

# DREEBIT Products for Applications in Accelerator Physics

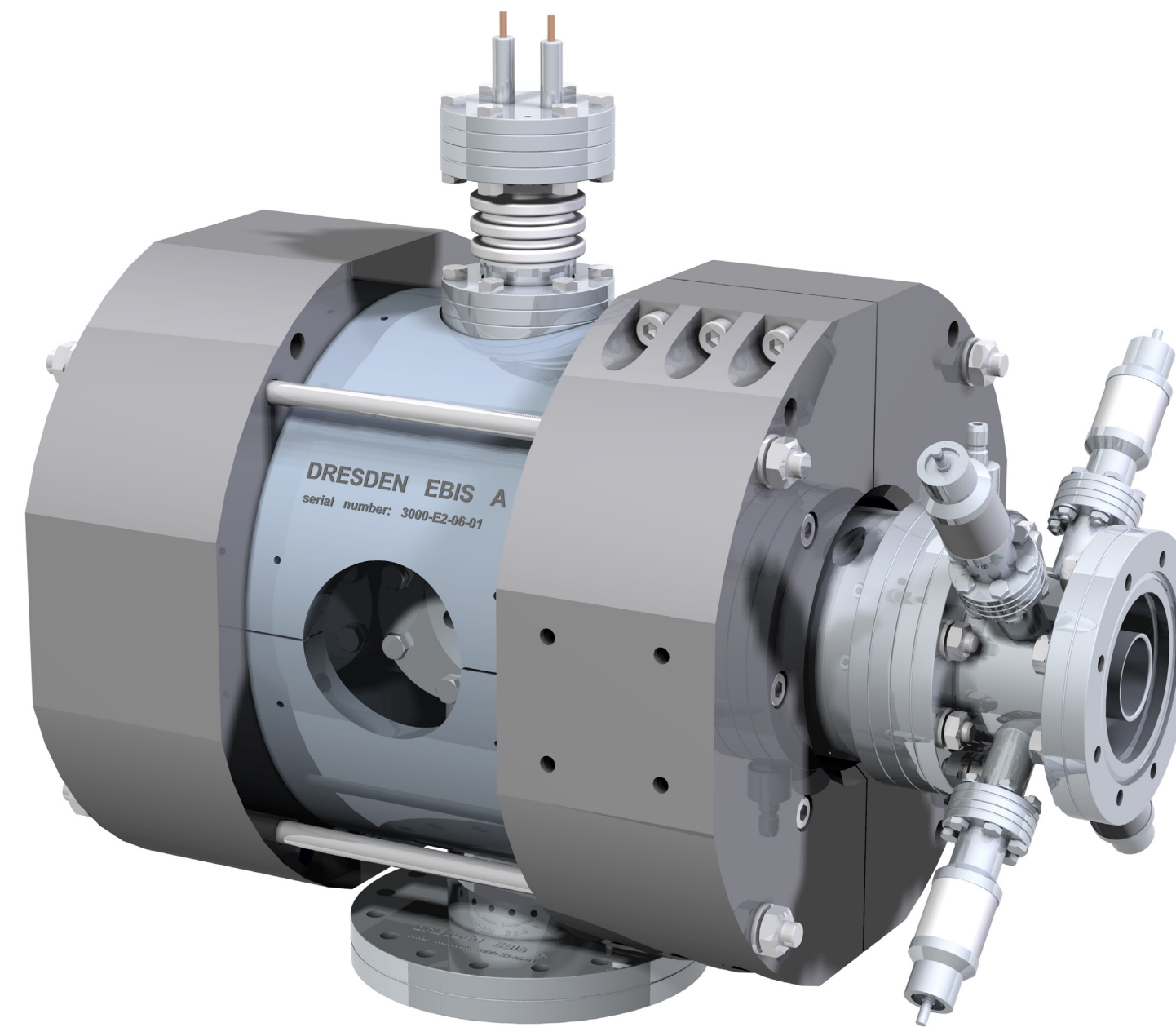
## Electron Beam Ion Sources

Superconducting ion source with cryogen-free superconducting magnets

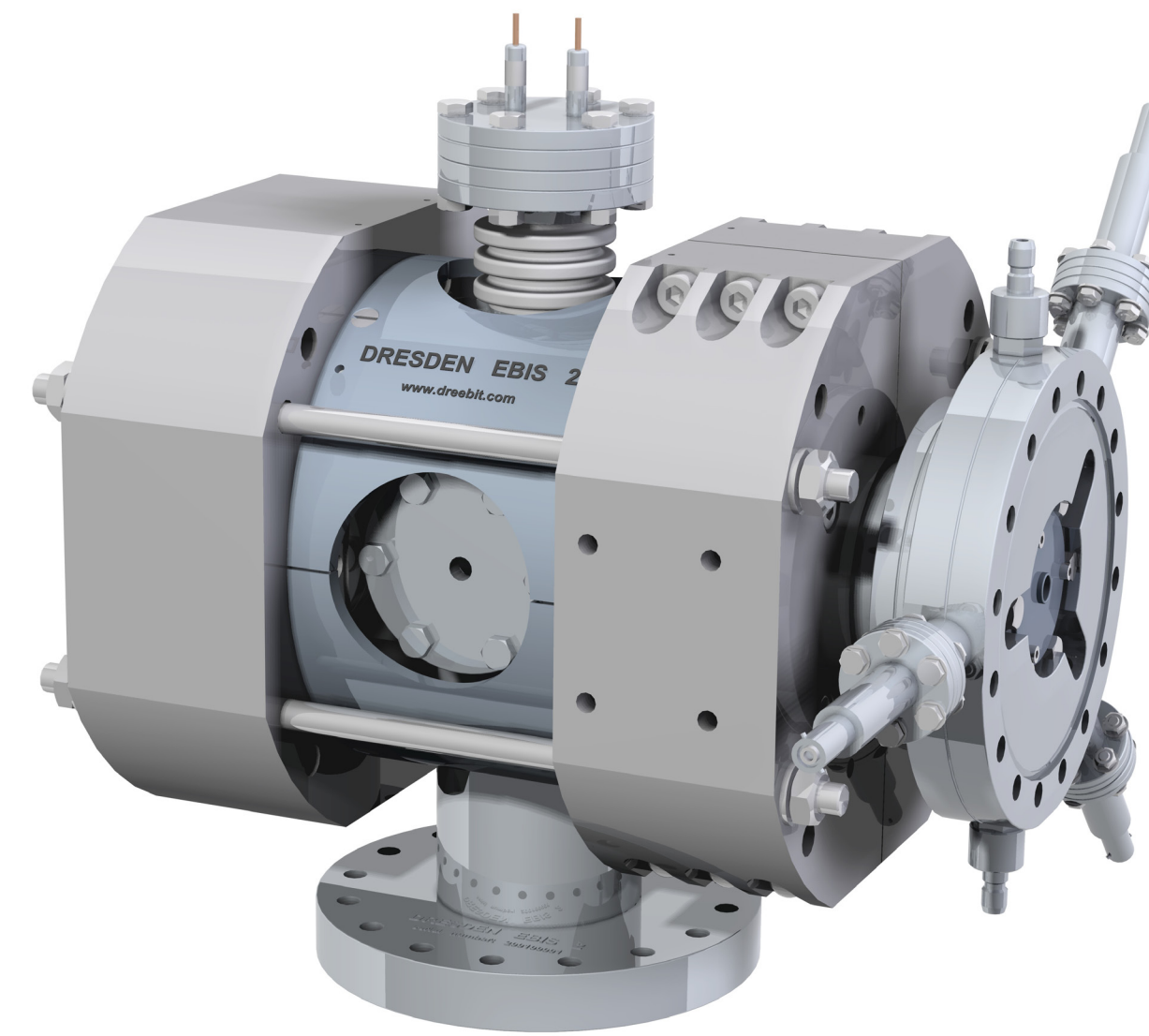
Room temperature ion sources with permanent magnets



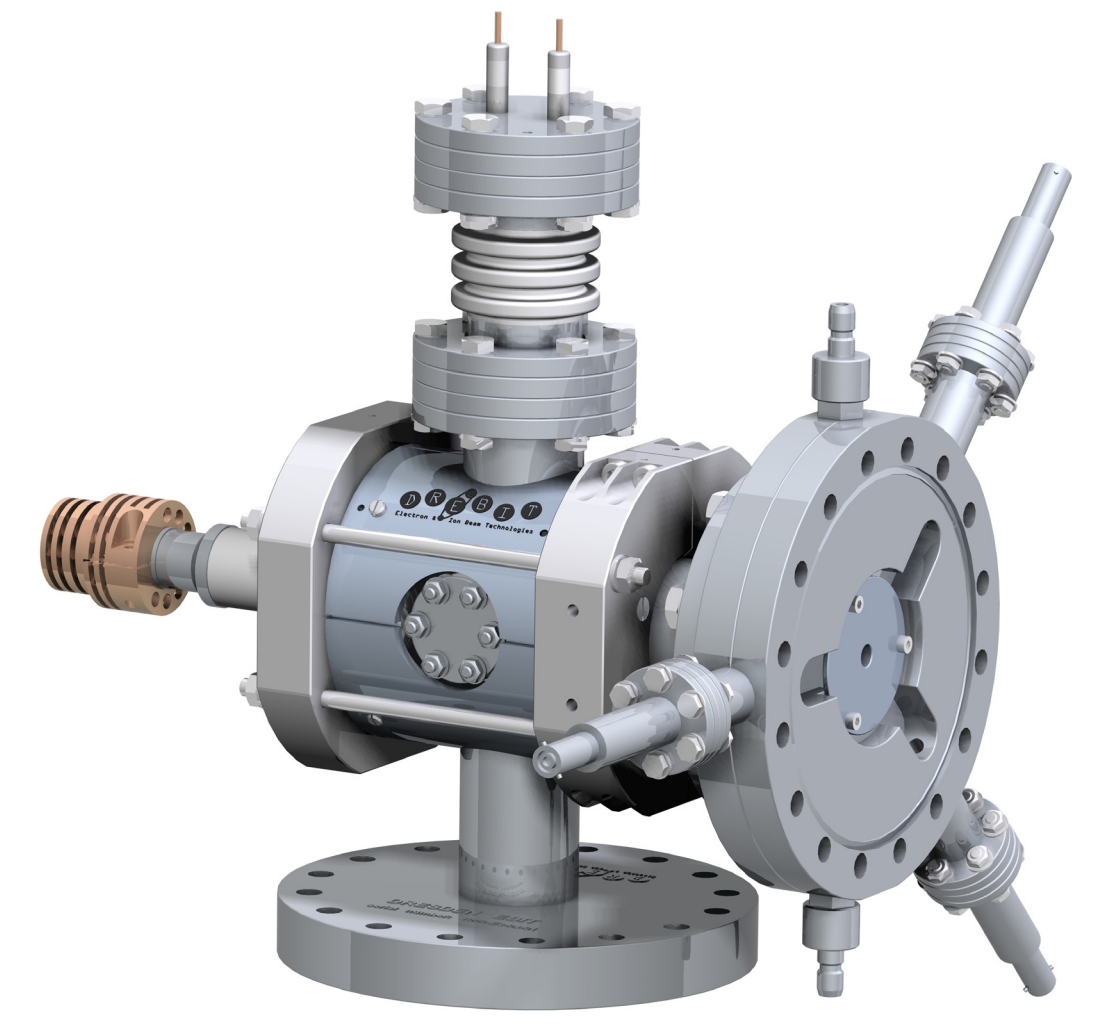
Dresden EBIS-SC



Dresden EBIS-A

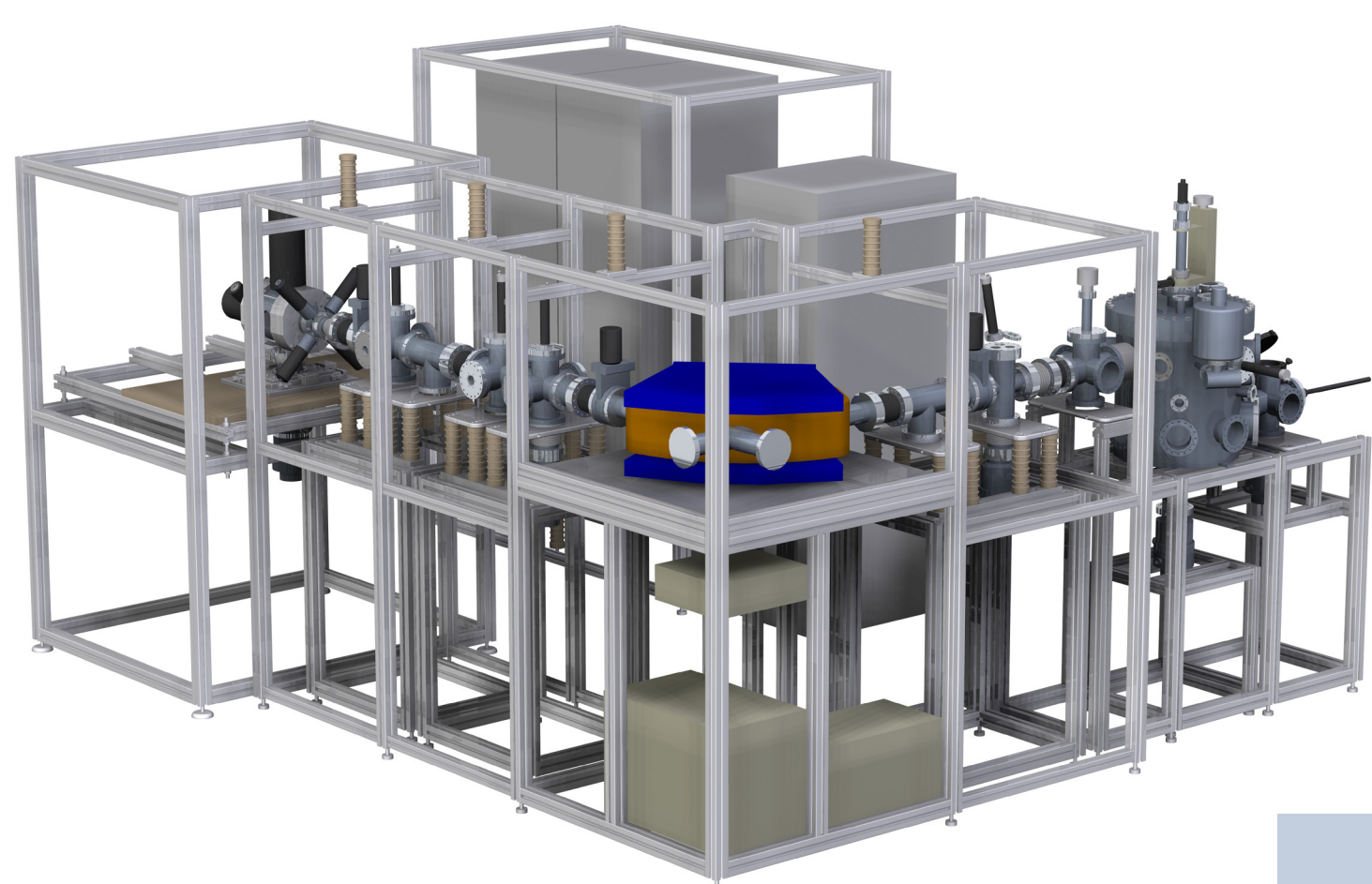


Dresden EBIS



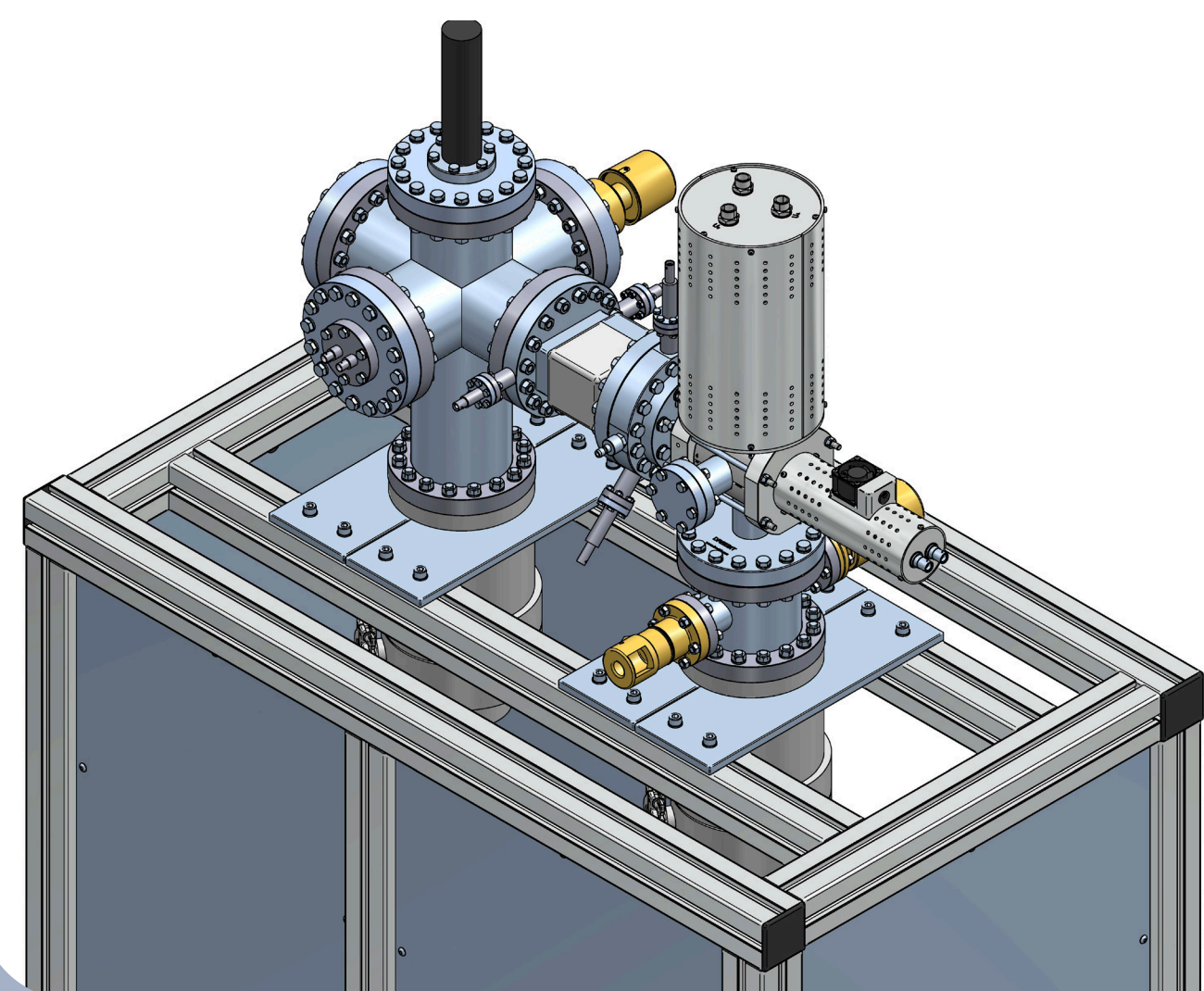
Dresden EBIT

## Low Energy Beamline (LEBT)

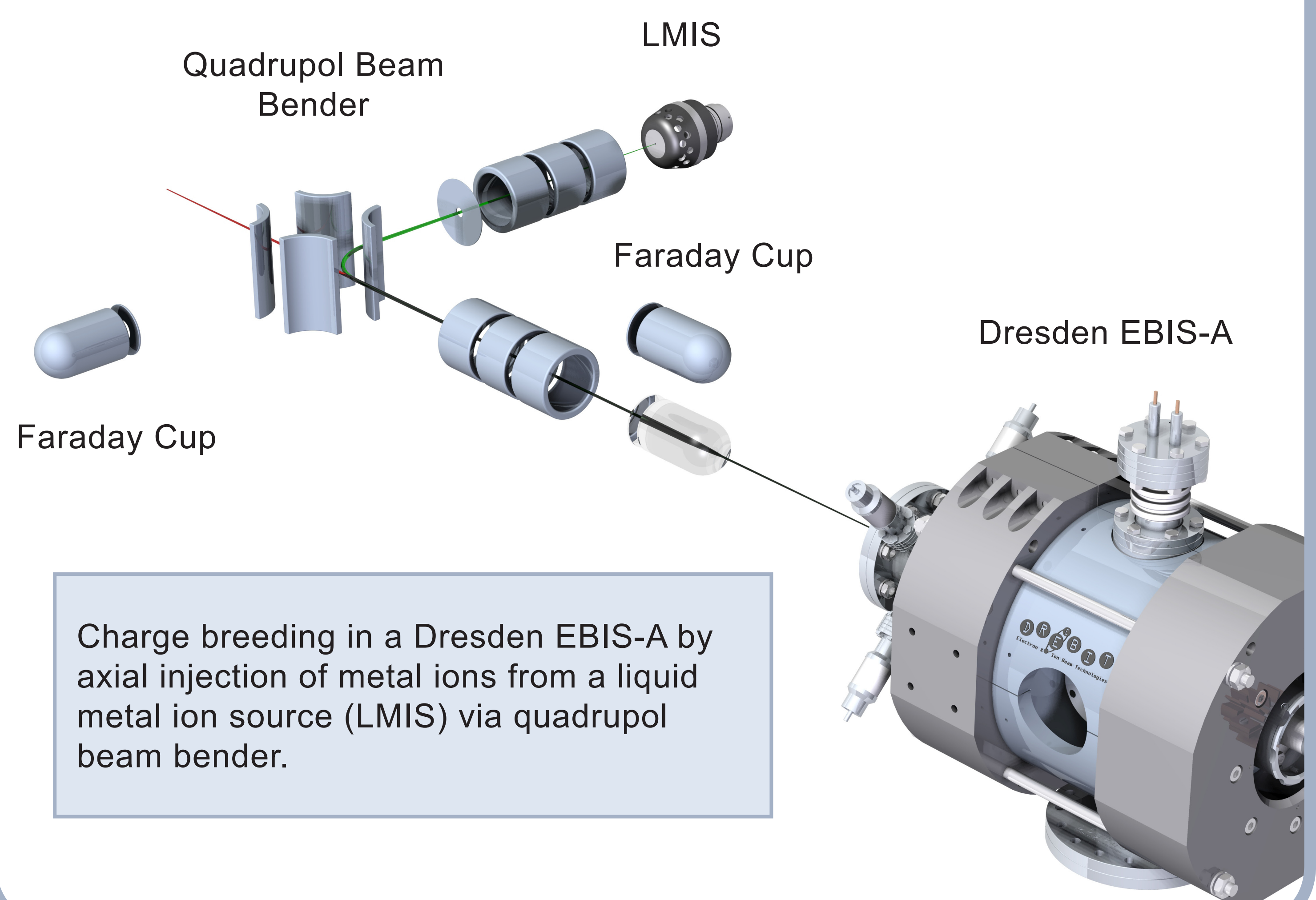


Customer-specific low energy ion irradiation facility featuring high voltage platform, analyzing magnet, target chamber and target transfer system (e.g. with DREEBIT ion sources)

### Configuration Example



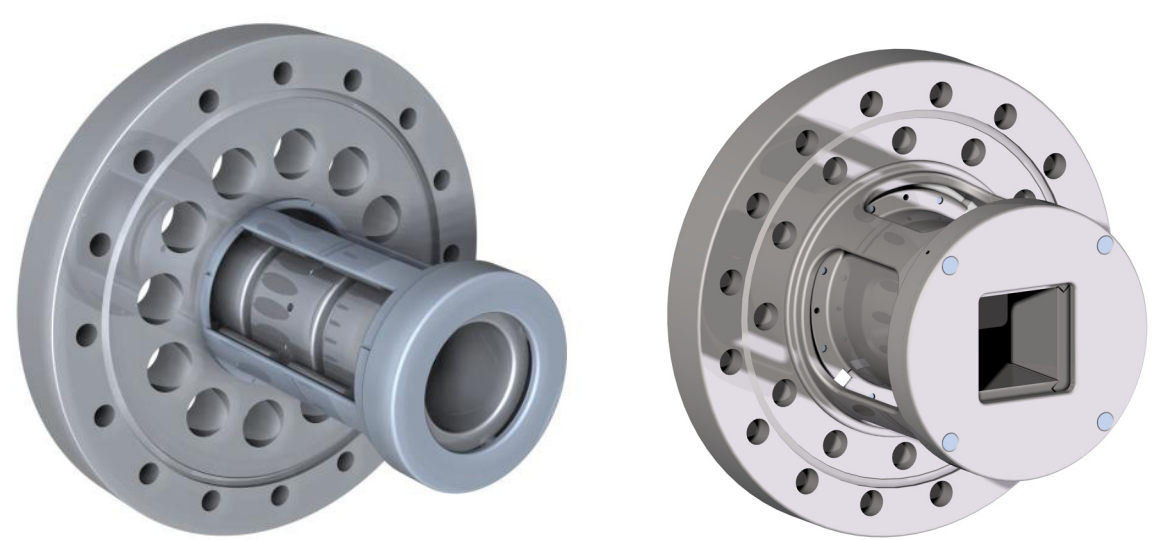
## Charge Breeding with DREEBIT Ion Sources



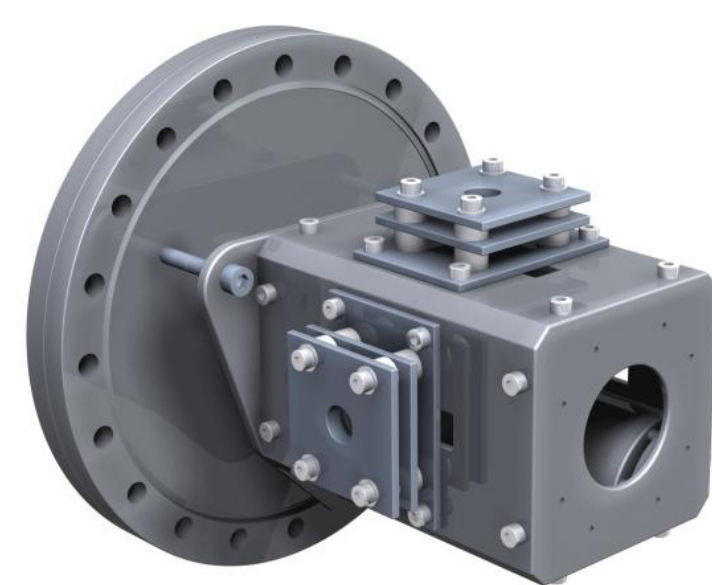
Charge breeding in a Dresden EBIS-A by axial injection of metal ions from a liquid metal ion source (LMIS) via quadrupol beam bender.

## Particle Beam Optics

## Particle Beam Diagnostics



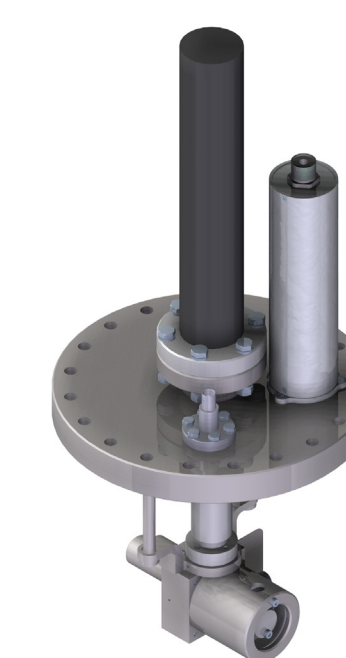
Einzel lens and deflector for focusing and deflection of charged particles.



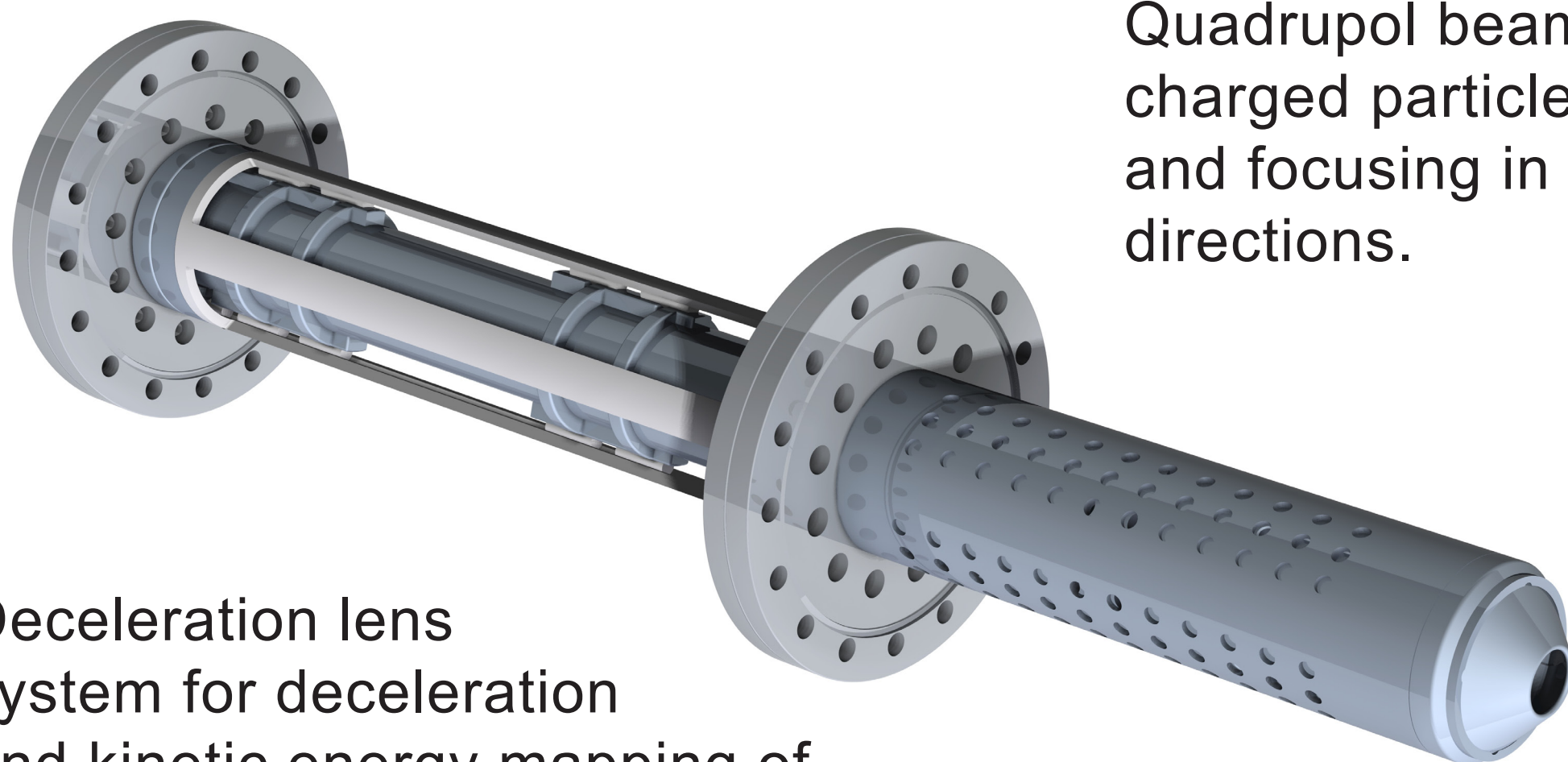
Quadrupol beam bender for charged particle deflection and focusing in multiple directions.



Wien Filter with crossed magnetic and electric field configuration providing mass and charge separated particle beams.



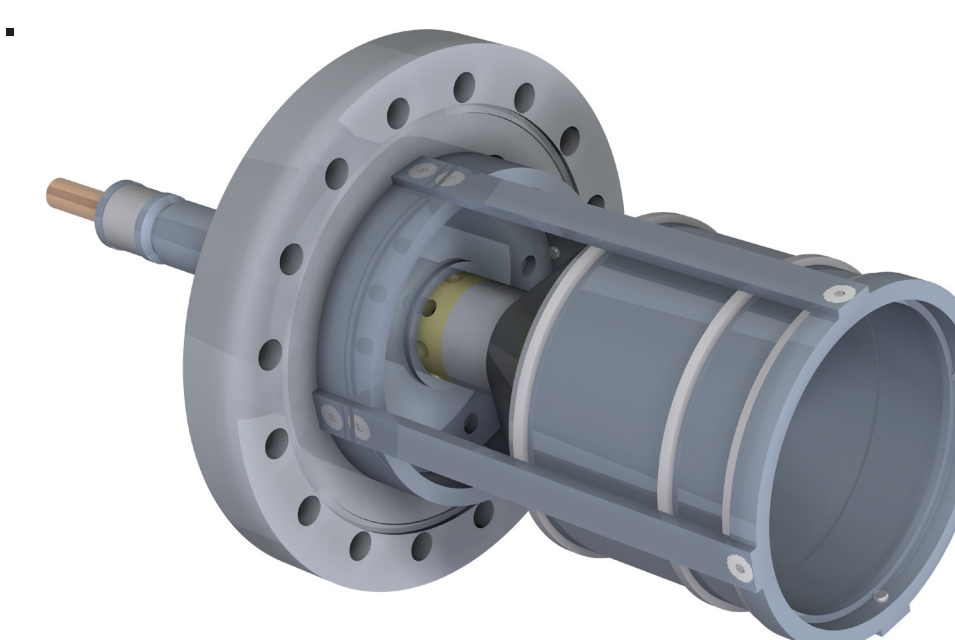
Retarding-Field-Analyzer for determining the kinetic energy distribution of charged particles.



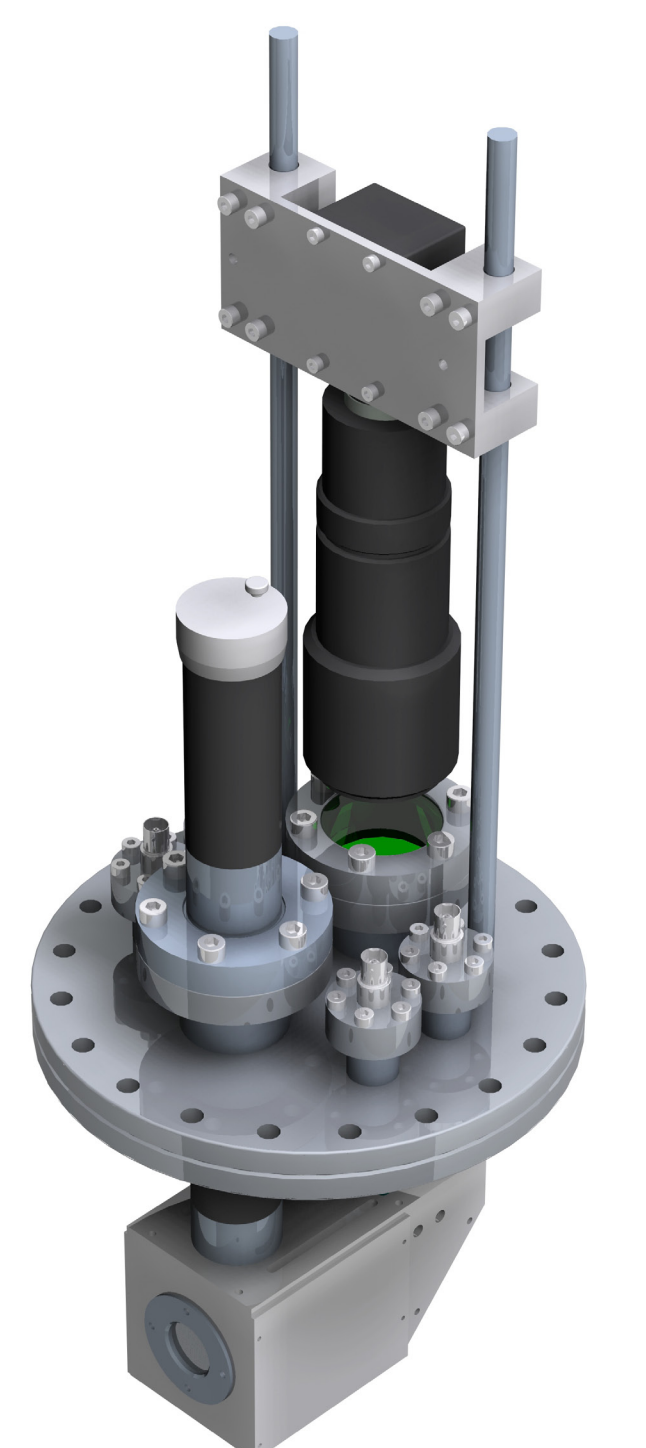
Deceleration lens system for deceleration and kinetic energy mapping of particle beams.



4-Sector-Faraday cup



High power Faraday cup



Pepper-Pot emittance meter for detecting particle beams and determining the beam emittance in real time.