MECHANICAL MODIFICATIONS OF THE MEDIAN PLANE FOR THE SUPERCONDUCTING CYCLOTRON K800 UPGRADE

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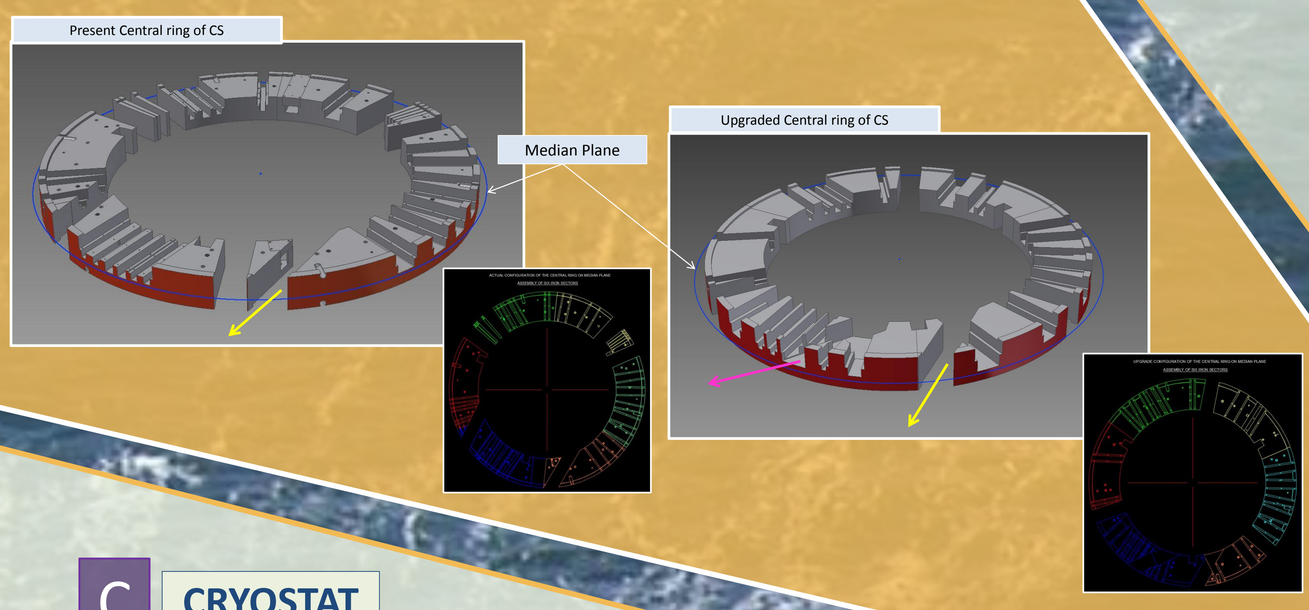
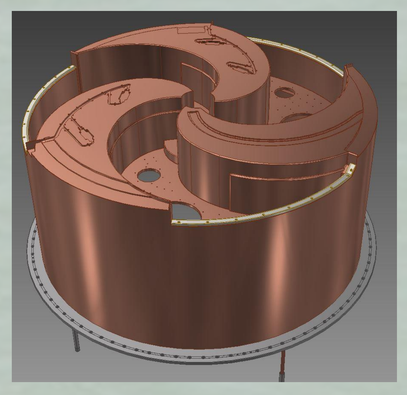
D IRON SECTORS

The reorganization of the Median Plane has involved the modification of the iron sectors of the central ring of the yoke.



E LINERS

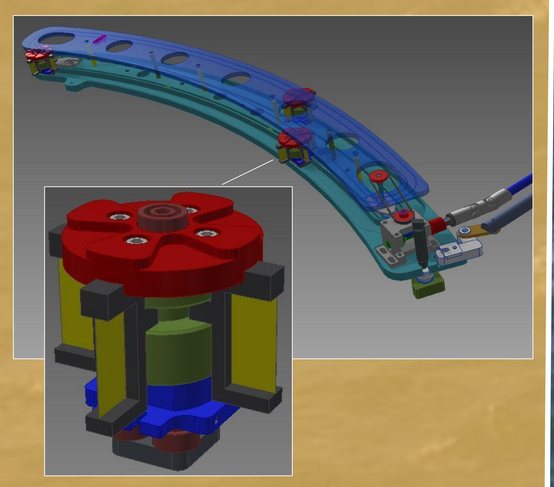
Due of the new dimension of the beam Spot, it is mandatory to increase the vertical gap of the acceleration chamber, this implies the whole replacement of both Liners.



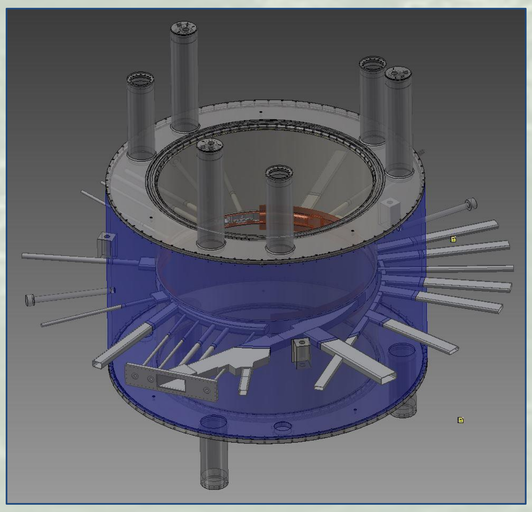
Lower Liner

F STRIPPER

The Stripper device will be installed in a Hill on the lower Liner, allowing for the stripper foil, movement and replacement.

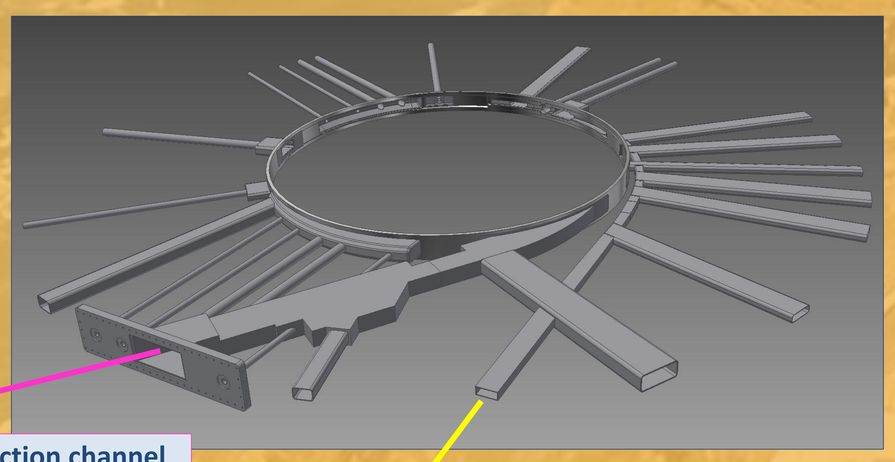


C CRYOSTAT



Due to the new configuration of the extraction channel (by Stripping) and the subsequent readjustment of the whole Median Plane, it is mandatory to replace the present superconducting magnet.

B EXTRACTION CHANNELS



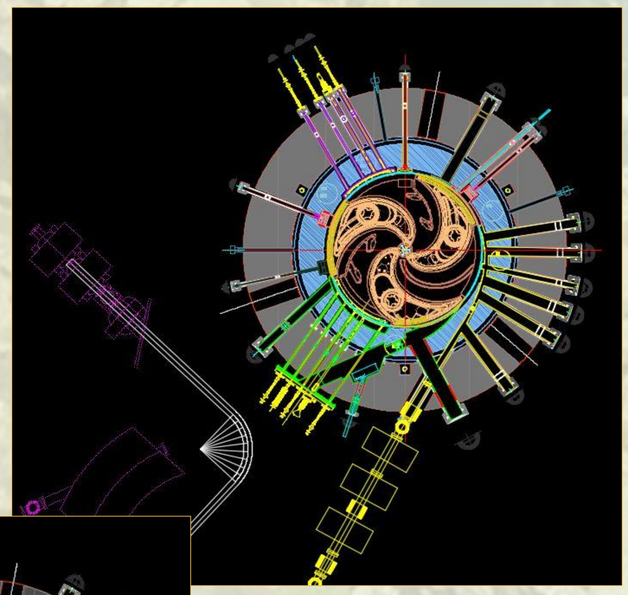
Extraction channel by Stripping

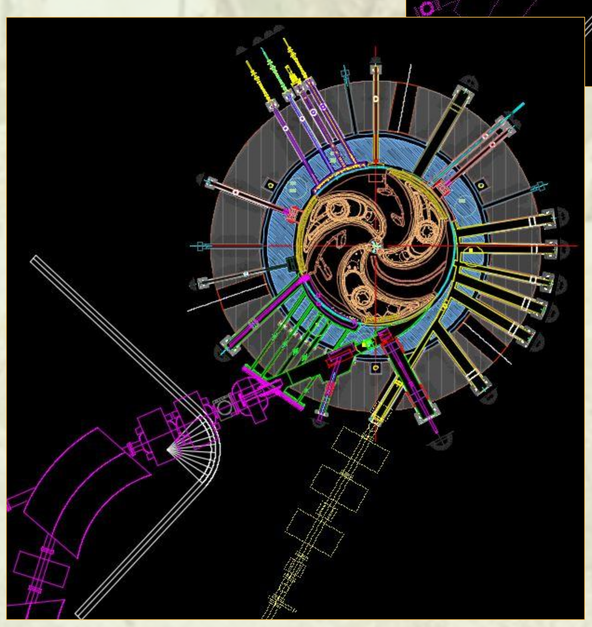
Extraction channel by Electrostatic Deflectors

Fast extraction trajectories using the extraction by stripping pass through a new extraction channel, which overlaps with the penetrations of the electrostatic deflectors actuations.

The Upgraded CS, will be equipped with two different setups:
- extraction by electrostatic deflectors
- extraction by stripping.

To maintain the compatibility of the devices used in the two setups, the translation of a whole section of line (the one for extraction by stripping) is necessary, to allow the assembling of the electrostatic deflector actuations.



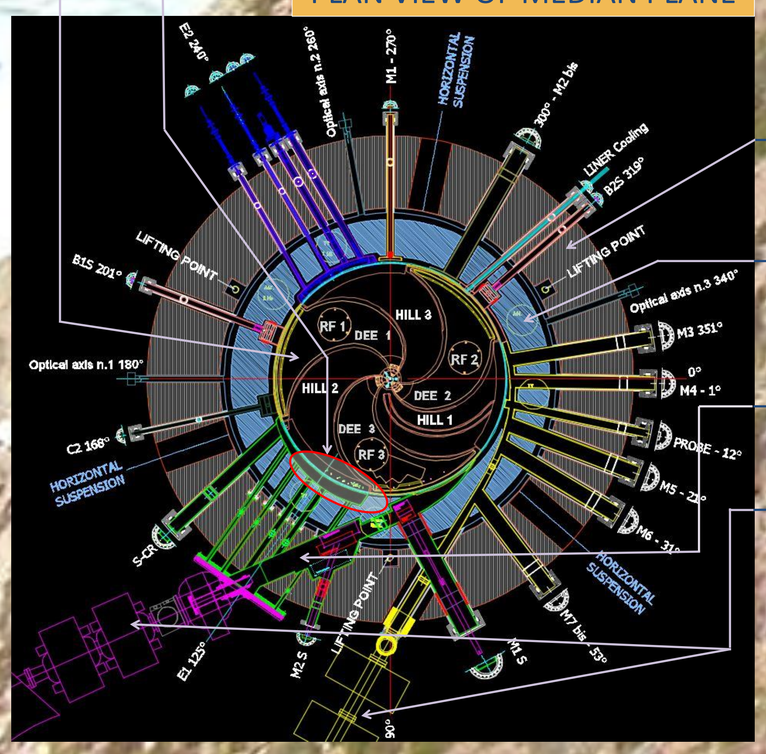


A EXTRACTION MODES

Beacon of Cape Point

E F

PLAN VIEW OF MEDIAN PLANE



D C B A

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