



iSCAN3D - Laser Line Scanner

METROLOGY GRADE HAND-HELD LASER SCANNER

iScan3D is the third generation of API's advanced hand-held probing and scanning solutions for inspection applications. Integrated with Radian Plus and Pro Laser Trackers, iScan3D's crossed blue laser lines are capable of scanning in any direction and surface texture/finish with ease. Dual stylus-mounting locations for probing of hidden features provide measurement flexibility with precise results. iScan3D can scan a wide variety of surface textures, including high-gloss and contrast areas. It also provides unique probing ability for hidden-point measurements.

FEATURES & BENEFITS

- **Large Scanning Volume** - iScan3D works in tandem with API's Radian Laser Trackers to scan large areas. Its rotating head provides flexibility by allowing complete 360° rotation.
- **Automatic Probe Recognition (APR)** - Automatic Probe Stylus Recognition to identify probe length and tip size, eliminating user probe selection during measurements.
- **Smart Buttons** - Pre-programmed buttons for better hardware and software interaction minimize user computer interaction with full measurement control at their fingertips.
- **Blue Crossed-Lines Scanner** - Crossed laser lines provide the ability to scan a surface in any direction with ease and flexibility.
- **Tactile Probing** - A variety of probe styli (up to 500mm supported) to suit every application provide the ability to probe profound features.
- **Dense Point Cloud** - Blue lasers and high-resolution camera provide dense point cloud with fine details of the features in real-time.
- **Dynamic Stability** - Advanced electronics, gyroscopes and level sensors compensate for small perturbations and hand vibrations during measurement.
- **Controllerless** - The versatility of iScan3D makes large-scale scanning quick and simple.

APPLICATIONS

- Reverse Engineering
- Flush and Gap
- Surface Contours
- Large Body Assemblies
- Rapid Prototyping
- Mold and Die Cavities
- Compare CAD
- Fixture Inspection
- Tooling, Fixtures, and Jigs



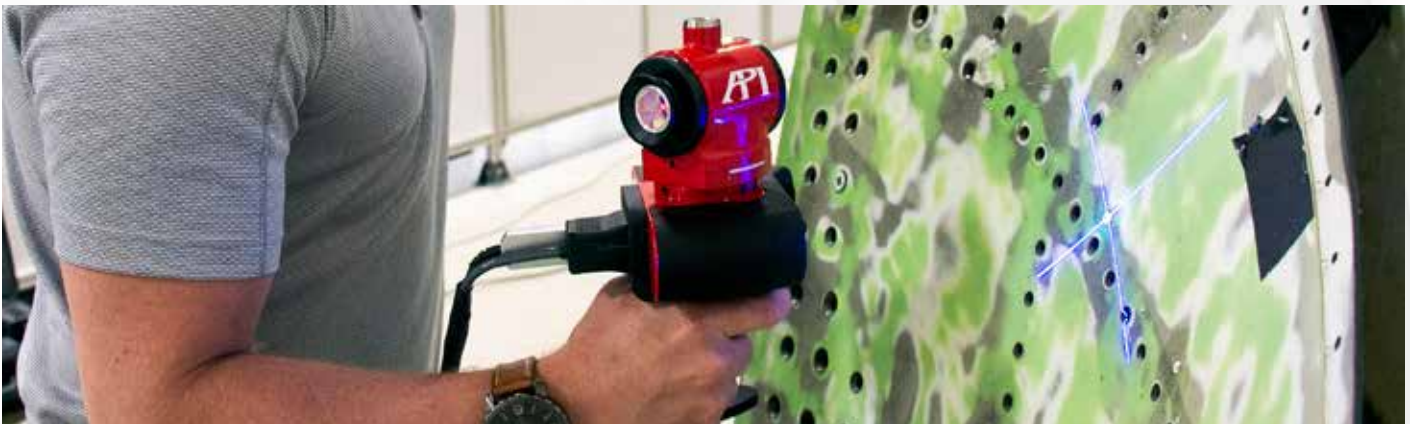


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PRODUCT SPECIFICATIONS

System Accuracy			
	2 -7 Meters	7-15 Meters	Above 15 Meters
Spatial Length (2 σ)	$\pm 50\mu\text{m}$	$\pm 80\mu\text{m}$	$\pm (20\mu\text{m} + 4\mu\text{m/m})$
Sphere Radius (2 σ)	$\pm 50\mu\text{m}$	$\pm 80\mu\text{m}$	$\pm (20\mu\text{m} + 4\mu\text{m/m})$
Surface (2 σ)	$\pm 60\mu\text{m}$	$\pm 100\mu\text{m}$	$\pm (40\mu\text{m} + 4\mu\text{m/m})$
Probing			
	MPE		
Vertical Probe (100mm)	$\pm 75\mu\text{m}$	$\pm 100\mu\text{m}$	$\pm (75\mu\text{m} + 4\mu\text{m/m})$
Horizontal Probe (100mm)	$\pm 125\mu\text{m}$	$\pm 150\mu\text{m}$	$\pm (125\mu\text{m} + 4\mu\text{m/m})$
Attributes			
Angle Acceptance	$\pm 45^\circ$ (Pitch and Yaw) 360° Roll		
Sampling Frequency	100Hz		
Max. Scanning Speed	200,000 pts/sec		
Laser Class	II (eye safe)		
Laser Line Width	150 μm		
Laser Line Color	Blue		
Min. Point Spacing	70 μm		
Stand Off Distance	170mm \pm 40mm		
Depth of Field	\pm 40mm		
Field of View	110mm x 100mm		
Size and Weight	H 265mm x W 110mm x L 110mm / 1.03kg		
Working range	Up to 50m (using 50m cable)		
Autolock			
iVision Field of View	30° (diagonal)		
Acquisition Range	2m – 40m		
Environmental			
IP Rating	IPX0		
Pollution Degree	II		
Operating Temperature	+5°C to +35°C		
Storage Temperature	-10°C to +45°C		
Relative Humidity	10% – 95% (non-condensing)		
Power			
Power Supply Voltage	110v/230v \pm 10%		
Supply Voltage Fluctuation	\pm 10%		
Over Voltage	Category 2		
Power Consumption	100w		
Operational Voltage & Current	12Vdc, 1.67A		

Only batteries provided by API may be used with any API product.
 For equipment in Europe: Do not replace with inadequate cords that do not meet the product specification. Please call API support for assistance.
 Please note that a manual will be provided IN German, French, Italian, or specified country of sale.



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