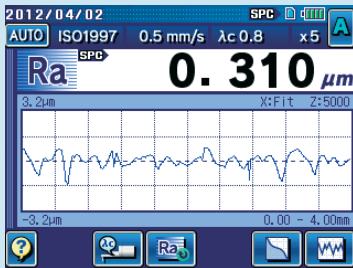


## Advanced handheld tester that is easy to operate and meets a variety of needs

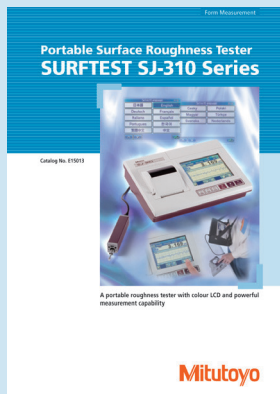
- Equipped with a large, touch-screen color graphic LCD to achieve intuitive operation and excellent ease of use.
- Features new measurement assistance and analysis functions to improve ease of operation while maintaining the operability of previous models.
- The detector can be oriented to any position according to the workpiece: a horizontal, inclined, overhead or perpendicular surface can be tested. Many optional accessories are available to support this feature. (Common between SJ-310/210)
- The optional memory card can save a large amount of measurement data. In addition, Trace 10 is a convenient function to save 10 sets of recent measurement data.
- The statistical processing and GO/NG judgment functions facilitates data management.
- High-speed thermal printer (whose printing speed is approx. 1.5 times that of conventional models) is provided as standard. Printing of measurement results (including judgment results) and assessed profiles are available as well as BAC and ADC profiles. Allows landscape mode printing to match the display on the LCD.



Profile display: One parameter measurement result and the measured profile

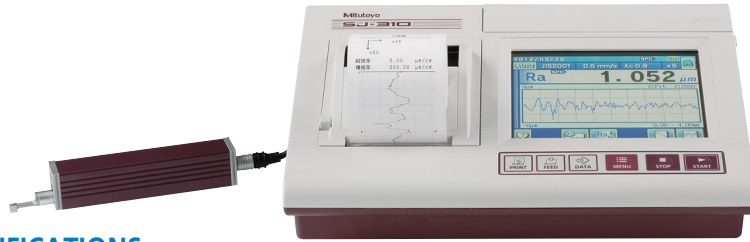
### Optional Accessories for SJ-310 Consumables

- Printer paper: Standard type (x5 packs): **No.270732**
- Printer paper: High-durability type (x5 packs): **No.12AAA876**
- Protective sheet for the touch panel (x10 sheets): **No.12AAN040**
- Memory card (4GB): **No.12AAL069**



Refer to the SurfTest SJ-310 series (Catalog No.E15013) for more details.

## SurfTest SJ-310 SERIES 178 — On-site Surface Roughness Tester



### SPECIFICATIONS

Model No.	Standard drive unit		Retractable drive unit		Transverse tracing drive unit		
	SJ-310 (0.75mN type)	SJ-310 (4mN type)	SJ-310 (0.75mN type)	SJ-310 (4mN type)	SJ-310 (0.75mN type)	SJ-310 (4mN type)	
Code No.	mm	mm	mm	mm	mm	mm	
	inch/mm	inch/mm	inch/mm	inch/mm	inch/mm	inch/mm	
Measuring range	X axis	16.0 mm				5.6 mm	
	Detector Range/Resolution	360 μm (-200 μm to +160 μm)					
Measuring speed	When measuring: 0.25mm/s, 0.5mm/s, 0.75mm/s					When returning: 1mm/s	
Measuring force/Stylus tip shape	Depends on the Code No.: 0.75mN/60° 2μmR (when the Code No. ends with "-01") 4mN/90°, 5μmR (when the Code No. ends with "-02")						
Skid force	400mN or less						
Applicable standards	JIS1982/ JIS1994/ JIS2001/ ISO1997/ ANSI/ VDA						
Assessed profile	Primary profile, Roughness profile, DF profile, Roughness motif profile, Waviness motif profile						
Parameter	Ra, Rc, Ry, Rz, Rq, Rt, Rmax*1, Rp, Rv, R3z, Rsk, Rku, Rc, RPl, Rsm, Rz1max*2, S, HSC, RzJIS*3, Rppi, RDa, RAq, Rlr, Rmr, Rm(c), Rōc, Rk, Rpk, Rvk, Mr1, Mr2, A1, A2, Vo, λa, λq, Lo, Rpm, tp*4, Htp*4, R, Rx, AR, W, AW, Wx, Wte, Possible Customize						
Analysis graph	BAC and ADC curves						
Filter	Gaussian, 2CR75, PC75						
Cutoff value	λc	0.08, 0.25, 0.8, 2.5, 8mm					
	λs*5	2.5, 8 μm					
Sampling length	0.08, 0.25, 0.8, 2.5, 8mm						
No. of sampling lengths	×1, ×2, ×3, ×4, ×5, ×6, ×7, ×8, ×9, ×10, arbitrary length (0.3 to 16.0mm: 0.01mm interval)				×1, ×2, ×3, ×4, ×5, ×6, ×7, ×8, ×9, ×10, arbitrary length (0.3 to 5.6mm: 0.01mm interval)		
Dimensions of LCD display area	117.8 × 88.2 mm						
Display language	Supports 16 languages (Japanese, English, German, French, Italian, Spanish, Portuguese, Dutch, Polish, Hungarian, Swedish, Czech, Simplified Chinese, Traditional Chinese, Korean, Turkish)						
Calculation result display	1 row: Displays the calculation result of a parameter. 4 rows: Displays the calculation results of 4 parameters in 4 rows. Waveform: Displays the calculation result and assessed profile of a parameter in 2 rows. Trace: Displays the calculation results of the same parameter of the past 10 times.						
Print functions *1	Measurement condition / Calculation result / Judgment result / Calculation result per segment / Tolerance value / Assessed profile / Graphic curve / Material ratio curve / Profile height amplitude distribution curve / Environmental setting items						
External I/O functions	USB I/F, Digimatic output, RS-232C I/F, foot switch I/F						
Customization	Desired parameters can be selected for calculation and display.						
GO/NG judgment function*6	Maximum value rule, 16% rule, mean value rule, standard deviation (1σ, 2σ, 3σ)						
Storing measurement condition	When the power is turned off						
Storage	Built-in memory: Measurement condition (Up to 10) Memory card (optional): 500 measurement conditions, 10000 measured profiles, 500 display images, 10000 text files, 500 statistical data, 1 backup file of device setting data, 10 data of Trace 10						
Calibration	Auto-calibration with the entry of numerical value / Average calibration with multiple measurement (Max. 12 times) is available.						
Power saving function	Auto sleep (settable in the range of 30 to 600 sec.) *7						
Power supply	Built-in battery (rechargeable Ni-MH battery) / AC adapter Charging time of the built-in battery: about 4 hours (may vary due to ambient temperature) Endurance: about 1500 measurements (differs slightly due to use conditions/environment)						
External dimensions (W×D×H)	Calculation display unit	275 × 109 × 198mm					
Mass	Drive unit	115 × 23 × 26.7 mm (excluding the detector)					
Standard Accessories	Approx. 1.8 kg (Calculation display unit, Drive unit, Standard detector)						
		12AAM475 Connecting cable *8 178-601 Roughness specimen (Ra3μm) 357651 AC Adapter 12AAA217 Nosepiece for flat surfaces 12AAA218 Nosepiece for cylindrical surfaces 12AAA216 Support feet set 12BAK700 Calibration stage 12BAG834 Touch pen 12BAL402 Protective sheet 270732 Printer paper (5 packs) 12BAL400 Carrying case Phillips screwdriver, Strap for the touch pen, Operation manual, One-sheet manual, Warranty card	12AAM475 Connecting cable *8 178-605 Roughness specimen (Ra1μm) 357651 AC Adapter 12AAE643 Point-contact adapter 12AAE644 V-type adapter 12BAK700 Calibration stage 12BAG834 Touch pen 12BAL402 Protective sheet 270732 Printer paper (5 packs) 12BAL400 Carrying case Phillips screwdriver, Strap for the touch pen, Operation manual, One-sheet manual, Warranty card				

\*1: Calculation is available only when selecting the VDA, ANSI, or JIS 1982 standard.

\*2: Calculation is available only when selecting the ISO 1997 standard.

\*3: Calculation is available only when selecting the JIS 2001 standard.

\*4: Calculation is available only when selecting the ANSI standard.

\*5: Not available when selecting the JIS 1982 standard.

\*6: Only the mean value rule is available for the ANSI standard. 16% rule is not available when selecting the VDA standard.

\*7: Not available when using the AC adapter. Auto sleep can be set to OFF.

\*8: For the connection between the calculation display unit and drive unit

To denote your AC line voltage add the following suffixes (e.g. 178-570-01A).

A for 120V, C for 100V, D for 230V, E for 230V (for UK), DC for 220V (for China), K for 220V (for Korea)