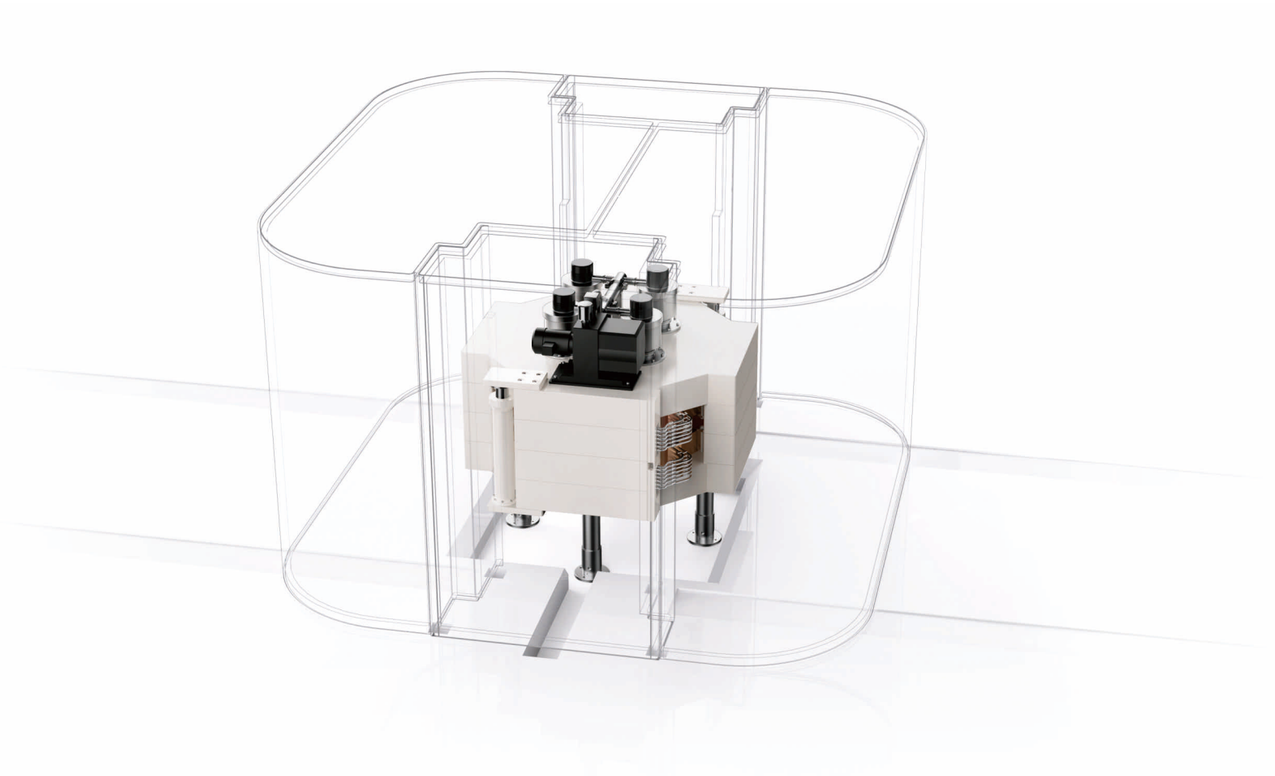
TO BE A WORLD-CLASS NUCLEAR
MEDICINE EQUIPMENT PROVIDER
ENHANCE PRECISION MEDICINE
IMPROVE NATIONAL HEALTH

LONGEVOUS
BEAMTECH



LONGEVOUS BEAMTECH CO., LTD.

PIONEER CYCLOTRON
MANUFACTURER

Contact Us

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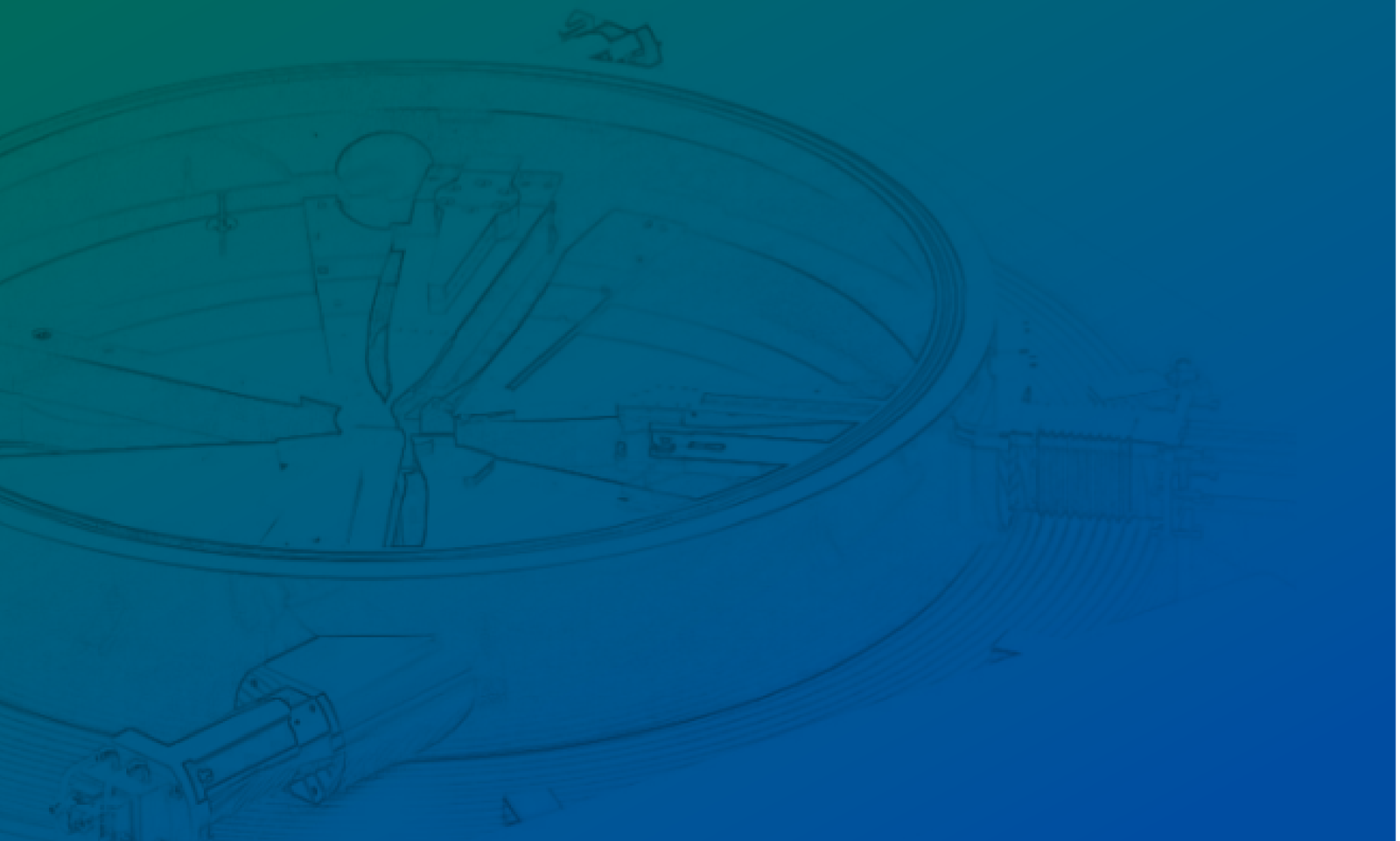


CORPORATE CULTURE

Values

Innovation
Collaboration
Service
Precision

Mission

Provide reliable nuclear medical equipment and solutions for customers
Bring returns for investors
Create value for society
Contribute to national health

Vision

For the health of people

COMPANY PROFILE

Established in February 2017, Sichuan Longevous Beamtech Co., Ltd. is a high-tech enterprise integrating R&D, production and customer service of high-end nuclear medical equipment. Longevous Beamtech is committed to becoming a global solution provider for radiopharmaceuticals.

Since its establishment, Longevous Beamtech has been concentrating on the field of nuclear medical equipment. From R&D, production to solution design, after-sales technical support, we always focus on customer needs, providing full lifecycle services. Adhering to the concept of “Customer Orientation", Longevous Beamtech insists on technology innovation and all-round customer service. Up to now, the company has obtained numerous authoritative certifications such as ISO Certifications and over 40 cyclotron-related patents, with business covering several countries and regions around the world.

Pioneer Cyclotron Manufacturer

Our History

2007–2013

Completed the physical design and prototype of cyclotron
Achieved localization of key components

2013–2016

Developed the engineering prototype of the cyclotron
Significantly improved overall performance

2016–2017

Established Longevous Beamtech Co.,Ltd
Officially launched the 11MeV commercial machine
Initiated the development of a series of energy spectrum products
Successfully synthesized FDG drugs

2017–2019

Advanced the R&D of 7MeV and 20MeV models
Stabilized production processes and established a pilot production line
Signed the first commercial contract

2019–2021

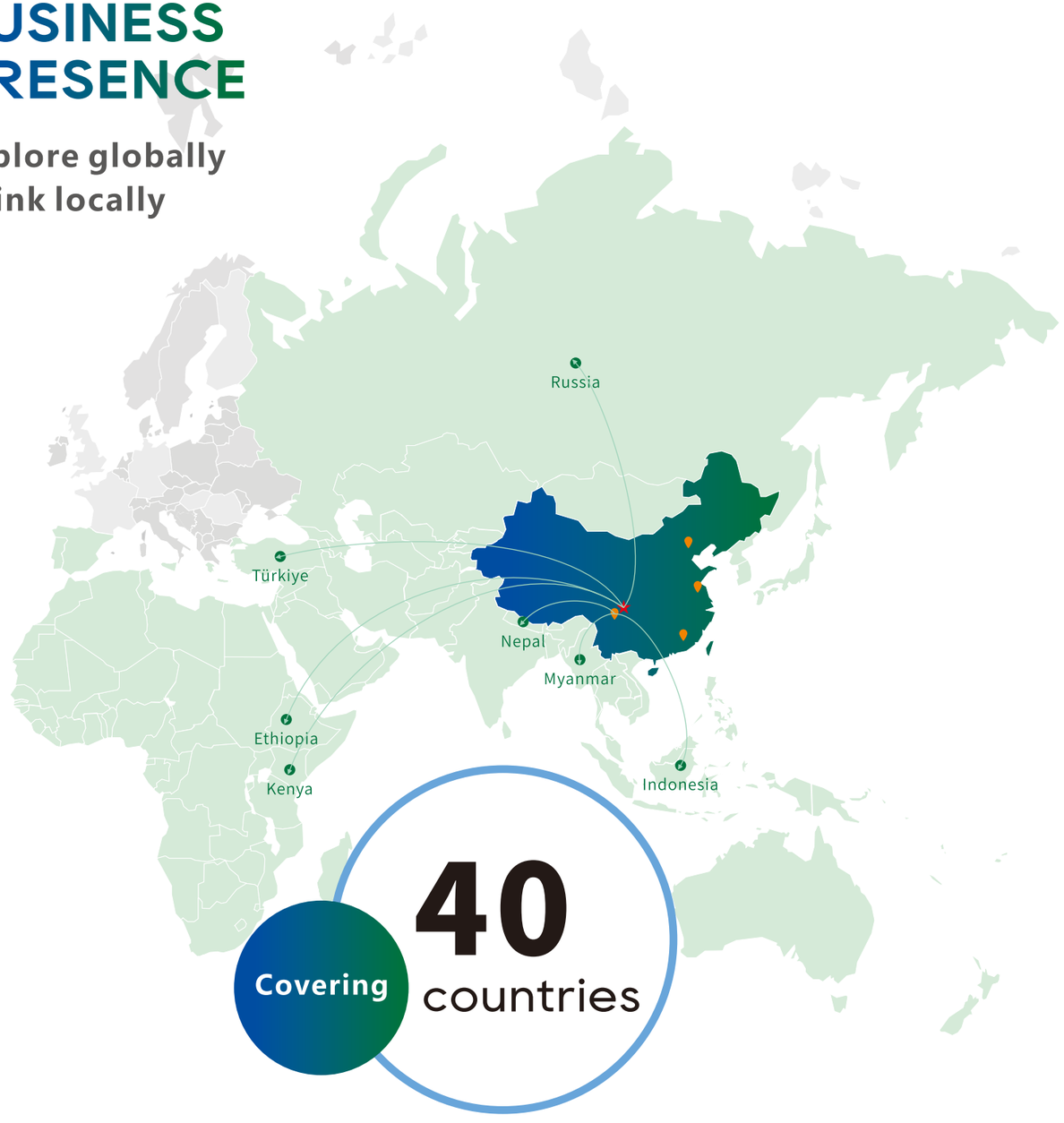
Installed the first cyclotron in hospital
Trial production of LB-7SE and LB-20 models
Initiated R&D of the 30MeV model
Started construction of the Phase I production and R&D base

2022–2023

Successfully launched LB-7SE and LB-20 models
Initiated R&D of the synthesis module
Phase I production and R&D base put into operation
Completed R&D of the core equipment for the 30MeV model
Achieved a market share of 30%
Signed the first overseas contract

BUSINESS PRESENCE

Explore globally
Think locally



HEADQUARTER
Mianyang

BRANCH OFFICES
Beijing, Shanghai, Guangzhou, Chengdu

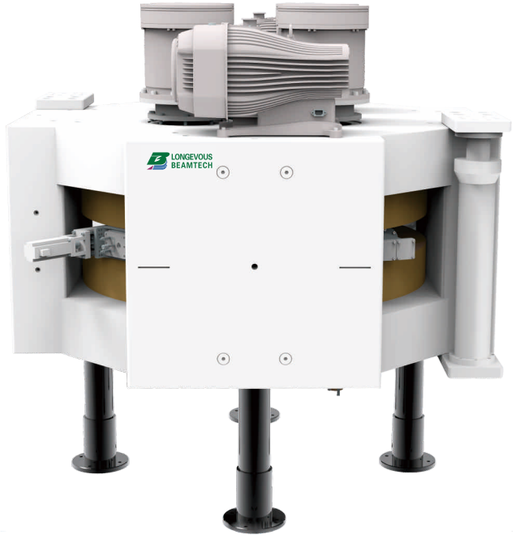
SERVICE COVERED
All over China, Southeast Asia, Northeast Asia and Africa

EXPLORING
North America, South America, Europe and Oceania

Product Profile

A cyclotron is a device that uses a combination of magnetic and electric fields to cause charged particles to move in a spiral path, repeatedly accelerating them with a high-frequency electric field. Medium and low energy cyclotrons are applied in the medical field to produce positron-emitting radioactive nuclides. These cyclotrons generate a variety of radioactive nuclides that not only meet the needs of clinical PET/CT scans but also support the use of clinical positron drugs and new drug development in the era of molecular imaging and precision therapy.

LB-7SE
7MeV
Dimensions: 1.76m*1.6m*1.4m



LB-11MTS
11MeV
Dimensions: 1.71m*1.71m*1.87m

LB-20
20MeV
Dimensions: 2.0m*1.9m*1.89m

30/100MeV Coming soon
Medical Cyclotron

Cyclotron

LB-7SE

Technical parameters	
Beam Energy	7MeV
Beam Current	80 μA
Isotopes	^{18}F, ^{11}C

Product Highlights

Fully Automated Integration

Equipped with intelligent auxiliary software for one-click drug production
Reduces the hospital staffing requirements for radiopharmaceutical specialists

Compact and Convenient for Configuration

Small footprint with flexible configuration options

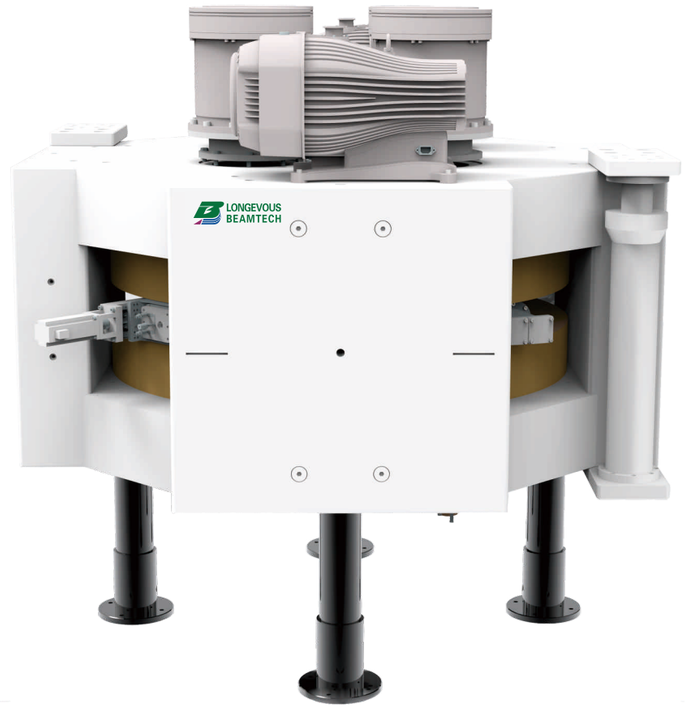
High Economic Efficiency

Low investment and high output throughout the entire lifecycle
Reducing upfront expenditures for hospitals

Cyclotron

LB-11MTS

Technical parameters	
Beam Energy	11MeV
Beam Current	100μA
Isotopes	^{18}F, ^{11}C, ^{13}N, ^{68}Ga, ^{89}Zr, ^{64}Cu



Product Highlights

Comprehensive Performance

Meets both clinical and research needs, addressing the issue of radiopharmaceutical supply in hospitals

High Cost-Effectiveness

Single operation can meet the examination needs of 40-60 patients

Smart Control

Equipped with intelligent auxiliary software, reducing staffing requirements and facilitating quick equipment deployment

Cyclotron

LB-20

Technical parameters	
Beam Energy	20MeV(max) Customizable Between 14 and 20 MeV
Beam Current	100、180μA
Isotopes	^{18}F, ^{11}C, ^{13}N, ^{68}Ga, ^{89}Zr, ^{64}Cu, ^{99m}Tc, ^{111}In, ^{124}I, ^{44}Sc

Product Highlights

Fully Automated, Integrated

Multiple target positions for the production of various nuclides

Compact and Convenient for Configuration

High yield to meet the needs of radiopharmaceutical preparation and distribution

High Economic Efficiency

Adjustable energy levels of 14 and 20 MeV, with custom energy levels customizable between 14 and 20 MeV

Provides optimal production energy for various isotopes

Comprehensive solutions for target material preparation, isotope separation, and purification processes, meeting research needs

Cyclotron

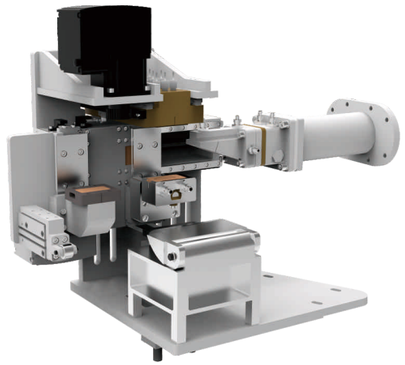
30/100MeV

Coming soon

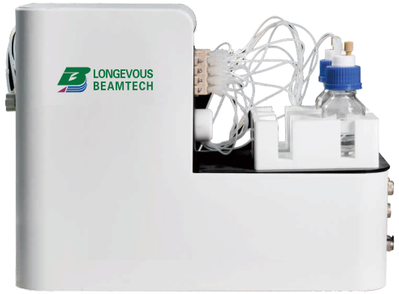
IsotopeX Lab

Solid Target Nuclide Purification Device

This product features an automated design, built-in peristaltic pump, pinch valve, and flexible cartridge for easy use. It is highly integrated, intelligent, easy to understand, simple to operate, and with a high uptime.



IsotopeX Lab JG- I Solid Target System



IsotopeX Lab JG-I Solid Target Radionuclide Dissolution and Transfer Device

The IsotopeX Lab JG-I solid target system is equipped with a radionuclide dissolution and transfer device, enabling the dissolu-tion of radionuclides within the shield and transferring the radionuclide solution to a hot cell for purification and pharma-ceutical synthesis.

The IsotopeX Lab JG-I solid target system is highly integrated and compactly designed, allowing for upgrades within the shield without spatial limitations.

Preloading of up to five solid target plates at a time. Different target plates (including those for producing ^{64}Cu, ^{68}Ga, ^{89}Zr, ^{99m}TC, etc.) can be freely combined. Target plates can be automatically replaced during operation, reducing radiation exposure to operators.

IsotopeX Lab JG-II Solid Target System

IsotopeX Lab JG-II Solid Target Radionuclide Dissolution and Transfer Device

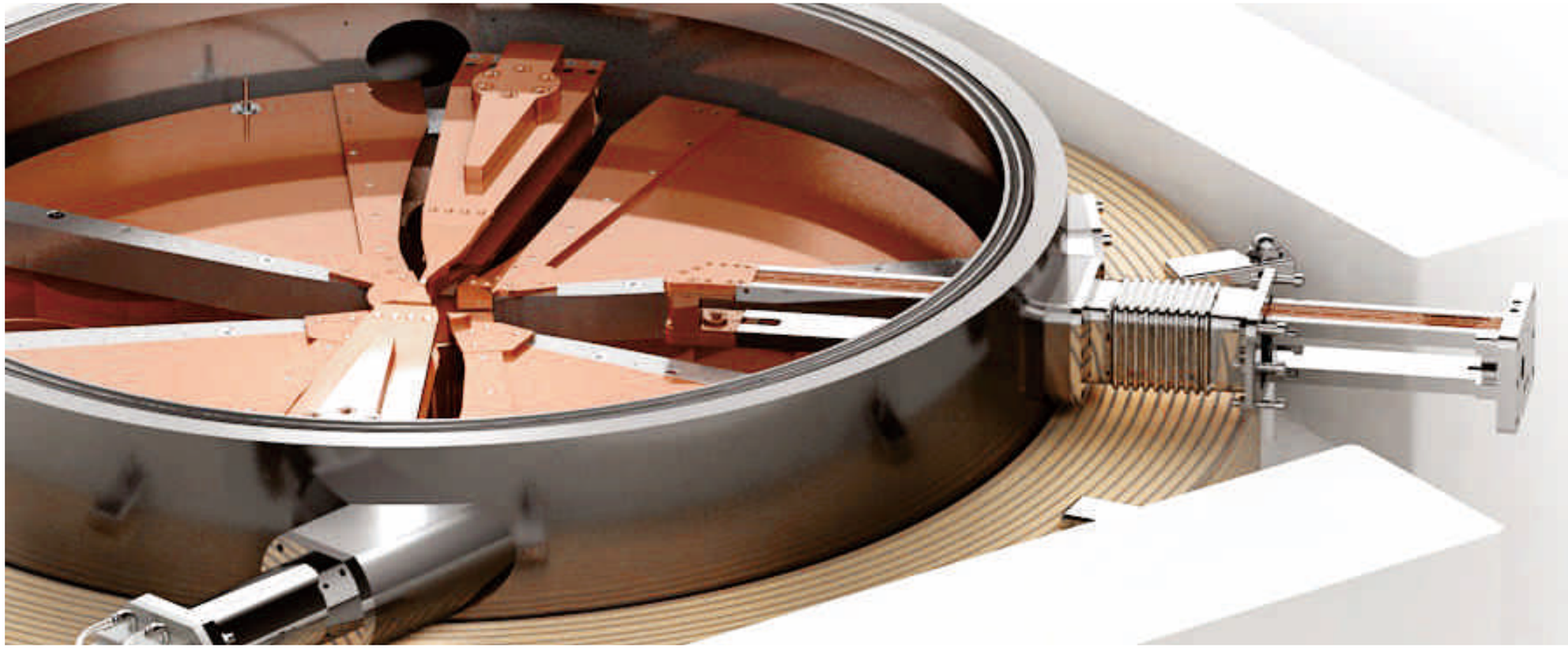
The IsotopeX Lab JG-II solid target system is equipped with a new rabbit, which is a bidirectional fully automatic transfer system and a radionuclide dissolution and transfer device, enabling the transfer of the target shuttle containing radionuclide to a hot cell for dissolution, purification, and pharmaceutical synthesis.

Fully automatic operation effectively reduces radiation exposure to operators.

The IsotopeX Lab JG-II solid target system is a reasonably compact design, allowing for upgrades within the shield without spatial limitations.

The bidirectional fully automatic transfer system (rabbit) uses special pipeline and process routes to ensure the stability and reliability of the transfer process.

SYSTEM COMPONENTS



Magnet system

Consists of a coil, a ferromagnet, and a power supply system to provide an isochronous magnetic field for particle rotation

RF system

Consists of three subsystems: resonator, power generator, and feed-through cable, which provides the electric field for particle acceleration

Ion source system

Including ion source, ion source power supply and gas management system, which is one of the key systems of the cyclotron, generating charged particles and providing ion beams for the gas pedal

Target system

Including target carrier, target, and control system, which is the device to accomplish specific nuclear reaction

Control system

Comprises cyclotron control unit, vacuum control unit and interface control unit

Vacuum system

Consists of vacuum chamber, vacuum pump, high vacuum valve and high and low vacuum gauges etc. to produce a vacuum environment for particle movement

Water-cooling system

Takes away the waste heat generated by the whole system

Beam extraction system

Changes the orbit of accelerated particles leading them to the target

Diagnostic system

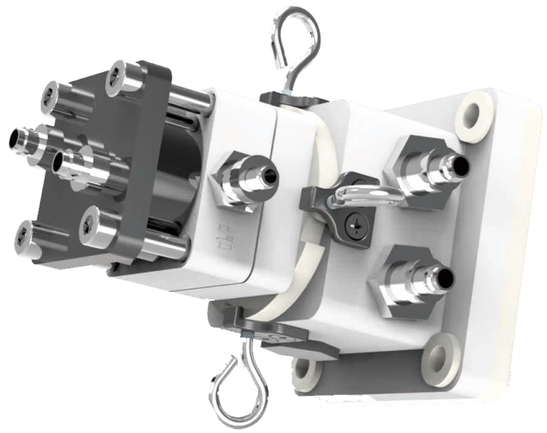
Can monitor and analyze the beam current at several positions on the beam track and issue commands to adjust and optimize the beam current

TECHNICAL ADVANTAGES

PLUGGABLE - LONG-LIFE ION SOURCE

BOOST UPTIME, REDUCE MAINTENANCE

Compact	Built-in, with a height of only 5 cm
Pluggable	Replacement time is only 3.5 hours
Single Ion Source Lifespan	18000uAh
Beam Current	0-200μA



LIQUID TARGET

HIGH YIELD, HIGH STABILITY, HIGH HEAT TRANSFER EFFICIENCY

Reliability	Stable operation under pressures exceeding 25 times atmospheric pressure
Heat Dissipation Design	>500W, ensuring stable operation of the target system
Modular Design	Consists of 3 small modules (gas, control, cooling), placed separately
Double-layer Fastening Structure	Easier disassembly and assembly, higher reliability, quick low-dose maintenance

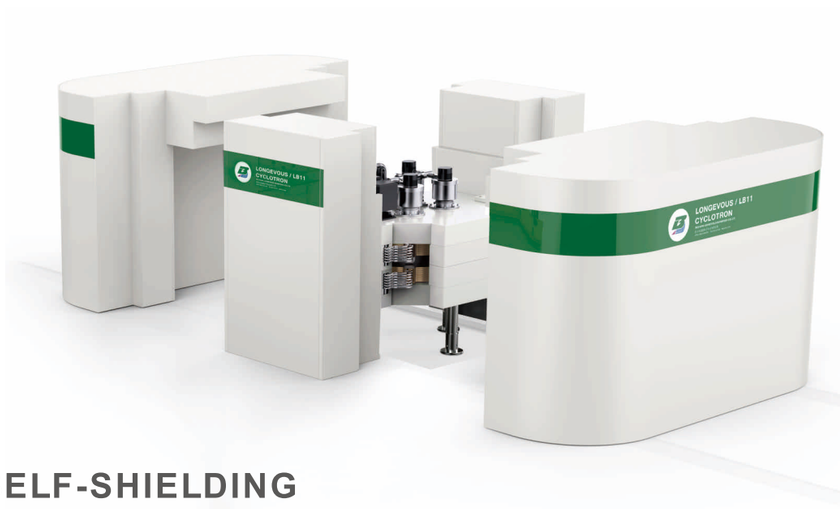
RF System Composed of Solid-State RF Sources

HIGH STABILITY, PROACTIVE MEASURES

RF Frequency: 72.5 MHz

Number of Amplifier Modules: 18 (a minimum of 15 required to ensure operation)

High Stability Startup Rate: ≥ 99%



SELF-SHIELDING

SAFE AND RELIABLE

External Dose Equivalent Rate: ≤ 10 μSv/h

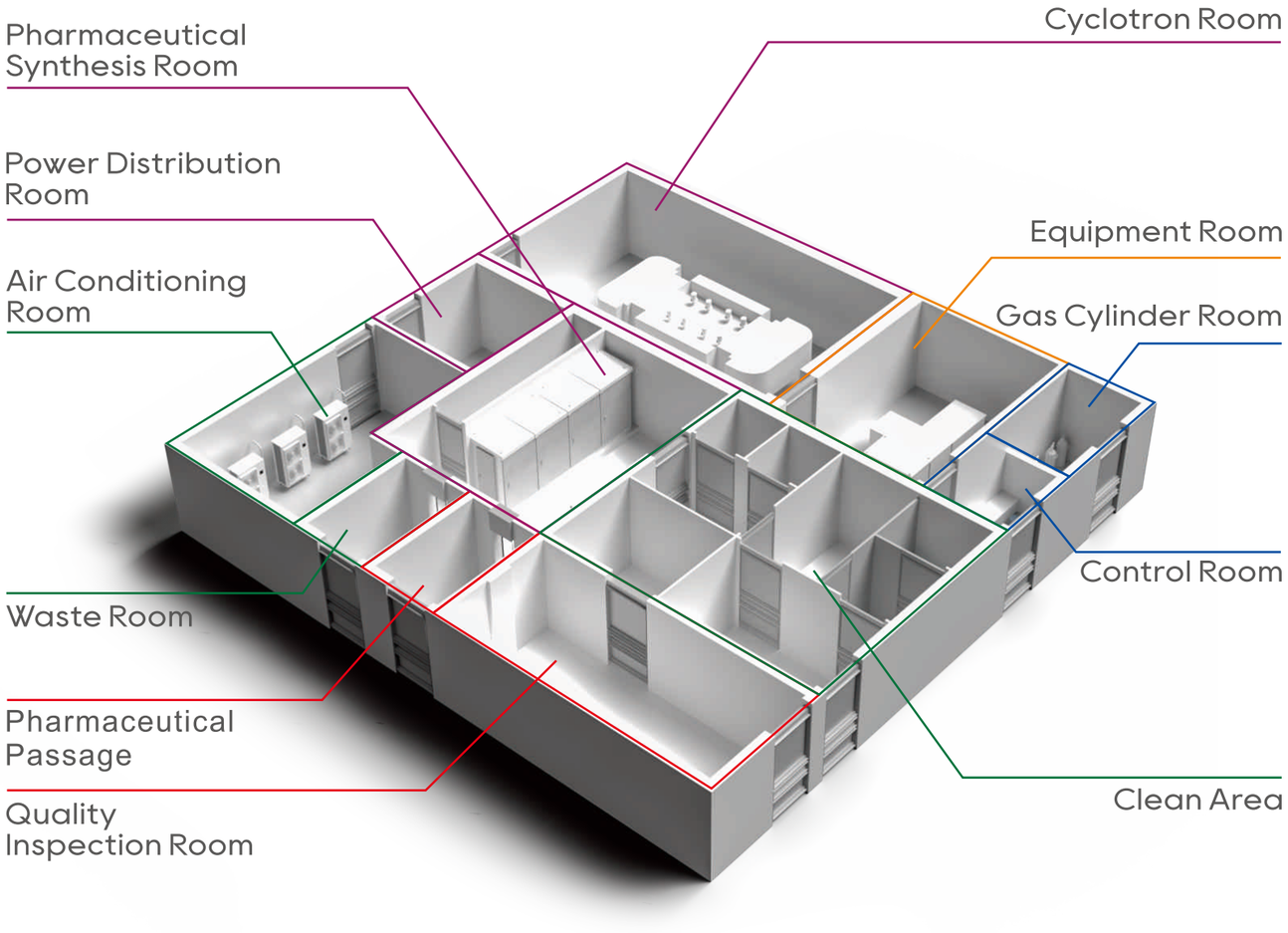
Customizable Design Based on User Environment Conditions

TURNKEY SOLUTION

Professional and overall process service

Our project teams are dedicated to providing full-scenario, overall-process companion services, from pre-design evaluation, construction, installation, commissioning and maintenance, to help our users to realize the perfect landing of the project from 0 to 1.

With years of professional project implementation experience, we efficiently integrate and coordinate resources from architectural design institutes, construction contractors, environmental impact assessment, safety assessment, occupational assessment companies, as well as GMP design and execution companies. This includes aligning and configuring radiation protection equipment, quality control equipment, environmental monitoring equipment, HVAC and waste treatment equipment, air conditioning, and radioactive processing equipment, to ensure the rapid establishment and efficient operation of projects.



TYPICAL LAYOUT

Evaluation & Design

- Pre-project communication
- Site survey, occupational evaluation, environmental impact assessment, safety assessment
- Provide equipment and configuration plan
- GMP design
- Feasibility study and budget estimation

Construction & Implementation

- Civil works
- Equipment installation
- GMP construction and certification
- Radiation protection construction
- Commissioning

Production & Operation

- Standardized personnel training
- Free technical consultation

Maintenance

- Equipment maintenance & software upgrades
- Quick response
- Fully entrusted management
- Decommissioning

Radiopharmaceutical Center Sichuan Science City Hospital

Regional hospital featuring nuclear medicine diagnosis and treatment

With a construction area of 600 square meters the Nuclear Medicine Center of Science City Hospital consists of a cyclotron room equipped with LB-11 , a cyclotron control room, a pharmaceutical room and a quality inspection room. The LBT expert team provides a full set of solutions for the project, including feasibility study and design, construction, installation and commissioning, equipment integration, acceptance and operation.

Pu'er People's Hospital

West China Hospital, Sichuan University Yibin Branch

REFERENCE

Department of Nuclear Medicine Mianyang Central Hospital

Northwest Medical Center, Sichuan Province

Department of Nuclear Medicine of Mianyang Central Hospital occupies an area of more than 800 square meters , equipped with more than 30 kinds of equipment, such as LB-11 cyclotron, synthesis hot lab, synthesis module, etc., which are used for the preparation of various positronic nuclide drugs, and the early detection of major diseases, such as tumors, cardiovascular and cerebrovascular diseases. The LBT team solved the problem of site modification, realized the equipment shipment within 60 days, and completed the delivery of all equipment within 6 months.

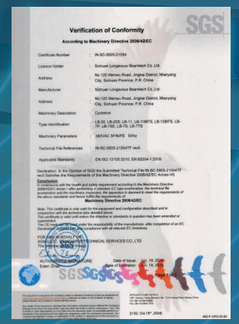
Meizhou People's Hospital

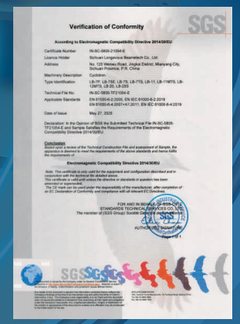
Zhuhai People's Hospital

Part of our users

QUALIFICATIONS AND HONORS

LONGEVOUS has a group of highly competent professional R&D team focusing on the field of nuclear medical equipment. As the first medical cyclotron research, development and production enterprise in China, LBT has been widely recognized by experts and scholars in the industry as well as strongly supported by national policies. Being evaluated as a national high-tech enterprise, LBT has owned a number of core intellectual property rights in the field of cyclotron, passed ISO9001, ISO14001, ISO18001 certification, and established a systematic and comprehensive standardized management system.





Major honor

- CE
- ISO13485
- Specialized and Innovative "Little Giant" Enterprise
- Sichuan Province New Economy Model Enterprise
- Excellent Technology Innovation Enterprise
- Sichuan Province Science and Technology Progress Award
- Annual Outstanding Intellectual Property Unit
- Mianyang Enterprise Technology Center

over **60**
Pharmaceutical Formulation Patents

over **15**
Years Of R&D Experience

over **100000**
Patients Served

over **95%**
Uptime