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

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

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