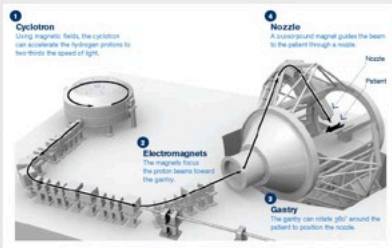


Recognizing the Challenges of Proton Therapy

- **Big**
 - ▶ Impossible to integrate within an existing center
- **Costly**
 - ▶ \$150 - \$225M project cost
- **Complex**
 - ▶ Large gantry, single accelerator, beam line, magnets, power supply, etc...
- **High operating costs**
 - ▶ Electrical and staffing
- **Non Standard Workflow and low throughput**
 - ▶ Beam queuing / rationing with complex patient setup
- **Facility downtime**
 - ▶ Daily maintenance and with single point of failure



Conventional Proton Therapy is a High Risk Financial Proposition for Any Institution

Just as electron linear accelerators began large and were optimized, proton accelerators can be made smaller.

1956

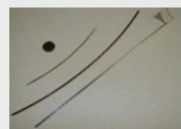


2013



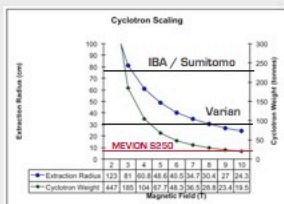
Mevion - Superconducting Magnet TriNiobium Core

Nb3Sn



TriNiobium Tin

Can carry as much as 3,000 Amps



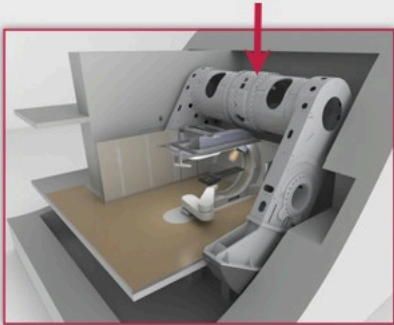
MEVION
S250

The World's First Superconducting Synchrocyclotron

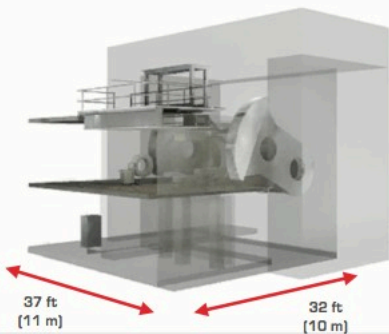


- **TriNiobium Core proton source**
 - High field strength accelerator
- **Beam characteristics optimized for RT**
 - 250 MeV protons
 - Conventional dose rate: 4+ Gy/min
 - Low power requirements
 - High stability and reliability
 - Ion source not replaced in more than 2 years
 - All accelerators commissioned in factory

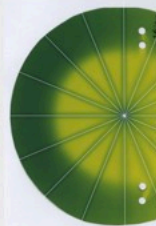
MEVION S250 Proton Therapy



MEVION S250 Proton Therapy




MEVION S250 - Gantry
Radiation Star Shot




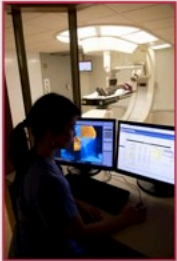
MEVION
S250






Verity Patient Positioning System™


- **Image Based Clinical Workflow**
 - Multi-dimensional image guidance
 - Integrated with Oncology Information System
- **Efficient and precise positioning**
 - Robotic couch with 6D adjustment
 - Auto-match with advanced validation




Verity Patient Positioning System™


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
Brain



Liver



Lungs



MEVION S250 Proton Therapy

- Lower capital cost
- Lower operational cost with staffing and utility similar to conventional RT
- Increase patient throughput:
 - › Workflow similar to RT with full ARIA/MOSAIQ integration
 - › Only quarterly maintenance required generally performed of hours
 - › Dedicated proton source for each room - just like a linac: - no beam waiting & no beam management
- Increase Return On Investment (ROI) with greatly reduced risks
- Support advanced treatment capabilities
 - › High precision gantry system: double sided and concentric
 - › Radiographic and CT based patient positioning (also integration with 3rd party systems)
 - › New generation beam shaping systems: Volumetric delivery and pencil beam scanning
- Deliver Scalability - Ability to start with 1 single room and increase capacity as needed
- Deliver Reliability - Each treatment room is independent

