

RUIDI

四川瑞迪医疗科技有限公司

Sichuan Ruidi Medical Science and Technology Co.,Ltd

科 技 进 步 服 务 患 者

Brief introduction of company

There is a Chinese saying “Good steed needs better saddle”

You have purchased the most advanced radiotherapy equipment for your center, but haven't you set up a proper procedure for patient immobilization and positioning due to the lack of proper accessories and devices? Are you suffering for the low patient throughput of the new equipment now?

We can offer you customized solution for your new applications with devices and accessories suit your unique requirement!

Our vision is “improve quality of life through innovation and technology development”

Our mission is to study in every detail of radiotherapy procedures, develop faster, more accurate and safer patient immobilization and positioning solutions.

Are you planning to establish a new Radiotherapy center now?

Are you feeling exhausted in selecting through so many options of LINAC, Simulator, TPS, and network products? And the cosmetic number of accessories makes your worst nightmare?

The expenses are blowing your initial budget, but still suffering of missing or lacking of this and that accessories and devices. Are you feeling sick of all these mass for setting up a new radiotherapy center now?

You can avoid that nightmare with the help of our medical physicist team to help you develop a total solution of accessories based on the clinical applications you are planning to carry out in your new radiotherapy center. You can even share our decades of clinical frontline experience of medical physics expertise by purchasing our consultant service in the package to enjoy a free of trouble and hassle trail period.

The consultant service includes commissioning of the LINAC and TPS acceptance test.

To make radiotherapy faster, more accurate, and safer your pursuing is our mission!



Positioning and Immobilization



Thermoplastic



Mold Room



QA/QC

There has never been such powerful equipment for body immobilization. It is as versatile as "Transformers". It is

Head & Body Integrated Immobilization Board RD/DB-JCT

It is named as "Transformers" !



"Transformers" = Head Immobilization Board + Head& Neck & Shoulder Immobilization Board + Body Immobilization Board + Abdominal & Pelvic Prone Therapeutic Board + Breast Prone Therapeutic Board + Craniospinal Treatment Board + SBRT Immobilization Board

"Transformers" = Work efficiency promotes + labor intensity drops

"Transformers" = Equipment investment reduces + management benefit increases

"Transformers" = Equipment management simplified + accident probability drops

"Transformers" = Open platform + more hope

"Transformers" --Once you have it, never need others!



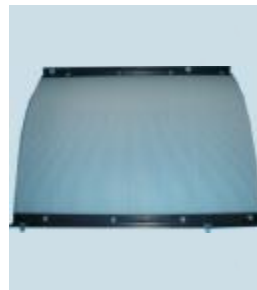
Type-U Head
Thermoplastic



Type-S Head
Thermoplastic



Type-S Head & Shoulder
& Neck thermoplastic



Quadrate Body
thermoplastic



Cushion



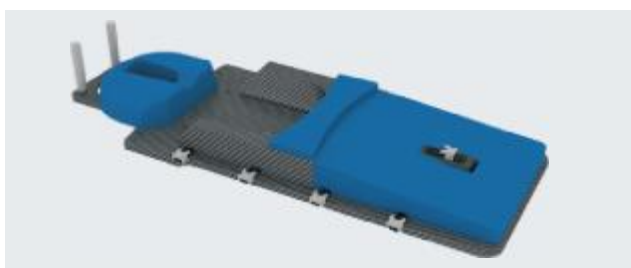
Type-U and Type-S head thermoplastic immobilization



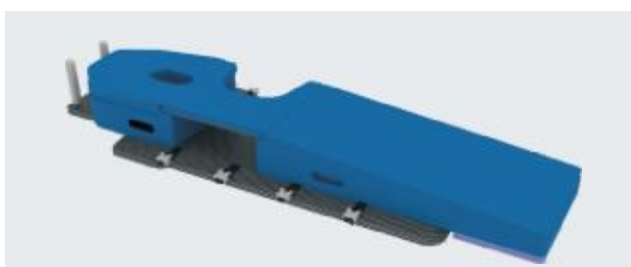
Type-S head & neck & shoulder thermoplastic immobilization: Using narrow Type-S head & neck & shoulder thermoplastic and child Type-S head & neck & shoulder thermoplastic designed especially for Asians physique.



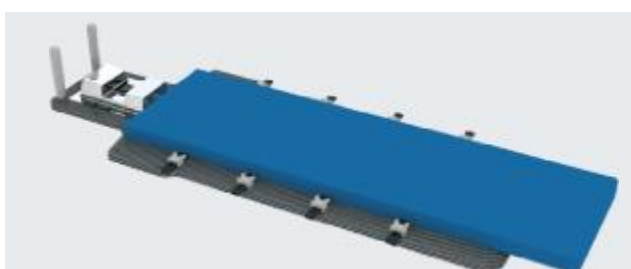
Quadrate body thermoplastic immobilization: Divide the process into two steps. The first step is to immobilize thoracic part, upper abdominal part. And the other is to immobilize lower abdominal part and pelvic part.



Accessories, abdominal & pelvis base & leg pad or a prone headrest, may achieve abdomen prone immobilization.



Accessories, body base & carbon-fiber breast bridge & head base, may achieve breast prone immobilization



Accessories, total body flat pad & prone headrest, may achieve craniospinal prone immobilization.

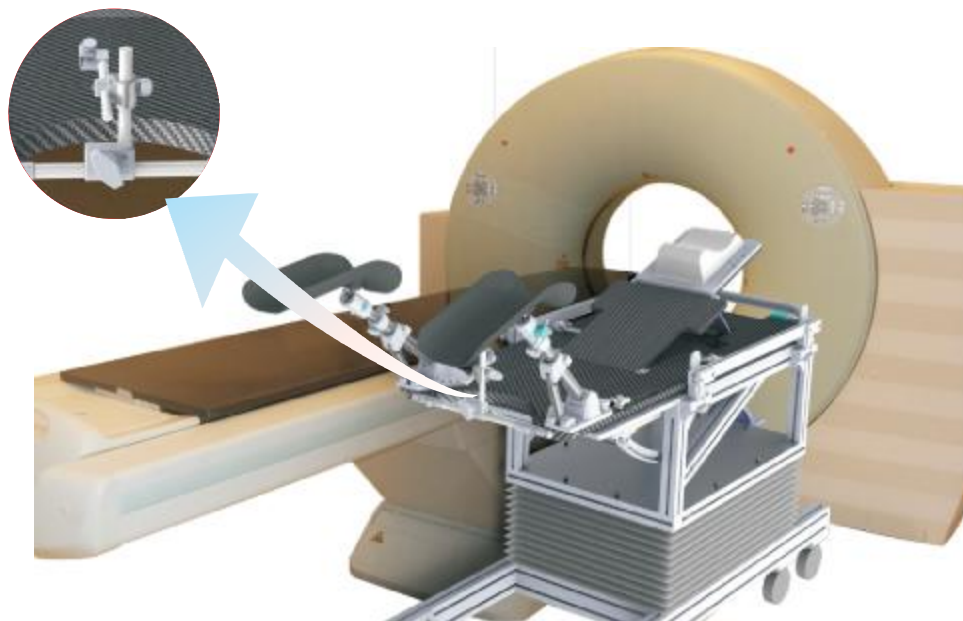
Carbon Fiber Positioning Board RD/DB



Used for the total body immobilization, positioning and repeated setting up in 3D-CRT, IMRT and IGRT radiotherapy and it could be customized according to the user's TPS requirement on positioning markers.

- 1.Positioning base completely made of carbon fiber materials;
- 2.Positioning system meeting the positioning requirement of different TPSs;
- 3.3D SBRT function in both head and body part;
- 4.Body immobilization with either vacuum cushion or thermoplastic;
- 5.Inspection of body align precision with either laser light or marking ruler;
- 6.CT scanning positioning without artifact.

Positioning and Transfer System of Image Guided Brachytherapy IMRT RD/DB-HZ Revolutionary breakthrough in after-loading therapy technology!



The system is composed of carbon fiber treatment board, transfer trolley, adapter, quality control system etc.

1. Purpose

- 1). To realize image guided 2D and 3D precise after-loading internal irradiation.
- 2). To realize 3D-CRT and IMRT external radiotherapy in the same body immobilization and perfect dose optimization fusions between internal and external irradiation.

2. Features of Ruidi Positioning and Transfer System of Image Guided Brachytherapy IMRT

- 1). With the reliable immobilization of patient and applicator, to ensure the consistency of the relative position between patient position and applicator during the whole process of CT/MRI scanning and internal and external synchronous radiotherapy.
- 2). All immobilization equipment adjustable in multi-angles and multi-azimuths.
- 3). The after-loading treatment board capable of being transferred between different equipments by the transfer trolley conveniently.
- 4). The overhanging part of the couchttop in the transfer trolley with complete carbon fiber structure to facilitate Type-C arm positioning.
- 5). Perfect and strict quality assurance system.





Carbon Fiber CT Flat
Couch Board

RD/DB-CT1

2180x479x33mm, Adaptive selection of CT curved bed, a variety of positioners, a built-in N-type mark line, Adaptive selection of all types of gamma-knife treatment machines (customizable), Bottom connected with CT by L-shaped hook block.



Head Positioning Board

RD/-T-1

Claw fixer for head immobilization treatment, Selection of carbon fiber material or acrylic material.



Carbon Fiber Head
Anti-tilting Positioning
Board

RD/-T-1F

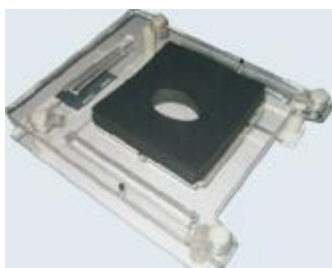
Carbon fiber material, Claw fixer, For head immobilization in treatment, Selection of head negative pressure cushion.



Carbon Fiber Head
Tilting Positioning
Board

RD/-T-1Z

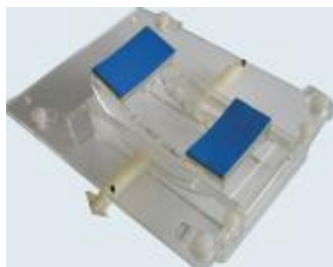
Claw fixer, Adjustable inclination 0° - 45° , For head immobilization in treatment, Selection of carbon fiber material or acrylic material.



Acrylic Head Side-lying
Positioning Board

RD/-T-2C

Acrylic material, Claw fixer, For head immobilization in treatment



Acrylic Head Prone
Positioning Board

RD/-T-2F

Acrylic material, Claw fixer, For head prone immobilization in treatment



Carbon Fiber Neck &
Shoulder Positioning
Board

RD/-J-4A

Carbon fiber material, Capable of being integrated with six kinds of head thermoplastic such as Type-U, Type-T, Type-S head thermoplastic conveniently and usefully. Specifications: 530 X 606 X 15 (mm).



IMRT Head & Neck &
Shoulder Positioning
Board

RD/-J-3A

For head & neck & shoulder immobilization in treatment, The convex structure of head & neck capable of overhanging outside the couch end of the treatment machine to facilitate field assignment especially for IMRT treatment. Specification: 1050 X 606 X 18 (mm), Selection of Type-S head & neck & shoulder or Type-U thermoplastic.



Carbon Fiber Abdominal
Positioning Board (Chock)

RD/-F-5

Carbon fiber material, 230mm long edge thermoplastic, chock thermoplastic immobilization, for body and abdominal immobilization in treatment, specifications: 670 X 500 X 15 (mm).



Carbon Fiber Abdomen
Positioning Board (Claw)

RD/-F-6A

Carbon fiber material, Quadrate body thermoplastic, Claw thermoplastic immobilization, for body and abdominal immobilization, Size: 788 X 603 X 15 (mm).



Carbon Fiber Abdomen
Prone Positioning Board

RD/DB-F

Carbon fiber material, For abdomen and pelvic prone positioning and setting up; Capable of being immobilized with a square body thermoplastic; Thermoplastic installation position is adjustable in three classes (A,B,C); Indexing for positioning on both left and right sides



Advanced Abdominal
Prone Positioning
Board

RD/DB-FS

Resin material, For abdomen and pelvic prone positioning and setting up; Capable of being immobilized with a square body thermoplastic; Thermoplastic installation position is adjustable in three classes (A,B,C); Indexing for positioning on both left and right sides.



Carbon Fiber Breast
Board

RD/TJ-1

Carbon fiber material, Mesh design at treatment part, Double support adjustable inclination angles from 0° to 25°, Adjustable hip spacing, 430mm wide and compact design making it capable of going into an ordinary CT scanning cave for precise positioning, for the breast immobilization in treatment, Selection of carbon fiber material, acrylic material and semi-carbon fiber.



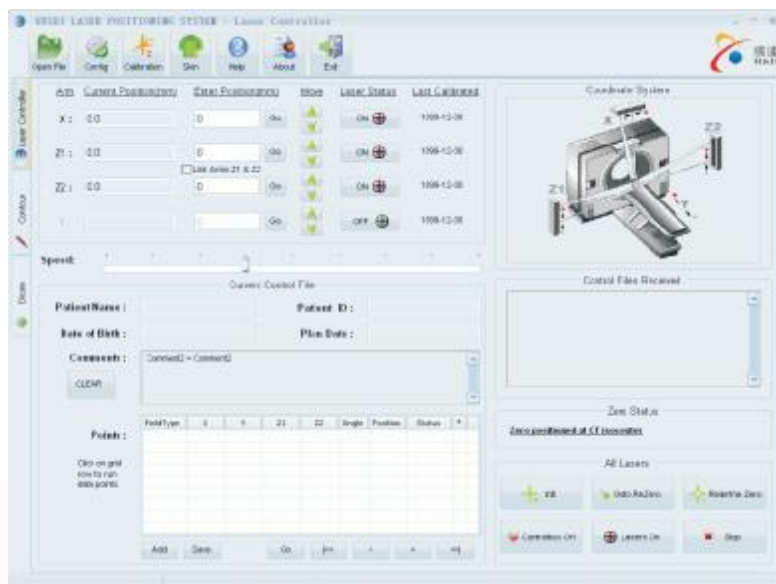
Cushion

RD/F-TD

For body immobilization applied with position couch board

RD Laser Positioning System (Moving Laser) RD/DJG4

RD Laser Positioning System (Moving Laser) is a device for patient accurate positioning in precise radiotherapy. It adopts digital control and consists of movement laser tracks and a control computer, with characteristics such as accurate positioning and easy operation.



Moving Laser control software

Features:

- Friendly interface, easy operation and use;
- Connected with all kinds of treatment planning systems (TPSs) with DICOM 3.0/RT;
- Ensures accurate laser positioning with exactitude linear guide rails and linear coding closed-loop feedback control;
- Selection of computer WIFI control or manual control box control facilitates direct control laser beams in CT room;
- Capable of being installed in the CT room or analog positioning machine room with diversity installation methods to protect interior decoration as much as possible;
- Combination: an axis, three-axis, five-axis methods.

Specification:

- Positioning accuracy: $\pm 0.2\text{mm}$
- Laser beam moving range: $-300\text{mm} \sim 300\text{mm}$
- Color: red
- Laser Class: II
- Line width: $<1\text{mm}$ (3-5m wide)



WIFI control box



Manual control box



RD Laser Positioning System (Fixed Laser) RD/DJG3

RD Laser Positioning System (Fixed Laser) can project a bright, clear laser beams for iso-center indication of accelerator / cobalt machine / simulator / CT.

- ◆ Advanced and convenient adjustment system, capable of adjusting finely laser beams at arbitrary freedom degrees dependently.
- ◆ The semiconductor laser source, with laser features such as high brightness, small width, no bending, no imaginary light, and stable without drift and so on.
- ◆ Each suit with two "cross" lights and a "linear" light.

Technical parameters:

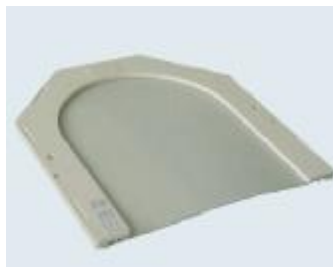
Line width: < 1mm (3-5m)

ISO-center adjustment precision: <0.5mm

Color: red

Laser Class: II

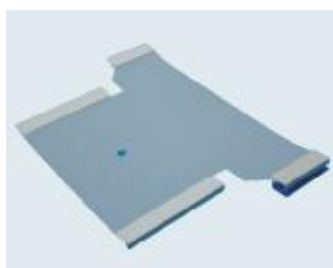




Type-U Head
Thermoplastic

RD/H-MM I -1

Thickness 2.4mm, U-shape frame interface, fastened by a platen. Adaptive selection of R&D, stationary baseplate, With options of different length and non-uniform mesh modalities.



Type-T Shoulder & Neck
thermoplastic

RD/H-JM I -1

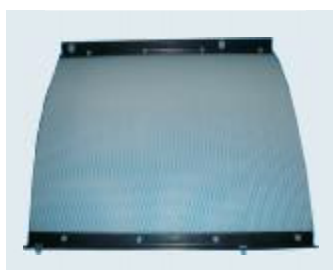
Thickness 2.4mm, 22% mesh, for neck and shoulder immobilization, plug-up fixation, Adaptive Selection of such fixation base-plate as R&D.



Type-S Head & Shoulder
& Neck thermoplastic

RD/H-JM II - 3

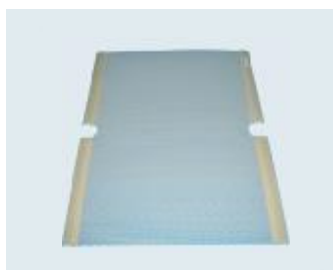
Thickness 2.4mm, With frame and forelock, Non-uniform mesh For Head & Shoulder & Neck immobilization, Type-S frame interface. With swell pin fixation. Adaptive selection of such fixation baseplate as R&D, with thick options such as 2.4mm and 3.2mm.



Quadrate Body
thermoplastic

RD/H-TM I -4

560x305x3.2mm, 42% mesh, For throax and abdomen immobilization, Square regula, Platen fixation, Adaptive selection of such fixation baseplate as R&D. With alternative groin holding strip.



Type-X Body
thermoplastic

RD/H-TM II -1

Thickness 3.2mm, 42% mesh, For throax and abdomen immobilization, With 4 regulas, the length of which is 230mm, Plug-in fixation, Adaptive selection of such fixation baseplate as R&D.

2D Automatic Hot Wire Cutter RD/MQG3

Ruidi RD/MQG3 Automatic Hot Wire Cutter is the ideal equipment to a radiation department to develop precise conformal radiotherapy. It is used to cut and cast high density foam mold with low melting point alloy blocks. Controlled by a computer, it is an ideal upgraded product to take place of manual hot wire cutting machine, with features such as convenient operation, high cutting precise and high cutting efficiency.

It contains main part of cutting machine, control computer and control software, with adaptive selection of ancillary equipments such as digitizer, scanner, printer, and graph plotter, etc.



Max cutting size : 380 mm × 380mm
Foam cutting thickness: 20-120mm
Max cutting speed: 10 mm/s
Reposition accuracy: <0.1 mm
Max cutting precision: <0.3mm

Product features:

1. Control part regulate the four shafts using independent PCI motion card. Drive part adopts imported, top grade motor subdivision driver modules with high control stability;
2. It can be connected to various TPSs with DICOM3.0/RT.
3. It ensures high cutting precision with American imported linear movement mechanism;
4. It has incision width compensation function with selection of female/ male mold.
5. It supports digitizer and plotter and also support cutting blocks for photon/electronic , with wide cutting range.
6. For multiple block contours, user can cut in discretionary order to save foam .



Plotter



Digitizer



Scanner



Manual X-ray Hot Wire
Cutter

RD/MQG1

SSD extends as long as 140cm Max cutting foam thickness is 140mm Accuracy is less than 1mm, It contains validation lamp.



Electron Beam Hot
Wire Cutter

RD/MQG2

Equipped with vertical hot-wires. Be used to cut all shapes of blocks vertically.



Alloy Melter

RD/MRL1

Automatic melt low melting point lead on a constant temperature With double heat sources, Never jam molten box's capacity is 60 kg.



Water Bath

HWSX-650/T

Computer automatic controlled temperature, Capable of heating various positioning thermoplastic Specifications: 650x530x100(mm).



Eye Shields

RD/MYP

With tungsten base, Attenuating 9MeV electron beam to safe dose, With polypropylene coat on the surface to avoid electron contamination, Each suite with options of large, middle, small size



Testicle Shields

RD/MGP

Consists of two hemispherical Pb shielding cover. With polymer coating to reduce backscatter. Specifications: each suits with two options of large, middle size.



EPS High Density Foam

RD/MPM2

300x300 mm; Thickness: with alternative options of 80mm and 10-20mm. For making block molds. Type-extrusion powder foam



Alloy

RD/MRQ1

For application in making conformal lead block, With melting point: $70 \pm 1^\circ\text{C}$ Each weighs 2Kgs.



Resin Head Support

RD/-T-P2

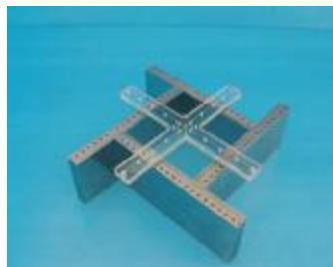
Five in each suite, five kinds of types, comfortable



Cold Plate

RD/MLQ

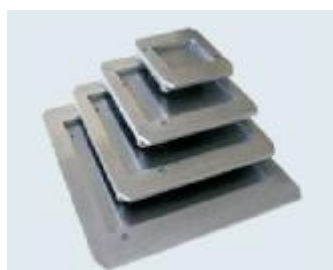
Composed of aluminum alloy 350 mm x 350 mm, For cooling down alloy.



X-ray Blocking Mold

Thickness: 80mm, use with cold plate.

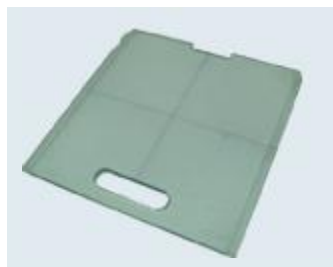
RD/MMG1



Electron Beam Lead Block Mould

Thickness: 10-20 mms. Five moulds in each suite Applied refrigerant plate Adaptive to cast 3D conformal blocks Need to know the model of accelerator and the size of electron applicator.

RD/MMG2



Tray

Alternative material options of PC and PMMA Customized according to the mode of user's accelerator and Co60 treatment machine,

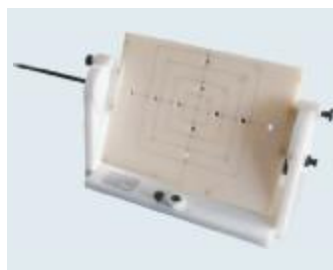
RD/MTP1



Block Verification Unit

STD adjustable range: 45 ~ 65mm; Regulation accuracy: ± 1 mm; SFD adjustable range: 140 ~ 110cm; Max verification film range: 14" x 17"

RD/QDQ1

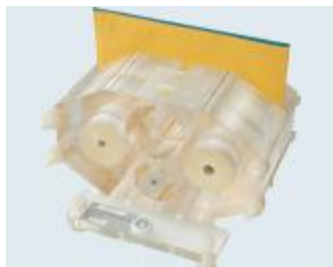


ISO-center Alignment Device

For ISO-center calibration, laser positioning system calibration and etc.

RD/QZX1





IMRT Phantom (Body)

RD/QTMI

PMMA material with tissue equivalent material plug-in such as bone, lungs and etc; A variety of specifications for ionization chamber placed plug-ins; Metal reference markers to facilitate film positioning; Accommodate at most nine films for IMRT verification.



IMRT Phantom (Head)

RD/QTMI

PMMA material With tissue equivalent material plug-in such as bone and etc A variety of specifications for ionization chamber placed plug-ins; Metal reference markers to facilitate film positioning; Accommodate at most nine films for IMRT verification.



Cassette Holder

RD/QPP1

Adjustable height range: 0.3~1.6m; Adjustable length range: 0.25~1m; Max film frame range: 14"x17"; Adjustment 360° cardan shaft



Water Tank

RD/QSM1

30cmx30cmx35cm.

Simulator Workstation RD/SW

Ruidi simulator workstation is an organic integration of simulator positioning machine digitalized reconstruction and conformal workstation.

The system was digital reconstructed on the base of the original simulator in the hospital to make the original simulator images digitalized and scene monitor digitalized.

The various images can be preserved, processed and searched

Digital picking, image calibration and image edition were achieved.

So it is able to contour tumors with image, make conformal treatment scheme, achieve patient archive management, and provide all kinds of external data interface.

As a result, the equipment's function can be exploited as much as possible; the radiotherapy effect can be improved greatly; patients' cost can be saved and hospital revenue can be improved.



Simulator workstation system features

- Automatically calibrate image distortion caused by image enhancer

- Splice multiple images into one image to facilitate contouring targets;

- Image digitalized process more clearly reveals patient images;

- Digitalized picking images without films, digital images can be transmitted to a monitor, a printer and other equipments;

- Patient images and relative data can be preserved for a long time and have functions such as statistics, inquiry; It can be connected with other radiotherapy equipment such as accelerator, the electromotion MLCs, according to DICOM /RT protocol

We offer two clinical solutions:

- Option One: to replace the original X-ray TV system, a pure digital CCD image acquisition system is applied. Digital reconstruction during the whole process optimizes image quality.

- Option Two: do not replace the original X-ray TV system, to use digital image conversion unit, Image quality was improved through image recognition, noise reduction and optimization. 2D plan design and dose calculation;



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Sichuan Ruidi Medical Science and Technology Co., Ltd. is a high-tech company professionally engages in the research and development, manufacture and marketing of new products in radiotherapy field, and meanwhile providing relative professional technologic support and service. We commit mainly to apply the multi-disciplinary technology in modern radiotherapy field.

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