

Campus B - Manufacturer-independent intensive training

Theoretical part (E-learning online)

B/1 Basic knowledge

Cleaning in the electronics industry

- Cleaning goods and contamination
- Reasons for cleaning
- Influencing factors on the cleaning process
- Cleaning processes
- Cleanliness check
- Standards and norms

B/2 Basic knowledge

Cleaning chemistry

- Detergent groups
- Detergent properties
- pH value / Brix value / Conductance
- Detergent control and analysis
- Water quality

B/3 Basic knowledge

Cleaning processes

- Cleaning circle
- Process responsibilities
- Sequences of cleaning processes
- Process parameters

B/4 Special knowledge

Stencil cleaning

- Stencil types
- Reasons for stencil cleaning
- Contaminations
- Cleaning methods
- Cleaning process
- Cleanliness check

B/5 Special knowledge

Tools cleaning

- Tool types
- Reasons for tools cleaning
- Contaminations
- Cleaning methods for solder frames, -masks, -carriers, condensate traps, -filters, machine parts
- Cleaning process

B/6 Special knowledge

PCBA cleaning

- Reasons for PCBA cleaning
- Contaminations
- Cleaning methods
- Climate-safe PCBAs
- Cleaning process
- Cleanliness check
- Standards and norms

B/7 Special knowledge

Wastewater treatment

- Water shortage
- Conservation of resources
- Difference between direct and. indirect discharge
- Wastewater pollution
- Wastewater analysis
- Options for wastewater treatment

Practice day 1 (at kolb Headquarter)

08:30 a.m.	Welcome coffee
09:00 a.m.	Repetition of important contents of the theoretical part
10:00 a.m.	Coffee break
10:15 a.m.	<p>Seminar B/2 Practice 1 // Basic knowledge - Cleaning chemistry</p> <ul style="list-style-type: none"> • Characteristics and differences of detergents: You will gain in-depth knowledge through exciting insights through exciting experiments in order to better assess the behavior of different different cleaners in use. • Practical application of modern measurement technologies: You will learn how to use various measuring devices to determine parameters such as pH value, Brix value and conductivity.
12:15 p.m.	Lunch
01:00 p.m.	Company tour
01:30 p.m.	<p>Seminar B/2 Practice 2 // Basic knowledge - Cleaning chemistry</p> <ul style="list-style-type: none"> • Efficient cleaner control: You will learn proven methods for analyzing and evaluating the condition of cleaners to ensure sustainable use.
02:45 p.m.	Coffee break
03:00 p.m.	<p>Seminar B/4 Praxis // Special knowledge - Stencil cleaning</p> <ul style="list-style-type: none"> • Understand contamination: You will analyze the formation of contamination using a practical demonstration of the stencil printing process. • „Man vs. machine“: You will compare cleaning techniques in an interactive competition between manual and machine cleaning. • Precise cleanliness inspection: You carry out a microscopic inspection, evaluate the cleaning result in detail and learn which decisive criteria are important.
04:45 p.m.	Q&A / Feedback
05:15 p.m.	End of day 1
06:45 p.m.	Evening event: Dinner together

Practice day 2 (at kolb Headquarter)

08:30 a.m.	Welcome coffee
09:00 a.m.	<p>Seminar B/5 Practice // Special knowledge - Tools cleaning</p> <ul style="list-style-type: none"> • Inspection before cleaning: You inspect a condensate trap for typical contamination. • Demonstration of the cleaning process: You will learn how to load cleaning systems in a targeted manner and receive valuable recommendations on procedures and processes for maximum effectiveness.
10:15 a.m.	Coffee break
10:30 a.m.	<p>Seminar B/6 Practice // Special knowledge - PCBA cleaning</p> <ul style="list-style-type: none"> • Targeted pre-analysis: You identify flux residues and other contaminants on PCBAs before cleaning. • Cleaning process in real time: You monitor and evaluate the condition of the contaminants during the cleaning process. • Detailed cleanliness inspection: You carry out a microscopic inspection and also use other tools within the framework of current standards and norms to precisely assess the cleaning results.
12:00 p.m.	Lunch
01:00 p.m.	<p>Seminar B/7 Practice // Special knowledge - Wastewater treatment</p> <ul style="list-style-type: none"> • Innovative technologies: During a demonstration, you will learn about the functionality and benefits of a wastewater treatment module with several filtration stages. • Heavy metal coagulation: You observe crucial steps in the removal of heavy metals from wastewater. • Wastewater analysis: You will learn how to analyze and interpret wastewater samples.
02:30 p.m.	Q&A / Feedback
03:00 p.m.	Issue of certificates of attendance as well as a handout of the training content in digital form
03:30 p.m.	End of day 2 and departure