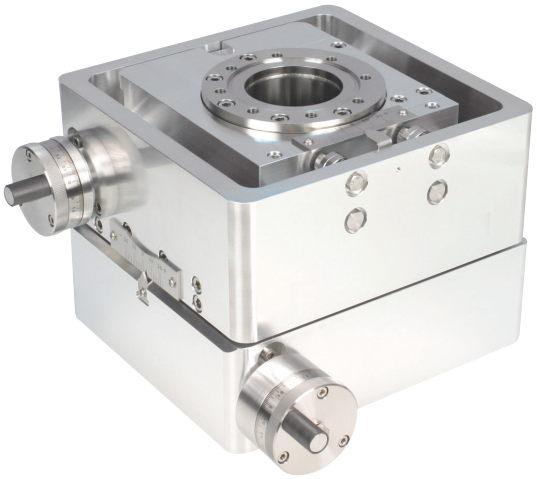
Precise XY manipulation



MultiBase XY Stages

Modular platforms for the manipulation of components in the X and Y planes.

Kinematic design ensures smooth and precise motion.

MultiBase KEY ADVANTAGES

- **Any-orientation mounting without additional supports**
- **High precision kinematic drive and guidance system – eliminates need for vulnerable cross-roller slides**
- **Rigid stops limit X/Y travel protecting the bellows**
- **Robust construction for high loads**

The MultiBase XY stage is the first choice for both research and demanding production environments due to its precise motion, true UHV performance and rugged construction which allows mounting in any-orientation.

The MultiBase design includes two parallel flanges. One remains fixed, whilst the other provides the movement. A high quality, supple, edge-welded bellows spans the flanges to accommodate the required motion while ensuring an all-metal vacuum enclosure. The device works by adjusting the position of the travelling flange in relation to the fixed system mounting flange.

Positioning of the travelling flange is controlled through two external lead-screws, each benefiting from anti-backlash systems.

A kinematic mechanism ensures smooth and precise motion. This novel mechanism incorporates a high precision drive and guidance system, removing the requirement for vulnerable cross-roller slides used by other manufacturers. Combining this with a rigid construction allows mounting in any-orientation without additional supports. Scales are fitted to each axis for resolving the position of the travelling flange on the manual version. The motorised stages are fitted with stepper motors and pre-wired limit and home switches.

XY14 MultiBase Data

XY14 SPECIFICATION	XY14-64-38	XY14-100-38
Travelling flange size	CF38 70mm (2.75") OD with M6 straddled holes	CF38 70mm (2.75") OD with M6 straddled holes
Fixed flange size	CF64 114mm (4.5") OD with M8 straddled holes	CF100 152mm (6") OD with M8 straddled holes
XY Travel	+/-14mm (vector)	+/-14mm (vector)
X_{MAX}, Y_{MAX}	+/-10mm	+/-10mm
Clear Bore Diameter	51mm	51mm
Maximum Probe OD	22mm max for full movement	22mm max for full movement
X Y Resolution	Manual +/- 0.01mm Stepper Motor +/-0.005mm	Manual +/- 0.01mm Stepper Motor +/-0.005mm
Max Axial Load	200N	200N
Max Cantilevered Load	20Nm	20Nm

XY31 MultiBase Data

XY31 SPECIFICATION	XY31-100-38	XY31-100-64	XY31-150-64
Travelling flange size	CF38 70mm (2.75") OD with M8 straddled holes	CF64 114mm (4.5") OD with M8 straddled holes	CF64 114mm (4.5") OD with M8 straddled holes
Fixed flange size	CF100 152mm (6") OD with M8 straddled holes	CF100 152mm (6") OD with M8 straddled holes	CF150 203mm (8") OD with M8 straddled holes
XY Travel	+/-31mm (vector)	+/-31mm (vector)	+/-31mm (vector)
X_{MAX}, Y_{MAX}	+/-22mm	+/-22mm	+/-22mm
Clear Bore Diameter	90mm	90mm	90mm
Maximum Probe OD	28mm max for full movement	28mm max for full movement	28mm max for full movement
X Y Resolution	Manual +/- 0.01mm Stepper Motor +/-0.005mm	Manual +/- 0.01mm Stepper Motor +/-0.005mm	Manual +/- 0.01mm Stepper Motor +/-0.005mm
Max Axial Load	200N	200N	200N
Max Cantilevered Load	20Nm	20Nm	20Nm

XY57 MultiBase Data

XY57 SPECIFICATION	XY57-150-150
Travelling flange size	CF150 203mm (8”) OD with M8 straddled holes
Fixed flange size	CF150 203mm (8”) OD with M8 straddled holes
XY Travel	+/-57mm (vector)
X_{MAX}, Y_{MAX}	+/-40mm
Clear Bore Diameter	150mm
Maximum Probe OD	36.5mm max for full movement
X Y Resolution	Manual (handwheel with 5:1 gear ratio) +/- 0.01mm Stepper Motor +/-0.005mm
Max Axial Load	200N
Max Cantilevered Load	20Nm

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