



For Health Be Credible

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SHINVA 新华医疗

Medical Radiotherapy Equipment

Shinva Medical Instrument Co., Ltd.



Stock code : 600587

For more information please visit:
www.shinva.com

Medical Radiotherapy Equipment

Introduction

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Intelligent Expertise Reliable

SHINVA

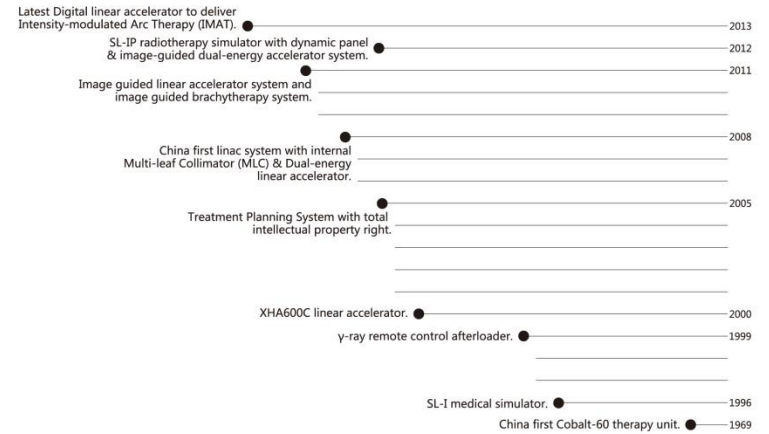
Introduction



Founded in 1943, Shinva Medical is the largest Chinese comprehensive company in research and development, manufacture, sales and service of medical instrument. As the chairman unit of China Association for Medical Devices Industry (CAMDI), Shinva provides the following medical products: radiotherapy equipment, sterilizer, digital diagnosis equipment, surgical instrument, disposable syringe, environmental protection equipment for medical use, sterilization testing products, pharmaceutical machinery, etc. Shinva has established strict quality management system with ISO9001 and ISO13485 certified. Meanwhile, Shinva offers customers with entire range of radiotherapy products and solutions from a single source, from medical electron linear accelerator, simulators, Cobalt 60 therapy unit, afterloader, to treatment planning system. Today, Shinva solutions in treating cancer are used in nearly 2000 hospitals globally.



Milestones in Shinva Radiotherapy Development History



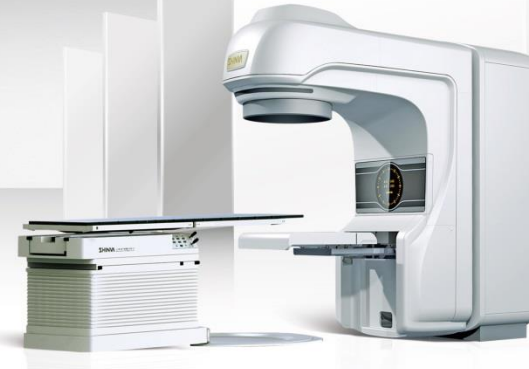
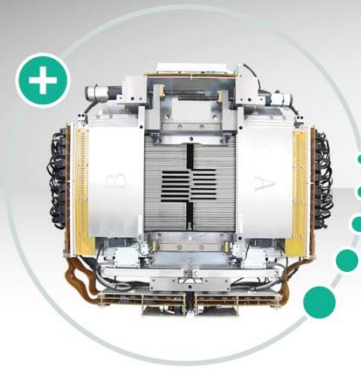
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Products

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XHA600 Series Radiation Therapy Solution

SHINVA



SHINVA XHA600 series linear accelerator is ISO9001, ISO13485 and CE certified. The solution consists of XHA600 series accelerator, 3D TPS and dynamic MLC, enabling users to deliver 3D-Conformal, IMRT and IMAT in a more convenient way .

Features

- Provides X-ray with 6MV energy.
- Dose rate up to 400-600cGy/min with high stability and reliability.
- MLC80/120 (optional) .
- Carbon fiber couch top without metal frame to achieve low reflection & scattering radiation and reduce radiation attenuation.
- With optional configuration, it is able to deliver stereotactic radiotherapy(SRT), 3D-CRT, IMRT and IMAT treatment techniques.



MLC

Item	MLC80 Parameters	MLC120 Parameters
Number of Leaves	40 × 2	30 × 2+20 × 2+10 × 2
Leaf width at isocenter (mm)	10	5, 7.5, 10
Leaf positioning accuracy at isocenter (mm)	± 0.7	± 0.5
Maximum open field size (mm)	400 × 400	400 × 400
Maximum irradiation field size (mm)	400 × 360	400 × 360
Over - center travel distance of leaves (mm)	180	180
Maximum leaf speed (mm/s)	30	30

EPID Parameters

Item	Parameters
Effective area	41cm × 41cm
Resolution	1024 × 1024 pixels
Image gray scale resolution	16 bit
Image acquisition frequency	1-4 frames/s

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XHA1400
Linear Accelerator

SHINVA

FonicsPlan Treatment Planning System

XHA1400 dual-energy accelerator possesses two selectable photon energies of 6 and 10 MV and four electron energies of 6, 8, 10, 12 MeV, it is able to deliver treatment to both superficial and deep tumors. XHA1400 accelerator is able to deliver 3D-CRT, IMRT upon users demand.

Features

- Accurate, stable and fast beam production.
- High efficiency, long life-span dual-energy standing wave accelerating tube.
- Fast and perfect conformation of dynamic MLC.
- Precise Treatment Couch adopts the international patented pneumatic brake technology ensure high precision ($\leq 1\text{mm}$).
- Carbon fiber couch top without metal frame to achieve low reflection & scattering radiation and reduce radiation attenuation.
- Dual channel data acquisition and display system provides safe control.
- Equipped with inverse planning technique.



MLC



Flat Panel Detector

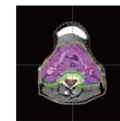


TPS

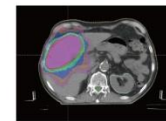
Treatment planning system is the key to modern precise radiotherapy system. FonicsPlan is a comprehensive treatment planning system with total intellectual property right for all kinds of treatments, including 3D-CRT, IMRT.

Features

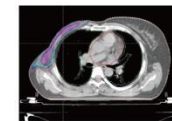
- Core technology with total intellectual property right makes it easy to upgrade and maintain.
- Multiple unique algorithm modules to achieve rapid and accurate dose and position calculation.
- User-friendly Windows based system.
- FonicsPlan is able to design conventional treatment, conformal treatment, X knife and inverse IMRT plans.
- FonicsPlan is able to import and process images of Computerized Tomography (CT), Magnetic Resonance Images (MRI) from DICOM 3.0 interface.



Laryngocarcinoma



Liver Cancer



Lung Cancer

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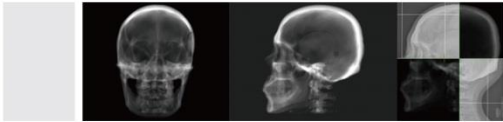
Products

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- ▶ SL-IP simulator integrates treatment plan design, verification and simulation as a whole, to meet the modern IMRT need. Equipped with large-field amorphous silicon flat panel to provide digital and high resolution Digital Radiography (DR) images, and perform precise simulation and treatment verification.

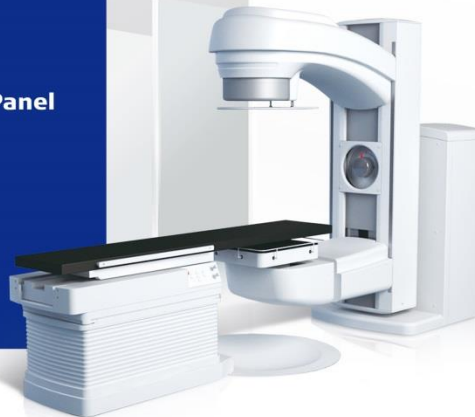
Features

- Integrated user-friendly control interface.
- 43cm×43cm/26cm×30cm flat panel detector provides the largest view among fellow products.
- Offers high resolution images and large dynamic range.
- Possesses functions such as pulsed fluoroscopy, digital radiography and continuous acquisition of digital images.
- SL-IP simulator is able to perform MLC plan design, image registration, dose calculation and plans verification (e.g. MLC position verification).
- Treatment plans and images can be bi-directional transmitted and DICOM film print is supported.



SL-IP Simulator with Dynamic Panel

SHINVA



SL-IE Simulator

- ▶ Radiotherapy simulator is essential equipment for patient examination, treatment plan design & confirmation pre-treatment. It uses X-ray to determine target volume, radiation field and tumor sites. SL-IE is a fully digital radiotherapy simulator and suitable for modern radiation therapy.

Features

- High isocentric accuracy.
- Provides high resolution images and enhanced fluoroscopy function.
- Asymmetric field simulation technology meets a broad range of patient positioning needs.
- Dual channel data acquisition and display system offer better safety.
- Software integrates image processing system and simulator control system into one.
- Standard DICOM 3.0 interface achieves simultaneous transmission of positioning images and data.
- Integrated structure ensures high accuracy of gantry and couch positioning alignment.



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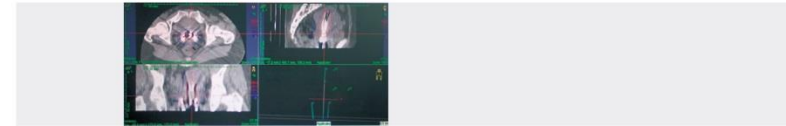
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3-dimensional Brachytherapy System

- ▶ Integrate simulation, image transmission, treatment planning and brachytherapy into one. Enable continues workflow of applicator implantation, positioning, data processing, treatment planning and delivery. Therefore to protect the patient, shorten the treatment time, maximize the treatment accuracy and thus ensure the treatment quality.

Features

- Applicator material suitable for CT scan.
- Seamless transition of patients between CT, brachytherapy, linear accelerator and other radiotherapy equipment.
- Standard DICOM 3.0 interface to facilitate treatment plan export/import.
- 3D reconstruction of patients' images.
- Plan evaluation (Dose volume histogram, isodose line, etc.).



- ▶ Image guided brachytherapy system integrates Afterloader, isocentric image system and treatment couch into one to achieve successive workflow of applicator implantation, positioning, treatment planning and treatment.

Features

- Unique "T" shape composition and therefore enabling single patient positioning for planning and treatment.
- Isocentric C-arm ensures accuracy of treatment images.
- Remote and in-room control to facilitate handiness.
- Laser positioning system to maximize positioning accuracy.
- Jigsaw function to acquire large image.



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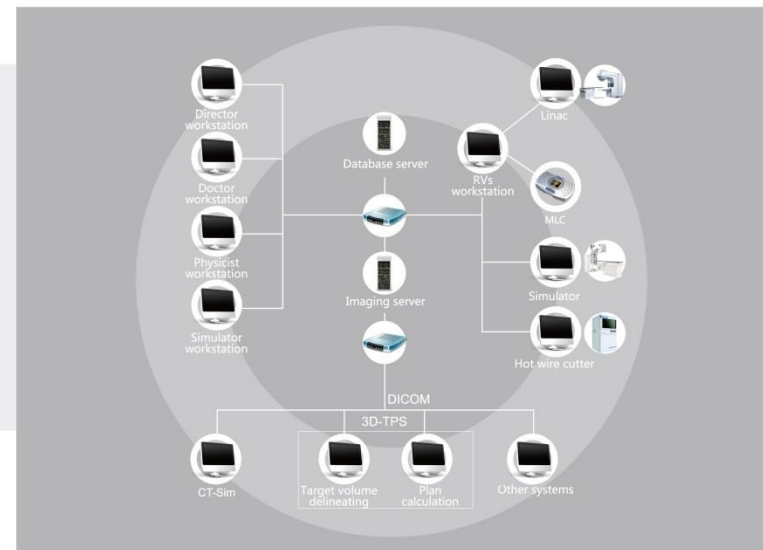
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Shinva Medical has over 40 years' history of manufacturing radiotherapy equipment with excellent performance and reliable quality. Designed according to the isocentric principle, FCC-8000F Cobalt 60 therapy unit can meet a broad range of radiotherapy delivery requirements such as conventional, stereotactic and 3D-conformal radiotherapy.

Features

- Maximum source activity: 8000 curies.
- Provides asymmetric field irradiation functions.
- Collimators with special structure offer high flatness and small penumbra.
- Friction driving ensures stable rotation and high isocentric accuracy.
- Patented compulsory source evacuation device to offer high reliability.
- CE-marked product and exported to several countries.



Radiotherapy Networking Information System

With the help of computer and internet technology, this system integrates diagnostic device with treatment equipment in radiotherapy department, managing the complete processes of patient registration, set-up and treatment delivery. The fully computerized administration achieves integrated information management and procedure control. Ensure high treatment quality and working efficiency.

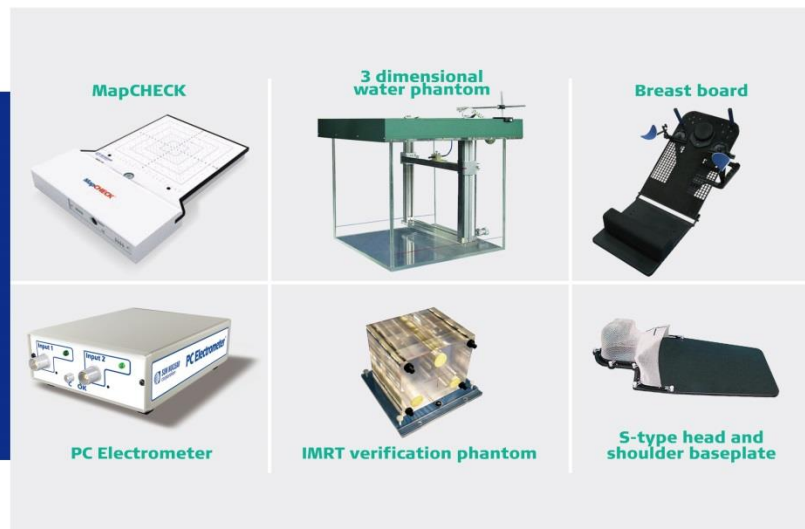
Features

- Management and inquiry of patients' information.
- Acquisition, management and application of patient images.
- Acquisition and application of radiotherapy data.
- Treatment delivery, record and verification.

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▶ This system applies to the simulation department or planning department, to provide contouring tools for regular,irregular fields, MU calculation tool, and an integral solutions for the complete treatment delivery process.

Features

- To edit and process simulator positioning images, and then design radiation field.
- To auto-calculate Linac Monitor Units or Cobalt-60 radiation time.
- To support and store patient registration and positioning information.
- To provide large images by image stitching function.
- To import radiotherapy treatment plan.

Radiotherapy Accessories

▶ Shinva Medical provide a variety of radiotherapy accessories, including set-up & positioning products, blocks, verification & marking products,to meet clinical needs of radiotherapy.