

CASE STUDY



Meyer Tool, USA

Aerocase-05 Date: 27.11.2020

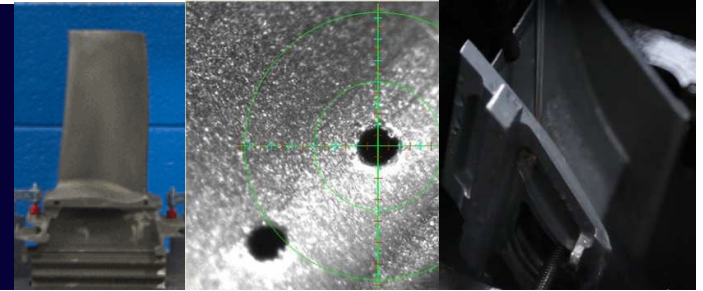


SYNOVA S.A.
Route de Genolier 13
1266 Duillier
Switzerland
www.synova.ch

PRODUCT 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



CHALLENGE Cooling hole drilling in coated superalloy

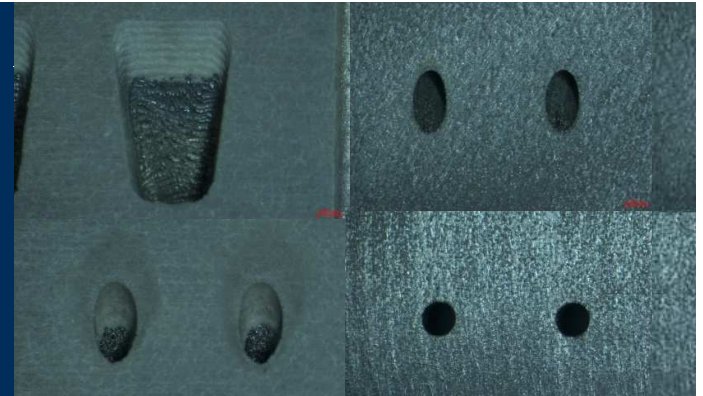
The challenge was to avoid any chipping or micro cracking of the coating with little recast layer.

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



SOLUTION 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

