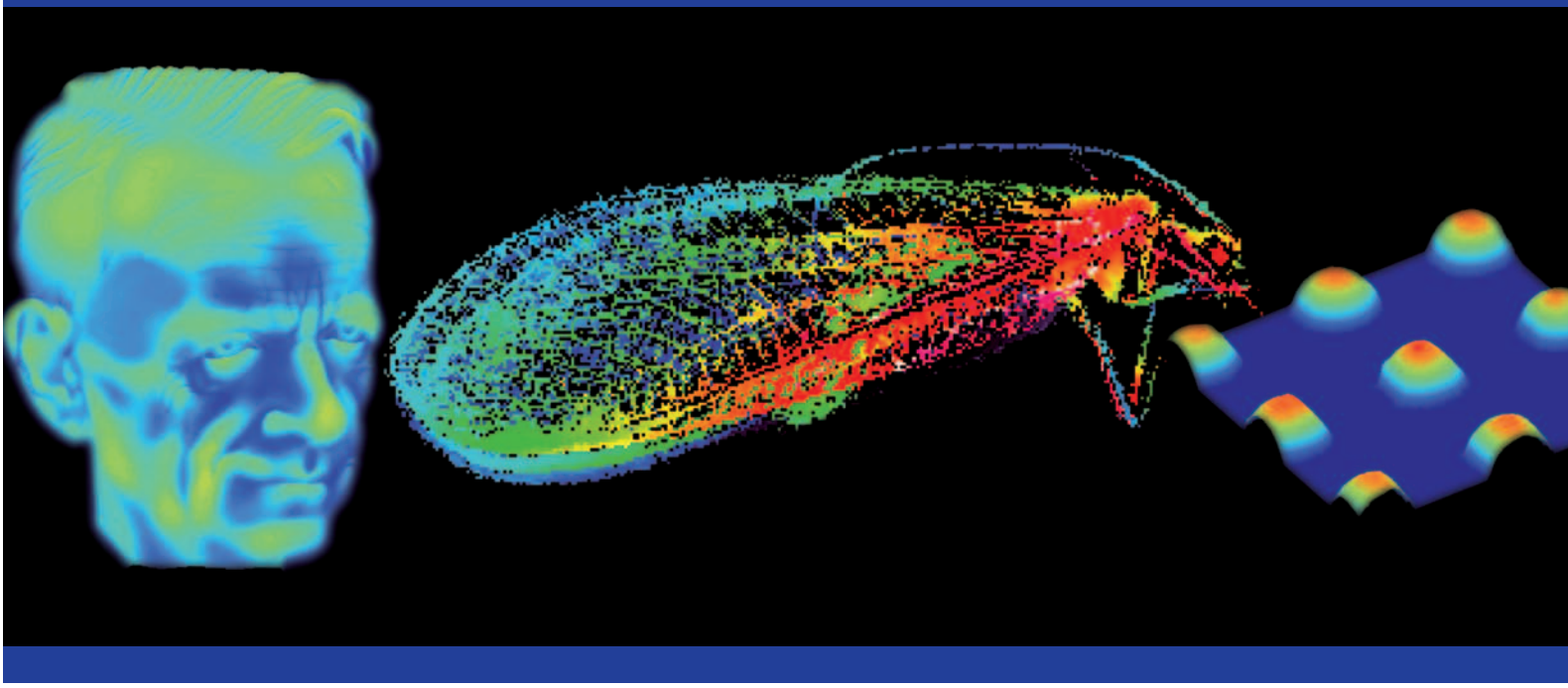
PRECITEC

OPTICAL 3D-MEASURING SYSTEMS

Non-contact
Topography Measurement

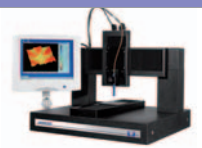
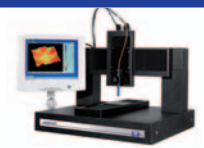
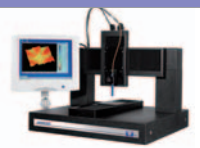


NEMESIS V-XXV
Universal system for topography and thickness measurements.

NEMESIS P V - X
Portable system for topography and thickness measurements.

NEMESIS WT
Thickness- and simultaneous topography measurements of non transparent surfaces (i.e. SiC wafer).

THETIS
Stationary platform allows for liquid and variable weighted samples measurement.

Sensor	NEMESIS V	NEMESIS X	NEMESIS XXV	NEMESIS WT	NEMESIS P V	NEMESIS P X	THETIS
							
Sensor [1]	CHRocodile						
Portal construction	Granite	Granite	Granite air suspension on steel frame	Granite air suspension on steel frame	Portable	Portable	Granite air suspension on steel frame
Travel x, y [2]	50 mm x 50 mm	100 mm x 100 mm	250 mm x 250 mm	150 mm x 150 mm	25 mm x 25 mm	100 mm x 100 mm	600 mm x 600 mm
Drives x, y	Piezo linear drive	Piezo linear drive	Piezo linear drive	DC Servo drive	Piezo linear drive	Piezo linear drive	Drives must be specified: Electro linear drive with linear encoder, Spindle drive with DC Servo with rotation encoder, Piezo linear drive with linear encoder, Step drive
Maximum traverse rate per axis x, y	200 mm/s	200 mm/s	200 mm/s	70 mm/s	20 mm/s	20 mm/s	
Encoder resolution x, y	Linear encoder 0,1 µm	Linear encoder 0,1 µm	Linear encoder 0,1 µm	Rotation encoder 0,25 µm	Linear encoder 0,1 µm	Linear encoder 0,1 µm	
Positioning accuracy per axis over total length x, y	1,5 µm	2,0 µm	3,0 µm	1,5 µm	1,5 µm	2,0 µm	
Reproducibility per axis x, y	< 0,3 µm	< 0,3 µm	< 0,3 µm	< 0,5 µm	< 0,5 µm	< 0,5 µm	
Maximum deviation from straightness/flatness per axis x, y	± 0,2 µm (per 10 mm travel) ± 0,5 µm (per 50 mm travel)	± 0,4 µm (per 10 mm travel) ± 1,0 µm (per 100 mm travel)	± 1,0 µm (per 10 mm travel) ± 4,0 µm (per 250 mm travel)	± 0,25 µm (per 10 mm travel) ± 1,5 µm (per 150 mm travel)	0,5 µm	1,0 µm	
Travel z axis [2]	50 mm	50 mm	100 mm	150 mm	Micrometer hand adjustment	Micrometer hand adjustment	
Drive z	DC Servo motor, with brake						
Maximum traverse rate z axis	5 mm/s	5 mm/s	5 mm/s	5 mm/s			
Encoder resolution z	Linear encoder 0,1 µm	Linear encoder 0,1 µm	Linear encoder 0,1 µm	Linear encoder 0,1 µm			
Positioning accuracy over total length of z axis	1,5 µm	1,5 µm	2,0 µm	2,0 µm			
Reproducibility z axis	1,0 µm	1,0 µm	1,0 µm	1,0 µm			
Maximum deviation from straightness/flatness z axis	± 0,2 µm (per 10 mm travel) ± 0,5 µm (per 50 mm travel)	± 0,2 µm (per 10 mm travel) ± 0,5 µm (per 50 mm travel)	± 0,4 µm (per 10 mm travel) ±1,0 µm (per 100 mm travel)	± 1,0 µm (per 10 mm travel) ± 1,5 µm per 150 mm travel)			
Maximum sample load	5 kg	5 kg	12 kg	5 kg	unlimited	unlimited	100 kg
Color camera with macro objektive and back lighting	no	optional	yes	optional	no	no	yes
Dimensions W:	520 mm	520 mm	722 mm	868 mm	150 mm	230 mm	1175 mm
Dimensions H:	655 mm	655 mm	1630 mm	1590 mm	120 mm	150 mm	1627 mm
Dimensions L:	430 mm	430 mm	658 mm	728 mm	170 mm	250 mm	995 mm
Weight	110 kg	115 kg	295 kg	450 kg	2,3 kg	3,8 kg	350 kg

Legend

[1] Accuracy and measuring rate is dependent on the sensor and the optical probe
[2] Specify travel length based on sample/customer need

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