ALARA USA

Built for Safety and Trusted to Protect

ISOTOPE GENERATOR STATION (IGS)

IGS Product Manual

The images shown are for illustration purposes only and may not be an exact representation of the product.

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Please read manual prior to first use. Use <u>ONLY</u> as intended, Use at your own risk.

This unit has several points where pinches can occur. Use caution!

Please use caution when lifting heavy objects.

This unit has several points that can cause crush or cut injuries. Use Caution!

I. Introduction

ALARA USA is proud to introduce our brand of engineering controls with the Isotope Generator Station (IGS). The IGS represents the next generation of elution preparation and generator storage. Engineered for maximum safety and efficiency, the IGS allows for a fully shielded elution while maintaining compliance with cleanroom and ergonomic standards. Its streamlined design ensures easy operation and fast cleaning for consistent performance in any production area. At ALARA USA, we understand some of the challenges related to working with isotope generators which is why from radiation safety and ergonomics to cleanroom standards the IGS has you covered.

Traditional setups rely on stacked lead towers positioned on work surfaces that require frequent cleaning — exposing personnel to lead hazards as well as potential lifting, pinch, and crush injuries, all while increasing unnecessary radiation exposure. The *Isotope Generator Station (IGS)* eliminates these risks through its patented, self-contained lead design, leaving only 2-inch lids above the surface. This low-profile configuration minimizes obstructions, allowing cleanroom air vectors to maintain a more laminar flow and improve air exchange efficiency — unlike traditional tower setups that create turbulence around the work area.

With its hermetically sealed lead shielding, the IGS removes the need to handle or clean exposed lead rings, preventing lead particulates from entering the cleanroom environment. Constructed from 316 stainless steel and featuring raised rails, detachable lids, and caster-mounted mobility, the IGS is designed for safety, durability, and effortless cleaning. Compact, modular, and engineered for modern workflows, the IGS is safer to use, easier to maintain, and ideal for facilities where space and cleanliness are critical.

II. Product Features

* 304 and 316 Stainless Steel Construction
* Shed and Maintenance Free Bearings
* Zero Lead Exposure
* High Chemical Resistivity
* Space Saving Compact Designs
* Mobile
* Maintenance Free Casters

III. Setup and Operation

Safety Notes

- Always follow facility-specific radiation safety protocols and ALARA principles.
- Keep hands clear of pinch points when operating or assembling.
- Do not exceed the rated load capacity of the IGS.
- Ensure caster brakes are engaged when stationary.

The *Isotope Generator Station (IGS)* is designed to be used in conjunction with the *Isotope Generator Transport and Loading Cart (IG-TLC)* (sold separately). During initial setup and cleaning, proper lifting techniques must be followed, particularly when removing the heavy lids for cleaning. The use of an appropriate lifting device is strongly recommended to ensure safe handling and prevent injury.

Installation Procedure

1. Prepare the Equipment
- Clean the IGS in accordance with facility policies and regulatory requirements.
- Using the **IG-TLC (sold separately)**, remove the lid from the IG-TLC cylinder containing the isotope generator.
- Clean the lid as required and return it to its proper location on the slide bearings.

2. Position the IGS
- Move the IGS to the desired location.
- Lock all casters to secure the unit in place.

3. Expose the Well Opening
- Slide the IGS lid to the open position to expose the well opening.

4. Prepare the Generator for Transfer
- Using the **IG-TLC**, remove the lid from the cylinder containing the isotope generator.
- Create cable slack on the hand crank and clip the cable securely to the isotope generator.

5. Lift and Align the Generator
- Using a steady, controlled motion, lift the isotope generator until it clears the top of the IGS.
- Slide the generator along the IG-TLC boom until it is positioned directly above the IGS well opening.

6. Lower the Generator into the Well
- Lower the isotope generator into the well, placing the appropriate spacer beneath it to achieve the desired height.

7. Secure and Shield

- Unclip the cable and reverse the crank direction to retract the cable to its storage position.
- Slide the IGS well cover lid to the closed position to cover the opening and properly shield the isotope generator.

IV. Maintenance

All components and materials used in the construction of the *Isotope Generator Station (IGS)* have been carefully selected and tested for compatibility with cleanroom environments. From the casters to the rail system, you can be confident that the IGS meets or exceeds industry standards for durability and cleanliness. With proper use, routine cleaning, and standard maintenance practices, the IGS is designed to remain maintenance-free throughout its service life.

V. Product Specifications

Unit Specifications		Unit Specifications	
Part	**Material**	**Part**	**Measurement**
Frame	316 Stainless Steel	**Height**	30"
Outer Housing	316 Stainless Steel	**Width**	16"
Casters Frame	304 Stainless steel	**Length**	28"
Caster Wheel	Polyurethane	**Caster Height**	6"
Bearing Shafts	316 Stainless Steel	**Unit Weight Unloaded**	~1050 lbs
Bearing Shaft Support Stands	316 Stainless Steel	**Max Weight Capacity**	2400 lbs
Bearing Sleeves	Anodized Aluminum	**Load Rating**	500 lbs
Bolts	316 Stainless Steel	**Chemical Resistivity**	High
Shielding Type	99.9% Certified Lead	**Shield Thickness**	2”

VI. Warranty and Legal Information

This product is covered by a lifetime warranty starting from the purchase date. Warranty claims should be submitted to ALARA USA at the following address: www.alarausa.com.

Warranty Coverage	Details
Parts and Labor	Lifetime from the purchase date.
Damages from misuse or accidents	Not Covered Under Warranty
Return Process	Contact ALARA USA Inc.

Thank you for your purchase! We hope you love your new product and are happy to assist you with any questions. We appreciate your business and look forward to serving you again!