



## Intravascular Brachytherapy

Perfect for all  $\beta$  and  $\gamma$   
Intravascular Brachytherapy  
Isotopes

The New IVB 1000 Well Chamber has the same rugged, reliable construction used on the highly regarded HDR 1000 Plus Well Chamber.

Precision and Accuracy are excellent for all source activities.

The IVB 1000 Well Chamber has FDA 510(k) clearance for intravascular brachytherapy source strength verification.



## Accommodates the longest sources, up to 100mm.

Anticipating the need to measure longer Intravascular Brachytherapy sources, Standard Imaging has introduced the IVB 1000 Well Chamber. This chamber is specifically designed to measure the new, long sources used for Intravascular Brachytherapy.

Source holders are available for all Intravascular source trains and source wires.

Excellent for counting beta or gamma sources with either low or high activity ranges. The IVB 1000 is accurate, precise, and versatile.

## Some of the Outstanding Features

- EXTRA LONG Sensitive area (sweet spot)
- Long term Stability of 0.16%
- CE Marked for use in the European Union.
- Dimensions: 26cm H 10.2cm Diameter 22cm Insert H, 3.5cm Insert Diameter, Weight 3.6kg.

## Calibration Accessories for Iridium IVB Suites

### IVB 1000 Well Chamber

- Well Chamber Calibration
- 1" thick lead rings to surround the well chamber

### MAX 4000 Electrometer

- Electrometer Calibration

### One Inch Lead Barrier Shield

- 14" width, 16" height
- Viewing area 8" by 8" of glass, 4" thick, 1.6" Pb equivalent

### Cylindrical Lead Pig, 1" thick with 1" inner diameter

### Rolling Radiation Shield

- Lead 36" width, 24" height, 1" thick
- Lead height from floor, 40" to 48", one fixed height per shield
- Overall dimensions, 40.5" width, 40 to 48" height, 24" depth

### Chevron Lead Bricks

- Standard brick 2" x 4" x 8"
- Left Corner 2" x 4" x 4"
- Right Corner 2" x 4" x 4"
- Flat Bottom 2" x 4" x 8"
- Top Brick 2" x 4" x 8"

### Niptongs, 12" and 24"

### Griptongs, 12" and 24"

### Portable Survey Meter

- Ludlum Model 14C with thin walled GM tube

### Primealert

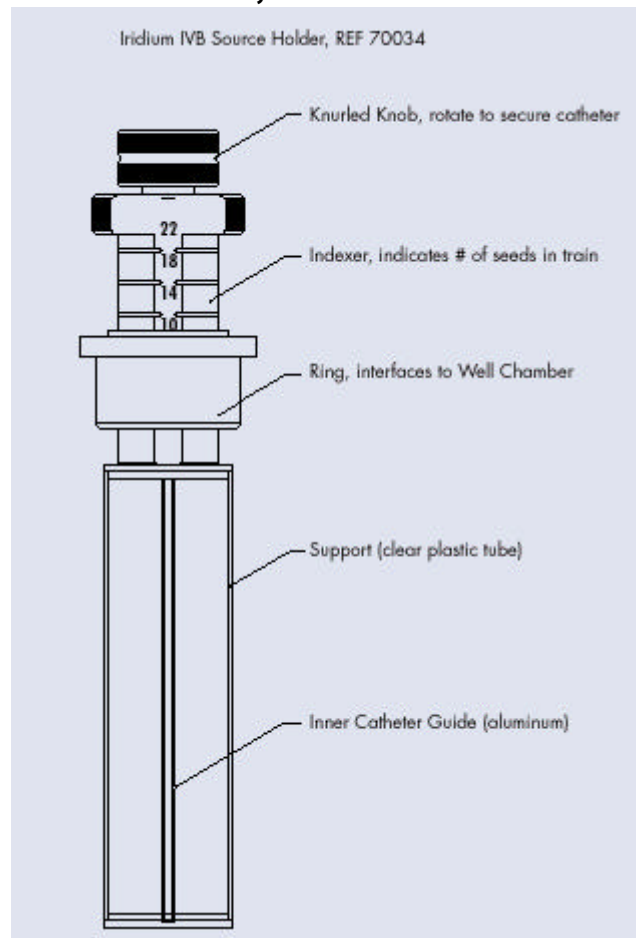
- Primealert 10 Teletherapy Radiation Monitor
- Adapter/Power converter, 110 volt
- Primepack II
- Primealarm Remote Alarm

## The IVB 1000 Well Chamber

deal for a and intravascular brachytherapy isotopes

- The IVB 1000 Well Chamber utilizes the same reliable construction techniques as used on the highly regarded HDR 1000 Plus Well Chamber.
- The IVB 1000 Well Chamber is designed to satisfy NRC license requirements, and TG 60 quality assurance requirements, that each institution establish independent verification of source strength for intravascular brachytherapy sources.
- The IVB 1000 Well Chamber has FDA 510(k) clearance for intravascular brachytherapy source strength verification.
- Exceptionally flat 100 mm sweet spot to accommodate long source trains and wires. The longest sweet spot in the industry!
- Exceptional precision and accuracy for intravascular brachytherapy source activities.
- Using the MAX 4000 Electrometer completes a comprehensive intravascular brachytherapy calibration system. The MAX 4000 is also excellent for use with all other brachytherapy and external beam applications.

## The Source Holder for Iridium IVB Sources, REF 70034



The Source Holder for Iridium IVB Sources, REF 70034, centers the source in the active area of the IVB 1000 Well Chamber.

The Source Holder is adjustable to fit the number of seeds in the source to be measured. In this example, the Source Holder is set to measure a source with six iridium seeds.

Calibration factors for different seed train lengths are extrapolated from an ADCL calibration for a single seed.

Optional one inch thick lead rings, REF 70125, provide shielding during measurement.

### Source Holder Specifications

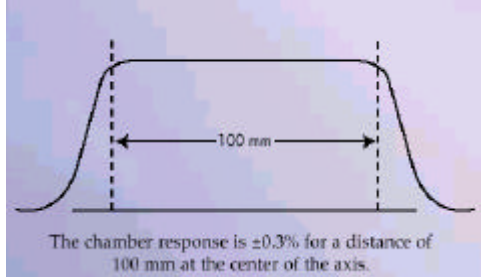
Source Holder for Iridium IVB Sources, REF 70034

Sensitivity: Approximately 2.4 pA/U for

$A_{\text{ion}}$ : 1.000

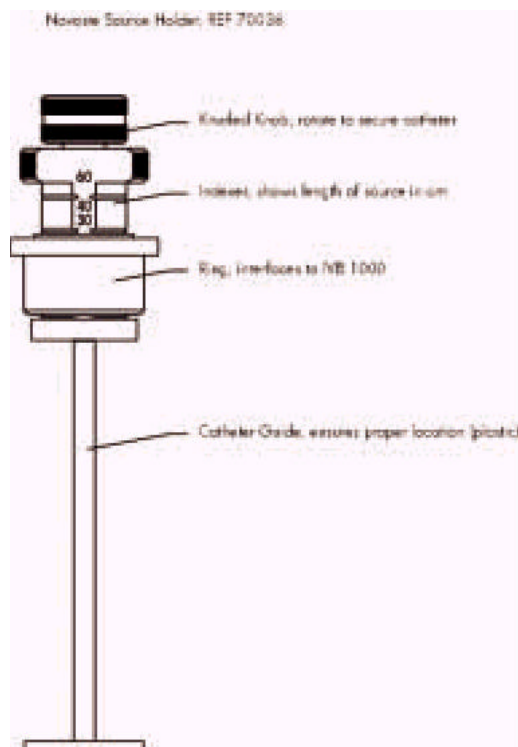
ADCL Calibration for LDR192Ir, REF 80025,

which is referenced to Absorbed Dose to Water at 2 mm.



The chamber response is  $\pm 0.3\%$  for a distance of 100 mm at the center of the axis.

### Source Holder for $^{90}\text{Sr}/^{90}\text{Y}$ IVB Sources, REF 70036



The Source Holder for  $^{90}\text{Sr}/^{90}\text{Y}$  IVB Sources, REF 70036, centers the source in the active area of the IVB 1000 Well Chamber.

The Source Holder is adjustable to fit the length of the source to be measured.

In this example, the Source Holder is set to measure a source 30 mm long.

An ADCL calibration is needed for each source length.

### Source Holder Specifications

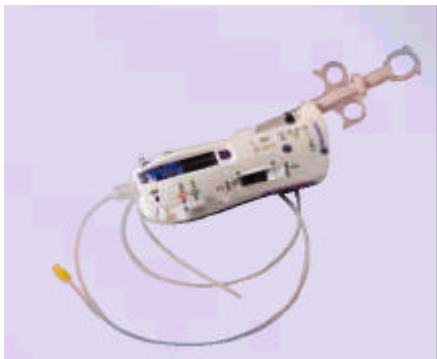
Source Holder for  $^{90}\text{Sr}/^{90}\text{Y}$  IVB Sources, REF 70036

Sensitivity: Approximately 38.5 nA/Gy/s for  $^{90}\text{Sr}/^{90}\text{Y}$

Aion: 1.000

ADCL Calibration for  $^{90}\text{Sr}/^{90}\text{Y}$  IVB, REF 80036, which is referenced to Absorbed Dose to Water at 2 mm.

Acrylic construction allows calibration to be done with the high energy beta particles. This eliminates the need to measure bremsstrahlung radiation.



The Beta-Cath™ System for delivery of the  $^{90}\text{Sr}/^{90}\text{Y}$  IVB Source

Beta-Cath is a Trademark of Novoste Corporation

The Source Holder for  $^{90}\text{Sr}/^{90}\text{Y}$  IVB Sources, REF 70036

### IVB 1000 Well Chamber Specifications, REF 90009



Active Volume: 475 cm<sup>3</sup>

Connector: Two lug triaxial BNC is standard  
Optional TNC, Type M, or BNC + banana

Cable: 1 meter (3 feet)

Range: 10 U to 80 MU

Bias voltage applied: + 300 volts, typical

Leakage: Less than 50 fA

Stability: 0.2% (reproducibility)

Response: + 0.3% over 100 mm at center of axis, typical

Case: Optional rugged carrying case, REF 50026

Dimensions:

Height:	25.9 cm (10.2 in.)	Insert Diameter	3.5 cm (1.4 in.)
Diameter:	10.2 cm (4.0 in.)	Insert Height	22.4 cm (8.8 in.)
Weight:	3.6 kg, (8.0 lb.)		

## Intravascular Brachytherapy Instrument Parts List

90009	IVB 1000 Well Chamber
70034	Source Holder for Iridium IVB Sources
80025	ADCL Calibration for LDR Iridium
70036	Source Holder for 90Sr/90Y Beta IVB Sources
80036	ADCL Calibration for 90Sr/90Y Beta Sources
70044	Source Holder for HDR Iridium
70043	Source Holder for Single LDR Seed
70045	Source Holder for Cesium, 5 mm opening
70046	Source Holder for Cesium, 7.1 mm opening
70125	One Inch Thick Lead Rings to surround the IVB 1000 Well Chamber
90015	MAX 4000 Electrometer
90001	CDX 2000B Electrometer
80015-2	ADCL Electrometer Calibration, Two Scales
80015-4	ADCL Electrometer Calibration, Four Scales
06652014	One Inch Thick Barrier Shield for Tabletop Work
95001	Cylindrical Lead Pig
964042	Mobile Lead Barrier Shield, 1 inch thick
G501	Chevron Lead Brick, Standard Brick, 2 x 4 x 8 inches
G502	Chevron Lead Brick, Left Corner, 2 x 4 x 4 inches
G503	Chevron Lead Brick, Right Corner, 2 x 4 x 4 inches
G504	Chevron Lead Brick, Top Brick, 2 x 4 x 8 inches
G505	Chevron Lead Brick, Flat Bottom, 2 x 4 x 8 inches
011012	Niptongs, 12 inches
011024	Niptongs, 24 inches
012012	Griptongs, 12 inches
012024	Griptongs, 24 inches
14C/4438	Portable Survey Meter with Thin Walled GM Tube for Gamma Sources
3/44-9	Portable Survey Meter and Pancake GM Tube for 90Sr/90Y Beta Sources
5433	PrimeAlert 10 Teletherapy Radiation Monitor

# INTRAVASCULAR BRACHYTHERAPY ACCESSORIES

90009	IVB 1000 Well Chamber
70034	Iridium IVB Source Holder, fits in 90009 only
70036	Novoste Source Holder for Sr90/Y90 Beta IVB, fits in 90009 only
70042	X-Ray Contamination Test Tool, fits in 90009 only
70043	Source Holder for Single LDR Seeds for IVB 1000, 1.2mm opening
70044	Source Holder for HDR Iridium for IVB 1000, 2.2mm opening
70045	Source Holder for Cesium for IVB 1000, 5.0mm opening
70046	Source Holder for Cesium for IVB 1000, 7.1mm opening
70047	Source Holder for Mick® Cartridges for IVB 1000
70048	Source Holder for RAPID Strand® Iodine Seeds for IVB 1000
70049	IBt Interstrand® Source Holder-IVB 1000
70050	Imagyn IsoSleeve Source Holder-IVB 1000
80025-B	Calibration for low dose rate iridium, Best Medical International
80036-3.5	Calibration for Novoste Sr90/Y90, 3.5 french catheter
80036-5.0	Calibration for Sr90/Y90, 5.0 french catheter
50026	Carrying Case for IVB1000
91200	IVB Film Phantom (includes one source block of choice)
70616	2mm Novoste Source Block for IVB Film Phantom
70617	2mm Cordis Source Block for IVB Film Phantom
70620	3mm Buildup slab for IVB Film Phantom
91200	IVB Film Phantom (includes one source block of choice)
70616	2mm Novoste Source Block for IVB Film Phantom
70617	2mm Cordis Source Block for IVB Film Phantom
70620	3mm buildup slab for IVB Film Phantom
70125	1 inch thick lead rings to surround the IVB 1000 Well Chamber
90015	MAX 4000 Electrometer
80015-4	Electrometer Calibration, four scales
14C/4438	Portable Survey Meter with Thin Walled GM Tube
3/44-9	Portable Survey Meter w/Pancake GM for Srontium-90 Novoste beta source
180-2	Wipe Test Counter Sample Holder for Novoste Source used w 3/44-9
O5433	Primealert 10 Teletherapy Radiation Monitor
87110	Adapter/Power converter, 110 volt
O5441	Primepack II Backup
O5434	Primealarm Remote Alarm

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