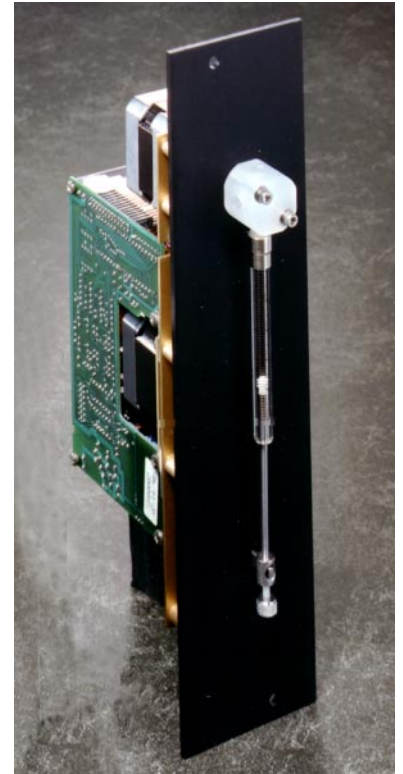




ADVANCED LIQUID HANDLING, INC.

- Zero backlash
- Absolute linearity
- Small size
- Versatile syringe interface
- Stepper-controlled valve rotation
- Quiet, reliable mechanism
- Stepper motor or DC servo drive
- Integrates with popular controllers
- Inert internal components
- Servo feedback optional
- Easily integrated into new and existing systems
- 24 VAC controller available



## MBP2000 Syringe Pump

The **MBP2000** is the elegant solution for microliter fluid handling - simple, straight forward, yet advanced. The pump produces precise displacement for the aspiration and dispensing of a wide variety of fluids for many applications.

All of the MBP pumps have a proven, reliable drive and valve mechanism to assure it will operate quietly and precisely in the microliter range for many years.

The **zero backlash** mechanism provides for speed, less syringe wear, and no need for backlash compensation programming.

### SIZE AND CONVENIENCE

The small size adds to the convenience by accommodating chassis and cavity parameters of existing equipment. This allows you to use our pump as a **drop-in** component to replace existing dispensing equipment. Additionally, the **MBP2000** can be easily integrated into new product designs so that the new system can take up less valuable counter space.

Because of the convenient mounting and easy access to tubing connections, this pump contributes to efficient manufacturing and maintenance.

### COMPATIBILITY

The **MBP2000** is available with an inert valve and interconnect components to make it compatible with standard diagnostic fluids and reagents. It is compatible with clinical diagnostic industry standard controllers and syringes.

### ELECTRONICS

Our new electronics module emulates either Hamilton ML-OEM® or Cavro XL3000® protocol. All you need is 24V AC and an RS232 connection to your computer [TX, RX, & Gnd]. In addition this new circuit board is sized to fit both of our digital syringe pumps the **MBP2000** and our new, smaller **MBP.5**

### Specifications

<b>Size:</b>	As shown: 8"(203mm)H x 2.2"(56mm)W x 4"(100mm)D (behind panel)	<b>Valve:</b>	Teflon & Kel-F 3/4 way shear (as supplied)
<b>Weight:</b>	As shown: 38oz.(1.08kg)	<b>Power:</b>	Syringe Drive: 1.1 amp @ 4VDC Valve Drive: 0.95 amp @ 4VDC
<b>Capacity:</b>	Maximum syringe volume: 10 ml	<b>Sensors:</b>	5VDC optical (totem pole output)
<b>Measured Volume:</b>	Min: 0.001 x syringe volume Max: syringe volume	<b>Firm ware:</b>	Hamilton ML-OEM® or Cavro XL3000® protocol emulation
<b>Force:</b>	Up to 20 lbf (9 kgf)	<b>Accuracy and Precision:</b>	Accuracy and precision are typically better than 1% and 0.01%, respectively depending on electronics, software and hydraulic connections.
<b>Speed:</b>	Syringe: Maximum 1 second full stroke Valve: 1/4 to 1/2 second switch time		
<b>Resolution:</b>	2000 steps		
<b>Stroke:</b>	60mm		

*Specifications subject to change without prior notice. ®Registered Trademarks are the property of their respective owners.*

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