

# Tissue Equivalent Ultrasound Prostate Phantom

*The ideal training device for ultrasound guided procedures*

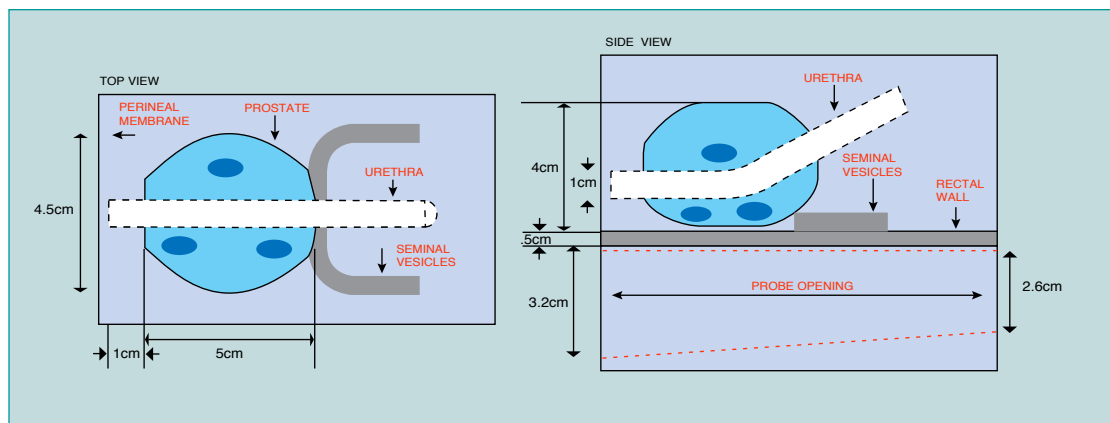
The CIRS Model 053 Ultrasound Prostate Training Phantom is a disposable phantom developed for practicing procedures which involve scanning the prostate with a rectal probe.

The prostate along with structures simulating the rectal wall, seminal vesicles and urethra is contained within an 11.5 x 7.0 x 9.5 cm clear acrylic container. A 3 mm simulated perineal membrane enables various probes and surgical tools to be inserted into the prostate.

This phantom is an ideal training device for ultrasound guided cryosurgery, radioactive seed implantation, and needle biopsy.



**Model 053 (option A shown)**



# Model 053 Specifications:

## CONTAINER

Material: Clear acrylic  
Dimensions: 11.5 x 7.0 x 9.5 cm  
Front probe opening: 3.2 cm Ø  
Rear probe opening: 2.6 cm Ø

## PERINEAL MEMBRANE

4.5 cm Ø 3 mm thick urethane

## BACKGROUND GEL

Similar to water with very little backscatter attenuation  
≤ 0.07 dB/cm-MHz

## URETHRA

Dimensions: 0.7 cm Ø  
Material: Zerdine<sup>®</sup> (1), low scatter

## SEMINAL VESICLES

Dimensions: 7 mm Ø x 10 cm long  
Material: Zerdine  
Properties: Speed = 1540 m/s  
Attenuation = 0.5 dB/cm-MHz  
Backscatter similar to liver tissue

## PROSTATE

Dimensions: 5 x 4.5 x 4.0 cm  
Material: Blue Zerdine, high scatter  
Volume: approximately 53 cc

## RECTAL WALL

Dimensions: 6 x 11 x 0.5 cm  
Material: Zerdine  
Properties: Speed = 1540 m/s  
Attenuation = 0.5 dB/cm-MHz  
Backscatter similar to liver tissue

## VERSIONS AVAILABLE

**053A** - 3 Embedded lesion 0.5 cc ± hypoechoic unless otherwise specified. (Ideal for needle biopsy)

**053A-EF** - For end fire transducers  
See data sheet for Model 053A-EF

**053D** - Semi-clear prostate allows visualization of seed placement.

**053F** - Hollow urethra for catheter insertion.

**053G** - Oil based prostate gel for minimal needle tracks.

**053I** - Seed implant version-see data sheet for Model 053-I



MODEL 053



MODEL 053A-Lesion Shown

## Prostate Phantom Selection Guide

Model	Description	Intended Application	Transducer Type	Modality
053	Tissue Equivalent Ultrasound Prostate Phantom	General Purpose	Side-Fire or BiPlane	Ultrasound
053A	Prostate Training Phantom with Hypoechoic lesion for side-fire transducer	Biopsy	Side-Fire or BiPlane	Ultrasound
053A-EF	Prostate Biopsy Phantom	Biopsy	End-Fire	Ultrasound
053D	Prostate Training Phantom with semi-clear prostate gland	General Purpose	Side-Fire or BiPlane	Ultrasound
053F	Prostate Training Phantom with hollow urethra	Cryosurgery	Side-Fire or BiPlane	Ultrasound
053G	Prostate Training Phantom with modified prostate gel for minimal needle tracks	Brachytherapy	Side-Fire or BiPlane	Ultrasound
053-I	Ultrasound Prostate Training Phantom	Seattle Prostate Institute Training Model	Side-Fire or BiPlane	Ultrasound
058	Prostate Demonstration Phantom	Non-Interventional Scanning	Side-Fire or BiPlane	Ultrasound
058-EF	Ultrasound prostate demonstration phantom for end-fire transducer	Non-Interventional Scanning	End-Fire	Ultrasound
066	Prostate Elastography Phantom	Elastography Imaging	Side-Fire or BiPlane	Sonoelastography
053-MM	Multi-Modality Prostate Training Phantom	General Purpose	Side-Fire or BiPlane	MRI, CT & Ultrasound

(1) US Patent # 5196343