

PRODUCT

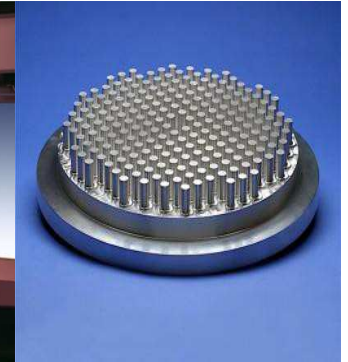
Semiconductor Reactor Sub-Assemblies

Machining of Si, SiC, Ceramics, Advanced Composites

- Shower Heads
- Wafer Tables
- Gas Confinement

LMJ used for:

- Drilling holes and slots
- Machining parts in contact with reactive gas



CHALLENGE

Micro-Machining of tight-tolerance features in thick hard materials

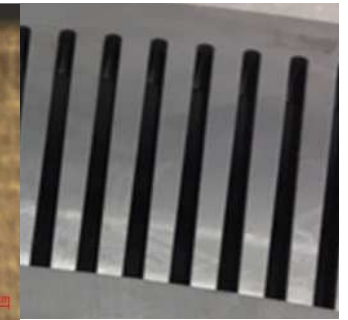
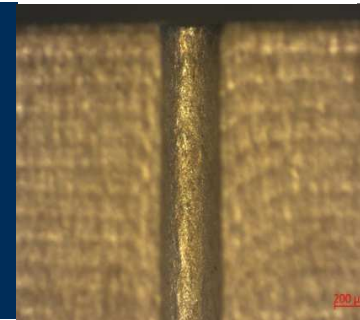
Must be repeatable and high-speed; robust, high accuracy

Main processing criteria:

- Small hole sizes (250 microns)
- Improved Cost of Ownership versus EDM
- Minimum recast
- Vertical walls of slots/ Tight tolerances

Machining technologies able to reach these criteria:

- EDM
- Laser MicroJet (LMJ) - water jet guided laser technology with breakthrough sensing



SOLUTION

Higher quality, enables new applications, better ROI

LMJ advantages versus EDM:

- Higher speed
- Less potential for particle release (low recast)
- Ability to process non-conductive materials

Installed machine type:

- LCS 800
- Dual-Cavity Laser

