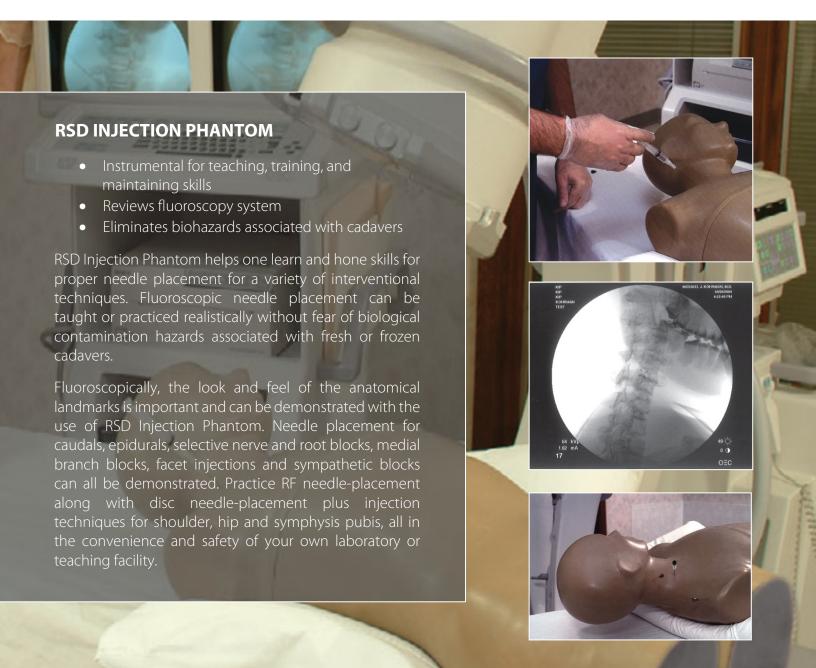


RSD INJECTION PHANTOM

Model Number: RS-1300



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.





RSD INJECTION PHANTOM

Model Number: RS-1300

DENSITY (g/cc)

1.08

1.18

1.17

Ratio

1.0253

1.0121

0.9962

0.9984

1.0103

difference

0.0246

0.0120

0.0039

0.0016

0.0102

SIZE*	Male ART		
HEIGHT	175 cm 5 ft 9 in		
WEIGHT	73.5 kg 162 lbs		

^{*}Sectional Size Equivalent

RSD SOFT TISSUE									
Energy (MeV)	mean HU	Calculated M	μ (ICRU 44)	% difference	Ratio				
80.00	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				

RSD SPONGIOSA									
Energy (MeV)	mean HU	Calculated µ	μ (ICRU 44)	% difference	Ratio				
80.00	551	0.2849							
00.10	515	0.2586							
00.12	439	0.2337							
00.14	318	0.1541							

00.08 1365 0.4345 0.4280 0.0151 0.9851 0.3496 0.3562 0.0184 1.0188 00.10 1048 00.12 0977 0.3274 0.0191 1.0195 0.3211 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 0.1274 0.1261 0.0106 0.9895 01.00 02.00 0.0883 0.0885 0.0017 1.0017 03.00 0.0611 0.0625 0.0229 1.0235

RSD CORTICAL BONE

(ICRU 44)

0.0525

0.0474

0.0444

0.0409

0.0397

Calculated

0.0512

0.0468

0.0446

0.0410

0.0393

μ

Linear Attenuation Data:

MATERIAL

Energy

(MeV)

06.00

08.00

10.00

15.00

20.00

RSD SOFT TISSUE

RSD CORTICAL BONE

mean

HU

RSD TRABECULAR BONE

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 NUMBER:

RS-1300 RSD Injection Phantom











