

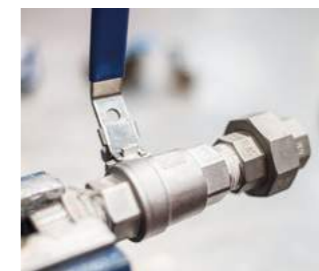


ULTRATECNO
POWER ULTRASONIC CLEANING



50+
YEARS OF
EXPERIENCE

70+
PROJECTS
PER YEAR



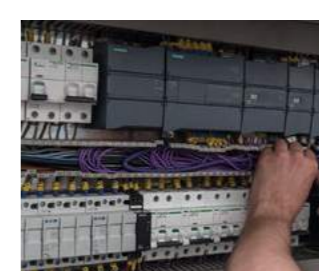
304/316
FULL STAINLESS
STEEL



15.000L
OUR BIGGEST
TANK VOLUME



2
INDUSTRIAL
PATENTS



45+
COUNTRIES
PRESENCE



28KHZ
HIGH POWER
SPECIALIST



UltraTecno, the most efficient Ultrasonic cleaning

Our unique **Digital & Synchronized** Generators and Transducers deliver market the most efficient cavitation, resulting in a micro-brushing/blasting phenomenon for **best performance on the hardest cleaning applications at Industry.**

UltraTecno Green Label features provide up to 45% reduction at running costs (electricity and detergent) in comparison with standard ultrasonic cleaners. This can mean up to 120.000 € savings for a 1000 liter size cleaner during its lifetime.

Our **design and manufacturing concept is aimed for Heavy Duty industrial daily use.** We use robust oversized stainless steel (up to 55% thicker than competitors) and reliable parts for **the longest lifetime** under extreme conditions.



Synchronized Generators to build the largest tanks on the market.

Benefits of UltraTecno Ultrasonic Cleaning

- The highest quality of cleaning, and homogeneous results.
- The best performance for complex parts, as ultrasonic cleaning reaches everywhere, even inside holes and cavities.
- Non-abrasive process, the safest for your most valuable parts.
- Savings of 80% labor cost and reduction in detergents use by 6 times.
- Environmental-friendly, the lowest power and water consumption.
- Highest work safety environment, as reduces operator exposition to chemicals.
- User-friendly touch screen, easy operation process.
- Low noise emission under 78 dB (A), as our patented & exclusive ARF Technology.

Powerful and homogeneous effect of our 28kHz technology is clearly visible at aluminium foil cavitation test.

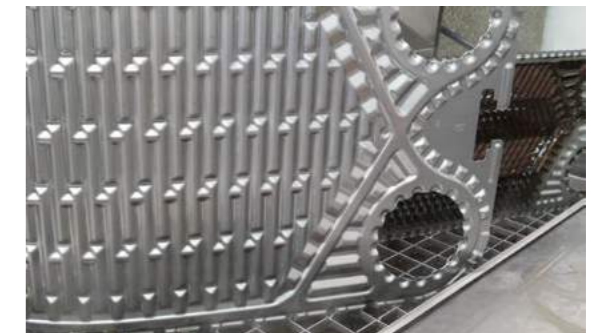
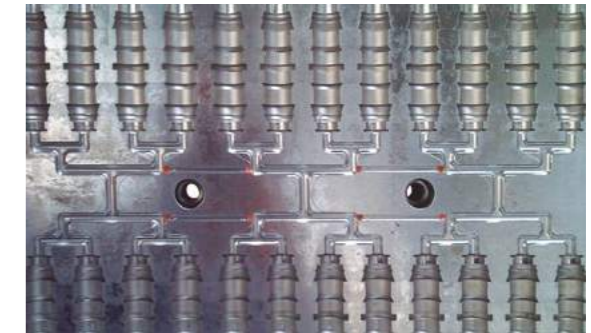
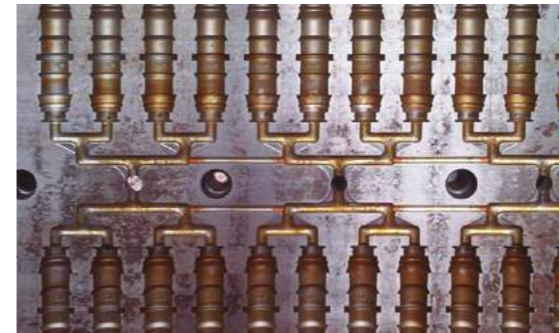


- ★ Best Cleaning Performance
- 👷 Safest Work Environment
- 🕒 80% Labor Cost Reduction
- 📉 Detergent Consumption Reduction
- 🌱 Lowest Power Consumption
- 📄 Easy operation Interface
- 🔊 Lowest Noise Emission
- 💎 Lifetime Robust Construction

Cleaning Applications for Industry

For more than 50 years, UltraTecno has developed complete cleaning solutions for Industry:

INDUSTRY	PARTS TO BE CLEANED	DIRT TO REMOVE
Plastic or Rubber parts manufacturing	Plastic Injection molds, Thermoforming molds, Extrusion molds	Burned plastic/Rubber, Paint, Demoulding agent, Grease
Paint Removal	Paint or rust removal, surface pre-treatment for new coating	Paint, Oil, Dust
Industrial thermal transfer or Filtering processes	Heat Exchangers and Filters	Fluids, Filtered particles
Metalfforming	Die casting, Punch tools, Pres tools, Extrusion molds	Oil, Dust, Molding, Materials
Metal cutting / Machining industry	Fabrication of high precision parts	Machining oil, Metal chips, Dust, Rust
Wood working	Saw blades, Wood cutters	Burned resin, Rust
Marine Maintenance	Large engine parts (Cylinder Heads, Pistons, Engine blocks, Manifolds, Turbochargers), Filters, Heat Exhangers	Carbon dust, Oil, Grease, Rust
Mining	Large engine parts, Conveyers	Carbon dust, Oil, Grease, Rust
Aircraft Industry	Rotors, Engine components	Oil, Dust, Rust, Contamination particles
Automotive & Truck Engine Repair	Cylinder Heads, Pistons, Engine Blocks, Manifolds EGR Valves, Turbochargers Catalytic Converters/DPF, Filters, Injectors/Carburetors	Carbon dust, Burnt Oil, Grease
Parts Remanufacturing	Pumps, Brake systems, Engine parts, Turbochargers	Paint, Oil, Grease, Rust, Dust
Railway Maintenance	Train engine and Mechanical components	Carbon dust, Oil, Grease, Rust
Power Generation Industry	Thermal, Electric and solar plant components, Heat exchangers, Gear motors	Carbon dust, Oil, Grease, Rust
Printing Industry	Printing rolls, Anilox sleeves, Lacquering roller, Glue roller, Screen printing roller	Ink, Dust, Oil, Glue, Paper or Fabric rests
Manufacturing Industry	Processed parts, before boxing and delivery to customer	Dust, processing oil, contamination particles
Food industry	Baking trays, Parts of production machinery, Filters	Oil, grease, waste, encrustations
3d prototyping	New printed parts	Support material



ACM and ICM Series

Single Tank solution for the highest cleaning performance

Our ACM/ICM Series have been engineered to provide most efficient ultrasonic cleaning and lowest running cost, with a single tank solution. All these standard models benefit from technical solutions we developed at major projects.

ACM models include **pneumatic or hydraulic platform lift** (up to 2t) for parts during cleaning. This swing will increase dramatically cleaning performance especially at heavy duty applications or complex parts.

Exclusive & patented ARF Technology. Results in the most powerful cleaning, while keeping noise below 78 dB (A).

Digital & Synchronized ultrasonic generators 28 or 40 kHz, which provides best cleaning performance by avoiding any pressure waves absorption phenomenon between different sets at large tanks.

The **Highest Quality Transducers** placed at tank walls to ensure 100% cleaning power always manufactured with aeronautical adhesive welding to avoid any energy loss due to mechanical attachments.

Triple Extra Thickness Insulated tank (including sealed top lid) to avoid energy thermal loss, and detergent steam emissions.



Cleaning Process

1. The tank is filled with water and cleaning product (standard concentration from 5-15%) and heated to 60-90C°.
2. Parts are located on the platform (ACM models) or into the basket (ICM models) and immersed into the cleaning solution.
3. The automatic ultrasonic cleaning process takes from several minutes up to two hours depending on the cleaning application.
4. Parts are removed from the tank, rinsed by water and dried.



Oil Separation Tank LFS for quick and easy oil removal from main tank by using a recirculation pump.

Multilanguage Color Large (7") Touch Screen for easy user interface. Full process parameters can be modified as user request.

Green Label features include Automatic night Eco Mode, Programmable Heating and US Timer, Electricity Consumption Monitoring.

Heavy duty stainless steel full construction with 50% extra thickness for highest reliability and longest lifetime.

Options

- Filtering unit or system
- Hybrid Heating
- Small Parts Basket
- Steam Extraction
- Automatic Water Refilling
- Automatic Lid Opening
- Automatic Dosing System for Liquid Detergent
- Safety Retention tank
- Customized baskets
- Ethernet connection to PLC

Model*	Main Tank (lt)	Elevator Max Load (kg) (6 Bar)	Platform lift	Max static load** (kg)	Ultrasound Power (kW)	Heating Power (kW)	Main Tank Internal Measures (mm)	Platform Tray Dimension (mm)	Useful Height (mm)	External Measures with Top Lid Open (mm)	Oil Separator LFS	Automatic Top Lid Opening
ACM-100	113	50	Pneumatic	100	1	3,75	600 x 400 x 470	550 x 320	350	1070 x 720 x 1335	YES	NO
ACM-200	229	75	Pneumatic	150	2	7,5	800 x 550 x 520	750 x 470	400	1270 x 875 x 1420	YES	NO
ACM-350	390	250	Pneumatic	500	3	7,5	1000 x 650 x 600	950 x 525	450	1775 x 1030 x 1820	YES	OPTION
ACM-500	546	350	Pneumatic	700	4	11	1200 x 650 x 700	1150 x 525	550	1890 x 940 x 1830	YES	OPTION
ACM-750	840	500	Pneumatic	1.000	5	11	1400 x 800 x 750	1350 x 650	570	2100 x 1150 x 1950	YES	OPTION
ACM-1000	1152	800	Pneumatic	1.600	7	16,5	1600 x 900 x 850	1550 x 750	650	2200 x 1430 x 2125	YES	YES
ACM-2000	2178	1.000	Hydraulic	2.000	9	16,5	1800 x 1100 x 1100	1750 x 950	900	2450 x 1600 x 2400	YES	YES
ACM-3000	3276	1.000	Hydraulic	2.000	12	22	2100 x 1300 x 1200	2050 x 1110	1000	2750 x 1800 x 3000	YES	YES
ACM-4500	4846	1.800	Hydraulic	3.600	15	27,5	2400 x 1590 x 1270	2350 x 1400	1020	3085 x 2150 x 3300	YES	YES
ACM-5500	6010	1.800	Hydraulic	3.600	18	33	2700 x 1590 x 1400	2650 x 1400	1150	3385 x 2150 x 3450	YES	YES
ICM-8000	9184			8.000	24	44	3200 x 2050 x 1400		1200	3520 x 2750 x 4350	YES	YES
ICM-12000	13090			15.000	36	66	4600 x 1950 x 1460		1260	6190 x 2890 x 4400	YES	YES

*All ACM models available also in ICM execution, without the platform lift

**ICM model maximum load or ACM model with platform lift static on the lowest position

To get the best cleaning performance parts should be separated from each other and from the tank walls at least 100 mm.

Ultrasonic Multistage Systems

UltraTecnico offers a wide range of **modular technical solutions** to build up a custom complete system for **each industry cleaning requirements**. Each line is adjusted and configured with the desired wash, rinse and drying stages according customer needs.

Flexible, reliable and robust systems starting from **100 liters tank capacity up to 15.000 liters for each stage**.

Multistage lay-out allows easy parts handling by using overhead cranes, custom automated manipulation systems or robotized systems. **Customized baskets** can be used to ensure perfect integration at customer manufacturing or maintenance process.

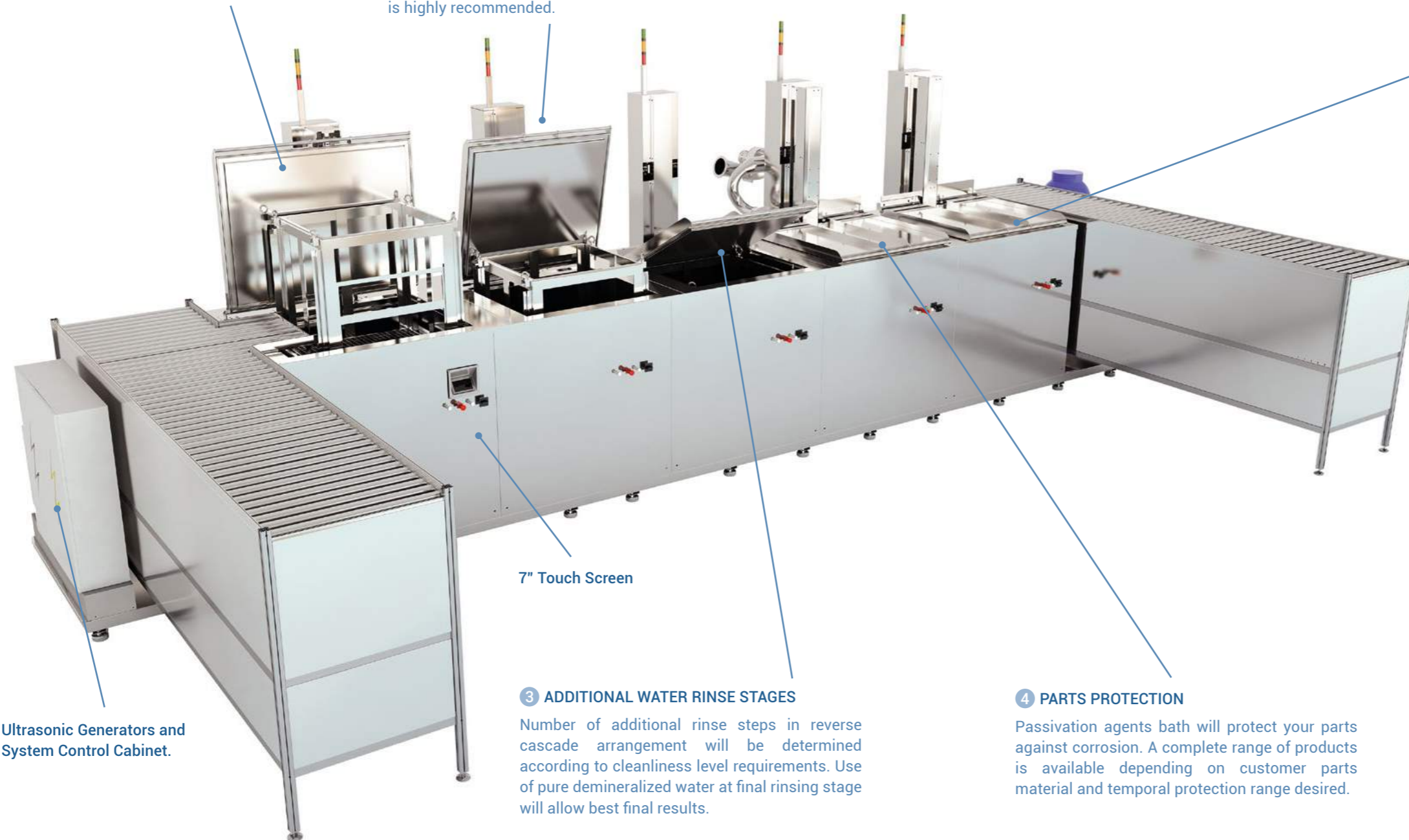
Ultrasonic Multistage systems are ideal for customers searching for **repetitive cleaning** of parts during their process.

1 ULTRASONIC CLEANING

Our powerful cavitation will loosen dirt on parts. Bath includes water and specific detergent (5-15%) for each application. Heating up to 90°C increases overall performance.

2 WATER RINSE

Rinsing is as important as cleaning. It will remove detergent and remaining dirt from parts. Air bubbling jets increase rinsing effectiveness. Water must be kept clean, so active carbon filter is highly recommended.



Ultrasonic Generators and System Control Cabinet.

7" Touch Screen

3 ADDITIONAL WATER RINSE STAGES

Number of additional rinse steps in reverse cascade arrangement will be determined according to cleanliness level requirements. Use of pure demineralized water at final rinsing stage will allow best final results.

UltraTecnico offers optional equipment for an optimal match with each customer cleanliness requirements

- Pneumatic or hydraulic platform lift for parts swing to increase effectiveness while cleaning or rinsing stages.
- Cartridge or bag filtration for ultrasonic tank.
- Automatic water refilling.
- Automatic Liquid Detergent Dosing System .
- Detergent preparation (pre-mix) tank.
- Automatic Oil Separation for US tank.
- Air bubbling or water jets for rinsing tanks.

- Active carbon filtering for rinsing stages.
- Sprinklers system for parts rinsing while being extracted.
- Osmosis plant for demineralized water generation for final rinsing stages.
- Safety enclosure for loading system.
- Customized basket and lifting beams.
- Steam extraction to ensure healthy plant environment.
- Loading/unloading conveyors, manual or motorized.
- Ultrasonic sets at rinsing stages for special applications.

5 DRYING

Hot air cyclone chamber quickly removes water from just cleaned parts, so they are ready to continue their manufacturing process. Proper thermal insulation ensures lowest electrical consumption.

Automated Handling Systems

Total integration of Ultrasonic Cleaning System into customer's lay-out will minimize process takt time. Our engineering team will design the best handling system according to customer parts size and daily volume.

Overhead cranes, custom automated manipulation device, or robotized systems can be used for integration. Customized baskets are key factor to ensure efficient handling, and avoid unneeded parts loading/unloading. UltraTecnico can design and manufacture them specifically for each application.

This equipment is specially designed for cleaning of printing rolls, gravure cylinders and anilox rolls.

During the cleaning of the rolls extreme caution must be taken because any inappropriate physical action can destroy the delicate rolls' surface.

That's why ultrasonic cleaning technology is recommended for this cleaning application. Cavitation bubbles created by ultrasounds smoothly remove dirt from the rolls' surface avoiding any wear or tear on the rolls. The cleaning time takes from 10 to 45 minutes depending on type of roller and printing medium.

1 ULTRASONIC CLEANING

The roll is partially immersed to the Ultrasonic bath and located to the fixture.

The tank is equipped with clamping device able to **adjust different lengths of printing rolls.**

Turning of the roll is performed by sophisticated **traction system.**

Temperature of cleaning solution is from 60-70°C.

Part can be rinsed by water gun over the ultrasonic tank so no dirt neither detergent is transferred to rinsing tank.

2 RINSING

Rinsing operation with pure demi-water to wash all the released dirt.

Anilox roll is located in the rinsing tank to the identical turning system as in Ultrasonic tank.

Rinsing is made by pure demi-water produced by **osmosis plant.** Osmosis plant is optional part of the machine and it is controlled by equipment control unit.

3 DRYING

After rinsing, the operator dries printing by the air gun.



UltraTecno provides specially designed chemicals, tested for many years at our worldwide markets.

When used together with our Ultrasonic Tanks, cleaning products provide the **best cleaning performance**, with working temperatures up to (90°C), and the longest lifetime with **significant running cost savings.** Water based formulas ensure highest health and safety environment.

	PRODUCT	SUITABLE MATERIAL	TYPE OF PRODUCT	% in water	CLEANING TEMPERATURE
ALKALINE	PDU-50	Aluminum or non ferrous alloys	Standard degreaser	3 - 5%	40° - 70°
	PDU-200	Aluminum or non ferrous alloys	Heavy duty cleaning	3 - 5%	70° - 80°
	PDU-39	Steel, stainless steel, cast iron	Standard degreaser	3 - 10%	40° - 80°
	PDU-45	Steel, stainless steel, cast iron	Heavy duty cleaning	5-15%	70° - 90°
ACID	PDU- MK	Steel, stainless steel, aluminum, copper	Standard cleaning	1-5%	40° - 80°
	PDU- FS	Steel, stainless steel, cast iron	Rust removal, Scale Removal	3-5%	40° - 80°
STRIPPER	PDU GMS	Steel, stainless steel, cast iron	Standard paint stripper	0,5-2%	40° - 80°
	PDU 501-502	Steel, stainless steel, cast iron	Heavy duty paint stripper	50%-50%	60° - 80°
	PDU AL	Aluminum or non ferrous alloys	Paint stripper	15-100%	60° - 80°
	PDU MDR	Wooden parts	Paint stripper	0,5-2%	
SOLVENTS	PDU CC		Heavy duty degreaser	15-100%	40° - 70°
OTHER	PDU-201	Aluminum or non ferrous alloys	Engine parts maintenance	0,5-2%	70° - 80°
	PDU-202	Aluminum or non ferrous alloys	Engine parts maintenance	0,5-2%	70° - 80°
	PASSIVATING	Steel, cast iron	Temporal rust protection	2-5%	Environment
	WATER REPELLENT	Steel, cast iron	Oil based water repellent and long rust protection	100%	Environment
	PDU-45A	Steel, stainless steel, cast iron	Cavitation enhancer additive for PDU-45 heavy duty applications	0,5-1,5%	70° - 90°
	DESCALE				40° - 80°
	ACTIVATED CARBON			Rinse water filtering	

UltraTeco Customers Worldwide



ACM-3000E
Singapore



ACM-1000E
United Kingdom



3S-ICM-7500
Mexico



3S-ICM-1500
Germany



ICM-11600
Qatar



2S-ICM-500
China



ACM-5000E & ACM-1000E
Netherlands



ICM-7500
USA



AUT-UL-08
Spain



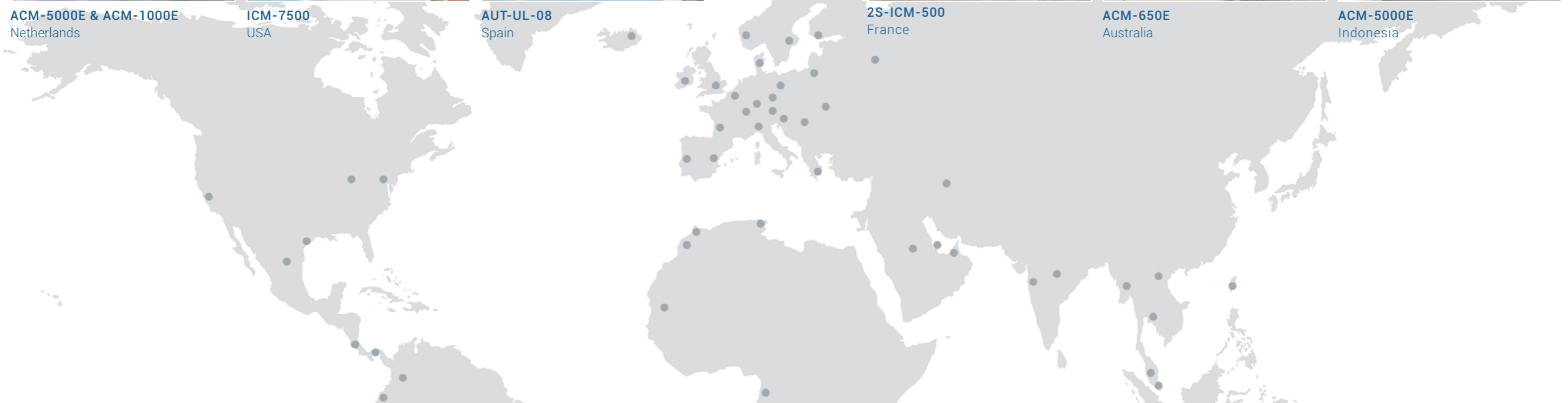
2S-ICM-500
France



ACM-650E
Australia

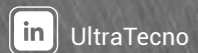
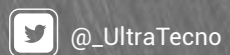


ACM-5000E
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