

Oxidation System for VCSELs Production

HiVOX6001 (with in-situ monitoring system)

The Best System for manufacturing of VCSELs.



- **In-situ monitoring system**

- **Precise Oxidation Ability**

(High uniformity ,High repeatability)

- **Highest Throughput**

(High oxidation rate, High cooling rate)

- **Easy and Safety Operation**

- **Easy Maintenance**

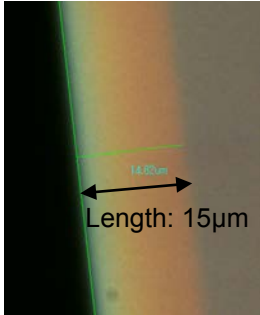
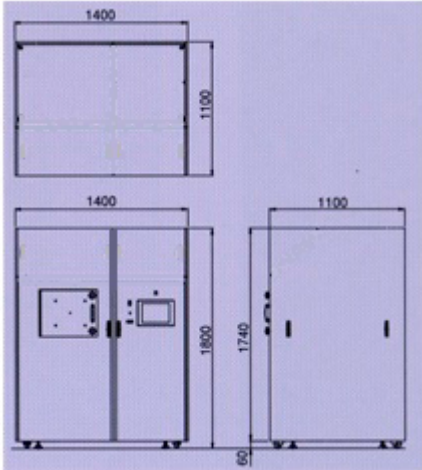
- **Automation**

Full all processes of oxidation will be done automatically by one button.

Connection to Robot(Optional)



● Specifications

Chamber	Substrate size	1 × 6inch substrate (Tray size: Φ180) 1 × 4inch substrate (Tray size: Φ180) 3 × 3inch substrate (Tray size: Φ180) 7 × 2inch substrate (Tray size: Φ180)	
	Substrate heating mechanism	Resistance heating method (Maximum heating temperature / 600 °C)	
	Substrate rotation mechanism	Max. 10 rpm	
	Gas introduction nozzle	Ring type	
	Chamber heating temperature	120°C	
Gas supply system	Flow rate control system	Liquid mass flow controller method	
	Vaporization method	Heat type vaporizer (Maximum heating temperature /180 °C)	
Vacuum exhaust system	Diaphragm pump		
Control system	Sequence controller software for the interlock		
Oxidation ability	Uniformity	20 μ m±0.2 μ m (except for edge)	
	Repeatability	20 μ m±0.2 μ m (run to run)	
	※Typical, depend on many factors		
Microscope Image(10X)			<p>(Conditions)</p> <p>Oxidation Temperature: 450°C</p> <p>Oxidation Time: 15min</p>
Utilities	Electric power	3Φ AC200V 10kVA	
	Cooling water	10 l/min (Maximum)	
		5 l/min (Common use)	
		Temperature: <20°C	
		Supplier pressure: 0.3~0.6MPa	
	Compressed air	Supplier pressure: 0.4~0.6MPa	
High purity nitrogen	70l/min(Maximum)		
	Supplier pressure: >0.3MPa		
Weight	600 kg		
			<p>Exterior drawing (Unit: mm)</p> 

51 Nakagawara, Kamitoba, Minami-ku, Kyoto-shi, 601-8142 Japan

Tel 81-75-693-3356, Fax 81-75-693-3357

URL <http://www.epiquest.co.jp>