

ELECTROLYTIC POLISHER/ETCHER **LAB Model INSIPOL-2000**



INTRODUCTION:

In-situ metallographic has become one of the important NDT tools for industrial inspection system. Over the years demand is observed in the developing countries like India. In current scenario, in-situ metallographic is widely accepted in many areas of industries from quality control to life prediction of operating plant structures. In-situ metallographic is useful where microstructures are prepared to minimize the damage to the material being analyzed and at the same time derive metallurgical information

Important Areas Of In-Situ Metallographic

- 1) Quality control checks for metallurgical industries.
- 2) Life assessment of process plant components, subjected to high temperature damages.
- 3) Reconditioning of the component.
- 4) Risk based assessment of process plant.
- 5) Damage identification & audit.
- 6) Weld quality evaluation for critical application.

ISO 9001: 2008 certified

Web : www.insuenergyconservation.com, www.insuindia.com, www.insuindia.co.in

One Stop Automation Solution



INSTRUMENTS UNIVERSAL

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To meet these demands, we are delighted to introduce **INSIPOL-2000**. A unique portable electrolytic polisher/etcher with advanced control system and ease of operation. The **INSIPOL-2000** is designed to help **practicing metallurgist** to overcome practical difficulties.

PRINCIPLE OF ELECTROLYTIC POLISHING/ETCHING:

Electrolytic polishing produces a highly polished distortion free surface that is ideal for microscopic examination. The main advantage is that there are no deformation layers to observe the microstructure-view as no abrasives are used. When an electrolyte is flown between anode (a metal to be polished) and cathode, the micro protruding metal will dissolve to get uniform polished surface at particular current. The flow of electrolyte ensures the removal of metal products accumulated due to dissolution. The quantity of polishing also depends on lamella flow, which removes uniform metal. Etching generally occurs at the lower current than polishing, when only grain boundary is attacked preferentially. **INSIPOL-2000** is designed to get single stage polishing/etching on variety of metals. Single-phase alloy/metals are easy to polish with electrolytic polishing where as multiphase alloys/metals it poses certain difficulties.

SPECIFICATIONS OF INSIPOL – 2000 / LAB Model INSIPOL-2000

Supply Voltage	: 230V AC 50 HZ.
Power Consumption	: 280W maximum while operating.
Polishing Voltage	: 0 - 60V
Polishing Current	: 0 - 3 Amp
Polishing Timer	: 0 - 90 Sec.
Etching Voltage	: 0 - 18V (To be set with sample)
Etching Current H Range	: 0 - 750 milliamps.
Etching Current L Range	: 5 - 30 milliamps.
Etching Timer	: 0 - 90 Sec.
Pump Speed Control	: Electronic

DIMENSIONS

Length (L)	: 430 mm
Height (H)	: 330 mm
Width (W)	: 235 mm
Weight	: 11 kg. (Approx.) Without electrolyte

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+VE flow Polishing / Etching systems.

This is special designed to use for the edge where we want to see microstructure. You can use for Hacksaw blade, Cutter, Gears etc. (Optional)





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Some of our valued customer

✚ I G C A R	Chennai.
✚ A B B Lid.	Vadodara
✚ BHEL GE	Hyderabad.
✚ T M C	Kolkata
✚ Prevail Cast.	Rajkot.
✚ IIT	Khadagpur.
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✚ MMT Engineer.	
✚ G N F C	Bharuch
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