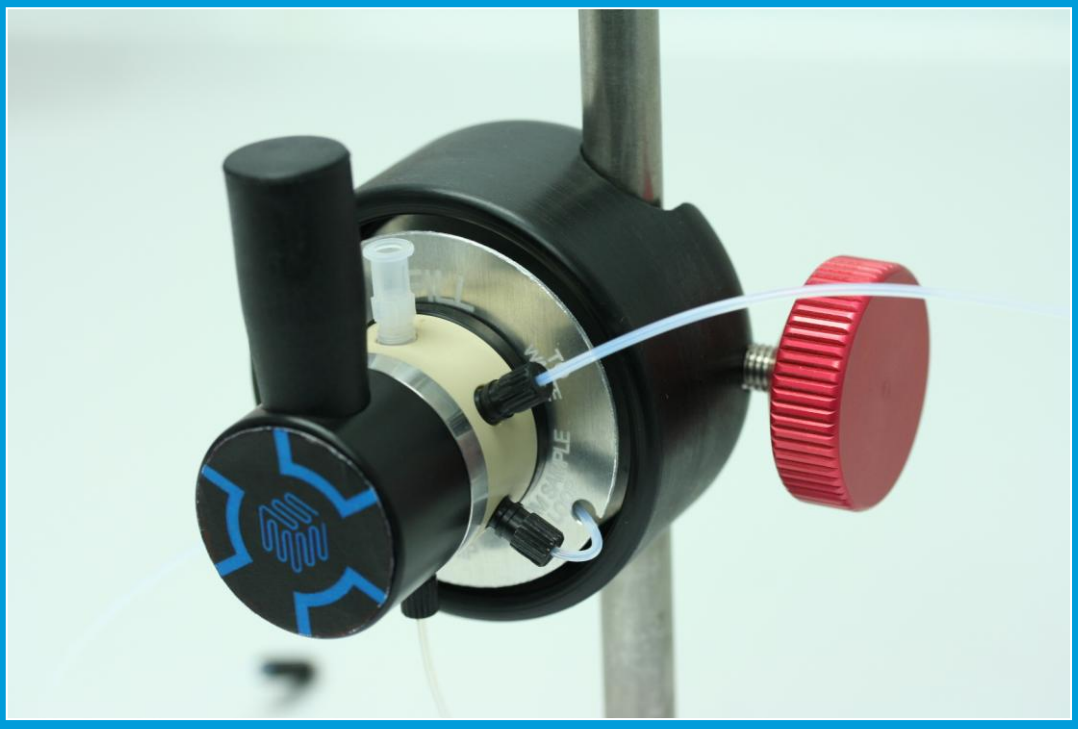

dolomite

SAMPLE INJECTION VALVE

USER INSTRUCTIONS

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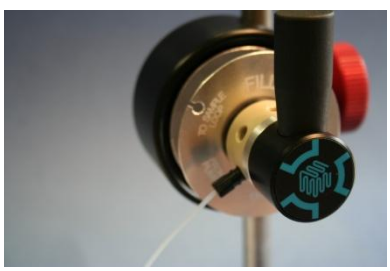
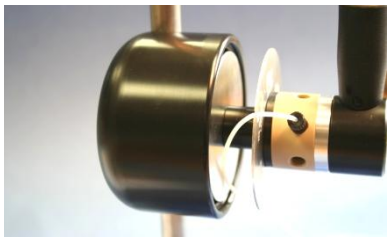
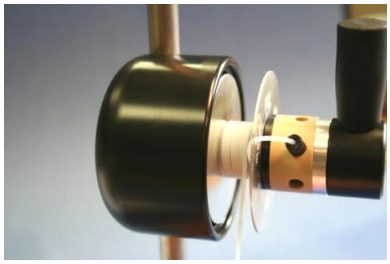
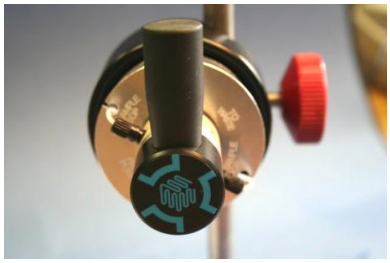
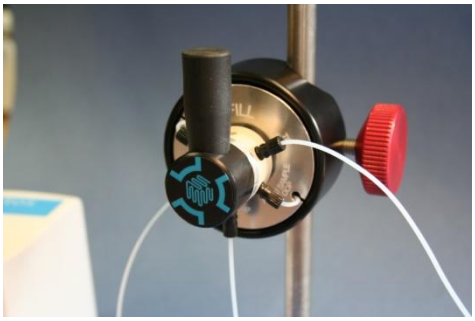
1. Connecting

The Sample Injection Valve (Part No. 3200037) uses ¼-28 fittings; these are available from Dolomite already attached to 0.5um i.d. tubing. It is important to clean out all the tubing before experimental work begins. This may be done with the tubing attached to the valve.

The connection process should be as follows:

	Description	
1	Collect all the components needed in one place. You will need: • Sample Injection Valve • 3 x tubing with ¼-28 fitting for valve end • 1 x sample loop tubing with ¼-28 fitting on both ends, for example 500ul tube (Part No.3000442) • 1 x luer to ¼-28 fitting (part number 1801534) • Pumping system • Any other connectors or chips being used	
2	If the Sample Injection Valve is being clamped, attach.	
3	Attach sample loop: Open the sample loop bobbin access by pulling the valve from the casing Screw in one end of loop to "TO SAMPLE LOOP" labelled port	 

3	Clip tubing into guide Wrap tubing tightly around bobbin When at end of loop, clip through "FROM SAMPLE LOOP" guide and screw into adjacent port Close loop by pushing valve back into casing	  
4	Once the sample loop is attached, screw in all other components to their labelled ports: 1. Luer to ¼-28 fitting into "FILL" port 2. Pump outlet into "FROM PUMP" port 3. Waste tubing into "TO WASTE" port 4. Tubing to chip into "TO CHIP" port	
5	Sample Injection valve is ready to go!	

2. Cleaning

Before using with a microfluidic device it is advisable to clean the Sample Injection Valve. This can be done easily after connection:

1. Fill pump with cleaning fluid, deionised water can be used.
2. Run the pump with the valve set to flow through the chip (handle vertical) for some time
3. Run the pump with the valve set to flow through the sample loop (handle turned anti-clockwise) for some time
4. When cleaned sufficiently, device is ready to be used.

3. Using the Sample Injection Loop

To use the Sample Injection Valve:

1. Fill pump with desired “buffer” fluid
2. Set the valve to the filling position (upright handle)
3. Inject desired reagent into the “fill” port, until it is full (wait to see reagent coming out of waste, or calculate volume)
4. Run the pump
5. Turn the handle to the flow position (handle to the left)
6. The sample is now flowing towards the chip!

Note:

The ports are connected as displayed on the front of the valve.

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