

ROUGHNESS TESTER CODE ISR-C003



VIDEO



calibration block
(included)



- Unit: μm , μin
- Automatic power off

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
Traverse speed		0.75mm/s
Power		built-in rechargeable battery
Dimension (L×W×H)		106×70×24mm
Weight		200g

STANDARD DELIVERY

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

SURFACE ROUGHNESS SPECIMENS

INSIZE PLUS
MADE IN UK

- 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	4 pcs
		Parallel	0.025, 0.05, 0.1, 0.2 μm	0.34, 0.56, 1.12, 1.5 μm	4 pcs
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 UK

- 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, 8µm		
Reaming	0.4, 0.8, 1.6µm	3, 6, 10µm	3 pcs
	16, 32, 63µm		
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, 63µm		
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, 500µm		
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, 500µm		
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, 500µm		



SHOT AND GRIT BLASTING SURFACE ROUGHNESS SPECIMENS

INSIZE PLUS
MADE IN UK

- 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

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

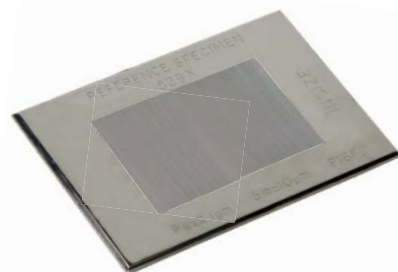
SURFACE ROUGHNESS REFERENCE SPECIMENS

INSIZE PLUS
MADE IN UK

- 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 * (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