Bucky stand/table

**AS-MK1 Vertical bucky stand**
- Weight: 100kg

**AS-MD1 Elevating floating bucky table**
- Weight: 210kg

**AS-MB1 Floating bucky table**
- Weight: 120kg

**AS-MA1 Fixed bucky table**
- Weight: 50kg

### Specifications

- **Detector movement range (right/left)**: ±100
- **Tabletop height**: ±350~900 mm
- **Tabletop fore/back movement**: ±75 mm
- **Vertical stroke**: 1,120 mm
- **Up/down stroke**: 1,120 mm
- **General Radiography System**: Bucky stand/table Scale: 1/70

**Unit**: mm

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Hitachi Medical Corporation

*Certified as complying with the International Environmental Management System (ISO 14001).*

*General Radiography System*
New Style, Smooth Control.

To give your patients the very best care and to give you a little more peace of mind when performing daily examinations...

Our aim was to create a more comfortable examination environment for you to meet the daily and diverse needs of your patients; so we provide general radiography for care of patient, along with highly accurate examination. We listened to a wide range of on-the-spot views, and conducted a careful analysis of the key points. We are confident that our new one-hand grip controller provides easy operation, and it will certainly improve the workflow of whole examinations. Hope you enjoy more comfortable and easier examination environment with our new features.

Ο Combination of a high-precision and high-performance 50kW inverter type X-ray high voltage generator
Ο X-ray high voltage generator with an easy-to-see large LCD color touch panel
Ο Design your system to fit your work environment; choose from our wide product lineup
Cost-effective digital angle indicator
Smart set with newly-developed one-hand grip controller, in addition to the traditional outer frame handle.

Single-handed movements and settings of the X-ray tubes.

Easy-to-see color LCD touch panel
Advanced smart set with an easy-to-see color LCD panel.
Check and change radiographic parameters and regions in the examination room.

Motorized collimator in standard configuration
A hand-operated Motorized collimator allows manual-like light operation.

The collimator size can be selected from the LCD display according to the image size. A bucky center indication laser is also equipped for easier center alignment.

Efficient operation with gentle patient care
Equipped not just with the traditional outer frame handle, but also with the newly-developed one-hand grip controller. After in-depth on-site research, we developed this new freely-rotating one-hand grip allowing you to make settings in any position or direction that you select and also ensure smooth X-ray tube movement.

Flexible operation combining the new outer frame handle with our one-hand grip controller
Assigning your most popular functions to the grip switch improves operability, and the new outer frame handle and one-hand grip controller combination, ensures a more comfortable workflow.

Positioning / movements

**Smooth Motion**
By using outer frame handle or one-hand grip controller, smooth movement of the X-ray tube in any direction is possible.

**Smooth longitudinal movement**
Even when the X-ray tube is located horizontally, the one-hand grip controller operates in a natural way.

**Flexible Positioning**
One-hand grip controller is located at a lower position than the outer frame handle, and allows easy single-handed positioning even at those higher positions that are hard to operate only with outer frame handle.

Using the outer frame handle that is easy to hold even at lower positions or the one-hand grip controller that allows you to change directions freely according to the desired position, you can perform various positioning easily without stressful posture.

**Line UP**

- **Smart set** smooth single-handed operation
  Smart set with newly-developed one hand grip controller, in addition to the traditional outer frame handle.
  Single-handed movements and settings of the X-ray tubes.

- **Advanced smart set** (optional) Checking/changing of parameters, in addition to single-handed operation
  Advanced smart set with an easy-to-see color LCD panel.
  Check and change radiographic parameters and regions in the examination room.

  Motorized collimator in standard configuration
  A hand-operated Motorized collimator allows manual-like light operation.
  The collimator size can be selected from the LCD display according to the image size. A bucky center indication laser is also equipped for easier center alignment.

**Functions / strokes**
A wide variety of functions improve the workflow.

**Rotating mechanism around the supporting column**
Since the supporting column can be electromagnetically locked at any desired position, angle-setting for lateral direction is very easy.

**Vertical stroke**
Now covering a wide area of 1650mm and with 150mm of extended stroke, the system flexibly meets the requirements of many different examinations.

**SID tracking**
The X-ray tube assembly automatically follows the vertical movement of the bucky table and enables the SID to be fixed.
* Optional for Smart set.

**Height tracking**
The height of the X-ray tube assembly automatically follows the vertical movement of the vertical bucky stand.
* Optional for Smart set.

**Vertical stroke**
Now covering a wide area of 1650mm and with 150mm of extended stroke, the system flexibly meets the requirements of many different examinations.

**Line UP**

- **Smart set** smooth single-handed operation
  Smart set with newly-developed one hand grip controller, in addition to the traditional outer frame handle.
  Single-handed movements and settings of the X-ray tubes.

- **Advanced smart set** (optional) Checking/changing of parameters, in addition to single-handed operation
  Advanced smart set with an easy-to-see color LCD panel.
  Check and change radiographic parameters and regions in the examination room.

  Motorized collimator in standard configuration
  A hand-operated Motorized collimator allows manual-like light operation.
  The collimator size can be selected from the LCD display according to the image size. A bucky center indication laser is also equipped for easier center alignment.
**Compact set** Cost-effective and simple configuration

- Light weight and compact design
  Choose the best system mounting method for your clinic layout; flexible design for a low ceiling height or narrow X-ray room.
- Easy positioning
  Smooth and quick manual control of tube support movements: back and forth, lateral and vertical movements.

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**Inverter X-ray high voltage generator**

Smooth operation with large LCD color touch panel.

A console with an easy-to-see large LCD color touch panel. The large LCD touch panel for more intuitive and accurate operation.

### Imaging

Combination of a high-precision and a high-performance inverter type X-ray high voltage generator has realized accurate control and multiple functions.

An easy-to-use, operator-friendly X-ray high voltage generator.

### Interface

A light and easy-to-see large LCD color touch panel is adopted in the control console.

Not only X-ray parameters settings, but also region setting by anatomical program can be easily made within the touch panel operation. In addition, radiographic parameters can be set online from other connected imaging systems such as CR, (optional).

### Design

The needs for X-ray examinations are versatile, and required functions are different depending on each institution and examination room. To respond to these various needs, Hitachi makes a wide variety of product lineup available.

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**Universal set** A single unit can accommodate an upright position and recumbent position.

- Multi-purpose bucky
  No more stressful positioning: simply use the bucky stand or table when you start.
- Upright chest radiography
  For upright chest radiography just set the SID to 2m.

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### Anatomical program

All at the touch of a button...with an anatomical system, up to 960 programs and easy touch panel registration, selecting X-ray radiographic parameters has never been easier.

### Sequence program

Register plural radiographic parameters for each patient as a sequence program, and read out with one-touch operation.

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### Exposed dose control

Exposure dose is controlled quantitatively by the NDD method, and fluoroscopic and radiographic exposure doses are calculated and displayed. An area dosimeter can be connected optionally.

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### Automatic exposure detector

Hi-AUTO (photo-timer) or an ion chamber can be connected. The adopted digital-control tube voltage compensation and subject body thickness compensation allows obtaining a stable density. (optional)

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### Setting of radiography condition

By connecting with imaging systems such as CR and FPD, radiographic parameters can be set online (Optional).
**Evolving into a digital radiography system by combining with FPD.**

Hitachi also provides support for system digitization. Drawing upon our years of experience, we will configure the system best suited to your needs, including FPD, any equipment to be combined and image processing.

**Built-in full-size FPD**
The FPD can be set and used on an upright bucky stand / bucky table (floating type). Any microscopic affected region can be clearly visualized by high-definition FPD with a 139μm pixel size. The wide exposure area, approximately 43cm x 43cm, is ideal for the larger patient, and chest and pelvis examinations.

**Multipurpose cassette-sized FPD**
A truly versatile FPD, it can be mounted, simply placed on the examination table, or held by the patient.

*Selecting the scintillator best suited to your needs*
We provide a cost-effective model, and a cesium iodide (CsI) scintillator model (built-in full sized FPD only) for lower dose X-rays.

**Variation**
A wide variety of equipment to suit your needs and clinic layout (Optional).

Many different upright bucky stands and bucky tables are available for you to choose to best suit your use and examination room layout.

**System configuration**

<table>
<thead>
<tr>
<th>General Radiography System Radnext 50</th>
<th>Contents</th>
<th>Smart set</th>
<th>Advanced smart set</th>
<th>Compact set</th>
<th>Universal set</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-ray high voltage generator</td>
<td>50kW inverter</td>
<td>DHF-155H4</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>X-ray tube support</td>
<td>Ceiling traveling type</td>
<td>SX-A300 standard</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Floor-mount type</td>
<td>Wall/floor-mount type</td>
<td>FS-20A</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Wall/floor traveling type</td>
<td>FS-20B</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Ceiling/floor traveling type</td>
<td>FS-20C</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Floor traveling type</td>
<td>FS-20D</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>X-ray tube assembly (Note 1)</td>
<td>Universal type</td>
<td>YUB-1</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Tube voltage/Tube current</td>
<td>289kV/630mA/0.6I7.2mm 12°</td>
<td>UH-6PC3-1E</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td></td>
<td>219kV/630mA/0.6I7.2mm 12°</td>
<td>UH-6PC3-1E</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td></td>
<td>149kV/630mA/0.6I7.2mm 17°</td>
<td>UH-6PC3-1E</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td></td>
<td>109kV/630mA/0.6I7.2mm 17°</td>
<td>U-6CE-50TB</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td></td>
<td>219kV/630mA/0.6I7.2mm 12°</td>
<td>U-6AC-31TL</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>X-ray variable collimator</td>
<td>Motorized collimator</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>Manual collimator</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

(Note 1) Standard is marked with a ○; however, feel free to choose and combine components marked with a ◎.

**Specification of the X-ray high voltage generator for Radnext50**

<table>
<thead>
<tr>
<th>Options</th>
<th>Radnext50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal max. power</td>
<td>50kW</td>
</tr>
<tr>
<td>Short-time rating</td>
<td>85kV/530mA/100kV/500mA/150kV/50mA</td>
</tr>
<tr>
<td>Technique selection</td>
<td>Max. 8 types</td>
</tr>
<tr>
<td>Tube voltage/Tube current</td>
<td>40<del>150kV (14V step) 170</del>800mA (20 or 39 steps)</td>
</tr>
<tr>
<td>Timer</td>
<td>1ms~8s (79 steps)</td>
</tr>
<tr>
<td>Anatomical program</td>
<td>120 types for each technique (Max. 960 types)</td>
</tr>
<tr>
<td>Sequence program</td>
<td>Max. 120 types x Max. 12 stages</td>
</tr>
<tr>
<td>Number of connectable X-ray tubes</td>
<td>With the high voltage switcher (optional) combined, up to two tubes can be controlled.</td>
</tr>
<tr>
<td>X-ray tube control</td>
<td>CPU always monitors permissible load data corresponding to selected X-ray tube assembly and radiographic parameters.</td>
</tr>
<tr>
<td>Self-diagnostic function</td>
<td>Provided with protective and failure diagnosis functions by CPU</td>
</tr>
</tbody>
</table>

**Power requirements**

<table>
<thead>
<tr>
<th>Radnext50</th>
<th>1 □ 200V series</th>
<th>3 □ 200V series</th>
<th>3 □ 400V series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated supply voltage</td>
<td>200/200/240/15%</td>
<td>200/200/240/15%</td>
<td>380/415/440/480/10%</td>
</tr>
<tr>
<td>Rated supply frequency</td>
<td>50/60Hz</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Note) For details on the electric equipment such as the recommendable capacity of a distribution transformer, contact our sales representative.
The ceiling suspended X-ray tube support unit SX-A300 is compact and easy to operate in the examination room. A stand-alone X-ray high voltage generator requires less installation space, leaving a more spacious examination room.

### X-ray tube support unit

**Ceiling-suspended type for the smart set/advanced smart set**

- **SX-A300**
  - Weight: 365kg (standard) ~ 490kg (Max)

**Wall-floor mounted type for the Compact set**

- **FS-20B**
  - Overall height: 2230mm
- **FS-20A**
  - Overall height: 2150mm
- **FS-20C**
  - Overall height: 2230mm

### X-ray high voltage generator

- **SX-A300**
  - Weight: Approx. 215kg (depends on system configuration)

### Control console

- **SX-A300**
  - Weight: 14kg (Optional)

- **Universal Bucky stand YUB-1**
  - Weight: 290kg (excluding X-ray tube assembly, variable collimator, supporting fork, high voltage cable.)

### Table: Specifications of the floor mounted type X-ray tube support unit for Radnext50

<table>
<thead>
<tr>
<th>Component</th>
<th>Standard</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Wall/floor traveling</td>
<td>Wall/floor mount type</td>
</tr>
<tr>
<td>Unit model number</td>
<td>FS-20B</td>
<td>FS-20A</td>
</tr>
<tr>
<td>Overall height of support column</td>
<td>2230mm</td>
<td>2150mm</td>
</tr>
<tr>
<td>X-ray tube vertical stroke</td>
<td>1200mm</td>
<td></td>
</tr>
<tr>
<td>X-ray tube lateral stroke</td>
<td>1500mm</td>
<td></td>
</tr>
<tr>
<td>X-ray tube back and forth (arm) stroke</td>
<td>250mm</td>
<td></td>
</tr>
<tr>
<td>Locking method/electromagnetic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electromagnetic-off-lock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto-tracking function</td>
<td>(Height direction only)</td>
<td></td>
</tr>
</tbody>
</table>

### Diagram: X-ray tube support unit

- **Ceiling-suspended type**
  - Weight: 365kg (standard) ~ 490kg (Max)
  - Movement range: 299 to 3375 (In case of standard length: 3950)
  - Movement range: 257 to 1543 (In case of standard length: 2000)

- **Wall-floor mounted type**
  - Weight: 130kg (excluding X-ray tube assembly, X-ray variable collimator.)

### Diagram: X-ray high voltage generator

- **X-ray control unit**
  - Weight: Approx. 215kg (Optional)
- **Control console with stand**
  - Weight: 14kg (Optional)

### Notes:

1. When SID is 2m
2. When SID is 1m