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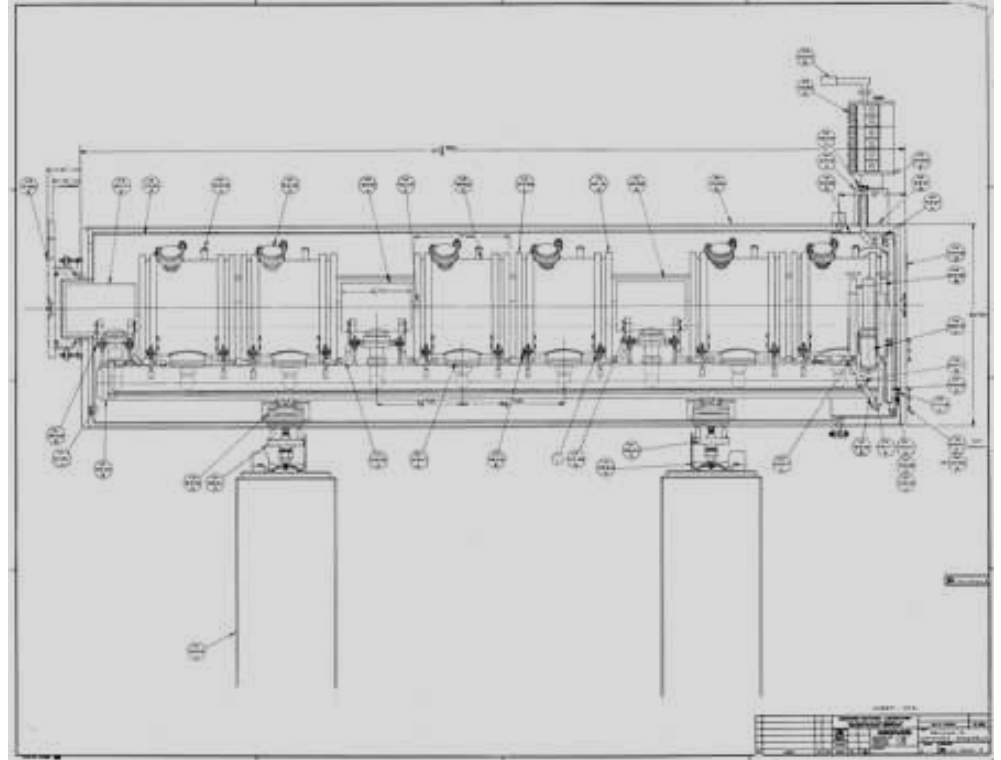
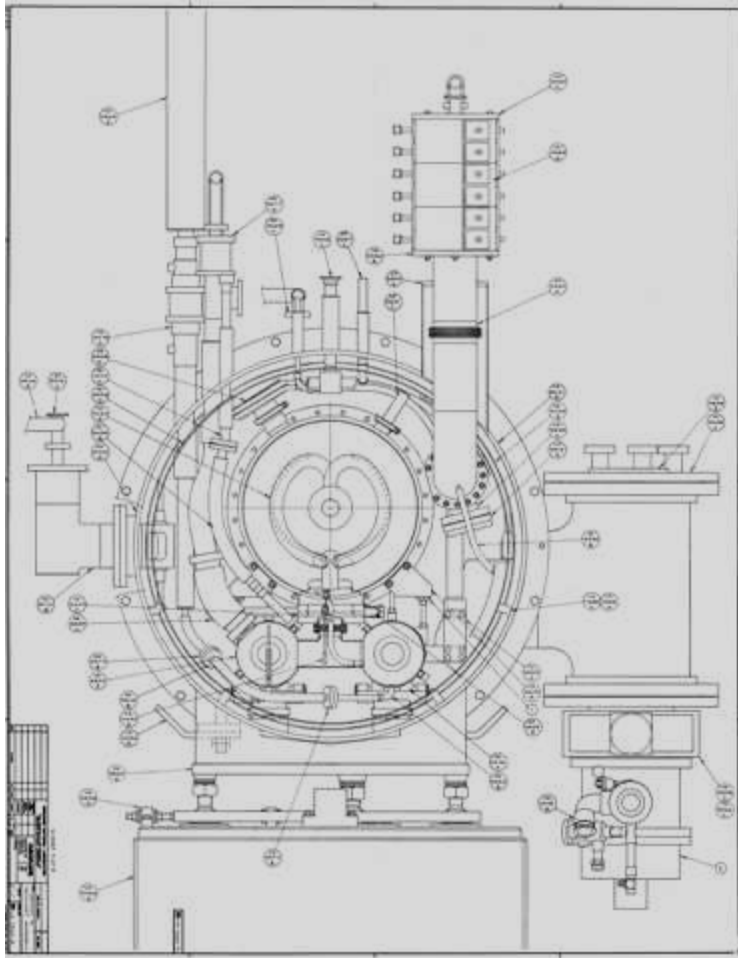
# *Top-Loading Cryostats for DTL Cavities*

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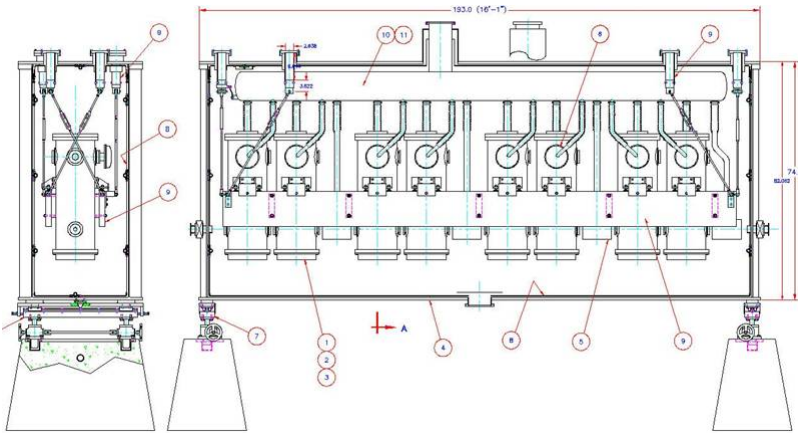
*21NOV08*

# History: ATLAS Split-Ring Cryomodule (1978)

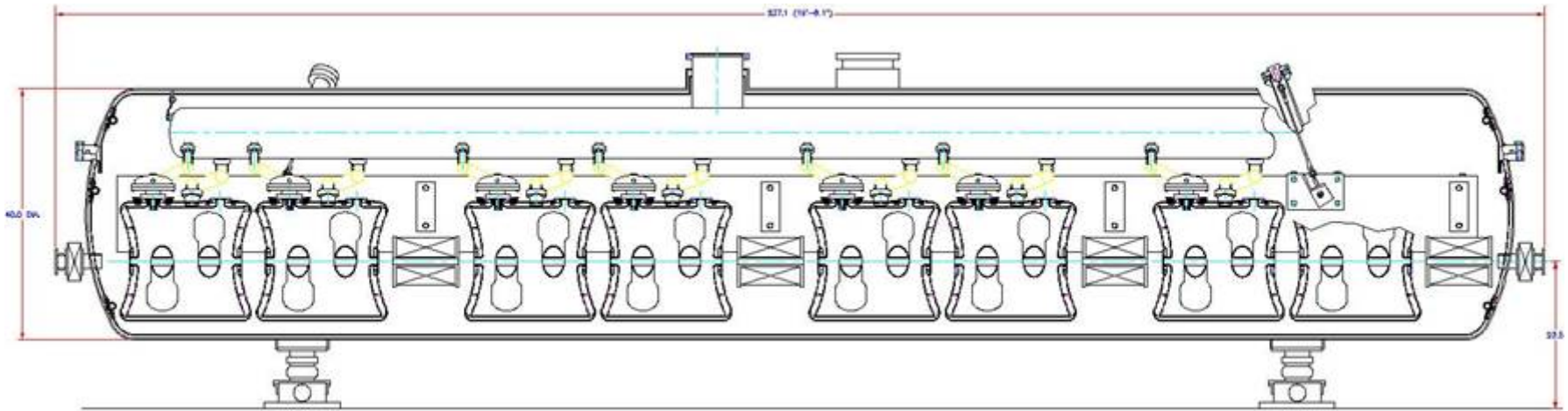


# Positive Ion Injector (PII) Cryomodule (1990)

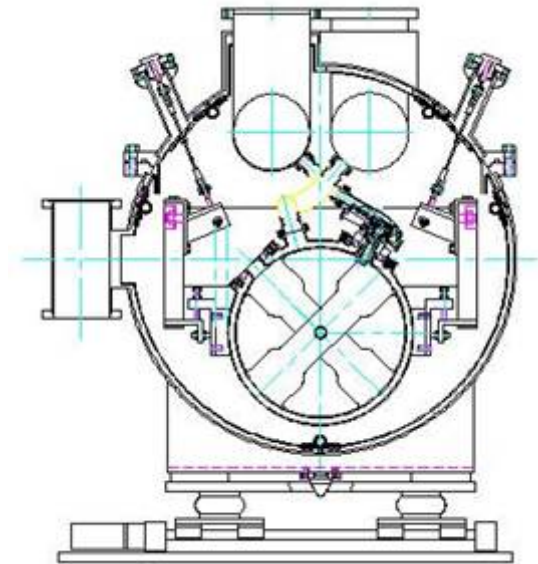
- space efficient design
- top loading
- common vacuums
- stagnant bath LHe cooling



# Design Evolution (1)

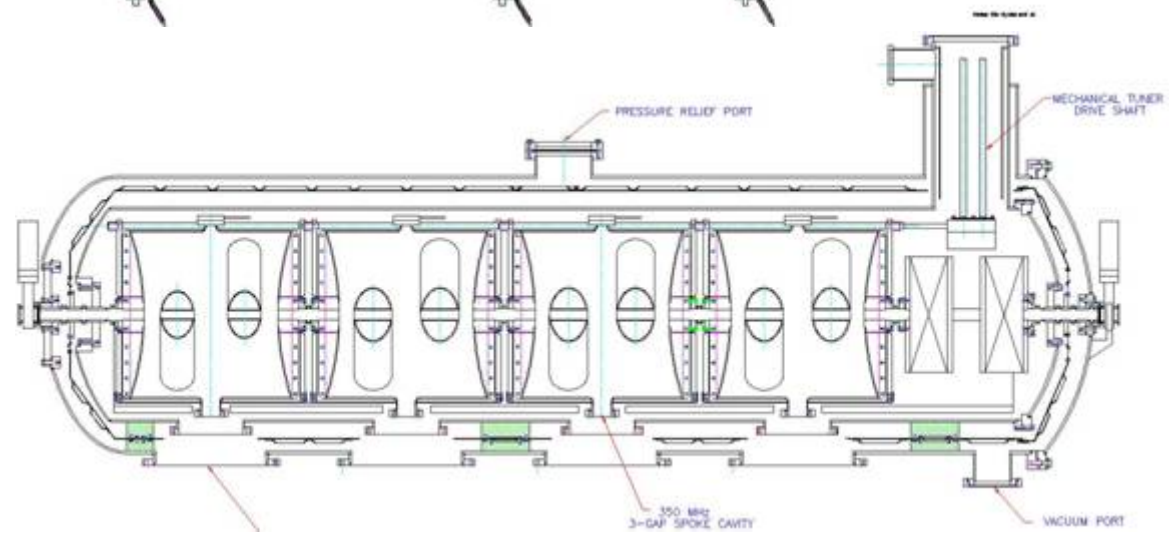
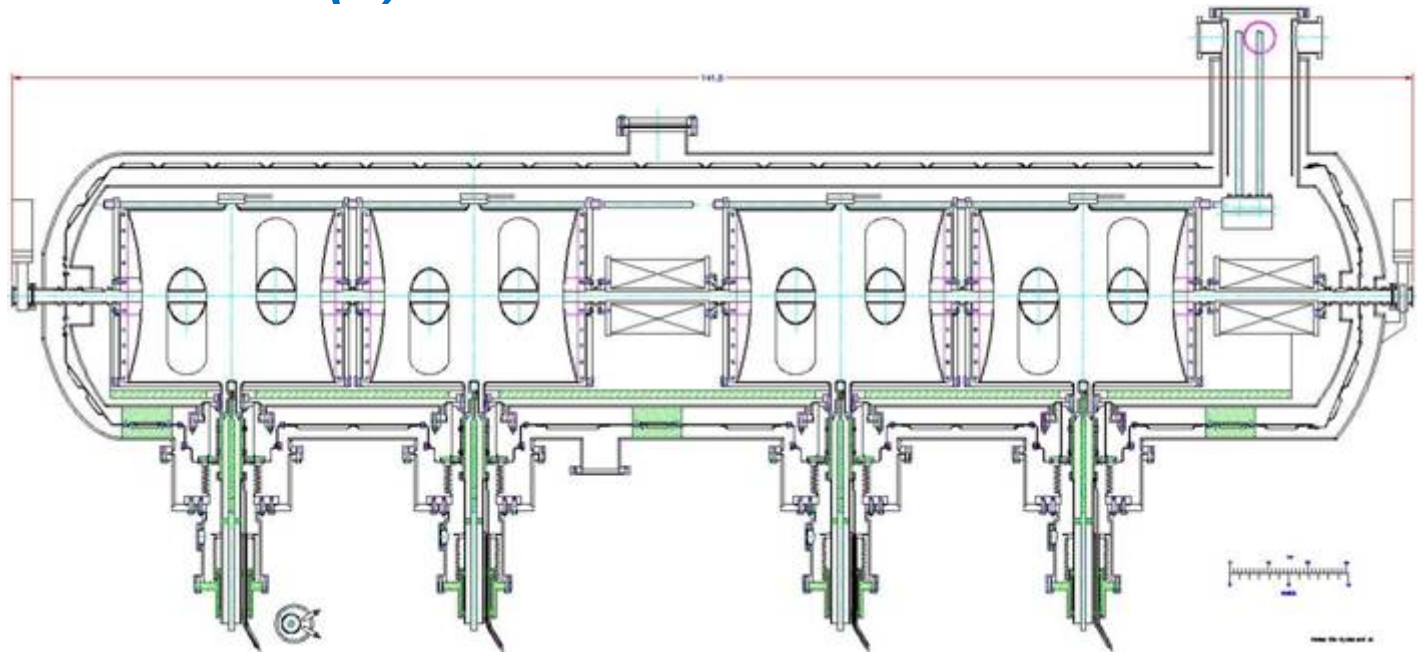


- Cylindrical
- Common vacuum
- Top loading



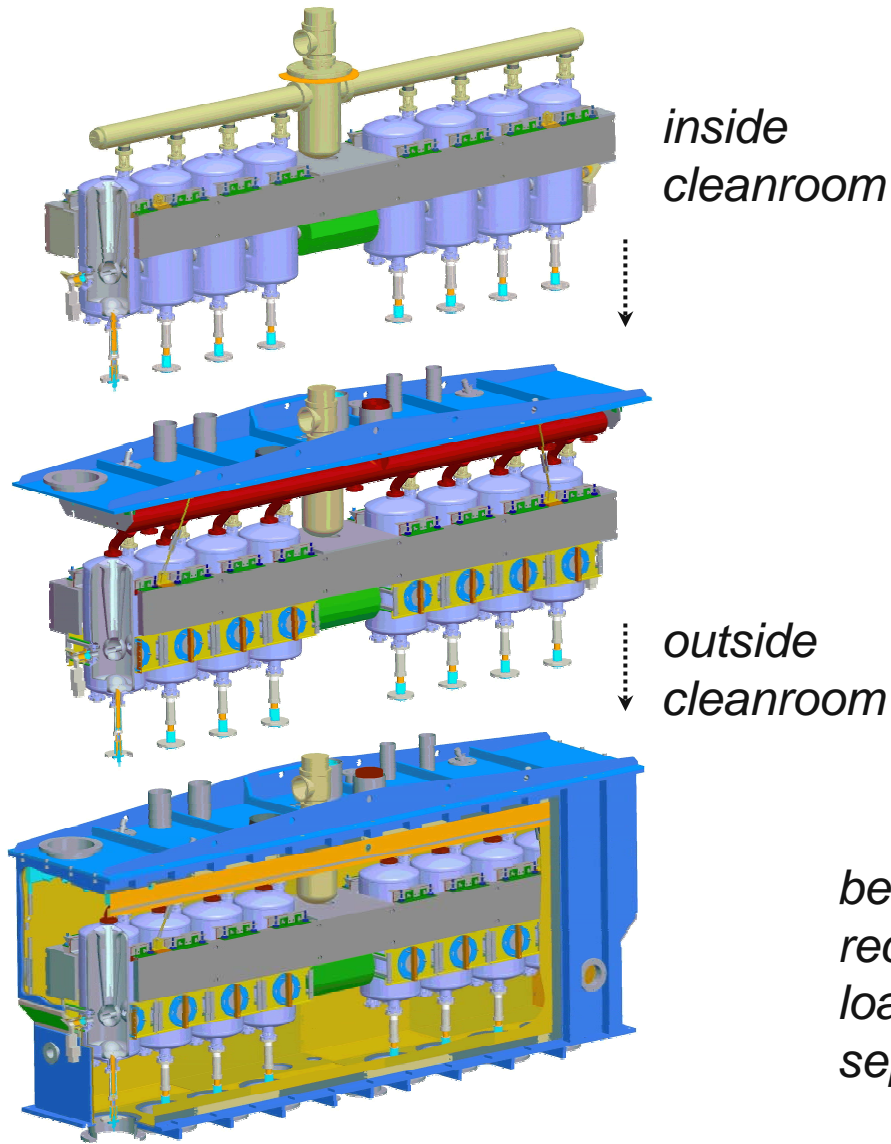


## Design Evolution (2)

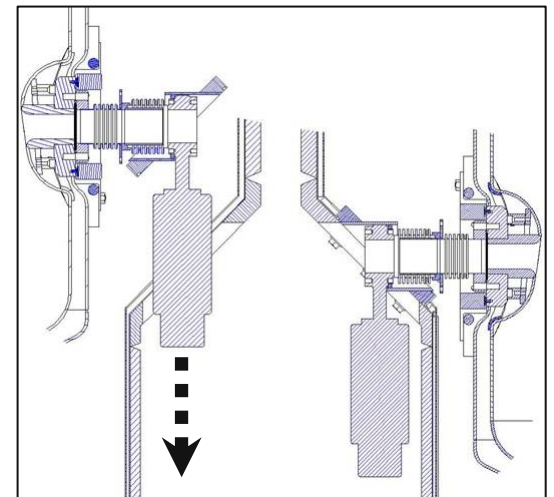


- Cylindrical
- Separate vacuums
- End loading

# Top-Loading, Separate Vacuums, Rectangular Geometry



*beam valve detail  
reconciles top  
loading with  
separate vacuums*

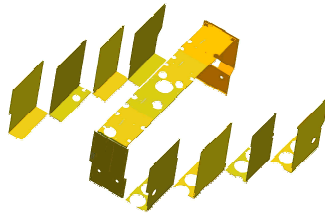
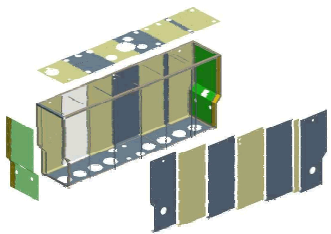




# Top-Loading Design Streamlines Assembly



- Vacuum vessel and subsystem assembly are decoupled from cavity string assembly



## *Top-Loading Cryomodule Concept with TSRs*

