# Ultrasonic Multi-Chamber Cleaning Systems





**Innovative Cleaning Solutions** 





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#### COMPONENT CLEANING - INTEGRAL PART OF MODERN PRODUCTION SEQUENCE

Cleaning is, almost by definition, a part of any manufacturing process for the removal of sufficient surface contamination to make something suitable for the next phase of its use. It may come in at the raw material prep stage, some intermediate manufacturing stage, or prior to surface finishing such as plating or painting or before final packaging. The cleaning sequence depends on various aspects like: type of component, material, surface quality, type of contamination and required cleanliness level in terms of Millipore as well as particle size.

# **Products Range**

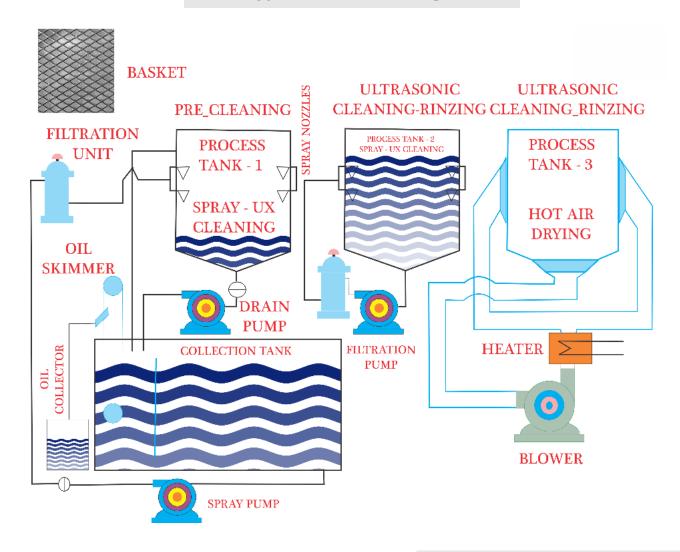
- Single chamber multi-operation cleaning systems (coarse /intermediate / fine cleaning)
- · Vapour degreasing systems
- Ultrasonic Components: Tube resonators, Eco-generators, Immersible boxes, Transducers etc.
- Customized Single Chamber Ultrasonic Cleaners of any capacity
- Conveyorized Ultrasonic cleaning systems
- Online Ultrasonic wire / strip cleaning system
- Multi-chamber Ultrasonic cleaning systems

### **Stages of MultiChamber Cleaning Systems**

- Pre-cleaning
- Ultrasonic-cleaning
- Rinsing
- Anti-rust coating
- · Hot air drying

- Vacuum drying
- Selection of number of stages depends upon the desired cleanliness level
- Available systems :- 3 to 10 chambers

# **A Typical Process Diagram**



#### **Features**

- Advanced proven TECHNOLOGY for Micro-processor controlled Ultrasonic Generators
- Use of high efficiency Ultrasonic components like patented Tube Resonators / Immersible Transducers box / conventional Transducers.
- Provided with filtration / recovery units / oil separators
- Automated Material Handling systems Design of baskets / trays / fixtures to get the optimum throughput with required cleanliness level
- Well equipped Lab available for Millipore testing which allows selecting / recommending / designing optimum system for desired cleanliness level.
- Various options available to choose from: High pressure jet cleaning /Inject flood washing / Turbulence / Plain dip / Ultrasonic cleaning /Ultrasonic rinsing/ Antirust coating / Hot air drying / Vacuum drying
- Options available for multiple frequencies: 20 /25 / 30 / 36 / 40 / 80 /120 kHz

# **Advanced Cleaning Generators**



20 - 170 kHz (Automatic Control) Frequency Range



600 - 1500 Watts Power Output



105 x 155 x 390 mm



# **Unique Features**

- SD card data storage option
- · USB & Ethernet interface
- Automatic Degas option
- Pulse & continuous mode selection & parameters
- Sweep mode with selection & parameters
- Triangular, Saw-tooth & Random wave selection & parameters
- Real Time Clock controlled ux. on trigger with selection & 6 time channel settings
- Ux. on time & all other required functional settings
- GUI messages, warnings & faults monitoring with TFT option

- Equipped with all necessary safety
   interlocks
- Five Dc-isolated 24V inputs, for external power setting for instance
- Over-temperature and overcurrent turn off
- Protected against short-circuit and no-load operation
- Coefficient of efficiency >90%
- Fully automatic control and monitoring
- Table Top housing, 19" Rack mounted version, DIN-railmounting or wall fastening
- Boost mode with selection & parameters

- High end PC software
- · Latest MCU controlled
- Fully automatic IGBT based
- Auto power monitoring & control
- Designed for tube resonator, immersing transducers and transducer plate fitted to tank
- Optimum frequency under all load conditions
- Optimum power output with all variations of temperature, solution level and work load
- Wave pulse modulation for highest cavitation, resulting highly uniform cleaning



### **Tube Resonators**

This novel design of transducer in tubular form ensures ultrasonic in all 360° and ease in retrofitting in existing system. This is available in various frequencies and different mounting lengths.

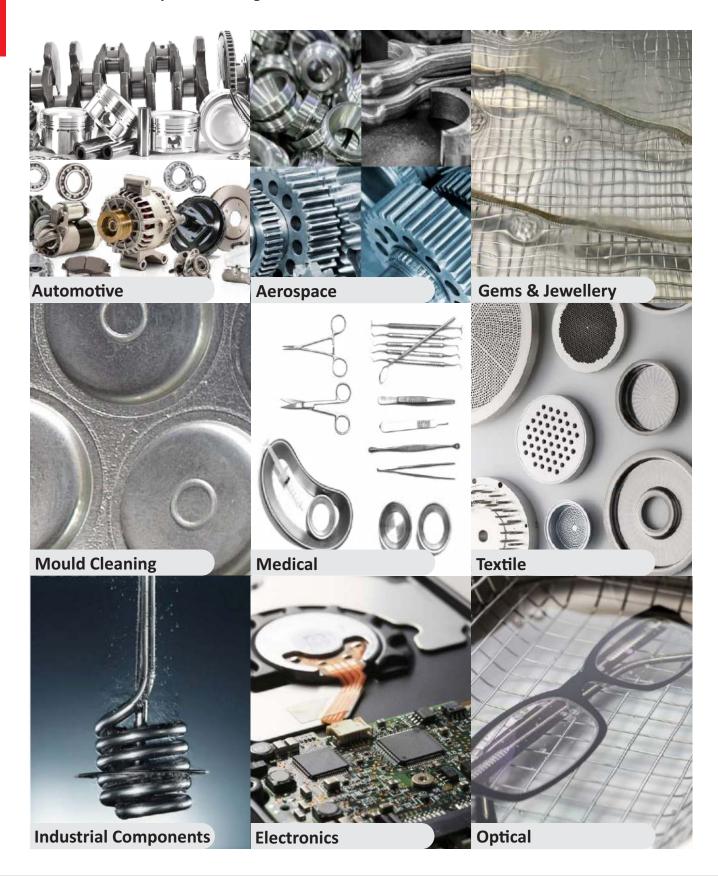


#### **Immersible Box**

Immersible box is available in different sizes & dimensions with different output power.

# **Innovative Cleaning Solutions**

We have successfully been catering to the needs of various industries.



## **ROOP ULTRASONIX LIMITED**

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