ADDITIONAL EQUIPMENT

DIAGNOSTIC GAS CHAMBER

The diagnostics gas cell has an arrangement for calibration of the spectral resolution of the monochromator.

PUMPING CHAMBER

UHV chamber with ion pump can be used for pumping of selected sections of synchrotron installation. The chamber can contain diagnostic equipment (e.g. fluorescent screen).

BEAMLINE PIPING

Piping, as a standard part of the beamline installation, are transmitting the synchrotron beam between chambers and equipment. Piping is mounted on special stands with reduced vibration.

SOFTWARE CONTROL

RAPID SE is rapid lab environment system builder for scientists, offering many useful features in areas of recipe/process creation, data acquisition and complete system control.

We supply an intuitive, easy-to-use and reliable software control for end station applications, with the ability to control critical parameters in real time.

We provide integration with TANGO and other control systems.

BAKEOUT SOLUTIONS

There are several solutions for bakeout procedures on the various beamline installations, e.g. double isolated aluminum tents with heaters, heating jackets or flexible tapes. Bakeout method depends on the specific installation conditions.

MOBILE PUMPING STATION

We deliver also a mobile pumping systems.
(please ask for a dedicated brochure)

If you need any further information, please do not hesitate to contact our sales department

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LOCAL CONTACT:

UHV SYSTEMS FOR BEAMLINES

PRECISION AND VACUUM TECHNOLOGY

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MIRROR / GRATINGS SYSTEM

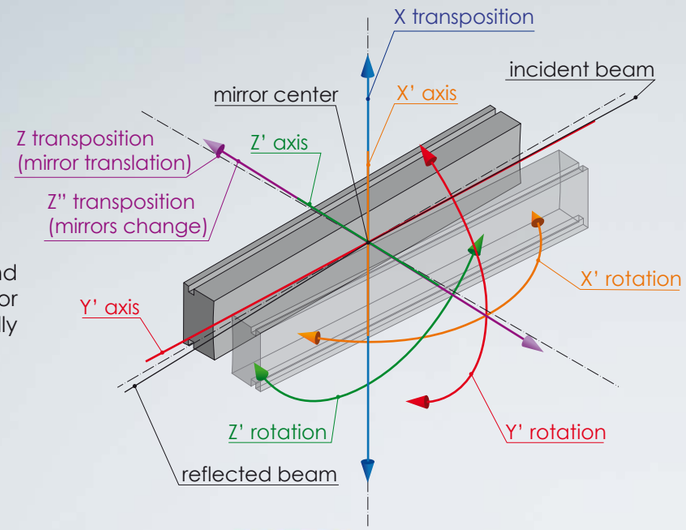
Vacuum mirror chambers are situated along the synchrotron beam line. Mirrors are located inside the chamber and mounted on a vibration isolated special holder which is moved using a multi-axis manipulator in order to determine the correct direction of the beam.

Different types of chambers can be offered, e.g.: **with cylindrical focusing mirror.**

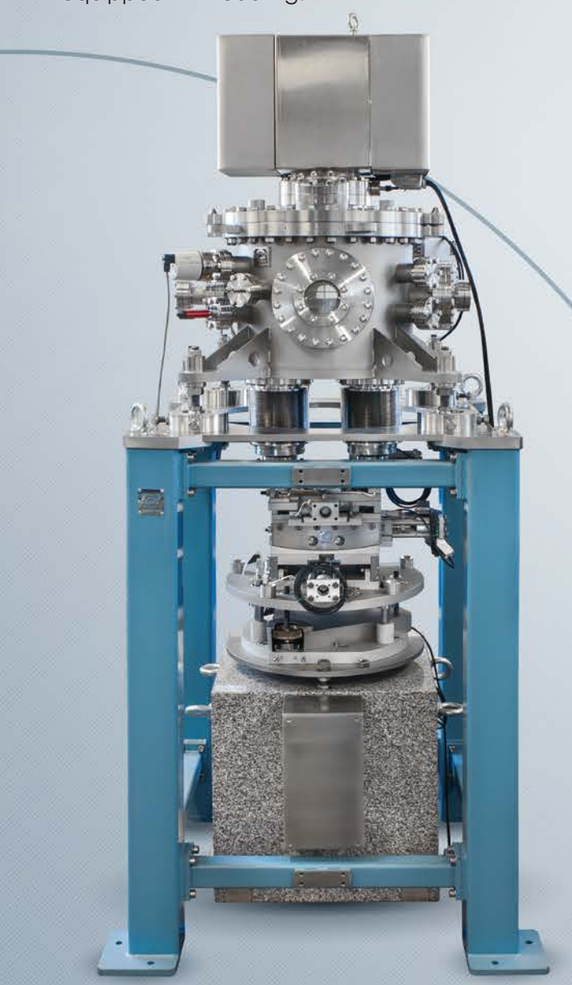
Cylindrical focusing mirror manipulator - kinematic data

Axis	Range	Resolution
X	+/- 10 [mm]	≤10 [µm]
Z	+/- 10 [mm]	≤10 [µm]
X'	+/- 10 [mRad]	≤0.5 [µRad]
Y'	+/- 10 [mRad]	≤0.5 [µRad]
Z'	+/- 10 [mRad]	≤0.5 [µRad]
Z''	+/- 15 [mm]	≤10 [µm]

Cylindrical focusing mirror transpositions

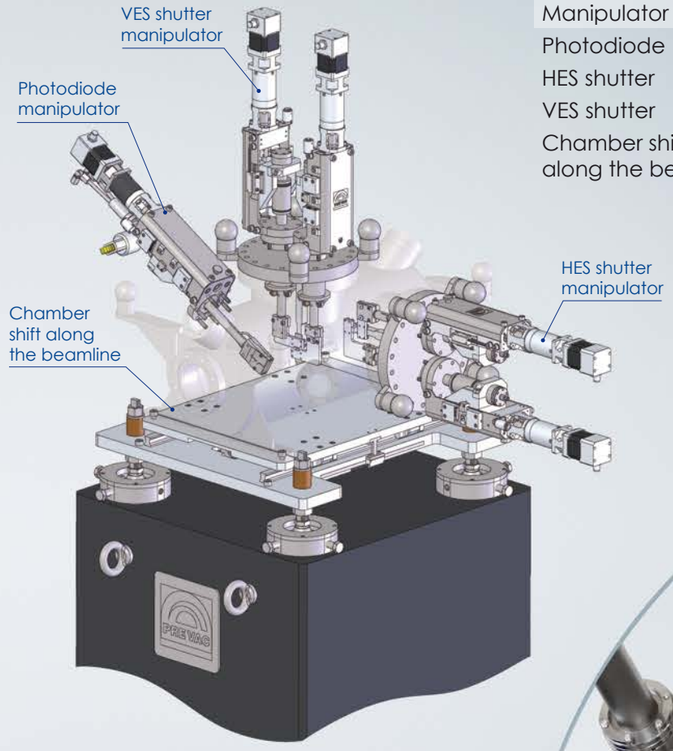


Mirror chambers are equipped with pumping and vacuum measurement system, and the mirror holder with optical elements can be additionally equipped with cooling.



SLIT UNIT & DIAGNOSTIC SYSTEM

Horizontal and vertical shutters, positioned inside the vacuum chamber, are translated via a single axis manipulator in order to adjust the shape of cross-sectional area of the beam. The diagnostic system includes a fully automated high precision monitor of the beam intensity and beam position, which utilises a photodiode or gold mesh. Beam profile imaging is performed by fluorescent detectors. Systems can also be equipped with temperature sensors.



Chambers can have a granite block to reduce a vibration level.

Slit units - kinematic data

Manipulator	Axis	Range	Resolution
Photodiode	Z	+/- 25[mm]	≤10 [µm]
HES shutter	Z	+/- 6 [mm]	≤0.5 [µm]
VES shutter	Z	+/- 0.5 [mm]	≤0.5 [µm]
Chamber shift along the beam line	Z	+/- 100 [mm]	≤50 [µm]

Diagnostic intensity monitor allows for measurement of photoemission current and applying a polarisation voltage.

All manipulators are motorised and software controlled.

Shutters are available with or without water cooling. Surfaces can be coated with a fluorescent material. Different material and shapes available according to requirements.