

AF09 Single

One-chamber universal cleaning system for maintenance cleaning with AirFlow®- and PulseFlow®-Technology. Cleans flux management units as well as solder carriers / frames from flux residue, condensate, oil, dust,grease etc.

Part No. 090509-AF-S

Universal maintenance cleaning



The situation

Clean production tools in the electronics producing industry are vital to achieve the highest possible production quality. Manual cleaning cannot achieve this high standard. Modern reflow-systems are equipped with flux management units (cooling units, filters, heat exchangers, filter panels) which in production are subject to contamination (flux, colophonium). Thorough cleaning helps to re-gain their proper functionality. With the latest PulseFlow®-technology it is also possible in the AF09 Single to clean and rinse external cyclones/containers and tubings. In the internal process tank with AirFlow®-technology all further maintenance cleaning tasks can be executed. Kolb AF09 Single is the first versatile universal system for the cleaning of all brands of industrial soldering systems.

The advantages of AF09 Single

- Plug & Work System (connect, fill, start).
- High cleaning efficiency.
- Short cycle times (15 / 30 / 45 minutes, cycle times freely selectable via PLC).
- No explosion protected area necessary.
- Easy to transport – use directly at the soldering machine possible.
- Cleaning of cyclones / containers is possible without dismantling them from the reflow-soldering system.
- 2-stage cleaning detergent, rinsing and active drying is obsolete.
- Skimmer filtration with pre-installed exhaust.
- Permanent 3-stage filtration.
- Robust stainless steel framework.
- Process chambers made of PVC, i.e. no electrolysis possible at weld seams.
- Integrated retention pond for external cleaning or adapter storage.

The service- and security features of AF09 Single

- PLC control and monitoring of cleaning process and maintenance intervals.
- Filter pressure control by PLC.
- Emergency reset switch.
- Full CE-conformity.
- Automatic shut-down with open cleaning system.

The general maintenance of AF09 Single

- Change of the saturated cleaning detergent mixture as per individual requirements.
- Cleaning of coarse filter, change of fine filters.

System must be operated only with qualified 2-stage cleaning detergents!



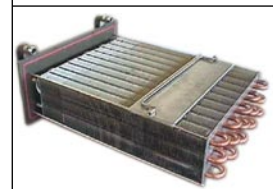
Soltec



Cyclones V8, rehm



ERSA



Seho

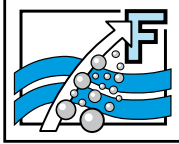


rehm

Applications

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AF09 Single

PulseFlow® Unit



AirFlow® Unit



Tool tray



Control panel



Storage / reservoir



The working principle*

The kolb AF09 Single one-chamber cleaning system consists of an independent AirFlow® cleaning module (no water / waste water connection). Parts to be cleaned (cooling units, filters, plates, carriers) are positioned on the immersion basket on top of the heavy-duty air system of the AirFlow® module when the lid is open. When closing the gas spring supported lid the immersion basket will be submerged into the cleaning detergent. The goods in the detergent will be cleaned with the AirFlow®-Technology during the pre-set cycle time.

Filtration: The removed contamination ascending to the surface by the AirFlow® will be directed to the skimmer filtration and via a 3- stage loop- filtration (coarse filter >1mm, filter 1 >100µm, filter 2 >25µm) where they will be filtered out. The saturation of the filter stages will be controlled and indicated via PLC.

Cleaning cycle: 3 different cycle times (factory preset 15 / 30 / 45 min.) can be freely programmed in the PLC. After the end of the cleaning cycle and opening of the lid, the immersion basket rises automatically again and the products dry under ambient temperature air. Alloy steels, aluminium should be rinsed externally with tap water or kolb RM 24 (kolb rinsing detergent).

External cleaning of cyclones / containers and tubings is possible without dismounting them from the reflow-soldering system: The integrated PulseFlow®-unit uses with PLC controlled valves and the PulseFlow®-Technology the detergent contents of the AirFlow®-unit for external rinsing and cleaning.

AF09 Single has the following elements

- Modul 1: Cleaning chamber 1 base module incl. external rinsing cycle as well as
- Element AeR: Connection set for the external rinsing/cleaning of containers and tubings.
- Element AaR: Adaptor connection for AeR Typ rehm.

Upon request: Adaptor connections for Seho, Ersä, Soltec, BTU etc.

The foot print of the system corresponds to a standard Euro-type pallet and it can be comfortably transported to location/reflow-soldering systems using a pallet truck and it is ready-to-operate immediately.

Technical data

Main power supply	:	400 V AC, 16 A CEE; 50 / 60 Hz
Power dissipation	:	approx. 1,5 kW
Ambient temperature (min)	:	approx. 20°C
Noise	:	< 65 dB (A)
Compressed air supply	:	approx. 6-10 bar, 110 / l min
System weight	:	approx. 300 kg (empty), 500 kg (filled)
Process chamber capacity	:	approx. 200 l (cleaning detergent mixture)
Max. product size	:	900 mm x 450 mm x 310 mm (L x B x H)
System dimension	:	L: 1.250mm, W: 800mm, H: 1.000mm, open lid: 1.500 mm

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*Patent technology. All rights for changes reserved that lead to technical improvement.