

High Purity Glove Box / Hermetic Seal Welder



Engineering Challenge

CHALLENGE **T**

Weldlogic Engineering Team was challenged by a good long-term customer to design and build a highly efficient welding cell inside a High Purity Inert Gas Glove Box. The system required the parts to flow thru a vacuum chamber to Remove any internal oxygen inside the devices. The Glove box needed to maintain a less than 3 Parts Per Million Moisture or Oxygen for long term product reliability inside the device. Additionally, a trace amount of Helium was introduced to the glove box gas atmosphere to enable a 100% post weld helium leak check.

All internal operator actuation needed to be easily accessible to the operator via the gloves to eliminate fatigue. Productivity and quality were required on these very costly manufactured products.

SOLUTION

The Weldlogic E-Team designed a double wide Glove box to fabricated from 316-SS with 2 Vacuum Anti-Chambers to pass-thru unwelded and welded assemblies efficiently. An added mini vacuum chamber was provided to facilitate any consumables to pass thru and not effect part flow thru processing-productivity.

A Gas actuated 5-C was incorporated on the welding lathe to enable rapid part load and unload. A sliding pallet system was used to introduce the assemblies in and out of the vacuum chambers to aid in productivity.

Contact us Today for your Welding Solutions!