



Large Diameter Gages
Page 207



Outside Diameter Variation Measuring
Instruments
Page 208



Outside Diameter Measuring
Instruments
Page 209



Digital Radius Gages
Page 210



Digital Radius Gages
Page 211-212



Digital Arc Radius Calipers
Page 212



Digital Radius Calipers
Page 213



Radius Gages
Page 213

DATA OUTPUT



LARGE DIAMETER GAGE CODE ISQ-RA600

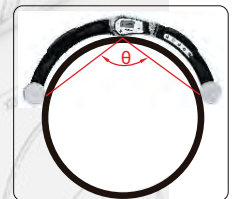
INSIZE PLUS
MADE IN EUROPE



- To measure large external or internal diameters
- Automatic judgment and display external or internal diameter
- Backlight LCD display, can rotate 180° for easy reading
- Memory of 12 readings and average calculation
- With minimum and maximum measurement mode
- Angle can be displayed



software flash disk (included)



display of angle



external diameter measurement



internal diameter measurement



software (included), data output, save and print

SPECIFICATION

Range	external	Ø500~6000mm/19.69~236.22"
	internal	Ø1100~6000mm/43.31~236.22"
Resolution	0.01mm/0.001"	
Accuracy	±(0.01+D ² /30)mm (D is the diameter to be measured, in meter)	
Power supply	rechargeable battery (for 8 hours working)	
Weight	3.8kg	

Accuracy sample by diameters

Diameter	Accuracy
500mm	±0.018mm
1000mm	±0.043mm
1500mm	±0.085mm
2000mm	±0.143mm
2500mm	±0.218mm
3000mm	±0.310mm
4000mm	±0.543mm
5000mm	±0.843mm
6000mm	±1.210mm

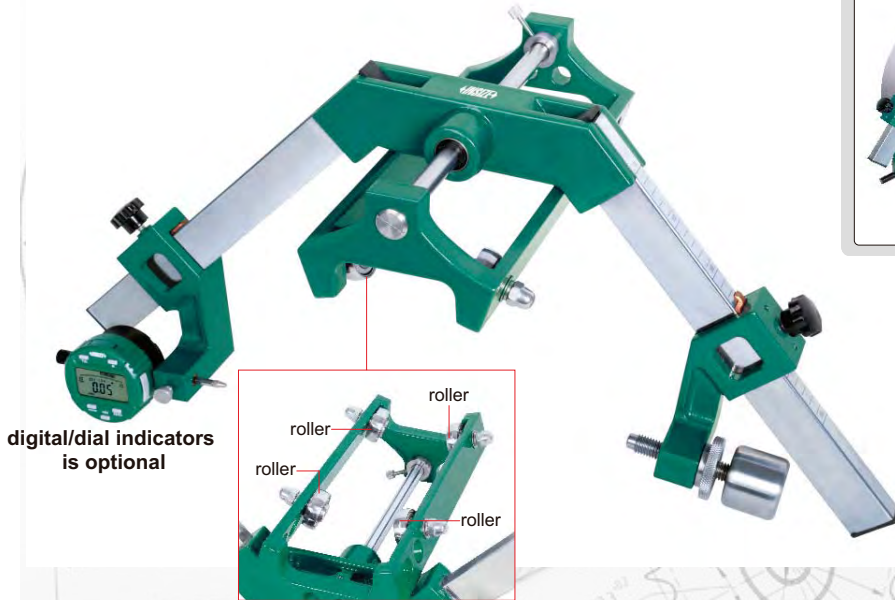
STANDARD DELIVERY

Main unit	1 pc
AC/DC adapter	1 pc
Software and USB cable	1 pc

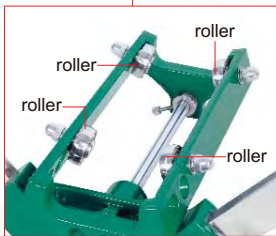
OUTSIDE DIAMETER VARIATION MEASURING INSTRUMENTS

CAN BE CUSTOM-MADE

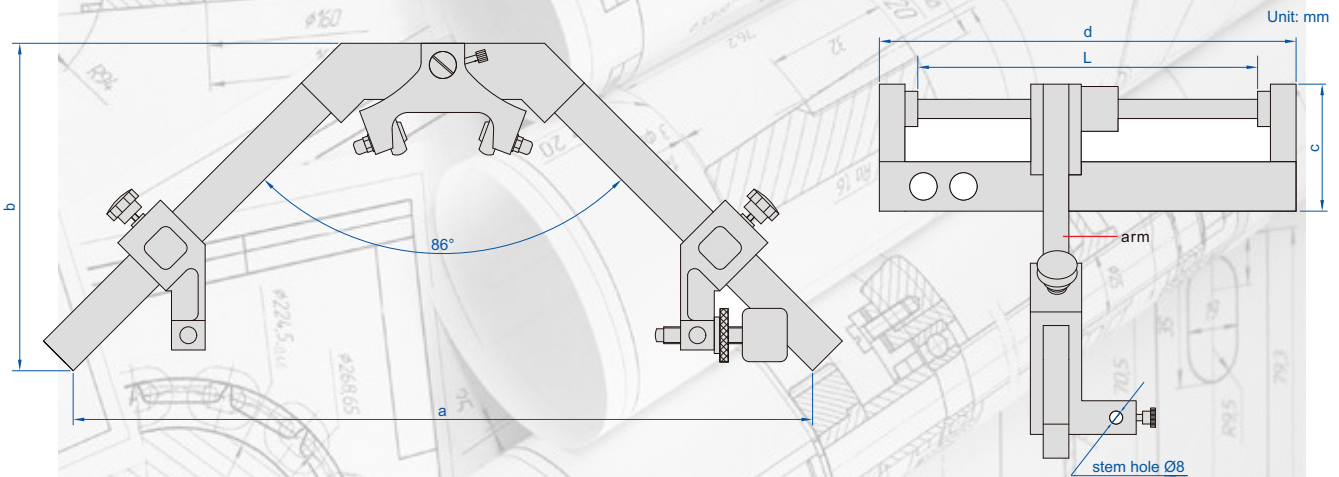
application



digital/dial indicators is optional



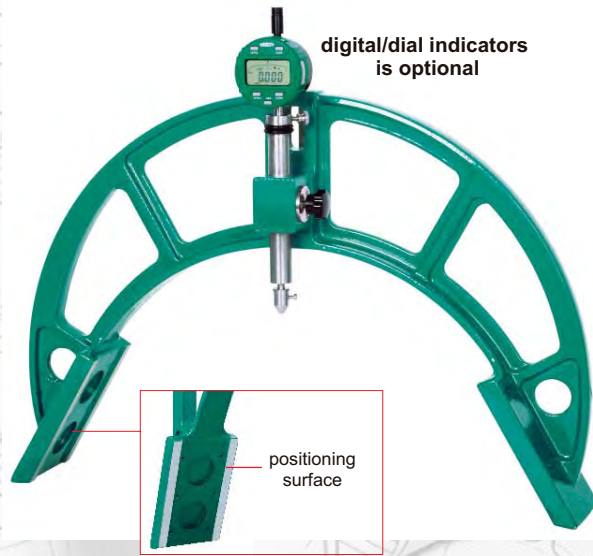
2715-350



- Measurement of diameter variation, convexity, concavity, taper and other parameters
- Continuous measurement in the axis direction
- Four rollers are included
- Optional accessory: 0.01mm or 0.001mm graduation digital/dial indicators

Code	Range (diameter)	Accuracy	Repeatability	Arm moving range (L)	a	b	c	d	Weight
2715-350	100-350mm/4-14"	0.01mm	3µm	200mm	500	230	80	260	4kg
2715-500	200-500mm/8-20"	0.01mm	3µm	151mm	630	260	95	260	5kg
2715-700	300-700mm/12-28"	0.01mm	3µm	197mm	910	372	112	320	6.5kg
2715-1000	500-1000mm/20-40"	0.01mm	3µm	190mm	1170	460	120	320	8kg
2715-1600	800-1600mm/32-64"	0.02mm	6µm	202mm	1860	690	180	320	12.5kg
2715-2000	1400-2000mm/56-80"	0.02mm	6µm	232mm	2156	860	210	350	18.5kg

OUTSIDE DIAMETER MEASURING INSTRUMENTS

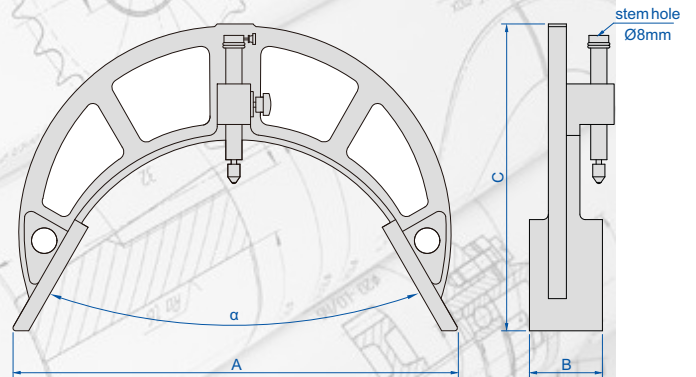


digital/dial indicators is optional

positioning surface

2716-500

- Need standard workpieces to set zero
- The frame is made of aluminum magnesium alloy with light weight and high strength
- Optional accessory: 0.01mm or 0.001mm digital/dial indicators



(mm)

Code	Range (diameter)	Repeatability	α	A	B	C	Weight
2716-60	18-60	0.01mm	60°	140	60	160	1kg
2716-120	60-120	0.01mm	60°	166	65	162	1.5kg
2716-200	120-200	0.01mm	60°	225	70	228	2kg
2716-300	200-300	0.01mm	60°	330	80	262	2.5kg
2716-400	300-400	0.01mm	60°	405	80	303	4kg
2716-500	400-500	0.01mm	60°	494	80	340	5kg
2716-600	500-600	0.01mm	60°	594	80	398	6kg
2716-700	600-700	0.01mm	60°	685	80	446	7.5kg
2716-800	700-800	0.01mm	60°	772	80	479	9kg
2716-900	800-900	0.01mm	60°	860	80	520	10kg
2716-1000	900-1000	0.01mm	60°	950	80	560	11.5kg
2716-1100	1000-1100	0.01mm	60°	1035	90	575	13kg
2716-1200	1000-1200	0.01mm	83.62°	960	100	460	12kg
2716-1300	1100-1300	0.01mm	83.62°	1000	100	485	13.5kg
2716-1400	1200-1400	0.01mm	83.62°	1100	100	512	15kg
2716-1600	1400-1600	0.01mm	83.62°	1260	100	540	17kg
2716-1800	1600-1800	0.01mm	83.62°	1460	100	570	19kg
2716-2000	1800-2000	0.01mm	83.62°	1645	100	605	21kg

DIGITAL RADIUS GAGES

DATA
OUTPUT



2188-55



2188-233



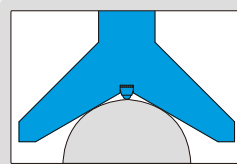
2188-143



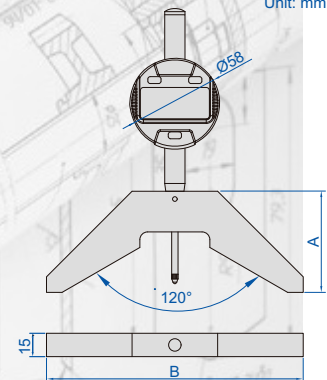
2188-323

- Measure radius of external arc, arc angle of measured surface should be larger than 60°
- Display radius value, no need to calculate
- Button function: on/off, zero, data preset, inch/mm
- Keep preset data in memory after restart
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Stainless steel base
- Optional accessory: setting standards, data output cable (code 7315-50M need receiver page 5, 7302-40M page 13)

application



Unit: mm



Code	Range (radius)	Resolution	Accuracy	A	B
2188-55	4-53mm/0.16-2.09"	0.01mm/0.0005"	±0.02mm	40mm	65mm
2188-143	48-143mm/1.89-5.63"	0.01mm/0.0005"	±0.03mm	65mm	165mm
2188-233	138-233mm/5.43-9.17"	0.01mm/0.0005"	±0.03mm	85mm	255mm
2188-323	228-323mm/8.98-12.72"	0.01mm/0.0005"	±0.04mm	95mm	345mm

Setting standards

Code	Setting standards	Remark
4110-10D00	setting standard for 2188-55	included
2188-P143	setting standard for 2188-143	optional
2188-P233	setting standard for 2188-233	optional
2188-P323	setting standard for 2188-323	optional



2188-P143

setting standard application



DIGITAL RADIUS GAGE (LOW ACCURACY)

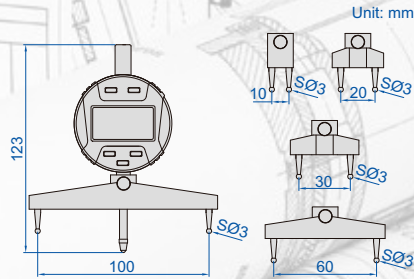


VIDEO

DATA OUTPUT



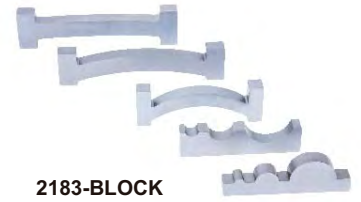
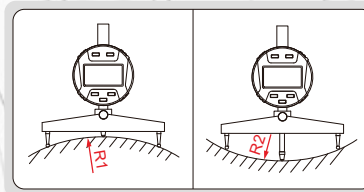
2183



calibration standard application



- Resolution: 0.01mm/0.001"
- Buttons: on/off, hold, mm/inch, s (select jaws), zero
- Measure radius of internal or external arcs
- Display can be rotated by 320°
- Supplied with 5 jaws for different sizes of arc
- Data output
- Battery CR2032
- Automatic power off (time is adjustable)
- Optional accessory: calibration standard (code 2183-BLOCK), data output cable (code 7315-2183 need receiver, 7302-2183)



2183-BLOCK

Calibration standard (optional)

Code	Remark
2183-BLOCK	includes 5 standard blocks

Code	Range of external radius (R1)	Range of internal radius (R2)	Accuracy (mm)
2183	5-910mm/0.2-35.83"	7-910mm/0.3-35.83"	±0.01R*

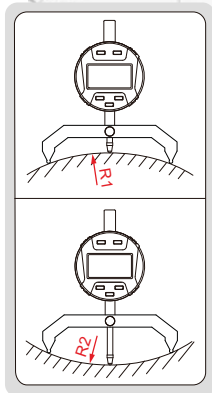
*R is the radius to be measured. For example, radius is 100mm, the accuracy is ±0.01x100=±1mm

DATA OUTPUT

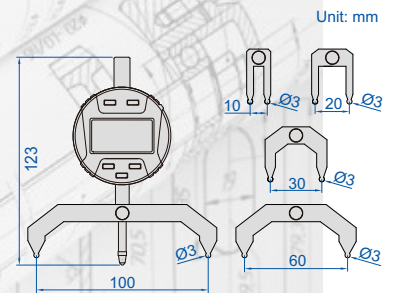


VIDEO

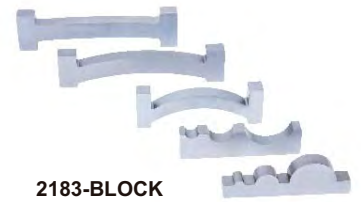
DIGITAL RADIUS GAGE



2511



calibration standard application



2183-BLOCK

Calibration standard (optional)

Code	Remark
2183-BLOCK	includes 5 standard blocks

- Resolution: 0.01mm/0.001"
- Buttons: on/off, hold, mm/inch, s (select jaws), zero
- Measure radius of internal or external arcs
- Cylindrical measuring jaws, self-positioning
- Display can be rotated by 320°
- Supplied with 5 jaws for different sizes of arc
- Data output
- Battery CR2032
- Automatic power off (time is adjustable)
- Optional accessory: calibration standard (code 2183-BLOCK), data output cable (code 7315-2183 need receiver, 7302-2183)

Code	Range of external radius (R1)	Range of internal radius (R2)	Accuracy (mm)
2511	5-910mm/0.2-35.83"	7-910mm/0.3-35.83"	±0.005R*

*R is the radius to be measured. For example, radius is 100mm, the accuracy is ±0.005x100=±0.5mm

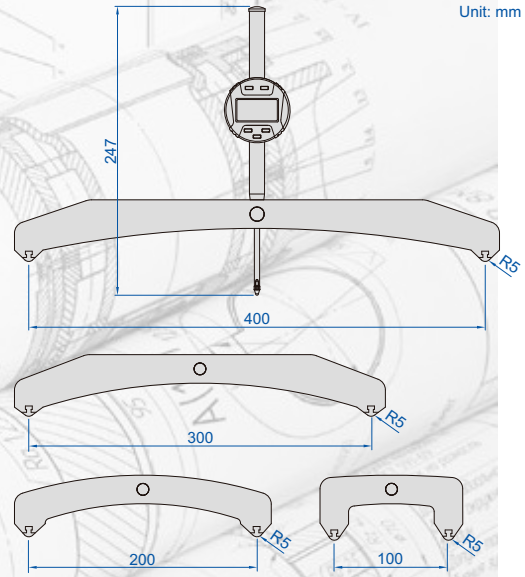
LARGE RANGE DIGITAL RADIUS GAGE

DATA OUTPUT

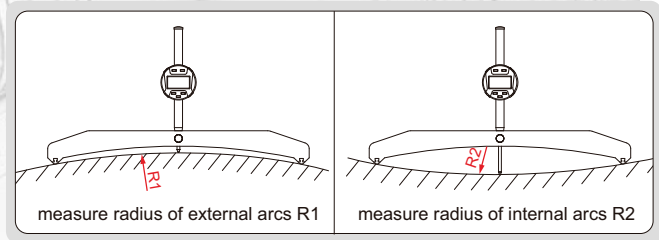
Unit: mm



2197



- Measure radius of internal or external arcs
- Resolution: 0.01mm/0.001"
- Buttons: on/off, hold, mm/inch, s (select jaws), zero
- Display can be rotated by 320°
- Supplied with 4 jaws for different sizes of arc
- Battery CR2032, automatic power off (time is adjustable)
- Data output
- Optional accessory: data output cable (code 7315-2183 need receiver, 7302-2183)



Code	Range of external radius (R1)	Range of internal radius (R2)	Accuracy (mm)
2197	100-15000mm/4-590"	100-15000mm/4-590"	±0.005R*

*R is the radius to be measured. For example, radius is 100mm, the accuracy is ±0.005x100=±0.5mm



8

DIGITAL ARC RADIUS CALIPERS

DATA OUTPUT

- Non waterproof
- Measure the radius of arc less than half round
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel



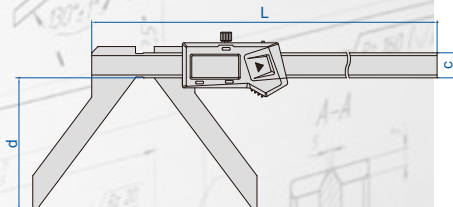
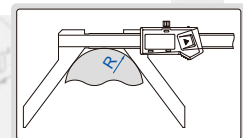
1189-200B

With data interface (data output cable code 7315-21 need receiver page 4, 7302-21 page 12, optional)

Code	Range (R)	Accuracy	L	c	d
1189-150B	5-150mm/0.2-6"	±0.05mm	263mm	16mm	65mm
1189-200B	5-200mm/0.2-8"	±0.07mm	313mm	16mm	85mm

Built-in wireless (receiver code 7315-2/3/6/7/8/9 is required)

Code	Range (R)	Accuracy	L	c	d
1189-150BWL	5-150mm/0.2-6"	±0.05mm	263mm	16mm	65mm
1189-200BWL	5-200mm/0.2-8"	±0.07mm	313mm	16mm	85mm



DATA OUTPUT

DIRECT READING, CALCULATION IS NOT REQUIRED

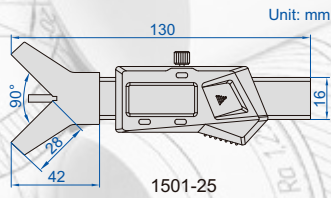
DIGITAL RADIUS CALIPERS



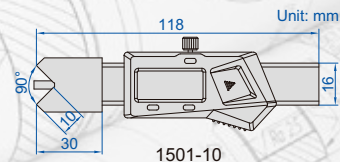
1501-25



1501-10



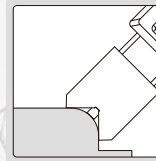
1501-25



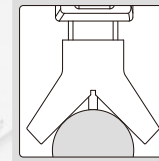
1501-10

- Non waterproof
- Measure radius of external arc, arc angle of measured surface should be larger than 90°
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with pin gage for zero setting
- Optional accessory: data output cable (code 7315-1529 need receiver, 7302-1529)

1501-10 can measure small workpieces or workpieces with steps



application



pin gage (included)



Code	Range (radius)	Accuracy
1501-25	2-25mm/0.079-1"	±0.05mm
1501-10	2-10mm/0.079-0.394"	±0.05mm

REFER TO PAGE 416 FOR DETAILS

RADIUS GAGES



4801-17



4802-31



RADIUS GAGE SET 4804-26



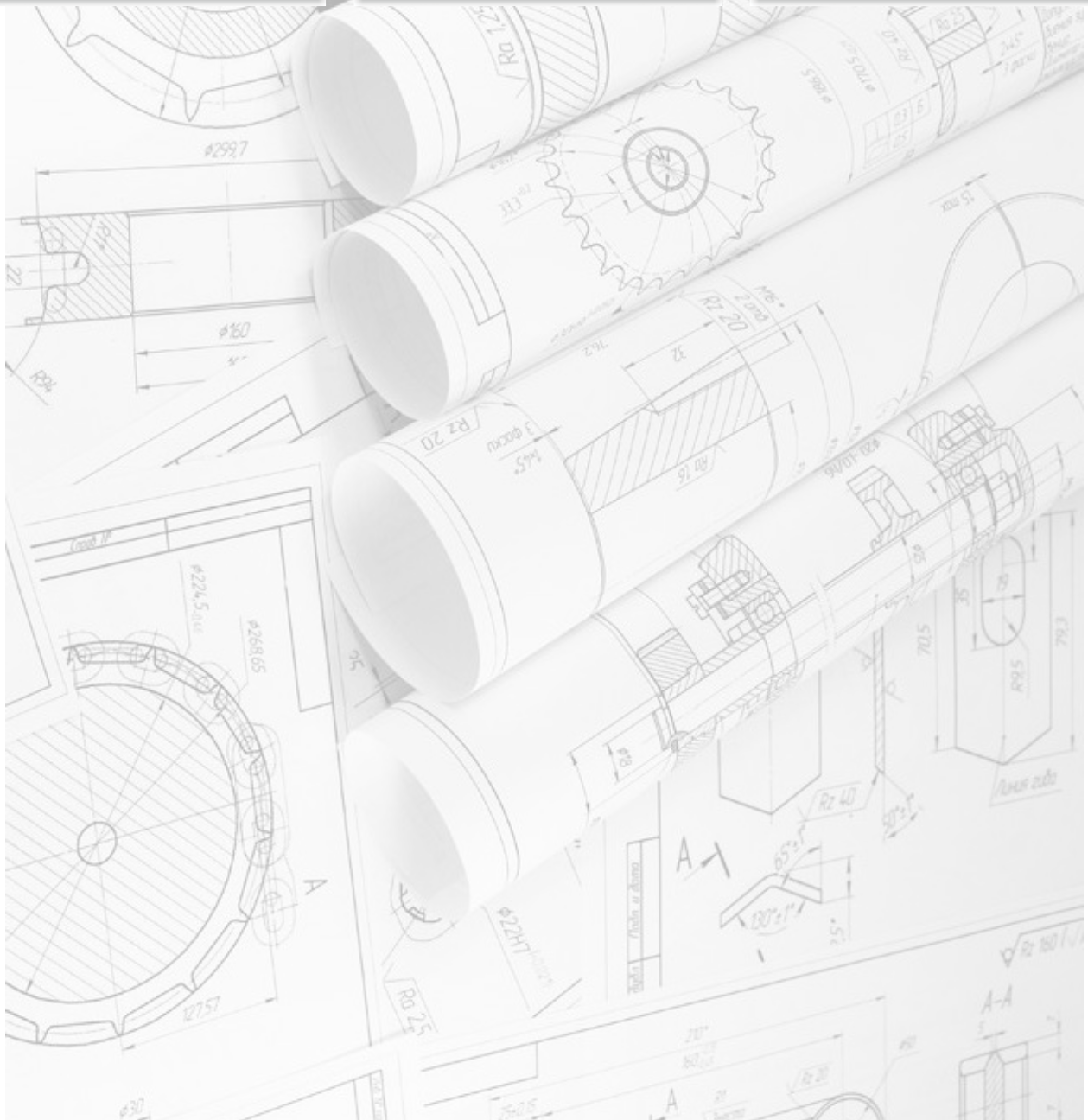
Keyway Symmetry Gages
Page 215



Keyway Symmetry Digital Calipers
Page 215

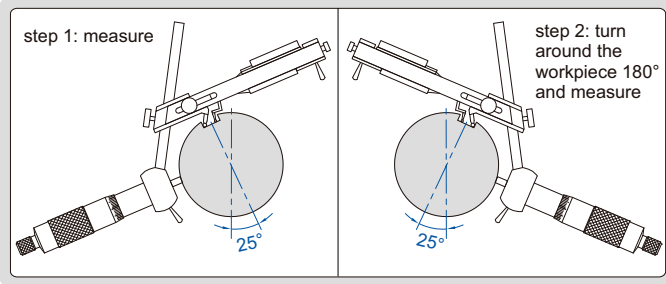


Digital Keyway Depth Gages
Page 216



application

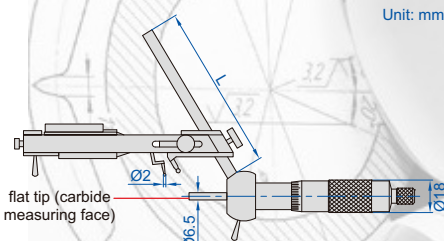
KEYWAY SYMMETRY GAGE



4865-14

- Used to measure the symmetry of shaft keyways

Code	Range		Graduation	Accuracy	L
	diameter of shaft	width of keyway			
4865-14	14-110mm	5-28mm	0.01mm	0.02mm	100mm



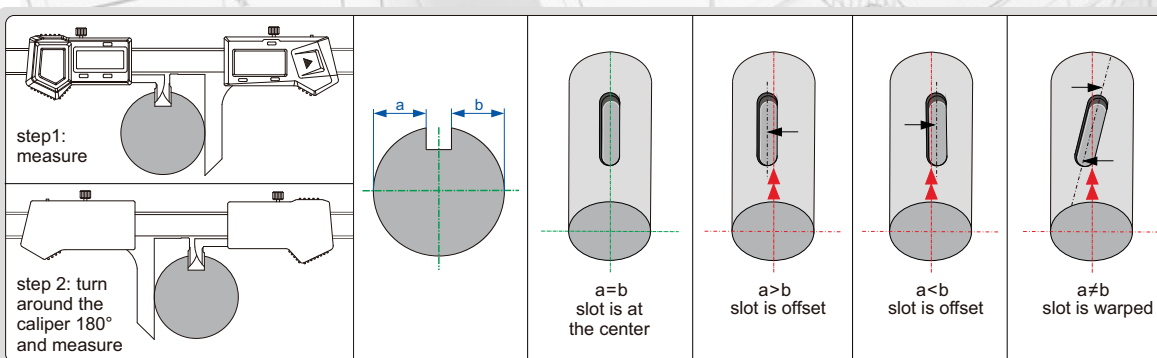
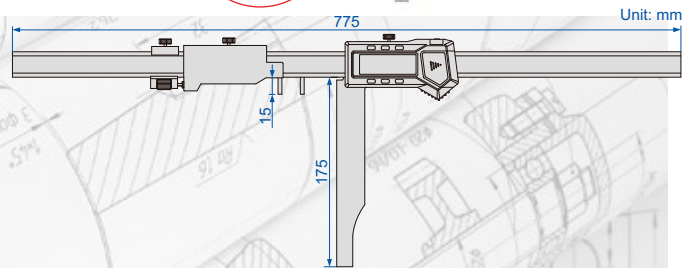
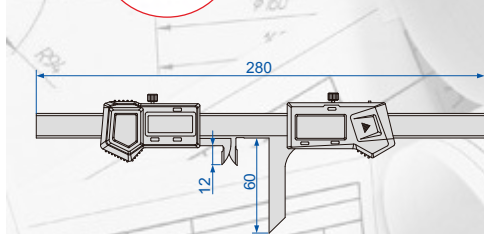
KEYWAY SYMMETRY DIGITAL CALIPERS



1531-60



1531-200



DATA OUTPUT

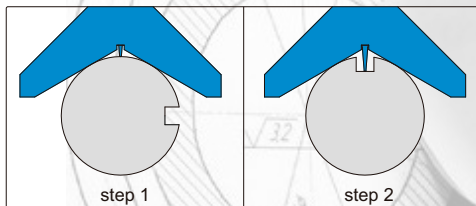
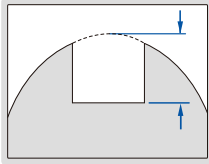
- Non waterproof
- Used to measure the symmetry of shaft keyways
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Made of stainless steel
- Optional accessory: data output cable (code 7315-22 need receiver page 4, 7302-22 page 12)

Code	Width of keyway	Diameter of shaft	Accuracy	Remark
1531-60	6-45mm	Ø10-120mm	±0.05mm	can measure keyway width
1531-200	3-250mm	Ø6-350mm	±0.05mm	cannot measure keyway width

DIGITAL KEYWAY DEPTH GAGE

DATA OUTPUT

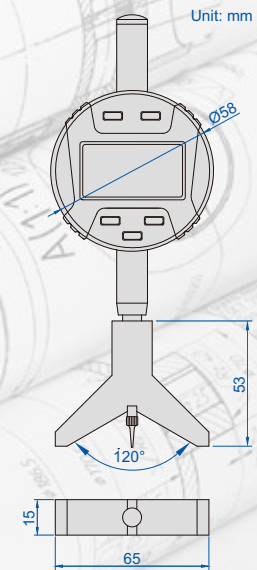
measure depth of keyway



- Measure keyway depth of cylindrical workpieces with diameter $\varnothing 10-100\text{mm}$
- Button function: on/off, zero, inch/metric conversion, absolute/incremental measurement, data preset, measuring direction change
- CR2032 battery, automatic power off (time is adjustable)
- Data output
- Stainless steel base
- Pointed tip
- Optional accessory: data output cable (code 7315-50M need receiver page 5, 7302-40M page 13)



2182-25

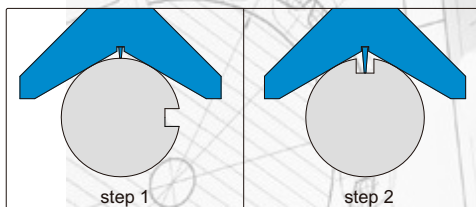
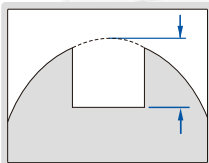


Code	Range	Resolution	Accuracy
2182-25	0-25.4mm/0-1"	0.01mm/0.0005"	$\pm 0.02\text{mm}$

9

DIAL KEYWAY DEPTH GAGE

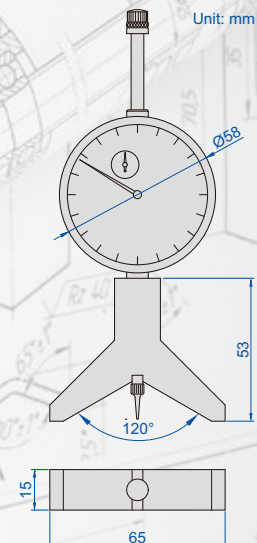
measure depth of keyway



- Measure keyway depth of cylindrical workpieces with diameter $\varnothing 10-100\text{mm}$
- Stainless steel base
- Pointed tip



2189-30



Code	Range	Graduation	Accuracy
2189-30	0-30mm	0.01mm	$\pm 0.03\text{mm}$



Digital Chamfer Gages
Page 218



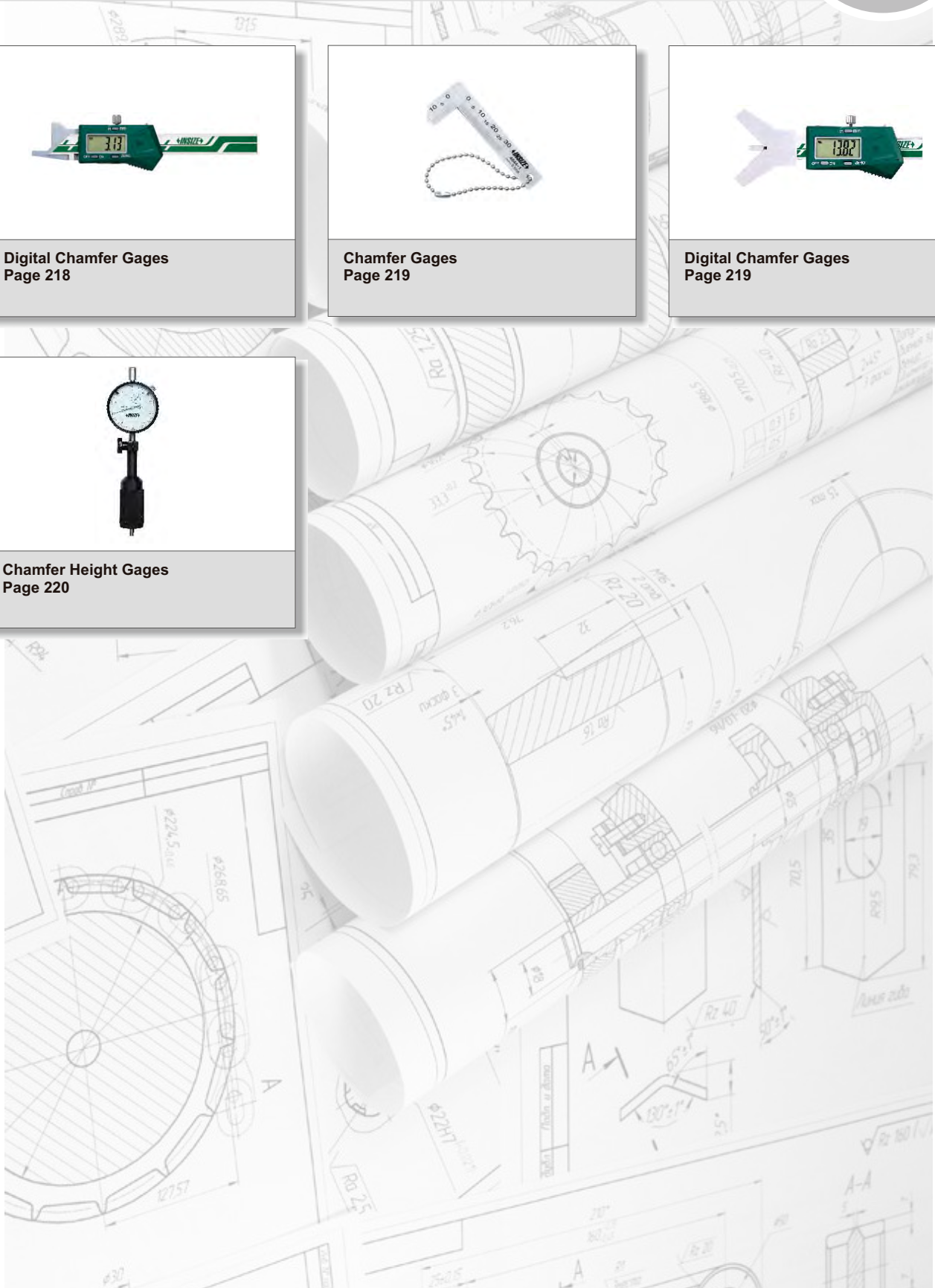
Chamfer Gages
Page 219



Digital Chamfer Gages
Page 219



Chamfer Height Gages
Page 220

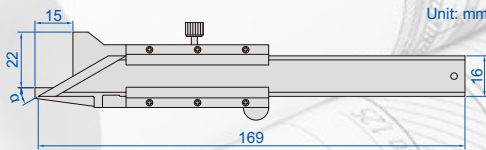


CHAMFER GAGES



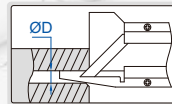
1267-6

- Measure 30°/45°/60° chamfer dimension
- Graduation: 0.02mm
- Made of stainless steel
- Satin chrome plated reading surface

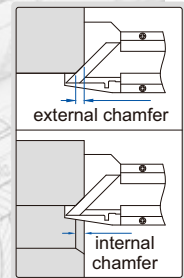


Code	Range	Accuracy	Chamfer (α)	$\varnothing D$
1267-6	0-10mm	$\pm 0.06\text{mm}$	45°	7mm
1267-63	0-10mm	$\pm 0.06\text{mm}$	30°	8mm
1267-66	0-10mm	$\pm 0.06\text{mm}$	60°	7mm

for internal chamfer measurement, diameter should be larger than $\varnothing D$



measure chamfer dimension



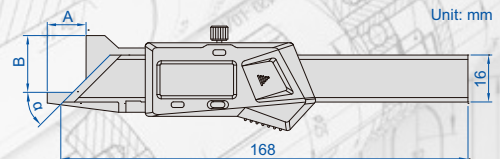
DIGITAL CHAMFER GAGES

DATA OUTPUT

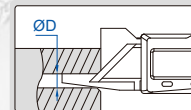


1180-6

- Non waterproof
- Measure 15°/20°/30°/45°/60° chamfer dimension
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel



for internal chamfer measurement, diameter should be larger than $\varnothing D$

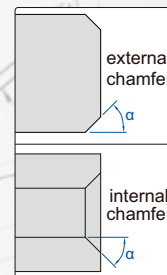


With data interface
(data output cable code 7315-21 need receiver page 4, 7302-21 page 12, optional)

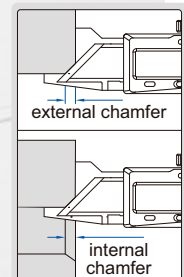
Code	Range	Accuracy	Chamfer (α)	A	B	$\varnothing D$
1180-6	0-10mm/0-0.39"	$\pm 0.06\text{mm}$	45°	15mm	22mm	7mm
1180-61	0-10mm/0-0.39"	$\pm 0.06\text{mm}$	15°	33mm	20mm	11mm
1180-62	0-10mm/0-0.39"	$\pm 0.06\text{mm}$	20°	33mm	20mm	11mm
1180-63	0-10mm/0-0.39"	$\pm 0.06\text{mm}$	30°	15mm	22mm	8mm
1180-66	0-10mm/0-0.39"	$\pm 0.06\text{mm}$	60°	14mm	21mm	7mm

Built-in wireless (receiver code 7315-2/3/6/7/8/9 is required)

Code	Range	Accuracy	Chamfer (α)	A	B	$\varnothing D$
1180-6WL	0-10mm/0-0.39"	$\pm 0.06\text{mm}$	45°	15mm	22mm	7mm
1180-61WL	0-10mm/0-0.39"	$\pm 0.06\text{mm}$	15°	33mm	20mm	11mm
1180-62WL	0-10mm/0-0.39"	$\pm 0.06\text{mm}$	20°	33mm	20mm	11mm
1180-63WL	0-10mm/0-0.39"	$\pm 0.06\text{mm}$	30°	15mm	22mm	8mm
1180-66WL	0-10mm/0-0.39"	$\pm 0.06\text{mm}$	60°	14mm	21mm	7mm

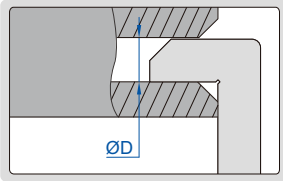


measure chamfer dimension

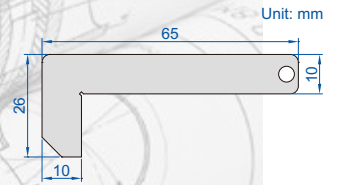


CHAMFER GAGE

for internal chamfer measurement, diameter should be larger than ØD



4844-1

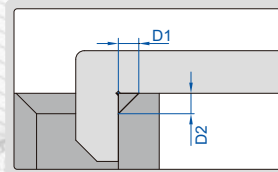


Unit: mm

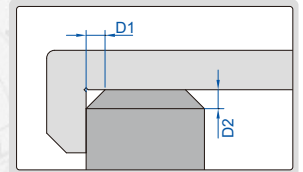
- To measure internal and external chamfers
- Made of stainless steel

Code	Graduation	Accuracy	ØD
4844-1	0.5mm	±0.25mm	11mm

internal chamfer



external chamfer



ATTENTION: CHAMFER OF HOLES CANNOT BE MEASURED

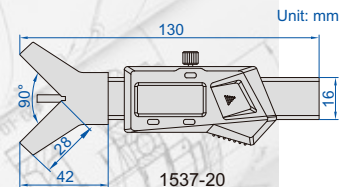
DATA OUTPUT

DIRECT READING, CALCULATION IS NOT REQUIRED

DIGITAL CHAMFER GAGES



1537-20

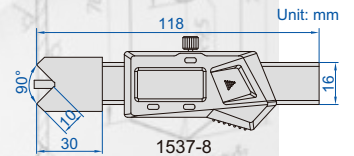


Unit: mm

- Non waterproof
- Measure 45° chamfer length
- Resolution: 0.01mm/0.0005"
- Buttons: on/off, zero, mm/inch
- Automatic power off, move the digital unit to turn on power
- Battery CR2032
- Data output
- Made of stainless steel
- Supplied with pin gage for zero setting
- Optional accessory: data output cable (code 7315-1529 need receiver, 7302-1529)



1537-8

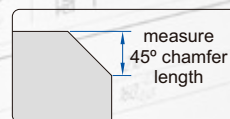
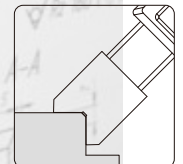


Unit: mm

pin gage (included)



1537-8 can measure small workpieces or workpieces with steps

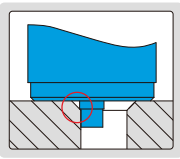


Code	Range	Accuracy
1537-20	0-20mm/0-0.787"	±0.05mm
1537-8	0-8mm/0-0.315"	±0.05mm

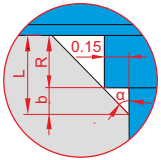
CHAMFER HEIGHT GAGE

INSIZE PLUS
MADE IN EUROPE

principle of measurement



Unit: mm



$$L=R+b$$

L: chamfer height

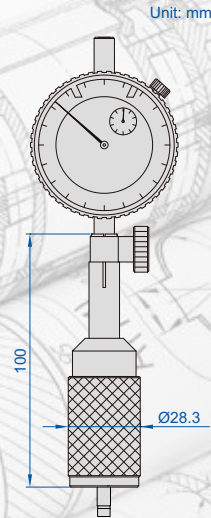
α: chamfer angle

R: reading of dial indicator

$$b = \frac{0.15}{\tan \alpha}$$



2943-1



- Measure outside or inside chamfer height
- Suitable for diameter of bores ≥ 6mm, chamfer angle α ≥ 30°
- Setting gage is included

Code	Range (L)	Graduation	Accuracy
2943-1	0.2-5mm	0.01mm	±0.02mm

setting gage (included)

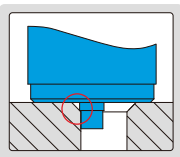


10

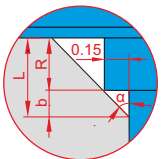
DIGITAL CHAMFER HEIGHT GAGE

INSIZE PLUS
MADE IN EUROPE

principle of measurement



Unit: mm



$$L=R+b$$

L: chamfer height

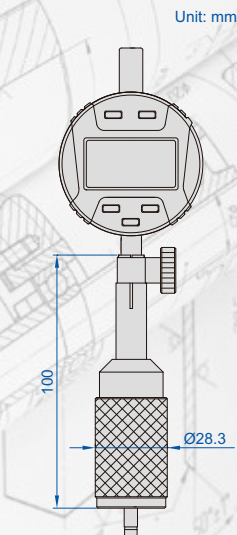
α: chamfer angle

R: reading of dial indicator

$$b = \frac{0.15}{\tan \alpha}$$



2944-1



- Measure outside or inside chamfer height
- Suitable for diameter of bores ≥ 6mm, chamfer angle α ≥ 30°
- Resolution: 0.01mm/0.0005"
- Setting gage is included
- Optional accessory: data output cable (code 7315-50M need receiver page 5, 7302-40M page 13)

Code	Range (L)	Accuracy
2944-1	0.2-5mm/0.008-0.197"	±0.02mm

setting gage (included)

