

Self-Purging Bubble Removal Standpipe

Introduction:

The bubble removal device shown in Figure 1 is intended to allow removal of formed bubbles from a flowing sample stream. In operation, bubble-containing sample solution enters through the 1/16" tube at the bottom of the unit, and emerges into an enlarged-diameter tube on the opposite side of the special "tee" fitting.

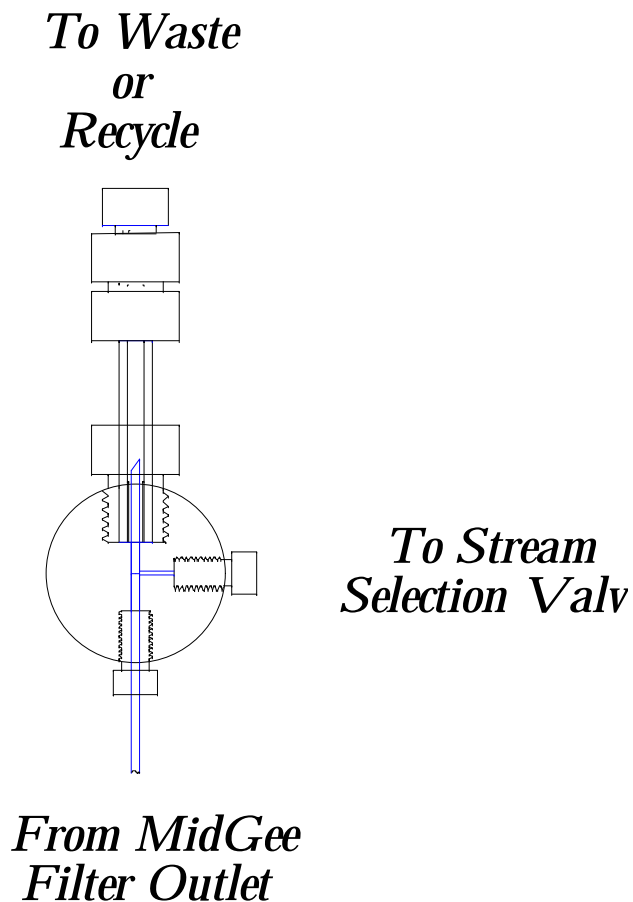


Figure 1

Due to gravity and selective wetting, gas bubbles rise into the larger tube, while bubble-free liquid flows downward around the 1/16" tube and is drawn off at the 1/4"28 connector at the side of the "tee" fitting. Bubbles and excess sample flow exit through the 1/4" to 1/8" reducing tube fitting at the top of the device.

The bubble removal device should be installed as close to the stream-selection valve as possible and must be mounted strictly vertical as shown in the diagram above.

The bubble-removal device's relationship to the rest of the sample system is shown in Figure 2.

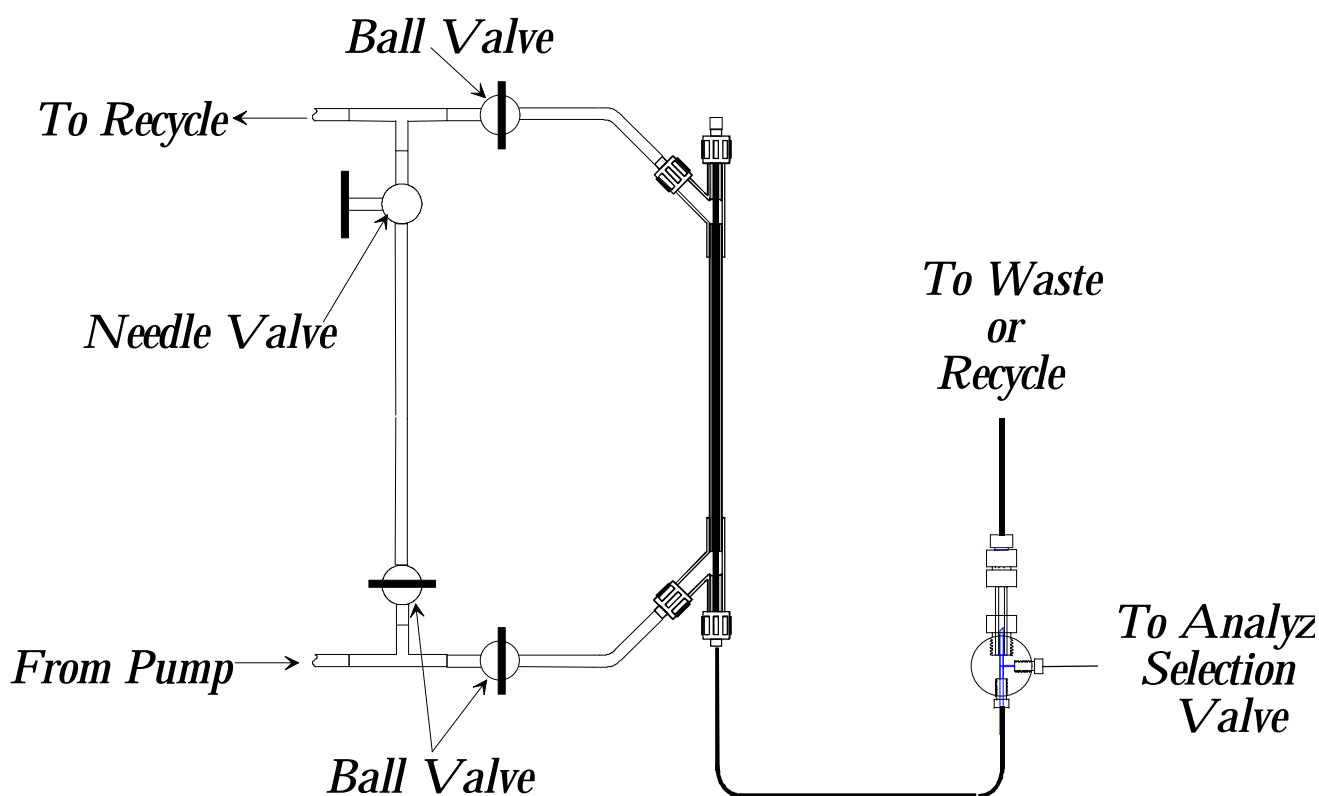


Figure 2

We recommend that the bubble removal device be connected to the MidGee (or other) filter outlet with 0.5-0.8mm i.d. by 1/16" o.d. PFA tubing, and that the sample-to-waste line emerging from the device be 1/8" o.d. tubing (any i.d.).