

RAD room (STATIX – BT/BTE – BS45)



PRODUCT DATA

Product data

RAD room – Rev.10 (May 2013)

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DESCRIPTION

ITALRAY Radiographic Room includes the following ITALRAY devices:

STATIX:	Column Tube Stand sliding on floor rails
BT:	Radiographic Bucky Table
BTE:	Elevating Radiographic Bucky Table
BS 45:	Vertical Bucky Stand

ITALRAY Rad Room is the final result of an innovative project, achieved with modern and attractively designed devices and advanced technology that gives to the traditional radiographic room high flexibility and efficiency. With ITALRAY Rad Room it's now possible to perform any kind of General Radiography examinations in the same room, both with supine and standing patients and allowing full access to traumatized and disabled persons.

Through on board controls for longitudinal, transversal, and vertical movements, operators can position devices in order to make any kind of traditional radiologic examination, with maximum space optimization in respect of security and reliability.

To further carry out examinations in a much easier way and reduce exam time, ITALRAY Rad Room is also available with *film-size autosensing kit* or with *SYNCHRO package*, that is a highly automated room, where refined mechanisms of movement and a careful automatic anti-collision system, allow synchronization between different devices in order to reach the optimal position to perform the requested projection (lateral projection, chest exam, ...) on the involved patient (traumatized, disabled, elderly person).

Precisely: with the *film-size autosensing kit* the system performs an automatic and motorized collimation according to film size and focal distance; while, with the *SYNCHRO package*, for tube-receptor auto-centring, the BTE potter bucky automatically follows the x-ray source (STATIX) while the x-ray source follows automatically the vertical bucky (BS45), when they are moved by the operator during patient centring steps (this synchronization is kept also with tilted x-ray tube) thus allowing tube-receptor auto-centring. Furthermore it grants for 2 things: fixed Source-Image Distance during table-top elevation/lowering and constant collimation area during SID variation, both on the table and on the vertical bucky.

In this room, movement management and the choice of operative mode is made on the tube stand (STATIX) console whose display shows any information about SID, tube tilting, error messages,

Advanced design of this radiographic rooms, allows, in any moment, its up grading to the digital version (DR Room).

Following, the different devices in details.

STATIX:

Column tube stand, sliding on floor rails, with on board control console for tube tilting, and tube stand longitudinal and vertical movement.

- Proper balancing system in order to accept, in any time, system upgrade with dosimeter, different x-ray tube, ...
- Pressure switches with electromagnetic brakes controlled by tube stand console
- Full unlock 3-axis brake switches, replicated near handgrips
- Wide and clear console goniometer for x-ray tube tilting angle visualization (standard version)
- LCD display for x-ray tube tilting angle and SID visualization (SYNCHRO version)
- Column rotation manually driven (no pressure either on pedals or on push-buttons)
- Column rotation with mechanical detents every 90° for maximum ease of use
- Column longitudinal travel up to over 2 m. to perform any exam requested for the patient, without forcing him to further, useless, and traumatic movements
- Floor rails with very low guides and trapezoidal section to facilitate access to radio-transparent mobile tables

**STATIX optional accessories:**

- Vertical position reading (SYNCHRO)
- Motorized vertical movement (SYNCHRO)
- Extended tube arm
- Luminous collimator with halogen lamp or laser light for bucky centring
- Film-size autosensing kit

BT/BTE

Radiographic Bucky Table with fixed height (BT, 75 cm) and elevating Radiographic Bucky Table (BTE, height from 55 to 88,5 cm):

- Made with shockproof materials, carbon fiber equivalent and rust and contrast media resistant table-top
- Flat table top surface that facilitates access to traumatized, disabled or wheelchair patients
- 4-way floating table with exceptional ranges
- Touch-less pedals and 4-way horizontal floating unlock (BT)
- Reinforced metal pedals for table-top elevation (centrally positioned: one for elevating and one for descending) and duplicated 4-way horizontal floating unlock pedals (laterally positioned) (BTE)
- Auto-centring potter for cassette sizes from 13cmx18cm to 35,5cmx43cm



BT/ BTE optional accessories:

- High performance grid for further reduction of diffused radiation, for increasing contrast and DQE
- Ionization chambers for automatic exposure control
- Automatic motorized collimation according to film size and focal distance
- Automatic motorized tube- table-top movement for fixed focal distance (SYNCHRO)
- Automatic motorized tube- bucky centring (also for oblique projections) (SYNCHRO)

For patient:

- Compression band
- Leg support
- Lateral support for cassettes

BS45

BS45 is a Vertical Bucky Stand and it's typically used for chest x-ray examinations, with auto-centring potter.

- Comfortable access to the front side also to disabled persons
- Electromagnetic brakes
- Patient steadiness and security thanks to lateral handgrips placed on the bucky
- Easy movement management thanks to the unique brake-unlock push-button placed on the handgrip
- Complete vertical patient exploration to the lower extremities (no frontal foot rest and bucky positioning to almost the floor level)
- Potter for cassette sizes from 13cm x18cm to 43cm x43 cm
- Very low x-ray absorption cover (ABS)
- Completely customizable for grid and cassette-load side choice

**BS45 optional accessories:**

- High performance grid for further reduction of diffused radiation, for increasing contrast and DQE
- Extended vertical travel
- Ionization chambers for automatic exposure control
- Off-centre (upper border) collimation for paediatric patients
- Automatic motorized tube- bucky centring. (also for oblique projections) (SYNCHRO)

For patient:

- Arm support for better chest exposure
- Upper arm support for lateral chest exposure
- Floor fixing plate (to be walled in) .

TECHNICAL FEATURES

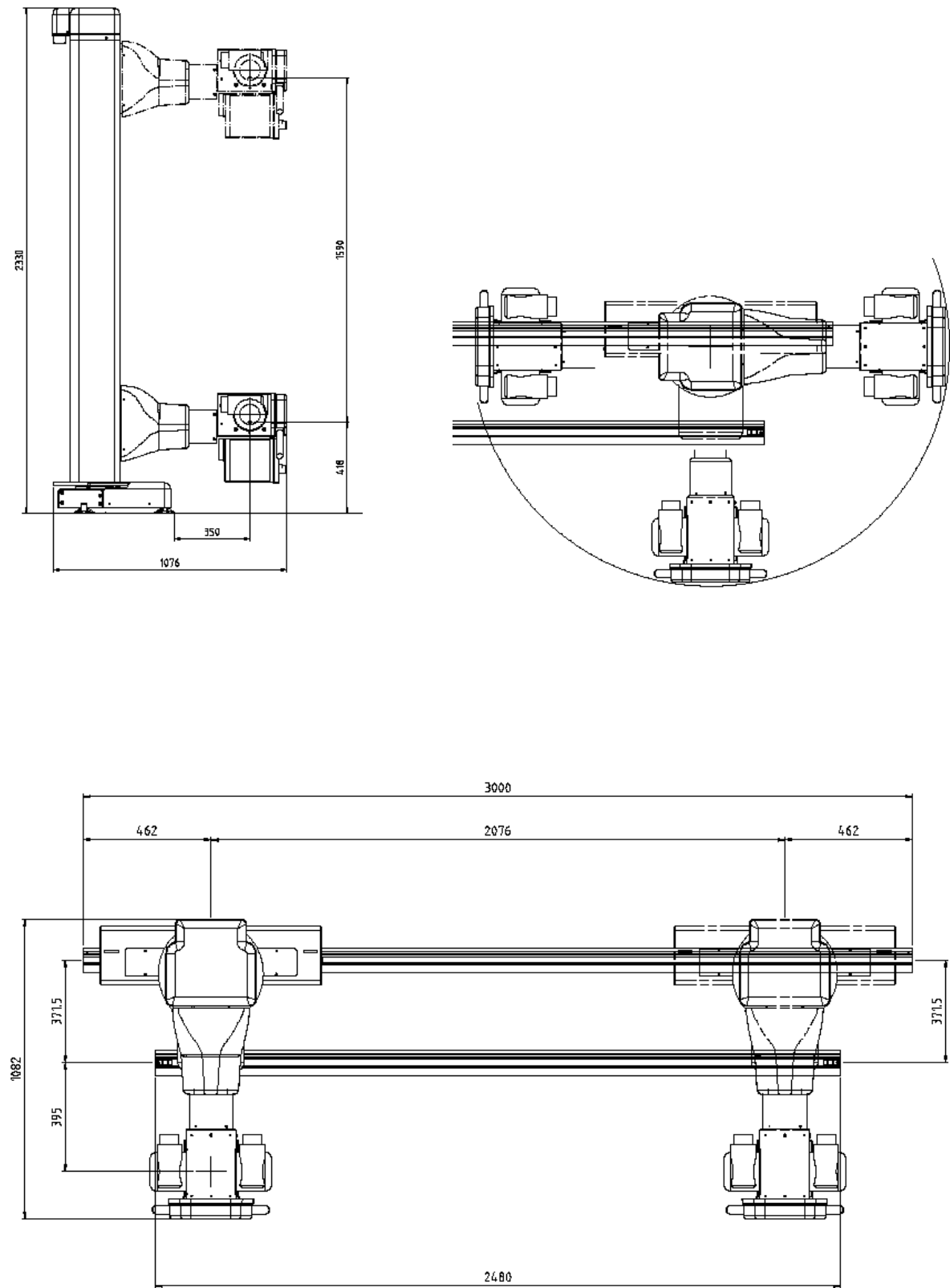
STATIX – COLUMN TUBE STAND	
<i>Maximum height of the x-ray tube focus</i>	2008 mm
<i>Minimum height of the x-ray tube focus</i>	418 mm (with vertical x-ray beam) 395 mm (with horizontal x-ray beam)
<i>Standard column rotation</i>	[+ 90°; – 90°] (mechanical detents every 90°)
<i>X-ray tube rotation on its axis</i>	[- 135 °; +135°]
<i>Longitudinal travel</i>	2076 mm
<i>Parameter display</i>	Goniometer display (LCD option on SYNCHRO)
<i>Breaking system</i>	Electromagnetic brakes
<i>Rail guide lenght</i>	Front 2480 mm, rear 3000 mm
<i>Rail guide height</i>	20 mm
<i>Column height</i>	2330 mm
<i>Distance between rails</i>	371,5 mm
<i>Arm lenght (x-ray focus - column centre)</i>	766,5 mm
<i>Column weight (without both x-ray tube and collimator)</i>	200 kg
<i>Rails weight</i>	15 Kg ca.
<i>Power supply and current absorption</i>	24 Vdc – 6 A

BT/BTE – RADIOGRAPHIC BUCKY TABLE		
	BTE	BT
<i>X-ray table dimensions</i>	2200 x770 mm	
<i>Material</i>	Carbon fiber equivalent material	
<i>Al equivalence</i>	0,5 mm Al @ 70 kVp	
<i>Height from floor</i>	From 550 to 885 mm	750 mm
<i>Longitudinal travel</i>	[-500; +500] mm	[-500; +500] mm
<i>Transversal travel</i>	[-130; +130] mm	[-130; +130] mm
<i>Breaking system</i>	Electromagnetic brakes	Electromagnetic brakes
<i>x-ray table - film distance</i>	68 mm	68 mm
<i>Potter longitudinal travel</i>	400 mm	400 mm
<i>Maximum patient weight</i>	250 Kg	250 Kg
<i>Table weight</i>	250 Kg	140 Kg
<i>SID with STATIX</i>	0 – 1550 mm	0 – 1350 mm
<i>Raising speed</i>	24 mm/s	-
<i>Power supply</i>	220-240 Vac – 50/60 Hz	220-240 Vac – 50/60 Hz
<i>Current absorption</i>	2 A (standby) 12 A (max load)	1 A

BS45 – VERTICAL BUCKY STAND	
<i>Column height</i>	2196 mm
<i>Max. Height panel centre</i>	2020 mm
<i>Min. Height panel centre</i>	440 mm
<i>Breaking system</i>	Electromagnetic brakes
<i>Panel dimensions</i>	600 mm x 670 mm (LxH)
<i>Panel – film distance</i>	60 mm
<i>Al equivalence (Panel)</i>	<0,5 mm Al @ 70 kVp
<i>Weight</i>	200 Kg
<i>Potter power supply</i>	24 Vac 50/60 Hz 1,5 A

SIZE AND DIMENSIONS

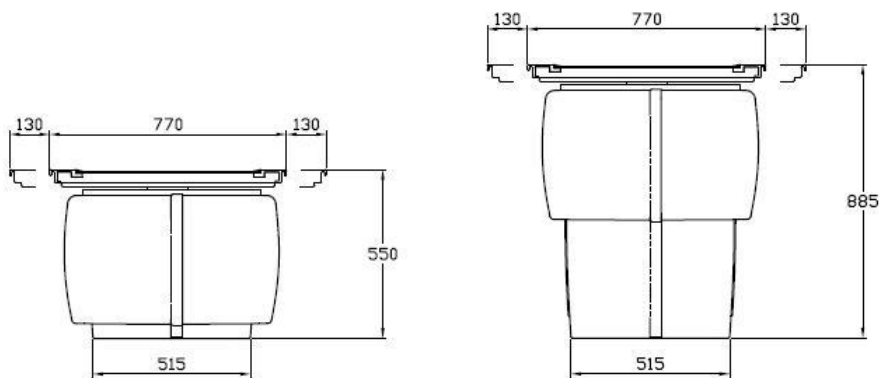
STATIX



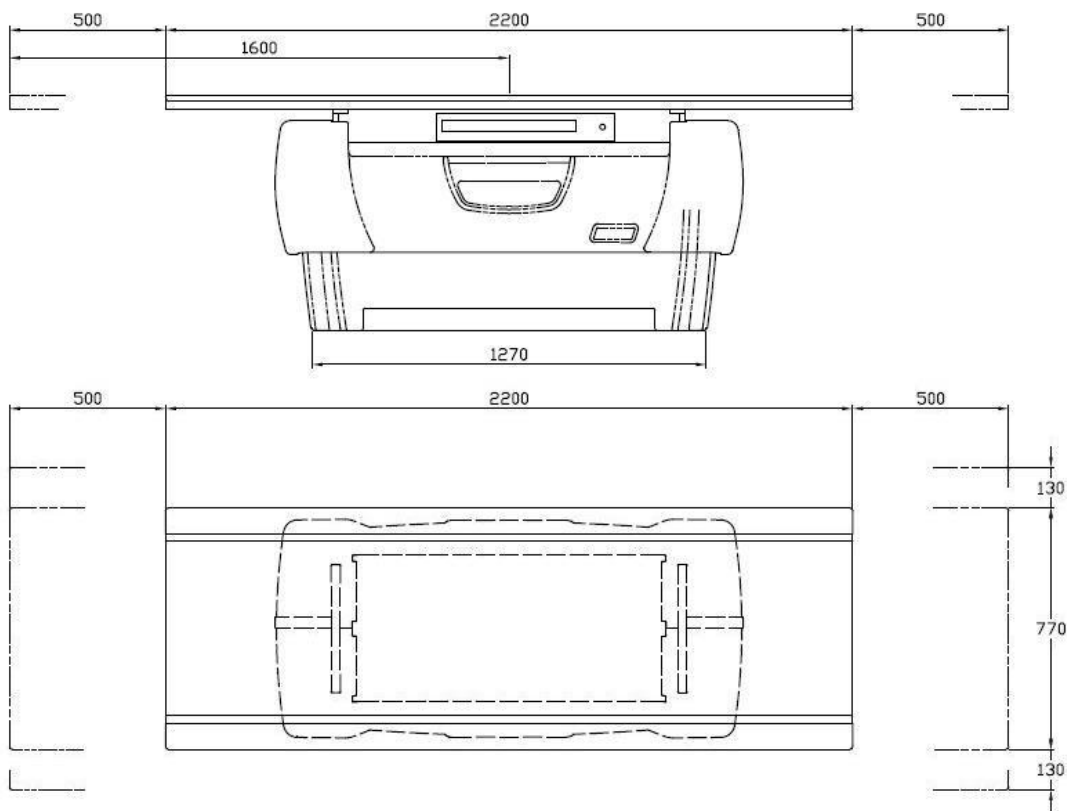
BTE (BT)



Lateral view for BT

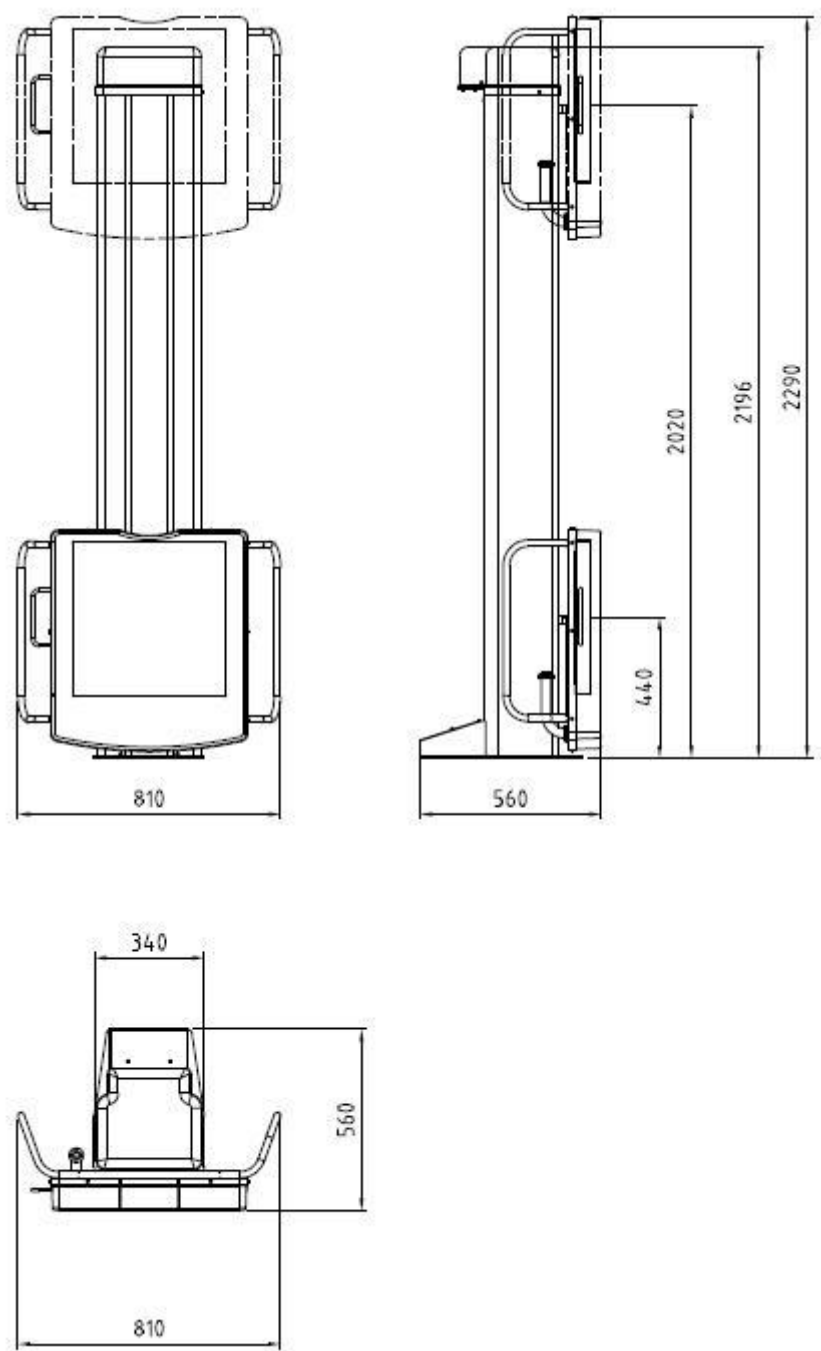


Lateral view for BTE



Top and Front View for BT/BTE

BS45



CLASSIFICATIONS

All the above mentioned devices for conventional x-ray use have been has been designed, built and tested accordingly to European directives: 07/47CE (ex 93/42CE), 89/336 CEE, and, in particular, to the following technical requirements:

CEI EN 60601-1

CEI EN 60601-1-3

CEI EN 60601-2-28

CEI EN 60601-1-2

CEI EN 60601-2-32

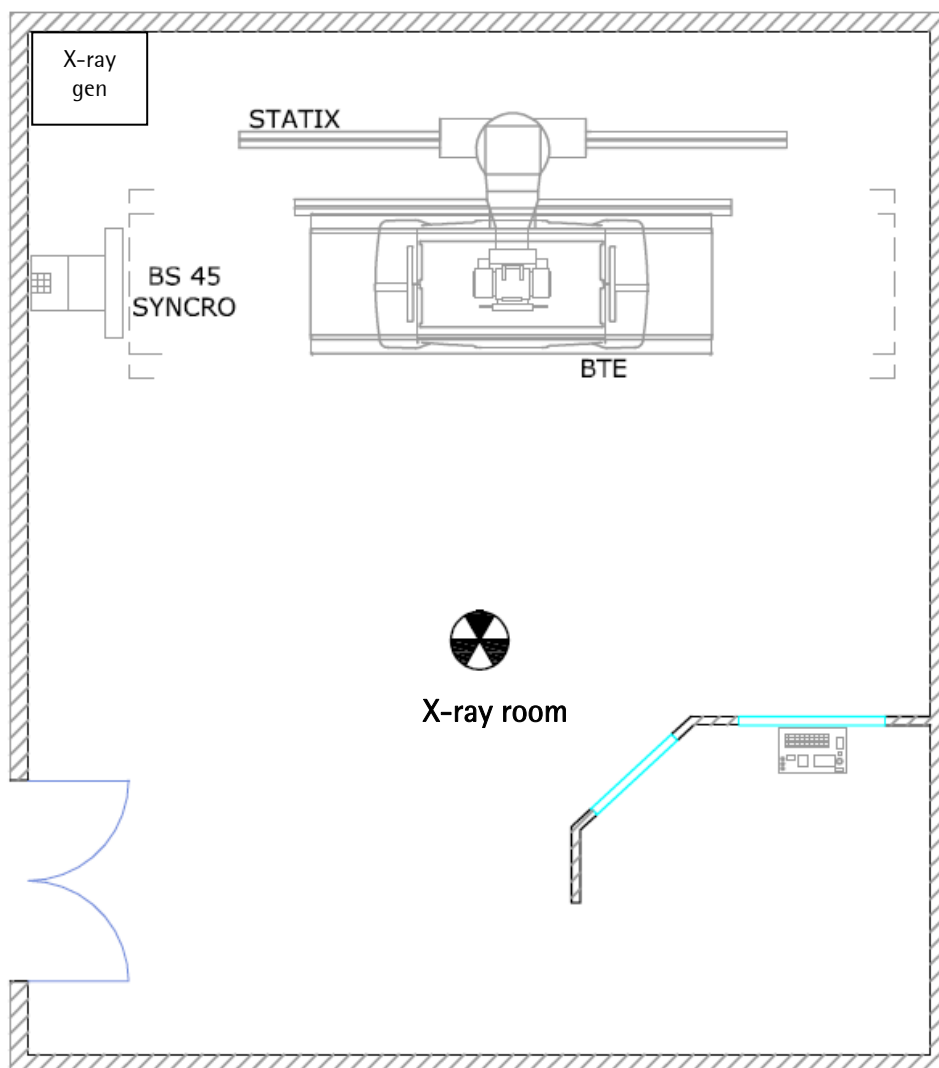
All RAD Room devices are a Class I device,s by the EEC 93/42 and a Class I type B by the CEI EN 60601-1.

ITALRAY is certified according to international standards: UNI EN ISO 9001:2008 (certificate n° CERT-10119-2002-AQ-FLR-SINCERT) , UNI EN ISO 13485:2003 (certificate CERT-03181-98-AQ-IND-SINCERT) by Det Norske Veritas (DNV).

INSTALLATION AND WARRANTY

Complete RAD room can be installed only by authorized technical personnel that has been appropriately trained by ITALRAY. Upon request, ITALRAY Installation Office can prepare installation layouts (including eventual construction and electrical). ITALRAY can offer to its customers a wide range of service plans that will perfectly fit customer needs and preferences .

ITALRAY guarantees its medical devices for one year from shipment date. It's possible to extend the period by subscribing to a service contract with modality and need of the customer.



Sample of x-ray room layout with BTE, BS45 and Italray Xray generator.

