



tierratech®

ULTRASONIC CLEANING SYSTEMS



Ultrasonic cleaning equipment for the *automotive industry*



Motor Clean

www.tierratech.com

«We work with the best technology to put ultrasonic cleaning equipment at your service»

The Motor Clean series offers equipment and ultrasonic cleaning systems designed specially for professionals of the motoring world. At Tierra Tech, we know and understand the cleaning needs of the industry, so we have developed the most efficient cleaning system, ensuring an optimum quality in the cleaning processes of our clients.

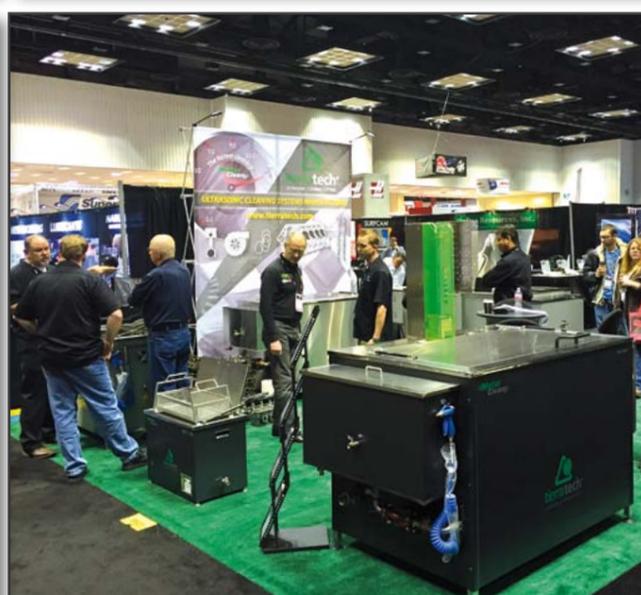
Equipment from the Motor Clean series offer indisputable advantages over traditional cleaning systems. They are the best choice for degreasing, decarbonising and descaling engine pieces and components since they achieve the best results for being able to access the most hard-to-reach pieces regardless of their complexity and with no effort.

The Motor Clean series covers the needs of all types of businesses within the motor industry, regardless of their size or specialisation, because it includes standard equipment that adapts to any piece, no matter its measurement. We also design tailor-made equipment for special cleaning needs.

At Tierra Tech, we comply with the highest quality standards in all our processes, certified by TÜV Rheinland with registration No. 0.04.09057, according to the ISO 9001:2008 Quality Standard.



Tierra Tech is present in more than 30 countries through distributors and implemented directly with our own distribution network in Spain and Mexico, which enables us to cater for our clients worldwide.



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- High-quality cleaning, regardless of whether the pieces have internal recesses or parts that are hard to reach.
- Reduces energy costs.
- Reduces labour time, benefiting other tasks in the production process.
- Technology is cleaner and more environmentally friendly, thanks to waste separation in the unit (oils, sludge, water).
- Savings in water and cleaning products by immersion cleaning.

The Motor Clean series includes equipment with capacities ranging from 30 to 8,000 litres specially designed to clean engines, components and accessories.

This equipment covers the following needs: vehicle workshops, diesel injection workshops, truck workshops, ship engine repairs and cogeneration, aeronautics, grinding workshops, engine rebuilding workshops, turbocharger workshops, etc.

Applications

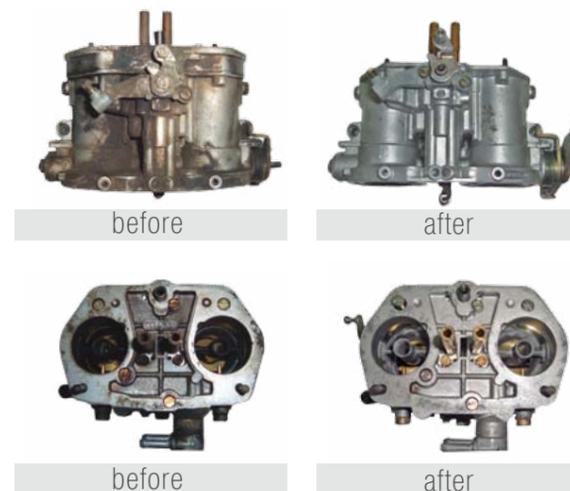
The efficiency of the TIERRA TECH® ultrasonic cleaning systems over automotive pieces is outstanding. Oils, grease and carbon build-ups are removed quickly and efficiently. The Motor Clean series is specially designed to clean all types of components related to engines, such as engine blocks, cylinder heads, turbochargers, injectors or particle filters, as well as for cleaning brakes, gearboxes, radiators, transmission systems, etc.

This range of equipment uses a working frequency of 40 kHz (sweep system +2%), which is the most adequate for cleaning in the motor industry because it achieves optimal cleaning without damaging any soft materials such as aluminium, magnesium, brass, etc. For other, more specific, types of cleaning, we use other frequencies such as 40-09 kHz (Multifrequency) to clean electronic boards or certain soft materials where the quality requisite of the reconstructor is very high and 8 kHz (sweep system ±2%) in the cleaning of certain large steel pieces in industrial and naval engineering.



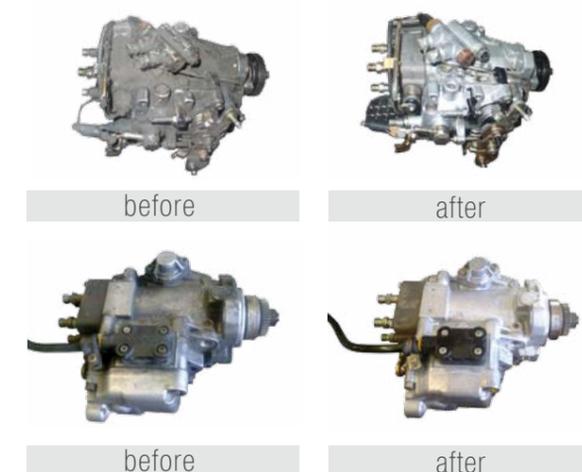
General workshop

Daily cleaning of all kinds of pieces in general workshops becomes a complex task if you do not have the adequate cleaning means. Ultrasonic cleaning is ideal for removing different types of dirt (grease, carbon deposits, oils, etc.) in pieces such as cylinder heads, pumps, particle filters, etc., both on the surfaces and parts which are hard to reach, reducing the effort and time employed by traditional systems.



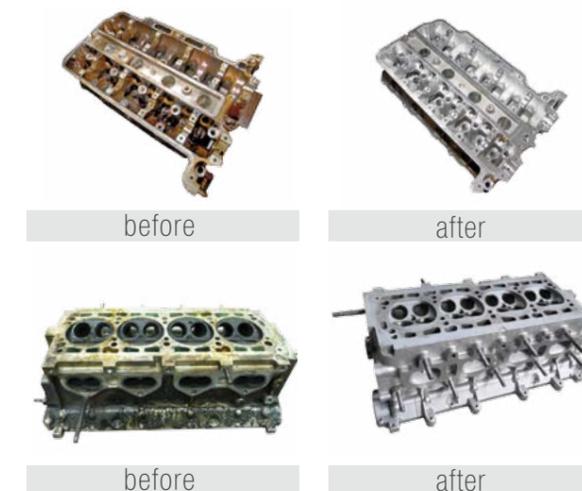
Diesel injection workshops

Cleanliness plays an important role in diesel injection laboratories, both in respect of the quality of the final result and productivity. Ultrasonic cleaning is ideal for these laboratories, because it enables cleaning the pumps in a maximum of 10-15 minutes without having to dismantle them and once dismantled in another 10 minutes we have complete assurance that all the internal conduits are perfectly clean, thus avoiding the typical problem that arises when a repair is carried out without adequate cleaning.



Grinding workshops

Regardless of the type of grinding to be carried out or the piece to be treated, ultrasonic cleaning ensures an optimum finish and precision in the grinding industry. Removes carbon deposits, oils and grease, as well as the usual residue we find in cylinder heads and engine blocks easily. The use of ultrasonic cleaning considerably reduces the time employed in cleaning, obtaining the highest quality and avoiding the use of acids, brushes and grit blasting, simplifying the cleaning process and removing the bottleneck all grinding workshops have in this part of the process.



Turbocharger workshops

Ultrasonic cleaning is the fastest and most efficient solution for turbocharger workshops because it removes carbon deposits and burnt oils, regardless of the complexity of the turbocharger structure. It also allows cleaning a great number of turbochargers in one single process, which improves quality and production times compared to traditional processes.



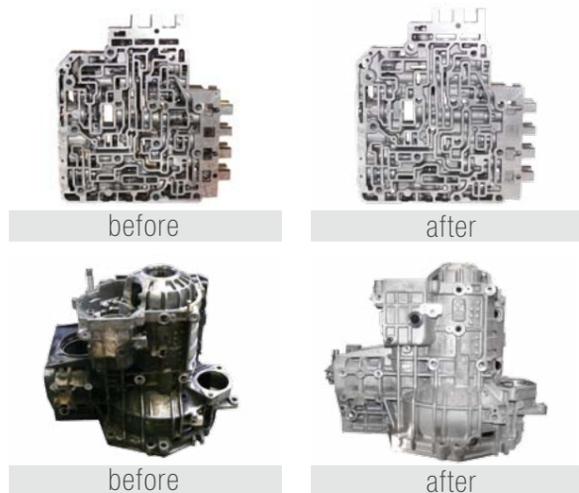
Engine rebuilding work

In engine rebuilding work, ultrasonic cleaning prevails as an efficient, fast and adaptable system for any place within the production chain. Ultrasonic cleaning removes all kinds of residue in cylinder heads, valves, pistons, engine blocks, commutators, alternators, etc. caring for the most delicate surfaces and ensuring an optimum finish both for later assembly processes and the final presentation of the engines.



Gearbox repair shops

In these repair shops, cleaning the pieces from the transmission system is a daily necessity that requires a fast and efficient system. The Motor Clean series covers this requirement, regardless of the complexity of the piece or amount of pieces to be cleaned, removing grease, oils and metallic shavings for instance, fast and efficiently, without the hard-to-access pieces becoming a challenge.



Naval

The Motor Clean series has large capacity equipment ideal for cleaning large pieces.

The naval sector finds our ultrasonic cleaning equipment the most adequate option for the maintenance and repair of all types of engines because they facilitate the cleaning of pieces such as heat interchangers, cylinder heads, turbochargers, intercoolers, tube bundle, coolers or propellers, and other large and heavy pieces, thus reducing the time and effort involved with the traditional systems.



Heavy machinery

The harsh working conditions to which this type of machinery is subjected to makes preventive maintenance a fundamental task to lengthen their useful life and ensure smooth operation. The Motor Clean ultrasonic cleaning equipment facilitates cleaning radiators, cylinder heads, engine blocks, transmissions, hydraulic systems and working tools, such as shovels or chains, thus contributing towards a proper maintenance that favours efficient work of heavy machinery and decreases the possibility of unexpected breakdowns.



Aeronautics

The precision of ultrasonic cleaning helps both the manufacturers of the components, as well as MRO centres to satisfy the high-quality requirements and the strict safety standards of the industry.

In an industry where safety is essential, the Motor Clean series are indispensable for the cleaning of hydraulic systems, heat interchangers, engine pieces, injection pumps, vanes, etc. since it does not damage the materials or modify the dimensions or geometry of the surfaces.

The frequencies used for aeronautical applications are 40 kHz (sweep system $\pm 2\%$) and 40-90 kHz, multi-frequency.



Standard models

The Motor Clean standard series includes equipment with capacities ranging from 30 and 8000 litres, specially designed to clean, degrease, decarbonise and descale all sorts of pieces, components and accessories.

All the equipment in this series, from 75 litres upward, incorporate an elevating platform to facilitate loading and manipulating pieces. Optionally, and depending on the application, we have water filtering and treatment systems, to adapt the standard system to the appropriate conditions required by our client.



The quietest ultrasound equipment on the market

Tierra Tech produces the quietest equipment on the market due to the high quality of the generator-emitter set, managing to transform almost 100% of the energy generated into ultrasounds and avoiding the loss in noise that penalises cleaning time and generate an unpleasant ambient noise.

Between 70-78 dB depending on the size of the equipment.



MOT-30 (30 Litres)



Capacity: 30 litres
 Internal dimensions: 550 x 300 x 250 mm.
 Basket dimensions: 530 x 284 x 85 mm.
 Useful measurements: 500 x 260 x 175 mm.
 External dimensions: 720 x 410 x 490 mm.
 Supply: 240v.
 Heating element: 1000W
 1 ultrasound generator with 600W (1200W p-p) output power
 Ultrasonic power: 600W (1200W p-p)
 Working frequency: 40 KHz.
 Frequency sweep system $\pm 2\%$
 12 high-performance IBL piezo-electric transducers in titanium-steel
 Tank built in INOX AISI 316 steel, 2 mm thick
 Weight: 34 Kg.

- General workshop
- Diesel injection workshops
- Turbocharger workshops
- Aeronautics
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MOT-75N (75 Litres)



Capacity: 75 litres
 Internal dimensions (excluding auxiliary tank): 650 x 420 x 470 mm.
 Useful measurements: 620 x 325 x 250 mm.
 Platform dimensions: 620 x 325 mm.
 External dimensions: 1022 x 640 x 905 mm.
 Supply: 240v.
 Heating element: 2200W.
 1 ultrasound generator with 800W (1600W p-p) output power
 Ultrasonic power: 800W (1600W p-p)
 Working frequency: 40 KHz.
 Frequency sweep system $\pm 2\%$
 12 high-performance IBL piezo-electric transducers in titanium-steel
 Tank built in INOX AISI 316 steel, 2 mm thick
 Reinforced pneumatic platform for loading in immersion
 Maximum load capacity: 60 kg.
 Integrated auxiliary tank to separate lubricants and oils
 Optional: filtration system for waste and sludge
 Weight: 130 kg.

- General workshop
- Diesel injection workshops
- Turbocharger workshops
- Aeronautics
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MOT-50 (50 Litres)



Capacity: 50 litres
 Internal dimensions: 600 x 300 x 300 mm.
 Basket dimensions: 580 x 280 x 110 mm.
 Useful measurements: 550 x 260 x 225 mm.
 External dimensions: 770 x 410 x 540 mm.
 Supply: 240v.
 Heating element: 1000W
 1 ultrasound generator with 700W (1400W p-p) output power
 Ultrasonic power: 700W (1400W p-p)
 Working frequency: 40 KHz.
 Frequency sweep system $\pm 2\%$
 14 high-performance IBL piezo-electric transducers in titanium-steel
 Tank built in INOX AISI 316 steel, 2 mm thick
 Weight: 40 kg.

- General workshop
- Diesel injection workshops
- Turbocharger workshops
- Aeronautics
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MOT-150N (150 Litres)



Capacity: 150 litres
 Internal dimensions (excluding auxiliary tank): 700 x 510 x 540 mm.
 Useful measurements: 670 x 415 x 320 mm.
 Platform dimensions: 670 x 415 mm.
 External dimensions: 1214 x 730 x 900 mm.
 Supply: 240v/400v.
 Heating element: 3500W for a 240V supply and 5000W optional for 400V.
 Ultrasonic power: 1700W (3400W p-p)
 1 ultrasound generator with 1700W (3400W p-p) output power
 1 submersible emitter with 1700W (3400W p-p) of power. The emitter contains 34 high-performance IBL piezo-electric transducers in titanium-steel
 Working frequency: 40 KHz. with frequency sweep system $\pm 2\%$
 Tank built in INOX AISI 316 steel, 2 mm thick
 Reinforced pneumatic platform for loading in immersion
 Maximum load capacity: 60 kg.
 Integrated auxiliary tank to separate lubricants and oils
 Optional: filtration system for waste and sludge
 Weight: 175 kg.

- General workshop
- Diesel injection workshops
- Grinding workshops
- Turbocharger workshops
- Engine rebuilding work
- Gearbox repair shops
- Naval
- Heavy machinery
- Aeronautics

MOT-75 (75 Litres)



Capacity: 75 litres
 Internal dimensions: 700 x 350 x 400 mm.
 Basket dimensions: 680 x 330 x 110 mm.
 Useful measurements: 645 x 305 x 290 mm.
 External dimensions: 920 x 510 x 900 mm.
 Supply: 240v.
 Heating element: 2200W.
 1 ultrasound generator with 800W (1600W p-p) output power
 Ultrasonic power: 800W (1600W p-p)
 Working frequency: 40 KHz.
 Frequency sweep system $\pm 2\%$
 16 high-performance IBL piezo-electric transducers in titanium-steel
 Tank built in INOX AISI 316 steel, 2 mm thick
 Weight: 40 kg.

- General workshop
- Diesel injection workshops
- Turbocharger workshops
- Aeronautics
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MOT-300N (300 Litres)



Capacity: 300 litres
 Internal dimensions (excluding auxiliary tank): 900 x 650 x 640 mm.
 Useful measurements: 850 x 495 x 340 mm.
 Platform dimensions: 850 x 495 mm.
 External dimensions: 1340 x 890 x 1035 mm.
 Supply: 400v.
 Heating element: 7000W
 Ultrasonic power: 3400W (6800W p-p)
 1 ultrasound generator with 3400W (6800W p-p) output power
 2 submersible emitters with 1700W of power each one / 3400W (6800W p-p). Each emitter contains 30 high-performance IBL piezo-electric transducers in titanium-steel.
 Working frequency: 40 KHz. with frequency sweep system $\pm 2\%$
 Tank built in INOX AISI 316 steel, 2 mm thick
 Reinforced pneumatic platform for loading in immersion.
 Maximum load capacity: 250 kg.
 Integrated auxiliary tank to separate lubricants and oils.
 Optional: filtration system for waste and sludge.
 Weight: 300 kg.

- General workshop
- Diesel injection workshops
- Grinding workshops
- Turbocharger workshops
- Engine rebuilding work
- Gearbox repair shops
- Naval
- Heavy machinery
- Aeronautics

MOT-400N (400 Litres)



Capacity: 400 litres
 Internal dimensions (excluding auxiliary tank): 1100 x 650 x 690 mm.
 Useful measurements: 1050 x 495 x 395 mm.
 Platform dimensions: 1050 x 495 mm.
 External dimensions: 1540 x 890 x 1070 mm.
 Supply: 400v.
 Heating element: 7000W
 Ultrasonic power: 3400W (6800W p-p)
 1 ultrasound generator with 3400W (6800W p-p) output power
 2 submergible emitters with 1700W of power each one / 3400W (6800W p-p). Each emitter contains 34 high-performance IBL piezo-electric transducers in titanium-steel
 Working frequency: 40 KHz. with frequency sweep system $\pm 2\%$
 Tank built in INOX AISI 316 steel, 2 mm thick
 Reinforced pneumatic platform for loading in immersion
 Maximum load capacity: 250 kg.
 Integrated auxiliary tank to separate lubricants and oils
 Optional: filtration system for waste and sludge
 Weight: 320 kg.

- General workshop
- Grinding workshops
- Turbocharger workshops
- Engine rebuilding work
- Gearbox repair shops
- Naval
- Heavy machinery
- Aeronautics

MOT-2000N (2000 Litres)



Capacity: 2000 litres
 Internal dimensions: 1750 x 1100 x 1100 mm.
 Useful measurements: 1650 x 910 x 815 mm.
 Platform dimensions: 1650 x 910 mm.
 External dimensions (including auxiliary tank and generator cabinet): 3025 x 1580 x 1310 mm.
 Supply: 400v
 Heating element: 18000W
 Ultrasonic power: 10200W (20400W p-p)
 3 ultrasound generators with 10200W (20400W p-p) output power
 6 submergible emitters with 1700W of power each one / 10200W (20400W p-p). Each emitter contains 34 high-performance IBL piezo-electric transducers in titanium-steel
 Working frequency: 40 KHz. with frequency sweep system $\pm 2\%$
 Tank built in INOX AISI 304 steel, 2,5 mm thick
 Reinforced pneumatic platform for loading in immersion
 Maximum load capacity: 1000 kg.
 Integrated auxiliary tank to separate lubricants and oils
 Optional: filtration system for waste and sludge
 Weight: 1250 kg.

- Grinding workshops
- Engine rebuilding work
- Gearbox repair shops
- Naval
- Heavy machinery

MOT-600N (600 Litres)



Capacity: 600 litres
 Internal dimensions (excluding auxiliary tank): 1300 x 800 x 665 mm.
 Useful measurements: 1245 x 645 x 400 mm.
 Platform dimensions: 1245 x 645 mm.
 External dimensions: 1970 x 1040 x 1040 mm.
 Supply: 400v.
 Heating element: 9000W
 Ultrasonic power: 5100W (10200W p-p)
 2 ultrasound generators with 5100W (10200W p-p) output power
 3 submergible emitters with 1700W of power each one / 5100W (10200W p-p). Each emitter contains 34 high-performance IBL piezo-electric transducers in titanium-steel
 Working frequency: 40 KHz. with frequency sweep system $\pm 2\%$
 Tank built in INOX AISI 316 steel, 2 mm thick
 Reinforced pneumatic platform for loading in immersion
 Maximum load capacity: 350 kg.
 Integrated auxiliary tank to separate lubricants and oils
 Optional: filtration system for waste and sludge
 Weight: 400 kg.

- Grinding workshops
- Turbocharger workshops
- Engine rebuilding work
- Gearbox repair shops
- Naval
- Heavy machinery
- Aeronautics

MOT-3000N (3000 Litres)



Capacity: 3000 litres
 Internal dimensions: 2050 x 1100 x 1080 mm.
 Useful measurements: 1880 x 990 x 875 mm.
 Platform dimensions: 1880 x 990 mm.
 External dimensions (including auxiliary tank and generator cabinet): 3325 x 1635 x 1510 mm.
 Supply: 400v
 Heating element: 18000W
 Ultrasonic power: 13600W (27200W p-p)
 4 ultrasound generators with 13600W (27200W p-p) output power
 8 submergible emitters with 1700W of power each one / 13600W (27200W p-p). Each emitter contains 34 high-performance IBL piezo-electric transducers in titanium-steel
 Working frequency: 40 KHz. with frequency sweep system $\pm 2\%$
 Tank built in INOX AISI 304 steel, 2,5 mm thick
 Reinforced pneumatic platform for loading in immersion
 Maximum load capacity: 1500 kg.
 Integrated auxiliary tank to separate lubricants and oils
 Optional: filtration system for waste and sludge
 Weight: 1850 kg.

- Grinding workshops
- Engine rebuilding work
- Gearbox repair shops
- Naval
- Heavy machinery

MOT-1000N (1000 Litres)



Capacity: 1000 litres
 Internal dimensions: 1500 x 900 x 860 mm.
 Useful measurements: 1410 x 720 x 560 mm.
 Platform dimensions: 1410 x 720 mm.
 External dimensions (including auxiliary tank and generator cabinet): 2520 x 1320 x 1090 mm.
 Supply: 400v
 Heating element: 12000W
 Ultrasonic power: 6800W (13600W p-p)
 2 ultrasound generators with 6800W (13600W p-p) output power
 3 submergible emitters with 1700W of power each one / 6800W (13600W p-p). Each emitter contains 34 high-performance IBL piezo-electric transducers in titanium-steel
 Working frequency: 40 KHz. with frequency sweep system $\pm 2\%$
 Tank built in INOX AISI 304 steel, 2,5 mm thick
 Reinforced pneumatic platform for loading in immersion
 Maximum load capacity: 750 kg.
 Integrated auxiliary tank to separate lubricants and oils
 Optional: filtration system for waste and sludge
 Weight: 550 kg.

- Grinding workshops
- Turbocharger workshops
- Engine rebuilding work
- Gearbox repair shops
- Naval
- Heavy machinery

MOT-4000N (4000 Litres)



Capacity: 4000 litres
 Internal dimensions: 2400 x 1500 x 1260 mm.
 Useful measurements: 2280 x 1290 x 975 mm.
 Platform dimensions: 2280 x 1290 mm.
 External dimensions (including auxiliary tank and generator cabinet): 3270 x 2060 x 1590 mm.
 Supply: 400v
 Heating element: 30000W
 Ultrasonic power: 20400W (40800W p-p)
 6 ultrasound generators with 20400W (40800W p-p) output power
 12 submergible emitters with 1700W of power each one / 20400W (40800W p-p). Each emitter contains 34 high-performance IBL piezo-electric transducers in titanium-steel
 Working frequency: 40 KHz. with frequency sweep system $\pm 2\%$
 Tank built in INOX AISI 304 steel, 3 mm thick
 Reinforced pneumatic platform for loading in immersion
 Maximum load capacity: 1750 kg.
 Integrated auxiliary tank to separate lubricants and oils
 Optional: filtration system for waste and sludge
 Weight: 2800 kg.

- Engine rebuilding work
- Naval
- Heavy machinery

MOT-8000N (8000 Litres)



Capacity: 8000 litres
 Internal dimensions: 3000 x 2000 x 1500 mm.
 Useful measurements: 2850 x 1850 x 1150 mm.
 External dimensions: 3400 x 2400 x 1700 mm.
 Supply: 400v
 Heating element: 60000W
 Ultrasonic power: 34000W (68000W p-p)
 10 ultrasound generators with 34000W (68000W p-p) output power
 20 submersible emitters with 1700W of power each one / 34000W (68000W p-p). Each emitter contains 34 high-performance IBL piezo-electric transducers in titanium-steel
 Working frequency: 40 KHz. with frequency sweep system ±2%
 Tank built in INOX AISI 304 steel, 3 mm thick
 Optional: filtration system for waste and sludge
 Weight: 3500 kg.

- Engine rebuilding work
- Naval
- Heavy machinery

distribution board



Motor Clean models and specifications

Model	Volume	Internal dimensions (mm)	Ultrasonic power	Frequency	Heating	Pneumatic platform payload (Kg)	Basket and platform measurements (mm)	Waterflow System
MOT-30	30L	550 x 300 x 250	600 W (1200 p-p)	40 KHz (sweep sys. ±2%)	1000 W	—	530 x 285 x 180	—
MOT-50	50L	600 x 300 x 300	750 W (1500 p-p)	40 KHz (sweep sys. ±2%)	1000 W	—	580 x 285 x 230	—
MOT-75	75L	700 x 350 x 400	800 W (1600 p-p)	40 KHz (sweep sys. ±2%)	2200 W	—	680 x 335 x 313	—
MOT-75N	75L	550 x 300 x 250	800 W (1600 p-p)	40 KHz (sweep sys. ±2%)	2200 W	60 kg	620 x 345	✓
MOT-150N	150L	700 x 510 x 540	1700 W (3400 p-p)	40 KHz (sweep sys. ±2%)	3500 W/5000W	60 kg	670 x 415	✓
MOT-300N	300L	900 x 650 x 645	3000 W (6000 p-p)	40 KHz (sweep sys. ±2%)	7000 W	250 kg	850 x 495	✓
MOT-400N	400L	1100 x 650 x 690	3400 W (6800 p-p)	40 KHz (sweep sys. ±2%)	7000 W	250 kg	1050 x 495	✓
MOT-600N	600L	1300 x 800 x 665	5100 W (10200 p-p)	40 KHz (sweep sys. ±2%)	9000 W	350 kg	1210 x 630	✓
MOT-1000N	1000L	1500 x 900 x 860	6800 W (13600 p-p)	40 KHz (sweep sys. ±2%)	12000 W	750 kg	1410 x 720	✓
MOT-2000N	2000L	1750 x 1100 x 1100	10200 W (20400 p-p)	40 KHz (sweep sys. ±2%)	18000 W	1000 kg	1650 x 910	✓
MOT-3000N	3000L	2050 x 1200 x 1200	13600 W (27200 p-p)	40 KHz (sweep sys. ±2%)	20000 W	1500 kg	1880 x 990	✓
MOT-4000N	4000L	2400 x 1500 x 1260	20400 W (40800 p-p)	40 KHz (sweep sys. ±2%)	24000 W	2000 kg	2340 x 1350	✓
MOT-8000	8000L	3000 x 2000 x 1350	34000 W (68000 p-p)	40 KHz (sweep sys. ±2%)	60000 W	—	—	✓



Recommended model	General workshop	Diesel injection workshop	Grinding workshops	Turbocharger workshop	Engine rebuilding work	Gearbox repair shops	Naval	Heavy machinery	Aeronautics
	Particle filters, injectors, cylinder heads, pistons, alternators. Pieces in general	Diesel injection pump	Cylinder heads, valves, pistons, engine blocks, commutators, particle filters	Turbochargers	Cylinder heads, valves, pistons, engine blocks, commutators, alternators	Gearboxes	Heat interchangers, cylinder heads, valves, pistons, engine motors, turbochargers	Heat interchangers, cylinder heads, valves, pistons, engine motors, turbochargers	Injection pumps, hydraulic circuits, vanes, etc
MOT-30	✓	✓		✓					✓
MOT-50	✓	✓		✓					✓
MOT-75	✓	✓		✓					✓
MOT-75N	✓	✓		✓					✓
MOT-150N	✓	✓	✓	✓	✓	✓	✓	✓	✓
MOT-300N	✓	✓	✓	✓	✓	✓	✓	✓	✓
MOT-400N	✓		✓	✓	✓	✓	✓	✓	✓
MOT-600N			✓	✓	✓	✓	✓	✓	✓
MOT-1000N			✓	✓	✓	✓	✓	✓	
MOT-2000N			✓		✓	✓	✓	✓	
MOT-3000N			✓		✓	✓	✓	✓	
MOT-4000N					✓		✓	✓	
MOT-8000N					✓		✓	✓	

In addition to the standard models, we also manufacture models made to measure and Multi-stage systems. These units are designed for companies with special cleaning needs, be it for the characteristics of the pieces to be cleaned or for the requirements of their fabrication process. They can incorporate several processes such as rinsing, drying or different treatments other than cleaning. Right from the start, we have worked in tandem with our clients seeking the specific solution best suited to their needs. Examples of special equipment:

MOT-3X1000 US+A+S: Ultrasonic cleaning + Rinsing + Drying

High-powered ultrasound system and three stages for cleaning, rinsing and drying turbo chargers.



Equipment manufactured for KBB GmbH for their plant in Bannewitz (Germany).

MOT-75+AC+S: Ultrasonic cleaning + Warm Rinsing + Drying

Multistage equipment with ultrasonic cleaning plus warm rinsing and drying, designed for cleaning injection pumps.



Special equipment manufactured for Diesel Remanend in their Sao Carlos facilities in Sao Paulo, Brazil.

MOT-2X150NS + Passivation with bubbles

A two-stage high-powered ultrasonic cleaning system for the cleaning and passivation of engine parts.



Special equipment developed on ZF-internal standards for their plant in Saarbrücken (Germany).

MOT-150NS+V

Tailor-made equipment for the cleaning of interchangers with water circulating system and filters to retain sludge and internal shavings.



Special 150 litre capacity equipment and water circulating system and heat exchanger verification. Tierra Tech jointly with Voith Turbo develop 4 models with a capacity of 150, 300, 400 and 600 litres to supply all their workshops and associates worldwide.

Ultrasonic-4



Type of product: Degreaser.
Characteristics: Removes incrusted sediments of grease, oils and all kinds of tough dirt, preventing it from re-depositing on clean parts.
Suitable materials: Aluminium, iron and alloys.
Dosage: 3%
Colour: Blue.
Appearance: clear liquid.



Ultrasonic-B



Type of product: Decarbonising additive.
Characteristics: Additive agent for degreasing solution
Dosage: 0,2% - 0,5%
Colour: Yellowish
Appearance: Liquid.



Ultrasonic-7



Type of product: Degreaser.
Characteristics: Cleaning and descaling of carbon deposits. To achieve these results, this product must be used together with Ultrasonic-A.
Suitable materials: Iron, galvanised steel and aluminium.
Dosage: 3%
Colour: Yellowish.
Appearance: clear liquid.



Ultrasonic-20



Type of product: Degreaser and decarboniser.
Characteristics: High degreasing cleaner. Its carefully selected surfactants facilitate the penetration of the product into the dirt. Specially formulated to be used in hard waters, because it prevents the entry of calcium and magnetic salts.
Suitable materials: Iron.
Dosage: 5%
Colour: White.
Appearance: Dust.



Ultrasonic-5P



Type of product: Degreaser.
Characteristics: Cleaning and descaling of grease, oils and all kinds of tough dirt, preventing it from re-depositing on clean parts.
Suitable materials: All types of materials and metals (including aluminium and its alloys).
Dosage: 3%
Colour: White.
Appearance: Dust.



Ultrasonic-23



Type of product: Degreaser and decarboniser.
Characteristics: Alkaline cleaner formulated to degrease steel surfaces and also indicated to remove phosphate layers.
Suitable materials: Iron.
Dosage: 5%.
Colour: White.
Appearance: Dust.



Ultrasonic-A



Type of product: Decarbonising additive.
Characteristics: Additive agent for degreasing solutions.
Dosage: 0,2% - 0,5%
Colour: Orangey.
Appearance: Liquid.



Ultrasonic-51



Type of product: Hot paint stripping.
Characteristics: When warm, it has unique fast-working stripping properties for synthetic resins, primers, baked-on paints, powder paints, water-based paints and very resistant cataphoresis paints.
Suitable materials: Aluminium.
Dosage: 100%.
Colour: Yellowish.
Appearance: Liquid.



Ultrasonic-54



Type of product: Stripper.
Characteristics: When warm, it presents a high stripping capacity for synthetic resins, baked-on paints, primers, water-based paints and cataphoresis paints.
Suitable materials: Iron.
Dosage: 50%.
Colour: Brownish-grey.
Appearance: Clear liquid.



Ultrasonic-250



Type of product: Metal deoxidant.
Characteristics: Removes tough dirt and all kinds of lime build-up. Very useful for applications where accumulated rust and dirt cause a problem for the use of metallic pieces and machinery.
Suitable materials: Ferrous metals.
Dosage: 2%.
Colour: transparent.
Appearance: Clear liquid



Products and specifications

Product	Instructions for use		Suitable materials		Residues it removes				Type of product				
	Concentration in water (%)	Temperature of the bath	Aluminium	iron	Oil	Fat	Grease	Paint	Degraser	Decarboniser	Deoxidant	Stripper	Additive
Ultrasonic 4	3%	40° - 80°	✓	✓	✓	✓			✓				
Ultrasonic 7	3%**	40° - 80°	✓		✓	✓			✓				
Ultrasonic 5P	2%	40° - 80°	✓		✓	✓			✓				
Ultrasonic A	0,2 - 0,5%*	40° - 80°	✓	✓			✓		✓				✓
Ultrasonic B	0,2 - 0,5%*	40° - 80°	✓	✓			✓		✓				✓
Ultrasonic 20	2%	40° - 80°		✓	✓	✓	✓		✓	✓			
Ultrasonic 23	2%	40° - 80°		✓	✓	✓	✓		✓	✓			
Ultrasonic 51	100%	65° - 80°	✓									✓	
Ultrasonic 54	50%	65° - 80°		✓								✓	
Ultrasonic 250	2%	30° - 40°								✓			

Observaciones
 *Must be used together with Ultrasonic 7 (3%)
 **Must be used together with Ultrasonic A (0.5%)

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