HIGH PRECISION INDUSTRIAL ULTRASONIC CLEANING SYSTEMS

Highest Cleaning Quality Through Advanced Industrial Cleaning Techniques

Till today, many industries use chlorinated solvents for cleaning various components. Although solvent based cleaning system like ultrasonic vapor degreasing systems does give good cleaning results but adopting new technology has become imperative to avoid use of highly chlorinated solvents due to strict environmental regulations worldwide.

A highly advanced semi-automated / automated high efficiency ultrasonic cleaning systems are built depending on the job specifications. High quality aqueous solutions not only offer efficient alternative cleaning but also allow maximum environment & labor protection, highest cleaning quality with better output, low solution & energy consumption, easier waste disposal etc.

We at ROOP TELSONIC offer you highly sophisticated & modern AQUEOUS BASED ultrasonic cleaning systems consisting of various cleaning, rinsing & drying stages. Depending on the cleaning tasks, complete systems are provided with filtration & recovery units, oil separators. The desired cleaning result is achieved by rotation, lifting/lowering movements of the baskets.

*** Importance of Ultrasonic Cleaning**
*** Multi Chamber Cleaning Systems**
*** Applications**

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, and prior to surface finishing such as plating or painting or before final packaging. Industrial cleaning system plays a key role during final manufacturing stages for the cleaning of various components .It's demand has been ever increasing as highly cleaned components are needed for various production units in reduced/less time. This is not only to create conditions for trouble free manufacturing but also decides the quality and service life of the end product. The cleaning sequence depend 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.

RANGE OF PRODUCTS

- Industrial Cleaners: From 50 Lts To 250 Lts
- Customized Single chamber Ultrasonic cleaners of any capacity
- Conveyorized Ultrasonic cleaning systems
- Online Ultrasonic wire / strip cleaning system
- Multi-chamber Ultrasonic cleaning systems
- Single chamber multi operation cleaning systems (coarse /intermediate / fine cleaning)
- Vapor degreasing systems
- Ultrasonic Components :TUBE RESONATORS , ECO-GENERATORS, IMMERSIBLE BOXES,TRANSDUCERS etc.

ULTRASONIC MULTI CHAMBER CLEANING SYSTEMS

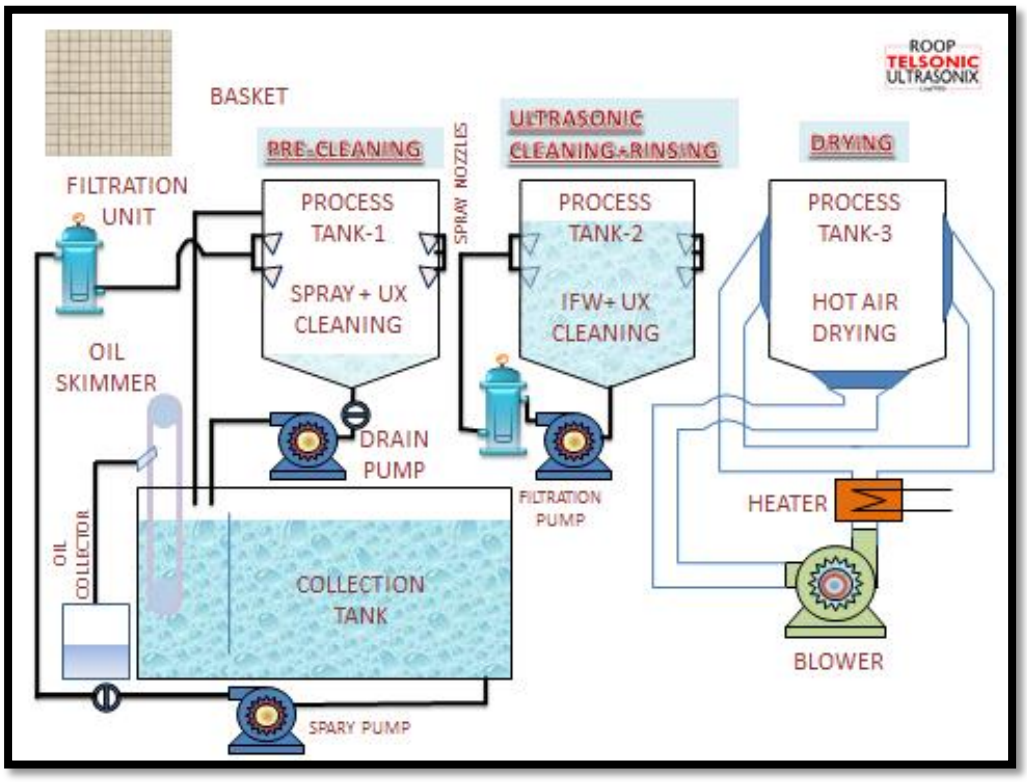
Salient Features:

- Advanced proven SWISS TECHNOLOGY
- Micro-processor controlled Ultrasonic Generators
- Options available for multiple frequencies: 20 /25 / 30/ 36 / 40 / 80 /120 Khz
- Use of high efficiency Ultrasonic components like patented Tube Resonators / Immersible Transducers , box / conventional Transducers
- Various options available to choose from: High pressure jet cleaning /Inject flood washing / Turbulence / Plain dip / Ultrasonic cleaning /Ultrasonic rinsing / Anti-rust coating / Hot air drying / vacuum drying
- 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
- We have a state of the art lab available for Millipore testing which allows selecting / recommending / designing optimum system for desired cleanliness level.

Typical 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 OF MULTICHAMBER CLEANING



We develop and offer complete cleaning solution for any of your cleaning requirements. Our most advanced technologies provide long term cleaning and environmental solution to the industry. Our special application & technology support cell members are always available to guide our customers.

The machine is transported in READY TO INSTALL assembled condition.

APPLICATIONS OF ULTRASONIC CLEANING SYSTEMS

- **AUTOMOBILE SEGMENT:**
  Automotive components cleaning: Cutting Oils /Coolant / chips removal from Machined Metal Components like Engine Block, Cylinder Head, fuel injection parts, carburetors, valves, brake parts, piston & piston rings, steering unit parts etc

- **OTHER ENGINEERING MANUFACTURING:**
  Cleaning of Gears, tools, castings, precision and Non-precision Bearings, Engine Transmissions, Wire Drawing Lubricant Removal, hydraulic components, a/c components, compressor parts etc

- **TEXTILE INDUSTRY:**
  Cleaning of Spinnerets, Candle Filter, Ceramic-Nozzles/Jet Inserts, Texturing Discs, Spinning Aprons, Machine Components etc.

- **PRINTING INDUSTRY:**
  Cleaning of anilox rolls / gravure cylinders and toners

- **PLASTIC INDUSTRY:**
  Cleaning of injection moulds

- **ELECTRONIC INDUSTRY:**
  Cleaning of PCBs, video heads, transistor leads, stencils etc

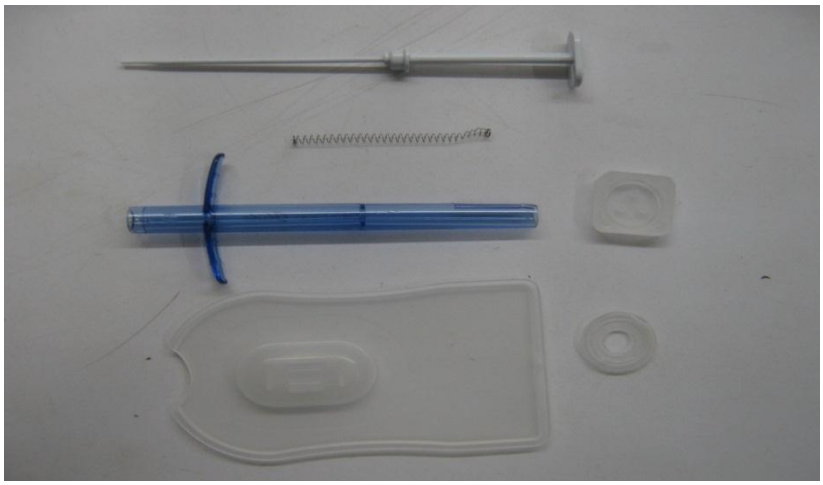
- **MEDICAL INDUSTRY:**
  Cleaning of Dental & surgical instrument, endoscope tubes. Orthopedic implants, surgical blades, hypodermic needles, specimen slides etc.

- **OPTICAL INDUSTRY:**
  Cleaning of lenses / glasses / glass moulds

- **CHEMICAL / PHARMA INDUSTRY:**

BEFORE CLEANING

AFTER CLEANING



Cleaning of sieving mesh, sonication of liquids, degassing of HPLC solvent etc

- **GEMS & JWELLERY:**
  Cleaning of precious metals & jewelry

- **MISC APPLNS:**
  Cleaning of watch / clock parts, cutlery, hardware (taps etc.), brassware (handles etc.), aerospace components, ball-pen tips etc.

AND MANY MORE..

APPLICATION AREAS

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BEFORE CLEANING

AFTER CLEANING

MATERIAL : S.S.
CONTAMINATION : OIL, CHIPS, DIRT

BEFORE CLEANING

AFTER CLEANING

MATERIAL : C.I.
CONTAMINATION : OIL, PASTE

BEFORE CLEANING

AFTER CLEANING

MATERIAL : CERAMIC
CONTAMINATION : BLACK PASTE

BEFORE CLEANING

AFTER CLEANING

MATERIAL : COTTON
CONTAMINATION : DIES COLOR

BEFORE CLEANING

BEFORE & AFTER CLEANING COMPERISION

AFTER CLEANING

MATERIAL : GLASS
CONTAMINATION : LAPPING PASTE

BEFORE CLEANING

AFTER CLEANING

MATERIAL : BRASS
CONTAMINATION : OIL, CHIPS, DIRT

BEFORE CLEANING

AFTER CLEANING

MATERIAL : STEEL
CONTAMINATION : OIL, BUFFING PASTE

BEFORE CLEANING

AFTER CLEANING

MATERIAL : FIBER
CONTAMINATION : OIL, GREASE, PASTE

BEFORE CLEANING

AFTER CLEANING

MATERIAL : ALUMINIUM
CONTAMINATION : OIL, CHIPS, DIRT