



EVO PCB

Optimum results in ultra-fine cleaning
of electronic assemblies

Ultra-fine cleaning in electronics production

The cleaning systems of the EVO PCB series are compact single-chamber systems for ultra-fine cleaning of electronic assemblies and components.

This generation of cleaning systems combines highly efficient Miele industrial machines with our proprietary MATTHES Recycling System (MRS) to create a precise and cost-effective overall solution.

Permanent, fully automatic measurement, control and re-dosing of cleaning media guarantee maximum process reliability and quality



**MADE IN
GERMANY**

Reproducible cleaning quality

Especially for high-quality assemblies in the medical, automotive, defence and aerospace industries, optimum cleaning results are absolutely essential to avoid rejects in production and malfunctions in use.

The thorough removal of flux residues, resins and other production residues on printed circuit boards serves as ideal preparation for subsequent processes such as bonding, coating or lacquering.

Optimal cleaning of misprints (misprints) helps you to save valuable resources and costs.

With the precision cleaning systems of the EVO PCB series, you are perfectly prepared for the constantly growing demands which the cleaning of assembled and unassembled PCBs brings with it.



Key features

Capacity

(euro cards 100 × 160 mm): 76 pieces with standard upper and lower basket 0500 (37 pieces) / U500 (39 pieces)

Due to their more compact design, the cleaning machines of the EVO PCB series can be optimally integrated into existing process environments.

PROFITRONIC+

Control of the automatic cleaning machine Industry 4.0 ready, Ethernet interface / RS 232 interface

PerfectTouchControl

Chemical-resistant glass surface of the operating and programming unit

PerfectSpeedSensor- Spray arm monitoring

Reliable cleaning performance by monitoring the spray arm speed

PerfectFlow

Media and temperature independent ultrasonic dosing volume control, reproducible cleaning quality through precise dosing of all media

PerfectPureSensor

Integrated conductivity measuring module for monitoring the final rinse phase

PerfectHepaDrying

Optimum drying results, free from unwanted particles and suspended matter from the room air

TOP feature of the EVO PCB PREMIUM

PerfectLiveControl powered by



Digital real-time concentration measurement, live monitoring and automatic re-dosing in the media inlet. Process-related fluctuations which lead to a reduction in the concentration of the cleaning bath are compensated fully automatically. Water and cleaning concentrate are supplied in real time and ensure optimum process reliability.



Additional Features

- Steam vapour condenser (free of exhaust air)
- Siemens control with SIMATIC HMI touch panel*
- Complete stainless steel piping of the MRS module (Matthes Recycling System)
- Drawer for 4 × 5 l canister
- Sensor system for automatic basket/trolley detection
- Programme Failure Protection
- 2 redundant sensors for temperature control and monitoring
- Miele Waterproof System to protect against leakage damage
- Remote serviceable

* Feature of EVO PCB PREMIUM



Medium canister



PerfectSpeedSensor Spray arm monitoring

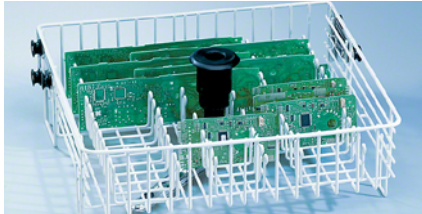


Trolley detection

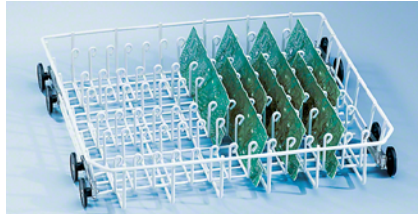
Optional features

PerfectDoc

Seamless logging and documentation of all cleaning processes means maximum security for process tracking



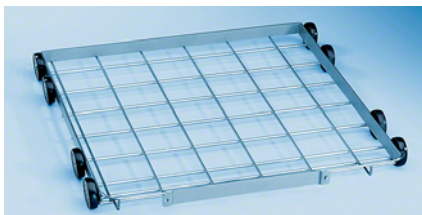
Upper basket 0500



Lower basket U500



Upper basket empty 0188



Lower basket empty U874



DI water cartridge



Carriage with rotating basket

Customised holders can be manufactured.

Technical Data	EVO PCB PROEVO PCB PREMIUM
	Ultra-fine cleaning systems for assemblies (unassembled and assembled printed circuit boards), misprints (misprinted circuit boards)
Technology Matthes	Matthes EVOLUTION
Cleaning capacity per process	(euro cards 100 × 160 mm): 76 pieces with standard upper and lower basket (37 + 39 pieces)
Tank capacity 1	60 litres
Tank capacity 2	– (fresh water system for reproducible rinsing results)
Power supply	3PH 400V 32A CEE 50 Hz PE/N
Power consumption	4 kW
Control system	Miele Profitronic+ / Siemens LOGO controls
Heat output tank 1	3 kW Control range 0-80 °C
Drying unit	blower 0.3 kW / heating coil 2.3 kW / air capacity 55 m3/h
Hepa filter class	H14 – Separation efficiency (according to DIN EN 1822) 99.995 %
Filter system washing tank	coarse filter with 250 filter cartridge / fine filter with 50 filter cartridge
Supply connection 1 (Tap water)	3/4"
Supply connection 2 (DI water)	3/4"
Supply connection 3 (compressed air)	5 bar 0.2 NL control pressure
Drain connection (rinsing medium)	DN 50
Exhaust air connection	Steam condenser
Machine dimensions	W 1.565 mm × D 735 mm × H 1.460 mm (with signal lamp 1.700 mm)
Installation dimensions with base tray	W 1.990 mm × D 800 mm × H 1.462 mm (with signal lamp 1.702 mm)
Operating noise EN ISO 3746	< 65 dB(A)
Tare weight	440 kg



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