

All PIXY Phantoms Feature:

- Realistic Supine, Lateral, and Oblique Positioning
- Shoulders Rotate 360 Degrees and Open 180 Degrees Sideways
- Elbows and Knees Bend 90 Degrees
- Full Head Rotation
- Limbs and Head are Detachable at Joints
- Segmented Joints Allow for Approximate Human Articulation and Flexibility
- Organs Accept Contrast Media

Applications

- RSD Phantoms are the **Ideal Substitutes** for Human Patients for Teaching and Training Radiological (X-Ray and CT) Technologists
- Unlimited Repetition** of Most Views. Patients Cannot Be Used For This
- Used for Optimizing Image Quality and Radiation Dose Exposure
- Provide **Valid Feedback** to Evaluate Trainee Performance
- Used to **Benchmark and Trend** Image Quality Performance
- Used to Develop **New Imaging Protocols**
- Highly Customizable - Including **Custom Pathology and Injury**

Anatomy

- | | | |
|---------|--------------|-----------------|
| Stomach | Gall Bladder | Urinary Bladder |
| Kidneys | Rectum | Sigmoid Flexure |



Repeatable, Durable, Necessary

Radiology Support Devices, Inc. represents over 30 years of product innovation, development, and testing to deliver the finest human equivalent radiological subjects. As the original standard, our phantoms have proven to be consistent and reliable devices that endure the most rigorous use.



SIZE *

LENGTH	156 cm 5 ft 1 in
WEIGHT	48 kg 105 lbs

* Based on an average ADULT SIZED FEMALE

MATERIAL

RSD SOFT TISSUE	1.18
CORTICAL BONE	1.08

DENSITY (g/cc)

RSD SOFT TISSUE

Energy (MeV)	mean HU	Calculated μ	μ (ICRU 44)	% difference	Ratio
00.08	60.30	0.1948	0.1932	0.0080	0.9921
00.10	52.88	0.1797	0.1795	0.0015	0.9985
00.12	57.10	0.1717	0.1709	0.0044	0.9956
00.14	52.95	0.1623	0.1624	0.0007	1.0007
00.20	--	0.1477	0.1439	0.0261	0.9746
00.30	--	0.1245	0.1246	0.0004	1.0004
00.60	--	0.0950	0.0941	0.0101	0.9900
00.80	--	0.0825	0.0826	0.0013	1.0013
01.00	--	0.0744	0.0743	0.0018	0.9982
02.00	--	0.0520	0.0519	0.0018	0.9982
03.00	--	0.0351	0.0357	0.0171	1.0174
06.00	--	0.0288	0.0291	0.0088	1.0088
08.00	--	0.0252	0.0255	0.0098	1.0099
10.00	--	0.0229	0.0232	0.0149	1.0151
15.00	--	0.0203	0.0203	0.0015	0.9985
20.00	--	0.0189	0.0189	0.0017	1.0017

CORTICAL BONE

Energy (MeV)	mean HU	Calculated μ	μ (ICRU 44)	% difference	Ratio
00.08	1365	0.4345	0.4280	0.0151	0.9851
00.10	1048	0.3496	0.3562	0.0184	1.0188
00.12	0977	0.3211	0.3274	0.0191	1.0195
00.14	0902	0.2932	0.2986	0.0180	1.0184
00.20	--	0.2511	0.2513	0.0009	1.0009
00.30	--	0.2155	0.2137	0.0084	0.9916
00.60	--	0.1596	0.1598	0.0011	1.0011
00.80	--	0.1403	0.1402	0.0010	0.9990
01.00	--	0.1274	0.1261	0.0106	0.9895
02.00	--	0.0883	0.0885	0.0017	1.0017
03.00	--	0.0611	0.0625	0.0229	1.0235
06.00	--	0.0512	0.0525	0.0246	1.0253
08.00	--	0.0468	0.0474	0.0120	1.0121
10.00	--	0.0446	0.0444	0.0039	0.9962
15.00	--	0.0410	0.0409	0.0016	0.9984
20.00	--	0.0393	0.0397	0.0102	1.0103

Linear Attenuation Data:

Monte Carlo simulation was used to calculate linear attenuation coefficients as a function of beam.

Monte Carlo results were validated with linear attenuation coefficients derived from Hounsfield Unit measurements at discreet energy levels.

RSD Phantom material linear attenuation data was compared to NIST data using ICRU Report 44 compositions of human tissues.

NIST data was interpolated when necessary.

MODELS

RS-102	The original opaque PIXY Phantom
RS-102T	Transparent Version of RS-102

TAKE-APART PIXY MODELS

RS-103	Fill Ports and Organs
RS-103CT**	Dual modality, CT and X-Ray
RS-103T	Transparent, Fill Ports and Organs
RS-104	Organs Only, NO FILL PORTS
RS-104T	Transparent, Organs Only, NO FILL PORTS
RS-105	NO ORGANS OR FILL PORTS
RS-105T	Transparent, NO ORGANS OR FILL PORTS

**RS-103CT includes extra organs including Liver, Large Intestine, and Heart



RS-103 with organs

PLEASE CONTACT US FOR CUSTOM ORDERS AND REFURBISHMENT





RS-108 and RS-108T HEAD PHANTOM WITH CERVICAL SPINE

All RSD Anthropomorphic Body Sections feature the same RSD Tissue and RSD Bone that is found in PIXY. The RS-108 and RS-108T allow for tremendous flexibility in training. They are a rugged sectional representation of an average male, 175 cm (5'9") tall, weighing 74 kg (162 lbs). They provide a comprehensive platform for evaluation of imaging systems and imaging techniques under realistic conditions.

Custom pathology and injury available including:

- Depressed skull fracture at any desired location
- Tumor
- Lesion

ADDITIONAL CUSTOM PATHOLOGIES AVAILABLE BASED ON USER REQUIREMENTS

Applications

- CT
- X-Ray
- Dental X-Ray
- CBCT
- Panographic Imaging

Anatomy

- Skull and spine composed of Cortical (TS-1003) and trabecular bone (TS-1002) equivalent materials.
- Brain material composed of RSD ART soft tissue material (TS-1001-T).
- Spinal cord material made of ART soft tissue material with density of 1.1 g/cc.
- Oral, Trachea, and sinus cavities filled with styrofoam.



Repeatable, Durable, Necessary

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SIZE *

HEIGHT	27.94 cm 11 in
WIDTH	20.35 cm 8 in
WEIGHT	6.35 kg 14 lbs

MATERIAL

RSD SOFT TISSUE	1.08
RSD CORTICAL BONE	1.18
RSD TRABECULAR BONE	1.17

DENSITY (g/cc)

RSD SOFT TISSUE					
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CORTICAL BONE					
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RSD SPONGIOSA					
Energy (MeV)	mean HU	Calculated μ	μ (ICRU 44)	% difference	Ratio
00.08	551	0.2849	--	--	--
00.10	515	0.2586	--	--	--
00.12	439	0.2337	--	--	--
00.14	318	0.1541	--	--	--

Linear Attenuation Data:

Monte Carlo simulation was used to calculate linear attenuation coefficients as a function of beam. Monte Carlo results were validated with linear attenuation coefficients derived from Hounsfield Unit measurements at discreet energy levels. RSD Phantom material linear attenuation data was compared to NIST data using ICRU Report 44 compositions of human tissues. NIST data was interpolated when necessary.

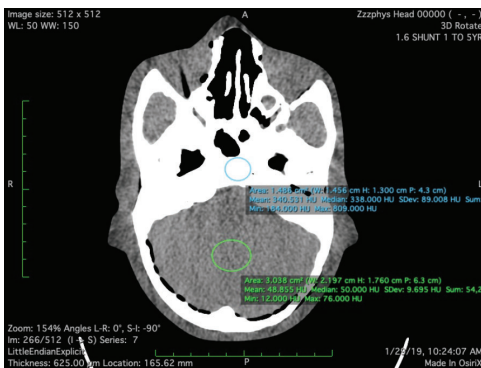


Figure 1 Axial CT scan of RS-108. ROIs are drawn in the Trabecular bone and soft tissue material to measure mean CT numbers. Linear attenuation coeffs were calculated from mean CT numbers.

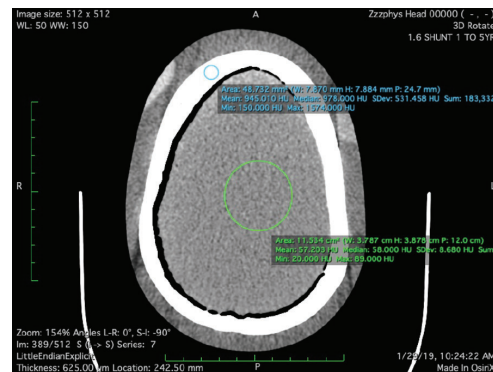


Figure 2 Axial CT scan of RS-108. ROIs are drawn in the Cortical bone and soft tissue material to measure mean CT numbers. Linear attenuation coeffs were calculated from mean CT numbers.

MODEL

RS-108 Opaque Head with Cervical Spine

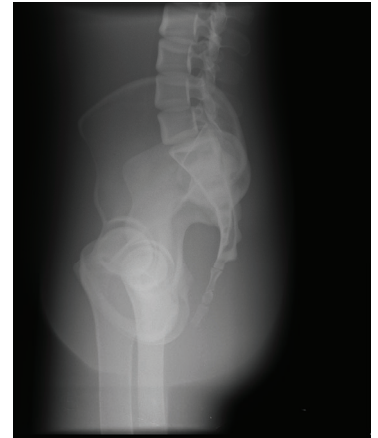
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RSDPhantoms.com | 310.518.0527



MORE INFO





RS-113 and RS-113T PELVIS

All RSD Anthropomorphic Body Sections feature the same RSD Tissue and RSD Bone that is found in PIXY. The RS-113 and RS-113T allow for tremendous flexibility in training. They are a rugged sectional representation of an average male, 175 cm (5'9") tall, weighing 74 kg (162 lbs). They provide a comprehensive platform for evaluation of imaging systems and imaging techniques under realistic conditions.

Custom pathology and injury available including:

- Broken or Damaged Spine or Hip
- Tumor
- Lesion

ADDITIONAL CUSTOM PATHOLOGIES AVAILABLE BASED ON USER REQUIREMENTS

Applications

CT X-Ray Dosimetry Verification

Anatomy

- Pelvis bone and spine composed of Cortical (TS-1003) and trabecular bone (TS-1002) equivalent materials.
- Pelvis encapsulated in RSD ART soft tissue material (TS-1001-T).
- Spinal cord material made of ART soft tissue material with density of 1.1 g/cc.



Repeatable, Durable, Necessary

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SIZE *

HEIGHT	40.95 cm 16.125 in	WIDTH	30.48 cm 12 in
WEIGHT	18.14 kg 40 lbs	DEPTH	21.59 8.5 in

MATERIAL

DENSITY (g/cc)

RSD SOFT TISSUE	1.18
CORTICAL BONE	1.08

RSD SOFT TISSUE

Energy (MeV)	mean HU	Calculated μ	μ (ICRU 44)	% difference	Ratio
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Linear Attenuation Data:

Monte Carlo simulation was used to calculate linear attenuation coefficients as a function of beam. Monte Carlo results were validated with linear attenuation coefficients derived from Hounsfield Unit measurements at discreet energy levels. RSD Phantom material linear attenuation data was compared to NIST data using ICRU Report 44 compositions of human tissues. NIST data was interpolated when necessary.

MODELS

RS-113	Opaque Pelvis
RS-113T	Transparent Pelvis

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THE ALDERSON RADIATION THERAPY PHANTOM

The Alderson Radiation Therapy phantom (ART) and its earlier version, the Alderson RANDO phantom, have been in use for over 30 years. The ART has been refined and improved in both design and materials. These phantoms are indispensable quality-assurance tools; about 10,000 are in use all over the world. They provide integrated tests of the entire chain of treatment planning and delivery.

ART phantoms are molded of tissue-equivalent material; they are designed within highly sophisticated technological constraints and follow ICRU-44 standards.

They are designed for accuracy and ease of use.

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SIZE *	maleART	femaleART
HEIGHT	175 cm 5 ft 9 in	155 cm 5 ft 1 in
WEIGHT	73.5 kg 162 lb	50 kg 110 lbs

*Sectional Size Equivalents

MATERIAL	DENSITY (g/cc)
RSD SOFT TISSUE	1.08
RSD CORTICAL BONE	1.18
RSD TRABECULAR BONE	1.17

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08.00	--	0.0252	0.0255	0.0098	1.0099
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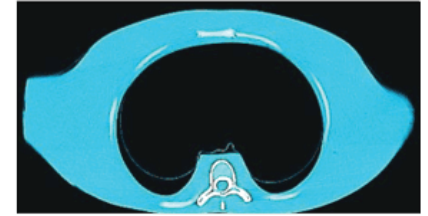
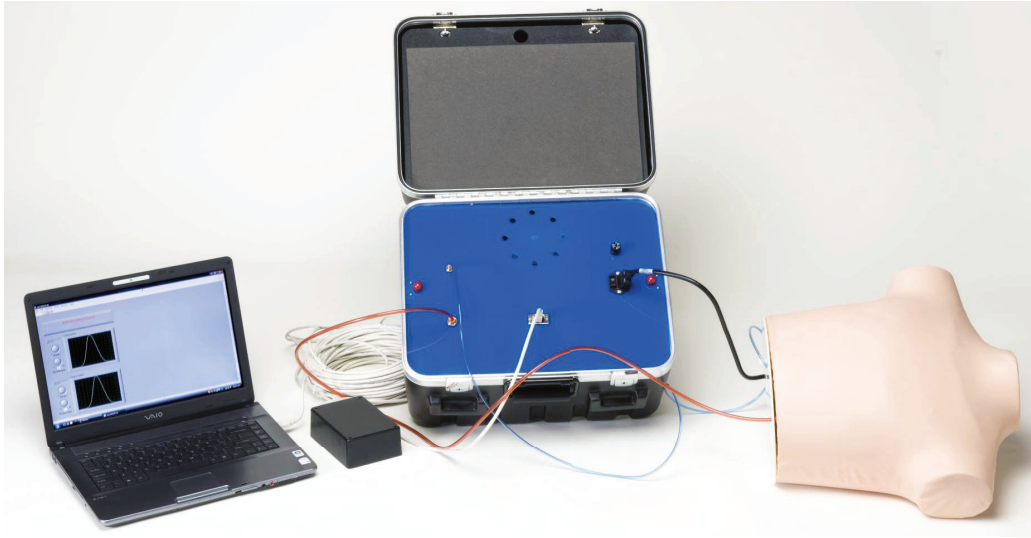
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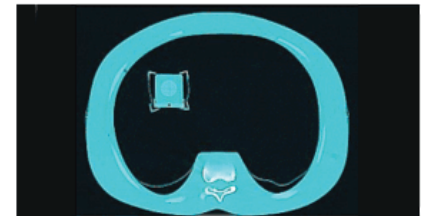
MODEL	UNDRILLED	3 cm x 3 cm	1.5 cm x 1.5 cm	
		GRID HOLE SPACING	GRID HOLE SPACING	
MALE ART FULL	ART-200X	ART-200	ART-200A	SECTIONS 0-35
MALE ART HEAD & NECK	ART-210X	ART-210	ART-210A	SECTIONS 0-9
MALE ART CHEST	ART-211X	ART-211	ART-211A	SECTIONS 10-25
MALE ART PELVIS	ART-212X	ART-212	ART-212A	SECTIONS 26-35
FEMALE ART FULL	ART-300X	ART-300	ART-300A	SECTIONS 0-32
FEMALE ART HEAD & NECK	ART-310X	ART-310	ART-310A	SECTIONS 0-9
FEMALE ART CHEST	ART-311X	ART-311	ART-311A	SECTIONS 10-23
FEMALE ART PELVIS	ART-312X	ART-312	ART-312A	SECTIONS 24-32

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CT slice through mid-thorax



CT showing tissue-equivalent moving target with film and dosimeter holder

RS-1500

The Dynamic Breathing Phantom is a state-of-the-art industry standard for planning lung cancer radiation therapy. It is designed to simulate an average adult humanoid torso including lungs, ribcage/chest-wall bone, skin and sub-dermis. The material properties of soft tissue, organs, bones, and joints provide a faithful simulation of the physical form of a human thorax and its radiological image properties.

This unique phantom has a spherical target within the lung equivalent lobe to simulate tumor motion inside the lung. The electro-pneumatic motion controller and easy to use phantom control software allows users to program different breathing patterns and breathing rates so that they can precisely plan the dose delivery to any patient.

APPLICATIONS

- 1) Stereotactic body radiation therapy (SBRT) planning
- 2) Intensity-modulated radiation therapy (IMRT)
- 3) External Beam therapy (EBT)
- 4) Optimization of free breathing protocols
- 5) Image quality assessments for x-ray, CT, IGRT

RS-1500 Includes the following:

- Phantom Control Software for Microsoft Windows
- USB Control Hardware with 100 foot vault cabling (150 foot optional)
- Electro-pneumatic motion controller
- The Breathing Phantom thoracic mannequin
- Target fixtures for imaging and radiation dosimetry
- Individual thorax and target motions & rates: sin2, sin4, sin6, 1-sin4, 1-sin6, 5-20 breath/min

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SIZE *

HEIGHT 175 cm | 5 ft 9 in

WEIGHT 18.14 kg | 40 lbs

*corresponding external body size of an adult male.

MATERIAL

DENSITY (g/cc)

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CORTICAL BONE 1.08

RSD SOFT TISSUE

CORTICAL BONE

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00.20	--	0.2511	0.2513	0.0009	1.0009
00.30	--	0.2155	0.2137	0.0084	0.9916
00.60	--	0.1596	0.1598	0.0011	1.0011
00.80	--	0.1403	0.1402	0.0010	0.9990
01.00	--	0.1274	0.1261	0.0106	0.9895
02.00	--	0.0883	0.0885	0.0017	1.0017
03.00	--	0.0611	0.0625	0.0229	1.0235
06.00	--	0.0512	0.0525	0.0246	1.0253
08.00	--	0.0468	0.0474	0.0120	1.0121
10.00	--	0.0446	0.0444	0.0039	0.9962
15.00	--	0.0410	0.0409	0.0016	0.9984
20.00	--	0.0393	0.0397	0.0102	1.0103

Linear Attenuation Data:

Monte Carlo simulation was used to calculate linear attenuation coefficients as a function of beam. Monte Carlo results were validated with linear attenuation coefficients derived from Hounsfield Unit measurements at discreet energy levels. RSD Phantom material linear attenuation data was compared to NIST data using ICRU Report 44 compositions of human tissues. NIST data was interpolated when necessary.

MODELS

RS-1500 Breathing Phantom

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RSD NUCLEAR MEDICINE PHANTOMS

The RSD Nuclear Phantoms serve a critical role in Nuclear Medicine and Science. These realistic test subjects allow for testing and research advancement for applications where patients cannot serve or should not serve.

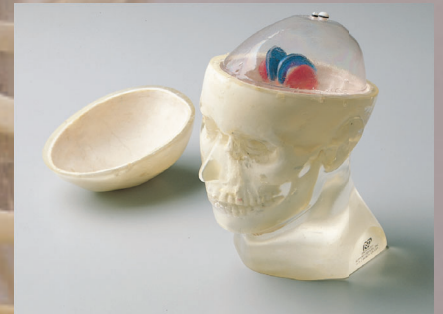
The Heart/Thorax Phantom is ideal for evaluation of detectability, extent and severity of myocardial infarcts in patients. This Phantom also provides valid assessment of mammoscintigraphy techniques.

The Striatal Phantom optimizes quantitative imaging in patients, using PET or SPECT.

These phantoms test reconstruction techniques, non-uniform attenuation and scatter correction methods using different radionuclides under realistic conditions.



RS-800T Heart/Thorax Phantom - Disassembled



RS-900T Striatal Head Phantom

Repeatable, Durable, Necessary

Radiology Support Devices, Inc. represents over 30 years of product innovation, development, and testing to deliver the finest human equivalent radiological subjects. As the original standard, our phantoms have proven to be consistent and reliable devices that endure the most rigorous use.

SIZE	maleART	femaleART
HEIGHT	175 cm 5 ft 9 in	155 cm 5 ft 1 in
WEIGHT	73.5 kg 162 lb	50 kg 110 lbs

MATERIAL	DENSITY (g/cc)
RSD SOFT TISSUE	1.08
RSD CORTICAL BONE	1.18
RSD TRABECULAR BONE	1.17

RSD SOFT TISSUE					
Energy (MeV)	mean HU	Calculated μ	μ (ICRU 44)	% difference	Ratio
00.08	60.30	0.1948	0.1932	0.0080	0.9921
00.10	52.88	0.1797	0.1795	0.0015	0.9985
00.12	57.10	0.1717	0.1709	0.0044	0.9956
00.14	52.95	0.1623	0.1624	0.0007	1.0007
00.20	--	0.1477	0.1439	0.0261	0.9746
00.30	--	0.1245	0.1246	0.0004	1.0004
00.60	--	0.0950	0.0941	0.0101	0.9900
00.80	--	0.0825	0.0826	0.0013	1.0013
01.00	--	0.0744	0.0743	0.0018	0.9982
02.00	--	0.0520	0.0519	0.0018	0.9982
03.00	--	0.0351	0.0357	0.0171	1.0174
06.00	--	0.0288	0.0291	0.0088	1.0088
08.00	--	0.0252	0.0255	0.0098	1.0099
10.00	--	0.0229	0.0232	0.0149	1.0151
15.00	--	0.0203	0.0203	0.0015	0.9985
20.00	--	0.0189	0.0189	0.0017	1.0017

CORTICAL BONE					
Energy (MeV)	mean HU	Calculated μ	μ (ICRU 44)	% difference	Ratio
00.08	1365	0.4345	0.4280	0.0151	0.9851
00.10	1048	0.3496	0.3562	0.0184	1.0188
00.12	0977	0.3211	0.3274	0.0191	1.0195
00.14	0902	0.2932	0.2986	0.0180	1.0184
00.20	--	0.2511	0.2513	0.0009	1.0009
00.30	--	0.2155	0.2137	0.0084	0.9916
00.60	--	0.1596	0.1598	0.0011	1.0011
00.80	--	0.1403	0.1402	0.0010	0.9990
01.00	--	0.1274	0.1261	0.0106	0.9895
02.00	--	0.0883	0.0885	0.0017	1.0017
03.00	--	0.0611	0.0625	0.0229	1.0235
06.00	--	0.0512	0.0525	0.0246	1.0253
08.00	--	0.0468	0.0474	0.0120	1.0121
10.00	--	0.0446	0.0444	0.0039	0.9962
15.00	--	0.0410	0.0409	0.0016	0.9984
20.00	--	0.0393	0.0397	0.0102	1.0103

RSD SPONGIOSA					
Energy (MeV)	mean HU	Calculated μ	μ (ICRU 44)	% difference	Ratio
00.08	551	0.2849	--	--	--
00.10	515	0.2586	--	--	--
00.12	439	0.2337	--	--	--
00.14	318	0.1541	--	--	--

Linear Attenuation Data:

Monte Carlo simulation was used to calculate linear attenuation coefficients as a function of beam. Monte Carlo results were validated with linear attenuation coefficients derived from Hounsfield Unit measurements at discreet energy levels. RSD Phantom material linear attenuation data was compared to NIST data using ICRU Report 44 compositions of human tissues. NIST data was interpolated when necessary.

MODEL DESCRIPTION

RS-800T	Heart/Thorax Phantom (Includes all items listed below)
RS-801	Thoracic Cavity with bottom plate
RS-803	Perfusable Lungs (Pair)
RS-804	Heart (With two hollow defects in myocardial wall. Standard or Custom Size.)
RS-805	Liver Shell
RS-806	Chest Overlay
RS-807	Removable Breast with set of 5 tumors
RS-809	Set of 10 threaded nylon tumor support rods
RS-810	Set of 5 fillable markers
RS-811	Tumor only, with rods sizes - 3, 6, 9, 12, and 15m

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RS-109, RS-110



RS-108T



RS-114T



RS-114



RS-113T



RS-123



RS-123T



RS-116T



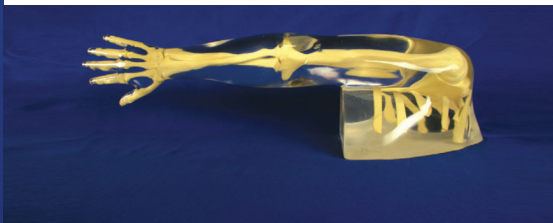
RS-116



RS-111



RS-111T



RS-122T



RS-118T



RS-120T

For product specific features and technical information, please refer to the product specific tech sheet.

Custom Pathology and Injury is available for every RS-SERIES Phantom.

Repeatable, Durable, Necessary

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MATERIAL DENSITY (g/cc)

RSD SOFT TISSUE	1.18
CORTICAL BONE	1.08

RSD SOFT TISSUE						CORTICAL BONE					
Energy (MeV)	mean HU	Calculated μ	μ (ICRU 44)	% difference	Ratio	Energy (MeV)	mean HU	Calculated μ	μ (ICRU 44)	% difference	Ratio
00.08	60.30	0.1948	0.1932	0.0080	0.9921	00.08	1365	0.4345	0.4280	0.0151	0.9851
00.10	52.88	0.1797	0.1795	0.0015	0.9985	00.10	1048	0.3496	0.3562	0.0184	1.0188
00.12	57.10	0.1717	0.1709	0.0044	0.9956	00.12	0977	0.3211	0.3274	0.0191	1.0195
00.14	52.95	0.1623	0.1624	0.0007	1.0007	00.14	0902	0.2932	0.2986	0.0180	1.0184
00.20	--	0.1477	0.1439	0.0261	0.9746	00.20	--	0.2511	0.2513	0.0009	1.0009
00.30	--	0.1245	0.1246	0.0004	1.0004	00.30	--	0.2155	0.2137	0.0084	0.9916
00.60	--	0.0950	0.0941	0.0101	0.9900	00.60	--	0.1596	0.1598	0.0011	1.0011
00.80	--	0.0825	0.0826	0.0013	1.0013	00.80	--	0.1403	0.1402	0.0010	0.9990
01.00	--	0.0744	0.0743	0.0018	0.9982	01.00	--	0.1274	0.1261	0.0106	0.9895
02.00	--	0.0520	0.0519	0.0018	0.9982	02.00	--	0.0883	0.0885	0.0017	1.0017
03.00	--	0.0351	0.0357	0.0171	1.0174	03.00	--	0.0611	0.0625	0.0229	1.0235
06.00	--	0.0288	0.0291	0.0088	1.0088	06.00	--	0.0512	0.0525	0.0246	1.0253
08.00	--	0.0252	0.0255	0.0098	1.0099	08.00	--	0.0468	0.0474	0.0120	1.0121
10.00	--	0.0229	0.0232	0.0149	1.0151	10.00	--	0.0446	0.0444	0.0039	0.9962
15.00	--	0.0203	0.0203	0.0015	0.9985	15.00	--	0.0410	0.0409	0.0016	0.9984
20.00	--	0.0189	0.0189	0.0017	1.0017	20.00	--	0.0393	0.0397	0.0102	1.0103

Linear Attenuation Data:

Monte Carlo simulation was used to calculate linear attenuation coefficients as a function of beam. Monte Carlo results were validated with linear attenuation coefficients derived from Hounsfield Unit measurements at discreet energy levels. RSD Phantom material linear attenuation data was compared to NIST data using ICRU Report 44 compositions of human tissues. NIST data was interpolated when necessary.

MODELS

RS-108 or RS-108T	Head with Cervical Spine (C1-C7)	RS-118 or RS-118T	Knee, Right or Left (Nat)
RS-109 or RS-109T	Head without Cervical Spine	RS-119 or RS-119T	Knee, Left Only (90° Flexion)
RS-111 or RS-111T	Thorax	RS-120 or RS-120T	Elbow, Right or Left (Nat)
RS-113 or RS-113T	Pelvis	RS-121 or RS-121T	Elbow, Left Only (90° Flexion)
RS-114 or RS-114T	Hand/Wrist, Right or Left (Nat)	RS-122 or RS-122T	Arm/Shoulder, Right Only (Nat)
RS-115 or RS-115T	Hand/Wrist, Left Only (Obl)	RS-123 or RS-123T	Leg/Hip, Right Only (Nat)
RS-116 or RS-116T	Foot/Ankle, Right or Left (Nat)		
RS-117 or RS-117T	Foot/Ankle, Left Only (Obl)		

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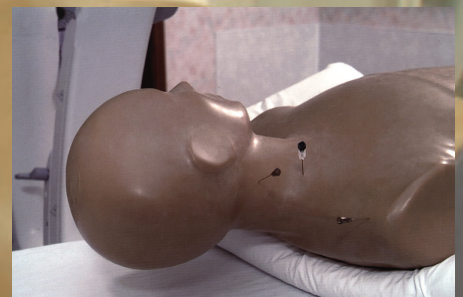
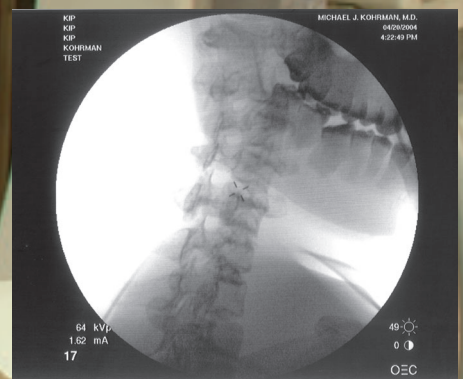
RS-1300 "PIP" Premium Injection Phantom

- ▷ Always available for Teaching/Training
- ▷ Always available to Maintain Skills
- ▷ Checks Out Fluoroscopy System
- ▷ No Biohazards Which Are Associated With Cadavers

PIP has been designed to provide realistic functions, while avoiding complications not essential to its use. Proper fluoroscopic needle placement techniques can be taught or practiced without fear of biological contamination hazards associated with fresh or frozen cadavers.

All RSD Anthropomorphic Body Sections feature the same RSD Tissue and RSD Bone that is found in PIXY. The RS-108 and RS-108T allow for tremendous flexibility in training.

They are a rugged sectional representation of an average male, 175 cm (5'9") tall, weighing 74 kg (162 lbs). They provide a comprehensive platform for evaluation of imaging systems and imaging techniques under realistic conditions.



Repeatable, Durable, Necessary

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SIZE *	maleART	femaleART
HEIGHT	175 cm 5 ft 9 in	155 cm 5 ft 1 in
WEIGHT	73.5 kg 162 lb	50 kg 110 lbs

*Sectional Size Equivalents

MATERIAL	DENSITY (g/cc)
RSD SOFT TISSUE	1.08
RSD CORTICAL BONE	1.18
RSD TRABECULAR BONE	1.17

RSD SOFT TISSUE					
Energy (MeV)	mean HU	Calculated μ	μ (ICRU 44)	% difference	Ratio
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00.14	52.95	0.1623	0.1624	0.0007	1.0007
00.20	--	0.1477	0.1439	0.0261	0.9746
00.30	--	0.1245	0.1246	0.0004	1.0004
00.60	--	0.0950	0.0941	0.0101	0.9900
00.80	--	0.0825	0.0826	0.0013	1.0013
01.00	--	0.0744	0.0743	0.0018	0.9982
02.00	--	0.0520	0.0519	0.0018	0.9982
03.00	--	0.0351	0.0357	0.0171	1.0174
06.00	--	0.0288	0.0291	0.0088	1.0088
08.00	--	0.0252	0.0255	0.0098	1.0099
10.00	--	0.0229	0.0232	0.0149	1.0151
15.00	--	0.0203	0.0203	0.0015	0.9985
20.00	--	0.0189	0.0189	0.0017	1.0017

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00.80	--	0.1403	0.1402	0.0010	0.9990
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08.00	--	0.0468	0.0474	0.0120	1.0121
10.00	--	0.0446	0.0444	0.0039	0.9962
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20.00	--	0.0393	0.0397	0.0102	1.0103

RSD SPONGIOSA					
Energy (MeV)	mean HU	Calculated μ	μ (ICRU 44)	% difference	Ratio
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00.10	515	0.2586	--	--	--
00.12	439	0.2337	--	--	--
00.14	318	0.1541	--	--	--

Linear Attenuation Data:

Monte Carlo simulation was used to calculate linear attenuation coefficients as a function of beam. Monte Carlo results were validated with linear attenuation coefficients derived from Hounsfield Unit measurements at discreet energy levels. RSD Phantom material linear attenuation data was compared to NIST data using ICRU Report 44 compositions of human tissues. NIST data was interpolated when necessary.

MODEL	DESCRIPTION
RS-1300	"PIP" (PREMIUM INJECTION PHANTOM)

