

The purpose of this document is to describe the materials and methods Clippard Instrument Laboratory, Inc. uses to clean EV, ET, and EC valves intended for use in oxygen-enriched environments

GENERAL

- All parts are cleaned, assembled and tested in an enclosed room ("Controlled Area") that is kept under positive pressure with HEPA filtered air.
- Access to Controlled Area is restricted to trained Clippard personnel.
- Gloves are used to handle all cleaned parts.
- No organic sealants, adhesives, or lubricants are used in the manufacture or assembly of these products.
- All assembly tools and test equipment are designed and cleaned to avoid contamination of product.

CLEANING

- All parts are cleaned to normal production standards before being brought into the Controlled Area.
- Parts are ultrasonically cleaned in a hot, dilute solution of oxygen-compatible cleaner in purified water for at least 10 minutes.
- Parts are rinsed in purified water, then dried with heat and/or forced (ambient) air or compressed nitrogen.

POST-CLEANING INSPECTION

- Cleaned parts are inspected under white and ultraviolet light to insure the absence of particulate and hydrocarbon contamination.
- After inspection, parts are either assembled immediately, or bagged and labeled as "Cleaned for Oxygen Service" for later assembly.

LUBRICATION

- Components are lubricated with oxygen compatible PFPE grease, only as needed for assembly.

ASSEMBLY/TESTING

- All assembly tools and test equipment are designed and cleaned to avoid contamination of product.
- Assembled valves are tested using compressed nitrogen.

PACKAGING & IDENTIFICATION

- Finished valves are double bagged in heat sealed polyethylene bags and labeled "Cleaned for Oxygen Service."

USAGE NOTES

- Valves should remain in their sealed bags until ready for assembly.
- Care must be taken to avoid contaminating parts during assembly.
- Any lubricants or thread sealants used with this valve must be compatible with oxygen.
- Purchaser is responsible for safely applying these valves in an oxygen environment.
- Clippard reserves the right to change this specification without notice.
- Purchaser assumes complete and total responsibility and liability for any and all penalties, remedies, or any other form of claim arising from the installation and/or use of this product.
- The extent of Clippard's liability shall not exceed the cost of the actual part and/or part replacement as stated in Clippard's standard terms and condition of sale.