

Air Filtration in Data Centers: Precision Filtration for the Digital World



Leadership in Filtration

**MANN +
HUMMEL**

Table of Contents

CONTENTS

Filtration for tomorrow: Powering air purity & performance for data centers	2
Pain points that put performance at risk in Data Centers	3
Efficiency that pays off: Reducing Energy & Operating Costs	4
Ensuring reliability through smarter filtration	5
How MANN+HUMMEL protects Data Centers	6
Environmental pressures driving smarter filtration solutions	7
Simplifying maintenance. Securing uptime.	8
Enhancing efficiency, eliminating downtime risks	9
Inside the heart of the AHU- powered by MANN+HUMMEL	10
The gateway to cleaner air, engineered by MANN+HUMMEL	11
Cooling powerhouses of the modern data center	12
High Efficiency Filters for Data Centers	14
Final Filters for Data Centers	15
Prefilters for Data Centers	16
Molecular prefilters for Data Centers	17-18
Our Heritage: Trusted Filtration Solutions Since 1941	19-20

Filtration for tomorrow: Powering air purity & performance for data centers

The Evolving Data Center Landscape

In just two decades, data centers have scaled from small server rooms to hyperscale campuses powering nearly every aspect of modern life. Cloud adoption, streaming platforms, mobile connectivity, and AI demand unprecedented processing power and efficiency. With this growth comes new challenges: higher energy requirements, stricter sustainability expectations, and greater vulnerability of advanced electronics.

Why Clean Air Matters

Modern data centers are high-density, mission-critical environments. Even microscopic airborne threats—sulfur compounds, corrosive gases, fine dust—can infiltrate HVAC systems, corrode components, and trigger costly downtime. The stakes are high: a single contamination event can cost millions in revenue and reputation. Meanwhile, HVAC systems consume up to 60% of facility energy, making filtration a key lever for both uptime and cost control.

Filtration as a Strategic Advantage

High-efficiency filtration isn't just about maintenance—it's a business investment. Optimized filters:



- Protect sensitive electronics from contaminant intrusion
- Lower energy consumption with reduced pressure drop
- Extend filter life, minimizing waste and supporting sustainability goals
- Safeguard uptime commitments by reducing unplanned downtime risks

Protecting the Heart of Your Data Center

Your servers are the backbone of your operation. Without clean, efficient airflow, equipment faces higher risks of overheating, reduced uptime, and increased energy costs.



At MANN+HUMMEL, our filtration solutions are designed to optimize air flow and protect sensitive equipment—delivering high operating efficiency, reduced pressure drop, and extended filter life for greater reliability and sustainability.

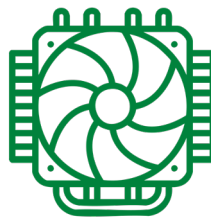
Pain points that put performance at risk in Data Centers

Data centers operate under relentless pressure—where even minor inefficiencies in air filtration can translate into higher costs, security risks, and potential downtime—making it critical to address the key pain points that threaten performance and reliability.:



ENERGY & OPERATING COSTS

- High energy consumption (HVAC systems often use 40–60% of total facility energy).
- Rising electricity costs and efficiency mandates.
- Pressure to reduce Power Usage Effectiveness (PUE).



COOLING & THERMAL MANAGEMENT

- Overheating due to high server density.
- Hot spots from uneven airflow or poor filter performance.
- Difficulty maintaining consistent airflow with growing IT loads.



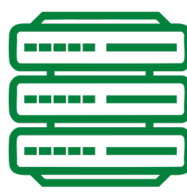
UPTIME & RELIABILITY

- Risk of downtime from equipment failures.
- Particle or gas contamination leading to circuit board corrosion or failure.
- Increased vulnerability of advanced microelectronics (AI/edge computing).



SUSTAINABILITY & ENVIRONMENTAL PRESSURES

- Stricter ESG and carbon reduction requirements.
- Excessive filter waste ending up in landfills.
- High water/energy usage linked to cooling systems.



PHYSICAL SPACE & SCALABILITY

- Limited storage and floor space restrict expansion in most data centers.
- Higher rack densities create more heat and airflow challenges.
- Cloud and AI growth drive rapid scaling within the same footprint.



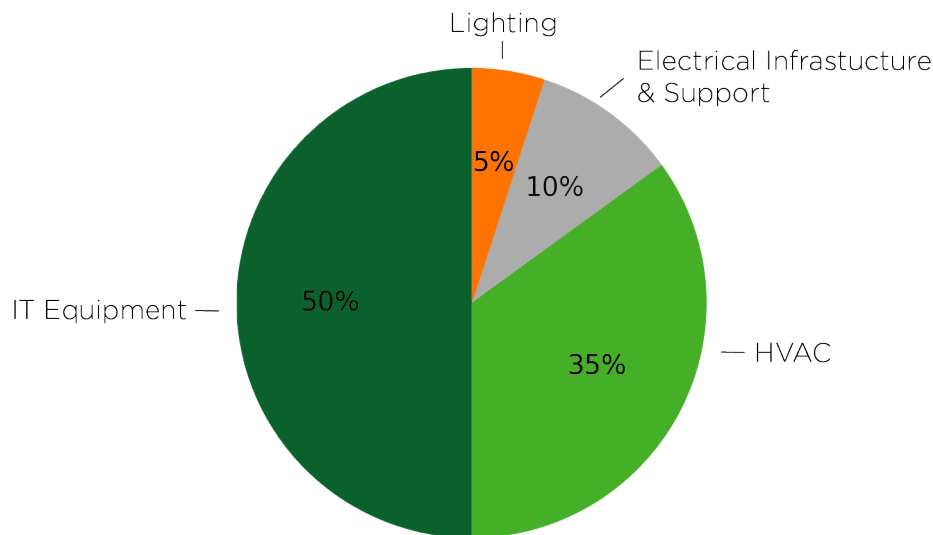
MAINTENANCE & ACCESSIBILITY

- Restricted contractor access to secure areas.
- Short maintenance windows requiring quick filter swaps.
- Balancing labor costs with preventive maintenance schedules.

Efficiency that pays off: Reducing Energy & Operating Costs

Managing energy use is one of the most pressing challenges for data centers today. With facilities running 24/7, even small inefficiencies translate into massive operating expenses over time.

- HVAC Energy Demand: Cooling systems alone can account for 30–60% of a data center's total energy consumption. When filters restrict airflow, fans must work harder, driving energy costs higher.
- Rising Utility Costs & Regulations: Electricity prices continue to climb, while operators face stricter efficiency mandates and carbon reduction targets. Every kilowatt saved is both a cost reduction and a compliance win.
- Pressure to Reduce PUE: Power Usage Effectiveness (PUE) has become a defining metric for data center efficiency. Lowering PUE means minimizing wasted energy in cooling and support systems, not just IT load.



WHY CHOOSE MANN+HUMMEL

Filters may seem like a small component, but their impact on airflow resistance directly affects fan energy draw and HVAC efficiency. High-efficiency, low-pressure-drop filters from MANN+HUMMEL allow systems to move more air with less effort, cutting energy use while maintaining equipment protection.

By reducing HVAC strain, extending filter life, and minimizing waste, MANN+HUMMEL solutions provide operators with a practical, measurable way to lower operating costs and improve sustainability metrics.

Ensuring reliability through smarter filtration

PRECISION AIR FLOW • RELIABLE THERMAL CONTROL • MAXIMUM UPTIME

Modern data centers generate enormous amounts of heat as server densities grow to support cloud computing, AI workloads, and streaming platforms. Even a small disruption in airflow can create dangerous hotspots, putting sensitive IT equipment at risk. When filters restrict airflow or allow particulate buildup, the result is higher operating temperatures, reduced performance, and ultimately a greater risk of downtime.

Even minutes of downtime can result in millions in lost revenue, customer trust issues, and costly recovery operations. Protecting air flow and defending against invisible contaminants are key to reliable, profitable operations.

THE HIDDEN THREATS TO RELIABILITY:

Downtime from Equipment Failures:

Servers require a precise balance of air flow to maintain safe operating temperatures. Even minor restrictions in air circulation accelerate component wear, elevate thermal stress, and create hotspots that compromise server stability. Over time, this increases the likelihood of forced shutdowns, system crashes, or catastrophic outages. Because modern facilities run 24/7 with limited tolerance for downtime, the financial impact of even a brief failure can be severe—ranging from lost revenue and service disruptions to reputational damage. Reliable filtration is essential to maintain consistent airflow, ensuring uninterrupted performance and reducing the risk of costly failures.

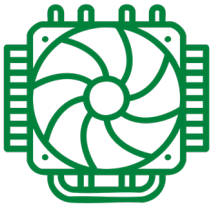
Contamination Risks:

Airborne contaminants pose a persistent and often underestimated threat inside mission-critical environments. Dust, textile fibers, corrosive gases, and microscopic particles bypass poorly performing filters and accumulate within HVAC systems. Once inside, these contaminants clog coils, reduce cooling efficiency, and deposit directly onto sensitive electronic assemblies. The result is accelerated corrosion, shortened hardware lifespan, and costly maintenance interventions. Effective filtration acts as the facility's first line of defense, preventing harmful particulates and chemicals from compromising cooling systems or damaging high-value IT equipment.

Vulnerability of Advanced Microelectronics:

The processors that power AI workloads, edge computing, and hyperscale data operations are designed for maximum performance—but that performance comes with heightened fragility. As transistor sizes shrink and power density increases, these components become far more susceptible to contamination and chemical intrusion. Even trace levels of airborne particulates or corrosive compounds can trigger electrical failures, reduce processing reliability, and degrade long-term performance. Protecting these delicate microelectronics demands advanced filtration solutions that eliminate ultrafine particles and gaseous contaminants before they can reach server racks, safeguarding the facility's most valuable assets.

How MANN+HUMMEL protects Data Centers



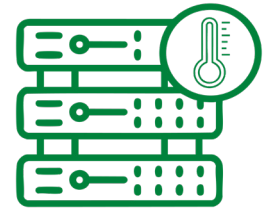
CONSISTENT AIRFLOW TO CRITICAL IT RACKS:

Low-pressure-drop filters maintain steady airflow, reducing the risk of hotspots in high-density environments.



REDUCED PARTICULATE ACCUMULATION ON COOLING COILS:

By preventing dust, fibers, and microscopic contaminants from clogging coils, our filters safeguard cooling system efficiency and reduce maintenance costs.



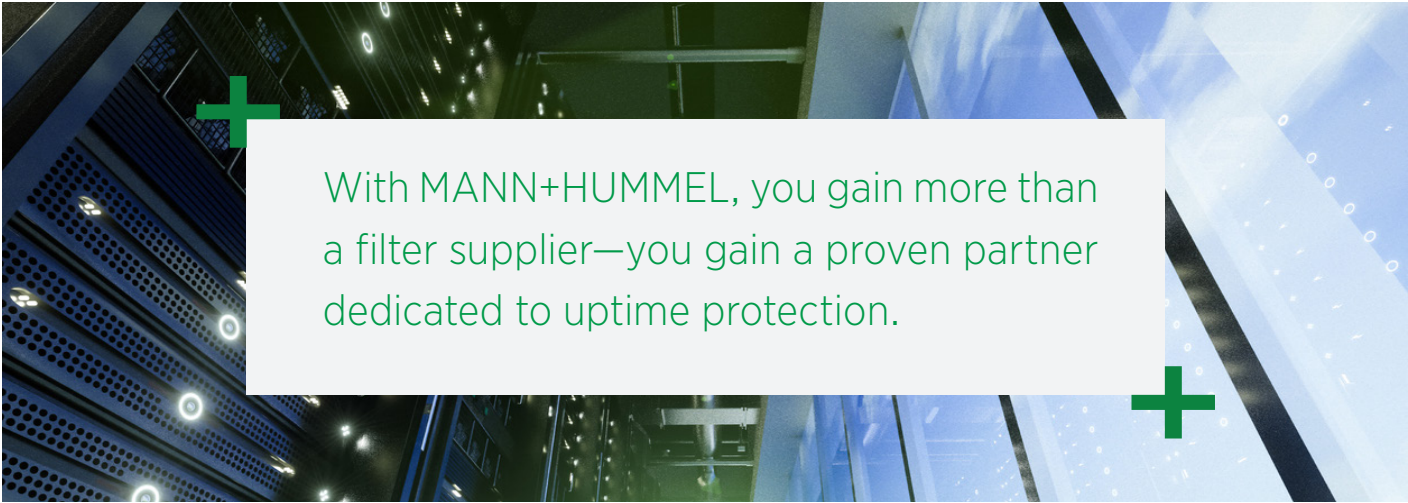
STABLE THERMAL PERFORMANCE ACROSS THE FACILITY:

High-efficiency filtration ensures balanced, reliable airflow distribution keeping servers operating within safe temperature ranges.

MANN+HUMMEL, YOUR PARTNER IN UPTIME PROTECTION:

MANN+HUMMEL filtration solutions are purpose-built to maintain airflow efficiency, optimize system performance, and secure long-term profitability. By delivering consistent airflow and preventing particulate buildup, our solutions help your data center achieve maximum server efficiency, extend hardware life, and strengthen uptime security that protects both revenue and customer trust.

Our engineering expertise safeguards airflow, shields critical IT assets from contamination, and reduces operational risks that threaten continuity. By maintaining stable thermal performance and protecting delicate microelectronics, we ensure your servers remain online, compliant, and operating at peak efficiency. The outcome is clear: customers stay confident in your reliability, service-level commitments are met, and your business continues forward without costly interruptions.

A background image of a data center interior with server racks and blue lighting. Two large green plus signs are overlaid on the image, one on the left and one on the right.

With MANN+HUMMEL, you gain more than a filter supplier—you gain a proven partner dedicated to uptime protection.

Environmental pressures driving smarter filtration solutions

DATA CENTERS ARE UNDER PRESSURE TO DELIVER NOT JUST PERFORMANCE, BUT SUSTAINABILITY.

As demand for cloud, AI, and digital services grows, facilities face scrutiny for their massive energy use, water consumption, and waste generation. Customers, regulators, and stakeholders now expect measurable progress on ESG goals and carbon reduction.

Sustainable operations are no longer optional—they're a business imperative. By reducing emissions, improving resource efficiency, and adopting innovative solutions, data centers can lower costs, strengthen resilience, and build trust with customers and communities.



THE CHALLENGES FOR DATA CENTERS:

Stricter ESG & Carbon Reduction Requirements: Operators are expected to show clear improvements in energy efficiency and waste reduction to meet corporate and regulatory standards.

Excessive Filter Waste: Short-lived filters contribute to large volumes of disposable waste that end up in landfills, increasing both environmental impact and disposal costs.

High Water & Energy Usage: Cooling systems account for some of the largest resource demands in data centers. Any inefficiency in airflow puts additional strain on HVAC systems, driving up both energy and water consumption.

WHY CHOOSE MANN+HUMMEL FOR YOUR SUSTAINABILITY NEEDS IN DATA CENTERS:

At MANN+HUMMEL, we design filters with sustainability at the core:



LOW PRESSURE DROP

Reduces fan energy draw, lowering total facility energy use.



HIGH EFFICIENCY FILTERS

Protects equipment with less airflow resistance, optimizing system performance.



EXTENDED FILTER LIFE

Longer service intervals reduce change-outs, cutting disposal volumes and landfill waste.

Simplifying maintenance. Securing uptime.

Few industries demand more precision than data centers. Every system is interconnected, every process is time-sensitive, and every interruption has the potential to ripple into costly downtime. That's why maintenance in a data center isn't just routine—it's mission-critical. Facility managers must juggle strict security requirements, narrow service windows, and rising labor costs while keeping filtration systems operating at peak performance.



THE CHALLENGES FOR DATA CENTERS:

Restricted Contractor Access: Technicians often have limited access to sensitive areas, requiring background checks, escorts, or specialized clearance. Maintenance work must therefore be streamlined, compliant, and as efficient as possible to minimize both risk and disruption.

Short Maintenance Windows: Scheduled downtime for maintenance is rare, and when it occurs, every second counts. Filters that are difficult to replace or require frequent change-outs only increase the pressure on facility teams.

Balancing Labor & Preventive Maintenance: With labor costs rising, operators must stretch maintenance budgets while still protecting uptime. The challenge lies in extending service intervals without compromising the performance or safety of critical equipment.

MANN+HUMMEL filters are engineered to simplify maintenance while delivering superior protection.

Extended Service Life = Durable filter media, longer operating cycles, reducing the frequency of change-outs and cutting labor needs.

Quick, Reliable Installation = Lightweight, user-friendly frames allow technicians to complete filter swaps rapidly during tight maintenance windows.

Consistent Protection = MANN+HUMMEL filters maintain high efficiency and low pressure drop throughout their service life, ensuring uninterrupted system performance between maintenance intervals.

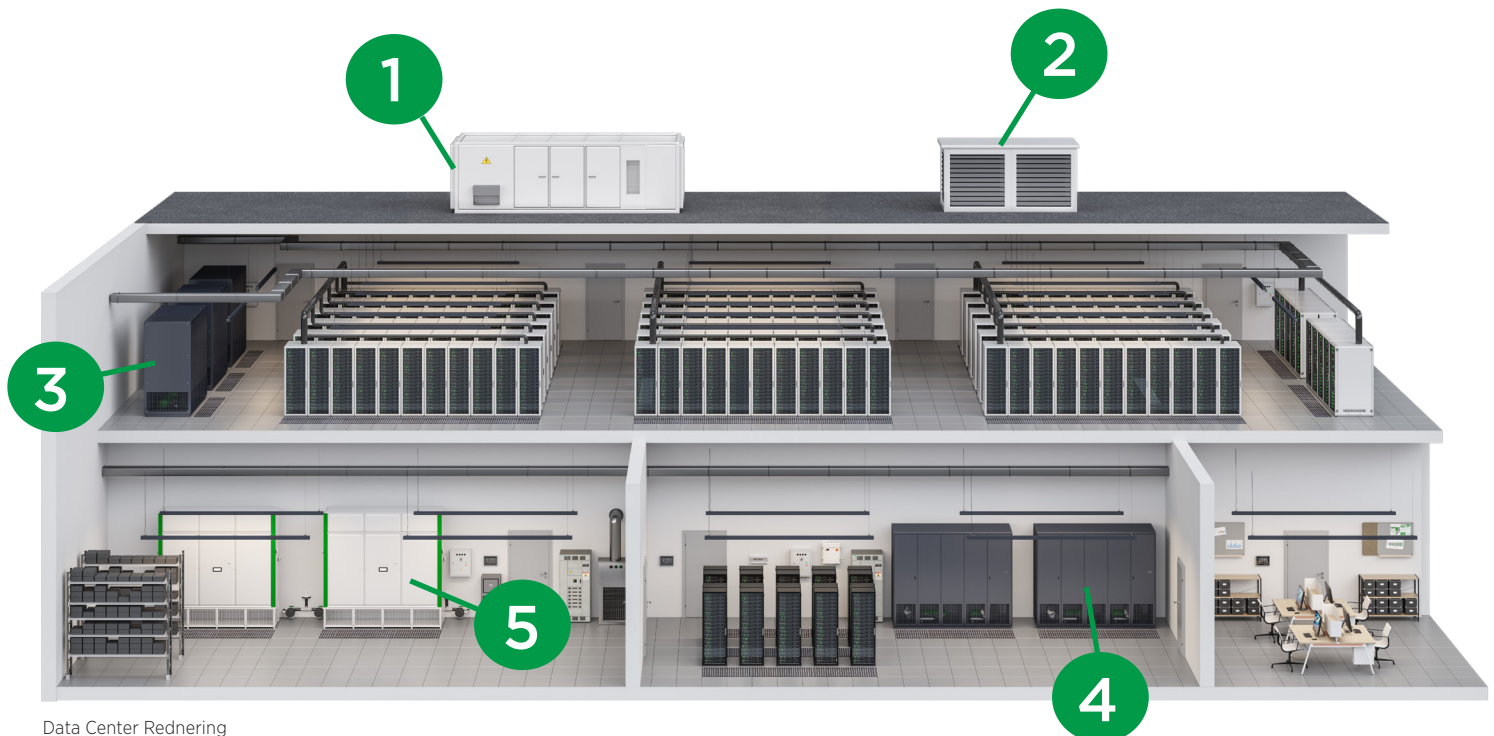


Enhancing efficiency, eliminating downtime risks

High-performance filtration is one of the most critical and most overlooked elements of a reliable, efficient data center. With MANN+HUMMEL filtration solutions, operators gain far more than compliant air quality—they gain a strategic advantage. Our engineered media, low-pressure-drop designs, and extended-life technologies ensure clean, uniform airflow that protects sensitive IT hardware from particulate contamination, corrosive gases, and thermal stress.

By preventing coil fouling, eliminating bypass leakage, and maintaining stable airflow across high-density racks, MANN+HUMMEL filters safeguard uptime and extend the life of expensive IT assets. Lower resistance means fans work less, reducing energy consumption and helping drive lower PUE. Longer service intervals minimize labor demands and reduce landfill waste, directly supporting ESG goals.

In mission-critical environments where even minutes of downtime can cost millions, premium filtration is not just maintenance—it's risk mitigation, energy optimization, and operational resilience. With MANN+HUMMEL, data centers benefit from filtration systems engineered for durability, efficiency, and the purest protection—ensuring your facility operates cleaner, cooler, and more reliably every day.



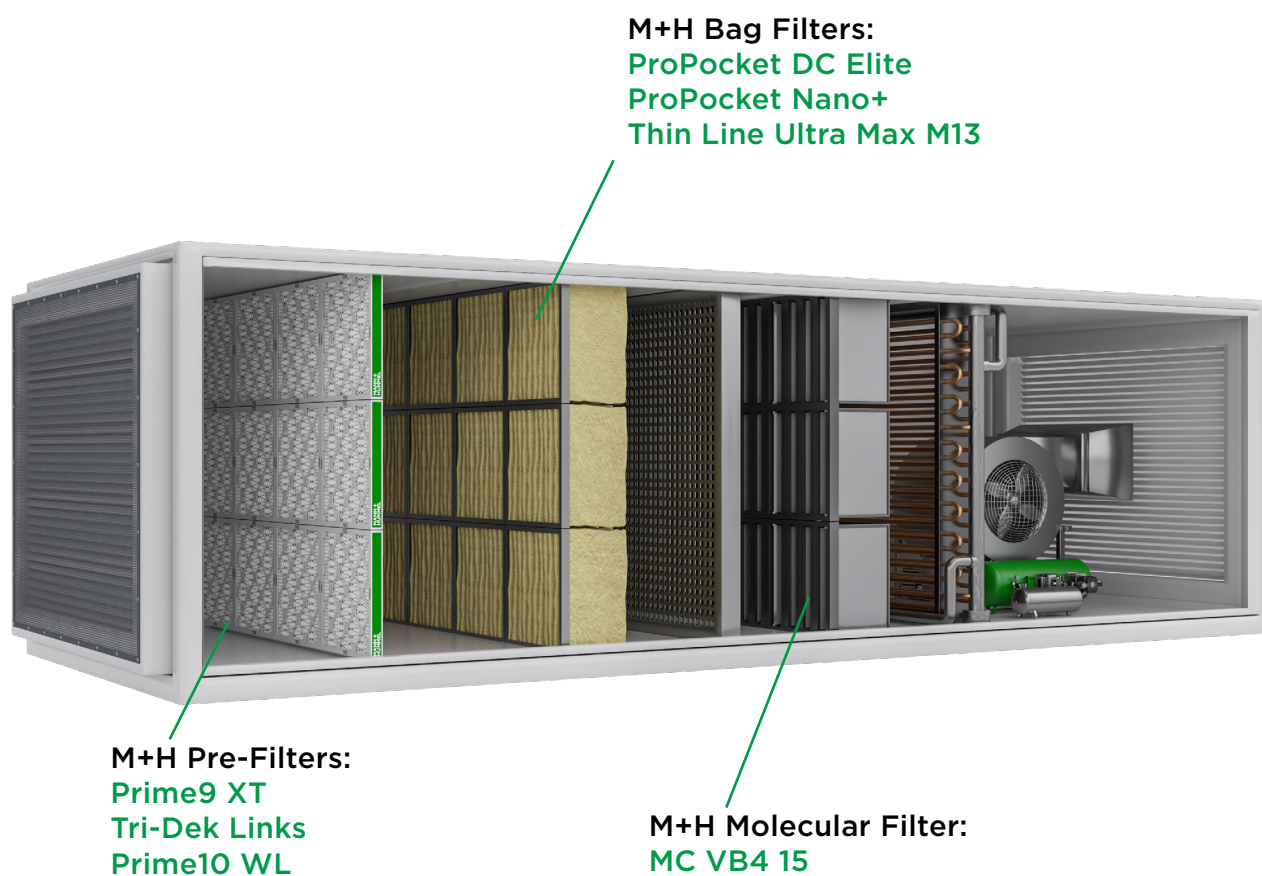
Data Center Rednering

Inside the heart of the AHU — powered by MANN+HUMMEL

1

The Air Handling Unit (AHU) is the lungs of the data center—responsible for every breath of air that keeps critical IT infrastructure running. As the primary point where outside or return air is conditioned, filtered, and delivered into the data hall, the AHU governs the entire supply-air stream from start to finish. It houses every stage of the filtration chain, regulates temperature and humidity, and maintains the static pressure required for stable, balanced airflow across densely packed server racks.

If airflow is inconsistent, if contaminants bypass filtration, or if cooling performance drops, the root of the issue can almost always be traced back to the AHU. Its performance directly impacts energy efficiency, equipment longevity, and overall uptime. In short, a data center can only be as reliable as the AHU supplying its air—making this system the foundation of a clean, controlled, and resilient operating environment.



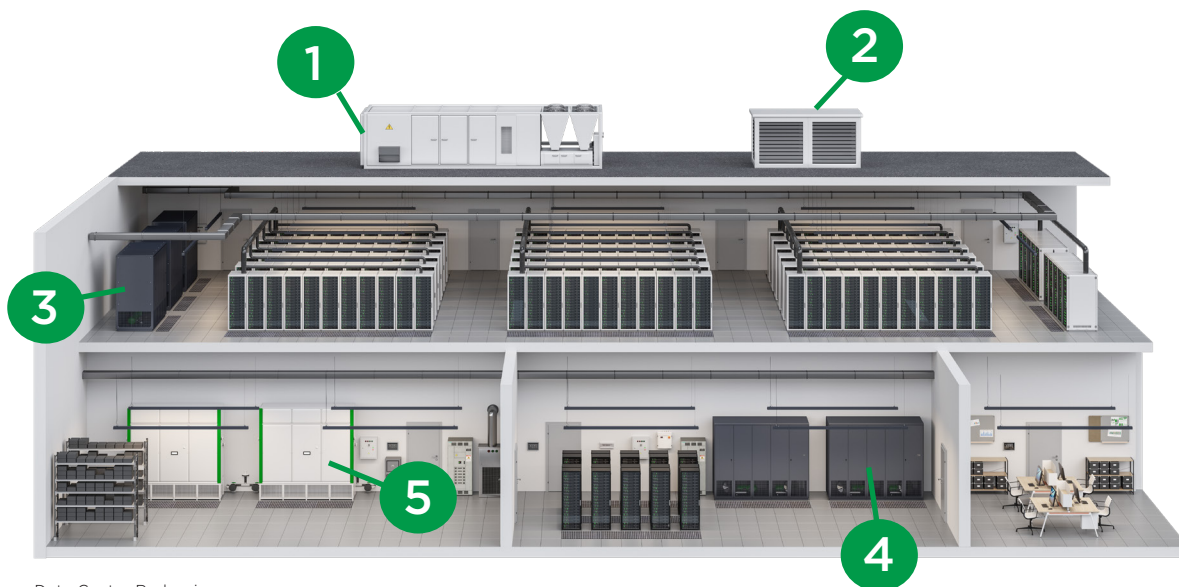
The gateway to cleaner air, engineered by MANN+HUMMEL

2

The outdoor air intake—often called a **doghouse or penthouse**—is essential to protecting the data center's entire HVAC and filtration system. It serves as the first line of defense, preventing rain, debris, dust, and contaminants from entering the AHU before filtration begins. By ensuring only controlled, cleanable outside air enters the system, the intake protects prefilters, stabilizes airflow, and supports efficient economization strategies. Without a properly designed and protected intake, the entire data center airflow chain is at risk.



M+H Filters:
Prime8
TL2 Frameless
TL2 Elite/Ultra



Data Center Rednering

Cooling powerhouses of the modern data center

3

The CRAC unit plays a vital role in maintaining the stable, controlled environment that data centers depend on. Designed for precision cooling, a CRAC unit regulates both temperature and humidity to protect sensitive IT equipment from thermal stress, performance degradation, and potential downtime. By drawing in warm return air, cooling it through direct expansion coils, and distributing conditioned air back into the data hall, the CRAC ensures consistent airflow and balanced cooling across server racks.

4



M+H Filters:
TL Ultra Max
Prime10 WL
MC Prime Pleats

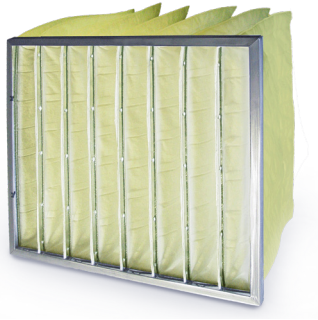
5

The CRAH unit is a cornerstone of modern data center cooling, delivering the high-efficiency, stable airflow required to support today's high-density computing environments. Using chilled-water coils paired with advanced EC fan technology, a CRAH unit provides consistent, scalable cooling while minimizing energy consumption and helping operators achieve lower PUE. Its ability to maintain precise temperature control across dense server racks makes it ideal for hyperscale, colocation, and AI-driven workloads where thermal loads are constantly increasing.



M+H Filters:
TL Ultra Max
PrimeXT M13

High Efficiency Filters for Data Centers



PROPOCKET DC ELITE

The ProPocket DC Elite fiberglass tapered pocket filters are extended surface filters available in three efficiency options: MERV 11, MERV 13 and MERV 15. The ProPocket DC Elite HVAC bag filters are manufactured to the highest quality and strength by utilizing our unique overlocking quad stitch construction and tapered pocket design. Our unique span stitch is sealed with an adhesive sealant to prevent any leakage. The micro-fiberglass media is backed by a thin layer of scrim to offer protection and durability. The ProPocket DC Elite filters are also available with a variety of header options; a nominal 1 inch galvanized header is standard.

The ProPocket DC Elite bag filter has a unique tapered pocket design providing the maximum dust holding capacities and the lowest pressure drop resulting in longer service life and substantial energy savings over traditional bag type filters. Our revolutionary pocket, header and hoop design increases overall product strength that is unmatched in the industry. Independent laboratory breach testing on this product held up to 15 in. w.g. The ProPocket DC Elite is designed for critical applications and used in environments that contain hazardous materials such as data centers, hospitals and more.

FEATURES

- MERV 11, 13 & 15 efficiencies
- Sealed, overlocking quad stitch pocket construction
- Media backing provides durability
- Tapered pocket design for reduced pressure drop & increased dust holding capabilities

ADDITIONAL HIGH PURITY FILTERS IN DATA CENTERS



PROPOCKET HYBRID

- True hybrid media
- Trusted performance
- Available in MERV 12 to MERV 16 efficiencies



PROPOCKET NANO+

- Extended service life
- Double locking quad pocket stitching
- MERV 16A efficiency
- Low operating resistance
- Burst strength 25 in. w.g.



THIN LINE SERIES

The Thin Line Series offers high efficiency in a compact design. The Thin Line Series is offered in nominal depths of 2, 4 and 6 inches with either a die cut beverage board or plastic frame. The plastic frame is available in either box style or with a single header.

The Thin Line Series features a mini pleat media pack and is available in either fiberglass or synthetic medias with efficiencies from MERV 11 to MERV 16. Their compact design promotes maximum air flow, while their lightweight and compact design eases storage, handling and change outs.

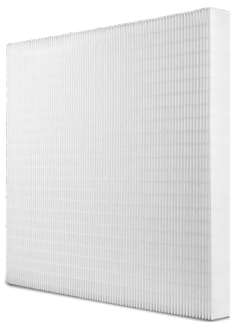
THIN LINE SERIES FEATURES

- Available MERV 11, 13, 14, 15 & 16
- Available in 2", 4" and 6" depths
- Lightweight for easy handling, storage and change out
- MERV 16 available in 4" & 6" depths

THIN LINE ULTRA MAX FRAMELESS

The Thin Line Frameless Series includes extended surface mini-pleat filters with synthetic media designed for medium to high efficiency commercial and industrial applications. The TL Ultra Max Frameless filter delivers exceptional strength and durability without the need for a traditional frame, reducing environmental impact in manufacturing, use, and disposal.

Available in multiple sizes and 2- or 4-inch depths, it provides MERV 13 performance with low pressure drop for energy savings, high dust-holding capacity, and an extended service life—making it a sustainable, high-performance solution.



THIN LINE SERIES FEATURES

- Extra tough construction
- MERV 13 efficiency
- High dust holding capacity
- Low pressure drop
- High burst strength

Final Filters for Data Centers



VB4 ELITE & VB4 ULTRA



The VB4 Elite and VB4 Ultra V-Bank filters are designed and tested to meet the requirements of data centers. They are ideal for use in variable-air-volume (VAV) system due to their rigid nature. The large media area of the VB4 filters allows for low pressure drop, long service life and adds to the strength of the filter. These filter have a low total cost of ownership (TCO) due to their high dust holding capacity.

These filters are available with either microfine fiberglass or synthetic media and available in efficiencies of MERV 11, 13 14, and MERV 15. Also available with a single header, our all plastic V-Bank filters utilize aerodynamic vertical supports to reduce air entrance turbulence. The frame is constructed from high impact polystyrene (HIPS) plastic to enhance rigidity. The all HIPS plastic construction with no metal components also ensures the frame is fully incinerable.

FEATURES

- Available in nominal 12" depth
- Synthetic or microfine fiberglass media available
- Efficiencies available from MERV 11, 13, 14, 15 & 16
- High impact polystyrene (HIPS) frame



ADDITIONAL FINAL FILTERS IN DATA CENTERS



VB2 ELITE

- 2 V configuration with a nominal 12" depth
- Available in MERV 11, 13, 14, 15 & 16 efficiencies
- Moisture resistant fiberglass media



VB2 ULTRA

- 2 V configuration with a nominal 12" depth
- Available in MERV 11, 13, 14, 15 & 16 efficiencies
- Synthetic media

Prefilters for Data Centers



PRIME9 XT

The Prime9 XT filter is designed for tough industrial use, featuring a die-cut frame and heavy-duty steel backing that's 40% stronger than standard pleats. Available in standard and high-capacity (Prime9HC XT) versions in multiple depths, it offers long service life, ultra-high dust holding capacity, and MERV 9A performance with low resistance (0.30 in. w.g. @ 2,000 CFM), ensuring strength, efficiency, and durability.

FEATURES

- Available in 1", 2" & 4" depths
- MERV 9A efficiency
- Heavy duty wire support
- Heavy duty moisture resistant frame
- Max operating temp: 180°F



PRIME10 WL

The Prime10 WL delivers unmatched MERV 10-A efficiency with no metal content, a moisture-resistant frame, and low pressure drop for significant energy savings. Its durable, metal-free design maintains pleat spacing under stress, outperforms many MERV 8 filters, and offers full incinerability for environmental benefits.

FEATURES

- Available in MERV 10-A efficiency
- Available in standard & high cap
- Synthetic media
- Moisture resistant frame
- No dyes or metal in components



TRI-DEK® CUBES

Tri-Dek cubes are the perfect solution when you need a filter with a lower pressure drop, longer service life, moisture and mold resistance and energy and cost savings. Our Tri-Dek® cubes provide better efficiency and help relieve the increased pressures on your budget. Designed to replace pleated and fiberglass throwaway filters, our Tri-Dek® cubes triple the service life without triple the costs.

FEATURES

- Depth loading synthetic media constructed as 2, 3 or 4 ply
- Self-sealing eliminates bypass
- Extended surface area leads to energy savings
- Mold/moisture resistant
- Longer service life and reduced labor

Molecular prefilters for Data Centers



MC PRIME SERIES

The MC Prime Series pleated carbon filters offer both particulate and molecular filtration and are offered in a wide range of models to fit your needs. The MC Prime is offered in a variety of carbon loadings as well a 50/50 blend and diesel blend carbon. The MC Prime is also available in a variety of MERV ratings up to MERV 13. The MC Prime Series is constructed with a durable, moisture resistant, beverage board frame and should be used anywhere a higher level of indoor air quality is required.

FEATURES

- Easy retrofit solution
- Low pressure drop
- Particulate & molecular filtration
- Available with a 50/50 blend
- Moisture resistant die-cut frame



MC TL SERIES

The MC TL Series is offered in a thin profile of just 2 and 4" depth and offers both molecular and particulate control in one filter. Designed to remove a wide range of odors and gases, the carbon is 650 grams per square meter of 20x50 mesh which offers excellent removal contaminate. The MC TL features double wall plastic frame and is lightweight yet durable.

FEATURES

- Impregnated polyester media
- Available in 2" & 4" depths
- Available in MERV 8 & MERV 9
- Removes a wide range of odors & gases
- Double wall plastic frame



MC VB4 15

MC VB4 15 offers effective defense against both solid and gaseous pollutants. This is possible thanks to a new hybrid media that delivers high efficiency removal of both particulate and gaseous contaminants. MC VB4 15 performs this dual function at a very low pressure drop – only 0.42" w.g. at 2,000 CFM for a 24 x 24 x 12 in. filter. An all-plastic frame and securely-sealed media makes the MC VB4 15 a solidly built filter, robust enough to handle today's demanding applications. The design features no metal components, so MC VB4 15 can be incinerated at the end of its service life, reducing landfill waste.

FEATURES

- Easy retrofit solution
- Low pressure drop
- MERV 15 efficiency
- All plastic frame



MC VB4 HC

MC VB4 HC is a V-Bank carbon filter that features special honeycomb panels. These panels hold 24 lbs. of carbon per 24 x 24 x 12 in. filter—either 100% 6 x 12 mesh, industrial grade CTC high activity carbon, or a 50/50 blend of carbon and potassium permanganate. These types and quantity of carbon allow MC VB4 HC to be used in applications with heavy concentrations of unwanted gases and to control a wide range of odors. MC VB4 HC is designed to withstand the demands of the toughest of applications. The frame is double walled and constructed from high strength plastic and the pack sealant is moisture resistant and strong to add to the overall pack strength.

FEATURES

- Double walled frame
- Low resistance
- High strength plastic
- Moisture resistant pack sealant

Our Heritage:

Trusted Filtration Since 1941

From our beginnings, MANN+HUMMEL has built a legacy on innovation, resilience, and unmatched expertise in filtration. Founded in 1941 by Adolf Mann and Dr. Erich Hummel, the company first produced textile-based filters in Ludwigsburg, Germany, at a time when mobility and industrial efficiency were reshaping the modern world. What started with a commitment to solving practical problems through filtration grew into a global enterprise known for technical precision, reliability, and vision.

FAMILY-OWNED, GLOBALLY RESPECTED:

Over more than eight decades, MANN+HUMMEL has remained proudly family-owned—an uncommon distinction in a world of mergers and consolidation. This independence has allowed us to preserve the founding principles of trust, quality, and long-term vision while continually adapting to evolving markets and technologies. It is this balance of tradition and progress that defines our strength: rooted in history, yet always looking forward.

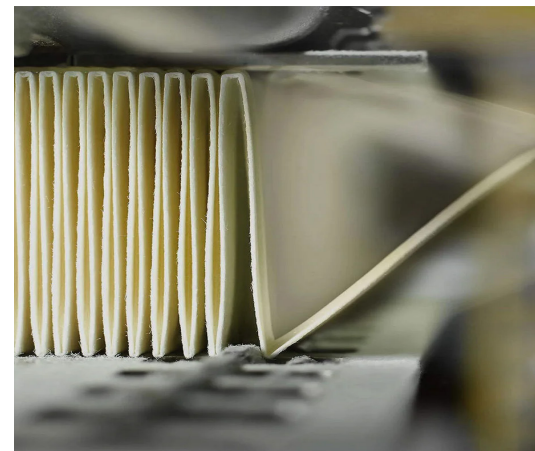
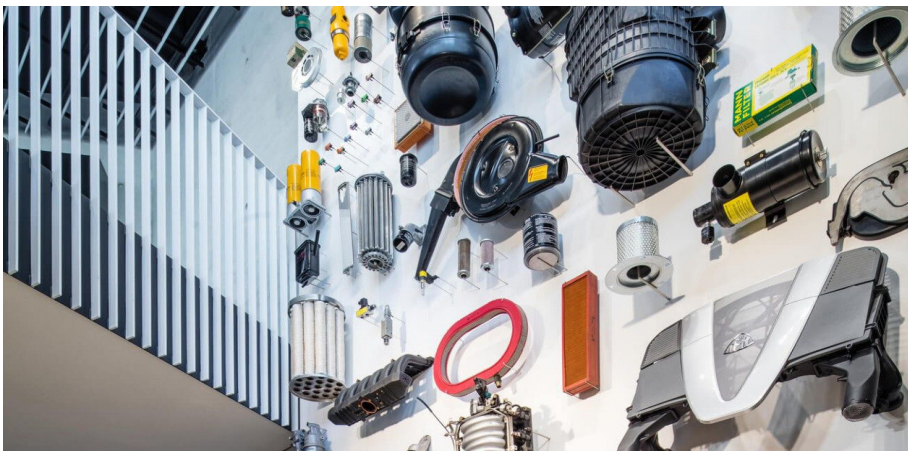
Today, MANN+HUMMEL operates across more than 80 locations worldwide, with thousands of engineers, scientists, and technical experts dedicated to advancing the science of filtration. We are more than a supplier of filters—we are a partner in safeguarding health, protecting environments, enabling efficiency, and advancing sustainability goals for industries and communities around the globe.

EXPANDING BEYOND AUTOMOTIVE:

Though our earliest success was tied to the automotive sector, MANN+HUMMEL quickly expanded into multiple industries. Our filtration technologies now serve a vast range of applications:

- **Clean Mobility:** keeping engines, drivetrains, and cabin air pure to protect vehicles and passengers.
- **Life Sciences & Water:** delivering solutions that ensure cleaner water and contribute to healthier living environments.
- **Industrial & Clean Air Solutions:** powering manufacturing, healthcare, cleanrooms, and sensitive environments where air purity is mission-critical.

This broad expertise positions us at the forefront of the most urgent challenges of our time: **clean air, clean water, and sustainable resource management.**

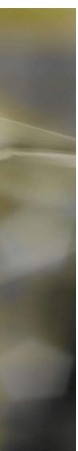




SHAPING THE FUTURE, PRESERVING THE HERITAGE

At MANN+HUMMEL, innovation means more than keeping pace—it means setting the standard. We develop solutions that extend service life, improve efficiency, and reduce environmental impact, continually redefining what filtration can accomplish.

Even as we pioneer solutions for the future, our foundation remains the same: a family-owned company built on resilience, vision, and a steadfast commitment to improving the world around us.



For over 80 years, our products have been shaped by both **heritage and innovation**—and that commitment will continue to guide us for generations to come.



MANN+HUMMEL - Air Filtration Americas
112 S. Respass St.
Washington, NC 27889

T +1 877 752 5811

airfiltration.mann-hummel.com/us-en

AB101 0626 © MANN+HUMMEL GmbH

MANN+
HUMMEL