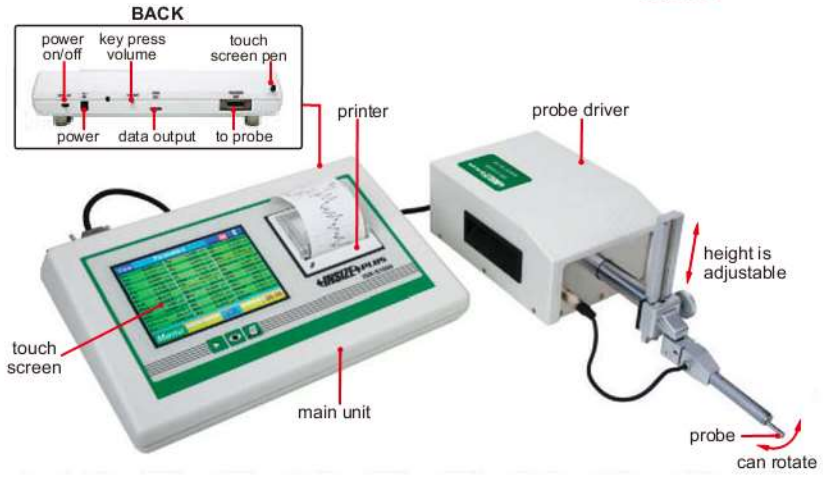
SURFACE ROUGHNESS TESTER
CODE ISR-S1000B

VIDEO

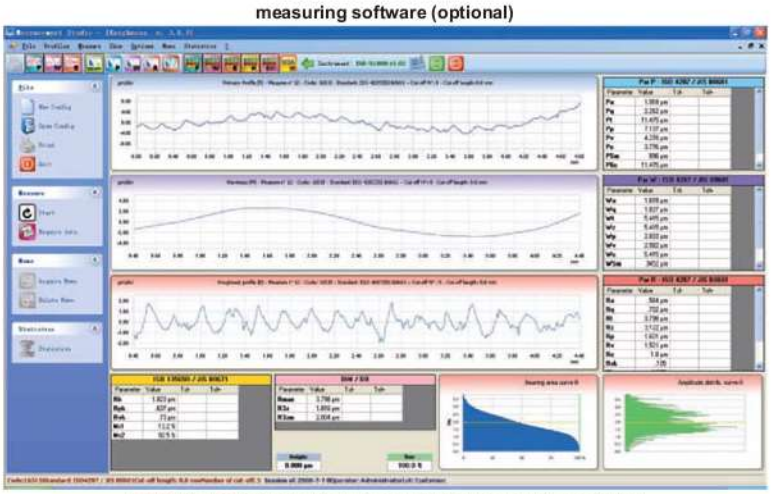
CAN MEASURE WAVINESS AND CURVED SURFACE WITH RADIUS>5MM | DATA OUTPUT | CUSTOM-MADE PROBES ARE AVAILABLE

THE PROBE CAN BE WITH SKID OR WITHOUT SKID

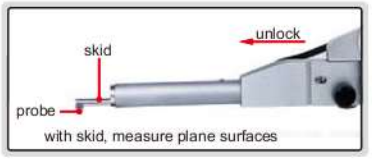


- 48 roughness parameters according to ISO-4287, JIS-B0601, ISO-12085, JIS-B0631
- Automatic probe leveling
- Measuring range up to 1000μm, can measure grit and shot blasting
- Traverse length up to 50mm
- The probe can rotate from -90° to +90°
- Color touch screen, display roughness values, profile and curves
- Can print roughness values, profile and curves
- Memory of maximum 1000 results
- Can set tolerance

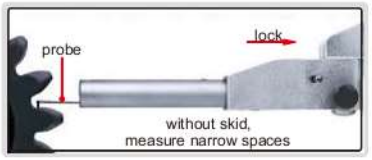
measuring software (optional)



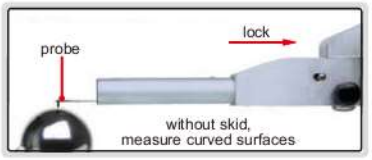
measuring software (**optional**), can control the roughness tester, display roughness values, profile and curve, data statistics



with skid, measure plane surfaces



without skid, measure narrow spaces



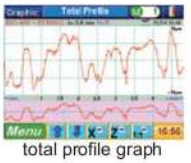
without skid, measure curved surfaces

SPECIFICATION

Parameters		Ra, Rq, Rt, Rz, Rp, Rv, Rc, Rsk, Rku, RSm, Rδc RPc, Pa, Pq, Pt, Pp, Pv, Pc, Psm, Pδc, PPc, Wa Wq, Wt, Wz, Wp, Wv, Wc, Wsm, Wδc, WPc, Rk Rpk, Rvk, Mr1, Mr2, Rmax, R3z, R3zm, R, AR Rx, Aw, Rke, Rpke, Rvke, Mr1e, Mr2e
Range		1000μm
Accuracy		±3%
Resolution (Ra)		0.001μm
Probe	**type**	inductive
	stylus radius/angle	5μm/90°
	stylus material	diamond
Measuring force		0.75mN
Measuring unit		μm/μin
Cut off		0.08/0.25/0.8/2.5/8mm
Number of cut-offs		1-19 (cut off 0.08/0.25/0.8/2.5mm) 1-5 (cut off 8mm)
Traverse speed		0.5mm/s or 1mm/s
Memory		1000 measurement results
Output		USB
Power		built-in rechargeable battery
Dimension (LxWxH)		320×210×80mm
Weight		2.2kg

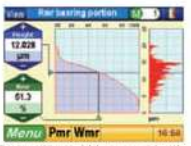
ROUGHNESS VALUE, PROFILE AND DATA ANALYSIS


measurement result


total profile graph

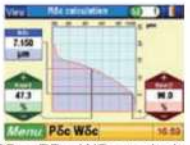

W graph


R graph


Rmr, Pmr, Wmr analysis


Rel. Rmr, Rel. Pmr, Rel. Wmr analysis


P graph


Rδc, Pδc, Wδc analysis

To be continued

Continued from previous page

SURFACE ROUGHNESS TESTER
CODE ISR-S1000B

STANDARD DELIVERY

Main unit	1pc
Probe driver	1pc
Standard probe	1pc
Calibration block	1pc
AC/DC adapter	1pc

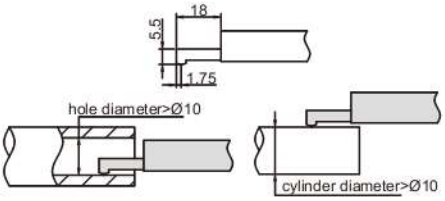
OPTIONAL ACCESSORY

Probe	see details
USB cable and software	ISR-S-SOFTWARE

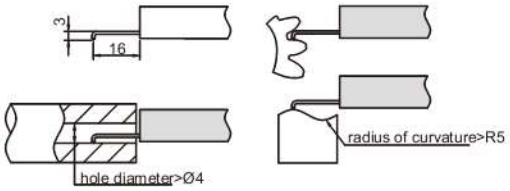
SPECIFICATION OF PROBES

Unit: mm

standard probe (included, support is removable), code ISR-SB10B

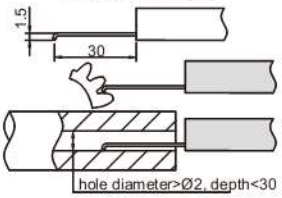


with probe support, measure plane surfaces, holes and cylinders with diameter>Ø10mm



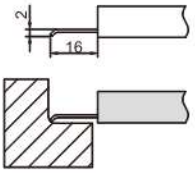
without probe support, measure holes with diameter>Ø4mm, can measure curved surfaces, narrow spaces and waviness

small hole probe (optional), code ISR-SB60B



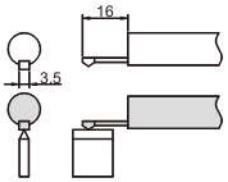
without probe support, measure holes with diameter>Ø2mm and depth<30mm, can measure curved surfaces, narrow spaces and waviness

internal angle probe (optional), code ISR-SB70B



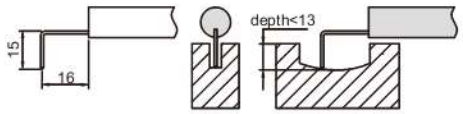
without probe support, measure internal angles, can measure curved surfaces, narrow spaces and waviness

knife edge probe (optional), code ISR-SB130B



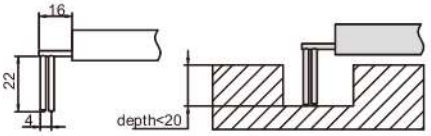
without probe support, measure knife edges and small rods

deep groove probe (optional), code ISR-SB150B



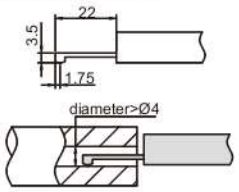
without probe support, measure curved surfaces and grooves with depth<13mm, can measure curved surfaces, narrow spaces and waviness

deep groove probe (optional), code ISR-SB120B



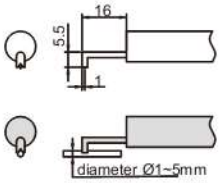
measure grooves with depth<20mm

hole probe (optional), code ISR-SB30B



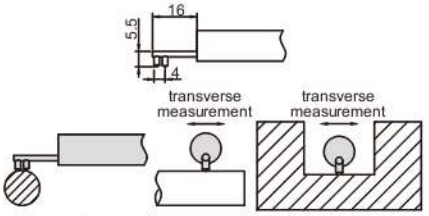
measure plane surfaces and holes with diameter>Ø4mm and depth<20mm

small rod probe (optional), code ISR-SB40B



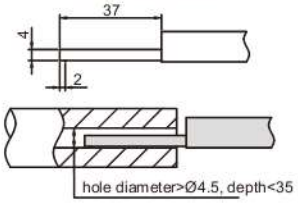
measure small rods with diameter 1~5mm

transverse probe (optional), code ISR-SB50B



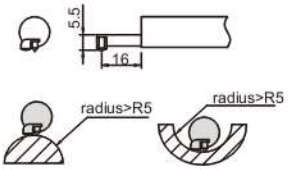
transverse measurement for plane surfaces, cylinders and grooves

deep hole probe (optional), code ISR-SB80B



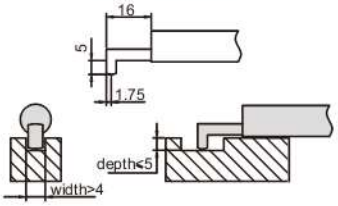
measure holes with diameter>Ø4.5mm and depth<35mm

cylinder/hole probe (optional), code ISR-SB110B



measure cylinders and holes with radius>R5mm

groove probe (optional), code ISR-SB20B



measure plane surfaces and grooves

ROUGHNESS TESTER
CODE ISR-S400

PROBE CAN BE CHANGED | DATA OUTPUT | CUSTOM-MADE PROBES ARE AVAILABLE

VIDEO

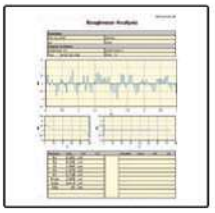

software CD (included)


adjustable stand (included)


transverse measurement

- Automatic probe leveling
- Language: English, French, German, Italian, Spanish, Portuguese
- 12 roughness parameters
- Can set tolerance
- Measuring range up to 400μm, can measure grit and shot blasting
- Traverse length up to 16mm
- The probe can be set at 90°or 270°, for transverse measurement
- Memory of maximum 100 results


probe cover (included), can put the small workpieces directly on the probe for measurement


Output software (included), output data and graphic to Excel, make report


measuring software (**optional**), can control the roughness tester, display roughness values, profile and curve, data statistics


heavy duty test stand (**optional**)


light duty test stand (**optional**)

SPECIFICATION

Parameters		Ra, Rq, Rt, Rz, Rc, Rmax, Rsm, Rpc, Rmr, R, AR, Rx
Range		Ra: 0~100μm, Rt: 0.05~400μm
Accuracy		±3%
Resolution (Ra)		0.001μm
Probe	type	inductive
	stylus radius/angle	5μm/90°
	stylus material	diamond
Measuring force		0.75mN
Measuring unit		μm/μin
Cut off		0.25/0.8/2.5mm
Number of cut-offs		1 to 5
Traverse speed		1mm/s
Memory		100 measurement results
Output		USB
Power		built-in rechargeable battery
Dimension (L×W×H)		122×52×68mm
Weight		650g

STANDARD DELIVERY

Main unit	1pc
Standard probe	1pc
Calibration block	1pc
Adjustable stand	1pc
AC/DC adapter	1pc
Probe cover	1pc
USB cable and output software	1pc

OPTIONAL ACCESSORY

Extension rod	ISR-S400-ER100
Probe	see details
USB cable and measuring software	ISR-S-SOFTWARE
Heavy duty test stand	ISR-S400-DK
Light duty test stand	ISR-S400-STAND

To be continued

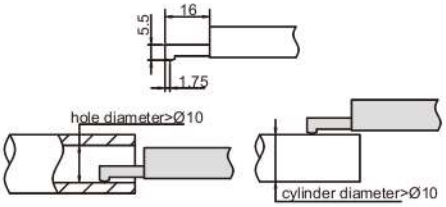
Continued from previous page

ROUGHNESS TESTER
CODE ISR-S400

Unit: mm

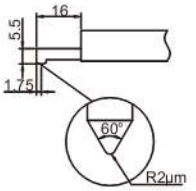
SPECIFICATION OF PROBES

standard probe (included)



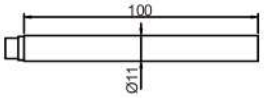
measure plane surfaces, holes and cylinders with diameter>Ø10mm

small roughness probe (optional)
code ISR-S400-SB10R2



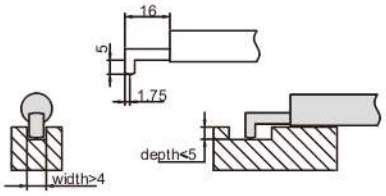
measure surfaces with small roughness

extension rod (optional)
code ISR-S400-ER100



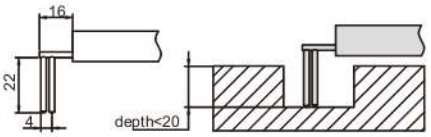
for long holes

groove probe (optional)
code ISR-S400-SB20



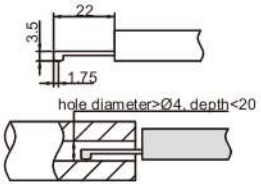
measure plane surfaces and grooves

deep groove probe (optional)
code ISR-S400-SB120



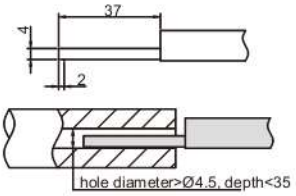
measure grooves with depth<20mm

small hole probe (optional)
code ISR-S400-SB30



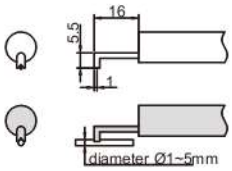
measure plane surfaces and holes with diameter>Ø4mm and depth<20mm

deep hole probe (optional)
code ISR-S400-SB80



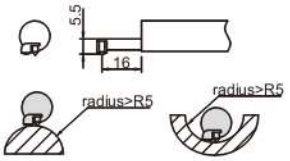
measure holes with diameter>Ø4.5mm and depth<35mm

small rod probe (optional)
code ISR-S400-SB40



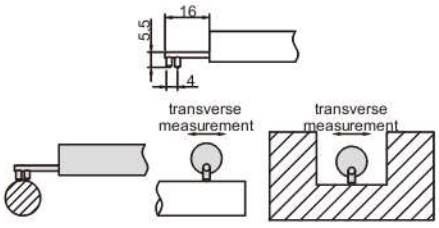
measure small rods with diameter Ø1~5mm

cylinder/hole probe (optional)
code ISR-S400-SB110



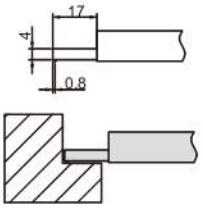
measure cylinders and holes with radius>R5mm

transverse probe (optional)
code ISR-S400-SB50



transverse measurement for plane surfaces, cylinders and grooves

internal angle probe (optional)
code ISR-S400-SB140



measure internal angles

ROUGHNESS TESTER
CODE ISR-C100

- 16 roughness parameters
- With probe position indicator
- Connected with printer via bluetooth
- Can display roughness values, profile and curve
- Memory of maximum 100 results
- Automatic power off


software CD
(included)

VIDEO

DATA OUTPUT

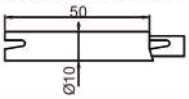
probe cover (included)


can put the small workpieces
directly on the probe for measurement

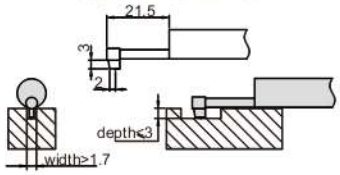
adjustable stand (included)

Unit: mm

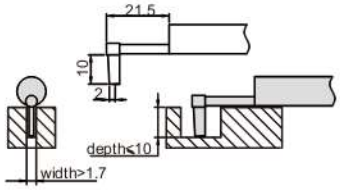
extension rod (optional), code ISR-C100-ER



groove probe (optional), code ISR-C100-130



deep groove probe (optional), code ISR-C100-131



wireless printer (**optional**)

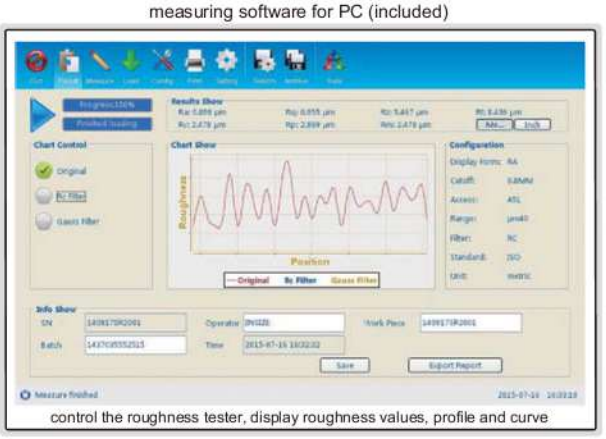
test stand (**optional**)


the maximum workpiece
height is 310mm

remote control (included)


Android APP for mobile device (included), the roughness tester can be controlled by mobile phone or tablet via bluetooth, the maximum working distance is 5m

measuring software for PC (included)


control the roughness tester, display roughness values, profile and curve

SPECIFICATION

Parameters		Ra, Rq, Rz, Rv, Rp, Rm, Rt, RS, Rsm, R3z, R3y, Rz (JIS), Rku, Rsk, Rmax, Rpc
Range		160μm
Accuracy		±10%
Resolution (Ra)		0.001μm
Probe	type	inductive
	stylus radius/angle	5μm/90°
	stylus material	diamond
Measuring force		4mN
Measuring unit		μm/μin
Cut off		0.25/0.8/2.5mm
Number of cut-offs		1 to 5
Traverse speed		0.5mm/s, 1mm/s
Memory		100 measurement results
Output		USB and bluetooth
Power		built-in rechargeable battery
Dimension (L×W×H)		140×52×48mm
Weight		440g

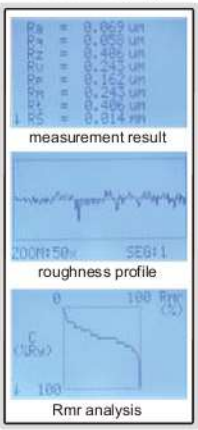
STANDARD DELIVERY

Main unit	1pc
Standard probe	1pc
Calibration block and support	1pc of each
Adjustable stand	1pc
Probe cover	1pc
USB cable and software for PC	1pc
Android APP for mobile device	1pc
AC/DC adapter	1pc

OPTIONAL ACCESSORY

Extension rod	ISR-C100-ER
Groove probe	ISR-C100-130
Deep groove probe	ISR-C100-131
Test stand	ISR-C100-STAND
Wireless printer	ISR-C100-PRINTER

screen display


measurement result
roughness profile
Rmr analysis

DATA OUTPUT

VIDEO

software CD (included)

ROUGHNESS TESTER
CODE ISR-C002

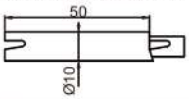
probe cover (included)

put the small workpieces directly under the probe for measurement

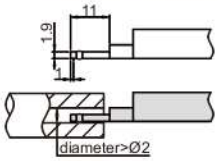
adjustable stand (included)

Unit: mm

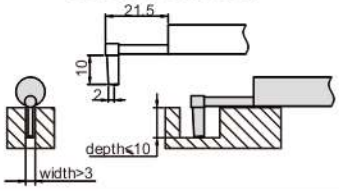
extension rod (optional), code ISR-C002-ER



small hole probe (optional), code ISR-C002-SBP



deep groove probe (optional), code ISR-C002-DGP



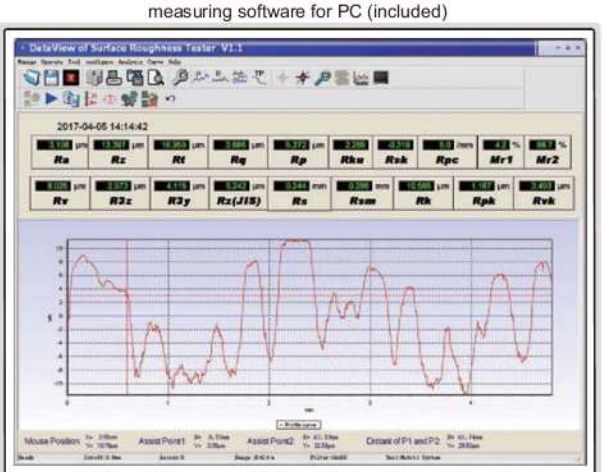
wireless printer (**optional**)

test stand (**optional**)

the maximum workpiece height is 310mm

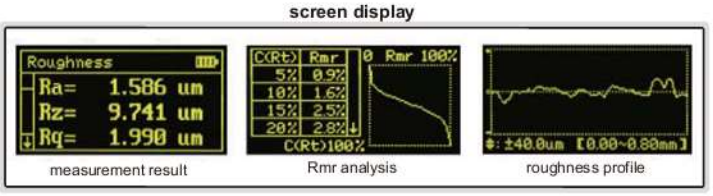
- 21 roughness parameters
- Connected with printer via bluetooth
- Display roughness values, profile and curve
- Memory of maximum 100 results
- Automatic power off

measuring software for PC (included)



control the roughness tester, display roughness values, profile and curve

screen display



measurement result | Rmr analysis | roughness profile

SPECIFICATION

Parameters		Ra, Rz, Rq, Rv, Rp, RS, R3z, R3y, Rt, Rz (JIS), Rk, Rku, Rsm, Rpc, Rpk, Rvk, Rsk, Mr1, Mr2, Ry (JIS), Rmax
Range		160μm
Accuracy		±10%
Resolution (Ra)		0.001μm
Probe	type	inductive
	stylus radius/angle	5μm/90°
	stylus material	diamond
Measuring force		4mN
Measuring unit		μm/μin
Cut off		0.25/0.8/2.5mm
Number of cut-offs		1 to 5
Traverse speed		0.5mm/s, 1mm/s
Memory		100 measurement results
Output		USB and bluetooth
Power		built-in rechargeable battery
Dimension (L×W×H)		141×55×40mm
Weight		400g

STANDARD DELIVERY

Main unit	1pc
Standard probe	1pc
Calibration block and support	1pc of each
Adjustable stand	1pc
Probe cover	1pc
USB cable and software for PC	1pc
AC/DC adapter	1pc

OPTIONAL ACCESSORY

Extension rod	ISR-C002-ER
Deep groove probe	ISR-C002-DGP
Small hole probe	ISR-C002-SBP
Test stand	ISR-C002-STAND
Wireless printer	ISR-C002-PRINTER

ROUGHNESS TESTER
CODE ISR-C003

- Unit: μm, μin
- Automatic power off

calibration block
and support (included)

SPECIFICATION

Parameters		Ra, Rz, Rq, Rt
Range		Ra, Rq: 0.05 ~ 15μm Rz, Rt: 0.1 ~ 50μm
Accuracy		±10%
Resolution (Ra)		0.01μm
Probe	type	piezoelectric
	stylus radius/angle	10μm/90°
	stylus material	diamond
Measuring force		5mN
Measuring unit		μm/μin
Cut off		0.25/0.8/2.5mm
Evaluation length		1.25mm for cut off 0.25mm 4mm for cut off 0.8mm 5mm for cut off 2.5mm
Traverse speed		0.75mm/s
Power		built-in rechargeable battery
Dimension (L×W×H)		106×70×24mm
Weight		200g

STANDARD DELIVERY

Main unit	1pc
Calibration block and support	1pc of each
AC/DC adapter	1pc

SURFACE ROUGHNESS SPECIMENS

- For checking, identifying and specifying the roughness by symbol
- Rust-proof, made of pure Nickel

ISR-CS315

Code	Machining method		Roughness (Ra)	Roughness (Rz)	Quantity
ISR-CS315	Surface grinding		0.025, 0.05, 0.1, 0.2, 0.4, 0.8, 1.6, 3.2μm	0.29, 0.55, 0.91, 1.74, 2.6, 4.65, 7.87, 15.6μm	8pcs
ISR-CS316	Cylindrical grinding		0.025, 0.05, 0.1, 0.2, 0.4, 0.8, 1.6, 3.2μm	0.3, 0.53, 0.88, 1.56, 2.64, 4.4, 7.71, 15.3μm	8pcs
ISR-CS317	Flat lapping	Criss-cross	0.025, 0.05, 0.1, 0.2μm	0.4, 0.6, 0.74, 1.26μm	4pcs
		Parallel	0.025, 0.05, 0.1, 0.2μm	0.34, 0.56, 1.12, 1.5μm	4pcs
ISR-CS318	Cylindrical lapping		0.025, 0.05, 0.1, 0.2μm	0.46, 0.54, 0.63, 1.23μm	4pcs
	Superfinishing		0.025, 0.05, 0.1, 0.2μm	0.36, 0.7, 1, 1.4μm	4pcs
ISR-CS319	Face turning		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	1.92, 3.2, 6.15, 12.5, 23.7, 48.7, 102, 185μm	8pcs
ISR-CS320	Cylindrical turning		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	1.7, 3.2, 6.1, 12.2, 23.7, 47.5, 95, 190μm	8pcs
ISR-CS321	End milling		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	1.92, 3.82, 6.45, 12.2, 25.2, 49.8, 92.6, 191μm	8pcs
ISR-CS322	Reaming		0.4, 0.8, 1.6, 3.2μm	1.7, 3.2, 6.4, 12.8μm	4pcs
	Drilling		1.6, 3.2, 6.3, 12.5μm	7.5, 15.5, 31, 60μm	4pcs
ISR-CS323	Horizontal milling		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	1.8, 3.68, 6.63, 12.8, 25.6, 53, 97.5, 197μm	8pcs
ISR-CS325	Shaping (planing)		0.8, 1.6, 3.2, 6.3, 12.5, 25, 50, 100μm	3.84, 6.7, 12.2, 25.2, 48.7, 99.9, 190, 361μm	8pcs
ISR-CS326	Linishing (belt sanding)		0.1, 0.2, 0.4, 0.8, 1.6, 3.2μm	0.9, 1.55, 3.37, 7.42, 18.5, 31μm	6pcs
ISR-CS328	Vertical grinding		0.2, 0.4, 0.8, 1.6, 3.2, 6.3μm	1.1, 3.5, 6.15, 8.78, 22.19, 40.8μm	6pcs
ISR-CS329	Grit blasting		3.2, 10.5, 18, 25μm	19.2, 63, 108, 150μm	4pcs
	Shot blasting		3.2, 8, 13, 18μm	19.2, 48, 78, 108μm	4pcs
ISR-CS331	Spark erosion (EDM)		0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	2.5, 4.5, 7.2, 14.2, 24.7, 51.2, 105, 196μm	8pcs
ISR-CS333	Hand filing		0.4, 0.8, 1.6, 3.2, 6.3μm	3, 5.6, 12.4, 22.5, 61μm	5pcs
ISR-CS334	Castings		0.8, 1.6, 3.2, 6.3, 12.5, 25, 50μm	3.2, 8, 16, 32, 56, 112, 225μm	7pcs
ISR-CS335	Honing		0.05, 0.1, 0.2, 0.4, 0.8, 1.6μm	0.31, 0.56, 1, 2, 4.2, 9μm	6pcs
ISR-CS336	Polishing		0.0125, 0.025, 0.05, 0.1, 0.2μm	0.29, 0.35, 0.67, 0.72, 1.52μm	5pcs

ATTENTION: PLEASE APPLY ANTI-RUST OIL AFTER USE

SURFACE ROUGHNESS SPECIMEN SET CODE ISR-CS2

Machining method	Roughness (Ra)	Roughness (Rz)	Quantity
Horizontal milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm 16, 32, 63, 125, 250, 500µin	1.6, 3.2, 6.3, 12.5, 25, 50µm	6pcs
Vertical milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm 16, 32, 63, 125, 250, 500µin	1.6, 3.2, 6.3, 12.5, 25, 50µm	6pcs
Turning	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm 16, 32, 63, 125, 250, 500µin	1.6, 3.2, 6.3, 12.5, 25, 50µm	6pcs
Plain grinding	0.05, 0.1, 0.2, 0.4, 0.8, 1.6µm 2, 4, 8, 16, 32, 63µin	0.2, 0.4, 0.8, 1.6, 3.2, 6.3µm	6pcs
Flat lapping	0.05, 0.1µm 2, 4µin	0.2, 0.4µm	2pcs
External grinding	0.2, 0.4, 0.8, 1.6µm 8, 16, 32, 63µin	0.8, 1.6, 3.2, 6.3µm	4pcs

- For checking, identifying and specifying the roughness by symbol
- Made of carbon steel

SURFACE ROUGHNESS SPECIMEN SET CODE ISR-CS130

- For checking, identifying and specifying the roughness by symbol
- Rust-proof, made of pure Nickel

Machining method	Roughness (Ra)	Roughness (Rz)	Quantity
Flat lapping	0.05, 0.1, 0.2µm 2, 4, 8µin	0.55, 1, 1.6µm	3pcs
Reaming	0.4, 0.8, 1.6µm 16, 32, 63µin	3, 6, 10µm	3pcs
Plain grinding	0.05, 0.1, 0.2, 0.4, 0.8, 1.6µm 2, 4, 8, 16, 32, 63µin	0.55, 1, 1.6, 3, 6, 10µm	6pcs
Horizontal milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm 16, 32, 63, 125, 250, 500µin	2.5, 4, 8, 16, 32, 50µm	6pcs
Vertical milling	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm 16, 32, 63, 125, 250, 500µin	2.5, 4, 8, 16, 32, 50µm	6pcs
Turning	0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm 16, 32, 63, 125, 250, 500µin	2.5, 4, 8, 16, 32, 50µm	6pcs

MEASURING ACCURACY CAN BE IMPROVED, IF THE CALIBRATION IS MADE ON A REFERENCE SPECIMEN WITH THE ROUGHNESS VALUE CLOSE TO THE WORKPIECE TO BE MEASURED

SURFACE ROUGHNESS REFERENCE SPECIMENS

Code	Roughness (Ra)
ISR-RS525X	6.25µm*
ISR-RS526X	3.15µm*
ISR-RS527X	3.0µm*
ISR-RS528X	0.5µm*
ISR-RS529X	0.1µm* (not suitable for **ISR-S400**)
ISR-RS530X	1.0µm*
ISR-RS531X	0.3µm* (not suitable for **ISR-S400**)

*The actual value may be slightly different

ISR-RS529X

- To calibrate roughness testers
- Meets ISO 5436-1: 2000
- Rust proof, made of pure Nickel

SHOT AND GRIT BLASTING SURFACE ROUGHNESS SPECIMENS

- To check the roughness of steel surfaces which have been blast cleaned before painting
- Meets ISO 8503/1
- Rust-proof, made of pure Nickel
- Each piece contains 4 parts

ISR-CS017

Code	Machining method	Roughness (Ra)	Roughness (Rz)
ISR-CS017	Shot blasting	3.2, 8, 13, 18μm	19.2, 48, 78, 108μm
ISR-CS018	Grit blasting	3.2, 10.5, 18, 25μm	19.2, 63, 108, 150μm

COATING THICKNESS GAGE

SUITABLE FOR SMALL SURFACES, CONCAVE OR CONVEX SURFACES

FOR MAGNETIC AND NON-MAGNETIC SUBSTRATES

VIDEO

- Suitable for small surfaces, concave or convex surfaces
- Magnetic induction probe (Fe) is to measure the thickness of non-magnetic coating on magnetic substrate
  Substrate: iron, steel, magnetic stainless steel (does not include non-magnetic stainless steel)
  Coating: zinc, copper, chrome-tin, plastic powder, paint (does not include nickel)
- Eddy current probe (NFe) is to measure the thickness of non-conductive coating on non-magnetic metal substrate
  Substrate: copper, aluminum, zinc, non-magnetic stainless steel
  Coating: plastic powder, paint, anodizing

MAIN UNIT SPECIFICATION

Code		ISO-2000FN
Measuring range	magnetic induction probe (Fe)	0~2000μm
	eddy current probe (NFe)	0~800μm
Accuracy		±(1.5+2%L)μm L is measuring thickness in μm
Resolution		0.1μm (range<100μm)
		1μm (range 100~1000μm)
		10μm (range⩾1000μm)
Repeatability		1μm (range 0~1000μm)
		10μm (range⩾1000μm)
Measuring mode		continuous or single
Calibration mode		four points calibration
Minimum substrate thickness		magnetic induction probe (Fe): 0.2mm, eddy current probe (NFe): 0.05mm
Minimum measuring area		5x5mm, calibration should be made on workpiece without coating, test stand (optional) is recommended in order to have same position for calibration and measurement
Power supply		2×1.5V AA batteries
Dimension of main unit		122×65×22mm
Weight of main unit		150g

magnetic induction probe Fe (optional) ISO-2000FN-FE

connected to probe

main unit ISO-2000FN

eddy current probe NFe (optional) ISO-2000FN-NFE

standard foil (included)

STANDARD DELIVERY

Main unit	1pc
Zero calibration block for Fe probe	1pc
Zero calibration block for NFe probe	1pc
Standard foil	7pcs
Battery (AA)	2pcs

PROBE (OPTIONAL) SPECIFICATION

Magnetic induction probe (Fe)	ISO-2000FN-FE
Eddy current probe (NFe)	ISO-2000FN-NFE