

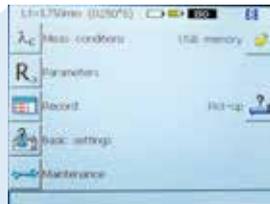
**Willrich Precision**  
 Ph 866-945-5742 / sales@willrich.com

MarSurf M 300		MarSurf M 300 C	
			
8		9	
Skid probe system		Skid probe system	
PHT probe range		PHT probe range	
Inductive skidded probe, 2 µm stylus tip, measuring force ca. 0.7 mN		Inductive skidded probe, 2 µm stylus tip, measuring force ca. 0.7 mN	
ISO/JIS: 1.75 mm, 5.6 mm, 17.5 mm; automatic MOTIF: 1 mm, 2 mm, 4 mm, 8 mm, 12 mm, 16 mm		ISO/JIS: 1.75 mm, 5.6 mm, 17.5 mm; automatic MOTIF: 1 mm, 2 mm, 4 mm, 8 mm, 12 mm, 16 mm	
350 µm		350 µm	
8 nm		8 nm	
1.25 mm, 4.0 mm, 12.5 mm		1.25 mm, 4.0 mm, 12.5 mm	
33		33	
DIN / ISO	Ra, Rq, Rz, Rmax, Rp, Rv, Rpk, Rk, Rvk, Mr1, Mr2, A1, A2, Vo, Rt, R3z, R <sub>PC</sub> , R <sub>mr</sub> , R <sub>Sm</sub> , R <sub>sk</sub> , R, AR, Rx, W, CR, CF, CL	DIN / ISO	Ra, Rq, Rz, Rmax, Rp, Rv, Rpk, Rk, Rvk, Mr1, Mr2, A1, A2, Vo, Rt, R3z, R <sub>PC</sub> , R <sub>mr</sub> , R <sub>Sm</sub> , R <sub>sk</sub> , R, AR, Rx, W, CR, CF, CL
JIS	Ra, Rq, Ry (equiv. to Rz), RzJIS, Rp, Rv, Rpk, Rk, Rvk, Mr1, Mr2, A1, A2, Rt, tp (equiv. to R <sub>mr</sub> ), R <sub>Sm</sub> , R <sub>sk</sub> , S, R, AR, Rx, W, CR, CF, CL	JIS	Ra, Rq, Ry (equiv. to Rz) RzJIS, Rp, Rv, Rpk, Rk, Rvk, Mr1, Mr2, A1, A2, Rt, tp (equiv. to R <sub>mr</sub> ), R <sub>Sm</sub> , R <sub>sk</sub> , S, R, AR, Rx, W, CR, CF, CL
ASME	RpA, R <sub>pm</sub> , R <sub>mr</sub> , R <sub>Sm</sub> , R <sub>sk</sub>	ASME	RpA, R <sub>pm</sub> , R <sub>mr</sub> , R <sub>Sm</sub> , R <sub>sk</sub>
MOTIF	R, AR, Rx, W, CR, CF, CL	MOTIF	R, AR, Rx, W, CR, CF, CL
Yes		—	
Yes		Yes	
Yes		Yes	
Yes		—	
—		(External roughness standard is included in the scope of supply)	
—		Yes	
—		RD 18 C2	
max. 30 Profiles max. 40000 Results		max. 30 Profiles max. 40000 Results	
Explorer, MarSurf XR 20		Explorer, MarSurf XR 20	
<b>6910401</b>		<b>6910431</b>	

## Mobile Surface Roughness Measuring Instrument MarSurf M 300 A step ahead



M 300



RD 18

### Applications

- On shafts, housing parts
- On large scale machines
- For large workpieces
- On milling and turning parts
- For use on grinding and honing components
- On the production line, or directly upon a machine. Ideal for rapid testing of the surface roughness of a workpiece in or on a machine
- A simple universal measuring station for checking surface roughness



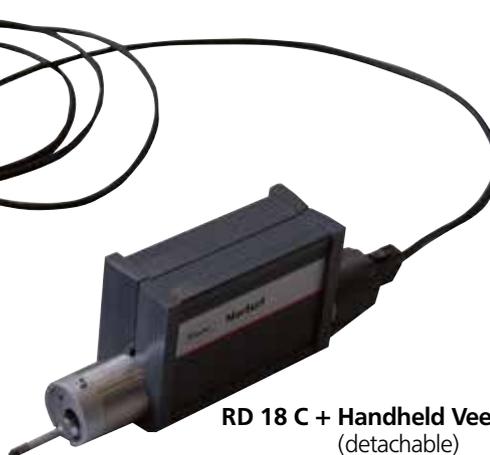
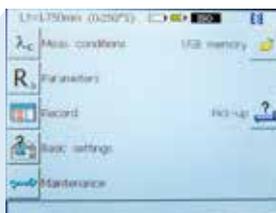
### Features

- Bluetooth wireless connection between the evaluation unit and drive unit (up to 4 m)
- Bright, illuminated color display
- Automatic selection of filter and traversing length conforming to standards
- Integrated thermal graphics printer of high print quality
- Print the R-profile via the thermal graphics printer
- Printed log either by pressing a button or automatically
- Data transfer of results and profiles via USB-interface to your PC
- Evaluation of most common parameters conforming to standards and in accordance to ISO/JIS as well as characteristic curves, parameter lists (e.g. material ratio curve)
- Printing of R-profile (ISO/ASME/JIS), P-profile (MOTIF), material ratio curve, measuring record
- Measuring units ( $\mu\text{m}/\mu\text{inch}$ ) and standards (ISO/JIS/ASME/MOTIF) are selectable
- Tolerance monitoring
- Integrated memory for the results of up to 40000 measurements and 30 profiles
- Setting of unsymmetric intersection lines for peak count calculation
- Individual sampling lengths and short cutoff can be selected
- Key pad lock and/or password protection for instrument settings
- Built-in rechargeable battery with power management
- Integrated roughness standard for the standard pick-up PHT 6-350
- Dynamic calibration function
- Date and/or time of measurement
- Software MarSurf PS1/M 300 Explorer for recording measurements (option)
- Supplied with: Evaluation unit M 300, drive unit RD 18 with integrated roughness standard, standard pick-up PHT 6-350/2 $\mu\text{m}$  (conforming to standards), charger / mains adapter with 3 mains power adapters, height adjustment accessory, pick-up protection, pick-up protection with prismatic underside, end face vee-block, 2 x USB cables, 1 roll of thermal paper, shoulder strap, carrying case, Mahr calibration certificate, operating instructions

## Mobile Surface Roughness Measuring Instrument MarSurf M 300 C A step ahead



M 300 C



RD 18 C + Handheld Vee block  
(detachable)

### Applications

- On shafts, housing parts
- On large scale machines
- For large workpieces
- On milling and turning parts
- For use on grinding and honing components
- On the production line, or directly upon a machine. Ideal for rapid testing of the surface roughness of a workpiece in or on a machine
- A simple universal measuring station for checking surface roughness

Upside down measurement



Measurement on an end face vee



### Features

- Bright, illuminated color display
- Automatic selection of filter and traversing length conforming to standards
- Integrated thermal graphics printer of high print quality
- Easy to use due to the large color display and the operator guidance
- Printing of R-profiles with the thermo printer
- Printed log either by pressing a button or automatically
- Data transfer of results and profiles via USB-interface to your PC
- Evaluation of most common parameters conforming to standards and in accordance to ISO/JIS as well as characteristic curves, parameter lists (e.g. material ratio curve)
- Printing of R-profile (ISO/ASME/JIS), P-profile (MOTIF), material ratio curve, measuring record
- Measuring units ( $\mu\text{m}/\mu\text{inch}$ ) and standards (ISO/JIS/ASME/MOTIF) are selectable
- Integrated memory for the results of up to 40000 measurements and 30 profiles
- Tolerance monitoring
- Setting of unsymmetric intersection lines for peak count calculation
- Cylindrical drive unit with handheld vee block and PHT pick-up protection
- Individual sampling lengths and short cutoff can be selected
- Lock instrument settings
- Date and/or time of measurement
- Can be expanded to be an stationary measuring station
- Software MarSurf PS1/M 300 Explorer for recording measurements (option)
- Supplied with: Evaluation unit M 300 C, cylindrical drive unit RD 18 C incl. 1.8 m data connection cable, handheld vee block with height adjustable feet, standard pick-up PHT 6-350/ $2\mu\text{m}$  (conforming to standards), roughness standard PRN 10 with Mahr calibration certificate, 1 roll of thermal paper, pick-up protection with prismatic underside, dia. 8 mm mounting clamp for drive unit, charger / mains adapter with 3 mains power adapters, 1 x USB cable (for connection to a PC), shoulder strap, carrying case, operating instructions

## Mobile Surface Roughness Measuring Instrument MarSurf M 300 / M 300 C

### Technical Data

Measuring principle		Stylus method
Traversing speed	mm (inch)	0.5 mm/s (0.02"/s)
Measuring range		350 µm (0.014")
Profile resolution		8 nm
Filter		Gaussian filter, Ls-Filter (switchable)
Cutoff	mm (inch)	0,25, 0,8, 2,5 (0.010", 0.032", 0.100")
Short Cutoff		wählbar
Traversing lengths as per DIN / ISO / ASME / JIS	mm (inch)	1,75, 5,6, 17,5 (0.070", 0.2242, 0.700")
Traversing lengths as per EN ISO 12085 (MOTIF)	mm	1, 2, 4, 8, 12, 16
Evaluation lengths	mm (inch)	1,25, 4, 12,5 (0.05", 0.16", 0.5")
Number of sampling lengths selectable:		1-5
Parameters	DIN / ISO:	Ra, Rq, Rz, Rmax, Rp, Rv, Rpk, Rk, Rvk, Mr1, Mr2, A1, A2, Vo, Rt, R3z, R <sub>Pc</sub> , R <sub>mr</sub> , R <sub>Sm</sub> , R <sub>sk</sub> , R, AR, Rx, W, CR, CF, CL
	JIS:	Ra, Rq, Ry (equiv. to Rz), RzJIS, Rp, Rv, Rpk, Rk, Rvk, Mr1, Mr2, A1, A2, Rt, tp (equiv. to R <sub>mr</sub> ), R <sub>Sm</sub> , R <sub>sk</sub> , S, R, AR, Rx, W, CR, CF, CL
	ASME:	R <sub>pA</sub> , R <sub>pm</sub> , R <sub>mr</sub> , R <sub>Sm</sub> , R <sub>sk</sub>
	MOTIF:	R, AR, Rx, W, CR, CF, CL
Vertical scale		Automatic/selectable
Horizontal scale		Depending on the cutoff
Record contents		R -profile, MRK, P-profile (MOTIF), results
Printing		Automatic/manual Record with time
Surface hardness		Ideal for surface hardness >50 Shore
Calibration function		Dynamic
Memory		Integrated memory For the storage up to 40000 measurements and up to 30 profiles
Measuring units		µm/µinch selectable
Languages selectable:		English, German, French, Italian, Spanish, Portuguese, Dutch, Swedish, Czech, Polish, Russian, Japanese, Chinese, Korean, Turkish
Blocking instrument settings		Yes
Password protection		Yes
LCD		High resolution color display, 3.5", 320 x 240 pixel
Printer		Thermal printer, 384 points/horizontal line, 20 characters/line
Printing speed		ca. 6 lines/second corresponds to approx. 25 mm/s (1"/s)
Thermal paper		Dia. 40.0 mm-1.0 mm, width 57.5 mm-0.5 mm, coated
Interface		USB, MarConnect
Power supply		NiMH battery, capacity: approx. 500 measurements (depending on the number and length of record printouts), plug-in power pack with three mains plugs, for input voltages from 90 V to 264 V
Power management		Yes
Connections		Drive unit, power pack, USB, MarConnect
Protection class	M 300 / M 300 C	IP 42
	RD 18 / RD 18 C	IP 40
Temperature range for storage		-15°C to +55°C (5°F to 131°F)
Temperature range for operation		+5°C to +40°C (41°F to 104°F)
Relative humidity		30 % to 85 %
Dimensions (L x W x H)	M 300 / M 300 C	190 x 140 x 75 mm (7.5" x 5.5" x 3")
Dimensions (L x W x H)	RD 18	130 x 70 x 50 mm (5.1" x 2.7" x 2")
Dimensions (L x dia.)	RD 18 C	139 x 26 mm (5.5" x 1")
Dimensions (L x W x H)	RD 18 C*	82 x 34 x 59 mm (3.2" x 1.3" x 2.3")
Weight	M 300 / M 300 C	ca. 1 kg
	RD 18	ca. 300 g
	RD 18 C	ca. 165 g
	RD 18 C*	ca. 55 g
<b>Order no.</b>	<b>M 300 Set</b>	<b>6910401</b>
<b>Order no.</b>	<b>M 300 C Set</b>	<b>6910431</b>

\* Handheld Vee block

## Mobile Surface Roughness Measuring Instrument MarSurf M 300

### Drive Unit MarSurf RD 18

#### Bluetooth Technology

**Unique:** Cable-free connection between evaluation unit and drive unit!

A further advantage is the connection of several drive units to only one evaluation unit.



#### Features

- The well-proven PHT-skid probes are implemented in the drive unit.
- Can be connected via a cable
- Supplied with: Drive unit RD 18 with integrated roughness standard

#### Technical Data

Tracing direction	Longitudinal
Traversing length as per DIN/ISO	adjustable on M 300 1.75 mm, 5.6 mm, 17.5 mm (0.07", 0.22", 0.7")
as per EN ISO 12085	1 mm, 2 mm, 4 mm, 8 mm, 12 mm, 16 mm
Traverse speed	0.5 mm/s
Dimensions (w/o pick-up protection)	dia. 24 mm, L = 112 mm
Bluetooth range	up to 4 m

**Order no.**

**6910403**

### Drive Unit MarSurf RD 18 C2 for transverse tracing for M 300 C / PS 10



#### Features

- During the manufacturing process, surface measurements of work pieces usually require special tools to find the right solution for a particular task; e.g. transverse scanning on a crank or camshafts, or measuring bearings. For such tasks the drive unit RD 18 C2 is available for transverse scanning.
- The well-proven PHT-skid probes are implemented in the drive unit.
- The drive unit RD 18 C2 is attached in the same way as the RD 18. By being able to use both types of drive units the range of application offered by the mobile MarSurf M 300 C and MarSurf PS 10 is broadened.
- Supplied with: Drive unit RD 18 C2, pick-up protection with prismatic underside, pick-up protection and a screwdriver

#### Technical Data

Tracing direction	Transverse
Traversing length as per DIN/ISO	adjustable on M 300 1.75 mm, 5.6 mm (0.07", 0.22")
as per EN ISO 12085	1 mm, 2 mm, 4 mm
Traverse speed	0.1 mm/s and 0.5 mm/s
Dimensions (w/o pick-up protection)	dia. 24 mm, L = 142 mm

**Order no. RD 18 C2**

**6910426**

**Order no. chuck**

**6850738**

**RD 18 C2 for Ø 5 mm to Ø 80 mm**

