



ULTRATECNO
POWER ULTRASONIC APPLICATIONS

Power Ultrasonic Cleaning



Ultrasonic Cleaning Technology

AUTOMOTIVE

MARINE

AVIATION

RAILWAY

MINING

OFFSHORE

POWER GENERATION

Cylinder Heads

Pistons

Engine Blocks

Intake/Exhaust Manifolds

Coolers

Turbo Compressors

Fuel Pumps

EGR Valves

Injectors/Carburetors

DPF Filters

Converters / Gear Boxes



Some examples of Ultrasonic Cleaning Performance 28 kHz

Ultrasonic Cleaning Systems are based on high-frequency sound waves, which are transmitted through a flowing liquid where the piece to be clean is submerged. Treatment takes between 10 and 45 minutes, but **no operator presence is needed**.

Ultrasonic waves produce cavitation, in which millions of gas bubbles are generated into the liquid, and then compressed until they implode, releasing huge amounts of energy. This energy hits the dirt, grease or carbon dust over the surface of the objects to be cleaned, removing it **without damaging the piece**.

The result is a micro-brushing phenomenon which cleans the pieces treated. As gas bubbles are only 1 μm , they penetrate into every orifice, making Ultrasonic Cleaning **best system for highly complex components in any kind of material** (cast iron, steel, aluminium, copper, brass, titanium, bronze, some plastics & rubbers, ...).





28 kHz frequency gets best results for heavy duty applications. Some manufacturers use less effective frequency levels (40-90kHz) trying to reduce noise emission, but they loose cleaning power.

Exclusive and Patented UltraTecno Technology gives you full 28kHz cleaning power with lowest noise emission!

Why you should choose UltraTecno



Highest Cleaning Power

UltraTecno, the leading ultrasonic technology **with our 28 kHz** Class 1 transducers and electronic **synchronized** generators.



Lowest Noise Emission

Get full 28kHz cleaning power, with less than 78 dB(A)!
Just with UltraTecno exclusive **Patented ARF Technology**.



Lowest Energy Consumption

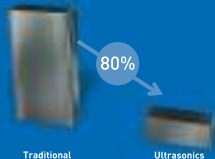
Save yearly up to 1.700€ in energy. All equipments are full thermal Xtra-insulated (70mm).
UltraTecno **Green Label** features, with new unique internal automated functions: **ECMode**, Programmable heating timer and Energy+Cost Monitoring.



Highest Quality Surface Cleaning

Microscopic cleaning quality and homogeneous results even with complex parts. Always free from oil/grease with our **Patented LFS Technology**.
Join UltraTecno Technology to get the best performance.

Cleaning Time



Labour and Cost Savings

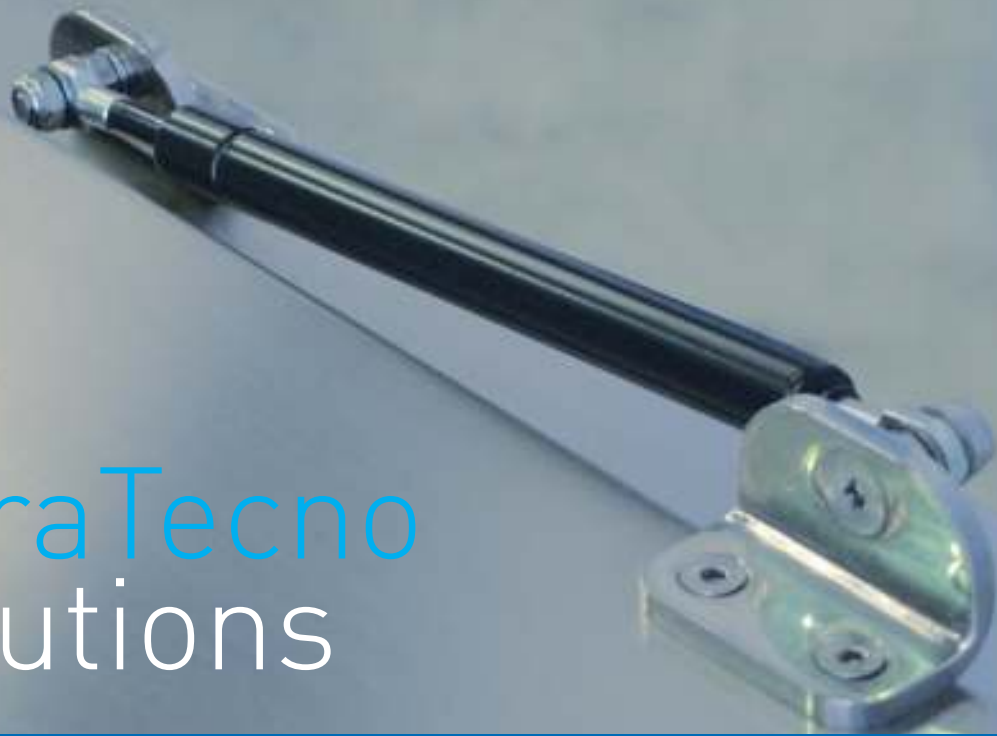
Save up to 80% labor time vs traditional systems by avoiding operator presence during cleaning cycles. And reduce by six times your water & detergent consumption.



Health and Safety

Avoid direct contact with chemical products during cleaning.
Our equipments guarantee highest security standards for users in accordance with all relevant safety regulations.

UltraTecno Solutions



28 kHz UltraTecno Transducers

Cavitation at 28kHz frequency is empowered by greater size bubbles generation, thus releasing more energy and increasing the cleaning effect which results in better performance and lower cycle time.

Our transducers are made of top quality phosphor-bronze/silver materials and its construction minimizes heat build up, thus extending the life of the transducers and piezoelectric crystals and getting the best market efficiency levels.

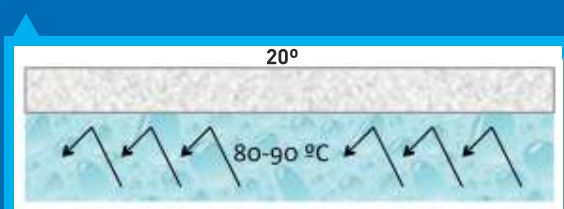
Synchronized Generators

UltraTecno synchronized technology ensures all ultrasound transducers are at same phase, avoiding pressure waves absorption phenomenon **enhancing the effects of cavitation.**

Our electronic generators include up to eight sweep frequency modes designed to improve transducers performance and an additional Stop&Go extra function.

Triple Size Thermal Insulation

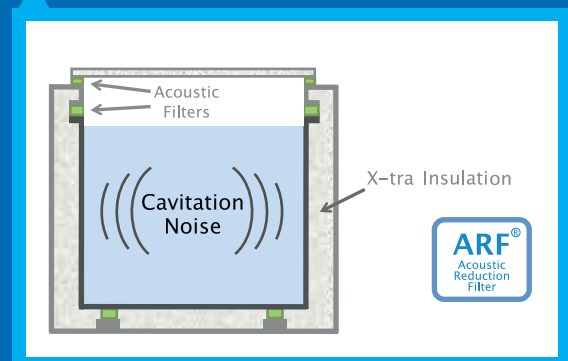
Our machines are fully insulated with triple size material up to 70 mm thickness. The top cover is also insulated and the closing is done with a Neoprene joint to avoid steam leaks.. Our thermal insulation system reduces heat losses by 72% being the most efficient of the market.



Acoustic Reduction Filter (ARF) ®

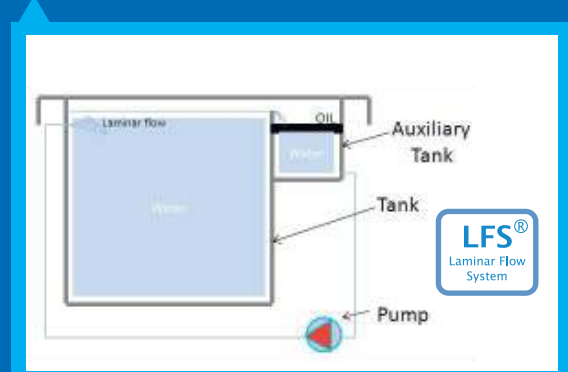
28kHz is the most efficient and desirable frequency to clean machine components, but it is also the most audible. UltraTecno engineers have developed our **Patented ARF Technology**, which uses Acoustic Filters and X-tra insulation to keep noise below 78dB(A).

Now you can enjoy full 28 kHz cleaning power while keeping your workshop quiet.



Oil Separation Tank (LFS) ®

After oil and grease are removed from pieces, they have to be separated from main water tank. Our **Patented LFS Technology** takes floating grease to an auxiliary tank, where it can be easily removed by user, rendering all components perfectly clean after elevation .



Lift Platform

Our standard range reaches working loads up to 1.500 kg (pneumatic/hydraulic operated). Further capacities upon request. Pieces at tray can be shacked automatically during cleaning process which improves considerably the cleanness results & reduces times.

Full Stainless Steel Construction

Grade 316 stainless steel with 25% greater thickness is used for our ultrasonic plate transducers. This reduces the risk of 'hot spot' erosion, provides more uniform cleaning and guarantees our equipments a longer life cycle.

UltraTecno standard Quality Process by welding gives every tank a 100% leak – free guarantee.

7" Multilanguage Color Touch Screen

Allows easy equipment control, including Automatic mode with up to 3 pre-set cycles. No human supervision is needed during cleaning process. User can setup all machine parameters for optimum performance.

Includes Preventive Maintenance Manager, Chemicals Calculator & Ultrasounds Delayed Start Timer.



UltraTecno Green Label



UltraTecno innovation increases our equipments efficiency and optimizes energy use. All our machines are equipped with internal adjustments to allow the most efficient use of energy.

- ECO Mode

The equipment will turn automatically to a low energy consumption mode. Electricity savings of up to 25%. Reduces heat-up time until start-up.

- Electrical Consumption Monitoring

Energy consumption and its real cost from every device monitored on-time and registered.

- Programmable Heating timer

The equipment will be ready to start working at the time selected. The system will automatically select the most energy efficient running-modes.



Automatic Cleaning Machine Series

UltraTecno Automatic Cleaning Machine Series have been specially designed and built for very adhered dirt removal. **The cleaning process is done automatically by the machine, with no human supervision necessary.** The process lasts between 10 and 45 minutes, depending on kind and quantity of dirt to be removed, pieces material, chemical cleaning product used, working load capacity used and tank temperature (which can be adjusted up to 85°C).

Heating System is used to increase cavitation process and to improve dirt and grease solubility in water.

Model	Capacity (litres)	Elevator Max. Load	Ultrasound (kW)	Heating (kW)	Main Tank Internal Measures (mm)	External Measures (mm)	Laminar Flow Oil Removal	Insulated Top Cover
ACM-100E	100 lt	50 Kg	1 kW	3,75 kW	600 x 400 x 460	1070 x 720 x 1360	YES	YES
ACM-200E	200 lt	75 Kg	2 kW	6 kW	800 x 500 x 500	1270 x 825 x 1440	YES	YES
ACM-300E	300 lt	250 Kg	3 kW	7,50 kW	900 x 650 x 645	1450 x 1050 x 1820	YES	YES
ACM-450E	450 lt	350 Kg	4 kW	11,25 kW	1120 x 650 x 705	1760 x 1060 x 2000	YES	YES
ACM-650E	650 lt	500 Kg	5 kW	11,25 kW	1370 x 800 x 705	2000 x 1260 x 2055	YES	YES
ACM-1000E	1000 lt	800 Kg	7 kW	15 kW	1500 x 900 x 750	2300 x 1400 x 2055	YES	YES- Automatic
ACM-2000E	2000 lt	1000 Kg	8kW	24 kW	1700 x 1100 x 1100	2250 x 2100 x 2900	YES	YES- Automatic
ACM-3000E	3000 lt	1000 Kg	10 kW	27 kW	1700 x 1590 x 1200	2250 x 2100 x 2900	YES	YES- Automatic
ACM-4500E	4500 lt	1800 Kg	14 kW	36 kW	2500 x 1590 x 1200	3050 x 2100 x 2900	YES	YES - Automatic



Optional Devices Available

Reusable Tank Filter

get cleaner parts & extend chemicals lifetime.

Automatic Water Refilling

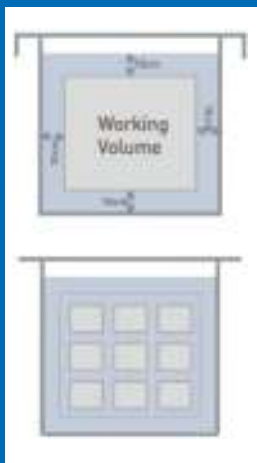
non-stop cleaning.

Hybrid Heating

use hot water & save up to 70% electricity cost.

Automatic Top Lid Opening

For proper model selection and best performance, please respect maximum working volumes.



Tank

To get the best performance and ultrasound diffusion, the distance from the working volume to the tank or water level must be 10 cm at least.

Loading Operation

Parts must be separated during operation to get proper ultrasound diffusion and most effective result.

Also available our Industrial Cleaning Machines Series

Equipments for general cleaning purposing without elevator, and up to 12.000 liters capacity.

For use in:

- Energy and Cogeneration Plants.
- Automotive, Aircraft and Railways Industry.
- Grinding and Polishing Workshops.
- Food Industry.
- Injection Molding.
- Marine Maintenance.



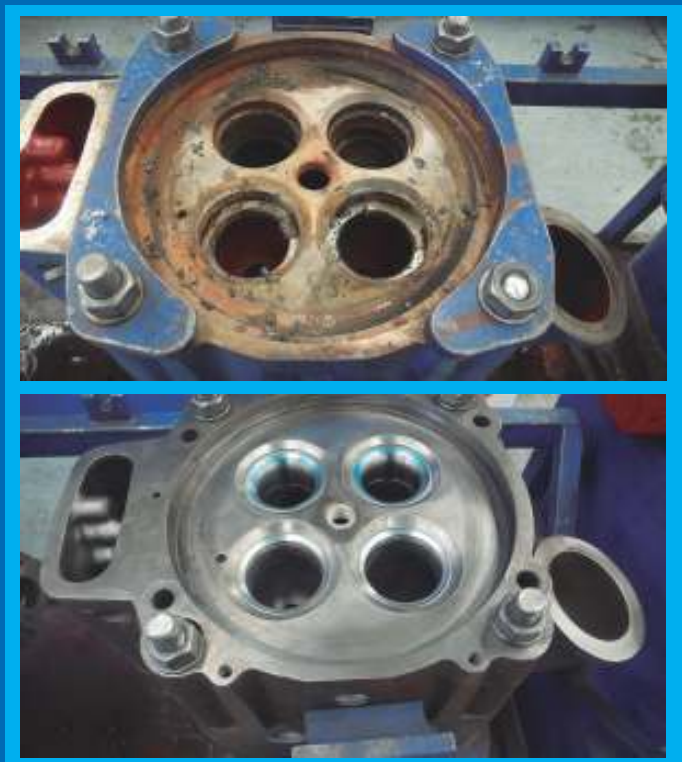


Quality: Our Commitment

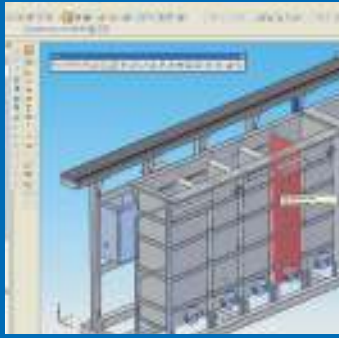
UltraTecno is one of the leading European manufacturers of ultrasonic cleaning equipment, supplying and serving industry both in Europe and throughout the world. We proudly celebrate over **45 years of experience** in the design and manufacture of our equipments.

UltraTecno Cleaning Machines are unique in their design and construction, and have been developed for **superior performance and long life**. As well as being a producer of primary ultrasonic cleaning equipment, UltraTecno is also an original equipment manufacturer, supplying high quality ultrasonic components and assemblies to install in various forms of industrial plant, for on and off-line cleaning solutions.

28 kHz Digital Technology Power Ultrasonic Cleaning



3D CAD Design Software



Electric Boards Assembly



Stainless Steel Welding Workshop



Own Technical Service



Quality Control



UltraTecno Chemical Products complete series for cleaning



“That is why we are well known as a trustful manufacturer”

Company Main Services

Cleaning Products

We offer you a wide chemical products catalog for getting the best performance whatever materials you handle. Specific cleaning agents designed to give you full protection for your pieces and the longer durability from market.

Taylor-made Projects

We develop custom projects for your process, with any kind of automation or multi-stage treatment. We have large expertise in big scale equipments in different industrial sectors.

Cleaning Laboratory

We can solve your cleaning problem with proper tests in our Cleaning Laboratory. Let us design the best machine & cleaning agent combination for your products, and get the best efficiency for your process.

After-Sales Service

We will always be your best cleaning partner, also after your purchase is done.



ULTRATECNO
POWER ULTRASONIC APPLICATIONS

Pol. Ind. El Mediterráneo
Calle Senyera, nave 19
46560 Massalfassar (Valencia) - Spain
T +34 961 666 565
F +34 960 110 406
info@ultratecno.es

www.ultratecno.es

Your Distributor

