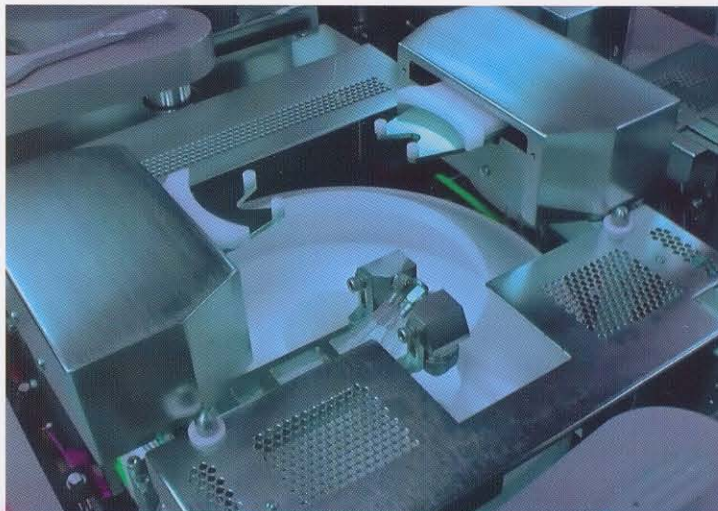
positive and negative PHOTORESIST DEVELOPER SYSTEM

The SVG* 86 and 88 series positive resist developers are designed to develop 3"to 150mm wafers coated with positive resist, while the 86 and 88 series negative resist developers develop wafers coated with negative resist. Both types of developer systems provide improved develop uniformity and repeatability.



Mission Technology Inc. provides remanufacturing and upgrades of both series of positive and negative developer track systems. In addition to restoring all aspects of the systems, we also outfit the systems with upgraded parts and/or modules which have been tested rigorously in the field. Several example of these components are listed below:

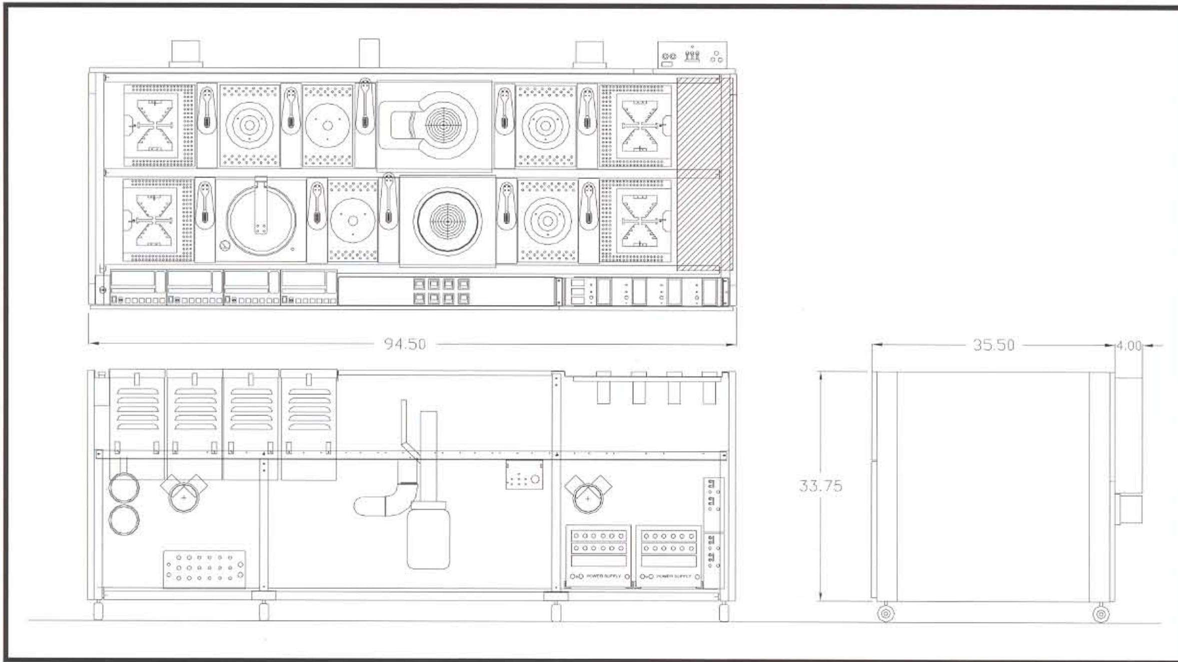
LOW CONTACT CHUCKS provide better coating uniformity on wafers.

BRUSHLESS SPINNER MOTORS have acceleration speeds of 50,000 rpm or better, and are virtually maintenance-free.

CONSTANT TEMPERATURE BATHS are CFC-free and quiet, with a single controller to heat and chill to maintain bath temperature.

UPGRADED HOT PLATE OVEN BLOCKS have optional features such as fixed proximity bake and Teflon-coated surface.

*SVG IS A TRADE MARK OF SILICON VALLEY GROUP



CONFIGURATION DRAWING SHOWN IN 88XX SERIES

Category	Feature	Specification	Facility Requirements	
System Basic	Wafer Size	3"-6" Wafers (100mm – 150mm)	Power	208 VAC, 3 Phase, 15A
	User Interface / Controller	Card Cage		(Different voltage/Phase
Vapor Prime	Temperature Range	50 - 250°C ±0.5°C (50-150°C), ±0.5% (151-250°C)		combination possible)
Chill Plate	Temperature Range	18.0 - 30°C ±0.1°C with chiller (idle at ambient)		
HPO	Temperature Range	50 - 250°C ±0.5°C (50-150°C), ±0.5% (151-250°C)	N_2	80 PSI
Developer	Maximum Spin Speed	6000 rpm (with 6" wf), 8500 rpm (without wf)	CDA	80 PSI
	Spin Speed Accuracy	±2 rpm	Exhaust	2.5 inch H_2O
	Acceleration Range	0-50000 rpm / sec.	Vacuum	30 inch Hg
	Acceleration Accuracy	±5%	DI Water	25 PSI
	Chuck Temp. Uniformity	±0.2°C across spin chuck	PCW	17°C (± 2°C)
	Disp. Arm Motor Control	Stepper Motor		
	Dispense Arm Z - motion	N / A		
	Disp. Arm Accuracy	±0.3mm		
	Number of Nozzles	2 Sprays, 1 Streams, and 1 DI Stream		
	Fluid Temperature Control	±0.2°C (18-30°C range), Option		
	Dispense Method	Pump or Pressurized Canister		
	Exhaust Control	200-900 lpm (Option)		
	Backside Rinse	Standard		
	Wafer Centering	±0.4mm		
	E_0 Uniformity	≤3%		
	Within Wafer CD Uniformity	≤0.04 (3µm) with fluid temperature controller ≤0.06 (3µm) without fluid temperature controller		
	Wafer to Wafer CD Uniformity	≤0.05 (3µm) with fluid temperature controller ≤0.07 (3µm) without fluid temperature controller		
	Long Term Develop Process Stability	≤0.06 (3µm) with fluid temperature controller ≤0.08 (3µm) without fluid temperature controller		
Reliability	MTBF	≥200 hours		
	MTBA	≥50 hours		
	MWBF	≥10,000 wafers		
	MWBA	≥2,000 wafers		
	Uptime	≥95%		
	Wafer Breakage	≤1 in 10,000 wafers		
Safety	Teflon Wiring	Standard		
	Solvent Plumbing	Teflon or S.S.		
	Spill Container in Cabinet	Custom		
	Exhausted Cabinet	Option		

MISSION TECHNOLOGY INC. 1810 McCandless Dr. Milpitas, CA 95035, Phone 408-262-0177 Fax 408-262-0188