

FreeScan Trak Pro

Portable Optical Coordinate Measuring System





FreeScan Trak Pro

FreeScan Trak Pro Optical Tracking 3D Scanning System, independently developed by SHINING 3D, uses special technology to obtain complete and accurate 3D data of medium and large objects by capturing the spatial position of the scanner head in real time with an optical tracker. It is suitable for various static and dynamic applications, including large scale 3D inspection in aerospace, automotive, shipping and energy industries etc.



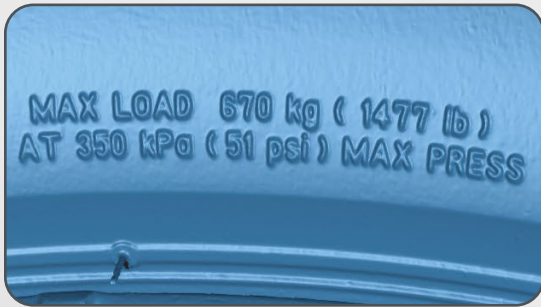
Dynamic referencing

The tracker or the object can be moved freely during measurement, allowing users to scan in unstable environment.



Metrology-grade measurements

The accuracy is up to 0.023mm, and the system has high repeatability.



Fine and rich details

Fine scanning with 7 parallel blue laser lines. Get the complete 3D data of the workpiece details.



High efficiency

Rapid scanning with 34 crossed blue laser lines. Efficient acquisition of 3D data for medium to large workpieces.



Extendable measuring range

Wide measuring range covering from 0.1m upwards. Supporting transfer station/linkage method to extend the measuring range.



Multiple alignment modes

Support optical tracking/markers dual mode. Flexible switching for different scenes.



Easy Operation

Inheriting the lightweight and ergonomic design, the user-friendly scanning software enables an easy operation and shortens the learning curve.



Wide range of material adaptations

Supports scanning of black and high-reflective surfaces, more efficient scanning process.

3D DATA

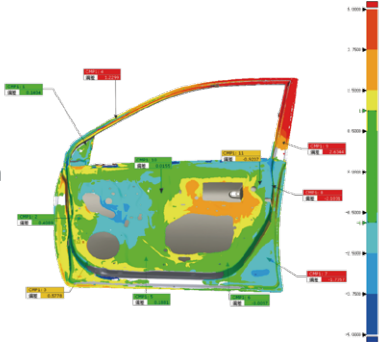
Car door



SUV car



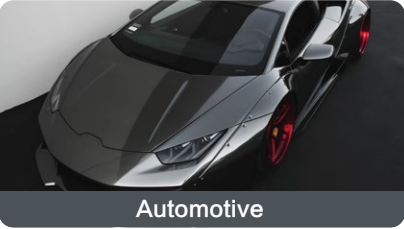
Inspection data



Heat exchanger
(L:5 m, H:2 m)



APPLICATIONS



Automotive



Transport



Aerospace



Energy manufacturing



Mould and die inspection



Mechanical manufacturing

SPECIFICATION

FreeTrak Pro	
Accuracy	Up to 0.023 mm
Volumetric Accuracy	9.1 m ³ : 0.062 mm; 16.6 m ³ : 0.072 mm
Resolution	0.05mm–3mm
Measurement Rate	Up to 1,370,000 measurements/s
Part Size Range(recommended)	0.1 ~ 10 m
Weight	Tracker : 7.2 kg ; Scanner : 1.47 kg
Dimensions	Tracker : 1079 mm x 237 mm x 110mm ; Scanner : 281mm x283mm x290mm
Light Source	34 blue laser lines, 7 parallel blue laser lines
Laser Class	Class II
Stand-off Distance	300 mm
Depth-of-field	400 mm
Scanning Area	600 mm x 500 mm
Connection Standard	IEEE802.11 n/ac、IEEE802.3ab
Output Formats	STL, ASC, OBJ, PLY, 3MF
Operating Temperature Range	-10°C – 40°C
Operating Humidity Range (non-condensing)	10% – 90%

*Notice: SHINING 3D reserves the right to modify or adjust above specifications and pictures.

1. Based on VID/VDE 2634 part 3 standard. Probing error performance is assessed with diameter sphere center distance measurement on traceable sphere artefacts.
2. Also compatible with all major metrology, CAD, inspection and computer graphic software through mesh and point cloud import.

Version Number: FreeScan Trak Pro-EN 20230427-V0.6