



# VACUUM TECHNOLOGY I N C O R P O R A T E D

## Hearing Aid Implant Helium E-10 Leak Test System



### Specifications

- **Product:** Hearing Aid Implants
- **Tracer Gas:** Helium
- **Leak Reject Rate:**  $5 \times 10^{-10}$  atm-cc/sec from 2 atm into Vacuum
- **TAKT Time:** 1.5 Minutes
- **Charge-In-Chamber**
- **Pump Size:** 3.5 CFM
- **Installation Date:** 2009

VTI's Hearing Aid Implant Helium E-10 Leak Test System is engineered to provide exceptional leak testing for hearing aid implant manufacturing.

This custom system includes dual pneumatically actuated vacuum chambers to improve efficiency. The custom designed Stainless Steel leak test fixtures allow for leak testing in multiple stages of manufacturing. These fixtures are interchangeable to allow testing of multiple operations on the assembly line. The hardware and plumbing in this system is entirely made of metal, except the O-Ring that interfaces with the part, to achieve an extremely fine leak test of E-10. This system uses the "Outside-In" test (Charge hood volume) method to ensure reliable leak testing. This system and VTI's expertise and attention to detail in leak testing helped to solve a serious problem with leaking Hearing Aid Implants in the field. After the first system, customer placed multiple orders to improve their manufacturing process.

The control system is integrated with the customer's database to provide real-time data. It is also interlocked with other equipment on the production line to guarantee testing requirements are met in production.