



## Ultrasound





# Ultrasound

## Phantoms



# Pro-US MTF

11-101



The **tissue-mimicking phantom** for use in routine technical quality assurance (TQA). The PVA based material mimics the sound velocity and acoustic attenuation of the human tissue, is nontoxic, durable and easy to handle and maintain. **Comparable and reproducible results can be achieved from a single image, making this a perfect daily QA tool.** To determine the spatial resolution of phantom images, a **modulation transfer function (MTF)** is calculated by the Pro-Control software using radial MTF algorithm. In addition radial MTF test object the phantom also **contains structures for geometry assessment**.

## Technical data (can be modified to customer specifications):

- overall dimensions: 110 x 110 x 60 mm
- top and bottom cover made of PCV
- test insert dimensions: 110 x 110 x 50 mm
- test insert contains:
  - 20 mm in diameter round object (20 mm and 10 mm from phantom faces) for radial MTF
  - 2 groups of four round rods (1 mm in diameter) with 15 mm horizontal and vertical spacing for geometry assessment
- tissue mimicking material is based on Polyvinyl alcohol (PVA), a synthetic polymer
- carrying case

## Product features:

- Complies with:
  - "Quality Assurance for Ultrasound Scanners using a durable tissue-mimicking Phantom and radial MTF", Marcus Kaar, Friedrich Semturs, Michael Figl, Rainer Hoffmann<sup>1</sup> and Johann Hummel, Center for Biomedical Engineering and Physics, Medical University of Vienna, Austria
  - Real-time B-mode US quality control test procedures: Report of AAPM Task Group No. 1
  - Quality assurance of U.S.-guided external beam radiotherapy for prostate cancer: Report of AAPM Task Group 154
- CE certified
- the Manual provides detailed guidelines for carrying out each test, results assessment and registration

# Pro-US Uniform

11-102



The **homogenous, tissue-mimicking phantom** for use in routine technical quality assurance (TQA). The PVA based material mimics the sound velocity and acoustic attenuation of the human tissue, is nontoxic, durable and easy to handle and maintain. **Comparable and reproducible results can be achieved from a single image, making this a perfect daily QA tool.**

## Technical data (can be modified to customer specifications):

- overall dimensions: 110 x 110 x 60 mm
- top and bottom cover made of PCV
- test insert dimensions: 110 x 110 x 50 mm
- test insert is homogenous block of tissue mimicking material based on Polyvinyl alcohol (PVA), a synthetic polymer
- carrying case

## Product features:

- Complies with:
  - Real-time B-mode US quality control test procedures: Report of AAPM Task Group No. 1
  - Quality assurance of U.S.-guided external beam radiotherapy for prostate cancer: Report of AAPM Task Group 154
- CE certified
- the Manual provides detailed guidelines for carrying out each test, results assessment and registration



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