



VIDEO MEASURING MACHINES

Multi Sensor 3D CNC CMM

BAKER

DeMeet

VIDEO & TOUCH

Baker has collaborated with Schut Geometrical Metrology to present 3D CNC Coordinate Measuring Machines manufactured in the Netherlands with Video Measurement (Optical) & Touch Probe Measurement facility depending upon the customer's requirements & are available in 5 measuring range models.

With an excellent price-performance ratio, the DeMeet measuring machines break the barrier for high precision quality control on the production floor as well as in measuring laboratories.

Applications of the Video & Multi-Sensor measuring are among others in the Precision Engineering, Medical, Plastics and Electronics industry.



SPECIFICATIONS

	DeMeet-220	DeMeet-400	DeMeet-404	DeMeet-443	DeMeet-705
Measuring range (mm)	X = 220, Y = 150, Z = 100	X = 400, Y = 250, Z = 200	X = 400, Y = 400, Z = 200	X = 400, Y = 400, Z = 300	X = 700, Y = 500, Z = 300
Table size (mm)	X = 357, Y = 260	X = 560, Y = 422	X = 560, Y = 580	X = 560, Y = 580	X = 930, Y = 700
Dimensions (mm)	W = 520, L = 700, H = 615	W = 865, L = 930, H = 1570	W = 865, L = 1245, H = 1580	W = 865, L = 1245, H = 1785	W = 1520, L = 1550, H = 1820
Weight (approx. kg)	110	530	700	720	1400
Maximum load (kg)	20	50	50	50	60

Technical Specifications		
General Specifications	Video Model	Combo Model
Video System	DeMeet Sony sensor camera	
Touch Probe System	-----	Renishaw TP20
Nikon Telecentric Lenses	3.0x (1.0x, 5.0x and 10.0x optional)	
Leica design Telecentric Lenses	2.0x (1.0x, 5.0x and 10.0x optional)	
Ringlight*	White LED: 3 Rings, 16 Segments and 48 Cells (adjustable)	
Backlight and Coaxial Light	Adjustable	
Measuring Table	Tension relieved, hard anodized aluminum	
Drive System	DC Servo Motors	
Operating Mode	Motorized joystick control / CNC	
Construction DeMeet-220	Cast iron, extremely tension relieved	
Construction	Fixed bridge with granite base plate DIN876/00	
Structure	Extremely tension relieved, flat grinded cast iron	
Linear guides	THK linear guides	
Linear encoders	Renishaw TONIC linear encoders	
* For video models (except DeMeet-220) a Ring light with 4 rings, 16 segments and 64 cells can be supplied as an option.		
Measuring Specifications		
Resolution (µm)	0.5 (0.1 optional)	
Accuracy in µm for 0.5µm model (L in mm)	X/Y/Z = 4+L/150*	XYZ = 5+L/150*
Accuracy in µm for 0.1µm model (L in mm)	X/Y/Z = 3+L/200*	XYZ = 4+L/200*
Travel Speed Max. (mm/s)	X/Y = 250, Z = 55	
Acceleration Max. (mm/s ²)	X/Y/Z = 500	
* The accuracy of the probing system should be taken into account.		
Environmental Conditions		
Operating Temperature (°C)	15 - 35	
Measuring Temperature (°C)	20 ± 0.5	
Humidity (%)	40 - 70 (no condensation)	

- Specifications apply to all DeMeet models, unless otherwise specified.
- Machines with higher specifications and/or modifications are available upon request.
- Specifications are subject to change without prior notice.



BAKER

DeMeet

VIDEO MEASUREMENTS

With non-contact measuring, the measurements in 2D and/or 3D are performed without the risk of product deformation or damage. Within the (camera) field of view, a very high accuracy can be achieved. The measuring speed of optical measurements with the DeMeet is very high. A combination of high quality optics and camera is integrated for a clear image with an excellent contrast and a high resolution. Telecentric optics are supplied as a standard to avoid perspective image distortion around the center of the field of view. The DeMeet is either equipped with Nikon or Leica-Design optics for a brilliant image with high contrast. The lenses generate a display magnification from 40x to 400x. Optimal illumination is essential for accurate measurements. The DeMeet is standard equipped with three different light sources. A ring light consisting of a 3 rings LED pattern, which can be controlled per individual ring, segment and cell, is standard supplied for optimal light configuration. The ring light can be set in intensity and angle to achieve the best contrast with clearly defined edges. The LED based backlight and coaxial light can be adjusted in intensity. The coaxial light can be used for illumination inside deep located structures.



MULTI-SENSOR MEASUREMENTS

For measurement of certain features, we encounter the physical limitations of non-contact measurement. To overcome this the DeMeet machines can be additionally equipped with a touch probe system. With the DeMeet Combo model both principles are integrated and measurements can be performed by the optical and the probing system. Standard Renishaw TP20 with a 5-way stylus configuration is supplied.



AFDM MULTI - SENSOR SOFTWARE

Approve for DeMeet (AfDM) is a true multi-sensor software package. It has been developed from the ground up, keeping the measurement inputs of the different measuring devices in mind to adjust the necessary differences. AfDM is designed to be a user-friendly software package, but still is flexible and very elaborate to measure many products. High accurate measurements in 2D and/or 3D can be done for all kinds of industries like precision mechanics, medical, plastics or electronics to improve quality control. All the measuring results of video and touch probe can be displayed, reported, exported and used in constructs together, and are dynamically updated.

