



Formbuilder



MangoFree

MangoFree 331 | 771

- High cost-effective 3D scanner
- Full stack independent research and development

Global Leader

From Zhejiang University CAD
Microsoft Asia Research



Full-scale inspection



Mass quality inspection



Automated quality inspection with robots

DG&T

Multiple DG&T quality inspection capabilities



Free setting of global and local tolerances

0.02mm±0.06mm/m

0.02±0.03mm (photogrammetry, stronger cumulative error control) metrological precision

14 Laser lines 480000 bps/sec

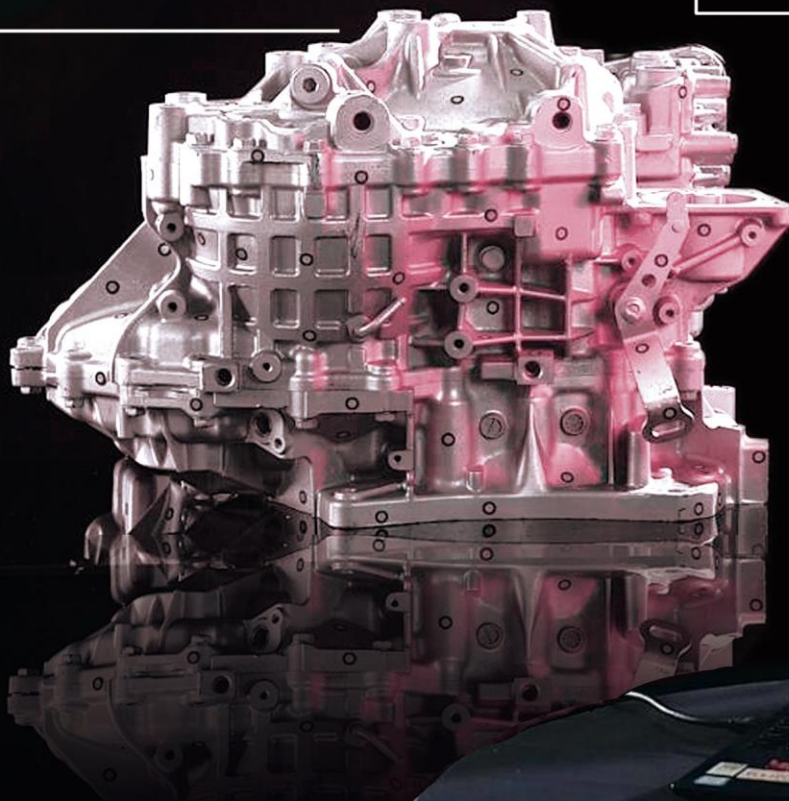
High data flow scanning experience

Precision stability

Stable and reliable accuracy, turntable linkage and automatic scanning

More efficient for complex workpieces

Suitable for extremely complex accessories



Mainstream software
Mainstream reverse software

CAD

Simple Process
Complete the full size QC process in four steps&fast when scanning machine parts and drawings



Easy to Use
The whole process of scanning guidance, software interface design is clear and easy to understand.



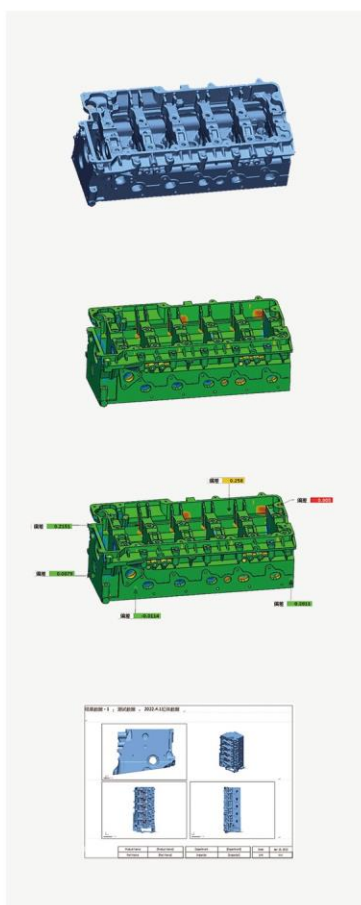
Great/improved quality inspection
efficiency doubled to improve quality and drawing efficiency., reduces the production cost



Simple process

Only four steps to complete the full size inspection process. Fast from scanning to machinable drawings.

Overall-size QC Process



Step 1

Import data

STL data , CAD data and more compatible to mainstream softwares and formats

Step 2

One-click Data alignment

Automatic alignment of CAD and STL data with one click. support automatic alignment of 321 ,RPS, etc

Step 3

Colorful overall-size quality inspection

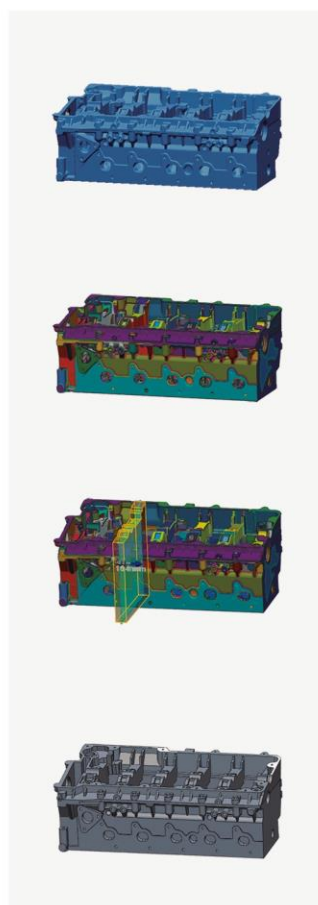
The global tolerance and regional tolerance can be set as use.

Step 4

One-click output

Customized report formats and test content , support batch and automated quality inspection

Scanning to drawings ready to process



Step 1

Scan to get data

First scan the object to get high precision STL, after data alignment, optimization and smoothing, at the end, repair to obtain high precision mesh method

Step 2

Feature Extraction

Mesh based on curvature

Step 3

Reversed Capture of CAD surface

Get drafts and parameters from grids for reverse modelling

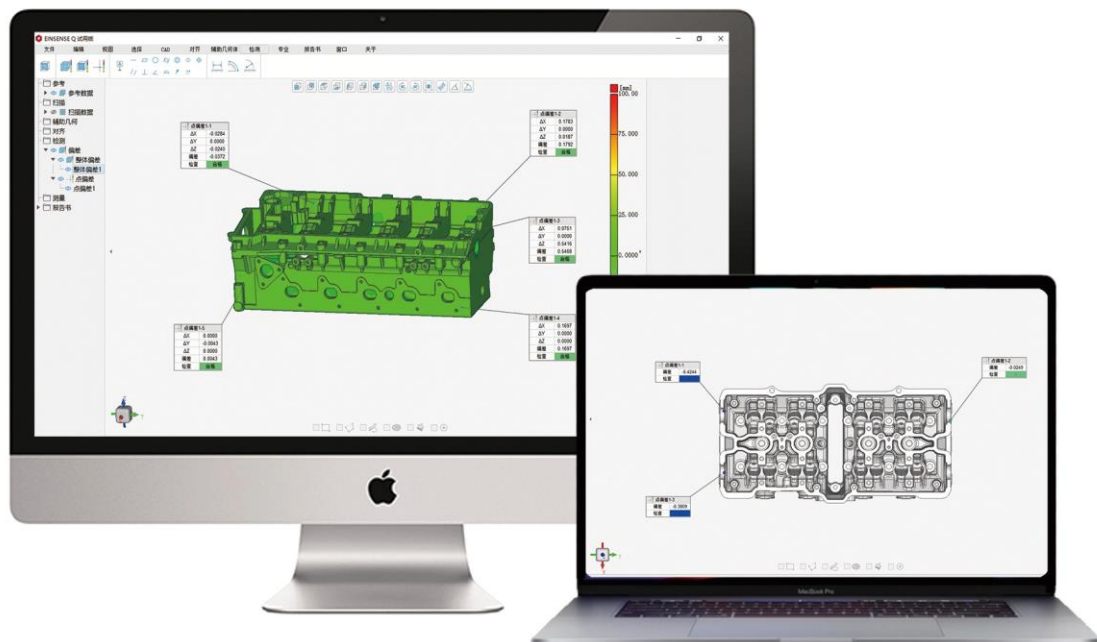
Step 4

Generate 3D CAD drawings

Support UG(solidworks/Catia, high quality CAD data in STP,X_T and other formats for mainstream software such as Pro-E

Technical Specifications

Model	MangoFree 331	MangoFree 771
Depth of field(DOF)	250mm	
Scan mode	Turntable automatic scanning, handheld laser multi-line scanning , handheld laser single-line scanning and handheld maker point scanning	
Light source	6 crossed laser lines +1 laser line	14 crossed laser lines +1 laser line
Laser class	ClassII (Eye-safe)	
Scan speed	250000m/sec	4800000m/sec
Highest resolution	0.2mm	
Scanning area	250mm*225mm	
Scanning method	Laser scanning(safe laser)	
Accuracy	the highest: 0.02mm	
Volumetric accuracy	0.020mm/m±0.060mm/m	
Connection standard	USB3.0	
Operating temperature range	-10℃—40℃	
Stand-off distance	300 mm	
Output formats	.ply,.obj,.vtk,.stl,.off,.ma,.txt,.asc,.neu,.xyz,.scv,.pn,.pv,.pov and support customized format	



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