

Diba Industries, Inc. Helps KNF-Flodos Improve Connections For Simdos® 02 Liquid Pump

Diba's glass-filled polypropylene fittings are specially designed to work best in smooth ports, such as those made of PTFE. They have a rougher surface at the thread, providing a better grip in the port, allowing for more secured fittings when used in conjunction with ferrules or flares. This feature has been particularly useful for KNF-Flodos.

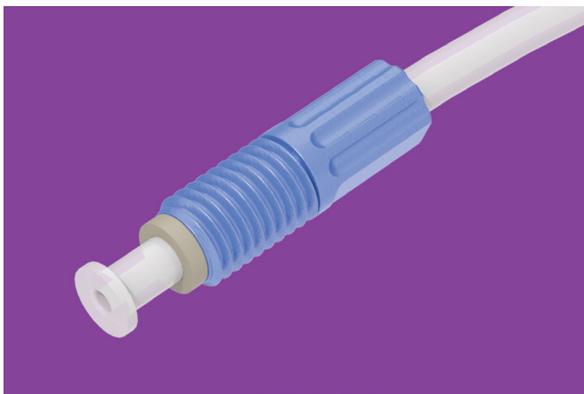
KNF manufactures a range of OEM liquid and gas pumps for medical devices and ink-jet printing as well as stand-alone laboratory pumps. The new Simdos® 02 dosing pump was designed to handle hazardous acids, bases and organic solvents in the laboratory environment. During prototype testing, KNF engineers discovered leaking caused by fittings not staying tight inside the smooth PTFE valve ports. Vibrations from the pump aggravated this problem, causing fittings to unscrew from (or back themselves out of) the ports under normal operation. With the Simdos 02 pump's intended use to handle aggressive and caustic chemicals, fluid containment was critical.

Changing the pump material from PTFE was not an option, as PTFE was required for its inert qualities when exposed to solvents and acids. KNF also found that flares on the tubing assemblies were not fitting tightly into the ports, disrupting the fluid path and contributing to the leaking.

To find an alternative connection and address these problems, KNF turned to fluidics design expert Diba Industries, Inc. After analyzing the problem, Diba suggested glass-filled polypropylene fittings, which bite into the threads on smooth ports made of PTFE. Diba provided a complete tubing assembly with flared tubing and glass-filled polypropylene fittings to ensure a leak-free connection.

Since adopting Diba tubing assemblies, KNF has been able to successfully launch the Simdos 02 with no reported leaks in the first two years.

"Simdos® 02 has been a very successful product," said KNF Marketing Manager, Jean Delteil. "We spent a long time studying the market, so it has lots of good features, but if it didn't have the right tubing and fittings it would not have been so successful."



KNF-Flodos is the world-leading supplier of diaphragm liquid pumps, designing and manufacturing high-quality and innovative products. The company specializes in producing custom pumps for OEMs and also support a range of standard laboratory pumps. KNF has four production sites globally and a liquid pump product design center in Sursee, Switzerland.

For 30 years, Diba Industries, Inc. has delivered precision fluid handling solutions to global OEM leaders in diagnostics, life sciences and medical devices. Diba designs and manufactures custom components across the entire system fluid path, including precision probes, fluid heaters, bonded and machined manifolds, tubing assemblies and bottle caps. Diba helps customers optimize instrument performance by minimizing carryover, improving wash characteristics and increasing system throughput and accuracy. Diba is headquartered in Danbury, CT with additional manufacturing in Berlin, CT, Cambridge, UK and Shanghai.