

3D Sectional Torso Phantom

Model 600



USER GUIDE

CIRS

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OVERVIEW

An anthropomorphic, tissue-equivalent phantom is ideal for calibration, QA and training when a specific internal organ is of interest in medical imaging or dosimetry applications. Phantom should accommodate a variety of dosimeters and be usable on any x-ray imaging or treatment device so that it may be easily integrated into existing programs.

PHANTOM DESCRIPTION

The 3D Sectional Torso Phantom is designed to provide an accurate simulation of an average torso (22 cm posterior-anterior thickness) for medical imaging and dosimetry applications. The epoxy materials used to fabricate the phantom provide optimal tissue simulation between the Diagnostic and Therapy energy range (40 keV to 20 MeV).

Unlike other cross-sectional dosimetry phantoms, the Model 600 includes internal organ structures such as the lungs, heart, liver, kidneys, spleen and pancreas. All simulated organs match the tissue density of actual organs and can be clearly visualized.

The lower portion of the phantom contains a soft bolus material simulating a mix of 30 percent adipose and 70 percent muscle tissue. Simulated muscle material layers the rib cage and vertebral column. The exterior envelope simulates a mix of 43 percent adipose and 57 percent muscle tissue. Standard phantoms consist of 25 mm thick contiguous sections.

SPECIFICATIONS

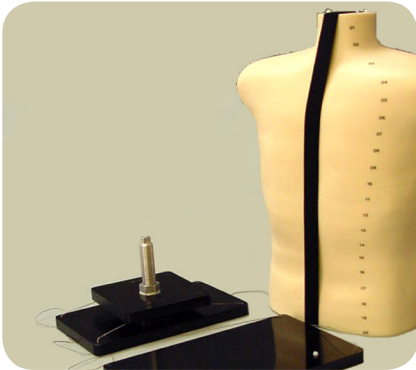
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|---------------------------|---|
| OVERALL DIMENSIONS | 50 cm height x 22 cm front to back (at torso level) |
| WEIGHT | 86 lbs. (32.1 kg) |

Model 600 Includes:

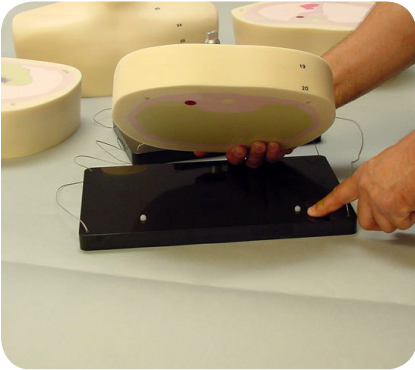
- Sectional Slabs numbered 1-20
- Reinforcement base
- Reinforcement top with threaded assembly
- Open-end wrench
- Bag of extra string for reinforcement assembly
- Roll black (light proof) electrical tape
- User Guide
- 48-Month Warranty

ASSEMBLY PROCEDURE

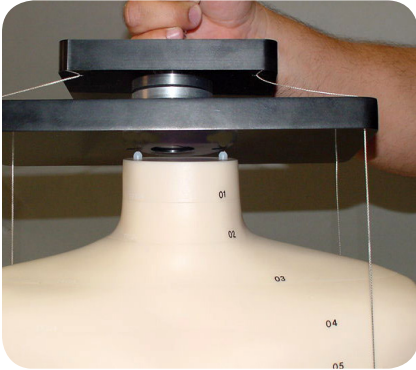
(All references to right or left are with phantom facing forward)



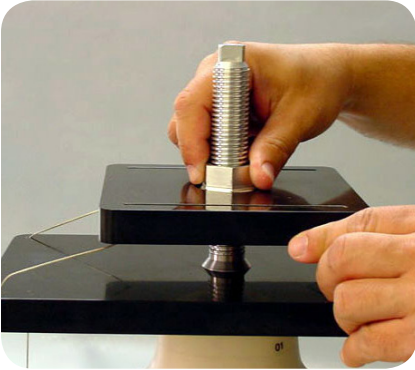
- 1. All sections of the Model 600 are sequentially numbered starting at the top of the phantom.



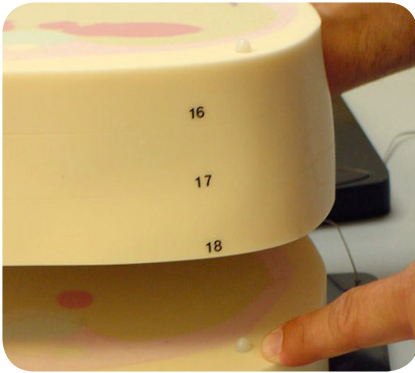
- 2. Start by placing section number 20 on the base plate of the assembling device.



- 5. Place the top of the reinforcement device on the top of section one.



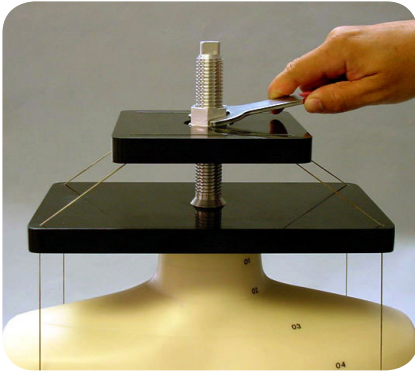
- 6. Turning the top bolt counter clockwise will apply tension to the four strings and apply downward pressure on the phantom.



3. Assemble numerically. Alignment pins will ensure proper location of slabs.



4. Compile the entire phantom.



7. Using wrench to reach optimal tension tighten the bolt on the top of the reinforcement device.



8. Optimal tension is reached when the strings give off a high-pitched tone when plucked with the finger.

CARE AND HANDLING

Model 600 is manufactured from epoxy based tissue substitutes. While this material is quite durable, it can be damaged if mishandled.

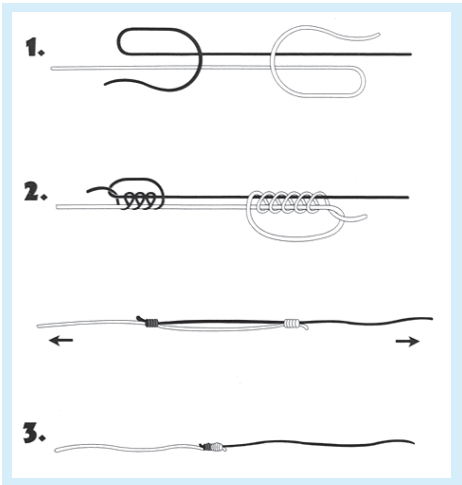
- Hold the phantom only from the shoulders or body when moving.
- To lift the phantom, tilt and place hands under the bottom plate.
- Always use both hands to transport the phantom

Take special care not to scratch the surfaces of each section by keeping them clean of dirt and debris, especially prior to assembly and compression of the sections. Do not use solvents or abrasive cleaners on any part of the phantom. If the phantom must be cleaned, use mild soapy water and dry with a soft towel.

TYING A UNI-SPLICE KNOT

To replace string used for reinforcement assembly, thread included string through the holes on reinforcement top and base, and create a uni-splice knot on the underside of the base.

1. Position the ends of the strings so that they run parallel with each other for 12" to 18".
2. Make a loop with the string and pass the tag end through the loop and around both lines 5 or 6 times. Pull the tag end and secure the knot making sure that the loops snug down in an ordered fashion. Repeat with the other end of the line, except with 8 to 10 wraps through the loop.
3. Pull on the standing lines, and you will see the two knots jam, forming the connection.
4. Trim the line about 1/8" past the knot.



WARRANTY

All standard CIRS products and accessories are warranted by CIRS against defects in material and workmanship for a period as specified below. During the warranty period, the manufacturer will repair or, at its option, replace, at no charge, a product containing such defect provided it is returned, transportation prepaid, to the manufacturer. Products repaired in warranty will be returned transportation prepaid.

There are no warranties, expressed or implied, including without limitation any implied warranty of merchantability or fitness, which extend beyond the description on the face hereof. This expressed warranty excludes coverage of, and does not provide relief for, incidental or consequential damages of any kind or nature, including but not limited to loss of use, loss of sales or inconvenience. The exclusive remedy of the purchaser is limited to repair, recalibration, or replacement of the product at manufacturer's option.

This warranty does not apply if the product, as determined by the manufacturer, is defective because of normal wear, accident, misuse, or modification.

NON-WARRANTY SERVICE

If repairs or replacement not covered by this warranty are required, a repair estimate will be submitted for approval before proceeding with said repair or replacement.

RETURNS

If you are not satisfied with your purchase for any reason, please contact your local distributor prior to returning the product. Visit <https://www.cirsinc.com/distributors/> to find your local distributor. If you purchased your product direct through CIRS, call Customer Service at 800-617-1177, email rma@cirsinc.com, or fax an RMA request form to 757-857-0523. CIRS staff will attempt to remedy the issue via phone or email as soon as possible. If unable to correct the problem, a return material authorization (RMA) number will be issued. Non-standard or "customized" products may not be returned for refund or exchange unless such product is deemed by CIRS not to comply with documented order specifications. You must return the product to CIRS within 30 calendar days of the issuance of the RMA. All returns should be packed in the original cases and or packaging and must include any accessories, manuals and documentation that shipped with the product. The RMA number must be clearly indicated on the outside of each returned package. CIRS recommends that you use a carrier that offers shipment tracking for all returns and insure the full value of your package so that you are completely protected if the shipment is lost or damaged in transit. If you choose not to use a carrier that offers tracking or insure the product, you will be responsible for any loss or damage to the product during shipping. CIRS will not be responsible for lost or damaged return shipments. Return freight and insurance is to be pre-paid.

WITH RMA NUMBER, ITEMS MAY BE RETURNED TO:

CIRS
Receiving
900 Asbury Ave,
Norfolk, Virginia, 23513 USA

| PRODUCT | WARRANTY PERIOD |
|--|-----------------|
| Model 600 - 3D Sectional Torso Phantom | 60 Months |

CIRS

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