

Surftest

Performs brilliantly in many situations such as in the quality control room, on the factory floor and on the production line.

Surftest SJ-210 SERIES 178 — On-site Surface Roughness Tester

MeasurLink ENABLED
Data Management Software by Mitutoyo



SPECIFICATIONS

Model No.	Standard drive unit		Retractable drive unit		Transverse tracing drive unit		
	SJ-210 (0.75 mN type)	SJ-210 (4 mN type)	SJ-210 (0.75 mN type)	SJ-210 (4 mN type)	SJ-210 (0.75 mN type)	SJ-210 (4 mN type)	
Order No.	mm 178-560-11	mm 178-560-12	mm 178-562-11	mm 178-562-12	mm 178-564-11	mm 178-564-12	
	inch/mm 178-561-11	inch/mm 178-561-12	inch/mm 178-563-11	inch/mm 178-563-12	inch/mm 178-565-11	inch/mm 178-565-12	
Measuring range	X axis	16.0 mm				5.6 mm	
Detector	Range	360 μm (-200 μm to +160 μm)					
	Range/Resolution	360 μm/0.02 μm, 100 μm/0.006 μm, 25 μm/0.002 μm					
Measuring force/Stylus tip shape	Depends on the Order No.: 0.75 mN/2 μmR 60° (when the Order No. ends with "-11") 4 mN/5 μmR 90° (when the Order No. ends with "-12")						
Applicable standards	JIS 1982/JIS 1994/JIS 2001/ISO 1997/ANSI/VDA						
Assessed profile	Primary profile, Roughness profile, DF profile, Roughness motif profile						

Surftest SJ-310 SERIES 178 — On-site Surface Roughness Tester

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SPECIFICATIONS

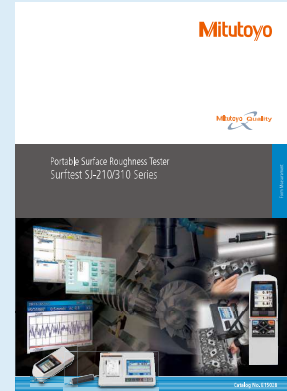
Model No.	Standard drive unit		Retractable drive unit		Transverse tracing drive unit		
	SJ-310 (0.75 mN type)	SJ-310 (4 mN type)	SJ-310 (0.75 mN type)	SJ-310 (4 mN type)	SJ-310 (0.75 mN type)	SJ-310 (4 mN type)	
Order No.	mm 178-570-11	mm 178-570-12	mm 178-572-11	mm 178-572-12	mm 178-574-11	mm 178-574-12	
	inch/mm 178-571-11	inch/mm 178-571-12	inch/mm 178-573-11	inch/mm 178-573-12	inch/mm 178-575-11	inch/mm 178-575-12	
Measuring range	X axis	16.0 mm				5.6 mm	
Detector	Range	360 μm (-200 μm to +160 μm)					
	Range/Resolution	360 μm/0.02 μm, 100 μm/0.006 μm, 25 μm/0.002 μm					
Measuring force/Stylus tip shape	Depends on the Order No.: 0.75 mN/2 μmR 60° (when the Order No. ends with "-11") 4 mN/5 μmR 90° (when the Order No. ends with "-12")						
Applicable standards	JIS 1982/JIS 1994/JIS 2001/ISO 1997/ANSI/VDA						
Assessed profile	Primary profile, Roughness profile, DF profile, Roughness motif profile, Waviness motif profile						

MeasurLink ENABLED
Data Management Software by Mitutoyo

Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

Compact type all-in-one surface roughness tester has evolved by meeting customer demands

- The color LCD can display not only calculation results and measurement conditions, but also surface roughness waveforms. In addition, bigger character size contributes to visibility.
- Built-in rechargeable battery allows measurement without a mains power supply connection.



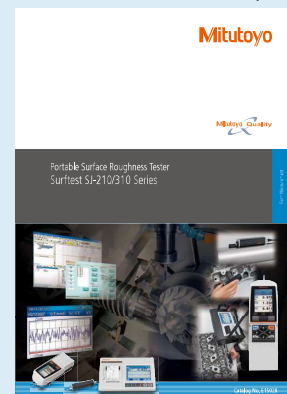
Refer to the Surftest SJ-210/310 Series Brochure (E15028) for more details.

MeasurLink ENABLED
Data Management Software by Mitutoyo

Products equipped with the measurement data output function can be connected to the measurement data network system MeasurLink (refer to page A-5 for details).

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

- Equipped with a large, touch-screen color graphic LCD for intuitive operation and excellent ease of use.
- Equipped with a high-speed thermal printer (approx. 1.5 times faster than conventional models) as standard, allows for printing of BAC and ADC curves in addition to calculation results (including pass/fail judgments) and assessment profiles. The printer can also print horizontally to match the content displayed on the LCD, and has an easy-to-understand layout.



Refer to the Surftest SJ-210/310 Series Brochure (E15028) for more details.

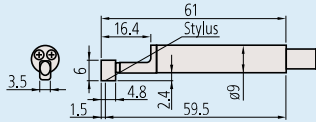
Optional Accessories for Surftest SJ-210/310

Unit: mm

• Standard detectors

Order No.	Measuring force	Stylus profiles*	Remarks
178-296	0.75 mN	2 $\mu\text{mR}/60^\circ$	Dedicated to the standard/retractable drive unit
178-390	4 mN	5 $\mu\text{mR}/90^\circ$	Dedicated to the standard/retractable drive unit
178-387	0.75 mN	2 $\mu\text{mR}/60^\circ$	Dedicated to the transverse tracing drive unit
178-386	4 mN	5 $\mu\text{mR}/90^\circ$	Dedicated to the transverse tracing drive unit
178-391	4 mN	10 $\mu\text{mR}/90^\circ$	Dedicated to the standard/retractable drive unit

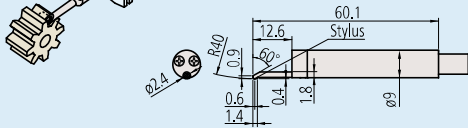
*Tip radius/Tip angles



• Gear-tooth surface detectors

Order No.	Measuring force	Stylus profiles*
178-388	0.75 mN	2 $\mu\text{mR}/60^\circ$
178-398	4 mN	5 $\mu\text{mR}/60^\circ$

*Tip radius/Tip angles

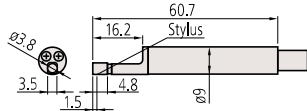


Detector

• Small hole detectors

Order No.	Measuring force	Stylus profiles*	Remarks
178-383	0.75 mN	2 $\mu\text{mR}/60^\circ$	Minimum measurable hole diameter: $\phi 4.5\text{mm}$
178-392	4 mN	5 $\mu\text{mR}/90^\circ$	

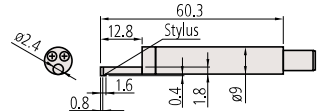
*Tip radius/Tip angles



• Extra small hole detectors

Order No.	Measuring force	Stylus profiles*	Remarks
178-384	0.75 mN	2 $\mu\text{mR}/60^\circ$	Minimum measurable hole diameter: $\phi 2.8\text{mm}$
178-393	4 mN	5 $\mu\text{mR}/90^\circ$	

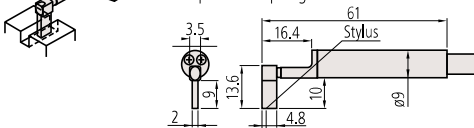
*Tip radius/Tip angles



• Deep groove detectors

Order No.	Measuring force	Stylus profiles*	Remarks
178-385	0.75 mN	2 $\mu\text{mR}/60^\circ$	Not available for the transverse tracing drive unit
178-394	4 mN	5 $\mu\text{mR}/90^\circ$	

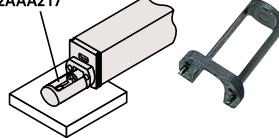
*Tip radius/Tip angles



Optional Accessories for Drive Units

• Nosepiece for flat surfaces

Nosepiece for flat surfaces
12AAA217

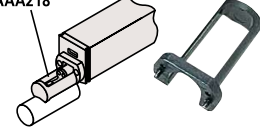


12AAA217

- Standard accessory for the standard/retractable drive unit of the SJ-310 Series
- Not available for the transverse tracing drive unit

• Nosepiece for cylindrical surfaces

Nosepiece for cylindrical surfaces
12AAA218



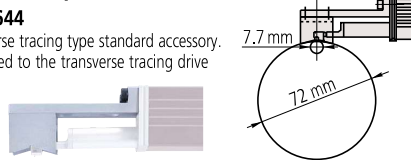
12AAA218

- Standard accessory for the standard/retractable drive unit of the SJ-310 Series
- Not available for the transverse tracing drive unit

• V-type adapter

12AAE644

- Transverse tracing type standard accessory.
- Dedicated to the transverse tracing drive unit.



• Point-contact adapter

12AAE643

- Transverse tracing type standard accessory.
- Dedicated to the transverse tracing drive unit.

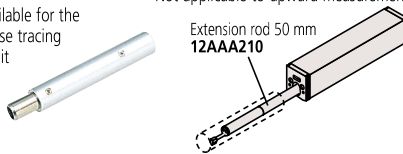


• Extension rod (50 mm) (Note: Only one rod can be used.)

12AAA210

- Not available for the transverse tracing drive unit

- Not applicable to upward measurement.



• Extension cable (1 m) (Note: Only one rod can be used.)

12BAA303

- For the connection between the calculation display unit and drive unit

• Support feet set

Support feet set
12AAA216

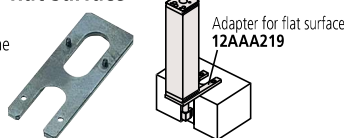
- Standard accessory for the standard/retractable drive unit of the SJ-310 Series
- Not available for the transverse tracing drive unit
- Adjustment range is 28 mm from bottom face.



• Adapter for flat surface

12AAA219

- Not available for the transverse tracing drive unit



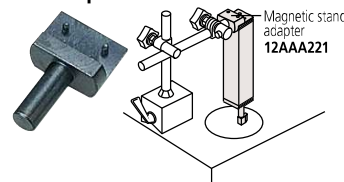
• Magnetic stand adapter

12AAA221

- Mounting spigot diameter is 8 mm.

12AAA220

- Mounting spigot diameter is 9.5 mm.



• Height gage adapter

Note: Suitable for a height gage holder designed for 9x9 mm section scribers.

12AAA222

