KINETICS
THE PROCESS PEOPLE

KINETICS CELERA™

MANUAL WET PROCESS SYSTEM FOR SURFACE PREPARATION AND ELECTROCHEMICAL DEPOSITION (ECD)

- **Flexible -** supports any chemical and substrate size
- **Configurable -** meets process and factory specifications
- **Economical -** low cost for both R&D and production

SYSTEM OVERVIEW

The Celera manual wet process tool from Kinetics is a low-cost system ideally suited to support surface preparation and electroplating applications. Celera can be configured to provide virtually all types of chemical processing covering sub-ambient to high-temperature processes. Standard and custom configurations are available.

KEY FEATURES:

- Advanced process solutions
- Flexible configuraons to support any wet chemical application
- Front- and rear-access configuration options
- Supports both single-wafer and batch processing
- 100mm to 300mm wafers plus custom substrates

SURFACE PREPARATION APPLICATIONS:

- FEOL—Gate Module
  - Pre-diffusion clean, metal etch, polymer removal, photoresist strip, nitride strip, silicon etch, oxide etch
- BEOL—Interconnect Module
  - Post-etch clean, photoresist strip, develop, metal liftoff, post-ash clean, post-CMP clean
- Packaging Module
  - UBM etch, photoresist strip, flux removal

MARKETS SERVED:

- Advanced Packaging
- MEMS
- Semiconductor
- Photovoltaic
- Compound Semiconductor
- Data Storage
- Medical Device
- BioFluidics

ECD (PLATING) APPLICATIONS:

- Advanced Packaging
  - TSV, Copper Pillar, RDL, WLP, UBM
- MEMS Pattern Plating
  - Cu, Au, Ni, Pt, Ru
- Magnetic Deposition
  - NiFe, NiFeCo
- Electro-etch
- E-less Deposition

+1 510-683-6000
email-usa@kinetics.net

+49 9374-9722-0
email-europe@kinetics.net

+65 6349-1000
asia@kinetics.net

www.kinetics.net

SPECIFICATIONS

PARAMETER	CAPABILITY
Applications	ECD, EP, Etch, Strip, Develop, Clean
Chemicals	Acids, Bases, Solvents
System Material	FM4910, Stainless Steel, Polypropylene
SP Process Baths	Recirculating, Heated, Static, Megasonic, Ultrasonic
Process Bath Material	PFA Teflon™, Quartz, PVDF, Stainless Steel, Natural Polypropylene
ECD Process Baths	Electroplate, Electropolish, Electrotech, Paddle Planting Cells (vertical and horizontal)
ECD Power Supply	Single- or Multichannel, DC, Pulse, Pulse-Reverse
Rinse Baths	QDR with spray options, Cascade
Substrates	Semiconductor Wafers from 100mm to 450mm, Optic Lens, Vascular Stents, Flat Panels, Custom Substrates
Process Bath Capacity	Single-Wafer and Batch Processing (baths of 25-200 wafers)
Third-Party Certifications	SEMI S2/S8, Seismic, CE, Electrical Safety
Automation Options	Manual Operation

FACILITY REQUIREMENTS

UTILITY	REQUIREMENT	CONNECTION TYPE
DI Water	2-5 GPM @ 30-80 psi	Supply 1" FNTP (Return 1/2")
N_2	5-10 SCFM @ 60-80 psi	1/2" Quick Connect Bulkhead
CDA	10-15 SCFM @ 60-80 psi	1/2" Quick Connect Bulkhead
Exhaust	650-750 SCFM	8" Diameter
Power	208-400 VAC, 3 phase, 10-40 A	3/4" Conduit

Will vary to meet customer specifications

CONTROLS:

- Microprocessor touch panel
- Optional PLC control system with HMI touchscreen GUI
  - Recipe editor and storage capability
  - Data logging with historical and real-time data charting
  - Multilevel password protection
  - Out-of-tolerance condition alarms

SAFETY FEATURES:

- Segregated electrical and chemical compartments
- Process bath lip exhaust
- Audible and visual warnings and alarms
- Leak detection and over-temperature protection
- Local and remote EMO

BUILT TO COMPLY:

- FM 4910
- SEMI S2 and S8
- SECS/GEM
- CE