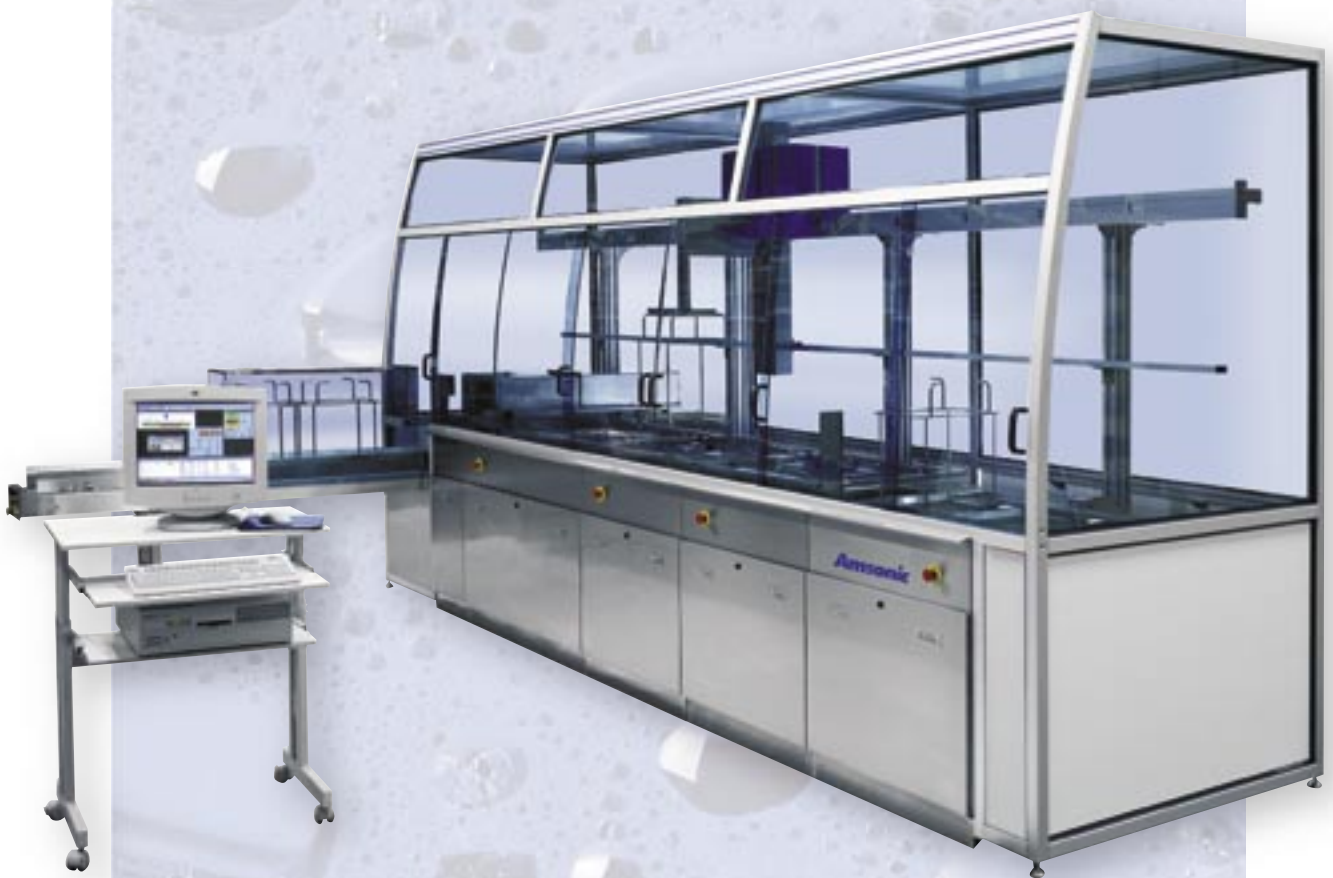


Amsonic
Precision Cleaning



AquaLine

Ultrasonic precision cleaning systems



Customised cleaning machines for individual processes

AquaLine

AquaLine ultrasonic precision cleaning machines are successfully utilised in various industrial branches. The fields of application range from precision mechanics, coatings, watch making, jewellery, optics and precision optics industries to the industry for ophthalmology and the medical technology sector (e.g. surgical implants). The AquaLine not only achieves excellent cleaning results, but also extremely efficient and above average ecological and economic results.

Modular design

One of the AquaLine's major advantages is its modular design principle. It allows for a very individual construction of customer specific machine configurations. Any configuration is possible: from simple, manually operated modules with 2 - 3 tanks, to automated PC controlled large-scale systems with several tanks.

A variety of options are available and can be applied on request and according to individual demands, e.g.:



- Standard or specially designed tank interior (electropolished or passivated)
- Ultrasonics with various frequencies and installation possibilities
- Automatic filling and draining
- Handling robot/carriage with or without PC control (for charges from 15-120 kg)
- Dosing pumps for cleaning agents
- Static or rotating baskets
- Lift-out system (mechanical or via robot/carriage)
- Hot air, infrared or vacuum drying
- Automatic loading and unloading ramps
- Automatic programme selection via barcode reader or binary coding
- Partial or full encapsulation of the cleaning machine, with or without laminar flow boxes
- Central water treatment system for highly purified water (DI water)

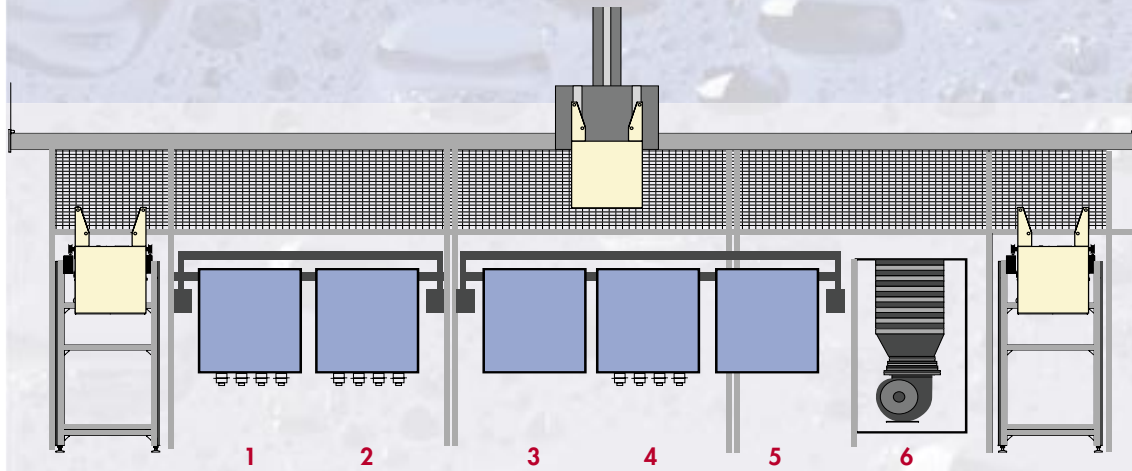
Operator convenience and ease to maintenance

The automated machine versions are very simple to operate. The complete machine visualisation and all control elements are laid out on the computer screen. Possible malfunctions are reported by error messages (text). The robot/s (carriage/s) manage/s the programmed cleaning cycles and the infeed of the coded baskets. The control system is able to run both identical (several identical programmes) and mixed (various automatic, simultaneous programmes) cleaning programmes. Depending on its configuration the machine's productivity varies from 10 to 15 baskets per hour.

The modules' front panels are easy to remove, allowing fast access to the tanks' fittings and ease of maintenance.



Example of a complete cleaning process



Position 1	Position 2	Position 3	Position 4	Position 5	Position 6
Precleaning/ Degreasing	Fine cleaning	Rinsing with tap water	Rinsing with DI water	Rinsing with DI water	Drying
equipped with	equipped with	equipped with	equipped with	equipped with	equipped with
<ul style="list-style-type: none"> • Heating • Ultrasonics • Oil separator • Movement of parts • Drain valve 	<ul style="list-style-type: none"> • Heating • Ultrasonics • Movement of parts • Drain valve 	<ul style="list-style-type: none"> • 360° overflow • Rinsing valve • Movement of parts • Drain valve 	<ul style="list-style-type: none"> • 360° overflow • Heating • Ultrasonics • Movement of parts • Rinsing valve • Drain valve 	<ul style="list-style-type: none"> • 360° overflow • Heating • Lift-out • Rinsing valve • Drain valve 	<ul style="list-style-type: none"> • Filtered hot air in a closed circuit • Air flow regulation shutters

Optima 2000 - Control system for Windows

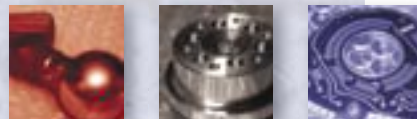
The Aqualine is operated via the batch-oriented PC control system Optima 2000. This system was developed to meet the requirements of industrial cleaning and disposes of many different functions. Due to its application under Windows, it is very user-friendly to operate.

The control system allows for the individual definition of the cleaning cycles, the simultaneous management of the various programme sequences as well as the traceability and reproducibility of all programme/cleaning parameters.

The complete machine as well as the cleaning cycles and their parameters are graphically vi-

sualised on the computer screen. Should anomalies occur during the cleaning cycle, a message immediately appears on the monitor. In case of a malfunction the system automatically stops the cleaning process until it has been solved. Optima 2000 then records the failure in the error log file. The access to the programming section is password protected.

Aqualine ultrasonic cleaning systems that are equipped with Optima 2000, a motorised loading/unloading ramp and a barcode reader for the automatic selection of programmes, can be integrated into complex production concepts.



Your centre of competence for precision cleaning



Amsonic AquaJet 21

Amsonic offers a wide range of water-based and closed circuit A3 solvent based ultrasonic cleaning units that provide thorough cleaning processes for various industrial sectors:

Water-based precision cleaning systems

- **Amsonic CleanLine**
High performance ultrasonic fine cleaning unit for precision parts of subcontracting industries
- **Amsonic AquaLine**
Ultrasonic cleaning unit with a fully automatic transport system (robot/carriage)
- **Amsonic AquaJet 21**
Spray cleaning and drying unit with process validation
- **Amsonic HandyClean**
Ultrasonic cleaning unit with a fully automated lift / thrust system
- **Amsonic TTC & BC**
Ultrasonic compact units, tabletop units



Amsonic HandyClean



Amsonic 4100/4200

Solvent based precision cleaning systems

- **Amsonic 4000**
Solvent based ultrasonic cleaning unit (class A3)
Cleaning under vacuum, below or above the flashpoint
- **Amsonic 4100/4200**
Solvent based ultrasonic cleaning unit (class A3)
Cleaning under vacuum, above the flashpoint

Combined precision cleaning systems

- **Amsonic Swash 4100/4200**
Water and solvent based ultrasonic cleaning unit (class A3)
Cleaning under vacuum, above the flashpoint



Amsonic Swash 4100

Detergents and additives

- **Amsonic PreciClean**
Water-based detergents



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