

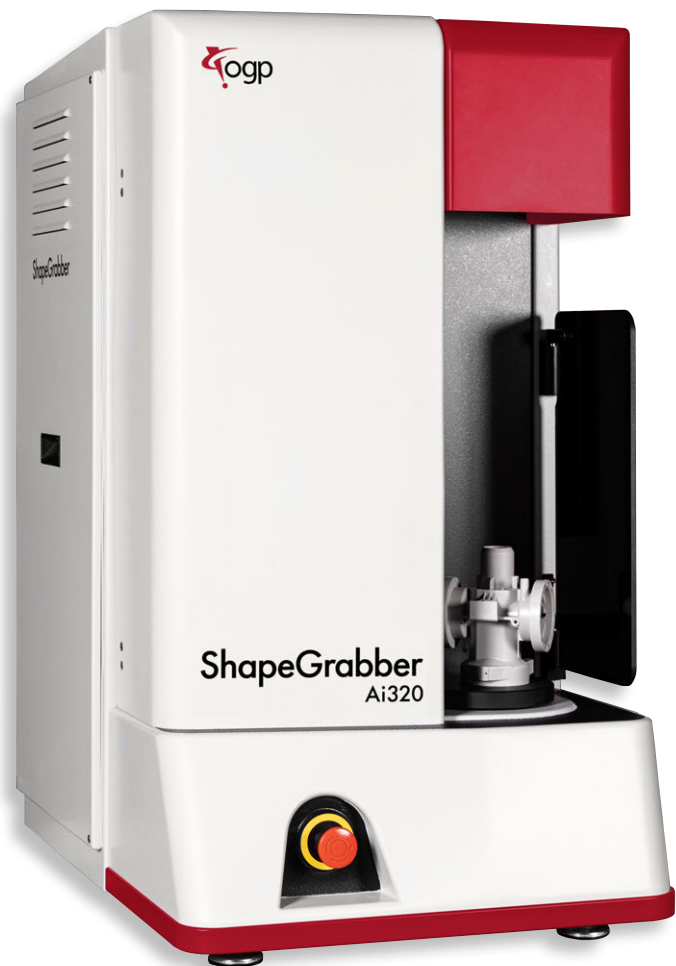


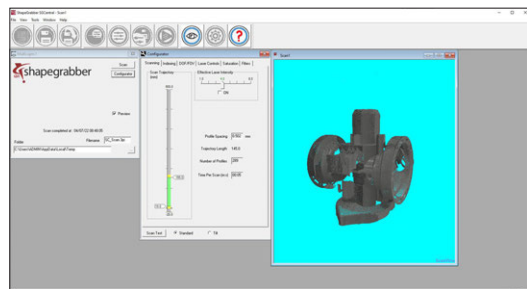
ShapeGrabber® Ai320

**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.

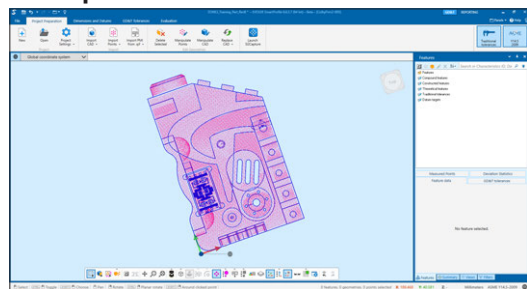
## Benchtop System for Fully Automated 3D Laser Scanning



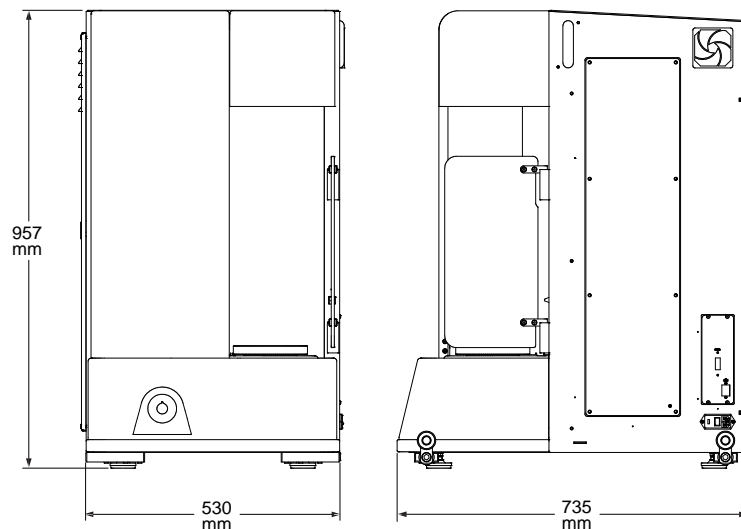


SGCentral is a user-friendly application that lets you configure scan settings, speed, and resolution for ShapeGrabber scanning systems. File formats supported are .gpd (Geomagic), .psl (Polyworks), .stl, xyz (ASCII generic), and others. SGCentral is included with every ShapeGrabber system.

## SGCapture



SGCapture is a module for OGP® EVOLVE® SmartProfile®, the world's leading dimensional analysis software, that allows users to both acquire and evaluate scan data in a single software package. SmartProfile is the preferred solution for tolerance evaluation of 3D scanner data. The software's proprietary algorithms minimize the measurement uncertainty of the scanner data and produce CMM-like data sets.



System Weight: 150 kg  
Shipping Weight: 200 kg

| Ai320  | Specifications  |
|--|---|
| <b>Rotary Table Motion</b>                                 | 360°  |
| <b>Tilt Adjustment<sup>1</sup> (optional)</b>              | 25°   |
| <b>Vertical Scale Resolution</b>                           | 0.1 µm  |
| <b>Rotational Scale Resolution</b>                         | 0.001°  |
| <b>Maximum Worktable Load</b>                              | 20 kg   |
| <b>Software (standard)</b>                                 | SGCentral   |
| <b>Software (optional)</b>                                 | SGCapture, Polyworks, Geomagic  |
| <b>System Controller</b>                                   | Windows® based, with up-to-date processor and onboard networking/communication ports  |
| <b>Power Requirements</b>                                  | 100-240 VAC, 50/60 HZ, 1 phase, 500 W   |
| <b>Rated Environment</b>                                   | 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 |
| <b>Safe Operating Environment</b>                          | 15-30 °C, non-condensing  |
| <b>Scanhead</b>  | <b>SG108</b>  |
| <b>Measuring Range</b>                                     | 300 L x 100 Ø mm  |
| <b>Laser</b>   | IEC Class 2M  |
| <b>Standoff</b>  | 105 mm  |
| <b>Near FOV</b>  | 55 mm   |
| <b>Far FOV</b>   | 95 mm   |
| <b>Depth of Field</b>                                      | 100 mm  |
| <b>Data Rate Min</b>                                       | 155,000 pts/s   |
| <b>Data Rate Max</b>                                       | >1,500,000 pts/s  |
| <b>Wavelength</b>  | 405 nm (Blue)   |
| <b>System Accuracy<sup>2</sup></b>                         | <b>Specifications</b>   |
| <b>Single Scan 3D Accuracy</b>                             | (6+L/100) µm  |
| <b>Multi-Scan Position Error (with rotary)</b>             | 10 µm   |
| <b>Multi-Scan Position Error (with optional tilt axis)</b> | 5 µm  |

<sup>1</sup>Two-position tilt adjustment

<sup>2</sup>Accuracy is evaluated with a QVI verification procedure where "L" is measured length in millimeters. Specifications apply within the rated environment.



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