

One Stop Laboratory Solution ...



# Ultrasonic Bath with in-built Chiller





## **Ultrasonic Cleaner with Chiller**



CHILLER MODEL TABLE TOP FLOOR MOUNTED TANK



The principle of the ultrasonic cleaning process is as follows: Piezo electric transducers are attached to the cleaning tank. They generate ultrasound waves that vibrate the cleaning fluid at very high velocity, creating a process called cavitation. Millions of tiny bubbles implode within the solution and penetrate into every orifice of the item being cleaned, removing dirt and grime within seconds.

Our in-built chiller unit when set to a desired temperature from 5-25°C can keep the sample cool. Ultrasonic Generator will generate heat during the process of cleaning. To control the heat a Chiller System is provided from outside the Bath. The chiller provided in the Ultrasonic Cleaner Regulates the temperature and keep the machine in good condition for a long functional life.

Model No.	Tank Cap.	Tank Size	Enclouser	Ultrasonic
	(Ltrs.)	(LXWXH)	Size (LXWXH)	Power
AT-SC-10 (Table-Top)	10	12"x9"x6"	34"x15"x16"	250W
AT-SC-20 H (Table-Top)	20	18"x12"x6"	36"x18"x17"	400W
AT-SC-20 V (Floor Mounted)	20	18"x12"x6"	26"x20"x36"	400W
AT-SC-25 (Floor Mounted)	25	16"x16"x6"	24"x24"x36"	500W
AT-SC-30 (Floor Mounted)	30	15"x15"x8"	23"x23"x36"	600W
AT-SC-50 (Floor Mounted)	50	24"x16"x8"	32"x24"x36"	750W

Micro Controller based timer

- Compact, regged and highly durable systems
- With Standard supply of LID, basket etc.

#### Salient Features of Ultrasonic Cleaning Chamber:

- Imported PZT Sandwich type bonded at the bottom of the tank
- High Frequency Built in MOSFET based SMPS
- Timer 0 to 99 minute's Digital count down with display.
- Auto degassing present 5 minutes for ultrasonic tank
- Pulse Sweep Power for Uniform distribution of Ultrasonic energy for ultrasonic tank.
- Easy to operate and made up of SS 304 (16 SWG) Fabricated tank.
- Extensive protected generator circuits for longer & safer operation.
- SS perforated sheet tray type Basket provided.
- Drain with Ball valve will be provided.
- SS 304 Basket provided.
- SS 304 LID provided.
- Complete Instruction Manual for easy operation will be provided.

#### Features

- Fully SS Body & SS Tank
- Digital Timer 0-99min with Digital Display of set & actual
- Operating Frequency 33+/-3KHz
- Compact, rugged and highly durable systems
- With Standard supply of LID, basket etc.
- PSP mode-Pulse sweep power for uniform distribution of ultrasonic energy
- Transducers-PZT type bonded to the bottom sides of the tank (Advanced) with weld bond technique
- Auto degassing present 5 minutes for ultrasonic tank
- Ultrasonic Generator advanced latest IGBT base SMPS
- Temperature controller Digital temperature controller with setting range 10

#### **Cleaning Chemistry: The effective cleaning medium**

Depending on the type of cleaning requirement and the substrate that needs cleaning a detergent solution or a similar aqueous medium can dramatically increase the cavitation. Lowering the surface tension of the liquid reduces the energy required to form the form the bubbles, and when combined with the inherent cleaning property of the solution results in superior micro cleansing of the soiled surface.

The choice of the cleaning medium (aka chemistry) is critical. The nature of the substrate and contamination are the key factors in selecting the cleaning chemistry, which is typically aqueous or semi-aqueous.



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