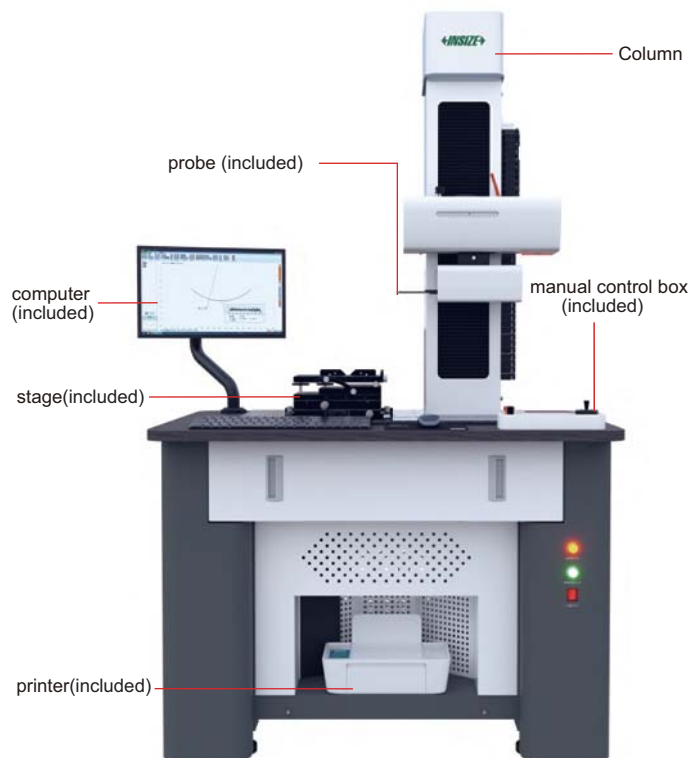


# ROUGHNESS AND PROFILE MEASURING MACHINE (ONE PROBE TYPE) CODE SPM-5000

PROFILE AND ROUGHNESS  
MEASUREMENT AT THE SAME TIME



- 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

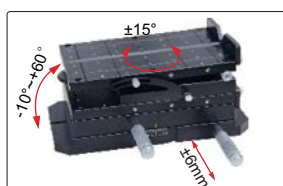
X axis measuring range	100mm
X axis resolution	0.2μm
X axis traverse speed	0.05~50mm/s
X axis linear accuracy	±(0.8+ 0.015L )μm, H is measuring length in mm
Z axis measuring range	±10mm
Z axis resolution	0.01μm
Z axis traverse speed	0.2~50mm/s
Z axis linear accuracy	±(0.5+ 0.08H )μm, H is measuring height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

## ROUGHNESS MEASUREMENT SPECIFICATION

Roughness parameters	Ra, Ramax, Ramin, Rasd, Rp, Rpmmax, Rpmmin, Rpsd, Rv, Rvmax, Rvmin, Rvsd, Rz, Rzmax, Rzmin, Rzsd, R3z, Rc, Rcomax, Rcomin, Rcsd, Rt, Rq, Rqmax, Rqmin, Rdsd, Rsk, Rskmax, Rskmin, Rksd, Rku, Rkumax, Rkumin, Rkusd, Rsm, Rsmmax, Rsmmin, Rsmsd, Rs, RΔa, RΔamax, RΔamin, RΔasd, RΔq, RΔqmax, RΔqmin, RΔqsd, Rk, Rpk, Rvk, Mr1, Mr2, RLa, Rλamax, Rλamin, Rλasd, Rλq, Rλqmax, Rλqmin, Rλqsd, Rδc, Rpc, Rmr
Waviness parameters	Wa, Wamax, Wamin, Wasd, Wsa, Wca, Wa08, Wc, Wcmax, Wcmin, Wcsd, Wt, Wz, Wzmax, Wzmin, Wzsd, Wp, Wpmax, Wv, Wvmax, Wvmin, Wvsd, Wq, Wqmax, Wqmin, Wqsd, Wsm, Wsmmax, Wsmmin, Wmsd, Wsk, Wskmax, Wskmin, Wksd, Wku, Wkumax, Wkumin, Wkusd, WΔq, WΔqmax, WΔqmin, WΔqsd, Wδc, Wmr, Wpsd, Wpmin
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	±10mm
Resolution	0.01μm
Linear accuracy	≤±(4nm+2.5%)
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
Measuring speed	0.1~2mm/s



vise (included)



stage (included)



standard balls (included)



standard blocks (included)



standard shaft (included)

### STANDARD DELIVERY

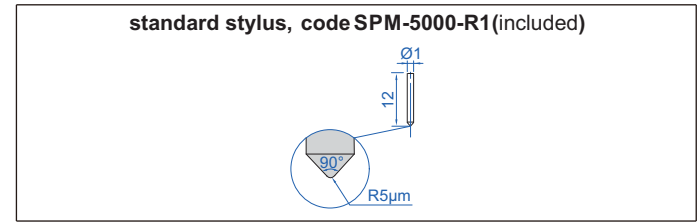
Main unit (including workbench, controller, driver, sensor)	1 pc
Calibration block	1 set
Probe arm	1 pc
Stylus	1 pc
Air flotation and shockproof system	1 set
Stage	1 set
Vise	1 set
Computer	1 pc
Software	1 set
Printer	1 pc
Installation tools	1 set

### OPTIONAL ACCESSORY

Probe and arm	see details
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### SPECIFICATION OF STANDARD PROBE

Unit : mm



### SPECIFICATION OF PROFILE PROBES

Unit: mm

<p><b>chisel stylus</b></p> <p>code <b>SPM-5000-T01 (optional)</b></p>	<p><b>Standard arm, code SPM-5000-P1 (included), stylus is not included</b></p>
<p><b>cone stylus</b></p> <p>code <b>SPM-5000-Z01 (optional)</b></p>	<p><b>Profile arm, code SPM-5000-P2 (optional), stylus is not included</b></p>
<p><b>ball stylus</b></p> <p>code <b>SPM-5000-S01</b> (ØS=1mm, optional) code <b>SPM-5000-S02</b> (ØS=2mm, optional)</p>	<p><b>Profile arm, code SPM-5000-P3 (optional), stylus is not included</b></p>