



Fraunhofer
IPA

Cleanliness technology seminar
Expert for Technical Cleanliness in Assembly VDA 19.2
• Dates on request

Expert for Technical Cleanliness in Assembly

VDA Volume 19 Part 2 –
Technical Cleanliness in assembly

VDA QMC

German Association of the Automotive Industry
Quality Management Center

Introduction

Technical cleanliness is an important quality characteristic for all functional and safety-relevant components in automotive engineering. VDA Volume 19 Part 2 deals with key influencing factors related to environment, logistics, staff and assembly equipment that can lead to (re)contamination of parts and assemblies during the production process. Participants will learn how to approach technical cleanliness systematically, uncover inefficient cleaning activities and avoid unprofitable investments.

The training is aimed at specialists and managers who are engaged in technical cleanliness, such as assembly and process scheduling, logistics, facility management, product quality, customer and supplier support, as well as design and development.

We warmly invite you to attend the training and looking forward to hearing from you soon.



Dr.-Ing. Markus Rochowicz
Research Team Leader Cleanliness Technology

The event at a glance

Lecture Day

- Methodology and approaches for improving the technical cleanliness of products
- Design of the manufacturing environment and personnel measures
- Logistics: packaging, transportation, storage and airlock concepts from a cleanliness perspective
- Clean assembly facilities: Workstations and systems, joining processes, assembly strategies
- Measurement of cleanliness influences

Exercise and Examination Day

Exercises

The practical part is divided into a planning example, which is worked out and presented by the participants themselves, as well as practical exercises in the Fraunhofer IPA laboratory:

- Differences between clean zone, clean room and cleanroom
- Cleanliness-oriented behavior and appropriate work clothing
- Evaluation and selection of different packaging variants
- Design of lock concepts
- Optimization and evaluation of assembly processes, workstations and systems
- Measurement of particles from the environment, in systems or at processes

Test

Written test (multiple choice) with 30 questions

Certificate of Qualification

Digital Certificate VDA QMC and Fraunhofer IPA
"Expert for Technical Cleanliness in Assembly"

Program

Theory Day

- 9:00 a.m. **Welcome and introduction of the participants**
- 9:30 a.m. **Introduction and conception of clean production**
Background and application area
- 10:30 a.m. Coffee Break
- 11:00 a.m. **Environment**
Selection of the production environment
- 11:45 a.m. **Logistics**
Packaging, storage and airlock concepts
- 12:30 p.m. Lunch Break
- 1:30 p.m. **Personnel**
Clothing and behavior
- 2:00 p.m. **Assembly equipment**
Joining processes, systems and workstations, cleaning
- 3:00 p.m. Coffee Break
- 3:30 p.m. **Measurement of cleanliness influences**
Environment, processes, liquids
- 4:00 p.m. **Case study**
Application of VDA Volume 19 Part 2 in practice
- 4:30 p.m. **Final discussion**
- 5:00 p.m. End of the day

Examination Day

- 8:30 a.m. **Welcome and division into groups**
- 8:45 a.m. **Working on a planning example* in groups**
 - New planning of a clean assembly
 - Optimization of an existing assembly area
- 09:45 a.m. Coffee Break
- 10:00 a.m. **Group 1:** Presentation and discussion of the planning examples
Group 2: Inspection of the production environment, logistics and personnel stations in the technical center
- Group 2:** Presentation and discussion of the planning examples
Group 1: Inspection of the production environment, logistics and personnel stations in the technical center
- 12:30 p.m. Lunch Break
- 1:30 p.m. **Group 1:** Test (multiple choice)*
Group 2: Inspection of the stations assembly facilities and measurement of cleanliness influences
- 2:45 p.m. Coffee Break
- 3:00 p.m. **Group 1:** Inspection of the stations assembly facilities and measurement of cleanliness influences
Group 2: Test (multiple choice)*
- 4:15 p.m. **Closing discussion**
- 4:45 p.m. **Anticipated end**

* The following aids are permitted for working on the planning examples and for the test: VDA 19.2, seminar documents, calculator



Seminar leader and speakers

Keynote speaker

Dr.-Ing. Markus Rochowicz

Research Team Leader Cleanliness Technology
Fraunhofer Institute for Manufacturing Engineering
and Automation IPA, Stuttgart, Germany

Speakers

Dipl.-Wirt.-Ing. Patrick Brag

Cleanliness Analysis and Personal Training
Fraunhofer Institute for Manufacturing Engineering
and Automation IPA, Stuttgart, Germany

Ann-Katrin Großmann, MBE

Project Manager of Cleanliness Technology
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Yvonne Holzapfel

Head of the Cleanliness Laboratory
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Registration and Event Management

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Organisational details



Registration, change of registration and cancellation

The registration can be changed and transmitted to another participant free of charge. Please inform us about any change in writing. Please understand that cancellation up to 10 days before the start of the event will be charged with € 100, after this date the full price fee will be due.

Participation fees

The participation fee is **€ 1.750,-** per person.

This fee includes: Digital Certificate VDA QMC and Fraunhofer IPA, seminar documents, a VDA Volume 19.2, joint lunch, snacks and drinks

Event location

Fraunhofer IPA
Nobelstrasse 12, 70569 Stuttgart, Germany

Imprint

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How to find us

<https://www.ipa.fraunhofer.de/en/contact.html>

You can park your car free of charge in the parking garage of the Fraunhofer Institute Center on the days of the seminar.

Travel sustainably

The Fraunhofer IPA is easily accessible by environmentally friendly means of transportation such as bus and train. If possible, please avoid traveling by plane. If you need overnight accommodation, we will be happy to recommend you accommodation near the institute.

Below you will find an exemplary list of organizations that offer opportunities to compensate your carbon footprint:

- Primaklima
- atmosfair
- MyClimate
- Klima Kollekte

Accommodation service

If you need a hotel room during your stay in Stuttgart, please contact:

Tourist Information i-Punkt

Phone +49 711 22 28-100

<https://www.stuttgart-tourist.de/uebernachten-stuttgart/hotels-stuttgart>

Antitrust notice

As the organizer, we would like to point out that the exchange of information between companies may be relevant under antitrust law and that anti-competitive agreements and practices are prohibited. Each participant in the event is responsible for compliance with antitrust regulations.



Event Organizer

**Fraunhofer Institute for Manufacturing
Engineering and Automation IPA**

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