



HydroJet™ In-Line Cleaning System

With Progressive Energy Dynamics



- **Lowest Cost of Ownership**
- **Patented Drying Technology**
- **Unmatched Cleaning Capability**
- **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 HydroJet In-line Cleaning System resulting in unparalleled 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 the most complex, high-density assemblies. Available in three configurations, Mach I, Mach II, and Mach III, the HydroJet'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 HydroJet in-line system also offers easy accessibility and simple maintenance to maximize uptime and productivity.

Optimized impingement force and flow management give the HydroJet in-line cleaning system the power to out-perform other machines in the toughest 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.

Features

- Progressive Energy Dynamics
- Unique Jet Manifold drying system
- Effective inter-stage chemical isolation

- Graphical user interface with touch screen control
- Partial or full cascade operation
- Removable front and rear access panels
- Modular design with quick-connect fittings
- Designed for efficiency

Benefits

- Industry-leading performance in a compact footprint
 - Efficiently removes water without heat energy
 - Greatly reduces wash chemistry usage and facilitates closed-loop operation
 - 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
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Durable Construction

The HydroJet in-line system is constructed of high-density polypropylene for excellent chemical compatibility and long life. It has a non-corroding, 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.

Effective Chemical Isolation

This section can be configured with spray, air blow-off, or both to minimize dragout of the wash solution. 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.

HydroJet In-Line Cleaning System



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401 Industrial Boulevard
Burnet, Texas 78611 USA
512-756-4150
www.aat-corp.com