

DIAVITE AG **DIAVITE Compact II roughness measuring device** mobile roughness measuring device with external feed unit

Application:

Compact, mobile roughness measuring device for standard roughness measurements in production facilities and measuring rooms.

Execution:

- Roughness parameters in line with DIN ISO, JIS, ASME
- Standard probe SH with diamond probe tip 5 µm
- **Ident. No. 100:** Stylus instrument with feed unit VH for skid-type probe
- **Ident. No. 110:** Stylus instrument with feed unit VHF for skid-type probes and free tracers

Advantage:

- Simple and intuitive operation, no training required
- Safe measurement using permanently connected cut-off filter with scanning path
- Feed unit can be integrated into device for wireless measuring

- Measurements in all directions, horizontal, vertical and overhead

Delivery:

Display device with feed unit, standard sensor SH 5 µm/90°, adapter and connection cable for feed unit, power supply/charger, CD with DIASOFT Basic software, USB connection cable for PC, roughness standard approx. Ra 3 µm, case

Technical data:

- Surface roughness measuring range: 350 µm | 20 µm
- Min. scanning path: 0.5 mm
- Max. scanning length: 15 mm
- Surface roughness resolution: 0.001 µm | 0.01 µm
- Threshold wave length: 0.25 mm | 0.8 mm | 2.5 mm
- Measurement profile memory (number of profiles): 15 PCS
- Data transmission type: USB



Ident. No. 100



Ident. No. 110

	Model	Probe system		
47000...	DIAVITE Compact II VH	Runner probe system	Ident. No.	100
47000...	DIAVITE Compact II VHF	Runner probe system Free probe system	Ident. No.	110

Prod. Gr. 445

Mahr **MarSurf PS 10 roughness measuring device** Mobile roughness measuring device with removable feed unit

Application:

compact, mobile roughness measuring device for standard roughness measurements in production facilities and measuring rooms.

Execution:

- stylus instrument with feed unit for skid-type probe
- calibration standard integrated in feed unit
- Roughness parameters in line with DIN ISO, JIS and ASME
- inductive skid button with 2 µm diamond stylus tip

Advantage:

- simple and intuitive operation, no training required
- reliable measurement using automatic cut-off selection (patented)

- Measurements in all directions: horizontal, vertical and overhead

Technical data:

- Surface roughness measuring range: 350 µm
- Surface roughness scanning path: 1,5 mm | 4,8 mm | 15 mm
- Threshold wave length: 0.25 mm | 0.8 mm | 2.5 mm
- Measurement profile memory (number of single readings): 500000 PCS
- Measurement profile memory (number of profiles): 3900 PCS
- Data transmission type: MarConnect



MarSurf PS 10 roughness measuring device	47100...		Ident. No.	020
Measuring stand for roughness measuring devices	47100...	Measuring stand ST-D	Ident. No. Price/unit, €	600 (792.00)
Measuring stand mount	47100...	measuring stand holder for ST tripods	Ident. No.	670
Software	47100...	Software EXPLORER	Ident. No. Price/unit, €	680 (323.00)

Prod. Gr. 307

Mahr

MarSurf M 300C roughness measuring device**Mobile roughness measuring device with external feed unit for skid-type probe****Application:**

Mobile roughness measuring device for standard roughness measurements in production facilities and measuring rooms.

Execution:

- Stylus instrument with feed unit for skid-type probes
- Calibration standard integrated into feed unit
- Roughness parameters in line with DIN ISO, JIS, ASME and MOTIF
- Standard tracer PHT 6-350 with diamond probe tip 2 µm
- Thermal printer with high print quality

Advantage:

- Bluetooth connection for wireless data transfer between feed unit and evaluation unit
- Simple calibration using integrated calibration standard

- Measurements in all directions, horizontal, vertical and overhead
- Lock and/or password-protected device settings
- Up to 5 selectable individual measurement lengths

Technical data:

- Surface roughness measuring range: 350 µm | 180 µm | 90 µm
- Surface roughness scanning path: 1.75 mm | 5.6 mm | 17.5 mm
- Surface roughness resolution: 0.032 µm | 0.016 µm | 0.008 µm
- Threshold wave length: 0.25 mm | 0.8 mm | 2.5 mm
- Measurement profile memory (number of single readings): 40000 PCS
- Measurement profile memory (number of profiles): 30 PCS
- Data transmission type: RS232C/USB



	Model	Probe system		
47100...	Roughness measuring device MAHR M 300 C	MarSurf M 300 C	Runner probe system	Ident. No. 200 ○

Prod. Gr. 307

DIIVITE AG**DIIVITE DH-8 roughness measuring device****With external feed unit: VH for skid-type probes or VHF for skid-type and free tracers****Application:**

Compact, mobile roughness measuring device for standard roughness measurements in production facilities and measuring rooms.

Execution:

- External calibration standard Ra 3.0 µm
- Roughness parameters in line with DIN ISO, JIS, ASME
- Standard probe SH with diamond probe tip 5 µm
- Thermal printer with high print quality
- Ident. No. 706:** Stylus instrument with feed unit VH for skid-type probe
- Ident. No. 716:** Stylus instrument with feed unit VHF for skid-type probes and free tracers

Advantage:

- Total of seven scanners can be calibrated
- Freely-selectable scanning path and cut-off filter
- Large measured value memory for 50 measurement profiles

- Evaluation software DIASOFT Basic with individual log generation

Delivery:

Display device with feed unit, standard sensor SH 5 µm/90°, connection cable for feed unit, power supply/charger, CD with DIASOFT Basic software, USB connection cable for PC, roughness standard approx. Ra 3 µm, case

Technical data:

- Surface roughness measuring range: 350 µm | 20 µm
- Min. scanning path: 0.5 mm
- Max. scanning length: 15 mm
- Surface roughness resolution: 0.001 µm | 0.01 µm
- Threshold wave length: 0.08 mm | 0.25 mm | 0.8 mm | 2.5 mm
- Measurement profile memory (number of profiles): 50 PCS
- Data transmission type: USB



	Model	Probe system		
44805...	DIIVITE DH-8 VH	Runner probe system	Ident. No.	706 ●
44805...	DIIVITE DH-8 VHF	Runner probe system Free probe system	Ident. No.	716 ○

Prod. Gr. 445

ATORN® Roughness measuring device

Skid-type probe and free tracer system

Application:

Roughness measuring device for standardised roughness measurement in production and the measurement room.

Execution:

- 10.1" Full HD industrial touchscreen PC with Windows IoT operating system
- Feed unit for skid-type probe and free tracer (reference plane sensor)
- Wide range of optional sensors available for virtually any measuring task
- Outputs: 2x USB 3.0, 1x mini HDMI, 1x LAN RJ45, optional Bluetooth/WiFi
- Data output in PDF, CSV or TXT format for log creation
- Internal 32 GB memory
- Intuitive menu guidance, multiple languages available
- Network-capable

Advantage:

- Measurement conditions are stored with an image for visual representation of the measuring task
- Mini HDMI for image transfer, e.g. to an external monitor

- Maximum process reliability with measuring programs that you can call up with barcode scanners
- 3-stage user level selection for individual access privileges
- Up to eight sensors can be calibrated individually to shorten testing times

Delivery:

Roughness measuring device, feed unit, standard 5 µm skid-type probe, connection cable, power cable, roughness standard approx. 3 µm, inspection log, plastic case

Technical data:

- Min./max. scanning path: 0.5-15 mm
- Surface roughness measuring range: 350 µm | 20 µm
- Surface roughness resolution: 0.001 µm | 0.01 µm
- Threshold wave length: 0.08 mm | 0.25 mm | 0.8 mm | 2.5 mm
- Roughness parameters: RA | RZ | Rmax | R3Z | Rt | Rq | RMS | Rk | Rp | Rv | Rpk | Rvk | MR1 | MR2 | Rpc | C1 | C2 | Rmr | C0 | Cz | R | AR | Rx
- Probe system: Runner probe system | Free probe system
- Device dimensions: 250 x 170 x 65 mm



47105...

Ident. No.

010

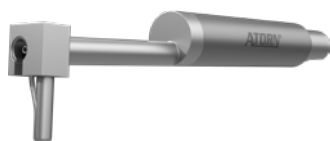
Prod. Gr. 445

ATORN® Probe for ATORN roughness measuring device

Skids and free tracers



Ident. No. 100



Ident. No. 145



Ident. No. 200



Ident. No. 290

Probe type	Probe with skid	Probe with skid	Probe with skid	Probe without skid	Probe without skid	Probe without skid	Probe without skid	Probe without skid
Type	Standard probe SKT/5	Concave/convex probe KKKT/5	Depth probe TKT/5	Bore/tooth flank probe BZFT/5	Bore/tooth flank probe BZFT-06/5	Groove free tracer NFT-5/5	Groove free tracer NFT-10/5	Groove free tracer NFT-15/5
Measuring depth max. (mm)	27	-	-	15	15	-	-	-
Min. groove width (mm)	-	-	-	-	-	1.5	1.5	1.5
Suitable for	Measurement of plane surfaces and bore diameter from 8mm	Measurements convex and concave surfaces at radius 5 mm	Measurements on reason up to 140 mm depth	Bore diameter from 1,5 mm Tooth flanks from module 0,75	Bore diameter from 0.8 mm Tooth flanks from module 0,5	Measurement in grooves and recesses	Measurement in grooves and recesses	Measurement in grooves and recesses
Sensor length (mm)	-	-	-	-	-	6	10	15
Sensor arm length (mm)	27	25	-	26	26	25	25	25
Width of cutting edge (mm)	-	-	-	-	-	-	-	-
47105...	Ident. No. 100	Ident. No. 145	Ident. No. 160	Ident. No. 200	Ident. No. 210	Ident. No. 235	Ident. No. 260	Ident. No. 280
	Price/unit, € 890.00	(1430.00)	(2470.00)	(1380.00)	(1440.00)	(1340.00)	1340.00	1340.00

Probe type	Probe without skid	Probe without skid	Probe without skid	Probe without skid
Type	Groove free tracer NFT-20/5	Groove free tracer NFT-25/5	Axis/cutting-edge probe ASFT/2	Ball/volume probe KUT/5
Measuring depth max. (mm)	-	-	-	-
Min. groove width (mm)	1.5	1.5	-	-
Suitable for	Measurement in grooves and recesses	Measurement in grooves and recesses	Measurements e.g. on tool cutting, edges, wires and thin axes	Measurements from a diameter of 8 mm
Sensor length (mm)	20	25	-	-
Sensor arm length (mm)	25	25	27	-
Width of cutting edge (mm)	-	-	0.6	-
47105...	Ident. No. 285	Ident. No. 290	Ident. No. 220	Ident. No. 155
	Price/unit, € (1520.00)	(1520.00)	(1590.00)	(2260.00)

Prod. Gr. 445

ATORN® Clamping device for roughness measurement devices

Execution:

- 1 each of mini vice size 1, size 2 and size 3
- 1 each of clamping jaw set for mini vice size 1, size 2 and size 3
- 2x prisms with clamping bracket
- 2x dividing attachments 0.4-3.5mm and 1.2-6.0mm
- 3x carrier plates for vice stands
- 2x vice stands

47105...	Precision mini vice set size 1, size 2 and size 3 + accessories	Ident. No.	870
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Prod. Gr. 4CA



ATORN® Contour measuring device easyCONTOUR 120

Probe direction – downwards

Application:

for measuring and evaluating functional geometries of components. workpieces can be measured over the entire measurement range using a fully automated process. the latest teach-in programming method requires no special programming skills.

Execution:

- Touchscreen PC with Windows 10 64-bit operating system
- Wireless keyboard and mouse
- High-performance measurement and evaluation software
- Base plate made of hard stone with enclosed T-groove
- Y/R support table, 190x190 mm, adjustable 38 mm in Y and +/-3° Radial

- High-quality industrial joystick for easy probe positioning
- Standard probe 120/33 (25 µm ceramic)
- Motorised Z-pillar
- Optional: comprehensive sensor range

Advantage:

- Generate automatic measuring sequences using teach-in: no programming skills required
- Automatic measurement and evaluation over the entire measuring range
- Scanning arms can be changed smoothly, easily and quickly
- Software-controlled scanning arm lifting function
- Options: Barcode scanner with QR code toolkit software module



Material of the base plate		Hard stone	
Measuring range of X axis (Lx) (mm)		120	
Measuring range of Z axis (Lz) (mm)		30	
Probe direction of Z axis		Probe downwards	
Min./max. measurement speed		0.03-1.75 mm/s	
Surface roughness resolution		0.1 µm	
X axis error limit		1.2 µm + 2 Lx/25 (L in mm)	
Z axis error limit		1.8 µm + 2 Lz/25 (L in mm)	
Contour measuring device easyCONTOUR 120	35206...	Ident. No.	010
Software options for contour measuring device	35206...	Software option QR code toolkit	Ident. No. 100 Price/unit, € (779.00)
	35206...	QR code label basic set	Ident. No. 110 Price/unit, € (39.00)
	35206...	Software option data export interface	Ident. No. 120 Price/unit, € (1229.00)
Probe arms for contour measuring device	35206...	120/2.5 HM25	Ident. No. 200 Price/unit, € 649.00
	35206...	120/4.5 CS25	Ident. No. 210 Price/unit, € 519.00
	35206...	120/6.0 CS25	Ident. No. 220 Price/unit, € 519.00
	35206...	120/20.5 CS25	Ident. No. 230 Price/unit, € 519.00
	35206...	120/33.0 CS25	Ident. No. 240 Price/unit, € 529.00
	35206...	120/59.5 CS25	Ident. No. 250 Price/unit, € 549.00

Prod. Gr. 369

Surface-roughness reference samples

For the six most common machining processes

Application:

Surface-roughness reference samples for assessing surface roughness through simple visual and tactile comparison in line with DIN ISO 4287, DIN ISO 4288, BS 2634 and ANSI B 46.1. Machining method: Horizontal milling, face milling, longitudinal milling, reaming, flat grinding, lapping

Execution:

- Wear-resistant and non-rusting
- Evaluation parameters Ra and Rz
- Extract from machining methods such as horizontal and face milling, longitudinal turning, reaming, flat grinding and lapping

Advantage:

- Galvanoplastic manufacturing method for high accuracy and uniformity

44810... | Ident. No. 010

Prod. Gr. 445

Delivery:

Set of surface-roughness reference samples for all machining methods: Horizontal milling, face milling, longitudinal milling, reaming, flat grinding, lapping

Technical data:

- Machining method: Horizontal milling | Front milling | Longitudinal turning | Flat grinding | Lapping | Grinding
- Model: 130
- Number of comparative patterns: 30 PCS
- ISO surface roughness categories: N2-N10
- Board width: 90 mm
- Board length: 120 mm



Surface-roughness reference samples

For metal cutting machining processes

Application:

Surface-roughness reference samples for assessing surface roughness through simple visual and tactile comparison in line with DIN ISO 4287, DIN ISO 4288, BS 2634 and ANSI B 46.1.

- Evaluation parameters Ra and Rz

Advantage:

- Galvanoplastic manufacturing method for high accuracy and uniformity

Execution:

- Wear-resistant and non-rusting

Delivery:

In a case



Machining method	Hand-polishing	Longitudinal turning	Face turning	Front milling	Flat grinding	Cylindrical grinding	Electrical discharge machining
Model	336	320	319	321	315	316	331
Number of comparative patterns (PCS)	5	8	8	8	8	8	8
Min. Ra comparison range (µm)	0.0125	0.4	0.4	0.4	0.025	0.025	0.4
Max. Ra comparison range (µm)	0.2	50	50	50	3.2	3.2	50
Min. Rz comparison range (µm)	0.25	1.6	1.6	1.6	0.25	0.25	2.5
Max. Rz comparison range (µm)	1.6	160	160	160	16	1.6	160
Min./max. Rz comparison range	0.25-1.6 µm	1.6-160 µm	1.6-160 µm	1.6-160 µm	0.25-16 µm	0.25-1.6 µm	2.5-160 µm
ISO surface roughness categories	N0-N4	N5-N12	N5-N12	N5-N12	N1-N8	N1-N8	N5-N12
Board width (mm)	60	60	60	60	60	60	60
Board length (mm)	130	130	130	130	130	130	130
44810...	Ident. No. 050	070	076	080	100	110	120
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Prod. Gr. 445

Reference board with surface reference samples

For metal cutting machining processes

Application:

Surface-roughness reference samples for assessing surface roughness through simple visual and tactile comparison in line with DIN ISO 4287, DIN ISO 4288, BS 2634 and ANSI B 46.1.

- Complete surface-roughness reference samples for machining methods flat and round grinding, facing and longitudinal turning, end and horizontal milling, reaming, boring and planing.

Advantage:

- Galvanoplastic manufacturing method for high accuracy and uniformity

Execution:

- Wear-resistant and non-rusting
- Evaluation parameters Ra and Rz

Delivery:

In a case



Model	314
Number of comparative patterns (PCS)	64
ISO surface roughness categories	VDI12-45
44810...	Ident. No. 200
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Prod. Gr. 445

Surface-roughness reference samples

for metal cutting machining processes

Application:

Surface-roughness reference samples for assessing surface roughness through simple visual and tactile comparison in line with DIN ISO 4287, DIN ISO 4288, BS 2634 and ANSI B 46.1.

- Evaluation parameters Ra and Rz

Advantage:

- Galvanoplastic manufacturing method for high accuracy and uniformity

Execution:

- Wear-resistant and non-rusting

Delivery:

In a case

Machining method	Sandblasting Shot-blasting
Model	329
Number of comparative patterns (flint) (PCS)	4
Number of comparative patterns (balls) (PCS)	4
Min./max. Ra comparison range (flint)	3.2-25 µm
Min./max. Rz comparison range (flint)	25-160 µm
Min./max. Ra comparison range (balls)	3.2-18 µm
Min./max. Rz comparison range (balls)	25-100 µm
Board width (mm)	60
Board length (mm)	130
44810...	Ident. No. 030
	○

Prod. Gr. 445



Surface-roughness reference samples

In line with VDI 3400 electrical discharge machining

Application:

Surface-roughness reference samples for assessing surface roughness through simple visual and tactile comparison in line with VDI 3345 and VDI 3400.

- Evaluation parameter Ra

Advantage:

- Galvanoplastic manufacturing method for high accuracy and uniformity


Execution:

- Wear-resistant and non-rusting

Delivery:

In a case

Machining method		Electrical discharge machining	
Model		013	
Number of comparative patterns (PCS)		12	
VDI 3400 surface standard		12-45	
448 10...	Ident. No.	300	●

Prod. Gr. 445