

Horizontal Measuring Bench

Internal and External Measuring with a Single Bench Micrometer.

- Adjustable Measuring Pressure (-4 to +4 Newtons).
- 4" Measuring Capacity.
- 0-2" Measuring Range.
- Maximum Permissible Error = .00002".
- Heidenhain ND281 display with linear error compensation and RS-232.
- ISO 9001 to 9003 Qualified Measuring System.

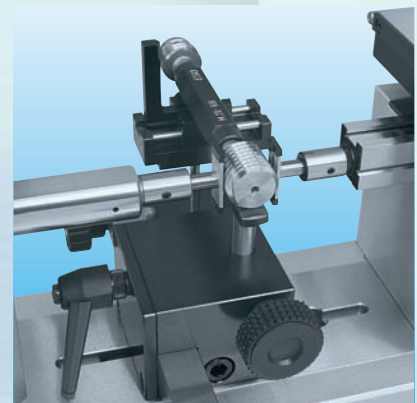
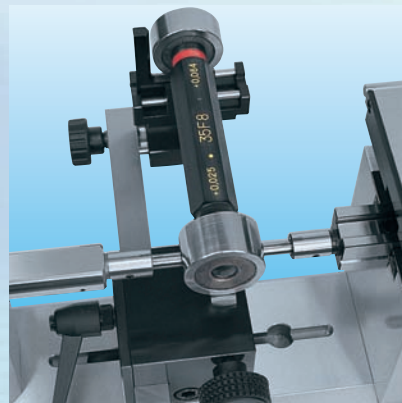


Calibration of Standards

- Cylindrical test pins.
- Setting standards with cylindrical, plane-parallel measuring faces.
- Threaded reference gages (measured using the 3-wire method).
- Setting masters.
- Setting rings.

Calibration of Gages

- Limit plug gages.
- Plug gages "GO".
- Plug gages "NOT GO".
- Plain plug gages.
- Ring gages "GO".
- Ring gages "NOT GO".
- Threaded plug gages.



Horizontal floating measuring table



0 to 4" / 0 to 100 mm for external dimensions
 .4 to 4.4" / 10 to 110 mm with std accessories
 .1" to 4.4" / 2.5 to 110 mm with optional accessories

2" / 50 mm measuring span

Max. perm. error within the measuring span, with std accessories: 0.5 μ m

0.1 μ m

0 to 4 N

Opto-electronic measuring system with incremental glass scale, type LIF - HEIDENHAIN

8.0 · 10⁻⁶ / °F

Tilting range of the floating table: $\pm 0.5^\circ$

19 lbs. net (main part alone without table)

6 lbs. net (floating table)

5 lbs. net (fixed table)

50 °F to 104 °F

- 14 °F to 104 °F

EN 50081-1,
 EN 50082-2,
 EN 61000-4-2,
 EN 61000-4-4

Horizontal Measuring Bench with Floating Measuring Table



Horizontal measuring bench with floating measuring table

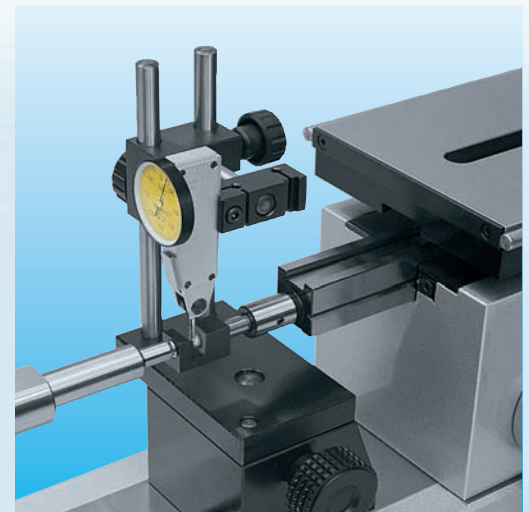
05939001 28894

Complete with the following:

- 1 Floating measuring table.
- 1 Set of standard inserts (min. dia. .4 in / 10 mm).
- 1 Set of standard anvils.
- 1 Heidenhain ND 281 display unit.

Calibration of Measuring Instruments

- Dial gages.
- Precision indicators.
- Dial test indicators (lever-type).
- Electronic probes.

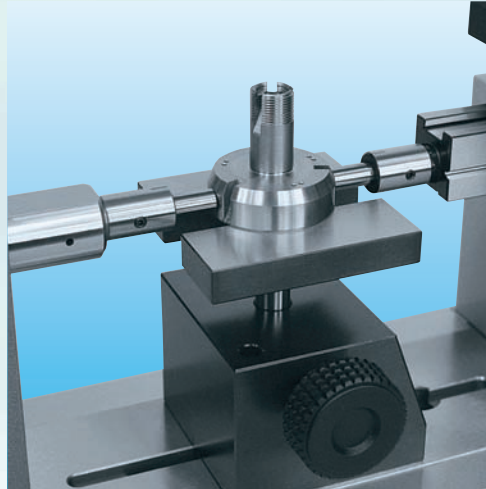
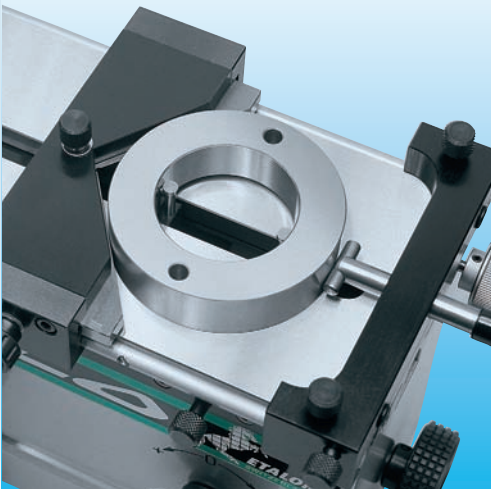


Measure horizontally or reposition the unit for vertical measurements with the optional horizontal stand.



Shown with: Bench stand with swiveling plate (p/n 59.69000) and stand for Heidenhain display (p/n 59.69001).

Horizontal Measuring Bench with Fixed Measuring Table



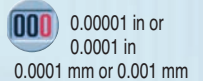
HEIDENHAIN ND 281
computing counter



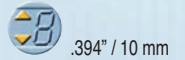
Up/down counter with inside data processing and output



LED display
Alphanumeric, 9-digit display plus signs
Auxiliary display for 14 measuring functions



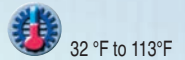
0.00001 in or 0.0001 in
0.0001 mm or 0.001 mm



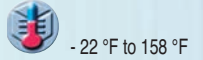
.394" / 10 mm



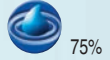
RS-232



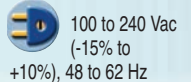
32 °F to 113°F



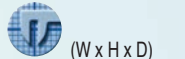
- 22 °F to 158 °F



75%



100 to 240 Vac
(-15% to +10%), 48 to 62 Hz



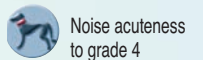
(W x H x D)
9.4" x 3.35" x 8.82" /
239 x 85 x 224 mm



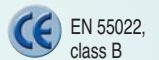
≈ 3 lbs.



Protection IP40
(IEC 60529)



Noise acuteness to grade 4
(VDE 0843 Parts 2 and 4)



EN 55022,
class B



Horizontal measuring bench with fixed measuring table

05939000 28417

Complete with the following:

- 1 Fixed measuring table.
- 1 Set of standard inserts (min. dia. .4 in / 10 mm).
- 1 Set of standard anvils.
- 1 Heidenhain ND 281 display unit display stand.



Workpiece Inspection

Examples for external dimensions:

- Stepped shafts.
- Cutting tools.
- Cylindrical pins.
- Ball tips.
- Grooves.
- Short-centering shoulders.
- Threads (measured using the 3-wire method).

Examples for internal dimensions:

- Through holes.
- Blind bores.
- Centering grooves.
- Slots.
- Sliding guides.



Optional Accessories



Optional Accessories

| | | |
|-----------------|-------|--|
| 59.69013 | 27149 | Floating measuring fixture |
| 59.69014 | 27147 | Fixed measuring table |
| 59.69015 | 27150 | Floating measuring table +/- 5° |
| 59.69000 | 27129 | Bench stand with swivelling plate |
| 59.69001 | 27081 | Stand for Heidenhain display |
| 59.69002 | 27130 | Block support for 59.69003/59.69004 |
| 59.69003 | 27131 | Mounting plate w/H-shaped clearance |
| 59.69004 | 27132 | Test indicator holding device |
| 59.69005 | 27133 | Block support for 59.69013 |
| 59.69006 | 27134 | Support fixture for O.D.s up to 2.36 |
| 59.69007 | 27276 | Resting pin .128" dia. for fixture 59.69006 |
| 59.69008 | 27275 | Resting pin .240" dia. for fixture 59.69006 |
| 59.69009 | 27135 | Micrometer spindle for checking indicators |
| 59.69010 | 27136 | Holder for checking 8 mm indicators |
| 59.69011 | 27137 | Holder for checking .375" indicators |
| 59.69012 | 27148 | I.D. locating and traversing fixture |



Optional Accessory Sets

Sets of I.D. Inserts for Fixed Table 59.69014

| | | |
|-----------------|-------|-----------------------|
| 59.69017 | 27277 | From .098" and larger |
| 59.69019 | 27278 | From .197" and larger |
| 59.69016 | 27138 | From .400" and larger |
| 59.69018 | 27139 | From .512" and larger |

Sets of I.D. Inserts for Floating Table 59.69015

| | | |
|-----------------|-------|-----------------------|
| 59.69021 | 27186 | From .098" and larger |
| 59.69023 | 27185 | From .197" and larger |
| 59.69020 | 27148 | From .400" and larger |
| 59.69022 | 27141 | From .512" and larger |

Sets of O.D. Measuring Anvils

| | | |
|-----------------|-------|--|
| 59.69025 | 27143 | Holders for points with M2.5 thread |
| 59.69026 | 27144 | Holders for points with 4-48 in thread |
| 59.69028 | 27146 | Carbide anvils to .078" dia. |
| 59.69024 | 27142 | Carbide anvils to .236" dia. |
| 59.69027 | 27145 | Carbide anvils to .315" dia. |

Set of Thread Measuring Wires w/Holders

72.112023 41597

(Other sets and individual sizes also available)

Technical Specifications

Technical Specifications:

| Designation | Internal Measurements | External Measurements |
|--|---|---|
| Overall measuring range | .4 to 4.4" (10 to 110 mm) using standard inserts | 0-4" (0-100 mm) |
| Absolute scale range | 2" (50 mm) | 2" (50 mm) |
| Resolution | 0.00001 / 0.000005" (0.0002/0.0001 mm) | 0.00001 / 0.000005" (0.0002 / 0.0001 mm) |
| Max. measuring band error over 2"/50 mm | max .00002" (0.5 μm) | max .00002" (0.5 μm) |
| Repeatability | .000004" (0.1 μm) | .000004" (0.1 μm) |
| Adjustable measuring pressure | -4 to +4N | -4 to +4N |
| Height displacement of measuring tables. | 708" (18 mm) | |

Dimensions

| | |
|-------------------------|----------------|
| Length | 19.7" (500 mm) |
| Width | 6.7" (170 mm) |
| Height | 6.7" (170 mm) |
| Height when using stand | 17.4" (440 mm) |
| Weight | 48 lb |
| Weight using stand | 90 lb |

