

Systematic Drinking Water Hygiene: simple, safe, predictable.

KEMPER Design Assistance KHS



More values. One system. KEMPER KHS.

Personal, efficient and with expertise: this is how we support you in design.

The KEMPE hygienic po Extremely stewardship For us, per

The KEMPER Hygiene System KHS provides hygienic potable water in all types of building. Extremely efficiently, with good resource stewardship and simply predictable.

For us, perfect service is always part of a pioneering solution. If necessary, we therefore support you personally in the design or

refurbishment of a hygienic potable water supply for all types of building, for example hospitals, old people's or residential homes, hotels, schools or residential buildings.

KEMPER Services – Our Building Blocks for Your Success:



Personal service for our products



Technical troubleshooting and on-site service for systems and products



Commissioning/maintenance of KTS and KHS systems



Telephone support from our Customer Services



Training courses for specialist tradesmen in our Training Centre



Our Technical Customer Services can be contacted here

Product data: digital and state-of-the-art.

Digital design:

simple and cross-manufacturer

It is often extremely laborious and timeconsuming to seek out the product data you need from various manufacturers on their websites and in catalogues and bring it together manually. But there's a clever solution for this: product data on demand, pdod for short. Because with pdod you are conducting your product data research in the digital fast lane. pdod is the first crossmanufacturer service to make product data from notable building product manufacturers available for free from a single source.

Access the pdod product data platform here: www.pdod.de

Product data in accordance with VDI 3805 We at KEMPER supply our product data in accordance with VDI 3805. We ensure that the data is always developed according to the new regulations and is up-to-date. This is how we ensure that you can always design, calculate and draw with correct and suitable product data.



Find our product data here as per VDI 3805

Building Information Modelling (BIM): an overview of all data at all times.

From design and the start of construction right up to Facility Management – thanks to the comprehensive digital depiction of our products for use in suitable BIM systems, hygienic potable water supply becomes an integral part of the life cycle: from error-free design through smooth installation right up to operation, monitoring and maintenance.



BIM-compliant Design with KEMPER: Get in touch with your regional contact



Predictable Safety and Efficiency: systematically, of course.

The principle of the KEMPER Hygiene System KHS

The overall system ensures reliable adherence to hygiene requirements in drinking water installations in buildings in which a large number of bathrooms are needed – for example, hospitals, schools or hotels.

The basis of our solution is the further development of the conventional series installation into a loop installation. In this case installation, the pipe is conducted back to the manifold after the last tapping point and connected by our patented KHS Flow-Splitter part.

The system comprising innovative valve technology and intelligent pipe routing prevents stagnation and the resulting impairment of drinking water quality. In this way, the KEMPER Hygiene System KHS always ensures fresh potable water at every tapping point. And naturally, this is extremely economical and resource-friendly.

More values. One system. KEMPER KHS.

The KHS Flow-Splitter as the heart of the system

The Flow-Splitter works without additional auxiliary energy, noiselessly and maintenance free. In the installation, natural draw-offs at downstream points or automated processes ensure the regular exchange of the water in all incorporated pipes.

The main volume flow is split into a loop volume flow and a through volume flow with a minimal pressure difference by the Venturi valve in the flow-splitter. An additional component in the Flow-Splitter dynamically ensures maximum flow even with the lowest volume flows both in the distribution pipes of the connected loops and in the riser.

The overall installation therefore ensures water exchange several times a day in all connected loop pipes: without wasting potable water from extensive flushing measures on the otherwise many flush valves or Hygiene Flush Boxes. Bacteria growth is prevented, the potable water remains fresh, cold and hygienically pure.





Find more information about the KEMPER Hygiene System KHS here

Clear and customisable: our design drawings for all cases.

Always the right branch diagram for your construction project. On the following pages of our KEMPER Design Assistance KHS you will find branch diagrams for various building types that will greatly facilitate design for you: for design drawings and as the perfect foundation for your design.

The diagrams shown are directly linked to Dendrit STUDIO. This means that you can use

the examples as a digital starting point and efficiently adapt it to your individual projectspecific circumstances.



Our branch diagrams can also be downloaded as DWG files

Overview of Branch Diagrams

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- **/0**8 Hospital/Care Home | vertical
- Hospital/Care Home | vertical | with cold water circulation
- Hospital/Care Home | horizontal
- Hospital/Care Home | horizontal | with cold water circulation
- 46 Student Hall of Residence/Old People's Home | vertical
- Student Hall of Residence/Old People's Home | vertical | with cold water circulation
- 20 Hotel | vertical
- Hotel | vertical | with cold water circulation
- 24 School | horizontal
- **26** School | horizontal | with cold water circulation
- Z8 Kindergarten | horizontal
- Z8 Kindergarten | horizontal | with cold water circulation
- _30 Laboratory | horizontal
- Baboratory | horizontal with cold water circulation
- 34 Residential Building | vertical
- **B** Residential Building | vertical | with cold water circulation
- 38 Sports Facility | horizontal
- 40 Sports Facility | horizontal | with cold water circulation

Useful Design Tips

System Safety with KHS Flow-Splitters If the last bathroom in a KHS system is implemented as a series installation, shutting off the connection area (e.g., due to maintenance) means that the subsequent system technology can no longer be operated safely. By installing a KHS Flow-Splitter in this bathroom, too, operation of the system can be ensured even if the bathroom is shut off.



CoolFlow Ready?!

A domestic water installation with A/B valve technology (A valve releases the flushing flow path of a section; B valve = central, terminal flush valve) can be expanded into a KHS CoolFlow cold water circulation with little work! In addition to the minor additional pipework on the through cooling system, the A valves can be replaced by KHS CoolFlow cold water balancing valves.



Efficient Water Use!

Use natural, downstream consumptions to encourage water exchange in stagnation areas and reduce temperatures. Connect frequently used installation areas or fixtures (e.g., bedpan washers) behind the flow-splitter installation.



Conserve Resources with ECO Water! Intercept and re-use flushing volumes centrally.

Sustainable usage of the resource of potable water, for example by watering green areas or supplying WCs with ECO water.



Calculate the savings potential with our online tool.

Hospital/Care Home

Vertical distribution pipe



Dendrit STUDIO Smart Block: Hospital/Care Home - vertical





Hospital/Care Home with cold water circulation

Vertical distribution pipe



1.

Dendrit STUDIO Smart Block: Hospital/Care Home - vertical PWC-C





Hospital/Care Home

Horizontal distribution pipe



Dendrit STUDIO Smart Block: Hospital/Care Home - horizontal





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Hospital/Care Home with cold water circulation

Horizontal distribution pipe



CoolFlow Chiller

Figure 618 01

Figure 615 0G



1.

Dendrit STUDIO Smart Block: Hospital/Care Home - horizontal PWC-C





KHS control systems Figure 686 02 008 Figure 686 02 006



Student Hall of Residence/Old People's Home

Vertical distribution pipe



Dendrit STUDIO Smart Block: Student Hall of Residence/Old People's Home Vertical







Student Hall of Residence/Old People's Home with cold water circulation

Vertical distribution pipe



Dendrit STUDIO Smart Block: Student Hall of Residence/Old People's Home vertical – PWC-C



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Hotel

Vertical distribution pipe



Dendrit STUDIO Smart Block: Hotel – vertical





Hotel with cold water circulation

Vertical distribution pipe



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Dendrit STUDIO Smart Block: Hotel – vertical – PWC-C

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1.

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School Horizontal distribution pipe









School with cold water circulation

Horizontal distribution pipe







Kindergarten

Horizontal distribution pipe



Kindergarten with cold water circulation

Horizontal distribution pipe



Dendrit STUDIO Smart Block: Kindergarten – horizontal



Dendrit STUDIO Smart Block: Kindergarten – horizontal – PWC-C



KHS control systems Figure 686 02 008 Figure 686 02 006



Laboratory

Horizontal distribution pipe



Dendrit STUDIO Smart Block: Laboratory - horizontal





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Laboratory with cold water circulation

Horizontal distribution pipe



1.



Dendrit STUDIO Smart Block: Laboratory – horizontal – PWC-C



KHS control systems Figure 686 02 008 Figure 686 02 006



Residential Building

Vertical distribution pipe



Dendrit STUDIO Smart Block: Residential Building – vertical





Residential Building with cold water circulation

Vertical distribution pipe



1.

Dendrit STUDIO Smart Block: Residential Building – vertical – PWC-C



Sports Facility

Horizontal distribution pipe





Dendrit STUDIO Smart Block: Sports Facility – horizontal









KHS control systems Figure 686 02 008 Figure 686 02 006

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Sports Facility with cold water circulation

Horizontal distribution pipe



Dendrit STUDIO Smart Block: Sports Facility – horizontal – PWC-C



Note: Gebr. Kemper GmbH + Co. KG rules out its liability due to negligence for use of the calculation service provided with the help of the Dendrit software program. The same applies to breaches of duty by legal representatives or vicarious agents. Gebr. Kemper GmbH + Co. KG explicitly recommends that the transmitted calculation and the associated attachments be checked without undue delay before being used. It is explicitly pointed out that a deviation from the basic data transmitted and used by the inquirer for the calculation is at the inquirer's own risk. The inquirer is aware that the calculation result changes with a deviation, meaning that another review is essential. Furthermore, the inquire undertakes to exempt Gebr. Kemper GmbH + Co. KG from third-party claims asserted by them due to damages associated with the calculation provided by Gebr. Kemper GmbH + Co. KG.

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Read our references if you need any more convincing!



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