



Cutting Edge Precision
Laser Focused



Laser Assisted Machining of Infrared Materials

Silicon

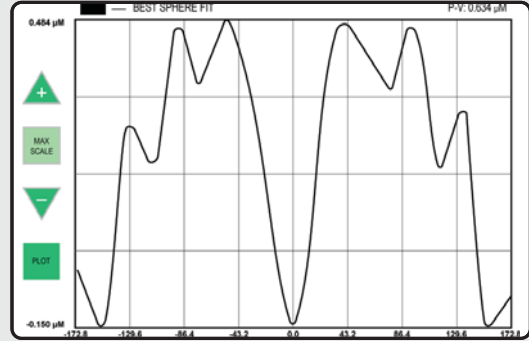
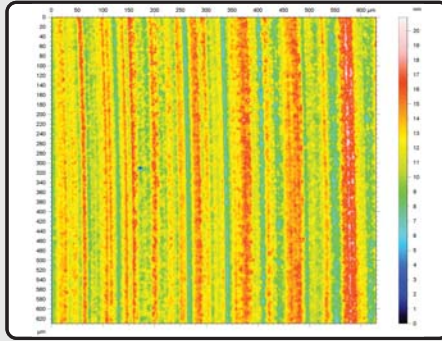
Calcium Fluoride

Zinc Sulfide

Zinc Selenide

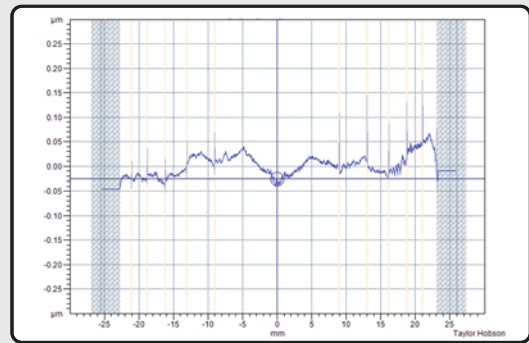
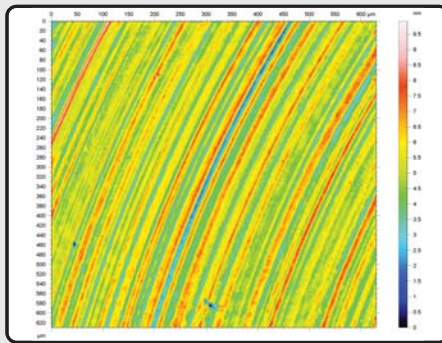
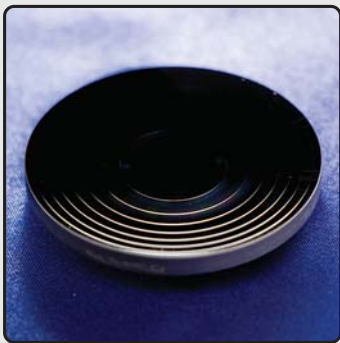
Silicon Large Mirror

 Ø350mm
  790mm
  3-5nm
  0.60 µm
  3 Passes
  30 Min
  500 µm



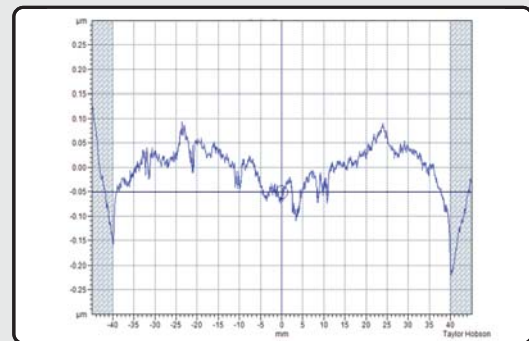
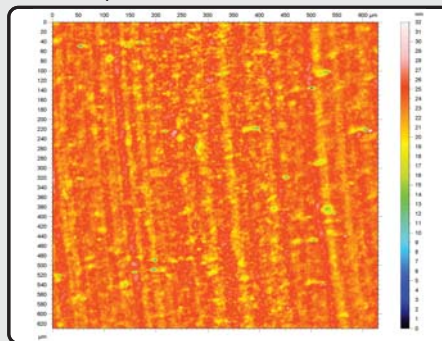
Silicon Diffractive Lens

 Ø50mm
  150mm
  1-3nm
  0.15 µm
  12 Passes
  6 Min
  150 µm
  Diffractive



Silicon Spherical Lens

 Ø90mm
  90mm
  1-3nm
  0.30 µm
  10 Passes
  12 min
  300 µm





Diameter



Concave



Convex



Finish



Form PV



Passes/Tool



Time/Pass



Radius

Zinc Sulfide Meniscus Lens



Ø60mm



45mm



1-2nm



0.20 µm



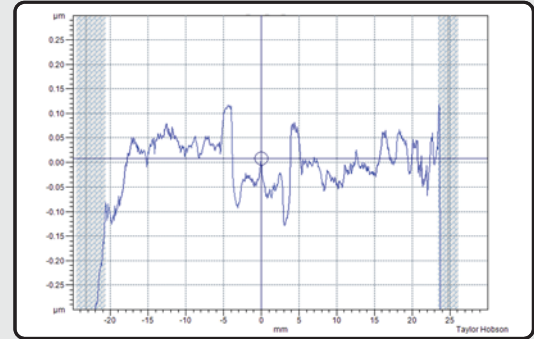
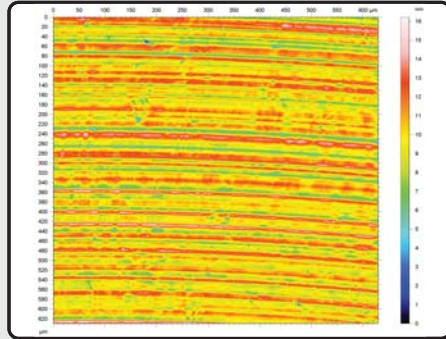
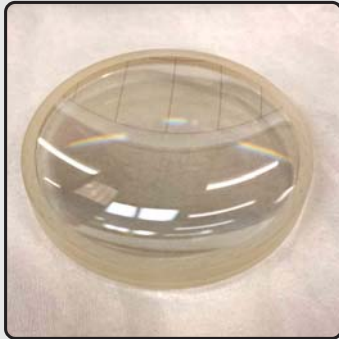
8 Passes



8 min



300 µm



Calcium Fluoride Meniscus Lens



Ø35mm



35mm



1-2nm



0.15 µm



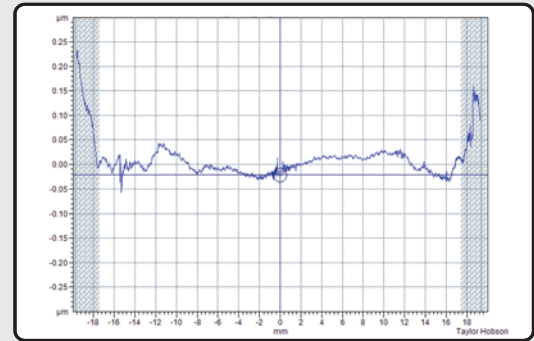
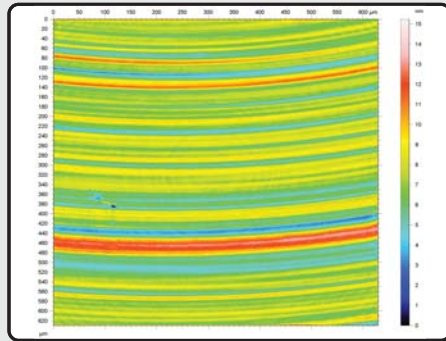
15 Passes



2 Min



300 µm



Zinc Selenide Plano Lens



Ø25mm



Plano



1-3nm



0.15 µm



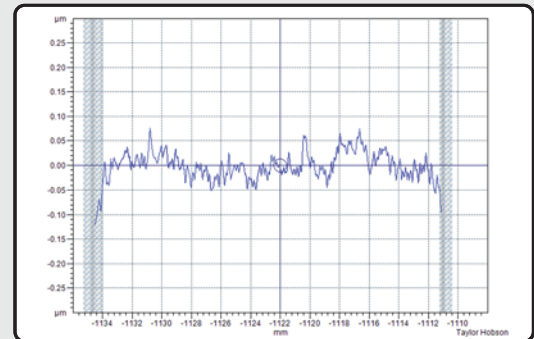
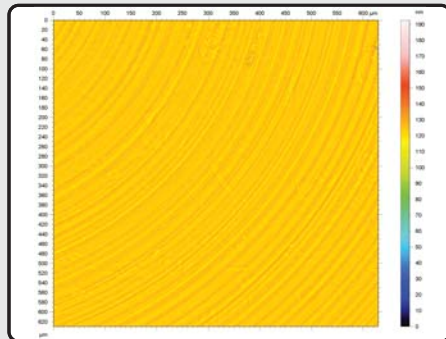
20 Passes



8 Min

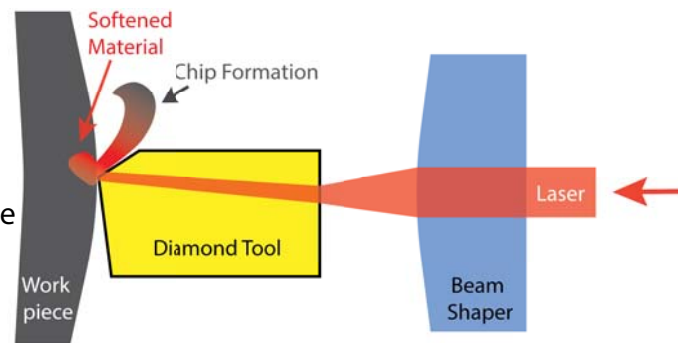


500 µm



The Patented Solution

- ◆ Issued patent with over twenty claims
- ◆ Innovative solution proven through extensive research & development
- ◆ Laser delivered precisely at tool-workpiece interface
- ◆ The laser passes through an optically transparent diamond tool



Comparison of Conventional vs Micro-LAM

