



Improve manufacturing conditions and reduce operating costs

Munters auto industry climate control solutions



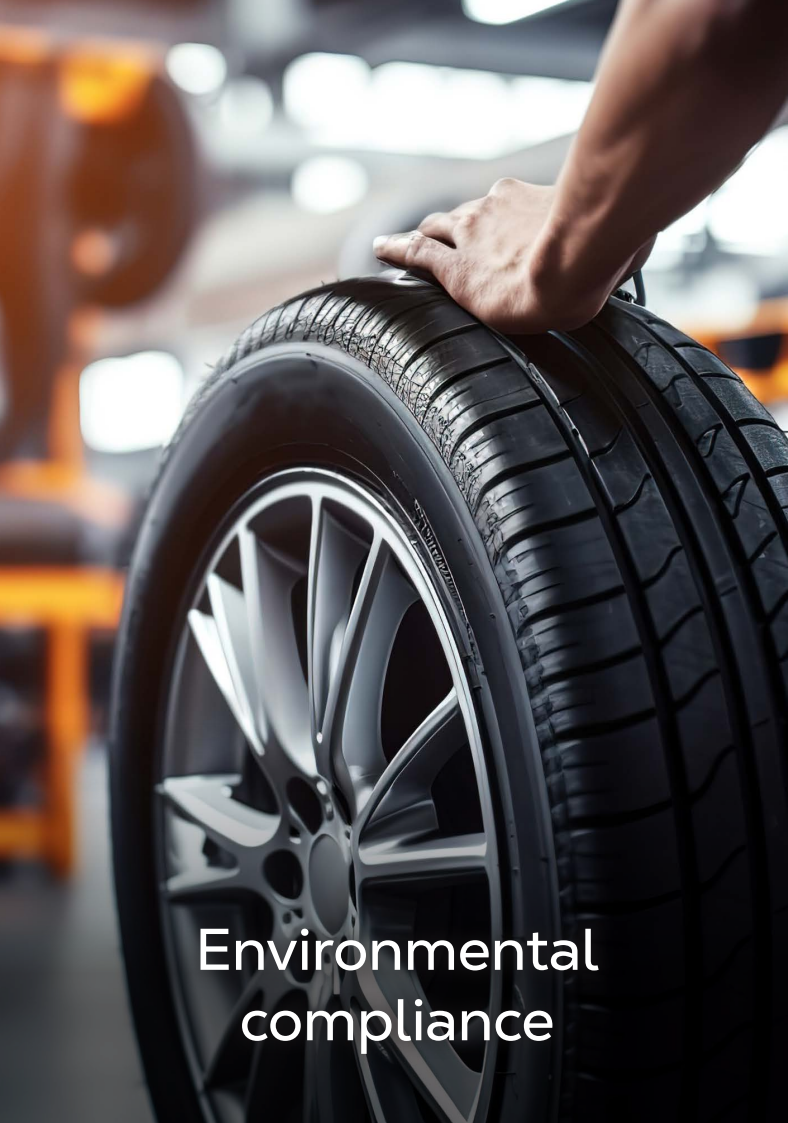
Climate control expertise you can count on

In automotive manufacturing, maintaining precise environmental conditions is crucial for ensuring product quality and efficiency. The automotive industry relies on controlled humidity levels for various processes, particularly painting and coating applications. Without proper humidity control, paint and coating failures, along with unreliable testing conditions, become significant challenges.

Munters understands the importance of humidity control in automotive manufacturing. Our climate control solutions, including humidification, dehumidification, and VOC abatement, are essential for maintaining optimal conditions throughout

the production process. Whether it's ensuring the right humidity levels for spray painting or protecting equipment from corrosion, Munters provides tailored solutions to meet the unique needs of automotive facilities.

Our cost-effective and energy-efficient solutions are manufactured in ISO 9001:2008- and 14001-certified facilities, ensuring the highest quality standards. With Munters, automotive manufacturers can achieve precise temperature and humidity specifications, reduce emissions, and cut operating costs while enhancing overall product quality and efficiency.



Environmental
compliance



Improved
product quality



Enhanced production
efficiency



Lower
operating costs

Humidification

Precise control over humidity levels can significantly enhance various automotive industry processes, ultimately improving production efficiency and product quality. Munters offers tailored humidification solutions designed to address challenges encountered in paint spray booths, sanding decks, and engine testing environments.

Paint spray booths

Painting in the automotive industry can be challenging since there are such high expectations on both quality and productivity. When external humidity is lower in winter this can cause problems in production, whether that's due to increased dust levels or issues with static electricity. Munters humidification solutions address these issues by humidifying the air to the optimum level, which ensures even color, smooth paint distribution and lower contaminant levels.

Sanding decks

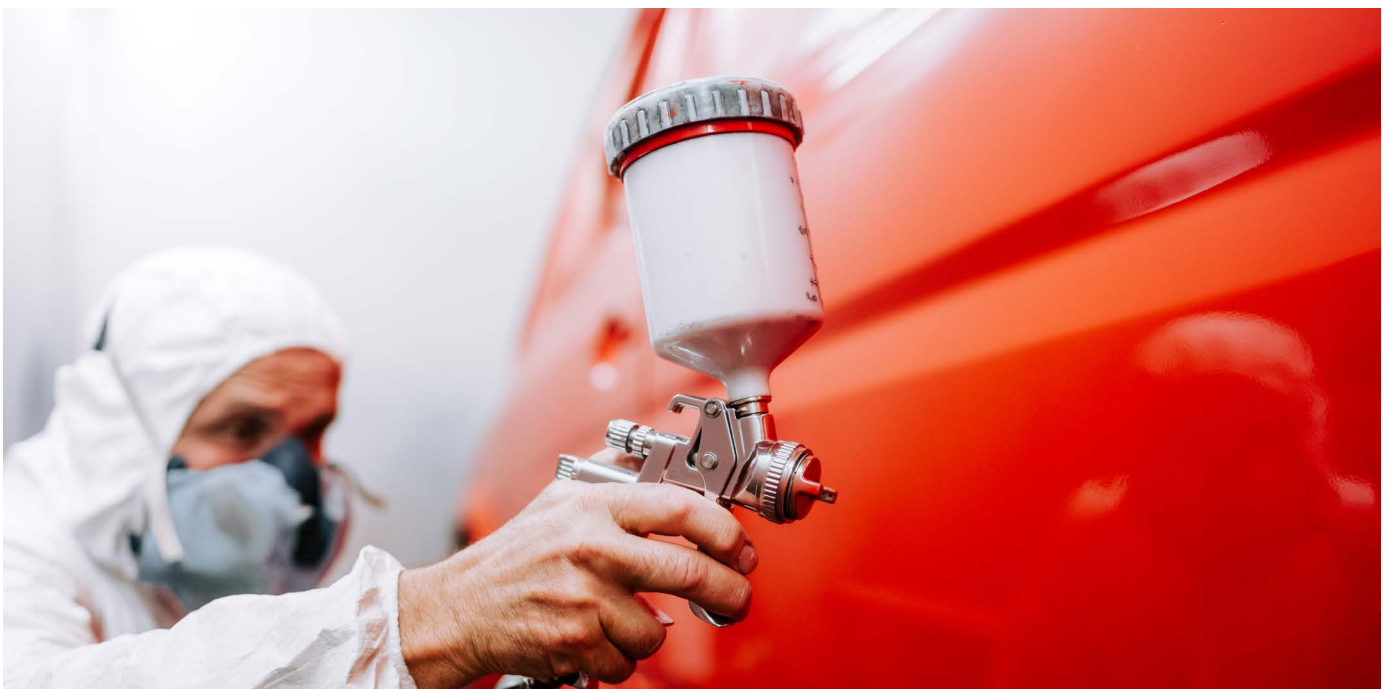
Maintaining correct relative humidity in sanding decks is essential for suppressing dust and mitigating static build-up. Munters humidification solutions effectively prevent airborne paint dust from sticking to bodywork surface, leading to reduced sanding time and enhanced finish quality.

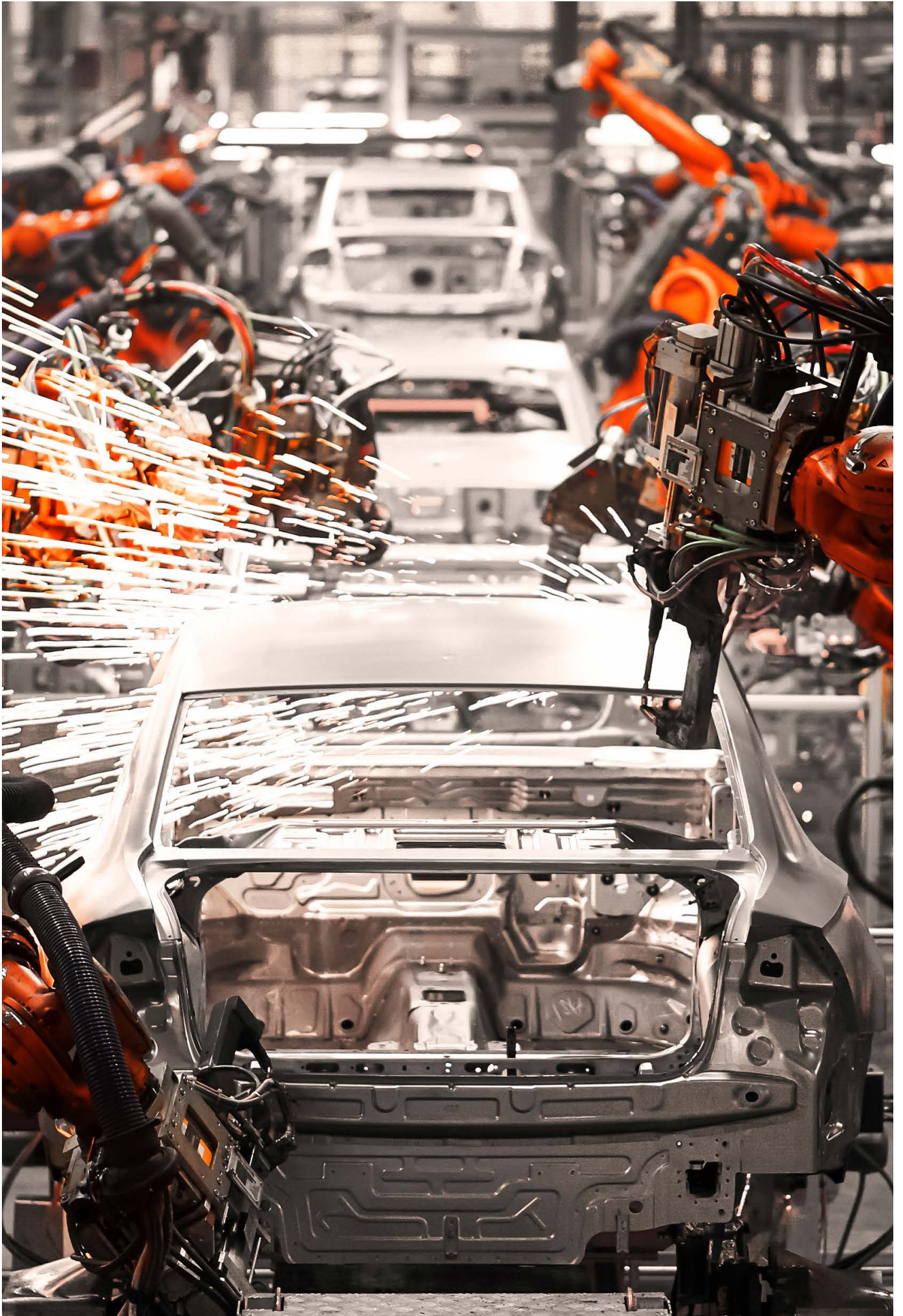
Engine testing

For exhaust emission testing, stringent temperature and humidity control parameters must be always met. Munters humidification systems offer precise control and reliability, facilitating accurate testing conditions.

Munters humidification solution benefits:

- Prevent airborne dust from sticking to bodywork surfaces
- Reduce static build-up, enhancing production efficiency
- Preserve water-based paint integrity
- Ensure precise humidity control for exhaust emission testing
- Promote employee wellbeing by enhancing working conditions





Dehumidification

Munters offers a wide range of dehumidification solutions tailored to the unique needs of the automotive sector, addressing challenges ranging from manufacturing processes to testing environments and storage facilities. With Munters advanced climate control technology, automotive manufacturers can ensure consistent indoor air conditions, optimize production processes, and protect sensitive components from moisture-related issues.

Fabrication processes

Munters automotive manufacturing dehumidifier solutions are engineered to maintain consistent indoor air conditions, regardless of external conditions. By preventing condensation and corrosion, our dehumidification systems enhance manufacturing speed, consistency and quality for laminating, molding, injection molding, and car window manufacturing.

Paint and coating processes

Achieving high-quality finishes and reduced drying times is essential in paint processes. While coating specifications often require a maximum relative humidity, too often unachievable during humid summer months, resulting in premature failures, like cracks and blisters. Munters dehumidification solutions ensure consistent humidity levels, regardless of external conditions, which enhances drying consistency and reduces rework.

Testing

Test stations such as wind tunnels, soak boxes, environmental chambers and anechoic chambers require exact environmental conditions to ensure performance measurements are accurate and repeatable and quality targets are met. Munters testing dehumidifier solutions enable auto manufacturers to simulate a wide range of environmental conditions, enabling precise evaluations of engine performance, heating and air conditioning systems, windscreen/window defrost/demist functionality, and component durability in extreme environments.

Exhaust gas measurement testing

In the pursuit of reducing emissions, automotive manufacturers require precise exhaust gas measurement testing. Munters dehumidification technology delivers well-defined dilution air purified at specified temperatures and humidity levels, enabling reliable measurements for emissions testing.

Storage and transport

Sensitive automotive components vulnerable to humidity-related issues, such as mold and corrosion, require proper storage and transportation solutions. Munters dehumidifiers create a low-humidity climate ideal for preserving cars and components, ensuring efficient preservation, year-round climate control, and low operating costs compared to alternative methods.

Munters dehumidification solution benefits:

- Optimized production processes that remain constant year-round
- Prevention of condensation and corrosion problems
- Higher quality finishes and reduced drying times
- Lower emissions and improved energy efficiency
- Improved consistency in manufacturing processes
- Repeatable and adjustable environmental conditions for testing
- Enhanced performance measurements and higher product quality
- Efficient preservation of cars and components during storage and transport



VOC abatement

Munters offers advanced VOC abatement solutions specifically tailored to the needs of the automotive industry. Our Zeolite systems are known for their reliability, durability and low-maintenance design. They provide extremely cost-effective and energy-efficient removal of organic contaminants from exhaust streams.

Paint booth exhaust air treatment

Munters Zeol rotor concentrator systems effectively concentrate large volumes of exhaust air containing low concentrations of VOCs into a small, concentrated stream. This concentrated stream is then cost-effectively destroyed in an oxidizer, ensuring efficient VOC abatement without compromising production processes.

Customized solutions

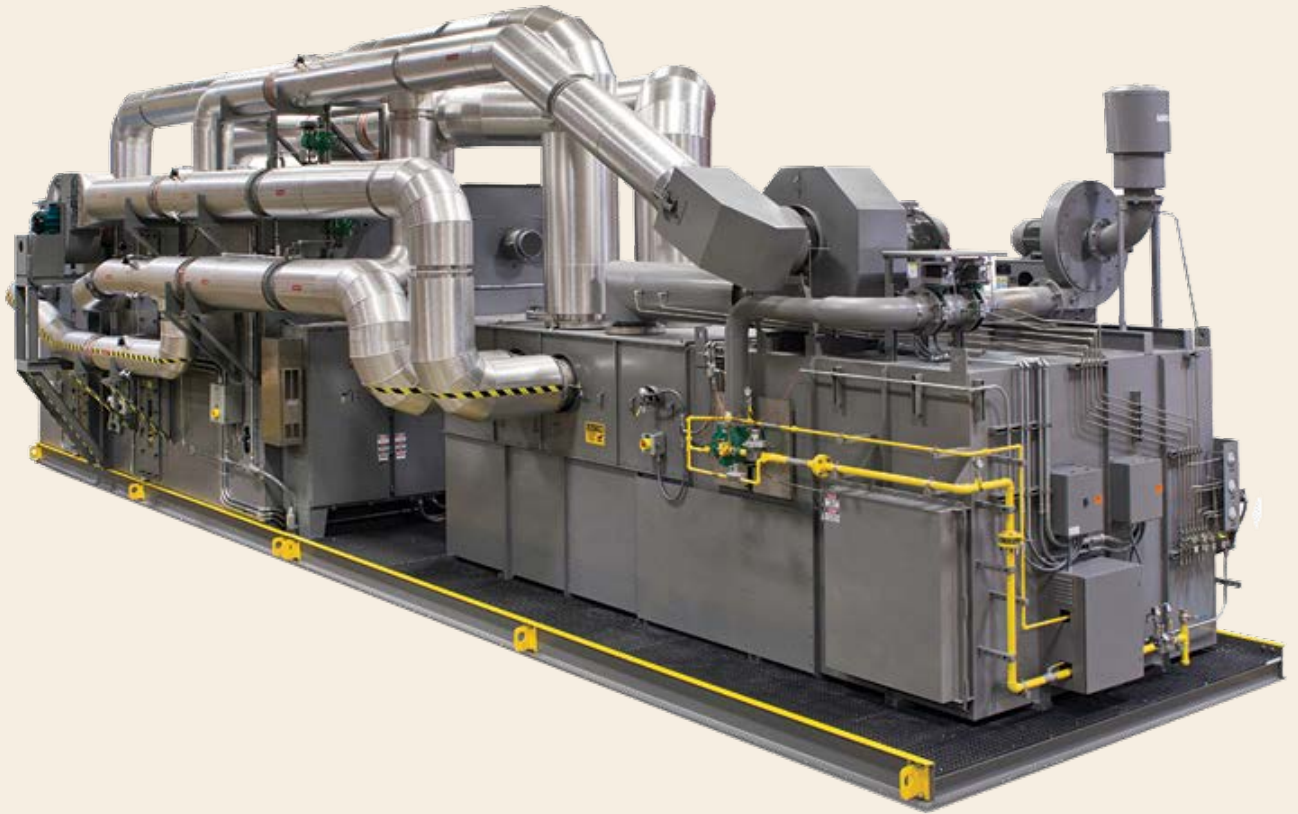
Munters understands that each automotive manufacturing facility has unique requirements.

We can design customized VOC abatement systems to address your specific needs. With extensive experience in installing Zeolite rotor solutions across various industrial applications, we ensure optimal performance and reliability.

Munters VOC abatement benefits:

- Efficient removal of VOCs
- Cost-effective destruction of concentrated VOC streams in oxidizers
- Reduced natural gas consumption and electricity usage
- Minimal maintenance requirements and downtime
- Self-cleaning feature ensures 100% zeolite regeneration
- No need for water washing or high-temperature bake-outs





The power of zeolite

What is zeolite?

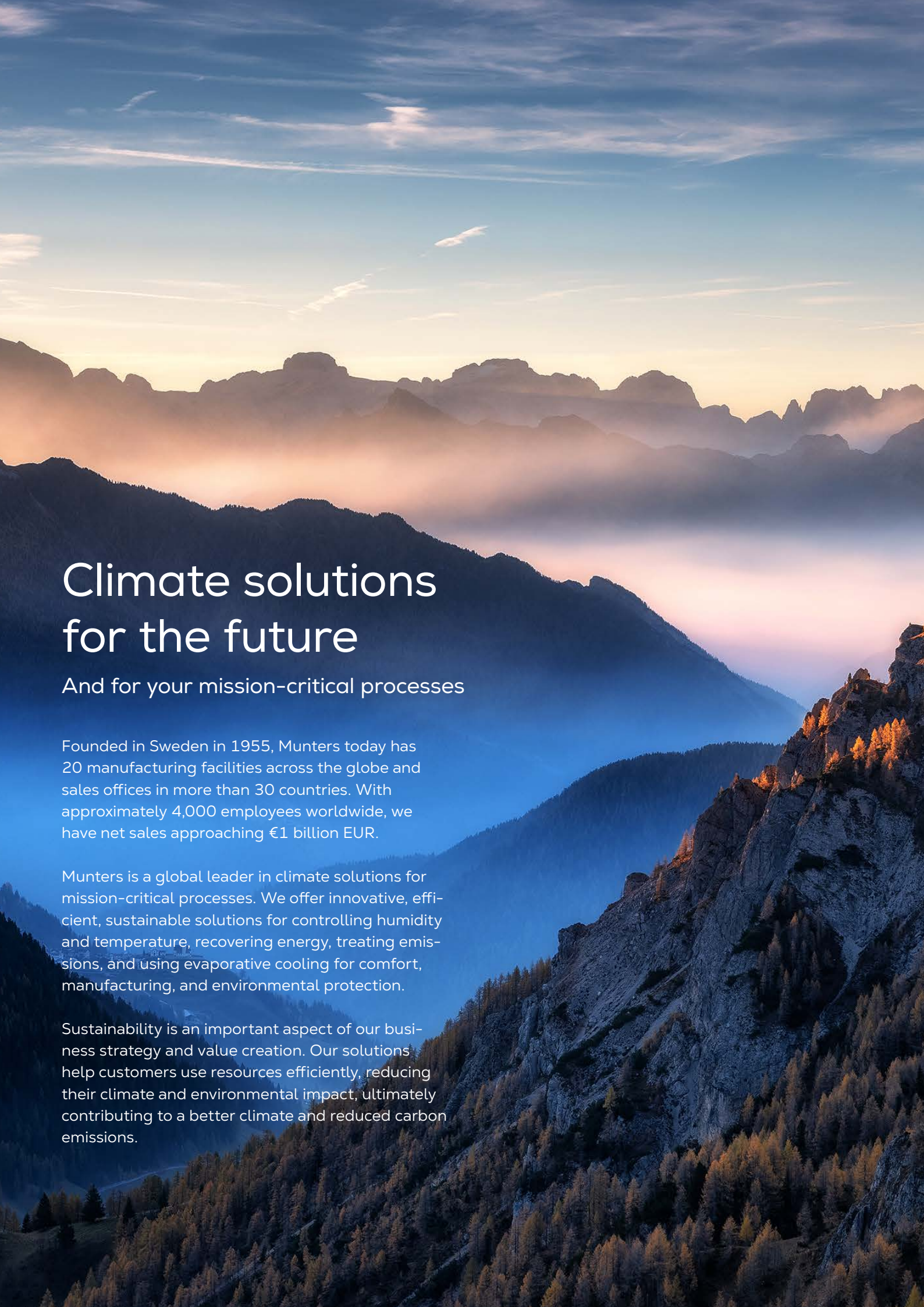
Zeolite is a naturally occurring crystalline mineral made of hydrous aluminum silicates of sodium, calcium, potassium or barium ions. Natural zeolite is hydrophilic and readily adsorbs and desorbs water. In addition to natural zeolite, more than 70 types of synthetic zeolite have been developed for use in commercial applications.

Hydrophobic zeolite is an inorganic, stable crystal with properties suited to adsorbing VOCs. It is inert and non-chemically reactive, including with strong acids. It is also non-flammable.

Munters Zeol concentrators remove*

- Xylene
- Toluene
- Benzene
- Acetone
- Butanol
- Ethanol
- Ethyl lactate
- Butyl acetate
- Ethyl acetate
- Isopropanol
- Trimethyl benzene
- Trimethyl amine
- Ethanolamine
- Cyclohexanone
- Methyl ethyl ketone
- Methyl amyl ketone
- Methyl isobutyl ketone
- Propylene glycol monomethyl ether (PGME)
- Propylene glycol monomethyl ether acetate (PGMEA)
- N-methylpyrrolidone (NMP)
- Dimethyl sulfoxide (DMSO)

* This list is not exclusive – Munters can also address other VOCs.



Climate solutions for the future

And for your mission-critical processes

Founded in Sweden in 1955, Munters today has 20 manufacturing facilities across the globe and sales offices in more than 30 countries. With approximately 4,000 employees worldwide, we have net sales approaching €1 billion EUR.

Munters is a global leader in climate solutions for mission-critical processes. We offer innovative, efficient, sustainable solutions for controlling humidity and temperature, recovering energy, treating emissions, and using evaporative cooling for comfort, manufacturing, and environmental protection.

Sustainability is an important aspect of our business strategy and value creation. Our solutions help customers use resources efficiently, reducing their climate and environmental impact, ultimately contributing to a better climate and reduced carbon emissions.



Munters Service portfolio

At Munters, we are committed to offering a complete portfolio of service offerings to support you throughout the entire lifecycle of your Munters equipment.

Commissioning support

Our trained service technicians make sure your equipment is operating as designed so your investment gets the best possible start. We offer everything from basic unit start-up to extensive turnkey installations.

Maintenance

Keep your equipment running like new with on-site visits by factory-trained technicians and regular rotor performance checks.

Retrofit and upgrade

Boost energy efficiency and capacity with our retrofit solutions for equipment already in operation.

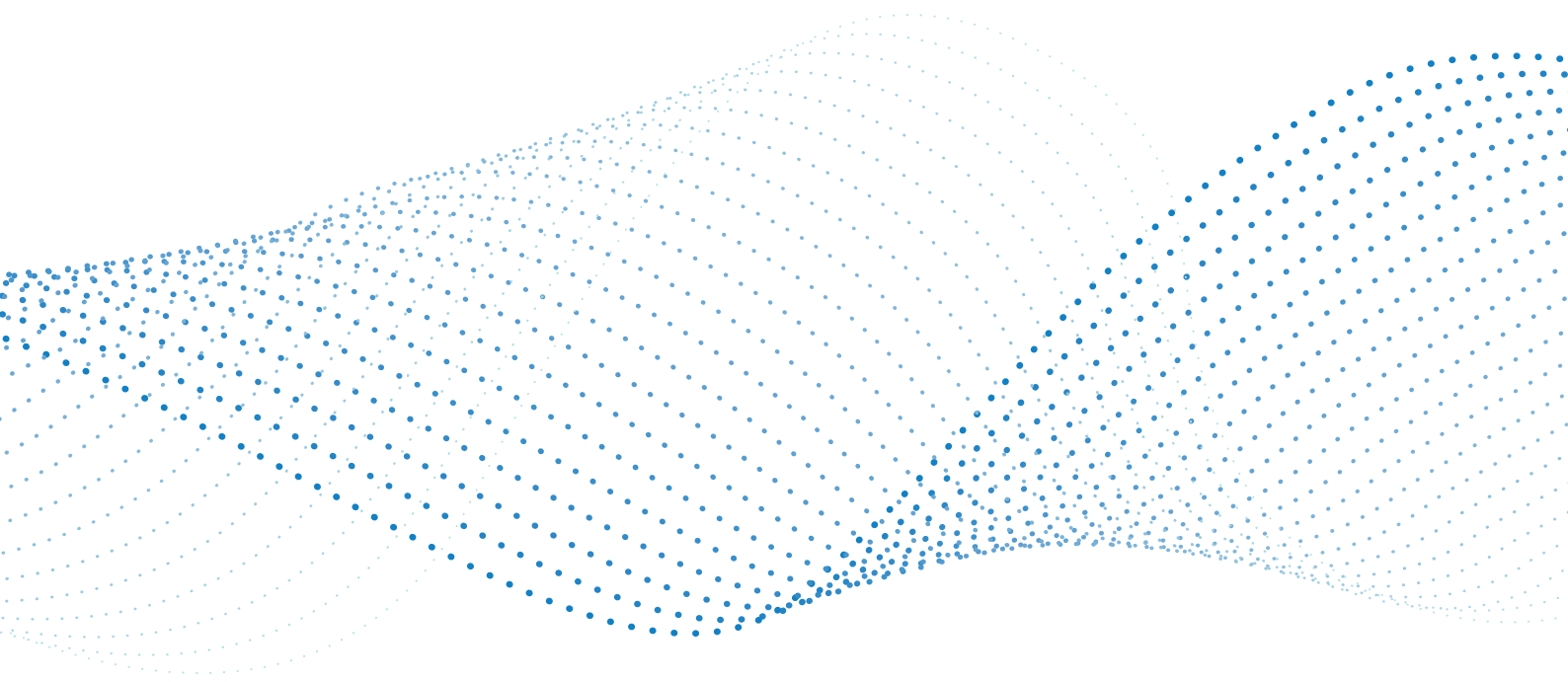
Upgrade controls, replace your rotor or upgrade your fan to maximize performance, save money and energy. Munters also custom fabricates zeolite blocks for replacement of all zeolite and carbon rotor systems.

Munters Service Agreements

Ensure that your Munters equipment always performs according to specifications. Munters Service Agreements, tailored to your needs, offer industry-leading lifecycle care for your equipment – and peace of mind for yourself.

Munters Genuine Parts

We use only Munters Genuine Parts, which are designed, tested, and verified to ensure that each part meets or exceeds specifications. Convenient service kits are made to make maintenance simple.



Munters is a global leader in energy-efficient air treatment and climate solutions. Using innovative technologies, Munters creates the perfect climate for customers in a wide range of industries.

Munters has been defining the future of air treatment since 1955. Today, around 4,000 employees carry out manufacturing and sales in more than 30 countries.

For more information, please visit www.munters.com