



REFERENCES BUILDING TECHNOLOGY



DRINKING WATER HYGIENE, WATER EFFICIENCY, WORLDWIDE.

FOR YOU!

KEMPER has been taking a holistic approach to drinking water hygiene in buildings since 2007. In addition to the hygiene system KHS, the product portfolio includes balancing valves for hot water circulation systems, the ThermoSystem KTS for efficient and hygienic hot water heating, extremely robust stop valves and valves for protecting drinking water against pollution by backflow of non-drinking water

In line with our brand claim, DRIVING PROGRESS, KEMPER works together with scientific research institutes, and uses the gained know-how for further development of products.

Examples of this are the possibility to network our hygiene system KHS with the building management system via a gateway, and our thermal separator for the thermal separation of wall taps from cold-water pipes. Active cold water cooling with CoolFlow is another of our innovations in drinking water hygiene.

OUR RESPONSIBILITY IS TO MAINTAIN DRINKING WATER HYGIENE

KEMPER valves and systems are used in building technology wherever the highest demands are placed on quality, safety and durability. They help everyone involved in construction to fulfil their obligations to protect the drinking water installation users.

This brochure contains references (listed by type of use) for the following KEMPER product groups:

// KHS:

Maintaining drinking water hygiene with the KEMPER Hygiene System KHS

// KTS:

Centralised or decentralised hygienic hot water heating with the KEMPER ThermoSystem KTS

// Balancing valves:

Thermostatic or static regulating valves for hydraulic balancing of hot water circulation systems

// Stop valves and safety valves:

Durable, technically mature valves for safe system operation

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Hospitals

Highlights



Armona Medical Resort, Thiersee / Austria

| | |
|---------------|-----------|
| Construction | 2014 |
| Building type | New build |
| Product group | KHS / KTS |

In this private clinic, medical functionality goes hand in hand with high levels of comfort. The equipment is state of the art in terms of science and medical technology. So it was only logical that the designers and operators should pay particular attention to the hygienic quality of the drinking water installation: KHS Flow-Splitters and hot water heating with the KEMPER ThermoSystem effectively prevent stagnation.

Klinikum am Steinberg, Reutlingen / Germany

| | |
|---------------|---------------------------|
| Ausführung | 2010-2015 |
| Objektart | Refurbishment / new build |
| Produktgruppe | KTS |

Together with the Emstalklinik in Bad Urach and the Abteiklinik in Münsingen, the Klinikum am Steinberg in Reutlingen belongs to the group of hospitals operated by Kreisklinikum Reutlingen GmbH. With over 100 beds on six floors, numerous surgeries, laboratories and much more, it is the academic teaching hospital of the University of Tübingen



DIAKO Evangelisches Diakonie-Krankenhaus, Bremen / Germany

| | |
|---------------|--|
| Construction | 2015 |
| Building type | Refurbishment |
| Product group | KTS / balancing valves/ stop valves and safety valves |

The refurbishment of this hospital's drinking water heating system presented a special challenge. The hospital's ongoing operation made it necessary to replace three systems at the same time, without any noticeable interruption of operation. With a system design based on measurement data and extensive prefabrication including system parameterisation, the contracting company, Peinemann + Sohn from Bremen, was able to carry out the conversion in just one night.



Carl Gustav Carus University Hospital, Dresden / Germany, university hospital house 32

| | |
|---------------|-----------|
| Construction | 2015 |
| Building type | New build |
| Product group | KTS |

In the university hospital, the surgical emergency department was combined with an operating centre, outpatient departments and a nursing ward in a new building. Designing focused on a compact surgical emergency department with the best possible medical care and optimised logistics and business processes. Also integrated into the new building: radiology, 17 operating theatres, an intensive care unit with 30 beds, interdisciplinary outpatient departments and a nursing ward with 90 beds.



Hotels

At a glance



Intercontinental Hotel, Davos / Switzerland

| | |
|---------------|--|
| Construction | 2013 |
| Building type | New build |
| Product group | KHS / balancing valves/ stop valves and safety valves |

This luxury hotel, also known as the "Golden Egg" because of its characteristic shape and colour scheme, was opened in 2013. It stands in the Stilli area on the north-eastern outskirts of Davos, close to the road to the Flüela Pass. The building cost 250 million Swiss francs (around 200 million euros) and has 216 luxurious rooms and suits and 38 condominiums.

Holiday Inn Dusseldorf City Toulouser All. Düsseldorf / Germany

| | |
|---------------|---|
| Construction | 2020 |
| Building type | Retrofit |
| Product group | KHS / balancing valves and stop valves |

The 209 rooms in this four-star hotel are spread over six floors. All the building-services-related supply and disposal lines are laid together in a high vertical shaft installation. The level of heat transmission to the cold water installation was making extensive flushing measures necessary – especially in conjunction with the increased cold water inlet temperatures in summer. The use of KHS CoolFlow makes temperature-controlled flushing unnecessary and significantly conserves drinking water.



Source: www.ihg.com

Sofitel, Frankfurt am Main / Germany

| | |
|---------------|--|
| Construction | 2014-2015 |
| Building type | New build |
| Product group | KTS / balancing valves/ stop valves and safety valves |

In a premium location on the Opernplatz, surrounded by the greenery of the LieslChrist-Anlage parkland, Gründerzeit buildings and haute couture boutiques, an elegant and luxurious town house was built – a house in which art, design and architecture are exquisitely interlinked. The hotel's features include 31 suites with luxury bathrooms.



München Airport Marriott Hotel, Freising / Germany

| | |
|---------------|---------------|
| Construction | 2013 |
| Building type | Refurbishment |
| Product group | KTS / KHS |

A brief description of the Munich Airport Marriott Hotel might be: 252 rooms, four floors, 4000 square metres and four stars. Thanks to its excellent transport connections, this ultra-comfortable hotel in Freising is ideally suited for business meetings. And it offers 1300 square metres of flexibly configurable event space for conferences.



Sports and leisure facilities

In short



Footbonaut-Hall TSG Hoffenheim, Zuzenhausen / Germany

| | |
|---------------|-----------|
| Construction | 2013 |
| Building type | New build |
| Product group | KHS |

High-tech training with a football machine: before TSG 1899 Hoffenheim, Borussia Dortmund was already training with the Footbonaut in its own sports hall. The high-tech machine helps the players to improve their reactions and marksmanship and evaluates all sorts of data on the players' training success. The Footbonaut hall in Zuzenhausen has a floor space of 28 x 42 metres and is 7.60 metres high. The video analysis equipment is housed in the two-storey annexes.

Municipal Theatre, Osnabrück / Germany

| | |
|---------------|---------------|
| Construction | 2012 |
| Building type | Refurbishment |
| Product group | KTS |

The Theater Osnabrück (originally the Stadt-Theater) is a theatre of five parts (concert, drama, music and dance theatre, and youth theatre) in Lower Saxony in Germany. It is run by the Städtischen Bühne Osnabrück GmbH. The main venue is the Art Nouveau Theater am Domhof, which has 642 seats.



Continental Arena, Regensburg / Germany

| | |
|---------------|-----------|
| Construction | 2015 |
| Building type | New build |
| Product group | KTS |

The Continental Arena is a football stadium in Regensburg. It holds 15,224 spectators and replaced the Jahnstadion as the home of the SSV Jahn Regensburg football club at the start of the 2015/16 season. Alongside Jahn's offices, the Upper Palatinate district office of the Bavarian Football Association and the FIFA Medical Centre Regensburg are also tenants of the stadium's functional building. The automotive supplier Continental has owned the naming rights to the stadium since 2015.



Rotherma Saune Park, Gaggenau / Germany

| | |
|---------------|-----------|
| Construction | 2014 |
| Building type | Extension |
| Product group | KTS / KHS |

These thermal baths include a vitality and aroma bath, a large sauna park with a rock sauna and an ice grotto. On a footprint of almost 6000 m2, seven sauna cabins with different programme invite you to relax and enjoy a range of saunas from classic Finnish to Nature. Special features include the new park sauna with a view of the huge outdoor area and the rock sauna with integrated rock shower.



Care homes and nursing homes

A few examples



Caritas Centre, Waldhof, Mannheim / Germany

| | |
|---------------|-------------------------------|
| Construction | 2014-2015 |
| Building type | New build |
| Product group | KTS / KHS / Regulierarmaturen |

In brief, the Caritas Centre in Mannheim can be described as 31 accessible flats, 9 accessible penthouse apartments and 50 nursing-home places in a residential group concept with single rooms and common rooms. In addition to this, there is the St. Francis Catholic social centre, a day-care centre for senior citizens, the St. Vincent hospice and a café restaurant. The centre is also home to the Caritas social and migration services, the sister convent of Franciscan nuns and the citizens' service for the city of Mannheim.

DRK care home and nursing home, Eisenach / Germany

| | |
|---------------|--|
| Construction | 2009-2010 |
| Building type | New build |
| Product group | KHS / Regulierarmaturen / Absper- u. Sicherungsarmaturen |

In the German Red Cross's Justusstift retirement home, 70 elderly people in need of care are looked after and cared for in 56 comfortably furnished single rooms and seven two-bed rooms. The facility is located on the edge of Eisenach's city centre, at a stone's throw from the market square, the pedestrian zone, the state theatre and the Catholic St. Elisabeth Church.



Christinenstift care home and nursing home, Gifhorn / Germany

| | |
|---------------|-----------|
| Construction | 2009 |
| Building type | Extension |
| Product group | KHS |

The Christinenstift of the Diakonischen Altenhilfe Kästorf is conveniently located in the immediate vicinity of the Helios clinical centre in Gifhorn. It has 302 rooms – mainly single, double or married couples' rooms – whose bathrooms are fitted out to a high technical standard. The KEMPER Hygiene System prevents stagnation in the Christinenstift's drinking water installation.



Stiftung Zivilhospital Altenzentrum Oppenheim / Germany

| | |
|---------------|---------------|
| Construction | 2015 |
| Building type | Refurbishment |
| Product group | KTS / KHS |

The Oppenheim old people's centre follows in the tradition of the Stiftung Zivilhospital foundation, which has been caring for people in special circumstances for over 750 years. The foundation is supported by the town of Oppenheim and its Protestant and Catholic communities. Today, the Altenzentrum Oppenheim is a modern retirement centre with 135 care places in 6 residential groups, a residential home with 18 flats for assisted living, and an outpatient care service.



Nurseries / schools / universities

Some prestigious properties



DOSB – elite sports school, Oberhof / Germany



| | |
|---------------|---|
| Construction | 2010 |
| Building type | New build |
| Product group | KHS / balancing valves/ stop valves and safety valves |

The sports high school was designated an elite school by the DOSB (German Olympic Sports Confederation). The construction costs for the boarding school amounted to six million euros. The building is comprehensively equipped with a sauna, club rooms, comfortable double and four-bed rooms, rooms for medical care, drying rooms and weight rooms.

Max-Planck-Institute, Stuttgart / Germany

| | |
|---------------|---|
| Construction | 2015 |
| Building type | Refurbishment |
| Product group | KHS / balancing valves/ stop valves and safety valves |

The Max Planck Institute for Solid State Research is a non-university research institution under the auspices of the Max Planck Society. Together with the Max Planck Institute for Intelligent Systems, it is located in Bösau, Stuttgart. The Institute was founded in 1969 on the recommendation of the German Council of Science and Humanities, under the founding director Ludwig Genzel.



Goethe University, Frankfurt am Main / Germany

| | |
|---------------|-----------|
| Construction | 2014 |
| Building type | New build |
| Product group | KTS / KHS |

Goethe University is a leading research university in Frankfurt. Lively, urbane and cosmopolitan, it is a foundation university and thus has a high degree of independence. Established in 1914 by the citizens of Frankfurt as Germany's first foundation university, it is the country's third largest university with over 47,000 students (as of winter semester 2015/2016).



Königin-Mathilde-Gymnasium, Herford / Germany

| | |
|---------------|---|
| Construction | 2019 |
| Building type | New build / conversion |
| Product group | KTS / KHS / balancing valves/ stop valves and safety valves |

State-of-the-art technology also ensures Legionella prevention while conserving resources in the Königin-Mathilde-Gymnasium – even during periods without natural water consumption, for instance, during school holidays. As part of the renovation work in the 187-year-old building's science labs, the operator opted for a cold water circulation system using KHS CoolFlow. This maintains the entire drinking water installation at a hygienically safe temperature level < 25 °C all the way to the tapping point.



Source: www.koenigin-mathilde-gymnasium.de

Industrial buildings

At a glance



Laboratory building of Optics Balzer Jena GmbH, Jena / Germany

| | |
|---------------|-------------|
| Construction | 2013 - 2015 |
| Building type | New build |
| Product group | KTS |

Optics Balzer Jena, formerly mso jena, was founded in 1998 as a spin-off from the Fraunhofer Institute for Applied Optics and Precision Engineering IOF in Jena. The company focuses on the development and manufacture of high-performance optical interference filters for a wide range of applications. After 18 months' construction, Optics Balzers put the new production facility into operation in January 2015. A total of 7.5 million euros was invested in equipment and buildings.

Siegfried Hofmann GmbH, Lichtenfels / Germany

| | |
|---------------|-----------|
| Construction | 2020 |
| Building type | New build |
| Product group | KTS / KHS |

The Lichtenfels company is constantly growing. New buildings are being constructed, and the production areas are subject to increased thermal loads. These are problematic conditions for drinking water hygiene, and they were taken into consideration during the design of the latest building complexes to be built: the KEMPER Hygiene System KHS significantly reduces stagnation and thus how much ambient heat is absorbed by the cold water – flushing measures to maintain the temperature become much more efficient and sustainable.



Source: www.hofmann-impulsgeber.de

Böhringer Ingelheim, Ingelheim / Germany

| | |
|---------------|-----------------------|
| Construction | 2013 |
| Building type | New build / extension |
| Product group | KHS |

Böhringer Ingelheim needed to extend its chemical laboratory building on the Ingelheim site. The new building was erected in a prominent location on the eastern edge of Böhringer Ingelheim and in direct proximity to the central functions, the company restaurant and the corporate headquarters. The six-storey extension to an existing laboratory building has created laboratory, process and office space, as well as production areas for a variety of users that comply with clean room specifications.



Same DEUTZ-FAHR tractors, Lauingen / Germany

| | |
|---------------|--------------------------|
| Construction | 2015 |
| Building type | New build assembly plant |
| Product group | KHS |

DEUTZ-FAHR has stood for reliable, innovative German tractor technology for over 100 years, bringing the brand worldwide success. The parent group, SDF, recently went on the offensive to increase the brand's reach. Under the name DEUTZ-FAHR LAND, Europe's most cutting-edge tractor plant was built in the Bavarian city of Lauingen. The 9 and 11 series tractors have been produced here since 2016.



Special-use buildings

Short and sweet



Teekanne Kräuterhaus, Düsseldorf / Germany

| | |
|---------------|------------------------|
| Construction | 2013 |
| Building type | Conversion / extension |
| Product group | KTS |

Teekanne GmbH & Co. KG is a German tea trading company with headquarters in Düsseldorf. Its tea house serves as both its corporate and administration building. During the building's conversion and extension, the focus was on hot water heating with KTS.

Hegne Monastery, Hegne / Germany

| | |
|---------------|---|
| Construction | 2011 |
| Building type | Refurbishment |
| Product group | KHS / balancing valves/ stop valves and safety valves |

The congregation of the "Sisters of Mercy of the Holy Cross" was founded in 1856 by the Swiss Capuchin Father Theodosius Florentini and follows the tradition of St. Francis of Assisi. The convent in Hegne is considered the seat of the sisters there. KEMPER brought various product groups into play during the renovation of the drinking water installation in this provincial house.



Paratrooper barracks, Seedorf / Germany

| | |
|---------------|-------------------------------|
| Construction | 2015 |
| Building type | Refurbishment |
| Product group | Stop valves and safety valves |

Following the fall of the Berlin Wall, the last Dutch soldiers left the Seedorf barracks in 2006, after it had been their home for over 40 years. Comprehensive extensions and renovations were necessary for its further use by the German Bundeswehr. For example, separate drinking- and fire-fighting water systems were built, 10,000 metres and 5,000 metres long respectively. In addition, the valves on 110 house connections had to be renewed, and the pipelines had to be optimised for drinking water hygiene.



Bruchsal State Fire School, Bruchsal / Germany

| | |
|---------------|-----------|
| Construction | 2014-2015 |
| Building type | New build |
| Product group | KHS |

The Bruchsal State Fire Brigade realised the construction of a workshop and residential building. KEMPER was involved in the first of a total of three construction phases with a KHS installation.



