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Each technology described here needs appropriate approval/clearance/certification by regulatory authorities of each

country/region prior to market entry or clinical use.

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For further information about the healthcare business, please refer to the Hitachi Group website. www.hitachi.com/businesses/healthcare



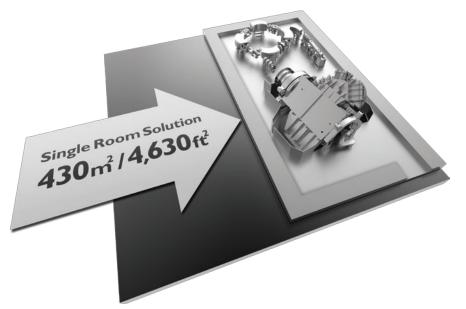
# Why Hitachi.

Since the founding of our company in 1910, Hitachi has been a pioneer in creating products which benefits society. For over 60 years, Hitachi has invested greatly on healthcare, providing vast solutions related to radiation oncology, radiology, research and healthcare IT. As for proton therapy, we have established a firm position to provide the best technology with the highest quality. In 2008, Hitachi was the first company to obtain FDA approval for Spot Scanning irradiation at MD Anderson Cancer Center. Now Hitachi is committed to better serve society by introducing our dedicated single room proton therapy solution with a more optimized layout, yet sustaining key technologies based on collaboration with Hitachi's prestigious users.

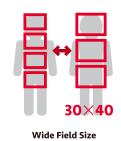


# **Optimized** Layout

The world's-only-synchrotron-based single room solution, the synchrotron accelerator technology allows for less shielding thus minimizing the overall size of the layout and the concrete cost to the building. Compared with our past layout, Hitachi has minimized and optimized the configuration yet utilize the identical gantry and accelerator technology which has been proven with our multi-room solution.









# **Wide**Coverage

The combination of Hitachi's 360 degrees compact rotating gantry and 30 x 40 cm irradiation field size enables users to widely treat many tumor sites with very little compromise. In addition, Hitachi's spot scanning technology allows Intensity Modulated Proton Therapy (IMPT) under fully-integrated Image guidance with gantry mounted isocentric CBCT(Hitachi patented). Our system is capable of interfacing with any motion management solutions, treatment planning system and oncology information system.

All system features are available from the first day of system handover.

# **Enhanced** Workflow

Integrated image guidance workflow and high system uptime are the essentials to realize treatment of high volume patients with minimum treatment time. Our proton therapy system has the highest uptime available in the market at over 98% at all treating centers. For clinical efficiency, Hitachi fully leverages its established track record for reducing patient immobilization time. Also, the on-demand operation of the synchrotron accelerator allows for less power consumption and immediate access to the maintenance area after beam irradiation, overall enhancing the user experience from both a clinical and economical perspective.

# Conventional Hitachi Competitor Hitachi FUN STAND BY On-demand Synchrotron Operation Operation

# Major Specifications



Footprint (including Shield)	430m² (4,630ft²)
Lead time	24month*
Irradiation Technique	IMPT with discrete spot scanning
Accelerator	Synchrotron accelerator with on-demand energy and operation
Gantry	360 degrees type with 0.5 deg step setting
Maximum Energy, Range	230MeV , 32g/cm <sup>2</sup>
Minimum Energy, Range	70MeV , 4g/cm²
Field Size (X x Y)	30cm x 40cm
Spot Size in air at Isocenter (1σ)	Approx. 3 – 8 mm
Image Guidance	Automated matching 2D and 3D with integrated CBCT
Patient Positioning	Six Degrees-of-freedom robotic couch
Motion Management	Universal I/F , Real time gating (Optional)

<sup>\*</sup>Ref. lead time from contract execution to room handover for clinical commission