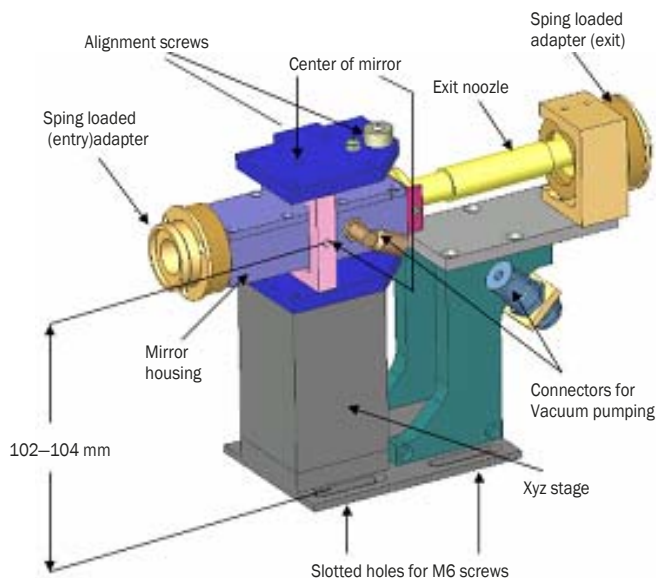


Xenocs delivers FOX2D mirrors either as stand alone optical components or as a complete upgrade of your existing diffraction system. For this purpose, Xenocs has designed the Xenobox2D a versatile vacuum compatible alignment system.



Subject to technical changes without notice

Main features

Allows FOX2D optics installation on every diffractometer on the market:

- Compactness
- Simple and intuitive alignment procedure
- Performance stability over time without cleaning or gas shielding
- Radio protection

Available configurations: the Xenobox2D is available for the following optics, sources and detectors:

Optics	Source	Detector
FOX2D CU 12_38P	Sealed Tube	MAR 345—MAR DTB
FOX2D CU 25_25P	Bede Microsource	marCCD
FOX2D CU 12_INF	RU H3R—RU200	R Axis*
FOX2D CU 12_60L	Micromax 007	Proteum*
FOX2D MO 25_25P	FRE—FRC	Smart 6000*
FOX2D MO 25_INF	FR 591—SRA	Saturn 92*
	Microstar	*With collimator
		And many others...

Compactness:

Overall length is in the range between 202 and 310 mm depending on the configuration. Just by changing the entry and exit spring loaded adapters, the Xenobox2D can be installed on any x-ray generator and any diffractometer available on the market. Moreover for installation on both ports of your generator, the alignment box can be configured to reflect the beam to the left or to the right side of the incident beam.

Performance stability:

The mirror box should always be evacuated in order to reduce the absorption in air (about 15%) and to prevent the FOX2D optics for photon induced surface contamination. The standard $\varnothing=4$ mm tubes and connectors assure the compatibility between the mirror box and the vacuum pump. The use of a dry pump is mandatory since the contamination from vacuum oil on the multilayer coating would drastically reduce the reflectivity and therefore the x-ray flux. Typical working pressure is 1×10^{-3} mbar (7.5×10^{-4} Torr).

Radioprotection:

In any case, our first priority remains x-ray safety for crystallographers. Xenocs mechanics will provide a maximum radioprotection and avoid any x-ray leakage.

Easy adjustments:

Raw adjustments can be performed with the xyz table (14x14x5 mm3 stroke) and fine tuning are possible with the Bragg and Tilt micrometric screws (10° each). The complete alignment procedure does not exceed 10 minutes. In order to avoid any mistake or undesired modification, once aligned, the Xenobox can be blocked in the required position. The three figures hereunder show how easy the bragg adjustment is for a focussing FOX2D mirror.

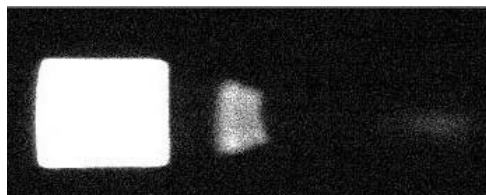


Fig. 1 - Direct beam & high energy appearing on the right.



Fig. 2 - Remaining direct beam and medium energy. Reflected beam Cu K β appearing on the right.



Fig. 3 - No more direct beam. Only Cu K α contributes to this intense small spot.