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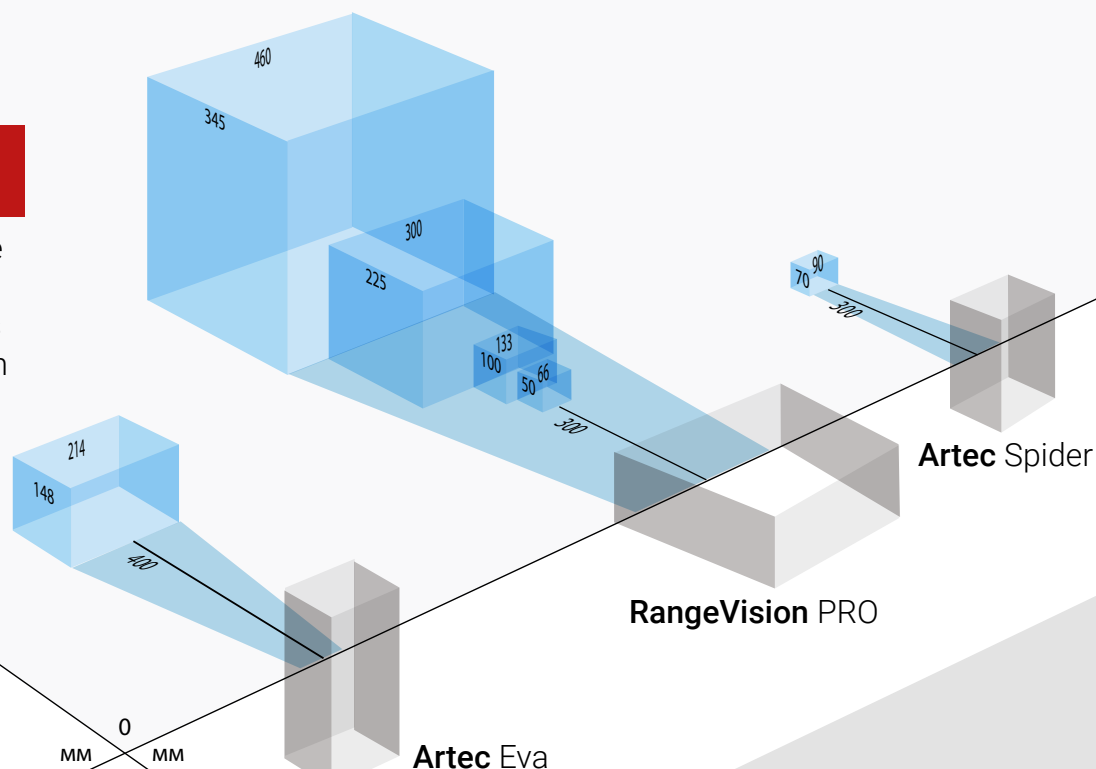
Variety of number and size of scanning areas gives advantage in variety of sizes and shapes of objects to scan

460
345
300
225
133
100
50 66
214
148
400
90
70
200

Artec Spider

RangeVision PRO

Artec Eva

мм   мм   0

Comparison of optical
3D scanners

2 Technical specifications

Artec Eva	Artec Spider		RangeVision PRO 2M	RangeVision PRO 5M
Main features				
handheld	handheld	**Type** Artec scanner is mobile - an operator moves it around the object. RangeVision scanners are mounted on a tripod, that can be moved around the object if necessary. Also the object can be rotated with an automatic turntable.	portable, mounted on a tripod	portable, mounted on a tripod
flash lamp	blue LED ✘	**Light source** PRO scanners work with the blue structured light technology, as well as without it - at the user's choice. It is not always convenient to scan with Artec scanners due to a strong flicker of its light.	✔ blue structured light	blue structured light
Breaks for cooling are required after every three minutes of scanning.	✘	**Cooling system**	✔ Breaks for cooling are not necessary.	
Accuracy				
0,5	0,1 ✘	**3D resolution, up to, mm** PRO scanners ensure higher resolution.	✔ 0.03 - 0.19 depending on the scanning area	0.4 - 0.15 depending on the scanning area
1	5	**Number of cameras** it makes sense to compare only if the cameras are of the same class.	2	2
1,3	1,3 ✘	**Camera resolution, mpx** The more resolution of the cameras, the more detailed the scan data will be.	✔ 2	5
0,1	0,05 ✘	**3D accuracy, up to, mm** PRO scanner is an alternative of Eva + Spider to get the same accuracy when scanning objects of different size.	✔ 0,018	0,018
yes	yes	**Scanning with markers** To obtain better accuracy it is highly recommended to scan large objects (> 1m) with markers, regardless of the digitization technology of a 3D scanner.	yes	yes

Artec Eva	Artec Spider		RangeVision PRO 2M	RangeVision PRO 5M
Multifunctionality				
1	1 ✘	**Number of scaning areas** High accuracy when scanning different-sized objects.	✔ 4	3
214 × 148	90 × 70 ✘	**The size of scanning areas, mm.** Few bigger scans result in less deviation, good alignment and higher accuracy of a final 3D model	✔ From 66x50x50 to 460x345x345	From 133x100x100 to 460x345x345
yes	yes	**Texture capturing**	yes	yes
Software usability				
1000 EUR lifetime licence ✘		**Licence cost** As for RangeVision, it is included in the cost of a scanner.	✔ free lifetime licence	free lifetime licence
400 EUR per year under subscription ✘		**Upgrade cost** Software updates for RangeVision scanners are free.	✔ free	free
2 000 000 points/sec	1 000 000 points/sec	**The speed of data gathering, up to** The digitizing process with RangeVision can be compared with photographing, while scanning with Artec - with video recording.	1920000 points/frame	4915200 points/frame
obj, ply, wrl, stl, aop, ascii, disney ptex, e57, xyzrgb		**Export formats** Both Artec and RangeVision scanners support the most popular export formats.	stl, obj, ply, wrl, ascii, ptx	
	free scanning	**Scanning modes**	free scanning, scanning on a turntable, with targets	
Equipment usability				
able to be adjusted	easy-to-customize	**Calibration** The basic RangeVision PRO kit contains calibration plates so that the user can adjust the equipment himself at any time, therefore ensuring high accuracy.	easy-to-customize	easy-to-customize
yes	yes	**Travel case (optionally)**	yes	yes
0,85	0,85 ✔	**Weight, kg**	✘ 6	6
13700	19700 ✘	**Price, EUR**	✔ 12 400 - 13 800	17 500

3 Basic 3D scanning kit