Industry customers

CONTACT US

+45 70 25 31 13
info@scapetechnologies.com
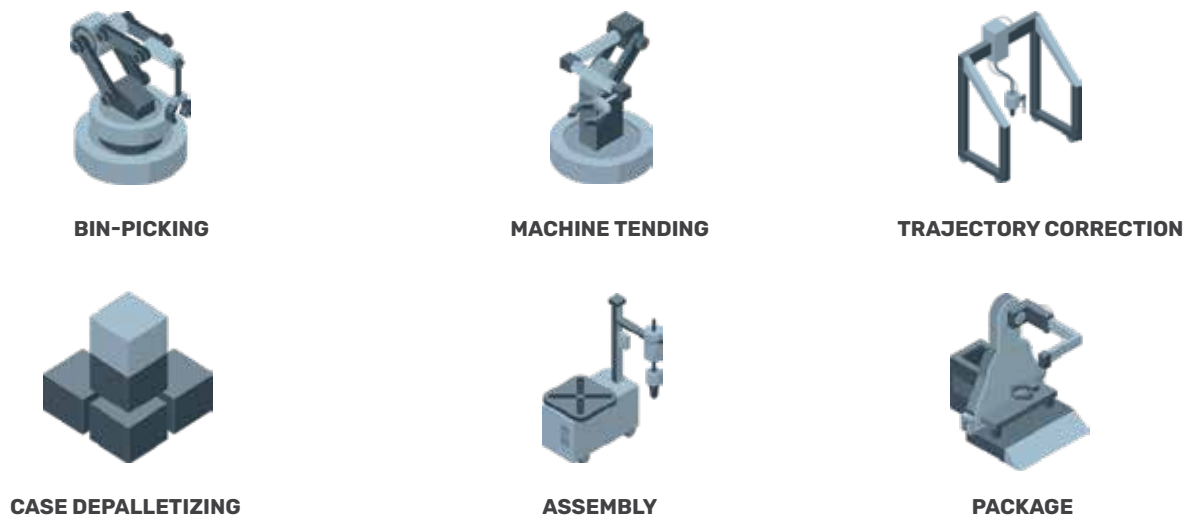scapetechnologies.com

Or pay us a visit at our headquarters:
Østerbro 5C
5000 Odense, Denmark

SCAPE INDUSTRIAL 3D SCANNERS

SCAPE INDUSTRIAL 3D SCANNERS

MODULARIZATION

MULTI-SCENE

SCAPE Mini Pro-700

SCAPE Grid Scanner

FAST SPEED

LARGE FOV

SCAPE Mini Pro C-700

SCAPE Ultra Series

HIGH RELIABILITY
AND STABILITY

SCAPE Pro Series

SCAPE Mini Pro C-1000

HIGH ACCURACY

DUST AND WATER PROOF

Application Scenarios

BIN-PICKING

MACHINE TENDING

TRAJECTORY CORRECTION

CASE DEPALLETIZING

ASSEMBLY

PACKAGE

SCAPE GRID SCANNER

Multiple frames can be used within the robot's reach

Scanned from multiple angles

Very smooth surfaces can be recognized

Easy to install

Specifications

The SCAPE Grid Scanner Recognition™ Compact can work in different ranges without re-calibration.
Below are shown three examples. Any range in between can also be used.
There is a linear relation between the data below and the ranges in between.

	Near Range	Far Range	Extended Range[1]
Expected Distance to Object	340mm	445mm	TBAmm
Working Range at Expected Distance	280-480[2]mm	325-565[2]mm	TBA[2]mm
Field of View at Expected Distance	205x205mm	271x271mm	TBAmm
Lateral Resolution (XY-plane)	1.05mm	1.37mm	TBAmm
Min Surface Area for Scanning at Expected Distance	4.9x4.9mm	5.8x5.8mm	TBAmm
Depth Uncertainty RMS at Expected Distance	0.25mm	0.44mm	TBAmm

The SCAPE Grid Scanner Recognition™ Standard can work in different ranges without re-calibration.
Below are shown three examples. Any range in between can also be used.
There is a linear relation between the data below and the ranges in between.

	Near Range	Far Range	Extended Range[1]
Expected Distance to Object	460mm	600mm	730[2]mm
Working Range at Expected Distance	400-630[2]mm	450-750[2]mm	480-860[2]mm
Field of View at Expected Distance	275x275mm	395x395mm	434x434mm
Lateral Resolution (XY-plane)	1.42mm	1.85mm	2.25mm
Min Surface Area for Scanning at Expected Distance	5.8x5.8mm	7.8x7.8mm	11.3x11.3mm
Depth Uncertainty RMS at Expected Distance	0.30mm	0.50mm	0.80mm

1): At this distance, ambient light has to be shielded significantly.
2): The depth range can be extended to full range for all ranges by using "two pose acquisition". This means the robot moves to a slightly different position to acquire a second image. The cost is about 1 second extra robot time to move and acquire the image.

SCAPE Mini Pro-700
Industrial 3D Scanner

Ultra-compact design **High precision**

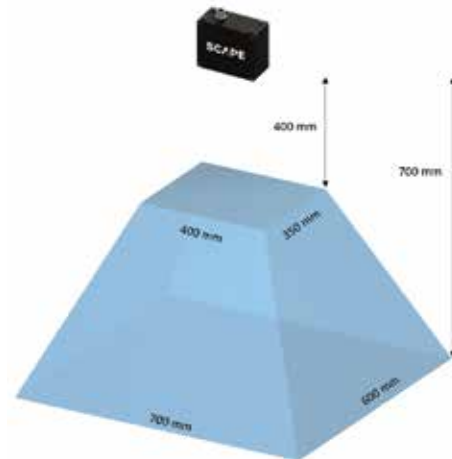**High reliability and stability** **Easy installation**

The SCAPE Mini Pro-700 is a lightweight, compact solution, perfect for use in even the most confined spaces. It is rugged for robot mounting and can scan as many areas as the robot can reach.

Specifications

Model		SCAPE Mini Pro-700 OP13-20
Basic Parameters	Dimensions (LxWxH)	120x100x55 mm
	Weight	0.78 kg
	Baseline	80 mm
FOV	Working range	400-700 mm
	Near FOV	400x350@400 mm
	Far FOV	700x600@700 mm
Point to point distance	Point Cloud	0.47@500 mm
Exposure Mode	Depth camera	Global shutter
Accuracy	Z	< 0.1%
	X/Y	< 0.5%
Resolution	Depth camera	1280x1024 pixels
Acquisition time	Typical	0.7-1.1s
Data Output	Depth camera	√
	Point Cloud	wrl、obj、pcd、ply
API	C++、C#	C++、C#、Python、Halcon
Operation System	WINDOWS	Windows 10/11
	LINUX	Ubuntu 16.04/18.04/20.04
Hardware Interface	Hirose 8pin	POE IEEE 802.3at
	Ethernet	M12 X-CODE, GigE, IEEE1588
Working Environment	Operation	0~40℃
	Storage	-20~70℃
	Relative Humidity	20%~80% RH
	IP	IP65
Power Supply	Power interface	×
	Power input	POE
	Power consumption	16W

SCAPE Mini Pro-700

400 mm
700 mm
400 mm
350 mm
700 mm
600 mm

Applications:
Close-up inspections of large parts, detecting object positions in various areas within the robot's reach, robot navigation, vision-based robot control, and more.

SCAPE Mini Pro C-700/1000
Industrial 3D Scanners

Lightweight design **High precision**

**Color camera** **Easy installation**

The SCAPE Mini Pro C-700 and C-1000 models are equipped with a color camera and can scan small areas with high resolution. They are lightweight, compact, and rugged, ideal for robot mounting.
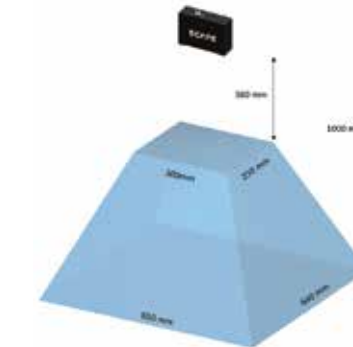
Specifications

Model		SCAPE Mini Pro C-700 OP13-21	SCAPE Mini Pro C-1000 OP13-22
Basic Parameters	Dimensions (LxWxH)	165x115x49 mm	165x115x49 mm
	Weight	1.03 kg	1.03 kg
	Baseline	125 mm	125 mm
FOV	Working range	400-700 mm	380-1000 mm
	Near FOV	400x350@400 mm	300x250 mm@380 mm
	Far FOV	700x620@700 mm	650x640 mm@1000 mm
	Color Camera	H:66°/V:53.6°	H:56.8°/V:44.7°
Point to point distance	Point Cloud	0.47@500 mm	0.33@500 mm
Exposure Mode	Depth Camera	Global shutter	Global shutter
Accuracy	Color Camera	Rolling Shutter	Rolling Shutter
	Z	< 0.1%	< 0.1%
	X/Y	< 0.5%	< 0.5%
Resolution	Depth Camera	1280x1024 pixels	1280x1024 pixels
	Color Camera	3600x2800 pixels	3000x2280 pixels
Acquisition time	Typical	0.7-1.1s	0.7-1.1s
RGB-D	Typical	√	√
Data Output	Depth Camera	√	√
	Point Cloud	wrl、obj、pcd、ply	wrl、obj、pcd、ply
	Colour Camera	√	√
API	C++、C#	C++、C#、Python、Halcon	C++、C#、Python、Halcon
Operation System	WINDOWS	Windows 10/11	Windows 10/11
	LINUX	Ubuntu 16.04/18.04/20.04	Ubuntu 16.04/18.04/20.04
Hardware Interface	Hirose 8pin	POE IEEE 802.3at	POE IEEE 802.3at
	Ethernet	M12 X-CODE, GigE, IEEE1588	M12 X-CODE, GigE, IEEE1588
Working Environment	Operation	0~40℃	0~40℃
	Storage	-20~70℃	-20~70℃
	Relative Humidity	20%~80% RH	20%~80% RH
	IP	IP65	IP65
Power Supply	Power interface	×	×
	Power input	POE	POE
	Power consumption	16W	16W

SCAPE Mini Pro C-700
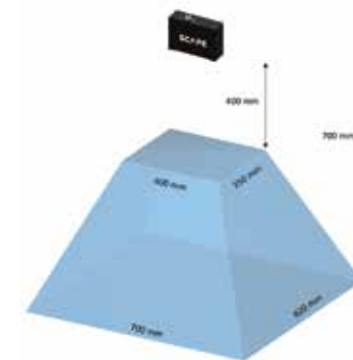
400 mm
700 mm
400 mm
350 mm
700 mm
620 mm

SCAPE Mini Pro C-1000

380 mm
1000 mm
300 mm
250 mm
650 mm
640 mm

Applications:
Close-up inspections of large parts, detecting object positions in various areas within the robot's reach, robot navigation, vision-based robot control, and more.

SCAPE Pro C-M/L/XL
Industrial 3D Scanners

Competitive price   **Reliable scan**

Color camera   **Small to very large scanning areas**

The SCAPE Pro Industrial 3D Scanner is available in three different sizes and is designed for mounting above the scene. This cost-effective series features binocular scanning, making it ideal for bin-picking and other tasks where multiple viewing angles provide an advantage. Its stationary design offers faster cycle times compared to robot-mounted scanners, as the robot is not required for data acquisition. In some cases, the scanner can handle two bins side by side. This series is equipped with a color camera, enhancing object differentiation, enabling surface inspection, improving visualization, and supporting texture mapping by providing additional color data alongside geometric information.

### 3D Point Cloud

Photo

Applications:
Bin-picking, object detection (pose estimation), palletizing/depalletizing, and large area tasks. The range of scanners covers scanning from small areas to very large areas. The Pro C-XL model is particularly well-suited for handling larger areas.

Specifications

Model		SCAPE Pro C-M OP18-12	SCAPE Pro C-L OP18-13	SCAPE Pro C-XL OP18-14
Basic Parameters	Dimensions (LxWxH)	280x165x74 mm	480x148x65 mm	480x148x68 mm
	Weight	2.6 kg	3.7 kg	3.74 kg
	Baseline	200 mm	400 mm	400 mm
FOV	Working range	969-1573 mm	1326-2800 mm	1100-3500 mm
	Extended Range[3]		2800-4000 mm	3500-4900 mm
	Near FOV	800x600@969 mm	1100x900@1326 mm	1050x1000@1100 mm
	Far FOV	1300x1000@1573 mm	2100x1800@2800 mm	3200x3100@3500 mm
	Color Camera	H:65.6°/V:51.6°	H:65.6°/V:51.6°	H:75°/V:60°
Point to point distance	Point Cloud	0.67@1200 mm	1.01@1800 mm	1.35@1800 mm
Exposure Mode	Depth Camera	Global shutter	Global shutter	Global shutter
	Color Camera	Rolling Shutter	Rolling Shutter	Rolling Shutter
Accuracy	Z	< 0.1%	< 0.1%	< 0.1%
	X/Y	< 0.5%	< 0.5%	< 0.5%
Resolution	Depth Camera	1624x1240 pixels	1624x1240 pixels	1624x1240 pixels
	Color Camera	3264x2464 pixels	3264x2464 pixels	3248x2480 pixels
Acquisition Time	Typical	1.0-2.0s	1.0-2.0s	1.0-2.0s
RGB-D	Alignment	√	√	√
Data Output	Depth Camera	√	√	√
	Point Cloud	wrl、obj、pcd、ply	wrl、obj、pcd、ply	wrl、obj、pcd、ply
	Color Camera	√	√	√
API	C++、C#	C++、C#、Python、Halcon	C++、C#、Python、Halcon	C++、C#、Python、Halcon
Operation System	WINDOWS	Windows 10/11	Windows 10/11	Windows 10/11
	LINUX	Ubuntu 16.04/18.04/20.04	Ubuntu 16.04/18.04/20.04	Ubuntu 16.04/18.04/20.04
Hardware Interface	Hirose 8pin	12-30VDC	12-30VDC	12-30VDC
	Ethernet	M12 X-CODE, GigE, IEEE1588	M12 X-CODE, GigE, IEEE1588	M12 X-CODE, GigE, IEEE1588
Indicator	3 LED	√	√	√
Working Environment	Operation	0~40℃	0~40℃	0~40℃
	Storage	-20~70℃	-20~70℃	-20~70℃
	Relative Humidity	20%~80% RH	20%~80%RH	20%~80%RH
	IP	IP65	IP65	IP65
Power Supply	Power interface	√	√	√
	Power input	24V DC, ≥2A	24V DC, ≥2A	24V DC, ≥2A
	Power consumption	48W	48W	48W
Certification	CE/FCC	√	√	√
	Laser Safety Class 3R	√	√	√

3): * Extended range: Good point clouds can still be acquired in this working range, but the accuracy decreases compared to the normal "Working range"

SCAPE Pro C-M

SCAPE Pro C-L

SCAPE Pro C-XL

Specifications
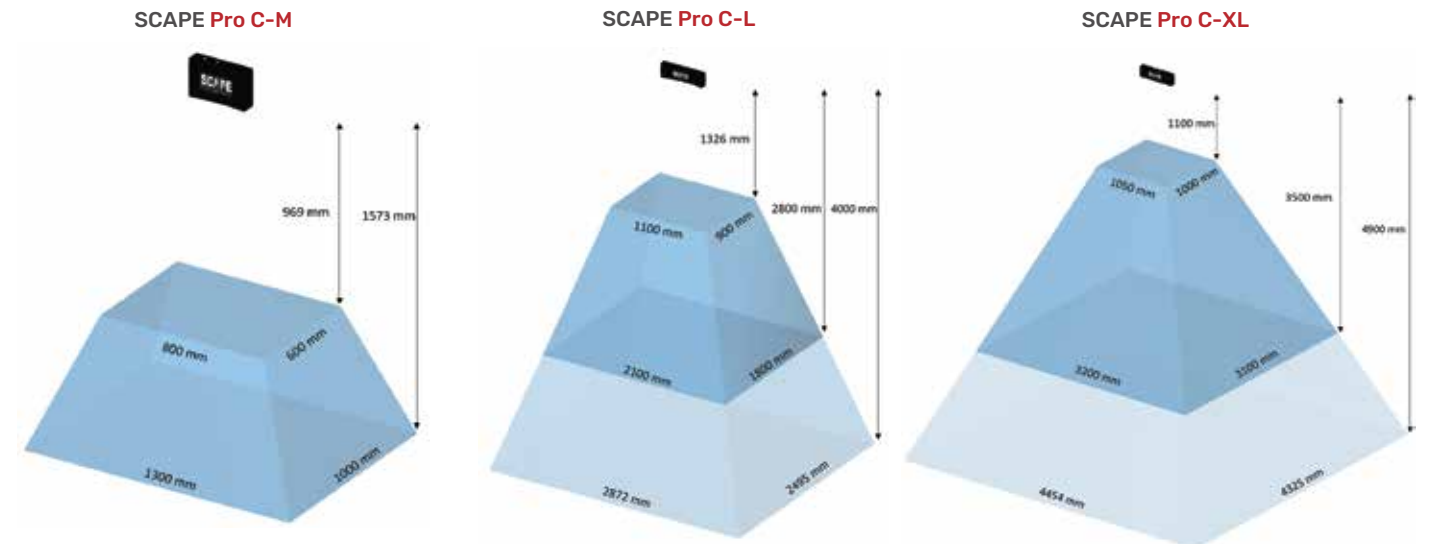
SCAPE Ultra-L/XL
Industrial 3D Scanners

Model		SCAPE Ultra-L OP18-35	SCAPE Ultra-XL OP18-36
Basic Parameters	Dimensions (LxWxH)	647x165x78 mm	966x165x80 mm
	Weight	2.49 kg	2.95 kg
	Baseline	550 mm	860 mm
FOV	Working range	1057-2070 mm	1521-3800 mm
	Near FOV	800x700@1057 mm	1300x1000@1521 mm
	Far FOV	1700x1400@2070 mm	2600x2500@3800 mm
Point to point distance	Point Cloud	0.788@1400 mm	0.992@2300 mm
Exposure Mode	Depth Camera	Global shutter	Global shutter
Accuracy	Z	< 0.1%	< 0.1%
	X/Y	< 0.5%	< 0.5%
Resolution	Resolution in the Z (depth)	1624x1240 pixels	2048x1536 pixels
Acquisition time	Typical	0.9-1.5s	0.9-1.5s
Data Output	Depth Camera	√	√
	Point Cloud	wrl、obj、pcd、ply	wrl、obj、pcd、ply
API		C++，C#	C++、C#、Python、Halcon	C++、C#、Python、Halcon
Operation System	WINDOWS	Windows 10/11	Windows 10/11
	LINUX	Ubuntu 16.04/18.04/20.04	Ubuntu 16.04/18.04/20.04
Hardware Interface	Hirose 8pin	12~30VDC	12~30VDC
	Ethernet	M12 X-CODE, GigE, IEEE1588	M12 X-CODE, GigE, IEEE1588
Working Environment	Operation	0~40℃	0~40℃
	Storage	-20~70℃	-20~70℃
	Relative Humidity	20%~80% RH	20%~80% RH
	IP	IP65	IP65
Power Supply	Power interface	√	√
	Power input	24V DC, ≥2A	24V DC, ≥2A
	Power consumption	35W	35W
Certification	CE/FCC	√	√
	Laser Safety Class 3R	√	√

SCAPE Ultra-L

SCAPE Ultra-XL

Large FOV **High reliability and stability**

Fast scan time **High quality data**

The SCAPE Ultra 3D Scanner is available in two different sizes and is designed for stationary mounting. This monocular scanner offers high precision and low noise in the acquired point cloud. It features built-in shutters that prevent projected light from affecting areas outside the scene, ensuring optimal data quality. With its stationary design, SCAPE Ultra reduces cycle times down to 1 second by eliminating the need for the robot to handle data acquisition, making the process faster and more efficient.

The SCAPE Ultra 3D Scanners are IP65-rated, providing reliable protection against dust and low-pressure water jets, making them well-suited for demanding industrial environments.
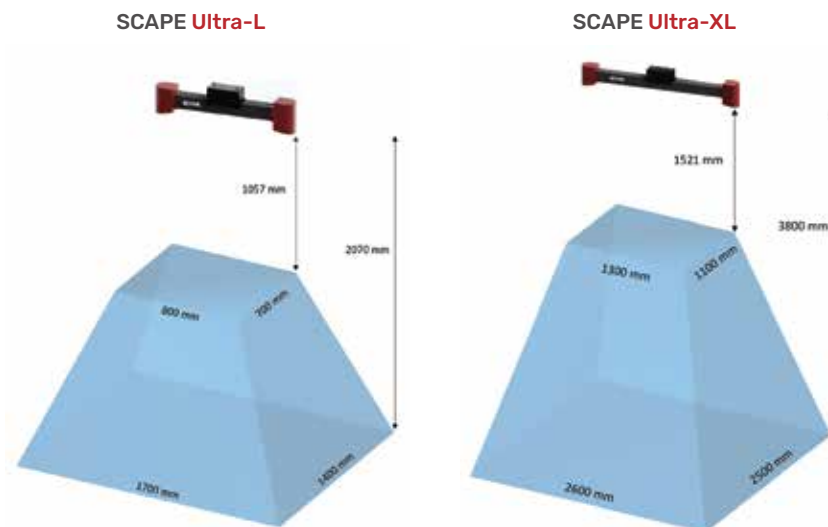
3D Point Cloud   **Photo**

Applications:
Bin-picking with high precision, object detection, objects' depth information, industrial inspection, machine guidance. The range of scanners covers scanning from medium areas to very large areas.