

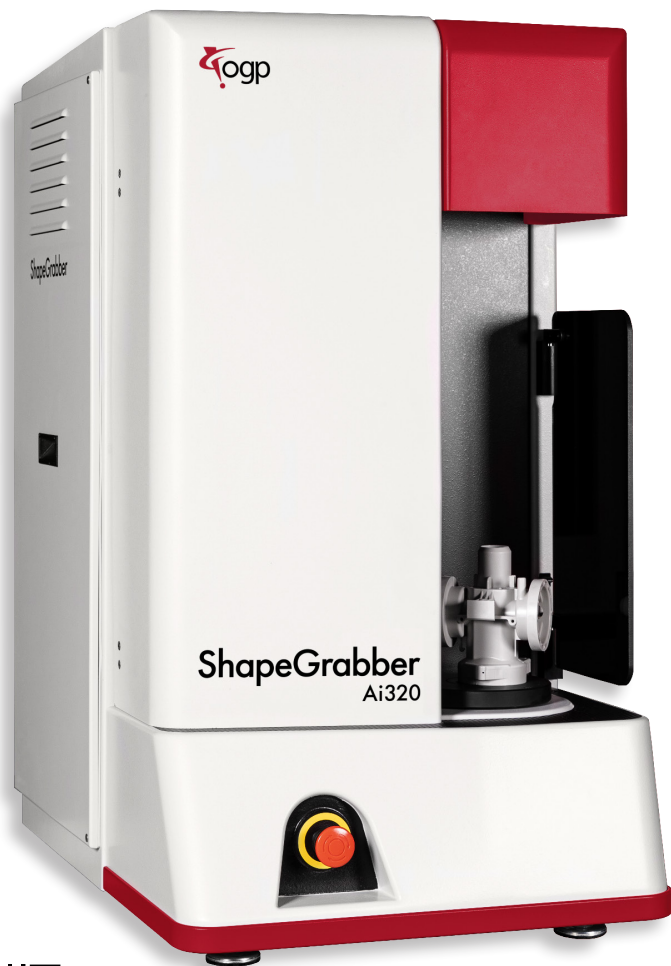


ShapeGrabber® Ai320

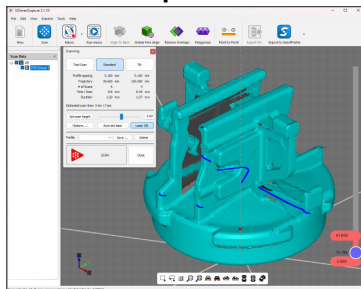
ShapeGrabber Ai320 is an automatic, compact 3D scanner designed to serve a wide variety of parts in minutes with a high density of data points. The Ai320 offers:

- **Metrology Grade 3D Scanning –**
Ideal for measuring complex shapes in a variety of colors and finishes due to a 360° rotary table and vertical motion. Excels in rapid prototyping, manufacturing, quality control, and reverse engineering applications.
- **Ease of Use –**
Scans can be initiated with one click, delivering consistent measurement results by any operator. Scanning parameters are easily selected and saved – there is no need to write special code.
- **Accurate, High Density Point Data –**
The SG108 scanhead moves vertically on a high precision motion assembly and can obtain more than 1,500,000 points per second.

Benchtop System for Fully Automated 3D Laser Scanning

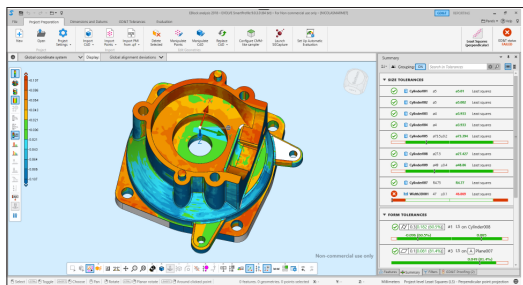


SG SmartCapture



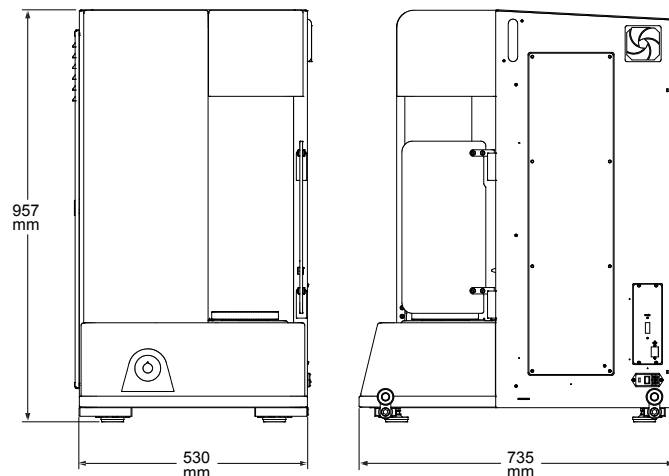
SG SmartCapture provides everything you need to output a useful data set with user-friendly controls to automatically configure scan settings for ShapeGrabber systems. Includes built-in verification routines, STL file export, and color comparison of scan data to a reference CAD model. STEP files can be generated for reverse engineering with optional QuickSurface software.

EVOLVE SmartProfile



SG SmartCapture links directly with EVOLVE® SmartProfile® which is the preferred solution for GD&T evaluation of 3D scanner data. The software's proprietary algorithms minimize the measurement uncertainty of the scanner data and produce "CMM-like" data sets ready for GD&T (ASME Y14.5) and GPS (ISO 1101) evaluations.

ShapeGrabber® Ai320



System Weight: 150 kg
Shipping Weight: 200 kg

Ai320	Specifications
Rotary Table Motion	360°
Tilt Adjustment¹ (Optional)	25°
Vertical Scale Resolution	0.1 µm
Rotational Scale Resolution	0.001°
Maximum Worktable Load	20 kg
Software (Standard)	SG SmartCapture, Polyworks Plug-in
Software (Optional)	SmartProfile, Polyworks, QuickSurface
System Controller	Windows® based, with up-to-date processor and onboard networking/communication ports
Power Requirements	100-120 VAC or 200-240 VAC, 50/60 Hz, 1 phase, 550 W
Rated Environment	Temperature 18-22 °C, stable to ± 1 °C, max rate of change 1 °C / hour, max vertical gradient of 1 °C / meter; 30-80% humidity; vibration <0.001g below 15 Hz
Safe Operating Environment	15-30 °C, non-condensing
Scanhead	SG108
Measuring Range	300 L x 100 Ø mm
Laser	IEC Class 2M
Standoff	105 mm
Near FOV	55 mm
Far FOV	95 mm
Depth of Field	100 mm
Mid-Field Point Spacing	30 µm
Min Scanning Speed	155,000 pts/s
Max Scanning Speed	>1,500,000 pts/s
Wavelength	405 nm (Blue)
System Accuracy and Repeatability²	Specifications
Volumetric Scan Accuracy	(6+L/100) µm
Scan Repeatability	2 µm

¹Two-position tilt adjustment

²Accuracy and repeatability is evaluated with a QVI compensation and verification procedure based on the ISO 10360-8:2013 and ISO 10360-13:2021 standards. "L" is measured length in millimeters. Specifications apply within the rated environment.



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