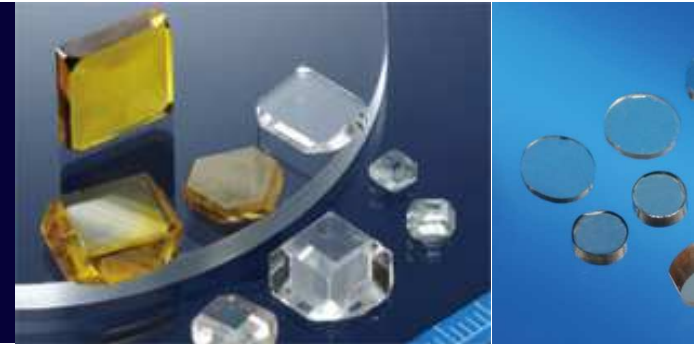


PRODUCT

Binderless Polycrystalline Diamond

Since binderless polycrystalline diamond (BLPCD) has no macro cleavage planes and highest hardness, it is desirable material for micro milling tools. However, fabricating micro tools made of BLPCD by conventional method such as grinding is very time consuming due to its extremely high hardness

- LMJ used for:
- Cutting PCD discs



CHALLENGE

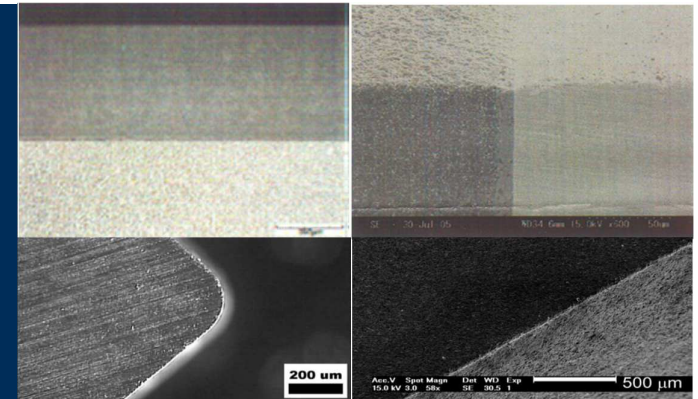
Replacing time- and tool-consuming grinding by maintaining the quality

Main processing criteria:

- No post-treatment
- No HAZ
- No micro cracks
- No burrs
- Perfect verticality
- Narrow tolerances
- Low roughness

Machining technologies able to reach these criteria:

- Grinding
- Laser MicroJet (LMJ) - water jet guided laser technology



SOLUTION

No HAZ, production-proven, better ROI

LMJ advantages versus EDM or grinding:

- No need of conductivity
- Much faster process
- Low consumables
- High flexibility

Installed machine type:

- 3 x LCS 150
- 100 W green laser

