

Examples for accessories



Various MK2 tips

Simple 60° tip. 60° tip coated with hardened steel for improved part coupling. Hollow tips, modified for measuring with back lighting.



Spinning tips and inserts

Standard 60° spinning tip. 60° spinning MK2 tip for changeable inserts.



Chucks and discs

Chuck with 3 or 6 jaws. Discs, also available in magnetic format.

CONTOUR – Technical Specifications

CONTOUR	203	305	310	314	505	510	514	805	810	814	1014	1023
Measuring capacity [mm]												
Diameter	0,2–30	0,2–50	6–100	0,2–140	0,2–50	6–100	0,2–140	0,2–50	6–100	0,2–140	0,2–140	0,2–230
Length ¹⁾	200	300	300	250	550	550	500	850	850	800	1000	1000
Workpiece capacity												
Diameter [mm]	150	150	150	150	150	150	150	150	150	150	300	300
Length ¹⁾ [mm]	200	300	280	280	550	530	850	830	830	1000	1000	1000
Workpiece weight [N]	50	100	100	100	150	150	200	200	200	400	400	400
Resolution												
Diameter	0,2 µm			0,1 µm			0,1 µm	0,1 µm	0,1 µm	0,1 µm	0,2 µm	0,2 µm
Length	0,5 µm			0,1 µm			0,1 µm	0,1 µm	0,1 µm	0,1 µm	0,1 µm	0,1 µm
Rotation	0,018°			0,018°			0,018°	0,018°	0,018°	0,018°	0,018°	0,018°
Accuracy / MPE²⁾	MPE according to DIN EN ISO 10360 / VDI/VDE 2617											
Diameter	(2 + D [mm])/100 µm											
Length	(5 + L [mm])/100 µm											
Repeatability³⁾	Typical range at 25 measurements on ground surface											
Diameter	0,5 µm											
Length	3 µm											
Velocity/speed	automatically optimized: 10 – 80 mm/s											
Measuring	1 Rps											
Measuring rotation	200 mm/s											
Positioning	1 Rps											
Positioning rotation	depending on type and quantity of test features – typical 3...30s											
Measuring cycle												
Dimensions [mm]												
Measuring system [BxTxH]	774x630x782	780x650x912		780x650x1152			780x875x1420			1785x1700x2650		
Weight												
Measuring system [N]	1300	1400	1450	1550	1700	1750	1850	2700	2750	2850	20000	
Clamping tool interfaces												
Morse taper	MT2											MT3
Stroke tailstock	20 mm											40 mm

¹⁾ Between Centers. The length may be reduced dependent on the clamping device used.

²⁾ Workpiece surface ground, environmental and workpiece temperature = 20 °C ± 1K, temperature change < 0,5 K/h, according to DIN EN ISO 10360 or VDI / VDE 2617

³⁾ According to VIM, International dictionary for metrology

HOMMEL OPTICLINE CONTOUR Optical shaft measurement systems

Measuring shafts at
the speed of light.

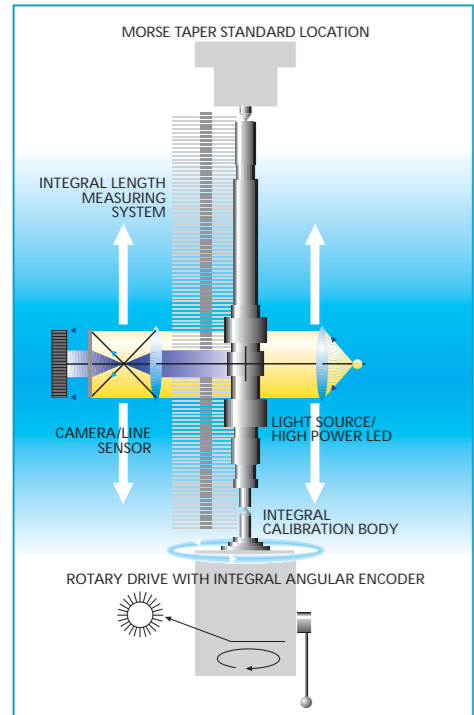


CONTOUR – Optical shaft measurement systems.

A glimmer of hope for quality assurance.

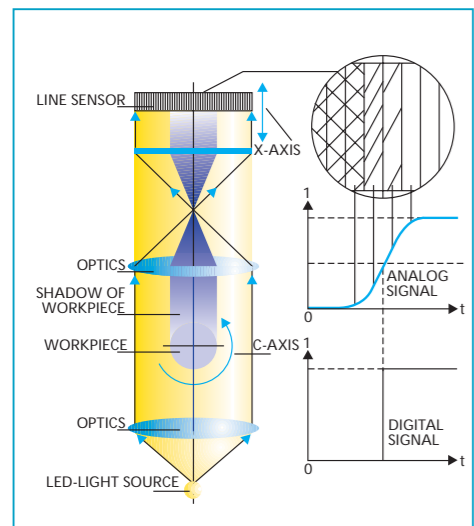
Operating principle

The component profile is automatically scanned using an optoelectronic linear CCD ray. Due to the system's high resolution capabilities the complete workpiece can be measured very quickly and extremely precise.



Measuring principle – Structure of the measuring system

For dynamic measurements, the data from the workpiece profile is recorded whilst it is rotating. The measuring cycle is fully programmable which allows many measuring functions to be combined into one optimum automated measuring run.



Operating principle – Sensor, image processing

Test characteristics

- Shaft measuring system for
 - diameter, length
 - angle, radius
 - form- and position tolerances

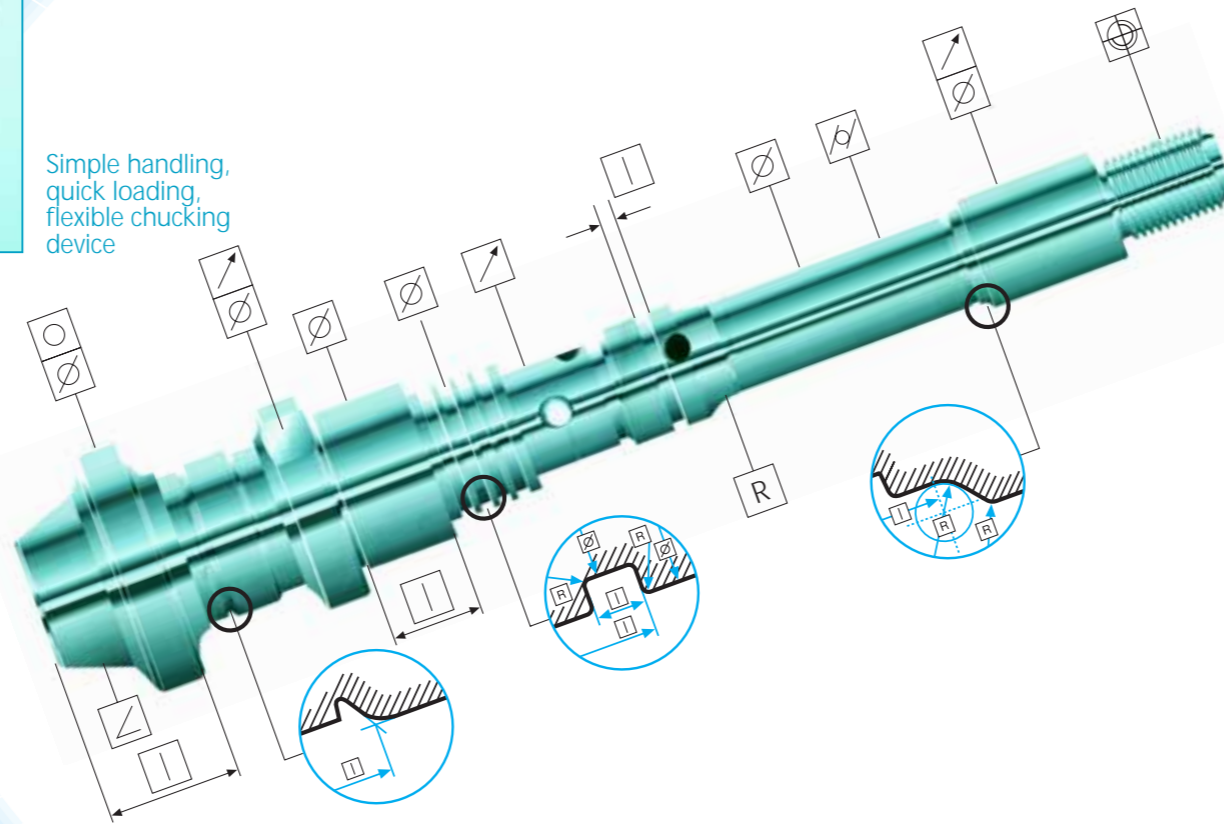


Simple handling, quick loading, flexible chucking device

Measuring of complete workpieces in seconds



Fast test plan preparation



Robust, shopfloor-capable design – optimised for use in production

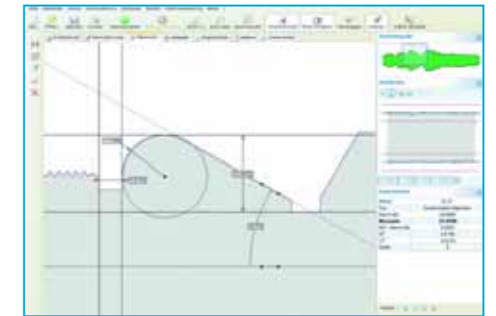


Fast evaluation of measurement data, simple generation of measurement logs, interface for statistics

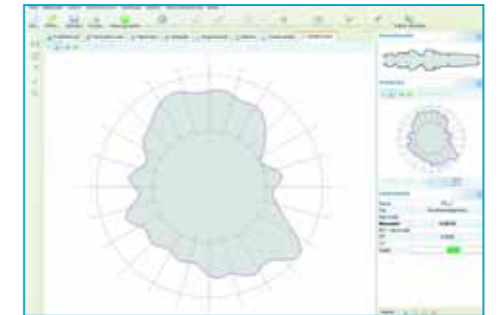
User-friendly software



Test plan preparation as well as component display and measurement is achieved simply and intuitively using the Windows XP graphical interface.



Workpiece contours are measured similar to that of a profile projector. This is achieved by using the integrated software module for contour evaluations.



The display of measurement results such as roundness can be shown graphically on the screen and printed out.



Printouts can be chosen from a pre-defined list of standard formats, or custom-designed to meet individual customer needs.