

MicroJet™ FC

In-Line Cleaning System

High Speed Cleaning Flexibility . . .

- SMT/BGA
- Flip Chip
- Wave Solder
- Multiple Cleaning Agents
- Progressive Energy Dynamics (PED)

- Lowest Cost of Ownership
- Patented Drying Technology
- Ideal for Flip Chips, BGAs, CSPs, Hybrids and Microelectronics
- High Production Yields
- Superior Durability for Long Life and Low Downtime
- Small Footprint
- Flexible Design Enables Upgrades Without Increasing Footprint



Breakthrough advances in cleaning technology bring Progressive Energy Dynamics to the **MicroJet FC** In-line Cleaning System resulting in class-leading cleaning power. Developed using complex modeling techniques, this innovative approach to cleaning ensures that each progressive stage in the process optimizes mechanical, thermal and chemical energy to achieve the best possible performance. This unique design, along with **Austin American Technology's** patented Jet Manifold drying, enables processing of complex, high-density assemblies. Available in three configurations, Mach I, Mach II, and Mach II Plus, the **MicroJet FC's** drying capability can be upgraded to meet increasing throughput demands as your requirements change – without adding to the size of the machine's footprint! Operating at twice the speed of competitive in-line cleaners, the **MicroJet FC** in-line system also offers easy accessibility and simple maintenance to maximize uptime and productivity.

Optimized impingement force and flow management give the **MicroJet FC** in-line cleaning system the power to out-perform other machines in tough cleaning applications, including low-standoff BGAs and μ BGAs. Patented high-volume, directed flow drying technology complements the machine's outstanding cleaning capability by efficiently forcing water out of tight spaces and not allowing evaporation to leave behind harmful residues.

MicroJet™ FC In-Line Cleaning System

ENVIRONMENTAL BENEFITS

- Less run time with Progressive Energy Dynamics (PED)
- Efficiently removes water without heat dynamics
- Effective chemical isolation
- Reduces chemical consumption
- Graphical interface with realtime alarms
- Greatly reduces wash chemistry usage and facilitates closed-loop operation
- Designed for efficiency

SYSTEM BENEFITS

- Class-leading performance in a compact footprint
- Highest through-put in the industry
- Easy to close loop
- Easy and flexible system operation
- Flexibility to run water or water plus additives
- Facilitates quick and easy maintenance
- Upgradable in the field
- Lowest cost of ownership
- Exclusive AAT Progressive Energy wash technology

Durable Construction

The MicroJet FC in-line system is constructed of high-density polypropylene for excellent chemical compatibility and long life. It has a noncorroding, rigid metal chassis, unibody construction, a detachable load section, and hinged windows at each chamber for easy access. The conveyor employs an automatic tensioning system and torque limitation to protect the drive motor in both forward and reverse modes.

Prewash and Wash

The prewash section can serve as an extension of the wash section (for use with wash chemistry) or operate in a full cascade mode direct to drain. Pressure balance valves and a flow meter are included. The recirculated wash section features Progressive Energy Dynamics which optimizes impingement force and flow without operating at unnecessarily high pressures. Water is heated and recirculated at a flow rate of 120 GPM, and an optional chemical injection system can add saponifier or defoamer. The Chemical Isolation section can be configured with spray, air blow-off, or both. This can dramatically reduce the amount of wash chemistry used, thus significantly reducing operating costs. In addition, it increases resin bed life when the rinse is recycled through a closed-loop system.

Power Rinse and Final Rinse

Heated and recirculated water utilizing Progressive Energy Dynamics is directed on the PCB during the power rinse. The final rinse, which can introduce deionized water into the system, uses as little as 2 GPM.

Patented Dynamic Drying

Austin American Technology's patented Jet Manifold drying system removes water from the PCB without adding heat, eliminating the tendency to "bake" unwanted ionic contamination on to the assembly. This technology also reduces operating costs and increases blower life.