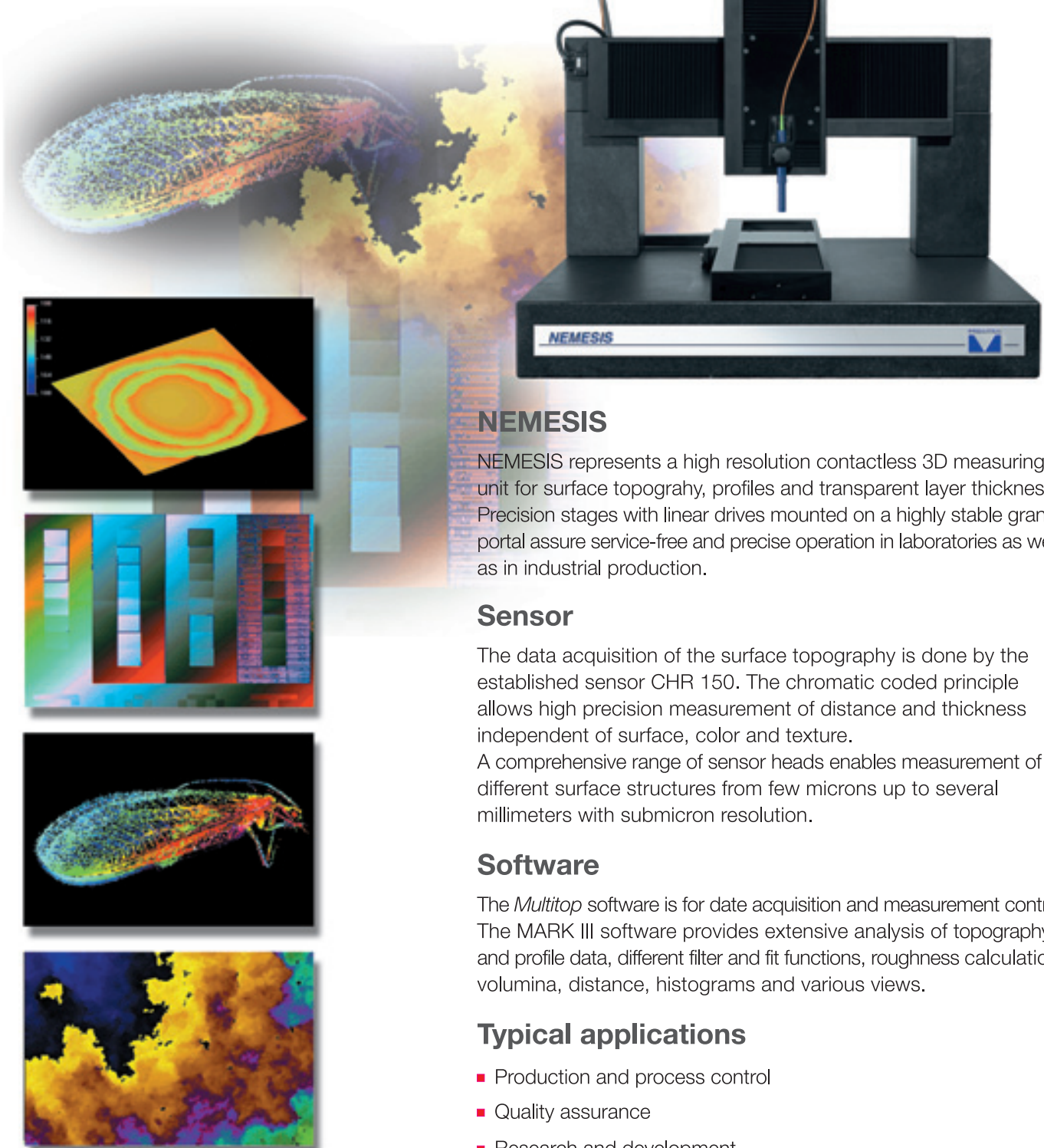


NEMESIS

optical 3D measuring unit

*fast high-precision
topography measurement*



NEMESIS

NEMESIS represents a high resolution contactless 3D measuring unit for surface topography, profiles and transparent layer thickness. Precision stages with linear drives mounted on a highly stable granite portal assure service-free and precise operation in laboratories as well as in industrial production.

Sensor

The data acquisition of the surface topography is done by the established sensor CHR 150. The chromatic coded principle allows high precision measurement of distance and thickness independent of surface, color and texture.

A comprehensive range of sensor heads enables measurement of different surface structures from few microns up to several millimeters with submicron resolution.

Software

The *Multitop* software is for data acquisition and measurement control. The MARK III software provides extensive analysis of topography and profile data, different filter and fit functions, roughness calculation, volumina, distance, histograms and various views.

Typical applications

- Production and process control
- Quality assurance
- Research and development

NEMESIS



Competence in optical metrology

	Nemesis V	Nemesis X	Nemesis XXV
Portal construction	Granite		
Travel	50 mm x 50 mm	100 mm x 100 mm	250 mm x 250 mm
Drives x, y	piezolinear drive		
Max. traverse rate	20 mm/s or 200 mm/s		
Positioning accuracy per axis over total length	$\pm 1 \mu\text{m}$	$\pm 1 \mu\text{m}$	$\pm 2 \mu\text{m}$
Reproducibility per axis	$\leq 0,3 \mu\text{m}$		
Max. deviation from straightness/flatness per axis	$\pm 0,5 \mu\text{m}$	$\pm 1 \mu\text{m}$	$\pm 1 \mu\text{m}$ (10 mm travel) $\pm 4 \mu\text{m}$ (total length)
Z-Axis*	optional		
Sensor**	CHR 150		
Max. sample load	5 kg	5 kg	12 kg
Camera	no	optional	optional

*DC servo, max. 5 mm/s

**Resolution and accuracy are depending on the measuring range of the sensor head:

Measuring range***	300 μm	600 μm	3 mm
Resolution in Z	10 nm	20 nm	100 nm
Accuracy	100 nm	200 nm	1 μm

***for the complete range of optical probes please refer to our datasheet "optical probes"

Precitec Optronik GmbH • Raiffeisenstraße 5 • D-63110 Rodgau (Du) • Germany

Tel. +49 (0)6106-8290-0 • Fax +49 (0)6106-8290-26

internet: www.precitec-optronik.de • e-mail: info@precitec-optronik.de