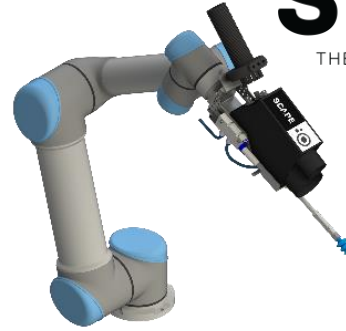


HARDWARE SPECIFICATION

SCAPE EASY-PICKER™

Product Option EP10-03



Introduction

The easy way to Bin-Picking. SCAPE Easy-Picker includes a complete Tool Unit with a 3D sensor and a Suction Cup. Ready to be mounted on your robot¹. PC and all necessary software to get started are included.

SCAPE Product Options

- ✓ SW10-20 SCAPE Easy-Picker Software Suite™
- ✓ OP13-08 SCAPE Grid Scanner Recognition™ - Compact
- ✓ OP17-03 SCAPE Automatic Self Test™
- ✓ TC10-20 SCAPE Part Training Studio™
- ✓ TU05-20 SCAPE Tool Unit with Suction Cup
- ✓ PC10-20 SCAPE Controller PC

Tool Unit with 3D sensor and Suction Cup with Built-in Collision Protection



The SCAPE Easy-Picker Tool Unit is a bin-picking optimized suction cup gripper, 3D sensor and various other sensors. Energy chain type IGUS PMAFLEX PC included².

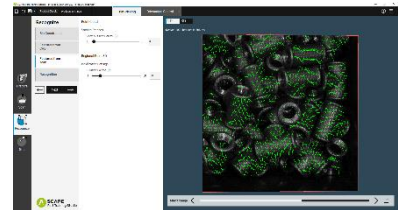
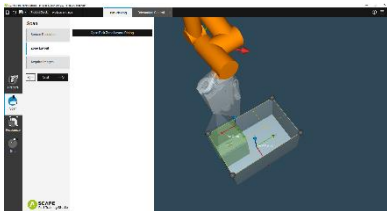
SCAPE Grid Scanner Recognition™ - Compact



SCAPE Grid Scanner Recognition™ - Compact gives high flexibility. Structured light is projected onto the parts and from the image acquired by the camera a 3D point cloud is obtained.

SCAPE Part Training Studio™

- ✓ TC10-20 SCAPE Part Training Studio™ enables you to perform full training of new parts for Pick & Place and Bin-Picking without programming. Offline training is based on 3D CAD models.



¹ Can be used with KUKA, ABB, and Universal Robots. Interface plate is included, just inform Scape about robot brand and model.

² Mounting brackets for the energy chain are not included.

HARDWARE SPECIFICATION

Introduction

Pick your parts directly from the bin using the SCAPE Easy-Picker. The SCAPE Automatic Self Test ensures that the system monitors itself regarding the calibration of its 3D sensor and that the Suction Cup is still fully functional.

If you need to handle heavier parts up to 1kg, you can upgrade the SCAPE Easy-Picker to the SCAPE Mini-Picker, which comes with a more capable Tool Unit, multiple grippers and more possible add-ons.

Stationary Camera for SCAPE 3D Orientation Control - *Even more precision and faster cycle times with a second camera*

SCAPE Part Turner - *Gives the possibility of turning parts after precision gripping for maximum delivery flexibility.*

Part Specifications

Maximum size Approx. 200 mm in largest dimension

Maximum weight 0.6 kg

Material Any



Examples

3D Sensor Specifications

Grid Scanner	Field of View	Near: 205 x 205 Far: 293 x 293	[mm]
	Working Distance	280 ... 565	[mm]
	Acquisition Time	0.3 seconds	[seconds]
	Resolution in X-Y Plane	1.05 ... 1.37	[mm]
	Depth Uncertainty (RMS)	0.25 ... 0.44	[mm]
	Depth Range	Near: 340 [280;480] Far: 445 [325;565]	[mm]
	Min Surface Area on Parts	Near: 4.9 x 4.9 Far: 5.8 x 5.8	[mm]
Grid Scanner Camera	Light	Ring light: 660 (red) Pattern Projector: 625 (red)	[nm]
	Interface	GigE	
	Resolution	2592 x 1942	[pixels]
	View angle	45	[degrees]

Tool Unit Specifications

Dimensions (WxDxH)	374 x 225 x 110 [mm]	Power	24V AC
Suction Cups Included	Round with 2.5 bellows [mm]. 2 of each size: Ø5, Ø7, Ø9, Ø12, Ø14, Ø17.5, Ø20, Ø25	Pneumatic Supply	3.5-6 bar 25 liter/min ³
Weight	4.2 [kg]	Energy Chain: IGUS I-PCLT-36B	Length: 3 m for robots with reach up to 1200 mm, 6 m for robots with reach above 1200 mm
Sensors	Vacuum sensor, Collision sensor	Other Components	Valve, Ejector

SCAPE Controller PC (PC10-20)

CPU	Intel Core i5-10400 (6 core)	Memory	16 GB of RAM
Storage	250 GB SSD	Graphics	Intel Graphics 630
Ethernet	3 Ethernet 100 Mbit Connections	Dimensions [mm]	175 x 355 x 420
Display Requirements⁴	1440 x 900 (24-bit color)	Operating System	Windows 10 (64 bit)

Requirements for Robot

Supported Robot Brands KUKA, ABB, Universal Robots

³ May vary. Depends on the size of suction cup, part surface, and cycle. Air must be supplied from external source.

⁴ Monitor, keyboard and mouse not included.