

# Measuring Tools

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**D01-D40**

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D01~14

## Measuring Fixture / Pin & Block Gauges



55000 D01



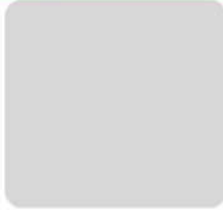
55004 D01



55006 D02



55008 D02



55010 D03



55015 D03



55020 D03



55030 D04



55042 D04



55050 D04



55055 D05



55062 D07



55070 D07



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55443 D48



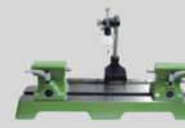
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55448 D49



55450 D50



55460 D50

D51~56

Tool Pre-setter / Fixture for CMM



55480 D51



55485 D52



55490 D53



55495 D54



55600 D55



55610-01 D56



55610-02 D56

# Measuring Tool

## 55000 AP25/30/46 Adjustable Angle Plate

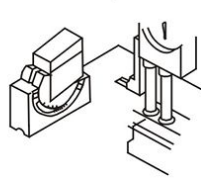
PAT: 192623  
ZL 02 2 42472.5



Application on milling .

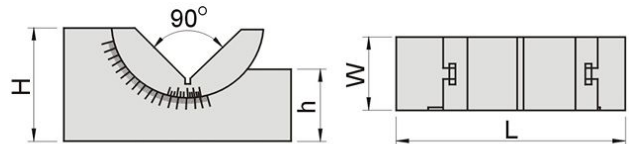


Marking on workpiece



### Features :

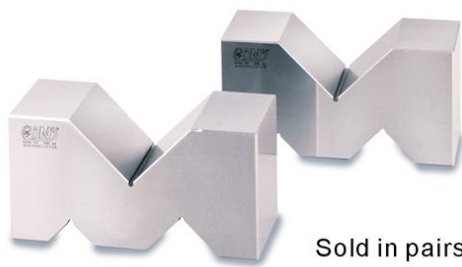
- ▶ Made of tool steel with HRC52°~ 56°.
- ▶ Suitable for placing on large vise for angular processing needs.
- ▶ Adjustable angle 30°~ 0°~ 60°
- ▶ Squareness:0.005mm
- ▶ Parallelism:0.01mm



Unit:mm

| Order No. | Model | L   | W  | H    | h  | N.W.  |
|-----------|-------|-----|----|------|----|-------|
| 55000-25  | AP25  | 75  | 25 | 37.3 | 25 | 0.4kg |
| 55000-30  | AP30  | 102 | 30 | 50.8 | 30 | 0.9kg |
| 55000-46  | AP46  | 102 | 46 | 50.8 | 30 | 1.4kg |

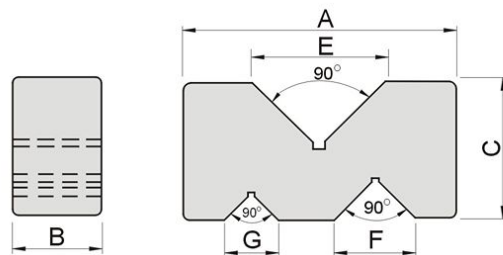
## 55004 A2~6 B Type Vee Blocks



Sold in pairs

### Features :

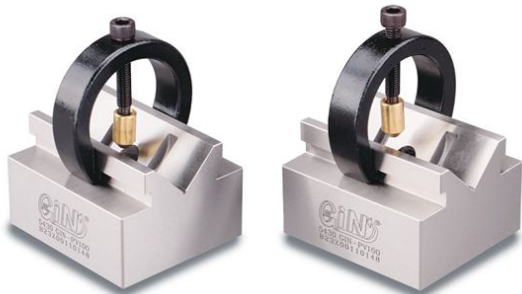
- ▶ Made of tool steel with HRC56°~ 60°.
- ▶ V groove accuracy within 0.005mm, suitable for inspecting concentricity.



Unit:mm

| Order No. | Model | A   | B  | C  | E  | F  | G  | N.W.  |
|-----------|-------|-----|----|----|----|----|----|-------|
| 55004-02  | A2    | 50  | 19 | 24 | 24 | 17 | 13 | 0.3kg |
| 55004-03  | A3    | 75  | 24 | 35 | 37 | 24 | 16 | 0.8kg |
| 55004-04  | A4    | 100 | 33 | 52 | 50 | 30 | 20 | 2.2kg |
| 55004-05  | A5    | 125 | 44 | 69 | 63 | 37 | 26 | 5.0kg |
| 55004-06  | A6    | 150 | 50 | 80 | 75 | 45 | 30 | 7.8kg |

**55006** PV100 V Blocks with C Clamp

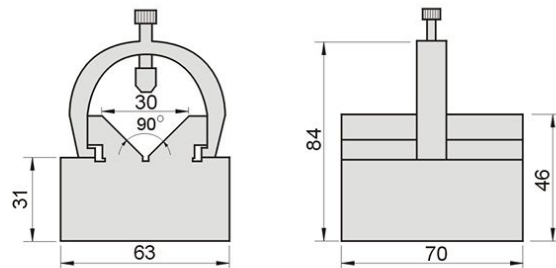


Sold in pairs

N.W. 2.8kg

**Features :**

- ▶ Made of tool steel with HRC56°~ 60°.
- ▶ Precisely ground and high accuracy of V groove.
- ▶ Suitable for processing steel rod or testing concentricity.
- ▶ Clamping range 3 ~ 20
- ▶ Height deviation  $\pm 0.005$ mm
- ▶ Squareness: 0.005mm
- ▶ V groove acc. within 0.005mm



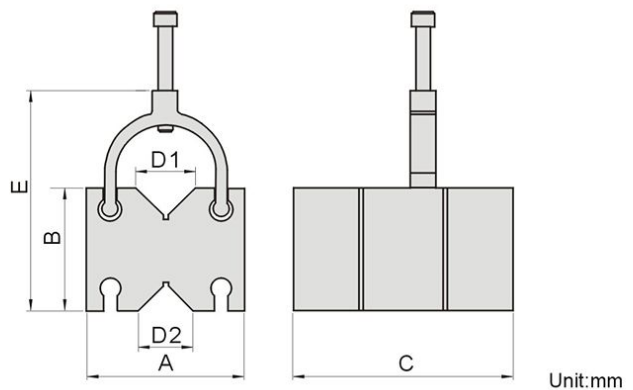
**55008** PV150/200 V Blocks with C Clamp



Sold in pairs

**Features :**

- ▶ Suitable for machining, EDM, testing purposes.
- ▶ Clamping range:  $\varnothing 3.5$ mm~  $\varnothing 33$ mm(PV150),  
 $\varnothing 3.5$ mm~  $\varnothing 41$ mm(PV200)
- ▶ V groove parallelism 0.005mm / 100mm
- ▶ Squareness within 0.005mm / 100mm
- ▶ Made of tool steel with HRC56°~ 60°.



| Order No. | Model | A  | B  | C   | D1 | D2 | E     | N.W.  |
|-----------|-------|----|----|-----|----|----|-------|-------|
| 55008-01  | PV150 | 64 | 45 | 70  | 29 | 24 | 90    | 1.3kg |
| 55008-02  | PV200 | 90 | 70 | 125 | 34 | 31 | 125.5 | 5.2kg |



# Measuring Tool

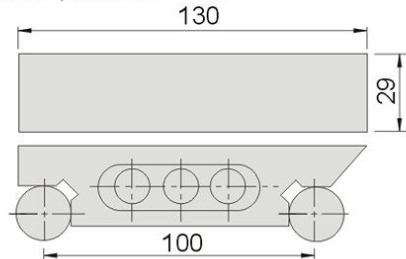
## 55010 S100 Sine Bar



N.W. 0.8kg

### Features :

- ▶ Collocate with gauge blocks for measuring workpiece' angle.
- ▶ Parallelism within 0.003mm
- ▶ Biaxial accuracy  $\pm 0.003\text{mm}$
- ▶ Material: YK30 , HRC56°~ 60°



## 55015 SB Magnetic Sine Bar

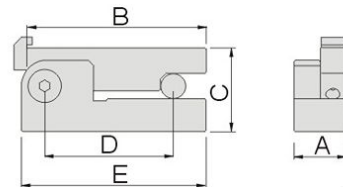
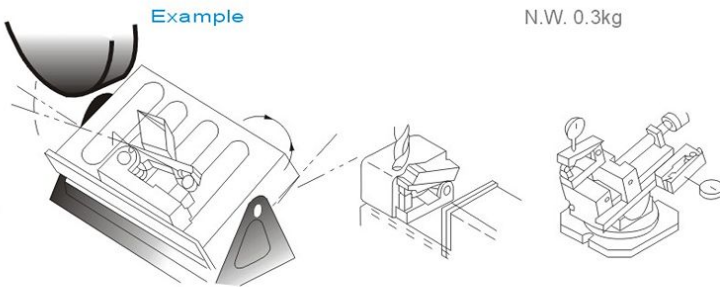


Magnetic base

N.W. 0.3kg

### Features :

- ▶ Collocate with gauge blocks for measuring workpiece' angle.
- ▶ Parallelism within 0.003mm
- ▶ Squareness within 0.005mm
- ▶ Biaxial accuracy  $\pm 0.003\text{mm}$
- ▶ Material: YK30 , HRC56°~ 60°



Unit:mm

| Order No. | Model | A  | B   | C  | D   | E   | N.W.  |
|-----------|-------|----|-----|----|-----|-----|-------|
| 55015-01  | SB50  | 20 | 70  | 33 | 50  | 72  | 0.3kg |
| 55015-02  | SB100 | 28 | 120 | 36 | 100 | 122 | 0.7kg |

## 55020 MSB100 Magnetic Sine Bar

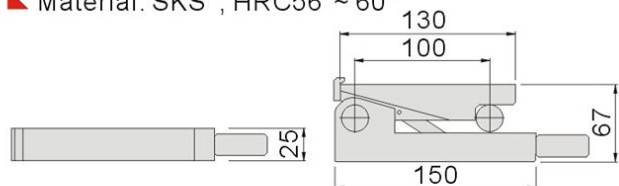


Magnetic base

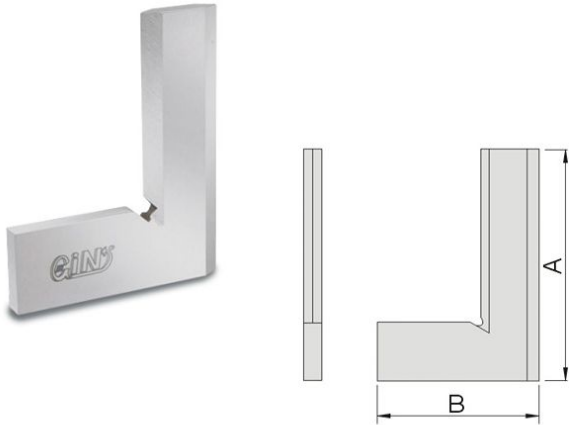
N.W. 2.0kg

### Features :

- ▶ Collocate with gauge blocks for measuring workpiece' angle.
- ▶ Angular deviation within 30 sec.
- ▶ Material: SKS , HRC56°~ 60°



**55030** HT Precision Knife Edge Square



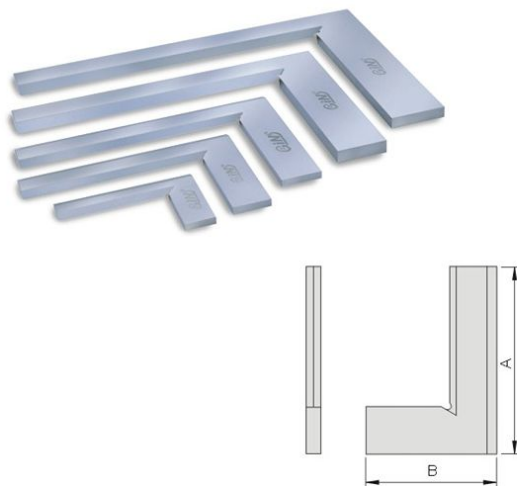
**Features :**

- ▶ Suitable in squareness and leveling inspection with precision inner and outer angle.
- ▶ Made of high quality stainless steel with precisely ground.
- ▶ Accuracy: DIN875/00

Unit:mm

| Order No. | Model | A   | B   | N.W.   |
|-----------|-------|-----|-----|--------|
| 55030-01  | HT01  | 50  | 40  | 0.05kg |
| 55030-02  | HT02  | 75  | 50  | 0.10kg |
| 55030-03  | HT03  | 100 | 70  | 0.15kg |
| 55030-04  | HT04  | 150 | 100 | 0.40kg |
| 55030-05  | HT05  | 200 | 130 | 0.65kg |

**55040** H Precision Knife Edge Square



**Features :**

- ▶ With precision inner and outer angle as well as precision ground.
- ▶ Matted chromed for better observation.
- ▶ Made of tool steel.
- ▶ Accuracy: DIN875/1

Unit:mm

| Order No. | Model | A   | B   | N.W.  |
|-----------|-------|-----|-----|-------|
| 55040-04  | H304  | 100 | 70  | 0.2kg |
| 55040-06  | H306  | 150 | 100 | 0.4kg |
| 55040-08  | H308  | 200 | 130 | 0.6kg |
| 55040-10  | H310  | 250 | 165 | 1.3kg |
| 55040-12  | H312  | 300 | 200 | 1.6kg |

**55050** HP Precision Straight Edges



**Features :**

- ▶ Made of high quality stainless steel with precision ground.
- ▶ Accuracy: DIN874/0

Unit:mm

| Order No. | Model | Spec. | N.W.   |
|-----------|-------|-------|--------|
| 55050-01  | HP050 | 50    | 0.06kg |
| 55050-02  | HP100 | 100   | 0.14kg |
| 55050-03  | HP150 | 150   | 0.22kg |
| 55050-04  | HP200 | 200   | 0.33kg |
| 55050-05  | HP300 | 300   | 0.45kg |
| 55050-06  | HP400 | 400   | 0.60kg |
| 55050-07  | HP500 | 500   | 0.75kg |

# Measuring Tool

## 55055 A300-600 Multi-function Angle Level



A300



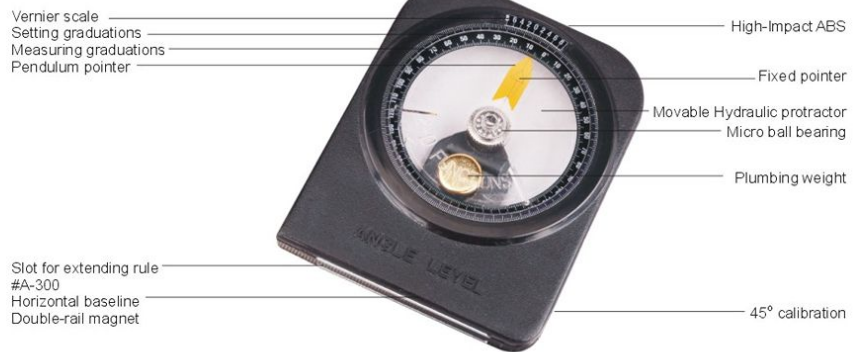
A500



A600

### Features :

- ▶ Compact design with micro ball bearing for quick measuring and resetting.
- ▶ Double pointers design can make calibration for each other and measure level and any bevel angle. Also for setting simulation level and measure angle and level difference.
- ▶ The transparent temperature-resistant oil may visually amplify the pointer for better optical reading.
- ▶ Ground magnetic railway on base of A300.
- ▶ Ground face with magnetic railway on base of A500 &A600.

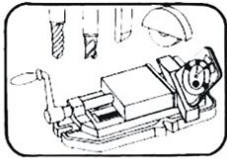


MEASURING TOOL

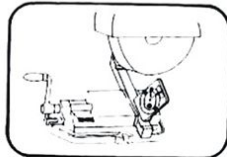
Unit:mm

| Order No. | Model | Dimension  | Housing material | Accuracy | N.W.   | Accessory             |
|-----------|-------|------------|------------------|----------|--------|-----------------------|
| 55055-02  | A300  | 93x79x16   | ABS              | ±0.1°    | 0.11kg | 150mm Stainless Ruler |
| 55055-03  | A500  | 94x102x14  | Zinc alloy       | ±0.083°  | 0.23kg | 3 screws              |
| 55055-04  | A600  | 140x140x30 | Zinc alloy       | ±0.05°   | 0.45kg |                       |

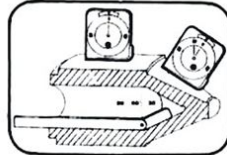




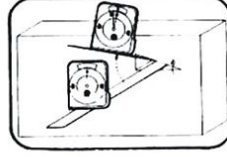
1. Suitable for milling



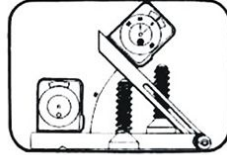
2. Suitable for grinding



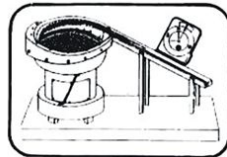
3. Outer & inner cone angle



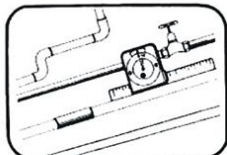
4. Inner angle



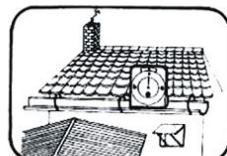
5. For screw angle



6. Double lines

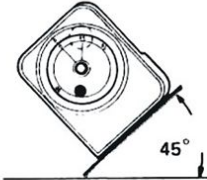


7. Tube piping

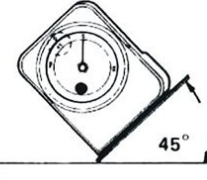


8. D.I.Y.

### Applications



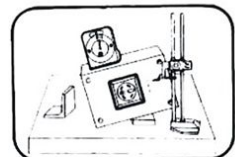
**Finding an angle**  
Align the movable degree scale, 0° reading, in line with the fixed vernier, 0° mark. Set your instrument's bottom surface on the object to be measured. Your reading off the pointer is your angle of inclination from 0°.



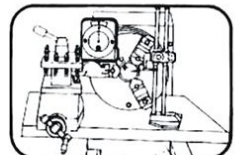
**Setting specific angles**  
Align the desired angle on the movable scale to the vernier's 0° degree mark. Tilt the instrument until the pointer is aligned with the 0° mark.



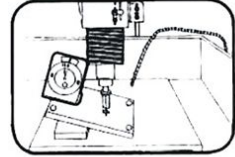
9. Satellite antenna



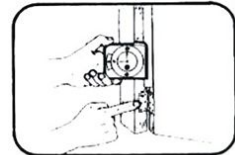
10. Mold-making



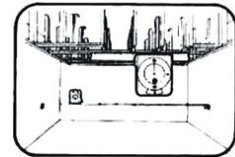
11. On Lathe



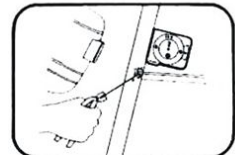
12. On EDM



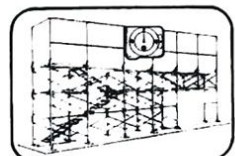
13. Frame angle



14. Carpentry

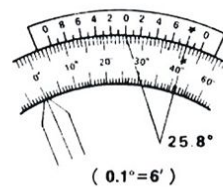
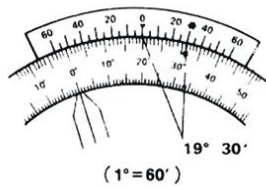


15. Welding



16. Frame assembly.

### Vernier reading



Counter-clockwise



Clockwise



align 0°

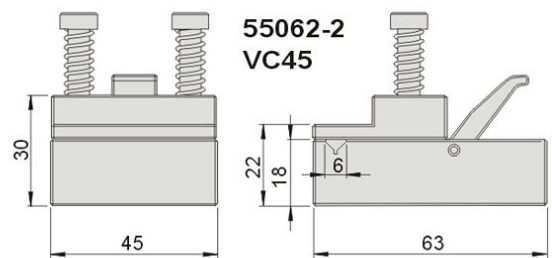
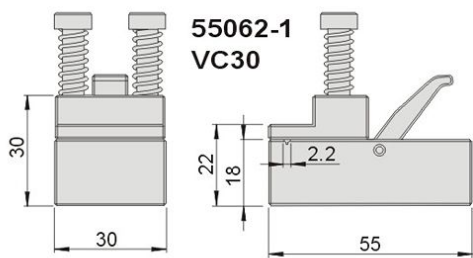
# Measuring Tool

## 55062 VC Precision Measure Holding Tool

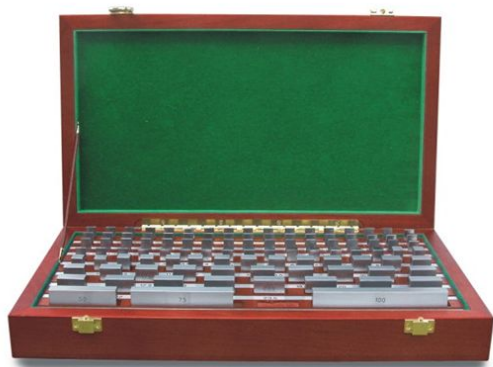


### Features :

- ▶ Suitable for projector, microscope, loupe, CMM to clamp small workpiece.
- ▶ Clamping range: Max. Thickness is 15mm
  - ◊1.0mm~◊11.0mm(VC30)
  - ◊2.5mm~◊16.0mm(VC45)
- ▶ Made of ASSAB-STAVAX with HRC50°~55°



## 55070 GB Gauge Blocks



### Features :

- ▶ Suitable for collocation with sine magnetic chuck or sine dresser to adjust angles.
- ▶ Three specs. available, center distance, 50mm / 75mm / 100mm
- ▶ 46 pcs / set from 1° to 46° each block.
- ▶ Material: SKS3 , HRC60° ~ 62°

| Order No. | Model  | Center distance |
|-----------|--------|-----------------|
| 55070-50  | GB50P  | 50m/m           |
| 55070-75  | GB75P  | 75m/m           |
| 55070-100 | GB100P | 100m/m          |

### Examples:



MEASURING TOOL

## 55070 SINE ANGLE CALCULATE TABLE

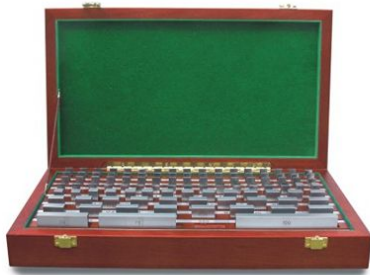
| Order No. | 55070-50 | 55070-75 | 55070-100 |
|-----------|----------|----------|-----------|
|           |          |          |           |
| 0°        | 0.00000  | 0.00000  | 0.00000   |
| 1°        | 0.87262  | 1.30893  | 1.74524   |
| 2°        | 1.74497  | 2.61746  | 3.48995   |
| 3°        | 2.61680  | 3.92520  | 5.23360   |
| 4°        | 3.48782  | 5.23174  | 6.97565   |
| 5°        | 4.35779  | 6.53668  | 8.71557   |
| 6°        | 5.22642  | 7.83963  | 10.45285  |
| 7°        | 6.09347  | 9.14020  | 12.18693  |
| 8°        | 6.95866  | 10.43798 | 13.91731  |
| 9°        | 7.82172  | 11.73258 | 15.64345  |
| 10°       | 8.68241  | 13.02361 | 17.36482  |
| 11°       | 9.54045  | 14.31067 | 19.08090  |
| 12°       | 10.39558 | 15.59338 | 20.79117  |
| 13°       | 11.24755 | 16.87133 | 22.49511  |
| 14°       | 12.09609 | 18.14414 | 24.19219  |
| 15°       | 12.94095 | 19.41143 | 25.88190  |
| 16°       | 13.78187 | 20.67280 | 27.56374  |
| 17°       | 14.61859 | 21.92788 | 29.23717  |
| 18°       | 15.45085 | 23.17627 | 30.90170  |
| 19°       | 16.27841 | 24.41761 | 32.55682  |
| 20°       | 17.10101 | 25.65151 | 34.20201  |
| 21°       | 17.91840 | 26.87760 | 35.83679  |
| 22°       | 18.73033 | 28.09549 | 37.46066  |
| 23°       | 19.53656 | 29.30483 | 39.07311  |
| 24°       | 20.33683 | 30.50525 | 40.67366  |
| 25°       | 21.13091 | 31.69637 | 42.26183  |
| 26°       | 21.91856 | 32.87784 | 43.83711  |
| 27°       | 22.69952 | 34.04929 | 45.39905  |
| 28°       | 23.47358 | 35.21037 | 46.94716  |
| 29°       | 24.24048 | 36.36072 | 48.48096  |
| 30°       | 25.00000 | 37.50000 | 50.00000  |
| 31°       | 25.75190 | 38.62786 | 51.50381  |
| 32°       | 26.49596 | 39.74394 | 52.99193  |
| 33°       | 27.23195 | 40.84793 | 54.46390  |
| 34°       | 27.95965 | 41.93947 | 55.91929  |
| 35°       | 28.67882 | 43.01823 | 57.35764  |
| 36°       | 29.38926 | 44.08389 | 58.77853  |
| 37°       | 30.09075 | 45.13613 | 60.18150  |
| 38°       | 30.78307 | 46.17461 | 61.56615  |
| 39°       | 31.46602 | 47.19903 | 62.93204  |
| 40°       | 32.13938 | 48.20907 | 64.27876  |
| 41°       | 32.80295 | 49.20443 | 65.60590  |
| 42°       | 33.45653 | 50.18480 | 66.91306  |
| 43°       | 34.09992 | 51.14988 | 68.19984  |
| 44°       | 34.73292 | 52.09938 | 69.46584  |
| 45°       | 35.35534 | 53.03301 | 70.71068  |
| 46°       | 35.96699 | 53.95049 | 71.93398  |

# Measuring Tool

**55080**

**GBH**

**High Speed Steel Metric Gauge Blocks**



## Features :

- ▲ Suitable for adjusting, inspecting measuring instrument and precision tools.
- ▲ Collocation with several gauge blocks is feasible.
- ▲ Demagnetized and special heat treatment with over HRC 64°, specs. are stable.

### Class 1

Used in calibrating electrical measurement instrument in inspection area.

### Class 2

Used in factory floor for calibrating clamping tools or measurement instrument.

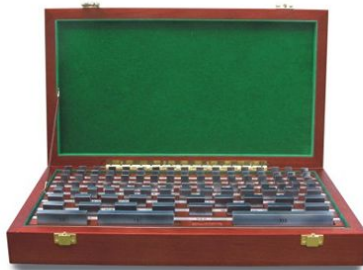
### Class 0

Applied in controlled environment by senior inspection members, for calibration and benchmarking.

Unit:mm

| Order No.   | Model               | Total blocks | Class | Nominal dimension (mm)        | Steps (mm)       | No. Of blocks | N.W.   |
|-------------|---------------------|--------------|-------|-------------------------------|------------------|---------------|--------|
| 55080-32-0  | GB32H <sub>0</sub>  | 32           | 0     | 1.005                         | 0.01             | 1             | 0.40kg |
| 55080-32-1  | GB32H <sub>1</sub>  | 32           | 1     | 1.01-1.09                     | 0.1              | 9             |        |
| 55080-32-2  | GB32H <sub>2</sub>  | 32           | 2     | 1.1-1.9<br>1-10<br>20,30,50   | 1<br>-<br>-      | 9<br>10<br>3  |        |
| 55080-38-0  | GB38H <sub>0</sub>  | 38           | 0     | 1                             | -                | 1             | 1.26kg |
| 55080-38-1  | GB38H <sub>1</sub>  | 38           | 1     | 1.005<br>1.01-1.09<br>1.1-1.9 | -<br>0.01<br>0.1 | 1<br>9<br>9   |        |
| 55080-38-2  | GB38H <sub>2</sub>  | 38           | 2     | 2-10<br>20-100                | 1<br>10          | 9<br>9        |        |
| 55080-47-0  | GB47H <sub>0</sub>  | 47           | 0     | 1                             | -                | 1             | 1.39kg |
| 55080-47-1  | GB47H <sub>1</sub>  | 47           | 1     | 1.005<br>1.01-1.19<br>1.1-1.9 | -<br>0.01<br>0.1 | 1<br>19<br>8  |        |
| 55080-47-2  | GB47H <sub>2</sub>  | 47           | 2     | 2-10<br>20-100                | 1<br>10          | 9<br>9        |        |
| 55080-87-0  | GB87H <sub>0</sub>  | 87           | 0     | 1.001-1.009                   | 0.001            | 9             | 1.68kg |
| 55080-87-1  | GB87H <sub>1</sub>  | 87           | 1     | 1.01-1.49<br>0.5-9.5          | 0.01<br>0.5      | 49<br>19      |        |
| 55080-87-2  | GB87H <sub>2</sub>  | 87           | 2     | 10-100                        | 10               | 10            |        |
| 55080-103-0 | GB103H <sub>0</sub> | 103          | 0     | 1.005                         | -                | 1             | 2.19kg |
| 55080-103-1 | GB103H <sub>1</sub> | 103          | 1     | 1.01-1.49<br>0.5-24.5         | 0.01<br>0.5      | 49<br>49      |        |
| 55080-103-2 | GB103H <sub>2</sub> | 103          | 2     | 25-100                        | 25               | 4             |        |
| 55080-112-0 | GB112H <sub>0</sub> | 112          | 0     | 1.0005                        | -                | 1             | 2.23kg |
| 55080-112-1 | GB112H <sub>1</sub> | 112          | 1     | 1.001-1.009<br>1.01-1.49      | 0.001<br>0.01    | 9<br>49       |        |
| 55080-112-2 | GB112H <sub>2</sub> | 112          | 2     | 0.5-24.5<br>25-100            | 0.5<br>25        | 49<br>4       |        |



**55090**
**GBC**
**Carbide Metric Gauge Blocks**

**Class 1**

Used in calibrating electrical measurement instrument in inspection area.

**Class 2**

Used in factory floor for calibrating clamping tools or measurement instrument.

**Features :**

- ▲ Suitable for adjusting, inspecting measuring instrument and precision tools.
- ▲ Collocation with several gauge blocks is feasible.
- ▲ Demagnetized and special heat treatment with over HRC 72°±2°, specs. are stable and uneasily deform.

**Class 0**

Applied in controlled environment by senior inspection members, for calibration and benchmarking.

Unit:mm

| Order No.   | Model               | Total blocks | Class | Nominal dimension (mm)        | Steps (mm)       | No. Of blocks | N.W.   |
|-------------|---------------------|--------------|-------|-------------------------------|------------------|---------------|--------|
| 55090-32-0  | GB32C <sub>0</sub>  | 32           | 0     | 1.005                         | 0.01             | 1             | 0.70kg |
| 55090-32-1  | GB32C <sub>1</sub>  | 32           | 1     | 1.01-1.09                     | 0.1              | 9             |        |
| 55090-32-2  | GB32C <sub>2</sub>  | 32           | 2     | 1.1-1.9<br>1-10<br>20,30,50   | 1<br>-<br>-      | 9<br>10<br>3  |        |
| 55090-38-0  | GB38C <sub>0</sub>  | 38           | 0     | 1                             | -                | 1             | 2.37kg |
| 55090-38-1  | GB38C <sub>1</sub>  | 38           | 1     | 1.005<br>1.01-1.09<br>1.1-1.9 | -<br>0.01<br>0.1 | 1<br>9<br>9   |        |
| 55090-38-2  | GB38C <sub>2</sub>  | 38           | 2     | 2-10<br>20-100                | 1<br>10          | 9<br>9        |        |
| 55090-47-0  | GB47C <sub>0</sub>  | 47           | 0     | 1                             | -                | 1             | 2.5kg  |
| 55090-47-1  | GB47C <sub>1</sub>  | 47           | 1     | 1.005<br>1.01-1.19<br>1.1-1.9 | -<br>0.01<br>0.1 | 1<br>19<br>8  |        |
| 55090-47-2  | GB47C <sub>2</sub>  | 47           | 2     | 2-10<br>20-100                | 1<br>10          | 9<br>9        |        |
| 55090-87-0  | GB87C <sub>0</sub>  | 87           | 0     | 1.001-1.009                   | 0.001            | 9             | 3.2kg  |
| 55090-87-1  | GB87C <sub>1</sub>  | 87           | 1     | 1.01-1.49<br>0.5-9.5          | 0.01<br>0.5      | 49<br>19      |        |
| 55090-87-2  | GB87C <sub>2</sub>  | 87           | 2     | 10-100                        | 10               | 10            |        |
| 55090-103-0 | GB103C <sub>0</sub> | 103          | 0     | 1.005                         | -                | 1             | 4.26kg |
| 55090-103-1 | GB103C <sub>1</sub> | 103          | 1     | 1.01-1.49<br>0.5-24.5         | 0.01<br>0.5      | 49<br>49      |        |
| 55090-103-2 | GB103C <sub>2</sub> | 103          | 2     | 25-100                        | 25               | 4             |        |
| 55090-112-0 | GB112C <sub>0</sub> | 112          | 0     | 1.0005                        | -                | 1             | 4.2kg  |
| 55090-112-1 | GB112C <sub>1</sub> | 112          | 1     | 1.001-1.009<br>1.01-1.49      | 0.001<br>0.01    | 9<br>49       |        |
| 55090-112-2 | GB112C <sub>2</sub> | 112          | 2     | 0.5-24.5<br>25-100            | 0.5<br>25        | 49<br>4       |        |



# Measuring Tool

**55100**

GBD

Ceramic Gauge Blocks



## Class 1

Used in calibrating electrical measurement instrument in inspection area.

## Class 2

Used in factory floor for calibrating clamping tools or measurement instrument.

## Features :

- ▲ High wear resistance, 5 to 10 times longer lifecycle than steel.
- ▲ With super precision surface treatment, ensure stable and uneasily affected by temperature.
- ▲ High anti-corrosion, can used for long period of time.

## Class 0

Applied in controlled environment by senior inspection members, for calibration and benchmarking.

Unit:mm

| Order No.   | Model               | Total blocks | Class | Nominal dimension (mm)             | Steps (mm)            | No. Of blocks     |
|-------------|---------------------|--------------|-------|------------------------------------|-----------------------|-------------------|
| 55100-32-0  | GB32D <sub>0</sub>  | 32           | 0     | 1.005<br>1.01-1.09<br>1.1-1.9      | 0.01<br>0.1           | 1<br>9<br>9       |
| 55100-32-1  | GB32D <sub>1</sub>  | 32           | 1     | 1-10<br>20,30,50                   | 1<br>-                | 10<br>3           |
| 55100-38-0  | GB38D <sub>0</sub>  | 38           | 0     | 1<br>1.005<br>1.01-1.09<br>1.1-1.9 | -<br>-<br>0.01<br>0.1 | 1<br>1<br>9<br>9  |
| 55100-38-1  | GB38D <sub>1</sub>  | 38           | 1     | 2-10<br>20-100                     | 1<br>10               | 9<br>9            |
| 55100-47-0  | GB47D <sub>0</sub>  | 47           | 0     | 1<br>1.005<br>1.01-1.19<br>1.1-1.9 | -<br>-<br>0.01<br>0.1 | 1<br>1<br>19<br>8 |
| 55100-47-1  | GB47D <sub>1</sub>  | 47           | 1     | 2-10<br>20-100                     | 1<br>10               | 9<br>9            |
| 55100-87-0  | GB87D <sub>0</sub>  | 87           | 0     | 1.001-1.009<br>1.01-1.49           | 0.001<br>0.01         | 9<br>49           |
| 55100-87-1  | GB87D <sub>1</sub>  | 87           | 1     | 0.5-9.5<br>10-100                  | 0.5<br>10             | 19<br>10          |
| 55100-103-0 | GB103D <sub>0</sub> | 103          | 0     | 1.005<br>1.01-1.49                 | -<br>0.01             | 1<br>49           |
| 55100-103-1 | GB103D <sub>1</sub> | 103          | 1     | 0.5-24.5<br>25-100                 | 0.5<br>25             | 49<br>4           |
| 55100-112-0 | GB112D <sub>0</sub> | 112          | 0     | 1.0005<br>1.001-1.009<br>1.01-1.49 | -<br>0.001<br>0.01    | 1<br>9<br>49      |
| 55100-112-1 | GB112D <sub>1</sub> | 112          | 1     | 0.5-24.5<br>25-100                 | 0.5<br>25             | 49<br>4           |



**55110**
**GBE**
**High Speed Steel Pin Gauge**

**Features :**

- ▶ Pin gauge is a necessary measuring instrument for checking hole's spec, holes distance and depth of holes.
- ▶ Step spec. is 0.01mm
- ▶ Custom made of diameter accuracy  $\pm 0.5\mu\text{m}$  and  $\pm 0.3\mu\text{m}$  available.

Unit:mm

| Order No.   | Model    | Nominal dimension (mm) | pcs / box | N.W.   |
|-------------|----------|------------------------|-----------|--------|
| 55110-0510  | GB0510E  | 0.50, 0.51, 0.52~1.00  | 51        | 1.11kg |
| 55110-1015  | GB1015E  | 1.00, 1.01, 1.02~1.50  | 51        | 1.13kg |
| 55110-1520  | GB1520E  | 1.50, 1.51, 1.52~2.00  | 51        | 1.15kg |
| 55110-2025  | GB2025E  | 2.00, 2.01, 2.02~2.50  | 51        | 1.19kg |
| 55110-2530  | GB2530E  | 2.50, 2.51, 2.25~3.00  | 51        | 1.23kg |
| 55110-3035  | GB3035E  | 3.00, 3.01, 3.02~3.50  | 51        | 1.27kg |
| 55110-3540  | GB3540E  | 3.50, 3.51, 3.52~4.00  | 51        | 1.33kg |
| 55110-4045  | GB4045E  | 4.00, 4.01, 4.02~4.50  | 51        | 1.39kg |
| 55110-4550  | GB4550E  | 4.50, 4.51, 4.52~5.00  | 51        | 1.47kg |
| 55110-5055  | GB5055E  | 5.00, 5.01, 5.02~5.50  | 51        | 1.55kg |
| 55110-5560  | GB5560E  | 5.50, 5.51, 5.52~6.00  | 51        | 1.63kg |
| 55110-6065  | GB6065E  | 6.00, 6.01, 6.02~6.50  | 51        | 1.73kg |
| 55110-6570  | GB6570E  | 6.50, 6.51, 6.52~7.00  | 51        | 1.83kg |
| 55110-7075  | GB7075E  | 7.00, 7.01, 7.02~7.50  | 51        | 1.95kg |
| 55110-7580  | GB7580E  | 7.50, 7.51, 7.52~8.00  | 51        | 2.07kg |
| 55110-8085  | GB8085E  | 8.00, 8.01, 8.02~8.50  | 51        | 2.19kg |
| 55110-8590  | GB8590E  | 8.50, 8.51, 8.52~9.00  | 51        | 2.33kg |
| 55110-9095  | GB9095E  | 9.00, 9.01, 9.02~9.50  | 51        | 2.47kg |
| 55110-95100 | GB95100E | 9.50, 9.51, 9.52~10.00 | 51        | 2.63kg |


**Accuracy:**

| $\varnothing$ | Step | L    | Dia. Accuracy         | Roundness acc.    |
|---------------|------|------|-----------------------|-------------------|
| 0.05~0.09     | 0.01 | 5~10 | $\pm 0.5 \mu\text{m}$ | 0.5 $\mu\text{m}$ |
| 0.10~0.19     | 0.01 | 20   | $\pm 0.5 \mu\text{m}$ | 0.5 $\mu\text{m}$ |
| 0.20~0.49     | 0.01 | 40   | $\pm 1 \mu\text{m}$   | 0.8 $\mu\text{m}$ |
| 0.50~10.00    | 0.01 | 50   | $\pm 1 \mu\text{m}$   | 0.8 $\mu\text{m}$ |
| 10.01~20.00   | 0.01 | 50   | $\pm 1.5 \mu\text{m}$ | 1.6 $\mu\text{m}$ |
| 20.01~30.00   | 0.01 | 50   | $\pm 1.5 \mu\text{m}$ | 1.6 $\mu\text{m}$ |

# Measuring Tool

**55120**

GBF

Carbide Pin Gauge



## Features :

- ▶ Pin gauge is a necessary measuring instrument for checking hole's spec, holes distance and depth of holes.
- ▶ Step spec. is 0.01mm
- ▶ Custom made of diameter accuracy  $\pm 0.5\mu\text{m}$  and  $\pm 0.3\mu\text{m}$  is available.

Unit:mm

| Order No.   | Model    | Nominal dimension (mm) | pcs / box | N.W.   |
|-------------|----------|------------------------|-----------|--------|
| 55120-0510  | GB0510F  | 0.50, 0.51, 0.52~1.00  | 51        | 0.90kg |
| 55120-1015  | GB1015F  | 1.00, 1.01, 1.02~1.50  | 51        | 0.94kg |
| 55120-1520  | GB1520F  | 1.50, 1.51, 1.52~2.00  | 51        | 1.00kg |
| 55120-2025  | GB2025F  | 2.00, 2.01, 2.02~2.50  | 51        | 1.07kg |
| 55120-2530  | GB2530F  | 2.50, 2.51, 2.25~3.00  | 51        | 1.17kg |
| 55120-3035  | GB3035F  | 3.00, 3.01, 3.02~3.50  | 51        | 1.28kg |
| 55120-3540  | GB3540F  | 3.50, 3.51, 3.52~4.00  | 51        | 1.42kg |
| 55120-4045  | GB4045F  | 4.00, 4.01, 4.02~4.50  | 51        | 1.57kg |
| 55120-4550  | GB4550F  | 4.50, 4.51, 4.52~5.00  | 51        | 1.74kg |
| 55120-5055  | GB5055F  | 5.00, 5.01, 5.02~5.50  | 51        | 1.93kg |
| 55120-5560  | GB5560F  | 5.50, 5.51, 5.52~6.00  | 51        | 2.14kg |
| 55120-6065  | GB6065F  | 6.00, 6.01, 6.02~6.50  | 51        | 2.37kg |
| 55120-6570  | GB6570F  | 6.50, 6.51, 6.52~7.00  | 51        | 2.62kg |
| 55120-7075  | GB7075F  | 7.00, 7.01, 7.02~7.50  | 51        | 2.88kg |
| 55120-7580  | GB7580F  | 7.50, 7.51, 7.52~8.00  | 51        | 3.17kg |
| 55120-8085  | GB8085F  | 8.00, 8.01, 8.02~8.50  | 51        | 3.47kg |
| 55120-8590  | GB8590F  | 8.50, 8.51, 8.52~9.00  | 51        | 3.80kg |
| 55120-9095  | GB9095F  | 9.00, 9.01, 9.02~9.50  | 51        | 4.14kg |
| 55120-95100 | GB95100F | 9.50, 9.51, 9.52~10.00 | 51        | 4.50kg |

## Accuracy:

| $\varnothing$ | Step | L    | Dia. Accuracy         | Roundness acc.    |
|---------------|------|------|-----------------------|-------------------|
| 0.05~0.09     | 0.01 | 5~10 | $\pm 0.5 \mu\text{m}$ | 0.5 $\mu\text{m}$ |
| 0.10~0.19     | 0.01 | 20   | $\pm 0.5 \mu\text{m}$ | 0.5 $\mu\text{m}$ |
| 0.20~0.49     | 0.01 | 40   | $\pm 1 \mu\text{m}$   | 0.8 $\mu\text{m}$ |
| 0.50~10.00    | 0.01 | 50   | $\pm 1 \mu\text{m}$   | 0.8 $\mu\text{m}$ |
| 10.01~20.00   | 0.01 | 50   | $\pm 1.5 \mu\text{m}$ | 1.6 $\mu\text{m}$ |
| 20.01~30.00   | 0.01 | 50   | $\pm 1.5 \mu\text{m}$ | 1.6 $\mu\text{m}$ |



**55130**
**GBG**
**Ceramic Pin Gauge**

**Features :**

- ▶ Pin gauge is a necessary measuring instrument for checking hole's spec, holes distance and depth of holes.
- ▶ Step spec. is 0.01mm
- ▶ Custom made of diameter accuracy  $\pm 0.5\mu$  and  $\pm 0.3\mu$  available.

Unit:mm

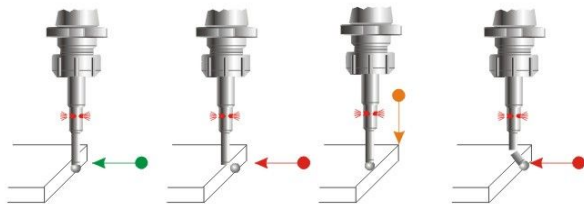
| Order No.   | Model    | Nominal dimension (mm) | pcs / box | N.W.   |
|-------------|----------|------------------------|-----------|--------|
| 55130-0510  | GB0510G  | 0.50, 0.51, 0.52~1.00  | 51        | 0.88kg |
| 55130-1015  | GB1015G  | 1.00, 1.01, 1.02~1.50  | 51        | 0.89kg |
| 55130-1520  | GB1520G  | 1.50, 1.51, 1.52~2.00  | 51        | 0.90kg |
| 55130-2025  | GB2025G  | 2.00, 2.01, 2.02~2.50  | 51        | 0.91kg |
| 55130-2530  | GB2530G  | 2.50, 2.51, 2.25~3.00  | 51        | 0.92kg |
| 55130-3035  | GB3035G  | 3.00, 3.01, 3.02~3.50  | 51        | 0.93kg |
| 55130-3540  | GB3540G  | 3.50, 3.51, 3.52~4.00  | 51        | 0.95kg |
| 55130-4045  | GB4045G  | 4.00, 4.01, 4.02~4.50  | 51        | 0.97kg |
| 55130-4550  | GB4550G  | 4.50, 4.51, 4.52~5.00  | 51        | 0.99kg |
| 55130-5055  | GB5055G  | 5.00, 5.01, 5.02~5.50  | 51        | 1.01kg |
| 55130-5560  | GB5560G  | 5.50, 5.51, 5.52~6.00  | 51        | 1.04kg |
| 55130-6065  | GB6065G  | 6.00, 6.01, 6.02~6.50  | 51        | 1.06kg |
| 55130-6570  | GB6570G  | 6.50, 6.51, 6.52~7.00  | 51        | 1.09kg |
| 55130-7075  | GB7075G  | 7.00, 7.01, 7.02~7.50  | 51        | 1.13kg |
| 55130-7580  | GB7580G  | 7.50, 7.51, 7.52~8.00  | 51        | 1.16kg |
| 55130-8085  | GB8085G  | 8.00, 8.01, 8.02~8.50  | 51        | 1.20kg |
| 55130-8590  | GB8590G  | 8.50, 8.51, 8.52~9.00  | 51        | 1.24kg |
| 55130-9095  | GB9095G  | 9.00, 9.01, 9.02~9.50  | 51        | 1.28kg |
| 55130-95100 | GB95100G | 9.50, 9.51, 9.52~10.00 | 51        | 1.32kg |

**Accuracy:**

| $\varnothing$ | Step | L    | Dia. Accuracy         | Roundness acc.    |
|---------------|------|------|-----------------------|-------------------|
| 0.05~0.09     | 0.01 | 5~10 | $\pm 0.5 \mu\text{m}$ | 0.5 $\mu\text{m}$ |
| 0.10~0.19     | 0.01 | 20   | $\pm 0.5 \mu\text{m}$ | 0.5 $\mu\text{m}$ |
| 0.20~0.49     | 0.01 | 40   | $\pm 1 \mu\text{m}$   | 0.8 $\mu\text{m}$ |
| 0.50~10.00    | 0.01 | 50   | $\pm 1 \mu\text{m}$   | 0.8 $\mu\text{m}$ |
| 10.01~20.00   | 0.01 | 50   | $\pm 1.5 \mu\text{m}$ | 1.6 $\mu\text{m}$ |
| 20.01~30.00   | 0.01 | 50   | $\pm 1.5 \mu\text{m}$ | 1.6 $\mu\text{m}$ |

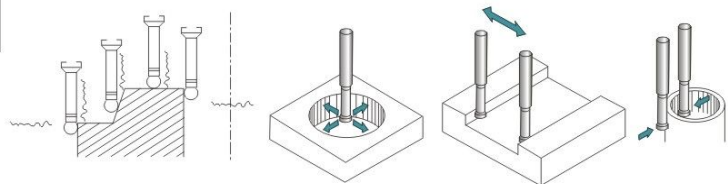
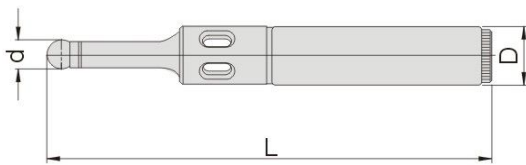
# Measuring Tool

## 55160 TSOE Optical Edge Finder (Touch Point Sensor)



### Features :

- ▶ No rotation needed while measuring.
- ▶ Increase efficiency to find positions and work edges.
- ▶ Safety spring puller which holds the ball back to the position when ball breaks from ball seat.
- ▶ Accuracy 0.005mm
- ▶ Battery type:
  - Um5#, 1.5V x 2pcs (TSOE20L, 32L)
  - Um5#, 23A x 12V x 1pc (TSOE20S, 20LB, 32LB)

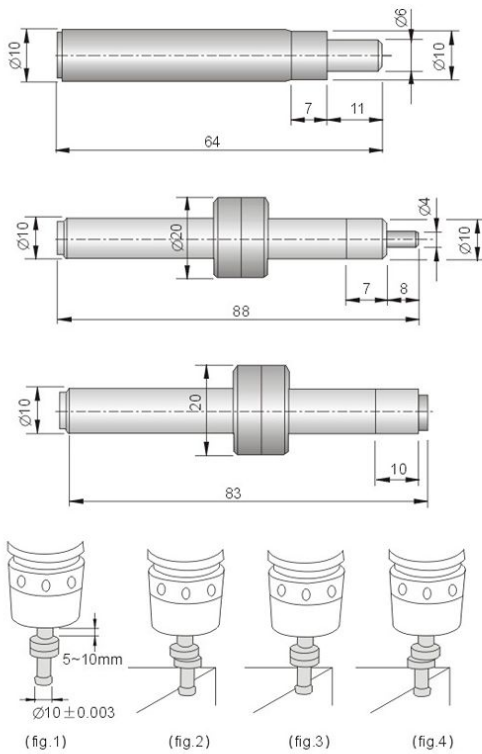


Attention! This product is not suitable for rotary.

Unit:mm

| Order No. | Model    | D   | L   | d   | FEATURE  | LxWxH     | N.W.    |
|-----------|----------|-----|-----|-----|----------|-----------|---------|
| 55160-02  | TSOE20S  | ∅20 | 120 | ∅10 | Lighting | 198x75x44 | 0.35kgs |
| 55160-04  | TSOE20L  |     | 158 |     | Lighting |           | 0.40kgs |
| 55160-06  | TSOE20LB |     | 158 |     | Sound    |           | 0.40kgs |
| 55160-08  | TSOE32L  | ∅32 | 158 |     | Lighting |           | 0.70kgs |
| 55160-10  | TSOE32LB |     | 158 |     | Sound    |           | 0.70kgs |

**55170** TS Mechanical Edge Finder



**Features :**

- ▶  $\varnothing 10$  straight shank can be installed directly on milling chuck or drilling chuck. (see fig. 1).
- ▶ Slightly press on the edge of sensor unit to make it eccentric at 0.5mm (see fig. 2).
- ▶ Rotate with speed of 400 ~ 600 rpm.
- ▶ Make sensor unit contact to the end face of workpiece as shown Fig. 2, then move steadily until turning into Fig. 3 looks keep still. When making fine-moving and it looks as Fig. 4, and this coordinate position is the basis point.
- ▶ The position of end face of the workpiece is the coordinate position of sensor unit plus radius 5mm.

**Cautions:**

1. Do not bend the product or pull with force.
2. Always keep clean for the slide face.
3. Never apply over 600 rpm.
4. Never apply it on horizontal machinery.

**Material:Cr-Mo Alloy Steel HRC58°~60°**

Unit:mm

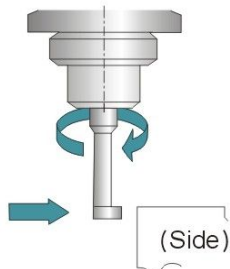
| Order No.       | Model    | LxWxH    | N.W.    |
|-----------------|----------|----------|---------|
| <b>55170-02</b> | TS0610   | 94x24x24 | 0.08kgs |
| <b>55170-04</b> | TS1020   | 94x24x24 | 0.04kgs |
| <b>55170-06</b> | TS0420   | 94x24x24 | 0.14kgs |
| <b>55170-08</b> | TS1020T  | 94x24x24 | 0.05kgs |
| <b>55170-10</b> | TS0420T  | 94x24x24 | 0.14kgs |
| <b>55170-12</b> | TS1020TB | 94x24x24 | 0.12kgs |
| <b>55170-14</b> | TS0420TB | 94x24x24 | 0.14kgs |

“T” (Titanium Nitride)

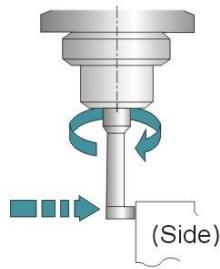
“TB” (Black Titanium Nitride)

# Measuring Tool

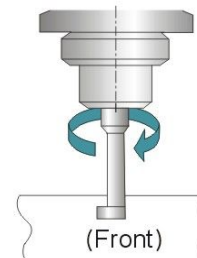
## 55180 TSEP Ceramic Edge Finder



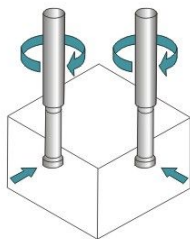
1. Rotate back, and approaching object slowly



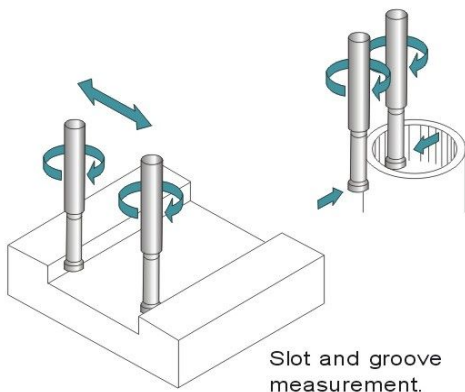
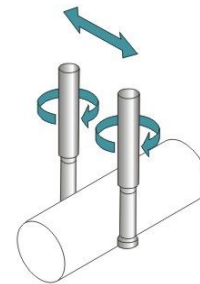
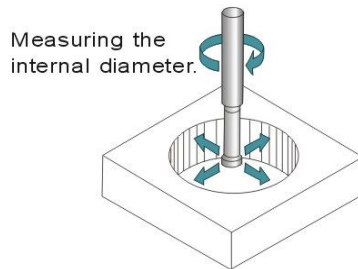
2. Stop moving when contact and vibrates, and move it back.



3. it would be consistent between cylinder and workpiece's face when reaching 5mm in radius.



Set up the standard position.



TSEP type is non-magnetic and the front tip is made of ceramic.  
Ceramic HV:1350°

Unit:mm

| Order No. | Model         | LxWxH     | N.W.  |
|-----------|---------------|-----------|-------|
| 55180-02  | TSEP10(WHITE) | 118x42x25 | 0.1kg |
| 55180-04  | TSEP10(BLACK) | 118x42x25 | 0.1kg |
| 55180-06  | TSEP1020      | 118x42x25 | 0.1kg |
| 55180-08  | TSEP1020A     | 118x42x25 | 0.1kg |
| 55180-10  | TSEP1020B     | 118x42x25 | 0.1kg |

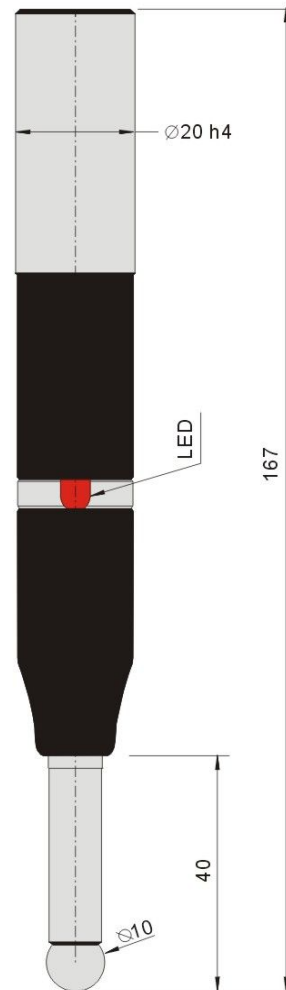
**55182** TSOP >> Optical 3D High Precision Edge Finder



- MADE
- IN
- GERMANY

**Features:**

- ▶ Determine your workpiece position / location and check/ control the accuracy of your workpiece.
- ▶ Status display clearly visible to the user
- ▶ Excellent in cost-benefit ratio
- ▶ Within all three axis, the accuracy of probing is smaller than 0.005mm



# Measuring Tool

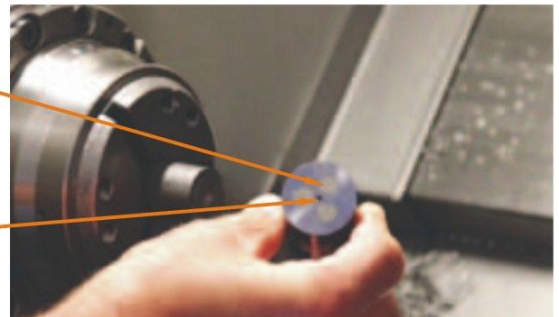
## 55184 ZST Z-Axis Presetter (Optical Type)



- MADE
- IN
- GERMANY

### Features :

- ▶ To determine the position of workpiece surfaces or tool lengths in Z-direction at milling machines or lathes.
- ▶ The zero setter is placed on the workpiece.
- ▶ The spindle has to be moved carefully onto the tracer until the dial gauge indicates "0".
- ▶ The reference dimension 60 mm to the workpiece has been reached. A safety spring range of max. 2 mm is included.



Secure horizontal grip thanks to 3  $\varnothing 8$  powerful magnetic

Tolerance for turning scrap, avoids measuring faults.

Unit:mm

| Order No. | Model  | Min.Capacity      | Height | Body             | Tester           | N.W.    | Remark |
|-----------|--------|-------------------|--------|------------------|------------------|---------|--------|
| 55184     | ZST60P | $\varnothing 0.1$ | 60     | $\varnothing 32$ | $\varnothing 19$ | 0.35kgs | Magnet |

**55186** ZSM Z-Axis Presetter (Indicator Type)

- MADE
- IN
- GERMANY



Scan me  
Product video

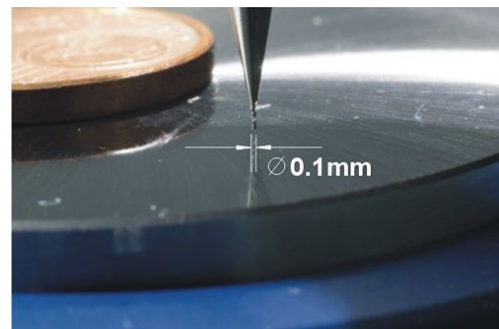
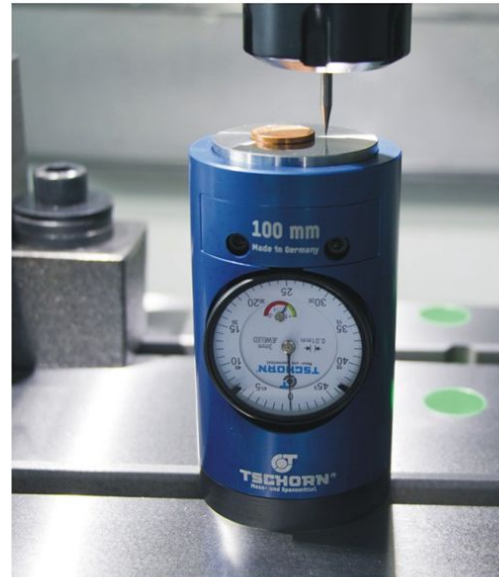
Simple adjustment:  
 -Push tester.  
 -Small indicator at -2mm.  
 -Turn scale for large indicator to 0.  
 -Ready!.



Micro tools:  
 We even measured milling tools  
 with  $\varnothing 0,1$  mm without any  
 problems

**Features :**

- ▶ To determine the position of workpiece surfaces or tool lengths in Z-direction at milling machines or lathes.
- ▶ The zero setter is placed on the workpiece.
- ▶ The spindle has to be moved carefully onto the tracer until the dial gauge indicates "0".
- ▶ The reference dimension 100 mm to the workpiece has been reached. A safety spring range of max. 2 mm is included.



MEASURING TOOL

Unit:mm

| Order No. | Model   | Min.Capacity      | Height | Body               | Tester           | N.W.   | Remark  |
|-----------|---------|-------------------|--------|--------------------|------------------|--------|---------|
| 55186-01  | ZSM100  | $\varnothing 0.1$ | 100    | $\varnothing 54.5$ | $\varnothing 42$ | 1.8kgs | Non-mag |
| 55186-02  | ZSM100P | $\varnothing 0.1$ | 100    | $\varnothing 54.5$ | $\varnothing 42$ | 1.8kgs | Magnet  |

## Measuring Tool

**55190**

ZIP50

Z-Axis Presetter (Indicator Type)



### Features :

- ▶ Setting tool length on CNC milling and lathe machines
- ▶ Setting height:  $50 \pm 0.005\text{mm}$ .
- ▶ Large measuring surface and easily operated.
- ▶ Low spring force to avoid breakage of small end mill or drill.
- ▶ Easily calibrated by ground parallel or gauge blocks.

Unit:mm

| Order No. | Model  | Height         | LxWxH      | N.W.    | Remark  |
|-----------|--------|----------------|------------|---------|---------|
| 55190-01  | ZIP50  | $50 \pm 0.005$ | 101x101x90 | 0.59kgs | Non-mag |
| 55190-02  | ZIP50P | $50 \pm 0.005$ | 101x101x90 | 0.59kgs | Magnet  |

**55200**

ZIP50A

Z-Axis Presetter (Indicator Type)



### Features :

- ▶ Setting tool length on CNC milling and lathe machines
- ▶ Setting height:  $50 \pm 0.005\text{mm}$ .
- ▶ Large measuring surface and easily operated.
- ▶ Low spring force to avoid breakage of small end mill or drill.
- ▶ Easily calibrated by ground parallel or gauge blocks.
- ▶ ZIP-50A with better parallel, sensibility and accuracy.

Unit:mm

| Order No. | Model   | Height         | LxWxH      | N.W.    | Remark  |
|-----------|---------|----------------|------------|---------|---------|
| 55200-01  | ZIP50A  | $50 \pm 0.005$ | 101x101x90 | 1.06kgs | Non-mag |
| 55200-02  | ZIP50AP | $50 \pm 0.005$ | 101x101x90 | 1.06kgs | Magnet  |



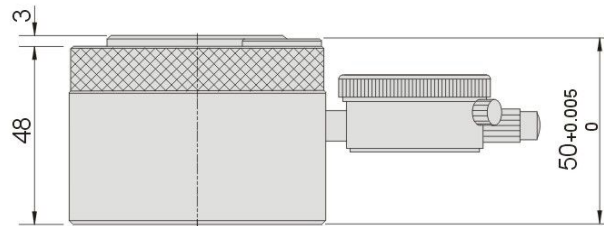
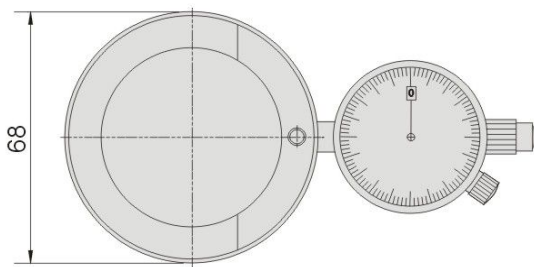
**55210**

Z50

Z-Axis Zero Setter



N.W. 1.25kg

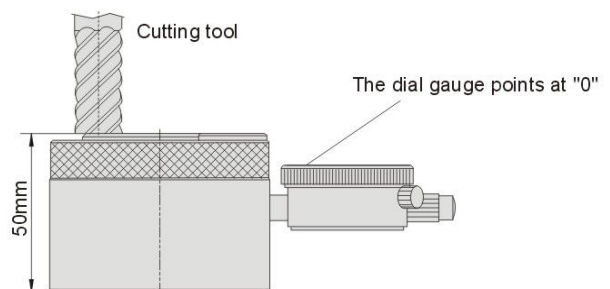
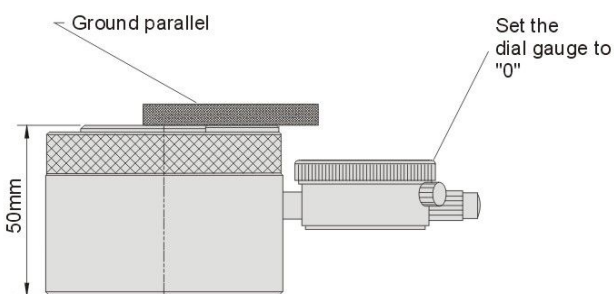


**Instruction:**

Calibrate the Zero Setter by putting a parallel on the setter and press it against on the pre-ground surface and set the dial gauge at "0"

**Measurement:**

Set up the setter on machine table or workpiece's surface, move spindle to make cutting tool contact the measuring surface and read the dial gauge with care. When the dial gauge points at "0", the distance between tool end and machine table is 50mm.



MEASURING TOOL

# Measuring Tool

## 55220 ZOP50 Z-Axis Presetter (Optical Type)

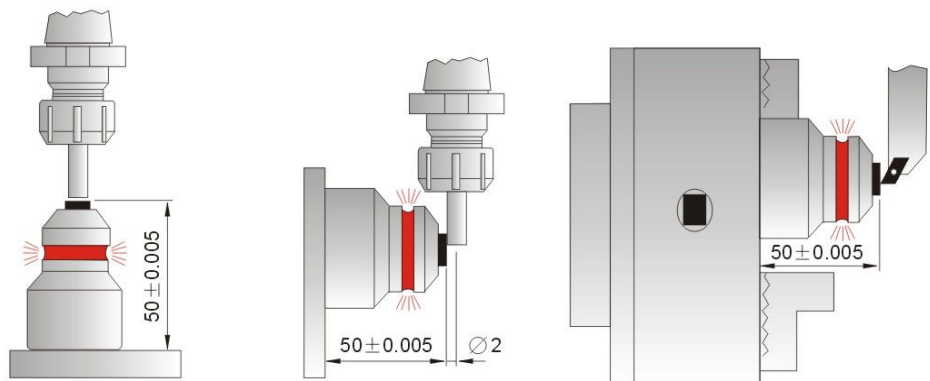


### Features:

- ▶ Setting height:  $50 \pm 0.005\text{mm}$ .
- ▶ Magnetic base for easy setup.
- ▶ Red lamp will be lit up when touched.
- ▶ Height can be fine-tuning and calibrated by gauge blocks.
- ▶ Can be used vertically and horizontally.
- ▶ Battery type : LR44 / A76 / G13 x 2 purchase

### Instruction:

Calibrate the Zero Setter by putting a parallel on the setter and press it against on the pre-ground surface and set the dial gauge at "0"



Unit:mm

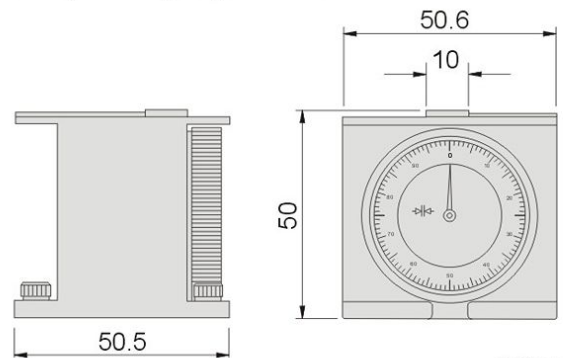
| Order No. | Model  | Height         | LxWxH      | N.W.    | Remark  |
|-----------|--------|----------------|------------|---------|---------|
| 55220-01  | ZOP50  | $50 \pm 0.005$ | 101x101x90 | 0.39kgs | Non-mag |
| 55220-02  | ZOP50P | $50 \pm 0.005$ | 101x101x90 | 0.39kgs | Magnet  |

**55230** ZPM-50/50P Z Axis Presetter



**Features :**

- ▶ Least measuring diameter of cutting tool: 0.1mm
- ▶ Not easily scratched for the ceramic made measuring face.
- ▶ Built-in design of gauge.
- ▶ Available for magnetic base or non-magnetic base.
- ▶ Accuracy of the gauge: 0.01mm



Unit:mm

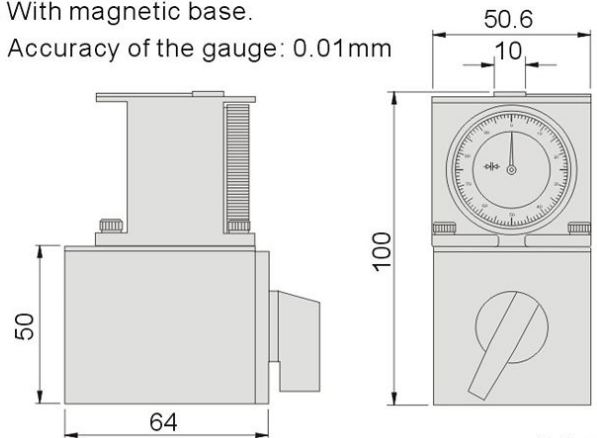
| Order No. | Model   | Least dia. Of tool | Height | N.W.  | Package size  | Remark  |
|-----------|---------|--------------------|--------|-------|---------------|---------|
| 55230-01  | ZPM-50  | 0.1mm              | 50mm   | 0.5kg | 13.5x10.5x8cm | Non-mag |
| 55230-02  | ZPM-50P | 0.1mm              | 50mm   | 0.5kg | 13.5x10.5x8cm | Magnet  |

**55240** ZPM-100P Z Axis Presetter(Magnetic)



**Features :**

- ▶ Least measuring diameter of cutting tool: 0.1mm
- ▶ Not easily scratched for the ceramic made measuring face.
- ▶ Built-in design of gauge.
- ▶ With magnetic base.
- ▶ Accuracy of the gauge: 0.01mm



Unit:mm

| Order No. | Model    | Least dia. Of tool | Height | N.W.  | Package size  |
|-----------|----------|--------------------|--------|-------|---------------|
| 55240     | ZPM-100P | 0.1mm              | 100mm  | 1.4kg | 13.5x10.5x8cm |



# Measuring Tool

**55250**

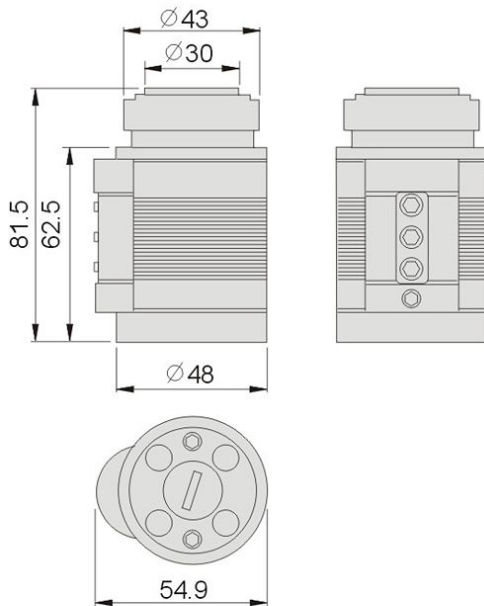
TTC10

Portable For The Tool Setting



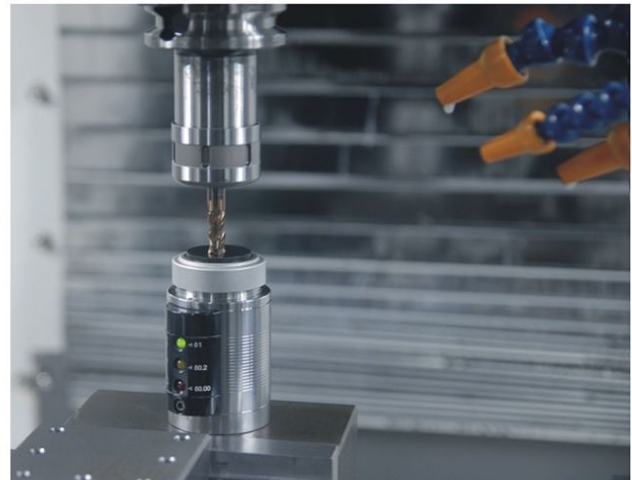
## Features :

- ▶ Lightweight and portable compact design to set the length parameter of cutting tool in the CNC milling machine, or drilling machine center and etc
- ▶ Adopting two position indicators for warning to speed up the process of the cutting tool calibration.
- ▶ Three LED indicator lights and a buzzer are used to indicate the working status of the tool setting.
- ▶ It has magnetic base bottom.



## Technical Parameters

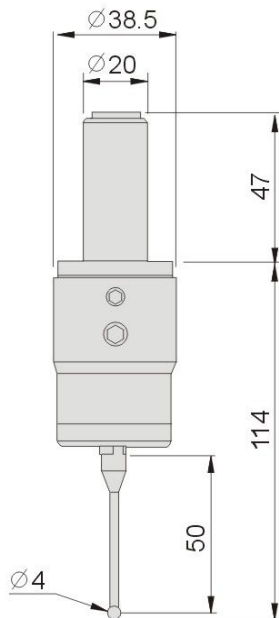
- ◆ Battery spec.: CR2, 3.0V, 800 mAh x 1pc
- ◆ Nominal height:  $80.0 \pm 0.003\text{mm}$ ;
- ◆ Diameter of the touching face:  $\approx 30\text{mm}$
- ◆ Hardness of the touch face: HRC 60-62°
- ◆ Travel distance of the touch face in -Z direction: 5mm
- ◆ Trigger repeatability of the tool setter:  $\leq 2\mu\text{m}$
- ◆ Parallelism between the touching face and the bottom:  $\leq 3\mu\text{m}$



**55255**
**EP40**
**Electric Conducting Probe**

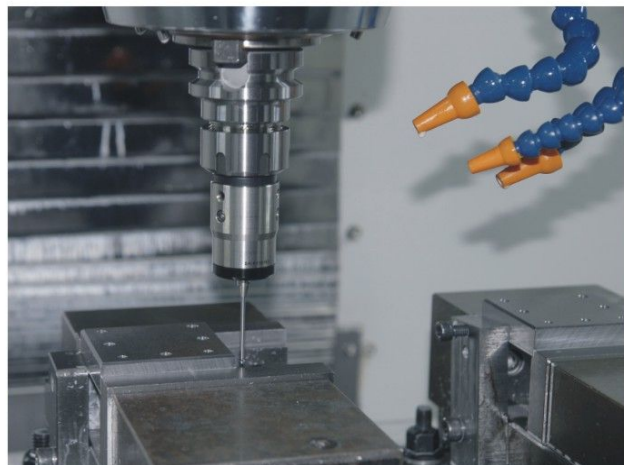

### Features :

- ▲ Suitable for machine centers, CNC boring and milling machines, and drilling-tapping machine centers etc.
- ▲ Suitable for checking work pieces of all kinds of solid materials with electrical conductivity.
- ▲ By adjusting the connecting link between the main body of the probe and its shank, then coaxial about
- ▲ the center of the measuring ball on the probe and the center line of the shank can be adjusted (Ex-factory precision:  $\leq 5\mu\text{m}$ ).



### Technical Parameters

- ◆ The standard: M4-S50-SB4-S36
- ◆ The diameter of the probe's cylindrical shank is  $\varnothing 20\text{mm}$
- ◆ Battery spec.: LR1, 1.5V, 700 mAh x 2pcs
- ◆ Probe sensing direction:  $\pm X, \pm Y, +Z$
- ◆ Probe sensing over-travel :  $X-Y \pm 15^\circ, Z +5\text{ mm}$
- ◆ The trigger force in Z direction: 1000g
- ◆ Trigger force in X-Y surface ( standard probe ) : 65-130g
- ◆ Unidirectional repeatability:  $\leq 2\mu\text{m}$
- ◆ Input voltage is  $24\text{V} \pm 10\%$  DC and output load current is 50 mA.

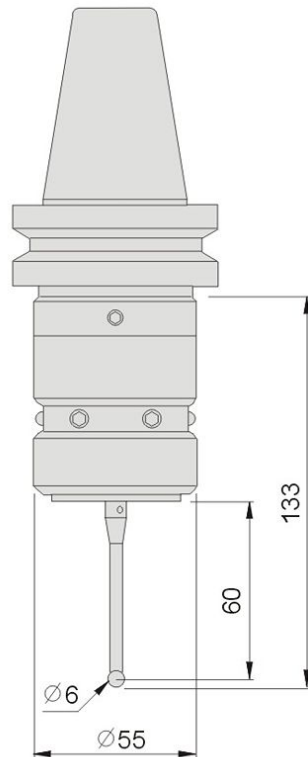


# Measuring Tool

**55260**

EP60

Electric Conducting Probe

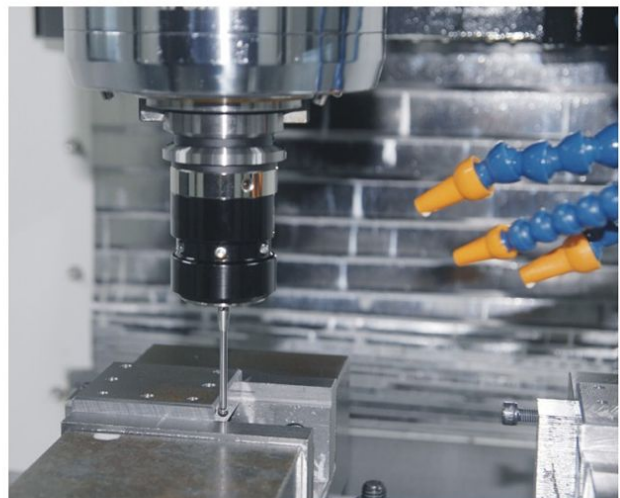


## Features :

- ▶ Suitable for machine centers, CNC boring and milling machines, and drilling-tapping machine centers etc.
- ▶ Suitable for checking work pieces of all kinds of solid materials with electrical conductivity.
- ▶ By adjusting the connecting link between the main body of the probe and its shank, then coaxial about
- ▶ the center of the measuring ball on the probe and the center line of the shank can be adjusted (Ex-factory precision:  $\leq 5\mu\text{m}$ ).
- ▶ Six LED indicator lights are used to show the trigger status of the probe
- ▶ Pull stub for shank/arbor is excluded.

## Technical Parameters

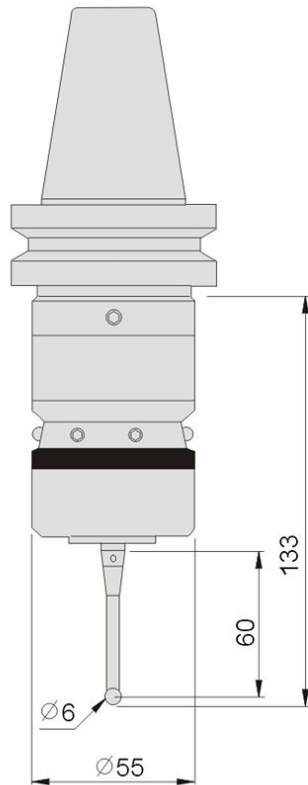
- ◆ The standard: M4-S60-SB6-S58.5
- ◆ Usually, the probe shank is 7:24 taper shank with the BT or ISO standards (the specification is optional);
- ◆ Battery spec.: CR2, 3.0V, 800 mAh x 1pc
- ◆ Probe sensing direction:  $\pm X$ ,  $\pm Y$ ,  $+Z$
- ◆ Probe sensing over-travel :  $X\text{-}Y \pm 15^\circ$  ,  $Z +5\text{ mm}$
- ◆ The trigger force in Z direction: 1000g
- ◆ Trigger force in X-Y surface ( standard probe ) : 65-130g
- ◆ Unidirectional repeatability:  $\leq 2\mu\text{m}$
- ◆ Input voltage is  $24\text{V} \pm 10\%$  DC and output load current is 50 mA.



**55265**

TP60

Trigger Probe

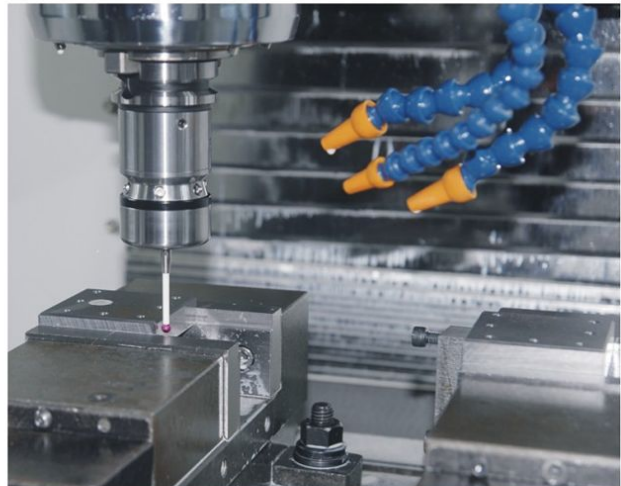


### Features :

- ▶ Suitable for machine centers, CNC boring and milling machines, and drilling-tapping machine centers etc.
- ▶ By adjusting the connecting link between the main body of the probe and its shank, then coaxial about the center of the measuring ball on the probe and the center line of the shank can be adjusted (Ex-factory precision:  $\leq 5\mu\text{m}$ ).
- ▶ Six LED indicator lights are used to show the trigger status of the probe
- ▶ Pull stub for shank/arbor is excluded.

### Technical Parameters

- ◆ The standard: M4-P50-RB6-S36
- ◆ Usually, the probe shank is 7:24 taper shank with the BT or ISO standards (the specification is optional);
- ◆ Battery spec.: CR2, 3.0V, 800 mAh x 1pc
- ◆ Probe sensing direction:  $\pm X$ ,  $\pm Y$ ,  $+Z$
- ◆ Probe sensing over-travel :  $X\text{-}Y \pm 15^\circ$  ,  $Z +5$  mm
- ◆ The trigger force in Z direction: 600g
- ◆ Trigger force in X-Y surface ( standard probe ) : 65-130g
- ◆ Unidirectional repeatability:  $\leq 2\mu\text{m}$
- ◆ Input voltage is  $24V \pm 10\%$  DC and output load current is 50 mA.



# Measuring Tool

## 55270 TAS 3D-Taster SLIMplus



**Extreme Slim**



**Made in Germany**



### Features:

- ▶ Simple and precise zero setting with accuracy 0.01mm.
- ▶ Slim and attractive design reduce interfere with workpiece.
- ▶ Probing is possible in all axle directions (X/Y/Z) at the same indicator resolution. As soon as the indicator is at "0", the vertical axis is exactly on the edge of the work piece.
- ▶ Safe probe tips thanks to a bore hole for adjusting the probe tips with the help of the provided key

Standard Probe(Ceramic)



Long Probe(INOX)



| Order No. | Model     | Specification      | Length      | Diameter |
|-----------|-----------|--------------------|-------------|----------|
| 55270-02  | 001V2D012 | 3D TASTER SLIMplus | Approx. 140 | Ø12      |
| 55270-04  | 00163C003 | Standard probe     | 27          | Ø 3      |
| 55270-05  | 00163D006 | Long probe         | 62          | Ø 6      |

MEASURING TOOL



### 3D Protection system

The protection system consist of 4 devices

Device1:Thin neck of the probe breakage by the impact



Device2:Thick neck of the probe is hit by an external force and cause breakage.



Device3:Limit in X/Y



Device4:Limit in Z



# Measuring Tool

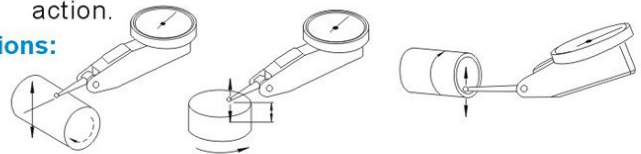
## 55280 G Precision Lever Indicator



### Features :

- ▶ High sensitivity and accuracy.
- ▶ Anti-vibration and anti-magnetic design.
- ▶ Jeweled bearings isolated in a shock-proof assembly separately from the outer body and cannot be influenced by external pressure.
- ▶ Rugged anti-magnetic one-piece housing is satin chrome plated to resist corrosion.
- ▶ Adjustable ball bearings, provides ultra-smooth action.

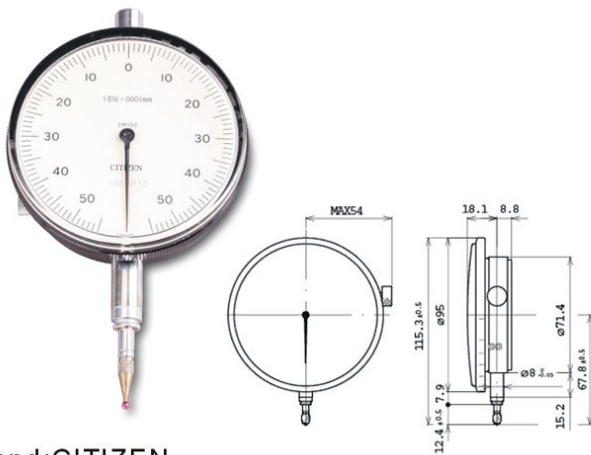
### Applications:



※GIROD, swiss made.

| Order No. | Model   | Total Range | Dial Division | Dial diameter | Probe length | Force |
|-----------|---------|-------------|---------------|---------------|--------------|-------|
| 55280-01  | G1252   | 0.01        | 0.8           | ∅28           | 12           | 0.15N |
| 55280-02  | G1452   | 0.01        | 0.8           | ∅38           | 12           | 0.15N |
| 55280-03  | G1253   | 0.002       | 0.2           | ∅28           | 12           | 0.15N |
| 55280-04  | G1453   | 0.002       | 0.2           | ∅38           | 12           | 0.15N |
| 55280-05  | G1453SP | 0.001       | 0.2           | ∅38           | 12           | 0.07N |
| 55280-06  | G1254   | 0.01        | 0.5           | ∅28           | 36           | 0.07N |
| 55280-07  | G1454   | 0.01        | 0.5           | ∅38           | 36           |       |
| 55280-08  | G1456   | 0.001       | 0.14          | ∅38           | 12           |       |

## 55282 M Dial Indicator



### Features :

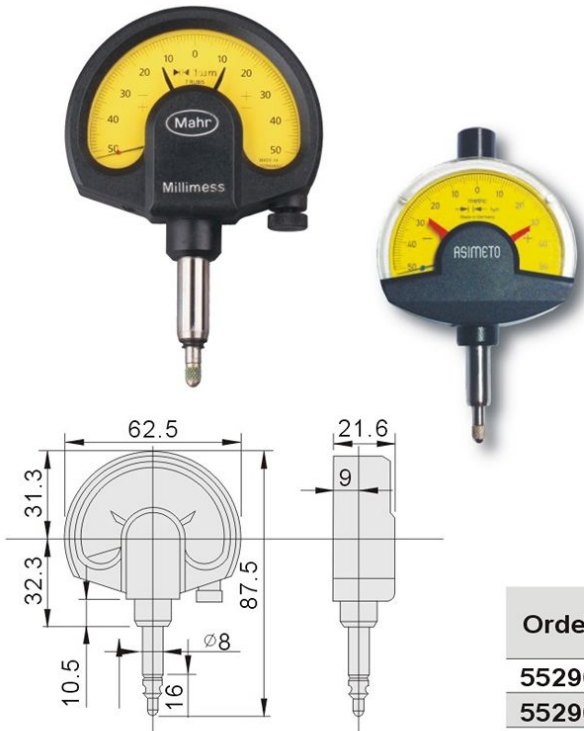
- ▶ Large, high contrast dial face.
- ▶ High accuracy, high sensitivity and high stability are assured.
- ▶ Use of a buffer mechanism also assures excellent durability and impact resistance.

Brand:CITIZEN

Unit:mm

| Order No. | Model  | Graduation | Range | Accuracy | Measuring force | Stroke | Dial ∅ |
|-----------|--------|------------|-------|----------|-----------------|--------|--------|
| 55282-01  | 2M100  | 1μm        | ±0.05 | ±1μm     | 0.784N          | 2.8mm  | ∅62    |
| 55282-02  | 3M100  | 1μm        | ±0.05 | ±1μm     | 0.588N          | 2.8mm  | ∅73    |
| 55282-03  | 3M250  | 2μm        | 0~1mm | ±2μm     | 0.588N          | 2.8mm  | ∅73    |
| 55282-04  | 4M100P | 0.5μm      | ±0.05 | ±0.5μm   | 0.588N          | 2.8mm  | ∅95    |

**55290 GCN Dial Comparators**



**Features :**

- ▶ Large, high contrast dial face.
- ▶ Lockable fine adjustment screw and adjustable tolerance markers.
- ▶ Mounting shank and measuring spindle are both made of hardened stainless steel.
- ▶ Resistant to lateral forces (side play) acting on the measuring spindle and constant measuring force.
- ▶ Maximum sensitivity and accuracy are ensured by the jeweled movement in conjunction with the precision gears and pinions

Unit:mm

| Order No. | Model | Range | Graduation | Dial reading | Brand   |
|-----------|-------|-------|------------|--------------|---------|
| 55290-01  | GCN   | ±0.05 | 0.001      | 50-0-50      | Mahr    |
| 55290-02  | GCNA  |       |            |              | ASIMETO |

**55295 GCF Centering Indicators**



**Features :**

- ▶ Provides a simplified method of centering a workpiece of fixture on horizontal for vertical machines, internal or external diameters.
- ▶ Operating speed not to exceed 800 RPM
- ▶ Graduation: 0.01mm
- ▶ Shank Dia.: Ø10mm
- ▶ Range: internal Ø4 to Ø300mm, external up to Ø300mm

Standard Accessories: : 6 pcs Feeler Set, Feeling Rod, Center Locating Feeler

| Order No. | Description            | Length | Max. Ø Measurable |
|-----------|------------------------|--------|-------------------|
| 55295-01  | 6 pcs Feeler Set       |        |                   |
| 55295-02  | ID Feeler              | 50mm   | 100mm             |
| 55295-03  | ID Feeler              | 100mm  | 200mm             |
| 55295-04  | ID Feeler              | 150mm  | 00mm              |
| 55295-05  | OD Feeler              | 50mm   | 100mm             |
| 55295-06  | OD Feeler              | 100mm  | 200mm             |
| 55295-07  | OD Feeler              | 150mm  | 300mm             |
| 55295-08  | Center Locating Feeler |        |                   |
| 55295-09  | Feeling Rod            |        |                   |

ASIMETO Unit:mm

| Order No. | Model | Accuracy | Dial Range |
|-----------|-------|----------|------------|
| 55295     | GCF   | 0.005mm  | 0~3mm      |

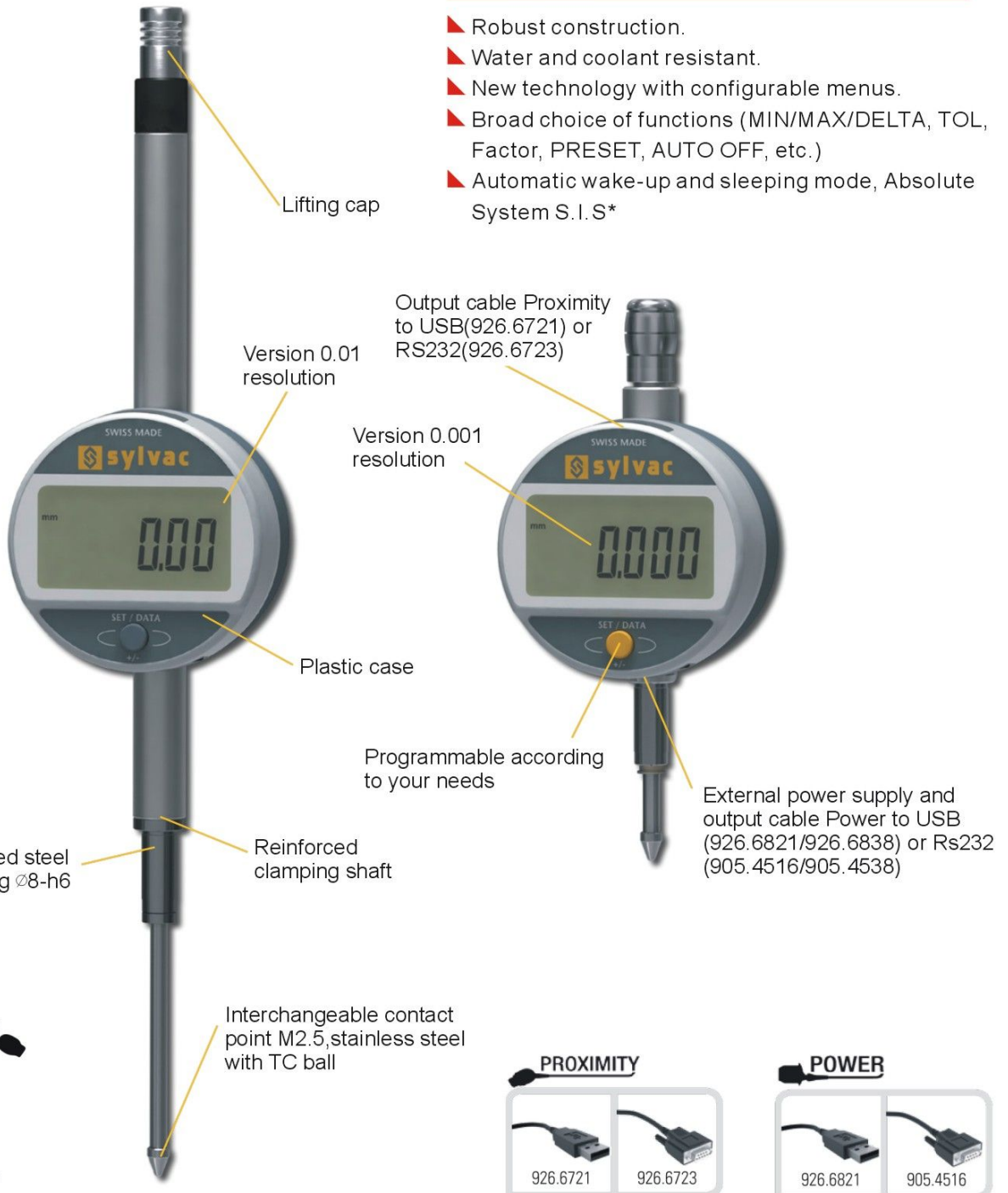
MEASURING TOOL

# Measuring Tool

## 55302 GD Digital Indicators

### Features:

- ▶ Robust construction.
- ▶ Water and coolant resistant.
- ▶ New technology with configurable menus.
- ▶ Broad choice of functions (MIN/MAX/DELTA, TOL, Factor, PRESET, AUTO OFF, etc.)
- ▶ Automatic wake-up and sleeping mode, Absolute System S.I.S\*



MEASURING TOOL

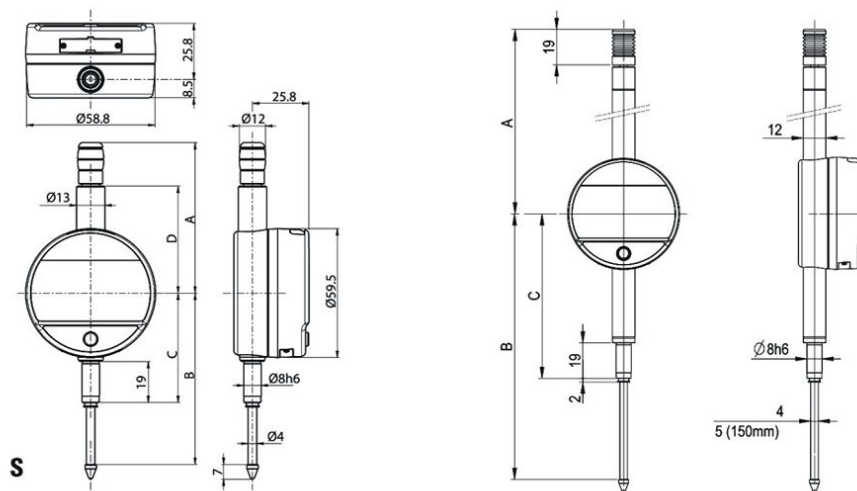
PROXIMITY

POWER

SWISS MADE

WATER RESISTANT

\* SIS description on page 5



| Order No.                             | 55302-01  | 55302-02 | 55302-03         | 55302-04 | 55302-05         | 55302-06 |
|---------------------------------------|---|----------|------------------|----------|------------------|----------|
| Model                                 | 805.1201  | 805.1301 | 805.1401         | 805.1501 | 805.1601         | 805.1621 |
| Measuring range mm                    | 12.5  | 12.5     | 25               | 25       | 50               | 50       |
| Resolution mm                         | 0.01  | 0.001    | 0.01             | 0.001    | 0.01             | 0.001    |
| Max. Error fe $\mu\text{m}$           | 10 <sup>1)</sup>  | 4        | 10 <sup>1)</sup> | 5        | 20 <sup>1)</sup> | 7        |
| Repeatability $\mu\text{m}$           | 2   |          |                  |          |                  |          |
| IP rating                             | IP51  |          |                  |          |                  |          |
| A mm                                  | 56.7  |          | 69.9             |          | 121.3            |          |
| B mm                                  | 66.1  |          | 78.5             |          | 142              |          |
| C mm                                  | 50.5  |          | 50.5             |          | 88               |          |
| D mm                                  | 36.6  |          | 49.4             |          | -                |          |
| Output data                           | USB / RS232   |          |                  |          |                  |          |
| Programmable by PC                    | ●   |          |                  |          |                  |          |
| Standard functions (customized by PC) | Preset(only programmable by PC with cable)<br>mm/inch,max 999.999),direction of measurement |          |                  |          |                  |          |

<sup>1)</sup>  $\pm 1$  digit

### BASIC INSTRUMENT

- Instrument according to technical specifications
- Linhium battery Cr2032 included
- Instruction manual
- Calibration certificate for instruments 0.001mm

### MEASURING FORCE

|                    |   | S12.5     | S25       | S50     |
|--------------------|---|-----------|-----------|---------|
| Standard           | N | 0.65-0.90 | 0.65-1.15 | 1.4-2.9 |
| Low <sup>3)</sup>  | N | 0.4-0.55  | 0.45-0.9  | ---     |
| High <sup>3)</sup> | N | 1.0-1.6   | 0.9-1.8   | ---     |

Tolerance  $\pm 20\%$ , spindle in outgoing measurement position.

<sup>3)</sup> on request

# Measuring Tool

## 55305 GD Digital Indicators

### Features:

- ▶ Robust construction.
- ▶ Water and coolant resistant.
- ▶ New technology with configurable menus.
- ▶ Broad choice of functions (MIN/MAX/DELTA, TOL, Factor, PRESET, AUTO OFF, etc.)
- ▶ Automatic wake-up and sleeping mode, Absolute System S.I.S\*
- ▶ Maximum error of 3µm



Aluminium case rotating display over 270°

Reinforced clamping shaft

Hardened steel clamping Ø8-h6

Output cable Proximity to USB(926.6721) or RS232(926.6723)

Large display with integrated LEDs tolerances

Programmable according to your needs

Lifting cap

Optional lifter

External power supply and output cable Power to USB (926.6821/926.6838) or Rs232 (905.4516/905.4538)

Interchangeable contact point M2.5, stainless steel with TC ball

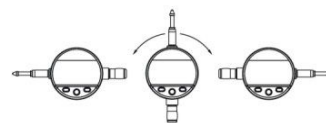
MEASURING TOOL

PROXIMITY

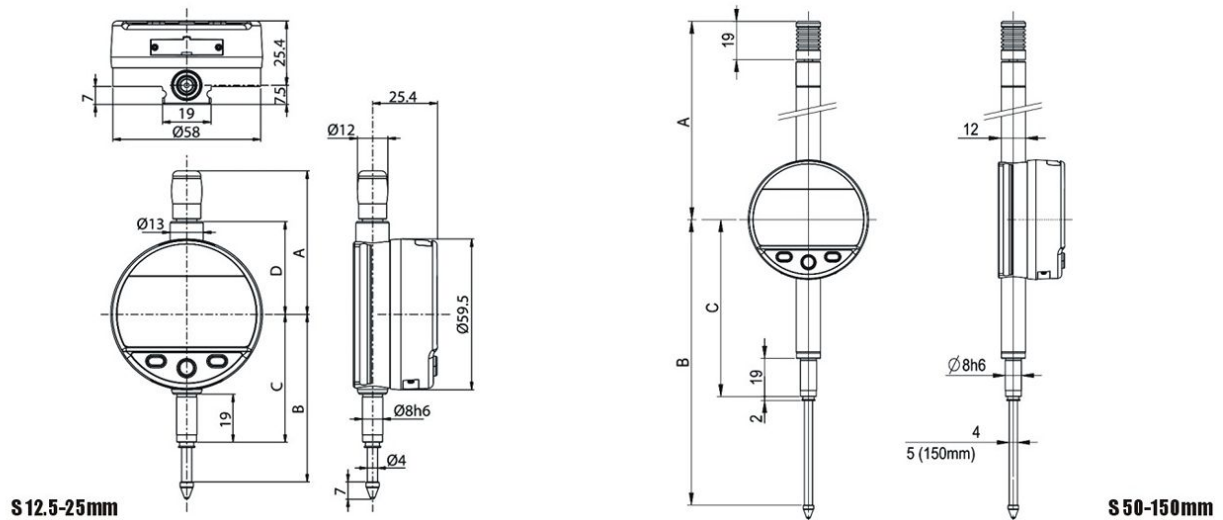
POWER

SWISS MADE

WATER RESISTANT



\* SIS description on page 5


**S12.5-25mm**
**S50-150mm**

| Order No.                             | 55305-01  | 55305-02 | 55305-03         | 55305-04 | 55305-05         | 55305-06 | 55305-07         | 55305-08 | 55305-09         | 55305-10 |
|---------------------------------------|---|----------|------------------|----------|------------------|----------|------------------|----------|------------------|----------|
| Model                                 | 805.5201  | 805.5301 | 805.5401         | 805.5501 | 805.5601         | 805.5621 | 805.5641         | 805.5661 | 805.5671         | 805.5681 |
| Measuring range mm                    | 12.5  | 12.5     | 25               | 25       | 50               | 50       | 100              | 100      | 150              | 150      |
| Resolution mm                         | 0.01  | 0.001    | 0.01             | 0.001    | 0.01             | 0.001    | 0.01             | 0.001    | 0.01             | 0.001    |
| Max. Error fe $\mu\text{m}$           | 10 <sup>1)</sup>  | 3        | 10 <sup>1)</sup> | 4        | 20 <sup>1)</sup> | 5        | 20 <sup>1)</sup> | 6        | 20 <sup>1)</sup> | 10       |
| Repeatability $\mu\text{m}$           | 2   |          |                  |          |                  |          |                  |          |                  |          |
| IP rating                             | IP54  |          |                  |          |                  |          |                  |          |                  |          |
| A mm                                  | 56.7  |          | 69.4             |          | 121              |          | 172              |          | 224              |          |
| B mm                                  | 66.1  |          | 78.5             |          | 142              |          | 244              |          | 349              |          |
| C mm                                  | 50.5  |          | 50.5             |          | 88               |          | 139              |          | 193              |          |
| D mm                                  | 36.6  |          | 49.4             |          | -                |          | -                |          | -                |          |
| Output data                           | USB / RS232   |          |                  |          |                  |          |                  |          |                  |          |
| Programmable by PC                    | ●   |          |                  |          |                  |          |                  |          |                  |          |
| Standard functions (cystomized by PC) | Preset(only programmable by PC with cable)<br>mm/inch,max 999.999),direction of measurement |          |                  |          |                  |          |                  |          |                  |          |

<sup>1)</sup>  $\pm 1$  digit

**BASIC INSTRUMENT**

- Instrument according to technical specifications
- Linhium battery Cr2032 included
- Instruction manual
- Calibration certificate for instruments 0.001mm

**MEASURING FORCE**

|                      | 12.5      | 25        | 50      | 100     | 150     |
|----------------------|-----------|-----------|---------|---------|---------|
| Standard N           | 0.65-0.90 | 0.65-1.15 | 1.4-2.9 | 1.8-3.8 | 2.6-5.7 |
| Low <sup>2)</sup> N  | 0.4-0.55  | 0.45-0.9  | ---     | ---     | ---     |
| High <sup>2)</sup> N | 1.0-1.6   | 0.9-1.8   | ---     | ---     | ---     |

Tolerance  $\pm 20\%$ , spindle in outgoing measurement position.

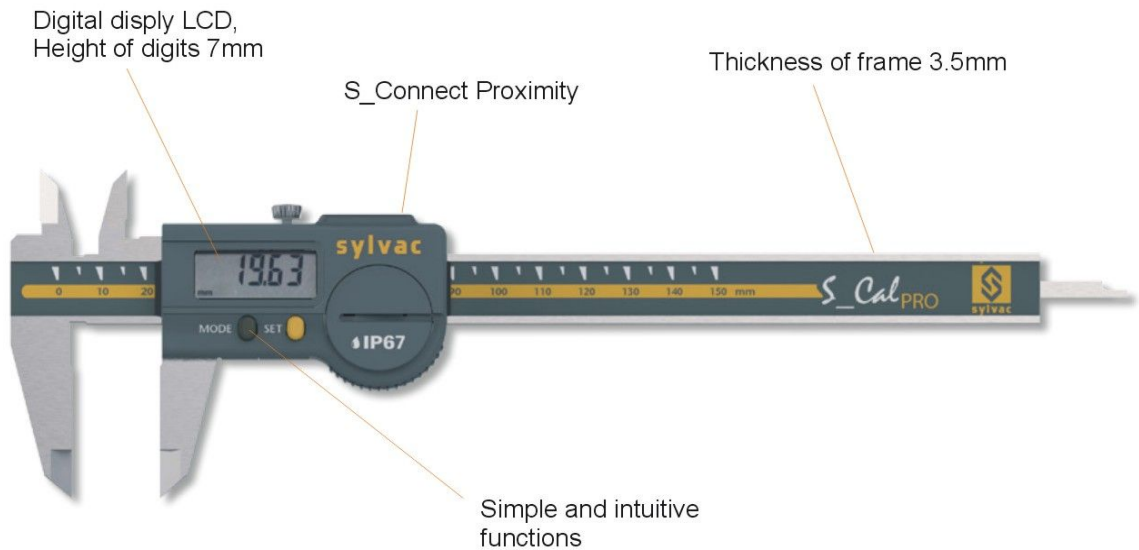
<sup>2)</sup> on request

# Measuring Tool

## 55312 GDC Digital Calipers

### Features :

- ▶ Water protected for heavy-duty work with coolants and lubricants, protection rating IP67 according to IEC 60529, even connected
- ▶ Automatic wake-up by moving the electronic on his frame. (system S.I.S)
- ▶ Sleeping mode after 20min. of no use. (system S.I.S)
- ▶ Position memoriaed in sleeping mode(system S.I.S), absolute system\*
- ▶ Maximum speed of displacement: 2.5m/sec
- ▶ Mechanical frame in stainless steel, hardened and ground
- ▶ Thumb wheel on request(see accessories)
- ▶ Great comfort of use thanks to its ergonomic frame



MEASURING TOOL

**SWISS MADE**

**SIS** Smart Inductive System

**WATER RESISTANT**

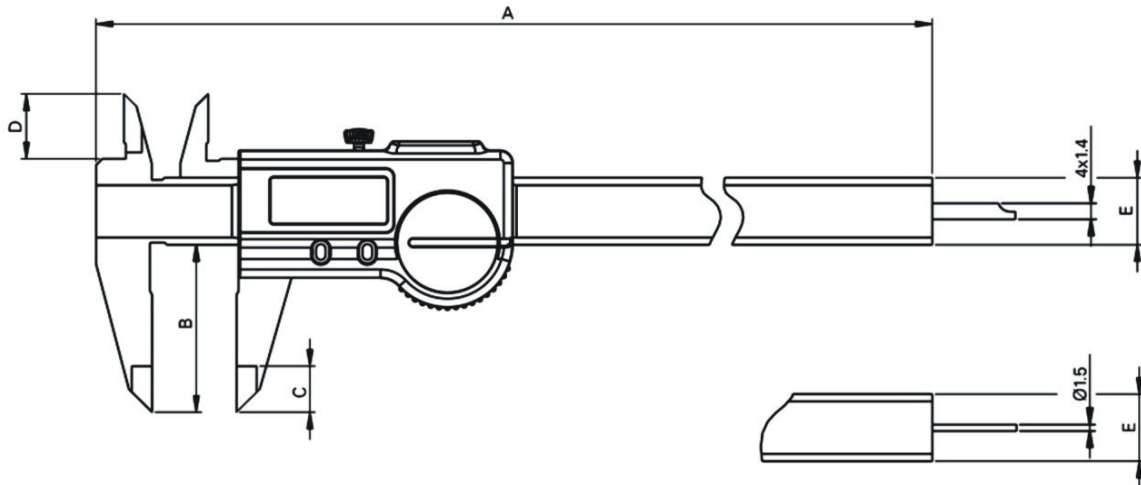
**IP67**

**PROXIMITY**

|              |              |
|--------------|--------------|
| <br>926.6721 | <br>926.6723 |
| <br>926.5133 |              |

\* SIS description on page 5





Unit:mm

| Order No.                                | 55312-01                             | 55312-02          | 55312-03 | 55312-04 |
|--|--------------------------------------|-------------------|----------|----------|
| Model                                    | 910.1502                             | 910.1507          | 910.1522 | 910.1532 |
| Measuring range                          | 150                                  | 150               | 200      | 300      |
| Max.Error G                              | 20 <sup>1)</sup>                     | 20 <sup>1)</sup>  | 30       | 30       |
| A  | 234.5                                | 234.5             | 290.5    | 388      |
| B  | 40                                   | 40                | 50       | 64       |
| C  | 11                                   | 11                | 14       | 14       |
| D  | 16                                   | 16                | 19       | 19       |
| E  | 16x3.5                               | 16x3.5            | 16x3.5   | 16x4     |
| Depth rod                                | 4x1.4                                | $\varnothing 1.5$ | 4x1.4    | ---      |
| Protection rating according to IEC 60529 | IP67 with or without connector       |                   |          |          |
| S_Connect:Proximity                      | USB / RS232 / Wireless <sup>2)</sup> |                   |          |          |
| Zero setting                             | ●                                    |                   |          |          |
| Smart Inductive Sensor                   | ●                                    |                   |          |          |

 1) >100mm:30  $\mu$ m / DIN862

2)see cables chapter

# Measuring Tool

## 55335 GDW Outer Diameter Micrometers



### Features :

- ▶ Automatic wake-up by moving the measuring spindle (Absolute System S.I.S)
- ▶ Sleeping mode after 20 min. of no use (Absolute System S.I.S)
- ▶ Position memorized in sleeping mode, Absolute system S.I.S\*
- ▶ Water protected for heavy-duty work with coolants and lubricants, protection rating Ip67 according to IEC 60529, even connected
- ▶ Measuring range 0-161mm covered with 5 instruments only
- ▶ Set of 3 micrometers 0-102mm available
- ▶ Quick displacement of the measuring spindle 10mm/rotation
- ▶ Adjustable measuring force 5N/10N (versions 903.030X)
- ▶ Repeatability and reproducibility never reached before
- ▶ Thimble in polyacetal-copolymer

Measuring surface in hard metal

Non-rotating spindle  $\varnothing 6.5\text{mm}$



S\_connect proximity or Bluetooth®

Simple and friendly functions

**SWISS MADE**

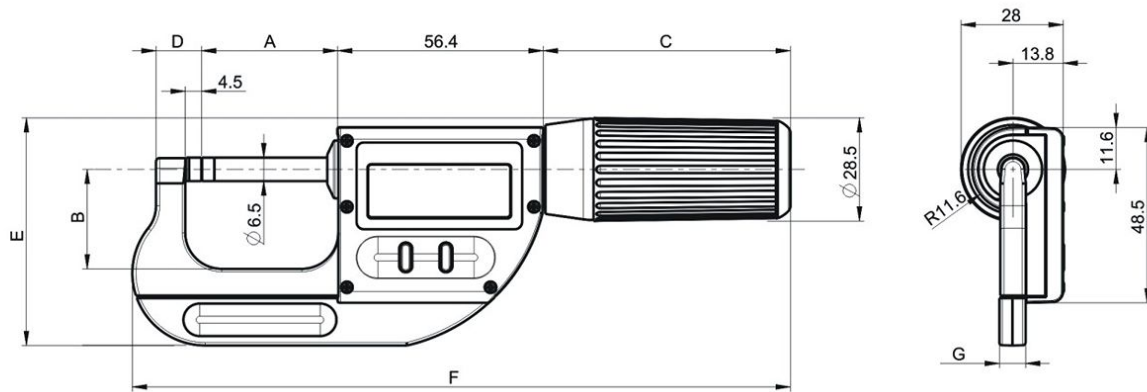
**SIS** Smart Inductive System

WATER RESISTANT

PROXIMITY Bluetooth Built-in



MEASURING TOOL



單位:mm

| Order No.                     |    | 55335-01                              | 55335-02 | 55335-03 | 55335-04 | 55335-05 |
|-------------------------------|----|---------------------------------------|----------|----------|----------|----------|
| Model                         |    | 803.0300                              | 903.0600 | 903.1000 | 903.1360 | 903.1600 |
| Measuring range               | mm | 0-30                                  | 30-66    | 66-102   | 100-136  | 125-161  |
| Max.Error G <sup>1)</sup>     | μm | 3                                     | 4        | 5        | 7        | 8        |
| Resolution <sup>2)</sup>      | μm | 1                                     | 1        | 1        | 2        | 2        |
| Anvils types                  |    | ∅ 6.5                                 |          |          |          |          |
| A                             | mm | 37.3                                  | 73.3     | 109.3    | 143.3    | 168.3    |
| B                             | mm | 27.5                                  | 43       | 60       | 95       | 110      |
| C                             | mm | 68                                    | 74       | 74       | 74       | 74       |
| D                             | mm | 12.5                                  | 13.5     | 14.5     | 19.5     | 19.5     |
| E                             | mm | 63                                    | 86       | 106      | 151      | 169      |
| F                             | mm | 181                                   | 230      | 269      | 306      | 339      |
| G                             | mm | 7.2                                   | 9        | 9        | 9        | 9        |
| S_Connect:Proximity           |    | USB / RS 232 / Wireless <sup>3)</sup> |          |          |          |          |
| Prot.rating accor.toIEC 60529 |    | IP67 even connected                   |          |          |          |          |
| Setting by PC                 |    | ●                                     |          |          |          |          |
| Adjustable measuring force    |    | 5N/10N                                | 10N      |          |          |          |
| Non-rotating spindle          |    | ●                                     |          |          |          |          |
| Fast movement                 |    | ●                                     |          |          |          |          |
| Preset function               |    | ●                                     |          |          |          |          |
| Smart Inductive Sensor        |    | ●                                     |          |          |          |          |

<sup>1)</sup>According to DIN 853

<sup>2)</sup>± 1 digit

<sup>3)</sup>see cables chapter

# Measuring Tool

**55345**

DHG

Digital Height Gauge

## Features:

- ▶ Intuitive functions
- ▶ 400 and 600mm versions
- ▶ Robust mechanics
- ▶ Proximity, Power and Bluetooth® data outputs
- ▶ Metric / inch conversion
- ▶ First height measuring and scribing instrument with Bluetooth® wireless technology

**SWISS  
MADE**

PROXIMITY

Built-in  
Bluetooth®



POWER



Output cable Proximity  
to USB(926.6721) or  
RS232(926.6723)

Large display

Fine adjustment  
focusing knob

Locking nut

Hardened steel  
guide

Self-locking rapid  
transfer system

Quick clamping  
device  $\varnothing$ 8mm

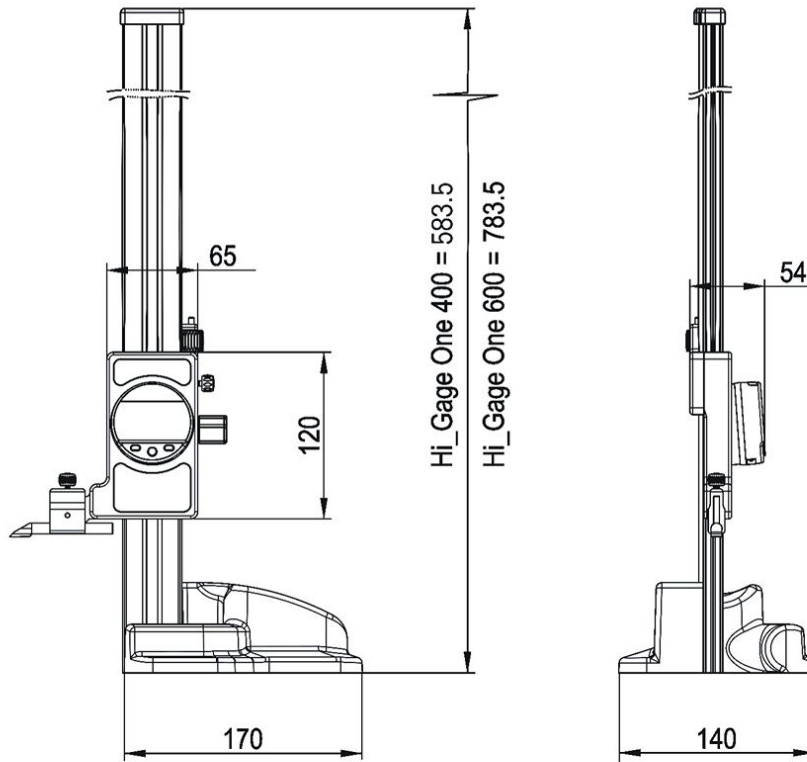
External power supply and  
output cable Power to USB  
(926.6821/926.6838) or  
RS232(905.4516/905.4538)

Ergonomic cast iron base



MEASURING TOOL

**55345** DHG Digital Height Gauge



單位:mm

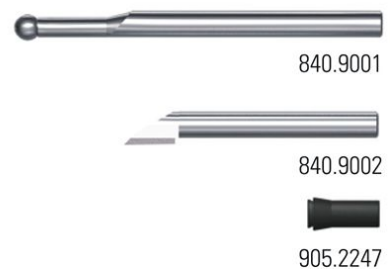
| Order No.                        | 55345-01                                     | 55345-02 |
|----------------------------------|--|----------|
| Model                            | 840.0406                                     | 840.0606 |
| Measurement range                | 400mm  | 600mm    |
| Resolution                       | 0.01mm                                       | 0.01mm   |
| Max.error                        | 40μm   | 50μm     |
| Repeatability                    | 10μm   | 10μm     |
| 2 references                     |  | ●        |
| PRESET                           |  | 9999.99  |
| Selection of measuring direction |  | ●        |
| Smart Inductive Sensor(S.I.S)    |  | ●        |
| Output data                      | Bluetooth® wireless technology / RS232 / USB |          |

<sup>1)</sup> ± 1 digit

Optional accessories

| Order No. | Model                  | Description        |
|-----------|------------------------|--------------------|
| 55345-07  | 840.9001               | Ball probe Ø8mm    |
| 55345-08  | 840.9002 <sup>1)</sup> | Tracing probe      |
| 55345-09  | 905.2247               | Clamping stem Ø8mm |

<sup>1)</sup>supplied in standard



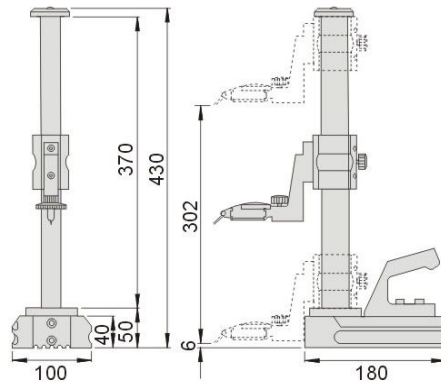
# Measuring Tool

## 55348 VT Squareness Tester

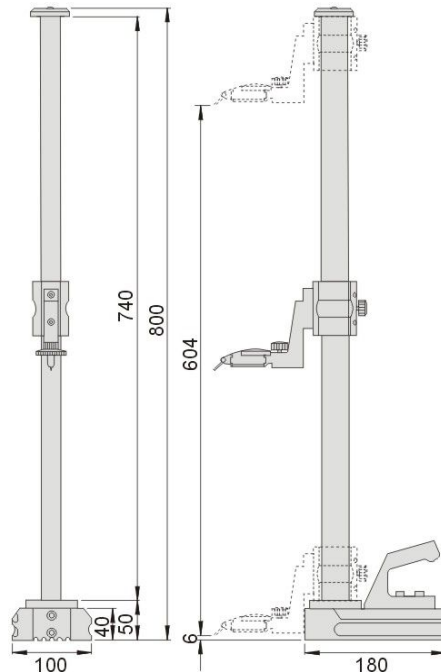
### Features:

- ▶ Suitable for placing on granite stone and measuring the squareness.
- ▶ Slide rail is made of alloy steel with HRC 65° and cryogenic treatment.
- ▶ The slide rail is almost free when applied in a constant temperature testing room or environment.

VT300



VT600

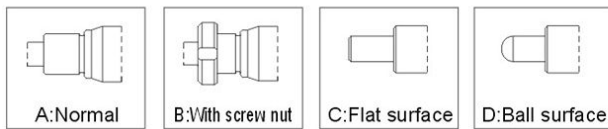


\*Lever indicator is not included.

Unit:mm

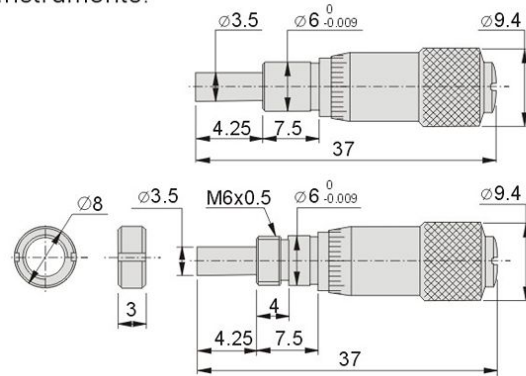
| Order No. | Model | Measuring Range | Accuracy | N.W.    |
|-----------|-------|-----------------|----------|---------|
| 55348-30  | VT300 | 300             | 0.003    | 8.5kgs  |
| 55348-60  | VT600 | 600             | 0.005    | 12.8kgs |

**55350** MH065 Micrometer Heads



**Features :**

► Suitable for fine-tuning and measuring precision instruments.

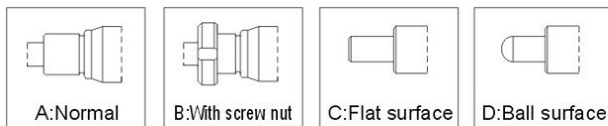


Unit:mm

| Order No. | Model   | Range | Accuracy | Reading | Remark |
|-----------|---------|-------|----------|---------|--------|
| 55350-01  | MH065AC | 0-6.5 | 0.005    | 0.01    | A&C    |
| 55350-02  | MH065AD |       |          |         | A&D    |
| 55350-03  | MH065BC |       |          |         | B&C    |
| 55350-04  | MH065BD |       |          |         | B&D    |

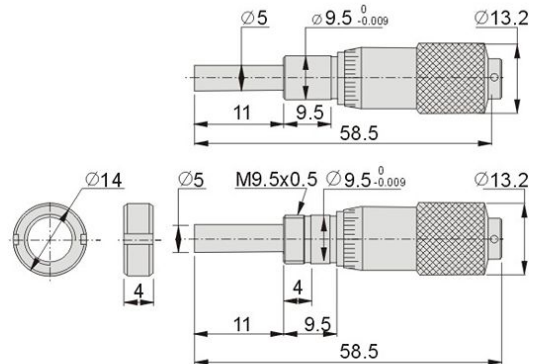
※Custom made is available

**55355** MH130 Micrometer Heads



**Features :**

► Suitable for fine-tuning and measuring precision instruments.



Unit:mm

| Order No. | Model   | Range | Accuracy | Reading | Remark |
|-----------|---------|-------|----------|---------|--------|
| 55355-01  | MH130AC | 0-13  | 0.005    | 0.01    | A&C    |
| 55355-02  | MH130AD |       |          |         | A&D    |
| 55355-03  | MH130BC |       |          |         | B&C    |
| 55355-04  | MH130BD |       |          |         | B&D    |

※Custom made is available

## Measuring Tool

55400/05

PGCA

Concentricity Measuring Instrument



55400  
PGCA

N.W. 4.3kg



55405  
PGCA-1

N.W. 5.0kg

### Features :

- ▶ Suitable for application on measuring concentricity with high accuracy result.
- ▶ Commonly utilised in cutting tools, press die, semi-conductor, automotive & aviation industry
- ▶ Cost effective & high efficiency
- ▶ Base is made of tool steel with salt bathing nitriding, high rust resistance.

### Main parameters:

Range:  $\varnothing 3.0\text{mm} \sim \varnothing 25\text{mm}$

Length: within 100mm.

Accuracy: 0.002mm

Size: 267mm x 114mm x 125mm

### Accessory:

Lever indicator 

Universal arm

55410/15

PGCB

Concentricity Measuring Instrument



55410  
PGCB

N.W. 4.28kg



55415  
PGCB-1

N.W. 5.0kg

### Features :

- ▶ Suitable for application on measuring concentricity with high accuracy result.
- ▶ Commonly utilised in cutting tools, press die, semi-conductor, automotive & aviation industry
- ▶ Cost effective & high efficiency
- ▶ Base is made of tool steel with salt bathing nitriding, high rust resistance.

### Main parameters:

Range:  $\varnothing 0.5\text{mm} \sim \varnothing 25\text{mm}$

Length: within 100mm.

Accuracy: 0.002mm

Size: 267mm x 114mm x 125mm

### Accessory:

Lever indicator 

Universal arm

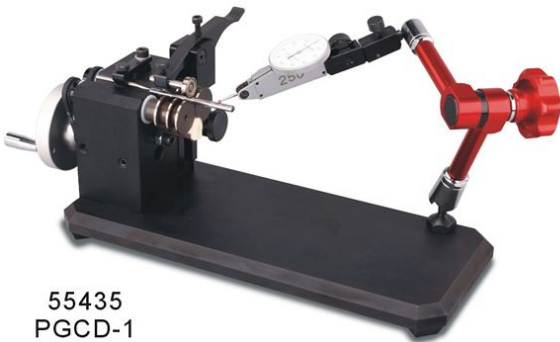


**55430/35** PGCD >> **Concentricity Measuring Instrument**



55430  
PGCD

N.W. 4.24kg



55435  
PGCD-1

N.W. 4.85kg

**Features :**

- ▶ Suitable for application on measuring concentricity with high accuracy result.
- ▶ Commonly utilised in cutting tools, press die, semi-conductor, automotive & aviation industry
- ▶ Cost effective & high efficiency
- ▶ Base is made of tool steel with salt bathing nitriding, high rust resistance.

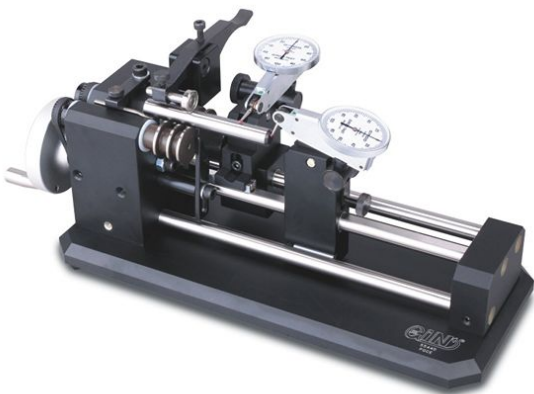
**Main parameters:**

Range:  $\varnothing 0.5\text{mm} \sim \varnothing 25\text{mm}$   
 Length: within 100mm.  
 Accuracy: 0.002mm  
 Size: 267mm x 114mm x 125mm

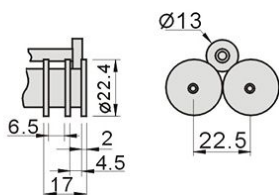
**Accessory:**

Lever indicator P.D31  
 Universal arm

**55440** PGCE >> **Concentricity Measuring Instrument**



N.W.5.5kg



**Features :**

- ▶ Suitable for measuring concentricity, roundness and deviation with high precision.
- ▶ Commonly used in cutting tool, press die, semi-conductor, aviation and automobile industries.
- ▶ Cost effective and efficiency.

**Main parameters:**

Range:  $\varnothing 0.5\text{mm} \sim \varnothing 25\text{mm}$   
 Length: within 100mm.  
 Accuracy: 0.002mm  
 Size: 267mm x 114mm x 125mm

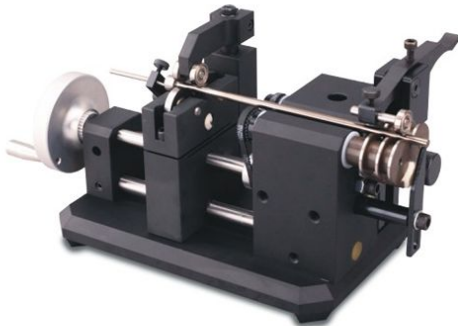
**Optional accessory:**

Lever indicator P.D31

MEASURING TOOL

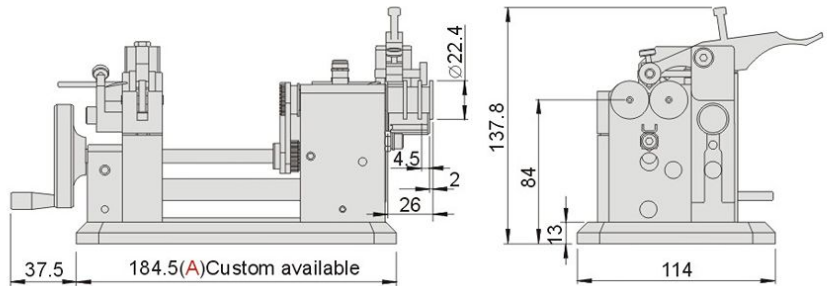
# Measuring Tool

## 55441 P GCF Concentricity Measuring Instrument



### Features:

- ▶ Special design for cylindrical grinding long workpiece with  $\varnothing 1 \sim \varnothing 10$ mm outer circle as well as end face.
- ▶ For measuring concentricity purpose, it can measure from  $\varnothing 0.5$  to  $\varnothing 25$ mm with accuracy 0.003mm



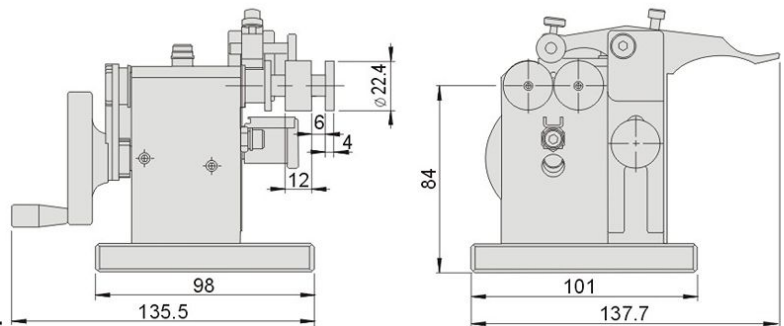
## 55442 P GCG Concentricity Measuring Instrument



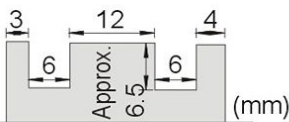
### Features:

- ▶ Capable of holding from  $\varnothing 1 \times 15L$  to  $\varnothing 25 \times 80L$ .
- ▶ Compact design and suitable for placed on granite stone for testing run-out. Accuracy within 0.002mm.
- ▶ Slot on the bottom for fixing on jig or fixture.

N.W. 2.5kg



Example:



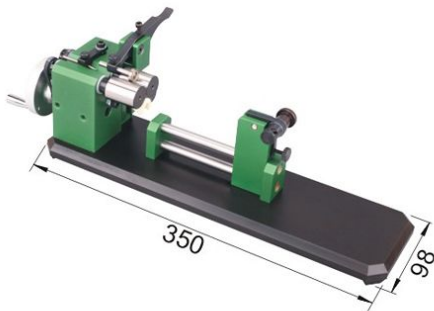
MEASURING TOOL

**55443** PGCH >> **Concentricity Measuring Instrument**



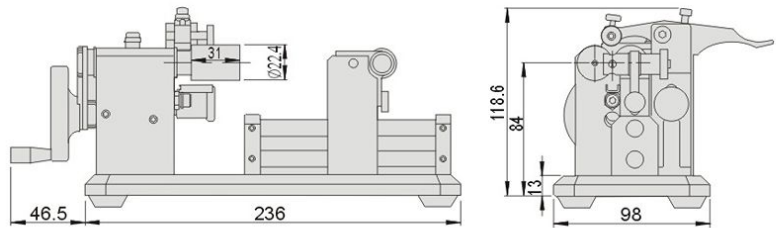
N.W. 4.1kg

Optional long base version for placing other dial indicators.

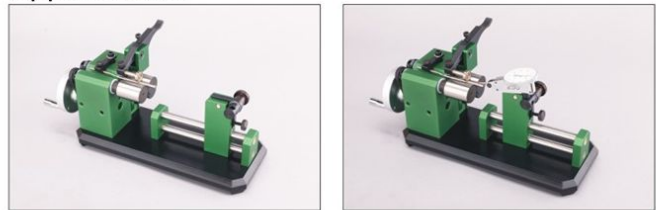


**Features :**

- ▶ Capable of holding  $\varnothing 4\sim\varnothing 25\text{mm}$ , length 5~80mm.
- ▶ Suitable for placed on granite stone for testing run-out. Accuracy within 0.002mm.
- ▶ Dual axis slider design for stability and ideal testing position.



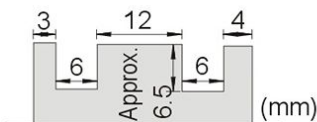
**Applications:**



**55445** PGCI >> **Concentricity Measuring Instrument**

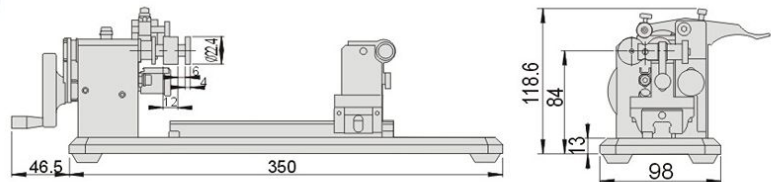


N.W. 5.3kg

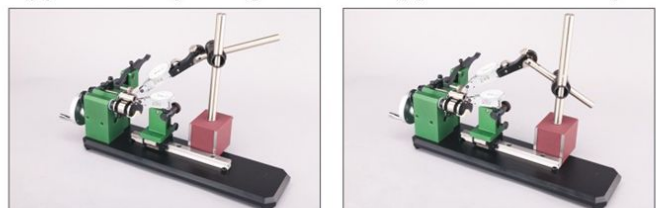


**Features :**

- ▶ Capable of holding  $\varnothing 4\sim\varnothing 25\text{mm}$ , length 5~80mm.
- ▶ Suitable for placed on granite stone for testing run-out. Accuracy within 0.002mm.
- ▶ Linear rail design for stability and ideal testing position.

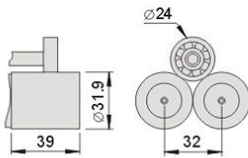


**Applications:(testing I.D & O.D.)( I.D & End face)**



# Measuring Tool

## 55446 PGCJ Concentricity Measuring Instrument




### Features :

- ▶ Capable of holding larger diameter.
- ▶ Suitable for testing run-out, end face center and accuracy within 0.002mm.
- ▶ Lever indicator & universal arm are excluded.

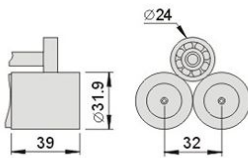
### Main parameters:

Range:  $\varnothing 4.0\text{mm} \sim \varnothing 40\text{mm}$   
 Length: 130mm(guaranteed)  
 300mm(to the end)  
 Accuracy: 0.002mm  
 Size: 172mm x 200mm x 389.5mm

### Optional accessory:

- Lever indicator 
- Universal arm

## 55448 PHCR Eccentric Checking Instrument




### Features :

- ▶ With fine-tuning function for X, Y & Z axis, positioning is easier and realise O.D. and end face testing.
- ▶ Lever indicator are excluded.

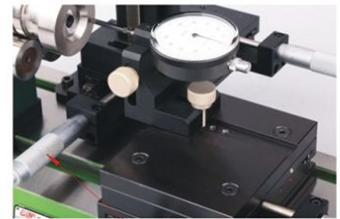
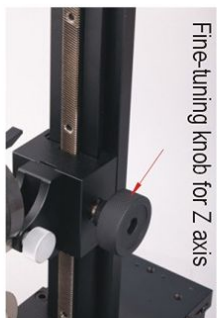
### Main parameters:

Range:  $\varnothing 4.0\text{mm} \sim \varnothing 40\text{mm}$   
 Length: 130mm(guaranteed)  
 280mm(to the end)  
 Accuracy: 0.002mm  
 Size: 182mm x 370mm x 486mm

### Optional accessory:

- Lever indicator 
- Universal arm

MEASURING TOOL



**55450**
**HCR1**
**Eccentric Checking Instrument**

Center Slider type


**Features :**

- ▶ Sophisticated design with high accuracy and simple operation.
- ▶ Casting iron with surface treatment and ground ensuring the durability.
- ▶ Widely used for deviation, roundness, eccentric checking.
- ▶ Slider design with special modulisation can ensure repeating accuracy.
- ▶ Optional spec. for HCR1-400 with H:325mm and choice of center height of 200mm or 300mm.

Attention: Dial indicator &amp; standard rod are optional accessories.

Unit:mm

| Order No. | Model    | Length | Width | Height | Center Height | Center Length | Mobile Accuracy | N.W. | Live Center |
|-----------|----------|--------|-------|--------|---------------|---------------|-----------------|------|-------------|
| 55450-01  | HCR1-100 | 245    | 80    | 88     | 45            | 100           | 0.005           | 13kg | MT1         |
| 55450-02  | HCR1-200 | 490    | 160   | 175    | 90            | 200           | 0.005           | 25kg | MT1         |
| 55450-03  | HCR1-300 | 590    | 182   | 175    | 90            | 300           | 0.01            | 29kg | MT1         |
| 55450-04  | HCR1-400 | 730    | 205   | 242    | 130           | 400           | 0.01            | 62kg | MT2         |

**55460**
**HCR2**
**Eccentric Checking Instrument**

Wheel Slider type


**Features :**

- ▶ Sophisticated design with high accuracy and simple operation.
- ▶ Casting iron with surface treatment and ground ensuring the durability.
- ▶ Widely used for deviation, roundness, eccentric checking.
- ▶ Slider design with special modulisation can ensure repeating accuracy.
- ▶ Optional spec. for HCR2-400 with H:325mm and choice of center height of 200mm or 300mm.

Attention: Dial indicator &amp; standard rod are optional accessories.

Unit:mm

| Order No. | Model    | Length | Width | Height | Center Height | Center Length | Mobile Accuracy | N.W. |
|-----------|----------|--------|-------|--------|---------------|---------------|-----------------|------|
| 55460-01  | HCR2-300 | 590    | 182   | 175    | 90            | 300           | 0.01            | 28kg |
| 55460-02  | HCR2-400 | 730    | 205   | 245    | 130           | 400           | 0.01            | 46kg |

# Measuring Tool

## 55480 PM Precision Comparator Stands

**PMSTA**  
Standard type



**PMCEB**  
Fine-tuning type



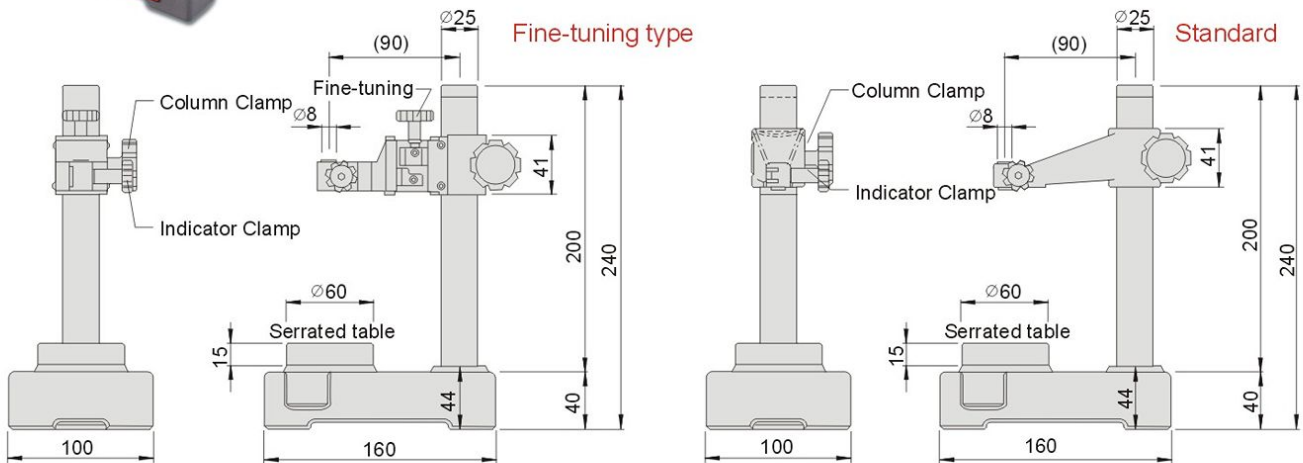
### Features :

- ▶ Compact and sturdy design with slick look and ultra-precision assembly parts.
- ▶ With fine-tuning function, easy to set zero.
- ▶ Especially for measurement of comparatively small parts.
- ▶ The column is precisely ground, hardened and plating.
- ▶ The table is precisely ground, hardened and polished in order to ensure the accuracy.
- ▶ The stand can be turn 180° and applied on large surface granite for measuring larger workpiece's flatness.
- ▶ Standard type is suitable for digital dial indicator\*.
- ▶ Fine-tuning type is suitable for dial indicator\*.

### Main parameters:

Vertical stroke ..... 130mm  
 Column diameter.....  $\varnothing 25$ mm  
 Table diameterter .....  $\varnothing 60$ mm  
 Flatness..... 0.001mm

MEASURING TOOL



\*Dial indicator is not included

Unit:mm

| Order No.  | Model | Stand Base |     |    | Table       | Column           |        | Indicator clamping |
|------------|-------|------------|-----|----|-------------|------------------|--------|--------------------|
|            |       | L          | W   | H  |             | Diameter         | Length |                    |
| 55480-ST-A | PMSTA | 160        | 100 | 40 | SKD11 Steel | $\varnothing 25$ | 200    | 8mm                |
| 55480-ST-B | PMSTB |            |     |    |             |                  |        |                    |
| 55480-CE-A | PMCEA |            |     |    | Ceramic     |                  |        |                    |
| 55480-CE-B | PMCEB |            |     |    |             |                  |        |                    |

**55485** PM Precision Comparator Stands

**PMSTC**



**PMCEC**

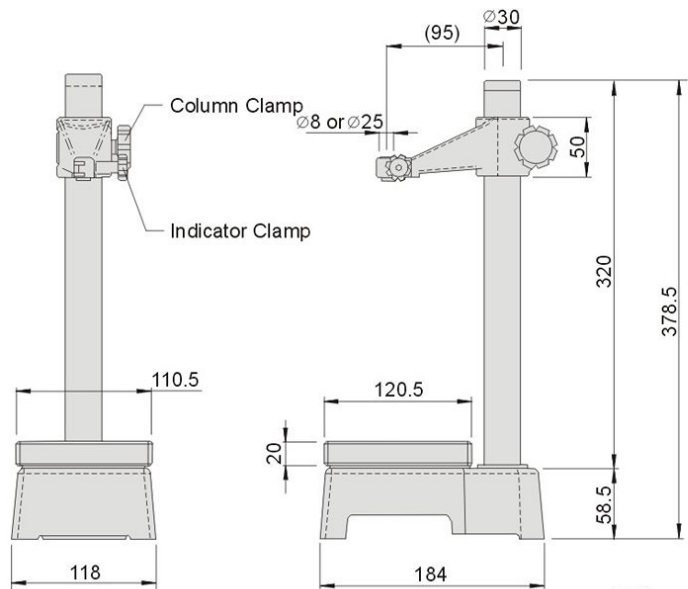


**Features :**

- ▶ Compact and sturdy design with slick look and ultra-precision assembly parts.
- ▶ Especially for measurement of comparatively small parts.
- ▶ The column is precisely ground, hardened and plating.
- ▶ The table is precisely ground, hardened and polished in order to ensure the accuracy.
- ▶ The stand can be turn 180° and applied on large surface granite for measuring larger workpiece's flatness.
- ▶ Standard type is suitable for digital dial indicator\*.

**Main parameters:**

Vertical stroke ..... 240mm  
 Column diameter.....  $\varnothing 30$ mm  
 Table diameterter ..... 120.5 x 110.5mm  
 Flatness..... 0.001mm



\*Dial indicator is not included

| Order No.  | Model | Stand Base |     |      | Table       | Column           |        | Indicator clamping |
|------------|-------|------------|-----|------|-------------|------------------|--------|--------------------|
|            |       | L          | W   | H    |             | Diameter         | Length |                    |
| 55485-ST-C | PMSTC | 184        | 118 | 58.5 | SKD11 Steel | $\varnothing 30$ | 320    | 8mm                |
| 55485-ST-D | PMSTD |            |     |      |             |                  |        | 25mm               |
| 55485-CE-C | PMCEC |            |     |      | Ceramic     |                  |        | 8mm                |
| 55485-CE-D | PMCED |            |     |      |             |                  |        | 25mm               |

Unit:mm



# Measuring Tool

## 55490 PMA Precision Comparator Stands

**PMA200B**  
Fine-tuning type



**PMA350C**  
Standard type



**PMA350D**  
Standard type

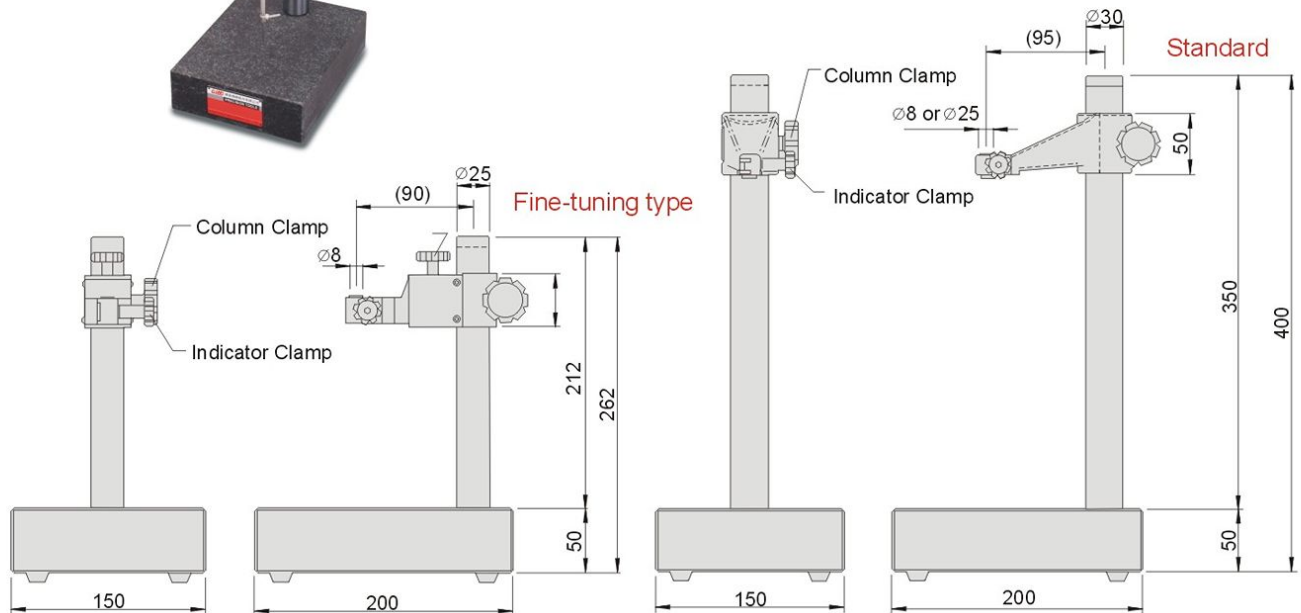


### Features :

- ▶ Compact and sturdy design with slick look and ultra-precision assembly parts.
- ▶ With fine-tuning function, easy to set zero. Especially for measurement of comparatively small parts.
- ▶ The column is precisely ground, hardened and plating.
- ▶ The base is made of black granite that stays free of burrs and build-ups due to its fine-grain composition and easy to maintain and rusty free. The stand can be turn 180° and applied on large surface granite for measuring larger workpiece's flatness.
- ▶ Standard type is suitable for digital dial indicator\*. Fine-tuning type is suitable for dial indicator\*.

### Main parameters:

|                          |         |
|--------------------------|---------|
| Vertical stroke (B)..... | 160mm   |
| (C & D).....             | 290mm   |
| Column diameter(B).....  | ∅ 25mm  |
| (C & D).....             | ∅ 30mm  |
| Flatness.....            | 0.001mm |



\*Dial indicator is not included

Unit:mm

| Order No.   | Model   | Black Granite Base |     |    | Column   |        | Indicator clamping |
|-------------|---------|--------------------|-----|----|----------|--------|--------------------|
|             |         | L                  | W   | H  | Diameter | Length |                    |
| 55490-200-B | PMA200B | 200                | 150 | 50 | ∅25      | 212    | 8mm                |
| 55490-350-C | PMA350C |                    |     |    | ∅30      | 350    | 8mm                |
| 55490-350-D | PMA350D |                    |     |    |          |        | 25mm               |

MEASURING TOOL



**55495** PMB Precision Comparator Stands

**PM600C**  
Standard type



**PM600D**  
Standard type

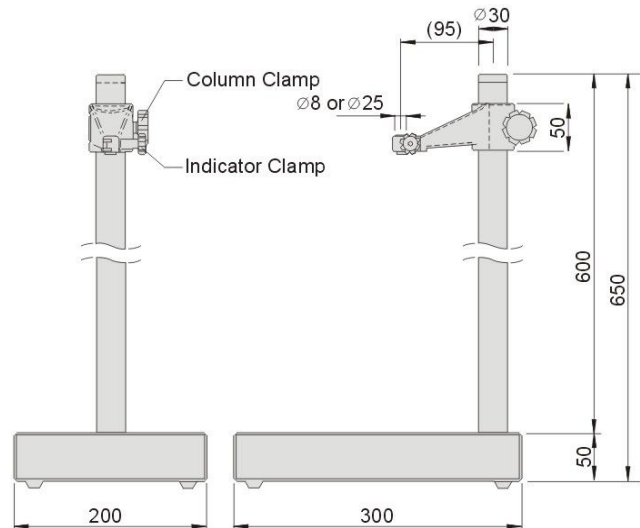


**Features :**

- ▶ Compact and sturdy design with slick look and ultra-precision assembly parts.
- ▶ With fine-tuning function, easy to set zero.
- ▶ Especially for measurement of comparatively small parts.
- ▶ The column is precisely ground, hardened and plating.
- ▶ The base is made of black granite that stays free of burrs and build-ups due to its fine-grain composition and easy to maintain and rusty free.
- ▶ The stand can be turn 180° and applied on large surface granite for measuring larger workpiece's flatness.
- ▶ Standard type is suitable for digital dial indicator\*.

**Main parameters:**

Vertical stroke ..... 540mm  
 Column diameter..... Ø30mm  
 Flatness..... 0.001mm



\*Dial indicator is not included

Unit:mm

| Order No.   | Model   | Black Granite Base |     |    | Column   |        | Indicator clamping |
|-------------|---------|--------------------|-----|----|----------|--------|--------------------|
|             |         | L                  | W   | H  | Diameter | Length |                    |
| 55495-600-C | PMB600C | 300                | 200 | 50 | Ø30      | 600    | 8mm                |
| 55495-600-D | PMB600D |                    |     |    |          |        | 25mm               |

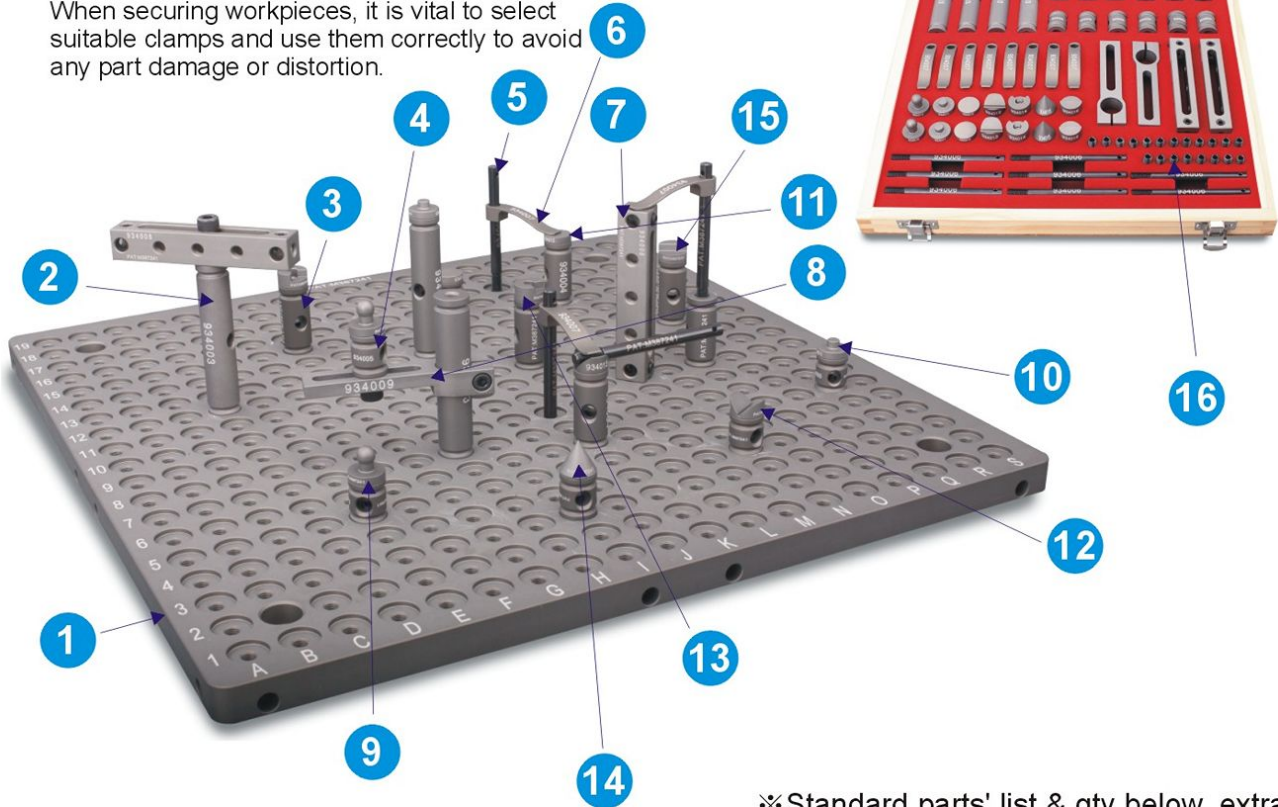


# Measuring Tool

## 55600 FCMM Fixtures for Coordinate Measuring Machine

PAT.M387241

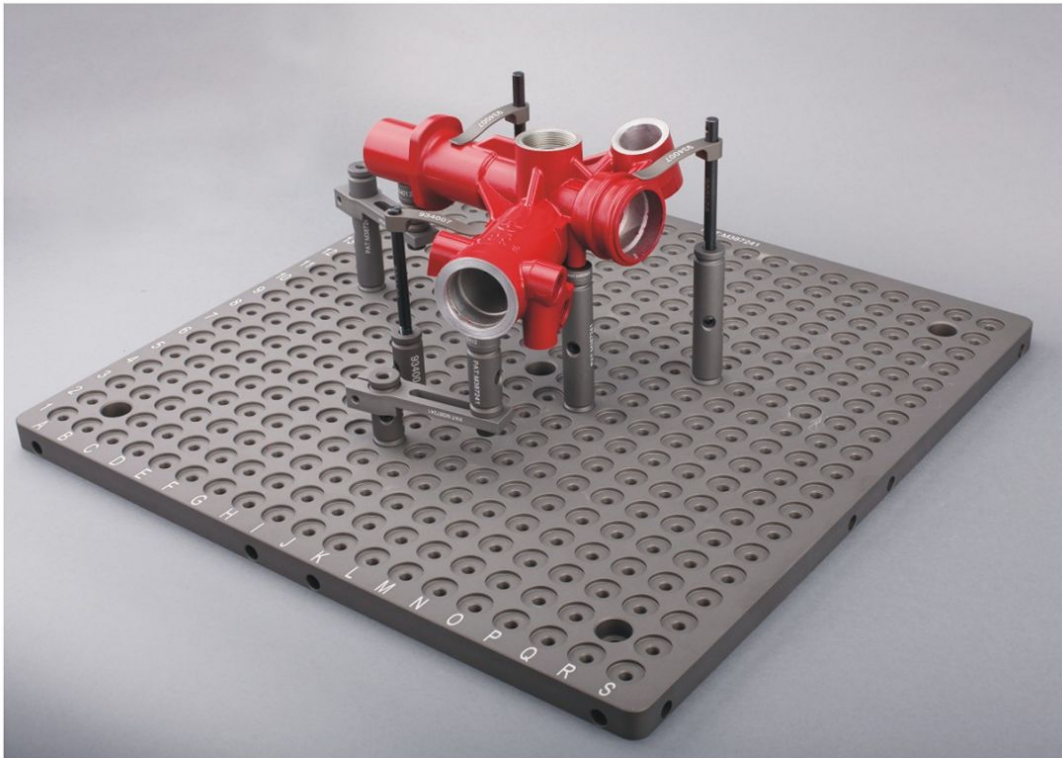
FCMM can be used to secure any sized part to ensure consistent and accurate CMM inspection. When securing workpieces, it is vital to select suitable clamps and use them correctly to avoid any part damage or distortion.



※Standard parts' list & qty below, extra order will be sold in single piece.

|   | Order No. | Model  | Spec.      | Q'ty |    | Order No. | Model  | Spec.       | Q'ty |
|---|-----------|--------|------------|------|----|-----------|--------|-------------|------|
| 1 | 55600-01  | 934001 | 20x500x500 | 1    | 9  | 55600-09  | 934010 | ∅20x28.5    | 3    |
| 2 | 55600-02  | 934003 | ∅20x100    | 4    | 10 | 55600-10  | 934011 | ∅20x20      | 3    |
| 3 | 55600-03  | 934004 | ∅20x50     | 6    | 11 | 55600-11  | 934012 | ∅20x15      | 3    |
| 4 | 55600-04  | 934005 | ∅20x25     | 6    | 12 | 55600-12  | 934013 | ∅20x20      | 3    |
| 5 | 55600-05  | 934006 | ∅8x100     | 8    | 13 | 55600-13  | 934014 | ∅20x20      | 2    |
| 6 | 55600-06  | 934007 | 11x12x65   | 8    | 14 | 55600-14  | 934015 | ∅20x28.5    | 3    |
| 7 | 55600-07  | 934008 | 20x20x114  | 2    | 15 | 55600-15  | 934016 | ∅20x20      | 2    |
| 8 | 55600-08  | 934009 | 15x26x106  | 2    | 16 | 55600-16  | A01085 | M8x1.25x20L | 20   |

**55600** FCMM Fixtures for Coordinate Measuring Machine



**55610** CHM-SE Precision Universal Thin Chuck Pedestal

CHM-SE02

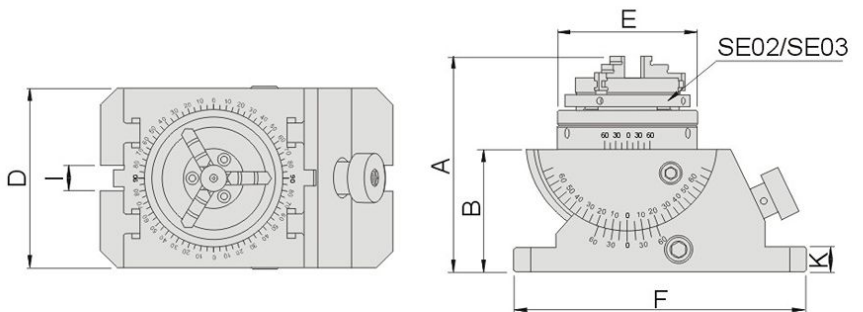


CHM-SE03



**Features:**

- ▲ Swivel base assembly with Thin 3-Jaw Chuck to achieve angle adjustments.
- ▲ Suitable for applying on 3D-Measuring to clamp round workpieces.
- ▲ For more info on Thin 3-Jaw Chuck, please refer to page H12.



Unit:mm

| Order No. | Model    | A   | B  | D   | E    | F   | I  | K  | N.W. |
|-----------|----------|-----|----|-----|------|-----|----|----|------|
| 55610-01  | CHM-SE02 | 133 | 75 | 110 | ∅85  | 178 | 16 | 15 | 11kg |
| 55610-02  | CHM-SE03 | 151 | 75 | 110 | ∅112 | 178 | 16 | 15 | 12kg |