



Amsonic 400R-Series

***Solvent parts cleaning systems
(Class A3 hydrocarbons or modified alcohol)***

The cleaning technology for metals, ceramics and plastics

The future belongs to the non-halogenated, without carcinogenic properties, such as A3 solvents. These solvents include hydrocarbons or modified alcohols. Amsonic is still the real pioneer regarding A3 fluids, in terms of cleaning processes, technology and cleanliness level. Their environmental performances and their very low cost of ownership are what makes A3 solvents a true alternative for most Industries.

The Amsonic 400R-Series is a compact single chamber cleaning system, with a high throughput. It uses a proven procedure that, at a high temperature, applies non-chlorinated solvents under a patented vacuum process. 400R-Series cleaning equipment can combine different cleaning steps such as vapor phase, ultrasonic cleaning, drying and distillation under vacuum (closed loop). The vacuum technology increases the cleaning efficiency and guarantees a safe operation of the machine. Options such as double ultrasonic transducers, electro polished chamber walls, micro-filtration can meet highest requirements in terms of particle counting (particle size, number and weight).

The cleaning program is chosen considering the type of soiling, the geometry of the parts and cleanliness requirements. The throughput lies



between 6 up to 12 loads per hour. The Amsonic 400R-Series is equipped with a working tank and optional with a clean tank. The distillation capacity assures a continuous availability of clean solvent. The tank volume, the heating capacity and the distiller are optimally coordinated. Several solvents can be used, e.g. Isoparaffin or modified alcohols. Integration of an Amsonic 400R-Series in a fully automated manufacturing line is possible, on option, with loading and unloading conveyor, in addition with automatic basket-covering and barcodes reader for program identification.

Technical specifications

Amsonic	400R	410R	415R	420R
Dimension Basket	37 x 22 x 20 cm	53 x 32 x 20 cm	60 x 40 x 30 cm	67 x 48 x 30 cm
Max. Weight per charge	30 kg	50 kg	80 kg	100 kg
Throughput	6 – 12 /h	6 – 10 /h	6 – 10 /h	6 – 10 /h
Solvent capacity	ca. 160 liter	ca. 340 liter	ca. 500 liter	ca. 700 liter
Cleaning temperature	60 – 80°C	60 – 80°C	60 – 80°C	60 – 80°C
Steam temperature	95 – 110°C	95 – 110°C	95 – 110°C	95 – 110°C
Electricity	ca. 14 kW	ca. 17 kW	ca. 20 kW	ca. 24 kW
Compressed air	6 – 8 bar ca. 100 Liter/h	6 – 8 bar ca. 100 Liter/h	6 – 8 bar ca. 200 Liter/h	6 – 8 bar ca. 200 Liter/h
Ext. dimensions (WxDxH)	2,1 x 1,2 x 2 m	2,7 x 1,6 x 2,4 m	3 x 1,8 x 2,4 m	3,9 x 2 x 2,5 m
Weight	ca. 1300 kg	ca. 2000 kg	ca. 2500 kg	ca. 3200 kg

PLC control with touch screen

The machine is controlled by PLC (Siemens) and a user-friendly HMI interface that includes different cleaning programs and maintenance programs such as the emptying of the distillation unit or the changing and drying of the micro filter. Access to process times and cleaning parameters are user dependent, and protected by passwords. The machine is operated by a user-

friendly touch screen; depending on the existing software options, it can be graphically visualized on the display and all relevant process data can be documented (cleaning report for track and traceability). Via a remote support, with the appropriate standard remote maintenance software, the customer support can easily be connected to the system providing online servicing.

Applications

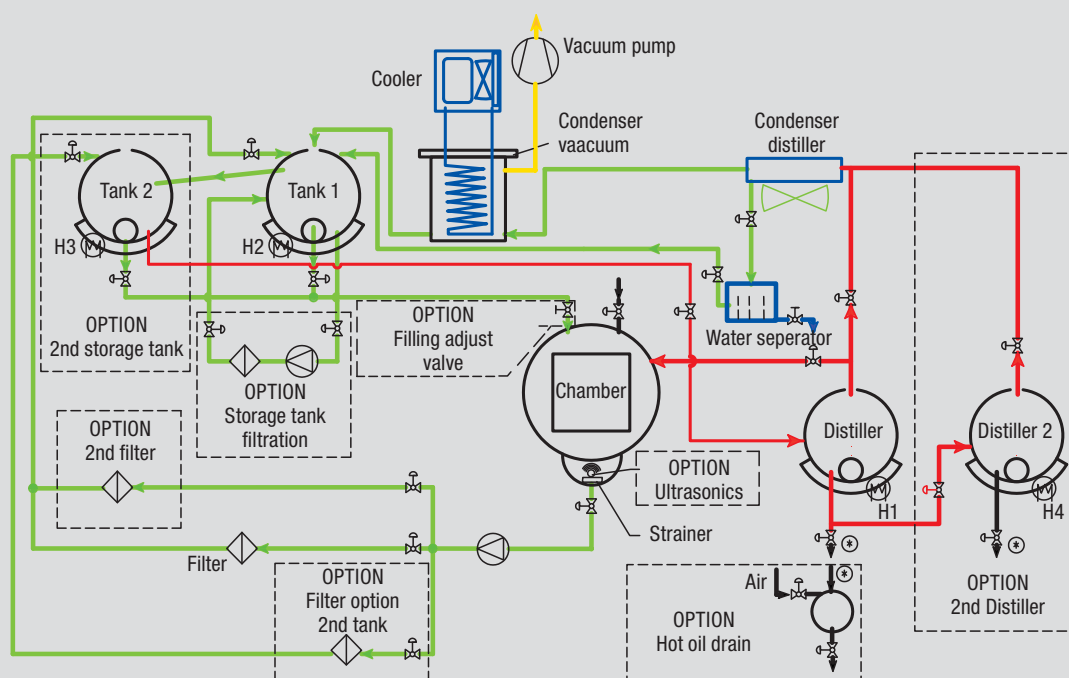
Automotive, aircraft industry, precision mechanics, turned parts, watch industry, orthopedic and dental implants, all those industrial sectors require cleanliness results at different stages, intermediate or final cleaning, prior to PVD or CVD coating, prior to plating or laser welding. All those industrial branches are using cleaning systems with Amsonic Technology.

Non chlorinated A3 solvents protect cleaned parts from corrosion. They are therefore more suitable than water base detergents in some applications. Solvents (Isoparaffin or modified alcohols) are almost indefinitely distillable. The yearly consumption, depending on the application, is approx. 50 to 200 liters.

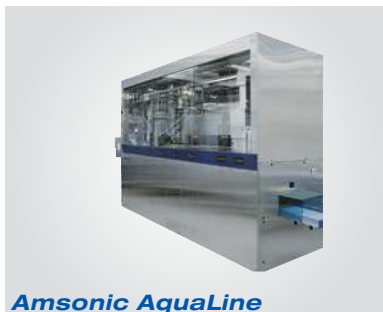
No matter if your customers request a guarantee for surface tension or particle free parts or if you need to clean a high volume – Amsonic has long time experience with A3 solvent cleaning and will recommend the best equipment suitable for you.



Solvent circuit



Your centre of competence for precision cleaning



Amsonic AquaLine

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

Water-Based Precision Cleaning Equipment (Ultrasonic)

Amsonic AquaLine / ModuLine

High performance-Ultrasonic-Precision-Cleaning equipment



Hamo 210

Water-Based Spray Cleaning systems

Hamo 210 / 420 / 840

Spray-cleaning and drying equipment for life sciences- and medical-devices applications



Hamo PG 800

Pharma-Conform Spray Cleaning systems (cGMP)

Hamo PG 800 / 1300

Pharma-Conform (cGMP) Cleaning equipment in single or double door execution (Bio Seal)

Amsonic Hamo HPM

High pressure cleaning systems (>80 bar) for pharmaceutical application



Amsonic 400 R

Solvent-Based Precision Cleaning Equipment

Amsonic 400 R Serie

Solvent-based Ultrasonic equipment (Class A3) Cleaning under vacuum, above or below flash point

Detergents / Additives

Amsonic PreciClean / Hamo liquid

Water based detergents



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