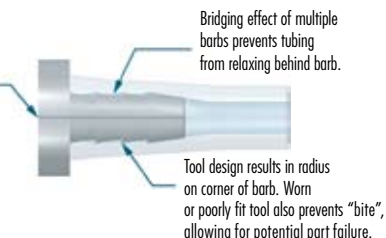
Placed where it can't affect critical sealing surfaces.



Second, multiple barb fittings do not allow the tubing to relax behind the first barb. Because the tubing "bridges" from barb to barb it is not allowed an uninterrupted interface with the fitting. This results in compromised pressure and tensile capacities. Value Plastics® single barb design avoids these shortcomings. Our expert tooling design assures the sharpest edge possible allowing the barb to "bite" into the tubing. Then, the cylindrical surface behind the barb allows the tubing to relax against the fitting. The result is a connection with excellent tensile and pressure performance.

### MULTI BARB MOLD PART LINE:

Potential leak path on critical sealing surfaces.



The **CLASSIC SERIES** is characterized by a longer barb that extends the sealing surface of the fitting. Tubing is expanded from 42% to 69% above its nominal ID.



The **200 SERIES** offers outstanding performance characteristics when used with flexible tubing. Tubing is expanded by 50% above its nominal ID, permitting high-pressure capabilities.



The **300 SERIES** offers outstanding performance characteristics when used with flexible tubing. Tubing is expanded by 35% above its nominal ID, permitting high-pressure capabilities in the larger tube sizes.



The **400 Series** provides easy assembly while maintaining excellent pressure and tensile capabilities. Originally created for semi-rigid tubing, this series is preferred for applications where tensile/pressure properties are not highly critical, or when ease of assembly is desired. The 400 Series expands the tubing 25% above its nominal ID.



The **500 SERIES** profile is composed of blended radii, giving it the distinct look. Each barb is designed to accommodate a range of tube sizes and tube types. Consideration should be given to flow restriction, pressure capability, and the force required for assembly of the tube.



The **600 SERIES** barbs are designed for use with silicone, C-Flex® and PVC tubing sizes commonly used in biopharm and other applications. Tubing is expanded from 18% to 34% above its nominal ID to maintain a low profile and ease of assembly, and the straight barb stem facilitates use of recommended cable tie retainers or hose clamps.



The **700 SERIES** barb is designed for use with Value Plastics' XQC Series quick connect fittings. This unique single barb is available in sizes to fit the 1/4" (6.4 mm) and 3/8" (9.5 mm) ID tubing sizes and materials commonly used in disposable and reusable medical equipment. Reinforced PVC, unreinforced PVC and polyurethane tubing materials work well with this barb style.



The **900 SERIES** offers outstanding performance characteristics when used with flexible tubing. Tubing is expanded from 8% to 17% above its nominal ID. This barb provides high flow efficiency and excellent tensile strength. A hose clamp is recommended for this series.

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®.