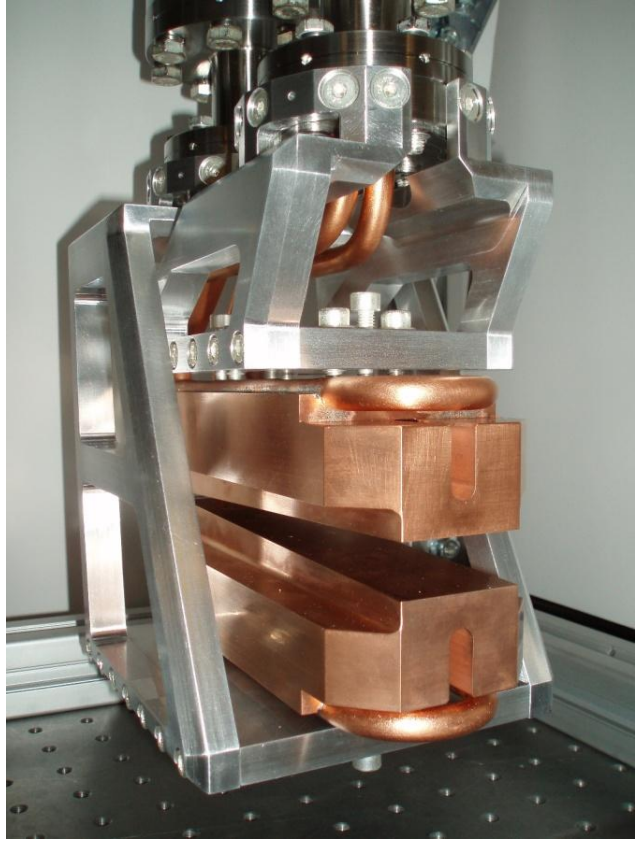


Features

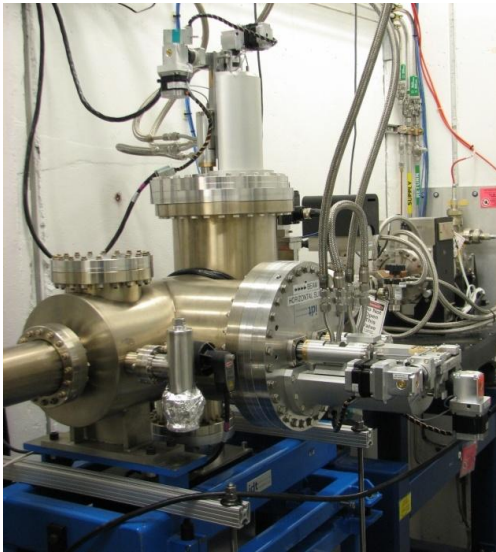
- Designed for APS 200mA operation.
- Bypass aperture for adjacent beam.
- Tungsten beam-defining hard edge.
- Glidcop slit blade design.
- Set slit gap & scan undulator cone with single motor.
- Precision actuator resolution can be controlled to 0.1µm with 5µm repeatability open loop, sub-micron when fitted with encoder.

Canted Undulator Slits

- IDT has developed our proven centre-opening & scanning undulator primary slit mechanism for use in a canted geometry.
- Designed for APS 200mA operation.
 - Thermal analysis for canted geometry for both horizontal & vertical geometry.
 - Bypass aperture for adjacent beam in horizontal slit geometry.
 - Proven capability to scan the undulator cone with a single motorised axis.
 - Proven blade stability under undulator power.
 - Thermally decoupled beam defining tungsten edge.
 - Satisfies new APS Glidcop temperature & stress limits (300°C and 400MPa).



Above: Centre opening & scanning slits featuring bypass aperture for canted undulator adjacent beam



Left: Centre-opening & scanning slit system, with horizontal and vertical slits, installed on HP-CAT.

Below: Thermal FEA analysis of horizontal slit under full power loading at 200mA ring current.

