



ULTRASONIC PROCESSOR – Cleaner

Brand: NABARUPAYAN

OPERATING PRINCIPLE:

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 in turn leads to high shear gradients that are responsible for the chemical process such as Homogenisation, Disintegration and Emulsification etc.

APPLICATION:

WHAT IS ULTRASONIC CLEANING AND HOW DOES IT WORK

Ultrasonic Power at high frequency - normally 30KHz (also 23 KHz or 40KHz) is fed to piezo electric crystals. The electrical power is converted to mechanical vibrations by these piezo electric transducers (PZT). The transducers are bonded to the bottom (or on sides in some applications) of the SS tank containing cleaning solutions. The mechanical vibrations are transferred to the liquid through the tank surface. These intense vibrations create microscopic bubbles - known as cavities in the liquid. The process is known as cavitation. The cavities thus formed implode with high pressure forming brushing effect on the surface of the components to be cleaned. As a result the contamination is removed. These cavities being microscopic can reach inaccessible crevices, holes in the components where manual cleaning with brush is impossible. This is an added advantage of Ultrasonic apart from fast cleaning process in batches. The cleaning agent normally dissolves the contamination leaving only the sediment that is not dissolved. This further enhances the cleaning process. In many of the precision industries Ultrasonic Cleaning has become indispensable.





MINI COMPACT CLEANERS •

TABLE TOP MODELS (0.5 LITER TO 3.5 LITERS)

Specially suited for Jewellers, Ophthalmist, Dental Products, Optical parts and Watch parts.

GENERAL INDUSTRIES -

Dies, Moulds and Other precision parts.

- ELECTRONICS -

Semiconductor components, PCBs, Electronic assemblies etc.

ELECTRICAL INDUSTRIES -

Motors, Generators, Energy meters, Meter movements, Switches, Switchgears assemblies etc.

- WATCH AND JEWELLERY -

Precious stones, Jewellery-Ornaments ,Clock & Watch Parts., Watch Straps, Casings etc .

OFFICE MACHINES -Calculators, Printers, Typewriter parts etc.

AIRCRAFT / AUTOMOBILE -Bearings, Pumps, Filters, Engine parts etc.

ELECTROPLATING -All parts before plating for better adherence , uniform application and excellent finish.

OPTICAL INDUSTRIES -Spectacle frames, Lenses etc.

HOSPITALS / SURGICAL -Surgical instruments, Ophthalmic, Dental & Gynec Implements, Dentures , Hypodermic Syringes etc. & in CSSDs

SCIENTIFIC LABS -glassware, Implements & other intricate material.

ULTRASONIC CLEANERS •

STANDARD MODELS

(SINGLE CHAMBER)

Sr.N o.	Model	Tank Size (clear) in mm	Capacity in liters	Ultrasoni c Power in Watts(A V)	Generato r	Heat er in KW



1.	EI-0.5L	150x85x65	0.5	40	Built-in	-
2.	EI-1L	150x140x65	1	45	Built-in	-
3.	EI-2LH	240x140x65	2(1.8)	50	Built-in	0.060
4.	EI-2.5LH	240x140x100	2.25	60	Built-in	0.040
5.	EI-5LH	240x140x150	3.5	100	Built-in	0.060
6.	EI-6LH	250x150x150	6	120	Separate	0.40
7.	EI-250H	300x200x175	10.5	250	Separate	0.60
8.	EI-500H	400x300x250	30	500	Separate	1.5
9.	EI-750H	500x350x300	52	750	Separate	3.0
10.	EI-1000H	600x400x375	90	1000	Separate	4.5
11.	EI-1500H	750x450x400	135	1500	Separate	6.0
12.	EI-2000H	900x500x400	180	2000	Separate	6.0

1. Material of Construction : SS 304/316, 16/18 gauge (Cleaning Tank)
2. Thermostatic Temp. Control.
3. Powder coated MS cabinet with excellent finish.
4. Timer of 15 mins. in integral units. (Built-in)
5. Solid State Ultrasonic Generator.
6. Ultrasonic frequency : 30 +/-3 KHz.
7. Transducers : PZT type transducers using weldbond technology.

OPTIONAL FEATURES

1. Timer - Mechanical or Digital.
2. Digital Temp. Indicator Controller.
3. Tank cover of SS 304.
4. Integral Units for high wattage models with SS / MS cabinet.
5. Side mounted transducers for special applications.
6. Level switch.
7. SS Baskets.



NABARUPAYAN

HSN Code : 8479

