



UV雷射精密加工鑽孔機

UV Laser Micro Fabrication Drilling Machine

ECO-TU2 Series

High Performance & Excellent Accuracy



我們提供最佳信賴性製品



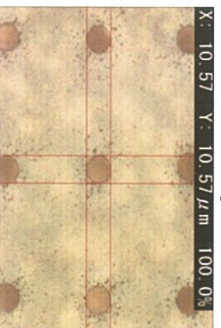
Vela UV Laser 加工介紹

Processing Introduction

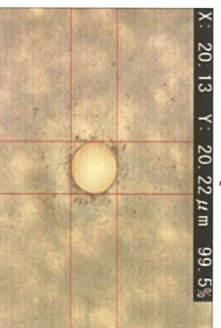
ABF材料極小徑加工

ABF材/t10 μm

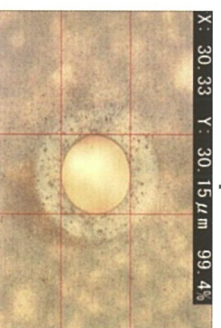
$\varnothing 10\mu\text{m}$



$\varnothing 20\mu\text{m}$



$\varnothing 30\mu\text{m}$



Taper: 82%

X: 10.02 Y: 7.81 μm 78.0%



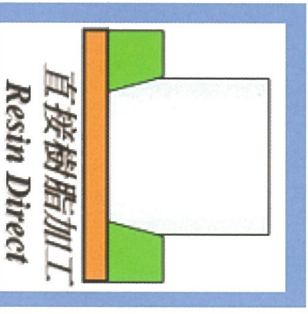
Taper: 94%

X: 20.40 Y: 8.92 μm 43.7%



Taper: 94%

X: 30.07 Y: 8.10 μm 26.9%

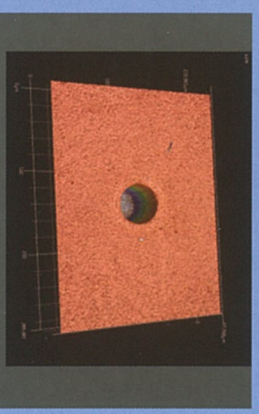
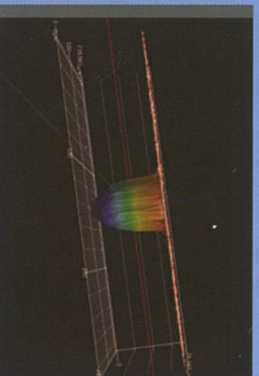
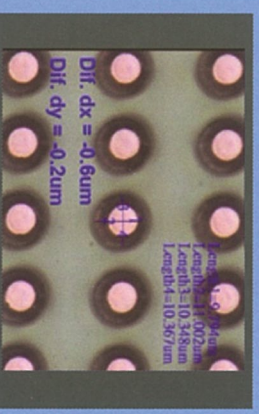
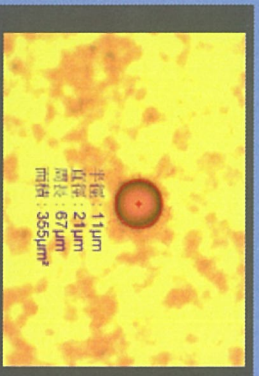
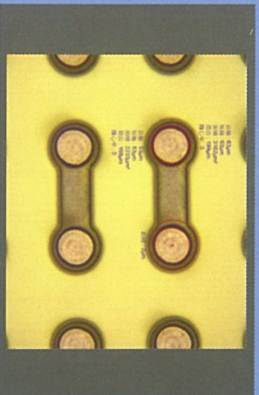


10 μm ~120 μm

VELA的優勢：運用 $\varnothing 10\mu\text{m}$ 的Top Hat Beam，實現超高難度的孔品質。

VELA product superiority：Using $\varnothing 10\mu\text{m}$ Top Hat Beam to achieve quality of small hole.

Wafer PI 加工

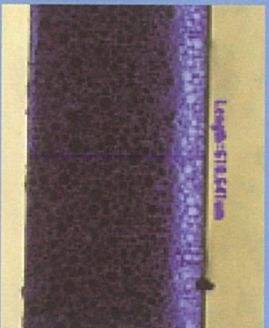
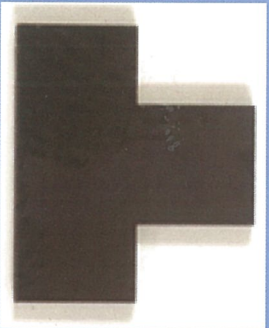


VELA的優勢：加工極小孔及圖形切割，實現客戶要求品質。

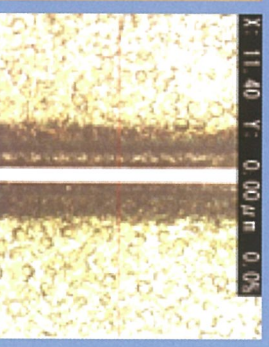
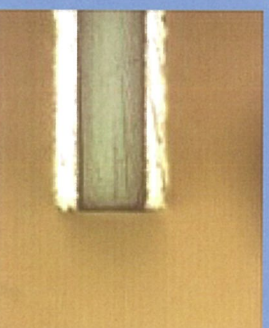
VELA product superiority：The quality of small hole and cutting is to meet customer requirements.

UV Laser Mini LED · 半導體 · 封裝製程 · 成品切割加工應用

Molding Compound

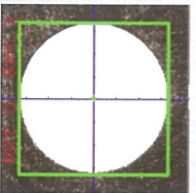


Cu+LCP

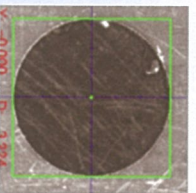


完備的機能式樣 Complete the function style

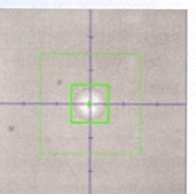
- ◆ CCD Camera 可以管控標靶尺寸範圍，以及相似度範圍，共有五組標靶條件可設定。
The CCD Camera can detect the size range and the similarity level of target.
There are five target configuration groups that can be set.



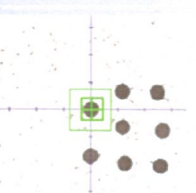
黑化基板通孔靶



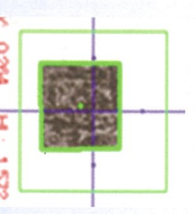
棕化基板通孔靶



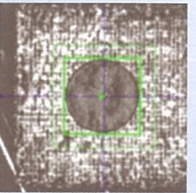
印刷靶



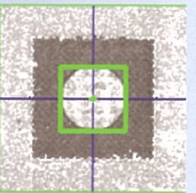
蝕刻靶



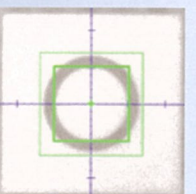
方形靶



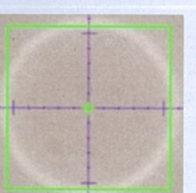
黑化基板燒內層靶



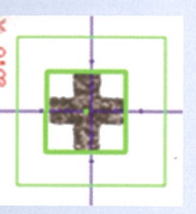
棕化基板燒內靶



ABF基板



ABF基板貼PET膜

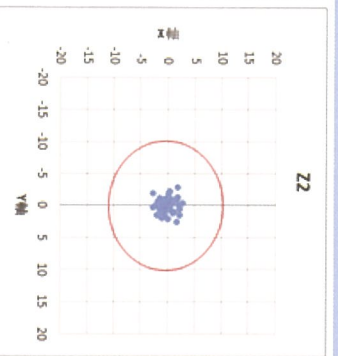
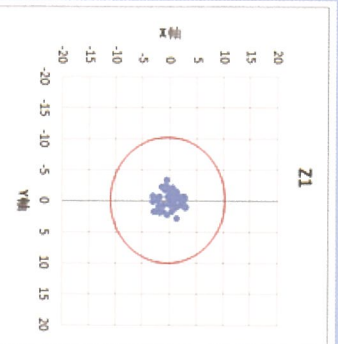


十字型靶

- ◆ 永續發展目標：提供節能、省空間機械。

Sustainable development goals: Provide energy-saving and space-saving machinery.

- ◆ 雷射鑽孔精度<10μm Drilled hole accuracy <10μm



• 以上數值為在VELA機台上實測值，非保證值。

標準規格 Standard Specification

MODEL		ECO-TU2 (UV)	
雷射頭 Laser Head	額定輸出	Avg. power	40 W
	波長	Wavelength	355 nm
	GALVO掃描速度	GALVO Scan speed	Max.3000 pps
	桌面位置定位精度	Table accuracy	±5 μm
	加工位置精度	Drilled hole accuracy	±10 μm
	加工範圍	Working area	813 mm x 635 mm
	光圈(類)	Aperture (PCS)	20
	電源需求	Power requirement	15 kVA (實測)
	冷卻水	Cooling water	壓力0.3-0.5 MPa / 流量> 17 L/min
	空壓	Pneumatic pressure	0.6-0.7 kPa
機台規格 Machine specification	空氣消耗量	Air consumption	Avg.: 585 L/min • Max.: 975 L/min
	集塵需求	Vacuum requirement	靜壓 < -0.8 kPa / 流量 > 8000 L/min
	鼓風機排氣量	Blower air volume	1.8 m³/min
	機械尺寸	Dimension (LxWxH)	2712 x 2369 x 2244
	機械重量	Weight	5500

選購配備 Optional

• 單機集團裝置 Stand-alone vacuum Unit

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