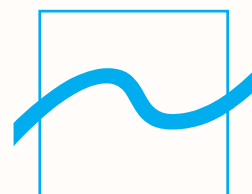


Precision is our business.



HOMMEL  
\_WERKE

## HOMMEL TESTER T500

The benchmark for portable  
and precise in-process  
measurement of surface  
roughness



JENOPTIK-Group.



## Portable and Reliable Roughness In-Process Measurement

### A leader in production and technology

Hommelwerke GmbH has a long history of tradition in the field of precision. The products manufactured by the company's founder, Hermann Hommel, were already setting standards and revolutionising measurement systems at the turn of the 20th century. And it's this innovative capacity, perfected over a period of more than 125 years that enables Hommelwerke to repeatedly set the benchmark for precision and quality. The numerous awards for performance, innovation and user friendliness speak for themselves.

The Hommelwerke factories work to create a competitive edge for its customers as precision measurement and consequently product optimisation has become the central factor in success.

We take a more precise approach. In development, quality and uncompromising accuracy coupled with our after-sales and training services.

Hommelwerke is one of the leaders in measurement systems. These include its smallest product, the portable HOMMEL TESTER T500. This guarantees mobile and reliable surface roughness measurement in the workshops or on the production line.

The HOMMEL TESTER T500 is the ideal partner for precise and reliable measurements.

It sets the standard in portable roughness measurement thanks to the easy handling, ergonomic design and its robust measurement qualities. With its functional design, the device fits easily in the user's hand making it simple to precisely position on the workpiece.

The HOMMEL TESTER T500 easily copes with the wide range of measurement tasks with the help of the various pick-ups and extensive accessories. This allows the HOMMEL TESTER T500 to match the performance of many stationary measurement devices with its accuracy and precision.



RAPID MEASUREMENT

### HOMMEL TESTER T500

- Portable, works independently using rechargeable batteries
- Rapid and precise measurements
- Easy and simple to use
- Roughness parameters in accordance with DIN/ISO/JIS standards
- Gaussian digital filter (M1)
- RS232 interface for connection to PC and remote control
- Robust and clever design protects the measuring stylus
- Datasave for 125 measurements
- Extendable support legs
- No calibration required



## Mobile and Rapid Measurement at the Workplace



THE HOMMEL TESTER T500

The advantages of the HOMMEL TESTER T500 at a glance

### Portability

The small device, which operates independently, guarantees to provide perfect measurements in all types of operating environments.

### Use

With just integral keys and one knurled wheel the HOMMEL TESTER T500 is easy and simple to use.

### Clearness of Display

The large LC-display enables the results to be read easily, even under poor lighting conditions.

### Functionality

The device can store up to 125 measurement values which can be analysed via a printout on the separate HOMMEL PRINTER P510 or via the TURBO DATAWIN PC software.

### Precision

The parameters approved under DIN/ISO/JIS and the calibrated measuring elements make the HOMMEL TESTER T500 a versatile roughness measurement device.

### Design

Minimal weight, ergonomic design and easy handling provide for unparalleled mobility.



LC-DISPLAY



EASY TO USE



VARIABLE STABILIZERS



PORTABLE



SEP 1940 STANDARD







**HOMMEL TESTER T500 AND TURBO DATAWIN FOR STATIONARY MEASUREMENT EVALUATION AND DATA STORAGE**

- Simple to use via function keys or mouse
- Data structure compatible with all HOMMEL TURBO programs
- Graphics and parameters can be imported into other applications (Excel, Word etc.)
- Facilities for connecting the HOMMEL TESTER T500 to COM1 or COM2
- Storage of all statistics in ASCII format either on diskette or hard disc drive
- Statistics and bearing ratio calculations available

Hardware requirements:  
PC from Pentium, min. 32 MB RAM,  
Windows XP

**The software with simple menu guide**

In addition to the HOMMEL PRINTER P510, Hommelwerke also offers you the matching software package: TURBO DATAWIN makes full use of all the facilities offered by the HOMMEL TESTER T500 measurement device, making your work easier. The Windows roughness program is simple to use and provides parameter evaluation in a user friendly way – even without any prior knowledge of Windows. This is thanks to its clearly defined menu guide. TURBO DATAWIN gives you the facility for remote control on the HOMMEL TESTER T500. The parameters are automatically transferred to the computer. Profile diagrams and measurement values can then be stored.

TURBO DATAWIN  
ART.-NO. 1001 6998



LC-DISPLAY



P510 PRINT OUT



TURBO DATAWIN



A4 PRINT OUT





# The Complete Range of Equipment and Optimum Accessories Program

## HOMMEL TESTER T500

Surface evaluation parameters \_\_\_\_\_  $R_a, R_z, R_{max}/R_t, R_q, R_{3z}, R_{Sm}$   
 (with C1, C2)  
 acc. to DIN 4777 and ISO 4287  
 or Japanese standards JIS B601  
 as well as parameters of the  
 material ratio curve (Mr1, Mr2, Rpk,  
 Rpk\*, Rvk, Rvk\*) acc. to DIN 4776/  
 ISO 13565 (DIN EN ISO 13565)  
 \*Note: Option applicable for devices without Datasave function!

Specially for the roughness  
 measurement of sheet  
 metal in accordance with  
 SEP 1940 utilizing the  
 HOMMEL TESTER T500S

ART.-NO. 999 505

Tolerance display for $R_a, R_z, R_{max}$ or $R_t$				
Cut-off lengths $\lambda_c$ _____	$\lambda_c$ (mm)	0.25	0.8	2.5
Traverse lengths $l_t$				
as per DIN 4768 and ISO 4287/1 _____	$\lambda_t$ (mm)	1.5	4.8	15.0
Individual traverse lengths $l_R$ _____	1-5 selectable			
Traverse speed $v_t$ _____	$v_t$ (mm/s)	0.15	0.5	1.0

The 0.25 mm and 0.8 mm cut-offs can be  
 freely assigned to any scanning distance.

Digital filter \_\_\_\_\_ Profile filter M1 with phase compensation

Measurement range/Resolution _____	MB			
	1	+ 20/- 20 $\mu$ m	/	10 nm
		+ 20/- 60 $\mu$ m	/	20 nm
	2	+ 40/- 40 $\mu$ m	/	20 nm
		+ 40/- 120 $\mu$ m	/	40 nm

Precision category \_\_\_\_\_ Category 1, as per DIN 4772  
 Smallest display value \_\_\_\_\_ 0.01  $\mu$ m  
 Probe position indicator \_\_\_\_\_ bar indicator and numerical value  
 Measurement system \_\_\_\_\_  $\mu$ m and  $\mu$ inch  
 Interface \_\_\_\_\_ Standard V24 (RS 232), serial  
 Power supply \_\_\_\_\_ 9,6 V replaceable battery with plug-in  
 mains adapter  
 Measurement capacity \_\_\_\_\_ approx. 300 measurements at  $l_t = 4.8$  mm  
 (per battery charge)  
 Dimensions (length x width x height) \_\_\_\_\_ 118 mm x 56 mm x 62 mm  
 Weight \_\_\_\_\_ 330 g

## T5E STANDARD STYLUS

Measurement principle \_\_\_\_\_ Inductive, carrier frequency 10 kHz  
 Stylus tip \_\_\_\_\_ 5  $\mu$ m / 90°  
 Measuring force \_\_\_\_\_ 1.6 mN  
 Skid radius \_\_\_\_\_ length 30 mm, transverse 1.9 mm  
 Min. bore diameter \_\_\_\_\_ 4.0 mm, depth 20.0 mm

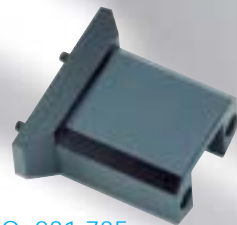
## HOMMEL PRINTER P510

Printer type \_\_\_\_\_ Thermal graphics printer  
 Print speed \_\_\_\_\_ 30 mm/s  
 Font size \_\_\_\_\_ 2.4 x 1.3 mm  
 Print width \_\_\_\_\_ 46 mm  
 Paper size \_\_\_\_\_ Paper roll diameter 30 mm  
 (paper length approx. 10 m), width 57 mm  
 Keyboard \_\_\_\_\_ Touch sensitive keyboard with 3 keys  
 (oil resistant)  
 Interface \_\_\_\_\_ T500 connector cable, mains connection  
 adapter  
 Paper feed \_\_\_\_\_ Via roller in paper shaft  
 Operating temperature \_\_\_\_\_ + 10... + 35°C  
 Dimensions (width x height x depth) \_\_\_\_\_ 42 mm x 48 mm x 135 mm  
 Weight \_\_\_\_\_ approx. 600 g  
 Power supply \_\_\_\_\_ 100-240 V  
 Battery capacity \_\_\_\_\_ 1500 mAh



ART.-NO. 235 730

TKPK 100 STYLUS



ART.-NO. 231 735

PRTK ATTACHMENT PRISM



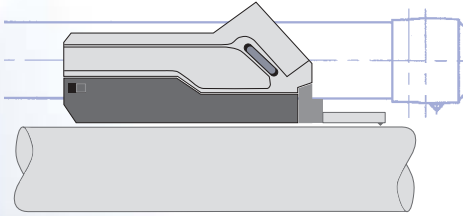
ART.-NO. 504 115

WA500 ROLLER ATTACHEMENT



- Flat surfaces and shafts

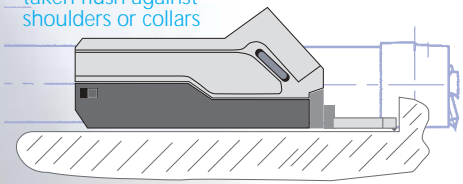
ART.-NO. 240 050



T5E

- As per T5E – particularly useful for measurements taken flush against shoulders or collars

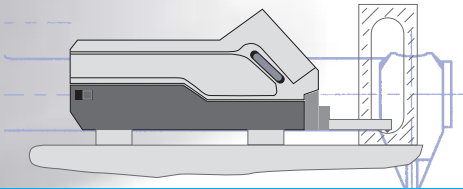
ART.-NO. 241 767



T5D

- Specially for measuring on concave or convex surfaces

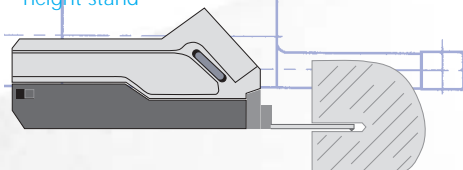
ART.-NO. 240 085



T5KK

- For small bores from 2 mm diameter  
- Only recommended utilizing a height stand

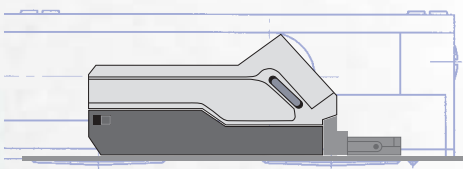
ART.-NO. 240 087



T5KO

- For flat surfaces as per SEP 1940

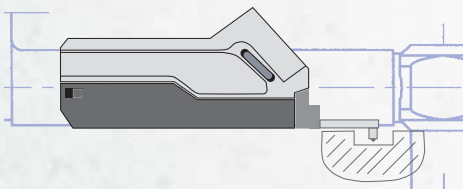
ART.-NO. 235 730



TKPK

- For recessed surfaces

ART.-NO. 240 080



T5ET

Attachment prism for small shafts

ART.-NO. 191 838

Stylus extension T5AZZ (50 mm) for all T5 styli

ART.-NO. 226 805

Desktop power unit T500 TN with charger for replaceable battery and remote start key

ART.-NO. 229 345



ART.-NO. 999 016

HS 305S HEIGHT STAND



ART.-NO. 023 784

REPLACEABLE BATTERIE



ART.-NO. 233 232

RNDH/DKD ROUGHNESS STANDARD



ART.-NO. 999 500

DELIVERY SET

HOMMEL TESTER T500

T5E STYLUS

BATTERY CHARGER

RECHARGEABLE BATTERY

OPERATING INSTRUCTIONS

CARRYING CASE

STYLUS COVER

(including small screwdriver)

CALIBRATION CERTIFICATE

Precision is our business.



## Product Programme

ROUGHNESS MEASURING  
CONTOUR MEASURING  
OPTICAL SHAFT MEASURING  
FORM MEASURING  
GEAR MEASURING  
CRANKSHAFT AND CAMSHAFT MEASURING  
OPTICAL SURFACE INSPECTION  
DIMENSIONAL MEASURING MACHINES  
STANDARD COMPONENTS  
MEASURING SOLUTIONS  
DKD CALIBRATION SERVICE  
CONSULTATION, TRAINING AND SERVICE

## Precision – worldwide

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