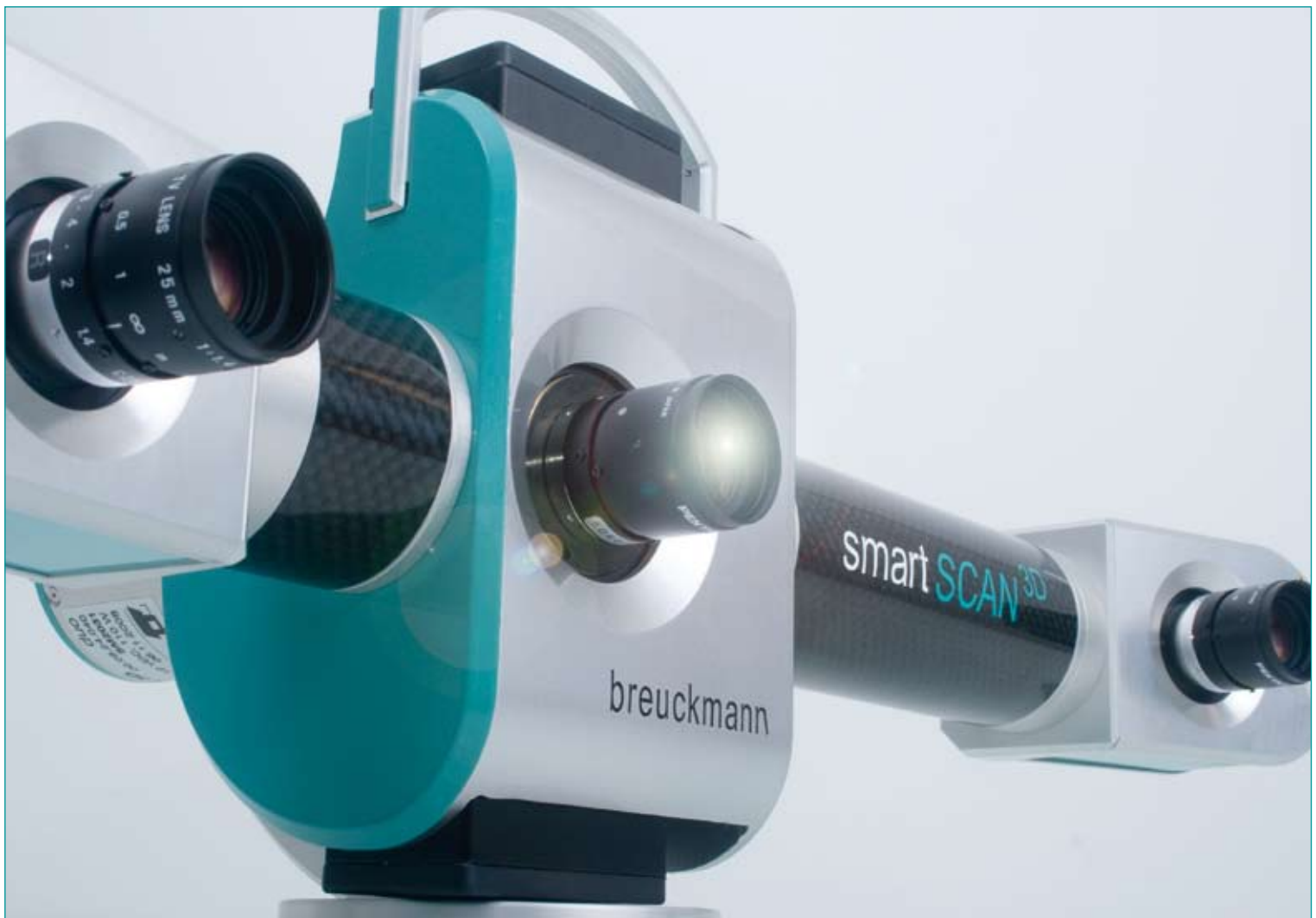


smartSCAN^{3D}

THE NEW 3D DIGITIZATION SYSTEM



Mission and Application

With the objective in mind to further expand the application areas of our systems and provide them to a widening range of users, we have developed the **smartSCAN^{3D}** system.

The **smartSCAN^{3D}** is addressed to users who wish to obtain accurate and reliable digitisation results at a reasonable expense. Always true to the mission of delivering precise 3D data sets, the **smartSCAN^{3D}** is the ideal system for high-end digitisation tasks particularly in the application context of industrial and technical

assignments (i.e. reverse engineering, rapid prototyping), education, art and cultural heritage.

Flexibility

The sensor setup of the **smartSCAN^{3D}** can be configured either as Basic version with one projection unit and one colour camera or as Duo version with two colour cameras. Given this easily adaptable setup, the system is ideally suited for a wide range of digitising tasks. Moreover, its light weight, compact design and easy handling make it the ideal scanning equipment for mobile applications.

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TECHNICAL SPECIFICATIONS

Image Processing	
Host computer	Dell Workstation (system configuration on request)
Image data interface	IEEE 1394 (FireWire®)
Operating system	Microsoft Windows XP Professional (optional x64 Bit Edition)
Measurement software	OPTOCAT for Windows 3D alignment supports all important navigation strategies (with or without index marks) 3D post processing to generate polygonal meshes
Data interface	ASCII, BRE, STL, PLY, VRML


Sensor	
Principle of operation	Miniaturised Projection Technique
Light source	100 W halogen
Sensor weight	3800 g
Imaging	1 or 2 digital colour CCD-cameras
Digitization	1384 x 1036 pixels per camera
Operating distance	700 mm
Min. depth resolution	from 2 µm (depending on the FOV)
Acquisition time	< 1 s

Accessories	
Host computer	Notebook or Laptop
Tripod	
Calibration	carbon fibre calibration tools

FIELDS OF VIEW FOR THE smartSCAN^{3D} - Duo

Image diagonal (FOV)	[mm]	90	150	225	300	450	600	 <p>Resolution and accuracy of the smartSCAN^{3D} - Duo are typically 50% higher than the smartSCAN^{3D} - Basic.</p>
X,Y resolution	[µm]	55	90	120	180	270	360	
Resolution limit (Z)	[µm]	1	2	4	6	8	12	
Feature accuracy	[µm]	± 9	± 15	± 23	± 30	± 45	± 60	

FIELDS OF VIEW FOR THE smartSCAN^{3D} - Basic

Image diagonal (FOV)	[mm]	90	150	225	300	450	600	
X,Y resolution	[µm]	55	90	120	180	270	360	
Resolution limit (Z)	[µm]	2	3	6	9	12	18	
Feature accuracy	[µm]	± 15	± 23	± 35	± 45	± 68	± 90	

Sales Partner

