

# Tissue Equivalent Ultrasound Prostate Phantom

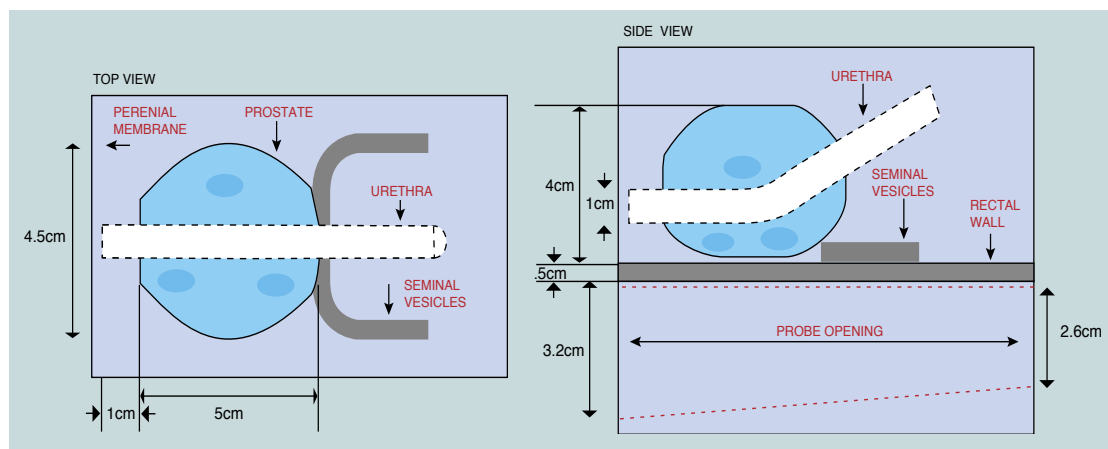
*The ideal training device for ultrasound guided procedures*

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 cm X 7.0 cm 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)**



*Tissue Simulation &  
Phantom Technology*

**CIRS**

2428 Alameda Avenue • Suite 212 • Norfolk, Virginia 23513 • USA  
(800) 617-1177 • (757) 855-2765 • FAX (757) 857-0523  
www.cirsinc.com • admin@cirsinc.com

# Model 053 Specifications

## **CONTAINER:**

Material: Clear acrylic  
 Dimensions: 11.5 cm X 7.0 cm X 9.5 cm  
 Front probe opening:  
 3.2 cm diameter  
 Rear probe opening:  
 2.6 cm diameter

## **PERINEAL MEMBRANE:**

4.5 cm diameter  
 3 mm thick urethane

## **BACKGROUND GEL:**

Similar to water with very little  
 backscatter attenuation  
 $\leq 0.07$  db/cm/MHz

## **URETHRA:**

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

## **SEMINAL VESICLES:**

Dimensions: 7 mm diameter X 10 cm  
 long  
 Material: Zerdine<sup>®</sup>(1)  
 Properties: Speed=1540 m/s  
 Attenuation= 0.5 dB/cm/MHz  
 Backscatter similar to liver tissue

## **PROSTATE:**

Dimensions: 5 cm X 4.5 cm X 4.0 cm  
 Material: Blue Zerdine<sup>®</sup>(1), high  
 scatter  
 Volume: approximately 53 cc

## **RECTAL WALL:**

Dimensions: 6 cm X 11 cm X 0.5 cm  
 Material: Zerdine<sup>®</sup>(1)  
 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  
 +/- hypochoic unless otherwise  
 specified. (Ideal for needle biopsy)

**053B** - Urethane version- see data  
 sheet for Model 058

**053C** - Clear rectal area for visual-  
 ization of probe orientation.

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

**053E** - Pubic arch simulation.

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

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

**053H** - Small rectal opening version  
 for side fire transducers

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



MODEL 053



MODEL 053A-Lesion Shown

(1) US Patent # 5196343