

A BETTER VIEW OF THE WORLD

CARBON FIBER FOR SEMICON TOOLS

V1 – 01.12.2021

Martin Tvrđy

EUROPEAN
OPTICS
since
1933



www.meopta.com

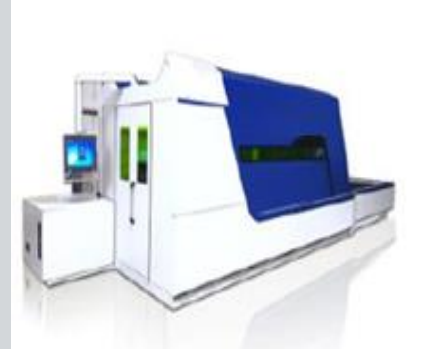
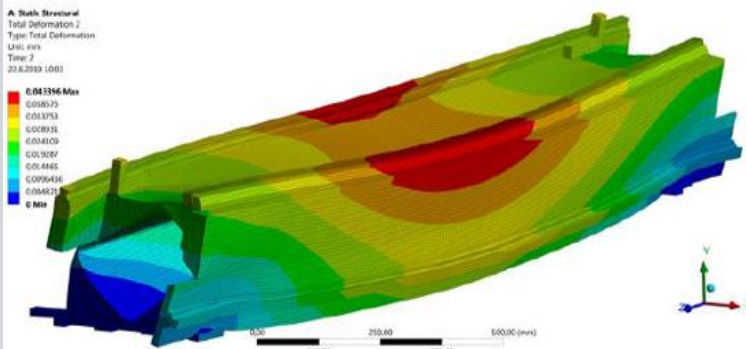
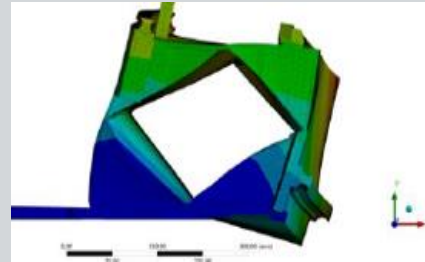
EXAMPLES OF USAGE IN HIGH-TECH PRODUCTION TOOLS

- 15 kW laser source
- Acceleration 6G
- Cutting speed 150m/min
- Positioning 350 m/min
- Dynamic linear motors on all axes



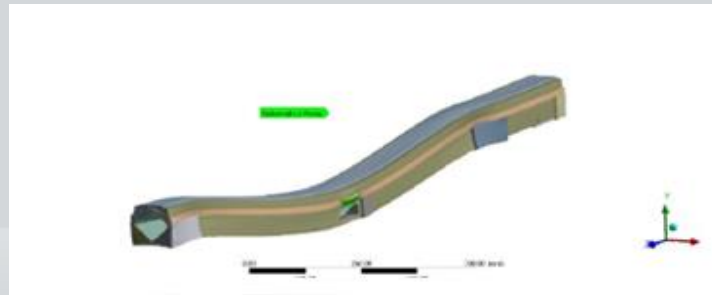
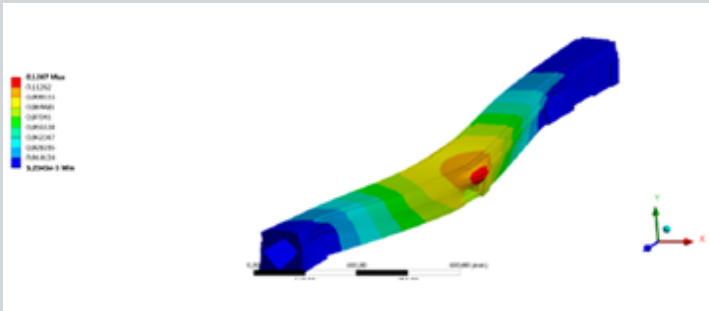
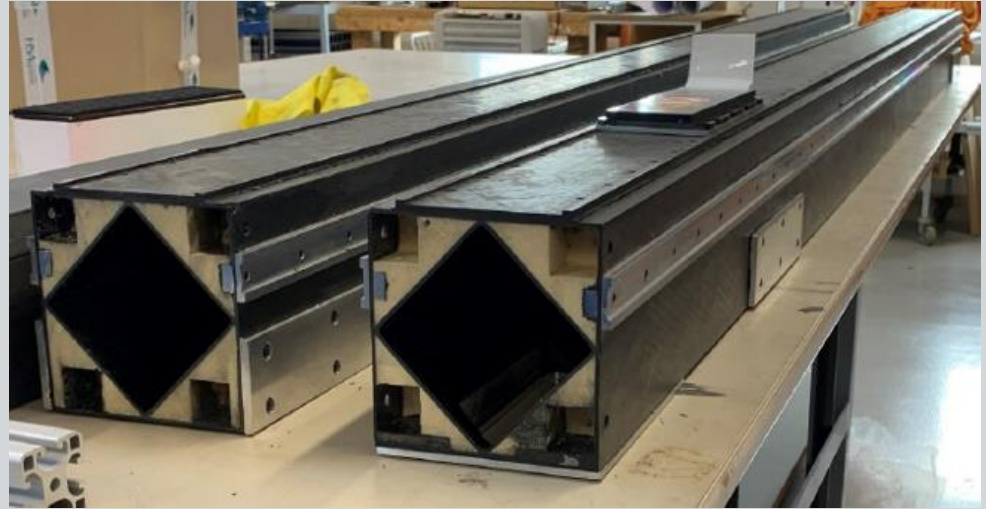
EXAMPLES OF USAGE IN HIGH-TECH PRODUCTION TOOLS

- Laser cutting machine
- Length 2200 mm, size 315x261 mm
- Weight 36,2 kg
- Acceleration 4G
- Weight of cutting head 70 kg
- Deflection 0,05 mm



EXAMPLES OF USAGE IN HIGH-TECH PRODUCTION TOOLS

- Laser cutting machine
- Length 2543 mm, size 120x120 mm
- Weight 72,5 kg
- Target deformation 0,15mm within acceleration 2G



EXAMPLES OF USAGE IN HIG-TECH PRODUCTION TOOLS

- Laser cutting machine
- Acceleration 2G
- Cantilever beam
- Load x axis 197 kg
- 23% better static bending
- 32% dynamic bending
- 38% weight saving



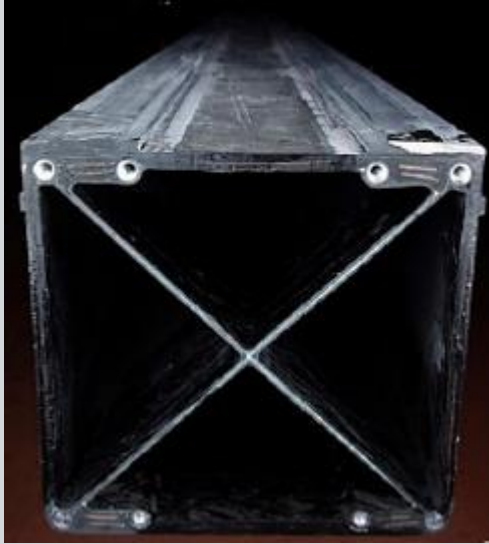
EXAMPLES OF USAGE IN HIG-TECH PRODUCTION TOOLS



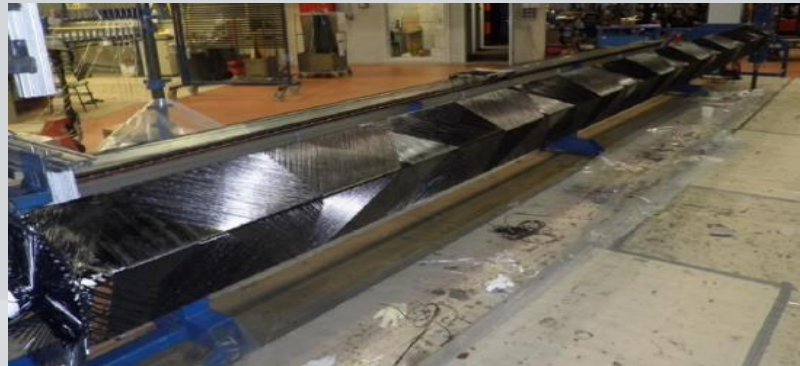
- Beam for laser cutting machine
- Length 2670 mm, size 280x250 mm
- Weight: steel 184 kg, CFRP 62 kg



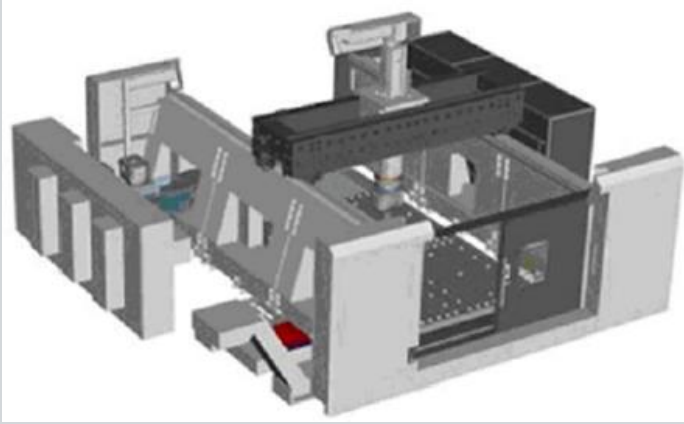
EXAMPLES OF USAGE IN HIG-TECH PRODUCTION TOOLS



- Water jet cutting machine
- Length 8200 mm
- Weight 93,3 kg
- Max work pressure 415 MPa



EXAMPLES OF USAGE IN HIGH-TECH PRODUCTION TOOLS



- Z-axis for milling center
- Increased damping + lower weight





www.meopta.com