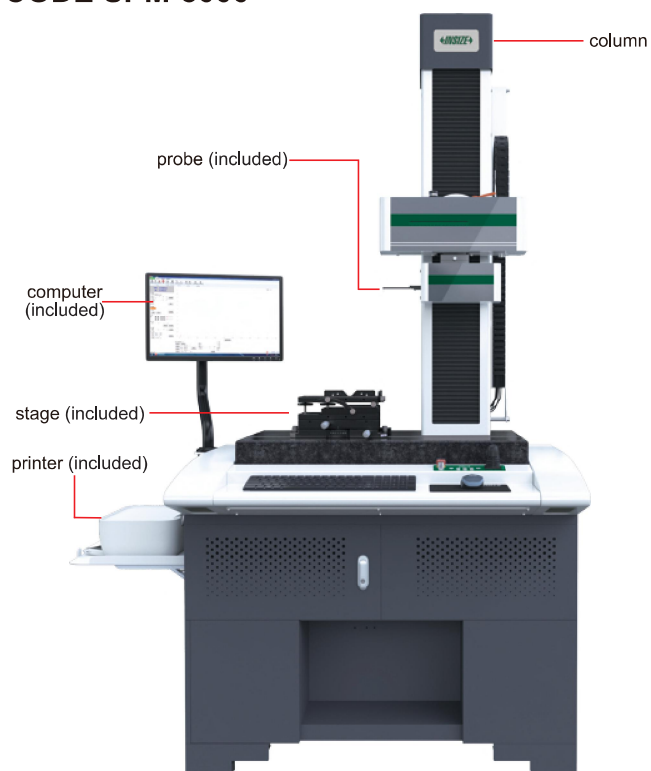


# ROUGHNESS AND PROFILE MEASURING MACHINE (ONE PROBE TYPE) CODE SPM-5000

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

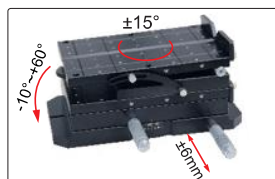
X axis measuring range	150mm
X axis resolution	0.0012μm
X axis traverse speed	(0.05~50)mm/s
X axis linear accuracy	±(0.8+ 0.015L )μm, L is measuring length in mm
Z axis measuring range	±10mm
Z axis resolution	0.0012μm
Z axis traverse speed	(0.2~40)mm/s
Z axis linear accuracy	±(0.5+ 0.02H )μm, H is measuring 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	420mm
Power supply	220±10%V, 50Hz
Dimension (L×W×H)	1700×820×1900mm
Weight	500kg

## ROUGHNESS MEASUREMENT SPECIFICATION

<b>Roughness parameters</b>	Ra, Ramax, Ramin, Rasd, Rp, Rpmax, Rpmin, Rpsd, Rv, Rvmax, Rvmin, Rvsd, Rz, Rzmax, Rzmin, Rzsd, R3z, Rc, Rcmx, Rcmn, Rcsd, Rt, Rq, Rqmax, Rqmin, Rdsd, Rsk, Rskmax, Rskmin, Rksd, Rku, Rkumax, Rkumin, Rksd, Rsm, Rsmmax, Rsmmin, Rsmsd, Rs, RΔa, RΔamax, RΔamin, RΔasd, RΔq, RΔqmax, RΔqmin, RΔqsd, Rk, Rpk, Rvk, Mr1, Mr2, RLa, RLaamax, RLamin, RLasd, RLq, RLqmax, RLqmin, RLqsd, Rδc, Rpc, Rmr
<b>Waviness parameters</b>	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, Wsmcd, Wsk, Wskmax, Wskmin, Wksd, Wku, Wkumax, Wkumin, Wkusd, WΔq, WΔqmax, WΔqmin, WΔqsd, Wδc, Wmr
<b>Original profile parameters</b>	Pa, Pt, Pp, Pc, Pv, Pz, Pq, Psm, Psk, Pku, RzJ, Rpq, Rvq, Rmq, Pmr, PΔq, Avh, Hmax, Hmin, Area, Pδc, Tiltα
<b>Motif parameters</b>	Ncrx, R, Rx, AR, Nr, Cpm, Sr, Sar, W, Wx, Aw, Wte, Nw, Sw, Saw
<b>Measuring range</b>	±10mm
<b>Resolution</b>	0.0012μm
<b>Linear accuracy</b>	≤±(6nm+2.5%)
<b>Probe radius/angle</b>	5μm/90°
<b>Cut off</b>	0.025/0.08/0.25/0.8/2.5/8mm
<b>Number of cut-offs</b>	2~7
<b>Measuring unit</b>	μm
<b>Measuring speed</b>	(0.1~2)mm/s



vise (included)



stage (included)



standard balls (included)



standard blocks (included)



standard shaft (included)

STANDARD DELIVERY

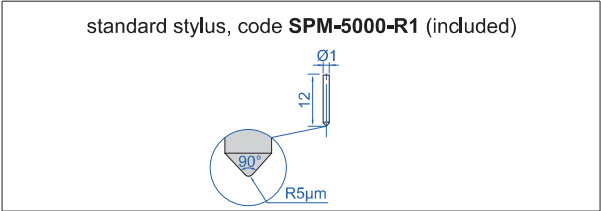
Main unit (including workbench, controller, driver, sensor)	1 pc
Calibration block	1 set
Probe arm	1 pc
Stylus	1 pc
Air flotation and shockproof system	1 set
Stage	1 set
Vise	1 set
Computer	1 pc
Software	1 set
Printer	1 pc
Installation tools	1 set

OPTIONAL ACCESSORY

Probe	refer to details
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SPECIFICATION OF STANDARD PROBE

unit: mm



SPECIFICATION OF PROFILEPROBES

unit: mm

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