

Tecnical Data HOMMEL TESTER F4004

Measuring range		Vertical axis (Z axis)	
• Distance C/Z	350 mm	• Measuring distance	350 (550) mm
• Max. test diameter	380 mm	• Straightness error/100 mm	0,2 µm
• Max. measuring height	350 (550) mm	• Straightness error/Measuring distance	0,5 (0,7) µm
• Max. load	400 N	• Parallel C-Z/Measuring distance	1,0 (1,5) µm
Rotation axis (C axis)		Horizontal axis (R axis)	
• Table diameter	250 mm	• Measuring distance	220 mm
• Workpiece alignment	automatical	• Straightness error/100 mm	0,5 µm
• Roundness error	0,05 µm	• Straightness error/Measuring distance	0,8 µm
• +µm/mm measuring height	0,0005	• Squareness C-R	2 µm
• Axial run-out error	0,04 µm		
• +µm/mm radius	0,0005	Weights/Dimensions	
• Centring range	± 2 mm	• Length	780 mm
• Levelling range	± 0,6°	• Width	840 mm
• Measuring speed	1 – 10 1/min	• Height	865 (1065) mm
• Bearing	air	• Weight	311 kg

All accuracy data according to DIN 1101. Roundness deviations measured with filter 0 – 5 S/r; 6 rpm; LSC. Straightness deviations measured with cut off 2.5 mm; 100 mm/min; LSS. All data refer to 20°C ± 1°C.

Scope of delivery HOMMEL TESTER F4004

Art. 100 132 73 (with measurement axis in Z direction 350 mm)

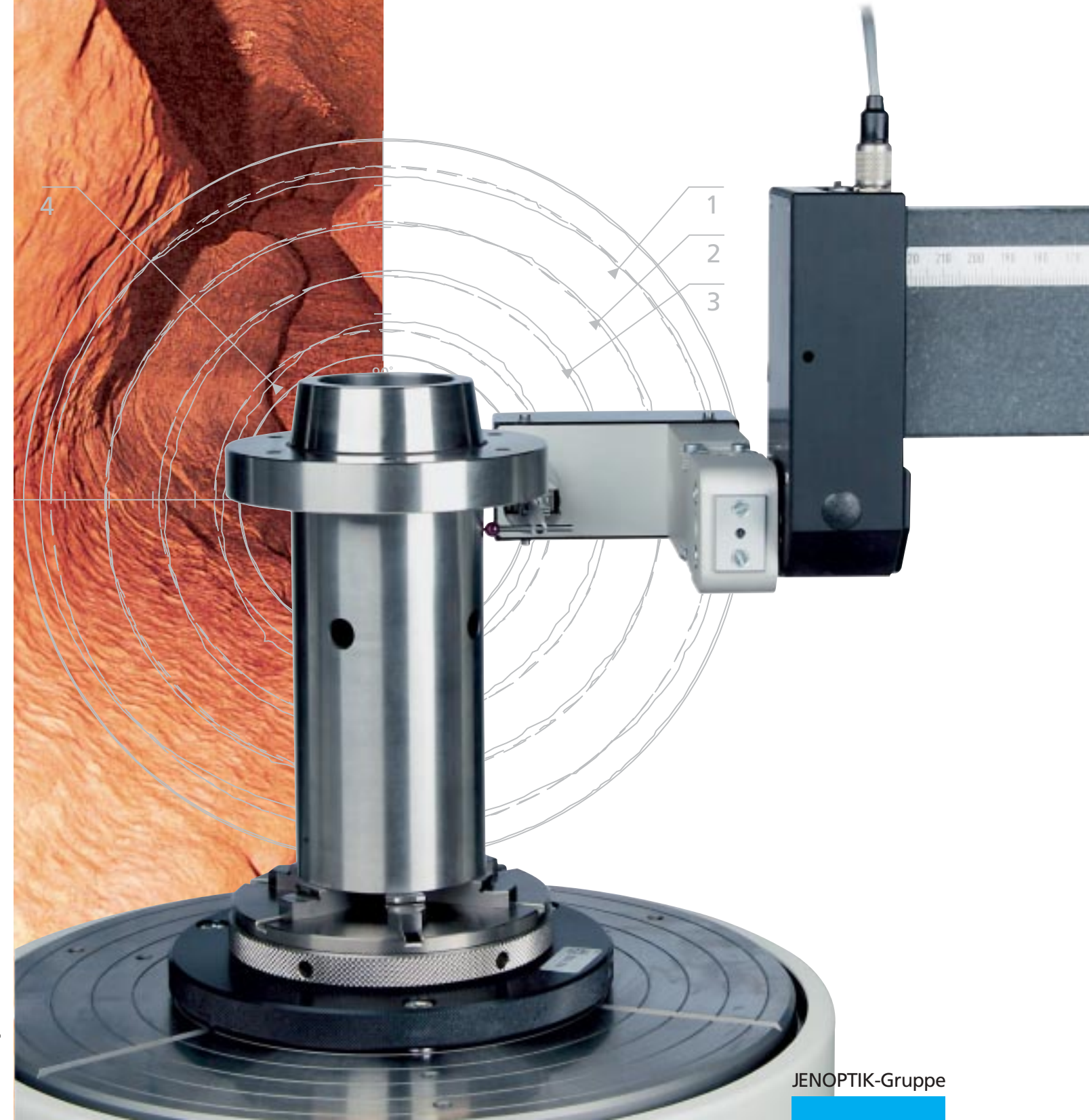
Art. 100 135 36 (with measurement axis in Z direction 550 mm)

- High precision, air-mounted rotational axis, automatic centring and levelling, max. workpiece weight 400 N
- Measurement axis in Z direction with high resolution glass scale, travel 350 mm (optional 550 mm)
- Measurement axis in R direction with high resolution glass scale, travel 220 mm
- Probe FT1 with 1000 µm measuring range, incl. stylus
- Automatic tilt module MDS for fully automatic axial and radial measurements. Tilt range: 90°, rotation range: 270°
- Instrument table GTF2 with inlaid stone plate and damper
- Air preparation unit consisting of diaphragm dryer and maintenance unit
- Windows XP-based measuring instrument, 17" TFT flat screen, colour printer, mouse, mouse pad, network card, CD burner (optionally available with WIN 2000)
- Evaluation software TURBO FORM for Windows
- 6-jaw precision chuck FX 100. Diameter 100 mm Internal clamping range: 28 – 95 mm, External clamping range: 2 – 95 mm
- Magnification standard with test certificate
- Probe arm set FTS1 for covering all standard measurement tasks



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Precision and operating comfort
 CNC form measurement with the
 HOMMEL TESTER F4004



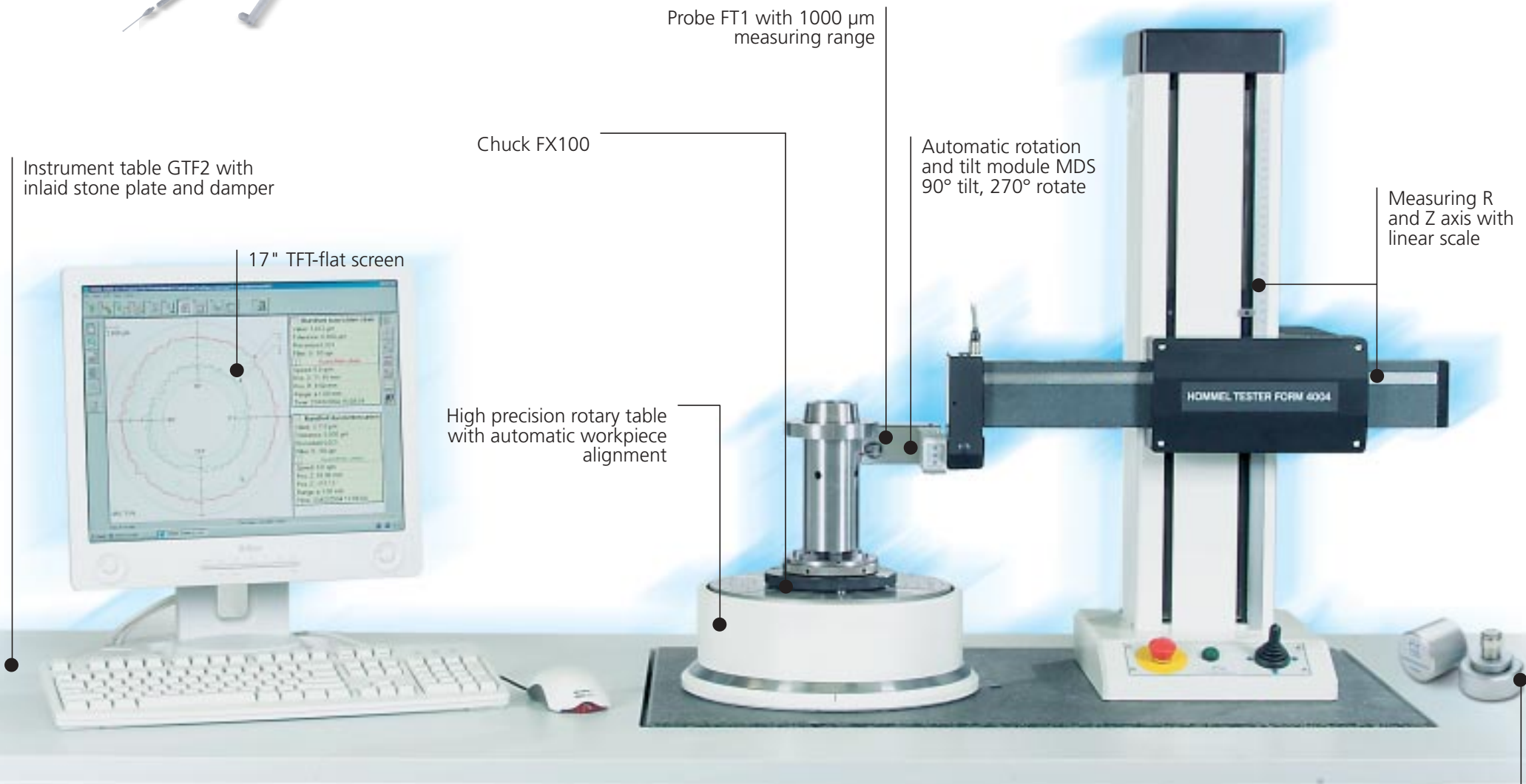
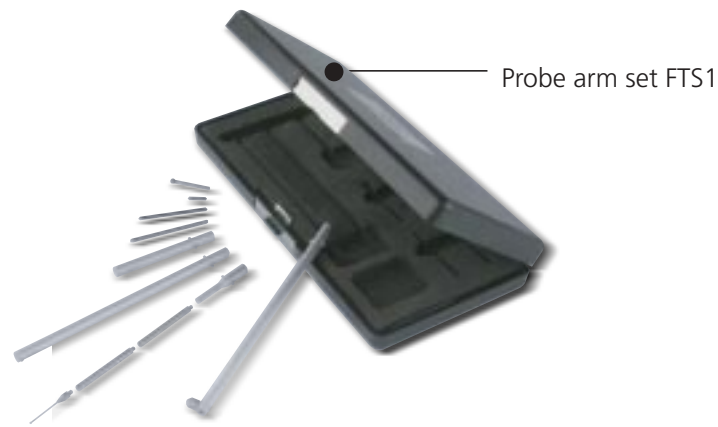
THE FIRST CHOICE FOR YOUR FORM MEASUREMENT: F4004

HIGH PRECISION AND COMFORT

EVALUATION SOFTWARE WITH USER-ORIENTED GUIDANCE

ADVANTAGES IN DETAIL

- **Complete:**
The configuration of the HOMMEL TESTER F4004 as a complete measurement station is optimally suited to the requirements of critical users.
- **Productive:**
The automatic workpiece alignment enables you to measure series parts effectively and quickly.
- **Fast:**
The three CNC-controlled measurement axes guarantee minimum measurement times at maximum operating comfort.
- **Comfortable:**
The CNC-controlled rotation and tilt module allows you to measure even the most complex of workpieces quickly and easily.
- **Precise:**
All the form and position tolerances are determined with absolutely reliable precision by the air-mounted rotary table and the linear scale in the R axis.
- **Versatile:**
The innovative TURBO FORM software offers unbeatable flexibility with high operating comfort.
- **Professional:**
In Hommelwerke you have a competent partner in production measuring technology at your side. We provide full support. In the planning phase, during project development and of course after commissioning of our measurement systems.

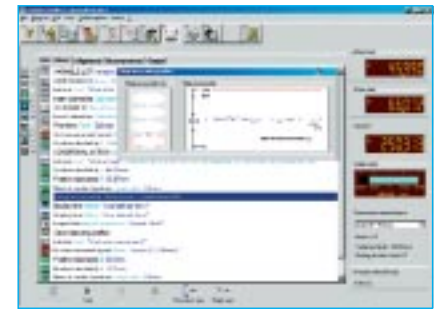
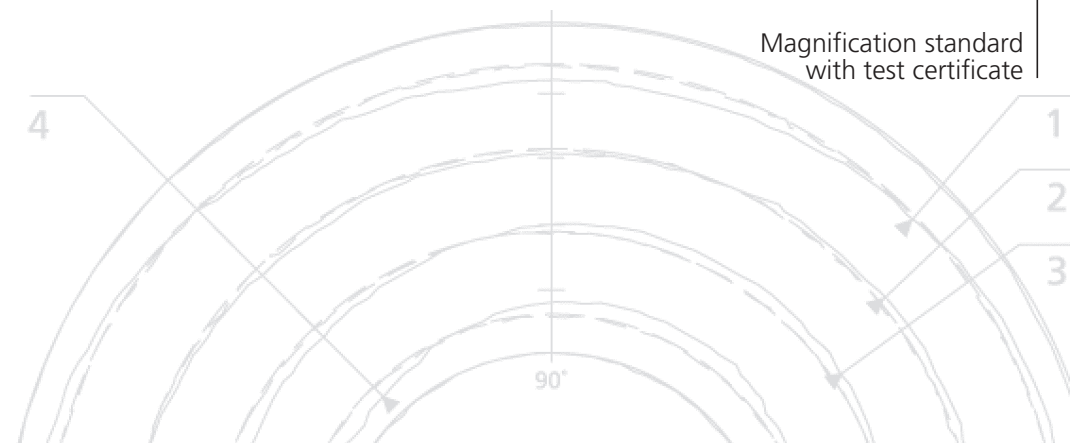
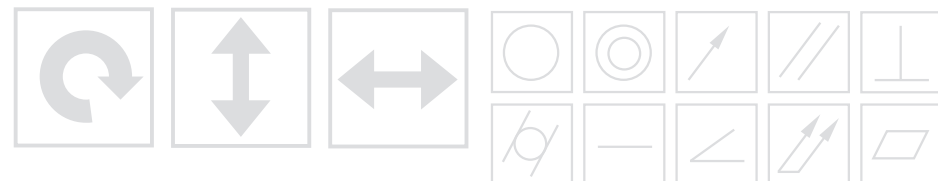


EVALUATION WITH THE HOMMEL TESTER F4004

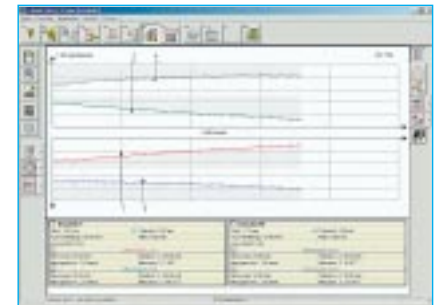
- Roundness
- Eccentricity
- Vertical and horizontal straightness
- Cylindricity
- Flatness
- Parallelism
- Conicity
- Squareness
- Slope
- Coaxiality
- Concentricity
- Radial runout
- Axial runout
- Total radial runout
- Total axial runout
- Fourier analysis

Many other evaluations on request

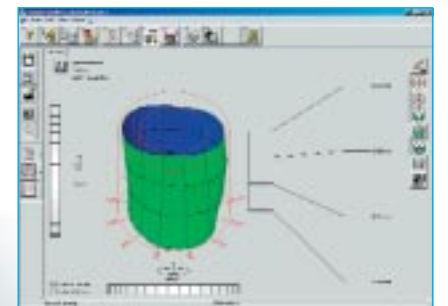
HOMMEL TESTER F4004



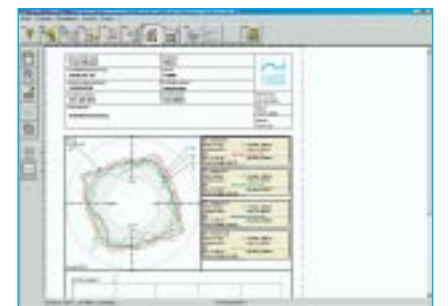
Automatic measurement runs: CNC
CNC programs are created by a teach-in process and can be flexibly adapted afterwards.



Measurement logs
The measurement profile are displayed clearly in diagrams after scanning the test item.



Analysis
Fourier analysis and informative 3D analyses are already part of the standard scope.



Printout forms
Screen and printout forms can be designed easily and individually.