SHINING 3D
METROLOGY

OptimScan Q12

High-Precision 3D Inspection Scanner

OptimScan Q12

OptimScan Q12 is a high-precision 3D scanner with 4 × 12.3 megapixel cameras. It supports two scan ranges, allowing users to switch between them with a single click. Compared to the previous generation, OptimScan Q12 offers enhanced data acquisition capabilities, faster scanning speed, and broader material adaptability.

It also supports integration with robots, enabling customized and fully automated solutions to meet your unique requirements.

- **4 × 12.3MP Cameras**
- **Dual Scan Range**
- **Monocular-Stereo Fusion (MSF)**
- **Multiple Exposure**
- **Single Shot < 1 s**


SHINING 3D
HOME
START

Reliable High Performance

OptimScan Q12, equipped with 4 x 12.3 megapixel cameras, accurately captures geometrically detailed features on an object's surface.

Combined with powerful hardware modules and advanced 3D reconstruction algorithms, it delivers an impressive accuracy of up to 0.005 mm, ensuring stable repeatability.

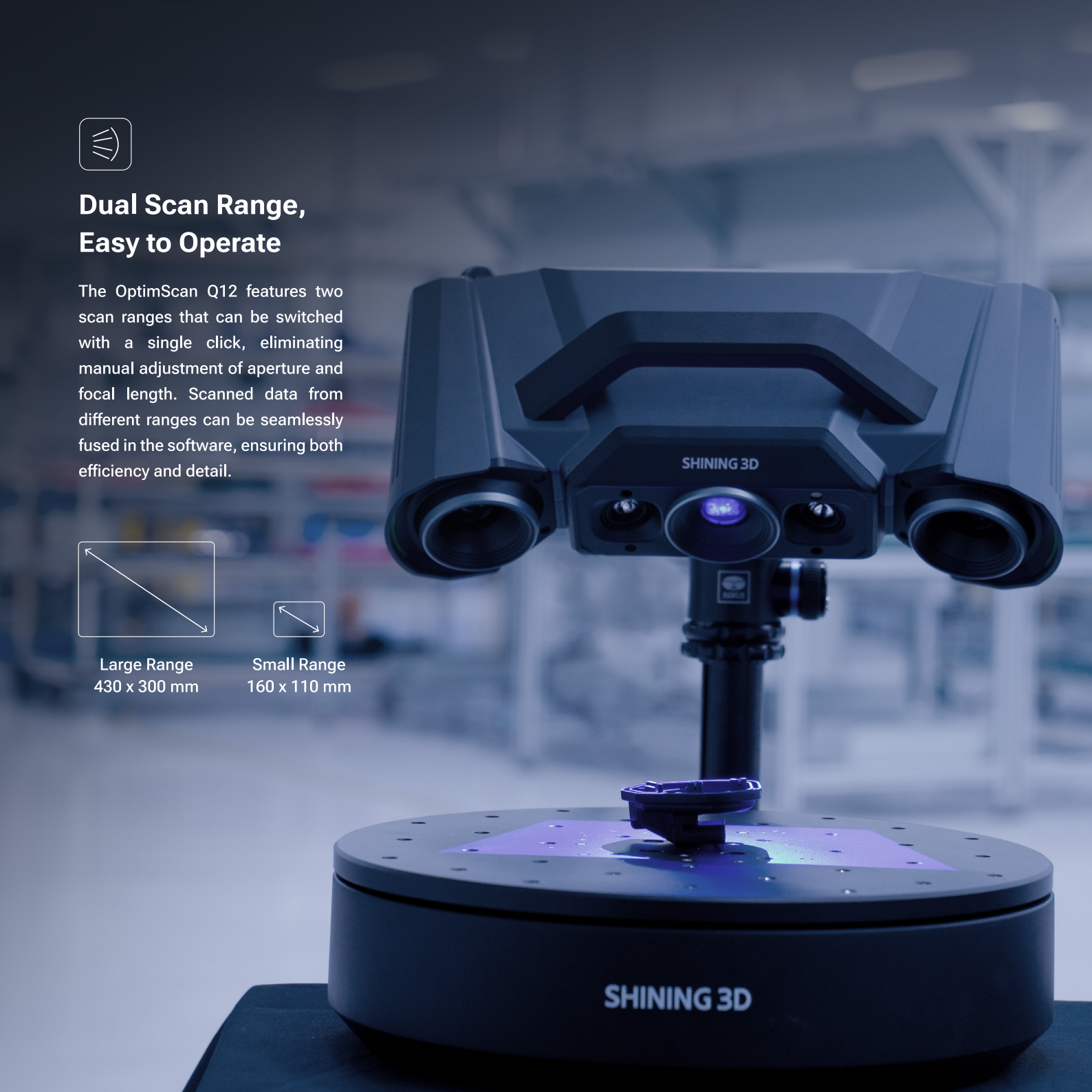

SHINING 3D

Dual Scan Range, Easy to Operate

The OptimScan Q12 features two scan ranges that can be switched with a single click, eliminating manual adjustment of aperture and focal length. Scanned data from different ranges can be seamlessly fused in the software, ensuring both efficiency and detail.

Large Range
430 x 300 mm

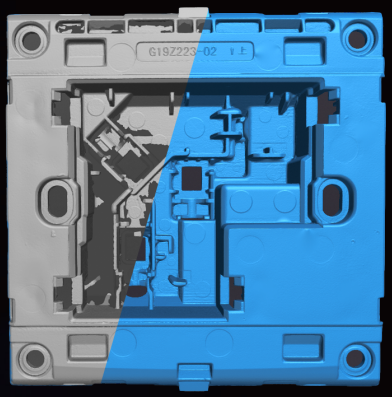
Small Range
160 x 110 mm



Monocular-Stereo Fusion (MSF)

The monocular-stereo fusion function can effectively increase data coverage and improve the integrity of the scanned data, such as the common turning corners and joints of industrial parts.

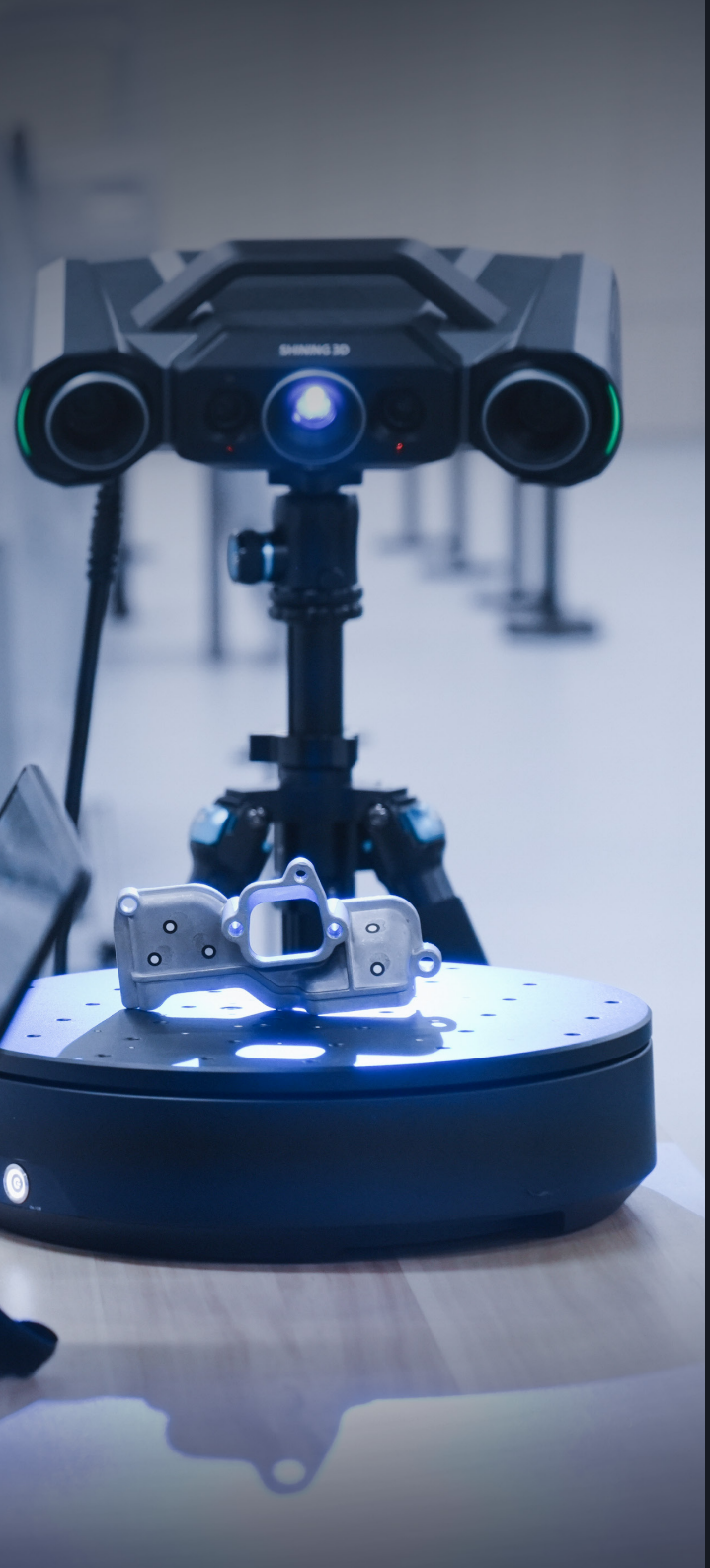
MSF off



MSF on

Multiple Exposure, Faster Scanning

Powered by a built-in dual-chip computing module, OptimScan Q12 delivers fast image acquisition and data processing. Each shot less than **1 second**, capturing an impressive **12 million points** with exceptional precision. To further streamline the workflow, Q12 offers multiple exposure modes—including intelligent automatic exposure—dramatically reducing scanning time while ensuring optimal results across diverse surface conditions.



Versatile and Highly Adaptable

OptimScan Q12 is compact and easy to carry, offering flexible manual scanning. For semi-automated operation, it pairs with a fixed tripod and an automatic turntable with up to 20 kg load, providing increased efficiency and consistency in scanning. In fully automated mode, it integrates with a robot for precise, repetitive inspection tasks.

- Manual

- Semi-automated

- Automated

Automated Inspection Solution

OptimScan Q12 can seamlessly integrates with intelligent 3D inspection system, enabling fully automated workflow from scanning to report generation.


Workflow
Robot Path Setup
Automated 3D Scanning
Automated Data Analysis
Automated Report Generation
EMERGENCY
STOP

SPECIFICATIONS

	OptimScan Q12	
Scan range	Large range	Small range
FOV	430 × 300 mm	160 × 110 mm
Accuracy	0.015 mm	0.005 mm
Point distance	0.1 mm	0.04 mm
Working distance	590 mm	210 mm
Depth of field	300 mm	60 mm
Resolution	4 × 12.3MP	
Light source	Blue LED	
Weight	OptimScan Q12: 3.5 kg	
Dimensions	366 × 162 × 132 mm	
Certifications	CE, FCC, ROHS, WEEE, KC, FDA, UKCA, IP50, TELEC, TiSAX	
Acceptance test	VDI/VDE 2634 Part2 (certified in ISO 17025 certificated accuracy lab)	

SHINING 3D Tech Co., Ltd.

Hangzhou, China
P: 400-0799-666
No. 1398, Xiangbin Road, Wenyan, Xiaoshan, Hangzhou, Zhejiang, China, 311258

SHINING 3D (HK) COMPANY LIMITED.

Hong Kong, China
P: 00852-23348468/23348568
Room 303A, 3/F, Tower 2, Enterprise Square Phase 1,9 Sheung Yue Road, Kowloon Bay, Kowloon, Hong Kong

SHINING 3D Technology Japan Inc.

Tokyo, Japan
Tradepia Odaiba, 2-3-1 Daiba, Minato-ku, Tokyo

SHINING 3D Technology GmbH.

Stuttgart, Germany
P: +49-711-28444089
Breitwiesenstraße 28, 70565, Stuttgart, Germany

Barcelona, Spain
Calle 27, 10-16, Sector BZ, 08040 Barcelona, Spain

SHINING 3D Technology Inc.

California, USA
P: +1415-259-4787
2450 Alvarado St, Unit 7, San Leandro, CA 94577

Florida, USA
2807 W Busch Blvd, Suite 200, Tampa, FL 33618

Facebook Instagram LinkedIn YouTube