

# Product information

## GAUGES

**NEW**

**NEW GAUGE SERIES**  
Custom made gauges are available on request.

**Class H7**

To determine the fit of a shaft in a hole the gauge has Go/No-Go sides for testing minimum allowable dimensions.

### LIMIT PLUG GAUGES H7 (for manufacturing)

LP Series  $\phi$  3~40mm

Additional larger sizes are available.



**MATERIAL**

- Gauge part : Alloy tool steel
- Handle part : Aluminum

**SPECIFICATIONS**

- Hardness HV660 ~ 780

### CARBIDE LIMIT PLUG GAUGES H7 (for manufacturing)

TLP Series  $\phi$  10~30mm

Carbide gauge type for high durability and thermal-expansion resistance.



**MATERIAL**

- Gauge part : Carbide
- Handle part : Aluminum

**FEATURES**

- Excellent wear resistance for 20-30 times longer service life than steel.

### CERAMIC LIMIT PLUG GAUGES H7 (for manufacturing)

CLP Series  $\phi$  10~30mm

Easy to use, economical!



**MATERIAL**

- Gauge part : Ceramics
- Handle part : Aluminum

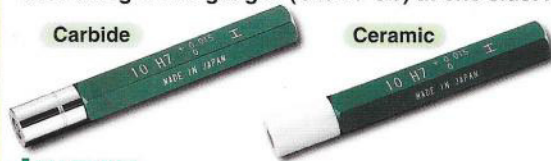
**FEATURES**

- Material has coefficient of thermal expansion similar to steel.

Go/No-Go gauge for testing the fit of shaft in hole based on maximum and minimum allowable dimensions.

### LIMIT STEP PLUG GAUGE Carbide / Ceramic $\phi$ 10~30mm

New design! Two gauges (Go/No-Go) at one side. No need to flip over.



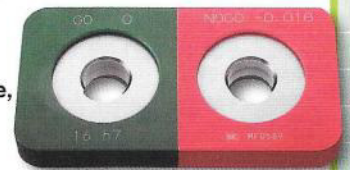
**FEATURES**

- Go/No-Go gauge at one side. No need to flip over, work efficiency goes up.

### LIMIT STEEL RING GAUGES h7 (with protective cover)

HKLR Series  $\phi$  5~20mm

Go/No-Go gauges paired by a protective cover. No risk of losing one, Easy to use.



**MATERIAL**

- Gauge part : Alloy tool steel
- Protective cover : Aluminum

### STEEL PIN GAUGE SET AA series

SUB-ZERO Treatment (Cryogenic hardened)

JCSS Calibration available



**FEATURES**

- The most popular type. Long life use / Sub zero treatment
- Individual Pin Gauges are also available
- Custom made Pin Gauges are available on request
- Aluminum Pin Vise is included with AA-0A to AA-9B
- Pin Vise is included with AA-0E to AA-6F
- For above 1.000mm, the nominal size is marked on gauge

**SPECIFICATIONS**

Nominal Size (mm)	Length (mm)	Tolerance ( $\mu$ m)	Out of Roundness/ Cylindricity ( $\mu$ m)	Hardness (HV)
0.05 ... 0.09	5~10	$\pm 0.5$	0.5	More than 650
0.10 ... 0.19				
0.200 ... 0.999				
1.000 ... 10.000	40	$\pm 0.8$	0.5	
10.01 ... 20.00				
20.01 ... 30.00				
30.01 ... 41.00				

### STEEL RING GAUGE

SUB-ZERO Treatment (Cryogenic hardened) for improved durability

LAPPED FINISH

Use Ring Gauge as master gauge for "0" adjustment of measuring tools such as bore gauge, inside micrometer, dial caliper, etc.

**SPECIFICATIONS**

Size (mm)	Out of Roundness ( $\mu$ m)	Out of Cylindricity ( $\mu$ m)	Tolerance ( $\mu$ m)	Hardness (HV)
1 to less than 30	0.5	0.5	$\pm 1.0$	653 ~ 772
30 to less than 50	0.8	0.8	$\pm 1.5$	
50 to less than 60	1.0	1.0	$\pm 2.0$	
60 to less than 80				
80 to less than 100				
100 to less than 200	2.0	2.0	$\pm 5.0$	



### CARBIDE RING GAUGE

LAPPED FINISH

**FEATURES**

- Durable and long life
- Less likely to be damaged due to high hardness

**SPECIFICATIONS**

Size (mm)	Out of Roundness/ Cylindricity ( $\mu$ m)	Tolerance ( $\mu$ m)
1 to less than 30	0.5	$\pm 1$
30 to less than 50	0.8	$\pm 1.5$



### CERAMIC RING GAUGE

LAPPED FINISH

**FEATURES**

- Free from rust and corrosion, and easy maintenance
- Non-magnetic body

**SPECIFICATIONS**

Size (mm)	Step (mm)	Out of Roundness/ Cylindricity ( $\mu$ m)	Tolerance ( $\mu$ m)
1 to less than 30	0.5 step	0.5	$\pm 1$
30 to less than 50		0.8	$\pm 1.5$



## ANGLES

### LEVELNIC DIGITAL ANGLE METER

DP-30XY

Enables measurement in X-axis and Y-axis at the same time.

#### FEATURES

- Precision angle measurement and working reference for assembly of machinery, tooling, jigs, etc.
- Easy to read, touch-panel Color LCD

#### SPECIFICATIONS

- Measurement Range:  $\pm 30^\circ$
- Resolution:  $0.01^\circ$  (0.1mm/m) switchable
- Readout Accuracy:  $\pm 0.05^\circ$  (at  $20^\circ\text{C}$ )  
 $\ast$  Temperature dependent factor of  $0.015\%/^\circ\text{C}$
- XY Orthogonal accuracy: 1%

NEW



### LEVELNIC DL-S3

High accuracy Level with Simple & Clear Operation  
Worlds first Digital Level with built-in Microcomputer

Digital Display 0.001mm/m

#### SPECIFICATIONS

Measuring Range $\ast 1$	$\pm 5.00\text{mm/m} \pm 0.286^\circ$
Minimum Reading	$\pm 0.001\text{mm/m} \pm 0.0001^\circ$ ( $0 \sim \pm 2\text{mm/m} \cdot 0 \sim \pm 0.115^\circ$ ) $\pm 0.01\text{mm/m} \pm 0.001^\circ$
Accuracy $\ast 2$	$17 \sim 23^\circ\text{C}$ $\pm 1.0\% \text{rdg}$ ( $\pm 2 \sim 5\text{mm/m} \pm 0.115^\circ \sim \pm 0.286^\circ$ )
	$0 \sim 40^\circ\text{C}$ $\pm 2.6\% \text{rdg}$ ( $0 \sim \pm 2\text{mm/m} \cdot 0 \sim \pm 0.115^\circ$ ) $\pm 2.7\% \text{rdg}$ ( $\pm 2 \sim 5\text{mm/m} \pm 0.115^\circ \sim \pm 0.286^\circ$ )
Repeatability	Within $\pm 0.005\text{mm/m} \pm 0.0003^\circ$
Output Signal	Conforms to RS-232C

$\ast 1$ : For DEG ( $^\circ$ ) Display mode, "0 (Zero)" before the decimal point is not displayed.  
For 0.001mm/m (0.0001 $^\circ$ ) display mode, maximum reading which can be displayed is less than  $\pm 1.999\text{mm/m} (\pm 0.1145^\circ)$

$\ast 2$ : % rdg indicates the percentage of displayed value



## TAPER GAUGES

Measure openings, slot width, hole size etc.



### TAPER GAUGES (KAIDAN SCALE) TPG-700AKD

New stepped millimeter graduation prevents misreading!

NEW

#### FEATURES

- Increasing height of each mark makes it easier for eye to distinguish 1mm steps
- Sequential number style can be read directly without checking the surrounding numbers, 2mm point markings
- FRONT: width scale
- BACK: length scale
- With a conversion table

### TAPER GAUGES TPG-700A

Standard graduation

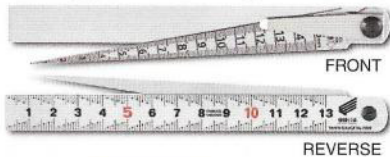
Measuring of tubing, bore, slot width, hole size and flange face to face dimension, etc.



### TAPER GAUGE WITH A STRAIGHT KAIDAN SCALE 700SKD

New stepped millimeter graduation prevents misreading!

NEW



FRONT

REVERSE

### TAPER GAUGES TPG-700S

Standard graduation

#### FEATURES

- Convenient set, taper gauge 700A with 130mm ruler
- Folds safely with pocket clip, easy to carry.



## BEVEL BOX Compact design digital angle meter

For all processes that require precise angle measurement, such as assembly, molding, machining and fixtures.

BB-180A

BB-180



BB-180A Equipped with Absolute measurement mode

#### SPECIFICATIONS

Measuring Range	Resolution	Accuracy $\ast$	Repeatability
$\pm 180.0^\circ$	$0.1^\circ$	$\pm 0.2^\circ$	$0.1^\circ$

$\ast$  Quantization Error ( $\pm 1$  digit) not included

## LEVEL METER

Measurement of inclination angle.

Analog type goniometer with magnetic base

LM-90



Analog type goniometer with magnet for vertical surfaces

LM-360



#### SPECIFICATIONS

Measuring range :  $0 \sim 90^\circ$   
Graduation :  $1^\circ$   
Accuracy :  $\pm 0.5^\circ$

#### SPECIFICATIONS

Measurement range :  $0 \sim 360^\circ$   
Graduation :  $1^\circ$   
Reading accuracy :  $\pm 0.5^\circ$

## WELDING GAUGES

For measuring fillet weld, bead weld, Undercut depth (WGU-7M) etc.

#### MATERIAL

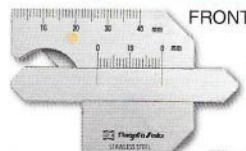
- Stainless steel (SUS410)

#### FEATURES

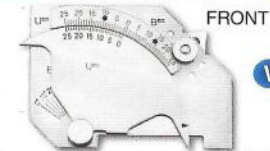
- Efficient for welding and quality control
- Tough and portable (with vinyl case)

#### SPECIFICATIONS

Model No.	Height of Bead Weld	Throat thickness	Undercut depth
WG-1(M)	10mm	10mm	—
WGU-7M	25mm	15mm	25mm



WG-1



WGU-7M



REVERSE



REVERSE

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$\ast$  Please note product specifications are subject to change without notice for improvement  
 $\ast$  The colors might be slightly different from the actual product



■ Distributor