

# EVEREST

## Elektromekanik



Manufactures of Aqueous Ultrasonic & Spray Washing Systems



## About Us

Everest Elektromekanik has been designing and manufacturing industrial ultrasonic, pressurised spray and chamber washing systems since our company was founded back in 2003. Since that time many internationally renowned companies have relied on our knowledge, expertise, and experience to help supply and manufacture for them quality and reliable washing systems to meet their challenging cleaning demands and requirements.

Since our company's formation back in 2003 our range of washing systems has continually increased allowing for large washing system portfolio with lots of diversity and various washing methods available to meet all our customer's demands. This continual growth in both washing system ranges and our company's size, experience and personnel has allowed us to continually improve both our manufacturing quality and after sales services provided each year. To date we have had the privilege of serving and supplying international customers in over 50 different countries worldwide.

At Everest Elektromekanik we pride ourselves in our ability to provide quality and competitively priced washing systems that, if necessary, can be tailor made and customised to a customer's precise cleaning requirements. Whilst we do also have a standard range of models for each of our washing ranges, our strongest attribute as a company is our ability to provide bespoke washing systems where our team of experienced mechanical, electrical and software engineering teams design a special bespoke washing system for a customer's very precise and challenging cleaning demands. All our washing systems are man-ufactured conforming to the latest CE regulations and certified. For our North American customers UL and CSA certification conformity and 480V and 575V washing system are also available at request.

Our company is ISO 9001-2021, ISO 14001-2021 and ISO 45001- 2021 registered so you can be certain and comfortable with the knowledge we are able to offer and supply you an excellent quality washing system at a very reasonable price. We are always ready and willing to assist customers with a new or existing cleaning applications you may have.

In more recent years Everest Elektromekanik has grown into a fully modern international exporting manufacturing company with qualified technical staff, over-seas personnel, high quality manufacturing process equipment and offers the complete engineering service in automation including planning and controlling shipments regarding the consignment of orders.

Customers are always welcome to visit our 7,000 square meter manufacturing facility in Istanbul, Turkey as well as our 1,000 square meter sales/demonstration office offer near Frankfurt, Germany to discuss and help find you the best solution to your washing system requirements. We hope to hear from you soon and our full contact details can be found on the rear cover of this catalogue.

Global Industrial Cleaning Solutions

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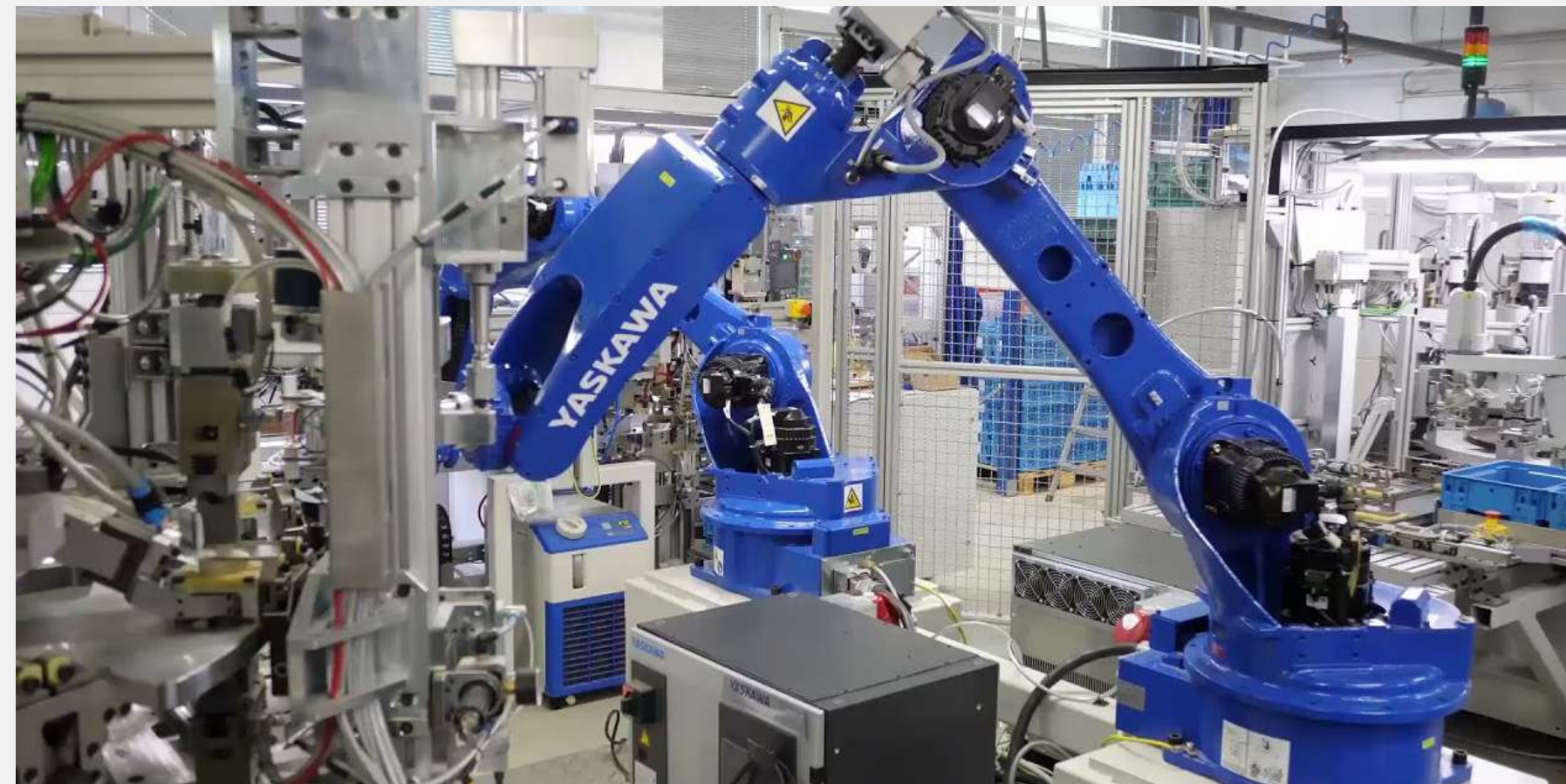
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# 01

## Robot Solutions

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# Robot Solutions

As supply and washing demands becoming more complicated with each year that passes and washing process times for individual components become even shorter, Everest can supply a variety of fully automated robot arm solutions for fast and effective part loading/unloading from various robot manufacturers such as Yaskawa, Fanuc and ABB. These robot arm systems can be integrated into Everest washing systems to replace the traditional human machine operators for a faster and more effective washing throughput.



# Robot Solutions

Robot and gripper configurations vary depending on the washing system they will be integrated into with various robot arm available and if needed special gripper designs consisting of a clean and dirty sides to ensure the washed parts are not re-contaminated during the unloading process. If a robot arm will be provided by a third part, Everest's automation team can also provide the necessary input and output connections for seamless communication between the third-party robot and the Everest washing system.





# 02

## Flood Immersion Systems

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**AgiClean**  
Agitating Platform Immersion Systems



**ComboClean**  
Single Chamber Flood Systems

# AgiClean

## Agitating Platform Immersion Systems

The AgiClean range of immersion washing systems are dual stage providing both immersion flood agitation washing and hot air drying as standard. All AgiClean washing systems are provided with an agitation platform which provides vertical up/down agitation during the immersion washing cycle. As an optional feature 360-degree basket rotation via a stainless-steel chain rotation system can be added as well meaning th AgiClean is both capable of agitating at the same time. Ultrasonic capability can also be added to the immersion tank and with hot air drying completed above the tank prior to exiting the system this makes the AgiClean a very versatile, cost effective but also with a very small compact footprint.



## Technical Details

- Constructed entirely from stainless steel.
- Standard models offer washing, rinsing & drying stages.
- Pneumatic platform oscillation.
- Ultrasonic immersible transducer box.
- Optional 360 degree basket rotating system.
- Recirculation heater box system allow drying temperature of up to 90 degrees C.
- Fine particle filtration through inline or separate bag filtration.
- Siemens PLC control with 7'' HMI touchscreen.

Technical Specifications						
Model	Processes	Max. Loading Weight	Basket Size (l*w*h)	External Size (l*w*h)	Total Power	Throughput
		kg	mm	mm	kW	cycle/hour
AgiClean 200-WD	Washing Drying	50	530*320*200	1600*1400*2400	16,0	6-12
AgiClean 200-WRD	Washing Rinsing Drying	50	530*320*200	2200*3200*2400	27,0	4-8
AgiClean 400-WD	Washing Drying	100	670*480*300	1800*1650*2700	28,0	6-12
AgiClean 400-WRD	Washing Rinsing Drying	100	670*480*300	2350*3700*2700	48,0	4-8

\*\*External dimensions and machine specification may change if optional features are selected.

# ComboClean

## Single Chamber Flood Systems

ComboClean sytems have been specifically designed to meet the high and precision batch cleaning demands of small massed produced parts. The cleaning process works by placing contaminated parts inside a special basket which then rotates within the specially designed cleaning chamber. The basket rotation feature allows for the contaminated parts to be cleaned with both pressurised aqueous cleaning fluid as well as providing agitation during both the spray washing and flood washing stages as the chamber is filled with cleaning capability can also be added to the ComboClean washing chamber with the us of ultrasonic rod transducers. As the whole cleaning process is complete within the single wash chamber there is no need to remoe the basket between stages to different locations making the ComboClean an extremely efficient and versatile cleaning machine.



## Technical Details

- Constructed entirely from stainless steel.
- Standard models offer washing, rinsing & drying stages.
- Additional pre-washing & rinsing stages available.
- Optional ultrasonic rod transducers.
- Optional vacuum pulling during ultrasonic process.
- Optional vacuum drying.
- Washing & drying process completed in vacuum proof chamber.
- Fine particle filtration through inline or separate bag filtration.
- Provided with manual basket locking system as standard.
- Optional automatic basket locking system.
- Optional automatic basket loading/unloading system with pusher arm.
- Multiple basket rotation methods available.
- Process heater system allow drying temperature of up to 130 degrees C.
- Siemens PLC control with 9'' HMI touchscreen.

Technical Specifications						
Model	Processes	Max. Loading Weight	Basket Size (l*w*h)	External Size (l*w*h)	Total Power	Throughput
		kg	mm	mm	kW	cycle/hour
ComboClean 30-W	Washing	50	530*320*200	2000*1500*2300	12,0	10-20
ComboClean 30-WR	Washing Rinsing	50	530*320*200	2000*2250*2300	22,0	7-14
ComboClean 30-WRD	Washing Rinsing Drying	50	530*320*200	2000*2250*2300	30,0	6-12
ComboClean 90-W	Washing	100	670*480*300	2200*1800*2650	21,0	10-20
ComboClean 90-WR	Washing Rinsing	100	670*480*300	2200*2600*2650	40,0	7-14
ComboClean 90-WRD	Washing Rinsing Drying	100	670*480*300	2200*2600*2650	55,0	6-12
ComboClean 240-W	Washing	150	960*670*400	3000*2400*2600	42,0	8-16
ComboClean 240-WR	Washing Rinsing	150	960*670*400	4200*2400*2600	81,0	6-12
ComboClean 240-WRD	Washing Rinsing Drying	150	960*670*400	4200*2400*2600	110,0	5-10

\*\* External dimensions and machine specification may change if optional features are



# 03

## Spray Cabin Systems

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**MSP**  
Manual Hand Spray Systems



**ESP**  
Top Loading Spray Systems



**SprayClean**  
Front Loading Spray Systems



**RotoClean**  
Rotary Indexing Systems



**BogieClean**  
Bogie & Wheelsets Spray Systems

# MSP

## Manual Hand Spray Systems

The MSP range of manual hand operated washing systems are made entirely from high quality stainless steel 304 and can be supplied hig-pressure pump option achieving pressures of up to 10 bar.

Tanks to a specially designed heavy-duty washing chamber the MSP range washes parts within a closed sealed environment ensuring the surrounding workplace is kept clean, tidy and dry from pressurised water. The MSP range is environmentally friendly, by utilising alkaline aqueous bioderadable detergents and allows for effective energy consumption using a foot pedal operation that operates the pump only when pressed.

This makes the MSP a very capability unit and a must have for any workshop environments cleaning heavy soiled contaminants.

### Technical Details

- Constructed entirely from stainless steel.
- Compressed air handgun.
- 10 bar high pressure handgun.
- Handheld bush to wash hard to reach places.
- Washing cabinet provided with lighting.
- Provided with single pedal control for all handguns.
- Compressed air nozzle system to remove water from viewing window.



Technical Specifications						
Model	Processes	Cabin Dimensions			Max. Loading Weight	External Size (l*w*h)
		Width	Length	Height		
		mm			kg	mm
MSP 860	Washing Brushing	800	600	500	75	1300*700*1570
MSP 1280	Washing Brushing	1200	800	500	75	1720*900*1570

\*\*External dimensions and machine specification may change if optional features are

# ESP

## Top Loading Spray Systems

Esp series are designed for efficient cleaning of industrial parts with pressurized hot water plus a biodegradable detergent. The ESP range has very low operating cost and consumption, the body and structure is made entirely of corrosion free stainless steel material and heavy duty components. This type of machine is correct choice for cleaning oil, grease, production residues off the surface of parts and anticorrosive protection applications. The ESP range of spray washers are supplied with a stainless steel pump, nozzles, heaters and motorised basket as standard features.

### Technical Details

- Constructed entirely from stainless steel.
- Top loading with gas spring assisted lid.
- Motorised stainless steel component basket.
- Basket jog feature and loading car available.
- Optional oil disc skimmer.
- Optional lid and tank insulation for increased water temperature.
- Stainless steel nozzles target from below, above and side of the component basket.
- Chemical & corrosion resistant stainless-steel pump.



Technical Specifications						
Model	Processes	Basket Diameter	Loading Weight	Loading Height	External Size (l*w*h)	Total Power
		mm	kg	mm	mm	kW
ESP 60	Washing	600	80	300	755*1000*1150	5,0
ESP 82	Washing	820	150	400	950*1250*1250	6,0
ESP 82 R	Washing	820	150	360	950*1250*1250	6,0
ESP 105	Washing	1050	200	500	1250*1500*1350	10,0
ESP 105-R	Washing	1050	200	460	1250*1500*1350	10,0
ESP 125	Washing	1250	300	640	1500*1800*1600	19,0
ESP 125-R	Washing	1250	300	600	1500*1800*1600	19,0

\*\*External dimensions and machine specification may change if optional features are

# SprayClean

## Front Loading Spray Systems

SprayClean systems are designed to clean parts automatically with pressurized hot water plus a biodegradable detergent. SprayClean machines are front loading systems an have tank heating insulation, vapour extraction, and pneumatic control door as standart features. Rinsing and drying processes can also be added to this model meaning the whole process of washing, rinsing and drying can be completed in the same location. Multiple systems are controlled via PLC control in the mail control panel. The SprayClean also comes with a large range of optional accessories from oil skimmers, oil separators, filtration units, tank discharge pumps, loading/unloading carts, cabin insulation and many more.



## Technical Details

- Constructed entirely from stainless steel.
- Front loading with vertical opening pneumatic guillotine door.
- Standard models offer washing, rinsing & drying stages.
- Additional pre-washing & rinsing stages available.
- Recirculation heater box system allow drying temperature of up to 90 degrees C.
- Motorised stainless steel component basket.
- Basket jog feature and loading car available.
- Optional motorised basket loading/unloading.
- Optional spinning nozzles with fixed basket.
- Picnic door option available for limited roof space.
- Optional oil disc skimmer and oil separator units.
- Optional lid and tank insulation for increased water temperature.
- Stainless steel nozzles target from below, above and side of the component basket.
- Chemical & corrosion resistant stainless-steel pumps.
- Siemens PLC control with 7" HMI touchscreen (for multistage systems).

Technical Specifications						
Model	Processes	Basket Diameter	Loading Weight	Loading Height	External Size (l*w*h)	Total Power
			kg	mm	mm	kW
SprayClean 90 W	Washing	900	300	500	1550*1400*2050	10,0
SprayClean 120 W	Washing	1200	450	650	1950*1750*2150	18,0
SprayClean 150 W	Washing	1500	600	750	2400*2100*2400	27,0
SprayClean 180 W	Washing	1800	800	900	2700*2400*2600	28,0
SprayClean 90 WR	Washing Rinsing	900	300	500	1550*1900*2050	18,0
SprayClean 120 WR	Washing Rinsing	1200	450	650	1950*2250*2150	26,0
SprayClean 150 WR	Washing Rinsing	1500	600	750	3000*2100*2400	42,0
SprayClean 180 WR	Washing Rinsing	1800	800	900	3300*2400*2600	45,0
SprayClean 90 WRD	Washing Rinsing Drying	900	300	500	1550*1900*2200	30,0
SprayClean 120 WRD	Washing Rinsing Drying	1200	450	650	1950*2250*2300	47,0
SprayClean 150 WRD	Washing Rinsing Drying	1500	600	750	3000*2100*2600	67,0
SprayClean 180 WRD	Washing Rinsing Drying	1800	800	900	3300*2400*2800	81,0

\*\*External dimensions and machine specification may change if optional features are



# RotoClean

## Rotary Index Systems

The RotoClean range of rotary indexing spray washing machines are more commonly known as caousel washing machines. The RotoClean rotates step by step (indexing) rather than continuously and with front loading access allows for either a machine operator or robot to load and unload from a single location.

The RotoClean working principle is based on the unique indexing table which rotates 360 degrees with a specially designed parts specific fixture for each machine.



RotoClean machines are available in several different rotary table configurations including part rotation independent from the main carousel ensuring full 360- degree rotation to allowing washing from all sides ensuring maximum cleaning results. Additional stages are available at request which including rinsing, air skimming and hot air- drying stages. The RotoClean machines are most suited for small to medium parts loaded individually on a continuous massed produced scale which are common in automotive and aerospace industries.

## Technical Details

- Constructed entirely from stainless steel.
- Standard models offer washing & drying stages.
- Pneumatic platform oscillation.
- Ultrasonic immersible transducer box.
- Optional 360 degree basket rotating system.
- Recirculation heater box system allow drying temperature of up to 90 degrees C.
- Fine particle filtration through inline or separate bag filtration.
- Siemens PLC control with 7" HMI touchscreen.

Technical Specifications						
Model	Processes	Max. Part Size (l*w*h)	Loading Weight	Ekternal Size (l*w*h)	Throughput	Total Power
		mm	kg	mm	cycle/hour	kW
RotoClean 90 WRD	Washing Rinsing Drying	150*150*200	15	1800*1600*2000	30-180	24,0
RotoClean 120 WRD	Washing Rinsing Drying	210*210*250	15	2300*2100*2050	30-180	42,0
RotoClean 150 WRD	Washing Rinsing Drying	280*280*300	30	2100*3000*2600	30-180	60,0
RotoClean 180 WRD	Washing Rinsing Drying	350*350*400	30	2400*3300*2800	30-180	67,0

\*\* External dimensions and machine specification may change if optional features are

# BogieClean

## Bogie & Wheelsets Spray Systems

Everest brand BogieClean systems have been specifically designed to effectively wash train, tram and metro bogies as well as loose components such as bearings and wheels using the specially provided service table for the railway and other transportation industries.

BogieClean systems are provided with either a single access door or with two through access doors for example when the system is to be installed into an existing maintenance line. As safety is of the upmost importance the bogies are loaded automatically using a ground level heavy-duty chain loading system with proximity sensor controls. The automatic loading system can only be activated by two hand button controls ensuring the loading process can only commence with the machine operator is stood in front of the control panel, far from the moving bogie and away from harm. A machine integrated camera system is also provided to help the operator ensure no other people are in the vicinity of the



BogieClean systems consist of a large washing chamber fitted with a moveable spray nozzle arm assembly using a pneumatic piston that travels from the front to the back of the bogie ensuring even and thorough cleaning results. The washing and rinsing fluids are provided with their own separate nozzle lines with specially positioned and angled nozzles at the edges of the assemblies to ensure the most critical and important areas of the bogie receive thorough washing. On the outside of the machine a high-pressure spray lance is provided to help the operator remove any residual detergent or dirt and with two side access ramps either side of the bogie, so the operator can enter the washing chamber to inspect the bogie prior to unloading or use the provide spray lance. The washing chamber is provided with internal chamber lighting and several durable industrial glass windows which illuminate the inside and allows the operator to monitor and watch the entire washing process from the outside.



Two large heated washing tanks are provided with the system, one for the washing solution followed by the second for the rinsing water. According to location of where the system will be installed the tanks can be positioned either above or below ground in a technical trench next to the cabin where the system's pumps, filters and other components can be positioned. BogieClean systems uses high volumes of water to soften dirt and effetely remove it with washing pressures of between 8 to 10 bar. To extend the washing solution's usable life optional features such particle filtration and oil separator units can also be added at request.

The BogieClean is the ideal choice the rail and transportation industries as our know-how and experience will allow the components to be properly cleaned to remove heavy soils, facilitating disassembly of components and improving your overall working environment.



# 04

## Spray Conveyor Systems

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**TunClean**  
Tunnel Conveyor Spray Washers



**TunClean-KLT**  
KLT/ Dunnage Conveyor Tunnel Washers



# TunClean

## Tunnel Conveyor Spray Washers



TunClean washing systems are best suited for cleaning parts with a simple basic shape (flat surfaces, without blind holes) where accurate positioning in the active areas is not so necessary. TunClean machines can include pre-washing with spraying water plus a chemical detergent, washing with spraying water plus a chemical detergent, rinsing with spraying water and drying with hot air. The design, configuration and number of washing stages in the tunnel can be customized to suit to customer’s exact specifications and requirements. In the case of a tunnel with a conveyor belt, the components are loaded on to a conveyor (mesh or bars type) which conveys the pieces through the different steps of the cleaning process.

The pieces are generally conveyed on a line conveyor system and the speed of conveyor can be adjusted by the machine operator. In TunClean systems the pieces are automatically transferred from stages to stage by a conveyor which passes through a tunnel until the cleaning process is completed.

### Technical Details

- Constructed entirely from stainless steel.
- Standard models offer pre-washing, washing, rinsing & drying stages
- Additional pre-washing, rinsing, drying & cooling stages available.
- Recirculation heater box system allow drying temperature of up to 90 C.
- Stainless steel mesh link conveyor provided standardly.
- Different conveyor belt options available.
- Standard conveyor belt speed of 0.5-2.0m/minute.
- Fine particle filtration through inline or separate cartridge & bag filtration.
- Optional water skimming air knives.
- Pulley and v-belt driven conveyor system provided standardly.
- Optional servo driven conveyor system for robot arm loading/unloading.
- Optional oil disc skimmer and oil separator units.
- Switchgear control provided as standard.
- Optional Siemens PLC control with 7” HMI touchscreen.

### Technical Specifications

Model	Processes	Loading Widht	Loading Height	External Size (l*w*h)	Total Power
		mm	mm	mm	kW
TunClean 320 W	Washing	300	200	2300*1250*2050	17,0
TunClean 425 W		400	250	2550*1400*2100	25,0
TunClean 530 W		500	300	2800*1500*2200	33,0
TunClean 640 W		600	400	3050*1600*2350	41,0
TunClean 850 W		800	500	3300*1850*2600	50,0
TunClean 320 WR	Washing Rinsing	300	200	3800*1250*2050	26,0
TunClean 425 WR		400	250	4300*1400*2100	42,0
TunClean 530 WR		500	300	4650*1500*2200	58,0
TunClean 640 WR		600	400	5100*1600*2350	75,0
TunClean 850 WR		800	500	5600*1850*2600	92,0
TunClean 320 WRD	Washing Rinsing Drying	300	200	5500*1250*2050	38,0
TunClean 425 WRD		400	250	6100*1400*2100	56,0
TunClean 530 WRD		500	300	6550*1500*2200	81,0
TunClean 640 WRD		600	400	7000*1600*2350	98,0
TunClean 850 WRD		800	500	7800*1850*2600	131,0
TunClean 320 PWRD	Pre-Washing Washing Rinsing Drying	300	200	7000*1250*2050	47,0
TunClean 425 PWRD		400	250	7850*1400*2100	73,0
TunClean 530 PWRD		500	300	8400*1500*2200	106,0
TunClean 640 PWRD		600	400	9050*1600*2350	132,0
TunClean 850 PWRD		800	500	10100*1850*2600	173,0

\*\*\*External dimensions and machine specification may change if optional features are selected.

# TunClean-KLT

## KLT/ Dunnage Conveyor Tunnel Washers



KLT tunnel washing systems have been specifically developed and designed for the economical combined cleaning of KLT boxes/crates, cover lids, blister packaging and pallets in one single machine. Our KLT washing systems come in multiple formats with washing, rinsing and drying stages available. Single or dual lane cleaning is available for multiple products to be cleaned at once. An automatic adjusting air skimming system and moveable side washing nozzles ensures optimum cleaning results no matter of the running configuration.

### Technical Details

- Constructed entirely from stainless steel.
- Standard models offer pre-washing, washing, rinsing & drying stages
- Additional pre-washing, rinsing, drying & cooling stages available.
- Recirculation heater box system allow drying temperature of up to 90 C.
- Stainless steel mesh link conveyor provided standardly.
- Different conveyor belt options available.
- Available with single or dual lanes depending on throughput demand.
- Optional adjustable lane widths for various KLT pieces.
- Optional adjustable air knife heights.
- Fine particle filtration through inline or separate cartridge & bag filtration.
- Optional water skimming air knives.
- Pulley and v-belt driven conveyor system provided standardly.
- Optional servo driven conveyor system for robot arm loading/unloading.
- Optional oil disc skimmer and oil separator units.
- Switchgear provided as standard.
- Optional Siemens PLC control with 7" HMI touchscreen.

### Technical Specifications

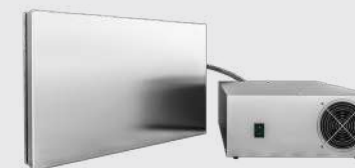
Model	Prosseses	Loading Height	Loading Width	External Size (l*w*h)	Total Power
		mm	mm	mm	kW
KLT 632/300 WD	Washing Rinsing	600	20-320	8800*2050*2450	48,0
KLT 632/600 WD		600	2x20-320	8800*2700*2450	90,0
KLT-632/1000 WD		600	2x20-320	12750*2700*2450	120,0
KLT-632/1500 WD		600	2x20-320	17300*2700*2450	160,0
KLT-1450/300 WD		1000	20-450	10600*2200*3000	68,0
KLT-1450/600 WD		1000	2x20-450	10600*3000*3000	120,0
KLT-1450/1000 WD		1000	2x20-450	14700*3000*3000	160,0
KLT-1450/1500 WD		1000	2x20-450	19600*3000*3000	215,0
KLT 632/300 WRD	Washing Rinsing Drying	600	20-320	11000*2050*2450	75,0
KLT 632/600 WRD		600	2x20-320	11000*2700*2450	135,0
KLT-632/1000 WRD		600	2x20-320	15300*2700*2450	180,0
KLT-632/1500 WRD		600	2x20-320	20200*2700*2450	240,0
KLT-1450/300 WRD		1000	20-450	13200*2200*3000	110,0
KLT-1450/600 WRD		1000	2x20-450	13200*3000*3000	180,0
KLT-1450/1000 WRD		1000	2x20-450	17750*3000*3000	250,0
KLT-1450/1500 WRD		1000	2x20-450	23000*3000*3000	320,0
KLT 632/300 WRRD	Washing Rinsing Drying	600	20-320	13200*2050*2450	102,0
KLT 632/600 WRRD		600	2x20-320	13200*2700*2450	180,0
KLT-632/1000 WRRD		600	2x20-320	17850*2700*2450	240,0
KLT-632/1500 WRRD		600	2x20-320	23100*2700*2450	320,0
KLT-1450/300 WRRD		1000	20-450	15800*2200*3000	150,0
KLT-1450/600 WRRD		1000	2x20-450	15800*2200*3000	240,0
KLT-1450/1000 WRRD		1000	2x20-450	20800*3000*3000	340,0
KLT-1450/1500 WRRD		1000	2x20-450	26400*3000*3000	425,0

\*\* External dimensions and machine specification may change if optional features are selected.

# 05

## Ultrasonic Modules

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### MobileClean

Immersible Ultrasonic Modules with Analogue Generators



### MobileClean-N

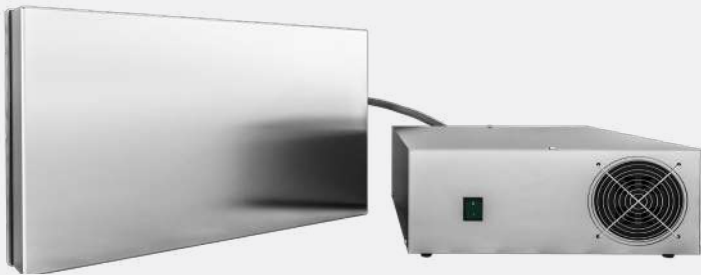
Immersible Ultrasonic Modules with Digital Generators



# MobileClean

## Immersible Ultrasonic Modules with Analogue Generators

The MobileClean range offers the ultimate in system flexibility for ultrasonic cleaning as the hermetically sealed modular stainless steel units can be incorporated into newly designed systems or retrofitted into existing systems to provide ultrasonic cleaning capability.



### Technical Details

- Constructed from heavy gauge stainless steel as standard.
- Available ultrasonic frequency 28kHz.
- Optional stainless steel 316Ti & 318LN (duplex) available.
- High efficiency piezoelectric ultrasonic transducers with special ceramics.
- Available with tank floor, side wall mounting fixture or hanging hook.
- Optional power adjustment levels of 50%, 75% and 100%.

Technical Specifications		
Ultrasonic Generator		
Model	Control Panel	Ultrasonic Power
		watt
MBL GN 500-1	On/Off Control	1000peak/500eff
MBL GN 500-2	On/Off Control Plus Power Control	1000peak/500eff
MBL GN 750-1	On/Off Control	1500peak/750eff
MBL GN 750-2	On/Off Control Plus Power Control	1500peak/750eff
MBL GN 1000-1	On/Off Control	2000peak/1000eff
MBL GN 1000-2	On/Off Control Plus Power Control	2000peak/1000eff
MBL GN 1250-1	On/Off Control	2500peak/1250eff
MBL GN 1250-2	On/Off Control Plus Power Control	2500peak/1250eff
MBL GN 1500-1	On/Off Control	3000peak/1500eff
MBL GN 1500-2	On/Off Control Plus Power Control	3000peak/1500eff
MBL GN 2000-1	On/Off Control	4000peak/2000eff
MBL GN 2000-2	On/Off Control Plus Power Control	4000peak/2000eff

Ultrasonic Module		
Model	Dimensions (l*w*h)	Ultrasonic Power
	mm	watt
MBL TR 500	400*205*90	1000peak/500eff
MBL TR 750-1	380*300*90	1500peak/750ef
MBL TR 750-2	460*225*90	1500peak/750ef
MBL TR 750-3	525*205*90	1500peak/750ef
MBL TR 1000-1	640*225*90	2000peak/1000eff
MBL TR 1000-2	750*225*90	2000peak/1000eff
MBL TR 1000-3	545*260*90	2000peak/1000eff
MBL TR 1000-4	545*360*90	2000peak/1000eff
MBL TR 1250-1	750*225*90	2500peak/1250eff
MBL TR 1250-2	545*360*90	2500peak/1250eff
MBL TR 1500-1	545*360*90	3000peak/1500eff
MBL TR 1500-2	760*380*90	3000peak/1500eff
MBL TR 2000-1	760*380*90	4000peak/2000eff
MBL TR 2000-2	800*400*90	4000peak/2000eff

\*\*External dimensions and machine specification may change if optional features are selected.

# MobileClean-N

## Immersible Ultrasonic Modules with Digital Generators

MobileClean-N immersible type of modules offer a full range of features to meet any precision cleaning requirements found within many industries. The high frequency generators with a high efficiency circuits are designed for lower energy consumption and provides an unprecedented high precision cleaning performance.



### Technical Details

- Constructed from heavy gauge stainless steel as standard.
- Available ultrasonic frequency 28kHz or 40kHz.
- Optional stainless steel 316Ti & 318LN (duplex) available.
- High efficiency piezoelectric ultrasonic transducers with special ceramics.
- Available with tank floor, side wall mounting fixture or hanging hook.
- Overload protection, thermal switch, and overcurrent protection.
- Standard power adjustment levels between 40-100%.

Technical Specifications			
Ultrasonic Module			
Model	Frequency	Dimensions (l*w*h)	Ultrasonic Power
		mm	watt
MBL N- TR 600-1 28	28	380*300*90	1200peak/600eff
MBL N- TR 600-1 40	40		
MBL N- TR 600-2 28	28	460*225*90	1200peak/600eff
MBL N- TR 600-2 40	40		
MBL N-TR 600-3 28	28	525*205*90	1200peak/600eff
MBL N-TR 600-3 40	40		
MBL N- TR 1000-1 28	28	640*225*90	2000peak/1000eff
MBL N- TR 1000-1 40	40		
MBL N- TR 1000-2 28	28	545*260*90	2000peak/1000eff
MBL N- TR 1000-2 40	40		
MBL N- TR 1000-3 28	28	750*225*90	2000peak/1000eff
MBL N- TR 1000-3 40	40		
MBL N- TR 1000-4 28	28	545*360*90	2000peak/1000eff
MBL N- TR 1000-4 40	40		
MBL N- TR 1500-1 28	28	545*360*90	3000peak/1500eff
MBL N- TR 1500-1 40	40		
MBL N- TR 1500-2 28	28	760*380*90	3000peak/1500eff
MBL N- TR 1500-2 40	40		
MBL N- TR 2000-1 28	28	760*380*90	4000peak/2000eff
MBL N- TR 2000-1 40	40		
MBL N- TR 2000-2 28	28	800*400*90	4000peak/2000eff
MBL N- TR 2000-2 40	40		

Ultrasonic Generator	
Model	Frequency
MBL N- GN 600-1 28	28 khz
MBL N- GN 600-1 40	40 khz
MBL N- GN 1000-1 28	28 khz
MBL N- GN1000-1 40	40 khz
MBL N-GN1500-1 28	28 khz
MBL N- GN1500-1 40	40 khz
MBL N- GN 2000-1 28	28 khz
MBL N- GN 2000-1 40	40 khz

\*\*External dimensions and machine specification may change if optional features are selected.

# 06

## Ultrasonic Tanks

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**CleanEx**  
Benchtop Ultrasonic Units



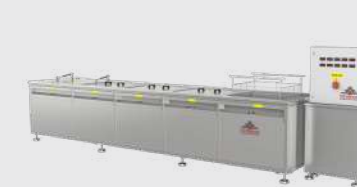
**CleanEx-N**  
Industrial Benchtop Ultrasonic Units



**CleanMax-N**  
Industrial Ultrasonic Systems



**AutoClean**  
Automotive Ultrasonic Systems



**MultiClean**  
Multistage Ultrasonic Systems

# CleanEx

## Benchtop Ultrasonic Units

The CleanEx range of ultrasonic cleaners are portable benchtop machines designed for cleaning small items such as jewellery, laboratory, dental and medical equipment.

### Technical Details

- Tank capacities between 4 to 28 litres.
- Constructed entirely of stainless steel.
- Available ultrasonic frequency 28kHz.
- Adjustment of the cleaning time & water temperature.
- High efficiency piezoelectric ultrasonic transducers with special ceramics.
- Manual drainage valve (except CleanEx-4XX models).



### Technical Specifications

Model	Control Type	Basket Size (l*w*h)	Tank Size (l*w*h)	External Size (l*w*h)	Tank Capacity	Total Power
		mm	mm	mm	lt	watt
CleanEx 901	Analogue	240*190*80	300*240*150	400*295*380	9	700
CleanEx 911	Digital					
CleanEx 1201	Analogue	240*190*130	300*240*200	400*295*380	12	900
CleanEx 1211	Digital					
CleanEx 2001	Analogue	450*250*80	505*300*150	600*350*430	21	1400
CleanEx 2011	Digital					
CleanEx 2801	Analogue	450*250*130	505*300*200	600*350*430	28	1700
CleanEx 2811	Digital					

\*\* External dimensions and machine specification may change if optional features are selected.

# CleanEx-N

## Industrial Benchtop Ultrasonic Units

The CleanEx-N single stage benchtop ultrasonic cleaners are designed for use in industries where heavy duty demands and performance are required. Available with a number of different optional accessories ranging from pump filtration to an oil separator, this gives the CleanEx-N range more versatility to meet the cleaning demands in many industrial sectors.

### Technical Details

- Tank capacities between 10 to 80 litres.
- Constructed entirely of stainless steel.
- Available ultrasonic frequency 28kHz.
- Tank construction available in AISI 316L or AISI 316Ti.
- Automatic shut of heaters at low water level.
- Adjustment of the cleaning time & water temperature.
- High efficiency piezoelectric ultrasonic transducers with special ceramics.
- Manual drainage valve.



### Technical Specifications

Model	Control Type	Basket Size (l*w*h)	Tank Size (l*w*h)	External Size (l*w*h)	Tank Capacity	Total Power
		mm	mm	mm	lt	watt
CleanEx-N 1001	Analogue	210*170*160	235*215*200	405*285*425	10	900
CleanEx-N 1011	Digital					
CleanEx-N 2501	Analogue	400*210*170	450*275*200	620*345*425	25	1700
CleanEx-N 2511	Digital					
CleanEx-N 4001	Analogue	450*250*260	500*300*300	640*425*510	40	2250
CleanEx-N 4011	Digital					
CleanEx-N 5001	Analogue	450*350*260	500*400*300	620*465*525	50	2800
CleanEx-N 5011	Digital					

\*\* External dimensions and machine specification may change if optional features are selected.



# CleanMax-N

## Industrial Ultrasonic Systems

The CleanMax-N range of industrial sized single staged ultrasonic cleaners are designed to be used in industrial applications where heavy duty cleaning demands and performance are widely required. The CleanMax-N range are widely used for cleaning parts in the automotive, aviation, metal ware and many other industries where precise parts cleaning is essential prior to surface treatment or final assembly. The CleanMax-N range also offers a large amount of optional accessories ranging from pump filtration systems, oil separators, circulation pumps, weir systems and many more.



## Technical Details

- Tank capacities between 10 to 80 litres.
- Constructed entirely of stainless steel.
- Available ultrasonic frequency 28kHz.
- Tank construction available in AISI 316L or AISI 316Ti.
- Automatic shut of heaters at low water level.
- Adjustment of the cleaning time & water temperature.
- High efficiency piezoelectric ultrasonic transducers with special ceramics.
- Manual drainage valve.

Technical Specifications						
Model	Control Type	Basket Size (l*w*h)	Tank Size (l*w*h)	External Size (l*w*h)	Tank Capacity	Total Power
		mm	mm	mm	lt	watt
CleanMax-N 6001	Analogue	450*250*350	550*300*400	1200*500*900	60	2,75
CleanMax-N 6011	Digital					
CleanMax-N 8001	Analogue	560*280*350	650*330*400	1300*530*900	80	4,2
CleanMax-N 8011	Digital					
CleanMax-N 12001	Analogue	560*450*350	650*500*400	1300*700*900	120	5,25
CleanMax-N 12011	Digital					
CleanMax-N 16001	Analogue	800*450*350	900*500*400	1550*700*900	160	8,0
CleanMax-N 16011	Digital					
CleanMax-N 24001	Analogue	800*680*350	900*750*400	1550*1050*900	240	10,0
CleanMax-N 24011	Digital					

\*\*External dimensions and machine specification may change if optional features are selected.

# AutoClean

## Automotive Ultrasonic Systems

AutoClean ultrasonic cleaning systems, specifically designed for the high and precision cleaning demands of transportation industries such as the aviation, naval, railway and even the engine remanufacturing and repair industries. The AutoClean range has been designed with engine components in mind, cleaning all types of parts from cylinder heads, injectors, engine blocks, brake discs, gearboxes and radiators could all benefit.

The AutoClean’s cleaning ability is 16 times more effective than conventional hand washing and with the use of ultrasonic cleaning power this enables you to reach the smallest holes and compartments effectively, meaning cleaning those hard to reach places has never been easier.



### Technical Details

- Constructed entirely of stainless steel.
- Tank capacities between 200 to 9,000 litres.
- Available ultrasonic frequency 28kHz or 40kHz.
- Tank construction available in AISI 316L or AISI 316Ti.
- Automatic shut of heaters at low water level.
- Adjustment of the cleaning time & water temperature.
- Tailor made design with a large range of optional extras.
- Optional Siemens PLC control with 4’’ HMI touchscreen.

### Technical Specifications

Model	Platform Size (l*w)	Max Loading Height	Tank Size (l*w*h)	External Size (l*w*h)	External Size With Agitation (l*w*h)	Tank Capacity	Loading Weight	Total Power
	mm	mm	mm	mm	mm	lt	kg	kW
AutoClean 200	800*380	300	890*430*490	1450*925*1100	1450*1000*1810	200	75	9,0
AutoClean 300	800*500	400	890*550*630	1530*1190*1170	1530*1300*1900	300	250	16,0
AutoClean 400	1100*600	400	1180*650*650	1830*1290*1170	1830*1400*1900	400	250	20,0
AutoClean 600	1250*700	450	1330*750*700	1980*1390*1220	1980*1500*1970	600	250	30,0
AutoClean 800	1250*700	650	1330*750*900	1980*1390*1420	1980*1540*2420	800	500	38,0
AutoClean 1000	1500*750	650	1580*800*890	2650*1440*1280	2650*1590*2280	1000	500	40,0
AutoClean 1300	1500*750	900	1580*800*1200	2750*1440*1580	2750*1590*2900	1300	500	40,0
AutoClean 2000	1750*900	900	1850*950*1200	3000*1600*1580	3000*1750*2900	2000	900	60,0
AutoClean 3000	2000*1050	1000	2100*1100*1300	3250*1750*1700	3250*1950*3100	3000	900	80,0
AutoClean 4500	2500*1350	1000	2700*1450*1300	3900*2100*1700	3900*2300*3100	4500	900	115,0
AutoClean 6000	3000*1500	1000	3200*1600*1300	4400*2250*1700	4400*2450*3100	6000	1500	150,0
AutoClean 9000	3500*1600	1200	3700*1700*1500	4800*2400*1900	4800*2600*3500	9000	1500	190,0

\*\*External dimensions and machine specification may change if optional features are selected.

# MultiClean

## Multistage Ultrasonic Systems

MultiClean cleaning systems are available with two, three, four or five tanks from our standard range as well as larger quantities for special machines at request. Tanks can included multiple configurations including pre-washing, ultrasonic cleaning, rinsing, passivation and drying.

**Pre- Washing:** Pre-washing is generally used for very dirty and greasy parts before precise cleaning to remove rough contamination to save time, energy, water and cleaning chemical consumption.

**Ultrasonic Cleaning:** Ultrasonic cleaning power is able to reach points that are normally very difficult to reach like small holes and complicated shaped parts which can't be cleaned with a brush or by hand giving better precision cleaning results.

**Rinsing:** Cleaning chemical residue can remain on the surface of the parts after cleaning. To wash away these chemical residuals rinsing can be used either by a closed circulation system or by continual fresh water supply.

**Passivationon:** Sometimes cleaned parts needed to be protected against oxidation and by adding an additional stage with a passiva-tion chemical inside the tank you can passivate and protect the parts

**Drying** :After the cleaning process is complete parts can be dried by either hot air or vacuum drying as the final stage according to the geometry of the parts and to customer's requirements.



### Technical Details

- Tank capacities between 60 to 240 litres.
- Constructed entirely of stainless steel.
- Standard models offer pre-washing, washing, rinsing, passivation & drying stages.
- Additional stages available.
- Optional vacuum drying.
- Tank construction available in AISI 316L or AISI 316Ti.
- Automatic shut of heaters at low water level.
- Adjustment of the cleaning time & water temperature.
- High efficiency piezoelectric ultrasonic transducers with special ceramics.
- Drainage valve.

Technical Specifications						
Model	Process	Basket Size (l*w*h)	Tank Size (l*w*h)	External Size (l*w*h)	Tank Capacity	Total Power
		mm	mm	mm	lt	kW
MultiClean 2-60	Ultrasonic Cleaning Rinsing	450*250*350	550*300*400	1650*600*900	60	5,0
MultiClean 2-80		560*280*350	650*330*400	1900*630*900	80	7,5
MultiClean 2-120		560*450*350	650*500*400	1900*800*900	120	10,0
MultiClean 2-160		800*450*350	900*500*400	2350*800*900	160	16,0
MultiClean 2-240		800*680*350	900*750*400	2350*1050*900	240	20,0
MultiClean 3-60	Pre-Washing Ultrasonic Cleaning Rinsing	450*250*350	550*300*400	2300*600*900	60	7,0
MultiClean 3-80		560*280*350	650*330*400	2670*630*900	80	10,5
MultiClean 3-120		560*450*350	650*500*400	2670*800*900	120	14,0
MultiClean 3-160		800*450*350	900*500*400	3350*800*900	160	22,5
MultiClean 3-240		800*680*350	900*750*400	3350*1050*900	240	28,0
MultiClean 4-60	Pre-Washing Ultrasonic Cleaning Rinsing Drying	450*250*350	550*300*400	2950*600*900	60	14,0
MultiClean 4-80		560*280*350	650*330*400	3450*630*900	80	17,5
MultiClean 4-120		560*450*350	650*500*400	3450*800*900	120	24,0
MultiClean 4-160		800*450*350	900*500*400	4400*800*900	160	32,5
MultiClean 4-240		800*680*350	900*750*400	4400*1050*900	240	40,0
MultiClean 5-60	Pre-Washing Ultrasonic Cleaning Rinsing Passivation Drying	450*250*350	550*300*400	3600*600*900	60	16,0
MultiClean 5-80		560*280*350	650*330*400	5170*630*900	80	20,5
MultiClean 5-120		560*450*350	650*500*400	5170*800*900	120	28,0
MultiClean 5-160		800*450*350	900*500*400	5400*800*900	160	39,0
MultiClean 5-240		800*680*350	900*750*400	5400*1050*900	240	48,0

\*\* External dimensions and machine specification may change if optional features are selected.

# 07

## Basket Handling Systems

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Crane Handling Systems



Semi Automatic Handling Systems



Fully Automatic Handling Systems



# Crane Handling Systems

In this type of system the basket transfer is completed by electrical crane from tank to tank. Generally this system is used for high volume tank capacities, long process times and for the transferring of heavy parts. The price for this system is more cost effective against the fully automatic handling systems. The system is controlled with a manual remote control device held by the operator. The maximum handling weight for this system is up to 5 metric tons.



# Semi Automatic Handling Systems

Pneumatic handling systems are our newly designed type of handling systems. The vertical movement is controlled via a button on the control arm of the robot which works with pneumatic piston. The horizontal movement is completed manually by the operator in moving the parts/basket, easily and very smoothly by hand. Utilising compressed air for lifting of the parts/basket, this easy lift system is a significant contributor to the operator's health.



# Fully Automatic Handling Systems

Automation of the cleaning process reduces the running costs on multistage systems by assuring consistent, repeatable quality, reducing reject rates, labour costs and increasing throughput. With automatic handling systems further cost reductions can result from controlling speed of basket entry and withdrawal from the tanks.



## Technical Details

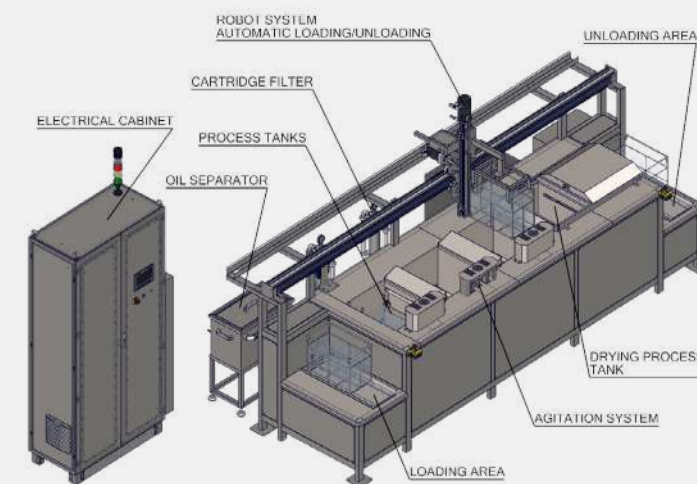
- Adjustable dripping time between tanks.
- Reduced running costs.
- Easy to use and program.
- Password protected to prevent unauthorised program access.
- Touch sensitive LCD operation panel for functional programming and display.
- Positional accuracy between +/- 1 mm provided by servo motors with built-in positional encoders.
- Loading/Unloading positions with basket detection sensors for fully automatic control.
- PLC control panel to control the robot as well as all other process (heaters, ultrasonic cleaning time, drying time, filtration and so on.)

Technical Specifications				
Model	Loading Weight	Max. Horizontal Speed	Max. Vertical Speed	Tolerance
	kg	m/min	m/min	mm
AHS-15	15	27	15	+/- 1
AHS-40	40	27	15	+/- 1
AHS-80	80	27	12	+/- 1
AHS-200	200	21	9	+/- 1

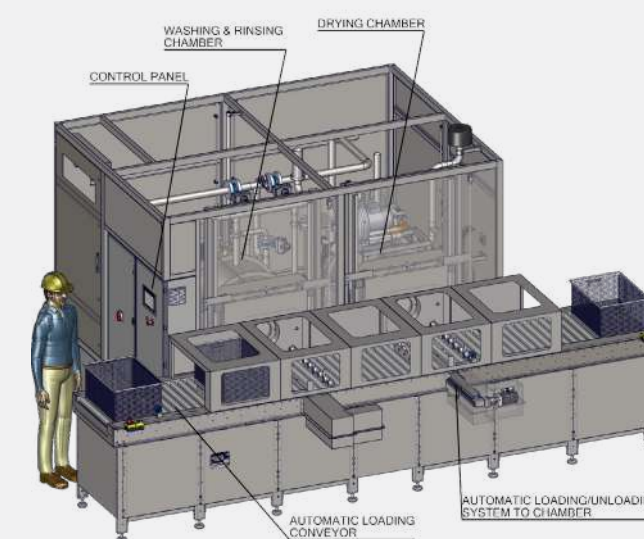
## Custom Made Systems

### Custom Made Systems

One of our main strengths and advantages is our ability to offer, design and manufacture custom made washing solutions. Custom made systems can vary from small changes such as non-standard basket/platform sizes or increased loading weight capacities through to much larger fully bespoke systems which are especially designed for the cleaning of your dedicated parts with high cleanliness requirements.



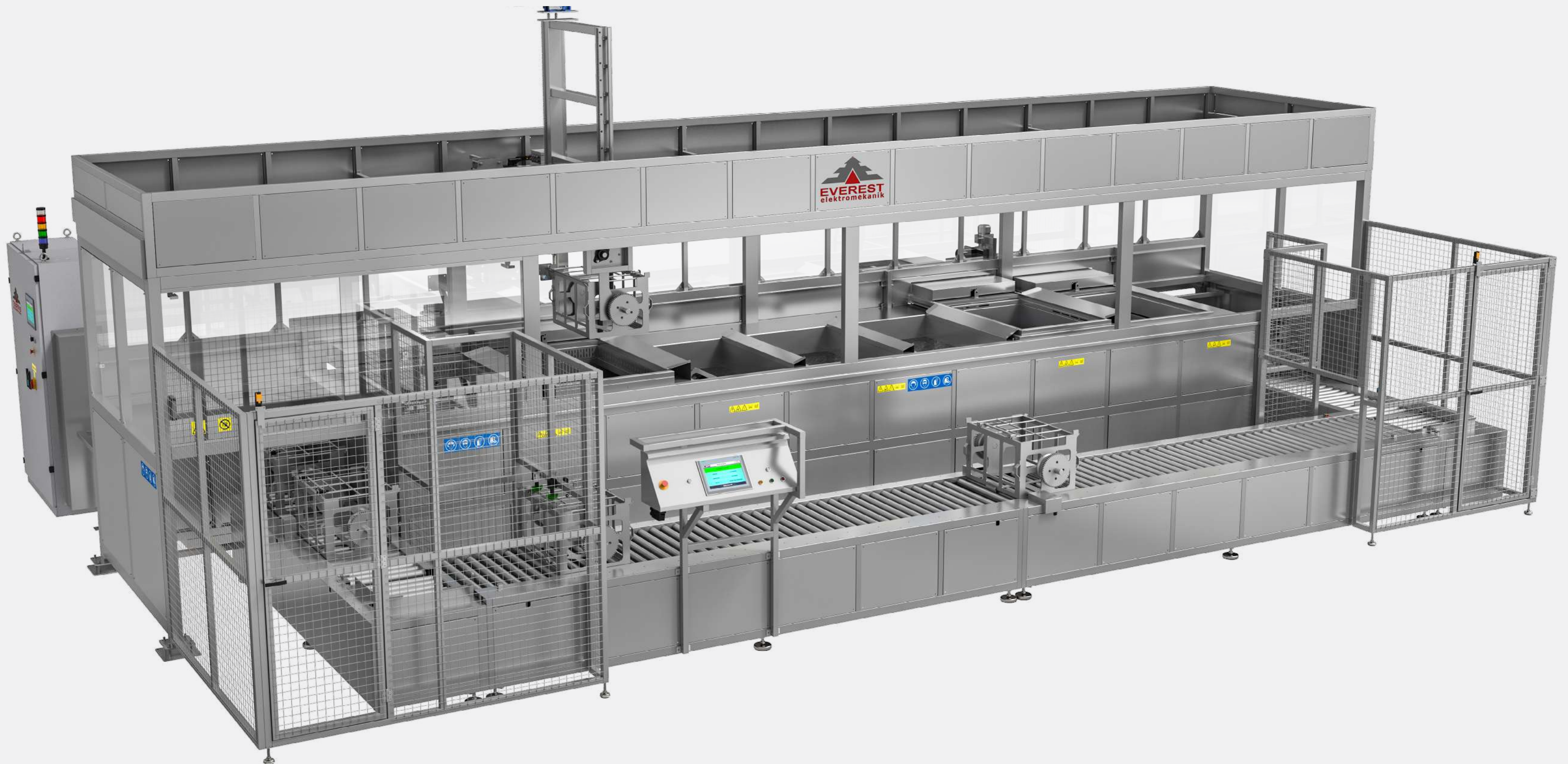
Our mechanical, electrical and automation design teams all use the latest manufacturing software programmes available such as AutoCAD, ePLAN and SolidWorks to design and engineer all the requirements needed for your custom-made washing system. 3D manufacturing approval drawings are prepared in SolidWorks and are shared prior to manufacturing beginning, once the design and concept has been approved by all parties the manufacturing process can begin.





## Custom Made Systems

Extra care and attention are needed in all aspects of the design due to the custom nature of these bespoke washing systems which is why each custom-made machine projects are assigned an Everest sales team member to be your project manager and point of contact throughout the entire project.



## Custom Made Systems

Upon completion of the washing system machine factory acceptance tests can be completed at both our Turkey and Germany facilities before sending the washing system to the final delivery address.



Custom Made Systems



Custom Made Systems



Custom Made Systems



Custom Made Systems





Custom Made Systems



Custom Made Systems



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[www.everestmakine.com](http://www.everestmakine.com)



Global Industrial Cleaning Solutions



Head Office & Manufacturing

**Everest Elektro Mekanik Makina Sanayi  
Ve Ticaret A.Ş.**

İş Modern Corner Ticaret Merkezi, Atatürk  
Bulvarı No: 48 1. Bodrum Kat No: 13-25,  
Başakşehir- İSTANBUL TURKEY

Phone: +90 (212) 671 25 85-86-87

Fax: : +90 (212) 671 25 85

Mail : info@everestultrasonic.com

Showroom

**Everest Elektromechanik GmbH**

Alfred-Nobel-Str. 11 55411  
Bingen-Ssopnsheim GERMANY

Phone: +49 6721 9840702

Mail : info@everestultrasonic.com

[www.everestmakine.com](http://www.everestmakine.com)