KIST + ESCHERICH

PCB MASTER

Inline station for cleaning populated and unpopulated PCBs

Key Facts

- ✓ **World-class cleaning of PCB/PCBA in SMT lines**
- ✓ **With the original TAIFUN-CLEAN® technology** made in Germany
- ✓ **Static Control:** Precise ion control for your high-tech application
- ✓ **SMEMA-interface**
- ✓ **Integrated filter and suction system**

Product Description

Clean printed circuit boards without end. PCB MASTER is the versatile system platform for automated inline cleaning of PCBs and PCBAs in assembly lines. The upstream process transfers the component to the inline PCB cleaning system. The machine cleans contactless with the proven TAIFUN-CLEAN® technology. Using highly turbulent compressed air, electrostatic discharge for highly sensitive technology applications, and specific suction technology, contaminants are first loosened and then efficiently transferred into the output air flow to be captured in the integrated filter system. This provides excellent cleaning results while protecting all electronic components. After cleaning, the circuit board is transferred to the subsequent process.

Technical Features

- Our contactless inline PCB cleaning provides maximum surface protection
- 2 in 1: Top and underside cleaning in one process
- Compact cleaning systems prepared for seamless integration (SMD/SMT lines)
- Modular cleaning system design: It includes an integrated transfer system, filter and suction system, cleaning technology, control and pneumatic equipment

- Cleaning time and intensity are adjustable
- Monitoring of operating parameters is integrated for efficient cleaning processes
- ESD version (anti-static): This equipment can be configured for ESD areas to provide safe protection against electrostatic discharge (ESD)
- Connection to higher-level control systems is possible
- Environmentally friendly cleaning technology

Integrated transfer system:

Safe material transport through the cleaning system.

2-in-1 cleaning:

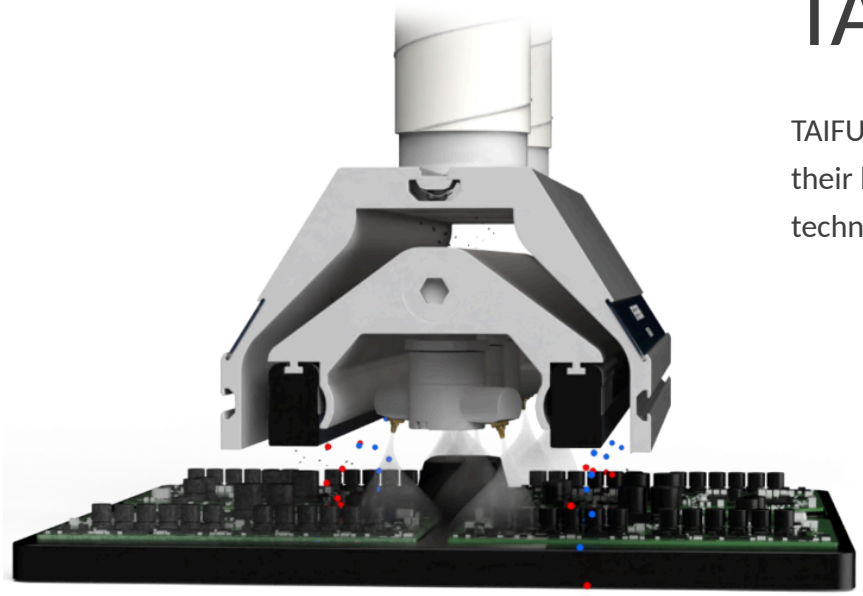
Top and underside cleaning in one process.

Easy filter change:

Quick and easy maintenance and minimal downtime.

Process monitoring:

Integrated control of operating parameters for maximum efficiency.



TECHNOLOGY

TAIFUN-CLEAN®

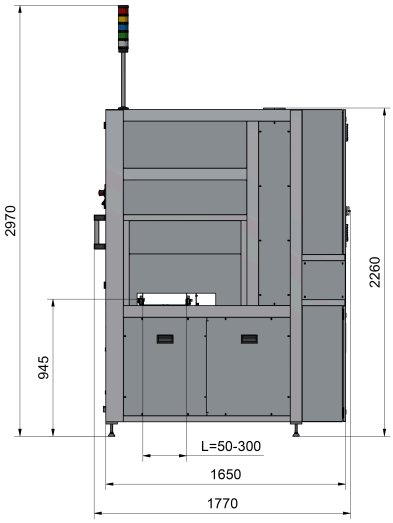
TAIFUN-CLEAN® begins where others have reached their limits. Would you like to learn more about the technology behind our product?

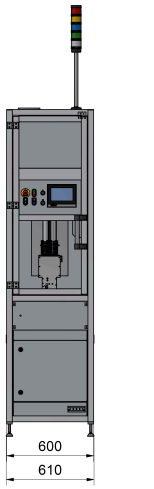
Technical Data

	PM 300	PM 500
Track width	50-300 mm	50-460 mm
PCB height	+40 / -40 mm	+40 / -40 mm
Operating pressure for cleaning system recommended	1.5-3.5 bar	1.5-3.5 bar
Input pressure	6.0 bar	6.0 bar
Compressed air connection	1″ (DN 25)	1″ (DN 25)
Weight	approx. 520 kg	approx. 660 kg
Transfer height	950 ± 50 mm	950 ± 50 mm
Operating voltage	3 × 400 V, PE, N	3 × 400 V, PE, N
Frequency	50 Hz	50 Hz
Power consumption	5.4 kVA	6 kVA
Rated current	7.8 A	8.0 A
Conveyer speed	0-20 m/min	0-20 m/min
Colour	Grey RAL 7035 ESD	Grey RAL 7035 ESD

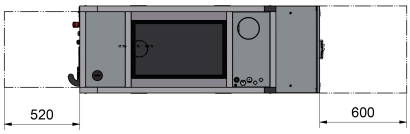
Technical Drawings

PM 300





Förderrichtung
Transporting direction

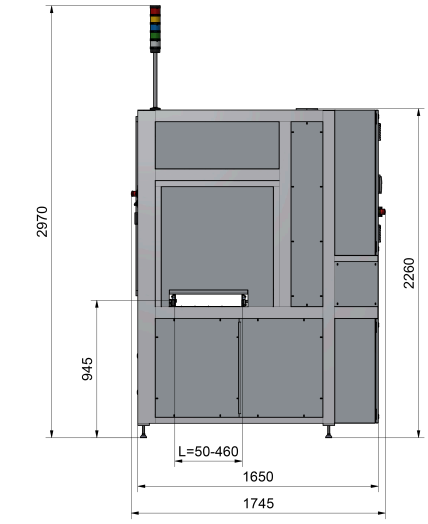


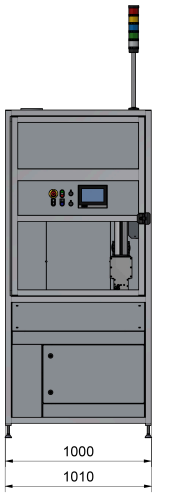
Freiraum für Wartung
space for service

Freiraum für Wartung
space for service

L: Arbeitsbreite
Working width

PM 500





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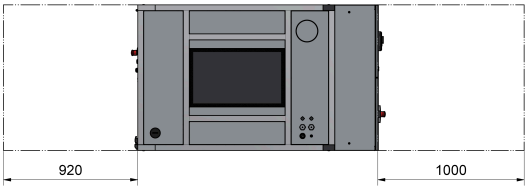
Transporting direction



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System Installation

1. Cleaning system
2. Upstream process
3. Suction and filter unit
4. Control cabinet
5. Front panel
6. Product output
7. Downstream process

Options

- **Component-specific cleaning system:** adaptation of the cleaning system to the component according to cleaning requirements
- **Programme module:** Component-dependent cleaning programmes with recipe management and parameter control functions.
- **Automatic track width adjustment**
- **Monitoring bundle & TC CONTROL:** Extended monitoring package for the systematic recording of all process-relevant functions. TC CONTROL monitors the optimum speed range of the individual rotating nozzles to ensure a consistent cleaning result.
- **Operating and machine data recording:** Data recording and processing of operating and machine data with a link to the production control system (MES).
- **Automatic gates** at the input and output of the machine
- **Clean room**: The system can be configured for use in clean rooms