

IDI - CYBOR

the CYBOR M5000 Series Pump



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Positive Displacement Technology

The fully programmable, stepper motor driven, electrohydraulic, CYBORPUMP™ System provides the Accuracy, Repeatability, and Versatility required for the most demanding requirements in the Semiconductor and Substrate Processing Industries.

The Programmable Photoresist-Polyimide Pumps provide accurate and repeatable performance for viscosities from 1 cp to 3,000 cp.

ACCURATE AND REPEATABLE

The Stepper Motor Drive System in combination with a Positive Displacement Hydraulic Coupling can provide repeatability of +/- 0.01 ml.

This accuracy is maintainable over hundreds of thousands of dispenses. One study by a customer shows a total range variation of 0.03 grams over 250,000 cycles.

VERSATILE

A variety of Stepper Motor configurations, along with complete digital control of all parameters, allows hardware and software design modifications to meet a variety of challenging dispensing applications.

Very low viscosity chemistries such as Deep UV Resist, and Anti-Reflective chemistries can be dispensed at high rates without the usual dripping and suckback problems.

Dosing profiles can be tailored to fit a variety of approaches to Reduced Resist Consumption.

RELIABLE

Accelerated life testing has demonstrated that the pumps are capable of cycling over 1,000,000 times. This would mean that the Mean Time Between Maintenance could conservatively be established at every 600,000 cycles.

CYBOR

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MINIMUM FACILITATION AND MAINTENANCE COSTS

Installation and start-up, either as a retrofit to an existing system or into a new system, is quick and easy. Comprehensive Interface Options, including RS232/RS422, are adaptable to a myriad of systems.

All dispense operations are Programmable. No mechanical adjustments are required. The Menu driven recipes are re-programmable in less than 30 sec. Each pump can be run with up to 8 independent recipes.

System Features:

- Patented Stepper motor driven, electrohydraulic, positive-displacement pump system
- Accurate, Repeatable, Reliable dispense.
- All wetted surfaces are Teflon
- Accepts both Mykrolis and Pall filter elements
- All Programming via front panel control
- No mechanical adjustments, or vacuum required
- Easy to retrofit, or to install in to new systems
- Auto Air vent valve (optional)
- Recirculation/Purge valve (optional)
- RS232/RS422 (optional)
- Pressure Sensing
- Filter Change Alarm (optional)
- Viscosity range from 1 to 3,000 cP
- Enhance dispense control with Variable Rate dispense and step to step Acceleration/ Deceleration.
- Options:
 - Source Reservoir
 - Source Switching

U.S. Patent number 4,950,134. Taiwanese patent number 65380.
U.S. and other patents pending

System downtime can be minimized by having one spare Control Module and Power Supply control up to 30 pumps. If one pump is down for maintenance, the other pumps can still be in operation.

A World Wide fully trained Service Group is available to facilitate installation, start up and support as required.

Major System Components:

- Model 5120 All-Teflon 10 ml. Pump or
- Model 5126 All-Teflon 16 ml. Pump
- Model 511 Filter System
- Model 505, 507, 525, 527 & Universal Pump Control Module
 - Controls up to 4 pumps
 - Stores up to 8 independent recipes per pump
 - Comprehensive interface options

Choose from five sizes to meet the volume requirement.

- Model 5026, 16mL Pump, The Industry Standard
- Model 5020, 10 mL Pump*
- Model 5024, 24mL Pump*
- Model 5066, 60 mL Pump*
- Model 5300, 100 mL Pump*

* consult factory for availability.

The Model 511 filter assembly offers eight filter configurations to meet critical filtration needs. From the low volume 4 stack filter to high flow 5" filters, and two disposable capsule styles.

- Model 512 Power Supply for 18VDC operation.

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System Components	Dimensions	Programmable Rates
Model 5026 All-Teflon Path 16 ml.	16 ml.	16 ml.
Model 511	Width 5.2 in.	Dispense 0.01 ml/sec
Digital Pump Control Module	Height 12.3 in.	5.00 ml/sec
Model 512 Power Supply	Depth 10.4 in.	Suckback 0.01 ml/sec
	Weight 11.25 lb.	5.00 ml/sec
		Reload 0.01 ml/sec
		4.00 ml/sec
Power Requirements	Programmable Volumes	Programmable Rate Resolution
18V dc, 3.5 amperes max	16 ml.	16 ml.
	Dispense 0.1 ml	Dispense 0.01 ml/sec
	16.0 ml max	Suckback 0.01 ml/sec
	Suckback 0.0 ml min	
	2.0 ml max	
System Environmental Components	Programmable Volume Resolution	
10°C min to 40°C max	16 ml.	
	Dispense 0.1 ml	
Relative Humidity	Suckback 0.01 ml	
10 to 90 percent, non-condensing		

Technical specifications to change without notice.

*The Easy Choice...
For Chemical Management Solutions*



by

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