



**NABARUPAYAN**

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## **ULTRASONIC PROCESSOR – PROBE SONICATOR**

**Brand: NABARUPAYAN™ OPERATING PRINCIPLE: HSN Code : 8479**

High frequency vibration are produced by velocity horn – generally made out of SS material, when is immersed in the liquid to be processed. These vibrations produce millions of microscopic vacuum bubbles, which form and implode at a very high rate. The normal frequency is twenty-five thousand cycles per second. This phenomenon is known as CAVITATION. Cavitations gives rise to intense focal pressure waves and micro streaming of the liquid around the point of collapse. This is turn leads to high shear gradients that are responsible for the chemical process such as Homogenisation, Disintegration and Emulsification etc.

### **APPLICATION:**

The Ultrasonic Processor (Probe Sonicator) is a very useful tool to produce stable product as compared to other processes. The Ultrasonic Processor (Probe Sonicator) finds its application in Pharmaceutical Industries, Chemical Labs, Biotechnological Unit and Research Institutes for

- Tissue Processing (Plant and Animal Tissues).
- Emulsification of Immiscible Liquids.
- De-gassing and De-aerating of liquids.
- Formulations.
- Homogenisation.
- Particle Dispersion.
- Cell Disintegration.

### **Ultrasonic Processor- Sonicator, consists of two parts -**

1. Ultrasonic Generator - This unit produces high frequency -  $20 \pm 3$  KHz, Ultrasonic Power and the power is fed to the Velocity Horn.
2. Velocity Horn - This is generally constructed out of SS 316 material of required dimension and contains transducer. These transducers use PZT crystals in sandwich form to convert the Electrical Power into Vibrations leading to Cavitations. This titanium horn is used for the processing by dipping in the solutions.

### **Specifications & Prices:**

Sr. No.	Model	Power Output	Horn (Probe) Material	Size in mm	Processing Capacity in ml
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1	EI-125UP	125 Watts	Titanium	6	Upto 125
2	EI-250UP	250 Watts	Titanium	10	Up to 250
3	EI-500UP	500 Watts	Titanium	12 or 15	Up to 500
4	EI-650 UP	650 Watts	Titanium	3 or 10 or 15	Up to 650
5	EI-750UP	750 Watts	Titanium	12 or15 or 20or 25	Up to 750
6	EI-900UP	1000 Watts	Titanium	12or 25	Up to 900
7	EI-1500UP	1500 Watts	Titanium	25	Up to 1500

### **Optional Accessories:**

Sr. No.	Description
1.	Titanium Horn – 6 mm or 10 mm
2.	Titanium Horn – 12 mm or 15 mm or 20 mm or 25 mm.
3.	Sound proof Wooden Housing.
4.	10 Programs memory with Sequential and continuous Timer operation.



**##Picture are indicative& may not confirm to actual model.**

**All our model consists TOUCH Screen Model**

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**MEME**