**Location:** University of Twente campus
Drienerlolaan 5
7522NH Enschede

**Room:** Spiegel 5
(Building on the left of the entrance to the campus)

**Date:** November 20, 2014

**Time:** 08:30 h – 16:30 h

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**Directions:**
The University of Twente campus is well-indicated when coming from the highway A35. Entering the campus at the main entrance, the Spiegel building is directly on the left. Use the entrance at 'Beveiliging & Infocentrum' and meet us at the first room on the left.

The seminar is free of charge. Lunch and coffee breaks are served free of charge.

Binding registration can be done online, see
www.bubclean.nl/seminar-20nov2014
(Dutch participants) or
http://gke.eu/en/event-dates.html
(German participants).

The number of participants is limited, we recommend registering early. In case of overbooking you will be informed immediately.

Seminar language: English

## Organized by:

- BuBclean, Enschede
- ***gke***-GmbH, Waldems-Esch, Germany

in cooperation with

- University of Twente

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## Speakers:

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National Sales Manager, ***gke***, DE

**Dr. Bram Verhaagen**
CEO, BuBclean, NL

**Dr. David Fernandez Rivas**
CTO, BuBclean, NL

BuBCLEAN

and

gke
Cleaning and Sterilization Monitoring

in cooperation with

UNIVERSITY OF TWENTE.

# 20th November 2014

## Cleaning and Sterilization Processes

**Process design, Process monitoring, Technical and Legal Aspects**

**Target of the seminar:**

The seminar is tailored to persons in health care and industry who are responsible for cleaning and/or sterilization processes, for example in sterilization departments (CSSD), operation theatres, hygienic departments, dental clinics, laundry services, research facilities, etc.

The technology of cleaning and sterilisation has dramatically changed during the last 20 years. The practice of manual cleaning has been replaced by automated cleaning, e.g. with Washer-Disinfectors (WDs). At the same time the construction and the diversity of the goods, e.g. of surgical instruments and precision mechanical items, has become more complex. Cleaning and sterilization processes today are more complex and difficult than before. This development has increased the risk of malfunctions.

In this seminar we will present the latest developments in cleaning and sterilization techniques, as well as the most recent developments in ISO standards and the EU's Medical Device Directive (MDD), and how to comply to them.

# Agenda

**8:30** **Coffee and welcome**

**9:00** **Critical variables in cleaning processes**
- Instrument design
- Contaminants of instruments
- Pre-treatment of instruments before cleaning
- Cleaning agents
- Cleaning mechanisms
- Typical WD cleaning procedures
- Definition of the A0-value in thermal disinfection in a WD

**10:00** **Coffee break**

**10:30** **Cleaning Monitoring**
- Definition "Clean" and "Disinfected"
- Complexity of monitoring
- Contamination on surfaces and flushing canals
- Current situation in the standards: ISO 15883
- Protein test methods
- Tests with ***gke*** Cleaning indicators
- Tests comparing standard test soils according ISO 15883-5 and ***gke*** *Clean-Record*® Test Systems in the ***gke*** spray test rig

**11:30** **Cleaning Processes in Ultrasonic Baths**
- Working principle
- Possibilities and limitations
- Considerations for optimal use
- Test of ultrasonic cleaning basins

**12:30** **Lunch**

**13:15** **Physical basics of steam sterilization processes**
- Heat transfer into packs with goods
- Air removal and steam penetration

**Potential problems in steam sterilization processes**
- Insufficient air removal
- Leakages
- Non condensable gases (NCG) in steam

**Specific problems during sterilization of complex goods like minimal invasive surgical (MIS-) instruments and tubes with small diameters**
- Dependence on length, diameter and material
- Sterilization of narrow splits
- Use of protecting and lubricating agents

**14:30** **Coffee break**

**15:00** **Routine monitoring**
- Bowie-Dick-Test
- Process indicators

**Use of Medical Device Simulators (MDS) and Batch Monitoring Systems (BMS)**
- Definition: MDS, BMS
- Application of
  - MDS to prove sterility of MDs
  - BMS for batch monitoring

**16:00** **Final Discussion**

**16:30** **End of the meeting**