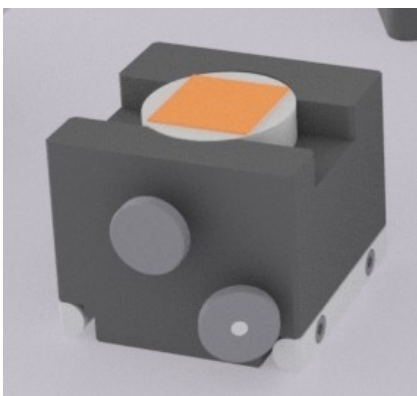


The Sm@rt cubes

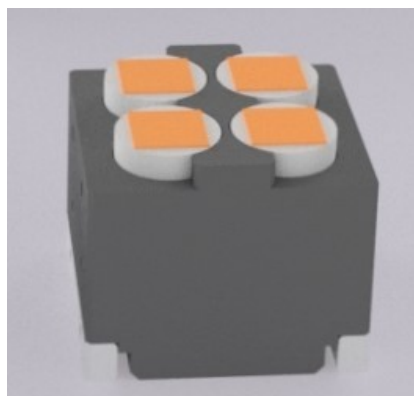
Flexibility in all
applications:



Different cubes for sm@rt 500 nanoindenter allow to mount different sample geometries and enable further options.



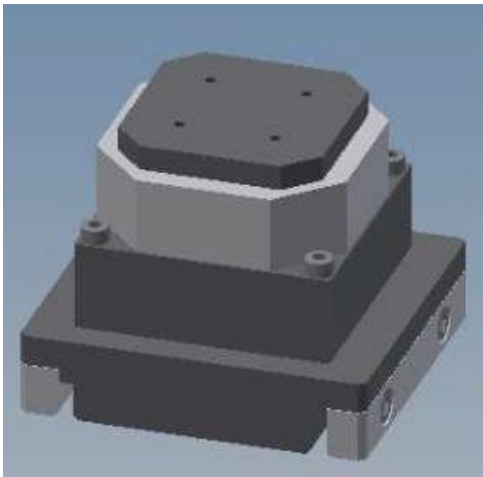
Sample holder for pucks
with 32 mm diameter



Sample holder for four
pucks with 20 mm
diameter

These two sample
holders are included
in the standard
sm@rt 500 delivery.
Other geometries
can be customized
easily.

Sm@rt cubes to add further functionality



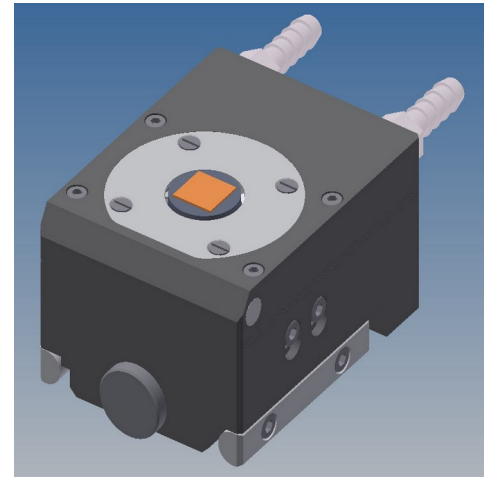
sm@rt vision – piezo scanner,
closed loop, 50 μm scan size,
sample height up to 4 mm

sm@rt resistive heater:
for up to 500°C
optional with
Tip heating 500°C

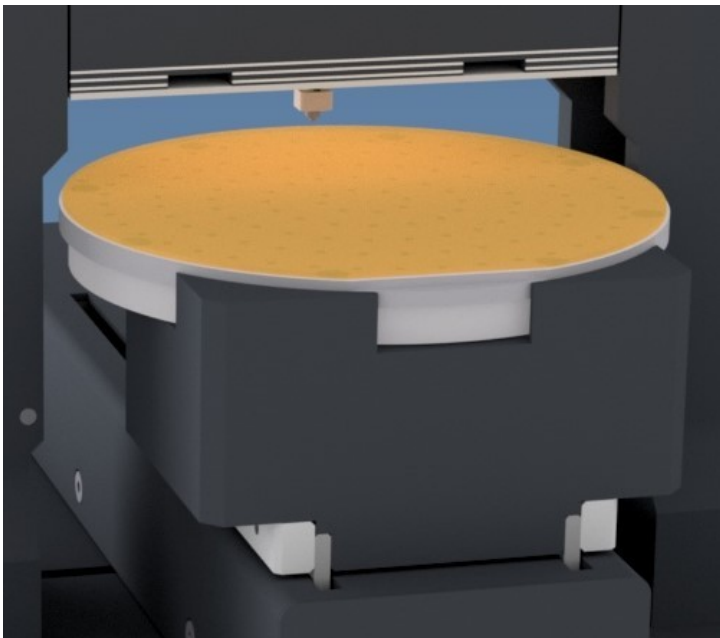
liquid heating-cooling :
-20 +70°C

sm@rt heater tips
(ceramic insulated)

humidity control option
range 0..90 %rH
at RT
or optional +/- 10°C.



heating cube
heating-cooling cube
humidity controlled cube
lateral force cube
lateral force cube incl. 500°C heating



sm@rt 100 cube
100 mm wafer cube
or 8*20 multiple sample cube
motorized with vacuum chuck



stage for tensile testing,
DMA mode

SEM stage: sm@rt50 SEM

sm@art 50 SEM transducer:

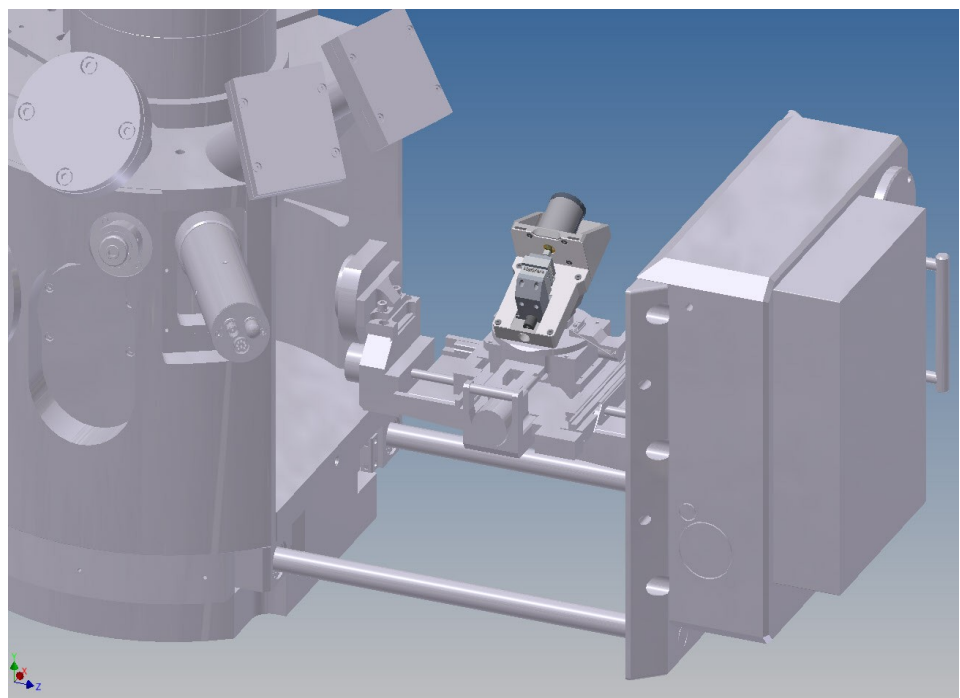
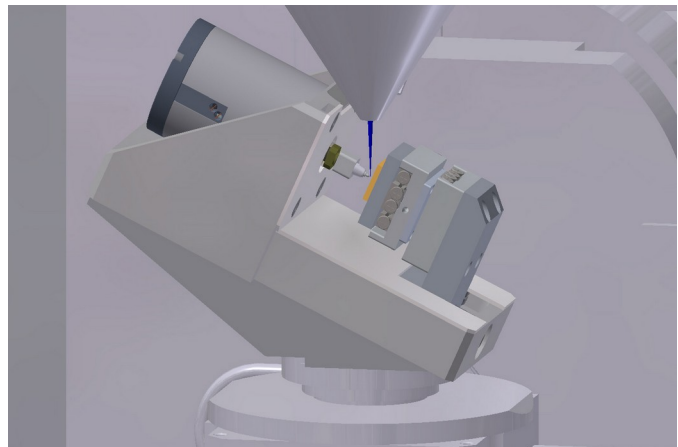
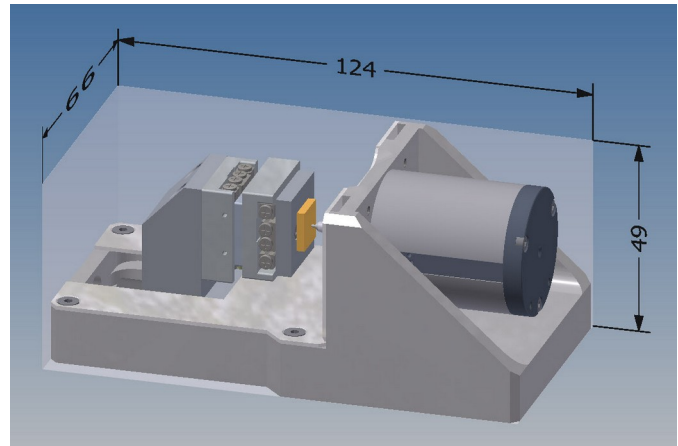
- maximum force: 50 mN, bidirectional
- displacement range: min. 50 μm
- motorized Z axis
- Indenter tip interface: MTS / XP or Hysitron
- optional heater integration for 600°C and tip heating

piezzo sample stage:

- open/closed loop x/y sample position system with sub nm resolution
- max. normal force > 30 N
- blocking force < 5 N
- position resolution < 1 nm

SEM stage:

- pre tilted indenter stage
- customized adapter for any SEM sample stage
- single flange feedthrough
- software user interface for the SEM software to control the piezzo stage



sm@rt50 SEM installed
at a sample stage of a
Zeiss AURIGA compact