

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. Asymmetric lenses 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

