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Comfort Air  
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# Camfil:

## Bringing Efficient Air Filtration into the World of Data Centers



Reducing Energy Consumption while Protecting Your Indoor environment is the foundations in which Camfil was built on



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. But with over 3 million data centers in the United States itself, there is an exponential requirement for an air-conditioned environment, free from air contaminants. There is a prevalent concern amongst environmental experts about the quality of air emitted and the volume of energy expended inside these data centers. With the enormous amount of energy consumed by these facilities, data centers have become a rich source of outdoor and indoor pollution. **Camfil**, a global leader in the air filtration industry, provides air filters to various noteworthy data center facilities to

help them maintain their flow of information.

Headquartered in Stockholm, Sweden, Camfil is globally recognized for its Clean air solutions that benefit human health, increases productivity and reduces energy consumption. For over 50 years, Camfil has strived to provide its vast customer base with the best-in-class air filtration products and services. Camfil is the world's largest developer and manufacturer of air filters and other relevant products, with over 26 manufacturing plants, 6 R&D sites, 65 international sales offices and 3800 employees at its disposal. Data Centers consume 2% of all the electricity used in the United States, within which, 32% of that is used by air-conditioning systems, making air filters a major player in reducing energy costs. Camfil's innovative solutions, specifically designed for data centers, have helped reduce energy expenses up to 40% in many cases. This reduction cannot be seen through traditional air filtration products.



### **Providing Solutions to Data Centers That Guarantees Performance**

To manage the pressure-drop and maintain optimum fan efficiency, it is imperative to evaluate the choice of filters being used in a data center facility. Camfil Hi-Flo and Opakfil filters are certified by Eurovent and ISO-16890 to ensure its optimum energy efficiency and guaranteed performance level. Camfil uses a proprietary blend of fine fibers that welds a mechanical particle captured principle which does not require any electrostatic charge, thereby extending the longevity and lowering the average pressure drop of the filter. This means that the air filters can last longer, reducing operational downtime as well as reducing energy consumption. Though, data centers consume an astronomical amount of energy, Camfil has documented a significant energy saving by as much as six figures annually. In addition to the filters used in HVAC systems, Camfil Air Purifiers and Air Cleaners provide clean air services to data center areas that require a higher level of cleanliness. It is used to supplement HVAC systems, that lack the clean air performance to maintain the integrity of data centers.

### **Catering to the Current Data Center Solution Industry**

It is no secret that a growing number of industry platforms are shifting their focus towards Data Center solutions provided by companies that once solely focused on other areas such as Medical Devices and Pharmaceuticals. It is clearly evident that this segment is fast becoming the center stage for industry professionals and companies to showcase their expertise, products, and services. The growth of the Data Center industry has given Camfil further scope to offer products that reduce energy consumption and provides a healthy indoor environment. The Swedish company always had a nucleus focus on manufacturing filter products with extended life, without compromising on the indoor air quality. They offer constant education of standards such as ISO-16890 that especially delves on PM1 (Particulate Matter @ 1-micron diameter). In addition to that, Camfil also provides inspection services to data centers to ensure that the filtration system is operating in an effective manner. Their CamField Mobile Lab, in-situ testing, and Life-Cycle Cost Analysis software helps determine the best performance results for a data center facility. Camfil's products bring forward the positive contribution in reducing energy, wastage and carbon footprint emission, while comparing with any offering from a competitor.

### **The Man Behind the Data Center Products**

**Joe Gorman, Comfort Air Product Manager of Camfil Americas**, is the visionary behind the products supplied to data center facilities. Prior to his present position, he worked at Camfil as a Research and Development engineer for 8-long years. It was Joe Gorman's invaluable skills and expertise which led him to design and launch products such as FastFrame, Hi-Flo ES and Durafil ES2 in America. He boasts a highly-qualified educational background, that includes a bachelor's degree in Mechanical Engineering from Rensselaer Polytechnic Institute in Troy, New York. He followed that up by obtaining a Master's degree in Business Administration from Stevens Institute of Technology in New Jersey.

### **Staying Unique yet Relevant**

For many years now, Camfil has been at the forefront of providing accurate and best-in-class filters for usage in all data center facilities. They invest massively in R&D and product development to ensure each of their product suffices the requirement for a safe working environment. They follow the requisite indoor air quality guidelines, i.e., EN-16798 to protect People, Patients, and Products from harmful particles and gas emissions. Camfil has employed people in all respective corners to serve the soaring demands of the Data Center facilities. This includes Pharmaceutical, Medical Device, and Food & Beverage industries, who have very strict requirements for their provision of air controlled environments.

Another unique service provided by Camfil is its routine inspection and certification services to data centers through ISO-29462. With this field-monitoring service in place, Camfil ensures that the indoor conditions are ideal and energy consumption is kept to a minimum.

### **The Future Innovation**

One of Camfil's latest innovations is the ISA Check II product, that allows accurate corrosivity measurement of air in real-time. This tool is of immense significance as it protects valuable electronic equipment and other objects from corrosion caused by airborne acidic gases. It measures and registers the changes over time in Electrical Resistance (ER) of a thin metal track applied on an insulating substrate. It then measures the loss of metal thickness, that provides a direct correlation to corrosivity. Through this, the filter selection can be analyzed in-depth and the costs associated with the same can be determined. 