



## Models PVB-1 & PVB-3 Interventional Arterial Phantom

### Tests Performed

- Focal Zone
- Sensitivity
- Functional Resolution
- Contrast Resolution (PVB-3 only)

### Product Description

The PVB series of Interventional Arterial Phantoms are constructed of a tissue mimicking rubber-based material. The phantoms are housed in a chemical resistant, injection molded polypropylene shell to permit sterilization by means of autoclaving.

**Model PVB-1** contains five cylindrical cavities. A 4 mm diameter cavity is located in the center of the phantom and four 2 mm cavities are positioned at 90° intervals around the central cavity. The edge to edge spacing of the four cavities relative to the central cavity are 1, 2, 3, and 4 mm.

**Model PVB-3** contains five cylindrical cavities. A 4.0 mm diameter cavity is located in the center of the phantom and four 2 mm gray scale targets ranging from +15 to -15 dB relative to the background material are located at 90° intervals around the central cavity.



The edge to edge spacing of the four 2 mm cavities relative to the central cavity is 4 mm.

The PVB is designed to evaluate the acoustical performance of an intra-arterial ultrasonic transducer prior to performing an examination of the patient.

### Recommended Care

For best results the phantom should be kept clean at all times. In particular a build-up of dried coupling gel on the scan surface should be avoided. The phantom may be cleaned with warm water using a lint free cloth. Stubborn stains and dirt may be removed with a mild household cleaner. The use of petroleum solvents should be avoided since they may adversely react with the rubber-based material.

## Specifications

### Tissue Mimicking Material

Type	Urethane rubber
Melting Point	100°C
Freezing Point	< -40°C
Attenuation Coefficient	0.5 dB/cm/MHz ± 5.0%
Speed of Sound	1450 m/s ±1.0% at 23°

### General

	PVB-1	PVB-3
Overall Dimensions		
Major Diameter	53 mm*	53 mm*
Minor Diameter	42 mm*	42 mm*
Height	65 mm*	65 mm*
Weight	110 Gm*	110 Gm*
Housing Material	Polypropylene	Polypropylene
Intra-luminal Cavity	1	1
Cavity Diameter	4.0 mm*	4.0 mm*

### Targets

	PVB-1	PVB-3
Type	Circular Cavities	Echogenic, Cylindrical
Number of Targets	4	4
Diameter	2	2
Length	65 mm	65 mm
Radial Spacing	90°	90°
Interval Spacing (edge to edge)	1, 2, 3, 4 mm	4 mm
Contrast relative to background material (dB)	N/A	+15,+6, -6, -15

\*Nominal dimensions

