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VIMETRIC GmbH

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MEASURING TECHNOLOGY

Tactile measurement technology

WENZEL LHF 306025 – Tactile measurement system (1x)

Fields of Application

Measurement and analysis of big measuring objects

CNC controlled series measurements

Creation of measurement statistics based on the measurement data

Machine data / technical parameters

Manufacturer	WENZEL
Type	LHF 306025
Measuring range	| X=3000 mm | Y=6000 mm | Z=2500 mm |
Sensor-Head	PH10M; TP20
Length measurement uncertainity	MPEE = 9,0 µm + (L/200mm) µm
Allowed workpiece weight	Limited to 5000 kg because of overhead crane
Software	METROMEC QUARTIS, Import and process CAD data (IGES, STEP, CATIA, Siemens NX etc.). Detection of geometric elements and freeform surfaces with should-be analysis.

WENZEL LHF 306020 – Tactile measurement system (1x)

Fields of Application

Measurement and analysis of big measuring objects

CNC controlled series measurements

Creation of measurement statistics based on the measurement data

Machine data / technical parameters

Manufacturer	WENZEL
Type	LHF 306020
Measuring range	| X=3000 mm | Y=6000 mm | Z=2500 mm |
Sensor-Head	PH10M; TP200
Length measurement uncertainity	MPEE = 5,5 µm + (L/200mm) µm
Allowed workpiece weight	Limited to 5000 kg because of overhead crane
Software	METROMEC QUARTIS, Import and process CAD data (IGES, STEP, CATIA, Siemens NX etc.). Detection of geometric elements and freeform surfaces with should-be analysis.

WENZEL LH 1210 – Tactile measurement system (1x)

Fields of Application

Measurement and analysis of medium component size

CNC controlled series measurements

Creation of measurement statistics based on the measurement data

Machine data / technical parameters

Manufacturer	WENZEL
Type	LH 1210
Measuring range	| X=1200 mm | Y=2000 mm | Z=1000 mm |
Sensor-Head	PH10M Q; TP200
Length measurement uncertainity	MPEE = 2,3 µm + (L/250mm) µm
Allowed workpiece weight	Limited to 1000 kg because of overhead crane
Software	METROMEC QUARTIS, Import and process CAD data (IGES, STEP, CATIA, Siemens NX etc.). Detection of geometric elements and freeform surfaces with should-be analysis.

WENZEL LH 1512 – Tactile measurement system (1x)

Fields of Application

Measurement and analysis of medium component size

CNC controlled series measurements

Creation of measurement statistics based on the measurement data

Machine data / technical parameters

Manufacturer	WENZEL
Type	LH 1512
Measuring range	| X=1500 mm | Y=3000 mm | Z=1200 mm |
Sensor-Head	PH10M Q; TP20 & SP25 scanning
Length measurement uncertainity	MPEE = 2,6 µm + (L/250mm) µm
Allowed workpiece weight	Limited to 5000 kg because of overhead crane
Software	METROMEC QUARTIS, Import and process CAD data (IGES, STEP, CATIA, Siemens NX etc.). Detection of geometric elements and freeform surfaces with should-be analysis.

DEA 07.10.07 – tactile measurement system (1x)

Fields of Application

Measurement and analysis of medium component size

CNC controlled series measurements

Creation of measurement statistics based on the measurement data

Machine data / technical parameters

Manufacturer	HEXAGON
Type	07.10.07 Scanning
Measuring range	| X=700 mm | Y=1000 mm | Z=700 mm |
Sensor-Head	Tesastar SM80 with LSP-X1S & Probe Ch.
Length measurement uncertainity	MPEE = 1,5 µm + 3,3 (L/1000mm) µm
Allowed workpiece weight	Limited to 700kg
Software	PC DMIS Cad ++, Import and process CAD data (IGES, STEP, CATIA, Siemens NX etc.). Detection of geometric elements and freeform surfaces with should-be analysis.

ROMER ABSOLUTE ARM 7725 (2,5m), Portable tactile measurement sys. (2x)

Fields of Application

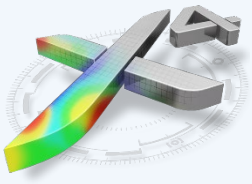
Measurement and analysis of medium component size

Hand-held measurements

Accurate portable measuring arm for high-end measurement applications

Machine data / technical parameters

Manufacturer	HEXAGON/ ROMER
Type	7725 6-axis
Measuring range	2500 mm |
Volumetric accuracy	± 0.026 mm / 0.0010 in
Single point repeatability	0.017 mm / 0.0007 in
Connection	Standard over power connection 230V or Wi-Fi and USB
Software	METROLOG X4: Measuring acc. to drawing against, Import and process CAD data (IGES, STEP, CATIA, Siemens NX etc.) or measuring without CAD-Data. Detection of geometric elements and freeform surfaces with should-be analysis. Analysis in graphical or tabular form.



LEICA AT 901-LR T-Probe (160m/30m), Portable tactile measurement sys. (3x)

Fields of Application

Measurement and analysis of large component size

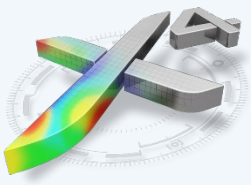
Hand-held measurements

Accurate portable measuring Lasertracker for high-end measurement applications

6 Degrees of Freedom (6DOF)
ADM/IFM with small beam diameter
6DOF Dynamic Lock-On
Probe self-identification
Stylus self-identification

Machine data / technical parameters

Manufacturer	LEICA Geosystems/ HEXAGON
Type	AT 901 LR; T-PROBE
Measuring range/Typical Volume (Ø)	160 m (525 ft, Reflector), 30 m (98 ft, T-Probe)
Measuring with Reflector	
Volumetric Accuracy Uxyz, Full Range	Full Range Definition: 360° horizontally, ± 45° vertically, ± 15 µm + 6 µm/m (±0.0006" + 0.00007"/ft)
Volumetric Accuracy Uxyz, in 2.5 x 5 x 10 m volume (8.2 x 16.4 x 32.8 ft)	± 10 µm + 5 µm/m (±0.0004" + 0.00006"/ft)
Measuring with T-Probe	
Measurement volume	30 m (98 ft)
Measurement uncertainty of 3D Point (MPE)	U3d = 100 µm if under 7 m (0.004" if under 23 ft) U3d = 30 µm + 10 µm/m if greater than 7 m (0.0012" + 0.00012"/ft if greater than 23 ft)
Software	METROLOG X4: Measuring acc. to drawing against, Import and process CAD data (IGES, STEP, CATIA,Siemens NX etc.) or measuring without CAD-Data. Detection of geometric elements and freeform surfaces with should-be Analysis. Analysis in graphical or tabular form.



LEICA AT 960-LR T-Probe (160m/30m), portable tactile measurement sys. (1x)

Fields of Application

Measurement and analysis of large component size

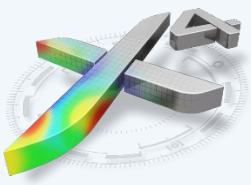
Hand-held measurements

Accurate portable measuring Lasertracker for high-end measurement applications

6 Degrees of Freedom (6DOF)
ADM/IFM with small beam diameter
6DOF Dynamic Lock-On
Probe self-identification
Stylus self-identification

Machine data / technical parameters

Manufacturer	LEICA Geosystems/ HEXAGON
Type	AT 960 LR; T-PROBE
Measuring range/Typical Volume (Ø)	160 m (525 ft, Reflector), 30 m (98 ft, T-Probe)
Measuring with Reflector	
Volumetric Accuracy Uxyz, Full Range	Full Range Definition: 360° horizontally, ± 45° vertically, ± 15 µm + 6 µm/m (±0.0006" + 0.00007"/ft)
Volumetric Accuracy Uxyz, in 2.5 x 5 x 10 m volume (8.2 x 16.4 x 32.8 ft)	± 10 µm + 5 µm/m (±0.0004" + 0.00006"/ft)
Measuring with T-Probe	
Measurement volume	30 m (98 ft)
Measurement uncertainty of 3D Point (MPE)	U3d = 100 µm if under 7 m (0.004" if under 23 ft) U3d = 30 µm + 10 µm/m if greater than 7 m (0.0012" + 0.00012"/ft if greater than 23 ft)
Software	METROLOG X4: Measuring acc. to drawing against, Import and process CAD data (IGES, STEP, CATIA,Siemens NX etc.) or measuring without CAD-Data. Detection of geometric elements and freeform surfaces with should-be Analysis. Analysis in graphical or tabular form.



LEICA AT 960-LR T-Probe AS1 (160m/30m), portable tactile measurement (1x)

Fields of Application

Measurement and analysis of large component size

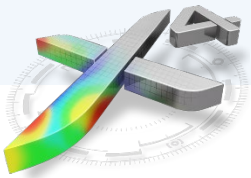
Hand-held measurements

Accurate portable measuring Lasertracker for high-end measurement applications

6 Degrees of Freedom (6DOF)
ADM/IFM with small beam diameter
6DOF Dynamic Lock-On
Probe self-identification
Stylus self-identification

Machine data / technical parameters

Manufacturer	LEICA Geosystems/ HEXAGON
Type	AT 960 LR; T-PROBE; AS1 Scanner
Measuring range/Typical Volume (Ø)	160 m (525 ft, Reflector), 30 m (98 ft, T-Probe)
Measuring with Reflector	
Volumetric Accuracy Uxyz, Full Range	Full Range Definition: 360° horizontally, ± 45° vertically, ± 15 µm + 6 µm/m (±0.0006" + 0.00007"/ft)
Volumetric Accuracy Uxyz, in 2.5 x 5 x 10 m volume (8.2 x 16.4 x 32.8 ft)	± 10 µm + 5 µm/m (±0.0004" + 0.00006"/ft)
Measuring with T-Probe	
Measurement volume	30 m (98 ft)
Measurement uncertainty of 3D Point (MPE)	U3d = 100 µm if under 7 m (0.004" if under 23 ft) U3d = 30 µm + 10 µm/m if greater than 7 m (0.0012" + 0.00012"/ft if greater than 23 f
Measuring with AS1-Scanner	
Volumetric Accuracy scanning AS1	± 60 µm + 5 µm/m
Measurement volume	20 m (65 ft)
Software	METROLOG X4 or POLYWORKS: Measuring acc. to drawing against, Import and process CAD data (IGES, STEP, CATIA,Siemens NX etc.) or measuring without CAD-Data. Detection of geometric elements and freeform surfaces with should-be Analysis. Analysis in graphical or tabular form.



PolyWorks

Tactile and optical measurement technology

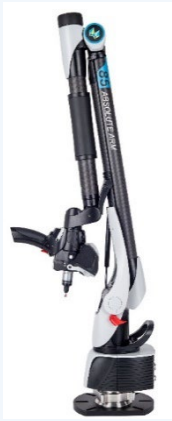
Absolute Arm 8725, Portable tactile & optical measurement sys.

Fields of Application

Measurement and analysis of medium component size

Hand-held measurements

Accurate portable measuring arm for high-end measurement applications



Machine data / technical parameters

Manufacturer	HEXAGON
Type	8725 7-axis, AS1-Kit
Measuring range	2980 mm |
Volumetric Accuracy probing	± 0.023 mm / 0.009 in
Volumetric Accuracy scanning AS1	± 0.043 mm / 0.0016 in
Connection	Standard over power connection 230V or Wi-Fi and USB
Software	POLYWORKS: Measuring acc. to drawing against, Import and process CAD data (IGES, STEP, CATIA,Siemens NX etc.) or measuring without CAD-Data. Detection of geometric elements and freeform surfaces with should-be analysis. Analysis in graphical or tabular form. Data acquisition for reverse engineering.

Zeiss GOM 3D (GOM ATOS III TRIPLE Scan) – optical measurement system

Fields of Application

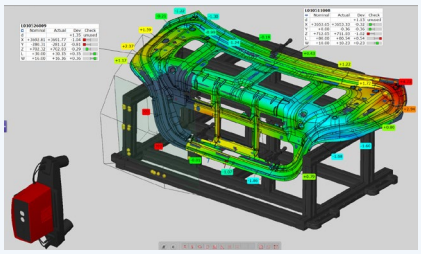
Measurement and analysis of small, medium and large component size

Hand-held measurements on a tripod with rotion table

Accurate portable measuring for high-end measurement applications

Machine data / technical parameters

Manufacturer	ZEISS GOM
Type	ATOS III TRIPLE Scan
Resolution	8 Megapixel (3296 x 2472 Pixel)
Measuring volumes	170x130mm; 320x200mm; 700x530mm
Measuring range	150 x 150 - 1500 x 1500mm³
Software	ZEISS GOM INSPECT Pro Line: Measuring acc. to drawing against, Import and process CAD data (IGES, STEP, CATIA,Siemens NX etc.) or measuring without CAD-Data. Detection of geometric elements and freeform surfaces with should-be Analysis. Analysis in graphical or tabular form. Data acquisition for reverse engineering.



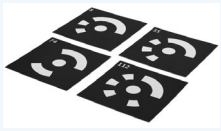
Zeiss GOM 3D (GOM TRITOP) – optical measurement system

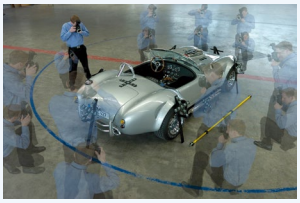
Fields of Application

Measurement and analysis of medium and large component size

Hand-held measurements

Accurate portable measuring for high-end measurement applications





Machine data / technical parameters

Manufacturer	ZEISS GOM
Type	TRITOP Photogrammetry
Camera Resolution	21 Megapixel
Scalebar volumes	1000mm; 2000mm
Measuring range	0.1 x 0.1 - >> 10 x 10m³
Certifikation	VDI 2634/1
Calibration	self-calibrating
Software	ZEISS GOM Tritop Pro Line: Measuring acc. to drawing against, Import and process CAD data (IGES, STEP, CATIA,Siemens NX etc.) or measuring without CAD-Data. Detection of geometric elements and freeform surfaces with should-be Analysis. Analysis in graphical or tabular form. Data acquisition for reverse engineering.

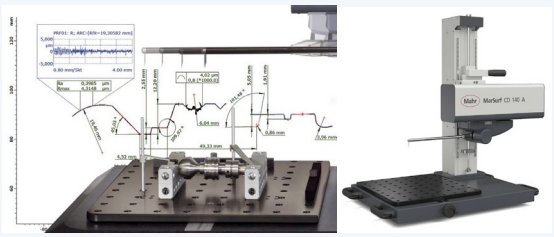
MarSurf CD 140 AG 11 - contour measuring station (1x)

Fields of Application

Measurement and analysis of contours "top and bottom"

CNC controlled series measurements

Creation of measurement statistics based on the measurement data



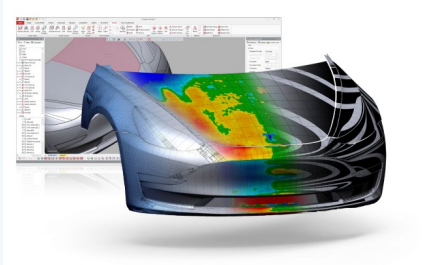
Machine data / technical parameters

Manufacturer	Mahr
Type	MarSurf CD 140 AG 11
Measuring range	| X=140 mm | Z=350 mm |
Positioning speed (in X)	0,1 - 200 mm/s
Scanning distance (in X) End	0,1 - 140 mm
Measuring speed	0,1 - 10 mm/s
Resolution	19 nm
Attachment	Flexible mounting plate with 50 mm hole pattern
Software	MarWin EasyContour Detection of geometric elements and contours.

Geomagic Design X - reverse engineering software

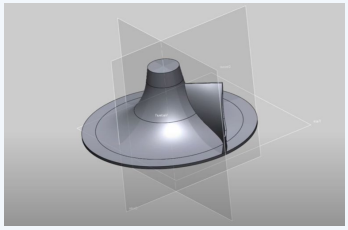
Fields of Application

Geomagic® Design X™ creates CAD models from 3D scans faster, more accurately and more reliably than any other reverse engineering software. The software combines parametric, history-based CAD modeling with efficient 3D scan data processing.



Software data / technical parameters

Manufacturer	OQTON
Type	Geomagic Design X
What Can You Do with Geomagic Design X?	Converting 3D scan data into high-quality, feature-based CAD models.



Scan virtually anything and create producible designs.
+ Rebuild CAD data for broken tools and molds.
+ Recreate lost CAD data for parts and molds.
+ Design custom products.
+ Convert physical parts into CAD for new product designs.

+ Make existing parts fit with new parts.