



SICHUAN LONGEVOUS BEAMTECH CO.,LTD



High-end Nuclear Medicine Equipment Manufacturer
Provision of reliable products and professional service



Chairman Message

Longevous Beamtech

Creation, Cooperation, Service, Elaboration

As the top nuclear technology organization in China, Institute of Fluid Physics of Chinese Academy of Engineering Physics has developed the first medical cyclotron in China after ten years of hard work. Sichuan Longevous Beamtech Co., Ltd, as its technological transformation platform, strive to achieve the goal of invigorating the country and benefiting the people through science and technology.

We care for human health, and have always adhere to the principle of good quality brings good reputation. We always deliver trust and respect to employees, high efficiency and benefits to business partners, as well as comprehensive solutions and service to customers.

We are committed to becoming a pioneer nuclear medicine manufacturer across the world.

SHI, Jinshui
Chairman of LBT

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Longevous Beamtech
www.long-beam.com



LBT is capable of producing over 50 medical cyclotrons annually and providing customers with overall solutions of radiopharmaceutical production center.

As the first enterprise in China engaged in research, development and production of medical cyclotrons, LBT has been widely recognized by experts and scholars in the industry and strongly supported by national policies. LBT possesses a number of core intellectual property rights in the field of medical cyclotrons, and certificates including Environment Management, Occupational Health and Safety Management, Quality Management and etcetera.

Company Introduction



Established in February 2017, Sichuan Longevous Beamtech Co., Ltd is a mixed ownership enterprise with state-owned capital, private capital and strategic investors. The technical team is from the Institute of Fluid Physics, Chinese Academy of Engineering Physics, which gathers professionals in nuclear technology, nuclear medicine, radiochemistry, automation and other disciplines. DENG, Jianjun, academician of Chinese Academy of Engineering, serves as the technical consultant.

LBT has always insisted on providing users with advanced, reliable and efficient radioisotope production equipment. Core components such as ion source, high-frequency accelerating chamber, high-precision isochronal magnet and self-shielding body are completely self-developed. The performance of LBT's products has reached the international leading level.

Core Members

LBT has the top technical personnel who is equipped with professional knowledge and rich experience in nuclear physics, nuclear medicine, radiopharmaceuticals and other related disciplines. The research team members are all from first-class universities, with PhDs accounting for over 90%.



DENG, Jianjun General Technical Consultant

Academician of Chinese Academy of Engineering, PhD of Nuclear Technology Application of Tsinghua University, Chief Engineer of Institute of Fluid Physics, PhD supervisor

- First Prize of National Science and Technology Progress Award
- Top Ten Innovative Figures in National Defense Technology and Industry



SHI, Jinshui
Chairman

- Ph.D. of Nuclear Technology Application of Tsinghua University, PhD supervisor
- First Prize of National Science and Technology Progress Award
- First Prize of Ministerial Science and Technology Progress Award



HE, Xiaozhong
Chief Scientist

- Ph.D. of Nuclear Technology Application of Tsinghua University
- Responsible for the research and development of medical cyclotron

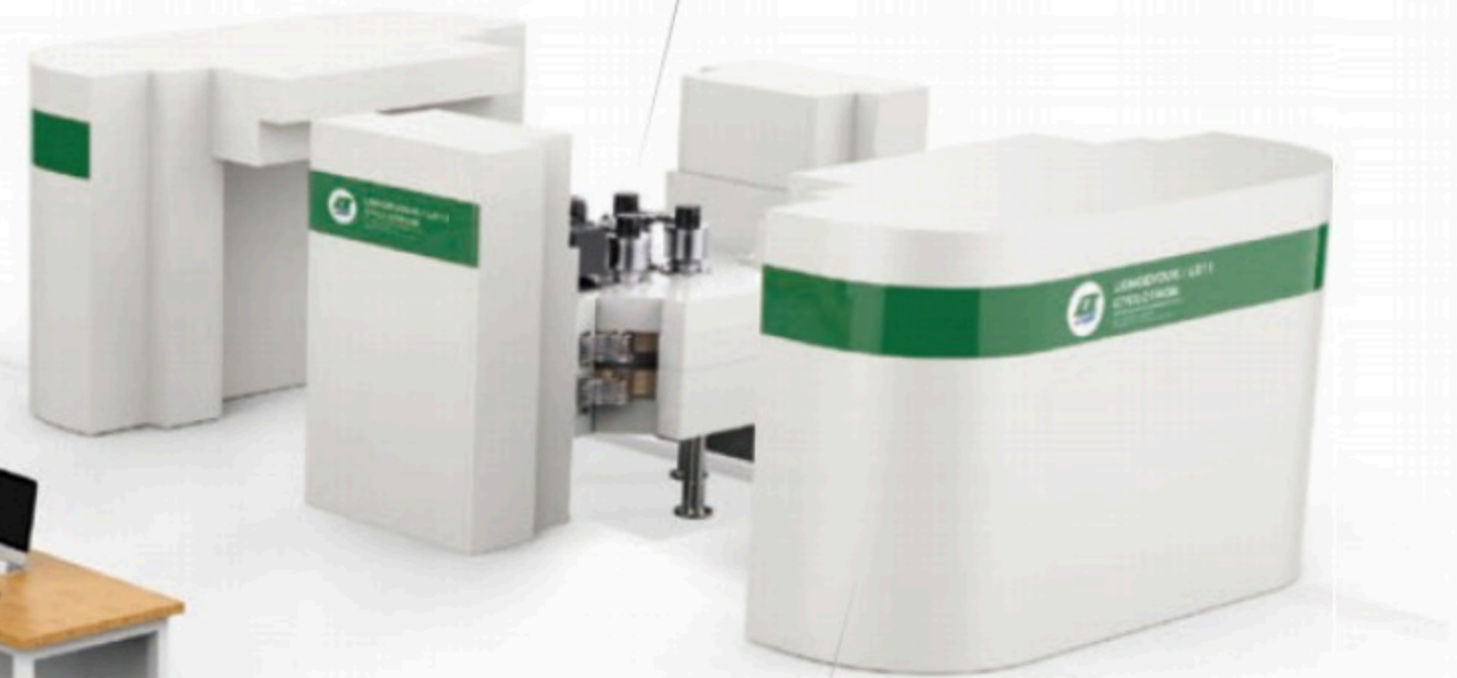
Medical Cyclotron

1. Control system
2. Solid-state high-frequency power source
3. Internal water cooling



One-click Production

Cyclotron



8uSv at 0.5 meters surrounding and above the shielding body

Product Portfolio

LB-7 Cyclotron

Integration of production and synthesis

Beam energy: 7MeV

Beam intensity: 100 μ A (Max)

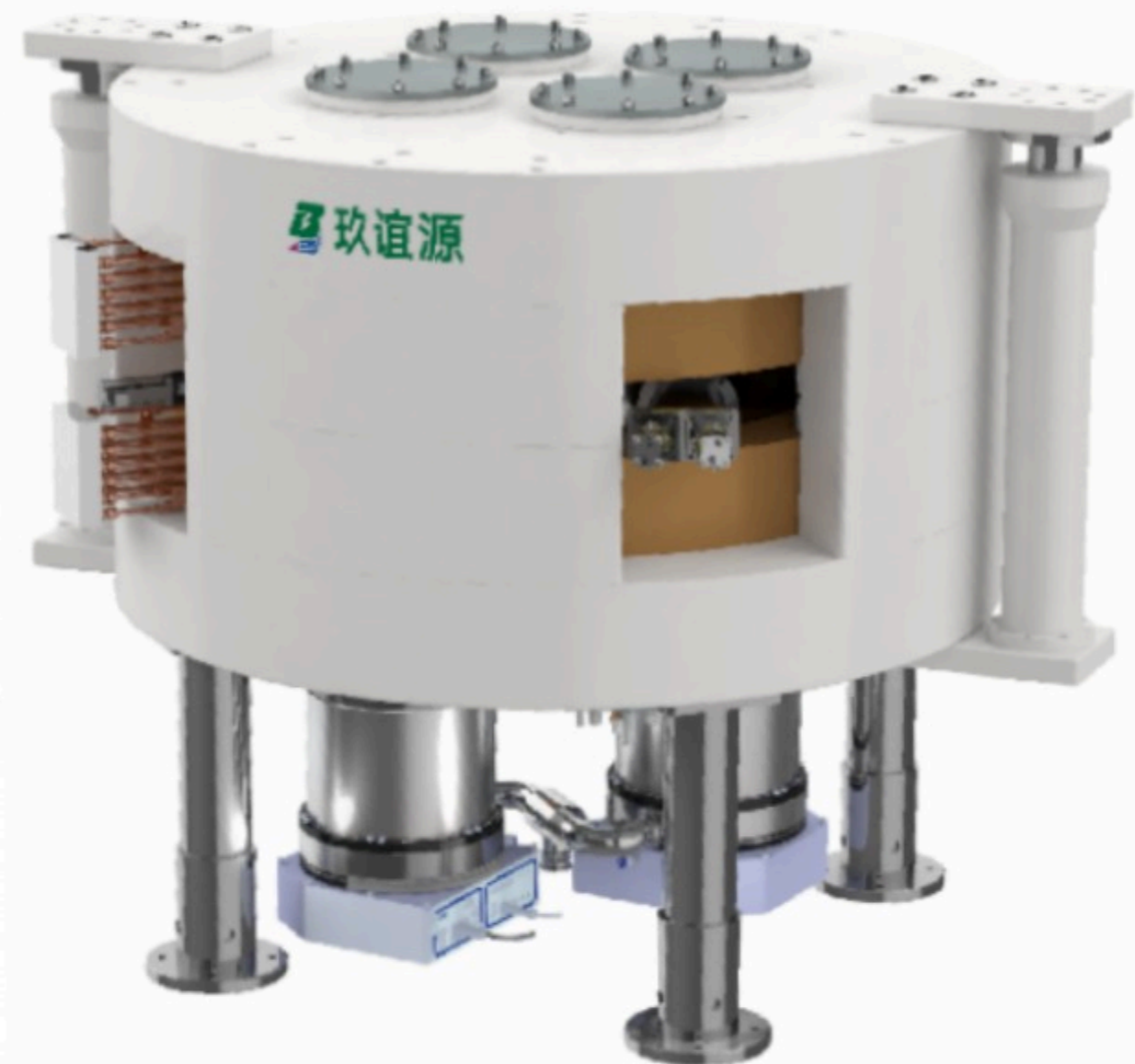
Isotopes: ^{18}F , ^{11}C , ^{15}O

LB-7 is a compact, intelligent, and all-in-one cyclotron.

Compact size - High flexibility in site selection

Intelligence - One-click isotope production

All-in-one - Integration of synthesis module and the cyclotron



Product Portfolio

LB-11 Cyclotron

Upgradability and best value

Beam energy: 11MeV

Beam intensity: 100 μ A (Max)

Isotopes: ^{18}F , ^{11}C , ^{13}N , ^{15}O , ^{68}Ga ,

^{89}Zr , ^{64}Cu , ^{124}I

LB-11 is a highly cost effective cyclotron.

Infinite flexibility - Upgradable from 4 targets

to 8 targets, solid targets available

Intelligence - One-click isotope production

Comprehensive performance - Satisfy both

clinical applications and scientific research



Product Portfolio

LB-20 Cyclotron

Adjustable energy and powerful performance

Beam energy: 12-20MeV (continuously adjustable)

Beam intensity: 200 μ A (Max)

Isotopes: ^{18}F , ^{11}C , ^{13}N , ^{15}O , ^{68}Ga , ^{89}Zr , ^{64}Cu , $^{99\text{m}}\text{Tc}$, ^{111}In

^{86}Y , ^{72}As , ^{63}Zn , ^{76}Br , $^{133/135}\text{La}$, $^{44/47}\text{Sc}$

LB-20 is a powerful cyclotron, providing all kinds of isotopes with large yield.

Isotope factory - A large variety of isotopes

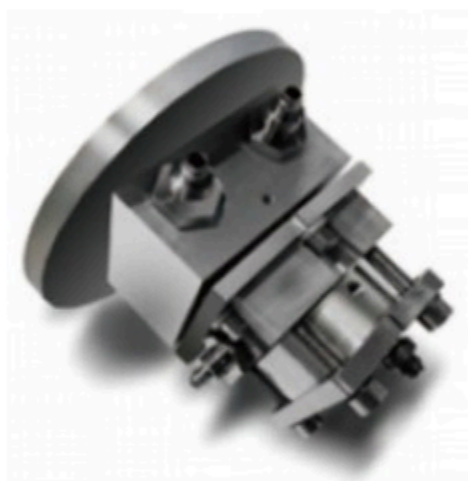
High productivity - Satisfy the needs of private use and distribution

Wide energy span - Provide a wide energy span ranges from 12MeV to 20MeV





Beam Dynamics
Calculation Software

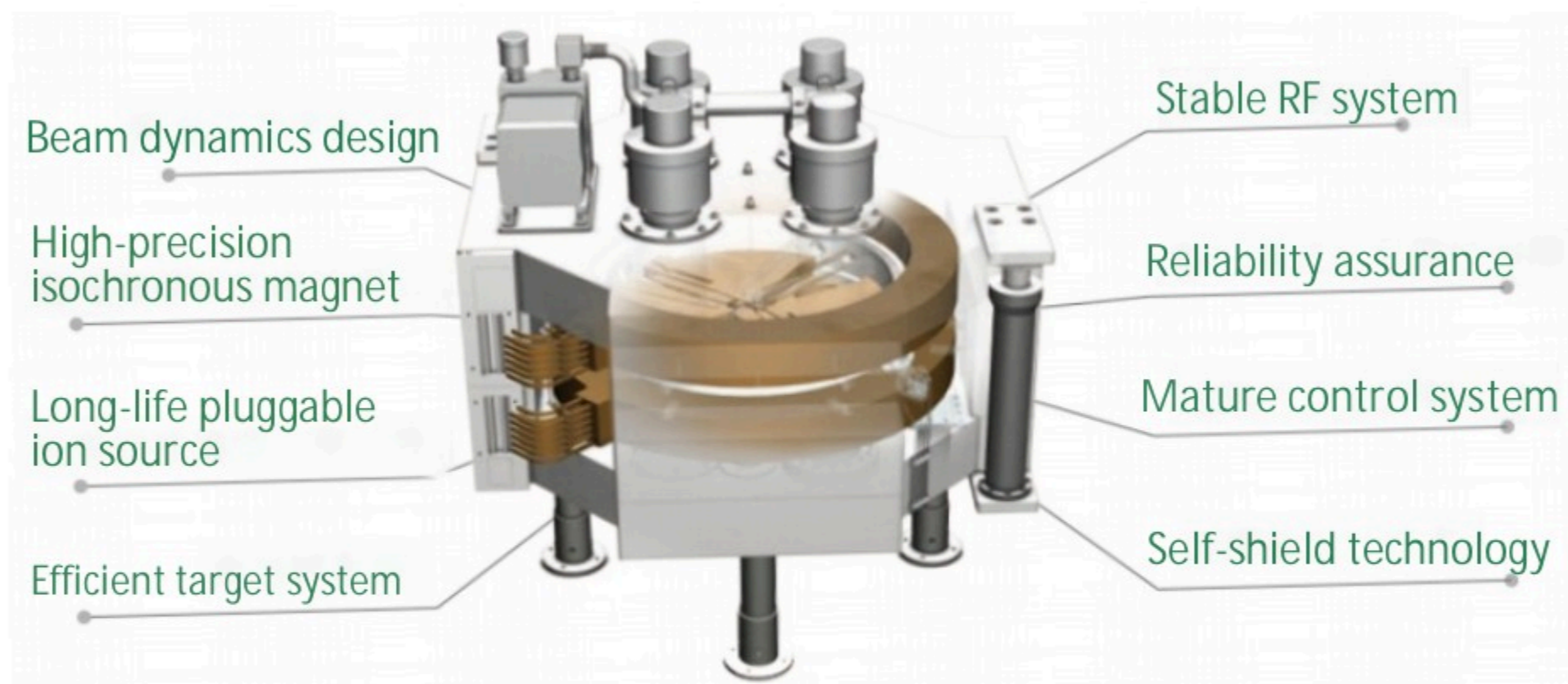


Target System

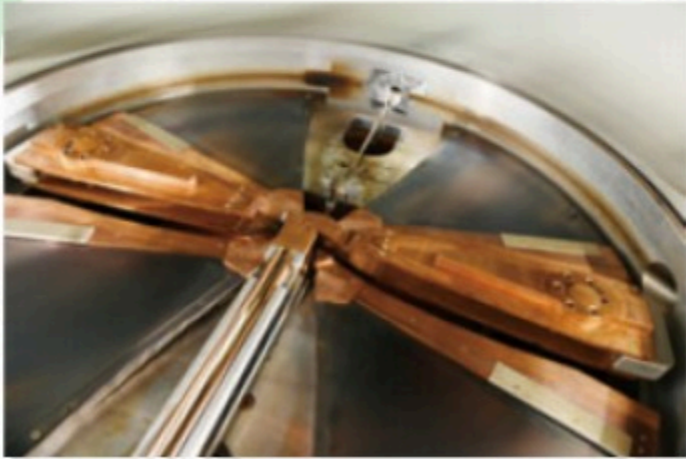


Central Area Design

Technological Superiority



Sub-systems



Magnet System ensures stable acceleration of particles.



Vacuum System consists of mechanical fore pumps and molecular vacuum pumps.



Control System enables one-click production.



High-frequency resonant cavity is composed of dee electrodes, short-circuit bars, power feed-in coupling loops.

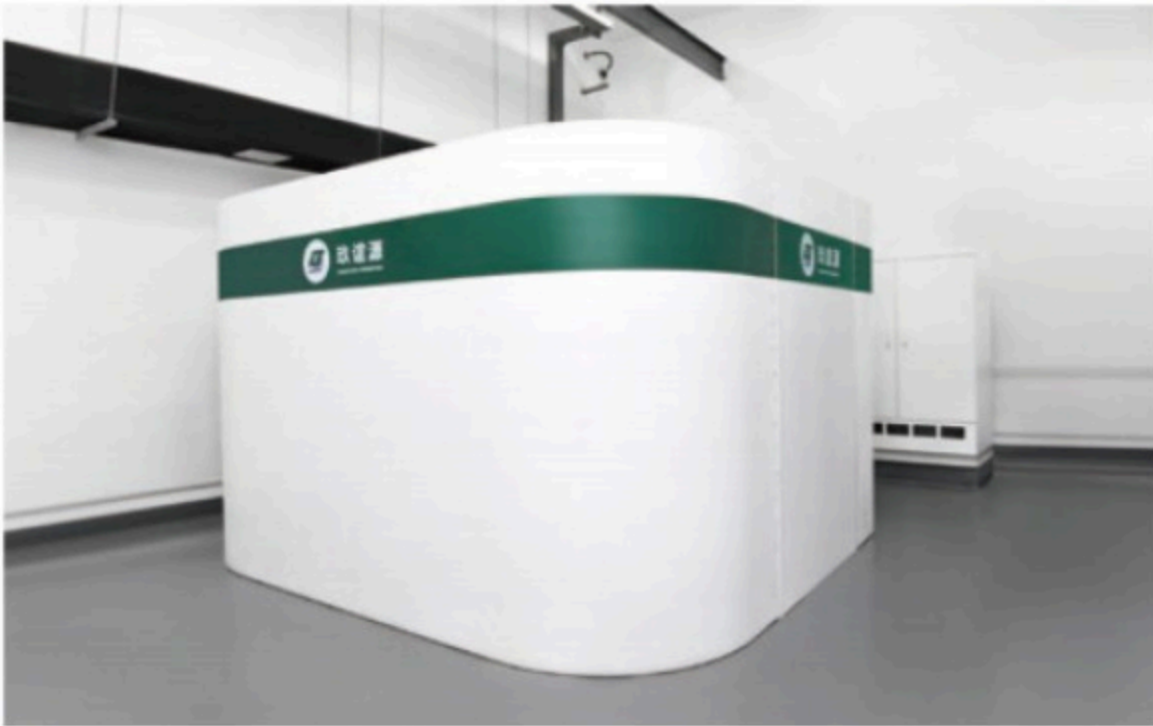
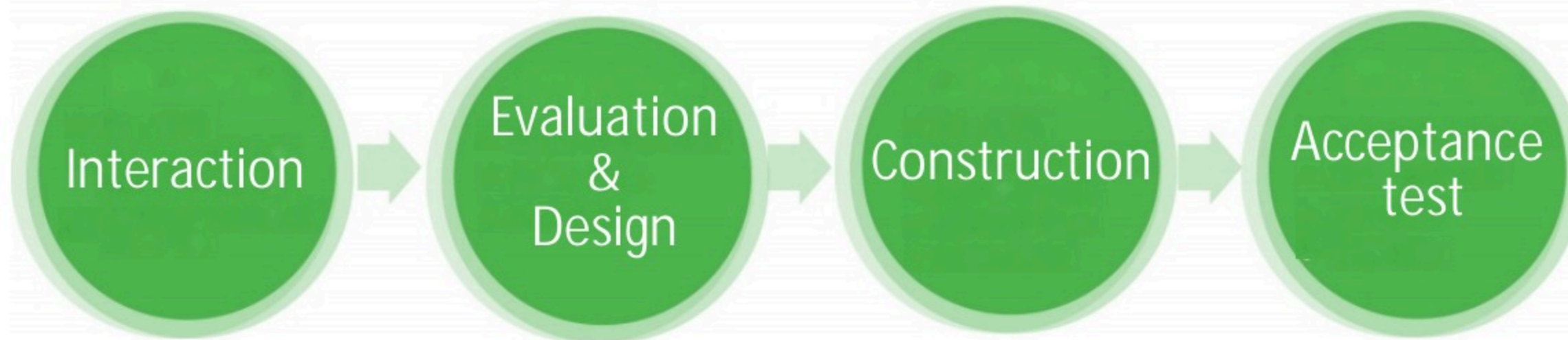


High-frequency Power Supply System provides strong RF electric field to accelerate proton beam.



Ion source is pluggable and can be changed without opening the cyclotron body.

Total Solutions



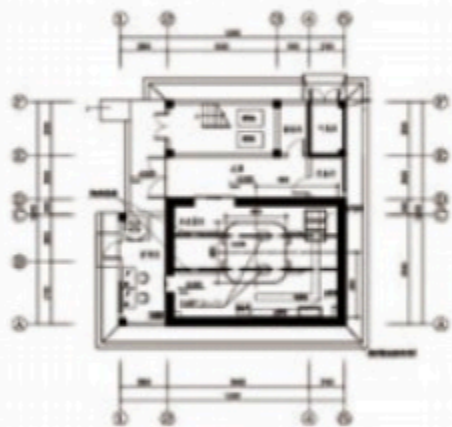
One-stop Service Integration

The project team will work with you throughout the entire project process, from preliminary design, evaluation, construction, installation and commissioning to acceptance and maintenance, meeting all your needs. The team will always be by your side, establish a lasting partnership, help you identify and solve any hidden dangers in advance, provide you with upgrade and maintenance suggestions, and ensure that your project achieves maximum effectiveness and efficiency.

Standardized Radiopharmaceutical Production Center



Design



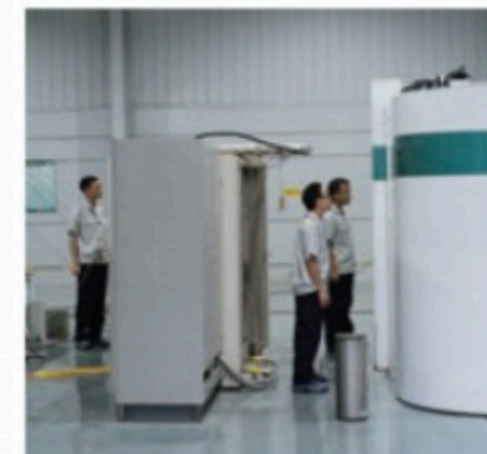
Construction



Production



Maintenance



After-sales Service

Expert team

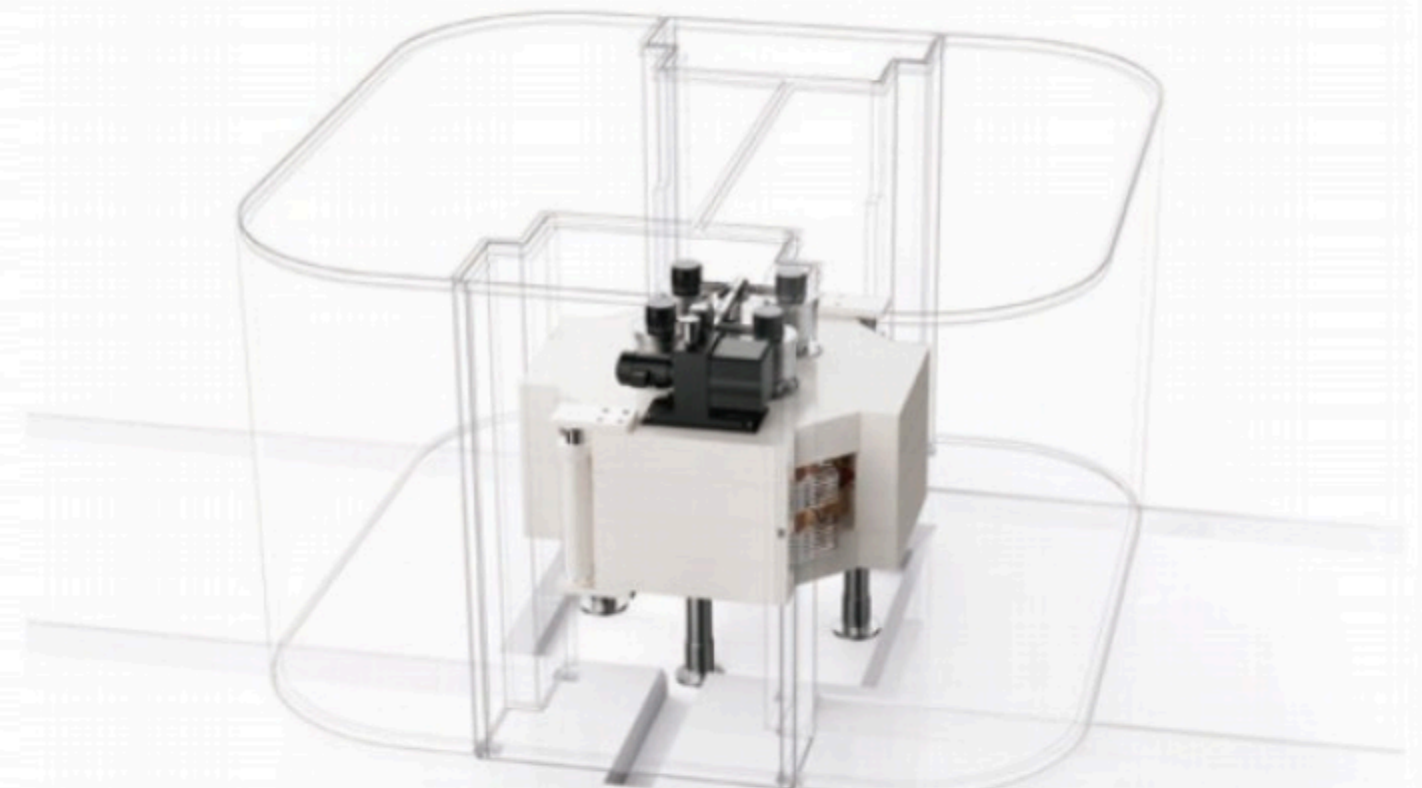
Fast response

Training

Inspection

Professional Support

The team consists of sales managers, project managers, site construction engineers, installation and after-sales engineers, pharmaceutical engineers, and other expert personnel, working together with suppliers to provide solutions throughout the entire project process.



Service Case

Nuclear Medicine Center of Sichuan Science City Hospital

The Nuclear Medicine Center of Sichuan Science City Hospital covers an area of 200 square meters with a building area of 600 square meters. The center is equipped with LB-11, consisting of cyclotron area, radiopharmaceutical production area and quality control area. The expert team of LBT provides a complete set of solutions, including site design, construction, installation and commissioning, acceptance check and periodic inspection.



YANG, Xing

Director of Nuclear Medicine Department
Sichuan Science City Hospital

“ We have conducted in-depth cooperation with LBT on the Nuclear Medicine Center project. Throughout the entire project process, LBT has provided very professional solutions. The performance of LB-11 is quite stable, ensuring the efficient operation of our Nuclear Medicine Center.

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Certificates





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