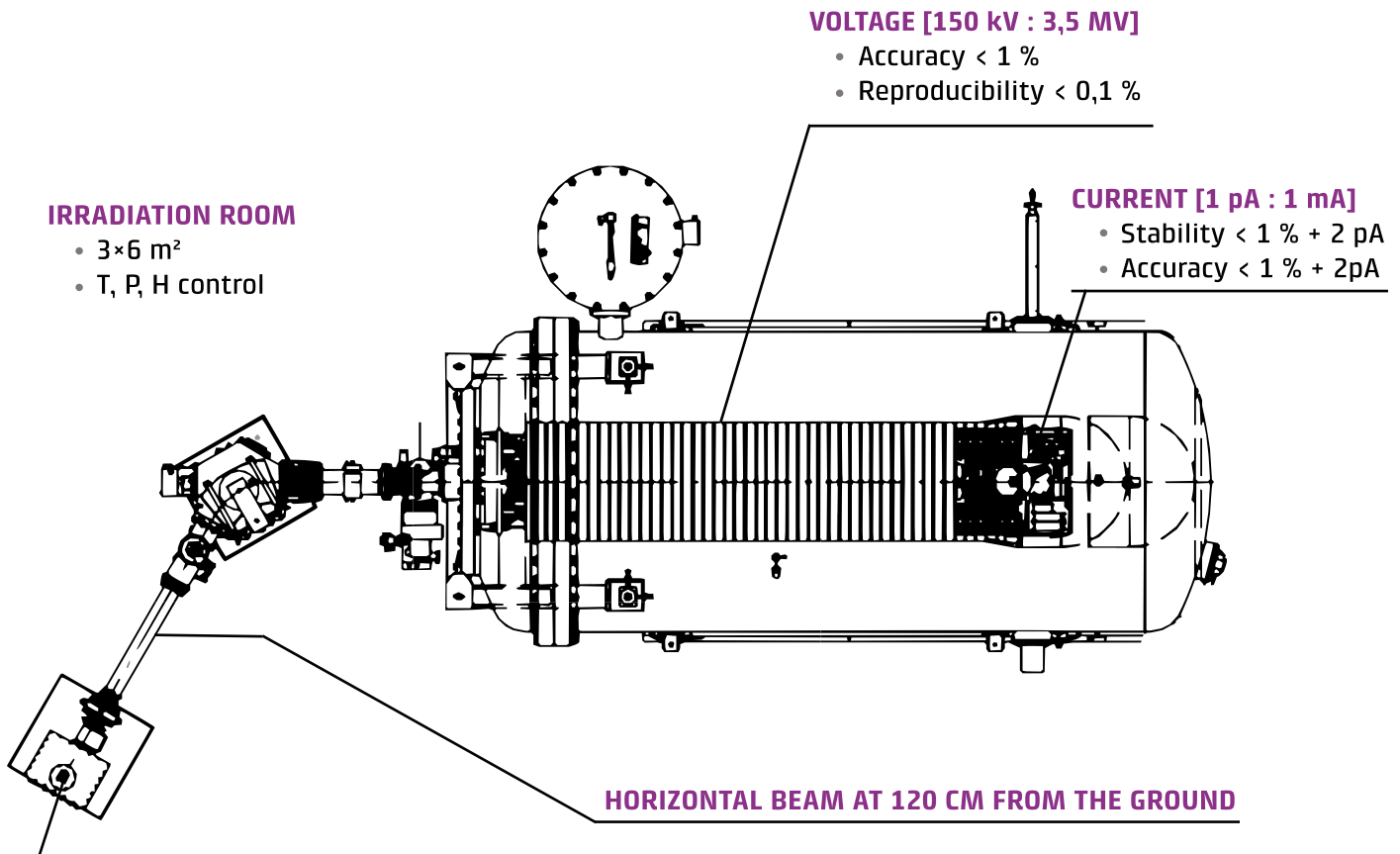


Electron beam and X irradiation line



REMOVABLE X CONVERSION TARGET

- From 0.1 $\mu\text{Gy/h}$ to 500 Gy/h at 1 m
- Homogeneous X-ray irradiation field > 98% over $\pm 15^\circ$

LAETICIA IRRADIATION CHAMBER

- Irradiation e^- up to $6 \times 10^{15} e^-/s$
- Controlled temperature

ELECTRON BEAM SCAN

- Up to 220 mm in width at 25 Hz
- Up to 40 mm in height at 1 kHz

The FELIX facility is based on an electrostatic electron accelerator capable of producing a continuous beam of mono-energetic electrons or an extended X-ray irradiation field, configurable in terms of energy and fluence over wide ranges.

In electron beam, irradiations are carried out under vacuum, in the

extension of the accelerator line. The energy of the beam, adjustable from 200 keV to 3.5 MeV, induces depths of penetration of charged particles in matter that can be modulated over a scanning surface that can go up to $40 \times 220 \text{ mm}^2$ and at controlled temperature.

Concerning the X-ray irradiation field, the accessible energy ranges

are just as wide, but three energies are used, up to 1.25 MeV, 2 MeV and 3 MeV, for which the traceability of our reference fields is ensured in terms of air kerma and ambient equivalent dose. Dose rates are adjustable over nine orders of magnitude and range up to 500 Gy/h at 1 m from the target.