Irradiation stations possibilities

HI-ECN3 BDF target & target complex initial review

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Agenda

- Irradiation station definition
- BDF irradiation stations possibilities
- High Fluence Irradiation Module
- Rabbit Irradiation System
- Associated infrastructure

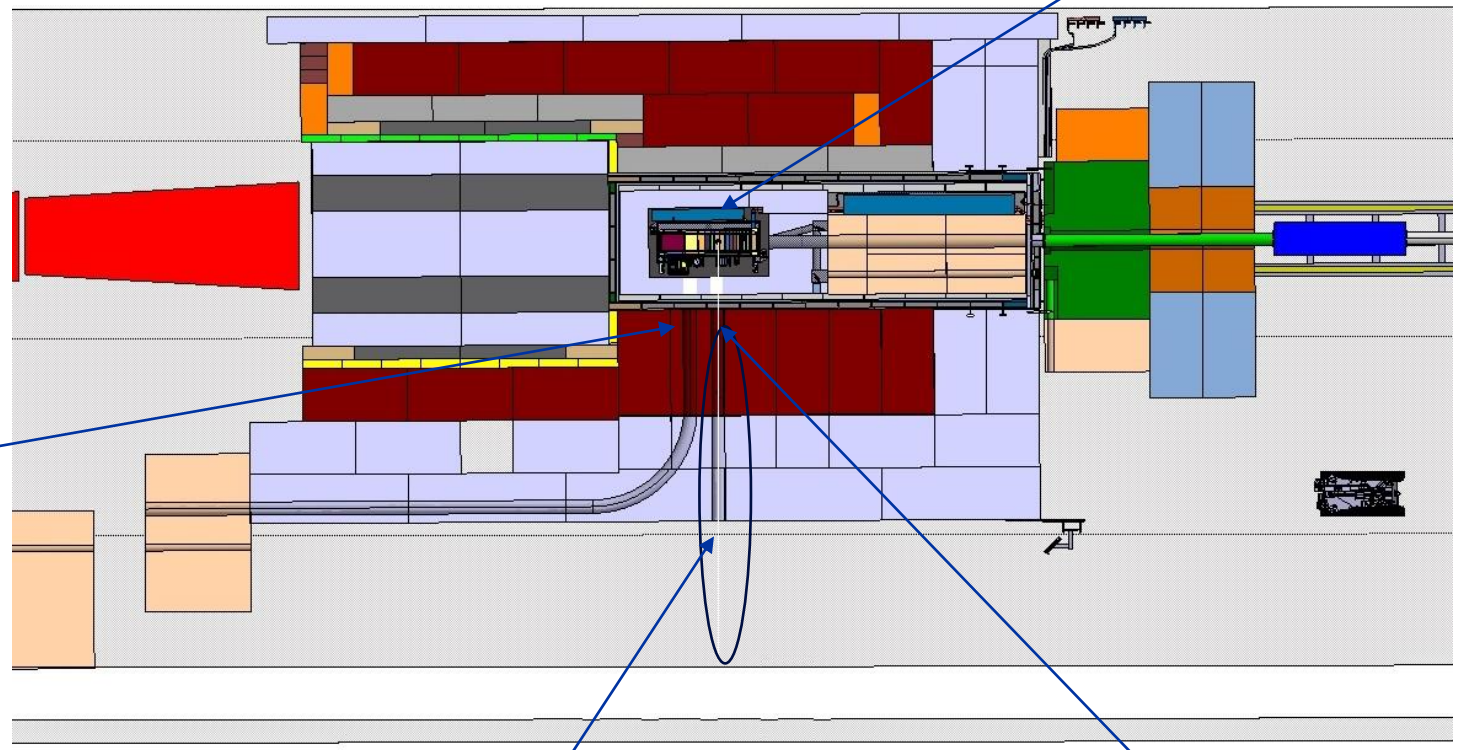
Irradiation station definition

- **Area to qualify equipment under various radiation field**
  - Electronic components / systems
  - Materials
- **Area to study radiation fields**

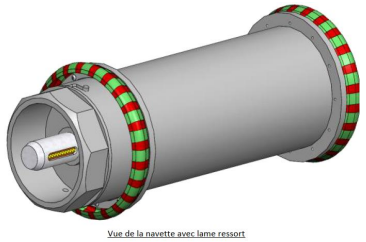
BDF irradiation stations possibilities

Possibility to implement parasitic irradiation stations (like we have at n_TOF)

In vessel test sample
BDF High Fluence
Irradiation Module



BDF Rabbit
Irradiation System
D200mm
Connected to a
Glove box or Hot
cell

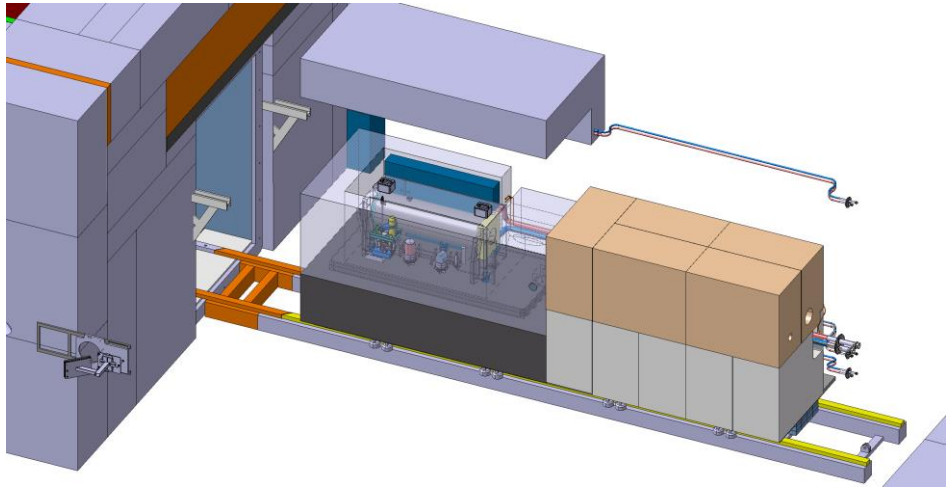


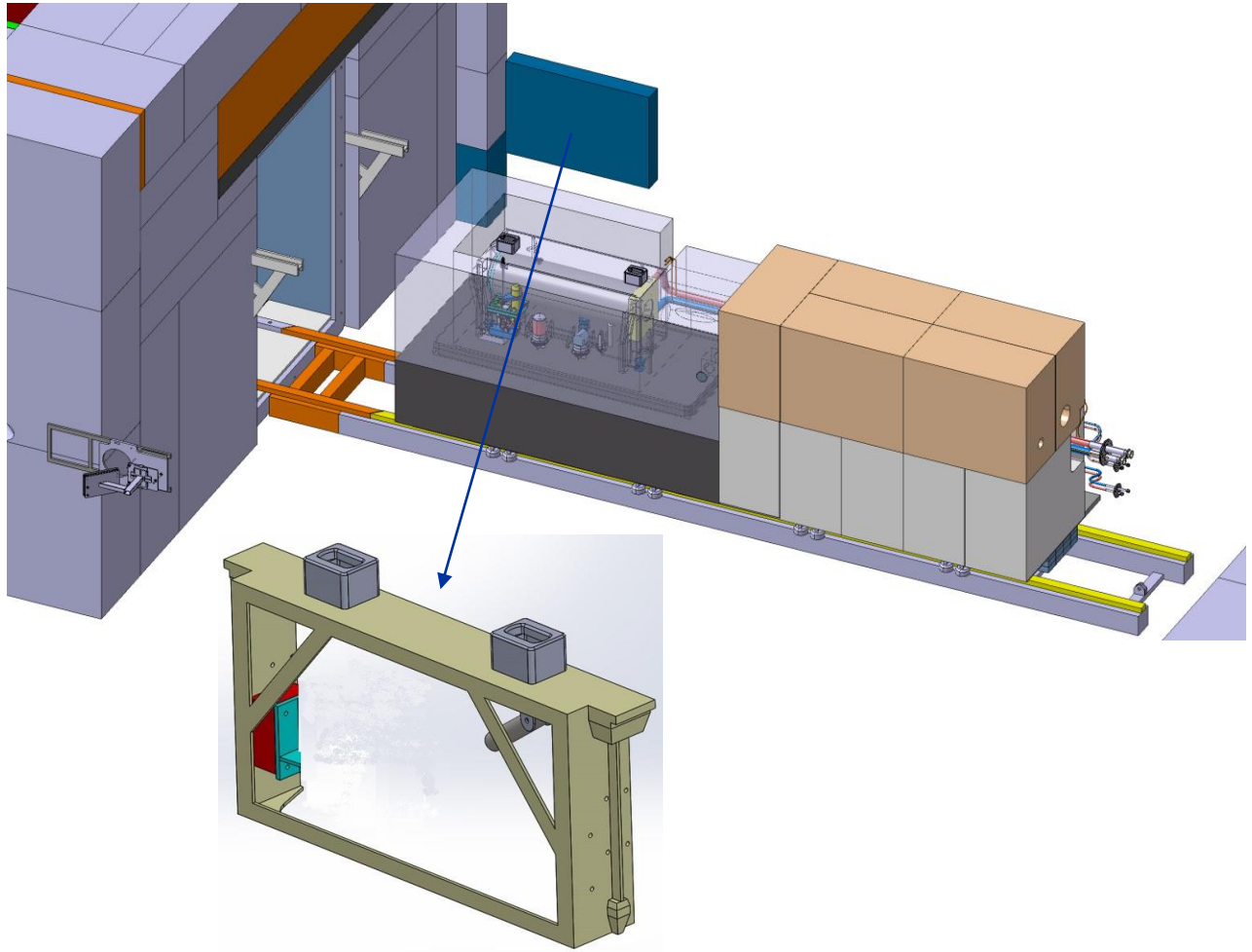
Vue de la navette avec lame ressort

Irradiation facility
BDF External Activation Station

Irradiation facility
BDF Internal Activation Station

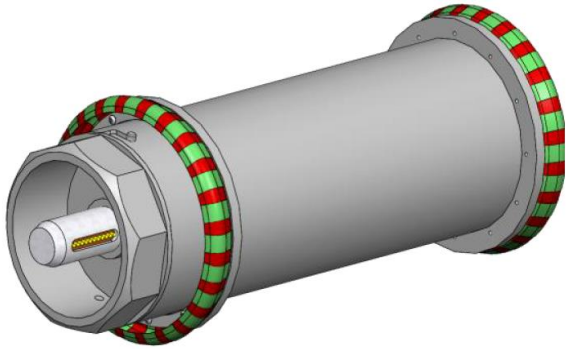
BDF irradiation stations possibilities
High Fluence Irradiation Module



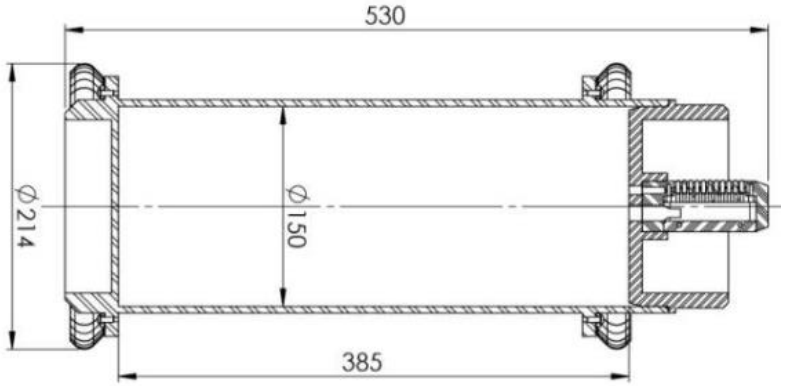


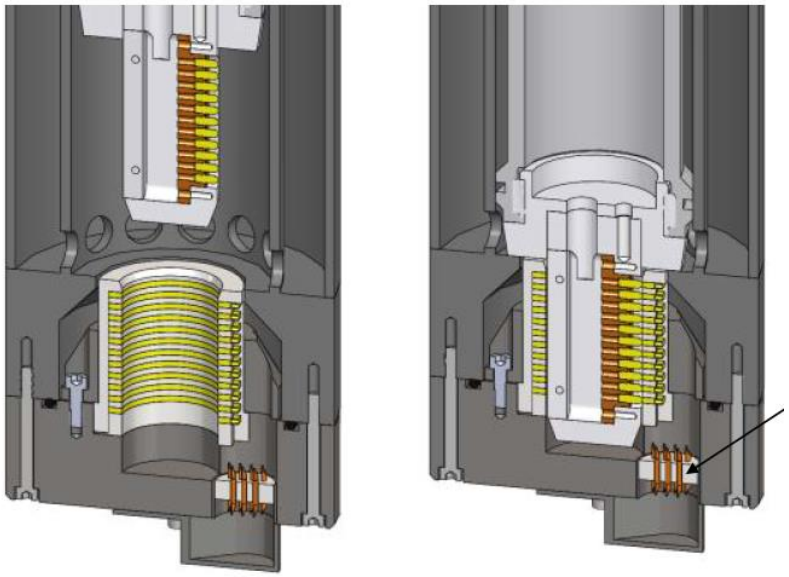
- In sample vessel approximate overall size:
  Length 1.4m Width 170mm Height 950mm
- Can be removed only once a year

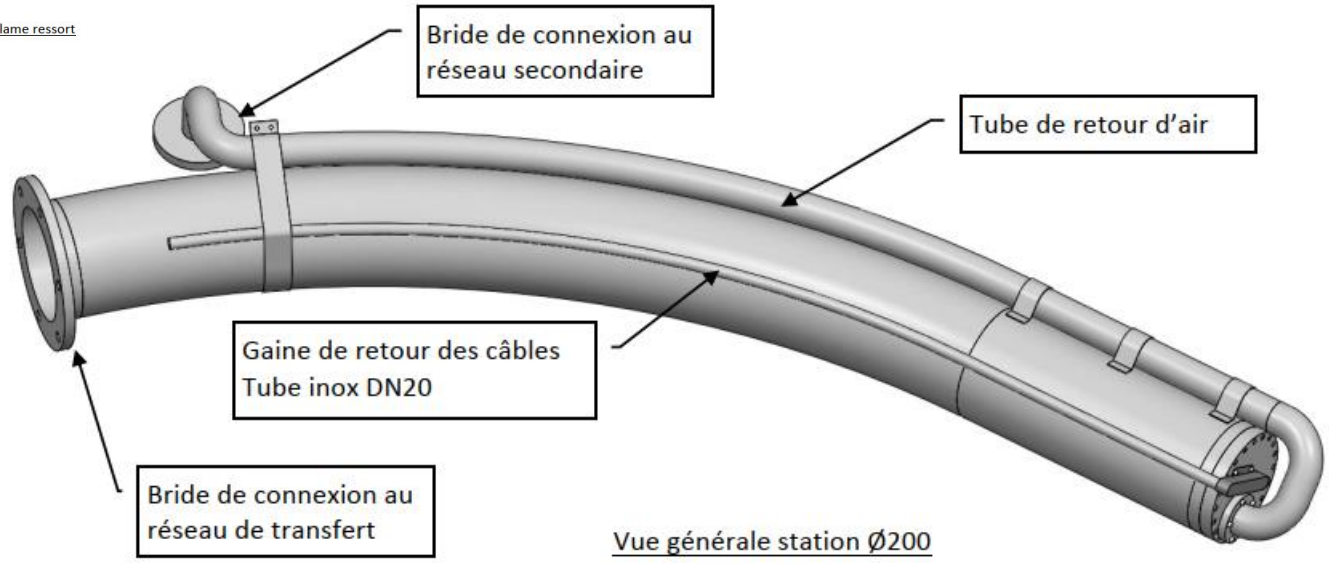
BDF irradiation stations possibilities
Rabbit Irradiation System



Vue de la navette avec lame ressort



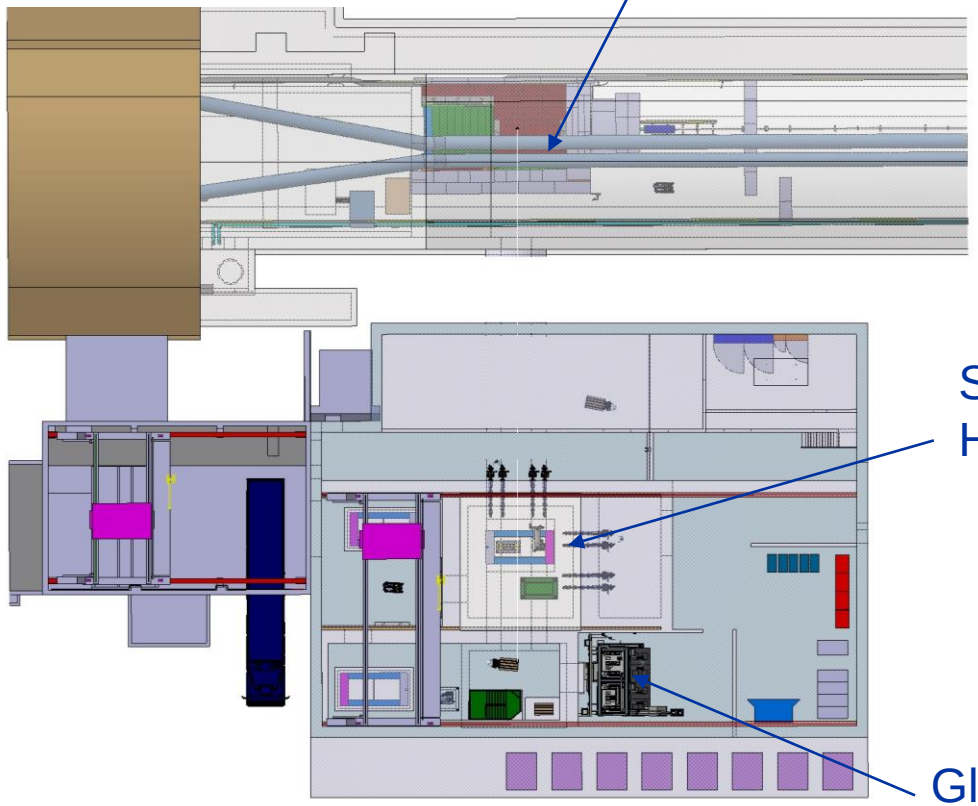


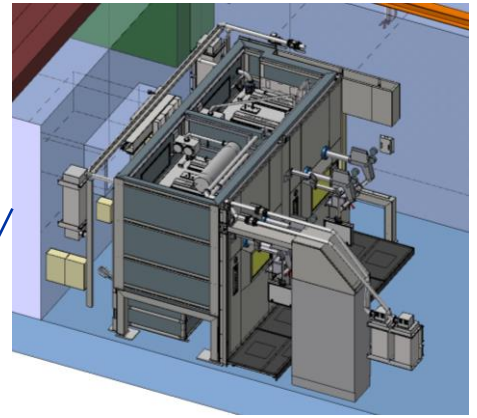


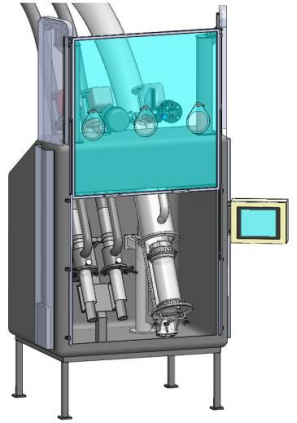
End irradiation station electrical connector

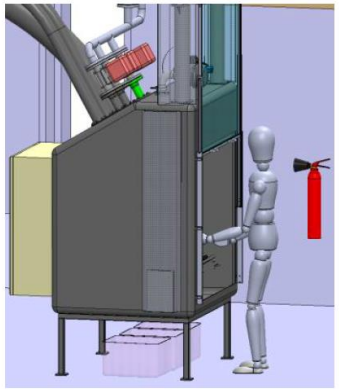
End irradiation station

BDF irradiation stations possibilities
Associated infrastructure



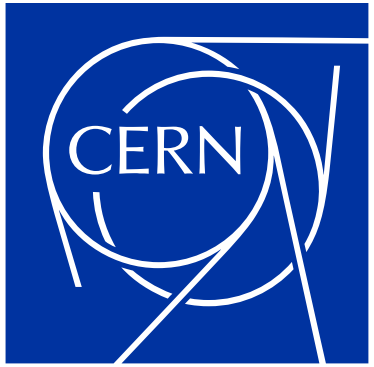






BDF irradiation stations possibilities

- Not funded by the project
- Design and implementation need to fit target station schedule
- We need decisions by summer 2024



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