



Catalog 2014



ACME SCREW PITCH GAUGES

30° Trapezoidal Screw Thread (Angle: 30°) mm



Code No.	Model No.	Leaves	Size Composition/Contents							
03-306	No.30-720	12	2	3	4	5	6	8	9	10 12 16 20
Accuracy (mm)			0.02	0.03	0.04	0.05				

Measure the pitch of 30° (Metric) and 29° (Inch) trapezoidal screw thread (Acme threads).

We put together in one holder 16 leaves for 29° and 12 leaves for 30° with both of 90mm long leaf, in the range of 30-40mm on gear tooth.

It is very easy to use and all gauges is linked on one side and made from no rust of stainless steel.

Material : Stainless Steel

Acme Screw Thread (Angle: 29°) inch

Code No.	Model No.	Leaves	Size Composition/Contents					
03-307	No.29-730	16	1	1 ¹ / ₃ 1 ¹ / ₂ 1 ³ / ₄ 2	2 ¹ / ₂ 3	3 ¹ / ₂ 4 5 6 7 8	9 10 12	
Accuracy (mm)			0.05	0.04	0.04	0.03	0.02	

ACME SCREW THREAD GAUGES

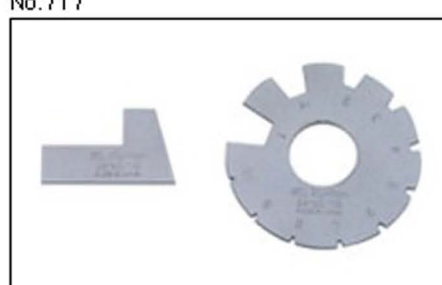
Acme Screw Thread inch



No.717

Code No.	Model No.	Leaves	Type	Size Composition/Contents
03-301	No.715	29°	Round	1 1 ¹ / ₃ 2 3 5 6 7 8 9 10
03-302	No.716	29°	Square	1 1 ¹ / ₃ 1 ¹ / ₂ 1 ³ / ₄ 2 2 ¹ / ₂ 3 4 5 6 7 8 9 10

30° Trapezoidal Screw Thread mm



No.718

Code No.	Model No.	Leaves	Type	Size Composition/Contents
03-303	No.717	30°	Square	3 4 5 6 7 8 9 10
03-304	No.718	30°	Round	3 4 5 6 7 8 9 10

Metric Trapezoidal Screw Thread (Tr) mm

Code No.	Model No.	Leaves	Type	Size Composition/Contents
03-300	No.719-Tr	30°	Square	2 3 4 5 6 7 8 9 10 12 14

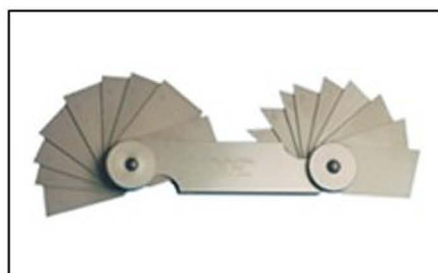
A standard for grinding and setting tools when cutting trapezoidal screw threads (Acme threads).

The depth of threads are same.

Accuracy : ±10'

ANGLE GAUGES

Pocket Depth Gage



Code No.	Model No.	Leaves	Size Composition/Contents
03-601	No.466	18	1° 2° 3° 4° 5° 7° 8° 9° 10° 12° 14° 14 1/2° 15° 20° 25° 30° 35° 45°

Used by inspectors, toolmakers, and die sinkers for checking angles.

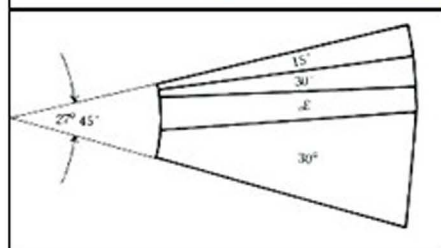
Takes the place of a protractor. This gauge has 18 leaves each with a different angle including 14 1/2° or 1/2 Acme Standard (29°).

Accuracy : ±10'

ANGLE BLOCK SETS



Code No.	Model No.	Size Composition/Contents
05-201	AB-10	1° 2° 3° 4° 5° 10° 15° 20° 25° 30° 10pcs set
05-202	AB-12	15' 30' 1° 2° 3° 4° 5° 10° 15° 20° 25° 30° 12pcs set



Measuring method (an example)
 $27^{\circ} 45' = 15' + 30' - 3' + 30'$

The block of angle inspection.
 Highly precise finish.
 10pc or 12 pc (add 1/4° and 1/2°) set

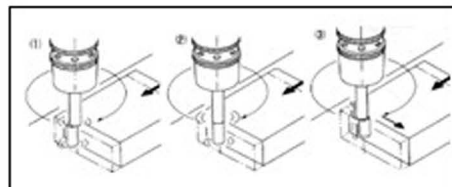
Size : L=76mm T=7mm

Accuracy : ± 20"

CENTERING BAR CERAMICS



CER-10 CER-32A CEZ-10



Code No.	Model No.	Shank	Probe	Length	Proper Rotation
07-703	CER-10	φ10	φ10	84	500~750rpm
07-704	CER-32A	φ32	φ10	104	500~750rpm
07-803	CEZ-10	φ10 (19)	φ10	80	450~600rpm

EDGE FINDERS (Concentric Position Finding Tools)

The ceramics probe is preeminent wear-proof nature.
Iron powder chips are not attached, and magnetism is shut down.

Repeated Accuracy : $\pm 0.002\text{mm}$
Material
Probe : Ceramics (ZrO₂)
Shank : Steel (SKS)
Hardness: HRC60°

CENTER GAUGES

Acme Screw Thread



No.650

Code No.	Model No.	Screw Thread	Angle	Scale			
03-501	No.650	Unified	60°	inch	1/14	1/20	1/24 1/32
03-502	No.651	Whitworth	55°	inch	1/14	1/20	1/24 1/32
03-503	No.652	Metric	60°	mm	1	0.5	



No.651

Grade A

Code No.	Model No.	Angle
03-510	A-55	30°
03-511	A-60	30°



A-60

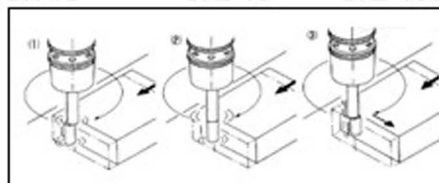
A handy gauge for use in grinding and setting screw cutting tools.
The angles of lathe center and screw cutting tool can be precisely measured.

Hardness : HRC55°
Grind-Finished
Accuracy (Basic Type) : $\pm 10'$
Accuracy (Grade A) : $\pm 3'$

CENTERING BAR (STEEL)



SR-12 SRZ-10 SRZ-104



Code No.	Model No.	Shank	Probe	Length	Proper Rotation
07-202	SR-12	φ 12	φ 10	90	500~750rpm

Code No.	Model No.	Shank	Probe	Length	Proper Rotation
07-801	SRZ-10	φ 10(19)	φ 10	80	450~600rpm
07-802	SRZ-104	φ 10(19)	φ 4・10	90	450~600rpm

EDGE FINDERS (Concentric Position Finding Tools)

Repeated Accuracy : ± 0.002mm
 Material : Steel (SKS)
 Hardness: HRC60°

CHAMFER MEASURING GAUGES



C-5

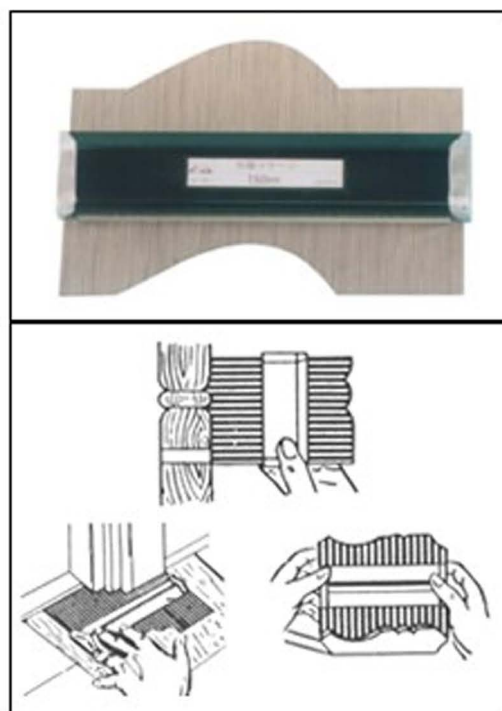


Code No.	Model No.	Leaves	Size Composition/Contents
03-013	C-5	10	0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0
03-014	C-10	10	5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0
03-015	C-215	14	0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5
03-016	C-163	15	1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0

Since measurement of the chamfers can be performed simply and correctly, working efficiency improves.

Material : Stainless Steel
 Accuracy : ± 0.03mm

CONTOUR GAUGES



Code No.	Model No.	Size Composition/Contents
03-901	No.150-6	150mm×85mm Diameter of wire: 0.9mm
03-902	No.300-12	300mm×150mm Diameter of wire: 1.0mm

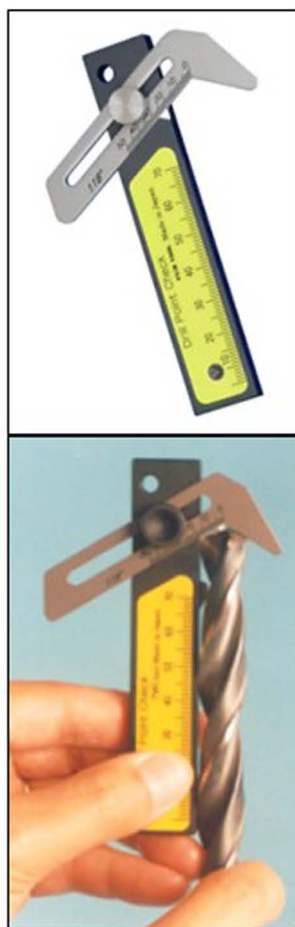
Used to check convex or concave quickly and easily.

Ideal for checking molds or dies.

Material

Body : Steel
 Wire : Stainless Steel

DRILL POINT CHECK



Code No.	Model No.	Maximum Diameter
03-071	DTM-118AM	50mm (Scale: mm)
03-072	DTM-118AH	2" (Scale: inch)

This gauge is used for inspection of the angle (118°) of the drill edge at the time of the repolish of the drill edge which was worn out and became blunt.

The drill of until diameter 50mm can be used.

In addition to the standard 118° blade angle plate, five additional angle plates can also be used (60° . 120° . 130° . 140° and 160°).

Material

Scale : Stainless Steel

Body : Aluminum

Accuracy : ± 0.2mm

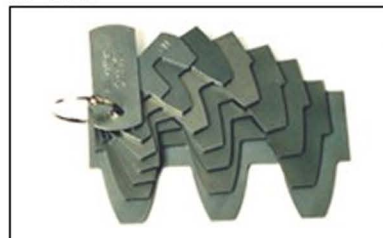
GEAR TOOTH GAUGES

Module Pitch

mm



MP-S14



DP-L14

With this involutes gear tooth gauge, it is easy to determine diametral pitch and module pitch (metric).

The pressure angle of these gauges are 14 1/2° and 20°

Accuracy : MP/DP-S (± 0.05mm)

MP/DP-L (± 0.05-0.1 mm)

Code No.	Model No.	P.Angle	Leaves	Size Composition/Contents
03-205	MP-S14	14 1/2°	13	0.5 0.75 1.0 1.25 1.5 1.75 2.0 2.25 2.5 2.75
03-206	MP-S20	20°		3.0 3.25 3.5 3.75 4.0 4.5 5.0
03-207	MP-L14	14 1/2°	7	6.0 7.0 8.0 9.0 10.0 11.0 12.0
03-208	MP-L20	20°		

Diametral Pitch

inch

Code No.	Model No.	P.Angle	Leaves	Size Composition/Contents
03-201	DP-S14	14 1/2°	14	6 7 8 9 10 11 12 14 16 18 20 22 24 26 28 30 32 36 40 48 64 80
03-202	DP-S20	20°	8	6 7 8 9 10 11 12 14 16 18
03-203	DP-L14	14 1/2°	7	2 2 1/2 3 3 1/2 4 4 1/2 5
03-204	DP-L20	20°		

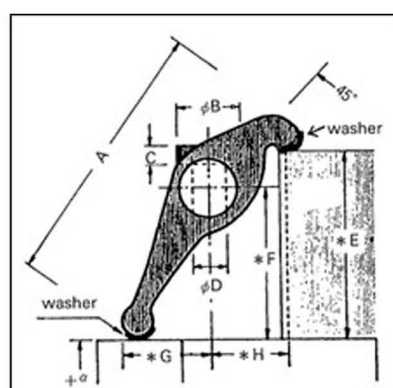
HANE-CLAMP

Code No.	Model	Bolt	A	φ B	C	φ D	E	F	G	H	Width	Weight	Clamping Capacity
08-101	PM-3	M12	93	24	6	12.4	60	50	35	30	38	250g	0~60(+α)
08-102	PM-4	M14	112	28	7	14.4	70	58	43	35	47	500g	0~70(+α)
08-103	PM-5	M16	128	32	9	16.3	80	70	48	40	50	800g	0~80(+α)
08-104	PM-6	M20	157	40	10	21.2	100	82	60	50	60	1300g	0~100(+α)
08-105	PM-7	M22	210	47	12	25	135	114	80	64	76	3000g	0~135(+α)

Set Type (With Bolts & Nuts)



Code No.	Model	Stud Bolts	* Apollo Nuts	T-Slot Nuts
08-106	PM-3S	12-100H	M12	1412
08-107	PM-4S	14-125H	M14	1614
08-108	PM-5S	16-150H	M16	1816
08-109	PM-6S	20-175H	M20	2220
08-110	PM-7S	22-200H	M22(Flanged Nut)	2622



*Apollo Nut: No frictional resistance and displaced special nut.



These clamps can set up height freely.

Simplest clamping operation results in shortened working time.

It is powerful bolting power.

Material : Steel (S45C)

Hardness : HRC40°

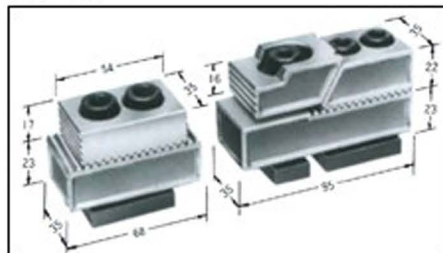
2pcs 1 set.

LINEAR VISE (LINEAR CLAMP)

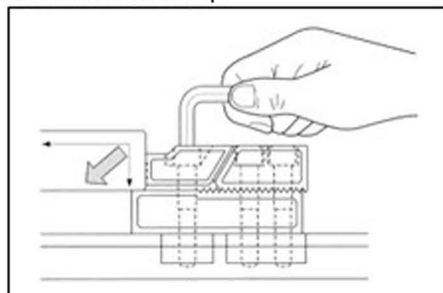
PAT.1658412



LKS-16



Dimension of clamp



Code No.	Model	T-Slot Nuts	Contents
08-500	LK-14	14	Clamp & Stopper
08-501	LK-16	16	
08-502	LK-18	18	
08-510	LKS-14	14	Clamp & Stopper & Stop parts
08-511	LKS-16	16	
08-512	LKS-18	18	
08-520	LC-14	14	Clamp only
08-521	LC-16	16	
08-522	LC-18	18	
08-530	LSS-14	14	Stopper & Stop parts
08-531	LSS-16	16	
08-532	LSS-18	18	
08-540	LS-14	14	Stopper only
08-541	LS-16	16	
08-542	LS-18	18	
08-550	L-468	14・16・18	LKS with T-slot nuts(14・16・18) & Key

Linear Vise has superiority in operability, and numerous pieces can be clamped without displacement by confronting clamp system.

Features

- Slide type mechanism provides positive clamping.
- Clamping and unclamping can be made by operating a single bolt.
- Processing of the works entire top surface, boring and tapping operations are all possible.
- The perfect heat treatment assures almost unlimited service life.

Clamping Force: 530 - 693kgf・cm
(5.2kN - 6.8kN)

Height: 23mm (within ± 0.005)

Fixing Standard: 54mm (within ± 0.01)

Height: 23mm (within ± 0.005)

Hardness: HRC40°

Material: Steel (S45C)

MINI-MAGNETIC STANDS



No.130

Holder Arm

Code No.	Model No.	Height	Base	M/P	Weight
08-801	No.130	130mm	φ 30	15K	150g
08-803	No.140	130mm	30×35	30K	310g



No.140

Very small magnetic stand permits use of Dial Indicators and Test indicators in very confined area.

The stand features fine adjustment.

Model 140 is change formula of magnetism.

Components

Magnetic Base

Universal Indicator Arm

Holder Arm (80mm)

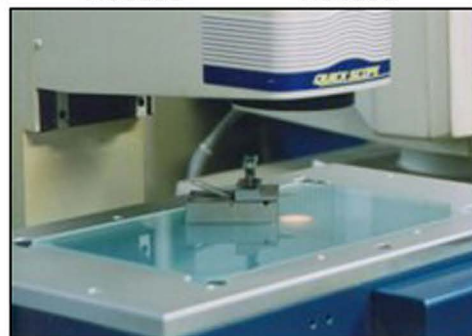
Fine-Adjustment Attachment

MEASURING CLIPS



MC300S

MS450S



Code No.	Model No.	Width	Length	Capacity	Weight
08-203	MC300S	30mm	55mm	10mm	150g
08-204	MC450S	45mm	63mm	12mm	400g

Miniature Precision Clamp

Measuring Clip be used to hold items on the table to facilitate measurements by Coordinate Measuring Machine, Projector, Microscope, etc. Work piece holding force can be easily adjusted by operating the springs. Body is machined to within precise tolerance for flatness and square ness.

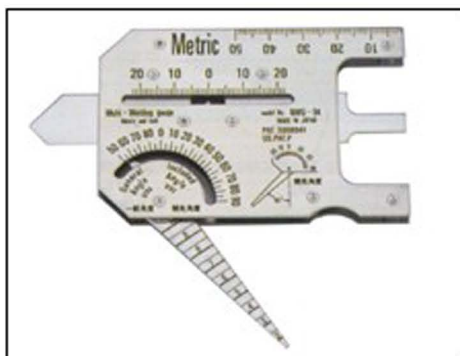
Material : Stainless Steel

Flatness : ± 0.01 mm

Square ness ± 0.015 mm

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MULTI-WELDING GAUGES

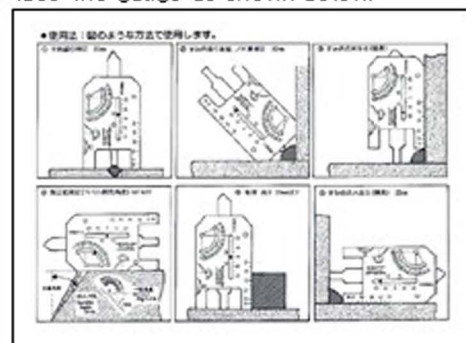


Code No.	Model No.	Scale
03-806	NWG-94I	Inch and Metric
03-807	NWG-94	Metric

Measurement of bead build-up during general welding work.

Measuring method

(Use the gauge as shown below)



Body Size: 60mm $\times$ 90mm $\times$ 6t

Measurement 20mm (7/8")

Range:

Distance 1.5 - 10mm (1/16 - 1/2")
between roots:

Angle of 0 - 85°
bevel

groove:

General 0 - 50°
Angle:

PAT. 3008941

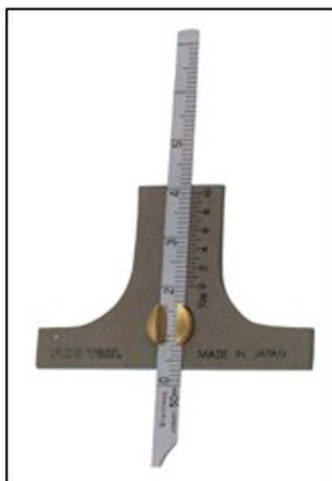
Material: Stainless Steel

Accuracy: ± 0.2 mm

POCKET DEPTH GAUGE

Pocket Depth Gauge

Code No.	Model No.	Scale (Range)
03-402	PDG-50	50mm (Vernier Scale: 1/20mm)



PDG-50

Tire Grooving Depth Gauge

Code No.	Model No.	Scale (Range)
03-403	TDG-20	20mm (Limits ▲)



TDG-20

Using for depth measuring of holes, slots, projections, etc.
Since Pocket Depth Gauge is compact in size, it can measure efficiently while work pieces are set on machine tools.

Material : Stainless Steel
Base Size : 59mm
Accuracy $\pm 0.05\text{mm}$
(Pocket Depth Gauge)
:
Accuracy $\pm 0.1\text{mm}$
(Tire Grooving Depth Gauge) :

RADIUS GAUGES L300 TYPE



L300MX (26Leaves)



L300ME (8Leaves)

Used for checking internal and external radii of tool patterns and other machining jobs. Individual gauges can be used separately. Each gauge is marked with its radius and 5 different gauge surfaces for both convex and concave radii. High precision is guaranteed.

Material : Stainless Steel
 Accuracy : 0.2~25.0mm(± 0.03)
 25.5~50.0mm(± 0.05)

Code No.	Model No.	Leaves	Size Composition/Contents
01-101	L300A	16	1/32" 3/64" 1/16" 5/64" 3/32" 7/64" 1/8" 9/64" 5/32" 11/64" 3/16" 13/64" 7/32" 15/64" 1/4" and 17/64"
01-102	L300AX	17	1/64" 1/32" 3/64" 1/16" 5/64" 3/32" 7/64" 1/8" 9/64" 5/32" 11/64" 3/16" 13/64" 7/32" 15/64" 1/4" and 17/64"
01-103	L300B	8	9/32" 5/16" 11/32" 3/8" 13/32" 7/16" 15/32" and 1/2"
01-104	L300C	24	1/32" 3/64" 1/16" 5/64" 3/32" 7/64" 1/8" 9/64" 5/32" 11/64" 3/16" 13/64" 7/32" 15/64" 1/4" 17/64" 9/32" 5/16" 11/32" 3/8" 13/32" 7/16" 15/32" and 1/2"
01-105	L300CX	25	1/64" 1/32" 3/64" 1/16" 5/64" 3/32" 7/64" 1/8" 9/64" 5/32" 11/64" 3/16" 13/64" 7/32" 15/64" 1/4" 17/64" 9/32" 5/16" 11/32" 3/8" 13/32" 7/16" 15/32" and 1/2"
01-106	L300D	16	1/32" 1/16" 3/32" 1/8" 5/32" 3/16" 7/32" 1/4" 9/32" 5/16" 11/32" 3/8" 13/32" 7/16" 15/32" and 1/2"
01-109	L300E	8	9/16" 5/8" 11/16" 3/4" 13/16" 7/8" 15/16" and 1"
01-110	L300F	8	1-1/16" 1-1/8" 1-3/16" 1-1/4" 1-5/16" 1-3/8" 1-7/16" and 1-1/2"
01-111	L300G	8	1-9/16" 1-5/8" 1-11/16" 1-3/4" 1-13/16" 1-7/8" 1-15/16" and 2"
01-114	L300CH	26	.010".015".020".025".030".40".050".060".070".080".090".100".120".140".160".180".200".220".240".260".280".300".350".400".450" and .500"
01-115	L300EH	10	.550".600".650".700".750".800".850".900".950" and 1.000"

Code No.	Model No.	Leaves	Size Composition/Contents
01-201	L300MA	14	0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0
01-202	L300MB	12	7.5 8.0 8.5 9.0 9.5 10.0 10.5 11.0 11.5 12.0 12.5 13.0
01-203	L300MC	8	13.5 14.0 14.5 15.0 15.5 16.0 16.5 17.0
01-204	L300MD	8	17.5 18.0 18.5 19.0 19.5 20.0 20.5 21.0
01-205	L300ME	8	21.5 22.0 22.5 23.0 23.5 24.0 24.5 25.0
01-206	L300MF	10	25.5 26.0 26.5 27.0 27.5 28.0 28.5 29.0 29.5 30.0
01-207	L300MG	8	31.0 32.0 33.0 34.0 35.0 36.0 37.0 38.0
01-209	L300MX	26	0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0 10.5 11.0 11.5 12.0 12.5 13.0

RADIUS GAUGES 178 TYPE



178MA

Used for checking convex
 and concave radii of tool
 patterns and other
 machining jobs.
 Each leaves stamped with
 size. High precision is
 guaranteed.

Accuracy : 0.1-3.0mm(± 0.03 mm)
 3.25-23.0mm(± 0.04 mm)
 24.0-30.0mm(± 0.05 mm)
 31.0-50.0mm(± 0.08 mm)

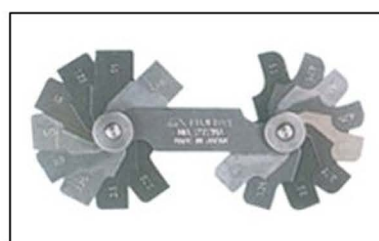
inch

Code No.	Model No.	Leaves	Size Composition/Contents
01-301	178A	30	$1/32''$ $3/64''$ $1/16''$ $5/64''$ $3/32''$ $7/64''$ $1/8''$ $9/64''$ $5/32''$ $11/64''$ $3/16''$ $13/64''$ $7/32''$ $15/64''$ $1/4''$
01-302	178B	32	$17/64''$ $9/32''$ $19/64''$ $5/16''$ $21/64''$ $11/32''$ $23/64''$ $3/8''$ $25/64''$ $13/32''$ $27/64''$ $7/16''$ $29/64''$ $15/32''$ $31/64''$ $1/2''$

mm

Code No.	Model No.	Leaves	Size Composition/Contents
01-308	178MAA	20	0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0
01-316	178-112	20	1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0
01-317	178-213	20	2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0
01-309	178MA	34	1.0 1.25 1.5 1.75 2.0 2.25 2.5 2.75 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0
01-310	178MB	32	7.5 8.0 8.5 9.0 9.5 10.0 10.5 11.0 11.5 12.0 12.5 13.0 13.5 14.0 14.5 15.0
01-315	178MR	30	15.5 16.0 16.5 17.0 17.5 18.0 18.5 19.0 19.5 20.0 21.0 22.0 23.0 24.0 25.0
01-311	178MC	16	16.0 17.0 18.0 19.0 20.0 21.0 22.0 23.0
01-312	178MD	14	24.0 25.0 26.0 27.0 28.0 29.0 30.0
01-313	178ME	20	31.0 32.0 33.0 34.0 35.0 36.0 37.0 38.0 39.0 40.0
01-314	178MF	20	41.0 42.0 43.0 44.0 45.0 46.0 47.0 48.0 49.0 50.0

RADIUS GAUGES 272 TYPE



272MA

Used for checking internal and external radius on each leaf or convex and concave surfaces. Toolmakers and Inspectors can measure the radii of the edges and corners of works. Each leaves stamped with size. High precision is guaranteed.

Accuracy : 0.1-3.0mm(± 0.03mm)
 3.25-23.0mm(± 0.04mm)
 24.0-30.0mm(± 0.05mm)
 31.0-50.0mm(± 0.08mm)

inch

Code No.	Model No.	Leaves	Size Composition/Contents
01-401	272A	16	1/32" 3/64" 1/16" 5/64" 3/32" 7/64" 1/8" 9/64" 5/32" 11/64" 3/16" 13/64" 7/32" 15/64" 1 /4" 17/64"
01-402	272B	16	9/32" 19/64" 5/16" 21/64" 11 /32" 23/64" 3/8" 25/64" 13/32" 27/64" 7/16" 29/64" 15 /32" 31/64" 1/2" 33/64"

mm

Code No.	Model No.	Leaves	Size Composition/Contents
01-408	272MAA	10	0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0
01-415	272-112	10	1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0
01-416	272-213	10	2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0
01-409	272MA	18	0.75 1.0 1.25 1.5 1.75 2.0 2.25 2.5 2.75 3.0 3.25 3.5 3.75 4.0 4.25 4.5 4.75 5.0
01-410	272MB	16	5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0 10.5 11.0 11.5 12.0 12.5 13.0
01-411	272MC	10	13.0 14.0 15.0 16.0 17.0 18.0 19.0 20.0 21.0 22.0
01-412	272MD	8	23.0 24.0 25.0 26.0 27.0 28.0 29.0 30.0
01-413	272ME	10	31.0 32.0 33.0 34.0 35.0 36.0 37.0 38.0 39.0 40.0
01-414	272MF	10	41.0 42.0 43.0 44.0 45.0 46.0 47.0 48.0 49.0 50.0

SMALL HOLE GAGES

Half Ball Type

(surface is a half-ball with a flat bottom.)



SH-4

Measuring a small hole.

Used for gauging deep and shallow holes, slots, grooves and recesses from 3mm to 12.7mm.

Gauging surface are hardened half ball with a flat bottom.

Code No.	Model No.	Range	Approx. Length
04-201	SH-4	Set of 4 in Case	
04-203	SH-A	3.2-5.1mm	25mm
04-204	SH-B	5.1-7.6mm	30mm
04-205	SH-C	7.6-10.2mm	40mm
04-206	SH-D	10.2-12.7mm	51mm

Full Ball Type

Code No.	Model No.	Range	Approx. Length
04-301	SHB-4	Set of 4 in Case	
04-302	SHB-A	3.2-5.1mm	25mm
04-303	SHB-B	5.1-7.6mm	30mm
04-304	SHB-C	7.6-10.2mm	40mm
04-305	SHB-D	10.2-12.7mm	51mm

SOLID ANGLE PLATES



SAP-2

Code No.	Model No.	Size Composition/Contents
05-601	SAP-2	30° × 60° 45° × 45° (2pc set, complete)
05-602	SAP-30	30° × 60° (Dimension: 50mm × 88mm × 100mm)
05-603	SAP-45	45° × 45° (Dimension: 75mm × 75mm × 108mm)

Triangle Ruler

Precisely ground angle for convenient set-ups in tooling, production and inspection.

Material : Carbon Steel
 Hardness : HRC55°
 Thickness : 7mm
 Square ness : ± 0.015mm
 Accuracy of Angle : ± 30"

SCREW PITCH GAUGES

Metric (Angle : 60°)

mm



No.156



No.137

These gauges can be used for inspection the pitch of screw thread.
 The pitch size is stamped on each leaf and a bolt, a nut, etc. can be measured correctly.

Accuracy: 0.25-1.3mm (± 0.03mm)
 (Metric) 1.4-7.0mm (± 0.05mm)
 7.5-11.5mm (± 0.07mm)

Accuracy: 80-40 per inch (± 0.03mm)
 (Whitworth) 39-10 per inch (± 0.05mm)
 Unified) 9-3 1/2 per inch
 (± 0.07mm)

Code No.	Model No.	Leaves	Size Composition/Contents
02-107	No.156	28	0.25 0.3 0.35 0.4 0.45 0.5 0.55 0.6 0.65 0.7 0.75 0.8 0.85 0.9 1.0 1.1 1.2 1.25 1.3 1.4 1.5 1.6 1.7 1.75 1.8 1.9 2.0 2.5
02-108	No.157	18	0.4 0.5 0.75 1.0 1.25 1.5 1.75 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0
02-109	No.158	17	0.5 0.75 1.0 1.25 1.5 1.75 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0
02-110	No.159	22	1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0 10.5 11.0 11.5
02-111	No.160 (ISO)	23	0.2 0.25 0.35 0.4 0.45 0.5 0.6 0.7 0.75 0.8 1.0 1.25 1.5 1.75 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0
02-113	No.162	24	0.25 0.3 0.35 0.4 0.45 0.5 0.55 0.6 0.7 0.8 0.9 1.0 1.25 1.5 1.75 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0
02-117	No.166	24	0.25 0.3 0.35 0.4 0.45 0.5 0.6 0.7 0.8 1.0 1.25 1.5 1.95 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0
02-129	No.138 (JIS)	21	0.25 0.3 0.35 0.4 0.45 0.5 0.75 0.9 1.0 1.25 1.5 1.75 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0

Whitworth (Angle : 55°)

inch

Code No.	Model No.	Leaves	Size Composition/Contents
02-105	No.137	26	4 4 1/2 5 6 7 8 9 10 11 12 13 14 16 18 19 20 22 24 25 26 28 30 32 40 48 60
02-127	No.476	30	3 1/2 4 4 1/2 5 6 7 8 9 10 11 12 13 14 16 18 19 20 22 24 25 26 28 30 32 36 40 44 48 50 60
02-114	No.163	52	4 4 1/2 5 6 7 8 9 10 11 12 13 14 16 18 19 20 22 24 25 26 28 30 32 36 40 48 60 62 0.25 0.3 0.35 0.4 0.45 0.5 0.6 0.7 0.75 0.8 0.9 1.0 1.25 1.5 1.75 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 (mm)

02-121	No.171	30	4 4 ¹ / ₂ 5 5 ¹ / ₂ 6 7 8 9 10 11 11 ¹ / ₂ 12 13 14 15 16 18 20 22 24 26 27 28 30 32 34 36 38 40 42
02-122	No.173	30	3 ¹ / ₂ 4 4 ¹ / ₂ 5 6 7 8 9 10 11 12 13 14 16 18 19 20 22 24 25 26 28 30 32 36 40 44 48 50 60

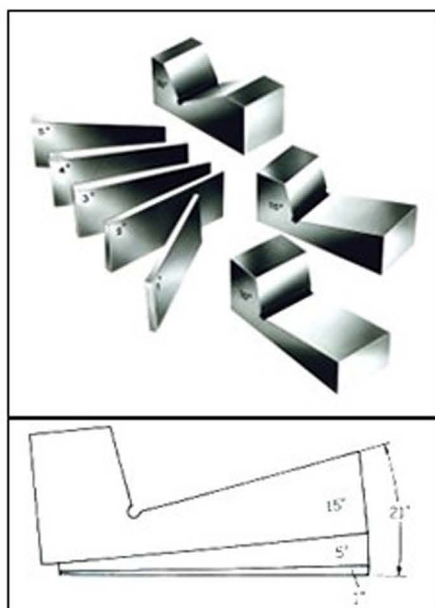
Unified (Angle : 60°)

inch

Code No.	Model No.	Leaves	Size Composition/Contents
02-101	No.4	24	4 4 ¹ / ₂ 5 5 ¹ / ₂ 6 7 8 9 10 11 11 ¹ / ₂ 12 13 14 15 16 18 20 22 24 26 27 28 30
02-103	No.6	30	4 4 ¹ / ₂ 5 5 ¹ / ₂ 6 7 8 9 10 11 11 ¹ / ₂ 12 13 14 15 16 18 20 22 24 26 27 28 30 32 34 36 38 40 42
02-104	No.40	22	9 10 11 11 ¹ / ₂ 12 13 14 15 16 18 20 22 24 26 27 28 30 32 34 36 38 40
02-120	No.169	51	4 4 ¹ / ₂ 5 5 ¹ / ₂ 6 7 8 9 10 11 11 ¹ / ₂ 12 13 14 15 16 18 20 22 24 26 27 28 30 32 34 36 38 40 42 0.4 0.45 0.5 0.6 0.7 0.75 0.8 0.9 1.0 1.25 1.5 1.75 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 (mm)

02-123	No.472	51	4 4 ¹ / ₂ 5 5 ¹ / ₂ 6 7 8 9 10 11 11 ¹ / ₂ 12 13 14 15 16 18 20 22 24 25 26 27 28 30 32 34 36 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84
02-124	No.473	30	6 7 8 9 10 11 11 ¹ / ₂ 12 13 14 15 16 18 20 22 24 26 27 28 30 32 34 36 38 40 42 48 50 56 60
02-125	No.474	28	4 4 ¹ / ₂ 5 6 7 8 9 10 11 11 ¹ / ₂ 12 13 14 16 18 20 24 27 28 32 36 40 44 48 56 64 72 80

UNIVERSAL ANGLE BLOCKS



How to make angular setting

By combining a V blocks (10° 15° 30°) and Angle plates (1° 2° 3° 4° 5°), a slope at any angle can be easily provided as shown in the figure below.

Code No.	Model No.	Dimension
05-301	UAB-8	30 × 75
05-302	UAB-8A	38 × 100

Universal Angle Blocks are used to take out an angle with cutting. Highly precise finish. Combination of a simple design V blocks and angle plates provides rapid and easy angler setting, resulting in substantially improved operational efficiency.

Materia :	Carbon Steel
Hardness :	HRC55°
Contents :	(8 pc set)
V blocks :	10° 15° 30°
Angle plates :	1° 2° 3° 4° 5°
Accuracy :	± 1°

WIRE GAUGES



BWG

For gauging iron wire, hot and cold rolled sheet steel and in some cases sheet iron by the Standard type, Birmingham type, US type and Japanese type.

Thickness : 2mm

Code No.	Model No.	Range
03-101	BWG	Surface(#0~36)/Back (0.1mm~8.64mm)
03-102	SWG	Surface(#0~36)/Back (0.18mm~8.23mm)
03-103	JIS	Surface(0.1mm~12mm)
03-104	BSWG	Surface(#0~36)/Back (Inch)

BWG: Birmingham(or Stubs Iron) Wire Gauge

SWG: Standard Wire Gauge



Catalog 2014



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