



günter ballbach
messzeuge GmbH & Co. KG

NEW

fully - automatic
measuring machine
UMP 50 - HP
for dial gauges

for testing...

- analog and digital dial gauges
- dial test indicators
- indicators
- inkremental and inductive probes

... also to DIN EN ISO 463 : 2006

faster...
...by newest technology

easier to handle...
...by installed extensive measuring instrument library

fully - automatic measuring machine UMP 50 - HP for dial gauges

The reliability of results of measurement in modern factoring is significantly depending on whole from the accuracy of the employed one test equipment. Dial gauges or dial gauges similar devices occupy much space in the case of test equipment. Therefor the fast and secure calibration of these devices is of a very great importance. The calibration of dial gauges with traditional single or semiautomatic verifiers is an activity which requires a high measure from the tester to concentration and care and leads it very fast to signs of fatigue and therefor too erroneous measurements. The parallaxerror not to be impossible increases uncertainty of measurement considerably. All these considerations led UMP 50 - HP to the evolution of the measuring machine with full automatic course. The novel construction, the use of the intelligent image display system, the careful manufacturing and a highly precise „Heidenhain“ measuring system allow the fully automatic calibration of dial gauges up to 50 mm measuring range, dial gauges as well as electronic probes with very small uncertainty of measurement. All parameters required in DIN can be measured. During the preparation of the test flow charts, it has to however set up the customer every liberty his test flow chart according to the needs of his company or test flow charts according to factory norms or information the manufacturer too. Short measuring times come sensationally for extremely high accuracy. The very simple service with screen dialogue secure the immediate effort of the machine without long training periods. Everywhere dial gauges are to be calibrated, this innovative machine is no more intend.

Characteristics:

- userfriendly service on screen
- automatic operation after provide measuring plans
- quick semiautomatic operation
- the new DIN EN ISO 463 included
- full conformity with Abbe's comperator principle
- quick run up and down
- autofocus with mouseclick
- zoom
- extreme short calibration time with PC - control - system
- indication - tabular or diagram
- printout of calibration certificates
- free designing of calibration certificates with report generator
- export of data

Technical specification:

- measuring range: 50 mm
- Standard: 0,1µm
- reading: (0,2 + L/160) µm L in mm
- margin of error:
- With high - precision scale: 0,01µm
- reading: (0,1 + L/250) µm L in mm
- margin of error:
- therm. length coefficient of expansion: $\alpha_{\text{therm}} \approx 0 \times 10^{-6} \text{K}^{-1}$
(Zerodur® - Glaskeramik)
- measuring standard: Heidenhain - measuring system
- speed range: 3 mm/s
- reference value temperature: 20° C
- interface: RS 232 / USB

Extent of delivery:

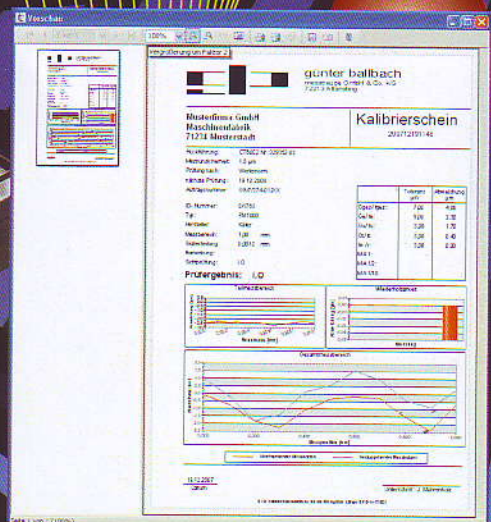
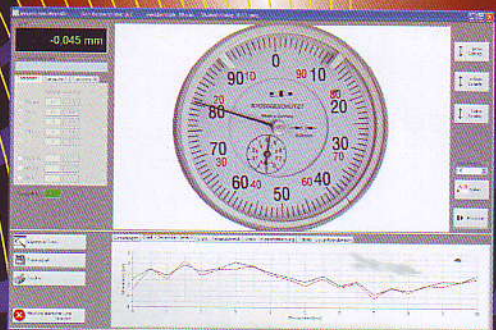
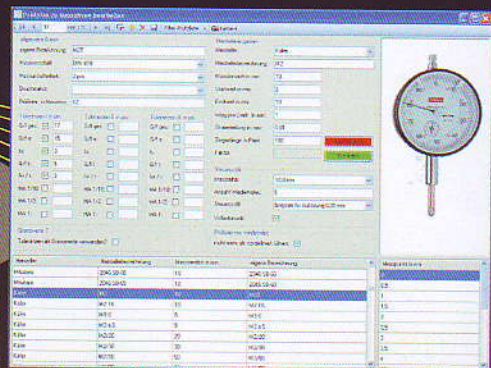
- UMP 50 - HP basismachine inkl. camera
- adapter for dial gauges with 8 mm Ø shaft
- adapter for dial test indicators
- adapter for Heidenhain probes MT
- measuring insert
- control unit
- software

⇒ PC is not included

Optional accessories:

- ⇒ PC or Laptop
- ⇒ accessories for automatic calibration of electronic probes
- ⇒ accessories for automatic calibration of electronic indicators
- ⇒ adapter with other shaft diameter

* Zerodur® is a registered trademark from Schott Glaswerke, Mainz





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- extensive measuring instruments library

Technical specification:

- measuring range: 100 mm
- Standard: 0,01µm
- reading: $(0,1 + L/150) \mu\text{m L in mm}$
- margin of error: $\alpha_{\text{therm}} \approx 0 \times 10^{-6} \text{K}^{-1}$
- therm. length coefficient of expansion: (Zerodur® - Glaskeramik)
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