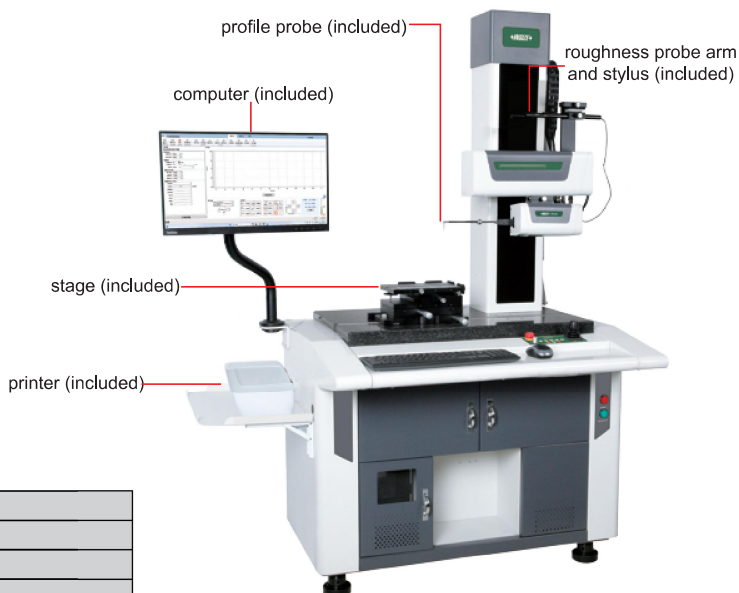


ROUGHNESS AND PROFILE MEASURING MACHINE (TWO PROBES TYPE) CODE SPM-2000

**ATTENTION: PROFILE AND ROUGHNESS
PROBES ARE USED SEPARATELY**

- High precision grating sensor, large measuring range, strong stability
- Three point magnetic suction positioning module, switch measuring rod only need one second
- Wide range roughness sensor without skid
- Intelligent measurement analysis system, automatic programming measurement
- CAD profile comparison



PROFILE MEASUREMENT SPECIFICATION

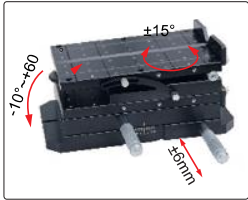
X axis measuring range	150mm
X axis resolution	0.1μm
X axis traverse speed	(0.1~20)mm/s
Z axis measuring range	40mm
Z axis resolution	0.02μm
Z axis traverse speed	(0.5~30)mm/s
Straightness	0.5μm/100mm
Linear accuracy	±(0.6+ 0.02H)μm, H is measuring height in mm
Angular measuring accuracy	±1'
Arc measuring accuracy	±(1.5+R/12)μm, R is 2~10mm standard ball
Measuring unit	μm/μin
Measuring speed	(0.1~1)mm/s
Traceable angle	72° (upward), 88° (downward)
Travel of Z axis	420mm
Power supply	220±5%V, 50Hz
Dimension (L×W×H)	1329×930×1805mm
Net weight	350kg

ROUGHNESS MEASUREMENT SPECIFICATION

Roughness parameters	Ra, Ramax, Ramin, Rasd, Rp, Rpmax, Rpmin, Rpsd, Rv, Rvmax, Rvmin, Rvsd, Rz, Rzmax, Rzmin, Rzsd, R3z, Rmax, Rc, Rcmx, Rcmin, Rcsd, Rt, Rq, Rqmax, Rqmin, Rqsd, Rsk, Rskmax, Rskmin, Rsksd, Rku, Rkumax, Rkumin, Rkugd, Rsm, Rsmmax, Rsmmin, Rsmstd, RS, RΔa, RΔamax, RΔamin, RΔasd, RΔq, RΔqmax, RΔqmin, RΔqsd, Rk, Rpk, Rvk, Mr1, Mr2, RLa, RLamax, RLamin, RLasd, RLq, RLqmax, RLqmin, RLqsd, Rδc, Rpc, Rmr, CR, CF, CL
Waviness parameters	Wa, Wamax, Wamin, Wasd, Wsa, Wca, Wa08, Wc, Wcmax, Wcmin, Wcsd, Wt, Wz, Wzmax, Wzmin, Wzsd, Wp, Wpmax, Wpmin, Wpsd, Wv, Wvmax, Wvmin, Wvsd, Wq, Wqmax, Wqmin, Wqsd, Wsm, Wsmmax, Wsmmin, Wsmstd, Wsk, Wskmax, Wskmin, Wksd, Wku, Wkumax, Wkumin, Wkugd, WΔq, WΔqmax, WΔqmin, WΔqsd, Wδc, Wmr
Original profile parameters	Pa, Pt, Pp, Pc, Pv, Pz, Pq, Psm, Psk, Pku, RzJ, Rpq, Rvq, Rmq, Pmr, PΔq, Avh, Hmax, Hmin, Area, Pδc, Tiltα
Motif parameters	Ncrx, R, Rx, AR, Nr, Cpm, Sr, Sar, W, Wx, Aw, Wte, Nw, Sw, Saw
Measuring range	±420μm
Resolution	0.0001μm
Linear accuracy	≤±(8nm+3.5%)
Probe radius/angle	5μm/90°
Cut off	0.025/0.08/0.25/0.8/2.5/8mm
Measuring unit	μm
Measuring speed	(0.1~1)mm/s

STANDARO 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



stage (included)



vise (included)



roughness standard
block (included)



standard blocks
(included)

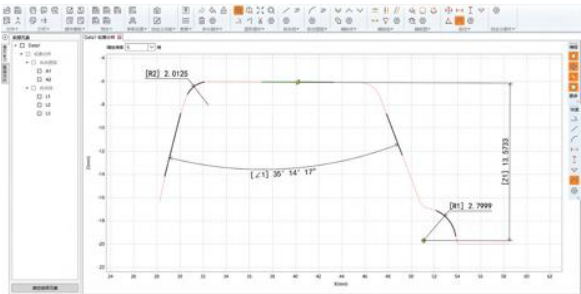


standard balls
(included)

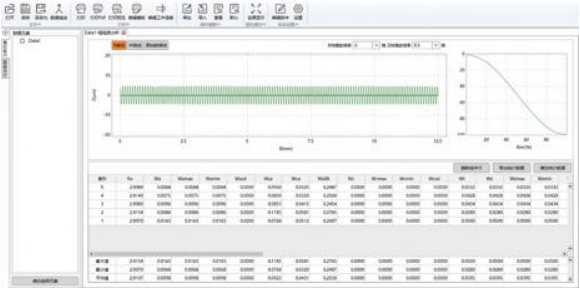
OPTIONAL ACCESSORY

Probe	refer to details
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SOFTWARE (included)



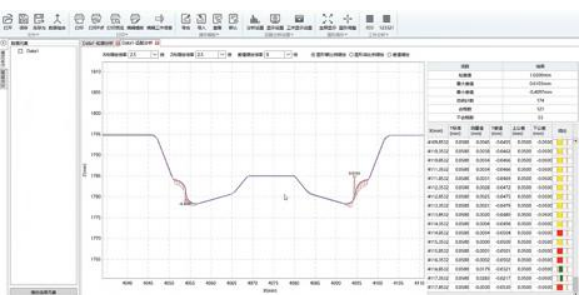
profile measurement



roughness measurement

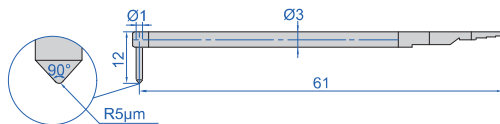
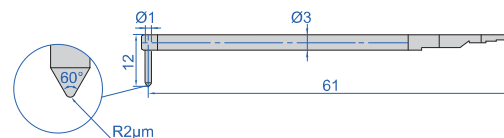


automatic measurement



CAD profile comparison

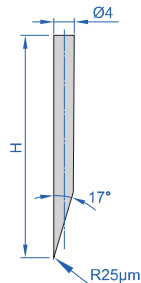
SPECIFICATION OF ROUGHNESS PROBE

standard probe, code **SPM-2000-P** (included), stylus is includedsmall roughness probe, code **SPM-2000-P1 (optional)**, stylus is included

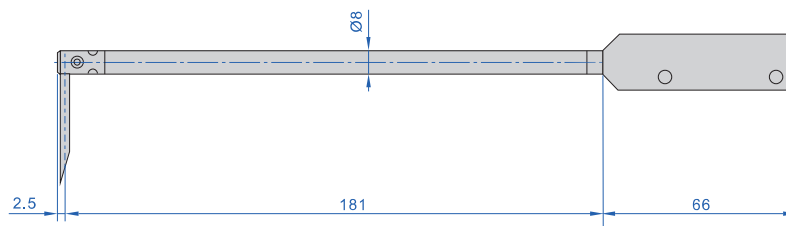
SPECIFICATION OF PROFILE PROBES

Unit: mm

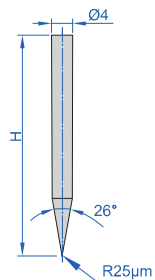
chisel stylus



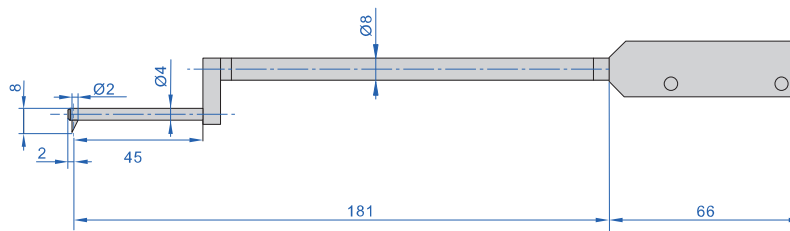
code **SPM-1000-T01** (H=32mm, included)
 code **SPM-1000-T02** (H=48mm, optional)
 code **SPM-1000-T03** (H=68mm, optional)

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

cone stylus

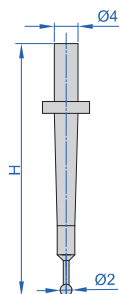


code **SPM-1000-Z01** (H=32mm, optional)
 code **SPM-1000-Z02** (H=48mm, optional)
 code **SPM-1000-Z03** (H=68mm, optional)

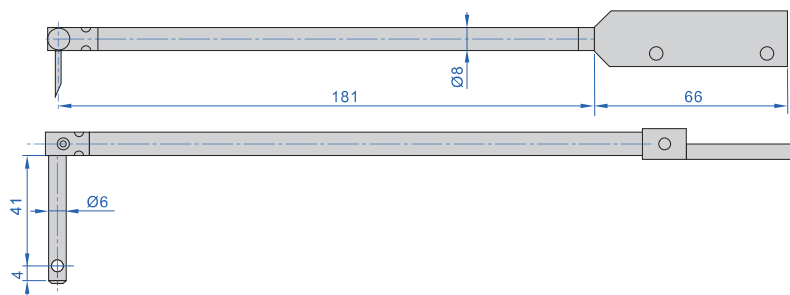
probe for small holes, code **SPM-1000-SBP (optional)**, stylus is included

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 not included

measure the contour of holes in radial direction