

## Case Study

Rittal GmbH



### Philip Morris: Ecofriendly manufacturing made possible by efficient cooling units



Philip Morris International's highspeed manufacturing facility in Berlin produces up to 20,000 cigarettes and 1,000 cigarette packs every minute. The plant operates 24 hours a day, seven days a week, all year round – but is also highly energy-efficient. Now, the company is set to deploy a new Rittal enclosure climate control solution that will reduce its energy consumption and costs even further.

**“The new Blue e+ cooling units will cut PMI's annual energy costs by 55,000 euros.”**

Christian Lefherz, the supervisor responsible for electronic support and maintenance at PMI's Berlin facility

**Berlin-based plant tested Blue e+ cooling units: 79 percent of operating costs saved**

By the end of 2015, the managers of the Berlinbased plant aim to have cut manufacturing power consumption by 20 per cent compared to 2010. Most recently, the team has turned its attention to efficient enclosure climate control solutions and has examined the costeffectiveness of replacing its existing units with the new Rittal solutions since January 2015.

To this end, the company is testing how Rittal's new Blue e+ cooling unit – which delivers a total cooling output of 1.5 kW – fares against a competitor's 1.1 kW solution.

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The result after three months of testing was that the existing operational cooling unit had used 171 kWh of electricity since the start of the year, but Rittal's Blue e+ system required just 34.7 kWh in the same timeframe – a saving of 79 per cent.

## Hybrid technology is the key

The main reason for the Rittal solution's exceptional performance is the innovative, patented hybrid technology used in the new Blue e+ cooling units. It combines conventional compression cooling with a heat pipe. No compressors or pumps are required; the only power-consuming components are the fans.

By replacing the 140 operational cooling units at its Berlin plant with the new Rittal solutions, Philip Morris International can look forward to substantial cost savings – 55,000 euros, to be exact. Company officials estimate that the payback period will be only 16 months.

## High availability, guaranteed

The PMI plant in Berlin manufactures huge quantities of cigarettes in double-quick time, around the clock – so ensuring maximum plant uptime is a mission-critical task. If a cooling unit requires maintenance, for example, engineers must be able to exchange it fast – even if the replacement is a higher-performance unit. The new Rittal Blue

e+ cooling units enable standardised cutouts in enclosure doors and side panels, for all types of mounting. Moreover, if a cooling unit with a greater output is required, no other equipment components need to be modified. The business benefits for Philip Morris International are clear to see.

### Rittal

Rittal, headquartered in Herborn, Germany, is a leading global provider of solutions for industrial enclosures, power distribution, climate control and IT infrastructure, as well as software and services. Systems made by Rittal are deployed across a variety of industrial and IT applications, including vertical sectors such as the transport industry, power generation, mechanical and plant engineering, IT and telecommunications. Rittal is active worldwide with 10,000 employees and 58 subsidiaries.

Its broad product range includes infrastructure solutions for modular and energy-efficient data centres with innovative concepts for the security of physical data and systems. Leading software providers EPLAN and Cideon complement the value chain, providing interdisciplinary engineering solutions, while Rittal Automation Systems offer automation systems for switchgear construction.

Founded in Herborn in 1961 and still run by its owner, Rittal is the largest company in the Friedhelm Loh Group. The Friedhelm Loh Group operates worldwide with 18 production sites and 78 international subsidiaries. The entire group employs more than 11,500 people and generated revenues of around €2.2 billion in 2015. In 2016, it was named one of Germany's leading employers by the Top Employers Institute, for the eighth year running. Within the scope of a Germany-wide survey, Focus Money magazine identified the Friedhelm Loh Group as one of the nation's best providers of vocational training.

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