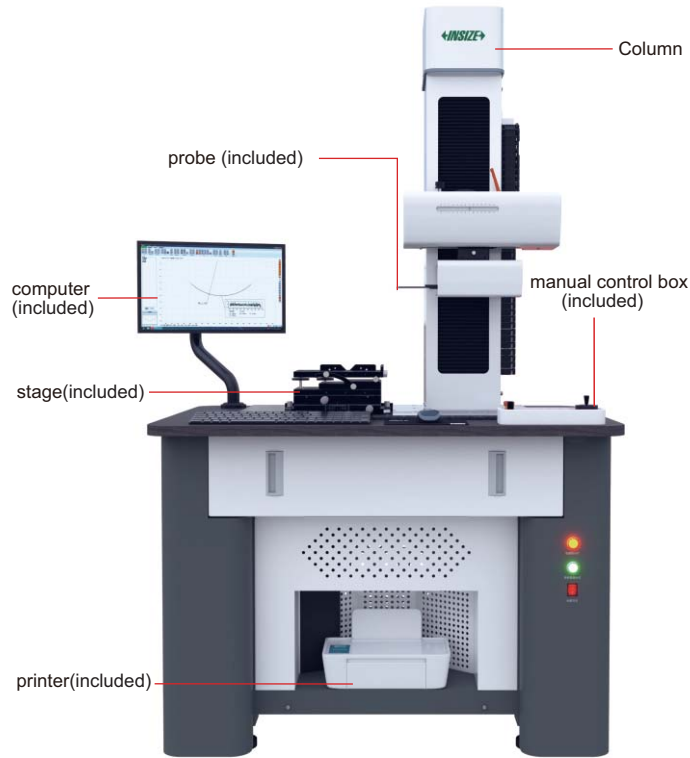


ROUGHNESS AND PROFILE MEASURING MACHINE (ONE PROBE TYPE) CODE SPM-5000



- Roughness, waviness, and profile analysis can be achieved with just one measurement
- Can measure all roughness and waviness parameters
- Can be used for automatic measurement system
- Air flotation and shockproof system to reduce measurement deviation
- Free to edit measurement reports

PROFILE MEASUREMENT SPECIFICATION

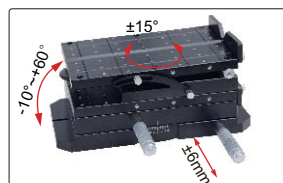
X axis measuring range	100mm
X axis resolution	0.2 μ m
X axis traverse speed	0.05~50mm/s
X axis linear accuracy	$\pm(0.8+ 0.015L)\mu$ m, H is measuring length in mm
Z axis measuring range	± 10 mm
Z axis resolution	0.01 μ m
Z axis traverse speed	0.2~50mm/s
Z axis linear accuracy	$\pm(0.5+ 0.08H)\mu$ m, H is measuring height in mm
Angular measuring accuracy	$\pm 1'$
Arc measuring accuracy	$\pm(1+R/12)\mu$ m, R is 2~10mm standard ball
Straightness	0.3 μ m/100mm,
Measuring unit	mm/inch
Travel of Z axis	320mm
Power supply	220 $\pm 5\%$ V, 50Hz
Dimension (L×W×H)	1700×820×1900mm
Weight	500kg

ROUGHNESS MEASUREMENT SPECIFICATION

Roughness parameters	Ra, Ramax, Ramin, Rasd, Rp, Rpmax, Rrmin, Rpsd, Rv, Rvmax, Rvmin, Rvsd, Rz, Rzmax, Rzmin, Rzs, R3z, Rc, Rcm, Rcm, Rcsd, Rt, Rq, Rqmax, Rqmin, Rdsd, Rsk, Rskmax, Rskmin, Rsksd, Rku, Rkumax, Rkumin, Rkugd, Rsm, Rsmmax, Rsmmin, Rsm, Rsd, R Δ a, R Δ amax, R Δ amin, R Δ asd, R Δ q, R Δ qmax, R Δ qmin, R Δ qsd, Rk, Rpk, Rvk, Mr1, Mr2, R λ a, R λ amax, R λ amin, R λ asd, R λ q, R λ qmax, R λ qmin, R λ qsd, R δ c, R ρ c, Rmr
Waviness parameters	Wa, Wamax, Wamin, Wasd, Wsa, Wca, Wa08, Wc, Wcmax, Wcmin, Wcsd, Wt, Wz, Wzmax, Wzmin, Wzsd, Wp, Wpmax, Wv, Wvmax, Wvmin, Wcsd, Wq, Wqmax, Wqmin, Wqsd, Wsm, Wsmmax, Wsmmin, Wsm, Wsk, Wskmax, Wskmin, Wsksd, Wku, Wkumax, Wkumin, Wkugd, W Δ q, W Δ qmax, W Δ qmin, W Δ qsd, W δ c, Wmr, Wpsd, Wpmin,
Original profile parameters	Pa, Pt, Pp, Pc, Pv, Pz, Pq, Psm, Psk, Pku, RzJ, Rpq, Rvq, Rmq, Pmr, P Δ q, Avh, Hmax, Hmin, Area, P δ c, Tilt α
Motif parameters	Ncrx, R, Rx, AR, Nr, Cpm, Sr, Sar, W, Wx, Aw, Wte, Nw, Sw, Saw
Measuring range	± 10 mm
Resolution	0.01 μ m
Linear accuracy	$\leq \pm(4nm+2.5\%)$
Probe radius/angle	5 μ m/90°
Cut off	0.025/0.08/0.25/0.8/2.5/8mm
Number of cut-offs	2~7
Measuring unit	μ m
Measuring speed	0.1~2mm/s



vise (included)



stage (included)



standard balls (included)



standard blocks (included)



standard shaft (included)

STANDARD DELIVERY

Main unit (including workbench, controller, driver, sensor)	1 pc
Calibration block	1 set
Probe arm	1 pc
Stylus	1 pc
Air flotation and shockproof system	1 set
Stage	1 set
Vise	1 set
Computer	1 pc
Software	1 set
Printer	1 pc
Installation tools	1 set

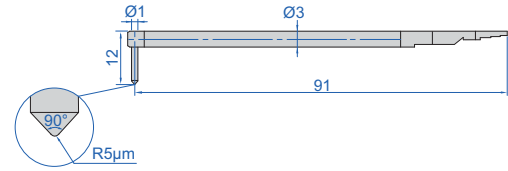
OPTIONAL ACCESSORY

Probe and arm	see details
---------------	-------------

SPECIFICATION OF STANDARD PROBE

Unit : mm

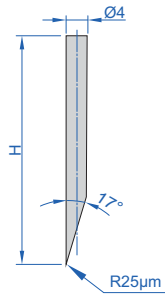
standard probe, code SPM-2000-P (included), stylus is included



SPECIFICATION OF PROFILE PROBES

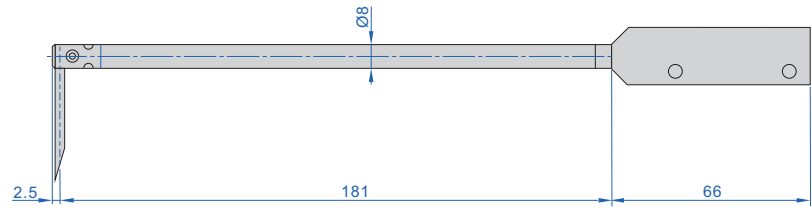
Unit: mm

chisel stylus

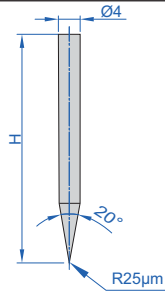


code **SPM-1000-T01** (H=32mm, included)
 code **SPM-1000-T02** (H=48mm, optional)
 code **SPM-1000-T03** (H=68mm, optional)

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

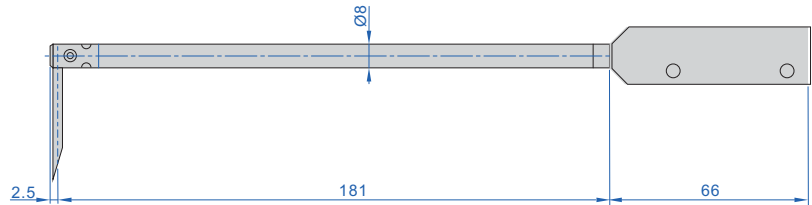


cone stylus



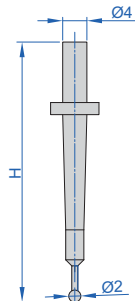
code **SPM-1000-Z01** (H=32mm, optional)
 code **SPM-1000-Z02** (H=48mm, optional)
 code **SPM-1000-Z03** (H=68mm, optional)

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



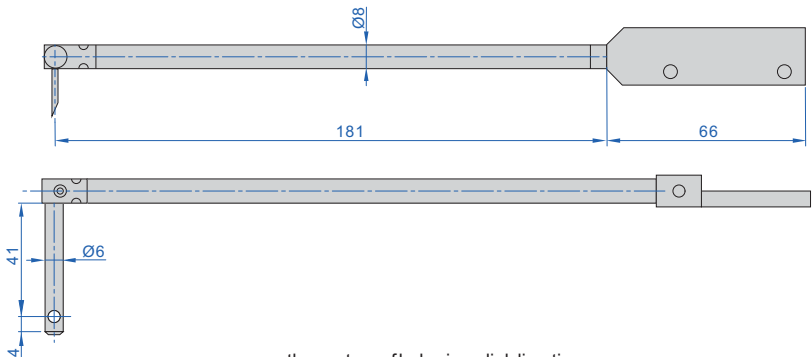
measure the contour of holes with diameter > Ø8mm

ball stylus



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

transverse probe, code SPM-1000-LP (optional), stylus is included



measure the contour of holes in radial direction