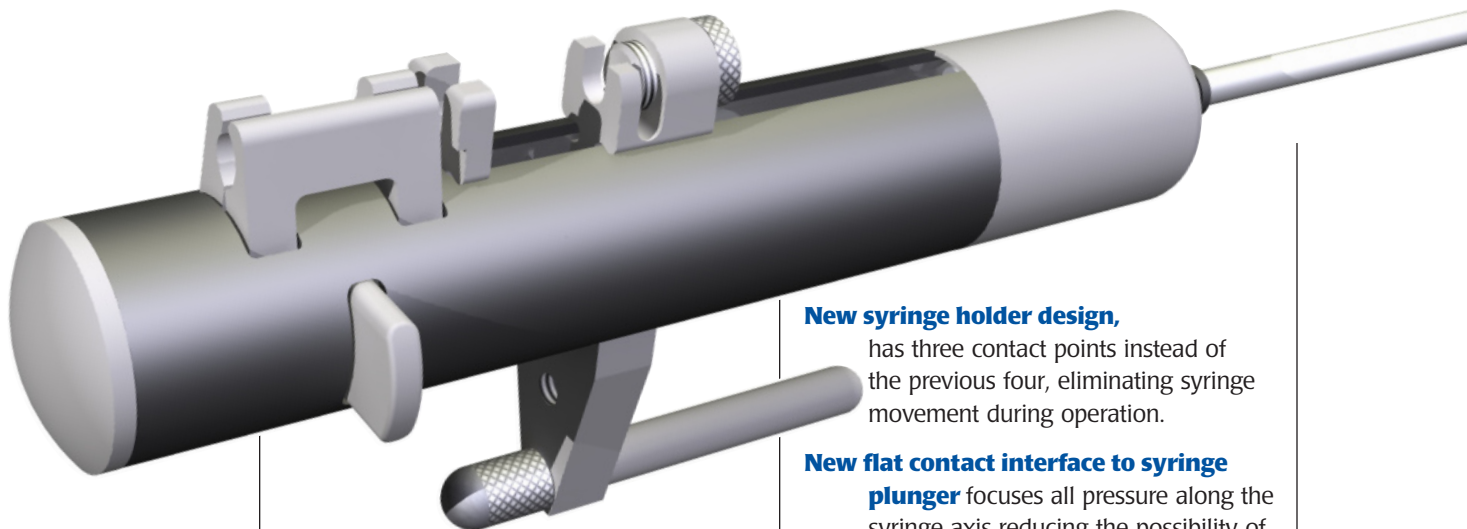




UltraMicroPump III

Versatile injector for sub-microliter volumes



New syringe holder design,

has three contact points instead of the previous four, eliminating syringe movement during operation.

New flat contact interface to syringe plunger

focuses all pressure along the syringe axis reducing the possibility of bending the plunger.

New plunger carriage design –

eliminates the two rail guides in the previous version of the UMP. A threaded shaft drives a piston in the cylinder shaft advancing the plunger. This design allows for smoother movement of the plunger and increased accuracy of injection.



Combined with the MICRO4 digital controller, the UMP III can be programmed to deliver as little as 600 picoliters per incremental step. For precise positioning, attach the UMP III to any of several WPI micropositioners or any manual stereotaxic manipulator. This versatile micropump accepts glass syringes with barrel diameters of 5.5 to 9 mm.

UMP3 SPECIFICATIONS

(based on 10 µL syringe)

Total # of Steps.....	20,000 (63 mm travel)
Minimum Dispensing Volume.....	0.58 nL / step
Linear Motion Per Step.....	3.175 microns
Weight.....	325 g (11.5 oz)
Mounting Rod Diameters.....	7.9 mm (0.31 in.)
Controller Power Requirements ...	2 amps, 12 V DC
Dimensions.....	ø 32 mm x 190 mm (ø 1.3 in. x 7.5 in.)

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