

# I-125 SEED SOURCE

## PRODUCT DESCRIPTION

The I-125 Seed Source is a pre-sterilized 18G stainless steel needle containing low activity I-125 iodine seed.

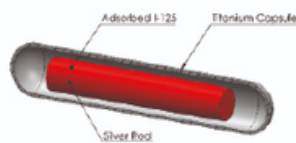
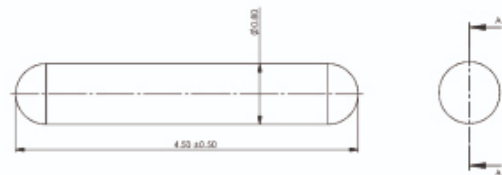
The I-125 source consists of a laser-welded titanium capsule containing iodine-125 adsorbed on a silver rod that acts as an x-ray detectable marker.



## PHYSICAL PROPERTIES

Iodine-125 has a half-life of 59.4 days and decays due to the electron capture by the release of characteristic photons and electrons. The major photon emissions are 27.2 keV, 27.5 keV, 31.0 keV and 35.5 keV with an average energy of 28.5 keV.

Table 1 indicates the decay chart of I-125 seeds.



- **Titanium tube properties:** Grade 1 (It is not classified as implant class, as it will remain in the body for less than 29 days)
- **Tumor Marking Needle:** 7 cm, 10 cm, 12 cm and 15 cm in length (should be selected according to breast type and size).
- **Needle Stopper:** It is the barrier placed between the stylet and the tumor marking needle in order to prevent the I-125 seed source placed in the tumor marking needle from unintentionally leaving the tumor marking needle

The I-125 seed source is sterilized with ethylene oxide. The sterile kit has a 180-day shelf life. If the product has expired, it is no longer sterile, and should thus not be used. Do not re-sterilize the product.

- **Temperature:** 5 C to 30 C
- **Relative Humidity:** 30% RH to 70% RH
- **Absolute Pressure:** 100.0 kPa (14.504 psi, 0.987 atm)

The source activity level used for localization is 2 MBq and 9 MBq (54-243 Ci).

