

IPR2013-00066

CVD System

Vacuum Evaporation System

Vapor Deposition Polymerization System

Ashing System

Etching System

Ion Implantation System

Vacuum Furnace

Roll Coater

Freeze Drying / Vacuum Drying System

Vacuum Distillation System

Automatic Leak Tester

Others

APPLICATIONS

Semiconductor Process (FEOL/BEOL)

Semiconductor Process (Non Volatile Memory)

LED Device

Power Device

Advanced Packaging Device

MEMS Device

Optical Film

Magnetic Device

Thin-film Lithium Ion Secondary Battery

LCD

OLED

Touch Panel

R&D Equipment for Display

Photovoltaic

Magnet

Automobile Parts

Wiring Materials

Capacitors

Packaging Materials

Decorative Coating

Pharmaceutical

Food Processing

Health Care

Electronics Materials

Functional Materials



This system is a single-substrate laser scribing system that is used to remove the transparent electrode (TCO) films formed on the glass substrate by the laser ablation method using the near-infrared wavelength pulse oscillating laser.

This system consists of 6 IR lasers, 6 sets of laser light collection optical system, bridge type XY stage (X-axis: lower axis, Y-axis: upper axis on bridge), substrate conveyor mechanism, dust collector, laser power measuring instrument and control systems. It is achieved high accuracy and high stability for using fiber lasers and a stage made of granite.

Features

- Diode coupled 6 IR lasers:
Laser light is delivered by optical fiber and set variable pulse width
- Simple and high stability optical system
- Granite XY stage:
High precision and minimal thermal expansion/contraction
- Individual laser positioning control:
Every IR laser has its own Y- and Z-stage
- Automatic measurement and calibration of laser output power
- Tact time < 90 sec(ULVAC standard pattern)

Applications

- Thin film solar Cell (TCO Laser scribing)

Specifications

Substrate material	W1400 x D1100 x t=3-5mm
Tact time	< 90 sec. (ULVAC standard pattern)
Excitation	Laser Diode
Laser wavelength	About 1.06 μ m
Beam delivery	Optical Fiber
Beam shape	About 50-70 μ m circle
Number of beams	Air cooling
Cooling	Air cooling
Stage size	W2420mm x L4570mm x H2100mm
Valid stroke	X axis(upper axis): 2000mm
	Y axis(lower axis): 1260mm
	Z axis(mounted on Y stage): 50mm
Maximum speed	X:1000mm/sec
	Y:600mm/sec.
X-Y orthogonality	Below 5 μ m/500mm
Accuracy of repeatability positioning	Below +/-10 μ m

PRODUCT CATEGORY	APPLICATIONS	Vacuum Pump	Sputtering Targets	Field Service for Equipment
› Sputtering System	› Semiconductor Process	› Dry Pump	› For FPD	› Field Service
› CVD System	› (FEOL/BEOL)	› Oil Rotary Pump	› For Semiconductor	› Global CIP
› Vacuum Evaporation System	› Semiconductor Process (Non	› Mechanical Booster Pump	› For Photovoltaic	› Factory Outsourcing
› Vapor Deposition	› Volatile Memory)	› Ion Pump	› ITO Target	› Recycling / Cleaning / Reusing
› Polymerization System	› LED Device	› Turbo Molecular Pump	› IGZO Target	› Resources
› Ashing System	› Power Device	› Oil Diffusion Pump	› Evaporation Deposition	› Maintenance for Component
› Etching System	› Advanced Packaging Device	› Cryo Pump	› Materials	› Pump Maintenance Service
› Ion Implantation System	› MEMS Device	› Titanium Getter Pump	› High Performance Materials	› JCSS Calibration Service
› Vacuum Furnace	› Optical Film	› Vacuum Gauge	› [Ta][Nb] Sheet	› (Vacuum Gauge)
› Roll Coater	› Magnetic Device	› Process Gas Monitor	› [Ta][Nb] Wire/Bar	› Termination of Production and
› Freeze Drying / Vacuum Drying	› Thin-film Lithium Ion Secondary	› Leak Detector	› [Ta][Nb] Tube/Pipe	› Maintenance
› System	› Battery	› Thin Film	› [Ta][Nb][Zr] Reactor Vessels	› Parts Supply
› Vacuum Distillation System	› LCD	› Measurement/Deposition	› [Ta][Nb] Heat Exchanger	› Surface Treatment
› Automatic Leak Tester	› OLED	› Controller	› [Ta][Nb][Zr] Columns	› MEMS Foundry Service
› Others	› Touch Panel	› Vacuum Valve	› [Ta][Nb][Zr][Ti] Coating	› Analysis Service
	› R&D Equipment for Display	› Parts for Ultra-High Vacuum	› [Ta][Nb][Zr][Ti] Pipings	› Used Equipment/Refurbish
	› Photovoltaic	› Power Supply	› Nano-metal Ink	
	› Magnet	› Transfer Robot		
	› Automobile Parts	› Software		
	› Wiring Materials	› Catalog Download		
	› Capacitors	› Drawing Data Download		
	› Packaging Materials	› Termination of Production and		
	› Decorative Coating	› Maintenance		
	› Pharmaceutical			
	› Food Processing			
	› Health Care			
	› Electronics Materials			
	› Functional Materials			
	› Aviation			
	› Power Transmission			
	› Home Appliance			

Copyright (C) 2001-2013 ULVAC, Inc. All rights reserved.