

"I just wanted to tell you that I have been using the SmartSquirt nearly every day, and I am very pleased with it. I have tested for cross contamination, and I believe it is very low. To prevent hydrostatic flow from the cryostat tubes into the bath, one line must continue perfusing bath solution after all other valves are closed. Your design changes help hold all of the fittings tightly and keep them from leaking or flowing backwards. I would also rate your company as being excellent for your immediate response to problems and questions on your products."

**Dr. John G. Starkus**

The Queen's Medical Center  
Honolulu, Hawaii

**All tubing  
now PTFE  
lined**

## Perfuse microliter volumes of precious solutions.



### SmartSquirt® Micro-Perfusion System

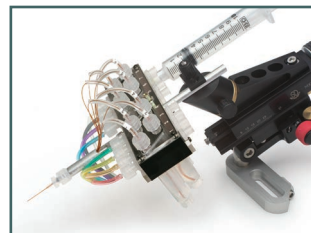
- **Deliver microliter volumes starting with only 100 microliters of precious drugs**  
Switch between eight solutions in milliseconds from a single tip.
- **Minimize cross-contamination with BackStop™ back-flow prevention**  
Special 3-way relief valve design stops liquid flow quickly.
- **Valves and pressure controls in a small box near microscope - no stand necessary**  
Includes pressurized large-volume reservoir for buffer.

Programmable dispensing, microinjection, perfusion or spritzing of reproducible microliter volumes. Up to eight solutions are stored in cryo tubes with easy syringe refill ports. Included pneumatic valves deliver regulated air pressure to push liquids out of the SmartSquirt Perfusion Pencil tip. An AutoMate Scientific (or other) valve controller offers programmable, manual or computer-controlled valve selection for switching which reagent is delivered from the tip. Pulse a valve quickly for microliter delivery, or leave it on for constant perfusion. The short delivery path saves expensive reagents. Integrated BackStop™ check valves prevent backflow found in competing micro-perfusion systems.

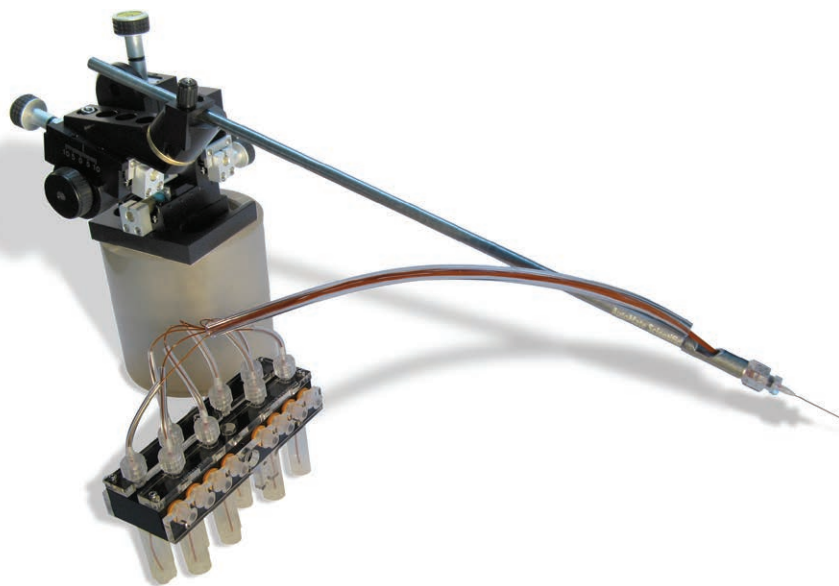
## Detached SmartSquirt now standard with longer Pencil

No room on your microscope stage for the SmartSquirt? The Perfusion Pencil for the SmartSquirt now uses longer tubes for mounting the Reservoir Block up to 30 cm away from the delivery location. The Pencil itself is also 30 cm long for easier mounting on wide stages. Both standard.

### SmartSquirt Reservoir Block



- Uses standard 2.5 ml cryo-tubes as reservoirs
- Minimize cross-contamination with BackStop™ back-flow prevention: one-way check valves inside the reservoir block prevent liquid backflow from the tip
- Easy ports for refilling reservoirs
- Convenient manipulator mounting
- Luer lock tips are interchangeable with our standard Perfusion Pencil®



### Integrated Pressure Regulator



Precision regulator, gauge, 5 micron filter and electric valves are built-in.

The 0-10 psi regulator and air filter require a compressed air or other gas source -- bottle, compressor or lab air.

## Ordering Information

Part No.	SmartSquirt® Micro-Perfusion System
07-04-[x]	SmartSquirt® 4 Micro-Perfusion System
07-08-[x]	SmartSquirt8 Micro-Perfusion System - SmartSquirt Valve Pressure Unit, Reservoir Block & Perfusion Pencil
	<b>Systems with Valve Controllers:</b>
07-VL-04-[x]	SmartSquirt4 ValveLink Micro-Perfusion System
07-VL-08-[x]	SmartSquirt8 ValveLink Micro-Perfusion System
07-VB-04-[x]	SmartSquirt4 ValveBank Micro-Perfusion System
07-VB-08-[x]	SmartSquirt8 ValveBank Micro-Perfusion System
	[x] = specify -100, -250, or -360 µm i.d. removable tip or [ZDV] for Zero Dead Volume Pencil (see ThermoClamp page)
06-25	SmartSquirt Cryo vials - 2.5 ml - Qty 8
06-25c	SmartSquirt Cryo vials - 2.5 ml - Bag of 100
02-01-08i	Replacement SmartSquirt Valve
05-07	Colored SmartSquirt Tubing - 1/16" i.d. (per foot)
07-04-c	Replacement SmartSquirt Perfusion Pencil® - 4 channels
07-08-c	Replacement SmartSquirt Perfusion Pencil® - 8 channels

U.S./Canada prices shown. International prices add 15%. Email or visit web store for latest prices. Manipulator not included.

See page 23 for flow rates.

