

Labconcept **Nano**



DRAFT



LABCONCEPT Nano

PRESENTATION

The Labconcept Nano is a new reference in the field of dimensional metrology. The result of a unique combination of the most recent technologies and the know-how of Trimos looking at the domain of metrology is a remarkable instrument adapted to perform all dimensional measuring tasks which requires extreme high accuracy.

The uncompromising design of the Labconcept Nano offers an ideal and performing platform for checking and calibration of all kinds of gauges and measuring instruments. Checking of internal and external dimensions will be done as a fully automatic procedure by the three motorized axis XYZ and the legendary simplicity of use of the Trimos® WinDHI software.

All functions, such as the displacement speed, measuring force, probing movement, locking of the measuring carriage, temperature compensation etc. are automatically controlled by electronics. Therefore all kinds of user influences on measuring results will be entirely eliminated.

Unequaled high level of accuracy

Exceptional repeatability

XYZ axis motorized

Automatic performance of measurements

Electronically adjustable measuring force

Integrated temperature compensation system

Measuring ranges of 350, 600 and 1100 mm

Measuring of parts up to 60 kg

LABCONCEPT Nano

DESCRIPTION

Electronically controlled measuring carriage.

Two TFT screens, WinDHI driver software including control indication of all movements and temperature compensation WinComp.



Specially designed Workbench



LABCONCEPT Nano

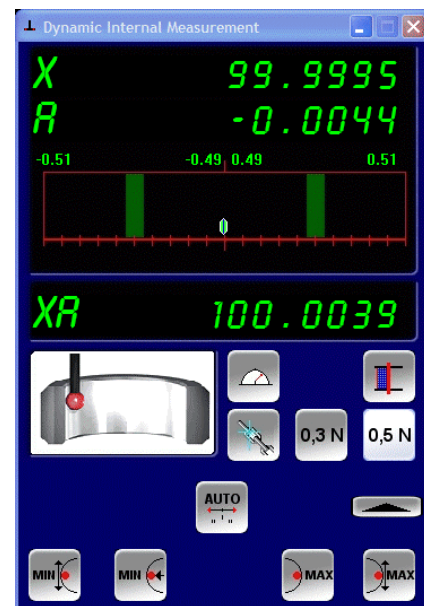
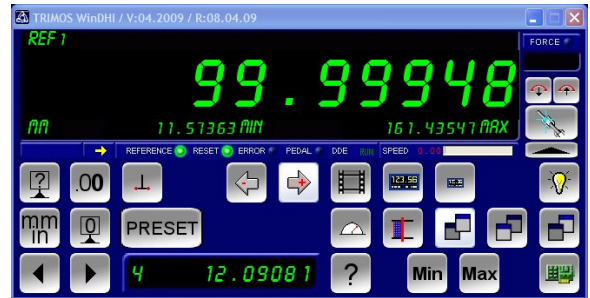
DISPLAY/SOFTWARE

Trimos® Win DHI Nano

Trimos® Win DHI Nano is the exclusive measurement software of Trimos. It is part of the basic equipment of the Labconcept Nano and allows the performance of all measuring functions and helps the user to perform all measurement tasks through a user-friendly interface.

The motorization of the measuring carriage (X) and both, the vertical (Z) and horizontal (Y) axis of the universal measuring table allow an exceptional performance in terms of measuring speed, ease of use and accuracy.

Positioning can be done directly using the mouse and the keyboard or via the touch screen (optional). Once positioned, measurements are entirely CNC controlled, searching the reversal point included. Plug and ring gauges, threaded ring and plug gauges etc. can be measured automatically in a few seconds.



100 % automatic measurements

Measurements performed in a few seconds

User friendly interface

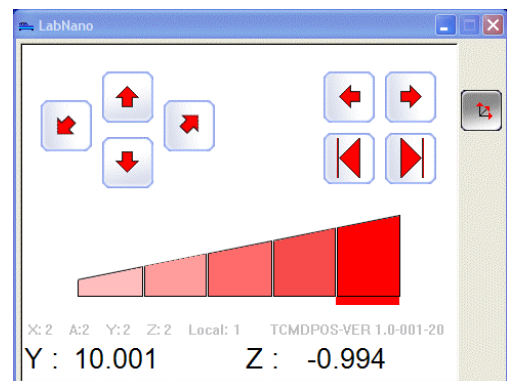
Graphic help for measuring functions

Electronically adjustable measuring force

Online training by video

Data transfer using a foot switch

DDE server (for Excel, Word, etc.)



LABCONCEPT Nano

DISPLAY / SOFTWARE

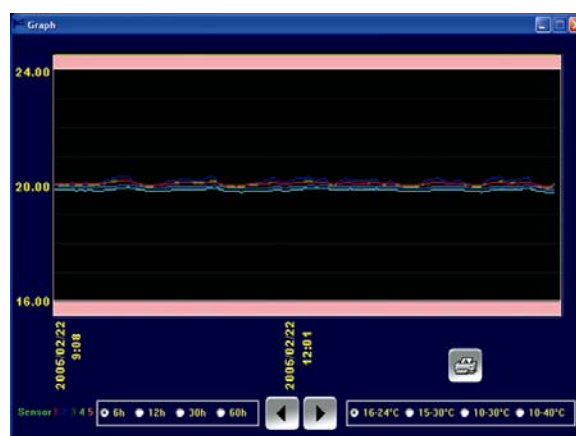
Temperature Compensation System Trimos® WinComp

The Labconcept Nano is equipped as standard with a temperature compensation system Trimos® WinComp allowing the acquisition and management of temperature data. It establishes a permanent connection with Win DHI, guaranteeing real-time compensation of measurements according to the evolution of temperature. The user is constantly informed of the reliability level. The system can be switched on and off at any time.

Temperature compensation system as standard equipment

Metrological correction of environmental conditions

Fully integrated into the software layout



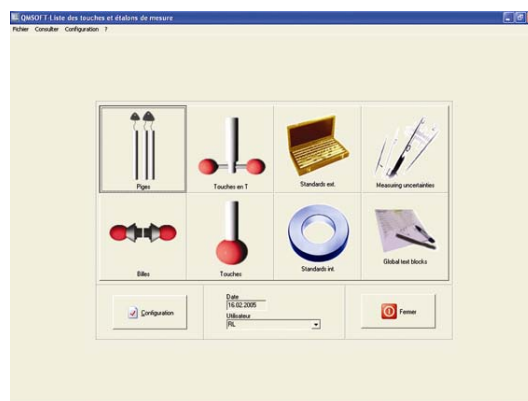
Test Equipment Management System QMSOFT

Trimos recommends the QMSOFT (Quality Management Software) software package from L&W.

This powerful system allows the inspection and management of gauge data of all measuring tools available according to national, international and user's defined standards. The calibration sequences for standard measuring equipment with on-line data transfer from the instrument are realized by specially developed program modules for a perfect integration with WinDHI. Inspection certificates may be customized for individual presentation using a graphic editor.

Fully compatible with Win DHI

All international standards available



LABCONCEPT Nano

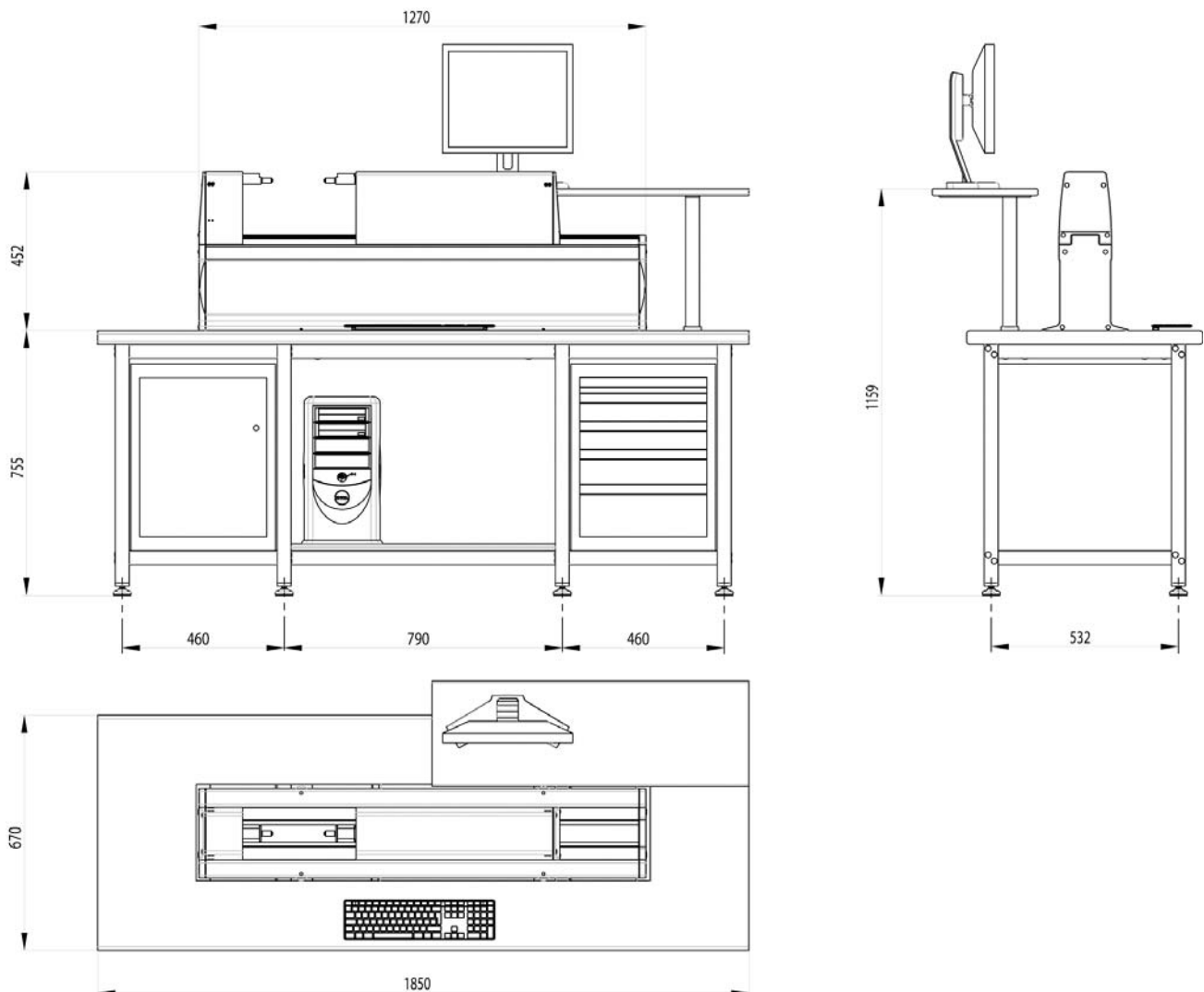
TECHNICAL SPECIFICATIONS

Labconcept Nano		350	600	1100
Application range ¹⁾	mm	350	600	1100
Absolute measuring range ¹⁾	mm	350	350	350
Max. permissible errors ²⁾	µm	0.07+L(mm)/2000		
Repeatability (2s) ²⁾	µm	0.03		
Max. resolution	µm	0.001		
Measuring force (adjustable)	N	0 .. 12		
Operational temperature	°C	+10 .. +40		
Relative humidity	%	20 .. 80		
Weight	kg	350	420	500

1) Depending on measuring anvils used

2) Indicated specifications are determined at a temperature of 20 ± 0.2 °C and relative humidity of 50 ± 5%.

DIAGRAM



LABCONCEPT Nano

STANDARD INSTRUMENT

The Labconcept Nano instruments are supplied as follow :

- › Basic instrument manufactured according to specifications with X axis motorized
- › Specially designed workbench with 1 drawer cabinet and 1 door cabinet
- › Universal measuring table with two motorized axis, Y and Z for parts up to 60 kg
- › Temperature compensation system
- › Computer and 2 TFT screens 17"
- › Software : Trimos® WinDHI & Trimos® WinComp
- › Foot pedal for data transfer
- › Printer and connection cable
- › Hexagonal wrench set
- › Protection cover
- › User's manual, test certificate
- › Lapping plate

CODE NUMBER

LABC-NANO 350	Labconcept Nano 350
LABC-NANO 600	Labconcept Nano 600
LABC-NANO 1100	Labconcept Nano 1100



LABCONCEPT Nano
APPLICATIONS
