

CT Whole Body Phantom **PBU-60**

Product No. **PH-2B**

Available in Summer 2009 *Specifications are subject to change.

A unique, life size whole body phantom for CT provides a variety of educational application as well as visual evaluation in finding out optimal scanning conditions. The phantom can also be used for plain X-ray, showing life-like images. No metal parts or liquid structure are used.



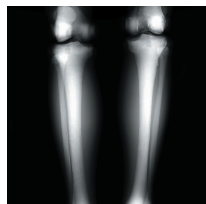
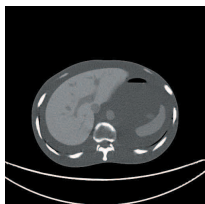
Whole Body CT



3D reconstruction of CT data



PLAIN X-RAY



 **KYOTO KAGAKU**

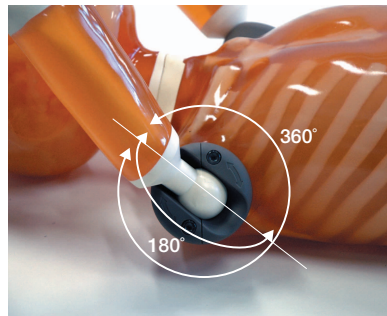
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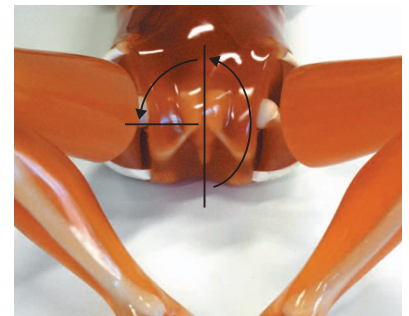
Main joints have close-to human articulation, allowing various positioning for training.



Improved shoulder joint system enables PBU-60 to take arm-up position.



Shoulders:
rotate through a full 360 degrees in the sagittal plane, approx. 180 degrees to side-ways.



Hip joints:
rotate forward up to approx. 90 degrees, then abduct up to 45 degrees each.

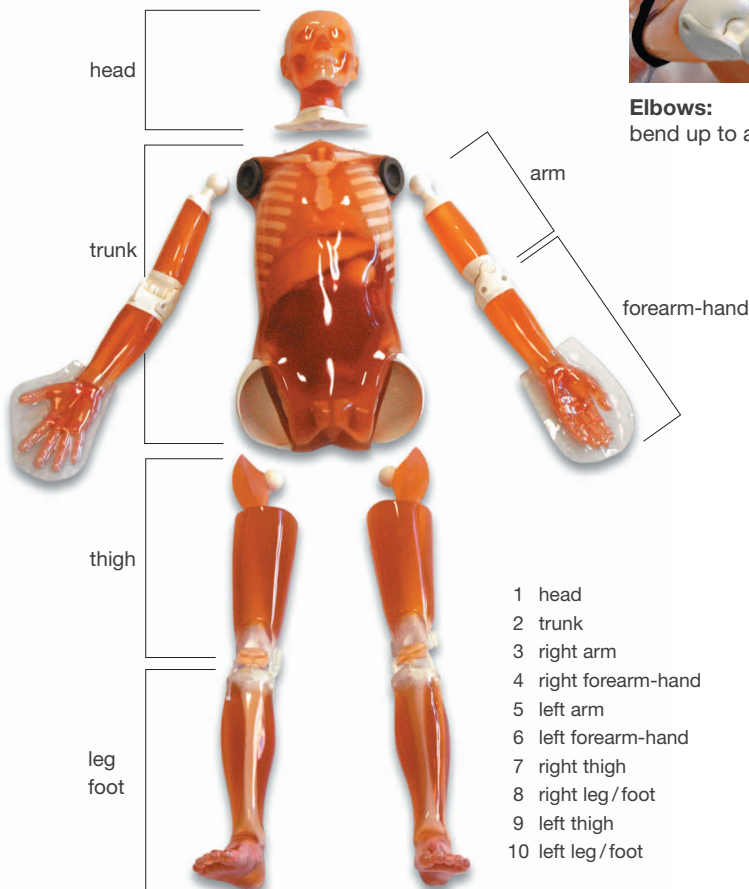


Elbows:
bend up to approx. 90 degrees.



Knees:
bend up to approx. 90 degrees.

The phantom can be disassembled into 10 parts.

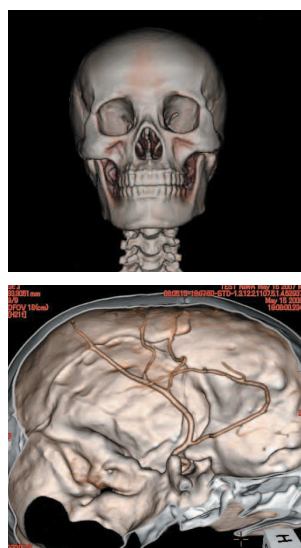


- 1 head
- 2 trunk
- 3 right arm
- 4 right forearm-hand
- 5 left arm
- 6 left forearm-hand
- 7 right thigh
- 8 right leg/foot
- 9 left thigh
- 10 left leg/foot



An adjustable head supporter comes with the set, facilitating various head position setting.

Organs are anatomically correct and have appropriate HU numbers.

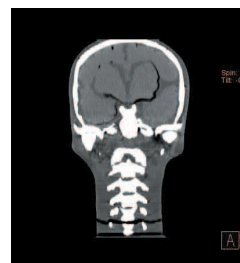


Internal Organs

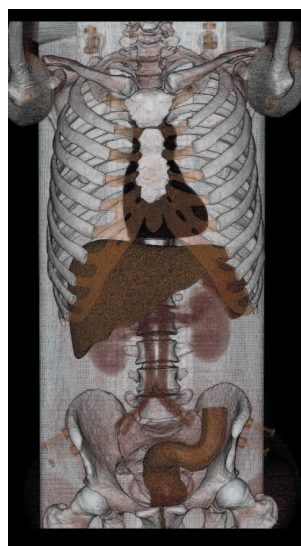
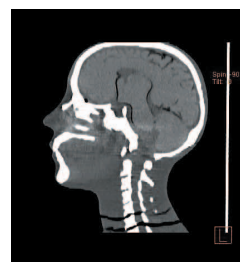
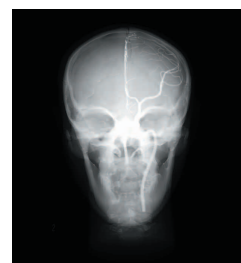
Head

- Synthetic skull
- Cervical vertebrae
- Brain
- Cerebrum
- Mesencephalon
- Cerebellum
- Cerebral ventricles
- Eyeballs
- Arteries with contrast medium (left half only)

CT images



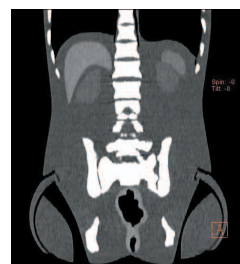
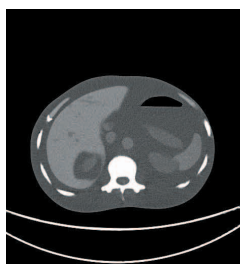
X-ray images



Internal Organs

Trunk

- Vertebrae
- Clavicles
- Ribs
- Sternum
- Scapula
- Coxal bones
- Femurs
- Lungs with pulmonary vessels (up to third bifurcations)
- Trachea (up to fourth bifurcations)
- Liver with portal and hepatic veins
- Kidneys
- Gallbladder
- Spleen
- Aorta
- Cava
- Ureter
- Urinary bladder
- Prostate
- Rectum
- Sigmoid Colon



3D reconstruction of CT data

Materials and features:

- Soft tissue and organs: Urethane base resin (SZ-50)
- Synthetic bones: Epoxy base resin
- Joint attachments: Epoxy, urethane with carbon fiber
- Screws: Poly carbonate

Soft tissue (SZ-50) material

| Material | Density g/cm3 | Effective Atomic Number | Electron Density x10 ⁻²³ e/g | Elemental Composition (wt%) | | | |
|-----------------------------------|---------------|-------------------------|---|-----------------------------|-------|-------|---------|
| | | | | H | C | N | O |
| Water | 1.000 | 7.417 | 3.343 | 11.19 | | | 88.81 |
| SZ-50 | 1.061 | 6.14 | 3.258 | 8.41 | 72.25 | 4.61 | 14.73 |
| | | | | Soft tissue | | Liver | Kidneys |
| Hounsfield number (Approximation) | | | | | | | |
| Density g/cm3 | | | | | | | |



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CT Whole Body Phantom PBU-60

Product No. **PH-2B**

Set Includes:

- 1 whole body phantom PBU-60 *provisional name (separable into 10 parts)
- Synthetic bones and organs listed on the page 8 are embedded
- 1 head supporter
- 1 set of replacement joint connectors and screws (1 piece for each)
- 1 flat head screwdriver
- 1 set of sample X-ray films

phantom size: approx. 165 cm height
 phantom weight: approx. 50 kg
 packing size: approx. 85 x 60 x 44 cm two-pack
 packing weight: approx. 80 kg

Specifications are subject to change.

All parts of CT Whole Body Phantom PBU-60 can be ordered individually.

| | | | |
|---------|-------|---------|--------------|
| PH-2B-1 | Head | PH-2B-4 | Forearm-hand |
| PH-2B-2 | Trunk | PH-2B-5 | Thigh |
| PH-2B-3 | Arm | PH-2B-6 | Leg/Foot |

PH-2B-1 Head

Specifications are subject to change.

Whole Body Phantom PBU-50

Product No. **PH-2**

The Whole body phantom PBU-50 is a life-size, full body anthropomorphic phantom with a state-of-the-art synthetic skeleton, lungs, liver, mediastinum and kidneys embedded in KYOTOKAGAKU original soft tissue substitute. Movable joints allow basic positioning for plain X-ray and training/research applications can be enriched by disassembling the phantom into 10 individual parts (head, limbs and trunk). There are no metal parts or liquid structures.

Anatomy:

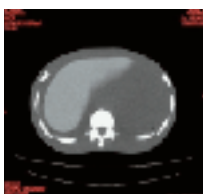
Life size synthetic skeleton
 Hands and feet with bone trabeculae
 Lungs with pulmonary vessels
 Mediastinal space
 Liver
 Kidneys

phantom size: approx. 165 cm height
 phantom weight: approx. 50 kg
 packing size: approx. 85 x 60 x 44 cm two-pack
 packing weight: approx. 80 kg

Specifications are subject to change.

CT

PLAIN X-RAY



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