

# Tailored radiography for everyone

Philips BuckyDiagnost cassette-based radiography solutions



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# Scalability – the key to customization



# Smart solutions



# fit everywhere



Experience the flexibility of creating a tailor-made radiography room everywhere you require, even in a field hospital. Our scalability concept allows you to adapt your solution to your building size, number of patients and financial resources.

### Make the most



## of your room size

Stretch the possibilities of moderate room size and budget to the maximum with the BuckyDiagnost floor mounted room. Excellent ergonomics facilitate convenient handling, making this solution ideal for time-intensive examinations such as tomography.

### **Surprisingly flexible**

Your typical standard X-ray room fulfills its task by catering to all general radiography applications while dealing with a medium patient load. Furthermore, limited space shouldn't determine the degree of flexibility. Philips helps you meet these challenges by offering compact systems with excellent maneuverability. You can even create a standard radiography room in small rooms where a ceiling construction would not be possible.

#### Your best second or back-up room

In addition, our floor mounted room solution is ideal if you would like to establish a second room or back-up room – and go easy on your budget because there is no ceiling construction involved. Plus, with the extra wide 85 cm (33.5") table top bariatric patients can also benefit from excellent ergonomics and comfort.

#### It's your choice

Add efficiency with the following options (selection):

- Tomography (in combination with floor stand FS-S)
- Automatic collimation
- Tracking

### **BuckyDiagnost room for general** radiography – floor mounted/standard



### Configuration example

- Generator
- Floor stand standard version (FS-S)
- Bucky table TH2
- Vertical stand (VS) advanced package + tilting

# Exceeds your high



## expectations

Designed to be the power house of your radiography room department, the BuckyDiagnost high-performance room combines a great degree of reliability with completely intuitive handling. This way you can carry out the entire range of applications, including bed exams and projections of patients with restricted mobility.

### **Every take counts**

Philips' ceiling mounted solution easily manages effective operating procedures day in and day out thanks to its seamlessly intertwined components. In addition, our configurations make the switch from table exams to chest or skull exposures quick and easy. Motorized functions such as automatic collimation and tracking help enhance workflow even more.

#### **Patient comfort**

Convenient procedures allow technologists to devote more time to the person examined. Patients appreciate this. Thanks to the height adjustable table, you can position your patients effortlessly. Moreover, when you use the ceiling suspension you can adjust the tube exactly to the relevant body parts. The overall result is a high patient load, contributing to the satisfaction of your administration.

### It's your choice

Add efficiency with the following options (selection):

- Tomography
- Automatic collimation
- Tracking

### BuckyDiagnost room for general radiography – ceiling mounted/high-performance



### Configuration example

- Generator
- Ceiling suspension CS2/4
- Bucky table TH2
- Vertical stand (VS) advanced package + tilting

# Discover "point and



# shoot" efficiency

The high output of a dedicated chest room makes it attractive to many medical facilities. For additional use, you can transform it into a basic room by integrating a ceiling suspension instead of a floor stand.

### Small space, big opportunity

In a dedicated floor mounted chest room you should be able to perform "point and shoot" efficiency for optimized workflow and patient throughput. You expect your chest room to run like clockwork while providing you with excellent image quality. Philips supports you in designing a room that takes your individual requirements into consideration, such as room size and workload estimates.

### **Expand your range**

The lateral long arm extension and the trolley also make your chest room suitable for skeletal free cassette exposures. In addition, the ceiling mounted room solution is the expanded version of our chest room to enable you to use it for bed examinations. Furthermore, if you need to make exposures of hands and feet, Philips recommends the vertical stand with additional tilting functionality.

### It's your choice

Add efficiency with the following options (selection):

- Tracking
- Long tube arm for floor stand
- Ceiling suspension CS2/4
- · Tilting vertical stand

BuckyDiagnost room for vertical radiography – floor or ceiling mounted/ dedicated chest



### Configuration example

- Generator
- Floor stand fix version (FS-F)
- Vertical stand (VS) advanced package
- Automatic collimation (standard for VR)

# Where reliability is



## of vital importance

To maximize the utilization of your trauma room, you may also want to use it as a standard X-ray room. With Philips' flexible configurations you can meet all your key needs.

### **Every minute counts**

For trauma situations quick diagnoses and speed are paramount. Trauma solutions from Philips give both technologists and patients fast, effective results with practical maneuverability. Because the system can be fully positioned around the patient, technologists have the advantage of performing necessary functions without moving the trauma patient.

### Adapting to your needs

Which of our three concepts enables you to best integrate a trauma room into your facility? You may have a certain room which can be used for a pure trauma room. Or you can expand an existing Bucky configuration with a trauma arm. This way you have the advantage of double room utilization. Alternatively, if you want to care for several trauma patients in a single room then you probably prefer our third solution which contains two or more trauma workspaces.

### **BuckyDiagnost room for Trauma**



### Three trauma configurations

- Trauma room with trauma arm and trolley
- Trauma room with trauma arm, table and vertical stand
- Trauma room with trauma arm, ceiling suspension, table, vertical stand and additional ceiling suspension with trauma arm

# Everything for a



# smooth workflow



Our features and unique elements give you everything you need to ergonomically and intuitively carry out your work processes. Technologists appreciate the convenient handling which leads to faster exams and adds to your administration's satisfaction.

# Maximize your

With Philips, you can count on reliable features and elements designed to make your work easy and flexible. We have always been dedicated to researching, developing and creating new ways of making X-ray technology even more effective.

### Advantages all around

When Philips, with your close cooperation, sets up your radiographic solution, you are assured of a triple benefit: patient comfort, technologist convenience and investment security. Collectively, these benefits not only improve working procedures but give you the competitive edge you need.

### More speed: automatic collimation (optional)

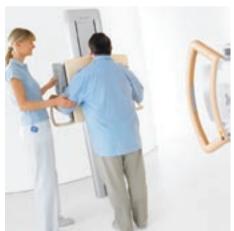
Discover how automatic collimation can simplify your job considerably. Cassette size sensing guarantees smooth operation, thus giving you more time for

your patients. Additionally, automatic pre-filter APR (Anatomically Programmed Radiography) settings make it possible to X-ray patients according to application, thereby eliminating wrong or missing filters.

Most notably, this leads to significant X-ray dose savings in pediatric examinations.

Plus, you can easily exchange your grids to further reduce dose exposure. When performing chest exams, you'll benefit from asymmetric beam alignment and the control handle for all applications, which displays SID, cassette and APR.





## convenience



Combining options and accessories like the stretch grip enables high patient throughput.

# Experience new levels

Every automatic movement is one that technologists don't have to perform manually. This saves time that can better be spent attending to the patients' needs. Moreover, automation can help enhance your medical facility's efficiency.



Tomography: All movements are electronically controlled, no rod coupling is necessary.

### More synchronicity: tracking (optional)

With tracking, you have a system that offers both you and your patient more convenience and speed.
With tube tracking at the table, the SID (Source Image Distance) is retained while the table height is being adjusted. Using a vertical stand, the tube automatically follows the position of the Bucky unit. And if you are equipped with electronic tomography, the Bucky tray does the tracking by following the tube at the table, allowing for synchronized movements.

### More automation: move-to-position of vertical stand (optional)

By pressing a button, the Bucky unit moves towards one of four predefined, customizable positions. This functionality enables the technologist to enhance workflow. While the Bucky unit automatically moves into position, the tube assembly can be repositioned at the same time.

### More utilization: electronic tomography (optional)

Avoid stand-by time and supplement your X-ray configuration with electronic tomography. This way you create a radiographic demonstration of the structures in a pre-selected plane by blurring out the images of the structures above and below this plane. All movements are electronically controlled and can be programmed directly at the control handle, allowing you to provide your patients with even better care. Most convenient of all is that no rod coupling is necessary, making a quick switch to tomography easier than ever before.

## of automation



Tracking: The tube automatically follows the position of the Bucky unit

# Your contribution is

Developed in constant and direct consultation with medical personnel around the globe, our features speed up procedures by streamlining every phase of the exam – to the benefit of both: staff and patients.



## always welcome

### Focus on Variofocus (optional)

The Variofocus technology is unique to Philips and is made possible by our Optimus X-ray generator. This technology creates a number of new, tailored focal spot sizes which are assigned to APR programs and range from the small to the large focal points of an X-ray tube. In this way you are always using an object-optimized focal spot and optimum geometric resolution. In addition, the service life of the tube is lengthened thanks to uniform focal point loading.

### Free exposures with SID lasers (optional)

The source image distance (SID) laser indicator on the tube carrier is especially useful for oblique and free exposures as it allows angle and source image distance to be set together. Thus, conventional SID measurement and correction are no longer required, promoting increased usability and saving precious time which can then be devoted to your patients.

### Automatic cassette loading and self-positioning

The Bucky tray automatically senses the cassette size and loads it in the right position – yet another feature providing smooth operating procedures.



SID Laser: Simultaneous setting of SID and central beam.



Automatic cassette size sensing for faster procedures.

### Utilize the

Philips design is world renowned. More than 6,000 design patents bear witness to this fact. One of the key tasks of our designers and developers is to implement elements for health-care professionals that are entirely ergonomic and intuitive to use. Once you have employed some of these items, you will be unable to imagine how you ever got along without them.

### Unique system control handle

The system control handle has become the trademark of Philips' ergonomic and meticulously thought-out elements. It is designed around your needs with all functions and settings in view. The integrated APR in the handle means that you only need one hand for operating and always have the other free for your patients. Moreover, the release of the central break is located at the lowest position of the control handle within easy reach of every technologist. Generally, the system control handle allows convenient operation in close proximity to the patient.



### More than just tables

On first sight our Bucky tables may not look that spectacular. But their details single them out. Thanks to the lean footprint you can conveniently access the table. The top of the table is easy to position even when the patient is lying on it. Our high-load, height adjustable table with an optional extra wide table top of 85 cm (33.5") has especially been constructed with bariatric patients in mind. Last but not least, the optional second table control contributes to a smooth workflow because it allows you to move the table from all sides without using the foot pedal.

### The handy parking lot for grids

Our tables contain an integrated area for grids; the vertical stands even include two storage places. This makes it easy for the user to remove or change grids. Furthermore, no additional grid holders are necessary.

### elements of success



Absolutely intuitive handling with Philips' system control handle.

# The switch to digital has never been easier

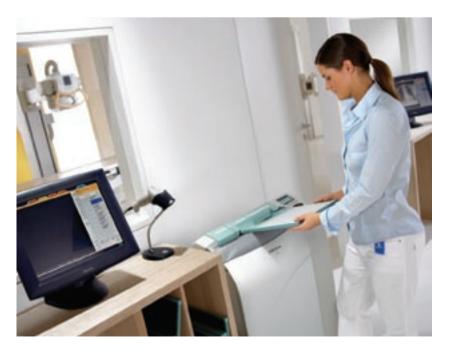
Philips is always your loyal partner. So we know that the initial expenditure may have you thinking twice when you consider going digital. Whenever conditions enable you to take this step, Philips can equip you with tailor-made digital solutions. You have the choice between computed or direct radiography. In any case, you can experience ground breaking workflow and economic amenities.

### Enter the digital world with PCR Eleva

Computed radiography (CR) may be your digital choice if you prefer to continue using all your existing radiography equipment – and time spent on cassette handling is not a critical issue for your department. In these situations, Philips offers the PCR Eleva system family which allows you to digitalize your X-ray department and organize your departmental workflow according to your specific requirements. You will benefit from excellent image quality with UNIQUE image processing plus highly efficient data distribution and storage. Via connection to the RIS, PCR Eleva offers multi-patient scheduling and streamlined worklist management, adding to your efficiency.

### Take the EasyUpgrade route to DR

If you are a high-volume facility, you might prefer direct radiography (DR). Our EasyUpgrade programs are the most convenient way to make your vision reality. With EasyUpgrade DR you can conveniently switch to digital state-of-the-art technology in a matter of days. Just exchange the vertical stand and/or Bucky table with a digital one including an integrated digital detector. This way you can still work with the same, trusted hardware. So make the switch when your medical facility is ready and discover outstanding workflow optimization and cost-efficiency. Furthermore, Philips offers existing BuckyDiagnost customers substantial financial savings when they decide to buy a new DigitalDiagnost system.



PCR Eleva combines approved reader technology and excellent image quality with a clear and intuitive user interface.

### Our service: a strong statement of quality

Philips Customer Services support you in every season of system ownership – from planning through start-up, peak usage and renewal – by helping you simplify your operations in ways that let you spend more time focusing on what's most important: the needs of your patients.

### Service in the long run

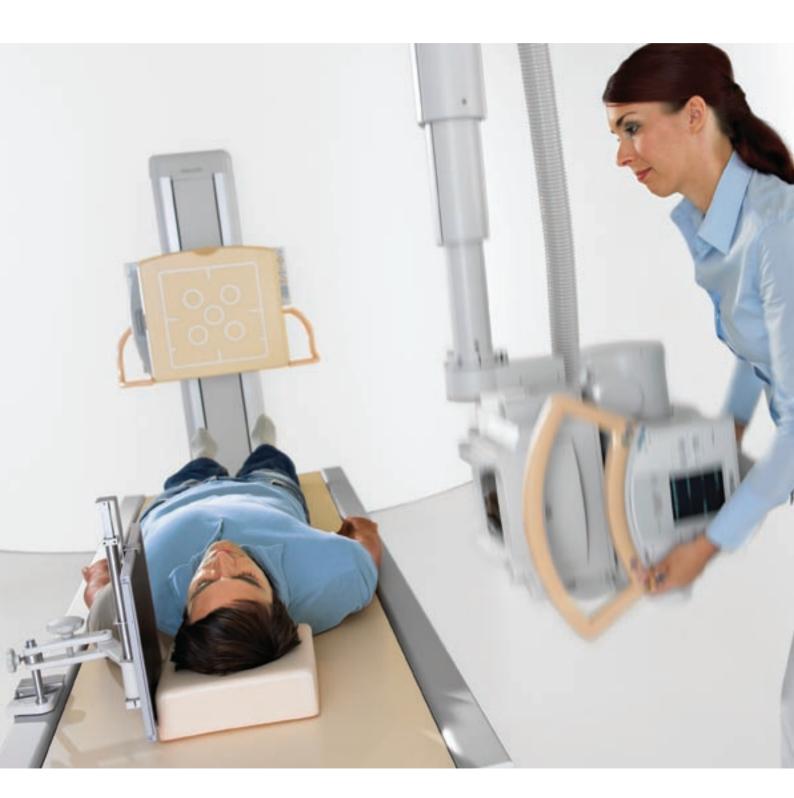
To succeed from the beginning, our planning facilitates integration of your new system into your site. This helps cut down on the time needed to reach the start-up phase in which imaging can begin. Then, to ensure peak usage every day, you can choose from a broad portfolio of service agree-ments. Finally, when renewal is on the agenda, we will work together to choose the solution that makes the most sense to you, whether that means extending the life of your present system, providing an upgrade or planning a trade-in.

### First-rate care

IMV, one of the most recognized independent third-party research firms, ranked Philips Medical Systems
No. 1 in overall service performance in its 2007
ServiceTrakTM Imaging — All Systems customer survey.
So your trust is well placed in our integrated concepts.
Philips global service network, our highly qualified service engineers, the individual attention of our service technicians and the international availability of spare parts combine to provide our seamless service support for every season of your ownership.



# Excellent quality



# for everyone



More than 100 years of experience are embedded in all parts of BuckyDiagnost. Combined with outstanding expertise, they are manufactured to facilitate peak performance every day. This way, our components create significant advantages for both staff and patients.

### **Tube carriers**

Our tube carriers excel with outstanding flexibility and maneuverability. So your department benefits when you equip your room with a floor stand or a ceiling suspension.

### Floor stand FS-S



- · Comprises full scalability
- Comes with a horizontal tube support arm which can be optionally extended to increase flexibility in transverse positioning
- Glides on flat profile rails that can easily be crossed with a patient trolley
- Large travel range along the table enables exposures at tilted Bucky vertical stands and even at a hospital bed with the optional rail extension
- Various optional functions include sensing, tracking, alignment and electronic tomography
- Can be combined with conventional Bucky tables and vertical stands

### Floor stand FS-C



- Designed to enable a compact system set-up
- Comprises an L-shaped tube arm carrier that ensures a generous SID for lateral exposures in small rooms
- Comes with one floor rail and one wall or ceiling rail
- With the ceiling rail option, the floor stand can be positioned virtually anywhere in the room (i.e. not necessarily against a wall) even in rooms with a ceiling height of up to 360 cm (142")
- Various optional functions include sensing, tracking and alignment
- Can be combined with conventional Bucky tables and vertical stands

### Floor stand FS-F



- Optimized to the needs of modern, high performance, fully-automated chest rooms
- Column is mounted on the floor with a fixed distance to the vertical stand
- Automatic collimation
- Various optional functions include sensing, tracking and alignment

### **Ceiling suspension CS**



- · Longitudinal and transverse movements
- Four-part telescopic column
- Award-winning Bucky control grip for easy, one-handed operation and positioning close to the patient
- Various optional functions include sensing, tracking and alignment
- High projection flexibility, plus quick and easy handling saves time
- Available in two versions, CS2 and CS4 for a full range of transverse movement

### **Tables**

Philips offers a variety of tables and trolleys to suit different needs. The tables feature convenient access to the patient from all sides.

### Height adjustable Bucky table TH



- X-rays from head to toe all radiographic applications (skeletal, tomography etc.)
- X-ray transparent, floating table top (two widths and two lengths available)
- Motorized height adjustment
- Easy patient positioning due to large movement range
- Electromagnetic brakes
- Operation via foot switch
- Additional optional hand switch for all table movements; can be flexibly positioned even at the rear of the table
- Maximum patient load 375 kg (820 lbs)
- Optional Bucky ACL4 (Automatic Cassette Load)

### Fixed Bucky table TF



- Designed for standard radiographic applications
- Wide, floating table top of robust radiotransparent plastic
- Large table top enables X-rays from head to toe
- · Available in two lengths
- Optional Bucky ACL4 (Automatic Cassette Load)

### Height adjustable trolley TA-M



- Single side suspended trolley with floating table top (two widths) and central pedal control
- · Hydraulic height adjustment
- Full application flexibility
- Excellent access to the patient from all sides
- Floating table top, fully X-ray transparent
- Easy and precise to maneuver due to central pedal control
- Maximum patient load 225 kg (496 lbs)

### Height adjustable trolley Traumob X\*



- Mobile trolley for radiography, especially in emergency rooms
- Mobile base with four castors and central locking
- Removable table top with accessory rails
- Height adjustable from 715 mm to 1065 mm (28.2" x 3"5.9")
- $\bullet$  Table top can be tilted to  $10^\circ$  max.

\*Not available in North America.

### Vertical stand VS

The BuckyDiagnost VS consists of a column, a vertical carriage with Bucky unit as well as ergonomically designed and arranged controls.

### **Characteristics**



- Available with or without cassette size sensing (cassettes size 18 cm x 24 cm to 35 cm x 43 cm ISO Standard)
- Basic package with 3-field measuring chamber
- Advanced package with 5-field AEC measuring chamber including integrated parking slots for grids
- Optional motorized tilting to move the Bucky unit from -20° via 0° (vertical) to +90° (horizontal)
- Advanced package with optional vertical motorized movement includes the "moveto-position" function that positions the image receptor unit in four predefined, customizable positions

### **Bucky unit**

The Bucky unit is used for grid and tomographic exposures with linear blur.

### **Characteristics**





- · Equipped with an oscillating grid
- ptional AMPLIMAT measuring chamber for Automatic Exposure Control
- An interchangeable grid is standard, cassette size sensing is optional

### Trauma arm

The trauma arm is a key component of all three recommended Bucky trauma configurations.

### **Characteristics**



- U-shaped radiographic attachment to be mounted on a ceiling suspension
- Carries the tube assembly at one side and the cassette holder with integrated AMPLIMAT chamber at the other
- With the trauma arm the system can be positioned around the patient without the need to move him or her

### X-ray tubes

The Philips dual-focus rotating anode tubes are manufactured in one of the most advanced production centers in the world.

### **RO 1750 ROT 360**



- Standard rotating anode tube assembly (3,600 rpm max.)
- Excellent lifetime performance
- All radiography systems especially chest units





### SRO 2250 ROT 360, SRO 33100 ROT 360 and SRO 0951 ROT 350

- Fast rotating anode tube assembly (10,800 rpm max.)
- High load, high speed-up (1.0 sec)
- For more rapid cooling, an additional blower is available for the housing
- · Ideal for all radiography systems

### Generators

The range of Philips generators features modern architecture based on a modular design using high performance components to enable customer specific solutions.

### Optimus 30, 50, 65 or 80 kW Characteristics



### Optional Anatomically Programmed Radiography (APR)

- 1024APR
- Easy-to-find application oriented menus

### Tube overload protection

- Monitors temperature conditions in order to protect tube and housing parts from damage or destruction due to overstress
- Tube power availability indicated on generator control desk

### Optional Automatic Exposure Control (AEC)

 Sets the exposure time according to exposure voltage and object characteristics to automatically obtain the correct exposure

### Optional Tomography Density Control (TDC)

- Automatically calculates the correct power setting with predetermined dose steps and the time required
- · Steady dose
- Optimum image brightness for the duration of the entire tomography

### **Optional Variofocus**

- Correct blend of minimum focal point size and maximum exposure load for the respective anatomical views, reducing motion blur and improving geometric resolution
- Uniform focal point loading extends tube life
- Focal point size can be adapted to object features
- A broad variety of application-oriented focal point sizes can be defined and assigned to APR settings
- Maximum image definition thanks to optimum geometric image conditions

### **Accessories**

To ensure optimal patient positioning, image quality and patient comfort, Philips offers a wide variety of accessories for:

- Tube carriers
- Tables
- Vertical stands
- Systems
- Generators



Lateral cassette holder



Second table control



Parking frame for accessories

For a full list of accessories please refer to BuckyDiagnost Specification, pages 36 to 38.

### Philips Healthcare is part of Royal Philips Electronics

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