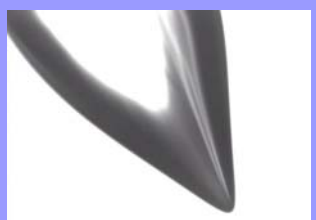
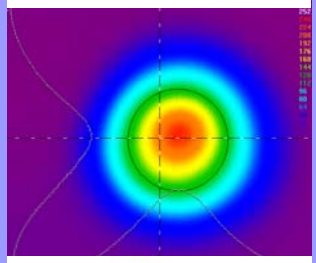
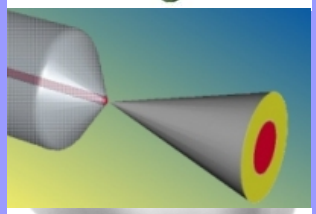
LaserCleave-Lens

Spherical & aspheric lenses laser machined for high efficiency coupling, improving your product performance while reducing manufacturing costs.

OpTek laser lensing machines a high performance lens directly onto the end of an optical fiber. The non-contact process is incredibly fast and uses on-line imaging to ensure accurate centration of the lens to the fiber. The superior optical quality of the surface and exceptional control over the lens ensures maximum coupling. The laser lensing tools offer unparalleled performance in the production of lensed optical fiber. Processing of PM, SM and MM fiber is fast, accurate and reliable, with processing times at a fraction of that required for grind and polish, and first-pass yield at 99.9%







System Performance

Unmatched accuracy, speed and flexibility, including:

Process speed:	Typically 10s per lens
Flexibility:	Store and recall thousands of lens designs
Flexibility:	10s change time between different lens
Tip “radius”:	5 to 15μm SM, to >200μm MM & collimator
Tip “radius” tolerance:	±0.5μm SM
Lens alignment to core:	±0.5μm SM
Yield:	>99%
Surface finish:	Laser polished
Lens performance:	Superior surface finish and ability to tune lens design gives un-matched optical performance
Enhanced features:	robust rounded edges, non-contact process

System Requirements

Fully integrated, turnkey system.

➢Power:	Single phase, 20A
➢Water:	None
➢Gas:	None
➢Vision:	Integrated high-magnification vision system
➢Shards:	Integrated collection of >1M fiber shards
➢Size:	1430x830x1180mm
➢Weight:	450kg
➢Communications:	PC remote control via internet

System Options

System options include:

➢Data logging 1:	Process file for every lens
➢Data logging 2:	Far-field performance file for every lens
➢Data logging 3:	Geometry file for every lens
➢Data logging 4:	Interface with customer MIS
➢Machining through buffer	

System configuration to be specified at time of order

LaserCleave-Wedge

Asymmetric lenses machined for high efficiency coupling, improving your product performance while reducing manufacturing costs.

OpTek laser lensing machines a high performance lens directly onto the end of an optical fiber. Asymetric lens are produced using feedback from on-line farfield measurements to ensure accurate centring of the lens on the fiber core. The non-contact process gives a superior optical quality surface and exceptional control over the lens ensures maximum coupling. Processing of PM, SM and MM fiber is fast, accurate and reliable, with processing times at a fraction of that required for grind and polish, and first-pass yield at 99.9%

System Performance

Unmatched accuracy, speed and flexibility, including:

Process speed:	Typically from 20s per lens
Flexibility:	Store and recall thousands of lens designs
Flexibility:	10s change time between different lens
Flexibility:	Wedge, bi-conic, angled wedge, angled bi-conic & scrap angle removal
Tip “radius”:	5 to 50μm SM & MM
Tip “radius” tolerance:	±0.5μm SM
Lens alignment to core:	±0.5μm SM
Yield:	>99%
Surface finish:	Laser polished
Lens performance:	Superior surface finish and ability to tune lens design gives un-matched optical performance
Enhanced features:	robust rounded edges, non-contact process

System Requirements

Fully integrated, turnkey system.

➢Power:	Single phase, 20A
➢Water:	None
➢Gas:	None
➢Vision:	Integrated high-magnification vision system
➢Shards:	Integrated collection of >1M fiber shards
➢Size:	1430x830x1180mm
➢Weight:	450kg
➢Communications:	PC remote control via internet

System Options

System options include:

➢Data logging 1:	Process file for every lens
➢Data logging 2:	Far-field performance file for every lens
➢Data logging 3:	Geometry file for every lens
➢Data logging 4:	Interface with customer MIS
➢Machining through buffer	

System configuration to be specified at time of order