

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.

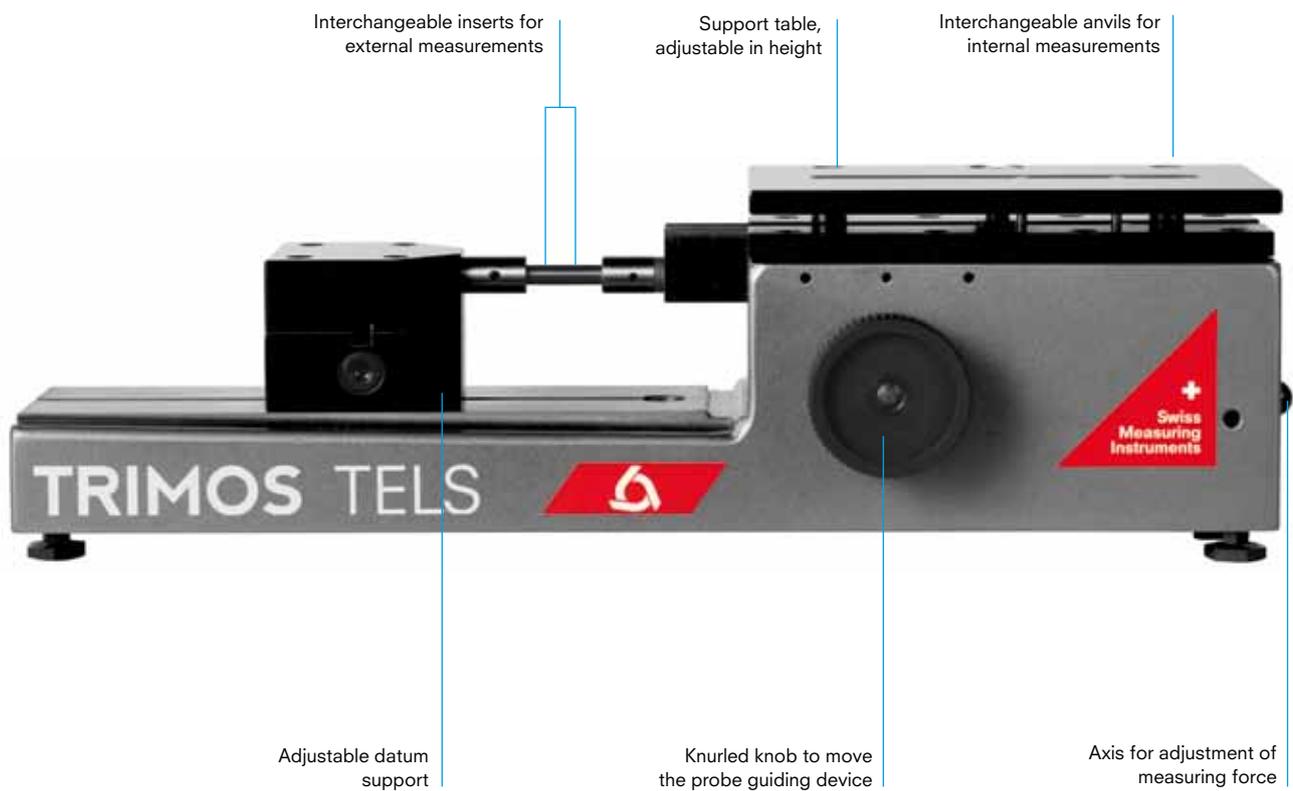
IDEAL FOR CHECKING SMALL DIMENSIONS

EASY MANIPULATION

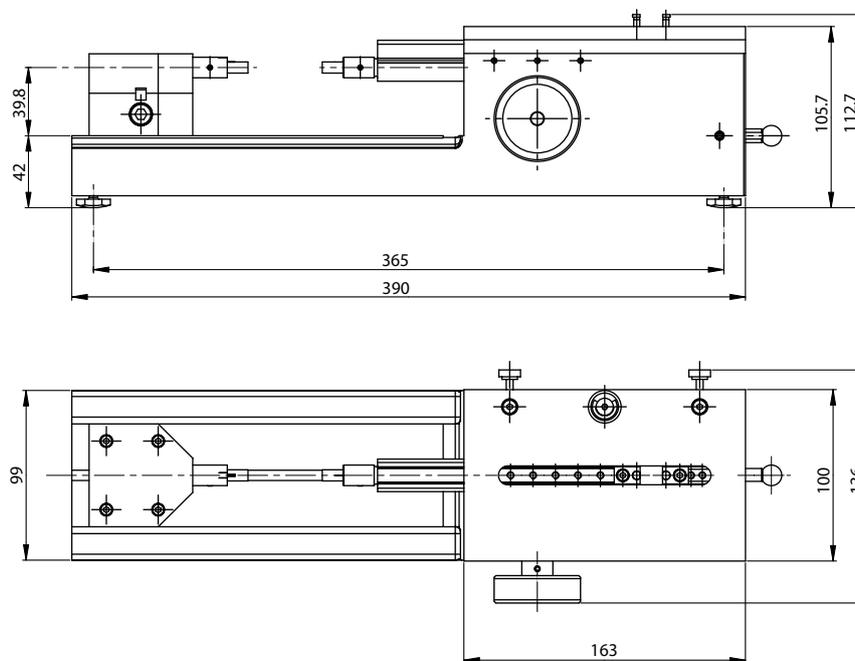
SUITABLE FOR USE IN WORKSHOP AREA

WIDE SELECTION OF ACCESSORIES

DESCRIPTION



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

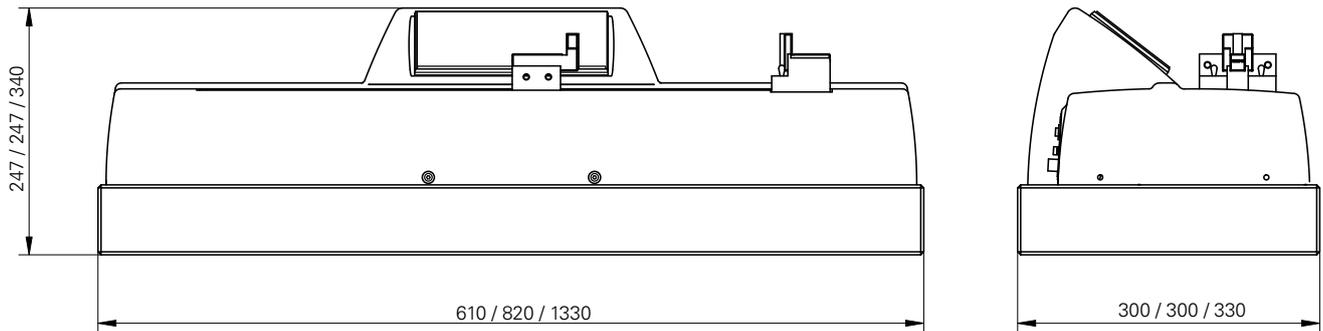


TECHNICAL SPECIFICATIONS

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



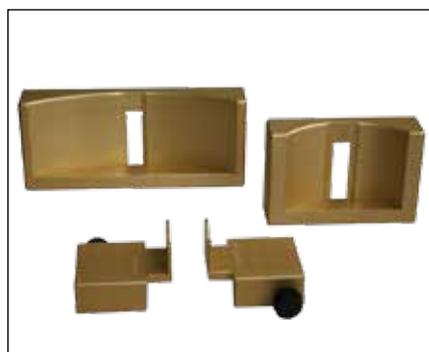
Setting of two-point bore gauges



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

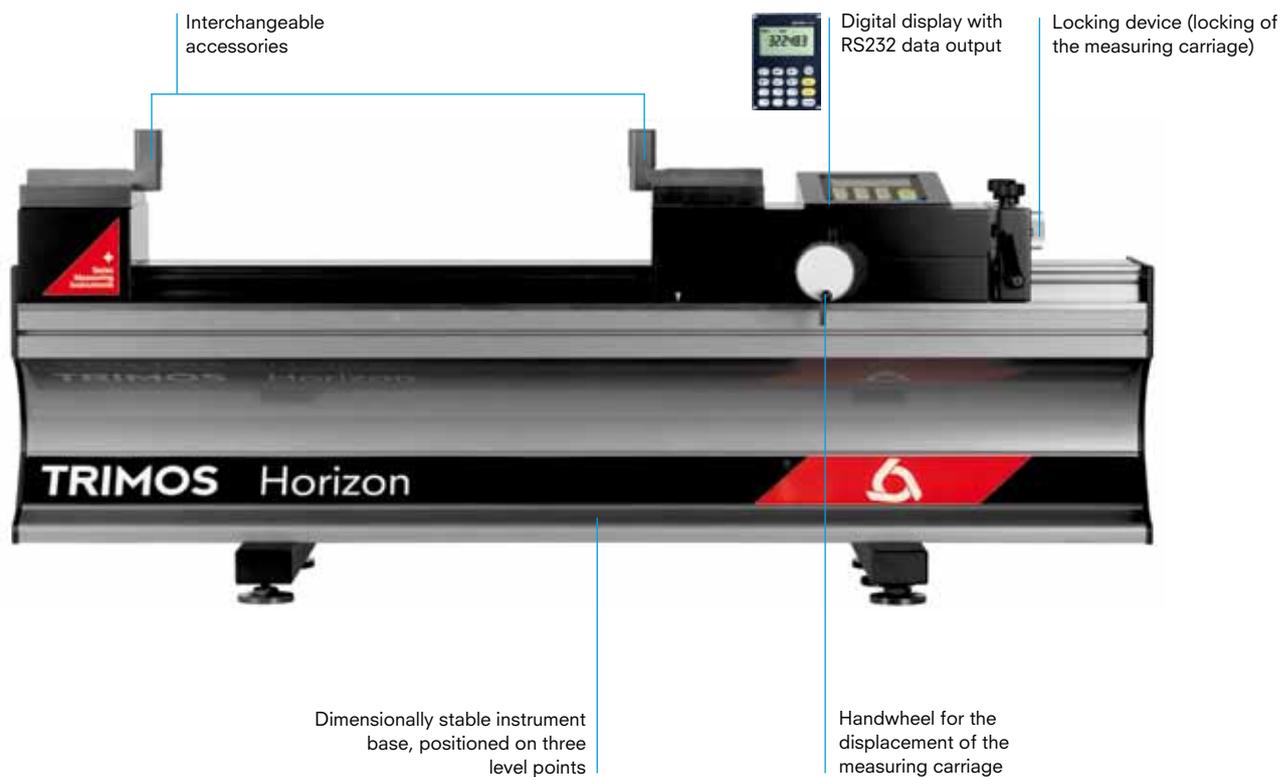
PRECISE CHECKING AND SETTING MADE EASY

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%.

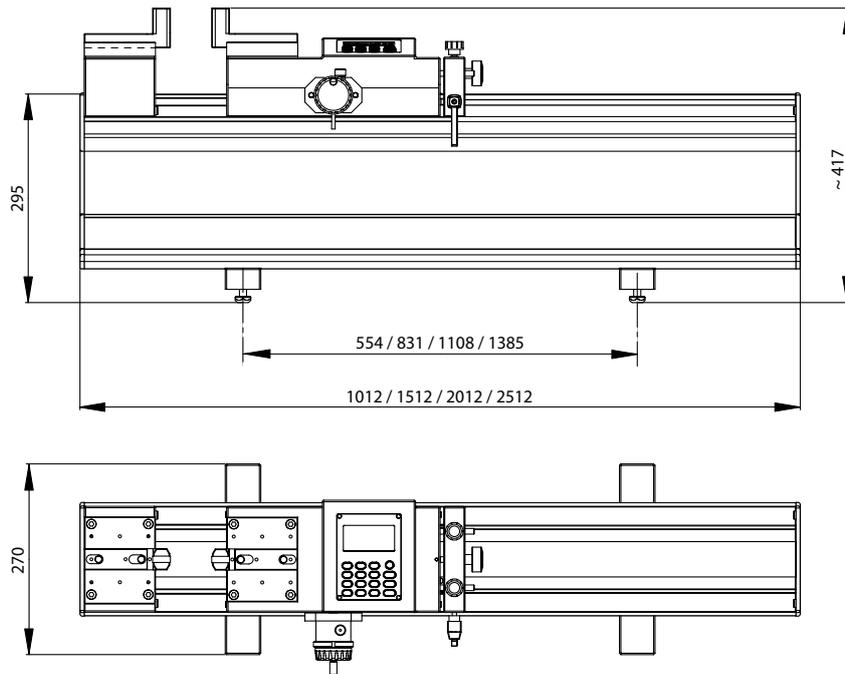
Horizon Granite		HG3000	HG4000	HG5000	HG6000	HG8000
Measuring range	mm (in)	3000 (118)	4000 (157)	5000 (196)	6000 (236)	8000 (315)
Max. permissible errors ¹⁾	µm	0.7 + L/750				
Repeatability (2s) ¹⁾	µm	0.5				
Resolutions	mm (in)	0.01 / 0.001 / 0.0001 (.001 / .0001 / .00001)				
Max. displacement speed	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%.

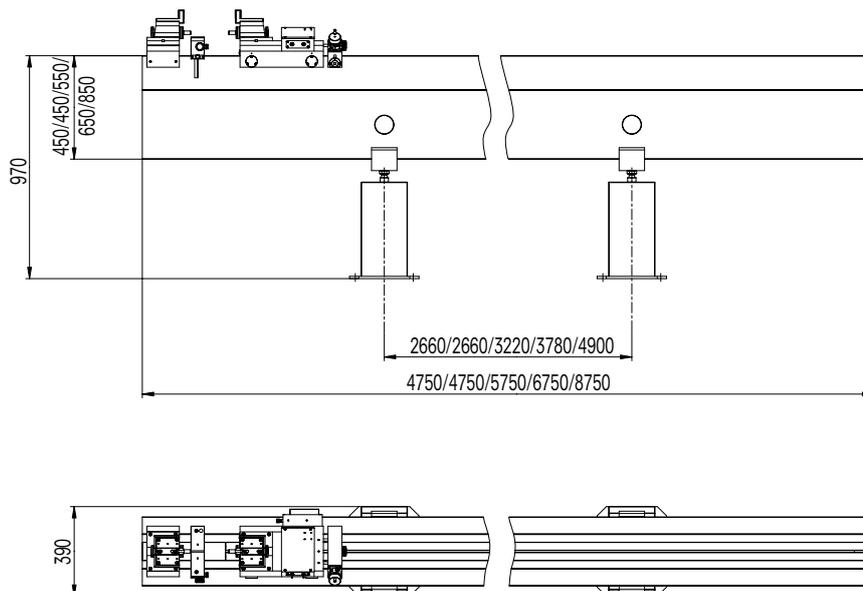
HORIZON + Granite

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

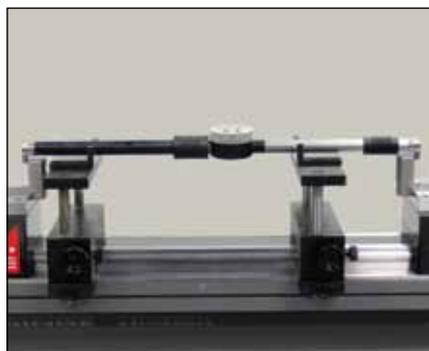
CODE NUMBERS

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

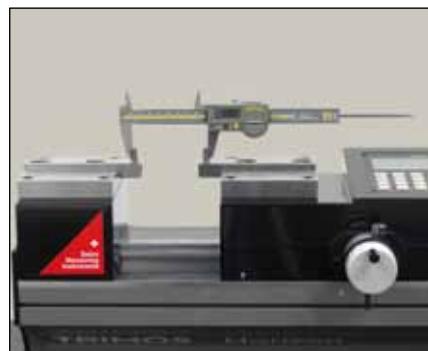
APPLICATIONS



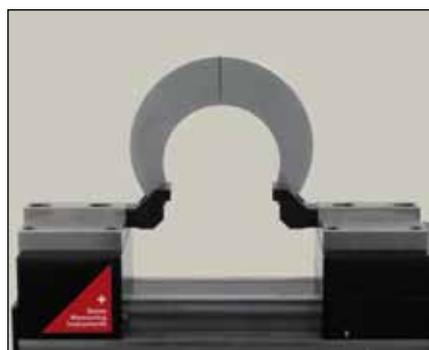
Setting of 2-point internal and external comparative measuring equipment (TEL5/TELMA7/TELMN7.2)



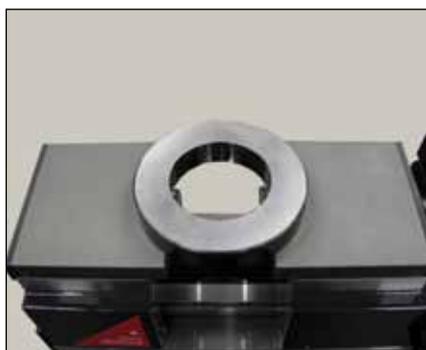
Setting of 2-point bore gauges (TEL5/TA-SU-301)



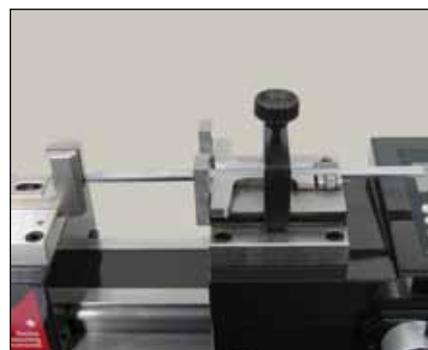
Checking of calipers (TEL5.10)



Checking of snap gauges (TELMA8)



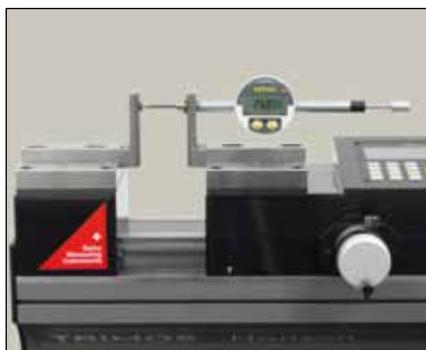
Checking of internal diameter of heavy rings (TEL9/H-5)



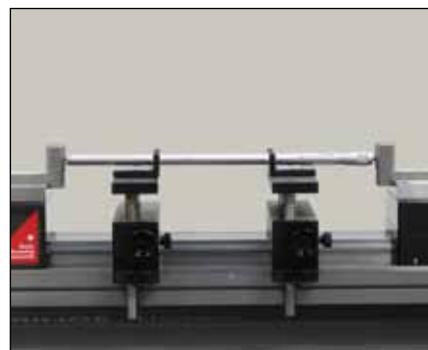
Checking of depth gauges (TULM19/TEL5)



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

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



Heidenhain ND1100



Heidenhain ND287



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

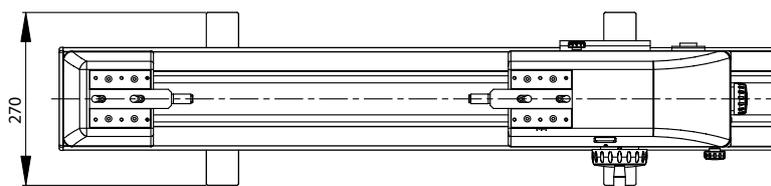
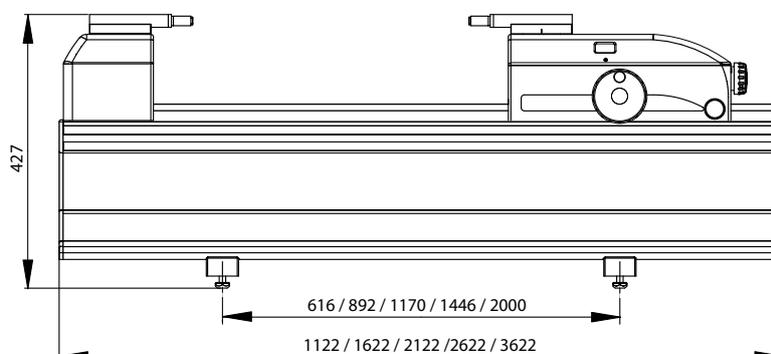


TECHNICAL SPECIFICATIONS

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

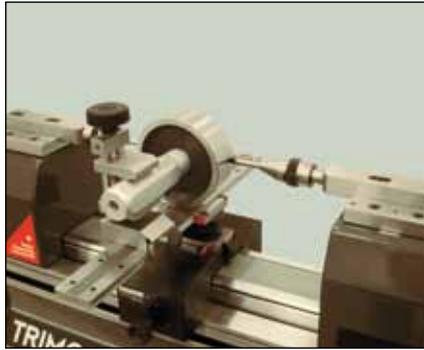
Horizon Premium (HPD)				
HPD500	700 212 10 01	HPD500B	700 212 10 02 ¹⁾	Measuring range 500 mm
HPD1000	700 212 20 01	HPD1000B	700 212 20 02 ¹⁾	Measuring range 1000 mm
HPD1500	700 212 30 01	HPD1500B	700 212 30 02 ¹⁾	Measuring range 1500 mm
HPD2000	700 212 40 01	HPD2000B	700 212 40 02 ¹⁾	Measuring range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

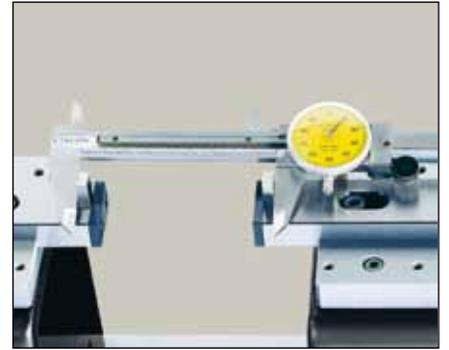
APPLICATIONS



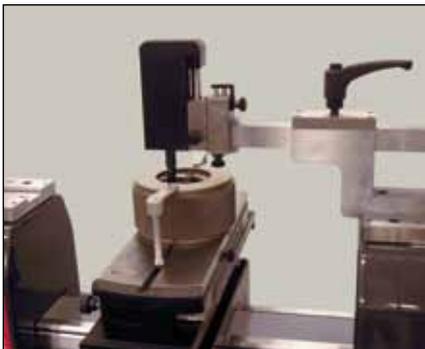
Checking of ring gauges
(TA-SU-313/TEL16.1/HPA-1)



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



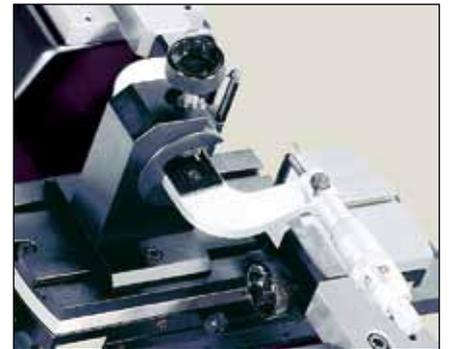
Checking of calipers (TEL5.10)



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



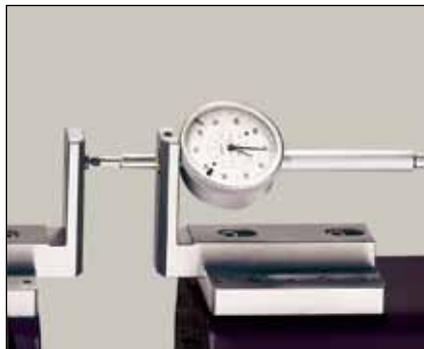
Checking of thread plug gauges (HPA-1/TEL6/3P/0.17-3.2/S6.5/LABC-15)



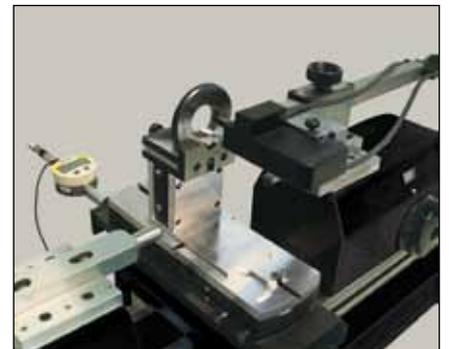
Checking of external micrometers
(HPA-1/TULM14)



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



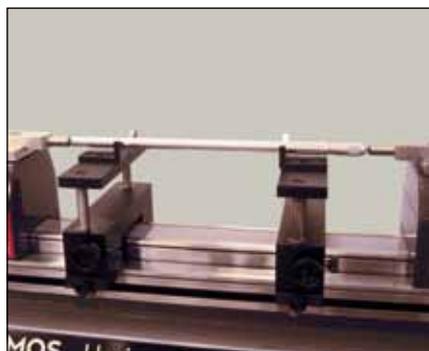
Checking of dial indicators (TEL5CN)



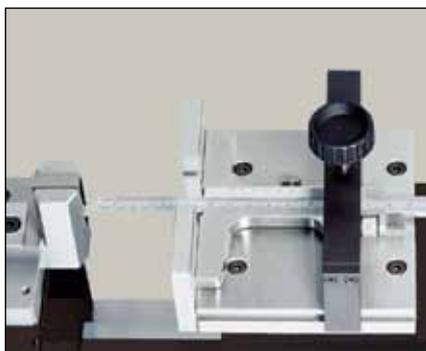
HPD: Checking of taper thread ring gauges (LABC80)

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)