# Probe System Equipment Surfcom

Original accessories from the technology leader



www.probes.zeiss.com



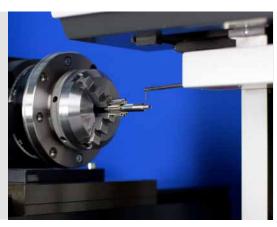
## Original accessories from Carl Zeiss

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Productivity for your contour and surface measuring.



#### **Imprint**

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## Important Notice:

Prices are subject to change.
Styli and accessory components are subject to technical modifications and changes.
Prices are net without deduction.
All dimensions are in mm.
Pictures can differ from actual products.
You can find our full T&C at:
www.probes.zeiss.com (Imprint)

# You can always rely on Carl Zeiss original products and on our service

## Productivity for your Surfcom measuring machine

#### **Tried and tested**

We, as manufacturer, know the needs for your CMM to measure accurate and efficient. Our accessories, tuned for your Surfcom, save time and increase your productivity. Benefit from our extensive know-how and experience.



## Largest range of original Carl Zeiss accessories

#### Save time

Our team supplies you fast and worldwide with our original accessories. You can always find the right accessory for your application in our clearly structured online shop www.probes.zeiss.com



## Unrivaled as a service provider

## **Visible productivity**

Fixtures, robot automation, custom-made styli - we assist you with our know-how in every individual measuring project you might have.

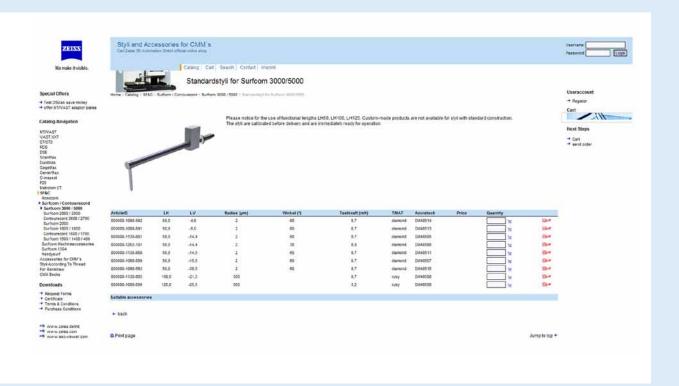


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## Global availability

Use our online shop for a fast and easy order process.

All over the world and around the clock.



## Largest range of original ZEISS accessories

Become a registered user today and benefit from the advantages of our clearly structured online shop.

Check availabilities and the status of your orders online. Never miss any of our special offers and keep yourself always up-to-date on our newest additions to our program.

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## Roughness styli

Roughness styli have a diamond or tungsten carbide tip with a very small tip radius. 2  $\mu$ m, 5  $\mu$ m und 10  $\mu$ m are available as tip radii. The roughness styli are useable for Surfcom 130 / 480 / 1400 / 1500 and for roughness detectors on Contourecord 1800 / 2800 / 1900 / 2900 however each are depending on the probe. Please check your machine specification for the correct stylus.



## 2 µm roughness styli E-DT-SSO1A

Roughness styli have a diamond or tungsten carbide tip with a very small tip radius. Please check your machine specification for the correct stylus.



Art-Nr	L	L1	radius (µm)	W (°)	tactile power (mN)	TMAT	Accretech
000000-1079-359	33,5	0,9	2	60	0,8	diamond	DM43811
000000-1079-356	33,5	1,7	2	60	0,8	diamond	DM43812
000000-1059-167	33,5	7,0	2	60	0,8	diamond	DM43801
000000-1079-358	33,5	18,0	2	60	0,8	diamond	DM43815
000000-1128-388	39,2	8,0	2	60	0,7	diamond	DM43814
000000-1084-496	62,0	9,2	2	60	4,0	diamond	DM43824
000000-1138-925	62,0	32,0	2	60	4,0	diamond	DM43826
000000-1054-833	73,0	5,0	2	60	3,0	diamond	DM43822
000000-1084-495	73,5	1,7	2	60	3,0	diamond	DM43821
000000-1079-360	73,5	15,0	2	60	3,4	diamond	DM43825



#### Service

Do you need a custom-made stylus? Call us or send us an email. We will be happy to assist you.

## 5 µm roughness styli for E-DT-SSO8A



Roughness styli have a diamond or tungsten carbide tip with a very small tip radius. Please check your machine specification for the correct stylus.

Art-Nr	L	L1	radius (µm)	W (°)	tactile power (mN)	TMAT	Accretech
625006-3057-000	15,0	1,7	5	90	4,0	diamond	0102512
625006-3059-000	15,0	8,0	5	60	4,0	diamond	0102514
625006-3054-000	22,0	2,6	5	90	4,0	diamond	0102509
625006-3047-000	22,0	7,0	5	90	4,0	diamond	0102501
625006-3048-000	22,0	7,0	5	90	5,0	diamond	0102502
625006-3060-000	22,0	15,0	5	90	5,0	carbide	0102515
625006-3063-000	41,0	1,7	5	90	5,0	diamond	0102521
625006-3064-000	62,0	5,0	5	90	5,0	carbide	0102522

## 10 µm roughness styli for E-DT-SSO2A



Roughness styli have a diamond or tungsten carbide tip with a very small tip radius. Please check your machine specification for the correct stylus.

Art-Nr	L	L1	radius (µm)	W (°)	tactile power (mN)	TMAT	Accretech
625006-3053-000	22,0	7,0	10	90	0,8	diamond	0102508
625006-3054-000	22,0	2,6	5	90	4,0	diamond	0102509

# Contour measure with Surfcom and Contourecord

Contour styli are used for contour measuring. There are two different versions to build a complete stylus.



## Stylus arms with inserted stylus tips:

These contour styli consist of a stylus arm, screwed to the probe, and a stylus tip. The stylus arms are device-specific. The stylus tips are for universal use.



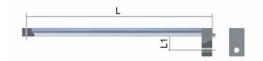
## Modular stylus arm:

These contour styli consist of a basic holding device and a special stylus arm. On the opposite end, the basic holding device has a M2 thread in which you can mount a special stylus arm.



## Stylus arms

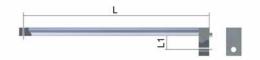
## Stylus arms for C1600, C1700, S1800, S1900



These stylus arms are mounted on probes. A contour stylus tip, edge or sphere with the according length is attachable at the front end.

Art-Nr	L	L1	Accretech
625006-3336-000	178,5	13,0	0102801
625006-3335-000	178,5	26,0	0102800
625006-3337-000	178,5	52,0	0102804

## Stylus arms for C2600, C2700, S2800, S2900



These stylus arms are mounted on probes. A contour stylus tip, edge or sphere with the according length is attachable at the front end.

Art-Nr	L	L1	Accretech
625006-4098-000	178,5	13,0	DM45529
625006-4097-000	178,5	26,0	DM45528
000000-1794-623	178,5	52,0	DM45531

#### Stylus arms

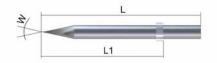
Modular stylus arms allow measurements on hard to reach positions.



## Stylus insertions for stylus arms

## Stylus tips

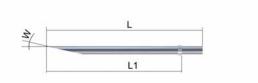
Stylus tips can be mounted to the device-specific stylus arms. Be careful to only use tips with a functional length L according to the functional length L of the stylus arm.



Art-Nr	L	L1	radius (µm)	W (°)	TMAT	Accretech
625006-3097-000	21,0	13,0	25	24	carbide	DM45506
625006-3096-000	34,0	26,0	25	24	carbide	DM45505
625006-3095-000	60,0	52,0	25	24	carbide	DM45504

## Stylus blades

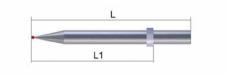
The stylus blades have a bevelled point and can be attached to the device-specific stylus arms. Do only use blades with the functional length L1 in stylus arms with the appropriate functional length L1.



Art-Nr	L	L1	radius (µm)	W (°)	TMAT	Accretech
625006-3094-000	21,0	13,0	25	12	carbide	DM45503
625006-3100-000	21,0	13,0	25	24	carbide	DM45509
625006-3093-000	34,0	26,0	25	12	carbide	DM45502
625006-3099-000	34,0	26,0	25	24	carbide	DM45508
625006-3092-000	60,0	52,0	25	12	carbide	DM45501
625006-3098-000	60,0	52,0	25	24	carbide	DM45507

## Stylus spheres

Stylus spheres can be attached to the device-specific stylus arms. Do only use spheres with the functional length L1 in stylus arms with the appropriate functional length L1.



Art-Nr	L	L1	radius (µm)	TMAT	Accretech
625006-3119-000	21,0	13,0	250	ruby	DM45580
625006-3273-000	21,0	13,0	350	ruby	DM45524
625006-3275-000	21,0	13,0	500	ruby	DM45527
625006-3272-000	34,0	26,0	350	ruby	DM45523
625006-3113-000	34,0	26,0	500	ruby	DM45526
625006-3271-000	60,0	52,0	350	ruby	DM45522
625006-3274-000	60,0	52,0	500	ruby	DM45525

## Modular stylus arms M2

## Modular basic holding device M2 for C1600, C1700, S1800, S1900



The basic holding device is mounted to the probe and has a M2 thread on the opposite end to which you can mount a special stylus arm.

Art-Nr	L	L1	Accretech
625006-3081-000	115,0	17,0	0102802

## Modular basic holding device M2 for C2600, C2700, S2800, S2900

Art-Nr	L	L1	Accretech
625006-4099-000	115,0	17,0	DM45530

## Stylus insertions for stylus arms M2

## Modular stylus arms M2 for C1600, C1700, S1800, S1900



These special stylus arms with M2 fixing are installed in a modular stylus arms. They are used for small holes and hard-to-access areas.

Art-Nr	L	L1	radius (µm)	W (°)	TMAT	Accretech
625006-3253-000	65,0	3,5	25	12	carbide	DM45083
625006-3252-000	65,0	7,0	25	12	carbide	DM45082
625006-3251-000	65,0	12,0	25	12	carbide	DM45081

## Modular stylus arms M2 for C2600, C2700, S2800, S2900

Art-Nr	L	L1	radius (µm)	W (°)	TMAT	Accretech
625006-4088-000	65,0	4,5	25	12	carbide	DM45512
625006-3102-000	65,0	8,0	25	12	carbide	DM45511
625006-4087-000	65,0	12,0	25	12	carbide	DM45510

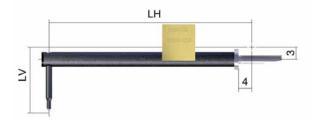
## Surfcom 2000, 3000, 5000

In this chapter you will find combined roughness and contour styli. These styli, depending on the design, can be used in the Surfcom 2000, 3000 or 5000. They differ in the theoretical functional lengths LH and LV and in the type and material of the stylus tip.

Choose either the standard styli or the ThermoFit® styli in carbon fiber design. Custom styli in Thermo-Fit ® design can be manufactured and delivered fast based on our special production technology for carbon fiber tubes. Take advantage of our profound know-how in the field of ThermoFit® applications in the coordinate measuring technology. Our worldwide proven carbon fiber styli and extension are the perfect solution if it comes to high precision and reliability.

#### Repair service on request!

Send in your damaged stylus and our specialists check the possibility of repair. This is normally cheaper than buying a new stylus. Please contact us, we will be pleased to advise you.





## Surfcom 2000

## Standard styli for Surfcom 2000



Please keep the functional lengths LH65 and LH130 in mind before using the styli. There are no custom elements possible for standard styli. The styli are calibrated before the delivery and are instantly ready for use.

Art-Nr	LH	LV	radius (µm)	angle (°)	tactile power (mN)	TMAT	Accretech
000000-1365-332	65,0	-4,6	2	60	0,8	diamond	DM47506
000000-1365-331	65,0	-5,0	2	60	0,8	diamond	DM47505
000000-0483-888	65,0	-12,5	2	60	0,8	diamond	DM47523
000000-1365-329	65,0	-14,4	2	60	0,8	diamond	DM47501
000000-1365-334	65,0	-14,4	5	30	5,0	diamond	DM47508
000000-1433-410	65,0	-14,4	5	40	4,0	diamond	DM47548
625006-3938-000	65,0	-14,5	2	60	0,8	diamond	DM47504
000000-1365-333	65,0	-30,5	2	60	0,8	diamond	DM47507
000000-1433-416	65,0	-30,5	5	90	4,0	diamond	DM47549
000000-1373-770	130,0	-15,5	2	60	4,0	diamond	DM47547
000000-1365-330	130,0	-21,5	25	24	5,0	carbide	DM47513

## ThermoFit® styli for Surfcom 2000



Styli for Surfcom 2000. Made in Germany in original Carl Zeiss ThermoFit design. The stylus arm is made of high strength and very stiff and light carbon fiber tubes. We obtain our diamond tips only from European quality manufacturers. We also manufacture custom styli according to your wishes. Just give us a call! The styli are calibrated before the delivery and are instantly ready for use.

Art-Nr	LH	LV	radius (µm)	angle (°)	tactile power (mN)	TMAT
626108-6006-010	65,0	-14,8	2	60	0,8	diamond
626108-6007-010	65,0	-30,5	2	60	0,8	diamond
626108-6000-010	130,0	-7,9	2	60	5,0	diamond
626108-6005-010	130,0	-15,5	2	60	4,0	diamond

## Surfcom 3000/5000

## Standard styli for Surfcom 3000/5000

Please keep the functional lengths LH50, LH100 and LH125 in mind before using the styli. There are no custom elements possible for standard styli. The styli are calibrated before the delivery and are instantly ready for use.



Art-Nr	LH	LV	radius (µm)	angle (°)	tactile power (mN)	TMAT	Accretech
000000-1098-592	50,0	-4,6	2	60	0,7	diamond	DM48514
000000-1098-591	50,0	-5,0	2	60	0,7	diamond	DM48513
000000-1138-881	50,0	-14,4	2	60	0,7	diamond	DM48505
000000-1262-181	50,0	-14,4	2	30	0,8	diamond	DM48588
000000-1138-888	50,0	-14,5	2	60	0,7	diamond	DM48511
000000-1098-589	50,0	-15,5	2	60	0,7	diamond	DM48507
000000-1098-593	50,0	-30,5	2	60	0,7	diamond	DM48515
000000-1138-885	100,0	-21,5	500		0,7	ruby	DM48508
000000-1098-590	125,0	-25,5	500		3,2	ruby	DM48509

## ThermoFit® styli for Surfcom 3000/5000

Styli for Surfcom 3000 and 5000. Made in Germany in original Carl Zeiss ThermoFit design. The stylus arm is made of high strength and very stiff and light carbon fiber tubes. We obtain our diamond tips only from European quality manufacturers. We also manufacture custom styli according to your wishes. Just give us a call! The styli are calibrated before the delivery and are instantly ready for use.



Art-Nr	LH	LV	radius (µm)	angle (°)	tactile power (mN)	TMAT
626108-6003-020	50,0	-4,0	2	60	0,8	diamond
626108-6004-020	50,0	-6,0	2	60	0,8	diamond
626108-6001-020	50,0	-13,1	2	60	0,8	diamond
626108-6008-020	50,0	-15,5	2	60	0,8	diamond
626108-6000-020	50,0	-29,8	2	60	0,8	diamond
626108-6002-020	125,0	-34,8	500		3,2	ruby

# Fax request for styli Surfcom 2000/3000/5000

Fax: +49 (0)7365-9208-29

Shaft material: c	arbon	fibre/T	hermoF	it
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\* Note: This is your desired depth of immersion and not the actual position of the counterweight.

Stylus tip diamond			
55°/2µm			
60°/2µm			
40°/5μm			
60°/5µm			
90°/5μm			

Device type	
Surfcom 2000	
Surfcom 3000	
Surfcom 5000	

LH for \$3000/5000			
50 mm			
100 mm			
125 mm			

LH for S2000				
65 mm				
135 mm				

Stylus arm dimensions	
B mm	
ML mm	
MLE mm	
DSE mm (min. Ø1 mm)	

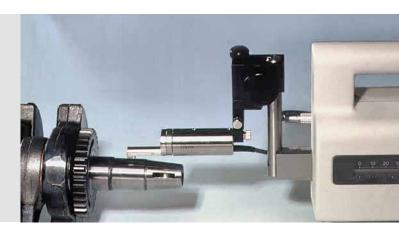
Quantity	
pcs	

Company:		
Department:		
Name, First:		
Address:		
Zip / City:		
Phone:	Fax	
E-Mail:		

## Portable roughness measuring units

## Measure everywhere

Measure the roughness of your workpiece simple and quick with the Surfcom 130 and the Handysurf. Even for complicated workpiece geometries you will find the proper solution in our wide range of styli. The evaluation meets the currently valid standards and comprises all common roughness parameters.



The portable measuring units from Carl Zeiss are excellent for mobile operations, both in the shop floor and in the measuring cabin. It's best for use directly in your CNC machine by separation of the traverse and evaluation unit.



The variety of the fields of application is completed by a broad range of practical accessories. Thus almost every measuring task is possible, be it the Handysurf in any position or even with an interface to the ZEISS measuring software Calypso.



## **Handysurf**

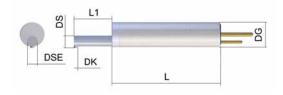
## Handysurf E-35B



Handysurf makes it simple and mobile, whether in the receiving control, the shop floor or in the final inspection. Because this compact handheld measuring unit is coming on the spot for the workpieces. Measurements can be done flexible in every position. Of course, it disposes all current surface standards and evaluates all common characteristic values. You can see your measured values instantly on the easily legible and high-contrast LCD-Display. A printer is optionally available for the data output. Measuring, evaluating and logging surface roughness can't get much easier, than with the Handysurf E-35B.

Art-Nr	Description
625006-8109-000	Handysurf E-35B
Accessories	
625006-3153-000	stylus extension 50 mm Handysurf
625006-3154-000	stylus extension angle 90° Handysurf
626108-9050-000	articulated arm with magnetic stand Handysurf
000000-1092-434	cable for small type printer Handysurf
000000-1191-183	thermoprinter standard DPU-H245
000000-1092-408	paper holder for printer Handysurf
000000-1191-185	paper, 10 rolls for Thermoprinter
625006-3152-000	AC-adapter Handysurf 230V
000000-1092-410	battery pack BP-3006
000000-1092-440	connection cable to PC RS-232C

## Styli for Handysurf



These styli are the perfect complement for your Handysurf 35B roughness measurement machine. They are easily exchangeable and expand the field of application of your machine.

Art-Nr	L	L1	DK	DG	DS	Accretech
625006-3263-000	56,00	12,30	1,50	9,50		E-DT-SM10A
625006-3264-000	56,00	14,50	1,50	9,50	4,50	E-DT-SM11A
625006-3265-000	56,00	14,50	1,50	9,50	2,70	E-DT-SM12A
625006-3266-000	56,00	7,20	1,50	9,50	2,80	E-DT-SM13A

## Surfcom 130

#### Surfcom 130

The comfortable surface measuring machine Surfcom 130 is engineered for the flexible use at the shop floor level. It consists of a 50mm traversing unit with high accuracy in straightness, a built-in datum plane, and a powerful evaluation unit. The operation takes place on the clear display (Touch-Screen). Calibration and input helper, language switcher and notepad are useful functions besides the large measuring and evaluation performance. The Surfcom 130 possesses a PCMCIA-Card-Drive to save the programs and data. Additionally, the results can be printed on the integrated thermal printer or displayed via the RS232-interface on your PC with the help of the optional surface software TIMS. You can find the matching styli in this catalog in the section "roughness styli". Treat your equity with care. We offer fast and uncomplicated leasing for these machines. Don't hesitate to contact us.



Art-Nr	Description
000000-1019-534	Surfcom 130 monochrome
000000-1019-536	Surfcom 130 colour
Accessories	
000000-0500-698	USB/Serial Converter
000000-1014-674	thermal paper 10 rolls/box
000000-1319-226	RS-232-C wire (9 pin to 9 pin) for TIMS-light
625007-0135-000	PC-Card 128 MB E-MU-S50C
625007-0079-000	AC adapter 230V Surfcom 130 E-SC-S371A
625006-3283-000	power cable for 230V, Europe E-SC-S101A
000000-1041-911	roll foot (Outer - o . 60mm) E-MA-S62A
625006-3303-000	universal pickup holder E-DH-S107A
625006-3304-000	pickup holder for horizontal tracing E-DH-S17A
000000-1128-019	Tims-Light Software, German
000000-1128-020	Tims-Light Software, English
000000-1128-021	Tims-Light Software, Italian
000000-1128-022	Tims-Light Software, French

## Surfcom Flex 50A

#### Surfcom Flex 50A



Model combination with small genuine type 50mm tracing driver of S130A. Small tracing driver, available skidless measurement and waviness measurement. Achieve class highest straightness accuracy 3µm/50mm Easy levelling adjustment by tilting support function.

Art-Nr	Description
625006-9066-000	Surfcom Flex 50A
625006-9067-000	Surfcom Flex 35B with standrad tracing driver of Handysurf
Accessories	
625006-9072-000	Standard-Pickup D=12.3 mm (2µm tip) only for Handysurf 35B
625006-8204-000	Pickup D=4,5 mm E-DT-SM40A (geometry like E-DT-SM11A) for Handysurf HS35/40
625006-8205-000	Pickup D=2,7 mm E-DT-SM41A (geometry like E-DT-SM12A) for Handysurf HS35/40
625006-8206-000	Pickup for groove measurement 7,2 mm E-DT-SM42A (geometry like E-DT-SM13A) for Handysurf HS35/40

## **Accessories**

## Stand for portable devices



Hard stone plate with height adjustable seating for Surfcom 130 or Handysurf (optional).

A Surfcom 130 can be quickly and easily mounted to the height adjustable seating or also a Handysurf with the help of an optional adapter angle. Workpieces or clamping systems can be applied to the plate. The measuring point can be reached smoothly with the accurate and robust z-adjustment. The height adjusting range is 300 mm. The dimensions of the granite plate are 400x250x50 mm. (Delivery without measuring machine).

Art-Nr	Description
626108-8200-001	measuring stand for Surfcom 130A, Handysurf
626108-8100-002	adapter Handysurf for compact measuring stand

## **Useful for Surfcom**

Keep your workpieces safe and stable during the measuring run with our clamping systems.

Positioning systems, precision positioning systems and clamping systems are very important to position your workpieces for the measurement. All components have to be compatible to allow a quick and simple installation of the clamping to measure the workpiece.

Positioning systems are rotary and sliding units, used to pre-position large and heavy workpieces on the granite table of the measuring machine. Index bolts are mostly used to arrest coarse positioning. Some of the systems already have an integrated fine adjustment. This adjustment helps to position the measuring point directly beneath the stylus.

An additional precision positioning system is required if a fine adjustment was not installed. Precision positioning systems are rotary and sliding units with micrometer screws and they enable the sensitive positioning of the workpiece. XY-tables, rotary and swivel units, or rotary and sliding units can be created by stacking precision positioning systems.

A clamping system will then lock the workpiece by using bench vises and three jaw chucks in different dimensions.

Additional accessories and care materials, to improve the quality of your measurement, can be found at the end of the chapter.



## Positioning systems

#### XY-sliding table



Manual sliding table for Surfcom 1500, 1700, 1900, 2000, 2700, 2900.

A Surfcom can be installed on the sliding table. The Surfcom can be moved freely in the XY plane to easily and quickly reach measuring positions on large workpieces. The sliding mechanism with linear guiding is lockable in every position on the hard stone table. The table is placed on a base frame with vibration isolation system. Two T groove rails with a nominal dimension of 14 are mounted on the plate and enable the mounting of devices. The table will be delivered completely assembled and with CE-Conformity, user manual and risk analysis. The delivery doesn't include a Surfcom. Treat your equity with care. We offer fast and uncomplicated leasing for these machines. Don't hesitate to contact us.

Art-Nr	Description
626108-8210-010	Surfcom positioning table 1200x800 mm
626108-8210-020	Surfcom positioning table 1200x800 mm 1500x1000 mm

#### Positioning table



Positioning table for rotating and sliding of heavy workpieces. The table is mounted to the granite plate of the Surfcom. The coarse adjusting with linear guiding in Y-direction of 200 mm adjustable range is lockable in every position. The fine adjusting of the Y-direction is being made by a micrometer screw with an adjustable range of  $\pm 10$ mm. The rotary unit is lockable in every position. A micrometer screw additionally enables a fine adjusting. Dimensions about 330 x 320 x 100 mm, base plate rotary unit Ø 260 mm with threaded hole M8 in the grid 25 mm and fastening screw thread M5 for Surfcom standard accessories, carrying capacity 100 kg.

Art-Nr	Description
626108-9050-010	Y-positioning table 200 mm with turntable

## Precision positioning systems

#### Swivel unit

The goniometer tilting table with angle setting range of  $\pm$  20° allows small workpieces to be tilted out of the horizontal level. Dimensions 60 x 60 x 20 mm. The swivel unit can be mounted to the other precision positioning systems.



Art-Nr	Description
626108-9081-000	goniometer tilting table 60x60 mm

#### Rotary unit

The rotary unit with rugged sliding guide enables the precise rotating of the workpiece around an axis. It has a coarse adjustment and a fine adjustment screw with scale division 1° and vernier scale 0.1°. Dimensions: diameter 110 mm, height 25 mm. The rotary unit can be mounted to the sliding unit. Additional clamping devices can also be mounted to the rotary unit (adapter plate required).



Art-Nr	Description
626108-9080-000	sliding movement type rotation stage 110 mm

## Sliding unit

Made of sturdy stainless steel, the axial sliding unit has a carrying capacity of 100 kg. A fine adjustment screw enables an adjustment range of +/- 6 mm. Two sliding units can be combined to a cross table. Rotary unit, swivelling unit or specific clamping devices from the Surfcom accessories can be mounted to the sliding unit. Dimensions 120 x 120 x 25 mm.



Art-Nr	Description
626108-9070-000	axial adjustment unit with precision adjustable screw

## Adapter plate

Adapter plate dia. 120 mm for mounting on Surfcom CNC units with center dia. 16. Incl. screws M4 and M5.



Art-Nr	Description
626108-9090-000	adapter plate Surfcom CNC dia. 120 mm

## Clamping systems

#### Bench vises



Bench vise with adapter plate for the assembly on Surfcom positioning systems or precision adjustment systems as well as directly on the Surfcom granite table. The bench vise is made of steel and delivered with the required fastening material. The bench vises are moveable along the adapter plate.

Art-Nr	Description
626108-9021-050	bench vice 50 mm jaw width 50 mm, span width 67mm
626108-9021-073	bench vice 73 mm with adapter plate, span width 101 mm
626108-9021-100	bench vice 100 mm with adapter plate, span width 127 mm
626108-9021-125	bench vice 125 mm with adapter plate, span width 162 mm

#### Center bench vise



Center bench vises clamp workpieces with various dimensions to the center. Workpieces don't have to be readjusted every time the workpiece changes. The bench vise is made of steel and has exchangeable hardened jaws with a jaw width of XX mm and a span width of XX mm.

Art-Nr	Description
626108-9022-070	centering bench vise, jaw width 70 mm, span width 70 mm

## Rotatable bench vise



Bench vise can rotate and swivel in 2 axis with a jaw width of 70 mm and a span width of 80 mm. The tilting area is  $\pm$  45°. The rotary area is 360°. The rotatable bench vise is made of steel and delivered with the required fastening material. The bench vise can be mounted directly to the Surfcom.

Art-Nr	Description
626108-9010-000	rotatable bench vice 70 mm jaw width

## Three jaw chuck

Three jaw chucks, made of steel, are fastened to an adapter plate and can be mounted to the Surfcom positioning systems and fine adjustment systems as well as directly to the granite table of the Surfcom.

Fastening material as well as a jaw set for each, inside and outside, is provided.



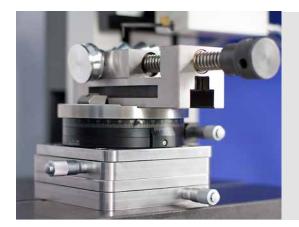
Art-Nr	Description
626108-9031-050	three jaw chuck turret 50 mm with adapter plate
626108-9031-080	three jaw chuck turret 80 mm with adapter plate
626108-9031-100	three jaw chuck turret 100 mm with adapter plate
626108-9031-125	three jaw chuck turret 125 mm with adapter plate

#### Vee blocks

Precision vee blocks made of hardened steel are honed and have a 90° prism. Vee blocks are suited for cylindrical parts.



Art-Nr	Description
626108-9110-000	Vee block 100x47 mm for shafts 5-55 mm
626108-9110-010	Vee block 250x65 mm for shafts 5-100 mm



## Build customized positioning tables

Our positioning and clamping systems are additionally combinable with each other.

## Interchangeable pallet system 300x200

In case you need to measure many different work pieces or have a variety of measurement tasks to complete, it is a major advantage if you are able to exchange your fixtures fast and easily.

Our interface pallets are an efficient and timesaving solution. No more loss of precious time, because you won't have to adjust the fixtures to the workpieces.

## Interface pallet set



This handy interface set contains everything you need as initial equipment:

- 1 x Support plate
- 1 x Raster interface 300x200

And either 1 x bench vice intreface (73 mm) or 1 x three chuck interface (125 mm)

	Art-Nr	Description
	626109-9220-130	interface set bench vice
	626109-9220-140	interface set jaw chuck
	Accessories	
	626109-9220-040	jaw chuck interface
	626109-9220-030	bench vice interface
	626109-9220-020	raster interface M6
	626109-9220-010	support plate

## Support plate



This support plate can be installed directly within the measureing range of your CMM. On the statically defined 3-roll-support you can fast and easily attach the appropriate interface.

Art-Nr	Description
626109-9220-010	support plate

#### Raster interface

This raster pallet for the changeable interface system has a M6 25 mm hole spacing. It allows you to assemble your own mounting fixtures with bracket clamps or other elements included in our clamping kit (000000-0411-562).



Art-Nr	Description
626109-9220-020	raster interface M6
Accessories	
600062-0210-000	CARFIT® CMB KIT - System E

## Bench vice interface

This interface pallet holds an attached bench vice with a jaw width of 73 mm and a maximum spread of 100 mm.

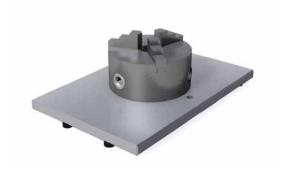
The bench vice is mounted with brackets to the pallet and can be moved on the plate.



Art-Nr	Description
626109-9220-030	bench vice interface

## Jaw chuck Interface

 $300 \times 200$  mm interface with an attached three jaw chuck. A handy catch to operate the chuck is also provided.



Art-Nr	Description
626109-9220-040	jaw chuck interface

## CMB-E clamping kit



The extensive CARFIT® CMB KIT - System E includes clamping and positioning elements. This kit allows a fast and simple assembly of workpiece specific clamping devices. Base plate not included, has to be ordered separately.

Art-Nr	Description
600062-0210-000	CARFIT® CMB KIT - system E
Accessories	
626109-9220-020	raster interface M6x25

## Cleaning material



Cleanliness is essential for precision measuring. The workpiece has to be cleaned to achieve optimum measuring results. Our cleaning material was tested in field by our users and is recommended for roundness measuring machines.

Art-Nr	Description
626119-0010-006	Polyamide-stretch-glove with PU coated palm
000000-1359-469	microfiber cleaning tissue
000000-0424-218	cleaning cloths Absorbond TX409,9" x9"
626119-0010-007	swabs Knitted Polyester 1,6mm, (500 pcs.)
626119-0010-008	swabs Knitted Polyester 3,2mm, (500 pcs.)
626119-0010-009	swabs Knitted Polyester 6,4mm, (500 pcs.)
626119-0010-005	dust off 360 Super
000000-0084-895	JFA-CLEAN bottle 1L

## **Artefacts**

As an operator of measuring machines, you must be sure that your measuring equipment meets the required specifications at all times. This is absolutely vital for the consistently high quality of the parts you manufacture. Accuracy monitoring at regular intervals provides the foundation for accurate, reliable measuring results. For this purpose, we offer artifacts for a wide variety of applications.

#### Reference blocks

Contour-Check can be used to test contour measuring machines in accordance with VDI/VDE directive 2629, sheet 1. The use of the contour standard allows the user to regularly verify compliance with the specifications of the contour measuring machine.

The carrier of the standard consists of hard metal, on which calibrated, high-precision dimensional standards and form elements are mounted.

- 185 mm total length with 9 form elements
- 2 x 90° angle, convex
- 2 x 90° angle, concave
- 3 x radius, convex
- 2 x radius, concave

Contour-Check is delivered with a fixture that permits measurement of the standard at 0° and 20° inclinations in accordance with the VDI directive.



Art-Nr	Description
600332-9230-000	Contour-Check with case
600332-9230-100	DKD-calibration Contour-Check

## Roughness standard

The roughness standard is used for calibration and inspection of the roughness measuring machine. It features two different surfaces with known roughness values. The values are denoted on the standard. For use with Handysurf, Surfcom 130,1500, 1900,2000 and 5000.



Art-Nr	Description	
000000-1098-899	roughness calibration	F-MC-S24B

# Fax request for styli Surfcom 2000/3000/5000

Fax: +49 (0)7365-9208-29

Shaft	material:	carbon	fibre/	ThermoFit



\* Note: This is your desired depth of immersion and not the actual position of the counterweight.

Stylus tip diamond	
55°/2μm	
60°/2 µm	
40°/5 μm	
60°/5µm	
90°/5μm	

Surfcom 2000  Surfcom 3000  Surfcom 5000	Device type	
341100111 3000	Surfcom 2000	
Surfcom 5000	Surfcom 3000	
	Surfcom 5000	

LH for S3000/5000	
50 mm	
100 mm	
125 mm	

LH for \$2000	
65 mm	
135 mm	

Stylus arm dimensions	
B mm	
ML mm	
MLE mm	
DSE mm (min. Ø1 mm)	

Quantity	
pcs	

Company: Department: Name, First: Address: Zip / City: Phone: Fax: E-Mail:

## RoboMax®

# Visible Productivity

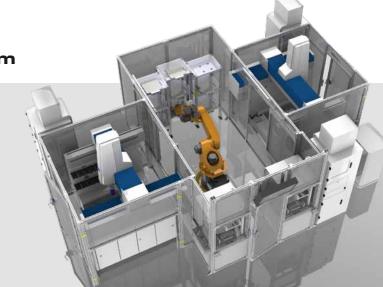
## Automate your ZEISS cmm

## **Increased Productivity**

Get higher throughput and have lower downtimes in your production.

## **Guaranteed Connectivity**

By modularly connecting the Zeiss CMM, robot and peripherals with the factory material flow.



## Only a few steps from the idea to its completion

#### Clear concept

Simulation, visualization and constant communication with our customer - from the quotation to the delivery is the key to a successful RoboMax project.

## Thinking ahead

To provide you with a future-proof solution, we only use globally available components for easy spare parts procurement.



## Ask us

We can assist you to increase the productivity of your quality control. Send your inquiries to:

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