



JST's 300 CLV Cleaner and Stripping Tool is a completely self contained, dry to dry unit designed for cleaning and stripping wafers, optics, disk drives, flat panels and other delicate parts. Just place the product into the dry tank, process through either single or multiple chemical processes, rinse and dry all according to a preprogrammed recipe. There is no need for any operator intervention or mechanical moving parts to maintain.

Two or more primary chemistries are stored ready for use in heated and filtered reservoirs. Following the ultrasonic process cycle, a combination of ultrasonic rinse, de-ionized water spray and an overflow rinse are used to ensure all particles and chemicals are removed. The product is then dried using JST's CLV drying technology. Ultra pure isopropyl alcohol is vaporized and used for particle free drying in the closed loop system. While recycling, no vapors are emitted into the atmosphere.

Advantages

- No operator exposure to vapors.
- Fully Automated with no moving parts.
- Ergonomic Design.
- Low cost of ownership.
- Process chemistry is heated and stored, ready for use.
- Low IPA usage.
- Easy maintenance through removable & roll out panels.
- Multiple tank sizes available.
- Modular design for easy component replacement.
- Sealed & purged electrical compartments for safety.
- CO2 Fire Suppression with independent controller.
- Universal transducers capable of multiple cleaning frequencies.
- Industrial grade PLC for long term reliability and flexibility.
- Touch Screen Operator Interface.

Facility Requirements

Argon or Nitrogen: 20 psig @ 2 cfm
CDA: 80 psig, 10 cfm
Exhaust: 80 scfm, 4" collar
Electrical: 208 volt 50 amp

Wet Processing and Precision Cleaning Technology

The Process Cycle

Processing takes place in a heated, ultrasonic, cascade overflow bath constructed of 316L stainless steel and electropolished to maintain cleanliness. Ultrasonic energy is used to clean the parts. For cleaning flexibility, wide band ultrasonic transducers allow the use of multiple frequencies within the same chamber. Tank corners are covered to eliminate dead spots and improve cleanliness. Double wall construction using non-degrading insulation helps in maintaining the bath temperature and reducing noise levels.

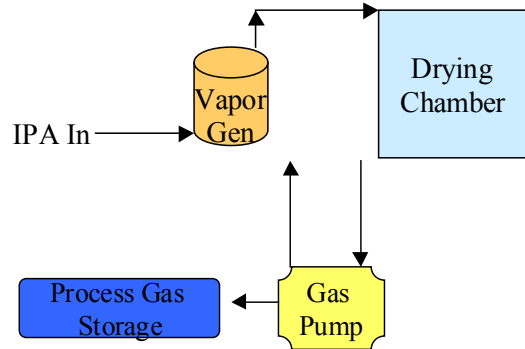
Two or more chemistries are stored in recirculated and filtered reservoirs where they are maintained in a ready state. The reservoirs control the operating temperature of the chemistry from ambient to 150 ° Celsius \pm .5 ° Celsius.

The Rinse Cycle

Top sprays shower the product and the sidewalls of the tank to remove residue prior to the final rinse. The DI cascade introduces DI water from the bottom of the process bath gently circulating and rising until it overflows into the cascade weir. Ultrasonic activity can be used to aid in removing both the process chemistry and particulate during the rinse cycle.

Controls

An industrial grade programmable logic controller (PLC) controls the logic steps and analog control of flow, temperature and process stability. Two recipes are provided along with troubleshooting tools. A touch screen is used for operator interface for setting parameters, starting and stopping the process. Recipes use passwords to protect edit and setup modes. A process graphical display lets you keep track of the status of the cleaning cycle. Standard and network interfaces are available thru a RS-232-C port where you can download or upload information to a remote PC or other computer based systems. Recipes are easily modified or upgraded by changing out the PLC E-prom.



Drying Cycle

Ultra clean IPA vapor (isopropyl alcohol) is remotely generated and introduced into the sealed process chamber. The closed loop system recirculates and filters the vapor which penetrates even the smallest area and displaces the water. At the end of the IPA drying cycle, a low pressure vacuum pulls any remaining moisture from the sealed chamber and away from the product. The process chamber is then backfilled with a clean, inert gas ensuring operators are not exposed to any process vapors.



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