

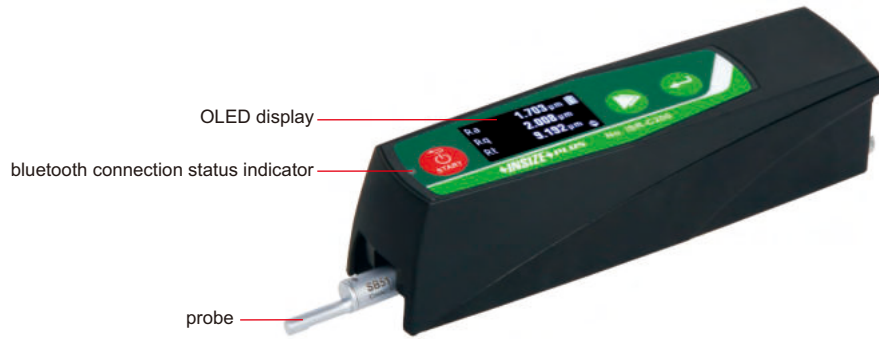
ROUGHNESS TESTER (COMPACT TYPE) CODE ISR-C200

INSIZE PLUS

BLUETOOTH

DATA
OUTPUT

PROBE CAN BE CHANGED



- The product is light, reliable and durable
- 13 roughness parameters
- Can be operated by mobile phones (only Android system) or computers
- Measurement results can be exported in Excel and PDF format
- Memory of 18000 measurements with only parameters or 30 measurements with graph
- Automatic power off

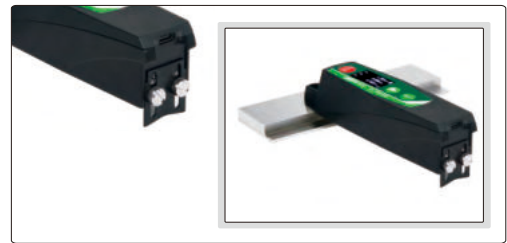
15



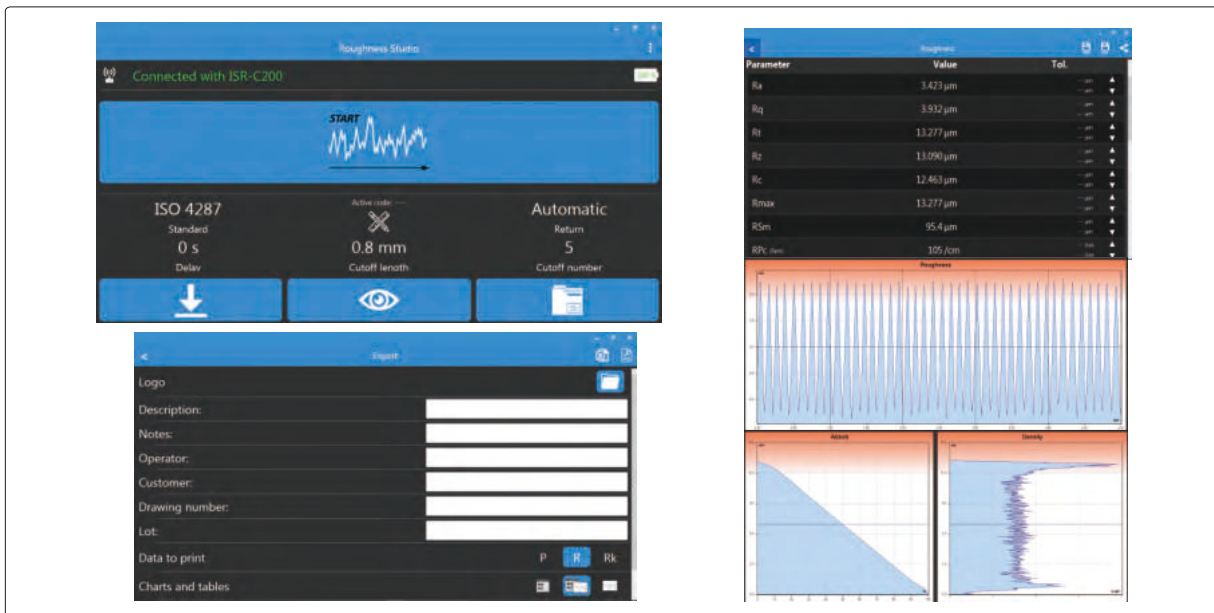
probe can be set at 90°, for transverse measurement



probe cover (included)



adjustable stand (included)



measuring software (included), connect to mobile phones via bluetooth (only Android system) to control roughness tester, or connect to computers via USB cable or bluetooth to control roughness tester, display roughness values and curve, results can be exported in Excel and PDF format

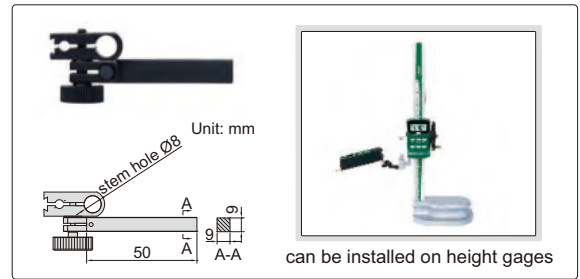
To be continued

Continued from previous page

magnetic stand adapter (included)



dial test indicator holder (optional)



SPECIFICATION

| | | |
|--------------------------|---------------------|---|
| Parameters | | Ra, Rq, Rt, Rz, Rc, Rmax, RSm, Rpc, Pt, R, AR, Rx, Ppc |
| Range | X axis | 17.5mm |
| | Z axis | 250µm |
| Accuracy | | ±(5%+0.025)µm |
| Resolution (Ra) | | 0.001µm |
| Probe | type | inductive |
| | stylus radius/angle | 2µm/90° |
| | stylus material | diamond |
| Measuring unit | | µm/µin |
| Cut off | | 0.25/0.8/2.5mm |
| Number of cut-off | | 1~5 |
| Moving speed | | 0.5mm/s, 1mm/s |
| Memory | | 18000 measurements with only parameters, 30 measurements with graph |
| Power | | built-in rechargeable battery |
| Dimension (L×W×H) | | 160×34×33.5mm |
| Weight | | 200g |

STANDARD DELIVERY

| | |
|-------------------------------|------|
| Main unit | 1 pc |
| Standard probe | 1 pc |
| Calibration block | 1 pc |
| Adjustable stand | 1 pc |
| Probe cover | 1 pc |
| Magnetic stand adapter | 1 pc |
| Software and USB cable | 1 pc |
| AC/DC adapter | 1 pc |

OPTIONAL ACCESSORY

| | |
|-----------------------------------|-----------------------|
| Dial test indicator holder | 6293-6 |
| Groove probe | ISR-C200-SB21 |
| Small hole probe | ISR-C200-SB31 |
| Deep groove probe | ISR-C200-SB121 |
| Extension rod | ISR-C200-ER50 |
| Extension rod | ISR-C200-ER100 |

SPECIFICATION OF PROBES

Unit: mm

| | |
|--|---|
| <p>standard probe (included)</p> <p>transverse measurement</p> <p>transverse measurement</p> <p>measurement for plane surfaces, also transverse measurement for plane surfaces, cylinders and grooves</p> | <p>groove probe (optional), code ISR-C200-SB21</p> <p>width > 4</p> <p>depth > 5</p> <p>measure plane surfaces and grooves</p> |
| <p>small hole probe (optional), code ISR-C200-SB31</p> <p>hole diameter > 0.4, depth < 20</p> <p>measure holes with diameter > 0.4mm and depth < 20mm</p> | <p>deep groove probe (optional), code ISR-C200-SB121</p> <p>depth < 20</p> <p>measure grooves with depth < 20mm</p> |
| <p>extension rod (optional), code ISR-C200-ER50</p> <p>50</p> <p>for long holes</p> | <p>extension rod (optional), code ISR-C200-ER100</p> <p>100</p> <p>for long holes</p> |

ROUGHNESS TESTER CODE ISR-C002

BLUETOOTH

DATA
OUTPUT

CAN BE OPERATED BY
MOBILE PHONES OR COMPUTERS



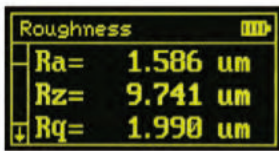
- Roughness tester can be operated by mobile phones (only Android system) or computers
- Data can be sent to Excel by connecting to computers via bluetooth or SPC cable
- Support bluetooth printer
- 21 roughness parameters
- Display roughness value, profile and curve
- Memory of maximum 100 results
- Automatic power off



software CD
(included)



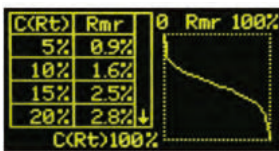
screen display



measurement result



roughness profile



Rmr analysis

probe cover (included)



put the small workpieces
directly under the
probe for measurement



adjustable stand (included)

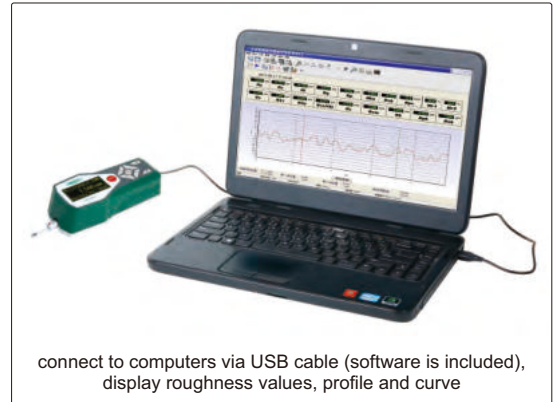


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operate roughness tester by mobile phones



operate roughness tester by computers



data can be sent to Excel by connecting to computer via bluetooth or SPC cable

via bluetooth

receiver
(optional)



via SPC cable

SPC cable (optional)



receiver (optional)



bluetooth printer (optional)



To be continued

Continued from previous page

Unit: mm

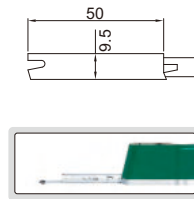
light duty test stand (optional)



heavy duty test stand (optional)



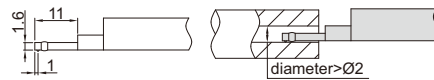
extension rod (optional), code ISR-C002-ER



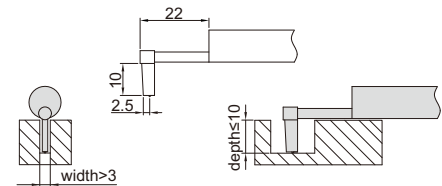
transverse rod (optional), code ISR-C002-TR



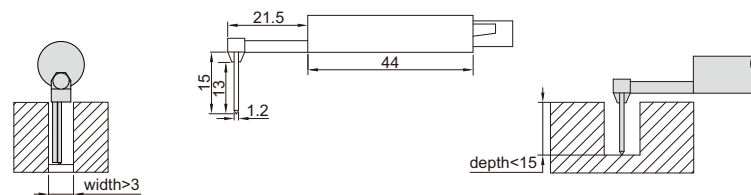
tiny hole probe (optional), code ISR-C002-SBP



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



deep groove probe (optional), code ISR-C002-DGP1



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-off | 1 to 5 | |
| Moving speed | 0.5mm/s, 1mm/s | |
| Memory | 100 measurement results | |
| Output | bluetooth and USB | |
| Power | built-in rechargeable battery | |
| Dimension (L×W×H) | 141×55×40mm | |
| Weight | 400g | |

STANDARD DELIVERY

| | |
|-------------------------------|--------------|
| Main unit | 1 pc |
| Standard probe | 1 pc |
| Calibration block and support | 1 pc of each |
| Adjustable stand | 1 pc |
| Probe cover | 1 pc |
| Software and USB cable | 1 pc |
| AC/DC adapter | 1 pc |

OPTIONAL ACCESSORY

| | |
|-----------------------|-------------------|
| Extension rod | ISR-C002-ER |
| Transverse rod | ISR-C002-TR |
| Tiny hole probe | ISR-C002-SBP |
| Deep groove probe | ISR-C002-DGP |
| Deep groove probe | ISR-C002-DGP1 |
| Light duty test stand | ISR-C002-STAND1 |
| Heavy duty test stand | ISR-C002-STAND |
| Bluetooth printer | ISR-C002-PRINTER |
| Receiver | ISR-C300-RECEIVER |
| SPC cable | ISR-C300-SPC |

ROUGHNESS TESTER (SEPARABLE TYPE) CODE ISR-C300

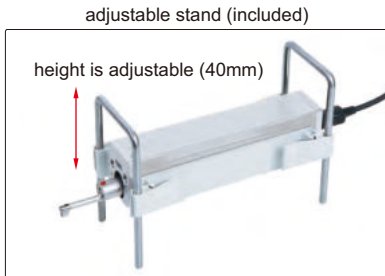
BLUETOOTH

TOUCH SCREEN

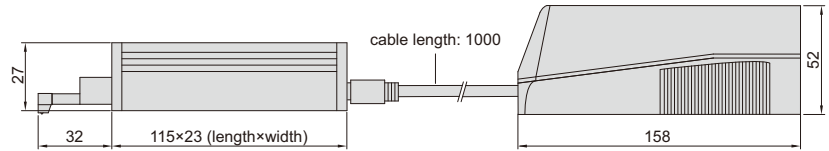
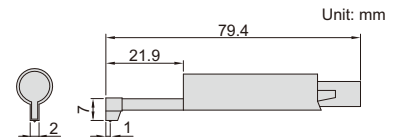
CAN BE OPERATED BY
COMPUTERS OR MOBILE PHONES

DATA
OUTPUT

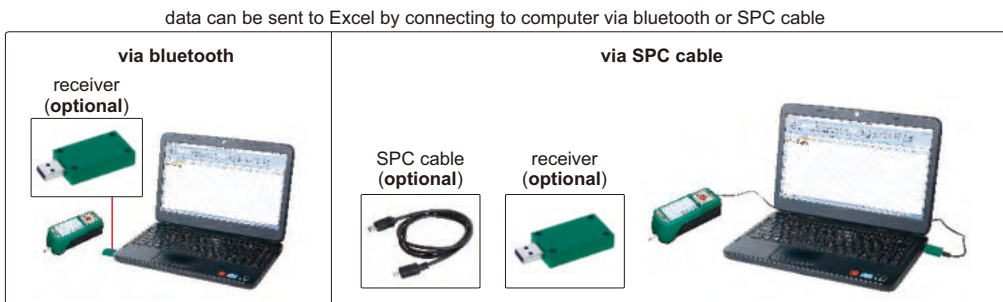
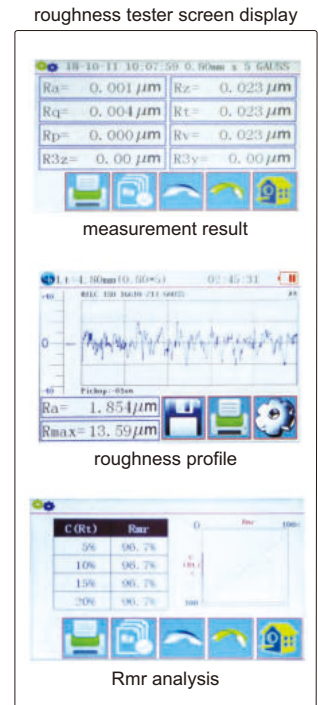
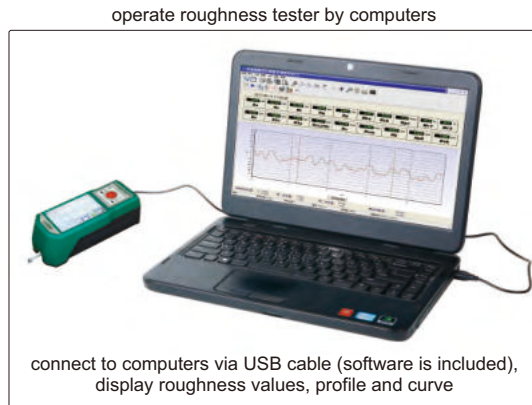
- Roughness tester can be operated by mobile phones (only Android system) or computers
- Data can be sent to Excel by connecting to computers via bluetooth or SPC cable
- Support bluetooth printer
- 22 roughness parameters
- Meet ISO, DIN, ANSI, JIS standards
- Display roughness values, profile and curve
- Memory of maximum 100 data and waveform
- Built-in lithium battery, working time more than 50 hours
- Touch screen
- Automatic power off



software CD
(included)



15



To be continued

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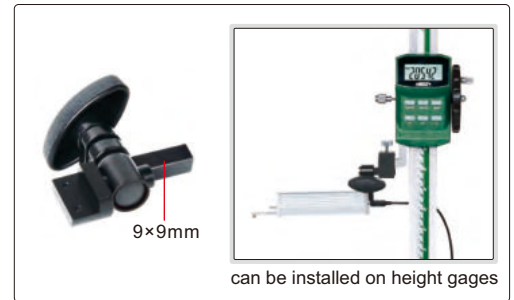
bluetooth printer (optional)



magnetic stand adapter (included)



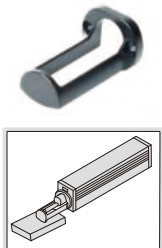
height gage adapter (optional)



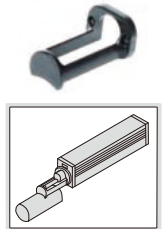
NOTE: Please check whether the adapter can fit your height gages. When using **INSIZE** height gages, please use the dial test indicator holder of height gages

probe support (optional)

support for flat surface



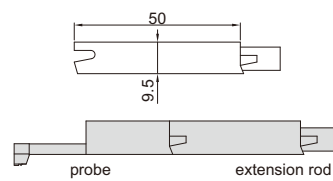
support for cylindrical surface



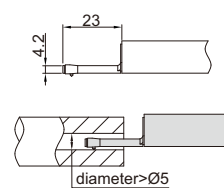
optional probes

Unit: mm

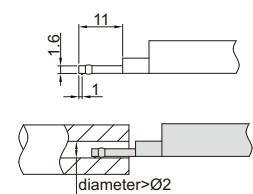
extension rod (optional), code **ISR-C002-ER**



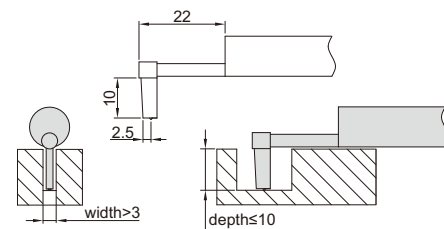
small hole probe (optional), code **ISR-C002-PROBE**



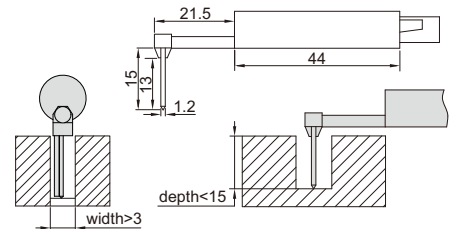
tiny hole probe (optional), code **ISR-C002-SBP**



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



deep groove probe (optional), code **ISR-C002-DGP1**



SPECIFICATION

| | | |
|---------------------------|---------------------|--|
| Parameters | | Ra, Rz, Rq, Rv, Rp, Rs, R3z, R3y, Rt, Rc, Rz (JIS), Rk, Rku, Rsm, Rpc, Rpk, Rvk, Rsk, Mr1, Mr2, Ry, Rmax |
| Range | X axis | 17.5mm |
| | Z axis | 320µm (-160µm~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 | | 1~5 |
| Moving speed | | 0.135mm/s, 0.5mm/s, 1mm/s |
| Memory | | 100 measurement results |
| Output | | USB and bluetooth |
| Power | | built-in rechargeable battery |
| Dimension (L×W×H) | | 158×64×52mm |
| Weight | | 400g |

STANDARD DELIVERY

| | |
|-----------------------------------|--------------|
| Main unit | 1 pc |
| Standard probe | 1 pc |
| Calibration block and support | 1 pc of each |
| Connecting cable (long and short) | 1 pc of each |
| Magnetic stand adapter | 1 pc |
| Adjustable stand | 1 pc |
| Touch pen | 1 pc |
| Software and USB cable | 1 pc |
| AC/DC adapter | 1 pc |

OPTIONAL ACCESSORY

| | |
|---------------------------------|-------------------|
| Extension rod | ISR-C002-ER |
| Small hole probe | ISR-C002-PROBE |
| Tiny hole probe | ISR-C002-SBP |
| Deep groove probe | ISR-C002-DGP |
| Deep groove probe | ISR-C002-DGP1 |
| Bluetooth printer | ISR-C002-PRINTER |
| Height gage adapter | ISR-C300-LB1 |
| Receiver | ISR-C300-RECEIVER |
| SPC cable | ISR-C300-SPC |
| Support for flat surface | ISR-C300-COVER1 |
| Support for cylindrical surface | ISR-C300-COVER2 |

ROUGHNESS TESTER CODE ISR-C003

fixture for small shafts
(optional)



- Unit: μm , μin
- Automatic power off

STANDARD DELIVERY

| | |
|-------------------|------|
| Main unit | 1 pc |
| Calibration block | 1 pc |
| AC/DC adapter | 1 pc |



calibration block (included)

SPECIFICATION

| | | |
|-------------------|---|---------------------------|
| Parameters | Ra, Rz, Rq, Rt | |
| Range | Ra, Rq: 0.05~15 μm Rz, Rt: 0.1~50 μm | |
| Accuracy | $\pm 10\%$ | |
| Resolution (Ra) | 0.01 μm | |
| Probe | type | piezoelectric |
| | stylus radius/angle | 10 $\mu\text{m}/90^\circ$ |
| | stylus material | diamond |
| Measuring force | 5mN | |
| Measuring unit | $\mu\text{m}/\mu\text{in}$ | |
| 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 | |
| Moving speed | 0.75mm/s | |
| Power | built-in rechargeable battery | |
| Dimension (L×W×H) | 106×70×24mm | |
| Weight | 200g | |

OPTIONAL ACCESSORY

| | |
|--------------------------|------------------|
| Fixture for small shafts | ISR-C003-FIXTURE |
|--------------------------|------------------|

SURFACE ROUGHNESS SPECIMENS

INSIZE PLUS
MADE IN EUROPE

15

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

SURFACE ROUGHNESS SPECIMEN SET CODE ISR-CS130-W

INSIZE PLUS
MADE IN EUROPE

- 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 | 0.55, 1, 1.6µm | 3 pcs |
| | 2, 4, 8µin | | |
| Reaming | 0.4, 0.8, 1.6µm | 3, 6, 10µm | 3 pcs |
| | 16, 32, 63µin | | |
| Plain grinding | 0.05, 0.1, 0.2, 0.4, 0.8, 1.6µm | 0.55, 1, 1.6, 3, 6, 10µm | 6 pcs |
| | 2, 4, 8, 16, 32, 63µin | | |
| Horizontal milling | 0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm | 2.5, 4, 8, 16, 32, 50µm | 6 pcs |
| | 16, 32, 63, 125, 250, 500µin | | |
| Vertical milling | 0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm | 2.5, 4, 8, 16, 32, 50µm | 6 pcs |
| | 16, 32, 63, 125, 250, 500µin | | |
| Turning | 0.4, 0.8, 1.6, 3.2, 6.3, 12.5µm | 2.5, 4, 8, 16, 32, 50µm | 6 pcs |
| | 16, 32, 63, 125, 250, 500µin | | |

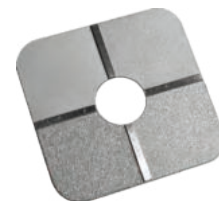


SHOT AND GRIT BLASTING SURFACE ROUGHNESS SPECIMENS

INSIZE PLUS
MADE IN EUROPE

- 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

| 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 |



ISR-CS017

15

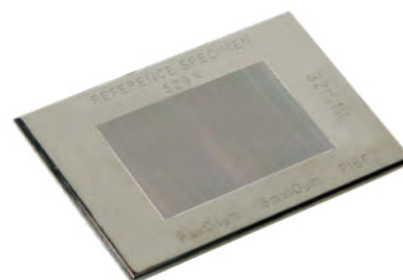
MEASURING ACCURACY OF ROUGHNESS TESTERS CAN BE IMPROVED, IF THE CALIBRATION IS MADE ON A REFERENCE SPECIMEN WITH THE ROUGHNESS VALUE CLOSE TO THE WORKPIECE TO BE MEASURED

SURFACE ROUGHNESS REFERENCE SPECIMENS

INSIZE PLUS
MADE IN EUROPE

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

| Code | Roughness (Ra) |
|------------|----------------|
| ISR-RS525X | 6.25µm * |
| ISR-RS526X | 3.15µm * |
| ISR-RS527X | 3.0µm * |
| ISR-RS528X | 0.5µm * |
| ISR-RS529X | 0.1µm * |
| ISR-RS530X | 1.0µm * |
| ISR-RS531X | 0.3µm * |



ISR-RS529X

*The actual value may be slightly different