



# The Electropolisher Series

## Tabletop Electropolishing Equipment



MODEL EI085-IS



MODEL E299



MODEL E399



MODEL E782-EP



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# Features & Specs



## Electropolishing Procedure

1. *Prepare Metal (Pre-cleaning). Ultrasonic cleaning is an excellent way to remove oils, debris and other impediments that will distort the polishing results*
2. *Electropolishing Process*
3. *Post Cleaning (Rinsing and drying). Important to remove the residual electrolyte and clean and rinse the part. Ultrasonic cleaning can again be used for this step, as well as warm air drying*

Electropolishing, sometimes called reverse electroplating, is an electrochemical process which polishes a metal surface by removing a microscopic amounts of material from the work piece. Electropolishing is generally used to remove a very thin layer of material from the surface of a metal part. The process is of interest because of its ability to enhance the material properties of metal parts in addition to changing their physical dimensions.

Electropolishing offers a number of benefits to metal surfaces such as:

- Removal of impurities and improvement of corrosion resistance of a metal surface. (PASSIVATES)
- Improvement of the appearance of a metal surface (HIGH LUSTER)
- Improvement of the surface resistance to stain and bacteria.
- The microstructure of the surface can be more accurately inspected.
- Removal of surface defects improving the strength of certain metals.

Some of the features of our equipment are as follows:

- 304 stainless steel cabinet
- Digital timer with push button start, capable of controlling down to 0.1 seconds.
- Units have a voltage regulator with digital DC Voltmeter and digital DC Amp meter.
- Digital temperature controller. A cooling fan is also installed to blow ambient air on the side of the tank. This fan can be turned off if not needed.
- Inert cathodes
- The unit will be wired for 120 vac.
- One year warranty on parts and labor

**ESMA** has developed electropolishing solutions for stainless steel, chrome- co-balt, and high nickel alloys and has experience with electropolishing of small parts in the Dental, Orthodontic and Medical Device Industries. Anode holders and cathodes are made of inert materials and are utilized to prevent contamination of the electrolyte bath.

Units can be modified with Teflon tanks and cooling coils to be used for nitinol which uses electrolytes that require cooling.

**Model E782-EP houses an electropolishing cell, dip tank, and 2 ultrasonic rinse tanks in a single tabletop unit, for a complete, self-contained polishing system.**

MODEL #	UNIT DIMENSION	TANK CAPACITY	CURRENT CAPACITY
E1085-1S	17"x 11"x 10"	0.5 gallon (6" x 6" x 6")	12
E299	14"x 18"x 17"	1 gallon (6" x 6" x 12")	25
E399	20"x 18"x 17"	2 gallon (6" x 6" x 18")	50
E782-EP	46"x 18"x 12"	1 gallon (6" x 6" x 12")	25 or 50

√ UNPRECEDENTED WARRANTY

√ OVER 30 YEARS OF SUCCESSFUL IN-FIELD HISTORY

√ ALL STAINLESS STEEL CONSTRUCTION

√ SINGLE PUSH-BUTTON ACTIVATION