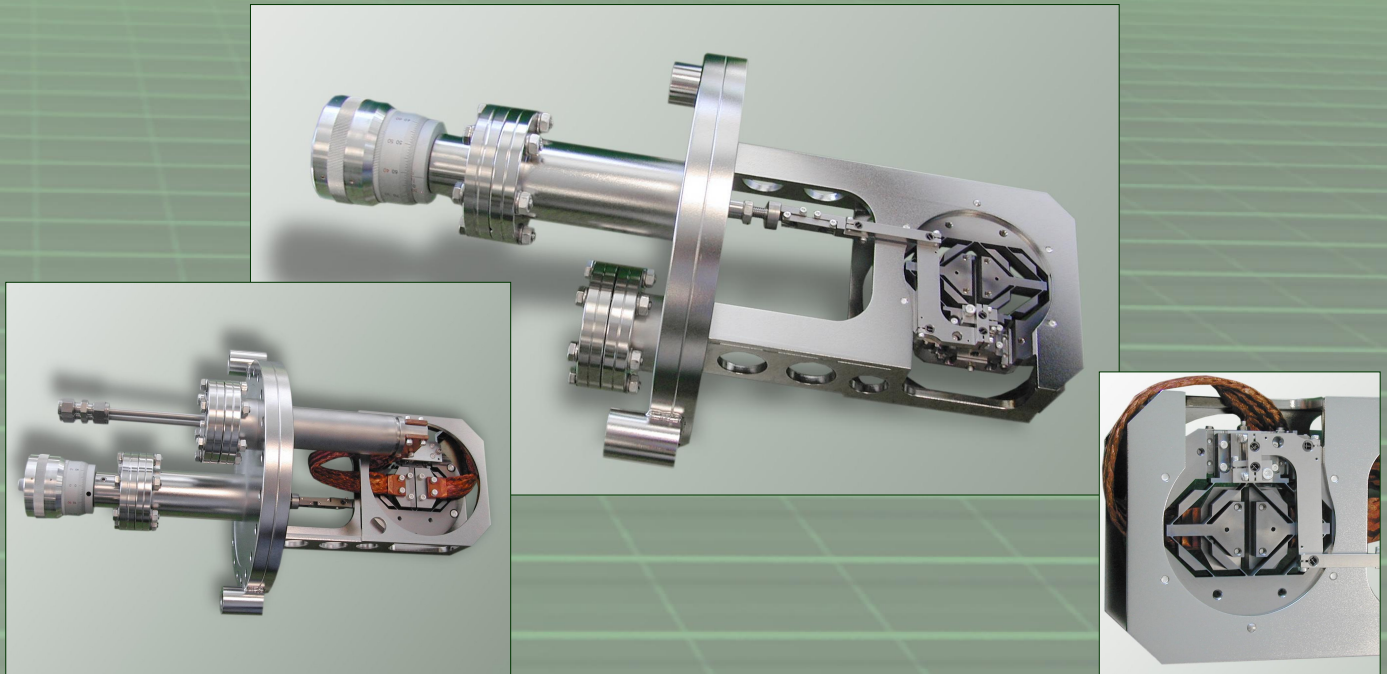


Precision slit (entrance and exit slit)



The exit slit is designed as a backlash free spring pivot system allowing a symmetrically and exactly parallel opening and closing of the two slit jaws with one single linear precision feedthrough.

It can be driven by a manual precision linear feedthrough or alternatively by a stepper-motor-driven linear feedthrough with high accuracy. The whole slit assembly is mounted on a CF150 base flange. Outside the base flange are reference points for the alignment.

The water cooling of the slit jaws or their electrical insulation for photon current measurement are possible options.

The slit chamber has a nominal size of 150CF and additional ports for a ion pump as well as flanges for e.g. view ports, fluorescent screens a.s.o..

The whole slit chamber can be moved along the beam direction by a manual or stepper-motor-driven precision linear guide system. The necessary length compensation is realised with welded bellows.

The whole unit is mounted on a rigid steel frame support which contains elevation and lateral adjustment elements. It allows a exact air-side alignment of the slit to the beam axis.

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Precision slit (entrance and exit slit)

Technical Data.

Slit subassembly

- Slit opening range 0...3 mm
- Repeatability of the slit opening < 3 μ m
- Step size of the slit opening (with step motor linear leadthrough) < 1 μ m / step
- Slit jaw length 30 mm
- Slit jaw parallelism < 3 μ m

Linear system for travel parallel to the beam

- Beam direction stroke Up to \pm 200 mm
- Positioning accuracy \pm 0.2 mm
- Travelling accuracy \pm 10 μ m

Frame support

- Elevation and lateral adjustment range of the adjustment elements \pm 10 mm
- Adjusting elements accuracy \pm 0.05 mm

Nominal width of ports

- Pump flange DN 100 CF
- Entry and exit flange or membrane bellows DN 63 CF

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