

CHEMCUT ETCH ADJUST



Etch Adjust Module

For CC8000 and 547XLi



- Eight Top And Eight Bottom Zones On 30 Inch Units
- Two Nozzles Per Zone
- Each Zone Is Individually Adjustable.
- Connects To The Etch Sump.
- 3 HP Pump And Inline Filter On 30 Inch Units
- Suitable For All Common Etchants
- Can Be Used In Conjunction With The Intermittent Spray Module.

How It Works

The Etch Adjust Module, EAM, enhances the performance of an etching system by providing adjustable compensation across the conveyor width. Because a properly designed etcher must provide a uniform distribution of spray across the conveyor, metal thickness variations or perimeter edge effects will appear as under or over-etched areas. The EAM allows the etching operator to easily make small repeatable adjustments to correct these problem areas without making complicated adjustments to the uniformity of the main etching pattern.

The solution sprayed in the EAM is taken directly from the main etching machine's sump. This assures that the sprayed solution is always the same chemical activity as the main etching section. The solution is moved into the EAM by a separate pump in order to avoid changes in the main etcher's spray pressures. Once the operator identifies which adjustment zone the problem area will pass through, the pressures in these zones can be reduced or increased to "level" the etched pattern.

The EAM adjustments are made across the conveyor, perpendicular to the direction of travel. The ultimate in leveling compensation is achieved when the EAM is combined with Chemcut's Intermittent Spray Module, ISM. The ISM applies its correction parallel to the direction of travel and is an excellent tool to compensate the leading and trailing edges.

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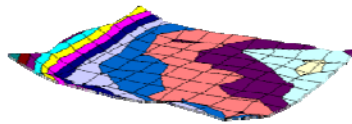
Inside the EAM showing seven of the top side spray zones.
(30 Inch Wide System)

Each dual nozzle spray tube can be individually adjusted to control the etching system's profile across the conveyor.

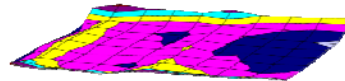
EAM Dual nozzle Spray Tube



Using The EAM To Level Panel Plated Copper

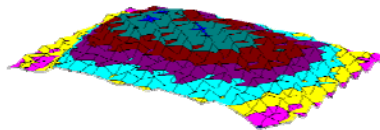


Copper thickness profile of panel plated copper. 38 μ copper thickness range

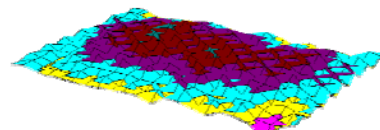


Copper thickness "leveled" using EAM
12 μ copper thickness range

Using The EAM To Correct Edge Effects



Processed without an EAM
Standard Deviation 0.156 mils



After etching with an EAM equipped Etcher
Standard Deviation now 0.112 mils