

Prostate Brachytherapy Seed Handling and Needle Loading Instruments

Fast with Minimal Exposure



Check with us FIRST for all your seed handling and calibration needs.



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SeedVac™ Needle Loading System

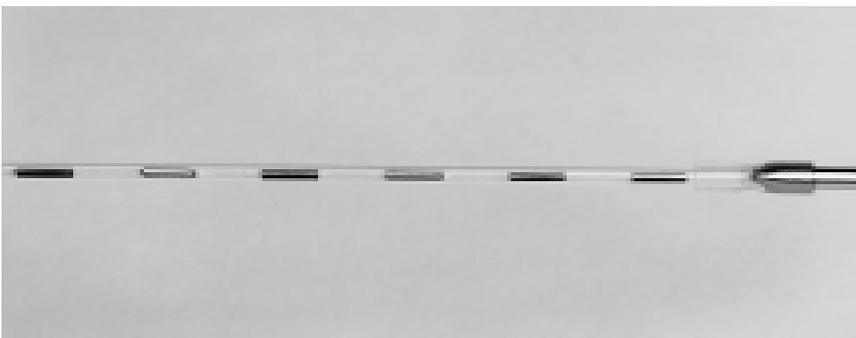
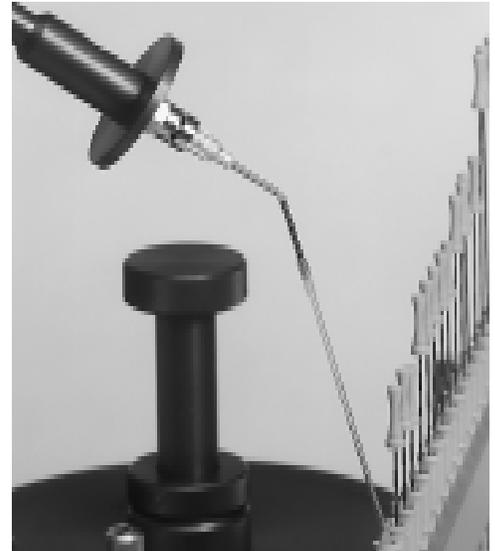
SeedVac™ for Pre-loaded Needles

for rapid loading of seeds and spacers into implant needles

- Minimizes seed handling time, loads 3 needles per minute.
- Maximizes distance from the seeds at all times.
- Integrates shielding for operations.
- Significantly reduces radiation exposure.

The SeedVac™ is a vacuum driven device designed to pull prostate implant seeds and spacers into a clear tube tip. Seeds are drawn into the clear tube tip by placing a finger over a hole on the hand piece to create the vacuum. The prescribed sequence of seeds and spacers is visually verified in the clear tube tip before being placed into the needle. These seeds and spacers are then placed into an implant needle simply by lifting your finger off the hole. A circular aluminum shield near the end of the hand piece provides radiation protection to the hand during the loading procedure. Components can be steam sterilized between each use.

The SeedVac™ is composed of three items: 1. A vacuum pump. 2. An aluminum hand piece including autoclavable plastic tubing which connects to the vacuum pump. 3. A set of nine clear tube tips to pick up seeds and spacers.



The SeedVac™ clear tube tip loaded with six seeds and seven spacers.



The SeedVac™

SeedVac U.S. Patent Number 6113529

A demonstration video is available.

Additional information is available at www.seedos.com

Seed Slider Needle Loading System

Seed Slider

for horizontal loading of seeds and spacers into prostate needles

- Minimize risk of dropping seeds as seeds are never picked up.
- View and verify seeds and spacers easily on the loading slot to confirm positioning before seeds are smoothly loaded into needles. Lock needles onto one side of the Seed Slider with a Luer™ lock.
- A universal Luer™ Lock is adjustable to fit most existing prostate needles.
- Combine with the Seed Sterilization and Sorting Tray for protection from radiation. Store seeds inside the tray and access as needed.
- Simply scoop seeds out of the tray wells and slide into position using the provided spatula.

A demonstration video is available.



The Seed Slider can be used as a stand alone instrument.



The Seed Slider connected to the Seed Sterilization and Sorting Tray.

Complete needle loading starter kits are available
to easily provide everything needed to start a prostate implant program.

Additional information is available at www.seedos.com

Seed Handling and Needle Loading Instruments

Seed Sterilization and Sorting Tray

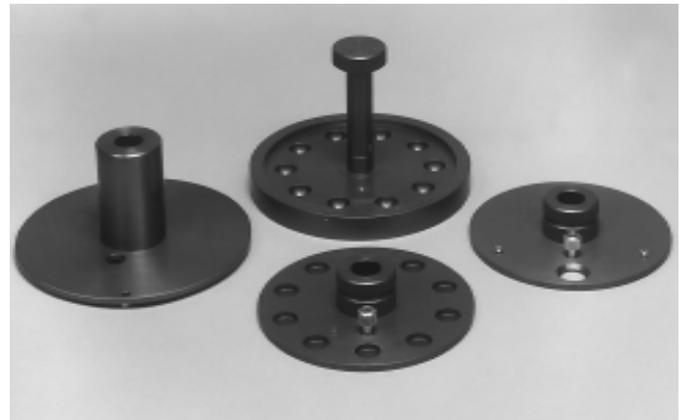
for sorting, sterilizing, and drying seeds

- Store seeds in 10 different wells while shielding operator from radiation.
- Rotate Loading Cover to expose one well at a time, or cover all wells.
- Combine with the Seed Slider and the Grooved Alignment Tray to speed up the needle loading process while minimizing exposure and seed handling.
- Lock covers together to secure seeds in wells and help prevent spilled seeds during transport.
- Secure seeds with Sterilization Cover during sterilization procedure.
- Dry seeds completely in one autoclave cycle.
- Secure Stabilization Cover with Shielding Cover for transportation. Additional shielding minimizes exposure for transport to a remote autoclave.

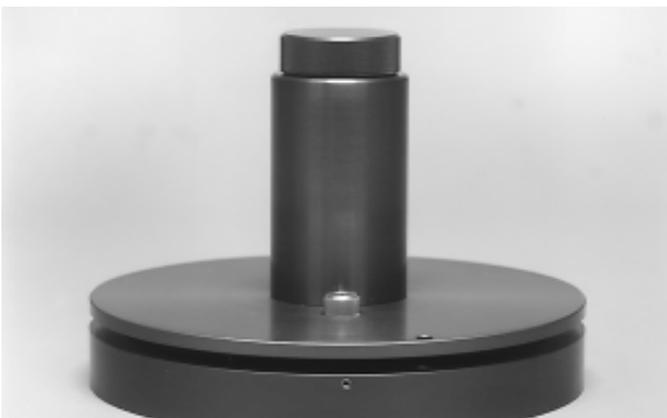
A demonstration video is available.



Seeds in the Tray Wells.



Components of the Seed Sterilization and Sorting Tray, Shielding Cover on the left, Sterilization Cover center, Loading Cover on the right.



Optional Shielding Cover in place.



Sterilization Cover in place, Loading Cover is to the right.

Additional information is available at www.seedos.com

Seed Handling and Needle Loading Instruments

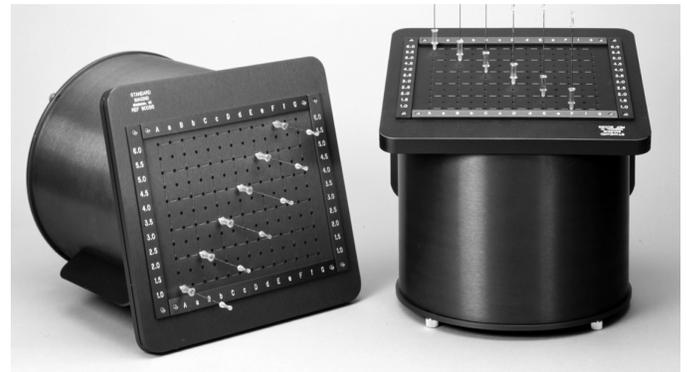
Needle Cradle

for storage of loaded LDR prostate implant needles

- Eleven horizontal rows provide more space for even the most difficult cases or large prostates.
- Templates are completely interchangeable for use in ultrasound machines.
- One Needle Cradle is required for each patient implanted per day.
- Flip top design minimizes space, facilitates handling, and provides a sturdy work area.
- Lock needle guard to prevent bumping of needle stylets.



New Needle Cradle with cover flipped up.



The Needle Cradle can operate in a horizontal or vertical position.

Seed Alignment Tray

aligns seeds and spacers for easy access

- Align seeds in one direction for easy pick up by SeedVac™.
- Uniform alignment helps to reduce arm movement.
- Uniform alignment can speed the needle loading procedure.
- Six grooves for easy access of seeds or spacers.
- Combine with the Seed Sterilization and Sorting Tray for protection from radiation.
- Store seeds inside the tray and access as needed.
- Simply scoop seeds out of the tray wells and slide into position using the provided spatula.



The Seed Alignment Tray connected to the Seed Sterilization and Sorting Tray. A SeedVac™ is picking up the seeds.



The Seed Alignment Tray with the seeds and spacers ready for loading.

Additional information is available at www.seedos.com

Seed Handling and Needle Loading Instruments

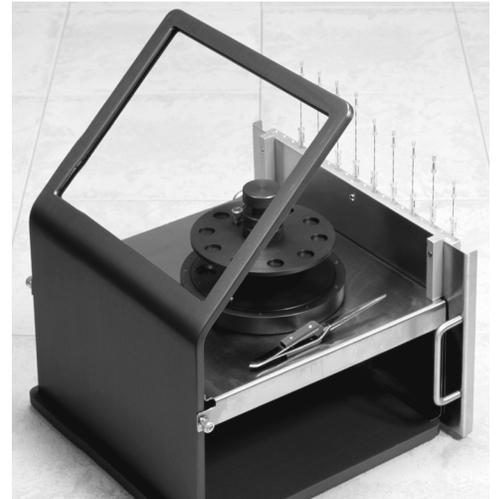
Needle Loading Platform with Shield and Vertical Needle Holder

for shielding while loading needles for prostate treatment

The Needle Loading Platform with Shield and Vertical Needle Holder provides a convenient work station for loading, counting and handling seeds prior to loading needles in a radiation shielded environment. It is specifically designed to bring work up to a comfortable level, limiting movement and the number of steps needed to accomplish loading. This translates into more efficiency in the needle loading procedure and saves you time.

The Needle Holder holds needles in place for loading and provides shielding for loaded needles. When stored in the Needle Holder, the needles are already positioned for an autoradiograph to verify and document the loading sequence. Additional Needle Holders can be used for storage if desired. Each Needle Holder can accommodate 20 needles with numbered stations in a shielded position.

Patent Pending

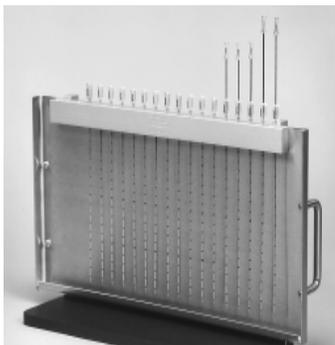


The Needle Loading Platform showing the SeedVac™ hand piece and the Seed Sterilization and Sorting Tray in position for loading needles.

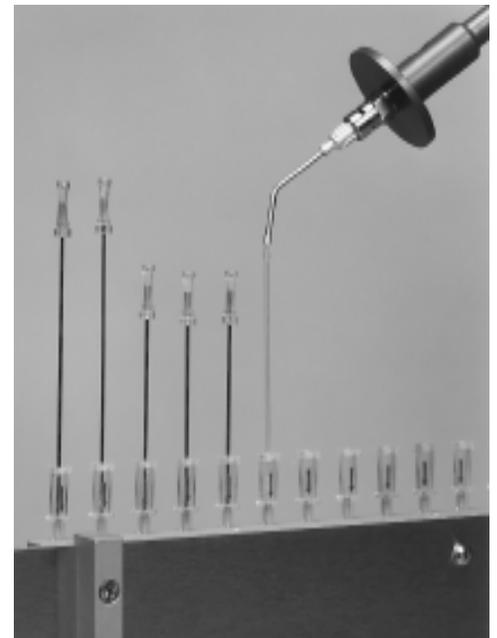
Vertical Needle Holder

positions needles for easy loading

- Conveniently positions 20 needles vertically in numbered positions for easy loading.
- Loaded needles are shielded with 1/8" of stainless steel.
- The tips of the needles are in no danger of blunting as needles are suspended. The needles are never resting on the fragile tip.
- Can be used with any existing L-block shield.
- Additional Needle Holders can be used to store loaded needles.
- Needles are conveniently positioned for an **autoradiograph**.



Needles in the Vertical Needle Holder ready for loading.



The SeedVac™ loading needles in the Vertical Needle Holder.

Additional information is available at www.seedos.com

Seed Handling and Needle Loading Instruments

Protective Lead Seed Pouch Kits

for your patients

- A complete seed recovery kit for your patients.
- A 0.2 mm lead equivalent pouch eliminates patient exposure from passed seeds.
- The plastic vial in this lead pouch provides safe storage of iodine or palladium seeds for transport back to the institution.
- Satisfies NRC regulations requiring proper disposal of seeds.

Following LDR iodine and palladium seed implantation for prostate cancer, patients may pass seeds during urination after they leave your medical center. A small lead lined pouch is available for you to give to your patients. This pouch is easy to use with detailed instructions. It is only 2.75 by 5.50 inches when closed. A small plastic vial in the pouch holds the seeds. It provides you with a simple yet effective way to address seed handling issues and patient concerns.



Protective Lead Seed Pouch Kit

Needle Loading Shield

for shielding while loading needles for prostate treatment

- 11" wide shield allows protection to head and torso while allowing operator to work comfortably around it.
- Shield made of thick aluminum with 10" x 8" lead glass window.
- Upright is removable for storage.

The shield is constructed of 3/8" aluminum and 1/4", 0.56 mm Pb equivalent leaded glass, which equals 22 HVL of protection for iodine seeds. For 100 iodine seeds at 0.4mCi, the exposure behind the glass is reduced to 6.4×10^{-15} R/h. For 100 iodine seeds at 1.0 mCi, the exposure behind the glass is reduced to 1.6×10^{-14} R/h.

Why select these instruments?

Speed + Versatility + Shielding

Combine to make this a truly superior needle loading environment.



Needle Loading Shield

Additional information is available at www.seedos.com

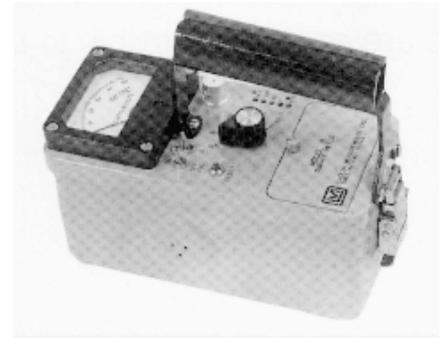
Seed Handling and Needle Loading Instruments

Portable Survey Meter, Model 3

- Ideally suited for low activity ^{125}I and ^{103}Pd seeds.
- Readout is 0 - 50,000 cpm and microR/hr.
- Linearity reading within +/- 10% of true value with detector connected.
- Response toggle switch for FAST (4 sec.) or SLOW (22 sec.) from 10% to 90% of final reading.
- Threshold 30 mV +/- 10 mV.
- Compatible detectors G-M, scintillation.
- Multipliers: X0.1, X1, X10, X100.
- High Voltage adjustable from 200-1500 volts.

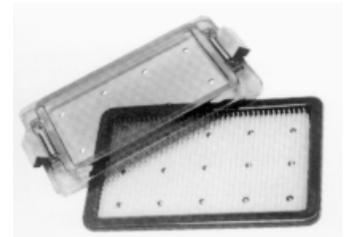
Includes Gamma Scintillation detector

- Energy Range approximately 10-60 keV.
- Scintillator window area active and open 2cm^2 .
- Efficiency 2 pi geometry, typically 38% for ^{125}I .
- Dynode String Resistance of 100 megohm.



Poly-Vac® Sterilization Tray

- Made of Ultem 1000, a lightweight, durable plastic material to withstand all methods of sterilization.
 - A soft silicone nipple mat inside the sterilization tray protects delicate instruments against scratching and holds them securely in place.
- Size; 11 3/8" x 7 1/8" x 1 1/4".



Seed Sterilization Pill Box

for sterilization of Iodine and Palladium seeds

- Solid construction assures stability and maximum shielding.
- Cover can be secured for safe handling.
- Rounded inner corners keep seeds positioned for easy removal.
- Top flips over for secondary receptacle.



Additional information is available at www.seedos.com

Seed Handling and Needle Loading Instruments

Seed Sensor™

specifically designed for finding lost LDR Brachytherapy Seeds

- Ideal for a quick survey of implant rooms and needle loading stations.
- Sensitive to 50 cm for the lowest energy prostate implant sources.
- Small, fits easily into a lab coat pocket, 1.25" X 3.25" X 6.25".
- Geiger-Mueller tube detector.
- Detectable activity; a 1 mCi palladium seed can be detected at 100 cm.
- A 41 cm diameter field is covered at a 100 cm distance.
- Power: one alkaline 9 VDC battery, estimated battery life is 20 hours.

The Seed Sensor™ radiation monitor is highly collimated so the detector can locate a loose seed in a needle loading work area. The detecting area is as directional as a flashlight. This helps you quickly identify the position of a lost seed on a table or in a room. Other survey meters are typically unable to locate a small, implant seed because they are not designed for this purpose.

The Seed Sensor™ is shielded to resist extraneous radiation and to reduce background radiation so it is very useful in detecting sources in areas where other radioactive sources are located.



Seed Sensor™
The first palm sized, point source radiation monitor.

Keep the Seed Sensor™ nearby whenever you are handling seeds!

Also Available

accessories for seed handling and needle loading

- Chrome Machinists' Ruler, 15 cm; 1/2 mm Reading Front and Back
- Reverse Action Tweezers with Groove for Seed, 16.5 cm
- Tissue Equivalent Ultrasound Practice Phantom
- Stabilization Needles for Prostate Implants
- Brachytherapy Seed Implant Needles
- Diddler (Needle Adjustment Tool)
- Radiation Protective Gloves
- Calibration Instruments
- Pre-cut Spacers
- Dummy Seeds

Additional information is available at www.seedos.com

Seed Handling and Needle Loading Instruments

Specifications

Steam or ETO Sterilize products only. Do not gamma ray sterilize.

SeedVac, 90091

Height 2.5" (6.4 cm), Width 3" (7.6 cm), Length 5.5" (14 cm), Weight 2 lb (0.9 kg)

Needle Loading Platform & Shield with Vertical Needle Holder, 90072

Height 16" (40.6 cm), Width 11" (28 cm), Length 12" (30.5 cm), Weight 22 lb (10 kg)

Vertical Needle Holder, 90073

Height 7.5" (19 cm), Width 4" (10.2 cm), Length 11.5" (29.2 cm), Weight 6.5 lb (3 kg)

Seed Sterilization and Sorting Tray, 90085

Height 4.125" (10.5 cm), Circumference 6.3" (16 cm), Weight 2.5 lb (1.1 kg), Material - Aluminum
Screens to secure seeds during flash sterilization are included.
Optional Outer Shielding Ring is available for transportation of tray with screens in place.

Seed Alignment Tray, 90098

Height 1.5" (3.8 cm), Width 5.5" (14 cm), Depth 5.5" (14 cm), Weight 1 lb (0.5 kg), Material - Aluminum
Spatula and Reverse Action Tweezers are included.

Seed Slider, 90090

Height 1.5" (3.8 cm), Width 5.5" (14 cm), Depth 5.5" (14 cm), Weight 1 lb (0.5 kg), Material - Aluminum
Spatula and Reverse Action Tweezers are included.

Needle Cradle, 90095

Height 10.5" (26.7 cm), Width 11" (28 cm), Depth 12.25" (31.1 cm), Weight 22 lb (10 kg)
Material - Aluminum
Eleven horizontal rows, Thirteen vertical rows.

Protective Lead Seed Pouch Kit, 90080

Model 90080 contains, 1. P/N 90075 Lead Pouch. 2. P/N 70070 Plastic Vial.
3. P/N 70071 Plastic Urological Sieve. Cotton swabs and instructions for the patient are included.
When the seeds are in the sieve, they readily adhere to the cotton swabs for transfer to the plastic vial.

Needle Loading Shield, 90070

Height 16" (40.6 cm), Width 11" (28 cm), Lead Glass 10" (25.4 cm) x 8" (20.3 cm)
Base 12" (30.5 cm) x 12" (30.5 cm), Weight 15 lb (6.8 kg) Material - Aluminum
Upright is removable for storage.

Survey Meter, 99017

Height 6.5" (16.5 cm), Width 3.5" (8.9 cm), Length 8.5" (21.6 cm), Weight 3.5 lb (1.6 cm), Do not sterilize.

Poly Vac Tray, 99503

Height 1.5" (3.8 cm), Width 7" (17.8 cm), Length 11.5" (29.2 cm), Weight 1.75 lb (0.8 kg)

Seed Sterilization Pill Box, 90086

Height 1.5" (3.8 cm), Circumference 2.5" (6.4 cm), Weight 1.75 lb (0.8 kg)

Seed Sensor, 90065

Height 1.25" (3.2 cm), Width 3.25" (8.3 cm), Length 6.25" (2.5 cm)

Additional information is available at www.seedos.com

Iodine and Palladium Seed Calibration

HDR 1000 Plus Well Chamber and MAX 4000 Electrometer

for calibration verification of manufacturers stated activity value

- Calibration of Individual Iodine and Palladium Seeds.
- Batch assay of up to 500 Iodine or Palladium Seeds.
- Relative Calibration of Rapid Strand Iodine Seeds.
- QA Measurement of Seeds in Mick Applicator™ Cartridges.
- HDR and LDR Iridium, Iodine, Palladium, Cesium, Strontium.



MAX 4000 Electrometer and HDR 1000 Plus Well Chamber

The **HDR 1000 Plus Well Chamber***, REF 90008, precisely calibrates radioactive sources used for cancer treatment. The HDR 1000 Plus is the standard instrument for independently verifying prescribed patient dose. This verification helps protect the hospital from misadministration and liability. The HDR 1000 Plus is an air communicating chamber so there is no inaccuracy due to an undetected gas leak as in a pressurized chamber. Performance of the HDR 1000 Plus has been **validated in over 30 publications**.

The HDR 1000 Plus is ideal for low dose rate and high dose rate brachytherapy. Source holders are available for most existing isotopes available on the market today. If we do not list a source holder for the isotope you wish to measure, contact us and we will develop one for you.

* Licensed from WARF, University of Wisconsin, Madison, WI.

Contact Standard Imaging for your Complete Brachytherapy Calibration System.

Additional information is available at www.seedos.com



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