

Data Center Applications Packaged Filter Units

Improve Indoor Air Quality & Protect Electronics From Corrosive Pollutants

Preventing corrosion in data centers can result in significant cost savings by protecting servers from damage and reducing the risk of data loss. Even minor corrosion can degrade the copper and silver components used in electronic circuitry, leading to intermittent failures, reduced system reliability, and a shorter equipment lifespan. Monitoring airborne corrosivity levels and implementing effective air filtration in critical server rooms are essential measures for extending equipment life, lowering maintenance expenses, and preventing data loss.



Testing Airborne Corrosivity

Understanding the severity of corrosive gases in an environment is essential for protecting sensitive equipment. PureAir offers two ways to test the air quality in data centers: Corrosivity Test Kits and Environment Corrosivity Monitors.

Corrosivity Test Kit



Example of corroded strips



New Test Kit without corrosion

The Corrosivity Test Kit is a traditional way to test air quality against the ANSI/ISA-71.04-2013 recommended levels. Testing kits are placed in the targeted areas within the facility for a 30-day exposure period, removed, and shipped to PureAir's ISO 17025 Accredited in-house lab for evaluation. Based on the results, PureAir designs a corrosion management solution to achieve optimal air quality.

Industries Affected by Corrosion

- Pulp & Paper Mills
- Refineries
- Mining & Steel Plants
- Chemical Plants
- Drive Rooms
- Server Rooms
- Motor Control Centers (MCC)
- Laboratories

Environment Corrosivity Monitor



The ECMv2 monitor continuously detects and measures corrosion in real time to maintain optimal conditions for both staff and equipment. It provides:

- Early corrosion detection
- Anticipates costly downtime events
- Long service life
- Two copper/silver sensors/independent channels
- Connects to varied systems for data capture
- LCD display showing corrosion levels and rates for each channel
- Alarms for humidity, temperature, and room loss differential
- Pressure LED indicator for ISA environment classification

Engineered Solutions to Prevent Server Failure and Data Loss



PureAir's Packaged Filter Unit (PFU) filter air in controlled environments, like control rooms and data centers, to protect computer equipment and electronics from corrosion and prevent data loss. PFUs are available in three models, each designed to deliver maximum airflow of 1,700, 3,400, or 5,100 CMH (1,000, 2,000, or 3,000 CFM).

- Delivers reliable air purification for multiple applications and facilities that specialize in protecting critical electronics
- Removes odors and improves indoor air quality
- Quiet, energy-efficient performance in a compact vertical design
- The PFU-Mobile and PFU-Mini are the most compact sizes of PFUs. Mounted on casters, they can be easily moved to provide targeted filtration to any area. These units plug directly into a standard wall outlet and are compact enough to fit inside a server rack and other tight spaces



PureAir's Side Access Housing (SAH) system provides compact horizontal airflow that handles between 850 and 67,960 CMH (500 and 40,000 CFM).

- Protects critical electronics from failure
- Maintains commercial odor control and improves indoor air quality
- Quick-access doors enable easy media and filter changeout with low maintenance
- Integrated particulate filter
- Positive seal design prevents air bypass and maximizes contaminant removal
- The SAH is PureAir's most customizable system, offering up to four media passes and redundant blowers in an array of sizes and configurations



PureAir's CPS Blend, is formulated for data centers to capture and remove ambient air pollutants and safeguard sensitive electronic components. This chemisorbant media is a 50 percent/50 percent blend of PureAir 8 potassium permanganate-based media and PureAir AC virgin bituminous activated carbon designed for the broadest range of removal for corrosive, odorous, or toxic gases.