

QUALI-LINE® QUANTÅ

Online Chemical Management Cobalt Deposition



The Sub-10nm BEOL Cobalt Plating

To achieve ever-greater chip densities, leading chipmakers need to address two critical parts of the device – contacts (MOL) and interconnects (BEOL). At sub-10nm, new topologies (such as cobalt) promise to boost the performance and reduce unwanted resistance in chips. In advanced applications, electroplated cobalt (Co) has started to replace tungsten (W) for sub-10nm contacts and first (local) interconnects layers.

The Co electroplating process requires a very accurate and reliable control of the key ingredients in the plating solution. ECI Technology's QUALI-LINE® QUANTÅ is a state-of-the-art analyzer designed to monitor Co electroplating solutions with the highest degree of accuracy and reproducibility:

- Comply with the tightest tolerance specs necessary to assure successful deposition
- Supports wide range of Co deposition concentrations

Maximizes Yield and Reliability

- Sets a new standard for accuracy/repeatability specs for Co chemistries
- Fast analysis of all main components for ultimate process control
- By-products analysis for chipmakers who extend the life of their plating bath – DRAM, NAND

Rapid Conversion to HVM

- The QUALI-LINE QUANTÅ analyzer configuration can be easily rolled-out from R&D to high volume manufacturing
- Minimal consumption of reagents and parts for reduced CoO
- New Analyzer Health Monitor (AHM) feature

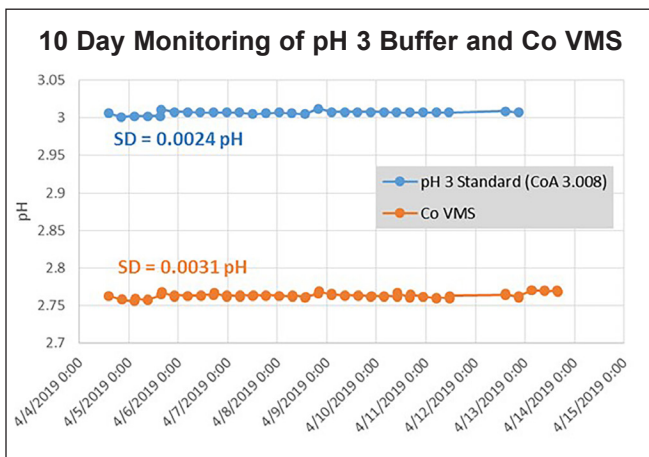
Newly Designed Platform

- The QUALI-LINE QUANTÅ analyzer is designed for reliable performance over time and application
- Minimal, predictable maintenance
- Convenient and friendly user interface



For Logic and Memory Devices

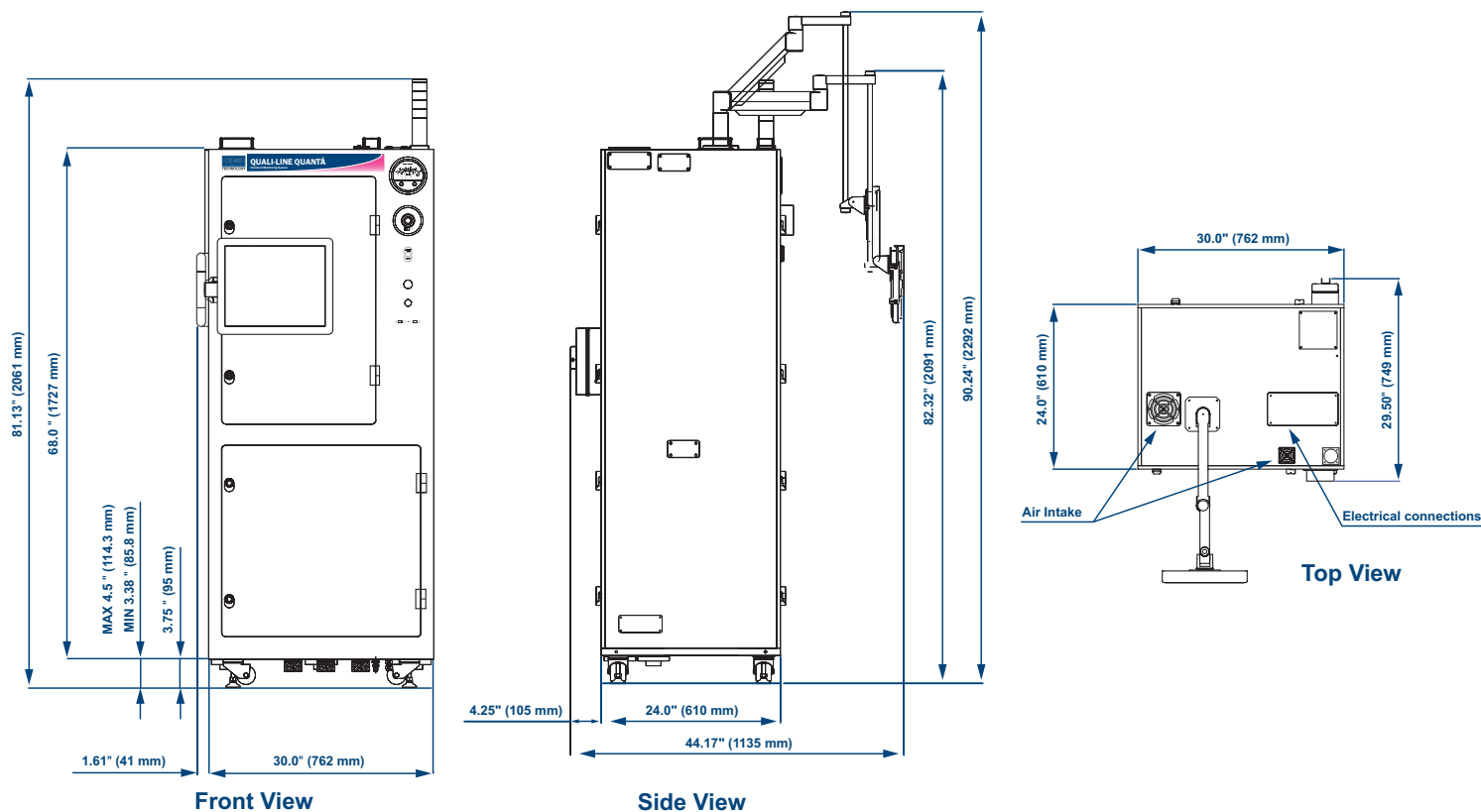
Component	Accuracy (%)	RSD (%)
Co, g/L	± 2	2
pH, pH units	0.01	0.01
Acid, g/L	± 3	1.5
Conductivity, mS/cm	± 3	2
Organic Additive, mL/L	± 3.5	2



Continuous monitoring of pH proving excellent repeatability

Features

- Support for all commercial chemistries/formulations
- Automatic validation and calibration
- Automatic Standard Generator - for supreme RSD and very low CoO
- Intelligent self-diagnostics
- Seamless integration with plating tools
- All-new modular design
- Engineered to provide excellent performance over time, in demanding processes
- NOWPak® reagent delivery system available
- Complies with the industry safety standards: S2/S8 and CE



Backed by ECI Technology's Global Support

Contact us for more details. Call or visit us online:

Headquarters (USA)

ECI Technology
 60 Gordon Drive, Totowa
 New Jersey, 07512
 T: +1 (973) 890-1114
 E: info@ecitechnology.com

www.ecitechnology.com

Global Offices

Japan
 T: +81-45-620-4661
 E: info-japan@ecitechnology.com

Korea
 T: +82-31-262-8503
 E: info-korea@ecitechnology.com

Taiwan
 T: +011-886-03-573-5899
 E: info-taiwan@ecitechnology.com

Distribution Partners

Cerma Precision, Inc. – Japan
 T: +03-3643-2921
 E: info-@cerma.co.jp

ISI – Israel
 T: +972-3-9232202
 E: isi@isil.co.il

TELTEC North – Germany
 T: +49-7-903-91-44-0
 E: info-de@teltec.com

TELTEC South – France
 T: +33-467-22-40-00
 E: info-fr@teltec.com

WESI Technology – China
 T: +86-21-5058-0051
 E: info@wesitechnology.com

WKK DISTRIBUTION LTD.
 Hong Kong
 T: +852-2357-8888
 E: wkk_hongkong@wkk.com.hk

WKK SINGAPORE
 T: +65 6741 7322
 DDI: +65 6469 6506
 E: hk_yip@wkks.com.sg



We Keep Your Chemistry Right™

