

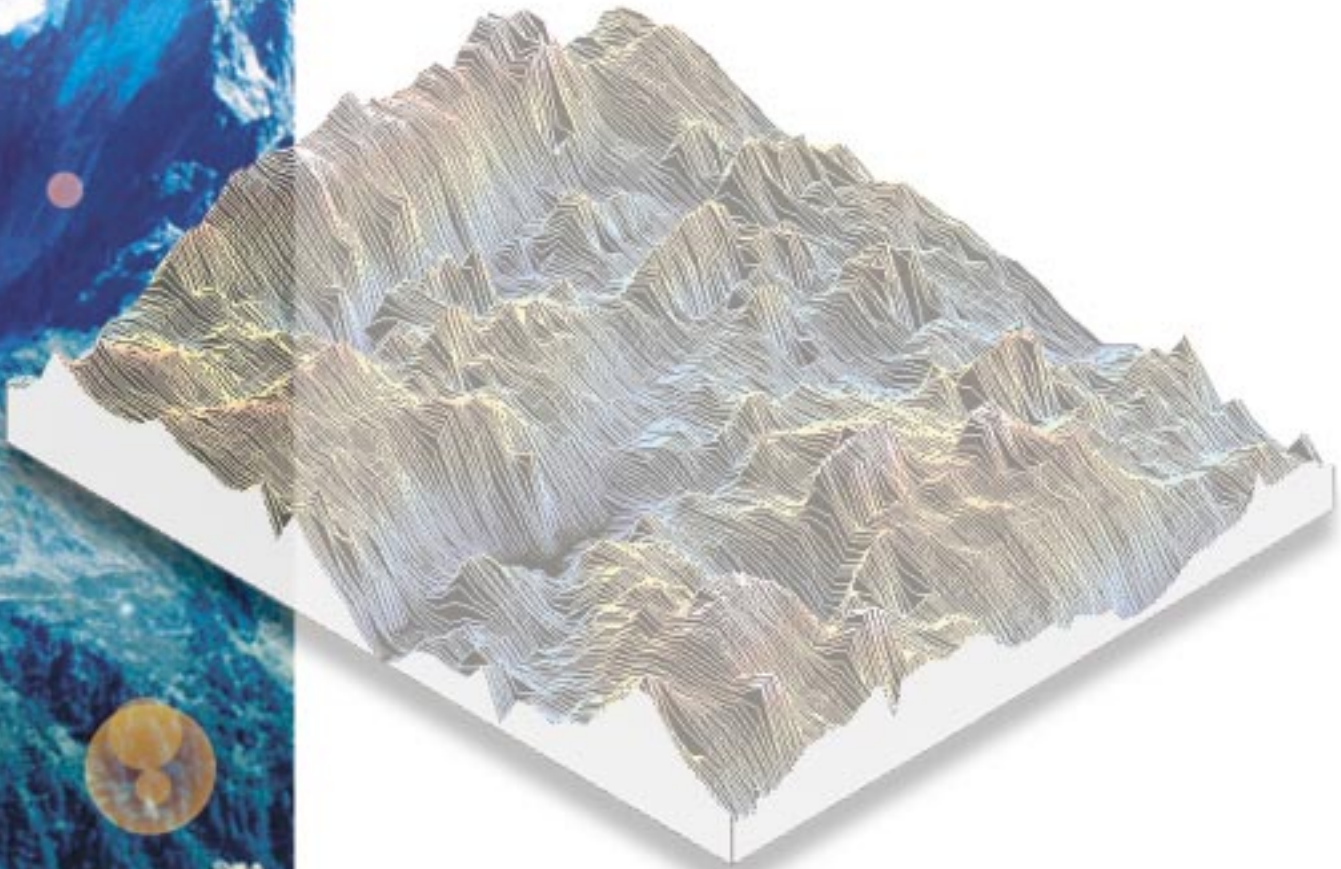
Precision is our business.



Contactless 3D Topography Measurement

WAVESPEED 1010

WAVESPEED 1010 TOP

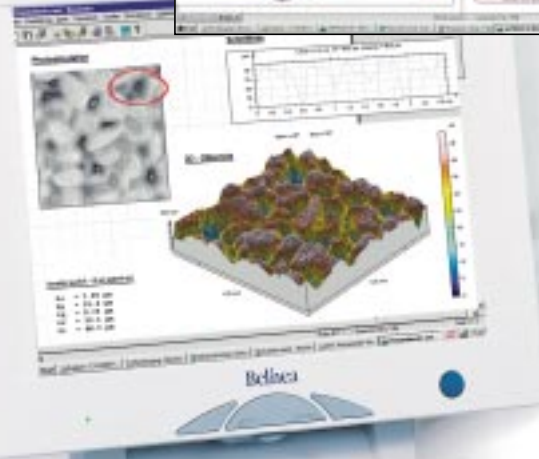
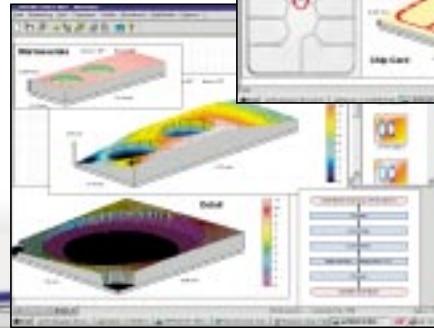
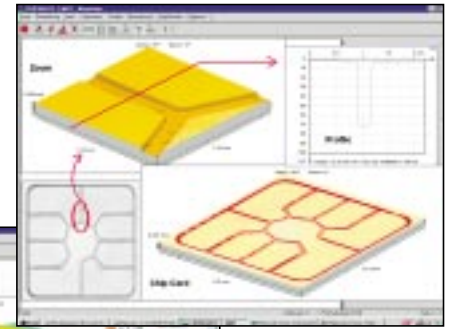


WAVESPEED 1010. WAVESPEED 1010 TOP: FLEXIBLE

SCOPE OF APPLICATIONS

- Fine machining
 - Measurement of form, waviness and roughness of precise mechanical parts
 - Topography measurement of fine finish-machined surfaces
 - Measurement of micro structures of metal and plastic parts
- Material technology
 - Corrosion and abrasion tests
 - Tribological examination
 - Characterisation of surfaces
- Electro-technics/Electronics
 - Determination of position, thickness of layer and volume of e.g. structures generated by serigraphy or etching
 - Measurement of levelness of heat sinks
 - Measurement of form and roughness of contact surfaces
 - Measurement of structures and contours on hybrid circuits
- Micromechanics
 - Dimensional measurement of micro mechanical structures e.g. of sensors, actuators and driving elements
- Sealing techniques
 - Measurement of form, levelness and roughness of metal, plastics, ceramics and rubber joints
- Paper industry
 - Measurement of position and direction of fiber structures in papers
 - Measurement of embossing structures

Evaluation unit with topography software HOMMEL MAP EXPERT + Printer



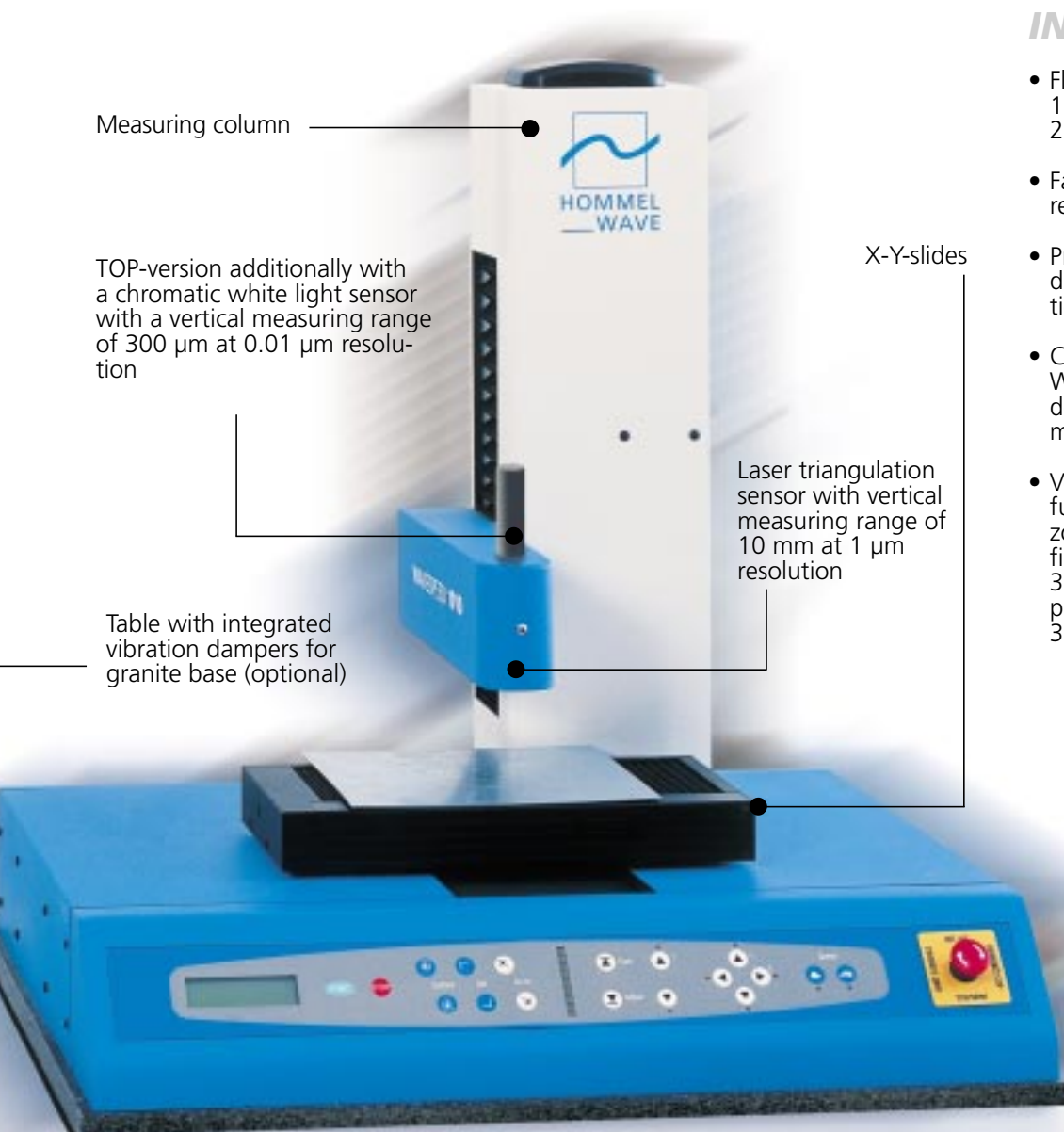
WAVESPEED 1010. WAVESPEED 1010 TOP.

3D TOPOGRAPHY MEASUREMENT- FAST AND EASY

The WAVESPEED 1010 (TOP) is a versatile system for measuring 3D topographies. Optical sensors guarantee a fast measuring rate with high measured value resolution. The HOMMEL MAP EXPERT software enables measurement control in real time and offers extensive analysis facilities for the recorded topography data.

THE ADVANTAGES IN DETAIL

- Flexible: Measuring area 10x10 μm up to 100x100 mm, 2D and 3D analysis functions
- Fast: Bi-directional measuring data recording, high scanning speed
- Precise: High resolution in X-/Y-/Z-direction, unequivocal representation of results
- Comfortable: Simple use via Windows user interface and device keyboard, automatic measuring run
- Versatile: Extensive evaluation functions such as alignment, zoom function, form removal, filter, photo simulation, 3D displays, intersection lines, profile analysis, 2D and 3D surface texture parameters



Measuring column

TOP-version additionally with a chromatic white light sensor with a vertical measuring range of 300 μm at 0.01 μm resolution

Table with integrated vibration dampers for granite base (optional)

Laser triangulation sensor with vertical measuring range of 10 mm at 1 μm resolution

X-Y-slides

Technical Data

WAVESPEED 1010

WAVESPEED 1010 TOP

Measurement technique	Laser triangulation sensor	Confocal white light sensor
	The sensor calculates the distance from the workpiece using the angle of the reflected light beam by optical triangulation.	The sensor measures the workpiece surface which is illuminated by confocal white light. The integrated passive optic with large aberration fans out the light vertically in focal points of different colours and determines the absolute height information in this way.
Measuring range	10 mm	300 µm
Vertical resolution (Z)	1 µm	0.01 µm
Vertical accuracy (Z)	10 µm	0.10 µm
Lateral resolution	20 µm	2 µm
Operating distance	35 mm	5 mm
<i>The following specifications are valid for both measuring systems:</i>		
Traverse length	X = 100 mm (optional 200 mm), Y = 100 mm	
Measuring column	Z = 100 mm (optional 200 mm)	
Min. measuring point distance	X = 1 µm, Y = 0.5 µm	
Max. scanning speed	15 mm/sec (uni-directional or bi-directional)	
Max. load capacity	50 N	
Weight	140 kg	

Scope of delivery

WAVESPEED 1010 Art. 256 708
 WAVESPEED 1010 TOP Art. 999 840

- Measuring device WAVESPEED
- Evaluation unit PC Pentium
- Topography software HOMMEL MAP EXPERT
- 17" VGA monitor
- Printer HP DeskJet Color

Accessories

- Table GTR-3 Art. 235 625
 with integrated air and vibration dampers for granite base 360 x 500 mm, with sub-frame for PC and printer as well as a drawer for accessories, 5-way master slave socket, Dimensions: 2000 x 800 x 810 mm, Max. load 300 kg

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