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## **In Times Of Uncertainty, Make the Most of your Assets**

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It's safe to say that there is a great deal of uncertainty at the moment; something which is being felt not just in the UK but in many countries across the world.

In these circumstances, the best thing that businesses can do is protect their existing assets. It's fundamentally important to ensure that all assets perform at an optimum level during their entire service life, and for an organisation to continue its journey towards increased efficiency and reliability so that it can remain competitive in a changing marketplace.

In the industrial space, a company's lifeblood is its machinery and all machinery has critical components such as its electrical drives, motors etc. without which any very expensive robotic arm is nothing but a very elaborate statue, collecting dust. So it's imperative that electrical equipment is housed within a protective environment, to ensure it operates to its full potential.

A protective environment takes the form of both high quality enclosures and correctly prescribed climate control equipment. The two items work together to safeguard your equipment from the following:

### **High Temperatures Impact the Lifespan of Equipment**

Prolonged high internal temperatures reduce the lifespan of your equipment. This will mean an increased chance of unplanned breakdowns, increased costs and reduced production output.

Furthermore, your equipment cannot work at 100% output once its maximum operating temperature has been exceeded, which means you will experience an overall reduction in your machine's efficiency and reduced manufacturing output.

To prevent high temperatures being reached within the enclosure, correctly sized enclosure cooling products should be installed. This could be fans and filters, cooling units or air-to-water heat exchangers, dependant on both the amount of heat produced by the electrical equipment and the ambient temperature in the surrounding environment.

### **Low Temperatures Can Also Damage Equipment**

Equipment needs protecting from low temperatures as much as high ones. In winter, when ambient temperatures drop, any equipment that has been idle over the weekend can be damaged as soon as it's turned on from cold.

In addition, motors or compressors can experience problems when oil contained within sealed systems begins to increase in viscosity. This can damage the seals/components, again causing failures.

To prevent this happening, you should fit a correctly sized enclosure heater inside the enclosure. When connected to a thermostat, the heater will maintain an acceptable minimum

temperature preventing any damage to electrical equipment caused when the low temperature minimum is exceeded.

### **Condensate Poses Safety Risk**

Condensate can be a real issue when it forms within the enclosure and on critical equipment in high humidity environments. Condensate poses a real safety risk to the electrical devices and can cause catastrophic failure if left unchecked.

You can combat this problem by using a high quality industrial enclosure with a minimum of an IP54 seal to prevent humid air from constantly entering the enclosure. This can be combined with a cooling unit featuring an integrated condensate evaporator; the cooling unit acts as a de-humidifier and removes excess condensate from the pocket of air within the sealed enclosure.

### **Dust, Dirt and Corrosive Substances**

Many industries suffer from dusty or dirty environments, which can impact on electrical equipment and its optimum performance. For example:

- Carbon dust in the steel or manufacturing industry
- Yeast or vinegar extract in the food and beverage industry
- Salt water vapour in the air in a marine or coastal application

The above contaminants will attack the wires and electrical connections within your enclosure. In time, this can corrode or (worse) short connections, which in turn can cause excess heat and/or a panel fire.

In highly contaminated environments, the best advice is to use a cooling product which does not allow dirty ambient air to constantly enter the enclosure, so fans and filters are a no-no. Air-to-air or air-to-water heat exchangers and cooling units are best solutions, dependant on the heat load as they will only treat the small pocket of air within the enclosure, but they will also reduce the level of contaminants entering the space.

### **Summary**

Any change or upheaval that impacts on a company's trading environment brings with it challenges, but also opportunities. The trick is always to optimise your business for success, reducing costs wherever possible, while maximising productivity and efficiency.

Rittal can provide you with a free inspection of your current cooling equipment regardless of manufacturer, age or condition. This will then allow us to advise you of any recommended improvements and (critically) confirm whether you are using the correct equipment.

The long term benefits of maintaining that protective environment and allowing your equipment to perform to its optimum will, in turn, help your business to flourish.

Further information at [www.rittal.co.uk](http://www.rittal.co.uk) and [www.friedhelm-loh-group.com](http://www.friedhelm-loh-group.com) or on twitter @rittal\_ltd.

#### **Press Information**

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## Image

Image shows: fri181402700-Rittal-in-Times-of-Uncertainty

## Notes

Rittal, headquartered in Herborn, Hessen, Germany, is a leading global provider of solutions for industrial enclosures, power distribution, climate control and IT infrastructure, as well as software and services. Rittal solutions can be found in more than 90 percent of all industrial sectors worldwide.

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 9,300 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 offers 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 80 international subsidiaries. The entire group employs 12,000 people and generated revenues of €2.6 billion in 2018. For the tenth time in succession, the family business has won the accolade "Top German Employer" in 2018. A Germany-wide survey by Focus Money magazine named Friedhelm Loh Group as one of the nation's top companies in terms of vocational training for the third year running in 2018.

Further information can be found at [www.rittal.com](http://www.rittal.com) and [www.friedhelm-loh-group.com](http://www.friedhelm-loh-group.com).