



# SURFCOM TOUCH 550

**High-end model in the SURFCOM TOUCH series with an electric column offering high accuracy and size variation**

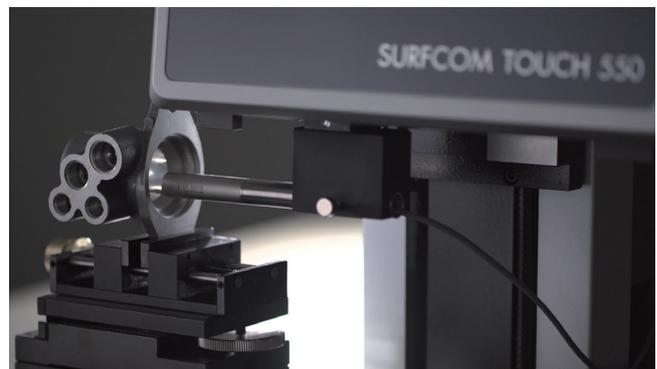


Equipped with a high performing pickup having high resolution and wide range.

It offers high flexibility where granite base size, column height, and X-axis drive range can be selected depending on needs.

## Extended Z-axis measurement range from 800 to 1,000 $\mu\text{m}$ (25% increase)

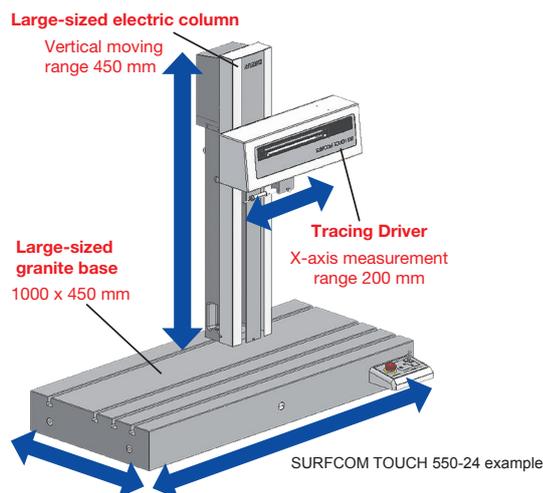
The high performing pickup with a measurement range of 1,000  $\mu\text{m}$  and a z-axis minimum resolution of 0,0001  $\mu\text{m}$  allows for wide-range and high resolution skidless measurement. No need to consider measurement range. In addition to flat surface, the roughness or waviness on undulating surface such as stepped or round surface can be evaluated with one trace. Leveling and zeroing before measurement can also be performed easily.



## Size variations for various types of workpieces

SURFCOM TOUCH 550 allows users to select a combination of the size of the granite base, the height and type of the column and the drive range in the X axis direction.

This meets diverse customer needs such as "we want to reduce the installation space", "we want to reduce initial costs", "we want to measure high workpieces" and "we want to measure large flat workpieces".



## Drive axes operable from amplifier

Drive axes of SURFCOM TOUCH 550 can be operated not only with the joystick attached to the instrument but also from the amplifier screen.

All operations can be easily carried out from the amplifier.



# SURFCOM TOUCH 550 Specifications

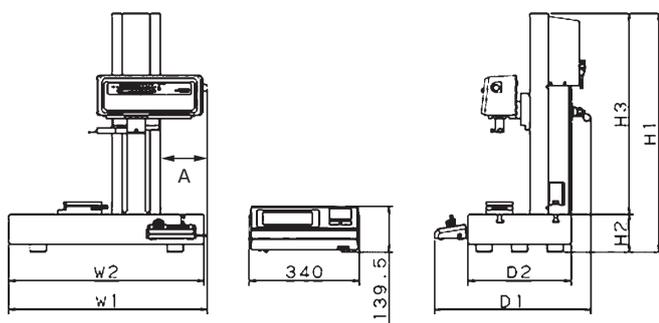
Model		SURFCOM TOUCH										
		550										
		-11	-12	-13	-14	-21	-22	-23	-24			
Measurement range	Z direction	±500 μm										
	X direction	100 mm				200 mm						
Tracing Driver	Drive distance	100 mm				200 mm						
	Straightness accuracy	(0.05 + 1.5L/1000) μm (L: measurement length (mm))										
	Speed	Measurement Speed	0.03, 0.06, 0.15, 0.3, 0.6, 1.5, 3, 6 / 0.05, 0.1, 0.2, 0.5, 1, 2, 5 mm/s (switching)									
	Moving speed	to 3 mm/s (when operating the amplification indication section), to 6 mm/s (when using the joystick)										
Pickup	Sensing type	Differential inductance										
	Measurement Method	Skidless/Skid (optional)										
	Z direction resolution	0.0001 μm/±40 μm, 0.00125 μm/±500 μm										
	Stylus (standard accessory)	Model	DM43801									
		Measurement force	0.75 mN									
		Radius	r <sub>tip</sub> = 2 μm									
Angle		60° cone										
Material		Diamond										
Measurement stand	Column	Drive distance	250 mm		450 mm		250 mm		450 mm			
		Moving speed	– (Manual)	to 3 mm/s (when operating the amplification indication section), to 10 mm/s (when using the joystick)				– (Manual)	to 3 mm/s (when operating the amplification indication section), to 10 mm/s (when using the joystick)			
	Base	Size	600 mm x 317 mm				1000 mm x 450 mm		600 mm x 317 mm		1000 mm x 450 mm	
		Material	Granite									
		Maximum allowable load weight*1	Approx. 48 kg	Approx. 42 kg	Approx. 33 kg	Approx. 48 kg	Approx. 43 kg	Approx. 37 kg	Approx. 28 kg	Approx. 43 kg		
Analysis item	Calculation Standards		Comply with JIS2013/2001, JIS1994, JIS1982, ISO1997/2009, ISO13565, DIN1990, ASME2002/2009, ASME1995, CNOMO									
	Parameter	Profile Curve	Pa, Pq, Pp, Pv, Pc, PSm, PΔq, PPc, Psk, Pku, Pt, Pmr(c), Pmr, Pδc, Rz82, TILTA, AVH, Hmax, Hmin, AREA, Rmax, Rz, Sm, Δa, Δq, Δa, Δq, Lr, Rsk, Rku, Rk, Rpk, Rvk, Mr1, Mr2, Vo, K, tp, tp2, Hp									
		Roughness Curve	Ra, Rq, Rz, Rv, Rc, Rt, RSm, RΔq, Rsk, Rku, Rmr(c), Rmr, Rδc, Rz94, Rz3, RΔa, RΔa, RΔq, Ry, Lr, Sm, S, tp, tp2, PC, RPc JIS, RPc ISO, RPc EN, Pc, PPI, Rp, Rmax, Rz.1, RS, Rmr2, Mr1, Mr2, Rpk, Rvk, Rk, Vo, K, A.1, A2, Rpm, Δa, Δq, Htp									
		Waviness Profile Curve	Wa, Wq, Wt, Wp, Wx, WSm, WPC, Wsk, Wmr(c), Wmr, Wδc, Wz, Wc, Wku, WΔq, WEM, WEA, WE-a, WE-q, WE-p, WE-v, WE-Sm, WEC-q, WEC-m, WEC-p, WEC-v, WEC-Sm									
		Motif	R, Rx, AR, W, Wx, AW, Rke, Rpk, Rvke, NCRX, NR, CPM, SR, SAR, Wte, NW, SAW, SW, Mr1e, Mr2e, Vo, K									
	Evaluation curve	Profile Curve, Roughness Curve, Filtered Waviness Curve, Waviness Profile Curve, ISO13565 Special Roughness Curve, Roughness motif curve, Waviness motif curve, Upper envelope waviness curve, Rolling Circle Waviness Curve										
Characteristics graph	Abbot curve, Amplitude density function, Power graph											
Filter	Filter type		Gaussian, 2RC (phase compensation), 2RC (non-phase compensation)									
	Cutoff value	Ac	0.08, 0.25, 0.8, 2.5, 8, 25 mm									
		As	None, 2.5, 8, 25 μm									
Amplification indicator	Display	7-inch color liquid crystal touch panel										
	Data output	USB connector for USB memory x 1, Micro USB connector for USB communication x 1										
	Print output	Standard function/Thermal recording paper width: 58 mm (recording width: 48 mm)										
	Language	Japanese, English, Chinese (Traditional Chinese/Simplified Chinese), Korean, Thai, Malay, Vietnamese, Indonesian, German, French, Italian, Czech, Polish, Hungarian, Turkish, Swedish, Dutch, Spanish, Portuguese										
Specifications	Power Supply	Power Supply	AC100 to 240 V ±10%, 50/60 Hz, single phase, D-type grounding									
		Power consumption	Maximum 110 VA									
	External dimensions (W x D x H)/Weight	Measurement unit: See the external view below. Amplification indicator: 340 x 214.5 x 139.5 mm/about 4.1 kg										
Standard accessories		Roughness specimen (For Japan: E-MC-S109A, For outside Japan: E-MC-S24D), leveling adjustment table (E-AT-S02A), touch pen (E-MA-S112A), printing paper (E-CH-S25A), instruction manuals, SupportWare II										

\*1 This maximum allowable load weight is for the case when using the optional antivibration table (E-VS-S57B for -11, -12, -13, -21, -22, -23 system, and E-VS-R16D for -14, -24 system)

## SURFCOM TOUCH 550 External view

Model	Dimension of the main body (mm)				Measurement range(mm)		Base (mm)			Weight (kg)			
	Maximum Width	Depth	Height	Column height	X axis (Tracing Driver)	C axis (Column)	Width	Depth	Base height	Column set position	Weight of main body	Maximum load weight*	
	W1	D1	H1	H3	–	–	W2	D2	H2	A	–	–	
SURFCOM TOUCH 550	-11	610	481	667	552	100	600	317	115	(140)	89	48	
	-12	610	481	738	623	100	600	317	115	(140)	95	42	
	-13	610	481	938	823	100	600	317	115	(140)	104	33	
	-14	1000	586	963	823	100	450	1000	450	140	(240)	209	48
	-21	670	481	667	552	200	250	600	317	115	(140)	94	43
	-22	670	481	738	623	200	250	600	317	115	(140)	100	37
	-23	670	481	938	823	200	450	600	317	115	(140)	109	28
-24	1000	586	963	823	200	450	1000	450	140	(240)	214	43	

\* This maximum load weight is for the case when using the optional antivibration table (E-VS-S57B for -11/12/13/21/22/23 system, and E-VS-R16D for -14/24 system)



◀ WIDE SIZE VARIATION ▶



# SURFCOM TOUCH 50

**High-level compact-type model in the SURFCOM TOUCH series with high resolution and straightness**



## Extended Z-axis measurement range from 800 to 1,000 $\mu\text{m}$ (25% increase)



The high performing pickup with a measurement range of 1,000  $\mu\text{m}$  and a Z-axis minimum resolution of 0,0001  $\mu\text{m}$  allows for wide-range and high resolution skidless measurement. No need to consider measurement range. In addition to flat surface, the roughness or waviness on undulating surface such as stepped or round surface can be evaluated with one trace. Leveling and zeroing before measurement can also be performed easily.



## A compact high performing tracing driver

The portable compact size tracing driver for easy installation has an X-axis measurement range of 50 mm, a straightness accuracy of 0.3  $\mu\text{m}/50\text{ mm}$ , and a detector vertical movement volume of 50 mm.

Safe positioning at a constant speed is possible by operating the tracing driver in the X direction from the screen of the amplifier.



## A handy-type driver can be attached

SURFCOM TOUCH 50 can be connected with a handy-type tracing driver\*.

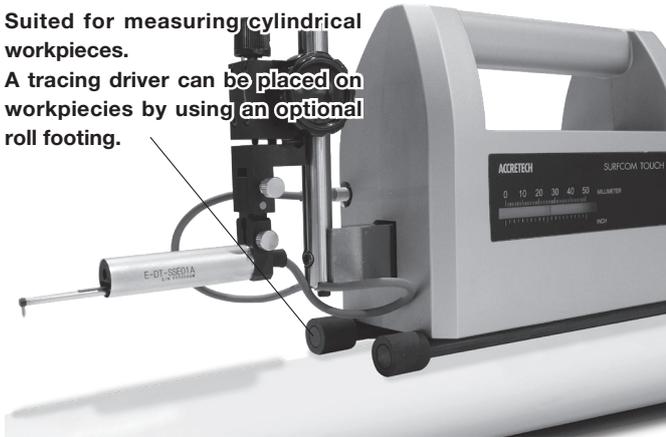
Measurement on vertical or ceiling surface and in narrow areas can be performed.

\*Tracing driver attached to SURFCOM TOUCH 35/40/45, HANDYSURF E-35B/40A/45A, and SURFCOM FLEX-35B/40A/45A. An optional dedicated cable is required for connection.



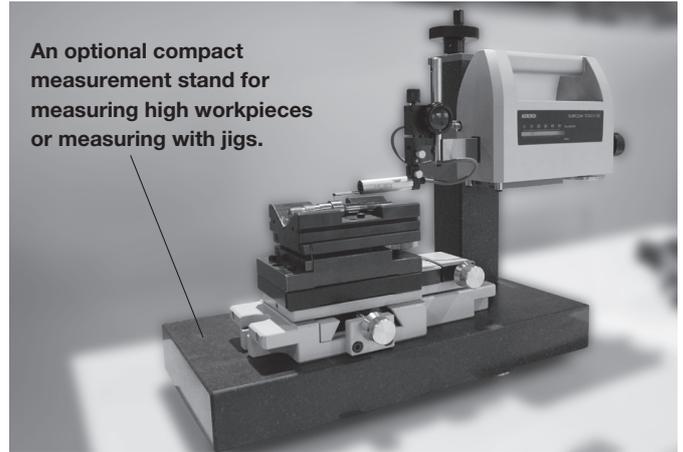
Usage example of roll footing

Suited for measuring cylindrical workpieces. A tracing driver can be placed on workpieces by using an optional roll footing.



Usage example of compact measurement stand

An optional compact measurement stand for measuring high workpieces or measuring with jigs.



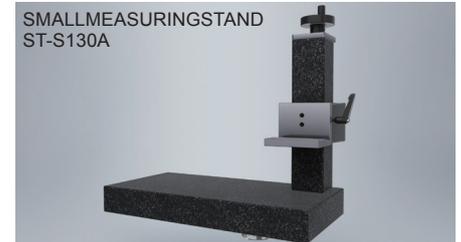
Roll footing (Option)



Roll footing (Option)



Compact measurement stand (Option)



SURFCOM TOUCH 50 Specifications

Model		SURFCOM TOUCH	
		50	
Measurement range	Z direction	±500 μm	
	X direction	50 mm	
Tracing Driver	Evaluation Length	0.1 to 50 mm	
	Straightness accuracy	0.3 μm/50 mm	
	Detector vertical movement volume	50 mm	
	Measurement Speed	0.15, 0.3, 0.6, 1.5, 3 / 0.05, 0.1, 0.2, 0.5, 1 mm/s (Switching)	
Pickup	Sensing type	Differential inductance	
	Measurement Method	Skidless/Skid (optional)	
	Z direction resolution	0.0001 μm/±40 μm, 0.00125 μm/±500 μm	
	Stylus (standard accessory)	Model	DM43801
Measurement force		0.75 mN	
Radius		r <sub>tip</sub> = 2 μm	
Angle		60° cone	
	Material	Diamond	
Analysis item	Calculation Standards		Comply with JIS2013/2001, JIS1994, JIS1982, ISO1997/2009, ISO13565, DIN1990, ASME2002/2009, ASME1995, CNOMO
	Parameter	Profile Curve	Pa, Pq, Pp, Pv, Pc, PSm, PΔq, PPc, Psk, Pku, Pt, Pmr(c), Pmr, Pδc, Rzδ2, TILTA, AVH, Hmax, Hmin, AREA, Rmax, Rz, Sm, Δa, Δq, λa, λq, Lr, Rsk, Rku, Rk, Rpk, Rvk, Mr1, Mr2, Vo, K, tp, tp2, Hp
		Roughness Curve	Ra, Rq, Rz, Rv, Rc, Rt, RSm, RΔq, Rsk, Rku, Rmr(c), Rmr, Rδc, Rz94, Rz3z, RΔa, Rλa, Rλq, Ry, Lr, Sm, S, tp, tp2, PC, RPc, JIS, RPc ISO, RPc EN, Pc, PPI, Rp, Rmax, Rz.l, RS, Rmr2, Mr1, Mr2, Rpk, Rvk, Rk, Vo, K, A1, A2, Rpm, Δa, Δq, Htp
		Waviness Profile Curve	Wa, Wq, Wt, Wp, Wv, WSm, WPC, Wsk, Wmr(c), Wmr, Wδc, Wz, Wc, Wku, WΔq, WEM, WEA, WE-a, WE-q, WE-p, WE-v, WE-Sm, WEC-q, WEC-m, WEC-p, WEC-v, WEC-Sm
	Motif	R, Rx, AR, W, Wx, AW, Rke, Rpke, Rvke, NCRX, NR, CPM, SR, SAR, Wte, NW, SAW, SW, Mr1e, Mr2e, Vo, K	
Evaluation Curve		Profile Curve, Roughness Curve, Filtered Waviness Curve, Waviness Profile Curve, ISO13565 Special Roughness Curve, Roughness motif curve, Waviness motif curve, Upper envelope waviness curve, Rolling Circle Waviness Curve	
Characteristics graph		Abbot curve, Amplitude density function, Power graph	
Filter	Filter type		Gaussian, 2RC (phase compensation), 2RC (non-phase compensation)
	Cutoff value	Ac	0.08, 0.25, 0.8, 2.5, 8, 25 mm
As		None, 2.5, 8, 25 μm	
Amplification indicator	Display		7-inch color liquid crystal touch panel
	Data output		USB connectors for USB memory x 2 (model without printer) x 1 (model with printer), Micro USB connector for USB communication x 1
	Print output		Standard function for models with printer and optional for models without printer (external printer unit)/Thermal recording paper width: 58 mm (recording width: 48 mm)
	Language		Japanese, English, Chinese (Traditional Chinese/Simplified Chinese), Korean, Thai, Malay, Vietnamese, Indonesian, German, French, Italian, Czech, Polish, Hungarian, Turkish, Swedish, Dutch, Spanish, Portuguese
Specifications	Power Supply	Charging	Built-in battery (to be charged using AC adaptor), charging period: 3 hours (about 600 measurements can be take when fully charged)
		Power Supply	AC100 to 240 V ±10%, 50/60 Hz, Single phase
		Power consumption	Maximum 80 VA
	External dimensions (W x D x H)/Weight	Printer-Equipped Model	Amplification indicator: 320 x 167 x 44 mm/about 4.2 kg for the entire system
Models without printer		Amplification indicator: 252 x 167 x 44 mm/about 3.8 kg for the entire system	
Standard accessories		Roughness specimen (For Japan: E-MC-S109A, For outside Japan: E-MC-S24D), touch pen (E-MA-S112A), printing paper (E-CH-S25A)*1, instruction manuals, SupportWare II	

\*1 For models with printer only



# SURFCOM TOUCH 35/40/45

**Portable-type entry model in the SURFCOM TOUCH series  
useful in any measurement situation**

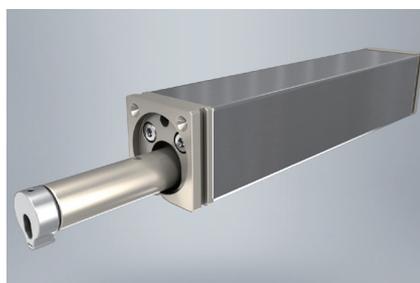


Small and light tracing drivers selectable for application.

In addition to horizontal surface, measurement on vertical surface with the driver and in narrow areas with transverse trace can be performed.

Skid-measurement-type for measurement with different attitudes.

## Palm-sized tracing drivers selectable for workpieces and measurement areas



### 35 (Standard type)

The standard-type with different attitudes to measure horizontal, inclined, vertical and ceiling surfaces.



### 40 (Retraction type)

Retract-type that reduces damage to the stylus and pickup by raising the pickup while waiting for measurement or at ending. It can be used as a detector incorporated into an automatic machine.



### 45 (Horizontal tracing type)

The transverse trace-type where the pickup moves sideways. Narrow areas, such as crankshaft pins and journals, that were difficult to measure before can now be measured.

## Optional pickups allow for various types of measurement (See next page)

The pickup, that comes in contact with the workpiece is replaceable.

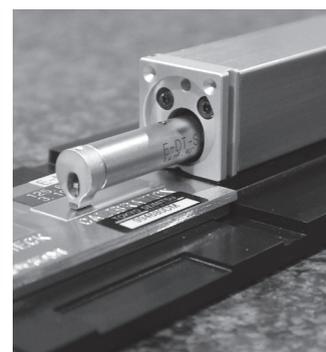
Various types of workpieces can be measured by using optional pickups such as those for small or extremely small holes, deep grooves, etc.

## A calibration plate provided as standard accessory makes calibration work easy

A roughness specimen for surface texture and a driver selected above are set to the standard calibration plate. Calibration can be conducted easily without need of height and inclination adjustment of the driver as before.

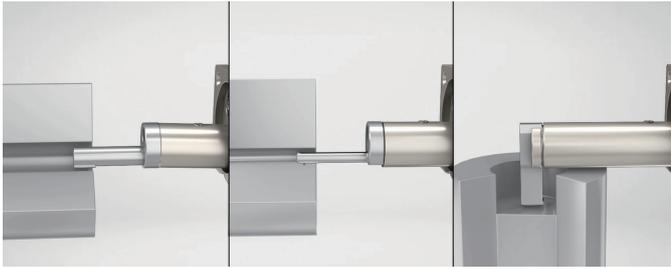


Replaceable Displacement Pickup



Usage example of dedicated calibration plate

## Usage example of various pickup (Option)



Pickup for fine hole E-DT-SM11B / SM50B  
 Pickup for extra fine hole E-DT-SM12A / SM51B  
 Pickup for deep groove E-DT-SM13A / SM52B

## Usage example of various adapter (Option)



Long Hole Extension Adapter DM57506  
 Adapter for horizontal measurement DM57507  
 Adapter for bore measurement E-WJ-S86A

## Usage example of magnetic stand (Option)

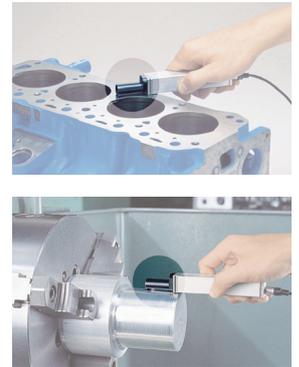


Magnetic Stand E-ST-MAC  
 Post Mount E-CS-S26A  
 Post Mount Holder 0102050

## Nose Piece for Flat Surfaces / Cylinders (Option)

For Flat Surfaces E-WJ-S88A  
 For Cylinders E-WJ-S85A

Enables handheld measurement of planes and cylinders with very small surfaces to be measured.



# SURFCOM TOUCH 35/40/45 Specifications

Model		SURFCOM TOUCH				
		35		40		45
		Tip radius 5 μm	Tip radius 2 μm	Tip radius 5 μm	Tip radius 2 μm	Tip radius 5 μm
Measurement range	Z direction	-210 to +160 μm				
	Drive axis	X direction 16 mm				Y direction 16 mm
Tracing Driver	Movement type	Standard type			Retraction type	
	Evaluation Length	0.2 to 16 mm				0.2 mm to 4.0 mm
	Measurement speed	0.5, 0.6, 0.75, 1.0 mm/s				0.6 mm/s
Pickup	Sensing type	Differential inductance				
	Measurement Method	Skid				
	Z direction resolution	0.0007 μm/-210 to +160 μm				
	Model	E-DT-SM10A	E-DT-SM49A	E-DT-SM10A	E-DT-SM49A	E-DT-SM39A
	Stylus	Measurement force	4 mN	0.75 mN	4 mN	0.75 mN
Tip radius		r <sub>tip</sub> = 5 μm	r <sub>tip</sub> = 2 μm	r <sub>tip</sub> = 5 μm	r <sub>tip</sub> = 2 μm	r <sub>tip</sub> = 5 μm
Tip angle		90° cone	60° cone	90° cone	60° cone	90° cone
tip material		Diamond				
Analysis item	Calculation Standards	Comply with JIS2013/2001, JIS1994, JIS1982, ISO1997/2009, ISO13565, DIN1990, ASME2002/2009, ASME1995, CNOMO				
	parameter	Profile Curve	Pa, Pq, Pp, Pv, Pc, PSm, PΔq, PPc, Psk, Pku, Pt, Pmr(c), Pmr, Pδc, Rz82, TILTA, AVH, Hmax, Hmin, AREA, Rmax, Rz, Sm, Δa, Δq, λa, λq, Lr, Rsk, Rku, Rk, Rpk, Mr1, Mr2, Vo, K, tp, tp2, Hp			
		Roughness Curve	Ra, Rq, Rz, Rv, Rc, Rt, RSm, RΔq, Rsk, Rku, Rmr(c), Rmr, Rδc, Rz94, R3z, RΔa, Rλa, Rλq, Ry, Lr, Sm, S, tp, tp2, PC, RPc JIS, RPc ISO, RPc EN, Pc, PPI, Rp, Rmax, Rz.l, RS, Rmr2, Mr1, Mr2, Rpk, Rvk, Rk, Vo, K, A1, A2, Rpm, Δa, Δq, Htp			
		Motif	R, Rx, AR, W, Wx, AW, Rke, Rpk, Rvke, NCRX, NR, CPM, SR, SAR, Wte, NW, SAW, SW, Mr1e, Mr2e, Vo, K			
Evaluation Curve	Profile Curve, Roughness Curve, ISO13565Special Roughness Curve, Roughness motif curve, Waviness motif curve, Upper envelope waviness curve					
Characteristics graph	Abbot curve, Amplitude density function, Power graph					
Filter	Filter type	Gaussian, 2RC (phase compensation), 2RC (non-phase compensation)				
	Cutoff value	λc	0.08, 0.25, 0.8, 2.5 mm			
		λs	None, 2.5, 8, 25 μm			
Amplification indicator	Display	7-inch color liquid crystal touch panel				
	Data output	USB connectors for USB memory x 2 (model without printer) x 1 (model with printer), Micro USB connector for USB communication x 1				
	Print output	Standard function for models with printer and optional for models without printer (external printer unit)/Thermal recording paper width: 58 mm (recording width: 48 mm)				
	Language	Japanese, English, Chinese (Traditional Chinese/Simplified Chinese), Korean, Thai, Malay, Vietnamese, Indonesian, German, French, Italian, Czech, Polish, Hungarian, Turkish, Swedish, Dutch, Spanish, Portuguese				
Specifications	Power Supply	Charging	Built-in battery (to be charged using AC adaptor), charging period: 3 hours (about 600 measurements can be take when fully charged)			
		Power Supply	AC100 to 240 V ±10%, 50/60 Hz, Single phase			
		Power consumption	Maximum 80VA			
	External dimensions (W x D x H)/Weight	Printer-Equipped Model	Amplification indicator: 320 x 167 x 44 mm/about 2 kg for the entire system			
Models without printer	Amplification indicator: 252 x 167 x 44 mm/about 1.6 kg for the entire system					
Standard accessories		Roughness specimen (For Japan: E-MC-S109A, For outside Japan: E-MC-S24D), calibration table (E-WJ-S1045B), touch pen (E-MA-S112A), printing paper (E-CH-S25A)*1, instruction manuals, SupportWare II, nosepiece (V-type) (E-WJ-S836A)*2				

\*1 For models with printer only  
 \*2 For SURFCOM TOUCH 45 only

# SURFCOM TOUCH Common Functions

## Intuitive and easy-to-use screen for condition setting, calibration, measurement and analysis

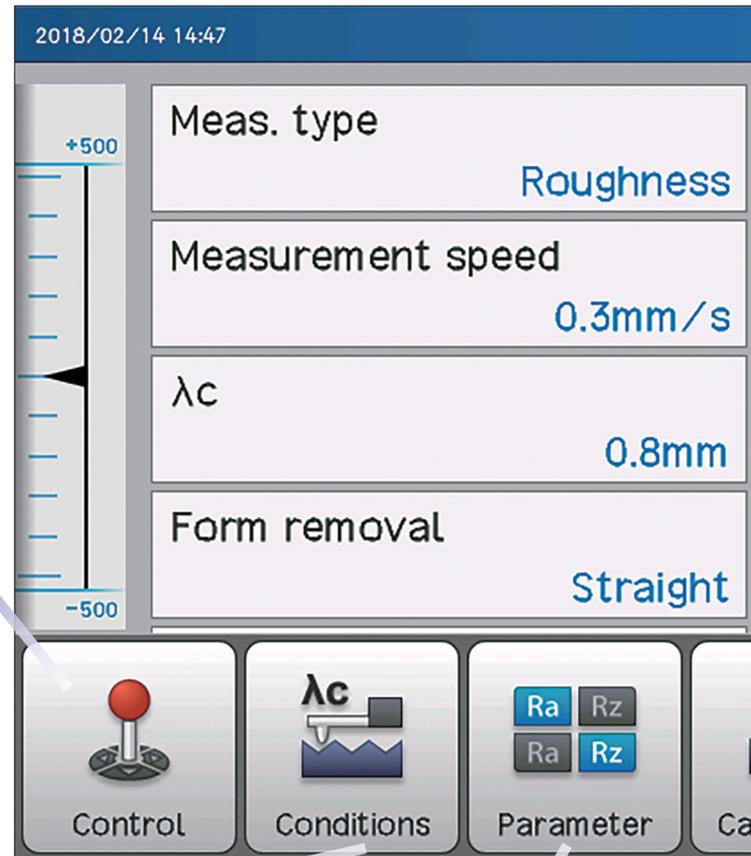
An amplifier with a 7-inch wide touch panel and easy-to-use new interface provides higher operability. Easy-to-use operation eliminates the need of instructions.

### Control screen of the driver

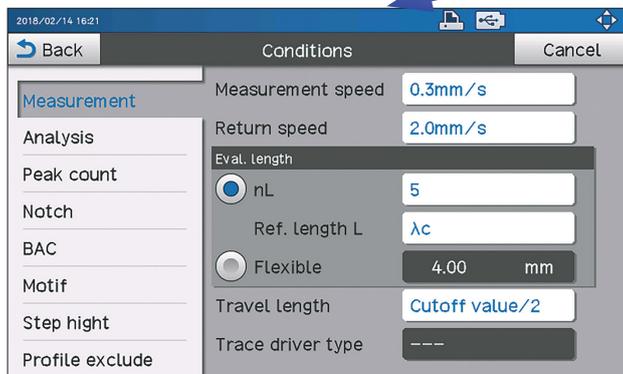


- It shows the level meter (Z) (contact level of the stylus with the workpiece), and horizontal (X) and vertical (C) positions of the tracing driver. (Z is shown on all models, X on TOUCH 50/550, C on TOUCH 550)
  - The pickup can be moved horizontally and the tracing driver can be moved vertically from the screen. (TOUCH 50 can move the pickup, and TOUCH 550 can move the pickup and tracing driver)
- Two moving speeds are available for selection.

### Main Screen

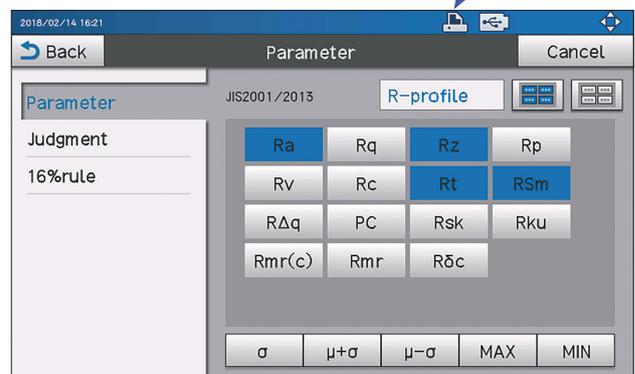


### Setting Condition Screen



- Measurement/analysis conditions can be set.

### Parameter Selection Screen



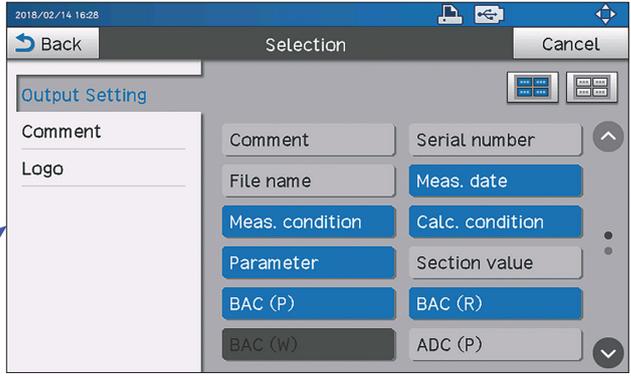
- Parameters to be evaluated in measurement can be selected.

### Menu Screen



- Settings can be performed such as language, icon layout, management of internal/USB memories.

### Output Item Screen

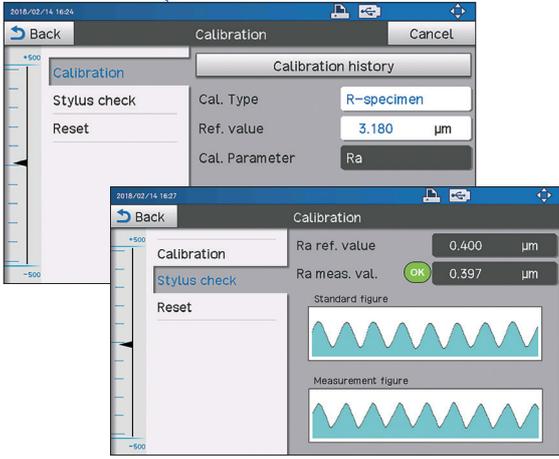


- Output items can be set for printing with the small printer attached to SURFCOM TOUCH\*.

\*Some TOUCH 35, 40, 45 and 50 types have no printer.



### Calibration Screen



- Calibration can be performed before measurement.
- Any wear or chip of the stylus tip can be checked with the waveform and values.

### Measurement Result Screen



- Measurement results are shown in waveform and selected parameters. Horizontal and vertical display magnification for waves can be changed intuitively with pinch-in or pinch-out. No need to specify magnification in number (although it is also possible).
- OK/NG is easily identified by setting acceptance/rejection criteria in advance.



# SURFCOM TOUCH Common Functions

## Multi-language support available worldwide

20 Asian and European languages including Japanese, English and German are provided as standard. Language can be easily changed with one touch.



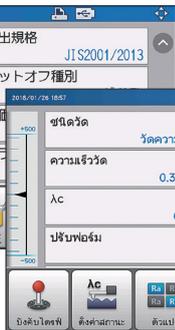
### Supported Language



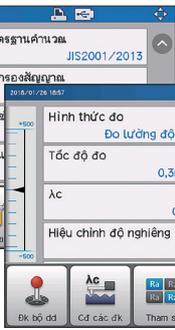
Display example in (simplified) Chinese



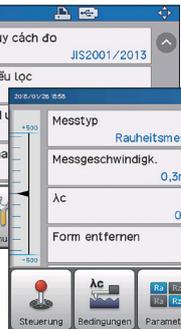
Display example in Japanese



Display example in Thai



Display example in Vietnamese



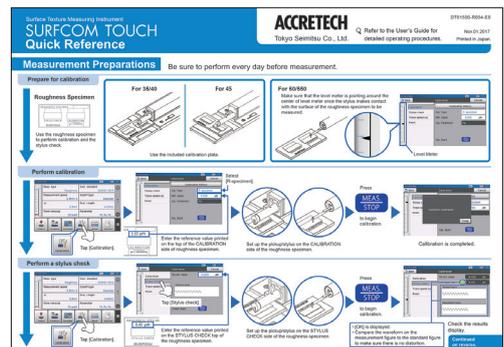
Display example in German



## Easy-to-follow user's guide/quick reference guide

The user's guide is easy to understand like that for home appliances.

A quick reference guide showing basic operation procedures is also available so that users do not need to create written procedures.

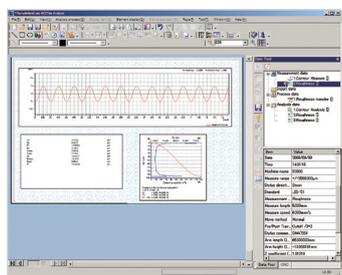
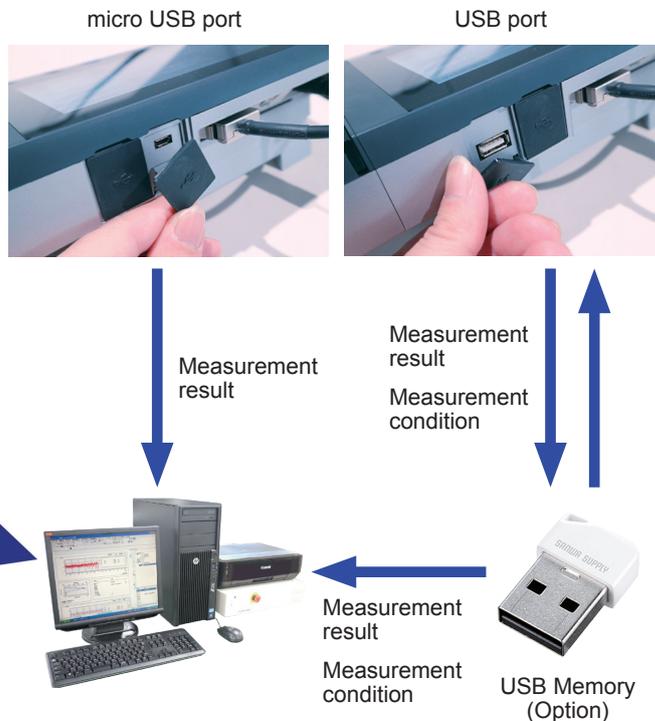


User's guide (left) and quick reference guide (right)

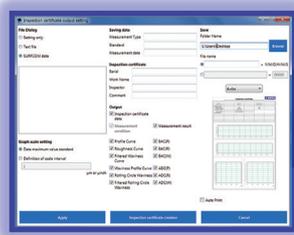
## USB/micro USB ports as standard equipment

15 measurement conditions and 20 measurement results can be stored in the SURFCOM TOUCH amplifier.  
 More conditions and results can be stored by connecting a USB memory to the standard USB port.

The amplifier is also equipped with a micro USB port. Measurement data can be transferred to the computer when connected with a USB cable, and a simple inspection certificate can be created using attached SupportWare II, or a full-scale analysis can be performed by the Off-line ACCTee analysis program, accessory to the high-end model, SURFCOM series (PC type).



Analysis example with ACCTee



SupportWare II

## Measurement results can be printed quickly

The dedicated printer allows for quick printing of measurement results. Of course, any measurement data saved in the amplifier or USB memory can be output.

- TOUCH 550 has a built-in printer.
- TOUCH 35 to 50 have two models: with/without printer  
 Models without printer can be connected with an external printer unit.

Measurement results output example

ACCRETECH Ver. 1.16		SURFCOM TOUCH 550	
Comment	=		
Serial No.	=	3	
File name	=	MEASDATA	
Date	=	18.02.16	
Time	=	16:09:53	
Roughness measurement (JIS2001/2013)			
Eval. length	=	4.00mm	
Samp. length	=	λ c	
Meas. speed	=	0.30mm/s	
λ c	=	0.8mm	
Cutoff type	=	Gaussian	
Meas. range	=	±500.0μm	
Form removal	=	Straight	
λ s	=	2.5μm	
Polarity inv	=	OFF	
Pickup Type	=	Standard	

<Roughness profile>

V-mag. =	2000 (AUTO)
H-mag. =	20 (AUTO)
V-scale =	5μm / 10mm
H-scale =	500μm / 10mm



**TOUCH 35/40/45/50**  
 Amplifier with integrated printer



**TOUCH 35/40/45/50**  
 Amplifier without integrated printer  
 +Printer unit (option)



**TOUCH 550**  
 Amplifier with integrated printer