

Acid Cleaning System



Acid Cleaning System



Application

The Acid Cleaning System can safely and efficiently remove inorganic elemental residues from various vessels such as Microwave digestion tubes, volumetric flask, triangular flask, etc. It effectively reduces ion background and meets the cleanliness requirements of vessels for trace inorganic element detection using ICP-MS, atomic absorption, atomic fluorescence, and other equipment. It improves experimental efficiency, reduces operational risks, and protects the laboratory environment.

Advantage

1.Environmentally friendly and pollution-free.

The used acid or water does not flow back into the original acid or water, but is stored in a waste liquid collector. It is automatically monitored for pH and automatically neutralized before being discharged when it reaches a neutral state.

Built-in EP exhaust gas absorption system can instantly absorb a large amount of exhaust gas without the need for a fume hood.

2.Save acid consumption and reduce cleaning costs.

Patented three-link dynamic acid tank, fast heating, acid vapor speed is three times that of ordinary heating tanks, acid vapor can be produced in 5 minutes, after acid vaporization, the acid tank automatically tilts to drain the acid, ensuring thorough rinsing of the acid tank with water, and no residual acid after cleaning. Only 70ml of acid is needed for one cleaning. It greatly reduces the consumption of acid, saving costs.

3.Excellent corrosion resistance.

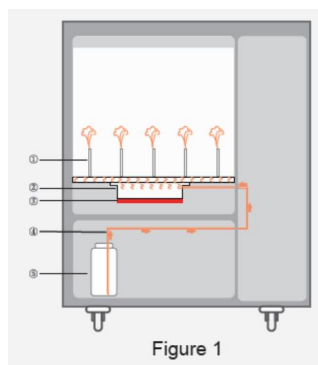
The entire cleaning chamber is made of PFA and PTFE materials, exhibiting excellent corrosion resistance. The electronic operating system is separated from the instrument, and circuit boards are designed with corrosion-resistant coatings, enhancing system stability.



4. The system is fully automated, combining acid vapor cleaning, ultra-pure water spraying, and drying into one integrated process.

Injected sub-boiling acid steam cleaning (Figure 1)

The pure acid vapor cleans the inner wall of the vessel through the catheter, effectively reducing ion residue, and is discharged after use without reflux. Sub-boiling acid steam cleaning for 1 hour is equivalent to room temperature soaking for 12 hours

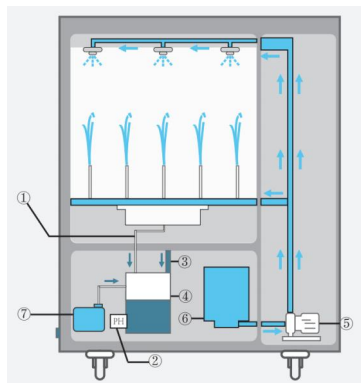


- ① Catheter
- ② Acid tank
- ③ Heating plate
- ④ Acid tubing
- ⑤ Acid bottle

Figure 1

Ultra-pure water injection flushing (Figure 2)

Built-in self-priming pump for automatic addition of ultra-pure water, and automatic water storage in the pure water tank. The pure water tank has a liquid shortage reminder and automatic stop when full function. "Non-reflux" ultra-pure water flushing ensures no acid gas and acid residue in the cavity.



- ① Acid drain tubing
- ② pH detection
- ③ Acid Spray waste tubing
- ④ Wastewater neutralization bucket
- ⑤ Water pump
- ⑥ Ultra-pure bucket
- ⑦ Lye barrel

Hot air drying (Figure 3)

The pipeline compression fan blows the hot air filtered through the HEPA filter into the vessel.

The drying temperature, drying time, and airflow rate can be adjusted.

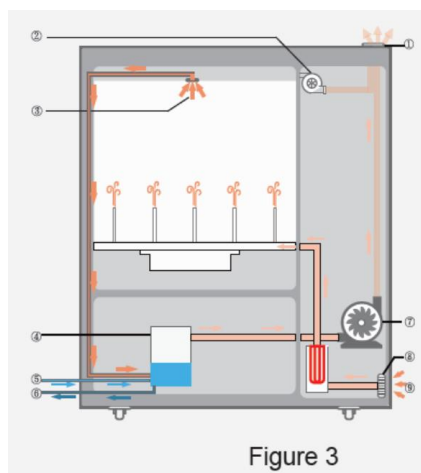


Figure 3

- ① Exhaust port
- ② Exhaust fan
- ③ Air outlet
- ④ Absorption tank
- ⑤ Water tubing
- ⑥ Tap water drainage tubing
- ⑦ Internal exhaust fan
- ⑧ HEPA filter
- ⑨ Air inlet

Acid Cleaning System



verification report.							
Sample	Pb[He]	As[He]	Cd[He]	Cr[He]	Mg[He]	Cu[He]	Fe[He]
	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]
Sample1	0.00	0.01	0.01	0.00	0.00	0.01	0.00
Sample2	0.00	0.00	0.00	0.02	0.00	0.00	0.01
Sample3	0.01	0.00	0.01	0.01	0.02	0.01	0.02
Sample4	0.00	0.01	0.01	0.00	0.00	0.01	0.01
Sample5	0.01	0.00	0.00	0.00	0.01	0.00	0.00
Sample6	0.00	0.01	0.00	0.00	0.00	0.01	0.01

Specification

Model			ASCS-3300
Capacity(L)			87L
Display			7 inch LCD touch screen
Standard Program			20
Permission management system			3 Level
Cleaning	Consumption of acid	70ml (1ml/min)	
			Cleaning ≥49 units of 100mL microwave digestion tubes at once
Drying	Drying system	Hot air injection via Sprinkler	
Drying Time Range		0 to 300mins	
Drying Temp Range		RT to 100℃	
Airflow Rate for Drying		168m³/h.	
Drying Method		Hot air injection via Sprinkler	
Water inlet pipe	Quantity	2	
Length		3m (Customizable)	
Material		PTFE	
Water Pump	Brand	World-renowned brand	
Flow Rate		120L/min	
Consumption		0.75kW	
Structure	Material	External	304 stainless steel
Cleaning chamber			PTFE
Door			Double-door design, for enhanced safety.
Caster			Four universal casters at the bottom of the instrument for easy movement
Total Consumption		1.5kW	
Power Supply		220/110V,50/60Hz	
External Size(W×D×H)(mm)		682x663x1624	
Shipping size(W×D×H)(mm)		880x860x1880	
N.W./G.W. (kg)		280/300	