

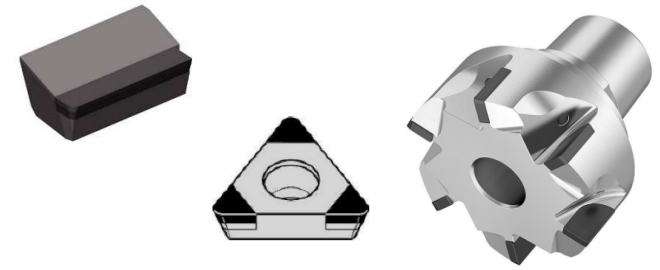
PRODUCT

PCD and CBN tools

Both PCD and CBN layers are fused to a tungsten carbide substrate. This combination provides the hardness, abrasive resistance, and thermal conductivity of diamond with the toughness of tungsten carbide to give an ideal material for cutting tools and wear resistant parts. PCD is used on non-ferrous materials – PCBN is used on ferrous materials.

LMJ used for:

- Finishing of PCD and CBN tool inserts



CHALLENGE

Surpass the quality of grinding, EDM and laser cutting

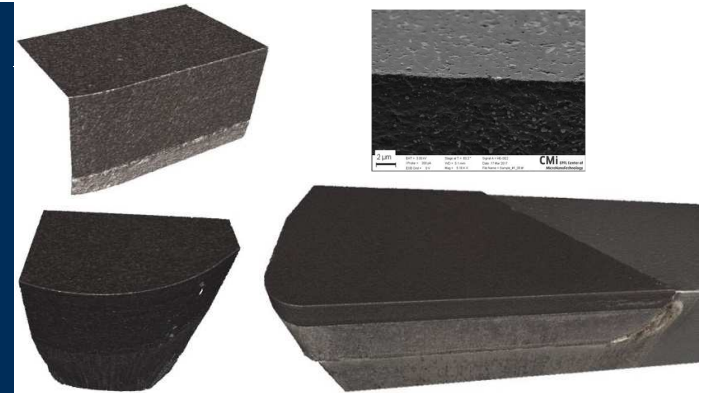
Customer looked for a better solution than existing diamond tool cutting technologies.

Main processing criteria:

- No micro cracks
- No HAZ
- No oxidation
- Perfect verticality
- Narrow tolerances
- Low roughness
- Sharp edges
- High speed
- High flexibility (all hard materials)

Machining technologies able to reach these criteria:

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



SOLUTION

No HAZ, best quality, highest flexibility

LMJ advantages versus EDM/grinding/dry laser:

- 2 x faster
- Best-in-class machine specifications
- Low consumables
- High stability

Installed machine type:

- 1 x LCS 305
- 100 W green laser

