

Innovative system solutions from Riedel Kooling.

For medical centres, individual practices & small clinics.

Riedel Kooling has developed an innovative system solution for ensuring an even better climate in medical centres, individual practices and small clinics in the future. Consisting of a heat pump and the targeted use of the waste heat from diagnostic imaging equipment, not only can medical centres air-condition their premises in an environmentally friendly manner, the preparation of domestic hot water for showers or therapy pools can be designed much more cost-efficiently and with net-zero CO₂ emissions. GDD draws on its expertise in two areas in this process: Heating and cooling.

Electricity, gas and oil prices are continuing to increase rapidly. And even the federal government's relief package nevertheless makes a fundamental rethink necessary. Some 60 percent of energy consumption worldwide can be attributed to heating and cooling. Large-scale energy savings are vital not only because of increasingly scarce resources and soaring energy costs but also to combat climate change. This affects everyone, the private consumer as well as the large energy-intensive company. And it impacts a professional group that would not generally be perceived as being especially energy-intensive, i.e. doctors – and particularly those who use imaging procedures such as MRIs or CTs. The dream of having one's own radiology practice quickly goes up in completely non-climate-neutral smoke in the face of incalculable energy costs.

Lars Hofius, Projects & Solutions Special at Riedel Kooling, has developed a holistic concept that allows the energy efficiency in medical practices, medical centres and small clinics to be significantly increased and operating costs and CO₂ emissions to be drastically reduced.

"The more scans that are performed, the faster the payback on the purchase of an MRI or CT machine. Operation produces a lot of heat. Until now, the diagnostic equipment was simply cooled down; the waste heat was released unused into the environment outside the building.", explains Lars Hofius. "We are changing this. By using water-to-water heat pumps or brine heat pumps, we transfer the waste heat and make it usable. We can therefore heat and air-condition the entire practice building in this way. In a time of advancing climate change, the demand for cooling is rising and even surpassing the demand for heating. Our heat pumps can do both. Heating and cooling. In our model (see graphic), air-conditioning is provided from above and heating is provided via underfloor heating. This ensures a pleasant indoor climate. In addition, we use the waste heat to prepare domestic hot water, which can be used for showers or therapy pools."

Lars Hofius further elaborates: "This is how we create real added value with one system solution. Even multi-storey medical centres shared by several practices can thus be supplied with energy in a highly efficient manner using a small amount of electrical power, in other words heated, air-conditioned and supplied with domestic hot water.

By way of illustration: Using our heat pump technology, 12 kilowatt hours of heating or cooling energy can be generated with one kilowatt hour of electrical energy. If the building owner opts to extend our

system with a photovoltaic installation on the roof, then such a building can be operated self-sufficiently in terms of energy."

"Our 'medical center' concept is another example of our wide-ranging service portfolio for heating & cooling. Our great potential is the merging of both worlds, the complex plant engineering that combines heating, cooling, heat recovery, water management and also other processes."

Lars Hofius stresses: "We always think from our customers' point of view. What does our customer want to achieve in the end? The market wants system solutions with the fewest possible external interfaces that combine all features intelligently and above all in an environmentally friendly way. GDD can offer its customers an all-round package if desired: from precise analysis and consultation to optimisation of the entire plant in a highly efficient system; from design and detailed planning, which also includes identification of the components and services, to consideration of all eligibility criteria and piping construction through to plant engineering in the areas of cooling, heating and water management. We can also take on the role of site manager if required. The entire service is rounded off by customer-centric service and reliable maintenance. This includes monitoring and remote access as well as rapid support via our 24/7 hotline."

By the way: The 'medical center' concept is of course also transferable to other areas, e.g. for industrial or commercial buildings.

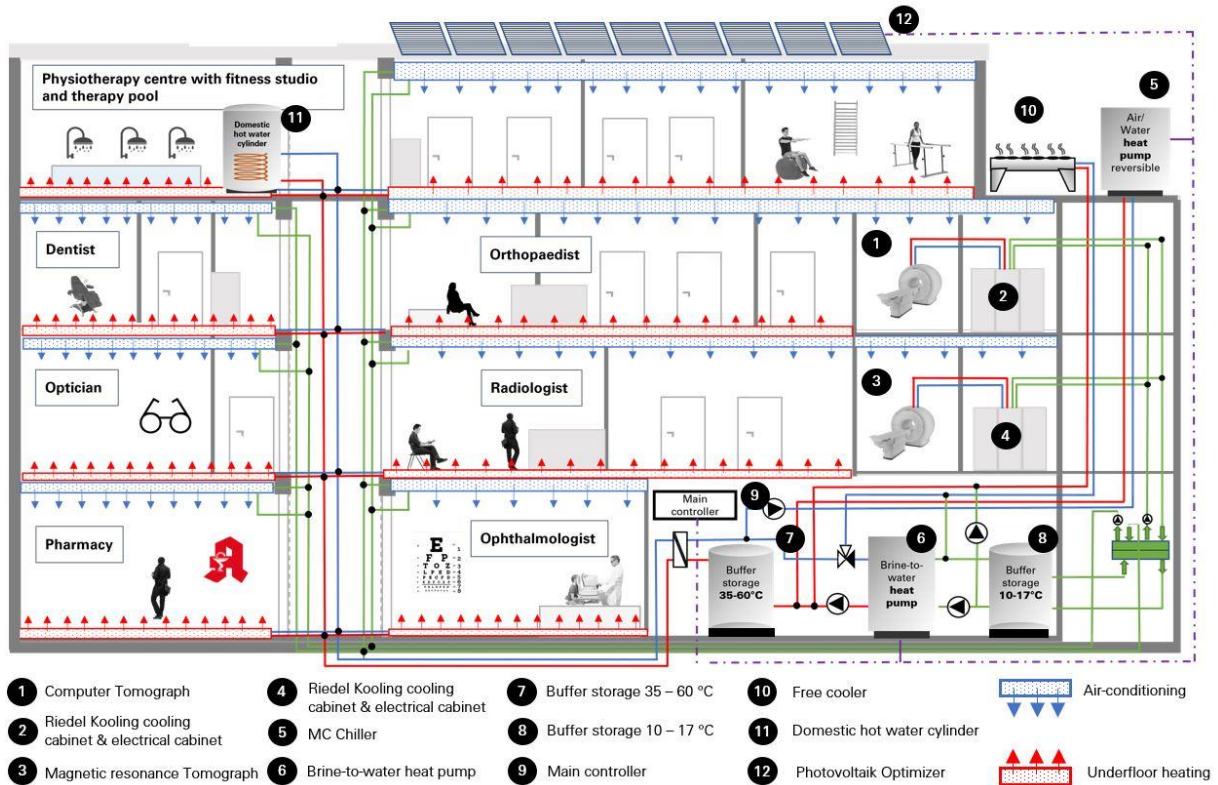


Image caption: Even multi-storey medical centres can be provided with energy in a climate-friendly manner thanks to the system solution for heating, cooling, heat recovery and water management



Image caption: Lars Hofius, Projects & Solutions Special at Riedel Kooling, has developed a holistic concept that allows the energy efficiency in medical practices, medical centres and small clinics to be significantly increased and operating costs and CO₂ emissions to be drastically reduced.

About Glen Dimplex Deutschland and Glen Dimplex Group:

Glen Dimplex Deutschland is part of the international Glen Dimplex Group based in Ireland - a leading international supplier of electric heating solutions and domestic appliances.

Glen Dimplex Deutschland combines the group's global knowledge and expertise in the development of highly efficient system solutions for heating, cooling and ventilation of buildings, as well as commercial and industrial applications and supplies the Dimplex, Riedel Kooling and Koolant Kooling brands. As well as the headquarters in Kulmbach, Glen Dimplex Deutschland also has subsidiaries in Kalamazoo (USA) and Shenyang (China). The company is managed by CEO Clemens Dereschkewitz and Heiko Folgmann - Managing Director for the Business Unit Heating and Ventilation.

Under the Riedel Kooling brand, the company bundles its sustainable, individual cooling solutions for a wide variety of applications in the professional environment, from laser machines to magnetic resonance tomographs to 3D printers. The range includes customer-specific individual projects, small series and large series with several 20,000 cooling solutions per year.

At its HQ in Kulmbach, Glen Dimplex has stood for expertise in heating and refrigeration for over 40 years. This is where energy-efficient heating and air-conditioning systems are designed by our engineers and technicians at our in-house Development department and perfected to market maturity. Products from Glen Dimplex are a byword for engineering expertise, quality and "Made in Germany" design. Glen Dimplex Deutschland's worldwide locations employ around 1,200 people.

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