



SCANTECH™

Industrial 3D Measurement Solution

MSCAN-L15 Photogrammetry System



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MSCAN-L15 Photogrammetry System Technical Proposal

1. Company Introduction

SCANTECH (HANGZHOU) CO., LTD is a high-tech enterprise specialized in developing, manufacturing and selling of intelligent visual inspection equipment. As one of the most professional 3D digital equipment suppliers, ScanTech has been granted and assigned numbers of technological patents.

R&D team developed series of 3D digital equipment with self-owned intellectual properties such as composite 3D scanner, handheld 3D laser scanner, global 3D scanner, color 3D scanner, tracking 3D scanner and global photogrammetry system.

Furthermore, our R&D team has established a joint development center with Norway Metronor which is a well-known optical metrology enterprise in Europe.



2. Product Introduction

2.1 Overview

MSCAN-L15 photogrammetry system is tailored to deliver high-precision geometric measurements of large-scale workpieces. With a large shooting area and wide depth of field, MSCAN-L15 performs volumetric accuracy of 0.015 mm/m for large-scale projects and parts from 2 m to 10 m.

Compatible with 3D inspection devices, MSCAN-L15 can fulfill stricter measurement accuracy requirements. Turning on auxiliary light, it works smoothly in dark environment. Due to the ergonomic design, it creates great portability and can be held for a long time.

MSCAN-L15 ensures precise, efficient and easy-to-use 3D solutions for large-scale projects in 3D inspection, product development, quality control, etc.

2.2 Principles

MSCAN-L15 photogrammetry system with industrial high-resolution camera uses algorithm to iterate shooting images, then calculates 3D coordinate value and obtains 3D data.

MSCAN-L15 is usually used for measuring and positioning large volume, it can work with handheld 3D scanner to decrease the accumulative error, also can work individually to measure dimension and geometric deformation for large volume.

2.3 Features

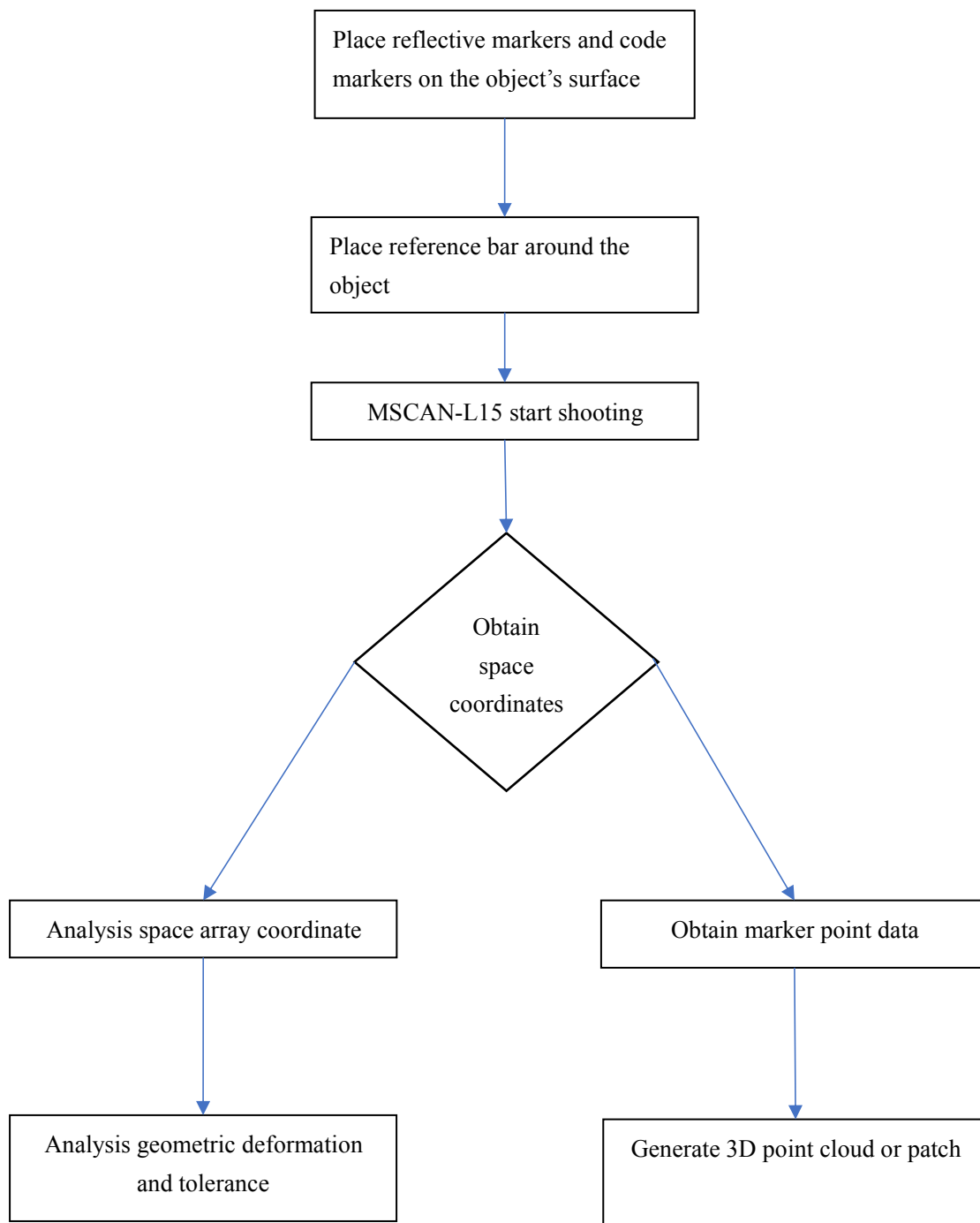
- **Metrology-grade Accuracy:** volumetric accuracy is up to 0.015 mm/m, increased by 40%.
- **Incomparable Efficiency:** shooting area is up to 9.4 m × 6.9 m, 200% improved; depth of field reaches 6.5 m, 100% increased.
- **HDR Mode:** support HDR mode, blue LED light reaches higher inspection accuracy.

➤ **Seamless Integration**

Work Alone	Work with 3D inspection devices
Self-position; no need for extra devices	Higher-precision metrology-grade measurement 3D

- **Deformation Detection:** obtain precise 3D data of the deformed workpieces and generate intuitive deviation values.
- **Multi-adaptors :** users can inspect key positions (such as cylindrical axial distance and hole center) of the parts by using different adaptors.
- **Portability :** ergonomic design, less than 0.58 KG, easy carrying to any workplace.

2.4 Workflow



2.5 Parameter

Chart1. Technical parameter

Type		MSCAN-L15	
Volumetric accuracy		0.015 mm/m	
Volumetric accuracy (work with 3D scanners)	PRINCE335	0.020 mm + 0.015 mm/m	(Standard mode R)
	PRINCE775	0.010 mm + 0.015 mm/m	(Hyperfine mode B)
	KSCAN20	0.020 mm + 0.015 mm/m	(Standard mode R)
		0.010 mm + 0.015 mm/m	(Hyperfine mode B)
	HSCAN331 HSCAN771	0.020 mm + 0.015 mm/m	
	AXE-G7 AXE-B11	0.020 mm + 0.015 mm/m	
	TrackScan-P22	0.044 mm + 0.015 mm/m	
Device type		Industrial camera and lens (not DSLR)	
Weight		≤ 0.58 kg	
Obtain mark point position		Real-time calculate & display	
Interface mode		Gigabit Lan	
Depth of field		6.5 m	
Shooting area		Up to 9.4 m x 6.9 m	

2.6 Applications

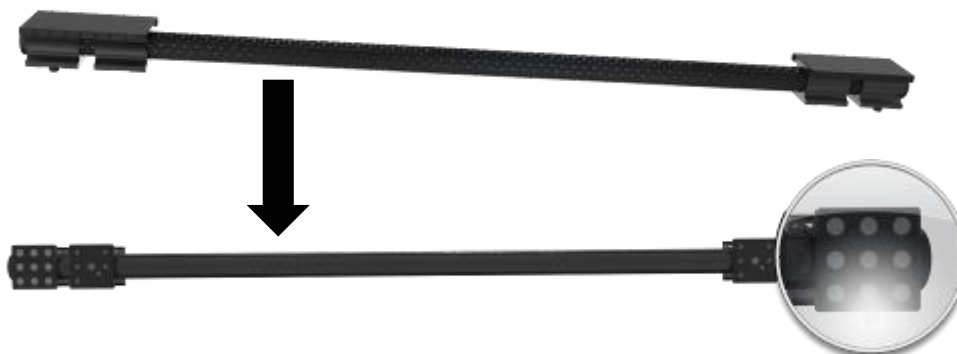
- Automobile manufacturing
- Aerospace
- Construction machinery
- Large-volume inspection
- Academic research

3 Configuration

Component	Quantity
MSCAN-L15	1
High precision reference bar	1
Data cable	1
Power adapter	1
Power cord	1
Dongle	1
USB	1
Reflective markers	4000
Coding point	1 set
Software	1
Waterproof case	1



Upgraded Reference Bars



Axis adapter

Hemispherical adapter



4 Customer Support

4.1 Training

Our goal is to develop skills by providing flexible training according to participants' level of knowledge.

To ensure training effect and consistency, our professional trainers combine training plans with other tools to clearly explain training objectives, introduce the theory, guide hands-on experience and evaluate trainees.

4.2 Maintenance

ScanTech offers efficient service and support to ensure satisfactory solution.

We promise a one-year warranty after sale. Taking advantage of worry-free maintenance and repair coverage for all of your hardware and software, we will have a plan suited to your needs while your device is under warranty.



5 Application cases



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