1 Scanning areas
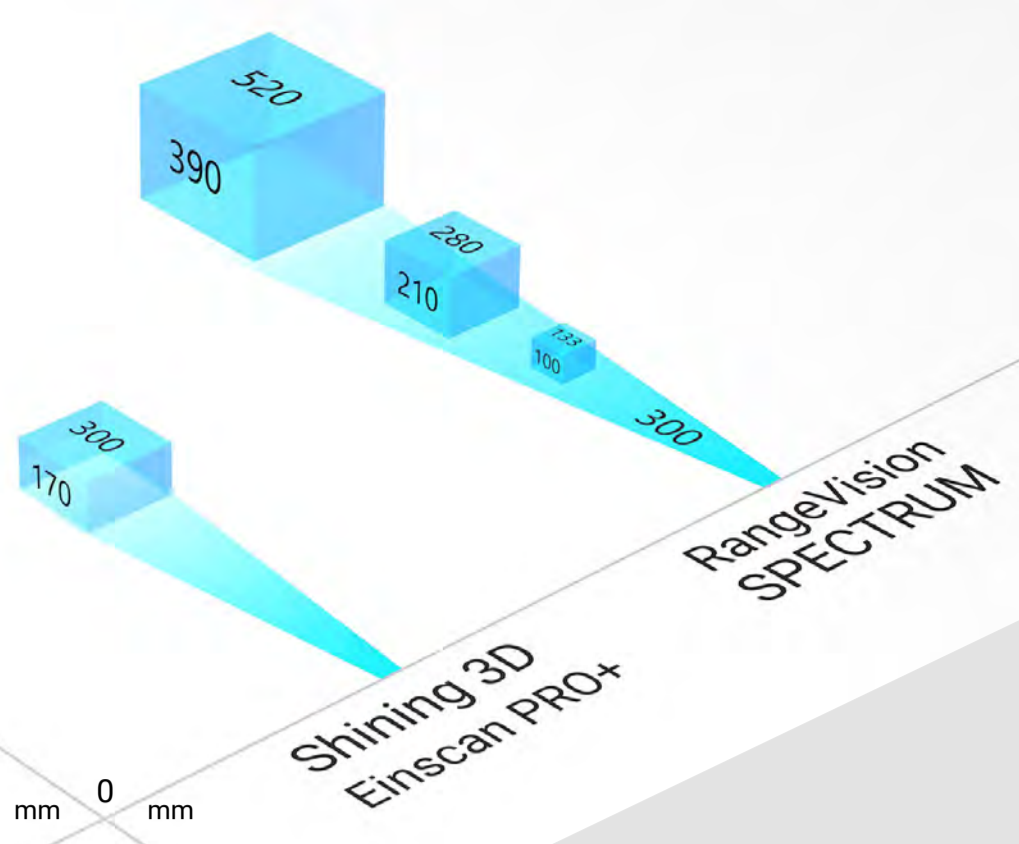
Variety of number and size of scanning areas gives advantage in variety of sizes and shapes of objects to scan

520
390
280
210
188
100
300
170
300

RangeVision SPECTRUM

Shining 3D Einscan PRO+

mm 0 mm

Comparison of optical 3D scanners

2 Technical specifications

Shining 3D Einscan PRO+		**Technical specs**	**RangeVision** Spectrum
Handheld	Portable, can be mounted on a tripod	**Type** Handheld Einscan PRO+ can be mounted on a tripod (after purchase of additional Industrial Pack) to enhance an accuracy. Spectrum works with constant high accuracy, it is always fixed on a tripod.	portable, mounted on a tripod
	LED	**Light source** Both systems use the same light source. However in handheld mode Einscan works with a stroboscopic effect.	LED

Accuracy

0.2 mm - 3 mm	0.24 mm ✗	**3D resolution, mm.** Spectrum captures smaller details of objects and provides precise measurements in high resolution.	✓ 0.072 mm - 0.260 mm
	2 (+1 optional to capture colour) ✗	**Number of cameras** Both systems have two cameras, however Einscan-PRO requires buying the third camera in order to capture colour.	✓ 2
	No information availabe (~1.3 Mpix) ✗	**Camera resolution, mpx** The resolution of Spectrum's cameras is higher. Moreover it can be adjusted: just reduce it for faster scanning of large objects.	✓ 3.1 mpix
0.1 - 0.3	0.05 ✗	**3D accuracy, up to, mm** Spectrum's accuracy of 3D data is higher.	✓ 0.04 - 0.12
yes	yes ✗	**Scanning with markers** Einscan uses only reflective markers, while Spectrum scanner can work with different types of markers, even self-printed with a regular printer.	✓ yes

Multifunctionality

	1 ✗	**Number of scanning areas** Variety of number and size of scanning areas gives advantage in variety of sizes and shapes of objects to scan.	✓ 3
	300x170 ✗	**Size of a scanning area** With Spectrum user can choose the right scanning area that fits the size of the object. Few bigger scans result in less deviation, good alignment and higher accuracy of a final 3D model.	✓ From 133x100 to 520x390
Yes (With purchase of additional Color Pack) ✗		**Texture**	✓ Yes (Included)
30-4000mm		**Scanning of different-sized objects** Spectrum: thanks to the use of markers and adjustable scanning areas the size of the scanned object is limited only by the power of PC.	40-3000mm

Shining 3D Einscan PRO+		**Software**	**RangeVision** Spectrum
The functions are more automated, but less flexible: if something went wrong, the user can not go back and make changes		**Software usability** ✗ Spectrum is ideal solution for objects with a complex shape. Einscan-PRO+ allows user to scan simple objects.	✓ Good balance between automatization and flexibility: the manual modes are available to have a full control over a 3D model creating
free		**Licence cost**	free
free		**Upgrade cost**	free
OBJ, STL, ASC, PLY		**Export file format** Both scanners support the most popular export formats.	STL, OBJ, PLY, PTX

Hardware

is done with 12 snaps		**Calibration** ✗ Both scanners let the user do recalibration at any time, to ensure high accuracy. Though only Spectrum allows to adjust the size of a scanning zone when recalibrating.	✓ is done with 11 snaps. It is also possible to run orientiering - a simplified way of calibration
Scanning unit with cabels in a carton box. All the options come in seperate carton boxes		**Packaging** ✗ Spectrum comes with all accessories to scan right out of the box while Einscan-PRO+ requires buying more options.	✓ included into basic config
not offered		**Travel case** ✗	✓ included into the price
4790		**Price, €**	5490
Industrial Pack (tripod + turntable) 600€ , Color Pack 600€		**Accessories** Spectrum comes with all accessories to scan right out of the box while Scaninabox requires buying more options.	✗ table mount 345 €
5990 ✗		**Total price with accessories, €**	✓ 5835

3 Basic 3D scanning kit