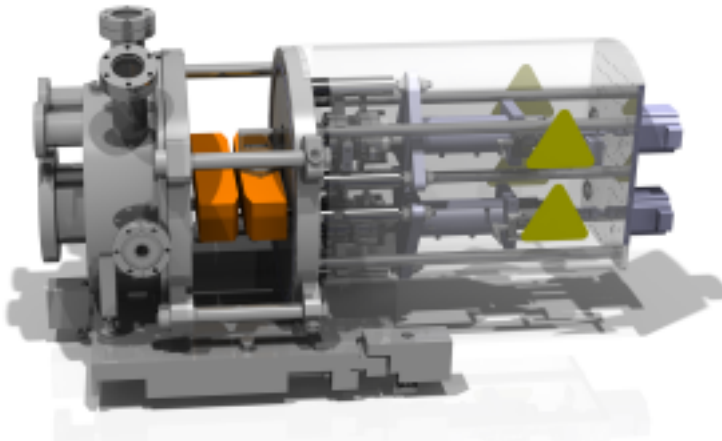


## SYNCHROTRON/FEL INSTRUMENTATION



### HOENCOL :: Energy Collimator

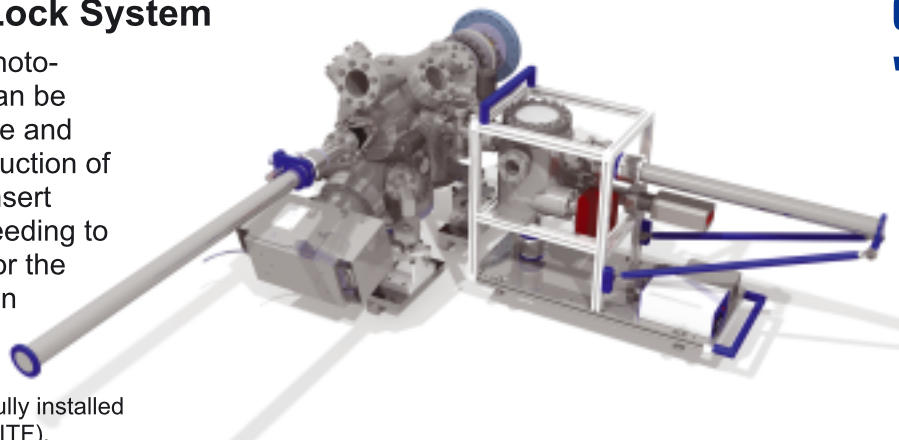
The energy collimator consists of four magnetic dipoles with a collimator block system installed between the two central dipoles. It acts as a filter to protect the undulator line from parasitic electrons. In order to vary the energy acceptance of the system, two motorized linear drive units move the shielding blocks along the horizontal axis perpendicular to the direction of the e-beam.

Developed and built by Ferrovac for the Swiss Free Electron Laser facility (SwissFEL) in close collaboration with the Paul Scherrer Institute.

### PCPLS :: Photocathode Load Lock System

The SwissFEL electron source is an RF photo-injector in which the photo-cathode plug can be exchanged, all under UHV conditions. Time and contamination issues motivated the construction of a novel load lock system to prepare and insert cathodes into the photo-injector without needing to vent the gun. A vacuum suitcase is used for the cathode exchange between the preparation chamber and the gun loading chamber.

Developed and built by Ferrovac for the Swiss Free Electron Laser facility (SwissFEL) at PSI. Successfully installed and tested at the SwissFEL Injector Test Facility (SITF).



### AERHA :: Adjustable Energy Resolution High Acceptance spectrometer

AERHA is a UHV-Resonant Interference X-ray Scattering (RIXS) spectrometer. It is employed in the study of X-ray absorption edges with improved resolution, the observation of low-lying excitations associated with the ground state, band mapping and the study of buried layers.

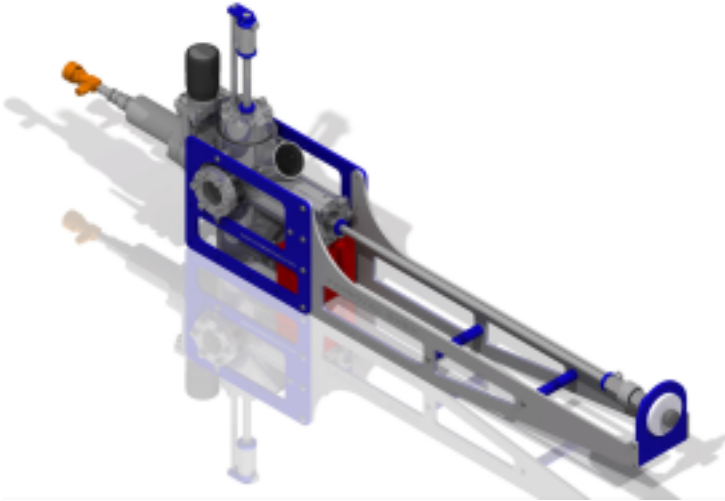
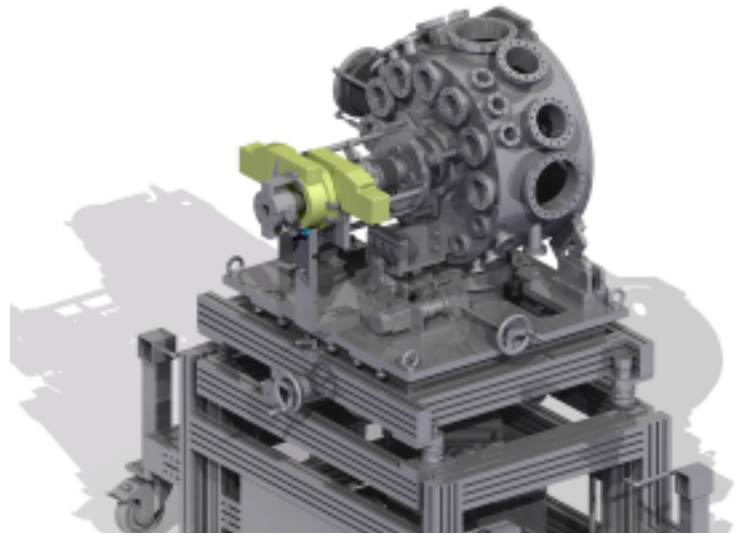
Developed by Université Pierre et Marie Curie Paris, designed and built by Ferrovac. Operational at SEXTANTS beamline, Synchrotron SOLEIL Paris.

## SYNCHROTRON/FEL INSTRUMENTATION

### IRMA2 :: Instrument pour la Réflectivité MAGnetique

IRMA2 is a UHV-soft X-ray reflectometer for studies on thin surface layers. It's a set-up dedicated to elastic and coherent resonant scattering experiments with polarized soft X-rays, focusing on magnetic materials, nano-objects and thin layers.

Developed by Synchrotron SOLEIL Paris, designed and built by Ferrovac. Operational at SEXTANTS beamline, Synchrotron SOLEIL Paris.



### VSN40S :: NexGeneration UHV Suitcase

The NexGeneration UHV Suitcase is an ultra compact, lightweight and modularly adaptable system to keep and carry your samples under true ultra-high vacuum conditions. It is delivered under vacuum, fully baked and ready to use. The suitcase can be individually equipped with a transfer manipulator as well as a sample storage of choice.

Visit our website or contact us at [suitcase@ferrovac.com](mailto:suitcase@ferrovac.com) for more information.

#### Ferrovac Synchrotron and FEL Instrumentation:

- Portable UHV Suitcases
- Portable SPMs in UHV Suitcases
- Energy Collimators for Linear Accelerators
- Photocathode Load Lock Systems
- Custom UHV Chambers and Systems
- Sample Handling Solutions
- UHV Engineering