Boomerax Manipulator Series

BOOMERAX modules can be combined into multi axis manipulators for up to 6 degrees of freedom. Equipped with linear encoders and motorization, resolutions in the nanometer range are achieved.

Shown here is a 5-axis configuration with sample tilt and Helium flow cryostat.

REV 20190626

Helium Flow Cryostat

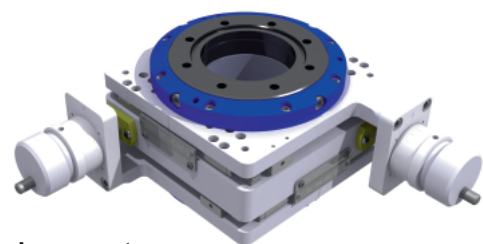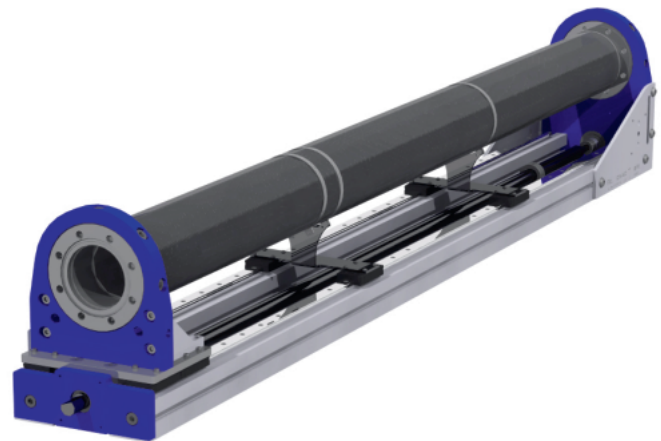**Differentially Pumped Rotary Feedthrough**

Z-Module

Z-Modules are available with a nominal free bore ranging from 16 to 160mm and with mounting flanges DN16CF (1.33") to DN160CF (8").
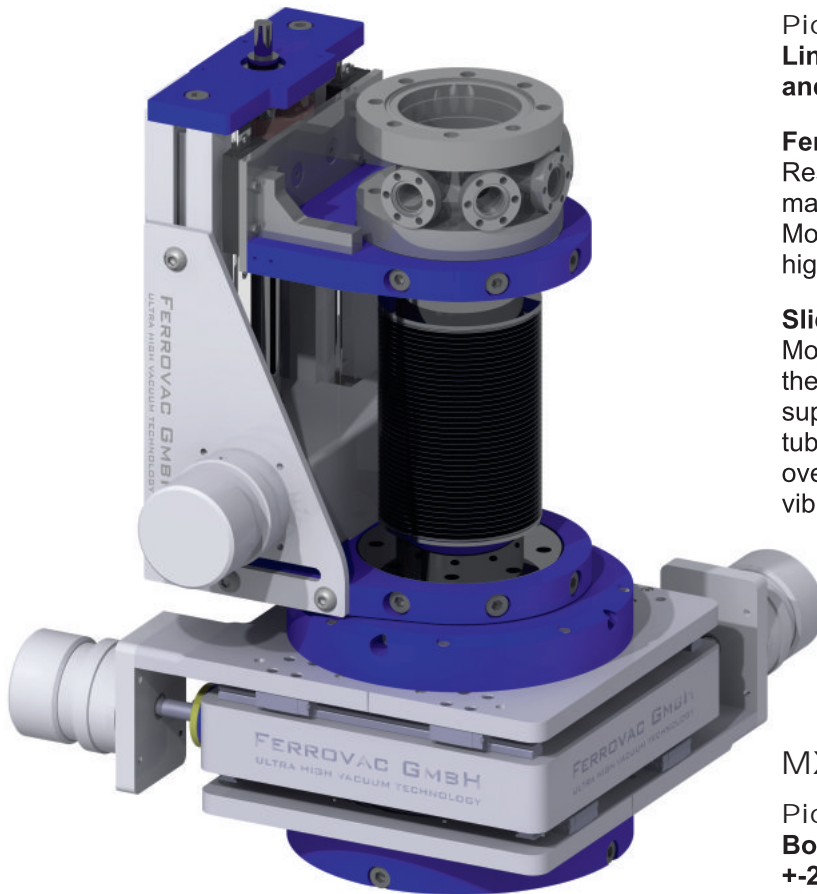
XY module

XY modules are presently available with a nominal free bore from 16 to 100mm and with mounting flanges DN16CF (1.33") to DN160CF (8").

Insert and Sample Environment

Manipulator inserts include a rigid support tube and an application specific sample environment. End pieces can include heating, cooling and azimuthal rotation or tilt.

Swiss UHV Technology since 1996

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Ultra High Vacuum Technology

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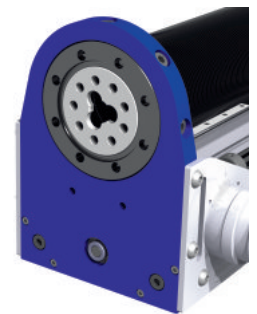# Boomerax Modules and Options

MZ-Z Axis Manipulator

Pictured: MZ63CH63CF63-0100

Linear Z-Drive with two DN63CF flanges and 100mm travel

Ferrovac Precision
Resolution: 5 microns with manual operation.
Motorized versions achieve higher resolution.

Slide bearing for Insert
Mounted inside the base flange of the Z-Module, a slide bearing supports and guides the insert tube. This greatly adds to the overall stability and minimizes vibrations on the sample.

MXY Boomerax Manipulator

Pictured: MXY100CF100TCF63TXY

Boomerax XY Stage with +-25mm XY travel 100mm free bore.

Ferrovac Precision
Resolution: 2 microns with manual operation.
Motorized versions achieve higher resolution.

Axis adjustment (tilt) of mounting flanges
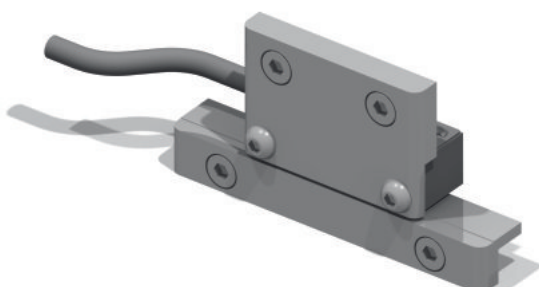Both flanges can be tilted up to 2° by set screw adjustment.

Linear Encoder

Ferrovac Precision
Step resolution down to 160 nanometers

Linear Absolute Optical Encoders
X, Y and Z modules can be equipped with linear absolute encoders.
The sensor head can be easily dismounted for bakeout.

0-2°

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