

A detailed wireframe model of a particle accelerator, showing a large, circular ring structure with a grid-like pattern. In the background, there are smaller, more complex structures, possibly representing the injection and extraction systems.

# State of Procurement and Production of SIS100 n. c. Magnets

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# Resonance Sextupoles

State: Magnets delivered, Vacuum chambers installed

Manufacturer: Danfysik

Sector: One in each straight section

To Do: Change fixation of vacuum chambers

Problems:

- One magnet severely damaged during transport. To be repaired by Danfysik; offer exists.





# Fast Quadrupole

State: Magnet delivered.

Manufacturer: SigmaPhi

Sector: 1

To Do:

- Minor rework after re-examination in the light of lessons learned with other magnets  
As soon as there is space in the testing hall
- Work plan/instructions/... as almost 1:1 copy from Resonance Sextupoles (as with the other magnets)





# Injection Septum 1 and 2

Status: Magnets delivered

Manufacturer: Danfysik

Sector: 6

To Do:

- Copy fast interlock system from Extraction Septa 1 & 2
- Minor corrections (similar and simultaneously to Fast QP)

Problem:

- Some engineering time needed for integration

Not a problem:

- No crane needed. Magnet can be opened manually; coils can be handled by one person, and safely (due to size, not weight) by two.





# Radiation Resistant Quadrupoles

Status: Magnets delivered

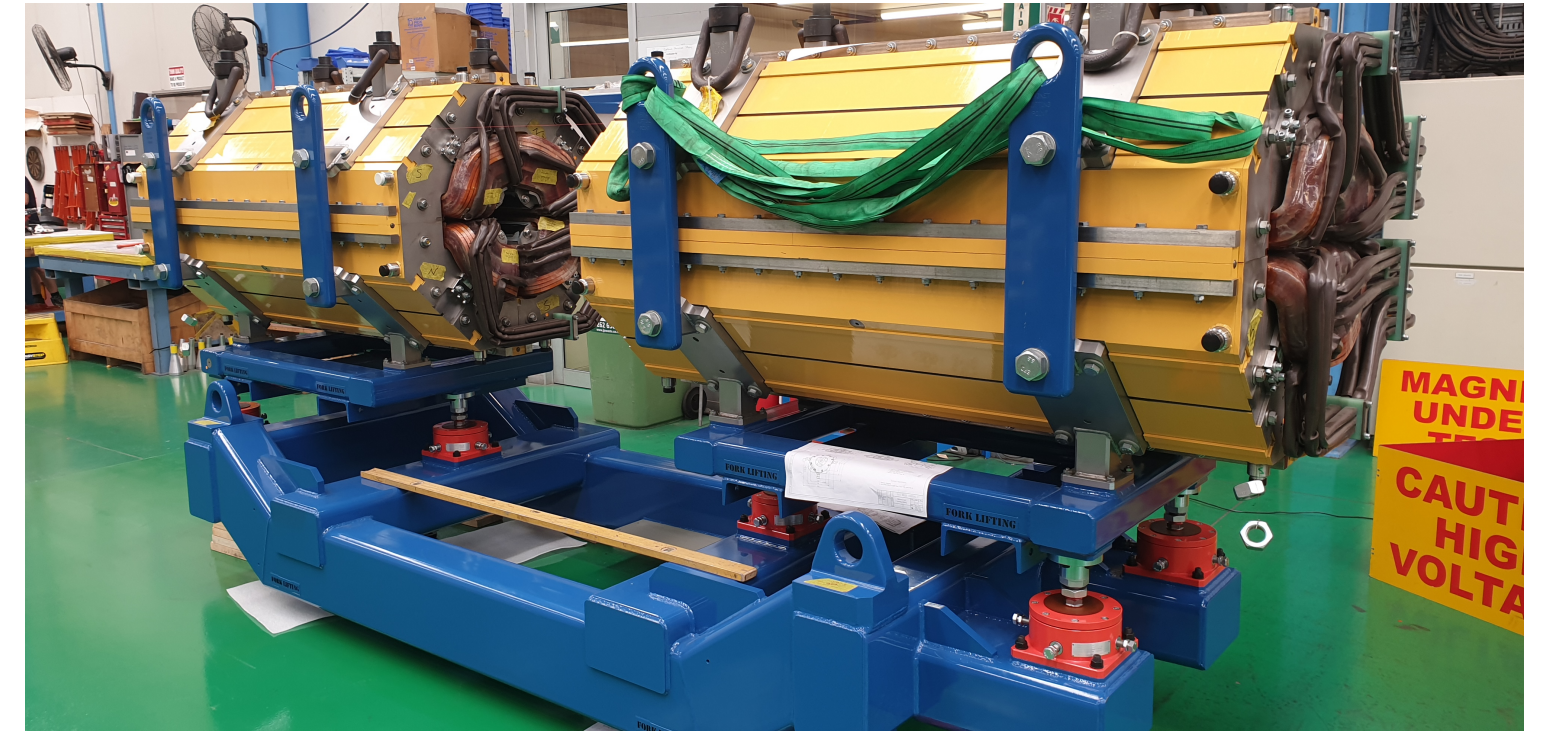
Manufacturer: Buckley Systems

Sector: 5

*To Do after delivery: Add vacuum chamber, collimator and pumping chamber (Pongrac, Bozyk)*

Problems (not really, just work):

- Exchange of weld-on flanges
- Assemble magnets, girder, vacuum chambers, pump, collimator





# Lambertson Septum

Status: Design finished, coil finished and tested, yoke waits for machining

Manufacturer: Elytt

Sector: 5

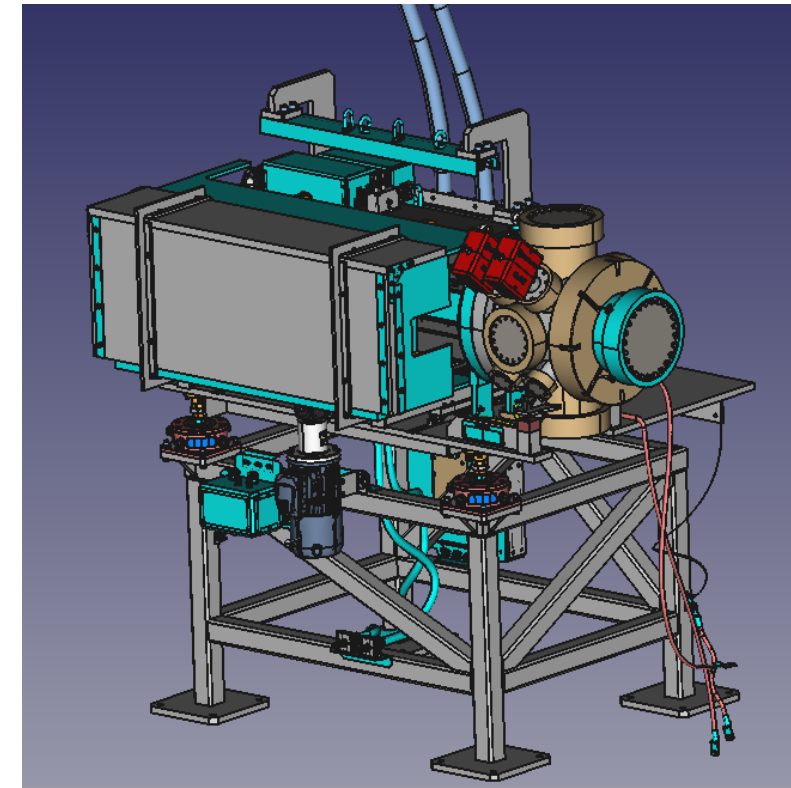
FAT: With extreme luck Q1/2026

To Do after delivery: Add collimators (Bozyk), beam diagnostics (Kowina), and pumps (Pongrac)

Problems:

- Time, spanish concept of ...
- Finding manufacturer for vacuum chamber and NEG coating. Negotiations with SAES have started

Generally, adding pumps should be in the framework of SAT Ab, if possible





# Extraction Septa 1 and 2

Status: Mechanical design of Septum 2 finished, on way to FDR. Septum 1 has magnetic design finished and waits.

Manufacturer: Elytt

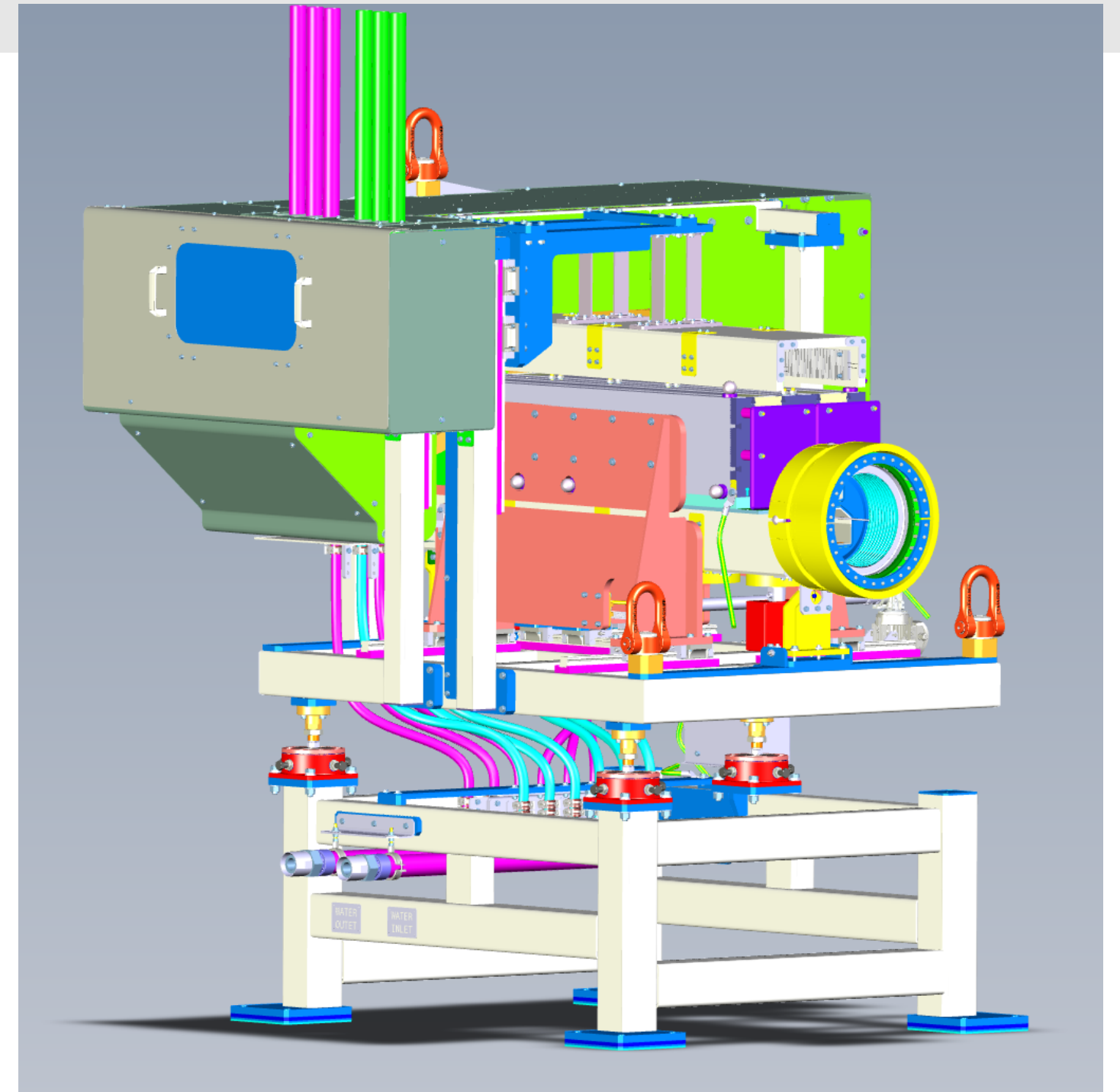
Sector: 5

FAT intended: After Extraction Septum 3/Lambertson Steerer,  
Not realistic before end of 2026

To Do after delivery: Add pumps (Pongrac)

Problems:

- Time
- Copper will take long time - custom-made shape
- Vacuum; NEG





# Extraction Septum 3, Lambertson-Steerer

Status: Design finished; Copper has arrived, yoke lamellae being laser-cut.

Manufacturer: Elytt

Sector: 5

FAT intended: If everything goes smoothly, maybe Q3/2026

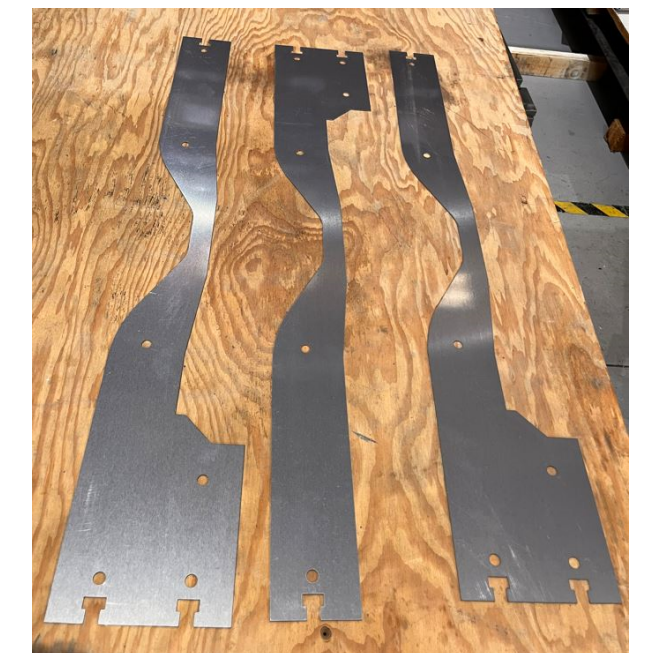
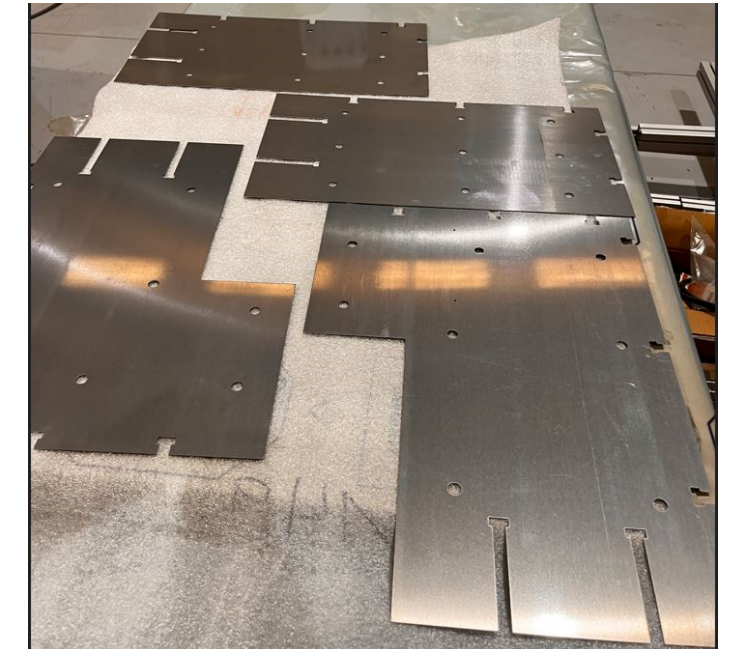
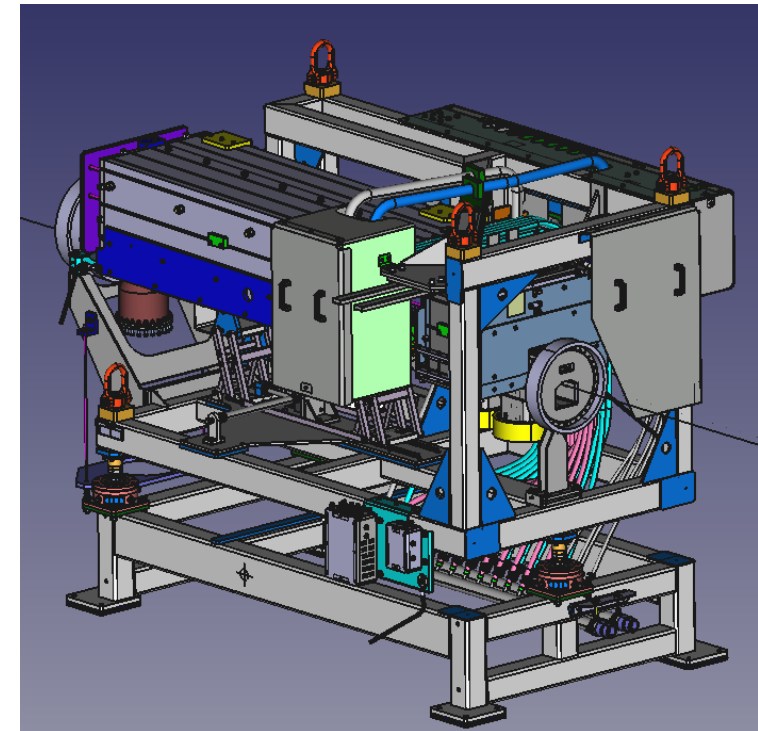


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To Do after delivery: Add internal beam dump (Martin),  
pumps (Pongrac)

Problems:

- Time
- Vacuum; NEG
- I am afraid there will be more to come





# Overview

Magnet	Delivery	For assembly
Resonance Sextupoles	delivered	Vacuum chamber holders
Fast Quadrupole	delivered	minor corrections
Injection 1 & 2	delivered	Fast interlock, minor corrections
Rad Res Quadrupole	delivered	VC, collimators, pumps
Lambertson Septum	Q1/2026???	Coll., beam diag., pumps
Extraction 1 & 2	Q4/2026???	Pumps
Extraction 3; Lamb. St.	Q3/2026???	Pumps, emergency beam dump



# Thank you for listening!

