

CASE STUDY

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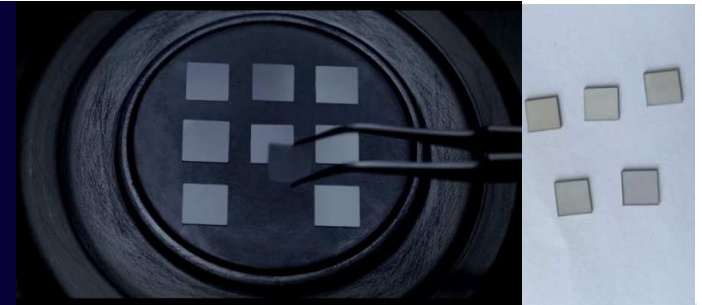
PRODUCT

CVD seed slicing

The company is specialized on natural and synthetic diamond materials, with internationally leading-edge manufacturing technologies, with focus on the development, production, sales and service of diamond materials, diamond tools and related equipment.

LMJ used for:

- Slicing
- Coring



CHALLENGE

Slicing of large CVD diamonds of up to 25 mm

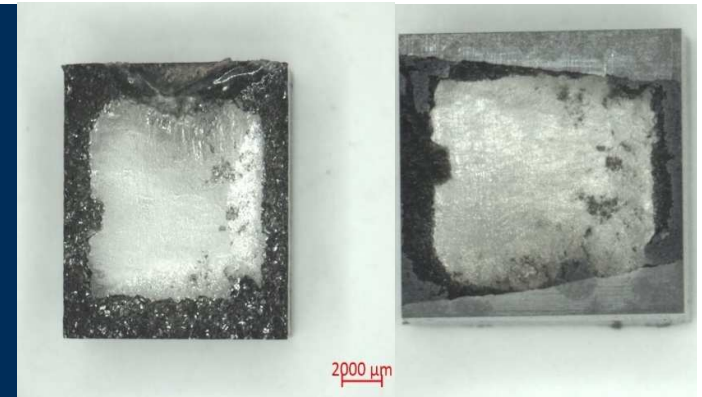
The challenge was to slice the rough stones from a single direction and along the largest thickness, with a high quality

Main processing criteria:

- Slicing CVD stones from a single direction along the largest thickness with a high quality
- Perfect vertical cut, no V-shape
- Low roughness
- All process steps in one set up

Machining technologies able to reach these criteria:

- Dry laser
- Laser MicroJet (LMJ) - water jet guided laser



SOLUTION

Improvements in any regard

LMJ advantages versus dry laser:

- 2x faster
- Parallel cut (no V-shape)
- Now roughness
- Thinner slices
- Much higher yield

Installed machine type:

- LCS 150
- 100 W green laser

