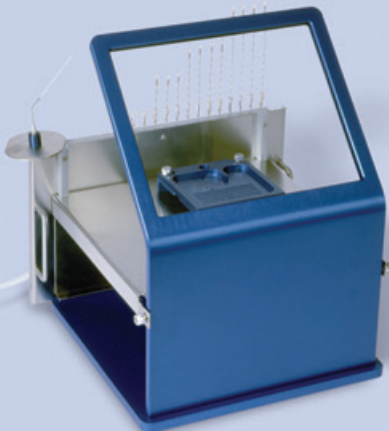
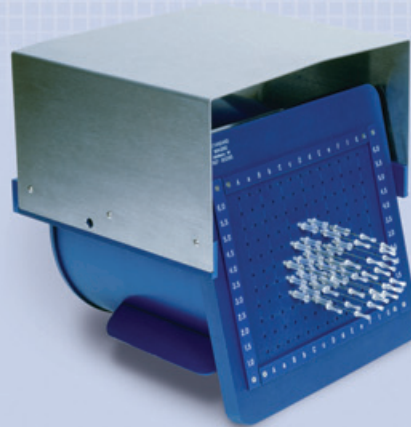
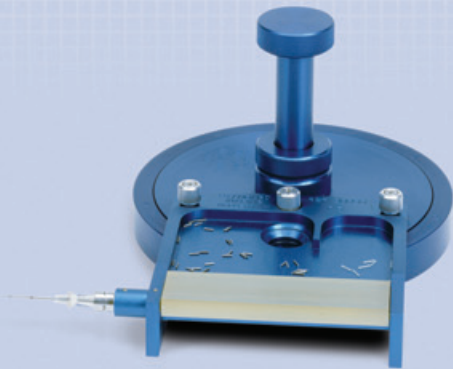


Prostate Brachytherapy Instruments

Seed Handling and Needle Loading Family



**Prepare Prostate Brachytherapy treatments
fast and with minimal exposure.**

Standard Imaging can provide you with complete kits that easily provide everything needed to start a prostate implant program.

Needle Loading

- ▶ SeedVac™
- ▶ Seed Slider

Seed Sterilization

- ▶ Seed Sterilization and Sorting Tray
- ▶ Seed Sterilization Pill Box

Shielding

- ▶ Needle Cradle
- ▶ Needle Loading Shield
- ▶ Needle Loading Platform and Shield with Vertical Needle Holder
- ▶ Vertical Needle Holder
- ▶ Protective Lead Seed Pouch Kits

Seed Handling

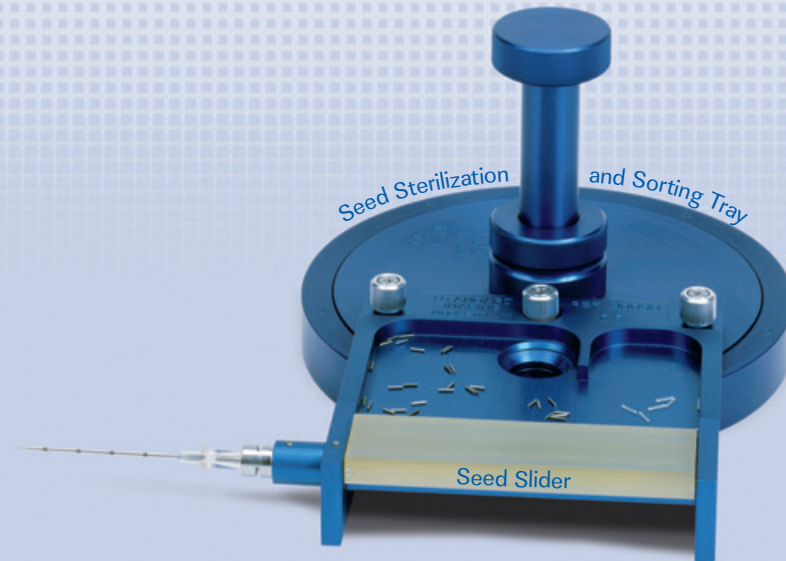
- ▶ Seed Alignment Tray
- ▶ Seed Sensor™

Radiation Calibration and QA Instruments
for health care

COMPLETE SOLUTIONS PROVIDED

Seed Slider Loading System

Seed Slider • Seed Sterilization and Sorting Tray

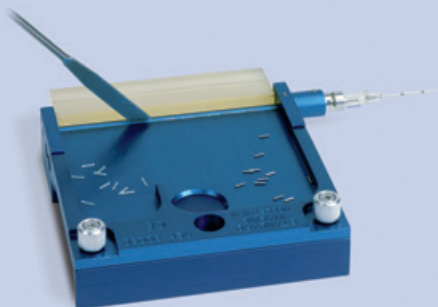


Seed Slider

- Minimize the 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
- **Fast loading - 25 needles in 8 minutes**

Seed Sterilization and Sorting Tray

- Store seeds in 10 different wells while shielding the operator from radiation
- Rotate Loading Cover to expose one well at a time or cover all wells
- Combine with the Seed Slider and the Seed Alignment Tray (REF 90089) to speed up the needle loading process, while minimizing exposure and seed handling
- Shielding Cover locks in place 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 Sterilization Cover with Shielding Cover for transportation. Additional shielding minimizes exposure for transport to a remote autoclave



The Seed Slider can be used as a stand alone instrument



Components of the Seed Sterilization and Sorting Tray

Loading Cover center,
Sterilization Cover on left,
Shielding Cover (optional, REF 72012)
on right

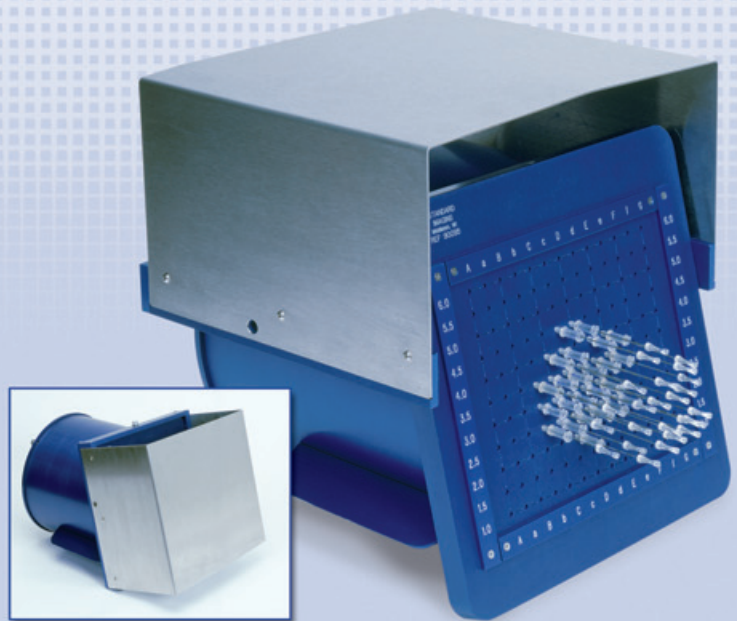


Seeds in the Tray well

Seed Handling and Needle Loading Instruments

Needle Cradle

- Eleven horizontal rows provide more space for even the most difficult cases or large prostates
- Templates are completely interchangeable for use in ultrasound machines
- Fully enclosed design means complete shielding from radiation
- Flip top design minimizes space, facilitates handling, and provides for a sturdy work area
- Lock needle guard to prevent bumping of needle stylets



Protective Lead Seed Pouch Kit for Patients

- A complete seed recovery kit for 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 to give to 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.

Needle Loading Shield

- 11 inch 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 inch lead glass window
- The upright component is removable for storage
- Combines with Needle Loading Platform and Vertical Needle Holder to create an integrated loading unit

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



SeedVac™ Loading System

SeedVac™ • Seed Alignment Tray • Needle Loading Platform • Vertical Needle Holder

SeedVac™

- Very fast loading, 25 needles in 5 minutes
- Minimal radiation exposure, maximum distance from seeds
- Works like a vacuum tweezers

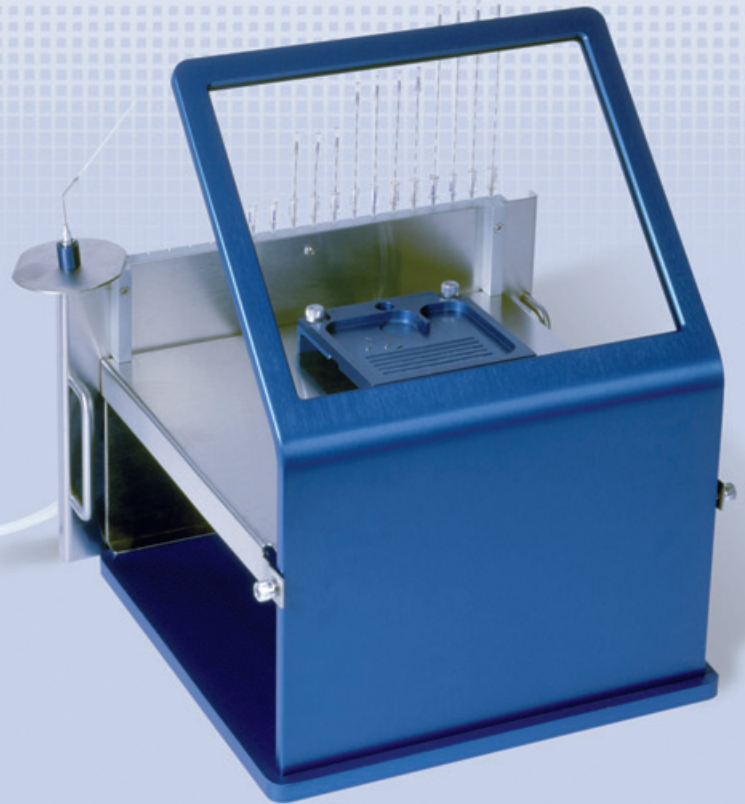
The SeedVac™ is a vacuum driven device designed to pull prostate implant seeds and spacers into a clear tube tip. Seeds are drawn into the clear tube tip by placing a finger over a hole on the hand piece to create a vacuum. The prescribed sequence of seeds and spacers is visually verified in the clear 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 of the hole. A circular brass 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.

Seed Alignment Tray

- Align seeds in one direction for easy pickup by SeedVac™
- Uniform alignment helps to reduce arm movement
- Uniform alignment can speed the needle loading procedure
- Six grooves for easy access of seeds and 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 tray wells and slide into position using the provided spatula

Needle Loading Platform

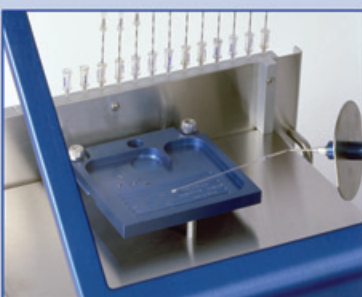
The Needle Loading Platform provides a convenient work station for loading, counting and handling seeds prior to loading needles. Combined with the Needle Loading Shield and Vertical Needle Holder, the user is provided with a radiation shielded environment. It is specifically designed to bring work up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



Vertical Needle Holder

- Conveniently positions 20 needles vertically in numbered positions for easy loading
- Loaded needles are shielded with 1/16 in. stainless steel
- The tips of the needles are in no danger of blunting as needles are suspended. The needles never are 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

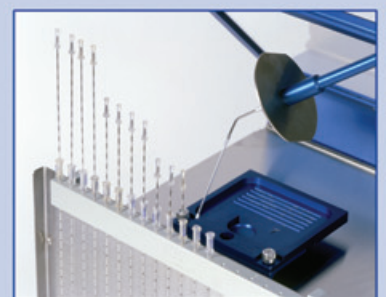
SeedVac™ picking up seeds from the Seed Alignment Tray



Close up of seeds and spacers in SeedVac™ tube



SeedVac™ loading needles into the Vertical Needle Holder



Seed Handling and Needle Loading Instruments

Seed Sensor™



Keep the Seed Sensor™ nearby whenever you are handling 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 inches
- 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 to be directional.

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.

Portable Survey Meter, Model 3



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

Includes Gamma Scintillation Detector

- Energy Range approximately 10-60 keV
- Scintillator window area active and open 2 cm²
- Efficiency 2 pi geometry, typically 38% for ^{125}I
- Dynode String Resistance of 100 megaohm

Seed Sterilization Pill Box



- 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
- Secures seeds during sterilization

Additional Accessories for Seed Handling and Needle Loading

- Chrome Machinist's 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 Protection Gloves
- Calibration instruments
- Pre-cut spacers
- Dummy seeds

Specifications

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

SeedVac, 90091

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

Needle Loading Platform & Shield with Vertical Needle Holder, 90072

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

Vertical Needle Holder, 90073

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

Seed Sterilization and Sorting Tray, 90085

Height 4.125 in (10.5 cm), Circumference 6.3 in (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, 90089

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

Seed Slider, 90090

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

Needle Cradle, 90095

Height 10.5 in (26.7 cm), Width 11 in (28 cm), Depth 12.25 in (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 in (40.6 cm), Width 11 in (28 cm), Lead Glass 10 in (25.4 cm) x 8 in (20.3 cm)

Base 12 in (30.5 cm) x 12 in (30.5 cm), Weight 15 lb (6.8 kg) Material - Aluminum (upright is removable for storage)

Survey Meter, 99017

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

Poly Vac Tray, 99503

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

Seed Sterilization Pill Box, 90086

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

Seed Sensor, 90065

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

specifications are subject to change without notice