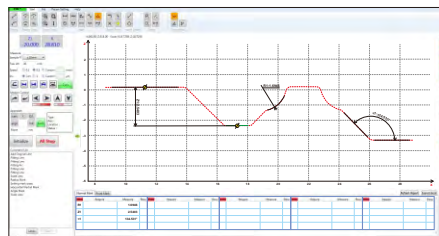- Software is included, for surface profile measurement and data output
- Probe compensation
- Output as format txt, csv, etc.
- Large range design, the leverage ratio is 1:2.2, maintain the original accuracy of the sensor
- The overall structure of the Z-axis sensor does not have any elastic components, ensuring the measuring force is constant regardless the position of probe
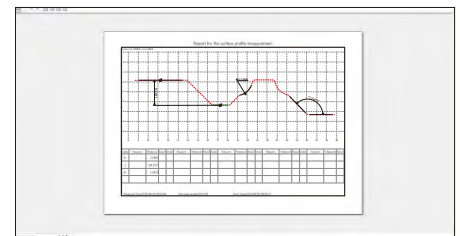
computer (included)

standard probe (height 32mm, included)

vise (included)

stage (included)

printer (included)

calibration

VIDEO
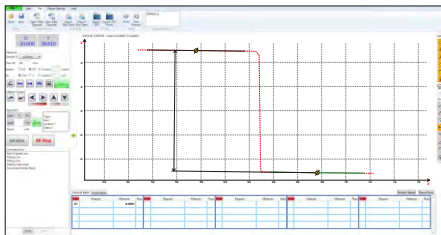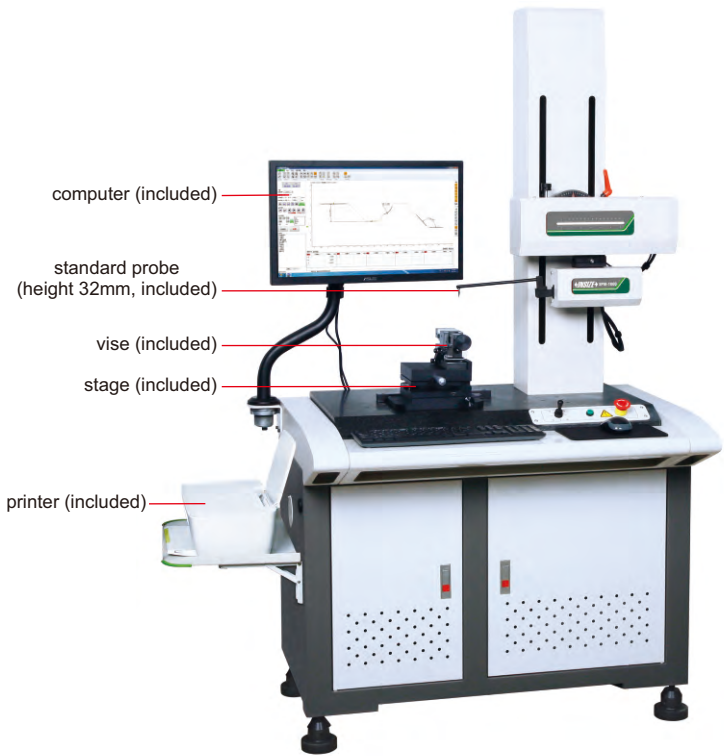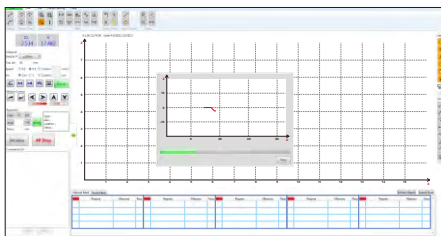
contour scanning

dimension measurement

data output

15

SPECIFICATION

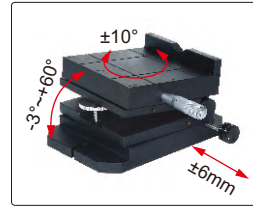|	
X axis measuring range	140mm
X axis resolution	0.2µm
X axis straightness	0.8µm/100mm
X axis moving speed	0.1~10mm/s
Z axis measuring range	±20mm
Z axis resolution	0.05µm
Z axis moving speed	0.5~10mm/s
Linear accuracy	±(1.5+|0.2H|)µm, H is measuring height in mm
Angular measuring accuracy	±2′
Arc measuring accuracy	±(2+R/8)µm, R is 2~10mm standard ball
Radius of probe tip	25µm
Moving direction	backward
Measuring force	6.86~9.8mN
Measuring unit	mm/inch
Traceable angle	72° (upward), 87° (downward)
Drive mode	motor
Travel of Z axis	430mm
Dimension (L×W×H)	1200×700×1780mm
Power supply	220±5%V, 50Hz
Weight	320kg
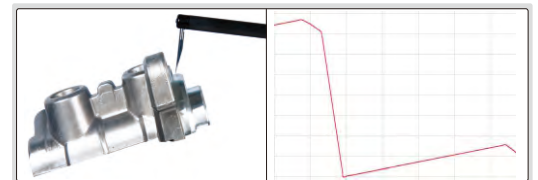
standard balls (included)
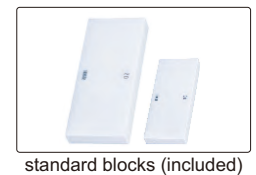
standard blocks (included)
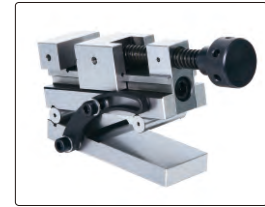

standard shaft (included)

STANDARD DELIVERY

Main unit	1 pc
Standard probe and arm	1 pc of each
Standard block	2 pcs
Standard ball	2 pcs
Standard shaft	1 pc
Stage	1 pc
Vise	1 pc
Measuring arm	1 pc
Computer	1 pc
Measurement software	1 pc
Printer	1 pc
Installation tools	1 set

±10°
-3°~+60°
±6mm
stage (included)

vise (included)

OPTIONAL ACCESSORY

Probe and arm	refer to details

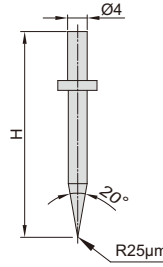## SPECIFICATION OF PROBES AND ARMS

Unit: mm

chisel probes

Ø4

H

17°

R25µm
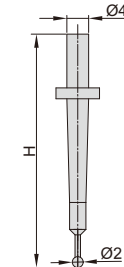
code **SPM-1000-T01** (H=32mm, included)
code **SPM-1000-T02** (H=48mm, **optional**)
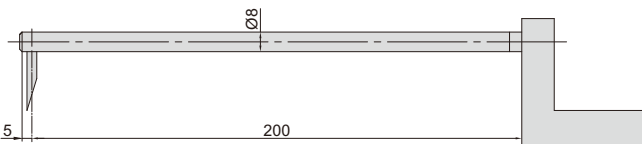code **SPM-1000-T03** (H=68mm, **optional**)

cone probes

Ø4

H

20°

R25µm

code **SPM-1000-Z01** (H=32mm, **optional**)
code **SPM-1000-Z02** (H=48mm, **optional**)
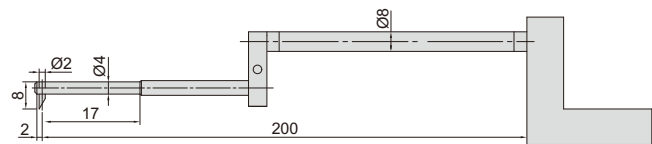code **SPM-1000-Z03** (H=68mm, **optional**)

ball probes

Ø4

H

Ø2

code **SPM-1000-R01** (H=32mm, **optional**)
code **SPM-1000-R02** (H=48mm, **optional**)
code **SPM-1000-R03** (H=68mm, **optional**)

standard arm, code SPM-1000-SP (included), probe is not included

Ø8

5   200

arm for small holes, code SPM-1000-SBP (optional), probe is included

Ø8

Ø2 Ø4

8

2   17   200

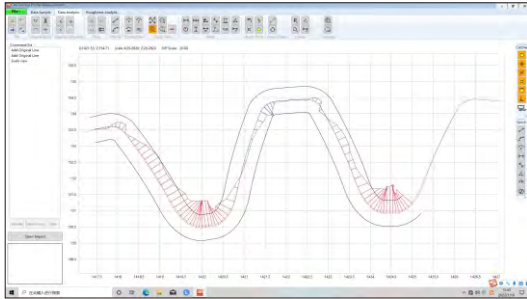measure the contour of holes with diameter>Ø8mm

transverse arm, code SPM-1000-LP (optional), probe is not included

Ø8

200

40

5

Ø8

measure the contour of holes in radial direction

15

ATTENTION: SEPARATE PROBES FOR
ROUGHNESS AND PROFILE MEASUREMENT

CAD profile comparison

computer (included)

profile probe arm and
stylus (included)

stage (included)

roughness probe
arm and stylus
(included)

printer (included)

VIDEO

- Software is included, for measurement and data output
- Profile sensor with low noise
- Wide range roughness sensor without skid
- Meet ISO1997, ISO1984, BS1988, DIN1990, ASME1995, JIS1982, JIS1994 standards
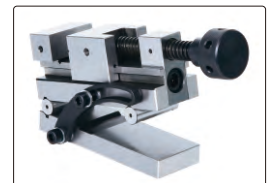- 65 roughness parameters
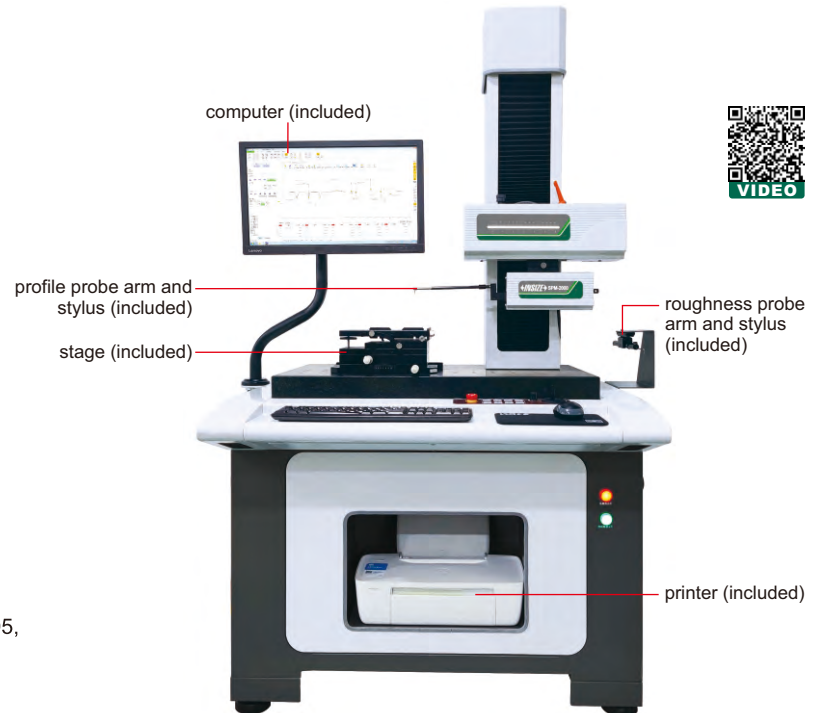
PROFILE MEASUREMENT SPECIFICATION

X axis measuring range	140mm
X axis resolution	0.2µm
X axis traverse speed	0.05~15mm/s
Z axis measuring range	50mm
Z axis resolution	0.05µm
Z axis traverse speed	0.2~15mm/s
Straightness	0.5µm/100mm
Linear accuracy	±(0.8+|0.15H|)µm, H is measuring height in mm
Angular measuring accuracy	±1′
Arc measuring accuracy	±(1.5+R/12)µm, R is 2~10mm standard ball
Measuring unit	µm/µin
Measuring speed	0.05~1mm/s
Traceable angle	72° (upward), 88° (downward)
Travel of Z axis	430mm
Power supply	220±5%V, 50Hz
Dimension (L×W×H)	1400×850×1780mm
Weight	350kg

±15°
-10°~+60°
±6mm
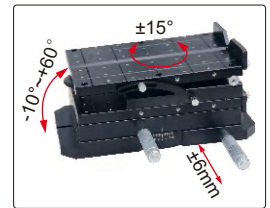
stage (included)

vise (included)

standard shaft (included)

standard blocks (included)

standard balls (included)

ROUGHNESS MEASUREMENT SPECIFICATION

Roughness parameters	Ra, Rp, Rv, Rz, Rz (JIS), R3z, Rz (DIN), Rzj, Rmax, Rc, Rt, Rq, Rsk, Rku, Rsm, Rs , PΔq, Rk, Rpk, Rvk, Mr1, Mr2, Rmr
Waviness parameters	Wa, Wt, Wp, Wv, Wz, Wq, Wsm, Wsk, Wku, Wmr
Primary profile parameters	Pa, Pt, Pp, Pv, Pz, Pq, Psm, Psk, Pku, Pmr
Measuring range	±420µm
Resolution	0.001µm
Linear accuracy	≤±(5nm+2.8%)
Probe radius/angle	5µm/90°
Cut off	0.025/0.08/0.25/0.8/2.5/8mm
Number of cut-offs	2~7
Measuring unit	µm/µin
Measuring speed	0.05~0.25mm/s

To be continued

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STANDARD DELIVERY

Main unit	1 pc
Calibration block	1 set
Roughness probe arm	1 pc
Roughness stylus	1 pc
Profile probe arm	1 pc
Profile chisel stylus	1 pc
Stage	1 set
Vise	1 set
Computer	1 pc
Software	1 set
Printer	1 pc
Installation tools	1 set

OPTIONAL ACCESSORY

Probe and arm	refer to details

SPECIFICATION OF ROUGHNESS PROBE

standard arm, code SPM-2000-P (included), probe is included
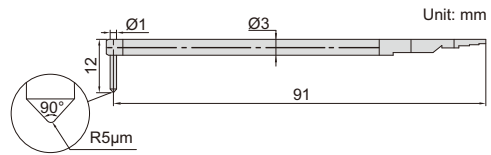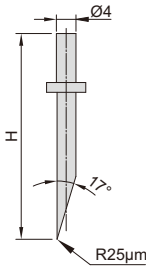

Unit: mm

small roughness arm, code SPM-2000-P1 (optional), probe is included
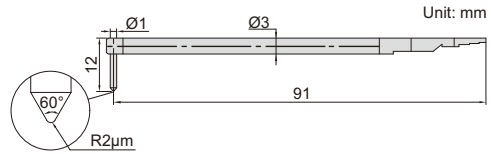
Unit: mm

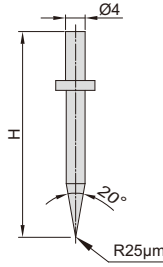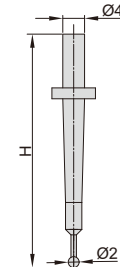## SPECIFICATION OF PROFILE PROBES AND ARMS

Unit: mm

chisel probes

code **SPM-1000-T01** (H=32mm, included)
code **SPM-1000-T02** (H=48mm, **optional**)
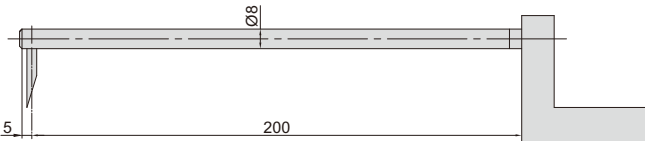code **SPM-1000-T03** (H=68mm, **optional**)

cone probes

code **SPM-1000-Z01** (H=32mm, **optional**)
code **SPM-1000-Z02** (H=48mm, **optional**)
code **SPM-1000-Z03** (H=68mm, **optional**)

ball probes

code **SPM-1000-R01** (H=32mm, **optional**)
code **SPM-1000-R02** (H=48mm, **optional**)
code **SPM-1000-R03** (H=68mm, **optional**)

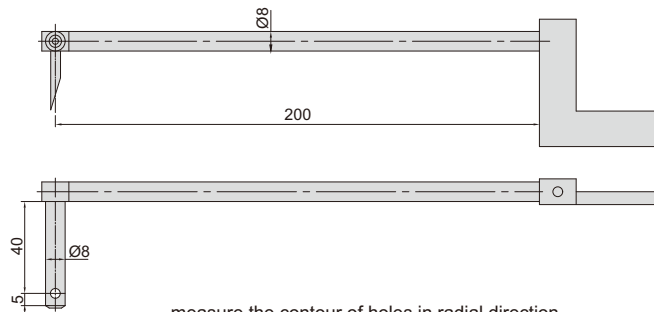### standard arm, code SPM-1000-SP (included), probe is not included

arm for small holes, code SPM-1000-SBP (optional), probe is included
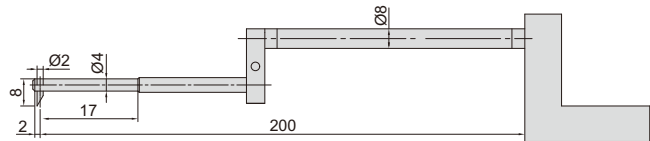
measure the contour of holes with diameter>Ø8mm

transverse arm, code SPM-1000-LP (optional), probe is not included

measure the contour of holes in radial direction

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