

Elite Etch Cu ESD 7200 ESD Dual Acid Decapsulation System

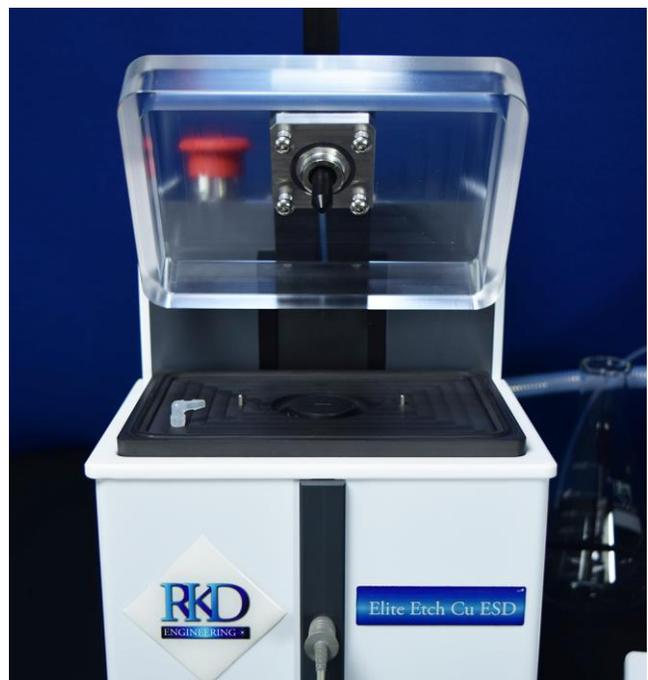
Fully featured decapsulation with ESD mitigation



The **Elite Etch Cu ESD** from RKD Engineering is an automated mixed acid decapsulator which enables high productivity through the integration of advanced features. This decapsulator rapidly opens delicate integrated circuit packages by delivering precise, micro-aliquots of nitric, sulfuric, or mixed acids to a sample surface. The **Elite Etch Cu ESD 7200** model incorporates critical ESD protection circuitry, thereby eliminating the potential for incremental ESD damage to fragile packages during decapsulation. In traditional non-conductive PTFE,

a charge may build up on the inner surface of the acid line tubing and any residual electrical charge cannot be neutralized. If the charge exceeds the dielectric strength of the PTFE, dielectric breakdown occurs. ESD hazards associated with PTFE are eliminated in this system by the use of electrically dissipative PTFE.

The **Elite Etch Cu ESD 7200** is equipped with a conductive ram nose connected to a high impedance resistor network to aid in ESD mitigation during decapsulation. The plastic encapsulated IC itself is of particular concern to justify working with a static-free environment. The solution is an electrically isolated yet dissipative ram nose assembly combined with the electrically functional PTFE. These components ensure that the process of decapsulation eliminates all ESD risks within the part being opened. The system is equipped with two ESD panel mounted sockets and circuitry for the attachment of ESD tweezers and a wrist strap. The wrist strap can be worn to mitigate ESD problems when handling a decapsulated package- including removal of the part from the decapsulator, rinsing, or drying.



Specifications

Etcher Unit	Height: 300 mm (13 in) Width: 190 mm (7.5 in) Depth: 305 mm (12 in)
Bottle Assembly	Height: 254 mm (10 in) Width: 280 mm (11 in) Depth: 127 mm (5 in)
Weight	Approx. 16 kg (35 lb)
Power Source	90 to 250 VAC, 50 to 60 Hz (4 amp)
Acid temp. range	10° to 250° C
Acid temp. set point	1° C ± 1% of setting
Etch cavity (up to)	22 mm x 22 mm (30 mm diagonal)
Choice of Acids	fuming nitric acids, mixed fuming nitric and sulfuric acids, or fuming/concentrated sulfuric acid
Acid Mix Ratios	(nitric to sulfuric ratios) 9:1, 6:1, 5:1, 4:1, 7:2, 3:1, 5:2, 2:1, 3:2, 1:1, 1:2, 1:3, 1:4, 1:5
Post Etch Rinse Options	sulfuric acids, fuming nitric acids, mixed acids, or no rinse
Etch Times	1 to 2,400 seconds in 1 second increments (1 seconds to 40 minutes) dynamic (real time) adjustments of etch time
Etchant Volume Selection	1 to 8 ml per minute - for all acids & acid mixes
Etch Delivery Functions	pulsed or Reciprocal Etch Acid Pulse (REAP) for lower acid consumption
Operator Program Storage	100 programs stored to nonvolatile memory
Ambient Temperature Range	15° to 26° C
Ambient Humidity	0 to 70% non-condensing
Warranty	most comprehensive and inclusive warranty in industry (ask for full details)