



Custom Pinch Valves Provide Consistent Pinching Forces

Challenge:

In the medical industry, even the tiniest seams, seals, moving components, etc., created by traditional valves can cause dead zones in the stream or pockets where fluids can collect and stagnate, which can allow microscopic contamination to grow within the plumbing. OEMs in the medical industry are therefore unable to use traditional valve designs to provide control of bio-fluids that are being processed through medical grade tubing. Over the years, Bimba cylinders have been used to pinch the tube to provide on-off control of the fluid without creating the problems associated with traditional valves. These cylinders were often very special and required tight tolerances on the spring forces used. Mounting these cylinders and the corresponding hardware also needed to adhere to strict tolerance control. A slight deviation could either damage the tube permanently by pinching it too hard, or allow leakage if the pinch was too light.

Solution:

To eliminate these challenges, Bimba has developed a pinch valve design complete with the cylinder, plunger, and back stop. By combining these in a manufacturing controlled environment, the challenges to setting up a properly functioning pinch valve assembly have been eliminated. Bimba offers three different models of pinch valves, which accommodate tubing diameters from 0.120 to 0.75" in diameter. They are used in a variety of applications and industries, from food companies dispensing beverages such as smoothies, to hospitals who use them in blood work applications. Bimba can design a custom pinch valve that will suit your custom application as well.

Benefits:

- Eliminates costly labor and set-up time.
- Consistent pinching forces deliver high quality performance.
- 4 different designs accommodate tubing diameters from 0.120" - 0.75".

Other Applications:

- Fluid Filling/Bottling
- CNC/Machining Equipment - Oil Cut-off
- Food and Beverage Dispensing

