

# Rittal – The System.

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## Voith Turbo: Energy costs reduced by 70 per cent

**CUSTOMER REFERENCES**  
**Mechanical Engineering**



### VOITH

**Customer:** Voith Turbo GmbH & Co. KG  
**Industry:** Machine builder, belongs to Voith Group  
**Company size:** more than 19,000 employees  
**Established:** 1867  
**Headquarters:** Heidenheim, Germany

Given that energy efficiency has been in the spotlight for years, where is there still potential to save energy? It's a question that members of the "Resource and Energy Efficiency" working group at Voith Turbo in Heidenheim were also keen to answer. Once the proverbial low-hanging fruits have been picked, attention necessarily turns to what are considered to be the smaller energy

consumers. That made the results of the service and efficiency check Rittal carried out at Voith Turbo all the more surprising for the company. The check revealed that switching the enclosure climate control technology used for the machining centres in production to state-of-the-art Blue e+ cooling units from Rittal could deliver considerable efficiency savings.



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## THE PROJECT

### The Challenge

- Corporate target: saving more than 20% energy in six years time

### The Solution

- Service and efficiency check by Rittal at 50 machines including a detailed documentation
- Exchange of 21 cooling devices (Blue e or Blue e+)
- Amortisation within two years



### Ambitious targets

The Voith Group attaches great importance to sustainability and the efficient use of resources. Its ambitious target is to achieve 20 per cent in savings in six years, which is why the company regularly records and evaluates how much energy and water it consumes and how much waste it produces. Until recently, no one had given the enclosure climate control units a second thought.

### On-site efficiency check

When reviewing the energy efficiency of machine tools and machining centres, the main focus tends to be on the drives and hydraulic units – enclosure climate control is often forgotten about. Potential that could easily be tapped into lies dormant. The service and efficiency check performed by Rittal also shows that, in many cases, upgrades pay for themselves in a very short space of time. At Voith Turbo, two Rittal employees looked at every machine tool and its enclosure climate control system in minute detail. All in all, 50 different machines were examined. At the end of a service check, the customer receives comprehensive documentation reporting on the condition of the cooling units. This also includes a recommendation on whether it would make sense to replace

a cooling unit, which unit would be best suited as a replacement, and how much energy the customer could save if they went ahead. In the case of Voith Turbo in Heidenheim, Rittal recommended replacing the cooling units on 21 machine tools. Depending on the cooling output required, the cooling units from the Rittal Blue e or the Blue e+ range offer energy-efficient alternatives.

### Trouble-free retrofitting

The recommendations set out in the documentation also include a calculation of the payback period, which makes it easier for the customer to decide whether to invest or not. The staff at Voith Turbo were surprised to discover that energy consumption and therefore energy costs would fall by 70 per cent, meaning switching to the energy-efficient cooling technology would pay for itself after just two years on average. The decision on whether to go ahead was an easy one to make. In total, new cooling units from the Rittal Blue e+ and Blue e ranges were installed in 21 machine tools. A few adjustments aside, the retrofit went without a hitch. Owing to the positive experience at Voith Turbo in Heidenheim, the company's other sites are also going to switch to using energy-efficient cooling solutions in their machine tools.

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