Opto Alignment

Economical Solution for Compact Lens Assemblies

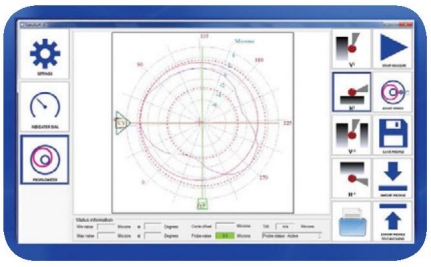
LAS-BT™ NexGen
Compact, Bench-Top

INCLUDES:

- Green (520nm) laser reflection based Optical Module
- 533mm vertical linear focusing movement with micro-stepping motor and high-precision rotary encoder
- Ø100mm motorized air-bearing spindle (ABS) with vacuum through center
- Ø150mm integrated x/y/tip/tilt stage
- CalcuLens™ Assembly software for measuring alignment errors of single, cemented doublet and cemented triplet lenses
- Measuring accuracy 0.2µm centration and 0.5 arcsec tilt, depending on the lens specs and opto-mechanical design
- Mechanical dial indicator with calibration lens
- Maximum axial load capacity ~132lb (60Kg).
- System weight ~155lb (70Kg.)
- System dimensions 18"x20"x45" (457x508x1143mm)
- System Requirements:
  - Compressed air, pressure: 60PSI (0.004bars)
  - Dry air: 40 Dew point
  - Filter: ±0.005mm
  - Air low: 4 SF/Min (0.113CM/Min)
  - Electrical rating: 120/240V 50/60Hz @ 1Amp

OPTIONS:

- Red (660nm) Laser
- SWIR (1550nm) or MWIR(4.05µm) Laser
- 700mm vertical focusing travel
- Custom brass chucks
- Self centering three-jaw chuck
- CalcuLens™ Inspection software for measuring in-stack (embedded) lens alignment values
- CalcuSurf™ precision USB Lever Probe with digital gage and real-time profiling application
- Low-coherence interferometer for center thickness and air space measurement



CalcuSurf™ v1.1
Profiling software for LAS™ stations with USB integrated electronic contact probes

CalcuLens™ v2.8
Alignment Software for LAS™ Stations

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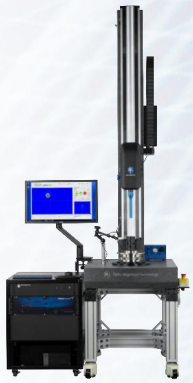
Laser Alignment and Assembly Station™ (LAS™) Options Matrix

● Standard
❍ Option

	LAS-BT	LAS-P	LAS-UP
Light Source			
Green Laser @ 520nm	●	●	●
Red Laser @ 660nm	❍	●	●
SWIR Laser @ 1.5µm	❍	❍	❍
MWIR Laser @ 4.05µm		❍	❍
LWIR Laser @ 9.50µm		❍	❍
Detector			
Visible camera (1600 x 1200)	●	●	●
Large-Format Visible Camera (2500x2000)	❍	❍	❍
Infrared camera (640 x 480)	❍	❍	❍
Air-bearing, (vacuum through)			
Air-bearing Ø100mm	●		
Air-bearing Ø150mm		●	
Air-bearing Ø200mm		❍	
Air-bearing Ø300mm			●
Air-bearing Ø400mm			❍
Air-bearing Ø600mm			❍
Work Table Ø150mm	●		
Work Table Ø150 – 200mm		●	
Work Table Ø150 – 250mm		❍	
Work Table Ø200 – 300mm		❍	
Tip/tilt/x/y stage	●	●	●
Rotary Encoder	●	●	●
Air-bearing motorized	●	❍	❍
Maximum Load capacity	60Kg	200Kg	500Kg
Measuring Head			
Single Objective For Spheric, Aspheric, Cylindric surfaces	●	●	●
Range of Lens Radii			
+/- 0.5mm to Plano	●	●	●
Measurement Assessment			
Live Orbit Image on Monitor	●	●	●
Software Numerical Data Display	●	●	●
Angle Measurement (accuracy in arc seconds)	0.5	0.5	0.5
Centration Measurement (accuracy in microns)	0.2	0.2	0.2
Measurement Head Linear Positioning			
Automatic PC Controlled (Variable Speed)	●	●	●
Linear Travel	● (533mm) ❍ (700mm)	● (1000mm) ❍ (1500mm)	● (1000mm) ❍ (2000mm)
Measurement Modules			
CalcuLens™ Assembly (measure single lens)	●	●	●
CalcuLens™ Inspection (measure alignment in stack)	❍	❍	❍
In-stack Center Thickness and Air-space (±1µm accuracy)	❍	❍	❍
Granite Base; Granite Column	●	●	●

LAS-BT



LAS-P

LAS-UP

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