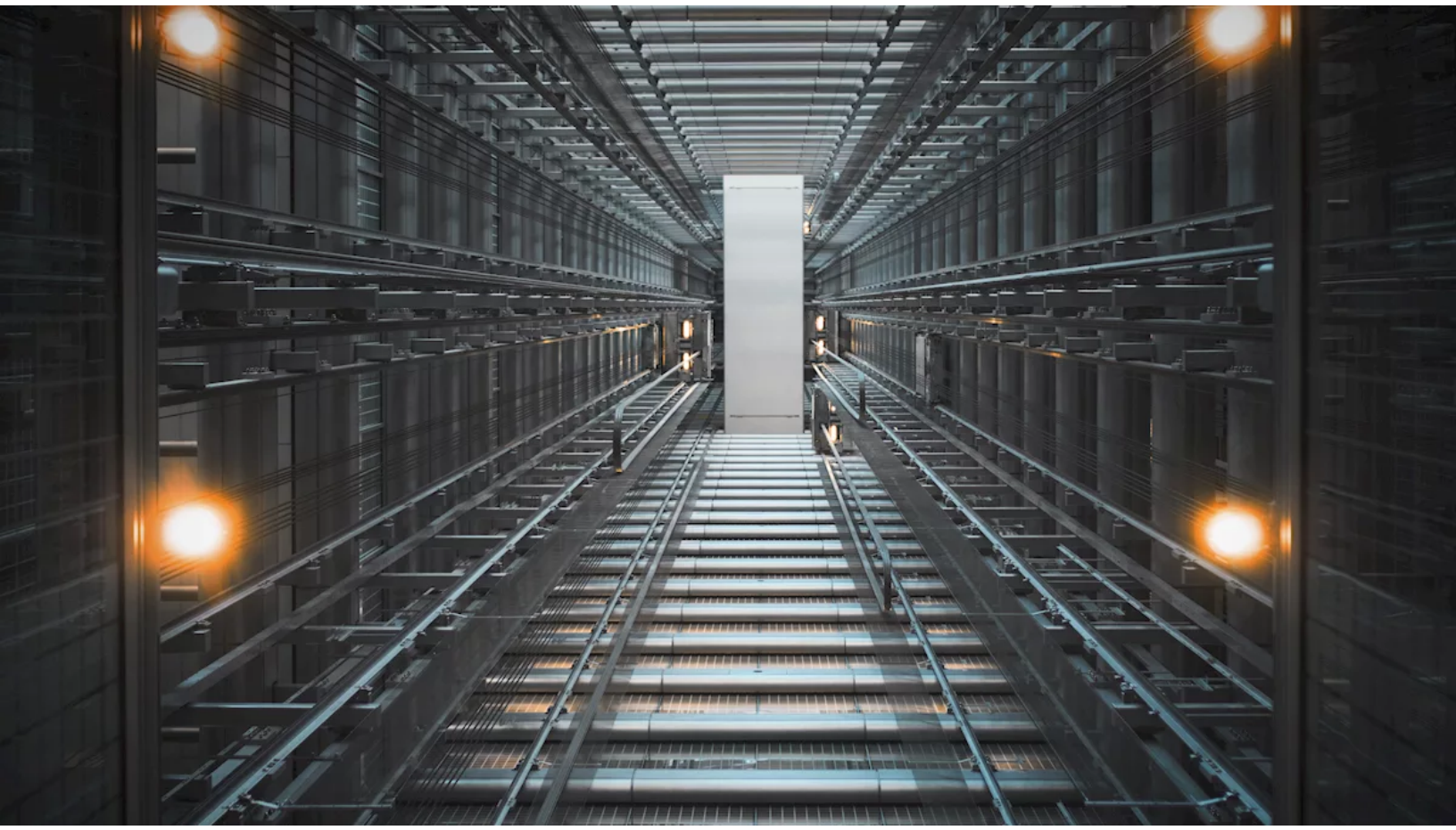

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KEEPING THE INFORMATION SUPERHIGHWAY CLEAR

Air filters in data centres offer a host of solid business benefits in a whole range of different applications, but one of their most impressive uses is in data centres. They raise energy efficiency and lower energy bills along with providing healthy work environment.

STATISTICS SHOW THAT AIR FILTERS CAN HELP REDUCE ENERGY COSTS BY TWO-FIFTHS. MOREOVER, HIGH ENERGY EFFICIENCY RATED FILTERS REDUCE THE CARBON FOOTPRINT OF THE FACILITY, AND FLAME-RETARDANT AIR FILTERS IMPROVE FIRE RESISTANCE.

Mission critical computers in data centres and the cooling needed to keep them running draw enormous quantities of power. It has, for example, been estimated that data centres consume 2% of all the electricity used in the United States, 32% of which is used by air conditioning systems(1).

In a bid to reduce the enormous cost associated with running these facilities, in locations with a naturally cool climate facility owners have turned to free air cooling. But the incoming air must be purified to protect the equipment. Indeed, data centre customers rely on air filtration to maintain the flow of clean air as well as the secure flow of data. Particulate and gaseous contaminants pose a serious threat to this security. They can come from a range of places including indoor sources, people entering and exiting the building, and from outdoor ventilation systems. These contaminants can result in equipment downtime, complete failure or, in the worst cases, complete loss of data.

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THE REASONS?

Server rooms may be exposed to high corrosion levels from particulate matter or molecular gas contamination with printed circuit boards, contacts and conductors most susceptible to damage. Other risks include obstruction of cooling air flow and deformation of surfaces and electrical impedance changes, circuit failure and burnout, with the associated fire risk.

Filters help provide a healthy, safe indoor environment free from harmful air contaminants. But beware. Regardless of the type of cooling or air handlings unit (AHUs) installed in a facility, to manage pressure drop and maintain as close to peak fan efficiency as possible, it's imperative that the choice of filters used is carefully evaluated.When you consider the number of filters needed in a system, guaranteed efficiency and total cost of ownership (TCO) are critical drivers for determining which filter is best. Indeed, low cost, coarse fibre filters can lower efficiency and raise in pressure drop, resulting in increased fan energy consumption and shorter filter life. Although the upfront cost for these inferior filters may be lower, the TCO is higher.

As well as operating more energy efficiently, low average pressure-drop filters – such as those supplied by Camfil – allow AHUs and fans to be downsized, saving operating costs and capital costs on initial installation.

Related article

IN THE NEWS

CAMFIL'S EFFICIENT AIR FILTRATION INTO THE WORLD OF DATA CENTRES

Since the inception of the Internet in 1960's, our world has been revolving through data centers. The ever-rising demand of the society for prompt and rapid information has led to the continual growth of data centers, further boosted by cloud backup, audio/video streams, and social networking services. The need for centralized facilities for enhanced service providers like Facebook, Amazon, Microsoft, and others are well-known to all.

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About Camfil

For more than half a century, Camfil has been helping people breathe cleaner air. As a leading manufacturer of premium clean air solutions, we provide commercial and industrial systems for air filtration and air pollution control that improve worker and equipment productivity, minimize energy use, and benefit human health and the environment. We firmly believe that the best solutions for our customers are the best solutions for our planet, too. That's why every step of the way – from design to delivery and across the product life cycle – we consider the impact of what we do on people and on the world around us. Through a fresh approach to problem-solving, innovative design, precise process control and a strong customer focus we aim to conserve more, use less and find better ways – so we can all breathe easier.

The Camfil Group is headquartered in Stockholm, Sweden, and has 30 manufacturing sites, six R&D centres, local sales offices in 26 countries, and 4,480 employees and growing. We proudly serve and support customers in a wide variety of industries and in communities across the world. To discover how Camfil can help you to protect people, processes and the environment, visit us at www.camfil.com.

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