

TELS



TELS

INTRODUCTION

The Mini-Horizontal TELS is the ideal instrument for checking small dimensions. It is part of the horizontal instruments family.

The instrument is mainly used for checking internal and external dimensions, such as ring gauges, plug gauges, thread plug gauges and for measuring precision production parts.

The reliable concept is easily suitable for the use in workshop environment.

An electronic probe and digital display unit or simply a dial indicator can be applied to perform all measurements. The selection of the measuring system depends on the required accuracy.

The range for internal measurements from 10 to 100 mm and external measurements from 0 to 100 mm covers a large number of applications. The absolute measuring range is 25 mm and a preset setting is necessary to obtain an entire length.

A wide range of accessories are available.

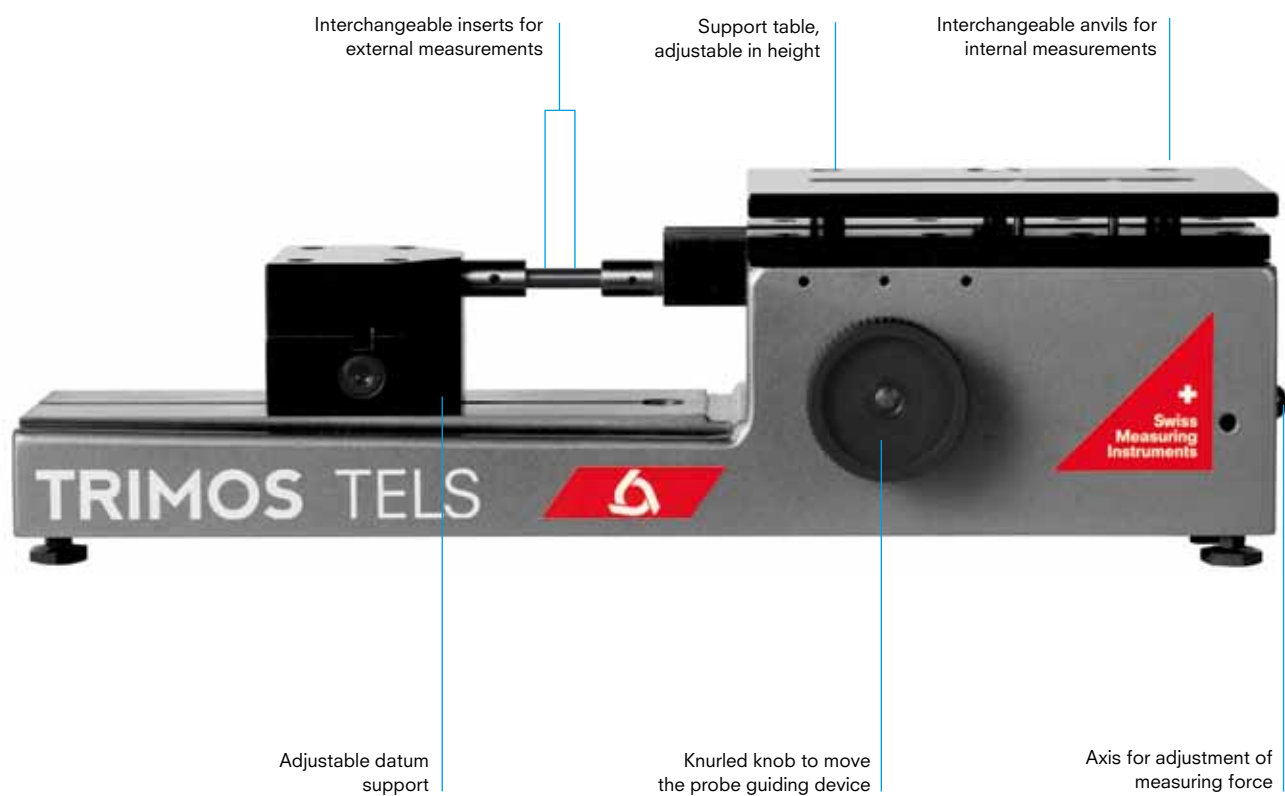
IDEAL FOR CHECKING SMALL DIMENSIONS

EASY MANIPULATION

SUITABLE FOR USE IN WORKSHOP AREA

WIDE SELECTION OF ACCESSORIES

DESCRIPTION



TELS

DISPLAY / SOFTWARE

FUNCTIONS OF SYLVAC DISPLAY UNIT:

SELECTION OF THE MEASURING UNIT MM/INCH

ANALOG DISPLAY

INPUT AND DISPLAY OF TOLERANCE LIMITS

CLASSIFICATION (2 - 6 CLASSES)

INPUT AND SETTING OF PRESET VALUES

INVERSION OF MEASURING DIRECTION (+/-)

CHANNEL SELECTION

VALUE HOLD

LOCKING OF THE KEYBOARD AND THE MM/INCH SELECTION

EXTERNAL CONTACT FUNCTION USING FOOT PEDAL OR COMPUTER

PRINT-OUT OF VALUE AND STATISTICAL ANALYSIS

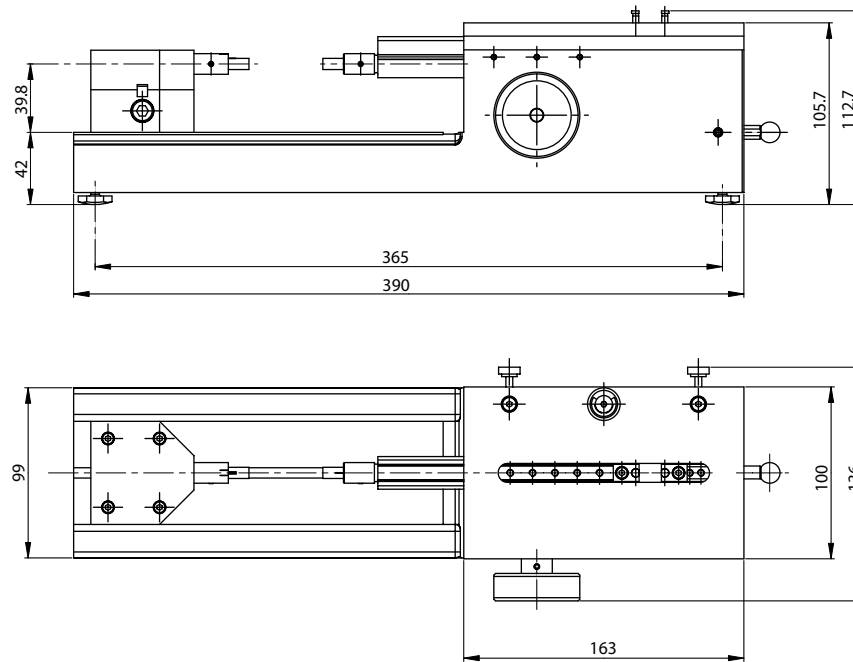


TECHNICAL SPECIFICATIONS

TELS		
Absolute measuring range	mm (in)	25 (1)
Application range (external measurements)	mm (in)	100 (4)
Application range (internal measurements)	mm (in)	100 (4)
Max. permissible errors (according to measuring probe) ¹⁾	µm	1.5
Repeatability (2s) ¹⁾	µm	0.1
Resolutions ¹⁾	mm (in)	0.1 ÷ 0.0001 (.001 ÷ 00001)
Measuring force (adjustable)	N	3-8
Operational temperature	°C	+10 ÷ +40
Temperature of storage	°C	-10 ÷ +40
Weight	Kg	15

¹⁾ Depends on measuring probe. Values valid with probe P25 at temperature of 20 ± 0.2 °C and relative humidity of 50 ± 5 %.

SCHEMA



STANDARD INSTRUMENT

The TELS instruments are supplied as follows:

Instrument according to specifications	User's manual (750 50 0019 03)
Measuring inserts for external measurement (TELS50)	Lapping plate (TA-TO-301)
Measuring anvils for internal measurements (TELS10)	Test certificate

CODE NUMBERS

TELS

TELS 700 205 00 01

TELS

APPLICATIONS



Checking of external diameters
(TELS50, TELS5, TELS5.1)



Checking of internal diameters
(TELS10)



Checking of internal grooves
(TELS10)



Checking of lengths
(TELS50, TELS5, TELS5.1)

ALESTA



ALESTA

INTRODUCTION

The Alesta family is a product that simplifies the setting of 2-point bore gauges. It replaces the traditional way using a lot of different rings.

Thanks to innovative adapters, a positioning error will be eliminated and the speed of measurements increased. You just input the dimension into the key board and the required mobile carriage will position itself automatically onto this position. The mobile carriage system will always stay in the desired position even when applying a force on the anvils.

The stable granite base combined with a high precision measuring system guarantees excellent measuring results. Using a tolerance table the carriage can be positioned to the selected tolerance range. This table can be tailor-made to customer's requirements. This product achieves a typical return on investment of 2 years. The acquisition of new rings and their calibration will be eliminated. The instrument range includes 3 models: 300, 500 and 1000 mm.

IDEAL FOR USE IN THE WORKSHOP AREA

VERY SIMPLE MANIPULATION

MOTORIZED CARRIAGE MOVEMENT

STABLE GRANITE BASE

HIGH PRECISION MEASURING SYSTEM (HEIDENHAIN)

TOLERANCE DATA BASE

WIDE SELECTION OF ADAPTERS AND ACCESSORIES

INTERNAL AND EXTERNAL MEASUREMENT POSSIBLE

DESCRIPTION



ALESTA

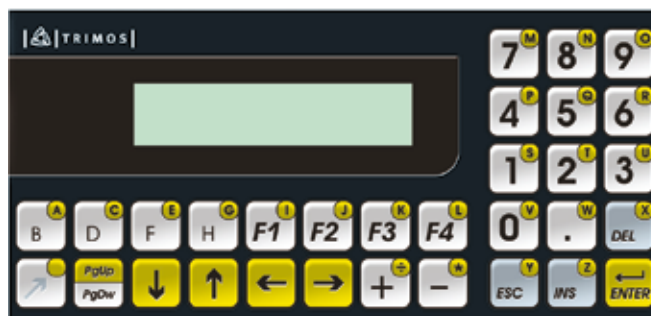
DISPLAY / SOFTWARE

PROGRAMMING OF 100 TOLERANCED DIMENSIONS

MANUAL OR AUTOMATIC DISPLACEMENT

PROGRAM IN ITALIAN, ENGLISH, FRENCH, PORTUGUESE, GERMAN, SPANISH

INTERNAL AND EXTERNAL MEASUREMENT

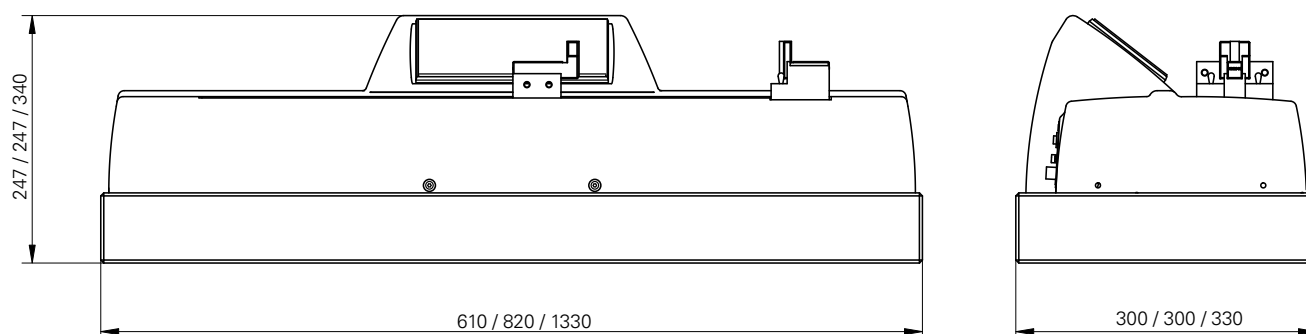


TECHNICAL SPECIFICATIONS

Alesta		300	500	1000
Application range (external measurements)	mm (in)	300 (12)	500 (20)	1000 (40)
Application range (internal measurements)	mm (in)	40 ÷ 340 (1.6 ÷ 13.5)	40 ÷ 540 (1.6 ÷ 21.5)	40 ÷ 1040 (1.6 ÷ 41)
Max. permissible errors ¹⁾	µm	1.5 + L(mm) / 300		
Repeatability (2s) ¹⁾	µm	< 1		
Resolutions	mm (in)	0.001 (.00001)		
Holding force	N	240		
Interfaces		RS232 et USB		
Operational temperature	°C	+10 ÷ +40		
Temperature of storage	°C	-10 ÷ +40		
Weight	Kg	62	77	200

¹⁾ Values valid at temperature of 20 ± 0.2 °C and relative humidity of 50 ± 5%.

SCHEMA



STANDARD INSTRUMENT

The Alesta instruments are supplied as follows:

Instrument according to specifications	User's manual (750 50 0022 00)
	Test certificate

CODE NUMBERS

Alesta	
ALE300P 700 204 00 02	Measuring range 300 mm
ALE500P 700 204 10 02	Measuring range 500 mm
ALE1000P 700 204 20 02	Measuring range 1000 mm

ALESTA

APPLICATIONS



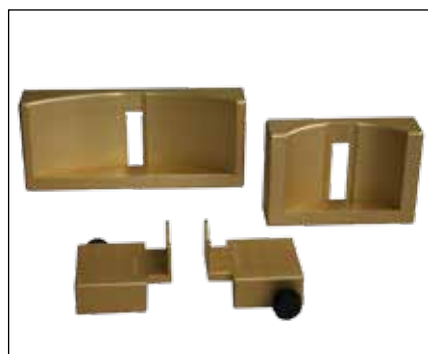
Setting of two-point bore gauges



No need to have a lot of different setting rings. They are replaced by one single instrument



Checking of calipers



Wide range of adapters to fit most two-point bore gauges and guarantee of easy/quick setting



Quick positioning using pre-programmed data

HORIZON + Granite



HORIZON + Granite

INTRODUCTION

The «Horizon» instruments respond to the current requirements for quality inspection in manufacturing areas. They allow a quick, precise checking and setting.

The instruments are perfect for setting all kinds of comparative measuring equipment and for checking length, internal and external diameters, thread gauges etc.

The new innovative concept with incorporated measuring system and display unit ensures excellent results by easy manipulation and is the answer to various demands in the field of production. Simplicity of use is an additional valuable advantage.

The instrument range comprises several models, from 500 mm up to 2000 mm (Granite 3000 - 8000 mm). A wide selection of easy interchangeable accessories completes the application possibilities.

IDEAL FOR USE IN THE WORKSHOP AREA

VERY SIMPLE MANIPULATION

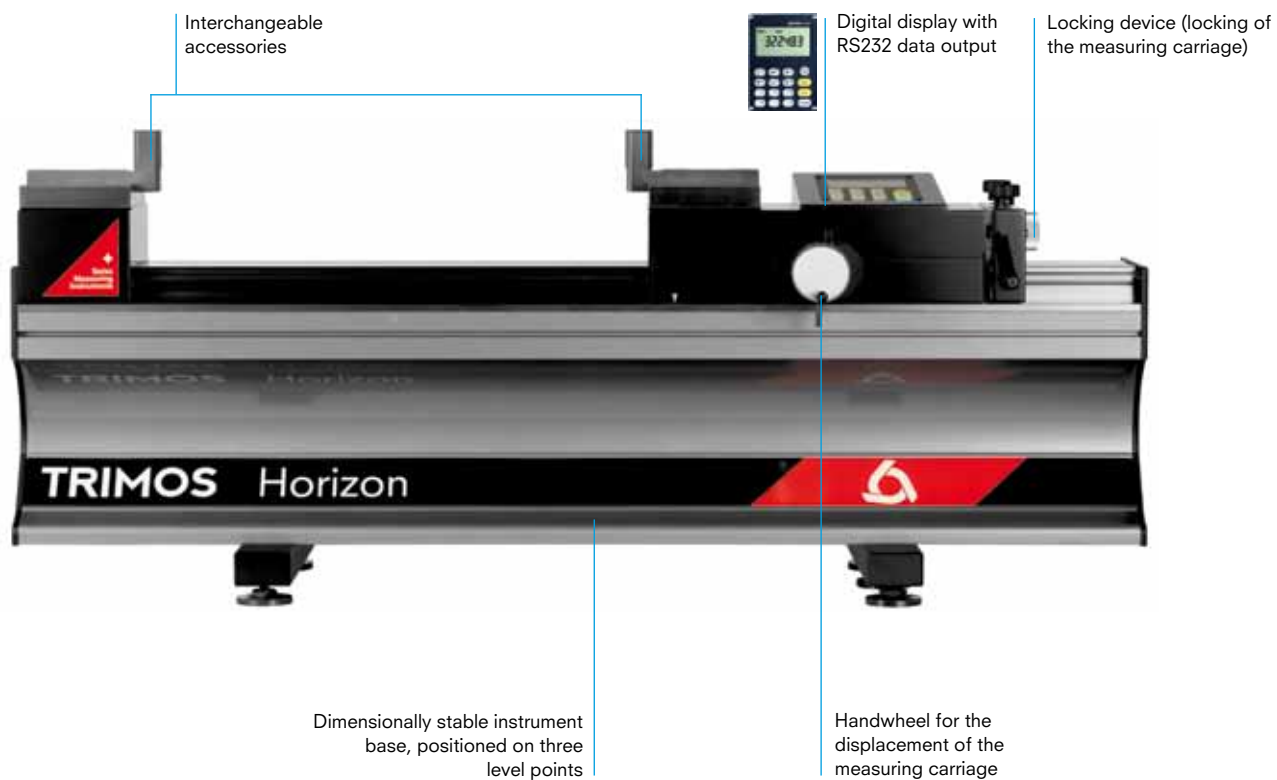
PRECISE CHECKING AND SETTING MADE EASY

SELF-CONTAINED OPERATION OF APPROX. 100 HOURS

WIDE SELECTION OF ACCESSORIES

DESCRIPTION

HORIZON



HORIZON GRANITE



HORIZON + Granite

DISPLAY / SOFTWARE

HORIZON

- SELECTION OF VALUE: NORMAL / MIN / MAX

- ZERO SETTING OF THE DISPLAY AND PRESET INPUT

- RS232 DATA OUTPUT

- TWO REFERENCES

- SELECTION OF THE RESOLUTION 0.01 MM - 0.001 MM

- SELECTION OF MEASURING UNIT MM / INCH (DIRECT CONVERSION)



sylvac system



HORIZON GRANITE

Heidenhain ND287 or ND1100

- LINEAR MEASUREMENT DISPLAY AND MIN. / MAX. VALUE HOLD

- DIGITAL DISPLAY

- ZERO SETTING OF THE DISPLAY AND PRESET INPUT

- PARAMETER SETTINGS

- INITIALIZATION OF THE DISPLAY USING EXTERNAL FUNCTION

- RS232 DATA OUTPUT



Heidenhain ND287



Heidenhain ND1100



PC with software WinDHI

- GRAPHIC HELP FOR MEASURING FUNCTIONS

- SELECTION OF THE MEASURING UNIT MM / INCH

- DIRECT DISPLAY OF ALL LENGTH MEASURING VALUES AND MIN. / MAX. VALUE HOLD

- INPUT OF 9 PRESET VALUES

- INVERSION OF MEASURING DIRECTION SIGN (+/-)

- DATA TRANSFER USING A FOOT PEDAL



TECHNICAL SPECIFICATIONS

Horizon		H501	H1001	H1501	H2001
Measuring range	mm (in)	520 (20)	1020 (40)	1520 (60)	2020 (80)
Max. permissible errors ¹⁾	µm	2.5 + L/300			
Repeatability (2s) ¹⁾	µm	1			
Resolutions	mm (in)	0.01/0.001 (.0001 / .00005)			
Max. displacement speed	mm / s	1500			
Measuring force	N	3			
Autonomy	h	100			
Interface		RS232			
Operational temperature	°C	+10 ÷ +40			
Temperature of storage	°C	-10 ÷ +40			
Weight	Kg	94	126	158	190

¹⁾ Values valid at temperature of 20 ± 0.2 °C and relative humidity of 50 ± 5%.

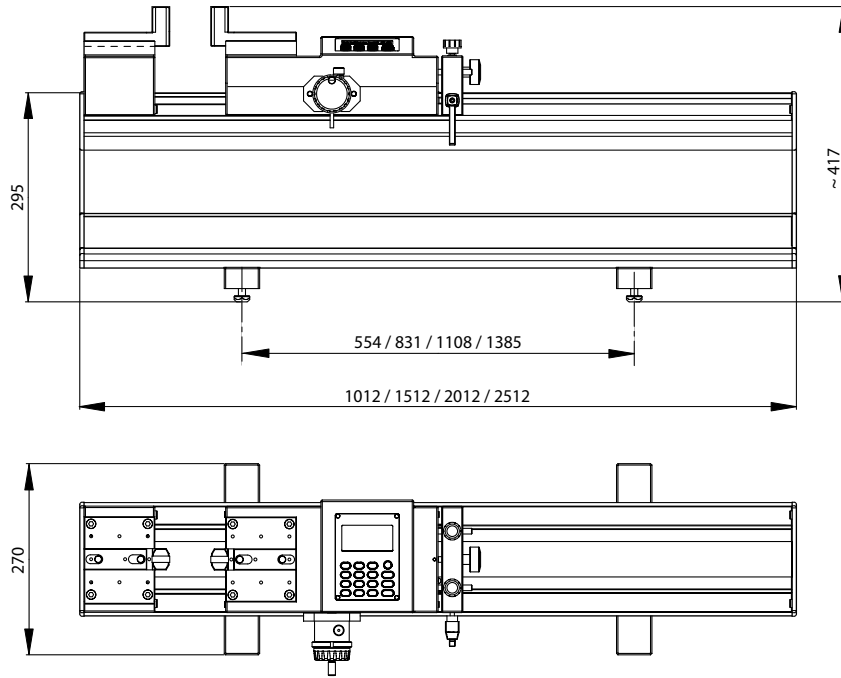
Horizon Granite		HG3000	HG4000	HG5000	HG6000	HG8000
Measuring range	mm (in)	3000 (118)	4000 (157)	5000 (196)	6000 (236)	8000 (315)
Max. permissible errors ¹⁾	µm	0.7 + L/750				
Repeatability (2s) ¹⁾	µm	0.5				
Resolutions	mm (in)	0.01 / 0.001 / 0.0001 (.001 / .0001 / .00001)				
Max. displacement speed	mm / s	2000				
Measuring force	N	3				
Interfaces		RS232/USB				
Operational temperature	°C	+10 ÷ +40				
Temperature of storage	°C	-10 ÷ +40				
Relative humidity	%	20 ÷ 80				
Weight	Kg	1060	1980	3200	3700	4600

¹⁾ Values valid at temperature of 20 ± 0.2 °C and relative humidity of 50 ± 5%.

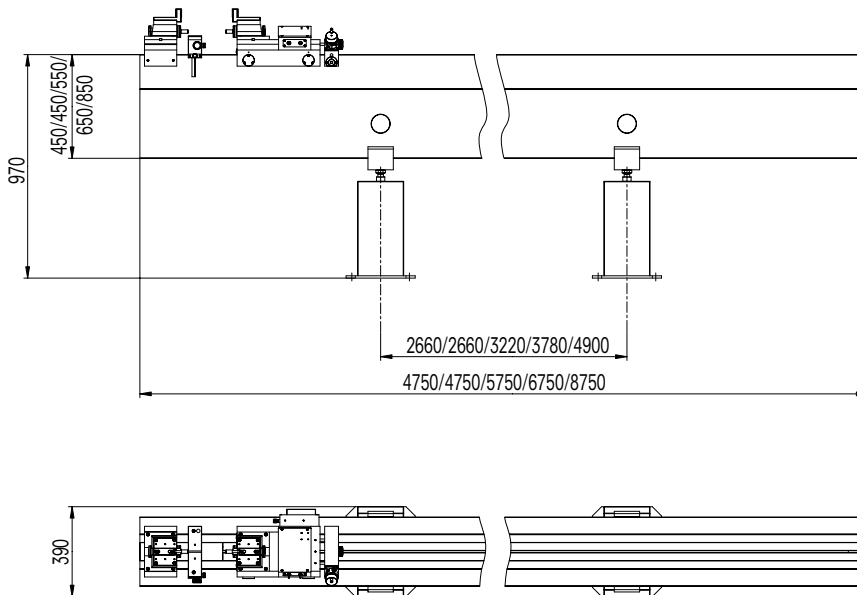
HORIZON + Granite

SCHEMA

HORIZON



HORIZON GRANITE



STANDARD INSTRUMENT

The Horizon instruments are supplied as follows:

Instrument according to specifications
Pair of parallel attachments 25 mm (TEL5)
Universal AC adapter (TA-EL-131)
Protection cover (TEL.HO500/1000/1500/2000)
Allen key set (TA-TO-004)
User's manual (750 50 0005 03)
Test certificate

The Horizon Granite instruments are supplied as follows:

Instrument according to specifications
Pair of anvils with tungsten carbide surface (TEL1)
Lapping plate (TA-TO-302)
Protection cover (TEL.HO3000/4000/5000/6000/8000)
Compressed air tubing and air filter
Allen key set (TA-TO-004)
User's manual (750 50 0003 03)
Test certificate

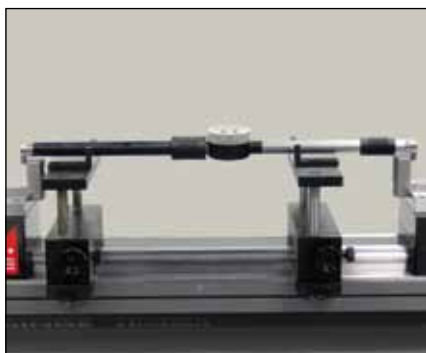
CODE NUMBERS

Horizon	
H501 700 201 10 02	Measuring range 500 mm
H1001 700 201 20 02	Measuring range 1000 mm
H1501 700 201 30 02	Measuring range 1500 mm
H2001 700 201 40 02	Measuring range 2000 mm

Horizon Granite	
HG3000 700 208 60 11	Measuring range 3000 mm
HG4000 700 208 70 11	Measuring range 4000 mm
HG5000 700 208 80 11	Measuring range 5000 mm
HG6000 700 208 90 11	Measuring range 6000 mm
HG8000 700 208 110 11	Measuring range 8000 mm

HORIZON + Granite

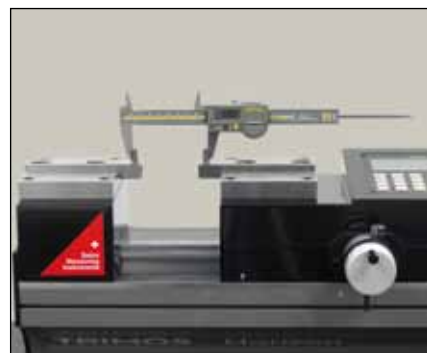
APPLICATIONS



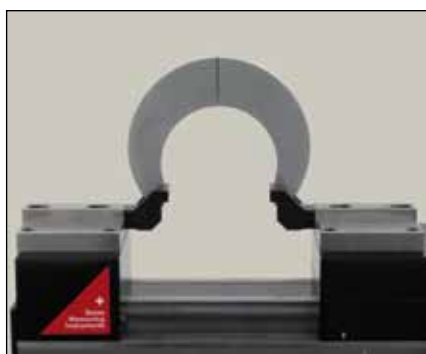
Setting of 2-point internal and external comparative measuring equipment (TEL5/TELMA7/TELMN7.2)



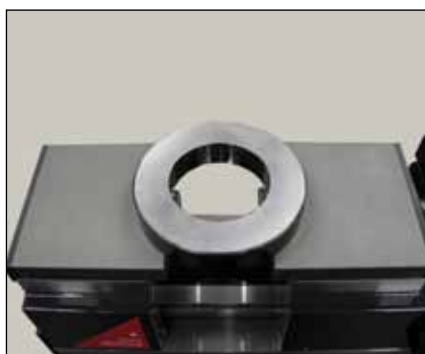
Setting of 2-point bore gauges (TEL5/TA-SU-301)



Checking of calipers (TEL5.10)



Checking of snap gauges (TELMA8)



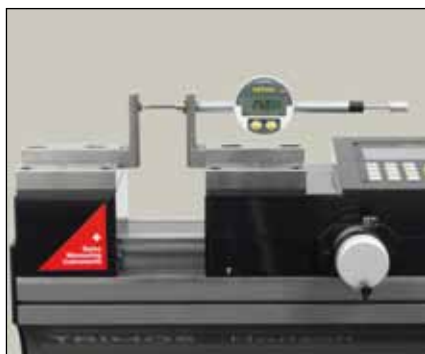
Checking of internal diameter of heavy rings (TEL9/H-5)



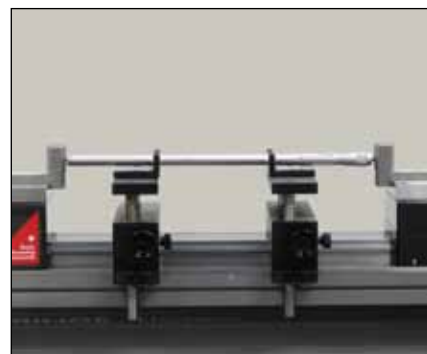
Checking of depth gauges (TULM19/TEL5)



Checking of external micrometers (TEL5/TEL11)



Checking of dial indicators (TEL5CN)



Checking of 2-point internal micrometers (TEL5/TELMA7/TELMN7.2)

HORIZON PREMIUM



HORIZON PREMIUM

INTRODUCTION

The HORIZON PREMIUM instruments fulfill today's requirements of high accuracy quality control equipment in production areas and take into consideration EN ISO 9000 standards.

The instruments may be used in a workshop area or installed in a quality control room for checking of measuring gauges and setting of all types of comparative measuring equipment. The well-designed, reliable new concept, obtained by superior engineering, ensures high precision and optimum results by easy manipulation as well as a valuable level of productivity.

The modular design allows the selection between two measuring systems: analog signal output and Heidenhain display unit or digital signal output and computer with TFT touch screen and Trimos-WinDHI software.

Instruments with a measuring range from 500 to 3000 mm are available, all of them built in one single piece. All measuring ranges being direct, it means that the whole measuring range is available without adjustment or intermediate re-calibration.

IDEAL FOR THE USE IN LABORATORY AND IN THE WORKSHOP

NEW ERGONOMIC CONCEPT

MEASURING CARRIAGE WITH FINE ADJUSTMENT

LARGE RANGE OF ACCESSORIES

ADJUSTABLE MEASURING FORCE

3 DISPLAYS AVAILABLE

MODULAR SYSTEM DESIGN

DIRECT MEASUREMENT OVER THE WHOLE RANGE

DESCRIPTION



HORIZON PREMIUM

DISPLAY / SOFTWARE

HORIZON PREMIUM (HPA)

Heidenhain ND287 or ND1100 display units



Heidenhain ND1100



Heidenhain ND287



LINEAR MEASURING SYSTEM, MIN./MAX. VALUE HOLD

DIGITAL DISPLAY

ZERO SETTING OF THE DISPLAY AND PRESET INPUT

PARAMETER SETTINGS AND CLASSIFICATION

CONFIGURATION OF THE DISPLAY USING EXTERNAL CONTACT

RS232 DATA OUTPUT

HORIZON PREMIUM (HPD)

TRIMOS WinDHI

TRIMOS-WinDHI Software allows the performance of all required measuring functions and the connection to the temperature compensation system TempComp as well as to a gauge inspection and management system.



PC WITH TOUCH SCREEN

DDE-SERVER (FOR EXCEL, WORD, ETC.)

GRAPHIC HELP FOR MEASURING FUNCTIONS

DATA TRANSFER USING A FOOT PEDAL

DIGITAL DISPLAY OF THE SELECTED MEASURING FORCE IN NEWTON (N)

DIRECT DISPLAY OF ALL LENGTH MEASURING VALUES AND MIN./MAX. VALUE HOLD

MEASURING WITH 9 REFERENCES

INVERSION OF MEASURING DIRECTION SIGN (+/-)

COMPATIBLE WITH TEMPERATURE COMPENSATION SYSTEM TEMPCOMP (SEE § LABCONCEPT)

QMSOFT

Trimos recommends the QMSOFT software package for inspection and management of all measuring tools available.



INTEGRATED DRIVERS FOR TRIMOS INSTRUMENTS

REQUIRED NOMINAL SIZES AND TOLERANCES AVAILABLE ACCORDING ALL STANDARDS

CUSTOMIZED INSPECTION CERTIFICATES

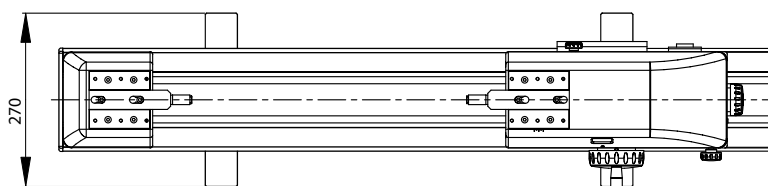
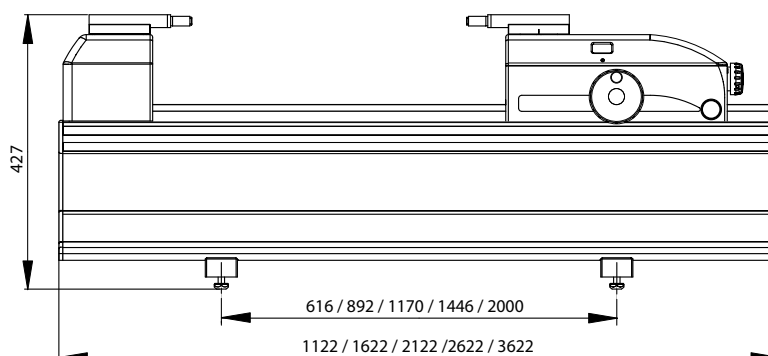


TECHNICAL SPECIFICATIONS

Horizon Premium		500	1000	1500	2000	3000
Measuring range	mm (in)	550 (21)	1050 (41)	1550 (61)	2050 (80)	3050 (120)
Max. permissible errors ¹⁾	μm	0.7 + L (mm)/1000				
Repeatability (2s) ¹⁾	μm	0.2				
Resolutions	mm (in)	0.01 / 0.001 / 0.0001 (.001 / .0001 / .00001)				
Max. displacement speed	mm/s	1.5				
Measuring force	N	0 ÷ 12				
Operational temperature	°C	+10 ÷ +40				
Temperature of storage	°C	-10 ÷ +40				
Relative humidity	%	20 ÷ 80				
Weight	kg	94	123	152	181	239

¹⁾ Values valid at temperature of 20 ± 0.2 °C and relative humidity of 50 ± 5%.

SCHEMA



HORIZON PREMIUM

STANDARD INSTRUMENT

The Horizon Premium (HPA) instruments are supplied as follows:

Instrument according to specifications
Pair of anvils with tungsten carbide surface (HPA-1)
Lapping plate (TA-TO-302)
Protection cover (TEL.HO500 / 1000 / 1500 / 2000)
Allen key set (TA-TO-004)
User's manual (750 50 0015 03)
Test certificate

The Horizon Premium (HPD) instruments are supplied as follows:

Instrument according to specifications
Pair of anvils with tungsten carbide surface (HPA-1)
PC with interface, touch screen ¹⁾ , adjustable support ¹⁾ , touch screen pen ¹⁾
Foot pedal for data transfer (TELMA31)
Opto-RS connection cable for measuring force (TVM.O-PC/AT.9P)
Lapping plate (TA-TO-302)
Protection cover (TEL.HO500 / 1000 / 1500 / 2000)
Allen key set (TA-TO-004)
User's manual (750 50 0015 03)
Test certificate

¹⁾ Not included in version HPD-B. Touch screen replaced by a regular TFT screen.

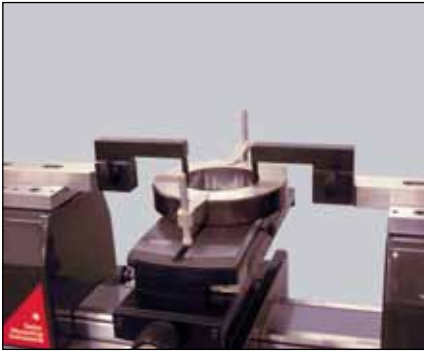
CODE NUMBERS

Horizon Premium (HPA)		
HPA500	700 202 10 01	Measuring range 500 mm
HPA1000	700 202 20 01	Measuring range 1000 mm
HPA1500	700 202 30 01	Measuring range 1500 mm
HPA2000	700 202 40 01	Measuring range 2000 mm
HPA3000	700 202 50 01	Measuring range 3000 mm

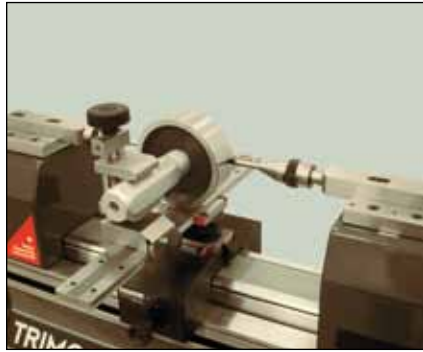
Horizon Premium (HPD)				
HPD500	700 212 10 01	HPD500B	700 212 10 02 ¹⁾	Measuring range 500 mm
HPD1000	700 212 20 01	HPD1000B	700 212 20 02 ¹⁾	Measuring range 1000 mm
HPD1500	700 212 30 01	HPD1500B	700 212 30 02 ¹⁾	Measuring range 1500 mm
HPD2000	700 212 40 01	HPD2000B	700 212 40 02 ¹⁾	Measuring range 2000 mm
HPD3000	700 212 60 01	HPD3000B	700 212 60 02 ¹⁾	Measuring range 3000 mm

¹⁾ HPD-B: With TFT screen, no adjustable support.

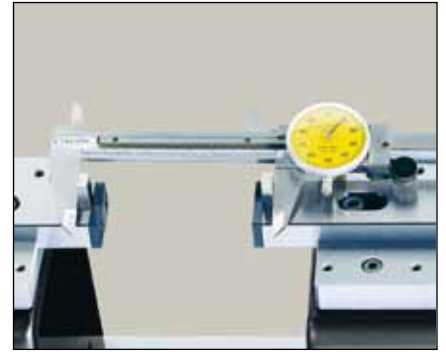
APPLICATIONS



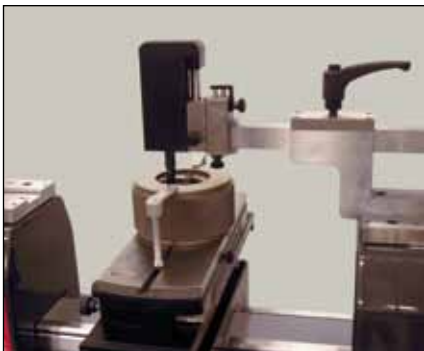
Checking of ring gauges
(TA-SU-313/TEL16.1/HPA-1)



Checking of plug gauges
(HPA-1/TULM6/L05/LABC-15)



Checking of calipers (TEL5.10)



HPD: Checking of thread ring gauges
(TA-SU-313/LABC-70/TA-SU-354)



Checking of thread plug gauges (HPA-1/TEL6/3P/0.17-3.2/S6.5/LABC-15)



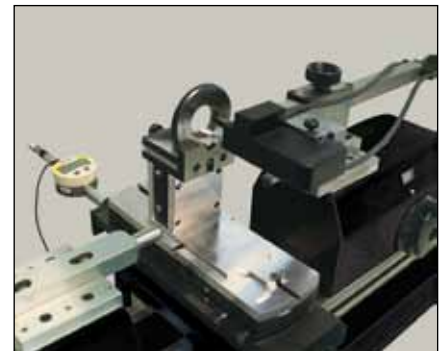
Checking of external micrometers
(HPA-1/TULM14)



Checking of snap gauges
(TA-SU-313/TEL14N)



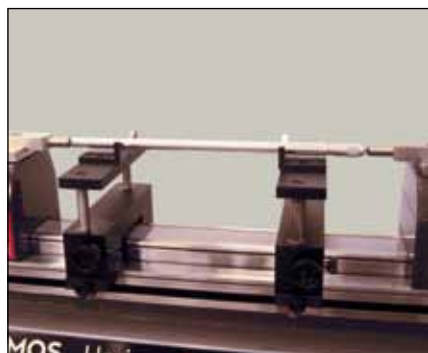
Checking of dial indicators (TEL5CN)



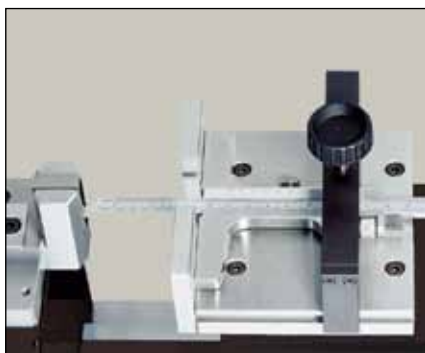
HPD: Checking of taper thread ring gauges (LABC80)

HORIZON PREMIUM

APPLICATIONS



Setting of 2-point internal micrometers (HPA-1/TELMA7/TELMN7.2)



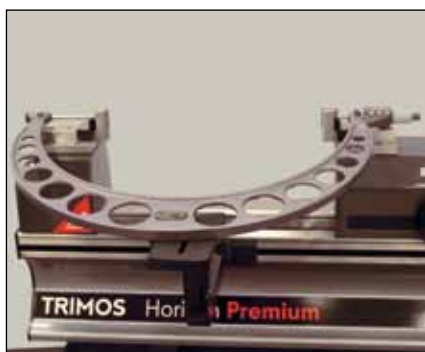
Checking of depth gauges (TEL5/TULM19)



HPA: Checking of thread ring gauges (TEL18)



HPA: Measurement of cylindrical parts (TA-MS-303)



Large micrometer control (TEL5/TEL11/LABC20)



Setting of 2-point bore gauges (TEL5/TA-SU-301)



Setting of a large gauge (TEL5)

THV



THV

INTRODUCTION

The horizontal THV instrument has been designed for calibration and certification of gauging equipment of small dimension.

It allows easy and precise checking of plug gauges, ring gauges, thread plug gauges, test and dial indicators as well as measuring of high precision production parts.

The incorporated opto-electronic measuring system guarantees high accuracy. A separate display unit or a PC with Trimos WinDHI software can be used to display the measurement results.

The THV instruments can also be delivered without measuring system. An electronic probe or a dial indicator shall then be used as measuring system.

Due to its small size, The THV can be moved easily. It is therefore frequently used as mobile calibration station.

IDEAL FOR THE USE IN A CLEAN ROOM AND IN THE WORKSHOP AREA

THE INSTRUMENT MEETS THE REQUIREMENTS OF ALL EN ISO 9000

VERY SIMPLE MANIPULATION

LARGE RANGE OF ACCESSORIES

CHECKING OF INTERNAL AND EXTERNAL DIMENSIONS USING A SINGLE MEASURING ELEMENT

ACCORDING TO THE APPLICATION, THE INSTRUMENT CAN BE USED IN HORIZONTAL POSITION OR IT CAN BE INCLINED UPTO 90° USING THE ADDITIONAL STAND

DESCRIPTION

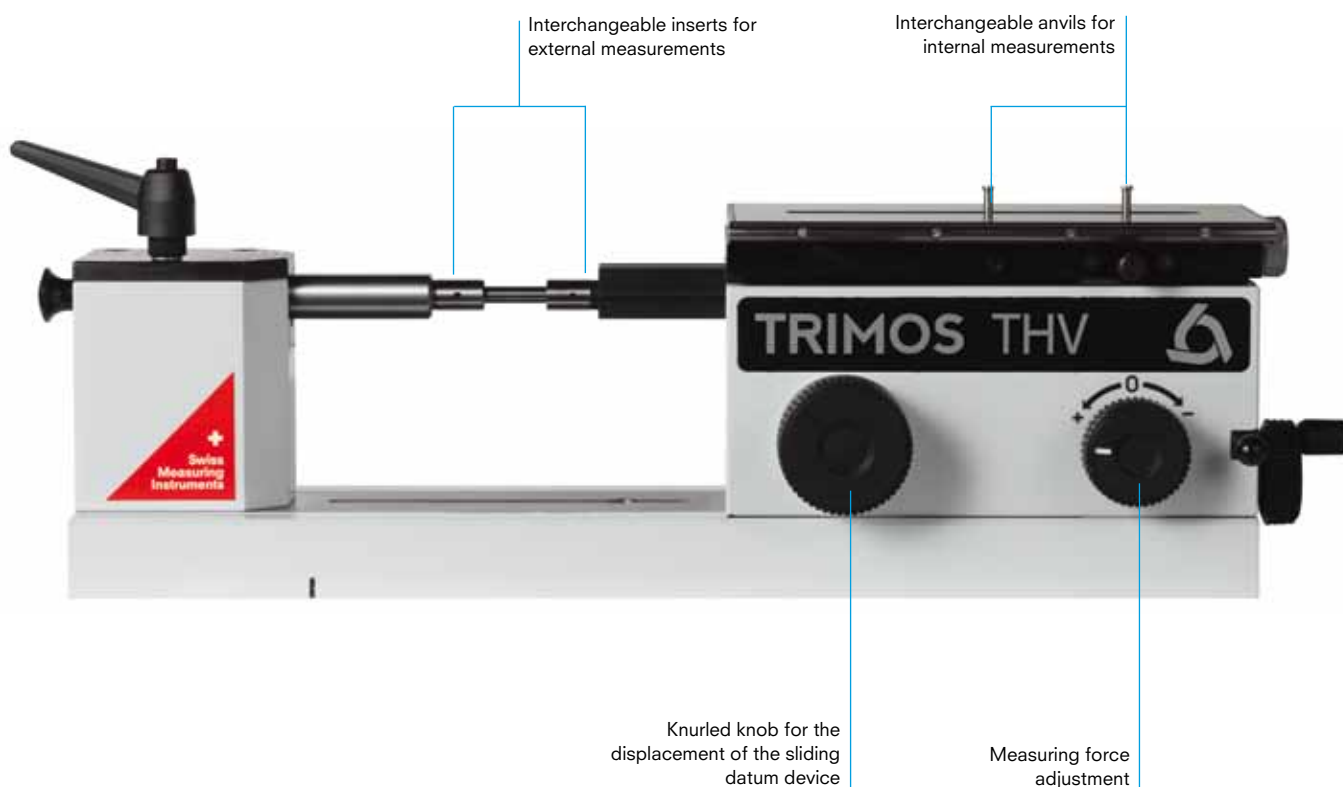
DISPLAY UNITS:



Heidenhain ND1100



PC with TRIMOS-WinDHI software



THV

DISPLAY / SOFTWARE

DISPLAY UNIT HEIDENHAIN ND1100

LINEAR MEASURING SYSTEM, MIN./MAX. VALUE HOLD

INVERSION OF MEASURING DIRECTION SIGN (+/-)

ZERO SETTING OF THE DISPLAY AND PRESET INPUT

PARAMETER SETTINGS AND CLASSIFICATION

CONFIGURATION OF THE DISPLAY USING EXTERNAL CONTACT

RS232 DATA OUTPUT



PC WITH TRIMOS WINDHI

TRIMOS-WinDHI Software allows the performance of all required measuring functions and the connection to a gauge inspection and management system.

INVERSION OF MEASURING DIRECTION SIGN (+/-)

DDE-SERVER (FOR EXCEL, WORD, ETC.)

GRAPHIC HELP FOR MEASURING FUNCTIONS

DATA TRANSFER USING A FOOT PEDAL

DIRECT DISPLAY OF ALL LENGTH MEASURING VALUES AND MIN./MAX. VALUE HOLD

MEASURING WITH 9 REFERENCES

COMPATIBLE WITH MEASURING EQUIPMENT MANAGEMENT SYSTEMS

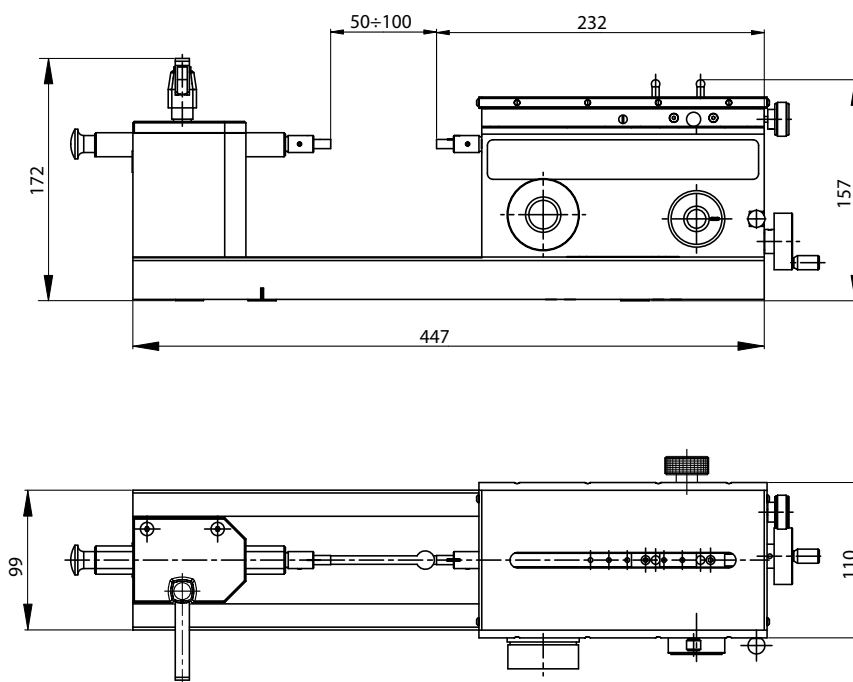


TECHNICAL SPECIFICATIONS

THV		
Absolute measuring range	mm (in)	50 (2)
Application range (external measurements)	mm (in)	100 (4)
Application range (internal measurements)	mm (in)	100 (4)
Max. permissible errors ¹⁾	µm	0.2+ L (mm)/250
Repeatability (2s) ¹⁾	µm	0.1
Resolutions (depending on display unit)	mm (in)	0.1 ÷ 0.00001 (.0001 ÷ .000001)
Measuring force (adjustable)	N	0 ÷ 4
Operational temperature	°C	+10 ÷ +40
Temperature of storage	°C	-10 ÷ +40
Weight	kg	22

¹⁾ Instruments with integrated measuring system. Values valid at temperature of 20±0.2 °C and relative humidity of 50±5%.

SCHEMA



STANDARD INSTRUMENT

The THV instruments are supplied as follows:

Instrument according to specifications (without display)

Measuring inserts for external measurements (TELS50)

Measuring anvils for internal measurements (THV-10)

Protection cover (THV.HO.0-50)

User's manual (750 50 0006 03)

Test certificate

CODE NUMBERS

THV	Rigid table	Floating table
Instruments with measuring system	THVR.0-50 700 206 00 22	THVR.0-50S 700 206 00 24
Instruments without measuring system	THV.0-50 700 206 00 21	THV.0-50S 700 206 00 01

THV

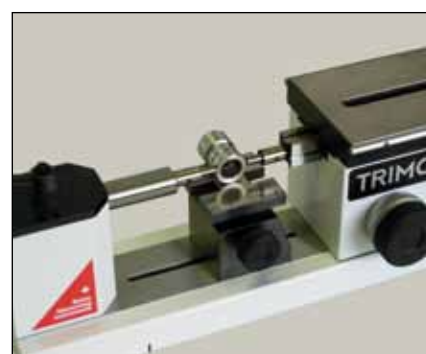
APPLICATIONS



Calibration of plain and threaded plug gauges using the floating table (THV-115)



Calibration of plain rings gauges (THV-260)



Measuring of precision parts (THV-100/THV-101)



Checking of test indicators (THV-100/THV-150)



Adjustable support for a constant measuring force (THV-200)



Floating table for more accurate internal measurements

LABCONCEPT + Premium



LABCONCEPT + Premium

INTRODUCTION

The Labconcept and Labconcept Premium are high precision calibration systems that meet the most sophisticated requirements.

The up-to-date, well designed modular concept enables extremely secure functioning, facilitates the manipulation and therefore increases the productivity in the measuring laboratory. Simplicity and high accuracy have been associated.

This new concept, integrating a computer and a touch screen as well as the appropriate Trimos-WinDHI software with all necessary measuring functions guarantees the best results. A temperature compensation system as well as a gauge management system can be installed to enhance the system performance.

Instruments with a measuring range from 300 to 2000 mm are available, all made in one single piece. All measuring ranges being direct, it means that the whole measuring range is available without adjustment or intermediate re-calibration.

MEETS THE REQUIREMENTS OF ALL EN ISO 9000

PC WITH EXCLUSIVE SOFTWARE WINDHI

HIGH PRECISION MEASURING SYSTEM

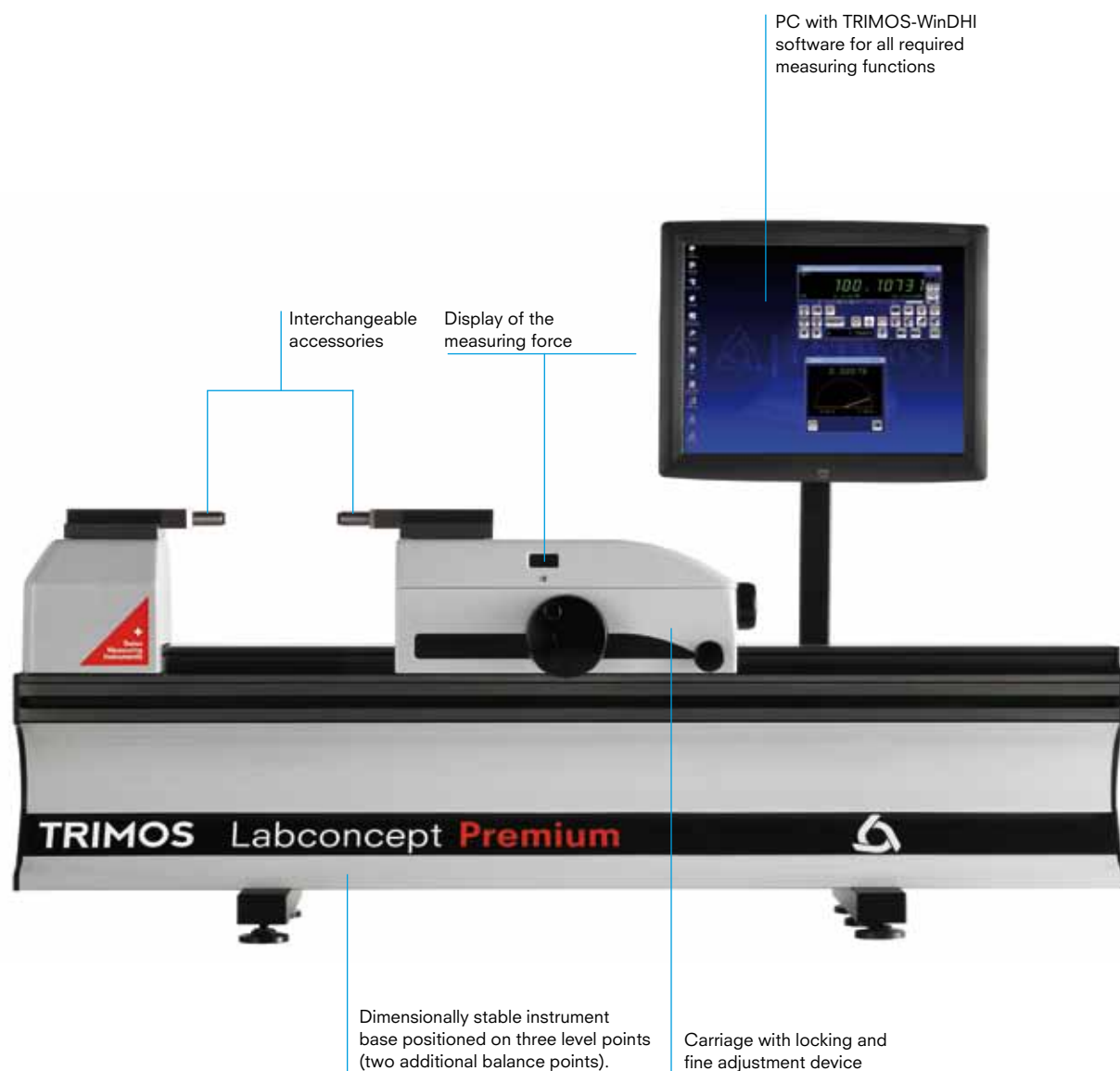
DIMENSIONALLY STABLE INSTRUMENT BASE

ADJUSTABLE MEASURING FORCE (FROM 0 TO 12 N)

LARGE RANGE OF ACCESSORIES

DIRECT MEASUREMENT OVER THE WHOLE
MEASURING RANGE

DESCRIPTION



LABCONCEPT + Premium

DISPLAY / SOFTWARE

TRIMOS WINDHI

TRIMOS® WinDHI Software allows the performance of all required measuring functions. It can be connected to the temperature compensation software WinComp and to any gauge inspection and management program.



DDE-SERVER (FOR EXCEL, WORD, ETC.)

GRAPHIC HELP FOR MEASURING FUNCTIONS

DATA TRANSFER USING A FOOT PEDAL

DIGITAL DISPLAY OF THE SELECTED MEASURING FORCE IN NEWTON (N)

DIRECT DISPLAY OF ALL LENGTH MEASURING VALUES AND MINI/MAX VALUE HOLD

INPUT OF 9 PRESET VALUES

INVERSION OF MEASURING DIRECTION SIGN (+/-)

COMPATIBLE WITH TEMPERATURE COMPENSATION SYSTEM TEMPCOMP

QMSOFT

Trimos recommends the QMSOFT software package for inspection and management of all measuring tools available.

INTEGRATED DRIVERS FOR TRIMOS INSTRUMENTS

REQUIRED NOMINAL SIZES AND TOLERANCES AVAILABLE ACCORDING TO ALL STANDARDS

CUSTOMIZED INSPECTION CERTIFICATES



DISPLAY / SOFTWARE

TEMPERATURE COMPENSATION SYSTEM TRIMOS TEMPComp

The Temperature Compensation System TempComp gives a solution to air conditioning problems in measuring laboratories.

COMPATIBLE WITH HPD, LABCONCEPT, LABCONCEPT PREMIUM AND LABCONCEPT NANO INSTRUMENTS

TRIMOS WINCOMP EXCLUSIVE SOFTWARE

ACQUISITION AND MANAGEMENT OF TEMPERATURE DATA

PERMANENT CONNECTION WITH WIN DHI

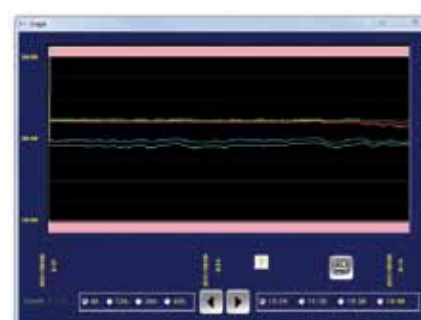
REAL-TIME COMPENSATION OF THE MEASUREMENT

TEMPERATURE EVOLUTION HISTORY OVER SEVERAL YEARS FOR A PERFECT TRACEABILITY

GRAPHICAL DISPLAY OF TEMPERATURE EVOLUTION

MATERIALS LIBRARY

INDICATION OF THE MEASUREMENT RELIABILITY LEVEL



TEMPComp BASIC

BASIC TEMPERATURE COMPENSATION SYSTEM

2 TEMPERATURE SENSORS:

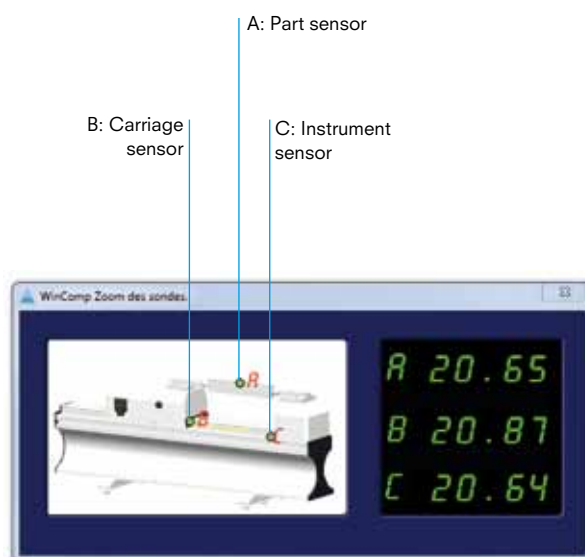
A PART TO BE MEASURED
B MEASURING CARRIAGE

TEMPComp PREMIUM

PART TO BE MEASURED

3 TEMPERATURE SENSORS:

A PART TO BE MEASURED
B MEASURING CARRIAGE
C INSTRUMENT BASE



TempComp Basic & Premium		
Application range (temperature)	°C	+16 ÷ +24
Max. resolution (temperature)	°C	0.01
Max. permissible errors (temperature)	°C	0.05

LABCONCEPT + Premium

DISPLAY / SOFTWARE

TEMPCOMP ADVANCED

The environment control system TempComp Advanced represents an evolution of the temperature compensation system TempComp.

Tempcomp is an exclusive temperature compensation system with environmental parameter verification of the laboratory. The temperature acquisition is managed by WinComp Advanced software. It offers, on top of WinComp functionalities, the possibility to check the laboratory in real time via Internet, Intranet, mobile phone, etc..



INTEGRATED TEMPERATURE COMPENSATION SYSTEM FOR LABORATORY

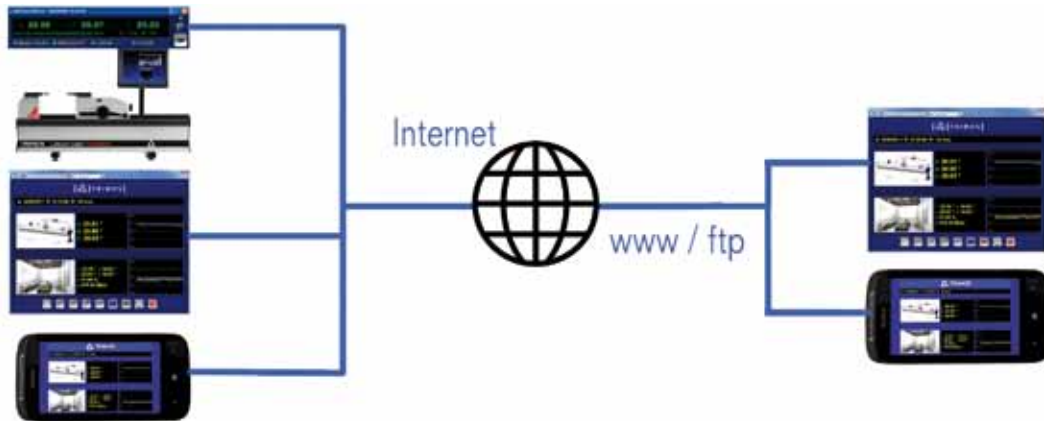
3 TEMPERATURE SENSORS ON THE INSTRUMENT:

- PART TO BE MEASURED
- MEASURING CARRIAGE
- INSTRUMENT BASE

4 TEMPERATURE SENSORS IN THE LABORATORY

1 RELATIVE HUMIDITY SENSOR

1 ATMOSPHERIC PRESSURE SENSOR



TempComp Advanced		
Application range (temperature)	°C	+16 ÷ +24
Max. resolution (temperature)	°C	0.01
Max. permissible errors (instrument temperature)	°C	0.05
Max. permissible errors (environmental temperature)	°C	0.16
Max. permissible errors (humidity)	%	± 2
Max. permissible errors (pressure)	mbar	± 0.5 %

TECHNICAL SPECIFICATIONS

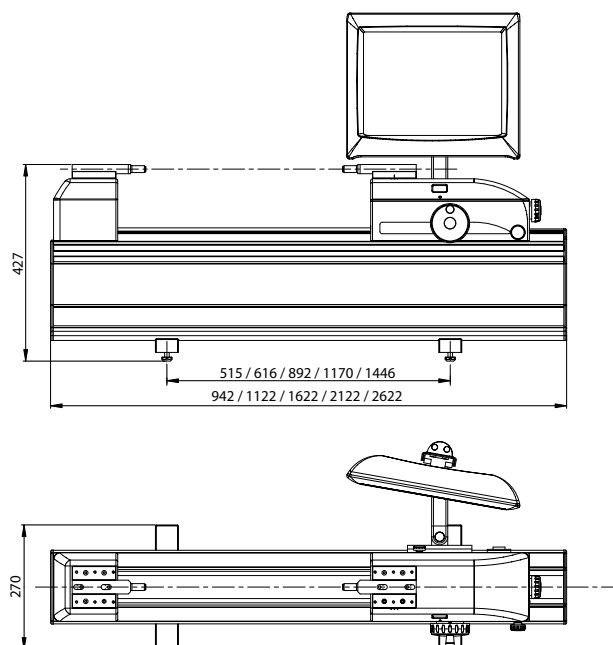
Labconcept		500	1000	1500	2000
Measuring range	mm (in)	550 (21)	1050 (41)	1550 (61)	2050 (80)
Max. permissible errors ¹⁾	µm	0.3 + L (mm) / 1500			
Repeatability (2s) ¹⁾	µm	0.1			
Resolutions	mm (in)	0.01 ÷ 0.00001 (.0001 ÷ .000001)			
Max. displacement speed	mm/s	1500			
Measuring force	N	0 ÷ 12			
Operational temperature	°C	+10 ÷ +40			
Temperature of storage	°C	-10 ÷ +40			
Relative humidity	%	20 ÷ 80			
Weight	kg	94	123	152	181

¹⁾ Values valid at temperature of 20 ± 0.2 °C and relative humidity of 50 ± 5%.

Labconcept Premium		300	500	1000
Measuring range	mm (in)	370 (14)	550 (21)	1050 (41)
Max. permissible errors ¹⁾	µm	0.1 + L (mm) / 2000	0.15 + L (mm) / 2000	
Repeatability (2s) ¹⁾	µm	0.05		
Resolutions	mm (in)	0.01 ÷ 0.00001 (.0001 ÷ .000001)		
Max. displacement speed	mm/s	400		
Measuring force	N	0 ÷ 12		
Operational temperature	°C	+10 ÷ +40		
Temperature of storage	°C	-10 ÷ +40		
Relative humidity	%	20 ÷ 80		
Weight	kg	78	95	125

¹⁾ Values valid at temperature of 20 ± 0.2 °C and relative humidity of 50 ± 5%.

SCHEMA



LABCONCEPT + Premium

STANDARD INSTRUMENT

The Labconcept and Labconcept Premium instruments are supplied as follows:
Instrument according to specifications
Pair of anvils with tungsten carbide surface (HPA-1)
PC with interface, touch screen ¹⁾ with adjustable support ¹⁾ and touch screen pen ¹⁾
Foot pedal for data transfer (TELMA31)
Opto-RS connection cable for measuring force (TVM.O-PC / AT.9P)
Lapping plate (TA-TO-302)
Protection cover (TEL.HO500 / 1000 / 1500 / 2000)
Allen key set (TA-TO-004)
User's manual (750 50 0015 03)
Test certificate

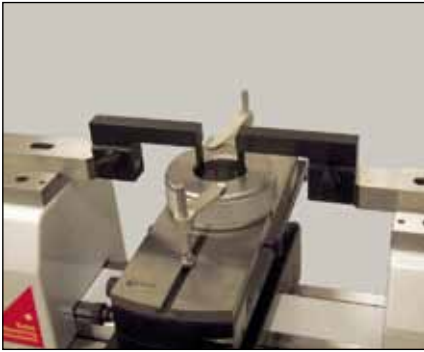
¹⁾ Not included in versions LABC-B. Touch screen replaced by a regular TFT screen.

CODE NUMBER

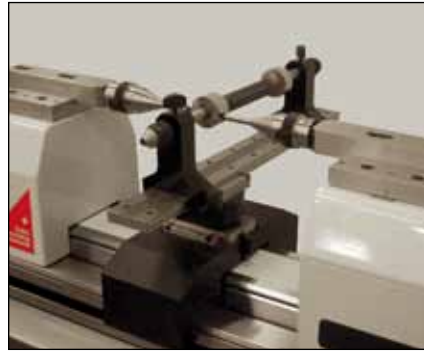
With touch screen	With TFTscreen	Labconcept
LABC500 700 203 10 01	LABC500B 700 203 10 02	Measuring range 500 mm
LABC1000 700 203 20 01	LABC1000B 700 203 20 02	Measuring range 1000 mm
LABC1500 700 203 30 01	LABC1500B 700 203 30 02	Measuring range 1500 mm
LABC2000 700 203 40 01	LABC2000B 700 203 40 02	Measuring range 2000 mm

With touch screen	With TFTscreen	Labconcept Premium
	LABCP300B 700 203 10 13	Measuring range 300 mm
LABCP500 700 203 10 11	LABCP500B 700 203 10 12	Measuring range 500 mm
LABCP1000 700 203 20 11	LABCP1000B 700 203 20 12	Measuring range 1000 mm

APPLICATIONS



Calibration of ring gauges
(TA-SU-313/TEL16.1/HPA-1)



Calibration of plug gauges
(HPA-1/TULM6/L05/LABC-15)



Calibration of small ring gauges
(TA-SU-313/LABC-70/TA-SU-354)



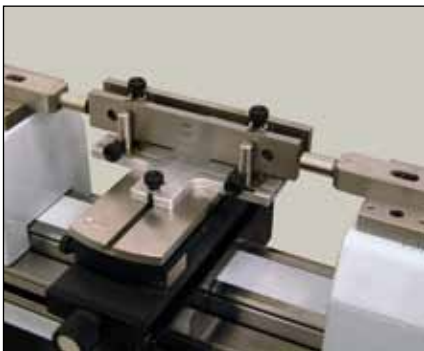
Calibration of thread ring gauges
(TA-SU-313/LABC-70/TA-SU-354)



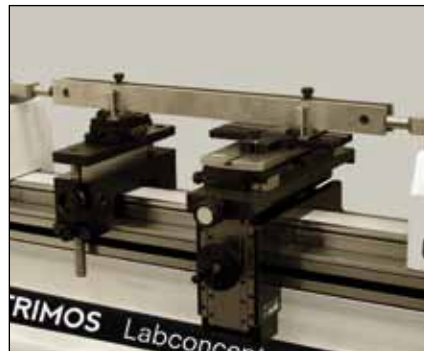
Calibration of thread plug gauges
(HPA-1/TEL6/3P/0.17-3.2/S6.5/LABC-15)



Calibration of external micrometers
(HPA-1/TULM14)



Comparative checking of gauge blocks < 250 mm
(TA-SU-313/TA-SU-305)



Comparative checking of gauge blocks > 250 mm
(TA-SU-313/TELMA7/P/TA-SU-305/TA-SU-306)



Setting of 2-point internal micrometers
(HPA-1/TELMA7/TELMN7.2)

LABCONCEPT + Premium

APPLICATIONS



Checking of dial indicators (TULM5C)



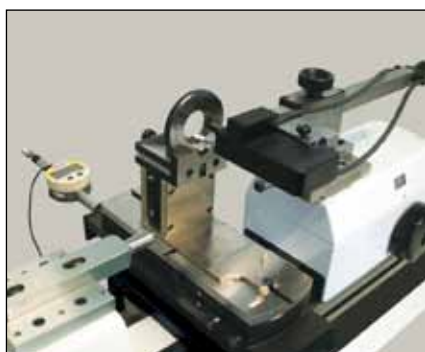
Checking of test indicators (TULM15)



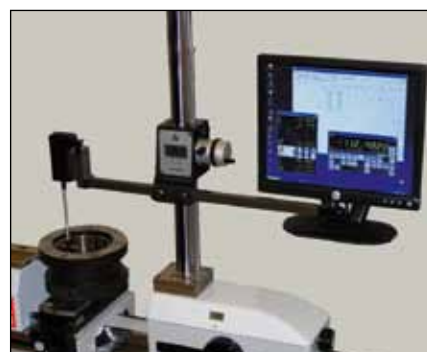
Checking of snap gauges (TA-SU-313/TEL14N)



Temperature compensation system
TempComp



Checking of taper thread ring gauges
(HPA-1/LABC80)



Special design for measurement of
large taper threaded gauges



Direct measurement over the whole measuring range.

LABCONCEPT Nano



LABCONCEPT Nano

INTRODUCTION

No compromise on accuracy

The Labconcept Nano is a new reference in the field of dimensional metrology. It integrates 40 years of knowledge and continuous improvement. It is a remarkable instrument for all measuring tasks that require extremely 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 axes XYZ and the legendary simplicity of use of Trimos WinDHI software.

The Labconcept Nano is completely designed and manufactured in Switzerland according to the highest quality standards. Robustness, reliability and longevity are our traditional values.

A New Technological Dimension

The Labconcept Nano combines tradition, experience and a strong technological lead. It integrates the latest measuring and motorisation technologies and can be considered as the first “full digital” calibration instrument. A regular PC controls all electronic components. This low-power solution avoids heating and keeps the energy, maintenance and repair costs at a reasonable level. The linear bearings used in all guideways have proven their superiority over all other technologies in terms of precision, wear, rigidity, temperature stability, reliability, dust protection and maintenance. They ensure exceptional repeatability and precision through time.

UNEQUALLED HIGH LEVEL OF ACCURACY

EXCEPTIONAL REPEATABILITY

MOTORIZED MEASURING CARRIAGE, X AXIS, SELECTION OF SPEED BY SOFTWARE

MOTORIZED UNIVERSAL MEASURING TABLE, CNC Y AND Z AXIS WITH INTEGRATED MEASURING SYSTEM

MEASURING FORCE (0-12N) AND LOCKING OF MEASURING ANVIL PERFORMED BY SOFTWARE

INTEGRATED TEMPERATURE COMPENSATION SYSTEM

ABSOLUTE MEASURING RANGE ON ALL MODELS: 350 MM

APPLICATION RANGES OF 350, 600 AND 1100 MM

MEASURING OF PARTS UP TO 60 KG IN WEIGHT

2 SCREENS IN THE STANDARD PACKAGE

CNC CONTROLLED MEASUREMENTS EVEN ON DIAMETERS AND THREADS

DESCRIPTION



motorized measuring table (YZ)

CNC controlled measuring carriage (X)

PC with 2 screens including WinDHI software for measurements and WinComp for temperature compensation

Ergonomic and compact Workbench

LABCONCEPT Nano

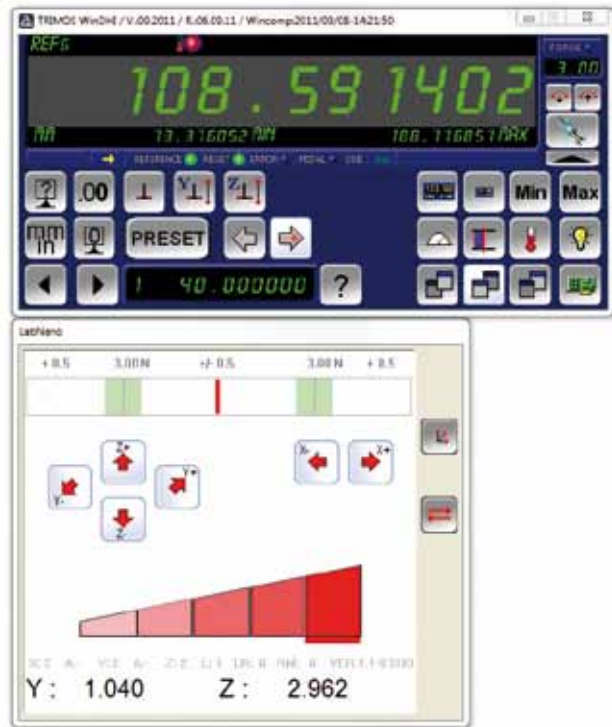
DISPLAY / SOFTWARE

TRIMOS WINDHI 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. It helps the user to perform all measurement tasks through a user-friendly interface.

The motorization of the measuring carriage (X) and both 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.

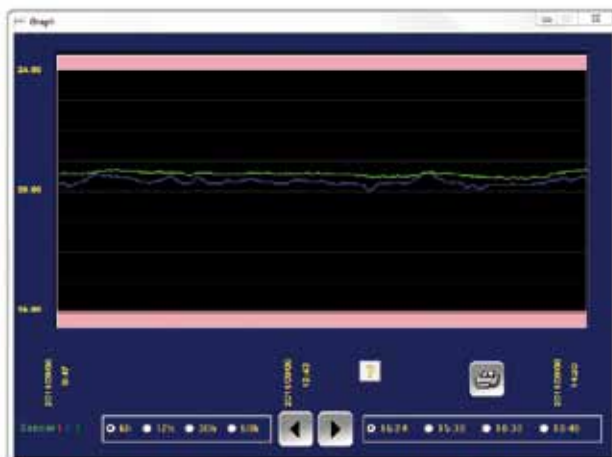
Positioning can be done easily using the mouse and the keyboard or via the touch screen (optional) or a joystick (optional). Once positioned, measurements are entirely CNC controlled, including searching the reversal point. Plug and ring gauges, threaded ring and plug gauges etc. can be measured automatically in a few seconds. No risk of damage to the sensitive probes while moving or measuring, even with tiny parts and inserts.



- 100 % AUTOMATIC MEASUREMENTS
- MEASUREMENTS PERFORMED IN A FEW SECONDS
- USER FRIENDLY INTERFACE
- GRAPHIC HELP FOR MEASURING FUNCTIONS
- ELECTRONICALLY ADJUSTABLE MEASURING FORCE
- DATA TRANSFER USING A FOOT SWITCH
- DDE SERVER (FOR EXCEL, WORD, ETC.)

TRIMOS WINCOMP

The Labconcept Nano is equipped as standard with a temperature compensation system Trimos WinComp allowing the acquisition and management of temperature data.



- TRIMOS WINCOMP EXCLUSIVE SOFTWARE
- ACQUISITION AND MANAGEMENT OF TEMPERATURE DATA
- PERMANENT CONNECTION WITH WIN DHI
- REAL - TIME COMPENSATION OF THE MEASUREMENT
- TEMPERATURE EVOLUTION HISTORY OVER SEVERAL YEARS FOR A PERFECT TRACEABILITY
- GRAPHICAL DISPLAY OF TEMPERATURE EVOLUTION
- MATERIALS LIBRARY
- INDICATION OF THE MEASUREMENT RELIABILITY LEVEL

DISPLAY / SOFTWARE

QMSOFT

Trimos recommends the QMSOFT software package for inspection and management of all measuring tools available.

INTEGRATED DRIVERS FOR TRIMOS INSTRUMENTS

REQUIRED NOMINAL SIZES AND TOLERANCES
AVAILABLE ACCORDING TO ALL STANDARDS

CUSTOMIZED INSPECTION CERTIFICATES



TECHNICAL SPECIFICATIONS

Labconcept Nano		350	600	1100
Application range	mm (in)	350 (13.2)	600 (23.6)	1100 (43.3)
Absolute measuring range	mm (in)	350 (13.2)		
Max. permissible errors ¹⁾	µm	0.07+L(mm) / 2000		
Repeatability (2s) ¹⁾	µm	0.03		
Max. resolution	mm (in)	0.000001 (0.0000001)		
Measuring force (adjustable by software)	N	0 ÷ 12		
Operational temperature	°C	+15 ÷ +35		
Temperature of storage	°C	-10 ÷ +40		
Relative humidity	%	20 ÷ 80		
Weight	kg	350	420	500

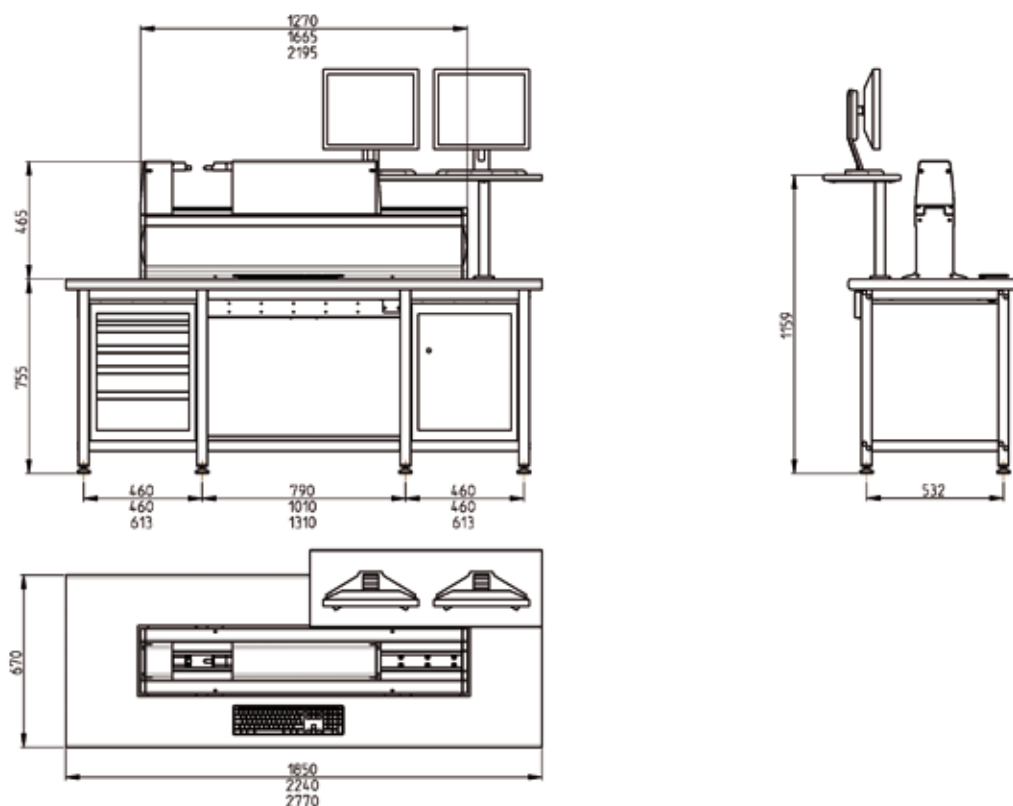
¹⁾ Values valid at temperature of 20 ± 0.2 °C and relative humidity of 50 ± 5%.

Measuring table with motorized Y and Z axes		
Z axis, displacement range ²⁾	mm (in)	100 (4)
Y axis, displacement range ²⁾	mm (in)	50 (2)
X axis, floating movement	µm	± 10
Angle of inclination (Y)	°	± 1.5
Angle of rotation (Z)	°	± 4
Max. weight of parts	kg	60

²⁾ Both axes Y and Z have an integrated measuring system.

LABCONCEPT Nano

SCHEMA



STANDARD INSTRUMENT

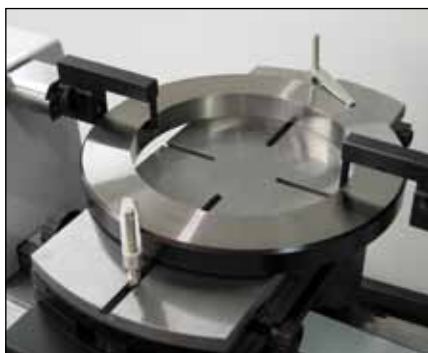
The Labconcept Nano are supplied as follows :

- Instrument according to specifications with tungsten carbide surface anvils
- Universal measuring table with motorized Y and Z axes (Nano-14)
- PC with interface, 2 LCD TFT screens and 1 printer
- Foot pedal for data transfer (TELMA31)
- Specially designed workbench with 1 drawer cabinet and 1 door cabinet
- Temperature compensation system (TEMPCOMP-B)
- Lapping plate (TA-TO-302)
- Protection cover (TEL.HO500 / 1000 / 1500)
- Allen key set (TA-TO-004)
- User's manual (750 50 0039 03)
- Test certificate

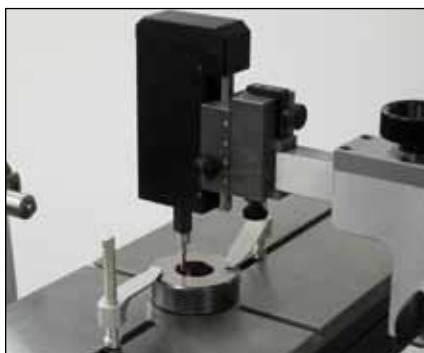
CODE NUMBERS

Labconcept Nano	Standard workbench	Anti-vibration workbench	
LABC-NANO 350 700 213 00 01	TA-TO-306 714 12 006	TA-TO-310 714 12 010	Measuring range 350 mm
LABC-NANO 600 700 213 10 01	TA-TO-307 714 12 007	TA-TO-311 714 12 011	Measuring range 600 mm
LABC-NANO 1100 700 213 20 01	TA-TO-308 714 12 008	TA-TO-312 714 12 012	Measuring range 1100 mm

APPLICATIONS



Calibration of plain ring gauges
(TEL16.1/TA-SU-354)



Calibration of small plain ring gauges
(TA-MS-370/TEL76/TA-SU-354)



Calibration of thread ring gauges
(TA-MS-370/TEL75/TA-SU-354)



Calibration of plug gauges
(TULM6/L05/TA-SU-315)



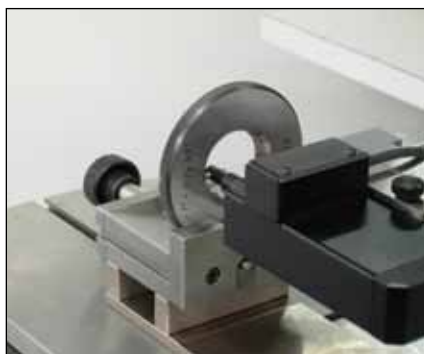
Calibration of thread plug gauges
(3P/0.17-3.2/S6.5/TA-SU-315)



Comparative checking of gauge blocks
> 250 mm (TA-SU-307/TEL7/TELM7)



Calibration of gauge bars
(TELM7/TELMN7.2)



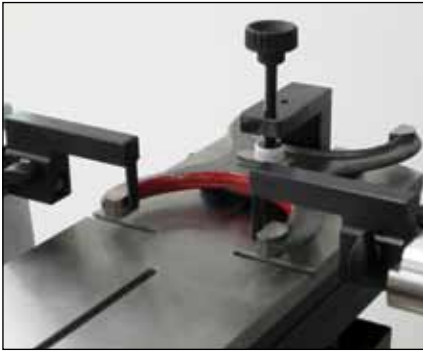
Checking of taper thread ring gauges
(TA-MS-381/TEL75)



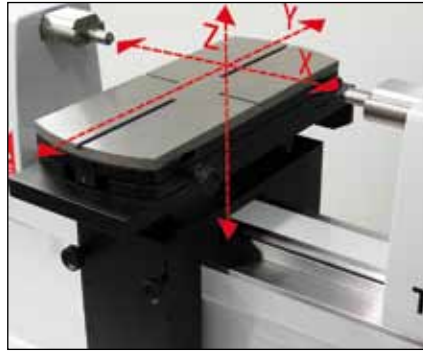
Checking of taper thread plug gauges
(TA-MS-381/TEL75)

LABCONCEPT Nano

APPLICATIONS



Calibration of snap gauges
(TEL16.1/TEL14N)



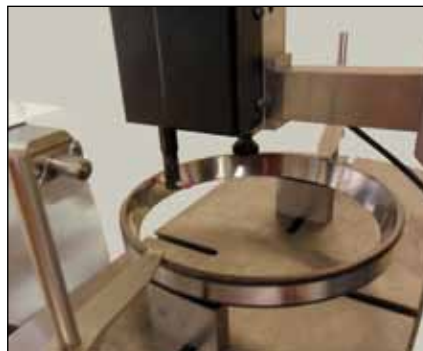
CNC-controlled measurement with
automatic reversal point search.



Anti-vibration table (optional)



Integrated temperature compensation
system TempComp



CNC controlled internal taper ring
measurement



CNC controlled external taper ring
measurement



CNC controlled internal measurement
of a bearing ring

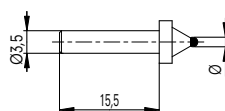
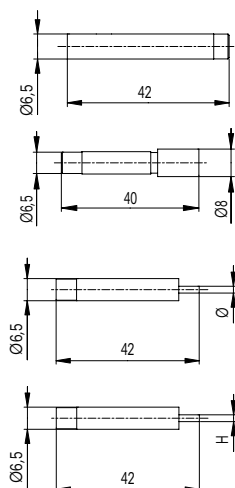


CNC controlled external
measurement of a bearing ring



Calibration of a specific gauge

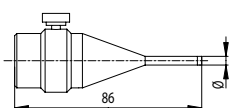
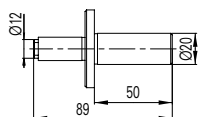
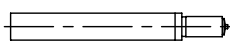
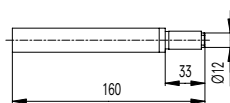
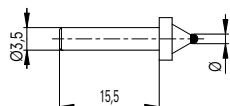
ACCESSORIES



		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LBCN
TELS50 609 05 044	Pair of measuring anvils Ø 6.5 mm	•						•		
TELS52 609 05 047	Pair of measuring anvils Ø 8 mm	•			•	•	•	•	•	•
TELS53 609 05 048	Pair of measuring anvils Ø 2 mm	•			•	•	•	•	•	•
TELS53/D1 SP609 05 048 01	Pair of measuring anvils Ø 1 mm	•			•	•	•	•	•	•
TELS50-L05 SP609 05 044 01	Pair of a knife-shaped anvils	•						•		
TA-MI-301 279 901008 001	Ball probe Ø 1.00 mm	•						•		
TA-MI-302 279 901008 002	Ball probe Ø 1.250 mm	•						•		
TA-MI-303 279 901008 003	Ball probe Ø 1.50 mm	•						•		
TA-MI-304 279 901008 004	Ball probe Ø 1.75 mm	•						•		
TA-MI-305 279 901008 005	Ball probe Ø 2.00 mm	•						•		
TA-MI-306 279 901008 006	Ball probe Ø 2.032 mm	•						•		
TA-MI-307 279 901008 007	Ball probe Ø 2.20 mm	•						•		
TA-MI-308 279 901008 008	Ball probe Ø 2.25 mm	•						•		
TA-MI-309 279 901008 009	Ball probe Ø 2.50 mm	•						•		
TA-MI-310 279 901008 010	Ball probe Ø 2.75 mm	•						•		
TA-MI-311 279 901008 011	Ball probe Ø 3.00 mm	•						•		
TA-MI-312 279 901008 012	Ball probe Ø 3.20 mm	•						•		
TA-MI-313 279 901008 013	Ball probe Ø 3.25 mm	•						•		
TA-MI-314 279 901008 014	Ball probe Ø 3.50 mm	•						•		

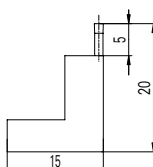
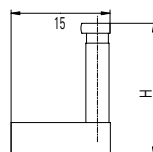
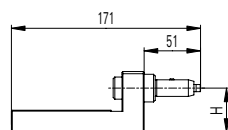
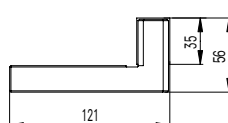
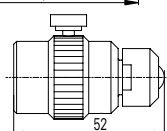
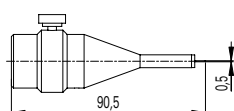
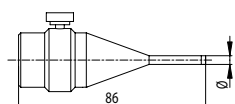


ACCESSORIES



		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LABCN
TA-MI-315 279 901008 015	Ball probe Ø 3.70 mm	•						•		
TA-MI-316 279 901008 016	Ball probe Ø 4.00 mm	•						•		
TA-MI-317 279 901008 017	Ball probe Ø 4.50 mm	•						•		
TA-MI-318 279 901008 018	Ball probe Ø 5.00 mm	•						•		
TA-MI-319 279 901008 019	Ball probe Ø 5.50 mm	•						•		
TA-MI-320 279 901008 020	Ball probe Ø 6.00 mm	•						•		
TA-MI-321 279 901008 021	Ball probe Ø 6.50 mm	•						•		
TA-MI-322 279 901008 022	Ball probe Ø 7.00 mm	•						•		
TA-MI-323 279 901008 023	Ball probe Ø 8.00 mm	•						•		
TA-MI-324 279 901008 024	Ball probe Ø 9.00 mm	•						•		
TA-MI-325 279 901008 025	Ball probe Ø 10.00 mm	•						•		
HPA-1 609 05 017	Pair of standard anvils			•		•	•		•	
TA-MI-350 609 05 105	Pair of anvils with radius 30 mm for gauge block					•	•		•	
TEL1 609 05 040	Anvil with tungsten carbide surface				•					
TEL6 609 05 041	Pair of anvils Ø 6.50 mm			•	•	•	•		•	•
TEL6/4 609 05 077	Pair of anvils Ø 4 mm			•	•	•	•		•	•
TEL6/6 609 05 078	Pair of anvils Ø 6 mm			•	•	•	•		•	•
TEL6/6.35 609 05 079	Pair of anvils Ø 6.35 mm			•	•	•	•		•	•

ACCESSORIES



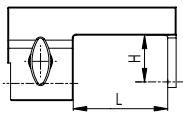
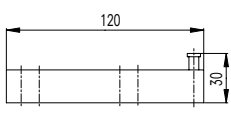
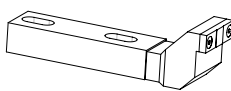
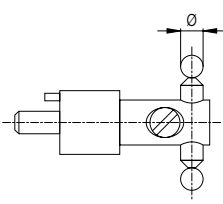
		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LABCN
TEL6/6.8 609 05 080	Pair of anvils Ø 6.8 mm			•	•	•	•		•	•
TEL6/8 609 05 081	Pair of anvils Ø 8 mm			•	•	•	•		•	•
TEL6/10 609 05 079	Pair of anvils Ø 10 mm			•	•	•	•		•	•
TULM6/L05 609 05 016	Pair of a knife-shaped anvils			•	•	•	•		•	•
TEL7 609 05 013	Pair of anvils with ball Ø 10 mm			•	•	•	•		•	•
TEL5 609 05 101	Pair of parallel attachments 25 mm			•	•	•	•		•	
TEL5E 609 05 102	Pair of parallel attachments 1"			•	•	•	•		•	
TEL5.10 612 12 002	Pair of parallel attachments 5 mm, for ext. measurement from 20 mm			•		•	•		•	
TEL5.10E 612 12 007	Pair of parallel attachments .2", for ext. measurement from .8"			•		•	•		•	
TELMA5.0 609 05 005	Pair of holders with measuring inserts TELS50, H=40 mm			•		•	•		•	
TELMA5.0/H70 SP609 05 005 01	Pair of holders with measuring inserts TELS50, H=70 mm			•		•	•		•	
TELMA5.0/H88 SP609 05 005 02	Pair of holders with measuring inserts TELS50, H=88 mm			•		•	•		•	
TELMA5.0/H55 SP609 05 005 03	Pair of holders with measuring inserts TELS50, H=55 mm			•		•	•		•	
TELMA5.0/H65 SP609 05 005 04	Pair of holders with measuring inserts TELS50, H=65mm			•		•	•		•	
TELS10 609 05 042	Pair of inserts for int. meas. >Ø10, H=20 mm	•								
TELS10/H50 609 05 043	Pair of inserts for int. meas. >Ø10, H=50 mm	•								
TELS10/H35 SP609 05 043 01	Pair of inserts for int. meas. >Ø10, H=35 mm	•								
TELS10/1.5C SP609 05 070 01	Pair of inserts for int. meas. >Ø3 mm	•								



ACCESSORIES

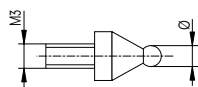
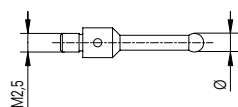
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	TELS11 609 05 058	●								
	TELS11.1 609 05 103	●								
	TELS12 609 05 060	●								
	TELS13 609 05 033	●								
	THV-10 609 05 034							●		
	THV-11 609 05 032							●		
	THV-12 609 05 035							●		
	THV-15 609 05 092							●		
	THV-20 609 05 037							●		
	THV-21 609 05 038							●		
	THV-22 609 05 039							●		
	THV-25 609 05 091							●		
	THV-26 609 05 094							●		
	TEL16.1 609 05 088					●	●		●	●

ACCESSORIES

		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LBCN
	TEL16.2 609 05 089					•	•		•	•
	TEL16.3 609 05 097					•	•		•	•
	TEL9 612 12 008			•	•					
	TEL9.10 612 12 009			•	•					
	TELMN9 612 11 002			•	•					
	TELMA8 612 12 052			•	•	•	•		•	
	TEL75.01 298 000205 050					•	•		•	•
	TEL75.1 298 000205 051					•	•		•	•
	TEL75.2 298 000205 052					•	•		•	•
	TEL75.3 298 000205 053					•	•		•	•
	TEL75.4 298 000205 054					•	•		•	•
	TEL75.5 298 000205 055					•	•		•	•
	TEL75.6 298 000205 056					•	•		•	•
	TEL75.7 298 000205 057					•	•		•	•
	TEL75.8 298 000205 058					•	•		•	•
	TEL75.9 298 000205 059					•	•		•	•
	TEL75.10 298 000205 060					•	•		•	•
	TEL75.11 298 000205 061					•	•		•	•
	TEL75.12 298 000205 062					•	•		•	•

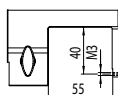
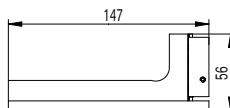
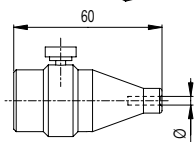
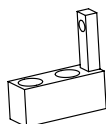
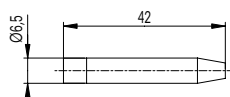


ACCESSORIES



		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LABCN
TEL76.2 509 05 20 0018	Measuring insert with ruby ball Ø0.5 mm					•	•		•	•
TEL76.3 509 05 20 0019	Measuring insert with ruby ball Ø1.0 mm					•	•		•	•
TEL76.4 509 05 20 0020	Measuring insert with ruby ball Ø2.5 mm					•	•		•	•
TEL76.5 509 05 20 0021	Measuring insert with ruby ball Ø5.0 mm					•	•		•	•
TEL77.100 279 901009 001	Pair of measuring inserts with ball Ø1.00 mm					•	•		•	•
TEL77.125 279 901009 008	Pair of measuring inserts with ball Ø1.25 mm					•	•		•	•
TEL77.150 279 901009 002	Pair of measuring inserts with ball Ø1.50 mm					•	•		•	•
TEL77.175 279 901009 009	Pair of measuring inserts with ball Ø1.75 mm					•	•		•	•
TEL77.200 279 901009 003	Pair of measuring inserts with ball Ø2.00 mm					•	•		•	•
TEL77.250 279 901009 004	Pair of measuring inserts with ball Ø2.50 mm					•	•		•	•
TEL77.300 279 901009 005	Pair of measuring inserts with ball Ø3.00 mm					•	•		•	•
TEL77.350 279 901009 006	Pair of measuring inserts with ball Ø3.50 mm					•	•		•	•
TEL77.400 279 901009 007	Pair of measuring inserts with ball Ø4.00 mm					•	•		•	•
TEL77.450 279 901009 010	Pair of measuring inserts with ball Ø4.50 mm					•	•		•	•
TEL77.500 279 901009 011	Pair of measuring inserts with ball Ø5.00 mm					•	•		•	•
TEL77.550 279 901009 012	Pair of measuring inserts with ball Ø5.50 mm					•	•		•	•
TEL77.600 279 901009 013	Pair of measuring inserts with ball Ø6.00 mm					•	•		•	•
TEL77.700 279 901009 014	Pair of measuring inserts with ball Ø7.00 mm					•	•		•	•
TEL77.900 279 901009 015	Pair of measuring inserts with ball Ø9.00 mm					•	•		•	•
TEL77.1000 279 901009 016	Pair of measuring inserts with ball Ø10.00 mm					•	•		•	•



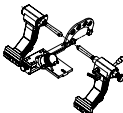
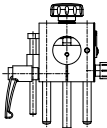
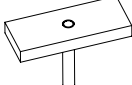
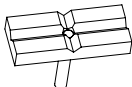
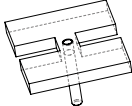
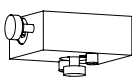
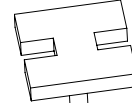
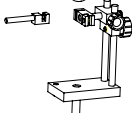
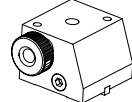
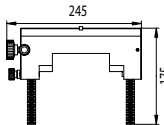
ACCESSORIES



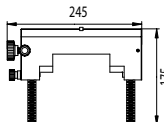
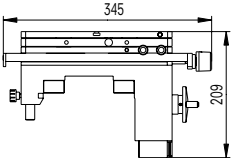
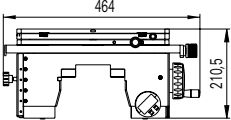
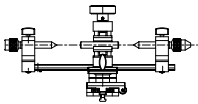
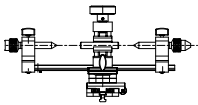
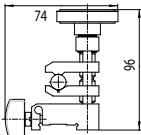
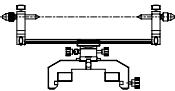
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TELS51 509 05 20 0027	Holder for measuring inserts M2.5	●						●		
TELS51E 509 05 20 0028	Holder for measuring inserts 4-48	●						●		
TELS51/D3.5 609 05 045	Pair of holders for measuring inserts Ø 3.5 mm	●						●		
TELS18 612 11 031	Pair of holders for measuring inserts Ø 3.5 mm	●								
TEL15 609 05 098	Pair of holders for measuring inserts Ø 3.5 mm			●	●	●	●		●	●
TEL5.0 612 11 017	Pair of holders for measuring inserts Ø 6.5 mm			●	●	●	●		●	●
TEL18 609 00 019	Pair of cone holder for int. thread measurement			●	●	●	●			
TEL16.2SP2 SP609 05 089 02	Pair of L-shaped holders for M3 Inserts					●	●		●	●
P25 276 950000 001	Electronic probe 25 mm	●						●		
P25TA 276 950001 001	Electronic probe P25 with magnetic insert	●						●		
P25TA.C 276 950001 002	Electronic probe P25 with magnetic insert, and certificate	●						●		
P25TA.1 279 950001 001	Magnetic insert for probe P25	●						●		
TA-MS-301 276 940001 004	Electronic probe 30 mm						●		●	
TA-MS-302 276 000230 001	Digital indicator 50 mm, resolution 0.001 mm	●		●	●	●	●	●	●	●
TEL3C.1 276 000230 002	Digital indicator 50 mm, resolution 0.01 mm	●		●	●	●	●		●	
TEL70 706 200 14	Electronic probe for internal measurement				●					
TULM70 706 200 13	Electronic probe for internal measurement					●				
LABC-70 706 203 01	Electronic probe for internal measure- ment, (with support, without interface)						●		●	



ACCESSORIES

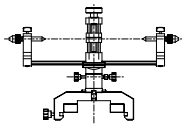
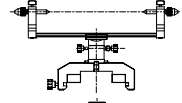
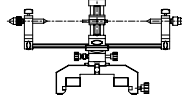
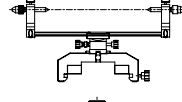
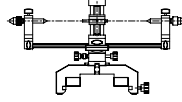
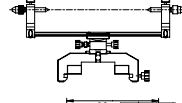
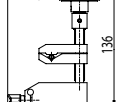
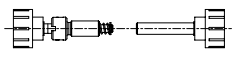
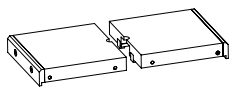
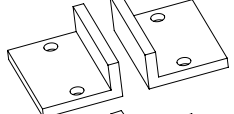
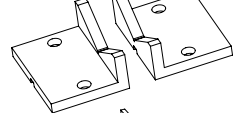
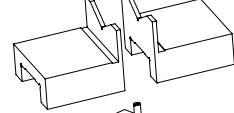
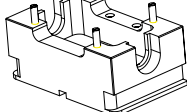
		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LABCN
	TA-MS-370 706 203 02									●
	LABC80 709 60 001						●		●	
	LABC80.1 712 04 003						●		●	
	TA-MS-381 712 04 010									●
	TA-MS-303 609 00 035					●				
	TA-SU-303 612 32 003					●				
	TELS5.1 602 33 004	●								
	TELS5.2 602 33 003	●								
	TELS5.3 602 33 001	●								
	TELS5 612 20 001	●								
	THV-101 602 33 002							●		
	THV-150 609 00 005							●		
	THV-100 602 15 001							●		
	TELMA7 602 39 007			●		●	●		●	●
	TELMA7/P 602 39 005			●		●	●		●	●

ACCESSORIES

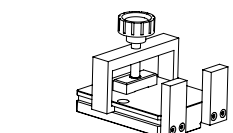
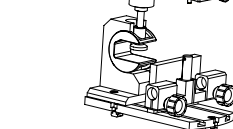
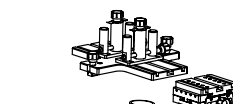
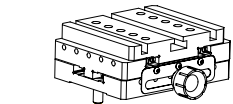
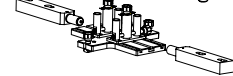
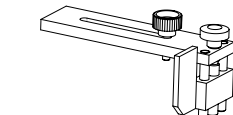
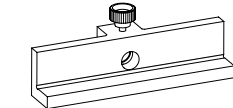
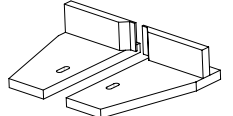
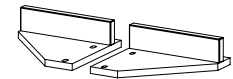
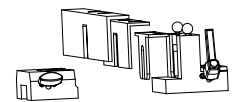
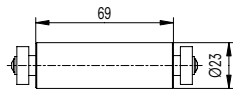
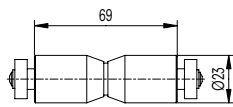
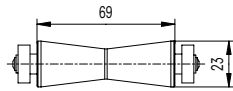
		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LACN
	TELMA7/SP04 602 39 012			•		•	•		•	•
	TELMA7/SP05 602 39 013			•		•	•		•	•
	HG-3 709 40 032				•					
	HG-3/P 609 40 032				•					
	TA-SU-313 709 40 044					•	•		•	
	H-13 709 40 018			•						
	HG-13 709 40 016				•					
	HPA-14 709 40 033					•	•		•	
	H-6 603 00 007			•						
	THV-115 709 40 035							•		
	THV-115.1 609 40 035							•		
	TA-SU-316 709 40 041					•	•		•	•
	TA-SU-317 609 40 041					•	•		•	•
	THV-115.2 706 04 002							•		
	LABC-15 709 40 034					•	•		•	
	LABC-15.1 609 40 034					•	•		•	



ACCESSORIES

		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LABCN
	TA-SU-315 709 40 040									●
	Nano-15.1 609 40 040									●
	H-15 709 40 036			●						
	H-15.1 609 40 036			●						
	HG-15 709 40 037				●					
	HG-15.1 609 40 037				●					
	LABC-15.2 706 04 001			●	●	●	●		●	●
	LABC-15.3 708 03 007			●	●	●	●		●	●
	H-5 606 32 001			●						
	TELMN7.1 612 32 002			●		●	●		●	
	TELMN7.2 612 32 001			●	●	●	●		●	●
	TEL11 612 12 032			●		●	●		●	●
	TELMN7.2/SP01 612 23 001			●	●	●	●		●	

ACCESSORIES



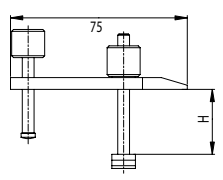
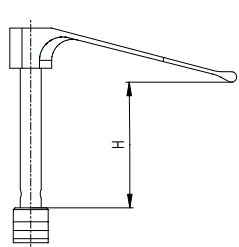





		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LBCN
TELMN7.2/SP02 613 07 006	V-shaped roll for cylindrical parts			•	•	•	•		•	
TELMN7.2/SP03 613 07 007	Roll for Easy-Metric gauges			•	•	•	•		•	
TELMN7.2/SP04 613 07 008	Cylindrical roll			•	•	•	•		•	
TA-SU-301 612 04 005	Supporting device for 2 points bore gauges			•	•	•	•		•	
TEL17 602 32 014	Pair of supporting plates for 2 points bore gauges <330 mm			•	•	•	•		•	
TEL17.2 602 32 016	Pair of supporting plates for 2 points bore gauges <180 mm			•	•	•	•		•	
TEL17.1 602 32 015	Supporting device for 2 points bore gauges				•					
TELMN4 602 20 013	Adjustable support for setting of reversal point			•	•	•	•		•	
TA-SU-305 709 60 003	Supporting device for gauge blocks 100-250 mm with anvils TA-MI-350					•	•		•	
TA-SU-306 612 04 008	Additional support for gauge blocks >250 mm, to be used with TA-SU-305, (to be mounted on TELMA7)					•	•		•	
TA-SU-307 709 60 004	Supporting device for gauge blocks (2 items): 1 support for gauge blocks 100-250 mm, 1 additional support for gauge blocks >250 mm									•
TULM14 708 209 140	Clamping device for external micrometers, 12-20 mm/.48"-4"					•	•		•	
TULM19 612 30 003	Holding device for depth calipers			•	•	•	•		•	



ACCESSORIES

		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LABCN
	TEL5CN 612 02 008			●		●	●			
	TEL5CNE 612 02 007			●		●	●			●
	TULM5C 612 02 003					●	●		●	●
	TULM5CE 612 02 002					●	●		●	●
	TULM15 609 02 015					●	●		●	
	TEL14N 612 12 049					●	●		●	
	TA-SU-302 603 00 021					●	●		●	
	TEL10 612 12 023			●	●	●	●		●	
	TEL10E 612 12 022			●	●	●	●		●	
	LABC20 709 60 002					●	●		●	
	LABC20.1 609 60 002					●	●		●	
	THV-260 609 00 007								●	
	THV-261 609 00 006								●	
	TA-SU-304 SP609 60 001 01					●	●		●	●
	THV-180 606 25 008								●	
	THV-500 616 00 021								●	

ACCESSORIES

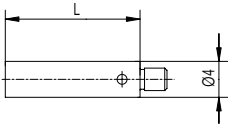
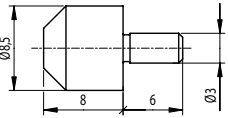
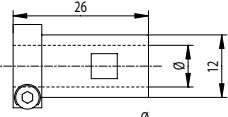
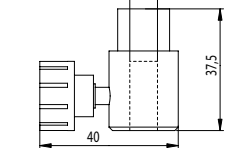
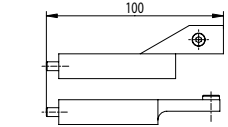
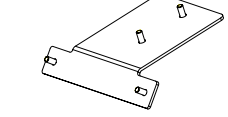
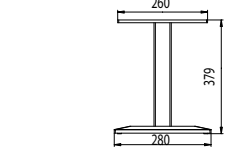
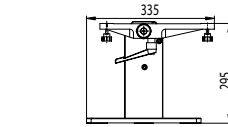
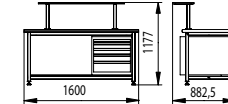
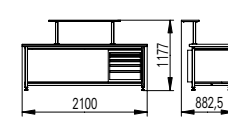
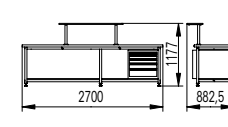
		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LBCN
	TEL14.1 606 00 004			•	•	•	•		•	•
	TEL14.2 606 00 005			•	•	•	•		•	•
	TA-SU-354 706 02 004			•	•	•	•		•	•
	TA-SU-355 706 02 005			•	•	•	•		•	•
	TA-SU-356 706 02 006			•	•	•	•		•	•
	TA-SU-357 706 02 007			•	•	•	•		•	•
	TA-SU-358 706 02 008			•	•	•	•		•	•
	According to type	Specific adapter for 2-point bore gauges		•						
	TA-SU-451 279 906001 028		•							
	TA-SU-407 279 906001 039		•							
	TA-SU-410 279 906001 073		•							
	TA-SU-411 279 906001 074		•							
	TA-SU-412 279 906001 075		•							
	TA-SU-419 279 906001 044		•							
	TA-SU-420 279 906001 069		•							
	TA-SU-483 279 906001 091		•							
	TA-SU-484 279 906001 092		•							



ACCESSORIES

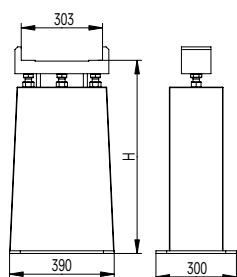
		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LABCN
	TA-SU-401 279 906001 051		●							
	TA-SU-402 279 906001 052		●							
	TA-SU-403 279 906001 053		●							
	TA-SU-405 279 906001 062		●							
	TA-SU-423 279 906001 089		●							
	TA-SU-404 279 906001 054		●							
	TA-SU-414 279 906001 063		●							
	TA-SU-417 279 906001 064		●							
	TA-SU-416 279 906001 065		●							
	TA-SU-418 279 906001 066		●							
	TA-SU-406 279 906001 070		●							
	TA-SU-421 279 906001 071		●							
	TA-SU-422 279 906001 072		●							
	TELS3.1C 279 918101 006	●								
	THV-181 601 01 002							●		
	THV-181E 601 01 001							●		

ACCESSORIES

		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LABCN
	TEL76.6 501 04 20 0001						•		•	•
	TEL76.7 501 04 20 0002						•		•	•
	TEL76.1 512 12 20 0003						•		•	•
	TELS3C 603 12 002	•								
	TELS3CE 603 12 001	•								
	TEL3.1 603 12 006			•	•	•	•		•	
	TEL3.1E 603 12 007			•	•	•	•		•	
	TULM13.2 612 02 012			•	•	•	•		•	
	TULM13.2E 612 02 013			•	•	•	•		•	
	H-32 612 06 004			•						
	TULM30.1 612 05 002	•						•		
	THV30.1 612 05 003	•						•		
	THV-200 712 12 038							•		
	LABC-TAB500 714 12 001			•		•	•		•	
	LABC-TAB1000 714 12 002			•		•	•		•	
	LABC-TAB1500 714 12 003			•		•	•		•	



ACCESSORIES



		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LABCN
TELA05A/H700 602 13 004	Support for HG2000, H=700 mm				●					
TELA05A/H600 602 13 005	Support for HG3000, H=600 mm				●					
TELA05A/H500 602 13 006	Support for HG4000, H=500 mm				●					
TELA05A/H400 602 13 007	Support for HG5000, H=400 mm				●					
TELA05A/H300 602 13 008	Support for HG6000, H=300 mm				●					
TELA05A/H200 602 13 009	Support for HG7000, 8000 +10000, H=125 mm				●					
3P/0.17-3.2/S6.5 279 901004 101	Set of thread measuring wires with holders, Pitches 0.25-5 mm, holder bore Ø6.5 mm			●	●	●	●	●	●	●
TEL15/150 605 01 012	Set of probes for threads ISO 60°			●	●	●				
TEL15/152 605 01 013	Set of probes for threads Whitworth 55°			●	●	●				
TEL18/50S 605 01 010	Set of cones for internal thread measurement 60°			●	●	●				
TEL18/50ES 605 01 011	Set of cones for internal thread measurement 55°			●	●	●				
TEL75 605 01 009	Set of T-shaped measuring inserts with ruby balls				●	●	●		●	●
TEL76 605 01 004	Set of measuring inserts with ruby ball, for internal diameters >1 mm				●	●	●		●	●
TEL25D4M 609 01 002	Setting ring cones 60°			●	●	●				
TEL25D4E 609 01 001	Setting ring cones 55°			●	●	●				
TULM40D.INT 709 201 11	Master ring gauge Ø 40 mm with SCS certificate	●		●	●	●	●	●	●	●
TULM40INT.METAS 709 201 31	Master ring gauge Ø 40 mm with Metas certificate	●		●	●	●	●	●	●	●

ACCESSORIES

		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LBCN
	TULM50D.EXT 709 201 01			•	•	•	•		•	•
	TULM50EXT. METAS 709 201 21			•	•	•	•		•	•
	TA-TO-004 290 000911 100			•	•	•	•		•	•
	TA-TO-003 290 000911 003			•	•	•	•		•	•
	TA-TO-302 514 02 20 0002			•	•	•	•		•	•
	TA-TO-301 514 02 20 0001	•						•		
	TA-TO-303 740 05 101	•		•	•	•	•	•	•	•
	TEL.HO500 505 05 10 0023			•		•	•		•	•
	TEL.HO1000 505 05 10 0024			•		•	•		•	•
	TEL.HO1500 505 05 10 0025			•		•	•		•	•
	TEL.HO2000 505 05 10 0026			•		•	•		•	
	TEL.HO3000 505 05 10 0027				•	•	•			
	TEL.HO4000 505 05 10 0028				•					
	TEL.HO5000 505 05 10 0029				•					
	TEL.HO6000 505 05 10 0030				•					
	TEL.HO8000 505 05 10 0032				•					
	TEL70.3 351 191 0001				•	•				



ACCESSORIES



		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LABCN
	EL-D80S 351 292 0011	•						•		
	EL-D100S 351 292 0010	•						•		
	TA-DU-301 351 101 1001							•		
	TA-DU-302 351 101 1011				•	•				
	TA-DU-303 351 201 0012					•				
	TA-DU-330 351 192 0045				•	•				
	TELMA31 3706 0002			•			•	•	•	•
	TA-EL-301 3706 0009				•	•		•		
	TA-EL-040 358 0020									•
	TVM.O-PC/ AT.9P 333 9 0003						•		•	
	V-31 333 0 0003			•						
	CABL.RS.1/ 1-9P 332 01 0001			•						
	TA-EL-011 358 0006						•		•	•
	LABC-40 356 0010						•		•	•
	TA-EL-030 356 0016						•		•	•

ACCESSORIES

		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LBCN
	V-30 356 0007			•						
	V-30.7 788 000001 001			•						
	TA-EL-001 332 10 0011			•			•		•	
	TA-EL-002 332 10 0013			•			•		•	
	TA-EL-003 332 10 0016			•			•		•	
	TA-EL-004 332 10 0014			•			•		•	
	TA-EL-005 616 20 003			•			•		•	
	TA-EL-131 334 0020			•						
	BAT-TVM.OPTO 3705 0002					•	•		•	
	TA-EL-331 740 16 002					•	•		•	
	TEMPCOMP-B 609 50 001						•		•	•
	TEMPCOMP-P 609 50 002						•		•	•
	TEMPCOMP-PA 609 50 003						•		•	•
	TEMPCOMP-PA DKD 609 50 004						•		•	•



ACCESSORIES

		TELS	ALESTA	H	HG	HPA	HPD	THV	LABC + P	LABCN
	TA-SW-001 394 1 0050			•	•	•		•		
	QM-MANAG 394 1 3201						•	•	•	•
	QM-CALIP 394 1 3202						•		•	•
	QM-DIAL 394 1 3203						•	•	•	•
	QM-MICRO 394 1 3204						•		•	•
	QM-PIN 394 1 3205						•	•	•	•
	QM-PLAIN 394 1 3206						•	•	•	•
	QM-BLOCK 394 1 3210						•	•	•	•
	QM-THREAD 394 1 3212						•	•	•	•
	QM-TTAP32 394 1 3214						•		•	•
	QM-SPLINE 394 1 3213						•		•	•
	QM-THREAD32 STARTER 394 1 3222						•	•	•	•
	QM-TTAP32 STARTER 394 1 3224						•		•	•
	QM-PACK32-1 394 1 3250						•	•	•	•
	QM-PACK32-2 394 1 3251						•	•	•	•