

MultiCentre Questionnaire

Contact Details

Establishment

Address

Contact Name

Email Address

Telephone Number

Date

Application Details

To ensure that you receive the correct configuration of MultiCentre it is essential to provide as much information on the potential applications as possible.

What is the application (please state if the application includes deposition)?

What sample materials will you be using?

What will be the base pressure in the chamber?

mbar

Torr

Pa

If gases or vapours are involved in your process please complete the information below:?

| | GAS | PARTIAL PRESSURE | | | TEMPERATURE REQUIRED AT THIS PRESSURE | DURATION AT THIS TEMPERATURE AND PRESSURE |
|---|-----|------------------|------|----|---------------------------------------|---|
| | | mbar | Torr | Pa | | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

Are any of the following materials incompatible with your process? (please tick all that apply)

Tantalum

Molybdenum

Stainless Steel

Copper

Aluminium

Inconel

What is maximum size / shape of the samples?

Square / Rectangular

Circular

mm x

mm

mm diameter

What is the sample holder type?

Omicron/SPECS STM Flag

PHI / Omicron Puck

Escalab Stub

Other (please specify)

In what plane will the sample holder be mounted:

Perpendicular to the mounting flange

Parallel to the mounting flange

Will the sample be transferred:

Wobble Stick or

Sample transfer arm

In which orientation is the stage to be mounted?

Vertical (on top of chamber)

Vertical (underneath chamber)

Horizontal (side of chamber)

Other (please specify)

What size of mounting flange is required?

114mm (4.5") OD CF64

152mm (6") OD CF100

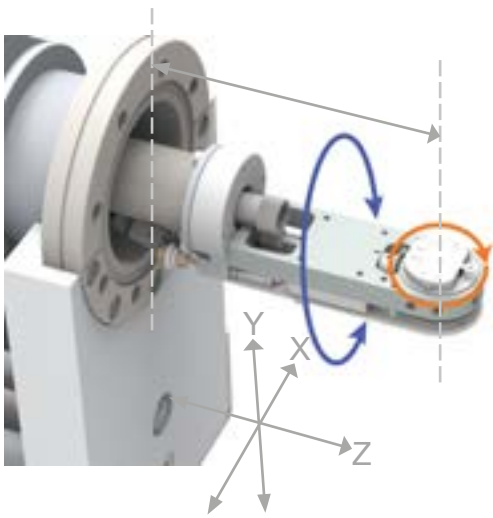
203mm (8") OD CF150

Other (non-standard option please specify)

Manipulation Options

| | | | | |
|---|--------|----------|---------------|--|
| What is the maximum X motion you require? Total | mm | | | |
| X Motion Actuation | Manual | DC Motor | Stepper Motor | |
| What is the maximum Y motion you require? Total | mm | | | |
| Y Motion Actuation | Manual | DC Motor | Stepper Motor | |
| What is the maximum Z motion you require? Total | mm | | | |
| Z Motion Actuation | Manual | DC Motor | Stepper Motor | |

Insertion Length and Rotation required? Please specify below:



Insertion Length Required?
This is the distance from the mounting flange to the centre of the sample holder.

Standard- 240mm
Other (please specify in mm)

Primary (Polar) Rotation

Manual Stepper Motor
(0.02° reproducibility)

Secondary (Azimuthal) Axis Rotation

Manual DC Motor Stepper Motor

Do you require UHV Design to supply stepper motor/DC motor controllers? Not required Required

Heating Options

Sample heating required? No heating required Resistive heating to 900°C Flash (800°C continuous) *¹
E-beam heating to 1,200°C *¹

*¹ Limited to 600°C if Liquid Helium cooling option selected below

What maximum temperature do you wish to heat the samples to (°C)?

For how long will the sample be heated at this maximum temperature?

What type of thermocouple do you require? Type 'N' Thermocouple Type 'K' Thermocouple
Type 'E' Thermocouple (for LHe cooling option)
Other (please specify)

Do you require UHV Design to supply a temperature controller and power supply? Not required Required

Cooling Options

Sample cooling required?

No cooling required

LN2 cooling to -165°C (108K) typically achieved

LN2 Dewar and cooling lines are supplied with this option.

LHe cooling to <20K (15K typically achieved)

Azimuthal option limited to +/-100° with LHe

Is Biasing Required? Please provide details below if biasing is required.

Sample Current Measurement Please provide details below if current measurement is required.

Advanced Stage Options

If you would like to know more about our unique advanced stage options please tick the relevant items below:



Additional Parking Stages with Heating / Cooling

- Single and Dual Parking positions
- Direct current heating capability
- LHe cooling option
- E-beam heater module mounted on flag-style sample plate

Please send me more information on additional parking stages



Optional Tilt Axis

- Provides additional tilt of the sample holder about an axis normal to the central manipulator axis and in the plane of the sample surface.
- Sample can be cooled with LN2 or LHe.
- Capable of sample biasing and sample current measurement.

Please send me more information on additional tilt axis option

Additional Comments & Requirements

How we use this information

We use the information you provide in this questionnaire to evaluate your application before quoting an appropriate product specification. As all applications vary and have factors outside of our control, we are not in a position to offer any performance guarantees outside of our standard final test procedures.

Related products

Please tick any related products below you would like more information on:

Sample Transfer Arms (Magnetically-coupled)



With unrivalled magnetic coupling strength, Power Probe sample transfer arms provide smooth, secure and accurate transfer of samples. Available in a range of stroke lengths with industry standard gripper options.

Please send me information on sample transfer arms

Wobble Sticks



UHV Design wobble sticks benefit from high power magnetic coupling ensuring secure, smooth and precise manipulation of samples. Available in-line or right-angle with a range of stroke lengths and industry standard gripper options.

Please send me information on wobble sticks

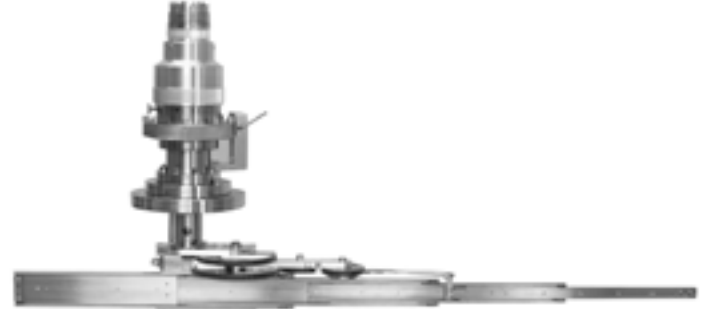
Carousel Parking Stage for Flag Style Sample Plate



The Sample Parking Stage for 'Flag' style sample plates commonly used in surface analysis instrumentation, has been designed to accommodate Omicron, Specs and Aarhus Flag style sample plates. Available with 4,8,12 and 16 flag style parking positions.

Please send me information on the carousel parking stage.

Rotary Telescopic Transfer Arm



Ultra-compact, UHV compatible rotary sample transfer arm with 760mm telescopic reach. Designed to provide sample transfer in radial distribution (UFO) chambers. Available in 2-axis and 3-axis configurations.

Please send me information on the RTTA