A complete range of services for turbine engine components

Meyer Tool offers manufacturing solutions for airfoil and hot section turbine components.

LMJ used for:
- Drilling of turbine blades
- Other high precision machining tasks

Cooling hole drilling in coated superalloy

The challenge was to avoid any chipping or micro cracking of the coating with little recast layer.

Main processing criteria:
- No micro cracks
- No chipping
- Small recast layer
- No burrs
- Perfect verticality
- Narrow tolerances
- Low roughness

Machining technologies able to reach these criteria:
- EDM
- Laser MicroJet (LMJ) - water jet guided laser

No HAZ, production-proven, better ROI

LMJ advantages versus EDM:
- Capable to drill through non-conductive materials such as the thermal barrier coating
- High flexibility (shaped holes)
- Easy to program shapes
- High stability

Installed machine type:
- 2 x LMJiP
- 200 W green laser

Sources: websites, Synova