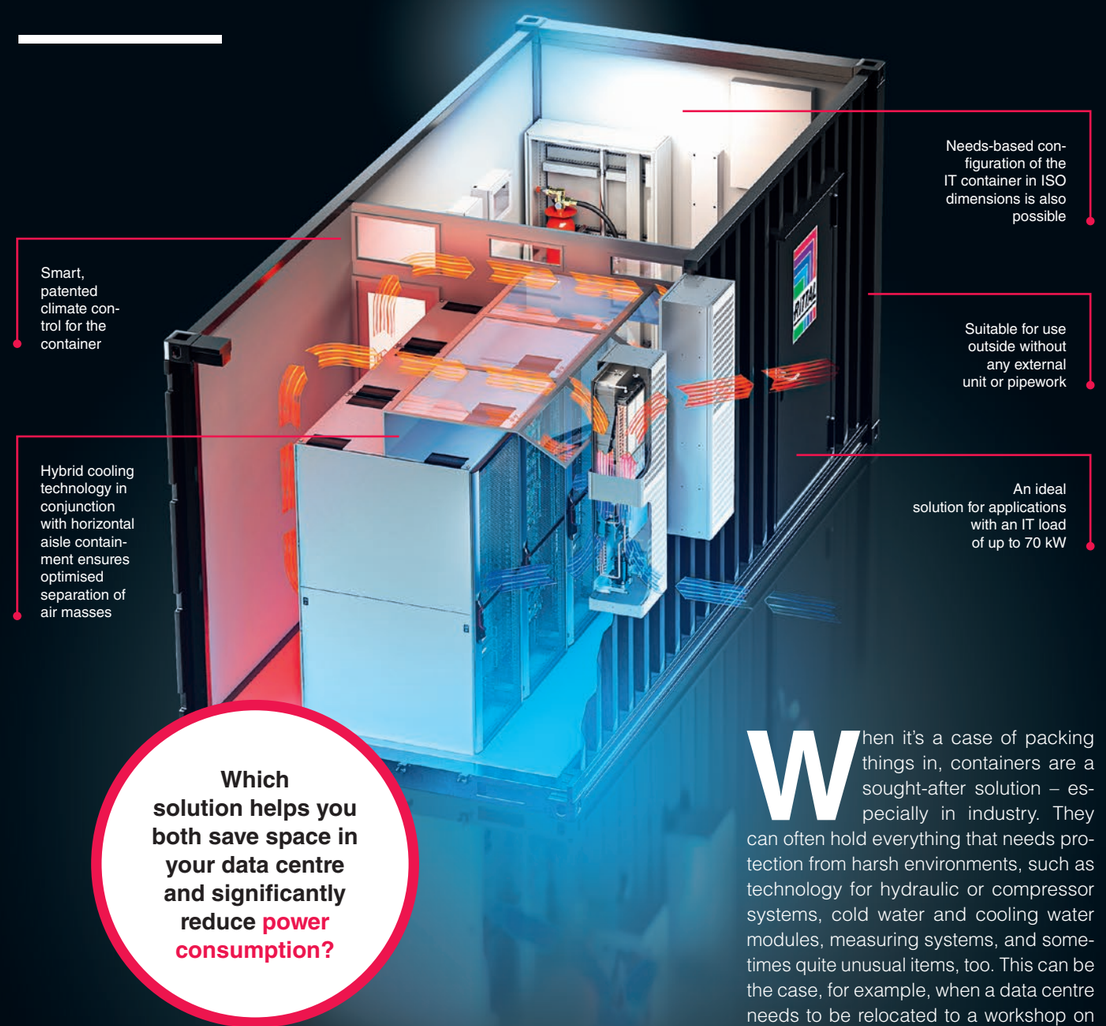
A new take on data centre containers

SAVING ON SPACE – EASY ON THE POCKET

In **data centres**, every square metre of space and every kilowatt hour of electricity counts. What's needed are **all-in-one solutions** that free up space while also significantly cutting power consumption. Providing proof that both these needs can be met is a **new Rittal cooling solution for IT containers** that is currently in use **at KUKA Industries**. This solution could be described as a real breakthrough.

Text: Michael Siedenhans



Which solution helps you both save space in your data centre and significantly reduce power consumption?

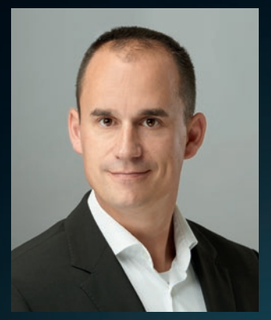
When it's a case of packing things in, containers are a sought-after solution – especially in industry. They can often hold everything that needs protection from harsh environments, such as technology for hydraulic or compressor systems, cold water and cooling water modules, measuring systems, and sometimes quite unusual items, too. This can be the case, for example, when a data centre needs to be relocated to a workshop on an ad hoc basis due to a lack of space or an urgent need to expand – and this is exactly what happened at KUKA Industries. Since 2021, the mechanical engineering and robotics company has been using an unusual data centre solution right in the middle of one of the workshops (with external ambient air) at its site in Obernburg am Main. It is an IT container with external cooling and is kitted out with server and network racks, along with power supply and safety technology such as an uninterruptible power supply (UPS) and a fire alarm and extinguishing system.

The data centre inside the container is to serve both the local network and the entire IT infrastructure at KUKA Industries and host local business applications. The former data centre was shut down as planned. So, what was the outcome? "We used the space in the new data centre container to adapt computing performance to our actual current needs in the plant," says Philipp Knorr, Managing Director of KUKA Industries, before pointing out another benefit: "The compact climate control units from the Blue e+ range are an important aspect of our efforts to improve our CO_2 footprint."

POWER CONSUMPTION CUT BY A THIRD

Many IT managers are facing similar challenges to those confronting KUKA Industries. They are looking for space-saving, energy-efficient and cost-effective solutions for their applications. This is where the new IT container solution from Rittal comes in. A new outdoor cooling solution based on industry-proven Blue e+ technology is helping to create more space in the data centre container to accommodate ever-growing IT equipment. At the same time, power consumption is being cut by a third compared to conventional rack climate control. This makes it even easier for data centre container operators to reduce both their operating and energy costs.

But what is it that makes data centre containers with external cooling such space-savers? "The cooling units are mounted on the outside wall of the container instead of inside it. This frees up more space for racks inside the container and creates more ways of expanding applications on a flexible basis," explains Philipp Müller, Director Data Center Solutions at Rittal. And that's not all. They also represent a smart way of saving money. "The cooling units from the Blue e+ range, which have proved themselves time and again in industrial use, are robust, easy to maintain and extremely energy-efficient thanks to their innovative heat pipe technology. They have a smaller CO_2 footprint." According to Müller, this lowers the overall operating costs for the long term: "With the new generation of data centre containers, the total cost of ownership can be cut by almost a third over a ten-year period."



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Philipp Knorr
Managing Director of
KUKA Industries

SHORTER MANUFACTURING AND DELIVERY TIMES

All the cooling units come with an IoT interface. Operators can keep an eye on all cooling performance parameters via the web interface, "so they can control consumption with all possible and necessary efficiency," the data centre expert at Rittal explains. The design of the new data centre container also features another benefit. Since the cooling units are now attached to the outside of the container, there's no longer any need for the previously essential raised floor, rack-based cooling technology or pipework inside the container. This reduces manufacturing and delivery times. There's another detail that carries weight with KUKA, too. Service staff are already familiar with Rittal cooling unit technology, because it is already part of the standard equipment in manufacturing. This means it's easy for staff to maintain the units themselves. All in all, the entire package has proved a hit – not least because "the expert advice that helped us find a suitable solution, the concept and the price all impressed us," Knorr explains. ■

FIND OUT MORE

Data centre containers with outdoor cooling

www.rittal.com/com-en/products/Container_Blue-e_plus_Outdoor

KUKA www.kuka.com/en-de

Space-saving, energy-efficient solution for expanding IT infrastructure – a Rittal data centre container with three Blue e+ outdoor cooling units.