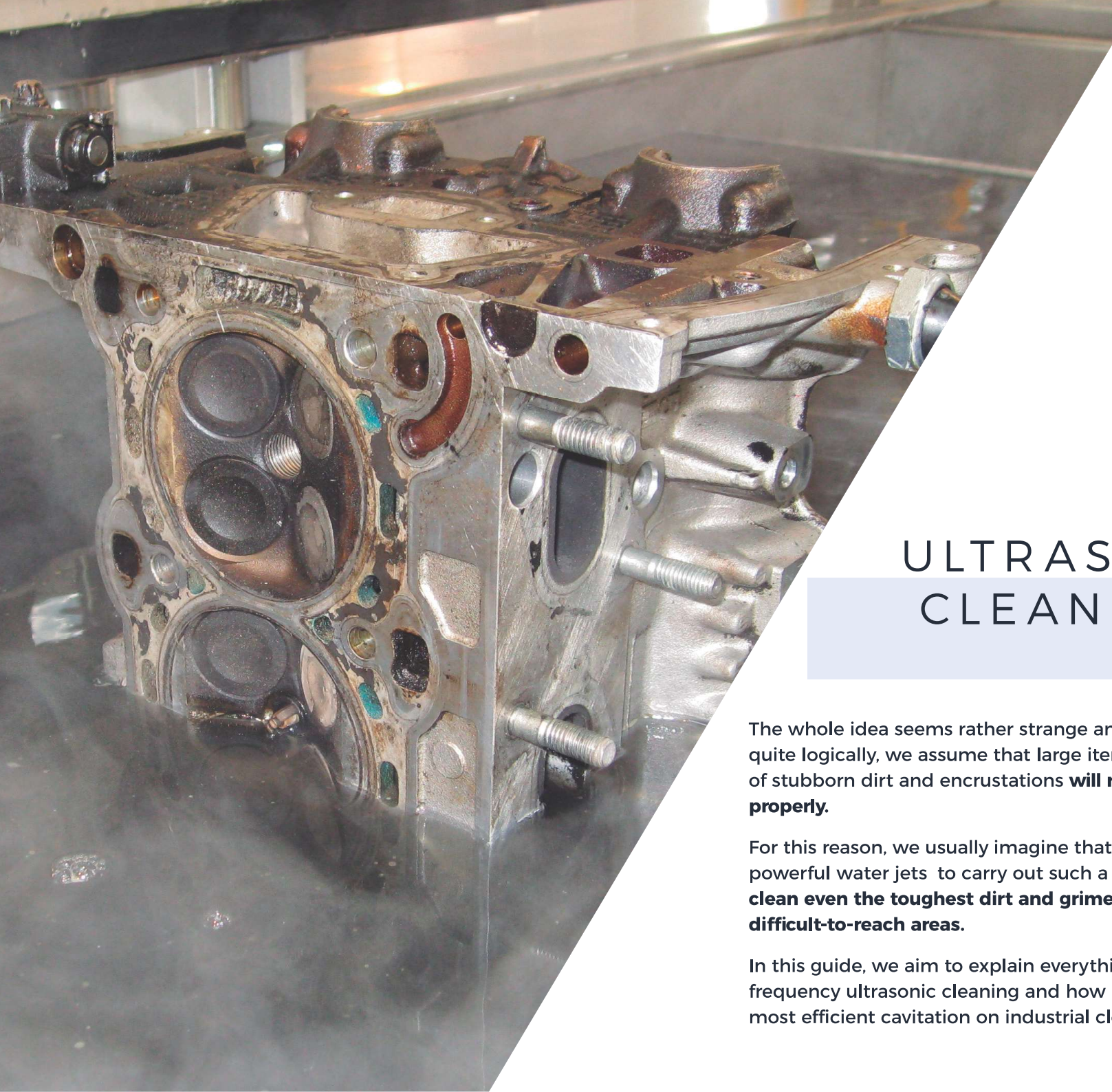




WHY IS ULTRASONIC CLEANING THE BEST OPTION?

THE MOST POWERFUL CLEANING SOLUTION
ON THE MARKET



ULTRASONIC CLEANING?

The whole idea seems rather strange and difficult to understand, because, quite logically, we assume that large items of machinery with huge amounts of stubborn dirt and encrustations **will require a lot of force to clean them properly.**

For this reason, we usually imagine that we would need large rollers or powerful water jets to carry out such a difficult job. However, **ultrasonics can clean even the toughest dirt and grime from even the most difficult parts and difficult-to-reach areas.**

In this guide, we aim to explain everything you need to know about high-frequency ultrasonic cleaning and how UltraTecnno technology achieves the most efficient cavitation on industrial cleaning market.

CONTENT

- ▶ HOW DOES ULTRASONIC CLEANING WORK?.....PAG. 4
- ▶ ADVANTAGES OF HIGH-FREQUENCY ULTRASOUND CLEANING.....PAG. 5
- ▶ WHAT APPLICATIONS DOES ULTRASONIC CLEANING HAVE?.....PAG. 6
- ▶ HOW TO SAVE ON OPERATING COSTS WITH OUR TECHNOLOGY.....PAG. 7
- ▶ ULTRATECNO: THE BEST CHOICE IN ULTRASONIC CLEANING.....PAG. 8
- ▶ ULTRATECNO PROJECTS.....PAG. 9
- ▶ COMMITTED TO QUALITY AND EFFICIENT SERVICE.....PAG. 11

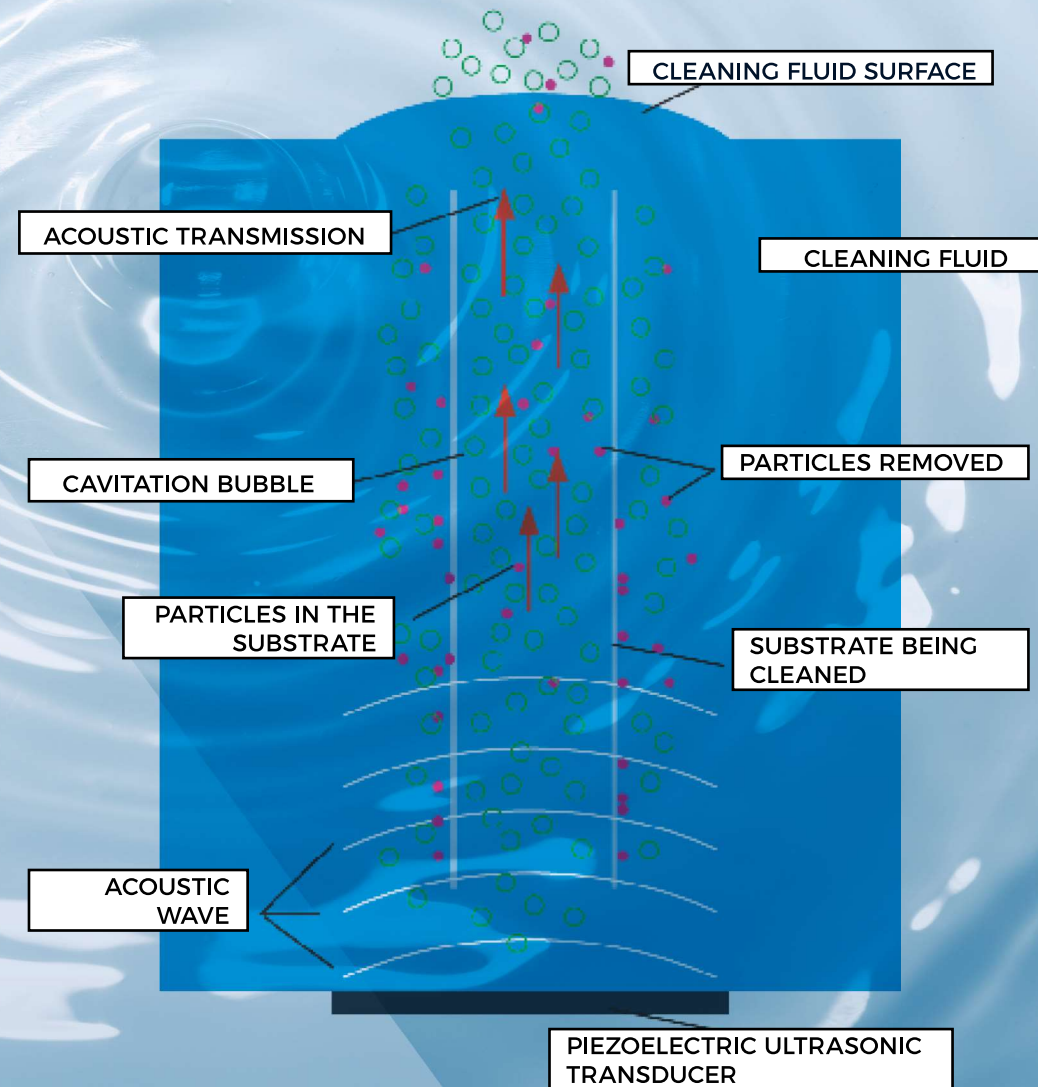


HOW DOES ULTRASONIC CLEANING WORK?

THIS TECHNOLOGY MAY SOUND RATHER COMPLICATED, BUT IT CAN BE EXPLAINED VERY SIMPLY:

1. The parts or equipment are placed in special tanks and **immersed in a water** solution.
2. While in the water, they are “bombarded” with ultrasonic waves, which cannot be heard, **but are a type of pressure wave**. The instrument responsible for emitting these waves is called a transducer.
3. The waves produced in the water solution induce a physical phenomenon called **cavitation**, which is crucial to the deep cleaning of even the most complex and irregular parts.

At UltraTecno, we use high power ultrasound, which creates a series of steam bubbles at a submicroscopic level that continually expand and contract, generating temperatures of up to 5000 K and a pressure of over 3000 atmospheres, which will ensure that any impurities in the part or equipment are removed without compromising its integrity.



ADVANTAGES OF HIGH-FREQUENCY ULTRASOUND CLEANING

ULTRASONIC CLEANING TECHNOLOGY IS CURRENTLY THE MOST WIDELY-USED INDUSTRIAL CLEANING TECHNOLOGY WORLDWIDE, DUE TO THE FOLLOWING ADVANTAGES:

The most effective cleaning in heavy-duty applications such as decarbonising or pickling.	The process is labour-free, except for loading and unloading the parts into the tank.	It cleans the parts inside and out. As long as there is water, there is cavitation and cleaning.
Many different applications using different alkaline and acid-based detergents.	It cleans holes or openings of less than 1nm thanks to the penetrating microscopic cavitation bubbles.	80% time savings, which also saves on work, costs and cleaning products.
Ensures that the operators don't breathe in toxic cleaning products and maintains a clean working environment.	No damage to the parts or equipment, even soft materials such as aluminium, copper or brass.	Meets all requirements for application in the food industry.
Complements your existing processes, and integrates perfectly without the need for costly re-engineering.	A modular design that adapts to your production line, with separate lines for cleaning, rinsing, filtering, passivation and drying.	Easy to use and very low maintenance.

WHAT APPLICATIONS DOES ULTRASONIC CLEANING HAVE?

THE LOW-FREQUENCY (28 KHZ) ULTRASONIC CLEANERS ARE SPECIALLY DESIGNED FOR DAILY HEAVY-DUTY INDUSTRIAL USE.



1. Cleaning of automotive parts, engines, as well as naval and railway maintenance: This cleaning method can be applied to engine rectifiers, maintenance workshops, remanufacturers of used parts, and scrapyards.



2. Injection and foundry moulds: Ultrasonic cleaning is very useful to keep the moulds in perfect condition after use, removing all types of plastics and carbonised rubber, and even soft metals such as zamak (zinc alloy), aluminium, or brass.



3. Oil and gas: Whether we are talking about petrochemical plants, off-shore activities, or emergency cleaning, ultrasonic cleaning is able to remove hydrocarbons, encrusted materials, and other dirt arising from petrochemical or refinery processes.



4. The mining industry: In remote locations, the parts and tooling used in this sector often accumulate difficult-to-remove grease, oil, carbon, dust, sand, or mud. However, these can all be easily removed in-situ through ultrasonic cleaning.



5. Industry in general: A long list of manufacturing processes can benefit from the integration of ultrasonic cleaning, which is capable of removing dirt as varied as grease, dirt from metal and plastic parts, shavings, polishing pastes, pickling, organic or inorganic residues, burnt plastic, rust, resin and much more.



6. The Food Industry: It's possible to have a safe and secure food industry, thanks to the ability of ultrasonic cleaning to eliminate microbiological hazards, as well as oil, grease, scale, and residues from items such as wine barrels.



7. The Printing Industry: Savings on ink and increased quality can be achieved by treating print rollers and other tools with ultrasonic cleaning.

HOW TO SAVE ON OPERATING COSTS WITH OUR TECHNOLOGY

OUR GREEN LABEL AND LOW DETERGENT CONSUMPTION WILL BRING YOU ANNUAL SAVINGS IN OPERATING COSTS OF UP TO €100,000 OVER THE LIFETIME OF THE MACHINE. THIS IS EQUIVALENT TO THREE TIMES THE COST OF THE EQUIPMENT.

- 50mm thermal and acoustic insulation, even in the lid (20mm).
- The electricity consumption can be monitored via the touch screen, enabling you to check on the consumption for each cycle (Ultrasonic, Heating, Oil Separator, Standby Mode) in kWh and €.
- Eco Mode. Low consumption at night, with a quick start-up.
- Programmable weekly timer to ensure the equipment is ready to start at any time.
- Because our equipment is 50% more powerful than our competitors, we need less active ultrasonic time, and, in turn, much less detergent consumption!



ULTRATECNO: THE BEST CHOICE IN ULTRASONIC CLEANING



Having explained all the advantages of ultrasonic cleaning, we would like to highlight just **how valuable Ultratecno can be for your business**, with more than 50 years developing this technology.

- We use High Power Ultrasonics (HPU) because of our **commitment to innovation and continual search for operational improvements** , as well as simplifying both installation and use.
- We are able to **complement and integrate our solutions into existing industrial processes** without affecting how your facilities work in any way. Through our modular design, we adapt to all types of equipment and production lines.
- We are able to **develop customised solutions** , guaranteeing adaptation, even with non-standard sizes.
- **We manufacture long-life, high-performance machinery** and our equipment is low-maintenance, reliable, and easy to install and use. We predict a **long service life of more than 20 years and** estimate a **return on investment of less than one year** . At Ultratecno, we believe in well-built, long-lasting equipment, and never get involved in planned obsolescence.
- We contribute to **energy savings** by avoiding costly losses of heat, water, time, and cleaning products.
- Ultratecno counts with wide network of **distributors all over the world**.



INNOVATION



PROCESSES



SOLUTIONS



DURABILITY



SAVING



EXPERIENCE

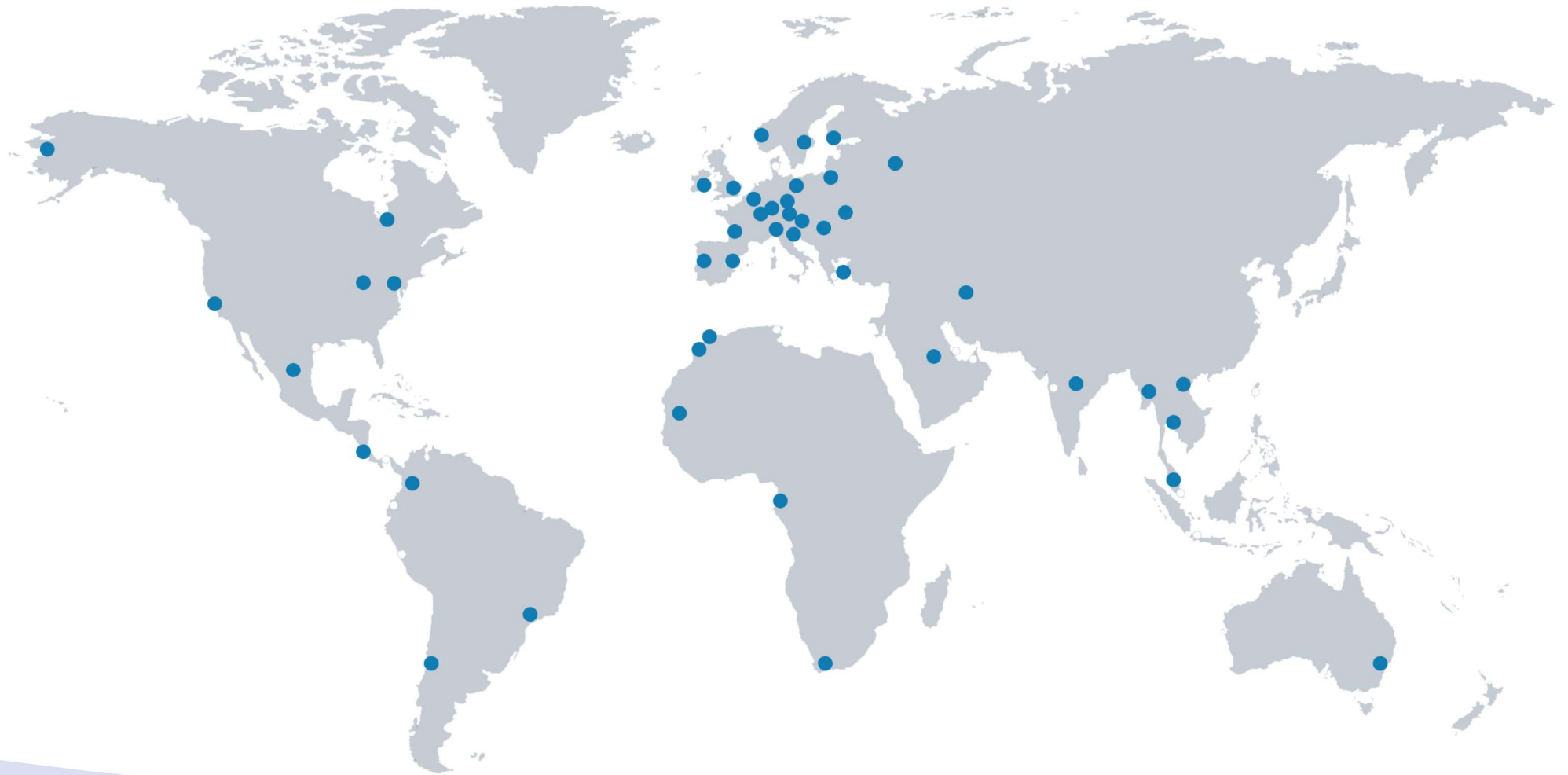
ULTRATECNO PROJECTS



MAN Diesel & Turbo



ULTRATECNO PROJECTS



COMMITTED TO QUALITY AND EFFICIENT SERVICE



Ever since 1964, we have built more than 3,000 unique industrial installations, which have met the expectations of the even most demanding customers. This has helped us to become a leading manufacturer of ultrasonic machinery for the **cleaning and degreasing of a wide range of industrial parts and equipment.**

We also make **international transport management** much easier for our distributors, as we take our equipment all over the world to provide high-performance solutions that really last.

To this end, we have developed **our own design and production system**, aimed at achieving total quality through a series of features that have helped to make us unique:

1. We control the entire production process under an ISO 9001:2015 certified system, and we manufacture the most critical components: generators and ultrasound emitters, with our own technology, which isn't imported from Asia.
2. We do not outsource critical tasks.
3. We have our own quality control and design engineering areas using 3D CAD software, as well as our own laboratory and the exclusive UltraTecnno range of cleaning products.
4. We have our own stainless steel welding, electrical, and electronics workshops.
5. We assemble electrical panels and program automation.
6. We have our own technical service, enabling us to be the best supplier even after the purchase.

We provide answers to all types of industrial needs, based on efficiency and profitability. **Ultratecnno will always be here for you, always committed to total cleaning and technological innovation.**



Pol. Ind. El Mediterráneo
C/ Senyera, nave 19
46560 Massalfassar (Valencia) - España

Tel. +34 961 666 565
Fax +34 960 110 406

info@ultratecno.es
www.ultratecno.es

