Medical Device Packaging and Sterilization Services

Overview

Looking for a Sterilization solution for your surgical devices and Class III implantable devices? Look no further than Hermetic Solutions Group, where our medical device manufacturing team can not only design, manufacture and assemble your medical devices in an ISO Class 7 clean room but we now have the ability to pack and sterilize your product in our Ethylene Oxide (EtO) sterilization system.

We provide this service as part either of our integrated Class III medical device manufacturing process or as a standalone service.

Technical Specifications

The Hermetic Solutions Group’s EtO sterilization system is well suited for processing medical devices that require a low-temperature sterilization process (typically 35°C- 55° C) to prevent damage to sensitive electronics.

Our 8 cubic-foot capacity 3M Sterivac system is especially well suited to applications that many of the large-scale processing houses may consider small for their large scale systems. We provide both tray sealing and pouch sealing options.

Our complete packaging and sterilization solution helps simplify your supply chain management in a number of areas and we partner with organizations that have deep experience in manufacturing tray and pouch tooling that is optimized to meet specific customer requirements. The Hermetic Solutions Group delivers complete process documentation, custom sterilization cycle development and validation as well as final testing data.

All final packaging is completed in the Hermetic Solutions Group’s Class 7 clean room, featuring:

- ESD safe flooring
- HEPA filters
- Humidity controls
- Helium bombing
- Visual inspection
- Laminar flow benches
- Segregated gowning area and transfer room
We bring your implantable device package design to life. Our expertise in precision machining of titanium means we meet and hold very tight tolerances. Our specialized materials and manufacturing techniques allow us to optimize designs for small size, RF transparency and more. We’ve also helped to overcome rejection issues by designing devices using materials with a proven track record of implantable viability.

Enabling Components

There’s more to a reliable hermetic package solution than a box and connectors and we manufacture components to ensure a module’s long term viability. We produce: getters to prevent build-up of contaminants; solder preforms that aid in attaching electronic circuitry; ring frames that become integral side walls of a hermetic package; and custom thermal spreaders that ensure heat from a chip or substrate is efficiently dissipated. To top things off, we also manufacture package lids.

Laser and Integration Services

We provide high-speed laser cutting, drilling, welding, sealing and marking with consistent accuracy. Our laser welding expertise also extends to the manufacture of custom designed/build laser systems for customers who wish to bring those capabilities in house. The Hermetic Solutions Group has a state-of-the-art ISO Class 7 clean-room that’s used for the final integration of electronic components into implantable device packages.