

EXCIMER

高分子膜 + 准分子雷射

累积20年以上雷射经验，具有雷射、切割、量测等半自动化制程技术，可因应不同孔洞、流道设计，规划材料、制程及精度等技术解决方案。

Innovations built from the Fundamentals

加工经验

20

year up

LASER

深耕于准分子雷射微加工20余年，使用美国大厂Coherent稳定的雷射源配合日本大厂制作的高精度平台，透过高端准分子雷射微加工核心技术，在直径2毫米的高分子塑料材上精准地打出上千个**3微米**的细小微孔。

已生产超过八千万个微网片，应用领域广及消费性电子产品、美妆产品、医疗产品。

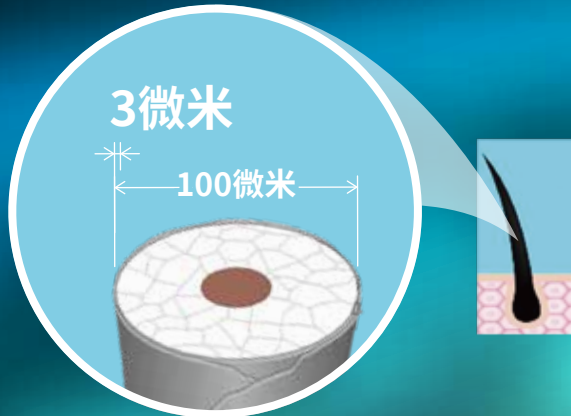
特别
适合
应用于

墨水匣喷嘴

- 喷嘴孔道边缘平整，不易残墨
- 不易发生弹性疲乏，输出墨珠一致
- 贴合加工效果佳，故特别适用于墨水匣异材质结合处理

医药领域

- 具生物相容性，可作为神经系统植入物的素材
- 具较佳抗化性及抗腐蚀性，不易与药液、试剂产生化学反应



Tool	KrF Excimer laser for 2D/3D structuring
	Nikon NEXIV VMR Vision Measurement System
	DPSS 266nm Laser
Material	Polymer, Polyimide, PMMA, PC and Photo-resist
Shape	Drilling, Grooving, Cutting and Structuring
Quality	Dimension Accuracy : < 2 um
	Position Accuracy : ± 3 um
	Ra < 0.05 um



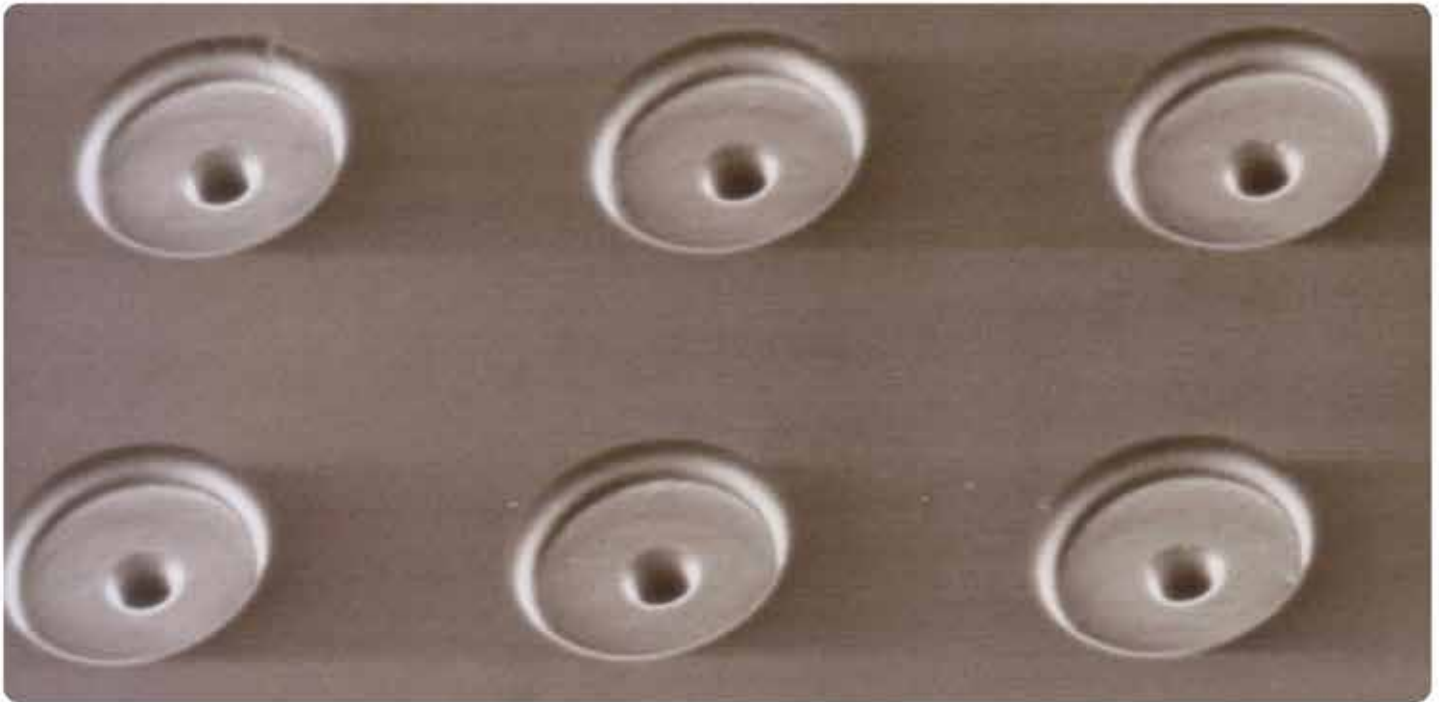
准分子雷射LIGA

雷射切割技术

自动卷料带技术

VMR量测





Laser material processing utilizes the wide range of laser material processing capabilities and flexibility and accuracy of pattern-definition by photo masks to achieve high throughput and high precision. 2D and 3D micro structures are possible. MicroBase utilizes excimer, Nd:YAG and various types of lasers to meet customers' special process requirements. Applications include inkjet nozzle plates, micro fluidics devices, micro parts and laser patterning for ITOs or conductive films.

Laser processing such as ablation, cutting, drilling, grooving, and 2D/3D structuring, metals and alloys can be performed with very high accuracy and little or none thermal effects (no heat affected zone, HAZ). It is suitable for either fast prototyping or serial mass production.

Features:

- Clean Surface with Superior Roughness
- Wide Ranges of Laser Capabilities for Many Materials and Applications
- Clean Room Environment
- Short Turn-Around for Fast Prototyping
- High Volume Manufacturing Capability

Applications:

- Inkjet Printer Head
- Micro Fluidics
- LCD ITO Patterning
- Flexible Electronics
- Wafer Dicing
- Micro Welding

Capabilities

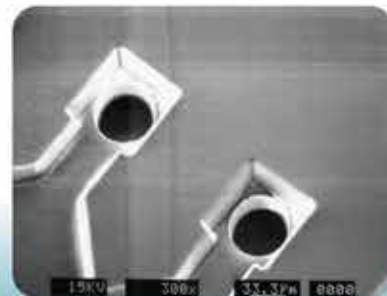
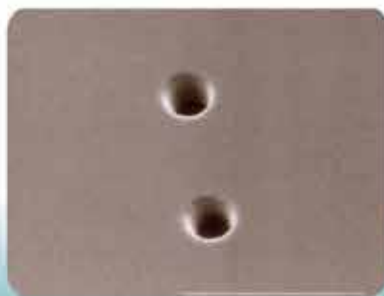
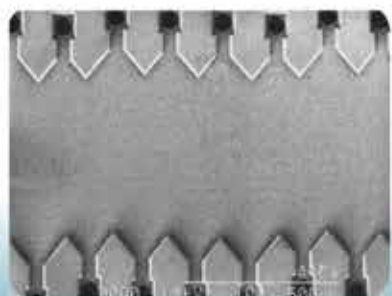
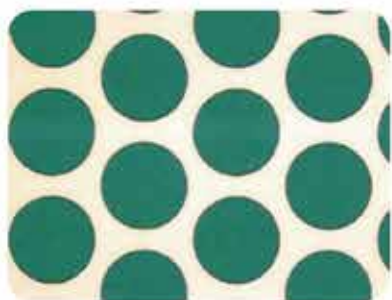
[Inkjet Nozzle Plate]

Hole size	> 4 μm
Dimension Accuracy	$\pm 2\mu\text{m}$
Position Accuracy	$\pm 3\mu\text{m}$
Stage travel distance	250mm x 150mm
Capacity	1,000,000pcs/month
Capability	Blind holes and micro vias, with sub-micron depth control

[2D/3D Structuring]

Dimension	< 1 μm
Max. Aspect Ratio	5 ^(*)
Roughness	Ra < 0.05 μm
Shapes	Drilling, Grooving, Cutting and Structuring
Materials	Polymer, PMMA, Polycarbonate, PET and thick photoresist

(*) Higher aspect ratio may be available upon request



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