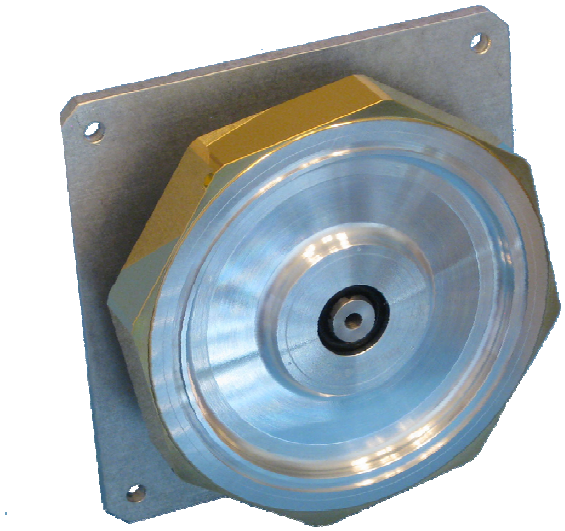
PRECISION LASER SCANNING

WOOD PECKER™ - 21mm Aperture @ 4K RPM



Multi-Kilowatt Laser Damage Threshold!

WOOD PECKER™ is a large size polygon laser scanner with a top speed of 4,000 RPM. Polygon scanners produce a linear scan speed of up to hundreds of meters per second which can be >10x galvanometer speed. The 21 mm aperture is suitable for material processing as well as LIDAR, inspection, imaging and other high-speed raster scanning applications. The Sapphire protected gold coating is especially durable.

Need polygon speed but not familiar with how to implement polygon scanning technology? Precision Laser Scanning provides the tools to help you quickly implement a polygon scanner. That includes:

- Start-Of-Scan detection.
- Synchronize laser to polygon.
- Synchronize galvo or stage and laser to polygon.

Learn more about these products and implementation at http://precisionlaserscanning.com

Standard models have short lead time and low prices! Custom facet counts and coatings will be considered for volume requirements. Feel free to contact us with questions.

WOODPECKER™ SPECIFICATIONS

(General specs for typical mirror sizes.)
Speed: 400 – 4,000 RPM
Speed control: TTL Ext freq reference
Rotation: CW standard
Facet Flatness: λ/6 @ 633 nm per inch
Surface Roughness: < 70Å RMS
Surface quality: 60/40
Dynamic track: < 45 arc sec
Facet-Facet: < 5 arc sec total
Facet-Datum < 10 arc sec total
Jitter: < 0.02%
Speed stability: < 0.02%
Bearing: Ball bearing
Operating attitude: Any
Supply Voltage: 24 VDC
Max Current: < 3.0 A
Time to speed: < 60 sec
Motor-Controller cable: 300 mm
Controller Power-I/O cable: 500 mm
Controller: 80 W x 130 L x 40 H mm
Start/Stop control: TTL
Speed sync signal: TTL
Shipping & Storage: -20C to +70C
Operating: 15C to 45C, 10-80% RH

STANDARD MIRRORS 8 or 10 facets have protected AU facets for IR

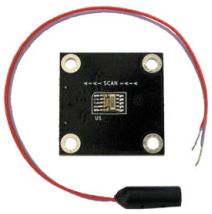
8 Facets: Model PLS-08-525-090-AU
Scan angle up to ≈ 50 degrees (depending on spot size and beam feed angle)
Scan Rate: 53 to 533 Hz
Inscribed Diameter: 5.250” (133.35 mm)
Mirror thickness: 0.90” (22.86 mm)
Facet clear aperture: 1.96” x 0.84” (49.8 x 21.3 mm)

10 Facets: Model PLS-10-525-090-AU
Scan angle up to ≈ 40 degrees (depending on spot size and beam feed angle)
Scan Rate: 66 to 667 Hz
Inscribed Diameter: 5.250” (133.35 mm)
Mirror thickness: 0.90” (22.86 mm)
Facet clear aperture: 1.64” x 0.84” (41.7 x 21.3 mm)

OPTIONAL START OF SCAN DETECTION

SOS detection is required to achieve accurate line to line registration with any polygon scanner. It is used to synchronize a CW or pulsed laser to the scanner. (Galvo scanners need absolute encoders, polygon scanners need Start-Of-Scan detection.) Read more about it here:
http://precisionlaserscanning.com/start-of-scan-sos-detection-for-polygon-scan-heads/

Our Precision Universal SOS Detection Kit is made for the challenging environment inside a high power Polygon Scan Head. Our Precision mini-SOS Detection Kit is for excellent for AV LIDAR and compact OEM applications. Our Precision SOS laser is visible, eye safe and requires no focusing so setup is easy.



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Specifications subject to change without notice.
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