The perfect match for your measuring tasks. Ready when you need it.

ZEISS Stylus Portfolio
For guaranteed precision
and reliable measurement results

The ideal stylus system

- has as few joints as possible
- is as rigid as possible
- weighs as little as possible
- is as temperature-resistant as possible

Only use certified original accessories for your ZEISS measuring system. This is the only way to guarantee maximum precision and compliance with the specifications of your measuring system.

Stylus tip

The stylus is the “tip” of the stylus system and is the first point of contact to the workpiece. Three factors must be taken into account when choosing a stylus tip: the stylus specifications, and the shape and material of the tip. The most frequently used stylus tip is the ball tip. Dimensional accuracy and the material are what count here.

Tip material

- Tungsten carbide
  - Used for the most common measurement tasks. Particularly suitable for scanning abrasive workpieces.
- Silicon nitride
  - Suitable for scanning aluminum mirror surfaces.
- Diamond
  - Particularly suitable for scanning soft abrasive workpieces.
- Rubin
  - Almost no wear and no material buildup during scanning. Ideal for the most frequently used stylus tip.

Design and material

- High stiffness with low weight and are therefore particularly recommended for long stylus shafts where weight is a critical factor.
- High weight but allow special diameters such as in gear measurement. Can be made to specifications.
- High accuracy in terms of weight, stiffness, and thermal expansion. The simplest stylus design and the one with the longest usable length.

Material wear or backup

Even high-quality parts are measurable items that must be checked regularly. This is only possible if the measurement tap of the stylus has the longest usable length.

What can be done about it?

Shop expert tips

Shaft

All stylus generally should be as resistant to bending as possible in order to properly register the measuring force, largely without any deformation or so-called “stiffness bend”. The shaft material used and the shaft cross section have the greatest influence on shaft stability.

Adapter

The adapter forms the connection between the connecting thread and the shaft. It is important that the adapter is structurally designed so that it can optimally take up the measuring force introduced on the shaft.

Adapter thread

Depending on the measuring system used, ZEISS offers different connecting threads that can be used.

- M2
- M3
- M3 XXT
- M4
- M5

MS XXT style

The ZEISS M3 XXT style features a much higher rigidity than conventional M3 style. This rigidity is achieved through the use of precision elements. The compact design of the M3 XXT adapter lowers both weight and the measurement uncertainty of the overall system and thus worsens the accuracy that a CMM can achieve according to the specification.

Adapter plate

The adapter plate connects the stylus system with the measuring head and is therefore the central interface between the CMM and the workpiece. It is precisely here that no compromises should be made. Only adapter plates with the highest accuracy can achieve the given machine specifications. With the certified ZEISS adapter plates, you can exploit the full potential of your CMM.

Whether styl, adapter plates or extensions: Only original accessories from ZEISS will enable you to get the most out of your ZEISS measuring system.

Find the perfect components for your individual stylus system now in our ZEISS Metrology Shop:

shop.metrology.zeiss.com

Extension

Extensions help set up complex stylus systems. All extensions should be as rigid, light, and thermally stable as possible. The use of unusable extensions has a direct negative influence on the measuring uncertainty of the overall system and thus worsens the accuracy that a CMM can achieve according to the specification.

Which extension fits your CMM best?

Use the full potential of your CMM now.

Our adapter plates.