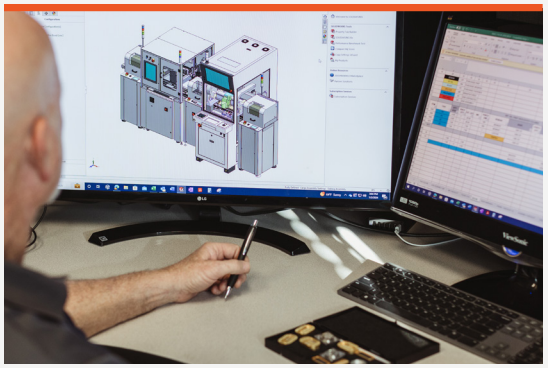
MARTEK AUTOMATION

FC1000-PC

In Line Plasma Cleaner





Martek's Client Service Experts can deliver a fully automated Wire Bond Line using your OEM Wire Bond system.



Atmospheric Plasma increases throughput while only affecting the Bond Pad Regions.

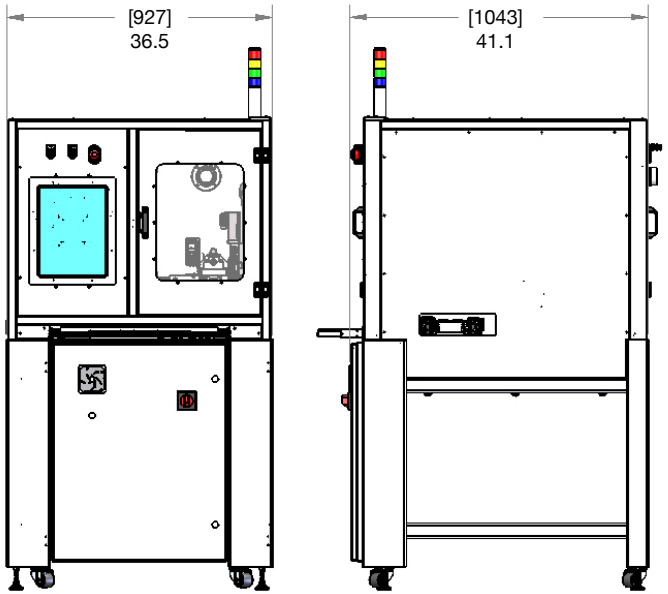


Martek's Intuitive HMI with recipes gives you maximum flexibility and quick changeover.

This patented, self-contained system operates at atmospheric pressure for surface cleaning and activation. Its design safely contains high voltage within the pen body away from the plasma jet and substrate. Compressed dry air eliminates the expense of Argon or Nitrogen gas supply.

Optional Features

- Dual Process Head for double throughput
- Fully integrated Wire Bond Line with Magazine Unloader, Plasma, Pre-Heat, Wire Bond, and Magazine Loader.



VOLTS: 120 VAC, 30 AMPS TOTAL, CLEAN DRY AIR, 90 PSI, 10 CFM

Technical Highlights

ATMOSPHERIC-PRESSURE PLASMA

Operates at ambient pressure, eliminating the vacuum chamber, pump-down cycle, and vacuum handling required by conventional plasma systems. This makes it well suited for localized and inline processing.

HIGH-DENSITY PLASMA

Produces relatively high-density plasma rather than a conventional corona discharge. The plasma jet is designed without electrical current or filamentary streamers reaching the substrate.

ELECTRICALLY ISOLATED PLASMA JET

The patented design keeps the high voltage/current contained within the pen body and away from both the plasma jet and workpiece. This is particularly attractive when processing electronic components where uncontrolled electrical discharge can be problematic.

LOW THERMAL LOAD

The process produces relatively little heating of the workpiece, enabling treatment of heat-sensitive materials, including low-melting-point polymers.

COMPRESSED AIR AS THE STANDARD PROCESS GAS

A major practical advantage is that compressed air can be used for many applications, reducing operating cost and simplifying integration. Other process gases can be used when the application requires them.

LOCALIZED TREATMENT

Unlike chamber plasma, the pen directs plasma onto a defined portion of the component. This allows surface activation or cleaning only where bonding, coating, printing, or adhesion is required.

SURFACE CLEANING & ACTIVATION

Reactive plasma species can break molecular bonds, remove organic contamination and modify surface chemistry. The resulting higher surface energy can substantially improve wetting and adhesion.

GASES AVAILABLE

Helium, nitrogen, air, CO_2, forming gas, oxygen.

NO WET CHEMISTRY OR PRIMERS REQUIRED FOR THE PLASMA STEP

The process can eliminate or reduce chemical surface-preparation processes, while atmospheric operation eliminates the vacuum infrastructure.