2. The LP-6

Yield Engineering Systems' LP-6 is a Vacuum-Bake/Vapor-Prime System. The LP-6 is designed to create the ideal surface for photoresist adhesion. The LP-6 primes wafers better than any other processing equipment or technique by combining ultimate dehydration with a tested HMDS vapor priming time. In addition, LP-6 is cost efficient, it reduces HMDS consumption by 95% or more when compared to conventional spray or flood prime processes.

The LP-6 is designed and built to be safe, reliable, durable and operator-friendly. Features of the system include:

1. Microprocessor control of output with input monitoring
2. Multi-programming capabilities
3. Process interrupt indicator ("ABORT")
4. Process indicator lights
5. Cycle complete light and sonalert
6. Electropolished 316 stainless steel chamber
7. Internal chamber welds
8. Two independent overtemperature safety switches
9. Preheated nitrogen
10. Front loading HMDS vacuum safe holding one quart size chemical bottle
11. Clearance for robotic pickup of cassettes
12. Audible alarm override switch
13. Nitrogen surge control valve
14. 24 VAC instrumentation
15. Infrared HMDS level sensor with low level indicator

3. LP-6 System Specifications

Process exposed parts:

316 stainless steel chamber, electropolished, with interior dimensions of 16.5" (419 mm) H x 16.5" (419 mm) W x 16.5" (419 mm) D
316 stainless steel tubing, passivated
316 stainless steel Swagelok fittings
316 stainless steel VCR fittings
6061-MIC6 Aluminum door plate
PFE Teflon tubing
Silicone door seal, gray
Buna-N safe gasket, black
Kel-F Teflon (Nupro valves)

Nitrogen variable flow control

All instrumentation, operator accessible, carries 24 VAC or less

Power consumption:

	Process nominal		Maximum	
120 VAC				
Heaters 8 each at 200W		13.50A		13.50A
24 VAC		.46A		.54A
microprocessor	1 ea	.50A	1 ea	.50A
vacuum gauge	1 ea	.42A	1 ea	.42A
temp. controller	1 ea	.21A	1 ea	.21A
solenoid valve	1 ea	.09A	3 ea	.25A
indicator lamp	2 ea	.08A	7 ea	.28A
flow controller	1 ea	1.00A	1 ea	1.00A
Total amperage:		13.96A		14.04A

Eight 200W, 120 VAC strip heaters in use

Power: LP-6: 120 VAC 60 Hz, 1 phase 1700 W maximum
LP-6E (Europe): 220/240 VAC 50 Hz, 1 phase 1700 W maximum
LP-6J (Japan): 100 VAC 50/60 Hz, 1 phase 1700 W maximum

Wafer Capacity: Holds 8 cassettes of 6" wafers

Dimensions of unit: 22" (559mm) H x 35" (889mm) W x 22" (559mm) D