

PEEK BUBBLE TRAP

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DATASHEET



Introduction

The Elveflow Bubble Trap is a simple yet effective device designed for in-line bubble removal in aqueous streams.

When a liquid containing bubbles is flown through the Elveflow Bubble trap, the aqueous fluid is retained, while bubbles are expelled through a microporous hydrophobic PTFE membrane, resulting in a bubble free liquid coming out of the trap.

The simple construction of the trap, combined with the high grade materials used, makes it a very straightforward device, that allows quick in-line connection while requiring minimal maintenance.

Main Features & Benefits

- In-line bubble removal in aqueous stream
- Autoclavable, robust, and biocompatible (PEEK body and PTFE membranes)
- Low maintenance
- Quick installation in any setup using standard 1/4"-28 Fittings
- Max Operating Pressure: 30 psi / 2 bar
- Suitable flow-rates up to 6 mL/min up to 60ml/min with assistance ¹
- Typical working flow rate range: down to 5µL/min and up to 6 ml/min.

Product Specifications

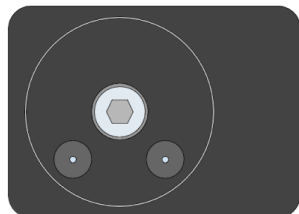
Specifications

Body Material	PEEK
Membrane Material	PTFE
Connection Ports	1/4"-28 UNF
Maximum Operating Pressure	30 psi
Dimensions (mounted)	47 x 34 x 28 mm
Internal Volume	23µL (small version) 95µL (medium version) 362 µL (large version)

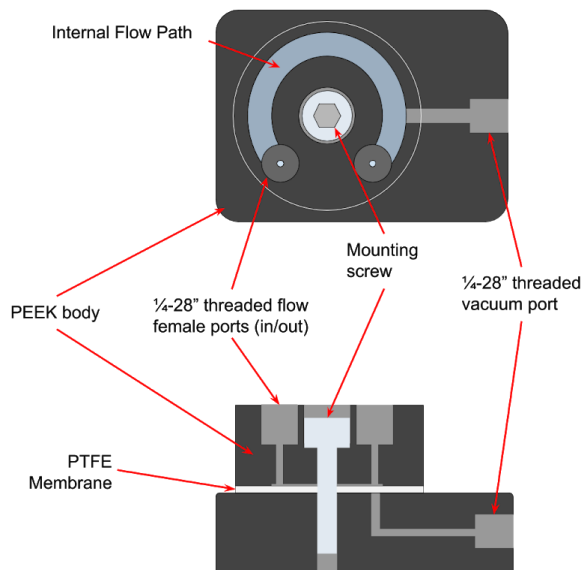
¹ The Elveflow Bubble trap usually gives very good results when used as a stand-alone unit. But connecting a vacuum pump or adding some flow resistance can help improve bubble removal rate, when required.

Design

TOP VIEW



SIDE VIEW



The Elveflow Bubble uses a micro-porous, hydrophobic PTFE membrane sandwiched between two PEEK elements. Connection is made using standard 1/4"-28UNF fittings. Inlet and outlet connections are interchangeable. The trap comes in 3 versions that should be chosen according to internal volume considerations, and to a lesser extent according to the working flow rate targeted by the user.

The 3 versions are:

- Elveflow Bubble trap Small: has 23 μL internal volume
- Elveflow Bubble trap Medium: has 95 μL internal volume
- Elveflow Bubble trap Large: has 362 μL internal volume

Contents

Each Bubble Trap kit includes the following:

- 2 spare PTFE membranes
- 1 x M5 mounting screw
- 2 x 1 / 4-28 fittings for 1/16 OD tubing + ferrules
- bubble trap lower body part in PEEK
- bubble trap upper body part in PEEK

In addition to the above items. The user should have the necessary fluidic accessories (tubing, additional fittings) to connect the inlets/outlets to the rest of the setup.

Application example

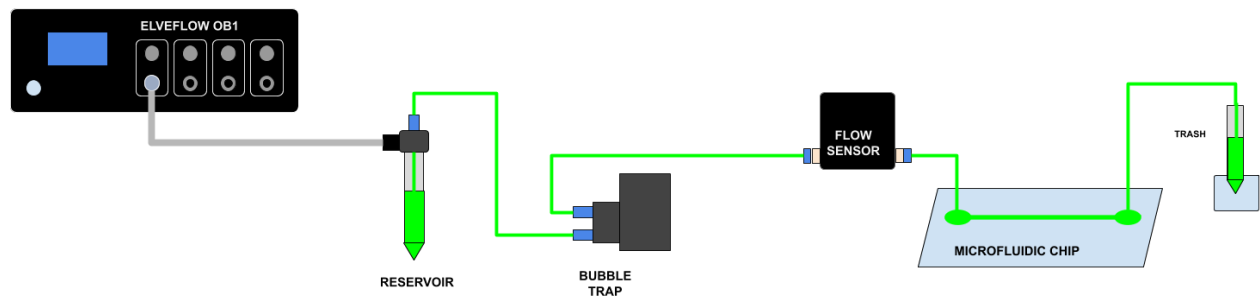


Illustration and setup principle to in-line bubble removal in a flow stream.

The detailed protocol for this application can be found in the PEEK Bubble Trap user guide.