The MultiCentre range of analytical manipulators provides 4 & 5 axes of manipulation with heating to 1,200°C and cooling options down to -243°C. All services are routed through the central shaft resulting in a very uncluttered, compact sample stage. This design feature reduces the swept radius and eliminates accidental snagging of cooling pipes, power and thermocouple wires whilst providing space to incorporate additional functionality such as our high temperature parking stage featured below.

The dual position high temperature parking option provides parking for two Omicron sample plates and, (if suitable sample holders are used), running a direct heating process. Samples can be inserted from either side, using either a wobble stick or an Omicron-style transfer head on a UHV Design Power Probe.

It is designed as a double stack; both positions are electrically isolated and fitted with isolated Molybdenum contacts for direct current heating.
This parking stage provides a facility to:

- park 2 standard sample plates one above the other
- place a special sample holder to provide direct current heating of, for example, a Si wafer sample, in either the upper or lower level
- mount a standard sample plate in the upper level with a special flag mounted e-beam heater module in the lower level. The standard flag sample in the upper level can be heated radiantly to 900°C or to 1200°C using a power supply equipped to float the heater so that e-beam heating can be applied
- mount a modified sample plate, with a thermally isolated central section in the upper level. Place a special flag mounted e-beam heater module in the lower level such that the upper level can be heated radiantly to a minimum of 1,400°C. (1,600°C has been achieved.) This requires a power supply equipped to float the heater so that e-beam heating can be applied. See e-beam performance below.

Samples in these parking positions can of course also be cooled using the system cooling facility in the sample stage head reaching temperatures down to -180°C.

If you would like to learn more about this option, please contact us or visit the MultiCentre section of our website at https://www.uhvdesign.com/products/analytical-stages.
FOR MORE INFORMATION

Please contact us via sales@uhvdesign.com or telephone +44(0)1323 811188 to discuss this application in more detail.

For more information on our complete range of UHV manipulation products please visit our website: www.uhvdesign.com which includes our unique product configuration tool that enables all of our products to be viewed, configured and emailed directly as a 3D CAD file.