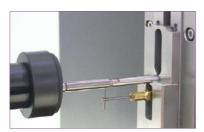
# SJ5780 Series Intelligent Profilometer

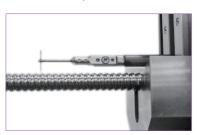
Multi-Sided Scanning Dedicated for Cylindrical and Threaded workpieces



## Application



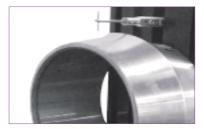
Coaxiality of lead screw



Ballscrew



Thread gauge



Cylindrical workpiece



Trapezoidal lead screw



Gear

### Features

#### 1. Two-sided profile scanning function

It obtains profile of object by scanning the surface with T-shaped stylus, then software can calculate the 2D sizes and GD & T based on the profile.

#### 2. Thread scanning function

It can scan ordinary thread ring/plug gauges, tapered thread ring/plug gauges, plain ring/plug gauges, trapezoidal thread, sawtooth thread, multi-head threaded workpieces, lead screws, etc. Then the software can analyze their comprehensive parameters such as internal and external diameter, profile parameters, etc.

Model No.			SJ5780-200	SJ5780-300	SJ5780-400	
	Measuring	Х	0~235mm	0~325mm	0~400mm	
	Range	Z	0~235mm	0~325mm	0~400mm	
	Min Resolution		0.001µm			
Basic Spec.	Scan	ning Speed	0.1~2mm/s			
	Meas	uring Force	10~150mN(Adjustable)			
	M	ax Slope	Uphill 78°, downhill 87°			
	Y Direction	on Object Table	Travel range 25mm, Ov	verall height 85mm(Mot	orized table is optional)	
	Thread M	easuring Range	Internal: M3~M200, External: M3~M200(Determined by optional jigs)			
Thread Meas.	Accuracy(Maj., Pit., Min. Diamter)		≤±(4+L/10	0) μ m, L is measured le	ngth in mm	
	Accuracy(Thread Pitch)		≤±(1+L/10	≤±(1+L/100) µ m, L is measured length in mm		
	Diameter Measuring Range		Internal: φ3~φ200, External: φ3~φ200(Determined by optional jigs)			
Contour Meas.	Diameter Measuring Accuracy		$\leq \pm (3 + L/100)  \mu$ m, L is measured length in mm			
	Profile Degree Accuracy		≤±(2+L/10	${\leq}{\pm}(2{+}L/100)\mu$ m, L is measured length in mm		
Roughness	Roughn	ess Parameters	Htp, Pc, Rda, Ry, Sm, S, Rpq, R5z, R3z, Rh, Dq, Lq, SD Key roughness: Rcore: Rk, Rţ Profile: Pa, Pq, Pt, Pz, Pp, Pv, Pmax, StpHt, TIR, Avg, Slope, Waviness of profile: Wa, Wq, Wh, Wmr(WZ/4)	Rvq, Rmq, RzJ, Rv1max, Rp1m ok, Rvk, Mr1, Mr2, A1, A2 PSm, Psk, Pku, Pdq, Pdc, Pc, , Area+, Area-, Area, Profl, Edge	Vku, Wdq, Wdc, Wmr, Wpc, Wd	
Meas.	Ra Measuring Range		Ra0.012μm~Ra12.5μm(Large range is optional)			
(Optional)	Accuracy		5%			
	Filter		2RC filtering, Gaussian filtering and Zero phase filtering			
-	Sampling Length		0.008, 0.08, 0.25, 0.8, 2.5, 8.0, 25mm selectable			
	Evaluation Length		Automatic calculation			
	Cutoff Wavelength		0.25/0.8/2.5(mm) or User-defined cut-off			
	Size(L×W	/×H)	1200×500×980mm	1200×500×1180mm	1200×500×1180mm	
	Weigh	nt	100kg	200kg	200kg	



# SJ5720-OPT Series **Profilometers for Optics Surface**



SJ5720-OPT100

SJ5720-OPT200

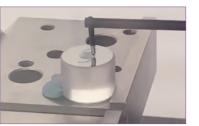
## Application



Lens



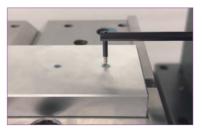
Infrared lens



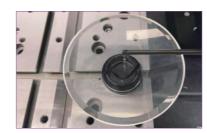
Intraocular lens mold



Optical mold



Vehicle Lens



Lens

#### Description

The SJ5720-OPT series is a capable to measure both surface roughness and profile after once scanning. Moreover, there is a dedicated software module for measurement and analysis of large aspheric surface, so this series is an ideal measurement solution for the optical lens industry.

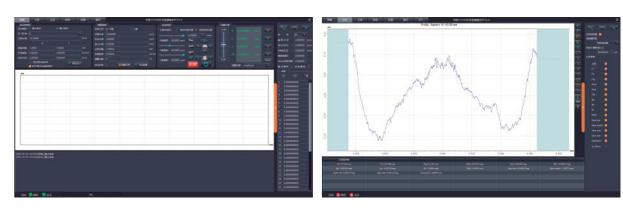
It can also be used for profile and roughness measurement for large curved surface, such as bearings, artificial joints, precision molds, gears, blades, etc. Consequently, it is widely used in precision machining, automobiles, bearings, machine tools, molds, precision hardware and other industries.

#### Features

- 1. Evaluate profile and roughness parameters at the same time after once scanning
- 2. High precision, high stability, and high repeatability
- 3. Aspheric optical software module
- 4. Intelligent management and advanced software analysis system
- 5. Intelligent protection system during scanning
- 6. Flexible manual control
- 7. High stability vibration isolation system

#### Software

- Professional aspheric surface measurement software can analyze all aspheric surface.
- parameters. There are some self-checking parameters in the software, so the correctness of the input formula can be determined by self-checking.



Aspheric surface measurement interface

Contact

Measurement

Instruments

Parame	<del></del>		
Model No.			SJ5720-OPT100
		X	0~100mm
	Measuring Range	Z	0~300mm
	Hange	Z1	±6mm (Optional: ±12mm)
	Resolution		0.001μm
		Z1* <sup>1</sup>	≤± (0.5+0.03 H) μm (H, mm)
	Accuracy	Pt*2	Pt≤0.2μm
Contour	Accuracy	Standard Ball*3	≤± (1+R/20) μm (R, mm)
Measurement		Angle*4	≤±1′
	Moving	X	0~20mm/s
	Speed	Z	0~20mm/s
	Scann	ing Speed	0.05~5mm/s
	X Stra	aightness*5	≤0.15µm/100mm
	Measu	uring Force	0.5mN, 0.75mN, 1mN, 2mN, 3mN(Adjustable)
	Ra Masurement Range		Ra0.012μm~Ra12.5μm (Large range is optional)
	Accuracy*6		Ra0.012μm ~ Ra3 . 2 μm: ≤±(3nm+2.0%A),A(Ra)μm Ra3.201μm ~ Ra12.5μm : ≤±(3nm+3.5%A),A(Ra)μm
	Repea	tability (1δ)* <sup>7</sup>	1δ≤1nm
	Measurer	ment Residual*8	Rq≤3nm
Roughness Measurement	Roughness Parameters		R roughness: Rp, Rv, Rz, Rc, Rt, Ra, Rq, Rsk, Rku, RSm, RPc, Rdq, Rdc, Rmr, Rmax, Rpm, tp, Htp, Pc, Rda, Ry, Sm, S, Rpq, Rvq, Rmq, RzJ, Rv1max, Rp1max, Rz1max, Rmr(Rz/4), maxRa, R5z, R3z, Rh, Dq, Lq, SD Key roughness: Rcore: Rk, Rpk, Rvk, Mr1, Mr2, A1, A2 Profile: Pa, Pq, Pt, Pz, Pp, Pv, PSm, Psk, Pku, Pdq, Pdc, Pc, PPc, Pvq, Pmr, Pmq, Rad, PzJ, Pmax, StpHt, TIR, Avg, Slope, Area+, Area-, Area, Profl, Edge, StpWd, Bumpht Waviness of profile: Wa, Wq, Wt, Wz, Wp, Wv, WSm, Wsk, Wku, Wdq,
			Wdc, Wmr, Wpc, Wc, Wh, Wmr(WZ/4)  Motif: R, AR, W, AW, Rx, Wx, Wte, Nr, Ncrx, Nw, Cpm, CR, CF, CL ISO5436: Pt5436, D
	Aspheric Masurement Parameters		Micro profile parameters: Pt, Pa, Fig;Inclination parameters: Smx, Smn; Horizontal axis angle parameter: Tilt; Distance parameters between the optical axis and the contour: Xp, Xv, Xt; Root mean square roughness parameter: RMS; Slope parameters: Slpe mx, Slpemx (x), Slperms, Slpe are; Vertex radius error parameter: Radius Err
		Filter	Gaussian filter, 2RC filter, zero phase filter
	Sampl	ing Length	0.008, 0.08, 0.25, 0.8, 2.5, 8.0 or 25mm Selectable
	Evalua	tion Length	Auto calculation
Size(L×W×H)			600×350×890mm
Weight			195kg
Note:			

- \*1 The accuracy is based on the measurement standard gauge block.
- \*2 The accuracy is based on the Pt test of standard ball smaller than diameter 25mm.
- $\star 3$  The accuracy is based on the verification of the  $\Phi$  50mm standard ball with the arc exceeds 90 degrees.
- \*4 The accuracy is based on the measurement of the angle of polygonal prism.
- \*5 The accuracy is based on the measurement of optical flat.
- \*6 The accuracy is based on the measurement of standard roughness block.
- \*7 The repeatability is based on the measurement of 0.1-0.2µm square wave roughness block and standard step height block.
- $\star 8$  The accuracy is is based on the measurement of 1nm level roughness block and optical flat.

Model No.			SJ5720-OPT200	
	X		0~200mm	
	Measuring	Z	0~500mm	
	Range	Z1	±6mm (Optional: ±12mm)	
	Res	olution	0.001µm	
		Z1* <sup>1</sup>	≤± (0.5+0.03 H) μm (H, mm)	
	Acquirect	Pt*2	Pt≤0.2μm	
Contour	Accuracy	Standard Ball*3	≤±(1+R/20) µm (R,mm)	
Measurement		Angle*4	≤±1′	
	Moving	X	0~20mm/s	
	Speed	Z	0~20mm/s	
	Scann	ing Speed	0.05~5mm/s	
	X Stra	aightness*5	≤0.25µm/200mm	
	Measuring Force		0.5mN, 0.75mN, 1mN, 2mN, 3mN(Adjustable)	
	Ra Masurement Range		Ra0.012μm~Ra12.5μm	
	Accuracy*6		Ra0.012μm ~ Ra3 . 2 μm: ≤±(3nm+2.0%A),A(Ra)μm Ra3.201μm ~ Ra12.5μm : ≤±(3nm+3.5%A),A(Ra)μm	
	Repeatability (1δ)*7		1δ≤1nm	
	Measurement Residual*8		Rq≤3nm	
	Roughness Parameters		R roughness: Rp, Rv, Rz, Rc, Rt, Ra, Rq, Rsk, Rku, RSm, RPc, Rdq, Rdc, Rmr, Rmax, Rpm, tp, Htp, Pc, Rda, Ry, Sm, S, Rpq, Rvq, Rmq, RzJ, Rv1max, Rp1max, Rz1max, Rmr(Rz/4), maxRa, R5z, R3z, Rh, Dq, Lq, SD	
Roughness Measurement			Key roughness: Rcore: Rk, Rpk, Rvk, Mr1, Mr2, A1, A2 Profile: Pa, Pq, Pt, Pz, Pp, Pv, PSm, Psk, Pku, Pdq, Pdc, Pc, PPc, Pvq, Pmr, Pmq, Rad, PzJ, Pmax, StpHt, TIR, Avg, Slope, Area+, Area-, Area, Profl, Edge, StpWd, Bumpht	
			Waviness of profile: Wa, Wq, Wt, Wz, Wp, Wv, WSm, Wsk, Wku, Wdq, Wdc, Wmr, Wpc, Wc, Wh, Wmr(WZ/4)	
			Motif: R, AR, W, AW, Rx, Wx, Wte, Nr, Ncrx, Nw, Cpm, CR, CF, CL	
	Aspheric Masurement Parameters		ISO5436: Pt5436, D  Micro profile parameters: Pt, Pa, Fig;Inclination parameters: Smx, Smn; Horizontal axis angle parameter: Tilt; Distance parameters between the optical axis and the contour: Xp, Xv, Xt; Root mean square roughness parameter: RMS; Slope parameters: Slpe mx, Slpemx (x), Slperms; Vertex radius error parameter: Radius Err	
		Filter	Gaussian filter, 2RC filter, zero phase filter	
	Sampling Length		0.008, 0.08, 0.25, 0.8, 2.5, 8.0 or 25mm Selectable	
	Evaluation Length		Auto calculation	
Size(L×W×H)			800×500×1080mm	
Weight			265kg	
lote:			-	

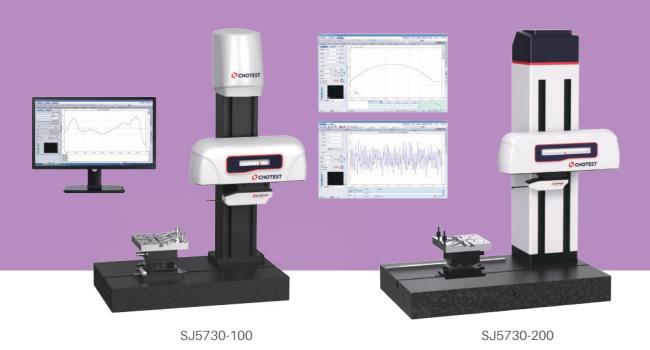
- \*1 The accuracy is based on the measurement standard gauge block.
- \*2 The accuracy is based on the Pt test of standard ball smaller than diameter 25mm.
- $\star 3$  The accuracy is based on the verification of the  $\Phi$  50mm standard ball with the arc exceeds 90 degrees.
- \*4 The accuracy is based on the measurement of the angle of polygonal prism.
- \*5 The accuracy is based on the measurement of optical flat.
- \*6 The accuracy is based on the measurement of standard roughness block.
- \*7 The repeatability is based on the measurement of 0.1-0.2µm square wave roughness block and standard step height block.
- \*8 The accuracy is is based on the measurement of 1nm level roughness block and optical flat.





# **Profilometer SJ5730**

## Once Scanning for both Profile and Roughness

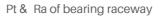


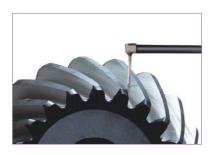
#### Parameters

Paran	neter classification	Parameters
	Contour Evaluation	P(Original profile), R(Surface roughness profile), W(Waviness)
	Rougness Evaluation	Ra, Rp, Rv, Rz, Rt, Rmax, Rq, Rsk, Rku, RSm, RPc, Rdq, Rdc, Rmr, Motif parameters, RCore parameters, P parameters, W parameters
	Filter	2RC filtering, Gaussian filtering and Zero phase filtering
	Cut-off Wavelength \(\lambda\)s	0.008, 0.025, 0.08, 0.25, 0.8, 2.5, 8mm selectable
Roughness Measurement	λs	0.25, 0.8, 2.5, 8, 25um selectable, comply with the specifications of JJF 1099-2018, ISO 4288-1996, GBT 1031-2009
	Shape Error	Aspheric surface shape error measurement, linear shape error measurement, arc surface shape error measurement
	Standard	DIN EN ISO 4287:2010, ASME B46.1-2002, JIS B 0601:2013, GB/T 3505-2009, ISO 4287:1997, ISO 13565-2:1996, ISO 1302:2002
	Common tools	Provides 76 tools, including coordinate creation, construction tools, auxiliary tools, annotations, and geometric tolerances
	CNC Function	Provide CNC measurement mode for batch measurement
Contour Measurement	Custom Meas.	Customize the measurement process according to the characteristics of the workpiece (such as surface with hole in the center), avoids the unnecessary measurement area and perform discontinuous measurement.
	Special Tools	Ball screw measurement (corrected helix angle), thread measurement, stage height, groove depth, groove width, area, convexity etc

## Application



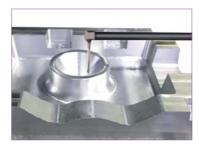




Ra of gear tooth surface



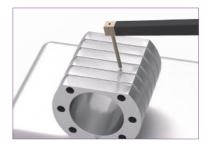
Ra of engine blade







Profile & Roughness of car parts



Profile & Roughness of workpiece

## Features

- 1. Evaluate Contour and roughness parameters at the same time after once scanning
- 2. High precision, high stability, and high repeatability
- 3. Intelligent management and advanced software analysis system
- 4. Intelligent protection system during scanning
- 5. Flexible manual control
- 6. Nano-scale large roughness measuring range
- 7. Plug-in probe, easy to replace probe
- 8. Extremely small measuring force to avoid scratching the surface

#### Parameters

_			
Model No.			SJ5730-100
		X	0~100mm
	Measuring	Z	0~300mm
	Range	Z1	±6mm (Optional: ±12mm)
	Res	olution	0.001um
		Z1* <sup>1</sup>	≤± (0.5+0.03 H) μm (H, mm)
	A	Pt*2	Pt≤0.4μm
Contour	Accuracy	Standard Ball*3	≤±1µm(R≤10mm); ≤±(0.17+R/12)µm(10 <r≤200mm)< td=""></r≤200mm)<>
Measurement		Angle*4	≤±1′
	Moving	X	0~20mm/s
	Speed	Z	0~20mm/s
	Scann	ing Speed	0.05~5mm/s
	X Str	aightness*5	≤0.2µm/100mm
	Measuring Force		0.5mN,0.75mN,1mN,2mN,3mN(Adjustable)
	Ra Masurement Range		Ra0.012μm~Ra12.5μm
	Accuracy*6		Ra0.012μm ~ Ra3 . 2 μm: ≤±(3nm+2.0%A),A(Ra)μm Ra3.201μm ~ Ra12.5μm : ≤±(3nm+3.5%A),A(Ra)μm
	Repeatability (1δ)* <sup>7</sup>		1δ≤1nm
	Measurement Residual*8		Rq≤3nm
	Roughness Parameters		R roughness: Rp, Rv, Rz, Rc, Rt, Ra, Rq, Rsk, Rku, RSm, RPc, Rdq, Rdc, Rmr, Rmax, Rpm, tp, Htp, Pc, Rda, Ry, Sm, S, Rpq, Rvq, Rmq, RzJ, Rv1max, Rp1max, Rz1max, Rmr(Rz/4), maxRa, R5z, R3z, Rh, Dq, Lq, SD
Roughness Measurement			Key roughness: Rcore: Rk, Rpk, Rvk, Mr1, Mr2, A1, A2 Profile: Pa, Pq, Pt, Pz, Pp, Pv, PSm, Psk, Pku, Pdq, Pdc, Pc, PPc, Pvq, Pmr, Pmq, Rad, PzJ, Pmax, StpHt, TIR, Avg, Slope, Area+, Area-, Area, Profl, Edge, StpWd, Bumpht
			Waviness of profile: Wa, Wq, Wt, Wz, Wp, Wv, WSm, Wsk, Wku, Wdq, Wdc, Wmr, Wpc, Wc, Wh, Wmr(WZ/4)
			Motif: R, AR, W, AW, Rx, Wx, Wte, Nr, Ncrx, Nw, Cpm, CR, CF, CL ISO5436: Pt5436, D
	Filter		Gaussian filter, 2RC filter, zero phase filter
	Sampling Length		0.008, 0.08, 0.25, 0.8, 2.5, 8.0 or 25mm Selectable
	Evaluation Length		Auto calculation
Roller analysis			Roller convexity, position distance, logarithmic roller busbar, X-mirror curve coincidence, segmented different tolerances
Input			AC100-240V, 50/60Hz, 130W
Size(L×W×H)			600×350×890mm
Weight			110kg

#### Note:

- \*1 The accuracy is based on the measurement standard gauge block.
- \*2 The accuracy is based on the Pt test of standard ball smaller than diameter 25mm.
- $\star 3$  The accuracy is based on the verification of the  $\Phi$  50mm standard ball with the arc exceeds 90 degrees.
- $_{\star 4}$  The accuracy is based on the measurement of the angle of polygonal prism.
- \*5 The accuracy is based on the measurement of optical flat.
- \*6 The accuracy is based on the measurement of standard roughness block.
- $\star 7 \ \text{The repeatability is based on the measurement of 0.1-0.2} \mu m \ \text{square wave roughness block and standard step height block}.$
- \*8 The accuracy is is based on the measurement of 1nm level roughness block and optical flat.

#### **Parameters**

Model No.			SJ5730-200
		X 0~200mm	
	Measuring Range	Z	0~500mm
	narige	Z1	±6mm (Optional: ±12mm)
	Res	olution	0.001um
		Z1* <sup>1</sup>	≤± (0.5+0.03 H) µm (H, mm)
	Acquirocu	Pt*2	Pt≤0.4μm
Contour	Accuracy	Standard Ball*3	≤±1µm(R≤10mm); ≤±(0.17+R/12) µm (10 <r≤200mm)< td=""></r≤200mm)<>
Measurement		Angle*4	≤±1′
	Moving	X	0~20mm/s
	Speed	Z	0~20mm/s
	Scann	ing Speed	0.05~5mm/s
	X Stra	aightness*5	≤0.35µm/200mm
	Measuring Force		0.5mN,0.75mN,1mN,2mN,3mN(Adjustable)
	Ra Masurement Range		Ra0.012μm~Ra12.5μm
	Accuracy*6		Ra0.012μm ~ Ra3 . 2 μm: ≤±(3nm+2.0%A),A(Ra)μm Ra3.201μm ~ Ra12.5μm : ≤±(3nm+3.5%A),A(Ra)μm
	Repeatability (1δ)* <sup>7</sup>		1δ≤1nm
	Measurement Residual*8		Rq≤3nm
	Roughness Parameters		R roughness: Rp, Rv, Rz, Rc, Rt, Ra, Rq, Rsk, Rku, RSm, RPc, Rdq, Rdc, Rmr, Rmax, Rpm, tp, Htp, Pc, Rda, Ry, Sm, S, Rpq, Rvq, Rmq, RzJ, Rv1max, Rp1max, Rz1max, Rmr(Rz/4), maxRa, R5z, R3z, Rh, Dq, Lq, SD
Roughness Measurement			Key roughness: Rcore: Rk, Rpk, Rvk, Mr1, Mr2, A1, A2 Profile: Pa, Pq, Pt, Pz, Pp, Pv, PSm, Psk, Pku, Pdq, Pdc, Pc, PPc, Pvq, Pmr, Pmq, Rad, PzJ, Pmax, StpHt, TIR, Avg, Slope, Area+, Area-, Area, Profl, Edge, StpWd, Bumpht
			Waviness of profile: Wa, Wq, Wt, Wz, Wp, Wv, WSm, Wsk, Wku, Wdq, Wdc, Wmr, Wpc, Wc, Wh, Wmr(WZ/4)
			Motif: R, AR, W, AW, Rx, Wx, Wte, Nr, Ncrx, Nw, Cpm, CR, CF, CL ISO5436: Pt5436, D
		Filter	Gaussian filter, 2RC filter, zero phase filter
	Sampling Length		0.008, 0.08, 0.25, 0.8, 2.5, 8.0 or 25mm Selectable
	Evaluation Length		Auto calculation
Roller analysis			Roller convexity, position distance, logarithmic roller busbar, X-mirror curve coincidence, segmented different tolerances
Input			AC100-240V, 50/60Hz, 130W
Size(L×W×H)			800×500×1080mm
Weight			180kg

#### Note:

- \*1 The accuracy is based on the measurement standard gauge block.
- \*2 The accuracy is based on the Pt test of standard ball smaller than diameter 25mm.
- $\star 3$  The accuracy is based on the verification of the  $\Phi$  50mm standard ball with the arc exceeds 90 degrees.
- $\star 4$  The accuracy is based on the measurement of the angle of polygonal prism.
- \*5 The accuracy is based on the measurement of optical flat.
- $\star 6$  The accuracy is based on the measurement of standard roughness block.
- $\star 7 \ \text{The repeatability is based on the measurement of 0.1-0.2} \mu m \ \text{square wave roughness block and standard step height block}.$
- \*8 The accuracy is is based on the measurement of 1nm level roughness block and optical flat.





## **Profilometer SJ5760 Series**

Independent Profile and Roughness Measurement Module



## Application





Railway part



Thread workpiece









Ballscrew

Machining part Roughness specimen







Bearing



Thread workpiece



Plastic part

Engine cylinder

Custom bearing

Mold

Die casting

#### Software

Surf & Rough X is an user-friendly and powerful software, which is completely developed by Chotest. It can analyze not only surface contour, but also evaluate surface roughness. Surf & Rough X contains 76 kinds of utility tools, such as coordinate system, construction tools, geometric tolerance, surface roughness assessment tools, etc. CNC measurement mode is a convenient function for batch measurement, and it improves measurement efficiency greatly. Moreover, discontinuous measurement function is also available for the special workpieces.

### Functions





















Straightness, roundness, position degree, parallelism, perpendicularity, profile tolerance, etc. .....

The measurement process can be customized according to the characteristics of the workpiece (Set the probe to jump deep holes, steep slopes or obstacles).

The one-key measurement program can be built for batch measurement. If the tolerance is also entered to the program, the measurement result will be automatically judged as OK or NG.

Coordinate system could be established by point-line or line-line, and it could be translated and rotated.

Ball screw shaft measurement (corrected helix angle), thread measurement, step height, groove depth, groove width, area,

Export report in .doc, .xls or .pdf, and support user-defined report template.

After import CAD drawing to the software, the user can compare the difference between drawing and scanning contour.

Ra, Rp, Rv, Rz, Rt, Rmax, Rq, Rsk, Rku, RSm, RPc, Rdq, Rdc, Rmr, Pa, Pq, Pt, Pp, Pv, Psm, Psk, Pku, Pdq, Plq, Pdc, PHSC, Ppc, PMr, Waviness of Profile, Motif,









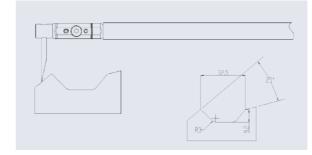


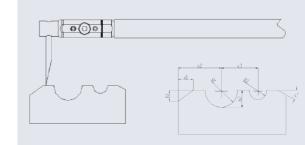






## Profile Example







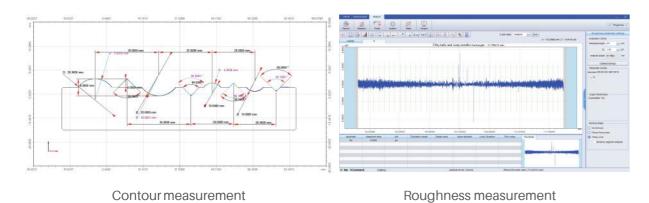


## Software



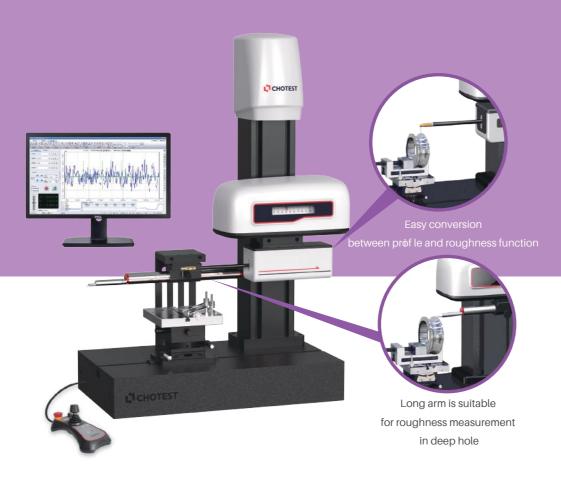
Profilometers

## Measurement Interface

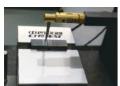


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Model No.			SJ5760-PR
Travel	X		0~200mm
Range	Z		0~450mm
Size(L×W×H)			800×450×1100mm
	We	eight	220Kg
Contour	Measu	urement(SJ5760-P)	
Measuring	Z1		±25mm
Range		Resolution	0.001μm
		Х	±(0.6+0.015L)μm(L, mm)
La dia atta		Z1	±(0.6+0.05H)µm(H, mm)
Indication Error	S	Standard Ball	≤±(1+R/15)µm(R, mm)
		Angle error	≤±1'
Moving		Х	0~20mm/s
speed		Z	0~20mm/s
	Scannii	ng Speed	0.05~5mm/s
	Max	Slope	Uphill 77°, downhill 88°
	Straig	ghtness	≤1µm/200mm
	Scanni	ng Force	10~150mN(Adjustable)
Roughness Measurement(SJ5760-R)		rement(SJ5760-R)	
		ZO	±400μm(Optional:±1000μm)
Measuring	Sensor Type		Railless
Range	Ra Range		Ra0.1μm~Ra64μm
S	Scanning Force		1mN
Resolution			0.001um
	Indication Error		≤±(5nm+2.5%A)μm, A(Ra)μm
		atablity	≤1nm
Scanning Speed			0.05~0.5mm/s
Measurement Residual			≤0.005µm
Roughness Parameters			R roughness: Rp, Rv, Rz, Rc, Rt, Ra, Rq, Rsk, Rku, RSm, RPc, Rdq, Rdc, Rmr, Rmax, Rpm, tp, Htp, Pc, Rda, Ry, Sm, S, Rpq, Rvq, Rmq, RzJ, Rv1max, Rp1max, Rz1max, Rmr(Rz/4), maxRa, R5z, R3z, Rh, Dq, Lq, SD
			Key roughness: Rcore: Rk, Rpk, Rvk, Mr1, Mr2, A1, A2 Profile: Pa, Pq, Pt, Pz, Pp, Pv, PSm, Psk, Pku, Pdq, Pdc, Pc, PPc, Pvq, Pmr, Pmq, Rad, PzJ, Pmax, StpHt, TIR, Avg, Slope, Area+, Area-, Area, Profl, Edge, StpWd, Bumpht
			Waviness of profile: Wa, Wq, Wt, Wz, Wp, Wv, WSm, Wsk, Wku, Wdq, Wdc, Wmr, Wpc, Wc, Wh, Wmr(WZ/4)  Motif: R, AR, W, AW, Rx, Wx, Wte, Nr, Ncrx, Nw, Cpm, CR, CF, CL
			ISO5436: Pt5436, D
Filter			2RC filtering, Gaussian filtering and Zero phase filtering
Sampling Length			0.008, 0.08, 0.25, 0.8, 2.5, 8.0 or 25mm selectable
E	Evaluation Length		Auto calculation
	Film Thickness Measuring Range Measurement		60μm or less

# SJ5718 Series **Economic Profilometers**



## Application

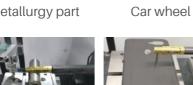


Mechanical part

Thread part



Battery housing





Phone housing Machining part



Die casting part



Gearbox pulley

Bearing

Model No			CIE740 DD
Model No.			SJ5718-PR
Travel Range		X	0~100mm
nange	Σ		0~300mm
Size(L×W×H)			600×350×890mm
	We	eight	115Kg
Contour	Mea	surement(SJ5718-P)	
Measuring		Z1	±30mm
Range		Resolution	0.001um
		X	±(0.6+0.02L)μm(L,mm)
Indication	Z1		±(0.6+0.05H)µm(H,mm)
Error		Standard Ball	$\leq \pm (1.2+R/15)\mu m(R,mm)$
		Angle error	≤±1'
Moving		Χ	0~20mm/s
speed		Z	0~20mm/s
Sca	nnin	g Speed	0.05~5mm/s
	Max S	Slope	Uphill 77°, downhill 88°
	Straig	htness	≤0.5µm/100mm
Sc	canni	ng Force	30mN
Roughness	Mea	surement(SJ5718-R)	
		Z0	±400μm(Optional:±1000μm)
Measuring Range		Sensor Type	Railless
nange .		Ra Range	Ra0.1μm~Ra64μm
Sc	canni	ng Force	1mN
Resolution			0.001um
Indication Error		ion Error	≤±(5nm+2.5%A)µm, A(Ra)µm
Repeatablity		atablity	≤1nm
Scanning Speed		ng Speed	0.05~0.5mm/s
Meas	urem	ent Residual	≤0.005µm
			R roughness: Rp, Rv, Rz, Rc, Rt, Ra, Rq, Rsk, Rku, RSm, RPc, Rdq, Rdc, Rmr, Rmax, Rpm, tp, Htp, Pc, Rda, Ry, Sm, S, Rpq, Rvq, Rmq, RzJ, Rv1max, Rp1max, Rz1max, Rmr(Rz/4), maxRa, R5z, R3z, Rh, Dq, Lq, SD
Roughness Parameters			Key roughness: Rcore: Rk, Rpk, Rvk, Mr1, Mr2, A1, A2 Profile: Pa, Pq, Pt, Pz, Pp, Pv, PSm, Psk, Pku, Pdq, Pdc, Pc, PPc, Pvq, Pmr, Pmq, Rad, PzJ, Pmax, StpHt, TIR, Avg, Slope, Area+, Area-, Area, Profl, Edge, StpWd, Bumpht
			Waviness of profile: Wa, Wq, Wt, Wz, Wp, Wv, WSm, Wsk, Wku, Wdq, Wdc, Wmr, Wpc, Wc, Wh, Wmr(WZ/4)
			Motif: R, AR, W, AW, Rx, Wx, Wte, Nr, Ncrx, Nw, Cpm, CR, CF, CL ISO5436: Pt5436, D
Filter			2RC filtering, Gaussian filtering and Zero phase filtering
Sampling Length			0.008, 0.08, 0.25, 0.8, 2.5, 8.0 or 25mm Selectable
Evaluation Length		ion Length	Auto calculation
Film Thickness Measureme	ness Measuring Range		60µm or less