



Roediger

Innovative Vacuum Sanitation Systems



# Hospitals and Nursing Homes

A brand of  
Aqseptence Group



# Competence comes from experience

Roediger® – A brand of Aqseptence Group

We are proud of our heritage and almost 200 years of consistent company history which provided us with a wealth of experience. As a constant innovation leader we sparked the gas and sanitation, as well as decades later, the water treatment industry.

For more than 40 years, Roediger has focused its business activities solely on Vacuum Technology Systems. A segment of wastewater industry where we are setting the standards for reliability and performance, for a few years now in alliance with our affiliate Airvac in the USA.

Hospitals have been among our first customers for the revolutionary vacuum sanitation application that made it possible to transport radioactive wastewater safely to a decay plant. The ability to reduce this wastewater significantly was one of the technological foundations for the successful, global spread of the nuclear cancer treatment therapy.

Thus exposed to the most challenging of all environments with the most vulnerable patients, we learned how to design and build simple and reliable Vacuum Sanitation Systems that are keeping the bio-hazards of wastewater at bay.

Simply said: We are providing the most hygienic Sanitation Systems in the world!



Cover: Klinikum Merheim, ©Kliniken Köln/Holger Knauf  
Page 2/3: Shutterstock

## The challenge – How to design hospital restrooms without exposing patients, staff and environment to these hazards:

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### A biological hazard

This is a biological substance, a state, or an event which has the potential to threaten the surrounding natural environment.

In hospital restrooms this means: Bacteria and viruses in the toilet, wash basin, shower, siphons and aerosols. Stool samples e.g. are regarded as S-3 material.



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### A health hazard

This is a serious threat to your health and may attack your respiratory system and organs.

In hospital restrooms this means:  
The bacteria and virus spread via aerosols from water flushing systems.



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### An environmental hazard

This is a substance, a state or an event which has the potential to threaten the surrounding natural environment.

In hospital restrooms this means: All the wastewater is polluted with high loads of pharmaceutical residues.

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# The flexible fit for all possible challenges:

## Roediger Vacuum Sanitation Technology

When we describe our Vacuum Sanitation Technology, we always mention first the extraordinary capability to meet all requirements. By combining two key elements, we can accommodate every design task:

- We can lift wastewater up to 4.5 m
- We can transport wastewater in a horizontal scope over very long distances

This flexibility is the answer to every architect's dream: Restrooms may be situated where they are needed, floors may be designed for totally different uses and restructuring will not affect other areas of the building.

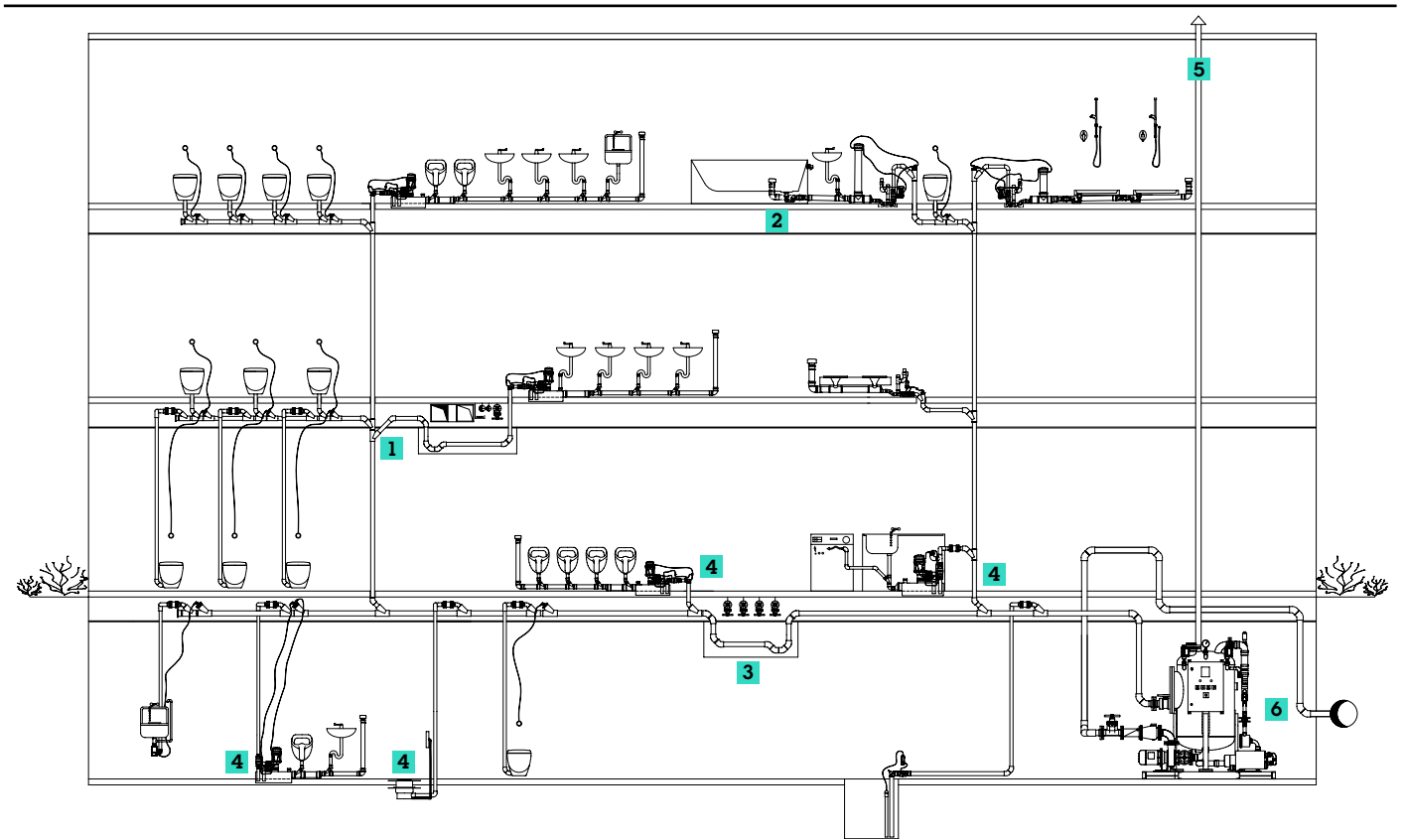
For hospitals, this means the utmost freedom for the use of their buildings. Isolation wards, operation facilities and Intensive Care Units may now be placed where they are needed and evacuated with a vacuum system, they are no longer exposed to bio-hazardous wastewater contaminations. As isolated sections they offer the opportunity to send this wastewater for a specific pre-treatment, or even final treatment, according to the requirements of the sanitary situation.

All different areas of a hospital may be fitted according to hygienic specifications and not to building requirements.

Simply said: We are providing the best sanitation solutions for your hospital!



Al Ahmadi Hospital, Kuwait ©Alamy



**1**  
**Lifting wastewater**  
 up to 4,50 m high –  
 above suspended ceilings

**2**  
**Horizontal transport**  
 with minimum slope –  
 ideal for long distances

**3**  
**Circumventing obstacles**  
 over or under obstacles –  
 enables flexibility of pipe routing

**4**  
**Evacuation units**  
 for all kinds of wastewater in the building

**5**  
**One ventilation pipe**  
 required for the whole drainage system  
 of the building

**6**  
**One wastewater outlet**  
 for the whole building – without any  
 additional back-flow prevention



# The entrance to a new hygienic level:

## The Roediger Evacuation Units

While the flexibility of our Vacuum Sanitation System is delighting architects and MEP designers, the ultimate new hygienic standard is what doctors and nurses are looking for. All conventional flush systems are creating a bio-hazardous aerosol cloud when used.

Many people already know the toilet plume that can spread bacteria and viruses over several meters in a restroom. Less known is the fact that this recoil phenomenon also occurs with wash basins and showers. The air over the siphon barrier is propelled out of the wastewater pipe when water flows in spreading all kinds of germs.

Our Vacuum Toilets e.g. are not producing a toilet plume. Via a permanently evacuated pipe system, vacuum toilets simply suck in the wastewater when flushed. No spray, no aerosols – a true one-way-street for bacteria and viruses. Wash basins and showers may be connected without siphons to our vacuum evacuation units, effectively reducing the spread of germs.

The hygienic impact of our Vacuum Sanitation Systems reaches even further. We avoid the dangerous cross contaminations from room to room and even a leakage will not lead to a contamination as the entering air is blocking the pipe.

Simply said: We are providing the hygienic future for your hospital!



Charité Campus Virchow Klinikum, Berlin ©Fridolin freudenfett

## Challenge answered: The hygienic and safe Roediger wastewater systems for hospitals and nursing homes!

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### No biological hazard!

The Roediger-Airvac Vacuum Toilet is not spraying bacteria and viruses!



### No health hazard!

The Roediger Vacuum Evacuation Units suck wastewater in without creating aerosols!



### No environmental hazard!

The Roediger-Airvac Vacuum Evacuation Units prevent the dangerous Cross-Contaminations!



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