QUALI-DOSE®

Automatic Chemical Replenishment System



Seamless integration with ECI analyzers deliver precise doses of replenishing solutions for complete chemical process control

Closed-loop, flexible, precise dosing with multi-tool capacity

ECI Technology's dosing experience of more than 15 years enables the QUALI-DOSE® systems to provide the most novel and comprehensive solutions for handling chemistries in existing Advanced Packaging applications.

The QUALI-DOSE system combines with QUALI-FILL® analyzers from ECI Technology to create a comprehensive online chemical management system – the most robust tool available for facilitating stringent chemical process control.

The QUALI-DOSE system uses smart, versatile algorithms and modes to make up, replenish, or bleed and feed the tank. Powered by quick, efficient dosing, the QUALI-DOSE systems generate no waste and avoid the need for regular maintenance.

Thanks to a system that can offer precise dosing with verification of all the critical components, users can enjoy an unparalleled level of convenience and reliability for running their plating process.

Key Benefits

- Accuracy of <3%
- Multiple delivery validations
- Supports multiple tanks
- Extensive range of flow rates from 20mL/minute to 5000mL/minute
- Multiple dosing modes: dose to target, feedback, feed-forward, amp/hour, time-based, wafer count, manual, etc.
- Any number of components can be dosed
- Analyzer-controlled or operates independently
- Handles bleed and feed or bath dump
- Recipes provided for new bath make up and replenishment
- Integrates via slip-stream, buffer tank, or direct injection methods
- Ability to dose directly from pressurized chemical bulks (central chemical distribution systems)
- Automatic verification with bar code to prevent human error



Intelligent Dosing



Automatic Standard Generator



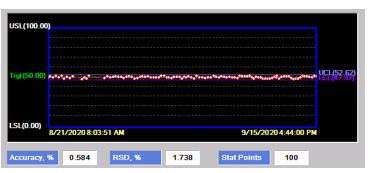
Flexible Modular Design

Backed by Local Support

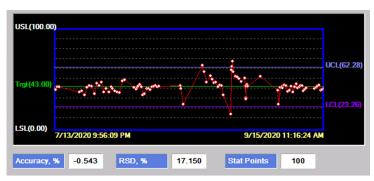


Key Features

- All critical components can be dosed:
 - Organics
 - Inorganics
 - Virgin makeup solution (VMS)
 - DI water
 - Feed and bleed (optional)
- Flexible dosing options are available based on:
 - Analysis results
 - Amp/minute
 - Time-based
 - Wafer count
 - Tank level
 - Concentration levels of target or other components
- Automatic standard generation (ASG)*
 - Avoids the need to buy high cost standard
 - Avoids frequent chemical handling and mixing
 - Minimizes CoO, labor and maintenance
- Manual mode for any component
- Automatic validation positive feedback with confirmation of each delivery
- Supports multiple tanks, chemistries and plating tools
- Integrate with ECI QUALI-FILL® analyzers or use independently
- · Can be integrated with automated and pressurized central chemical bulk and blending systems
- NOWPak® reagent delivery system available



Smaller process variability when using an ECI QUALI-DOSE system



Greater process variability when using an alternative doser

Facility Requirements

Dimensions	1829 mm (72") W x 2061 mm (81.1") H x 610 mm (24.0") D
AC	180 to 245 Vac, 50/60 Hz, 15 Amps
Data communication	Multiple communication protocols: Serial, TCP/IP, RS-232, SECS/GEM
Conforming standards	CE SEMI F47 SEMI S2-S8 NEPA 79

Backed by ECI Technology's Global Support

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^{*}Chemistry-dependent