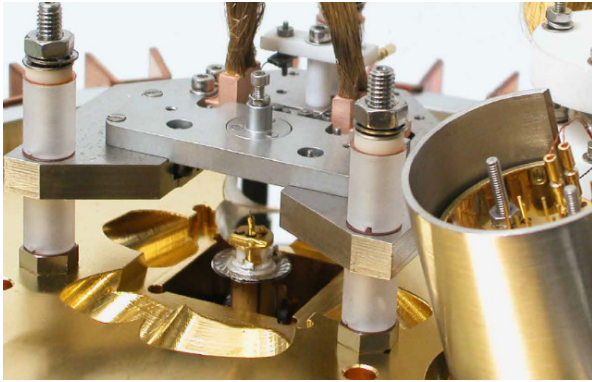


VT sample stage XA upgrade

Maximum compatibility, ease of use



Sample Plates

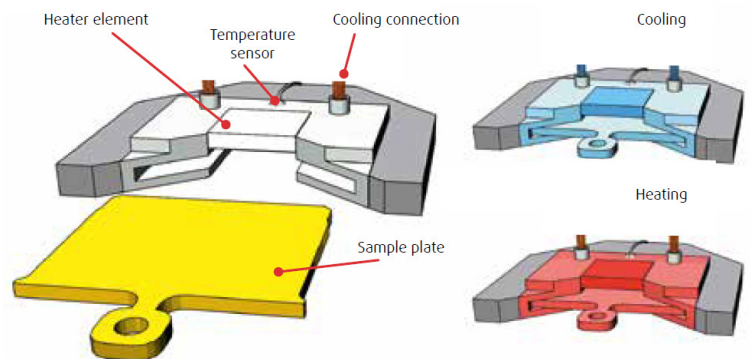
The VT XA design forms a new series of VT instruments using standard Scienta Omicron samples plates. The philosophy of the XA series is to provide maximum compatibility with many different surface science techniques, like MBE, RHEED and different kinds of electron spectroscopy. Standard Scienta Omicron sample plates are available in Mo, Ta or stainless steel. Maximum sample size is 11mm x 11mm

Cooling (down to 50K)

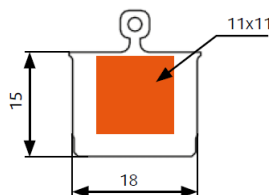
The thermal connection (copper braid) between flow cryostat and sample stage is fixed and thermally isolated from the microscope stage

Heating (up to 650K)

An embedded solid-state heater element in the sample stage allows indirect radiative heating of samples. The stage is equipped with a temperature sensor to measure the sample temperature. A temperature range between 50K and 500K is possible. Instruments without cooling option can heat the sample up to 650K



- Cooling fixed at sample stage
- Heating integrated in sample stage
- Uses Scienta Omicron standard sample plates for variable temperature



Dimensions of a standard sample plate [mm]



Standard sample plate



Direct-heating sample plate for sample preparation on the system manipulator



PEEM sample plate

Summary

Parts needed:

- XA sample stage
- Cooling braid
- Spare parts (distance washers)

Requirements:

Limitations:

Options:

- XA sample stage upgrade heating only