

Probe System Equipment VAST® XXT from ZEISS

Original accessories from the technology leader



ZEISS

**VAST
XXT**



ZEISS VAST XXT

Probe System Equipment

Use specially designed and optimized components for your ZEISS VAST XXT probe. To obtain maximum performance and precision with your ZEISS CMM.

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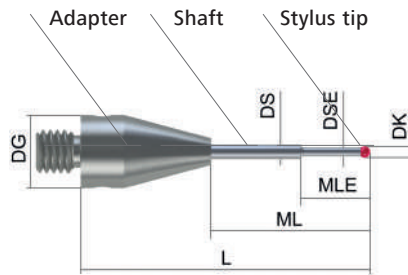
Note

Subject to technical changes and price alterations. Our range of products is directed at business customers. All dimensions in mm. Illustrations may differ. You will find our GTC on the Internet at: www.probes.zeiss.com

Useful information about ZEISS styli

A stylus normally consists of three components: adapter, shaft and stylus tip.

The following principle applies to all styli: they should be as bend resistant as possible, in order to absorb the measuring force largely without deformation, so-called "stylus deflection". The key factors here are the shaft design and the transition to the adapter in which the shaft is mounted.



Legend

DK	Sphere diameter in mm
L	Total length in mm
ML	Measuring length in mm
DS	Shaft diameter in mm
DG	Diameter of base body in mm
MLE	Offset measuring length in mm
DSE	Offset shaft diameter in mm
B	Thickness / length

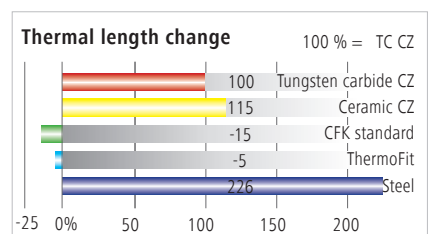
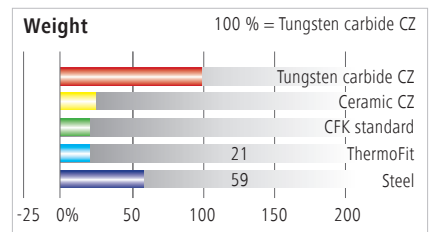
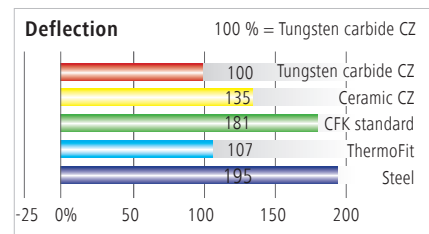
The adapter

The adapter is the connection between the connection thread and the shaft. It is important that the adapter is designed in such a way that it can withstand the measuring force that is introduced via the shaft in an optimum manner. Otherwise there will be an increased scatter of the probe measurements. In addition, the connection point to the extensions is always undercut to ensure optimum force fit. Depending on the measuring system being used, ZEISS uses M2, M3 and M5 connection threads.

Conventional M3 styli may not be used in XXT stylus systems; the M3 XXT styli which are optimized for passive scanning should be used instead. The 1 mm larger diameter of the XXT adapter base body and the high-strength titanium alloy guarantee a considerably higher stiffness compared with conventional M3 styli.

The shaft

A distinction is made between a straight and an stepped shaft in the design. The stepped shaft has the advantage of a slightly greater shaft thickness DS, which reduces towards the stylus tip. The disadvantage is the smaller usable measuring range MLE with the shaft thickness DSE (compared with DS and ML with a straight stylus). The material and the cross-section have the greatest influence on the stylus stiffness, whereby the solid material is always stiffer than a tube. The key characteristics of the shaft are stiffness, weight and thermal linear expansion. The table shows that ZEISS ThermoFit styli optimize these three characteristics.



The stylus tip

The stylus tip can be a sphere, a disc, a cylinder or a variation of these, such as a half-sphere or a cylinder with a ball end.

The stylus sphere is the stylus tip which is most used. The deviation from the ideal spherical shape is generally stated as the "Grade." ZEISS uses Grade 5 as standard and also Grade 3 spheres for high precision roundness tests.

The most common sphere materials and their major areas of application are listed in the adjacent table.

Material	Application	DK in mm
Ruby	Standard for almost all applications. Weaknesses with certain materials in combination with continuous scanning (wear or material build-up possible).	0.12 – 12
Silicon nitride	Same use as ruby, but possibly less material build-up when scanning aluminum.	1 – 12
Ceramic (aluminum oxide)	Use with large stylus sphere diameters and disc styli, for scanning rough surfaces, e.g. cast iron. Permits weight-optimized half-spheres.	8 – 45
Tungsten carbide	Permits sphere diameters in special sizes e.g. for gear measurement. Can be manufactured according to specifications. Very high weight.	2 – 30
Steel	Used mainly for disc styli. Is considerably softer than tungsten carbide, but larger diameters available.	30 – 100
Diamond	The hardest material in the world, virtually no wear and no material build-up during scanning.	1 / 2 / 3
Diamond-coated	The hardest material in the world as a coating, virtually no wear and no material build-up during scanning.	1 / 2 / 3 5 / 8

Customized styli

We manufacture your stylus on request

You will find prepared forms in our webshop at www.probes.zeiss.com.

You can also send us a fax on +49 7361 6336 29 or an email to orders@3d-net.de.

Please indicate the following in your inquiry:

Adapter:

M2 / M3 / M3 XXT / M5

Stylus tip: sphere / disc / cylinder
DK / B

Stylus material:

Ruby / silicon nitride / diamond / tungsten carbide / ceramic / steel

Shaft:

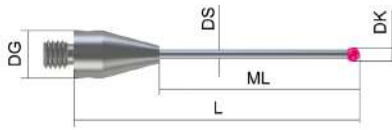
Straight / stepped

DS / DSE / L / ML / MLE

Shaft material:

Tungsten carbide / ZEISS ThermoFit/ ceramic

Tungsten carbide shaft

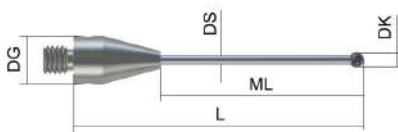


Styli with thread

Adapters: M3 XXT, titanium
 Shaft: Tungsten carbide, straight
 Stylus tip: Ruby sphere

For standard applications with a high bending strength.

Item No.	DK	L	ML	DS	DG	Wt. (g)
626113-0080-014	0.80	14.00	5.00	0.60	5.00	0.6
626113-0100-014	1.00	14.00	5.00	0.80	5.00	0.6
626113-0100-017	1.00	17.00	8.00	0.80	5.00	0.7
626113-0103-020	1.00	20.00	11.00	0.80	5.00	0.7
626113-0141-024	1.35	24.00	15.00	1.00	5.00	0.8
626113-0150-014	1.50	14.00	5.00	1.00	5.00	0.7
626113-0150-017	1.50	17.00	8.00	1.00	5.00	0.7
626113-0150-020	1.50	20.00	11.00	1.00	5.00	0.7
626113-0150-030	1.50	30.00	22.50	1.00	4.00	0.9
626113-0150-035	1.50	35.00	26.00	1.00	5.00	0.9
626113-0151-040	1.50	40.00	31.00	1.00	5.00	1.0
626113-0151-025	1.50	25.00	16.00	1.00	5.00	0.8
626113-0200-014	2.00	14.00	5.00	1.00	5.00	0.7
626113-0200-017	2.00	17.00	8.00	1.00	5.00	0.7
626113-0200-020	2.00	20.00	11.00	1.00	5.00	0.7
626113-0200-025	2.00	25.00	16.00	1.00	5.00	0.8
626113-0200-030	2.00	30.00	21.00	1.00	5.00	0.8
626113-0200-035	2.00	35.00	26.00	1.50	5.00	1.3
626113-0201-040	2.00	40.00	31.00	1.50	5.00	1.5
626113-0250-020	2.50	20.00	11.00	1.50	5.00	1.0
626113-0250-025	2.50	25.00	16.00	1.50	5.00	1.1
626113-0250-030	2.50	30.00	21.00	1.50	5.00	1.2
626113-0250-035	2.50	35.00	26.00	1.50	5.00	1.3
626113-0250-040	2.50	40.00	31.00	1.50	5.00	1.5



Styli with thread

Adapters: M3 XXT, titanium
 Shaft: Tungsten carbide, straight
 Stylus tip: Silicon nitride sphere

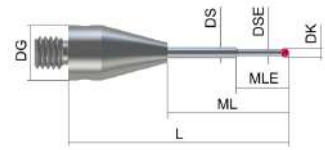
For standard applications with a high bending strength.

Item No.	DK	L	ML	DS	DG	Wt. (g)
626113-0152-014	1.50	14.00	5.00	1.00	5.00	0.7
626113-0153-020	1.50	20.00	11.00	1.00	5.00	0.8
626113-0155-030	1.50	30.00	21.00	1.00	5.00	2.8
626113-0201-014	2.00	14.00	5.00	1.00	5.00	0.7
626113-0203-020	2.00	20.00	11.00	1.00	5.00	0.7
626113-0203-030	2.00	30.00	21.00	1.50	5.00	0.8
626113-0203-040	2.00	40.00	31.00	1.50	5.00	1.5
626113-0251-020	2.50	20.00	11.00	1.50	5.00	1.0
626113-0252-030	2.50	30.00	21.00	1.50	5.00	1.2
626113-0251-040	2.50	40.00	31.00	1.50	5.00	1.5

Styli with thread

Adapter: M3 XXT titanium
 Shaft: Tungsten carbide, stepped
 Stylus tip: Ruby sphere

For standard applications with a high bending strength.

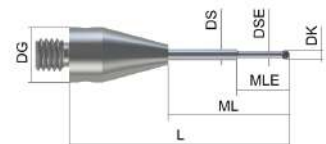


Item No.	DK	L	ML	MLE	DS	DSE	DG	Wt. (g)
626113-0025-011	0.25	11.00	5.00	2.50	1.00	0.20	5.00	0.6
626113-0030-025	0.25	25.00	11.00	4.00	0.80	0.20	5.00	0.9
626113-0030-013	0.30	13.00	4.00	2.30	1.00	0.20	5.00	0.6
626113-0030-015	0.30	15.00	6.00	2.30	1.00	0.20	5.00	0.6
626113-0030-018	0.30	18.00	9.00	2.30	1.00	0.20	5.00	0.7
626113-0030-020	0.30	20.00	11.00	2.30	1.00	0.20	5.00	0.7
626113-0040-013	0.40	13.00	4.00	2.30	1.00	0.30	5.00	0.6
626113-0040-015	0.40	15.00	6.00	2.30	1.00	0.30	5.00	0.7
626113-0040-020	0.40	20.00	11.00	2.30	1.00	0.30	5.00	0.7
626113-0050-013	0.50	13.00	4.00	2.30	1.00	0.30	5.00	0.6
626113-0050-015	0.50	15.00	6.00	2.30	1.00	0.30	5.00	0.7
626113-0050-018	0.50	18.00	9.00	2.30	1.00	0.30	5.00	0.7
626113-0050-020	0.50	20.00	11.00	2.30	1.00	0.30	5.00	0.7
626113-0051-024	0.50	24.00	15.00	2.30	1.00	0.30	5.00	0.7
626113-0060-014	0.60	14.00	5.00	4.60	1.00	0.40	5.00	0.6
626113-0060-017	0.60	17.00	8.00	4.60	1.00	0.40	5.00	2.6
626113-0060-020	0.60	20.00	11.00	4.60	1.00	0.40	5.00	0.7
626113-0061-024	0.60	24.00	15.00	4.60	1.00	0.40	5.00	0.8
626113-0080-017	0.80	17.00	8.00	4.80	1.00	0.60	5.00	0.7
626113-0080-020	0.80	20.00	11.00	4.80	1.00	0.60	5.00	0.7
626113-0080-025	0.80	25.00	16.00	4.80	1.00	0.60	5.00	0.8
626113-0080-034	0.80	34.00	25.00	4.10	1.00	0.60	5.00	0.8
626113-0081-035	0.80	35.00	26.00	4.80	1.00	0.60	5.00	0.9
626113-0100-020	1.00	20.00	11.00	5.00	1.00	0.80	5.00	0.7
626113-0100-025	1.00	25.00	16.00	5.00	1.00	0.80	5.00	0.8
626113-0100-030	1.00	30.00	21.00	5.00	1.00	0.80	5.00	0.8
626113-0100-035	1.00	35.00	26.00	5.00	1.00	0.80	5.00	0.9
626113-0100-040	1.00	40.00	31.00	5.00	1.00	0.80	5.00	1.0

Styli with thread

Adapter: M3 XXT titanium
 Shaft: Tungsten carbide, stepped
 Stylus tip: Silicon nitride sphere

For standard applications with a high bending strength.



Item No.	DK	L	ML	MLE	DS	DSE	DG	Wt. (g)
626113-0102-020	1.00	20.00	11.00	5.00	1.00	0.80	5.00	0.7
626113-0101-025	1.00	25.00	16.00	5.00	1.00	0.80	5.00	0.8
626113-0101-035	1.00	35.00	26.00	5.00	1.00	0.80	5.00	0.9
626113-0105-030	1.00	30.00	21.00	5.00	1.00	0.80	5.00	0.9
626113-0101-040	1.00	40.00	31.00	5.00	1.00	0.80	5.00	1.0

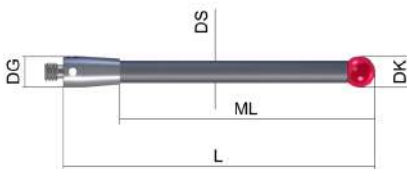
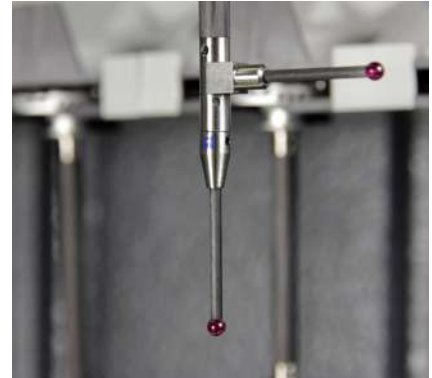
ThermoFit® from ZEISS



Our styli with a ZEISS ThermoFit shaft permit the design of large and complex stylus systems.

Advantages:

- High stiffness
- Light weight
- Thermally stable



Styli with thread

Adapter: M3 XXT titanium
 Shaft: ZEISS ThermoFit, straight
 Stylus tip: Ruby sphere

ZEISS ThermoFit styli are thermally stable and light weight, making them suitable for long lengths and complex stylus systems.

Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0300-025	3.00	25.00	16.00	2.00	5.00	0.7
626103-0300-033	3.00	33.00	24.00	2.00	5.00	0.7
626103-0300-040	3.00	40.00	31.00	2.00	5.00	0.8
626103-0300-042	3.00	42.00	33.00	2.00	5.00	0.8
626103-0300-050	3.00	50.00	41.00	2.00	5.00	0.8
626103-0300-058	3.00	58.00	49.00	2.00	5.00	1.0
626103-0300-059	3.00	59.00	50.00	2.00	5.00	1.0
626103-0300-065	3.00	65.00	56.00	2.00	5.00	1.0
626103-0300-075	3.00	75.00	66.00	2.00	5.00	1.0
626103-0300-084	3.00	84.00	75.00	2.00	5.00	1.6
626103-0300-100	3.00	100.00	91.00	2.00	5.00	1.1
626103-0300-125	3.00	125.00	116.00	2.00	5.00	1.3
626103-0401-050	4.00	50.00	41.00	2.00	5.00	1.0
626103-0500-030	5.00	30.00	21.00	3.50	5.00	1.1
626103-0500-040	5.00	40.00	31.00	3.50	5.00	1.2
626103-0500-050	5.00	50.00	41.00	3.50	5.00	1.4
626103-0500-060	5.00	60.00	51.00	3.50	5.00	1.5
626103-0501-075	5.00	75.00	66.00	3.50	5.00	1.8
626103-0600-050	6.00	50.00	40.00	3.50	5.00	1.5
626103-0610-070	6.00	70.00	61.00	3.50	5.00	1.8
626103-0600-100	6.00	100.00	91.00	3.50	5.00	2.4
626103-0800-030	8.00	30.00	30.00	5.00	5.00	1.9
626103-0830-050	8.00	50.00	50.00	5.00	5.00	2.1
626103-0830-070	8.00	70.00	70.00	5.00	5.00	2.6
626103-0830-100	8.00	100.00	100.00	5.00	5.00	2.7
626103-0800-125	8.00	125.00	125.00	5.00	5.00	2.9

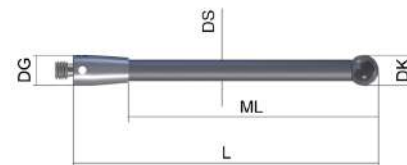
Styli with thread

Adapter: M3 XXT titanium

Shaft: ZEISS ThermoFit, straight

Stylus tip: Silicon nitride sphere

ZEISS ThermoFit styli are thermally stable and light weight, making them suitable for long lengths and complex stylus systems.



Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0301-025	3.00	25.00	16.00	2.00	5.00	0.7
626103-0301-033	3.00	33.00	24.00	2.00	5.00	0.7
626103-0305-040	3.00	40.00	31.00	2.00	5.00	0.8
626103-0301-042	3.00	42.00	33.00	2.00	5.00	0.8
626103-0301-050	3.00	50.00	41.00	2.00	5.00	0.8
626103-0301-058	3.00	58.00	49.00	2.00	5.00	1.0
626103-0301-065	3.00	65.00	56.00	2.00	5.00	1.0
626103-0301-075	3.00	75.00	66.00	2.00	5.00	1.0
626103-0301-084	3.00	84.00	75.00	2.00	5.00	1.6
626103-0301-100	3.00	100.00	91.00	2.00	5.00	2.1
626103-0301-125	3.00	125.00	116.00	2.00	5.00	2.5
626103-0402-050	4.00	50.00	41.00	2.00	5.00	1.0
626103-0502-030	5.00	30.00	21.00	3.50	5.00	1.1
626103-0501-040	5.00	40.00	31.00	3.50	5.00	1.2
626103-0502-050	5.00	50.00	41.00	3.50	5.00	1.4
626103-0501-060	5.00	60.00	51.00	3.50	5.00	1.5
626103-0500-075	5.00	75.00	66.00	3.50	5.00	1.8
626103-0601-050	6.00	50.00	41.00	3.50	5.00	1.5
626103-0600-070	6.00	70.00	61.00	3.50	5.00	1.8
626103-0601-100	6.00	100.00	91.00	3.50	5.00	2.4
626103-0801-030	8.00	30.00	30.00	5.00	5.00	1.9
626103-0801-050	8.00	50.00	50.00	5.00	5.00	2.1
626103-0801-070	8.00	70.00	70.00	5.00	5.00	2.6
626103-0800-100	8.00	100.00	100.00	5.00	5.00	2.7
626103-0801-125	8.00	125.00	125.00	5.00	5.00	2.9

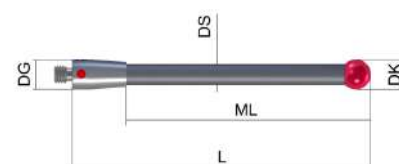
Reference styli

Adapter: M3 XXT titanium

Shaft: ZEISS ThermoFit, straight

Stylus tip: Ruby sphere

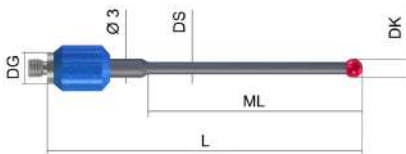
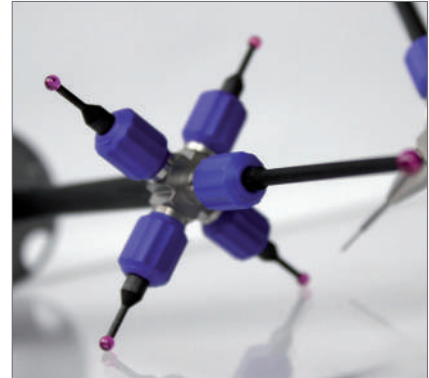
The reference stylus is provided with a red marking.



Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0501-030	5.00	30.00	21.00	3.50	5.00	1.1
626103-0501-050	5.00	50.00	41.00	3.50	5.00	1.4

Rändelstyli

Avoid damage from tools. These innovative styli have a light, non-slip plastic-coated adapter with knurling. This enables easy assembly by hand.

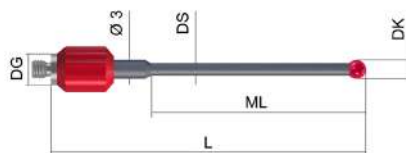


Styli with thread

Adapter: M3 XXT plastic-coated
 Shaft: ZEISS ThermoFit
 Stylus tip: Ruby sphere

An innovative stylus can be mounted without tools.

Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0207-020	2.00	20.00	8.00	1.00	5.00	1.0
626103-0207-025	2.00	25.00	13.00	1.00	5.00	1.0
626103-0207-030	2.00	30.00	18.00	1.00	5.00	1.0
626103-0307-030	3.00	30.00	18.00	2.00	5.00	1.1
626103-0307-040	3.00	40.00	28.00	2.00	5.00	1.2
626103-0307-050	3.00	50.00	38.00	2.00	5.00	1.2
626103-0307-061	3.00	60.50	50.50	2.00	5.00	1.2
626103-0507-040	5.00	40.00	30.00	3.00	5.00	1.5
626103-0507-050	5.00	50.00	40.00	3.00	5.00	1.6
626103-0507-060	5.00	60.00	50.00	3.00	5.00	1.7
626103-0507-075	5.00	75.00	65.00	3.00	5.00	1.9
626103-0807-040	8.00	40.00	30.00	3.00	5.00	2.2



Reference styli

Adapter: M3 XXT plastic-coated
 Shaft: ZEISS ThermoFit
 Stylus tip: Ruby sphere

The reference styli can be mounted without tools and it is equipped with a red body.

Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0527-030	5.00	30.00	20.00	3.00	5.00	1.3
626103-0527-050	5.00	50.00	40.00	3.00	5.00	1.6

Diamond styli



Our Diamond!Scan® stylus from ZEISS was especially developed for measurements on ultra-hard ceramic surfaces or extremely soft aluminum alloys.

Characteristics

- Measurement without material build-up
- Measurement without wear

Profit from:

- The elimination of time-intensive checks, cleaning work and calibrations
- Continuously accurate measuring results
- Continuous use

ZEISS Diamond!Scan

Adapter: M3 XXT titanium

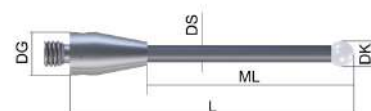
Shaft: ZEISS Thermo Fit, straight

Stylus tip: Diamond sphere

The deviation from the spherical form is less than 0.25 µm.

The diameter tolerance is +/-20 µm.

Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0309-033	3.00	33.00	24.00	2.00	5.00	0.7
626103-0309-040	3.00	40.00	31.00	2.00	5.00	0.8
626103-0309-050	3.00	50.00	41.00	2.00	5.00	0.8



ZEISS Diamond!Scan

Adapter: M3 XXT titanium

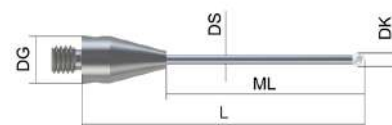
Shaft: Tungsten carbide, straight

Stylus tip: Diamond sphere

The deviation from the spherical form is less than 0.25 µm.

The diameter tolerance is +/-20 µm.

Item No.	DK	L	ML	DS	DG	Wt. (g)
626113-0209-030	2.00	30.00	21.00	1.50	5.00	1.2



ZEISS Diamond!Scan

Adapter: M3 XXT titanium

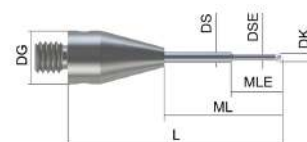
Shaft: Tungsten carbide, stepped

Stylus tip: Diamond sphere

The deviation from the spherical form is less than 0.25 µm.

The diameter tolerance is +/-20 µm.

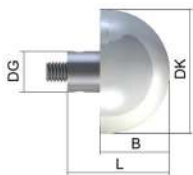
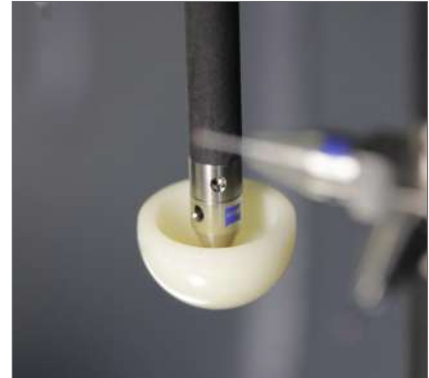
Item No.	DK	L	ML	MLE	DS	DSE	DG	Wt. (g)
626113-0109-019	1.00	19.00	10.00	5.00	1.00	0.80	5.00	1.0
626113-0109-020	1.00	20.00	11.00	5.00	1.00	0.80	5.00	1.0
626113-0109-030	1.00	30.00	21.00	5.00	1.00	0.80	5.00	1.0



Special styli

Our special styli for individual and unusual applications also enable us to offer suitable solutions for measurements:

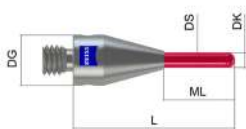
- Large inner diameters
- Sheet metal measurements
- Extremely small drill holes



Hemisphere

Adapter: M3 XXT titanium
 Shaft: -
 Stylus tip: Ceramic hemisphere
 A large sphere diameter with low weight.

Item No.	DK	L	B	DG	Wt. (g)
626103-1200-012	12.00	12.00	8.00	5.00	2.3
626103-1500-012	15.00	12.00	9.00	5.00	3.3
626103-2000-019	20.00	18.50	13.00	5.00	5.5



Ball cylinder styli

Adapter: M3 XXT titanium
 Shaft: -
 Stylus tip: Ruby cylindrical hemisphere
 Cylindrical probe tip with a half-sphere.

Item No.	DK	L	ML	DS	DG	Wt. (g)
626113-0100-016	1.00	16.00	7.00	1.00	5.00	0.7
626113-0151-016	1.50	16.00	7.00	1.50	5.00	0.6



Cone styli

Adapter: M3 XXT titanium
 Shaft: Tungsten carbide, straight
 Stylus tip: Ruby sphere
 Small sphere diameter with a high bending strength.

Item No.	DK	L	ML	DG	Wt. (g)
626103-0010-015	0.12	15.00	0.12	5.00	0.7
626103-0020-015	0.20	15.00	0.20	5.00	0.7
626103-0030-015	0.30	15.00	0.30	5.00	0.7

Clamping systems



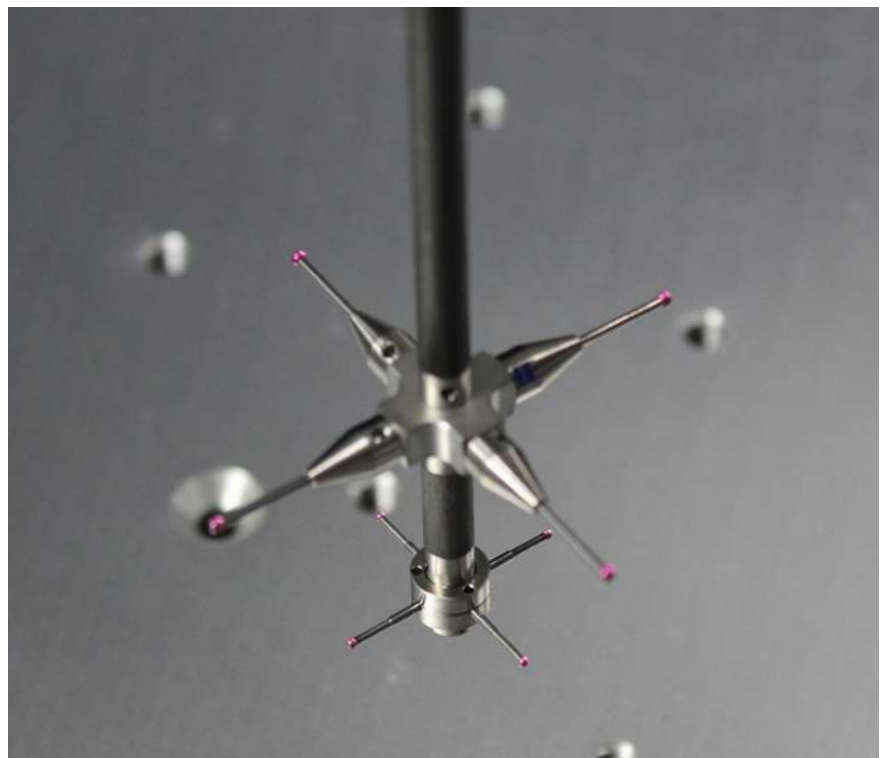
Handle several measurement tasks with one stylus system. Build simple and complex stylus systems with clamping systems. We offer a wide range of styli for modular design with a receiver for clamping instead of a thread adapter. The desired angular adjustment is fixed by means of various clamping elements such as clamping screws, clamping extensions or clamping styli. The FixAssist® XXT from ZEISS makes it easy to accurately assemble the stylus system to precise specifications.

Advantage

- Permits the design of extremely light stylus systems

Characteristics

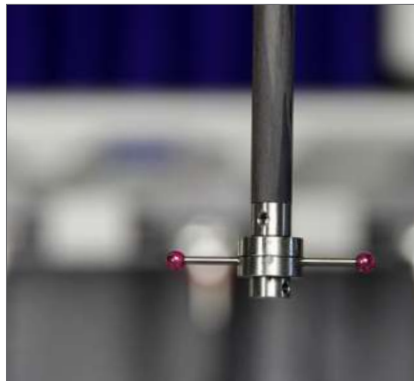
- Components are exchangeable
- Modular design



Clampable styli

Star styli

Build extremely light and strong star styli. The styli are fastened in the desired angular position by means of a clamping screw. Use the ZEISS FixAssist XXT stylus set-up device for easy setting of the angle.



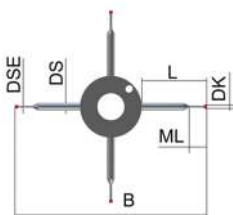
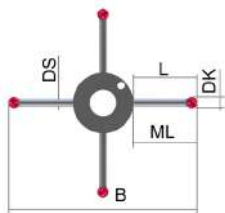
Star styli small

Adapter: Clamping system M3 XXT titanium

Shaft: Tungsten carbide straight/stepped

Stylus tip: Ruby sphere

Very lightweight and small star styli.



Item No.	DK	L	ML	DS	B	DG	Wt. (g)
626103-0100-018	1.00	5.00	5.00	0.80	18.00	5.00	0.9
626103-0150-018	1.50	5.00	5.00	1.00	18.00	5.00	1.0
626103-0150-025	1.50	8.50	8.50	1.00	25.00	5.00	1.1
626103-0200-018	2.00	5.00	5.00	1.00	18.00	5.00	0.9
626103-0200-025	2.00	8.50	8.50	1.00	25.00	5.00	1.1

Item No.	DK	L	ML	DS	DSE	B	DG	Wt. (g)
626103-0030-016	0.30	4.00	2.30	1.00	0.20	16.00	5.00	0.9
626103-0050-016	0.50	4.00	2.30	1.00	0.30	16.00	5.00	0.9
626103-0050-025	0.50	8.50	2.30	1.00	0.30	25.00	5.00	1.2
626103-0060-018	0.60	5.00	4.60	1.00	0.40	18.00	5.00	0.9
626103-0060-025	0.60	8.50	4.60	1.00	0.40	25.00	5.00	1.1
626103-0080-018	0.80	5.00	4.80	1.00	0.60	18.00	5.00	0.8
626103-0080-025	0.80	8.50	4.80	1.00	0.60	25.00	5.00	1.0
626103-0100-025	1.00	8.50	5.00	1.00	0.80	25.00	5.00	1.1

T-styli small

Adapter: Clamping system M3 XXT titanium

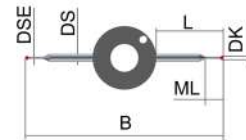
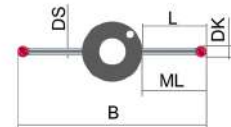
Shaft: Tungsten carbide, straight/stepped

Stylus tip: Ruby sphere

Very lightweight and small T-styli.

Item No.	DK	L	ML	DS	B	DG	Wt. (g)
626103-0100-218	1.00	5.00	5.00	0.80	18.00	5.00	1.0
626103-0150-218	1.50	5.00	5.00	1.00	18.00	5.00	1.0
626103-0150-225	1.50	8.50	8.50	1.00	25.00	5.00	1.1
626103-0200-218	2.00	5.00	5.00	1.00	18.00	5.00	1.0
626103-0200-225	2.00	8.50	8.50	1.00	25.00	5.00	1.1

Item No.	DK	L	ML	DS	DSE	B	DG	Wt. (g)
626103-0030-216	0.30	4.00	2.30	1.00	0.20	16.00	5.00	0.9
626103-0030-225	0.30	8.50	2.30	1.00	0.20	25.00	5.00	1.0
626103-0050-216	0.50	4.00	2.30	1.00	0.30	16.00	5.00	0.9
626103-0050-225	0.50	8.50	2.30	1.00	0.30	25.00	5.00	1.0
626103-0060-218	0.60	5.00	4.60	1.00	0.40	18.00	5.00	0.9
626103-0060-225	0.60	8.50	4.60	1.00	0.40	25.00	5.00	1.0
626103-0080-218	0.80	5.00	4.80	1.00	0.60	18.00	5.00	0.9
626103-0080-225	0.80	8.50	4.80	1.00	0.60	25.00	5.00	1.0
626103-0100-225	1.00	8.50	5.00	1.00	0.80	25.00	5.00	1.0

**L-styli small**

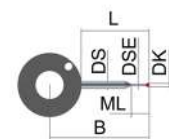
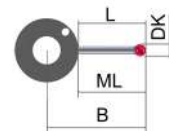
Adapter: Clamping system M3 XXT titanium

Shaft: Tungsten carbide, straight/stepped

Stylus tip: Ruby sphere

Very lightweight and small L-styli.

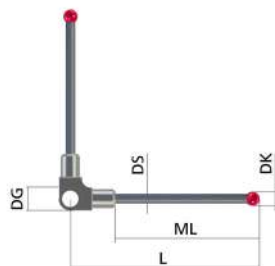
Item No.	DK	L	ML	DS	B	DG	Wt. (g)
626103-0100-418	1.00	5.00	5.00	0.80	9.00	5.00	0.9
626103-0150-418	1.50	5.00	5.00	1.00	9.00	5.00	0.9
626103-0150-425	1.50	8.50	8.50	1.00	12.50	5.00	1.0
626103-0200-418	2.00	5.00	5.00	1.00	9.00	5.00	0.9
626103-0200-425	2.00	8.50	8.50	1.00	12.50	5.00	1.0



Item No.	DK	L	ML	DS	DSE	B	DG	Wt. (g)
626103-0030-416	0.30	4.00	2.30	1.00	0.20	8.00	5.00	0.9
626103-0030-425	0.30	8.50	2.30	5.00	0.20	12.50	5.00	1.0
626103-0050-416	0.50	4.00	2.30	1.00	0.30	8.00	5.00	0.9
626103-0050-425	0.50	8.50	2.30	1.00	0.30	12.50	5.00	1.0
626103-0060-418	0.60	5.00	4.60	1.00	0.40	9.00	5.00	0.9
626103-0060-425	0.60	8.50	4.60	1.00	0.40	12.50	5.00	0.9
626103-0080-418	0.80	5.00	4.80	1.00	0.60	9.00	5.00	0.9
626103-0080-425	0.80	8.50	4.80	1.00	0.60	12.50	5.00	0.9
626103-0100-425	1.00	8.50	5.00	1.00	0.80	12.50	5.00	1.0

Clampable styli

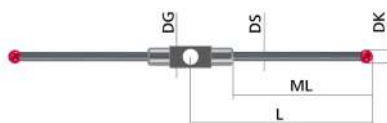
Lightweight 1/2 star styli, L-styli and T-styli systems can be assembled with these clampable styli. These are fastened in the desired angular position by means of a clamping screw, clamping extension or clamping styli. Use the ZEISS FixAssist XXT stylus set-up device for this.



1/2 Star styli 90°

Adapter: Clamping system M3 XXT titanium
 Shaft: ZEISS ThermoFit, straight
 Stylus tip: Ruby sphere

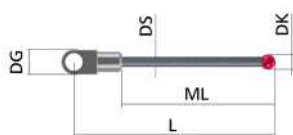
Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0303-020	3.00	20.00	11.00	2.00	5.00	1.4
626103-0303-030	3.00	30.00	21.00	2.00	5.00	1.5
626103-0303-040	3.00	40.00	31.00	2.00	5.00	1.6



T-styli

Adapter: Clamping system M3 XXT titanium
 Shaft: ZEISS ThermoFit, straight
 Stylus tip: Ruby sphere

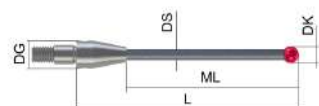
Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0304-020	3.00	20.00	11.00	2.00	5.00	1.4
626103-0304-030	3.00	30.00	21.00	2.00	5.00	1.5
626103-0304-040	3.00	40.00	31.00	2.00	5.00	1.6



L-styli

Adapter: Clamping system M3 XXT titanium
 Shaft: ZEISS ThermoFit, straight
 Stylus tip: Ruby sphere

Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0302-020	3.00	20.00	11.00	2.00	5.00	0.8
626103-0302-030	3.00	30.00	21.00	2.00	5.00	0.9
626103-0302-040	3.00	40.00	31.00	2.00	5.00	1.0

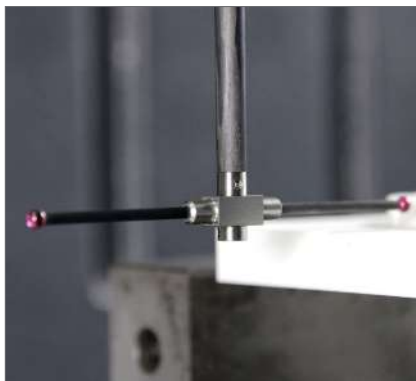
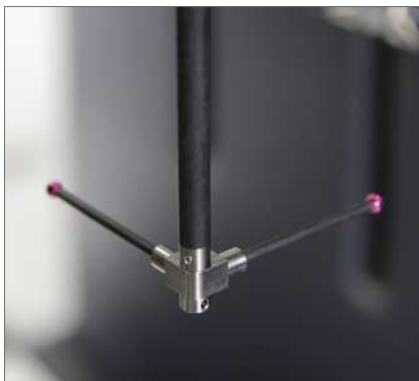


Clamping styli

Adapter: Clamping system M3 XXT titanium
 Shaft: ZEISS ThermoFit, straight
 Stylus tip: Ruby sphere

For attaching clampable M3 XXT connecting elements and styli.

Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0301-020	3.00	20.00	11.00	2.00	5.00	0.7
626103-0301-030	3.00	30.00	21.00	2.00	5.00	0.8
626103-0301-040	3.00	40.00	31.00	2.00	5.00	0.8



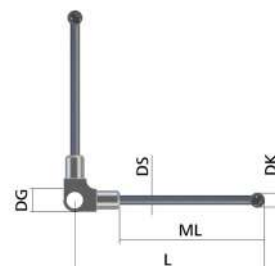
1/2 Star styli 90°

Adapter: Clamping system M3 XXT titanium

Shaft: ZEISS ThermoFit, straight

Stylus tip: Silicon nitride sphere

Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0313-020	3.00	20.00	11.00	2.00	5.00	1.4
626103-0313-030	3.00	30.00	21.00	2.00	5.00	1.5
626103-0313-040	3.00	40.00	31.00	2.00	5.00	1.6



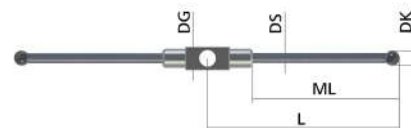
T-Styli

Adapter: Clamping system M3 XXT titanium

Shaft: ZEISS ThermoFit, straight

Stylus tip: Silicon nitride sphere

Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0314-020	3.00	20.00	11.00	2.00	5.00	1.4
626103-0314-030	3.00	30.00	21.00	2.00	5.00	1.5
626103-0314-040	3.00	40.00	31.00	2.00	5.00	1.6



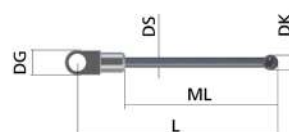
L-Styli

Adapter: Clamping system M3 XXT titanium

Shaft: ZEISS ThermoFit, straight

Stylus tip: Silicon nitride sphere

Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0312-020	3.00	20.00	11.00	2.00	5.00	0.8
626103-0312-030	3.00	30.00	21.00	2.00	5.00	0.9
626103-0312-040	3.00	40.00	31.00	2.00	5.00	1.0



Clamping Styli

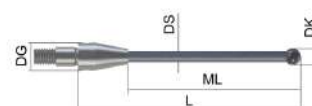
Adapter: Clamping system M3 XXT titanium

Shaft: ZEISS ThermoFit, straight

Stylus tip: Silicon nitride sphere

For attaching clampable M3 XXT connecting elements and styli.

Item No.	DK	L	ML	DS	DG	Wt. (g)
626103-0311-020	3.00	20.00	11.00	2.00	5.00	0.7
626103-0311-030	3.00	30.00	21.00	2.00	5.00	0.8
626103-0311-040	3.00	40.00	31.00	2.00	5.00	0.8

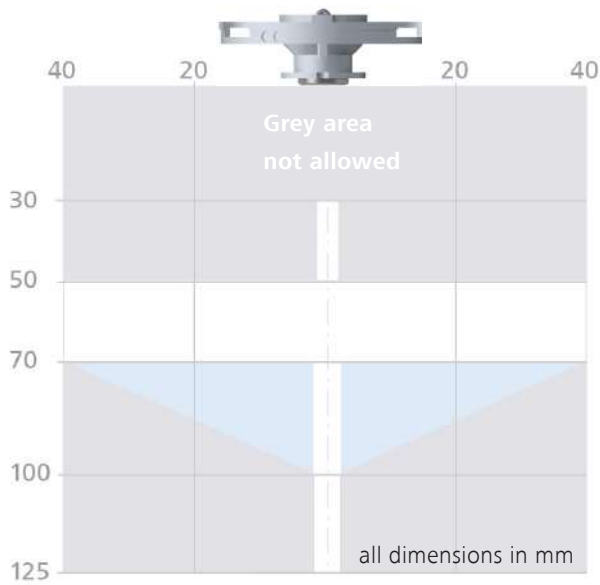


We design your stylus system

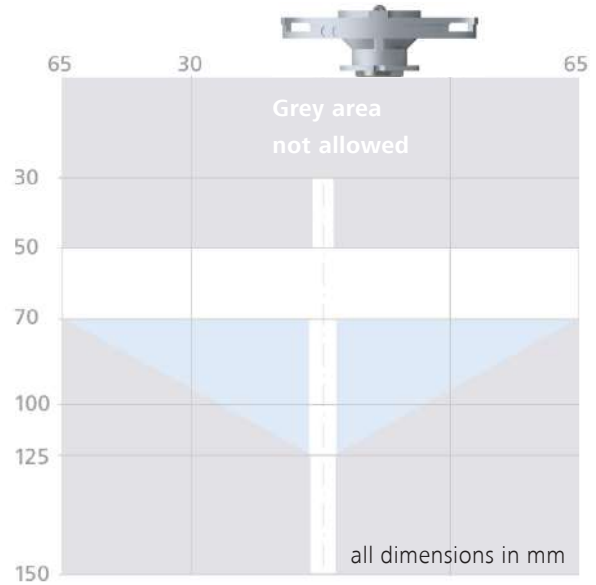
Our stylus experts will create a design for you with CAD and send you a quotation.

- Sketch the desired structure of your stylus system
- Include your contact details
- Please send the enquiry by fax to +49 7361 6336 29
- Or fill in the form in our webshop at www.probes.zeiss.com.

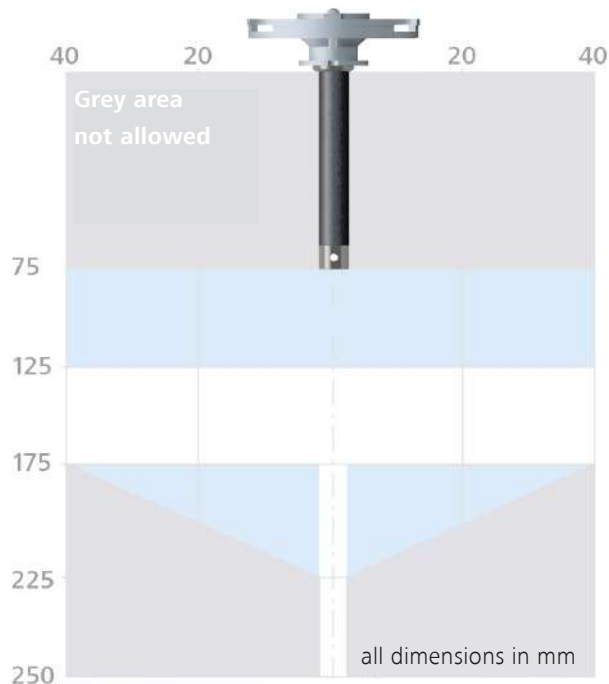
ZEISS VAST XXT TL1



ZEISS VAST XXT TL3



ZEISS VAST XXT TL2 / TL4



- area of reduced dynamic performance
- area not allowed

Shaft material (SMAT)

Tungsten carbide (HM)
Carbon fibre / ZEISS ThermoFit (TF)

Sphere material (TMAT)

Ruby (R)
Silicon nitride (SiN)

Company: _____

Department: _____

Name, First: _____

Address: _____

Zip / City: _____

State: _____

Phone: _____

E-mail: _____

Fax: _____

Clamped connecting elements

These clampable connecting elements are fixed by means of clamping screws, clamping extensions or clamping styli and can therefore be adjusted by rotation. The ZEISS FixAssist XXT is a practical alignment aid.



Cube 90 degree, M3 XXT, single

One M3 XXT stylus can be mounted.

Item No.	B	L	MAT	Wt. (g)
626103-6110-001	5.00	6.50	titanium	0.6



Cube 180 degree, M3 XXT, double

Two M3 XXT styli can be mounted on the side at an angle of 180°.

Item No.	B	L	MAT	Wt. (g)
626103-6110-002	5.00	13.00	titanium	1.1



Cube, M3 XXT, four-sided

Four M3 XXT styli can be mounted on the side at an angle of 90°.

Item No.	B	L	MAT	Wt. (g)
626103-6110-003	5.00	13.00	titanium	1.8



Cube, M3 XXT, six-sided

Six M3 XXT styli can be mounted on the side at an angle of 60°.

Item No.	DG	B	MAT	Wt. (g)
626103-6110-006	12.00	5.00	titanium	1.8



Cube, M3 XXT, eight-sided

Eight M3 XXT styli can be mounted on the side at an angle of 45°.

Item No.	DG	B	MAT	Wt. (g)
626103-6110-007	14.00	5.00	titanium	2.3



Clamp screw

For securing M3 XXT probes connecting elements and styli.

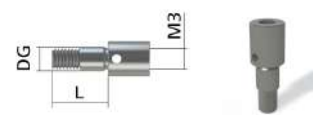
Item No.	DG	L	Wt. (g)
626103-6110-004	3.50	8.00	0.5



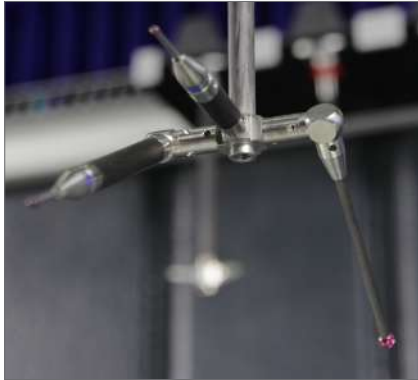
Clamp screw with M3 female thread

For securing M3 XXT probes connecting elements and styli. The integrated M3 internal thread permits the use of an additional M3 XXT stylus.

Item No.	DG	L	Wt. (g)
626103-6110-005	3.50	8.00	0.7



Rotary connecting elements M3 XXT



Our ZEISS M3 XXT rotary joints are made of titanium and are based on a zero-play conical connection. Three robust M1.2 tapped studs provide high clamping forces.

- Quick and secure assembly
- Optimum accessibility through a slim design
- Easy to adjust
- Can be used multiple times



Articles with cone receiver

Rotary joint receiver

626103-6180-002



Clamping extensions

626103-5020-015 / 626103-5045-015



Extensions

626103-5xxx-005



Adapter plate with extensions

626103-8031-053 / 626103-8032-076 / 626103-8033-053



Articles with cone adapter

Rotary joint

626103-6180-011



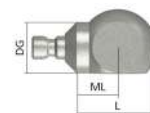
Knuckle joint

626103-6180-021



Angle block, blank

626103-6020-000



Angle block

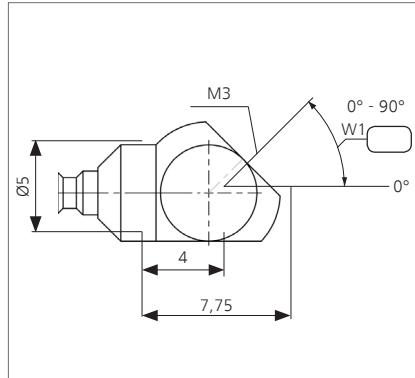
626103-6020-xxx



Customized elbow

We produce your angle

You can send us a fax on +49 7361 6336 29 or an email to orders@3d-net.de. Please state your desired angle block between 0° and 90° in your enquiry as well as the quantity.



Rotary joint receiver M3 XXT

This connecting element converts a M3 thread to a cone receiver. Various connecting elements with a cone adapter can be inserted in this.



Item No.	L	DG	MAT	Wt. (g)
626103-6180-002	7.00	5.00	titanium	0.5

Knuckle joint M3 XXT, rotary

The knuckle joint made of titanium can accommodate a stylus or an extension with an M3 XXT thread. The knuckle joint has an adjustable angular range of 0° +/- 90°.



Item No.	L	DG	MAT	Wt. (g)
626103-6180-021 without rotary joint	12.00	5.00	titanium	1.0
626103-6180-020 with rotary joint	19.00	5.00	titanium	1.6

Rotary joint M3 XXT, rotary

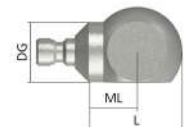
Any desired M3 components can be mounted with the M3 XXT rotary joint made of titanium.



Item No.	L	DG	MAT	Wt. (g)
626103-6180-011 without rotary joint	4.00	5.00	titanium	0.4
626103-6180-010 with rotary joint	11.00	5.00	titanium	0.9

Angle block M3 XXT, blank, rotary

You can quickly and easily produce a custom angle block for your applications from this blank with a cone adapter.

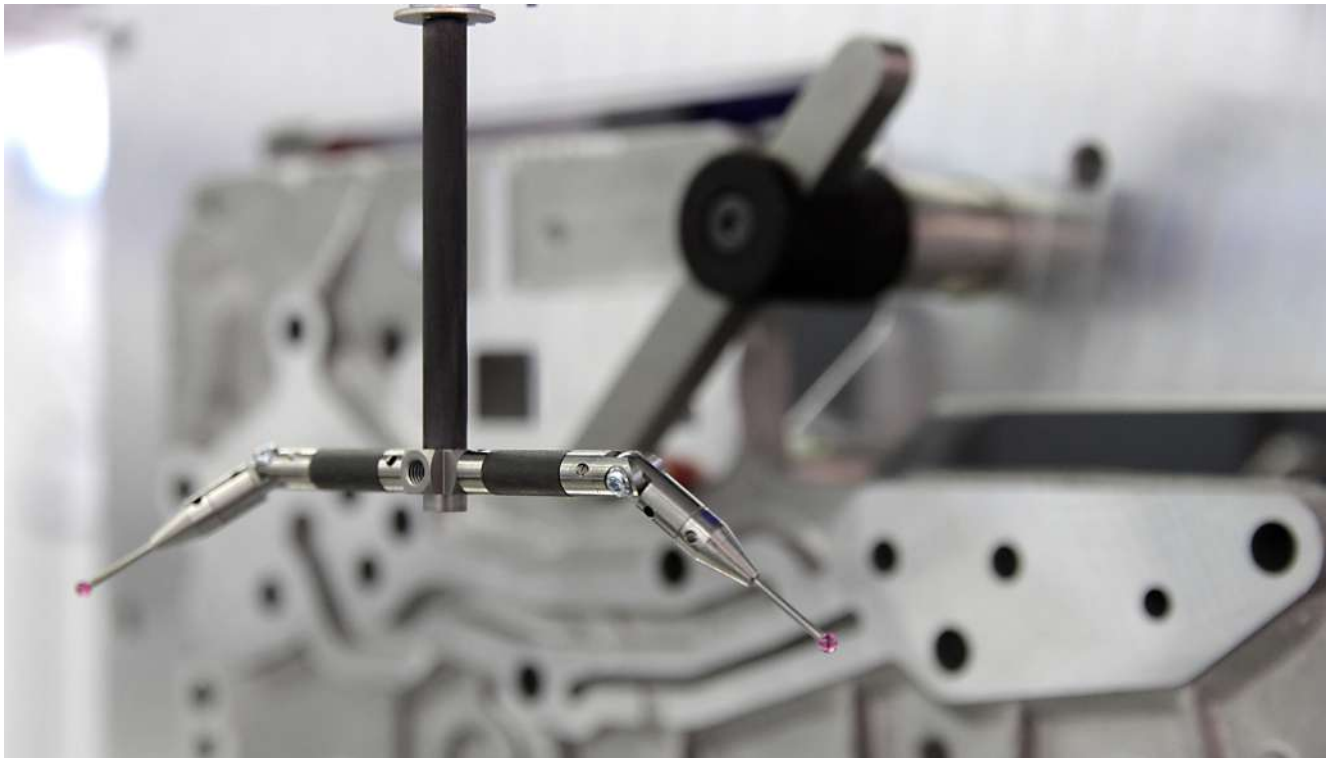


Item No.	L	ML	DG	MAT	Wt. (g)
626103-6020-000	7.75	4.00	5.00	titanium	1.0

ZEISS ThermoFit extensions

Stylus extensions permit the assembly of long styli and the measurement of features which are difficult to access on workpieces. ZEISS ThermoFit extensions have a longer and therefore more stable base body made of a high-strength titanium.

They thereby provide very high stiffness and are considerably lighter compared to standard steel or titanium extensions. Longer stylus systems can therefore be built without exceeding the load limits of the probe. Select lengths from 20 mm to 150 mm from our range of extensions. Special lengths are available by request.



Advantage

- High bending and torsional strength
- Assembly of more complex systems
- Light weight
- High thermal stability

Benefits

- Faster scanning with high precision possible
- Fewer stylus systems required
- Measurement with variable ambient temperatures (e.g. in the production)

To sum up

The specially wound carbon fiber ZEISS ThermoFit also enables you to obtain precise results at higher measuring speeds and with fluctuating ambient temperatures.

ZEISS ThermoFit clamping extensions

These clamping extensions are used to fix components of the M3 XXT clamping system. It has an M3 internal thread.

Item No.	LE	DGE	Wt. (g)
626103-5020-010	20.00	5.00	1.3
626103-5045-010	45.00	5.00	1.5



ZEISS ThermoFit clamping extensions with conical receiver

These clamping extensions are used to fix components of the M3 XXT clamping system. It has a cone receiver into which connecting elements with a cone adapter are inserted.

Item No.	LE	DGE	Wt. (g)
626103-5020-015	21.00	5.00	1.4
626103-5045-015	46.00	5.00	1.7



ZEISS ThermoFit extensions

These carbon fibre extensions have an M3 internal thread.

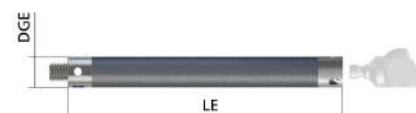
Item No.	LE	DGE	Wt. (g)
626103-5020-000	20.00	5.00	1.2
626103-5025-000	25.00	5.00	1.3
626103-5030-000	30.00	5.00	1.3
626103-5040-000	40.00	5.00	1.4
626103-5050-000	50.00	5.00	1.5
626103-5060-000	60.00	5.00	1.7
626103-5065-000	65.00	5.00	1.7
626103-5075-000	75.00	5.00	1.7
626103-5080-000	80.00	5.00	1.8
626103-5100-000	100.00	5.00	2.0
626103-5130-000	130.00	5.00	2.5
626103-5150-000	150.00	5.00	2.7



ZEISS ThermoFit extensions with conical receiver

These carbon fibre extensions have a cone receiver into which connecting elements with a cone adapter are inserted.

Item No.	LE	DGE	Wt. (g)
626103-5020-005	21.00	5.00	1.2
626103-5025-005	26.00	5.00	1.2
626103-5030-005	31.00	5.00	1.3
626103-5040-005	41.00	5.00	1.4
626103-5050-005	51.00	5.00	1.5
626103-5060-005	61.00	5.00	1.6
626103-5070-005	71.00	5.00	1.8
626103-5080-005	81.00	5.00	1.9
626103-5100-005	101.00	5.00	2.1



ZEISS adapter plates



Automatic stylus change

Several stylus systems are often required, in order to be able to measure all the features of a workpiece. Automatic stylus system change by your CMM is therefore an advantage. This requires specially encoded adapter plates. We offer you various adapter plates with an ID chip:

- Standard plates on which extensions and styli can be mounted
- Reference plates for accommodating the reference stylus
- Special adapter plates with a star cube.



Adapter plates ZEISS VAST XXT TL2 / TL4 with extensions

The adapter plate with an encoded ID chip is designed for universal use. It has a fixed-mounted ZEISS ThermoFit extension with an M3 internal don't hyphenate



Item No.	System	L	Wt. (g)
620161-8065-000	TL2 / TL4	75.00	5.4

Adapter plates ZEISS VAST XXT with extensions, conical receiver

These adapter plates with an encoded ID chip are designed for universal use. They have a fixed-mounted ZEISS ThermoFit extension with a cone receiver into which connecting elements with a cone adapter are inserted.



Item No.	System	L	Wt. (g)
626103-8031-053	TL1	53.00	5.5
626103-8033-053	TL3	53.00	5.5
626103-8032-076	TL2 and TL4	76.00	5.8

Adapter plates ZEISS VAST XXT TL1/TL3 with star styli

These adapter plates are equipped with an encoded ID chip. They have a fixed-mounted ZEISS ThermoFit extension with an aligned 5-sided cube. This enables extremely lightweight star styli to be assembled.



Item No.	System	L	Wt. (g)
626103-8031-055	TL1	55.00	6.26
626103-8033-055	TL3	55.00	6.26
626103-8031-075	TL1	75.00	6.33
626103-8033-075	TL3	75.00	6.33

Adapter plates ZEISS VAST XXT TL1 / TL3

These adapter plates with an encoded ID chip are designed for universal use in the assembly of your stylus systems



Item No.	System	Description	Wt. (g)
620161-8075-000	TL3	Adapter plates ZEISS VAST XXT	4.6 g
620161-8055-000	TL1	Adapter plates ZEISS VAST XXT	4.6 g

Reference adapter plates ZEISS VAST XXT

These adapter plates with an encoded ID chip are used to measure with the reference adapter and have a red marking.



Item No.	System	Description	Wt. (g)
620161-8058-000	TL1	Reference adapter plate	4.6 g
620161-8078-000	TL3	Reference adapter plate	4.6 g

Tools



XXT stylus assembly pliers

Styli, screws and extensions can be mounted in the XXT system with these specially made XXT stylus assembly pliers.

Item No.	Description
626109-0056-000	XXT stylus assembly pliers



Micro torque screwdriver for conical connections

The blade is replaceable and available in a set.

Item No.	Description
626109-0054-000	Micro torque screwdriver 0.05Nm TX1
626109-0055-000	Replacement blade TX1 for micro torque screwdriver
626109-0058-000	Set replacement blades TX1 for micro torque screwdriver, 5 pcs.



Screw set for cone receivers M3 XXT

Set of six M1.2 Torx replacement screws for fixing the M3 XXT conical connection with rotary connecting elements.

Item No.	Description
626119-0001-041	Set replacement screw for conical connection , DG5, M3XXT, 6 pcs.



XXT styli assembly aid

The assembly tool is pressed on the side of the extension when you screw on a stylus with a pin or hook wrench.

Item No.	Description
626109-0026-000	XXT styli assembly aid



Torx screwdrivers for conical connections M3 XXT

Especially for rotary connection components M3 XXT from ZEISS

Item No.	Description
626109-0059-000	Set torx screwdriver T1, angled, 5 pcs.



Pin wrench ZEISS standard

Use on both sides for mounting styli.

Item No.	Description
000000-0015-323	Pin wrench, 1.1
602030-0222-000	Pin wrench, 2.9



Hex wrench

The hexagon wrench is used for tightening cylinder-head screws.

Item No.	Description
602030-0042-000	Hex wrench DIN 911, SW 0.9
602030-0002-000	Hex wrench DIN 911, SW 1.5
000000-0015-245	Hex wrench DIN 911, SW 2
602030-0021-000	Hex wrench DIN 911, SW 2.5
000000-0015-247	Hex wrench DIN 911, SW 3
000000-0015-248	Hex wrench DIN 911, SW 4

ZEISS FixAssist XXT – rapid and precise

Simplifies the design of M3 XXT stylus systems

ZEISS FixAssist XXT makes it easier for measurement engineers to align the styli quickly and precisely. You not only increase your efficiency but also prevent stylus collisions during measurement.

To set M3 XXT stylus systems with the ZEISS FixAssist, the operator clamps the adapter plate in the machine using magnets. The stylus system is then turned to the desired position by means of a wheel. With the help of an appropriate adapter, the stylus angle is aligned and fixed via a set screw.



ZEISS FixAssist XXT

Alignment device for assembling M3 XXT stylus systems with tools and adapters S1, KT and W1. Used to set spatial angle pieces, star styli, clampable styli and clampable star styli.

Item No.	Description
626109-9140-200	ZEISS FixAssist XXT, including a tool kit for mounting styli systems



Adapter sets

Knuckle joint angles can be set precisely with this adapter set for ZEISS FixAssist XXT.

Item No.	Description
626109-9140-300	ZEISS FixAssist XXT adapter sets for knuckle joints



Probe cabinet



Probe cabinet compact for XXT

This compact probe cabinet protects the sensitive XXT stylus systems.

Three special holders for XXT plates are included in the probe cabinet.

These can be freely positioned on the rear wall.

Additional probe sockets can be ordered to allow you to fully utilize the 500 mm x 500 mm space provided in the cabinet.

Item No.	Description
626100-9023-000	Probe cabinet compact for XXT
626100-9023-100	XXT probe socket for probe cabinet XXT
626100-9023-110	Set 5 psc. XXT probe socket for probe cabinet



Desktop sensor rack












Socket for four XXT adapter plates. Can be extended to six sockets. Is used

in the assembly and for the provision of stylus systems. Cannot be used as a

changer rack on the CMM.

Item No.	Description
626119-0003-000	Socket for adapter plates, 4 sockets ZEISS VAST XXT

Configure your probe cabinet

Item No.	Description
 626100-9026-000	Probe cabinet MSC, W 1000 x D 400 x H 2000, 16 XXT-sockets, double doors
626100-9015-000	Probe cabinet MSC, W1000 x D 400 x H 2000, without sockets, sheet metal doors
626100-9015-100	Probe cabinet MSC, W1000 x D 400 x H 2000, without sockets, glass doors
Item No.	Description
 626100-8023-000	Shelf for probe cabinet MSC, powder-coated, distributed load max. 60 kg, width 990 mm
 626100-8024-000	Additional level bar for probe cabinet MSC, working width 930 mm
 626100-8011-010	Probe socket VAST for probe cabinet MSC, width 100 mm
 626100-8011-020	Probe socket XTR for probe cabinet MSC, width 100 mm
 626100-8012-000	Probe socket ST / ST3 for probe cabinet MSC, width 80 mm
 626100-8013-000	Probe socket DSE for probe cabinet MSC, width 130 mm
 626100-8014-000	Probe socket ZEISS RDS for probe cabinet MSC, width 100 mm
 626100-8015-000	Probe socket XXT for probe cabinet MSC, width 50 mm
 626100-8021-000	Pallet for 67 M5 styli for probe cabinet MSC, width 287 mm x depth 205 mm
 626100-8022-000	Tool tray for probe cabinet MSC, width 210 mm x depth 105 mm

ProMax® from ZEISS for ZEISS O-INSPECT 322

ZEISS ProMax

The ZEISS ProMax automatic stylus rack is an extension of the ZEISS MSR. It enables you to use the complete measuring range. ZEISS ProMax automatically moves the stylus systems out of the measuring range when they are no longer needed. As a result, you do not lose any of the measuring range of the CMM and can also measure and bypass larger components without any problems.

- Automatic stylus change
- Full utilization of measurement area
- Prevention of collisions



ZEISS ProMax for ZEISS O-INSPECT 322

The ZEISS ProMax for ZEISS O-INSPECT 322 enables you to use the complete measuring range even if a stylus rack is used. ZEISS ProMax automatically moves the ZEISS MSR outside the measuring range during the measurement.

Measurements with a white light sensor and an ZEISS MSR are only possible with ZEISS ProMax. It is completely integrated in the machine control system – all measuring programs can continue to be used after the installation without any changes. Supplied without an ZEISS MSR.



Item No.	Description
626100-9700-000	ZEISS ProMax for ZEISS O-INSPECT 322

Sensor Racks

Sensor Racks

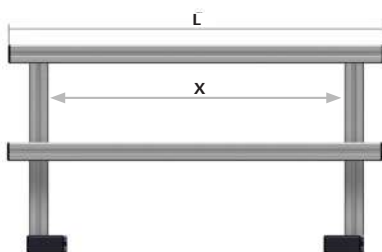
The Multi Sensor Rack (ZEISS MSR) makes all the stylus systems that you require for your measurements. The CMM changes the stylus systems during the measuring process, depending on which one is needed. This enables a continuous process.



Multi Sensor Rack

The Multi Sensor Rack is a stylus and sensor changing system for all bridge-type measuring machines. A high degree of flexibility is provided by the free choice for sockets. The CMM changes the stylus systems and sensors. The ZEISS MSR is positioned within the measuring volume of the CMM.

Item No.	L	H	MMZ	Accura	Prismo	Spectrum	Contura
626100-9302-000	800	550	-	7/X700	7/X700	-	700DT/XT/G2
626100-9302-010	800	450	-	5/X700	5/X700	700	-
626100-9302-100	800	450	-	-	-	-	-
626100-9312-000	1000	550	-	7/X900	5/X900	-	-
626100-9322-000	1100	550	-	-	-	-	1000/DT/XT/G2
626100-9322-010	1100	450	-	-	-	-	-
626100-9322-020	1100	700	-	-	-	-	2G/U-Stone
626100-9332-000	1250	800	-	10/X1200	5/X1200	-	-
626100-9342-000	1600	800	-	10/X1600	10/X1600	-	-
626100-9342-010	1600	800	MMZ-G/T	-	-	-	-



Multi Sensor Rack additional level

You can extend your Multi Sensor Rack easily and flexibly with these additional levels and mounting sets. The width of the third level depends on the width of the basic module. The ZEISS MSR can be set along the Y-axis of your coordinate measuring machine.

Item No.	Description
626100-9303-000	Additional level MSR X=700,L=800 without probe socket, incl. fixturing
626100-9313-000	Additional level MSR X=900,L=1000 without probe socket, incl. fixturing
626100-9323-000	Additional level MSR X=1000,L=1100 without probe socket, incl. fixturing
626100-9333-000	Additional level MSR X=1200,L=1250 without probe socket, incl. fixturing
626100-9343-000	Additional level MSR X=1600,L=1600 without probe socket, incl. fixturing
626100-8390-000	Fastening angle for MSR

Multi Sensor Rack mini

A simple and flexible changer rack for coordinate measuring machines with a small measuring range. Probe sockets are available separately.



Item No.	Description
626100-9392-000	Multi Sensor Rack mini W720/H450

Sensor Rack ZEISS O-INSPECT

Accommodation of up to three ZEISS VAST XXT adapter plates. Mounting in the measuring range by means of the magnetic base.



Item No.	Description
626100-9382-020	ZEISS MSR ZEISS O-INSPECT 322 3-pcs., H 142.5mm
626100-9382-002	ZEISS MSR ZEISS O-INSPECT 442 / 543 / 863 3-pcs., slim, H 142.5mm

Sensor Rack ZEISS O-INSPECT 322, 5+1

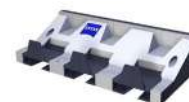
Accommodates up to six ZEISS VAST XXT adapter plates. Five probe sockets can be changed via the CNC run. One socket can only be used manually. Mounting in the measuring range by means of the magnetic base. Supplied with probe sockets.



Item No.	Description
626100-9382-021	ZEISS MSR ZEISS O-INSPECT 322 5+1, H 142.5mm

Probe socket ZEISS VAST XXT

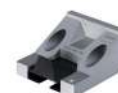
Accommodates up to three ZEISS VAST XXT adapter plates. Supplied with fixing material for mounting on the Multi Sensor Rack or directly on the ZEISS DuraMax.



Item No.	Description
620161-8510-000	Probe socket with three slots for ZEISS VAST XXT, mountable on ZEISS MSR

Probe socket ZEISS VAST XXT, single

Accommodates one ZEISS VAST XXT adapter plate. Supplied with mounting material for use with the Multi Sensor Rack or directly on the ZEISS DuraMax.



Item No.	Description
620161-8511-000	Probe socket with 1 slot for ZEISS VAST XXT, mountable on ZEISS MSR, ZEISS DuraMax



Calibration Artifacts

Calibration artifacts enable an independent in-process inspection of your coordinate measuring machine or contour measuring machine. They are used to determine the inspection criteria-specific measuring uncertainty and measurement process suitability.



ZEISS CMM-Check

The ZEISS CMM-Check can be used to check CMMs in accordance with DIN EN ISO 10360 and VDI/VDE 2617. The following characteristics can be measured with the calibration artifact:

- Probing behaviour of the probing system
- Scanning properties of the probing system
- CMM as a form measuring machine including filter characteristics
- Linear measuring errors
- Four-axis errors for CMM with rotary table (optional)

The basis of the calibration artifact is a torsionally rigid base body on which high-precision, calibrated measuring standards and form standards are mounted:

- One adjustment ring, diameter 50 mm
 - One ceramic sphere, diameter 30 mm
 - One Flick standard
- Precision cylinder with two ground flat areas
- Two parallel gauge blocks, 50 mm and 400 mm
 - Two ceramic spheres (optional), diameter 30 mm

Item No.	Description
000000-1103-602	CMM-Check
626001-0290-000	CMM-Check option rotary table



Probe-Check

The Probe-Check can be used to test the probing and scanning behaviour of the probe in combination with the coordinate measuring machine according to VDI/VDE 2617. The basis is a torsionally rigid base body on which a ceramic sphere, diameter 30 mm, and an adjustment ring, diameter 50 mm, are mounted. Both standards are high-precision and calibrated.

Item No.	Description
000000-1103-639	Probe-Check

ZEISS DuraMax-Check

The ZEISS DuraMax-Check for the standardized checking of the ZEISS DuraMax coordinate measuring machine with tactile sensor technology. It is supplied with the respective control and analysis software. It is used to check the ZEISS DuraMax CMM according to DIN EN ISO 10360-2, 10360-4 and VDI/VDE 2617, sheet 6.1:

- Probing behaviour of the probing system
- Scanning properties of the probing system
- Length measurement deviation

The basis of the nickel-plated calibration artifact is a torsionally rigid base body, on which high-precision, calibrated measuring standards are arranged:

- One special adjustment ring, diameter 30 mm
- One precision ceramic sphere, diameter 25 mm
- Two parallel gauge blocks, lengths 50 mm and 300 mm

The calibration artifact can be assembled and disassembled in just a few simple steps. A non-machine related control and analysis software is available for CMMs which are operated under CALYPSO. This offers:

- CNC run of the measurements
- Evaluation in compliance with standards
- Analysis of the measuring results on the basis of monitoring factors
- Statistical processing of the measuring results



Item No.	Description
626106-9320-000	ZEISS DuraMax Check

ZEISS Multisensor-Check

The ZEISS Multisensor-Check for the standardized checking of coordinate measuring machines with tactile/optical sensors. The universal, calibrated calibration artifact is supplied with the respective control and analysis software. The ZEISS Multisensor-Check can be used to check coordinate measuring machines according to DIN EN ISO 10360-2 and VDI/VDE 2617:

- Probing behaviour of the probing system
- Scanning properties of the probing system
- Length measurement deviation

Probing error, length measurement deviation through tactile and optical check.

The basis of the calibration artifact is a torsionally rigid base body on which high-precision, calibrated measuring standards are mounted:

- One special adjustment ring for tactile and optical measurements, diameter 16 mm
- One precision ceramic sphere, diameter 25 mm
- Two parallel gauge blocks, lengths 50 mm and 200 mm
- One glass scale, length 200 mm.

The glass scale has precise, circular markings for checking the probing error and a division scale for checking the length measurement deviation.



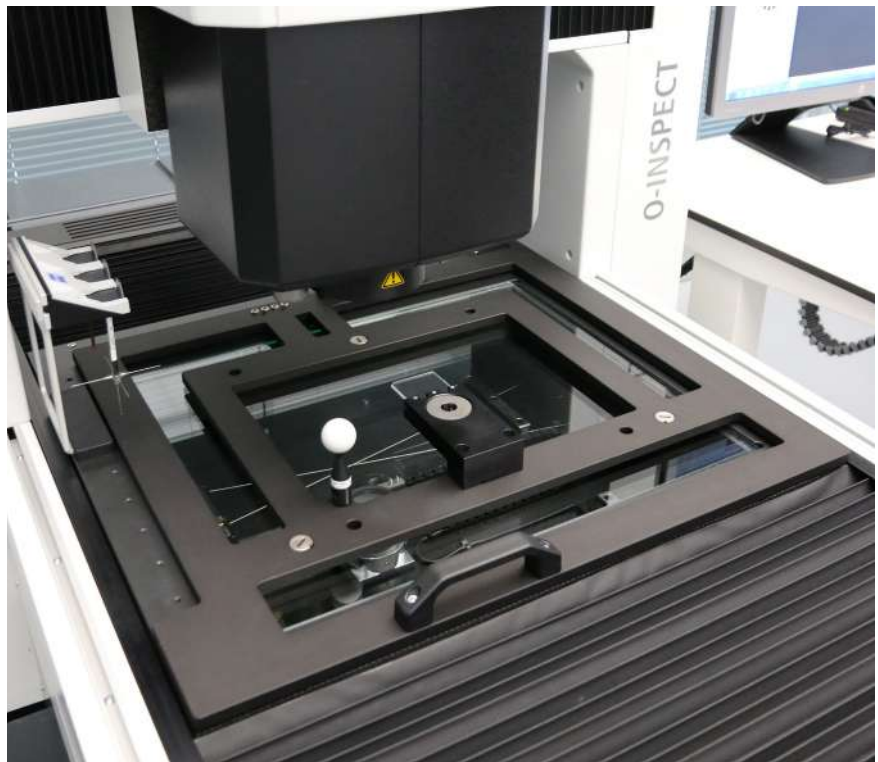
Item No.	Description
626001-0830-000	Multisensor-Check

Reference spheres and holders

Each coordinate measuring machine and each sensor, irrespective of whether it is tactile or optical, has individual requirements for the calibration process. We therefore offer you reference spheres with various surface characteristics and

diameters. Calibration bodies for optical measurements are also available. The RSH rotary holding system is available in various sizes and holds up to three reference spheres at the same time for maximum flexibility.

You will find a selection of thermally stable reference sphere holders made of Invar or carbon fibre for use in the production environment in our Webshop at: www.probes.zeiss.com



RSH Set

Optimum application depending on the machine type is possible as the reference sphere holder is available in three heights. The set consists of a reference sphere holder, a reference sphere with a certificate, mounting material and tools.

Item No.	H	DK	Description
600332-9265-000	214	30	Reference sphere holder RSH-214, reference sphere DK30
600332-9266-000	364	30	Reference sphere holder RSH-364, reference sphere DK30
600332-9267-000	514	30	Reference sphere holder RSH-514, reference sphere DK30

Reference spheres RS

For mounting on all M6 thread systems.

Reference spheres are supplied with a certificate.



Item No.	System	DK	L	DG	TMAT	Wt. (g)
600332-8444-000	M6	15.00	77.60	18.00	ceramic	100.00
600332-8445-000	M6	25.00	82.60	18.00	ceramic	114.00
600332-8446-000	M6	30.00	85.10	18.00	ceramic	132.00
600332-8443-000	M6	8.00	74.10	18.00	ceramic	91.00

Reference sphere holder RSH

The holder is available in three different heights. This allows the height to be optimized to meet the machine requirements.



Item No.	H	Description
600332-9165-000	214	RSH-214 without reference sphere
600332-9166-000	364	RSH-364 without reference sphere
600332-9167-000	514	RSH-514 without reference sphere

Optical gauges

The optical reference template is required for calibrating the ViScan camera and should be run at regular intervals and after a collision. The ratio of μ to pixels is determined in the X and Y direction.



Item No.	Description
600779-0020-000	Optical gauges, for transmited light, uncalibrated
600779-0020-010	Optical gauges, for transmited light, calibrated with certificate
660779-0020-020	Calibration for optical gauges

Calibration standard holder, optic-tactile

Fixture for ring gage, diameter 16 mm, and an optical reference template.



Item No.	Description
622810-8016-010	Calibration template holder, optical-tactile

Adjustment ring

This adjustment ring has a diameter of 16mm. It is used to cross-check the tactile/optical stylus data.

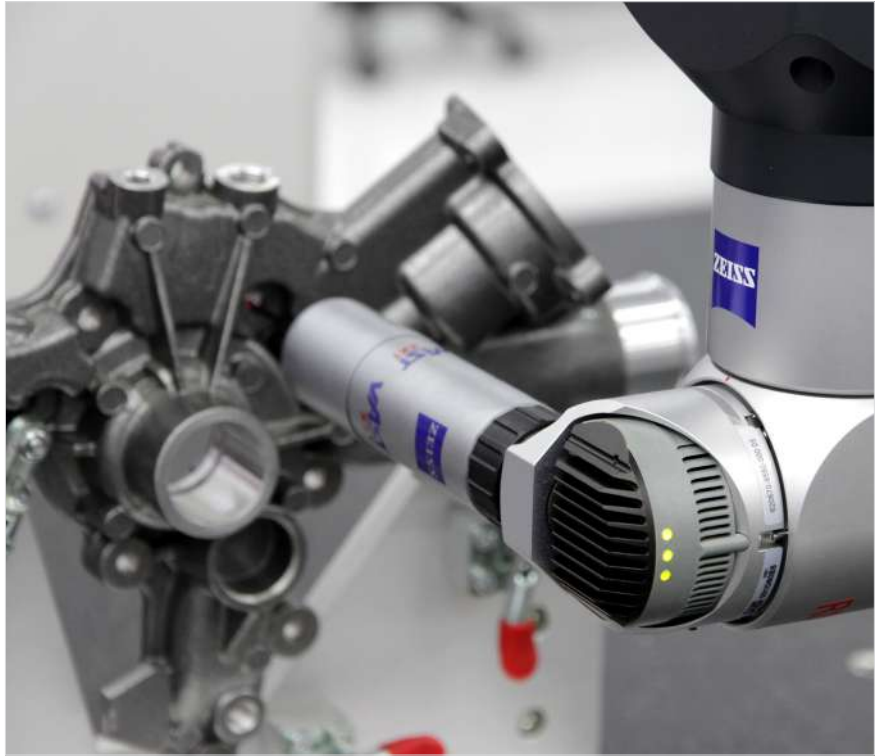


Item No.	Description
622810-0105-000	Adjustment ring $\varnothing = 16$ mm

Probes

The correct probe head

ZEISS offers an extensive portfolio of probes which work together with the measuring machines and the software in an optimum manner.



Scanning sensors ZEISS VAST XXX

Passive scanning sensors for use with a ZEISS RDS probe holder. Restrictions on request.

Item No.	Description
620161-9110-000	ZEISS VAST XXX TL1 ID encoded 18 pole, complete
620161-9018-000	ZEISS VAST XXX TL2/TL4 ID encoded 18 pole, complete
620161-9130-000	ZEISS VAST XXX TL3 ID encoded 18 pole, complete



Probe head extensions

Use with an ZEISS RDS adapter plate and ZEISS VAST XXX probe. They improve the accessibility of areas on the workpiece which are difficult to reach. Made of thermally stable CFRP, 18 pin.

Item No.	LE	DGE	Wt. (g)
620161-8701-000	60.00	24.00	58.00
620161-8703-000	100.00	24.00	75.00



Adapter plate ZEISS RDS-XXX

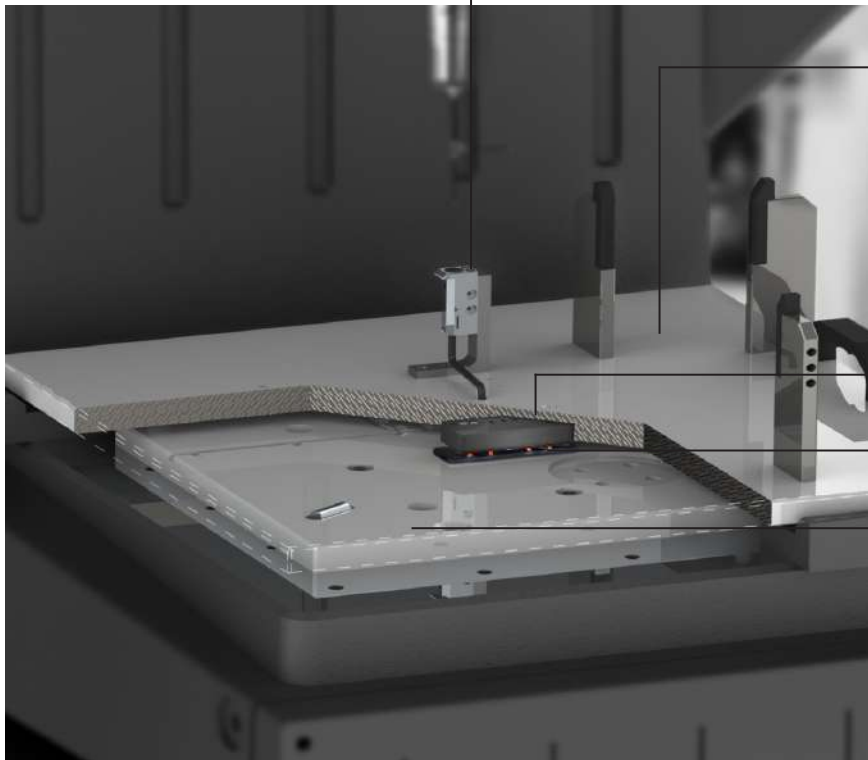
Attachment to a ZEISS latching rotating/swivel joint. The ZEISS VAST XXX probe is attached on the probe side.

Item No.	Description
620670-9550-000	Adapter plate ZEISS RDS-XXX ID, 18 pole

Pallet systems THETA 55

System with workpiece temperature measurement

Automatically record the temperature of the workpiece when changing your pallets. Accurate results and efficient working increase your throughput.



Temperature sensor

Your component tolerances are compensated for by means of the spring-mounted bearing of the temperature sensors.

THETA 55 pallet with contact unit on the pallet side

When you place your THETA 55 workpiece pallet on the base mounting, the integrated temperature sensor is automatically connected to your CMM

Contact unit on the pallet side

Contact unit on the CMM side

THETA 55 base mounting with contact unit on the CMM side

The base mounting is mounted on your CMM. The contact unit integrated on the CMM side is connected to the temperature input of your CMM.

THETA 55 Set

The changeover interface set consists of a workpiece pallet (either with or without M6 grid holes, 50 x 50 mm) and a base mounting plate which is mounted on the coordinate measuring machine. The base mounting plate is available for CMMs with M12 or M10 fixing holes. The base mounting and pallet are prepared for the installation of the temperature transmission interface.



Item No.	Description
626109-9220-622	THETA 55 Set M12 with M6 grid 50x50
626109-9220-652	THETA 55 Set M12 Basic
626109-9220-620	THETA 55 Set M10 with M6 grid 50x50
626109-9220-650	THETA 55 Set M10 Basic

Pallet systems THETA 55



THETA 55 Pallet

The 500 x 500 mm workpiece pallet is made of aluminium and provided with two carrying handles. It is prepared for the installation of a temperature transmission interface. Two versions are available: With M6 threaded holes in a 50 x 50 mm grid and without holes (basic).

Item No.	Description
626109-9220-520	THETA 55 with M6 grid 50x50
626109-9220-550	THETA 55 Basic



THETA 55 base mounting plate

The base mounting is mounted on the CMM table. It is supplied with the appropriate fixing material. Two versions are available.

Item No.	Description
626109-9220-512	THETA 55 base mounting plate M12
626109-9220-510	THETA 55 base mounting plate M10



Contact unit on the CMM side

This unit is installed in the base mounting plate, incl. cable (3 m) with a SUB-D socket for connection to the CMM.

Item No.	Description
626140-9121-500	TSM-50 Contact unit on the CMM side SUB-D, 3m



Contact unit on the pallet side

The contact unit is installed in the THETA 55 pallet and is used for transmitting the temperature sensor signals to the contact unit on the CMM side. The sensor can be directly connected via clamping contacts.

Item No.	Description
626140-9122-500	TSP-50 Contact unit on the pallet side with clamping contracts

Temperature sensor mini

This Pt 100 1/10 DIN miniature sensor can be directly installed in workpiece holding fixtures, in order to record the workpiece temperature.

With dimensions of $\varnothing 6.5 \times 32\text{mm}$ and a spring deflection of approx. 2 mm, the sensor can also be installed in confined spaces.



Item No.	Description
626140-9113-200	Temperature sensor (mini) flying leads, cable 1.5m
626140-9113-100	Temperature sensor (mini) SUB-D, cable 1.5m
626140-9113-000	Temperature sensor (mini) DIN, cable 1.5m

Temperature sensor mini, angled

This angled Pt 100 1/10 DIN miniature sensor can be directly installed in workpiece holding fixtures, in order to record the workpiece temperature.

With dimensions of $\varnothing 6.5 \times 32\text{mm}$ and a spring deflection of approx. 2 mm, the sensor can also be installed in confined spaces.



Item No.	Description
626140-9113-210	Temperature sensor (mini), angled, flying leads, cable 1.5m
626140-9113-110	Temperature sensor (mini), angled, SUB-D, cable 1.5m
626140-9113-010	Temperature sensor (mini), angled, DIN, cable 1.5m

Articulated arm for temperature sensor mini

The articulated arm is used to hold a temperature sensor (mini) and can be manually aligned on the workpiece. Various thread adapters are available for the assembly.



Item No.	Description
626140-9134-000	Articulated arm for temperature sensor mini without thread adapter
626140-9134-001	Articulated arm for temperature sensor mini with thread adapter M6
626140-9134-002	Articulated arm for temperature sensor mini with thread adapter M10
626140-9134-003	Articulated arm for temperature sensor mini with thread adapter M12
626140-9134-004	Articulated arm for temperature sensor mini with thread adapter 1/4"

Temperature sensors maxi

These sensors can be directly integrated in the clamping fixture. They are provided with a spring-loaded sensor head, an flying lead end (3 m).

Available with a plastic or steel housing.



Item No.	Description
626140-9111-200	Temperature sensor (mini) with plastic housing, flying leads, 3m
626140-9112-200	Temperature sensor (mini) with steel housing, flying leads, 3m
626140-9111-100	Temperature sensor SUB-D with plastic housing, flying leads, 3m
626140-9112-100	Temperature sensor SUB-D with steel housing, flying leads, 3m
626140-9111-000	Temperature sensor DIN with plastic housing, flying leads, 3m
626140-9112-000	Temperature sensor DIN with steel housing, flying leads, 3m

Pallet systems THETA RT

The THETA RT pallet system was especially developed for the ZEISS DuraMax rotary table. The pallets with chucks or a vice provide an efficient solution for changing clamping fixtures.



Advantages

- Workpieces are clamped away from the measuring machine and valuable machine capacity is used for the actual measurement.
- Pallets are changed in an instant, which also shortens the downtimes.
- The workpiece is quickly and repeatedly and weird hyphenation aligned by means of the static 3-point holder.

THETA RT vice kit for ZEISS DuraMax RT

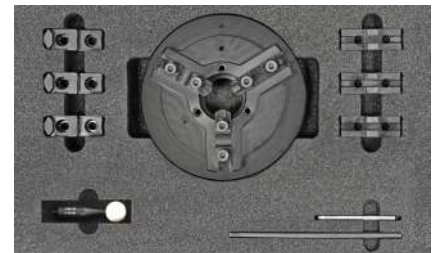
The vice kit has been especially developed for ZEISS DuraMax RT. It is characterized by its light weight and optimized mounting height. Various jaw sets for the vice enable components from 1 mm to 160 mm to be clamped. Components can be positioned with axial precision as a result of the central clamping. Precise positioning of the vice on the ZEISS DuraMax rotary table enables the use of a special interchangeable pallet. The kit also includes a factory-calibrated reference sphere with a diameter of 25 mm.



Item No.	Description
626109-9220-410	THETA RT vice kit for ZEISS DuraMax

THETA RT three jaw chuck for ZEISS DuraMax RT

The aluminum chuck turret has an integrated changeover interface. Its light weight is especially optimized for the ZEISS DuraMax rotary table. The kit includes three jaw sets and a reference sphere with a diameter of 25 mm.



Item No.	Description
626109-9232-000	THETA RT three jaw chuck kit for ZEISS DuraMax RT

THETA RT with M4 grid for ZEISS DuraMax RT

The interchangeable pallet with a diameter of 190 mm for the ZEISS DuraMax RT is manufactured of anodized aluminum. It is provided with an M4 grid with a spacing of 15 x 15 mm. The pallet is indexed via three rubber feet and a centering hole. The lightweight pallet weighs 0.95 kg and can be used to mount the workpiece outside the sensitive rotary table, preventing damage.



Item No.	Description
626109-9220-320	THETA RT, diameter 190 for ZEISS DuraMax RT with M4 grid

THETA RT without grid for ZEISS DuraMax RT

The interchangeable pallet with a diameter of 190 mm for the ZEISS DuraMax RT is manufactured of anodized aluminum. It has no holes and can therefore be used flexibly. The pallet is indexed via three rubber feet and a centering hole. The lightweight pallet weighs 1.0 kg and can be used to mount the workpiece outside the sensitive rotary table, preventing damage.



Item No.	Description
626109-9220-330	THETA RT, diameter 190 for ZEISS DuraMax RT without grids

Pallet systems THETA 32

The THETA 32 system is designed for universal use. Its compact size of 300 x 200 mm makes it easy to handle. The pallets with chucks or a vice provide an efficient solution for changing clamping fixtures.



Advantages

- Workpieces are clamped away from the measuring machine and valuable machine capacity is used for the actual measurement.
- Pallets are changed in an instant, which also shortens the downtimes.
- The workpiece is quickly and repeatedly aligned by means of the static 3-point holder

THETA 32 Set

This set consists of a base mounting, an interchangeable pallet with a grid and a pallet with a vice or a 3-jaw chuck selectable.



Item No.	Description
626109-9220-130	THETA 32 set grid M6 with vice
626109-9220-140	THETA 32 set grid M6 with 3-jaw chuck
626109-9220-131	THETA 32 set grid 1/4" with vice
626109-9220-141	THETA 32 set grid 1/4" with 3-jaw chuck

THETA 32 base mounting plate

The base plate is installed in the measuring range of your CMM and is used to mount THETA 32 pallets quickly with a high repeatability.



Item No.	Description
626109-9220-010	THETA 32 base mounting plate

THETA 32 Basic

This interchangeable pallet has no hole pattern and is used to construct individual fixtures.



Item No.	Description
626109-9220-050	THETA 32 basic steel

THETA 32 Grid

This interchangeable pallet has an M6 hole grid with a spacing of 25 mm. individual fixtures can therefore be assembled.



Item No.	Description
626109-9220-020	THETA 32 grid M6 25x25 steel

THETA 32 with vise

This interchangeable pallet includes a vice with a jaw width of 73 mm and a maximum jaw opening of 100 mm. The vice is mounted on the pallet with brackets and can be moved on the plate.



Item No.	Description
626109-9220-030	THETA 32 with vise

THETA 32 with three jaw chuck

This interchangeable pallet includes a mounted 125 mm 3-jaw chuck. A strange hyphenation wrench for manipulating the chuck is also supplied.



Item No.	Description
626109-9220-040	THETA 32 with 3-jaw chuck

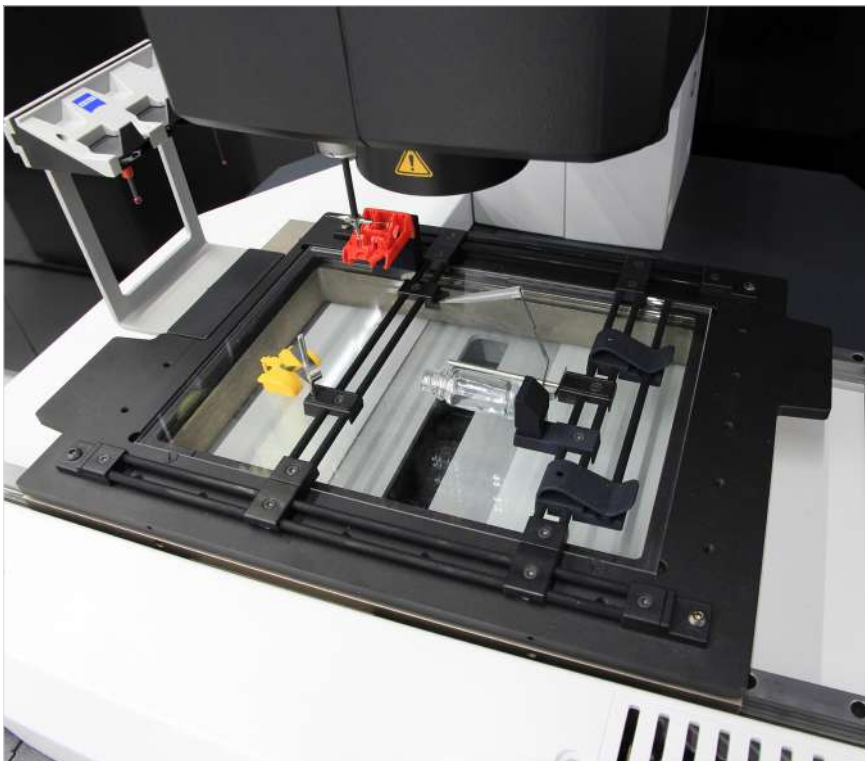
Pallet systems OMEGA 322

The OMEGA 322 pallet system is designed for the ZEISS O-INSPECT 322. The OMEGA 543 calibration comfort pallet or the OMEGA 863 pallet holding system also enable use on larger

ZEISS O-INSPECT pallet systems. The measurement range of 300 x 200 mm can be fully utilized while you profit from the advantages of the pallet system:

Advantages

- Workpieces are clamped away from the measuring machine and valuable machine capacity is used for the actual measurement.
- Pallets are changed in an instant, which also shortens the downtimes.
- The workpiece is quickly and repeatably aligned by means of the 3-point holder.
- The calibration pallet also enables calibration with repeated accuracy in the middle of the measuring volume without lengthy clamping.
- Pallets can be also used on the ZEISS O-INSPECT 543 or ZEISS O-INSPECT 863 with adaptation.



OMEGA 322 Frame

The pallet consists of an aluminum frame with a translucent pane on which workpieces are placed. The pane is available in clear glass or acrylic glass versions. The black-coated frame has holes for the attachment of the railed clamping system.

Item No.	Description
626109-9510-020	OMEGA 322 Frame, clear
626109-9510-022	OMEGA 322 Frame, acrylic



OMEGA 322 Basic

This pallet blank is for customized holding fixtures. The necessary holes can be drilled by the customer.

Item No.	Description
626109-9510-030	OMEGA 322 Basic, aluminum

OMEGA 322 Adjustable frame

The adjustable frame pallet consists of a black anodized aluminum frame and a translucent pane on which workpieces are placed. The pallet can be aligned horizontally by +/- 0.5 degrees with the lateral height adjustment screws. The frame has holes for the attachment of the railed clamping system.

Item No.	Description
626109-9510-010	OMEGA 322 adjustable frame, clear
626109-9510-012	OMEGA 322 adjustable frame, acrylic glass



OMEGA 322 Calibration

This pallet ensures quick and precise implementation of your calibration process. All the holes and openings required for mounting the reference sphere holder, the glass standard and the adjustment ring are provided. Reference standards must be ordered separately.

Item No.	Description
626109-9510-000	OMEGA 322 Calibration



OMEGA 322 Grid

The grid pallet has an M4 grid and additional holes for attachment of the railed clamping system. A screw guard prevents damage to the glass CMM table board.

Item No.	Description
626109-9510-031	OMEGA 322 with M4 grid 25x25
626109-9510-032	OMEGA 322 with M4 grid 15x15



Rail clamping system for ZEISS O-INSPECT 322

For the assembly of positioning or clamping fixtures for optical and tactile measurements. Can be directly attached to the machine table or OMEGA 322 pallets.

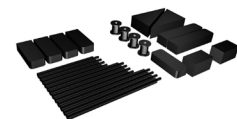
Item No.	Description
626109-9511-000	Rail clamping system basic kit for ZEISS O-INSPECT



Synthetic clamping system

Brackets made of highly stable plastic hold workpieces securely without damaging them. Assembly is provided on the M4 grid pallet.

Item No.	Description
626109-9511-100	Synthetic clamping system basic kit for ZEISS O-INSPECT



Spare glass for pallet system OMEGA 322

Spare glass panes for the frame pallets are available in various designs. We offer both a clear glass and acrylic pane.

Item No.	Description
626109-8510-010	Spare glass panes for frame pallets OMEGA 322, clear
626109-8510-012	Spare glass panes for frame pallets OMEGA 322, acrylic



Pallet systems OMEGA 543 with temperature interface

The OMEGA 543 pallet system is designed for the ZEISS O-INSPECT 543. The measurement range of 500 x 400 mm can be fully utilized. It features an integrated temperature interface, designed specifically for the

ZEISS O-INSPECT 543. The contact unit is already fixed-mounted in the machine, meaning that the OMEGA 543 pallet with temperature interface can simply be placed on it. All the pallets are prepared for the simple retrofitting of

the temperature measurement on the workpiece. Comfort pallets are characterized in particular by their light weight.

Advantages

- 3-point holder is quickly and repeatably aligned.
- The calibration pallet enables strange hyphenation with repeated accuracy in the middle of the measuring volume.
- Workpieces are clamped away from the measuring machine and valuable machine capacity is used for the actual measurement.
- Reduced downtimes.



OMEGA 543 Frame

The frame pallet has holes for the attachment of the railed clamping system. A pane is integrated for the optical measurement.

Item No.	Description
626109-9512-027	OMEGA 543 Frame, acrylic, with temperature interface
626109-9512-022	OMEGA 543 Frame, acrylic
626109-9512-025	OMEGA 543 Frame, clear, with temperature interface
626109-9512-020	OMEGA 543 Frame, clear

OMEGA 543 Adjustable frame

The pallet has all the characteristics of the OMEGA 543 frame. In addition, the pallet can be horizontally aligned by $\pm 0.5^\circ$ with the lateral height adjustment screws.

Item No.	Description
626109-9512-015	OMEGA 543 adjustable frame, clear, with temperature interface
626109-9512-010	OMEGA 543 adjustable frame, clear
626109-9512-017	OMEGA 543 adjustable frame, acrylic glas, with temperature interface
626109-9512-012	OMEGA 543 adjustable frame, acrylic glas



OMEGA 543 Comfort frame

This weight-reduced pallet weighing 5.38 kg has bores for the attachment of the railed clamping system and a pane for optical measurements.

Item No.	Description
626109-9512-023	OMEGA 543 Frame comfort, clear
626109-9512-024	OMEGA 543 Frame comfort, acrylic



OMEGA 543 Calibration

The calibration pallet is prepared for mounting the reference sphere for ZEISS O-INSPECT, a glass standard and an adjustment ring. Reference bodies must be ordered separately (or not included).

Item No.	Description
626109-9512-000	OMEGA 543 Calibration



OMEGA 543 Comfort calibration

The weight-reduced pallet weighing 6 kg has all the characteristics of the Remove the quotation marks of this pallet can be used as an adapter pallet for OMEGA 322 pallets.

Item No.	Description
626109-9512-006	OMEGA 543 Comfort calibration, with temperature interface
626109-9512-001	OMEGA 543 Comfort calibration



OMEGA 543 RT

The pallet offers three different positions for simple clamping of the RT rotary table on ZEISS O-INSPECT 543. A reference sphere holder can also be mounted. The rotary table, rotary holding system and reference sphere are available separately.

Item No.	Description
626109-9512-039	OMEGA 543 RT





OMEGA 543 Basic

This pallet blank is for customized holding fixtures. The necessary holes can be drilled by the customer.

Item No.	Description
626109-9512-035	OMEGA 543 Basic, with temperature interface
626109-9512-030	OMEGA 543 Basic



OMEGA 543 Grid M4

This pallet has an M4 grid and additional holes for attachment of the railed clamping system. A screw guard prevents damage to the glass CMM table board.

Item No.	Description
626109-9512-036	OMEGA 543 M4 grid 25x25, with temperature interface
626109-9512-031	OMEGA 543 M4 grid 25x25
626109-9512-037	OMEGA 543 M4 grid 15x15, with temperature interface
626109-9512-032	OMEGA 543 M4 grid 15x15



OMEGA 543 M4 Grid, Comfort

This weight-reduced pallet weighing 8 kg has an inscribed M4 grid of 25x25 mm but no screw guard.

Item No.	Description
626109-9512-041	OMEGA 543 M4 grid comfort 25x25



Rail clamping system for ZEISS O-INSPECT 543

For the assembly of positioning or clamping fixtures for optical and tactile measurements. Can be directly attached to the machine table of the ZEISS O-INSPECT 543 or OMEGA 543 pallets.

Item No.	Description
626109-9513-000	Rail clamping system basic kit for ZEISS O-INSPECT 543



MSP for OMEGA pallet systems

For retrofitting OMEGA 543 pallets. Connection of up to four temperature sensors. The MCA signal converter is required to connect this interface to O-INSPECT.

Item No.	Description
626140-9144-032	MSP Pallet side contact unit
626140-9144-010	MCA signal converter for temperature interface



Temperature sensors

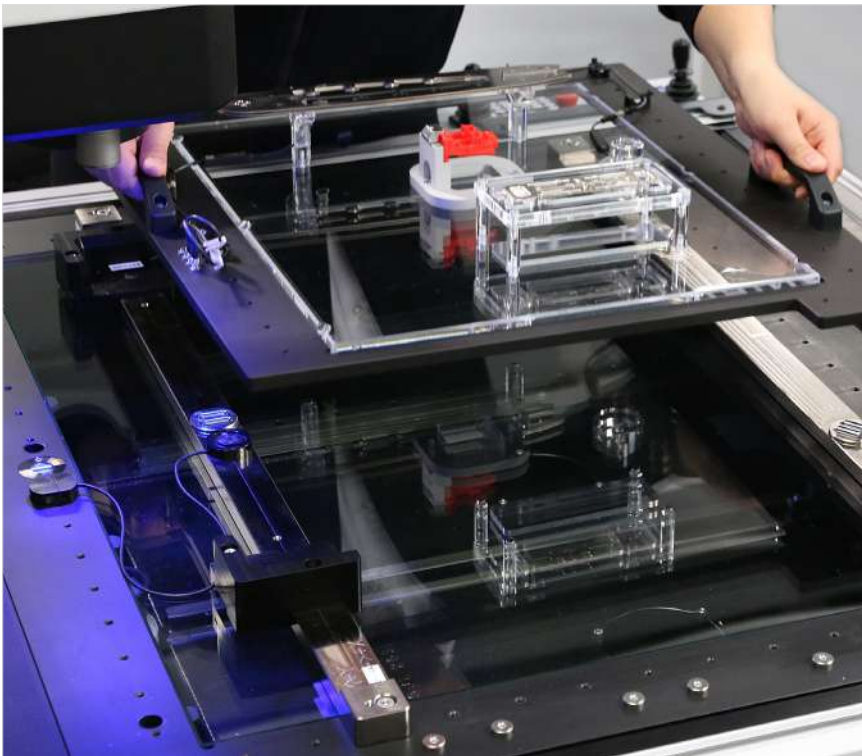
The sensors are connected by means of an MSP contact unit on the pallet side. Depending on requirements, you can choose between a straight sensor, an angled sensor and a magnetic sensor.

Item No.	Description
626140-9141-010	Temperature sensor (small) straight, M5 interface
626140-9141-012	Temperature sensor (small) angled, M5 interface
626140-9141-014	Temperature sensor (small) magnetic, M5 interface

Pallet systems for ZEISS O-INSPECT 863

You can use all OMEGA pallets on your O-INSPECT 863. You only need the pallet holding system. This consists of two strips which can be converted from the OMEGA 543 to the OMEGA 322

pallet system and vice versa in just a few simple steps. You can also use the temperature interface with the Modbus extension here.



Pallet system for ZEISS O-INSPECT 863

The holder permits the use of OMEGA 322 and 543 pallets on the ZEISS O-INSPECT 863. The two strips are screwed on at the appropriate distance. The pallets can be positioned with repeated accuracy via the 3-point holder. An extension also enables the temperature interface to be used.



Item No.	Description
626109-9515-007	OMEGA 863 Pallet holding system, T
626140-9144-034	Extension for Modbus temperature interface

ZEISS Styli Kits M3 XXT



A quick start saves time!
Find the right original equipment for your stylus system components for your ZEISS coordinate measuring machine. Here is our recommendation:



Stylus Kits M3 XXT, for small workpieces

Stylus kit for the ZEISS VAST XXT probe. The kit comprises nine parts selected for the measurement of small workpieces.

Item No.	Description
626103-9021-000	Stylus kit 1, ZEISS VAST XXT, for small workpieces
Content	
626113-0150-030	1 Styli with thread, M3 XXT, tungsten carbide, ruby, DK1,5, L30
626103-0300-033	1 Styli with thread, M3 XXT, ThermoFit, ruby, DK3, L33
626103-0300-050	1 Styli with thread, M3 XXT, ThermoFit, ruby, DK3, L50
626103-0500-050	1 Styli with thread, M3 XXT, ThermoFit, ruby, DK5, L50
626103-0500-075	1 Styli with thread, M3 XXT, ThermoFit, silicon nitride, DK5, L75
626109-0018-000	2 Hook wrench DG5
000000-0015-323	1 Pin wrench 1,1, ZEISS Norm 1170
626109-0026-000	1 XXT Styli assembly aid



ZEISS DuraMax

ZEISS O-INSPECT

ZEISS RDS

Stylus Kits M3 XXT, for large workpieces

Stylus kit for the ZEISS VAST XXT probe. The kit comprises nine parts selected for the measurement of large workpieces.

Item No.	Description
626103-9022-000	Stylus kit for ZEISS VAST XXT probe head, for large workpieces
Content	
626103-5050-000	1 Stylus extension, M3 XXT, ThermoFit, DG5, L50
626103-0300-050	1 Styli with thread, M3 XXT, ThermoFit, ruby, DK3, L50
626103-0500-075	1 Styli with thread, M3 XXT, ThermoFit, silicon nitride, DK5, L75
626103-0800-125	1 Styli with thread, M3 XXT, ThermoFit, ruby, DK8, L125
626103-0600-100	1 Styli with thread, M3 XXT, ThermoFit, ruby, DK6, L100
626109-0018-000	2 Hook wrench DG5
000000-0015-323	1 Pin wrench 1,1, ZEISS Norm 1170
626109-0026-000	1 XXT Styli assembly aid



ZEISS DuraMax

ZEISS O-INSPECT

ZEISS RDS

Stylus Kits M3 XXT, large star styli

Star styli stylus kit for ZEISS VAST XXT probe. The kit comprises eight parts.

Item No.	Description
626103-9023-000	Stylus kit star styli for ZEISS VAST XXT probe head
Content	
626103-5050-000	1 Stylus extension, M3 XXT, ThermoFit, DG5, L50
626103-0301-040	1 Clamping styli with thread, M3 XXT, ThermoFit, ruby, DK3, L40
626103-0302-040	1 Stylus for 1/4 star, M3 XXT, ThermoFit, ruby, DK3, L40
626103-0303-040	1 Stylus for 1/2 star 90°, M3 XXT, ThermoFit, ruby, DK3, L40
626109-0018-000	2 Hook wrench DG5
000000-0015-323	1 Pin wrench 1,1, ZEISS Norm 1170
626109-0026-000	1 XXT Styli assembly aid



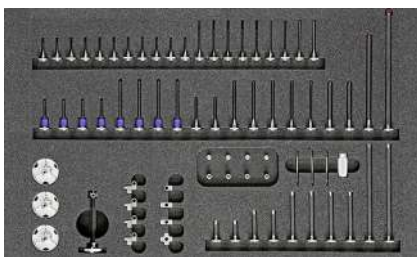
ZEISS DuraMax

ZEISS O-INSPECT

ZEISS RDS

Styli Kits

Apart from various styli, these kits also include connecting elements for the assembly of stylus systems as well as the appropriate tools.



ZEISS DuraMax

ZEISS O-INSPECT

ZEISS RDS

Stylus Kits M3 XXT TL3 professional

The extensive kit comprises 73 pieces, to build different stylus system for ZEISS VAST XXT TL3 probe.

Item No.	Description
626103-9026-000	Stylus Kit professional for ZEISS VAST XXT TL3
Content	
626113-0030-020	2 Stylus M3 XXT, stepped, DK0,3, L20, ML11, MLE2,3
626113-0050-020	4 Stylus M3 XXT, stepped, DK0,5, L20, ML11, MLE2,3
626113-0080-020	1 Stylus M3 XXT, stepped, DK 0,8, L20, ML11, MLE4,8
626113-0103-020	4 Stylus M3 XXT, DK1, L20
626113-0100-040	1 Stylus M3 XXT, stepped, DK1, L40, ML31, MLE5
626113-0150-000	4 Stylus M3 XXT, Carbide, ruby, DK1,5, L30
626113-0151-040	2 Stylus M3 XXT, Carbide, ruby, DK1,5, L40
626113-0201-040	2 Stylus M3 XXT, Carbide, ruby, DK2, L40
626103-0207-030	4 Rändelstylus, M3 XXT, ThermoFit, ruby, DK3, L30
626103-0307-050	4 Rändelstylus, M3 XXT, ThermoFit, ruby, DK3, L50
626103-0300-033	2 Stylus, M3 XXT, ThermoFit, ruby, DK3, L33
626103-0300-050	4 Stylus M3 XXT, ThermoFit, ruby, DK3, L50
626103-0401-050	1 Stylus M3 XXT, ThermoFit, ruby, DK4, L50
626103-0500-050	2 Stylus M3 XXT, ThermoFit, ruby, DK5, L50
626103-0600-100	1 Stylus M3 XXT, ThermoFit, ruby, DK6, L100
626103-0800-125	1 Stylus M3 XXT, ThermoFit, ruby, DK8, L125
620161-8075-000	3 Stylus plate, ZSH-28-B-0-M3 for VAST XXT TL3
626103-8033-055	1 Stylus plate, ZSH-28-B-55-5X-TL3-M3 for VAST XXT TL3
626103-6180-001	4 Knuckle joint, M3 XXT, titanium, L10, B5
626103-6110-001	1 Cube 90°, M3 XXT, single, L6,5, B5
626103-6110-002	2 Cube 180°, M3 XXT, double, L13, B5
626103-6110-003	1 Star cube, M3 XXT, 4-sided, L13, B5
626103-6110-004	4 Clamp screw M3 XXT, titanium, DG3,5, L8
626103-6110-005	4 Clamp screw with internal thread, M3 XXT, titanium, L8
000000-0015-323	3 Pin wrench 1,1
626109-0026-000	1 Assembly aid for XXT-Stylus
626103-5020-000	2 Stylus extension, M3 XXT, ThermoFit, DG5, L20
626103-5030-000	2 Stylus extension, M3 XXT, ThermoFit, DG5, L30
626103-5050-000	4 Stylus extension, M3 XXT, ThermoFit, DG5, L50
626103-5100-000	2 Stylus extension, M3 XXT, ThermoFit, DG5, L100

Stylus Kits M3 XXT, small

The kit comprises 15 pieces, to build different stylus kits for ZEISS VAST XXT TL3 probe.

Item No.	Description
626103-9024-000	Stylus Kit small for ZEISS VAST XXT

Content

626103-6110-004	1	Clamp screw, M3 XXT, titanium
626103-6110-005	2	Clamp screw with internal thread, M3 XXT,
626109-0026-000	1	Assembly aid for XXT-Stylus
000000-0015-323	2	Pin wrench 1,1 ZEISS Norm 1170
626103-6110-001	1	Cube 90°, M3 XXT, single, titanium
626103-6110-001	1	Cube 180°,M3 XXT, double, titanium
626103-6110-003	1	Star cube, M3 XXT, titanium
626103-6180-001	1	Knuckle joint, M3 XXT, titanium
626103-5050-000	1	Stylus extension, M3 XXT, ThermoFit, L50
626103-0300-050	1	Stylus, M3 XXT, ThermoFit, ruby, DK3, L50
626113-0050-013	2	Stylus, M3 XXT, stepped, DK0,5, L13, ML4, MLE2,3
626113-0080-014	2	Stylus, M3 XXT, tungsten carbide, ruby, DK0,8, L14

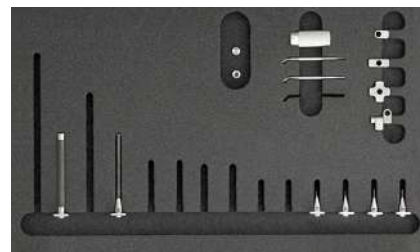
Stylus system kit M3 XXT, large

The extensive kit comprises 25 pieces, to build different stylus kits for ZEISS VAST XXT TL3 probe.

Item No.	Description
626103-9025-000	Stylus Kit large for ZEISS VAST XXT

Content

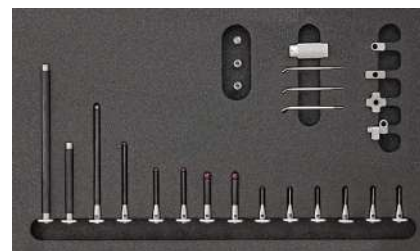
626103-6110-004	1	Clamp screw, M3 XXT, titanium
626103-6110-005	2	Clamp screw with internal thread, M3 XXT,
626109-0026-000	1	Assembly aid for XXT-Stylus
000000-0015-323	3	Pin wrench 1,1 ZEISS Norm 1170
626103-6110-001	1	Cube 90°, M3 XXT, single, titanium
626103-6110-001	1	Cube 180°,M3 XXT, double, titanium
626103-6110-003	1	Star cube, M3 XXT, titanium
626103-6180-001	1	Knuckle joint, M3 XXT, titanium
626103-5100-000	1	Stylus extension, M3 XXT, ThermoFit, L100
626103-5050-000	1	Stylus extension, M3 XXT, ThermoFit, L50
626103-0500-075	1	Stylus, M3 XXT, ThermoFit, silicon nitride, DK5, L75
626103-0300-050	1	Stylus, M3 XXT, ThermoFit, ruby, DK3, L50
626103-0300-033	2	Stylus, M3 XXT, ThermoFit, ruby, DK3, L33
626103-0500-030	2	Stylus, M3 XXT, ThermoFit, ruby, DK5, L30
626113-0200-020	2	Stylus, M3 XXT, tungsten carbide, ruby, DK2, L20
626113-0150-020	2	Stylus, M3 XXT, tungsten carbide, ruby, DK1,5, L20
626113-0100-020	2	Stylus, M3 XXT, stepped, DK1, L20, ML11, MLE5



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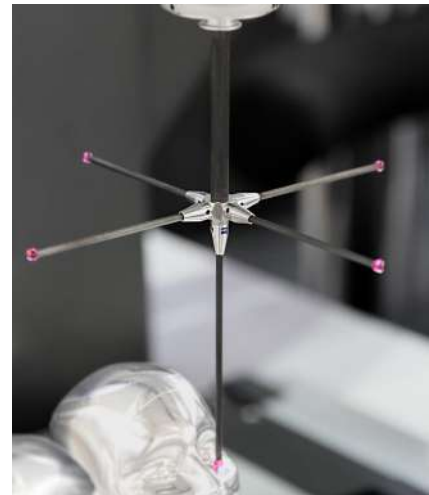
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Star styli kits

You can assemble simple styli, star, T- and L-styli with these kits. Each kit includes an adapter plate with a ZEISS ThermoFit extension with an aligned 5-sided cube on the end.



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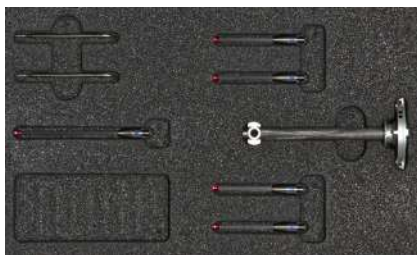
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Stylus system kit M3 XXT TL3, star styli large

The kit comprises 8 pieces , to build long styli, star styli or T- and L-styli.

Item No.	Description
626103-9058-000	Stylus system kit for ZEISS VAST XXT, for large star styli
Content	
000000-0015-323	2 Pin wrench 1,1. CZ 1170
626103-0300-075	1 Styli with thread, M3 XXT, ThermoFit, ruby, DK3, L75
626103-8033-055	1 Stylus holder ZSH-28-B-55-5X-TL3-M3
626103-0300-050	4 Styli with thread, M3 XXT, ThermoFit, ruby, DK3, L50



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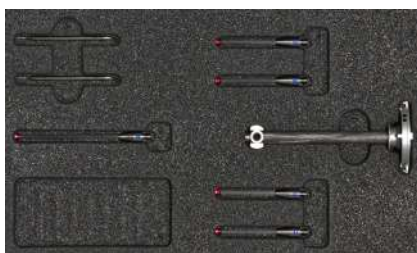
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Stylus system kit M3 XXT TL1, star styli

The kit comprises 8 pieces, to build simple styli, star styli or T- and L-styli.

Item No.	Description
626103-9031-000	Stylus system kit M3 XXT TL1 for star styli ZEISS ThermoFit
Content	
000000-0015-323	2 Pin wrench 1,1. CZ 1170
626103-0300-050	1 Styli with thread, M3 XXT, ThermoFit, ruby, DK3, L75
626103-8031-055	1 Adapter plate with star element TL1 ZSH-28-B-55-5X-M3, L55
626103-0300-033	4 Styli with thread, M3 XXT, ThermoFit, ruby, DK3, L33



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Stylus system kit M3 XXT TL3, star styli

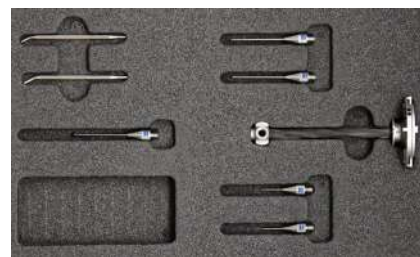
The kit comprises 8 pieces, to build simple styli, star styli or T- and L-styli.

Item No.	Description
626103-9033-000	Stylus system kit M3 XXT TL3 for star styli ZEISS ThermoFit
Content	
000000-0015-323	2 Pin wrench 1,1. CZ 1170
626103-0300-050	1 Styli with thread, M3 XXT, ThermoFit, ruby, DK3, L75
626103-8033-055	1 Adapter plate with star element TL1 ZSH-28-B-55-5X-M3, L55
626103-0300-033	4 Styli with thread, M3 XXT, ThermoFit, ruby, DK3, L33

Stylus Kit M3 XXT TL1, star styli small

The kit comprises 8 pieces, to build simple styli, star styli or T- and L-styli.

Item No.	Description
626103-9040-000	Stylus system kit for ZEISS VAST XXT TL1, for star styli small
Content	
626103-8031-055	1 Star stylus holder VAST XXT,ZSH-28-A-55-5X-TL1-M3
626113-0100-030	2 Styli, M3 XXT, stepped, tungsten carbide, ruby, DK1, L30
626113-0050-020	2 Styli, M3 XXT, stepped, tungsten carbide, ruby, DK0,5, L20
626113-0200-030	1 Styli, M3 XXT, tungsten carbide, ruby, DK0,5, L20
000000-0015-323	2 Pin wrench 1.1, CZ 1170



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Stylus Kit M3 XXT TL3, star styli small

The kit comprises 8 pieces, to build simple styli, star styli or T- and L-styli.

Item No.	Description
626103-9041-000	Stylus system kit for ZEISS VAST XXT TL3, for star styli small
Content	
626103-8033-055	1 Star stylus holder VAST XXT,ZSH-28-A-55-5X-TL1-M3
626113-0100-030	2 Styli, M3 XXT, stepped, tungsten carbide, ruby, DK1, L30
626113-0050-020	2 Styli, M3 XXT, stepped, tungsten carbide, ruby, DK0,5, L20
626113-0200-030	1 Styli, M3 XXT, tungsten carbide, ruby, DK0,5, L20
000000-0015-323	2 Pin wrench 1.1, CZ 1170



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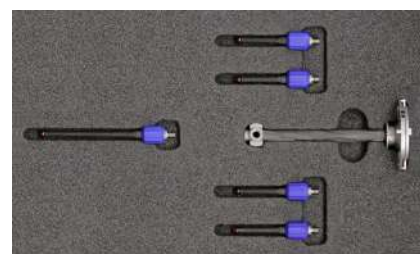
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Stylus Kit M3 XXT TL1, star styli with Rändelstyli

The kit comprises 6 pieces, to build simple styli, star styli or T- and L-styli.

Item No.	Description
626103-9042-000	Stylus system kit for ZEISS VAST XXT TL1, for Star styli with Rändelstyli
Content	
626103-8031-055	1 Star stylus adapterplate VAST XXT,ZSH-28-A-55-5X-TL1-M3
626103-0307-030	4 Rändelstyli with thread, M3 XXT, ThermoFit, ruby, DK3, L30
626103-0307-050	1 Rändelstyli with thread, M3 XXT, ThermoFit, ruby, DK3, L50



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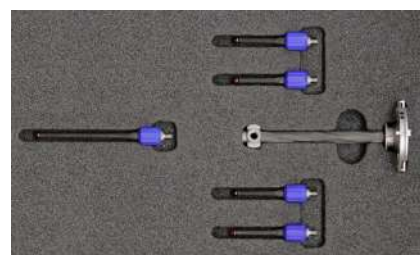
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Stylus Kit M3 XXT TL3, star styli with Rändelstyli

The kit comprises 6 pieces, to build simple styli, star styli or T- and L-styli.

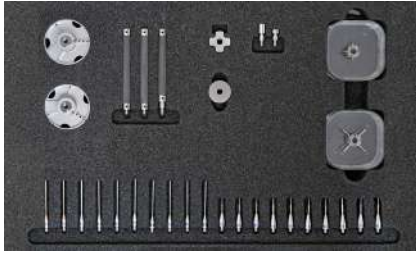
Item No.	Description
626103-9043-000	Stylus system kit for ZEISS VAST XXT TL3, for Star styli with Rändelstyli
Content	
626103-8033-055	1 Star stylus adapter plate VAST XXT,ZSH-28-A-55-5X-TL3-M3
626103-0307-030	4 Rändelstyli with thread, M3 XXT, ThermoFit, ruby, DK3, L30
626103-0307-050	1 Rändelstyli with thread, M3 XXT, ThermoFit, ruby, DK3, L50



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Stylus system kit M3 XXT TL3, gear measurement

This extensive kit consists of 31 parts selected specifically for gear measurements.

Item No.	Description
626103-9034-000	Stylus system kit for gear measurement, TL3
Content	
620161-8076-000	2 Stylus holder ZSH-28-B-0-M3 TL3 for VAST XXT-ID probe18P
626103-5050-000	2 Stylus extension, M3 XXT, ThermoFit L50
626103-6110-003	1 Star stylus with cube, M3 XXT, 4-sided, titanium
626103-6110-007	1 Star stylus with cube 45°, M3 XXT, 8-sided, titanium
626113-0080-020	10 Stylus, M3 XXT, tungsten carbide, ruby, DK0.8, L20, ML11, MLE4.8
626113-0150-030	10 Stylus, M3 XXT, tungsten carbide, ruby, DK1.5, L30
626103-6110-005	1 Clamp screw with female thread, M3 XXT, titanium
626103-0050-025	1 Star stylus with cube, M3 XXT, stepped, DK0.5, L8.5
626103-0050-016	1 Star stylus with cube, M3 XXT, stepped, DK0.5, L4
626103-5045-010	1 Clamping extension with thread, M3 XXT, ZEISS ThermoFit, L45
626103-6110-004	1 Clamp screw, M3 XXT, titanium



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Stylus system kit M3 XXT TL3 gear measurement with RT

This extensive kit consists of 41 parts and selected specifically for gear measurements on the rotary table.

Item No.	Description
626109-9231-200	GEAR RT stylus system kit for ZEISS VAST XXT TL3
Content	
626103-5130-000	1 Stylus extension, M3 XXT, ThermoFit, DGE5, LE130
626103-5060-000	1 Stylus extension M3 XXT, ThermoFit, DGE5, LE60
626103-5040-000	2 Stylus extension, M3 XXT, ThermoFit, DGE5, LE40
626103-5020-000	2 Stylus extension, M3 XXT, ThermoFit, DGE5, LE20
626103-0830-070	1 Stylus, M3 XXT, ThermoFit, ruby, DG5, DK8, DS5, L70, ML70
626103-0500-050	1 Stylus, M3 XXT, ThermoFit, ruby, DG5, DK5, DS3,5, L50, ML41
626103-0300-050	2 Stylus, M3 XXT, ThermoFit, ruby, DG5, DK3, DS2, L50, ML41
626113-0201-040	2 Stylus, M3 XXT, tungsten carbide, ruby, DG5, DK2, DS1.5, L40, ML31
626113-0150-035	2 Stylus, M3 XXT, tungsten carbide, ruby, DG5, DK1.5, DS1.0, L35, ML26
626113-0103-020	3 Stylus, M3 XXT, tungsten carbide, ruby, DG5, DK1, DS0.8, L20, ML11
626113-0080-020	3 Stylus, M3 XXT, stepped, DG5, DK0.8, L20, ML11, MLE4.8 DSE0.6
626113-0050-013	3 Stylus, M3 XXT, stepped, DG5, DK0.5, L13, ML4, MLE2.3, DSE0.3
626103-0030-416	1 Cube-L M3 XXT, stepped, DG5, DS1, DSE0.2, DK0.3, L4, ML2.3, B8
626103-0050-416	1 Cube-L M3 XXT, stepped, DG5, DS1, DSE0.3, DK0.5, L4, ML2.3, B8
600332-8443-000	1 Reference sphere RS-D8-C, M6, DG18, DK8, L74, with certificate
626103-8033-055	2 Stylus holder ZSH-28-B-55-5X-M3, L55
626109-0026-000	1 XXT styli assembling aid, aluminum, knurled
620161-8075-000	1 Adapter plate ZSH-28-B-0-M3 for ZEISS VAST XXT TL3
000000-0015-323	2 Pin wrench 1,1 CZ 1170
626103-6110-005	2 Clamp screw with thread, M3XXT, L8, DG3.5
626103-6110-004	2 Clamp screw, M3 XXT, L8, DG3.5
626103-6110-001	3 Cube, M3XXT, 90°, einfach, L6,5, B5
626103-6110-003	1 Cube, M3XXT, Star, L13, B5
626103-6180-001	1 Knuckle joint, M3 XXT, titanium, B5, L10

Stylus system professional building kit for ZEISS VAST M3 XXT TL1

ZEISS FixAssist XXT, incl. S1, W1 and KT entry-level adapters, as well as a tool set for mounting M3 XXT stylus systems. This enables spatial angles, star styli and clampable star styli to be set up and adjusted.



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Item No.	Description
626103-9080-000	Stylus system professional building kit for ZEISS VAST M3 XXT TL1
Content	
626109-9140-200	1 FixAssist XXT incl. adapter set S1, W1, KT, tool kit
626109-9140-300	1 FixAssist XXT adapter set for knuckle joints
620161-8055-000	5 Adapter plate for VAST XXT TL1
626103-5030-000	1 Stylus extension M3 XXT, ThermoFit, DGE5, LE30
626103-5060-000	1 Stylus extension , M3 XXT, ThermoFit , DGE5, LE60
626103-5030-005	1 Stylus extension with conical receiver, M3 XXT, ThermoFit, DGE5, LE31
626103-5060-005	1 Stylus extension with conical receiver, M3 XXT, ThermoFit, DGE5, LE61
626103-6180-002	2 Conical receiver M3XXT, titanium, DGE5, LE7
626103-6020-090	1 Angle block with cone adapter 90°, DG5, titanium, DG5, L7,75, ML4
626103-6180-021	3 Knuckle joint, DG5, titanium , DG5, L12
626103-6020-045	1 Angle block with cone adapter 45°, DG5, titanium, DG5, L7,75, ML4
626103-6110-004	2 Clamp screw, M3 XXT, L8, DG3,5,
626103-6110-005	1 Clamp screw with female thread, M3 XXT, L8, DG3,5
626103-0300-033	5 Stylus, M3 XXT, ThermoFit, ruby, DG5, DK3, DS2, L33, ML24
626103-0301-050	3 Stylus, M3 XXT, ThermoFit, ruby, DG5, DK3, DS2, L50, ML41
626103-0100-018	2 Cube with star styli M3 XXT, DG5, DS0,8, DK1, L5, ML5, B18
626103-0050-016	1 Cube M3 XXT, stepped, DG5, DS1, DSE0,3, DK0,5, L4, ML2,3, B16

Stylus system professional building kit for ZEISS VAST XXT TL3

ZEISS FixAssist XXT, incl. S1, W1 and KT entry-level adapters, as well as a tool set for mounting M3 XXT stylus systems. This enables spatial angles, star styli and clampable star styli to be set up and adjusted.



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ZEISS O-INSPECT

ZEISS RDS

Item No.	Description
626103-9090-000	Stylus system professional building kit for ZEISS VAST M3 XXT TL3
Content	
626109-9140-200	1 FixAssist XXT incl. adapterset S1, W1, KT, tool kit
626109-9140-300	1 FixAssist XXT adapterset for knuckle joints
620161-8075-000	5 Adapter plate ZSH-28-B-0-M3 für VAST XXT TL3
626103-5030-000	1 Stylus extension, M3 XXT, ThermoFit, DGE5, LE30
626103-5060-000	1 Stylus extension, M3 XXT, ThermoFit , DGE5, LE60
626103-5030-005	1 Stylus extension with conical receiver M3 XXT, ThermoFit, DGE5, LE31
626103-5060-005	1 Stylus extension with conical receiver, M3 XXT, ThermoFit, DGE5, LE61
626103-6180-002	2 Conical receiver M3XXT, titanium, DGE5, LE7
626103-6020-090	1 Angle block with cone adapter 90°, DG5, titanium, DG5, L7,75, ML4
626103-6180-021	3 Knuckle joint, DG5, titanium , DG5, L12
626103-6020-045	1 Angle block with cone adapter 45°, DG5, titanium, DG5, L7.75, ML4
626103-6110-004	2 Clamp screw, M3 XXT, L8, DG3.5,
626103-6110-005	1 Clamp screw with female thread, M3 XXT, L8, DG3.5
626103-0300-033	5 Stylus, M3 XXT, ThermoFit, ruby, DG5, DK3, DS2, L33, ML24
626103-0301-050	3 Stylus, M3 XXT, ThermoFit, ruby, DG5, DK3, DS2, L50, ML41
626103-0100-018	2 Cube with star styli M3 XXT, DG5, DS0,8, DK1, L5, ML5, B18
626103-0050-016	1 Cube M3 XXT, stepped, DG5, DS1, DSE0,3, DK0,5, L4, ML2,3, B16

First-class measurement

Precise, more precise, IFF: In the measuring room at the Institute for Industrial Manufacturing and Management at Stuttgart University the head of the measuring room, Frank Herbrig, tests workpieces precisely to the micrometer. Provided that the temperature in the room is correct. This was not always the case – until Herbrig installed TEMPAR® from ZEISS Industrial Metrology.



Challenge: 20 degrees. Exactly.

As temperature rises or falls, measuring objects grow or shrink in length by a few micrometers. That's a problem, especially when exact measuring results are required. 20 degrees Celsius – that's the prerequisite for a measuring room of the highest class 1. Therefore, in 2001 the IFF installed an air conditioning system, which, according to the manufacturer, would maintain the temperature in the measuring room at precisely 20 degrees Celsius with a maximum deviation of 0.1 degrees in either direction. Spot measurements in the room seemed to confirm the temperature stability. But when high-precision measurements were run

on the two multi-sensor coordinate measuring machines, there were several inexplicable outliers.

Solution: Temperature monitoring in real-time

Put together, switch on – the installation of ZEISS TEMPAR didn't take very long, only one day – and it clearly showed: The temperature in the room is 20 degrees, at least at some points but not in the corners and also not directly underneath the lamps. In the meantime, Herbrig has detected one critical fault: The temperature sensor that controls the air-conditioning system is inside the ventilation duct, outside the measuring room and five meters from the outlet in

the ceiling. As it continues on its path, the air warms up a little, probably due to a lack of duct insulation, and then flows out directly by the lamps, where it is again subjected to a temperature increase. The air is now somewhat too warm and warms up the components to be tested and the measuring styli, which leads to errors. Only improvisation helps here. Herbrig has made diffusers for the ceiling, which distribute the air flow more evenly in the room. This now works quite well, as the touch screen used to control ZEISS TEMPAR shows. The display for the measuring room class shows a big "1".



Benefit: High-precision, repeatable measurements

This now enables the IFF to perform reference measurements for DIN/EN/ISO 17025, for which the temperature documentation is required, amongst other things. Customers are paying more and more attention to this.

The measuring room expert also thinks "anyone who wants to guarantee high-precision measurements and measuring room class 1 acc. to VDI/VDE 2627 will not be able to get by without a system like ZEISS TEMPAR".

Two to three temperature sensors somewhere in the room are not sufficient.

Success:

Identified errors in the air conditioning of the measuring room
 More precise coordinate measurements
 Proof of temperature stability for measuring room class 1
 Optimization of research and teaching.

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