



Cleanova
MICRONICS



HIGH-QUALITY FILTER BAGS, PLEATED BAGS, CARTRIDGES & ACCESSORIES

UNMATCHED EXPERIENCE IN FILTER BAG DESIGN AND MANUFACTURING FOR A CLEANER TOMORROW

We can help you maintain regulatory compliance, reduce operating costs, and eliminate unplanned outages, so you can get the most out of your baghouse today and for a cleaner tomorrow.



KEY BENEFITS OF WORKING WITH CLEANOVA

EXPERT KNOWLEDGE.

Our filter bag specialists have the proven expertise to help select the best filter media based on your application, process conditions, gas temperature, dust loading, particle size, abrasiveness, potential for process upset, and expected bag life.

YOUR COMPLIANCE IS OUR PRIORITY.

When it comes to air pollution control, we have extensive field experience in all industries and applications including cement, lime, coal-fired power utilities, waste-to-energy, co-generation, mining and minerals, steel, non-ferrous metals, chemicals, carbon black, and more. Trusted professionals with decades of filtration experience work with customers to develop a total strategy to ensure compliance with environmental requirements such as:

- NESHAP (National Emission Standards for Hazardous Air Pollutants)
- MATS (Mercury and Air Toxics Standards)
- MACT (Maximum Achievable Control Technology Compliance)
- CISWI (Integrated Pollution Prevention and Control)



Multiple World-Class Filter Bag Manufacturing Facilities in the USA, Canada, Brazil, India, and China



Full Range of Baghouse Maintenance and Repair Services



Inspections, Audits, Troubleshooting and Emergency Services



In-house Filter Bag Testing and Analysis



Fabric and Baghouse Filtration Training and Seminars

FILTER BAGS, CARTRIDGES, PLEATED FILTERS & CAGES

You can count on us for unsurpassed filter media for more efficient dust collection. We manufacture a wide range of filter media for all OEM baghouse and dust collector styles and types such as pulse-jet, reverse-air, and shaker baghouses.

At Cleanova | Micronics, we are delivering advanced filtration solutions to help improve operating efficiencies, reduce costs, contribute to sustainability, and ensure a cleaner tomorrow for future generations.

ePTFE Membrane Laminates

We manufacture a wide range of felt and woven filter media with ePTFE membrane. The membrane laminate serves as a primary filter surface allowing air to pass through while the fine particulate is collected. The membrane allows for excellent dust release and particle retention, keeping the filter bags as clean as possible for longer life.

Benefits of ePTFE Membrane

- Lower differential pressure
- Higher throughput
- Much more efficient in capturing submicron dust particles
- Less frequent bag cleaning due to reduced compressed air usage
- Longer filter bag life

Pleated Filters and Cartridges

Pleated filters provide 2-3x additional cloth area, as compared to standard bags in dust collectors where increased production demands have overwhelmed original capacity. When properly utilized, pleated filters will reduce pressure drop, increase collection efficiency, and lower pulse-jet air consumption.

We manufacture in-house cartridges and pleated filters made of cellulose, synthetic blends, nanofibers, aramids, PPS, 80/20 Cellulose/Polyester Blend, and spunbond polyester, with special coatings, finishes, or ePTFE membrane.

These can be constructed using galvanized or stainless steel components, designed to meet a variety of operating conditions and temperature requirements.



Filter Bags



Pleated Filters & Cartridges

Filter Media

- Polypropylene
- Acrylic
- Polyester
- PPS
- Aramid
- P-84®
- PTFE
- Fiberglass
- Huyglas®
- Mixed Felts
- Basalt
- Blends

Finishes

- ePTFE Membrane
- PTFE
- Acid Resistant
- Singed
- Glazed
- Silicone
- Oleophobic
- Hydrophobic
- Many more

Cages

Proper bag-to-cage fit is paramount in obtaining the longest possible service life. We offer a diverse variety of cage styles and review every order to ensure optimum bag-to-cage-fit. The latest advancement in cage design options incorporates “star rings” to reduce the amount of contact area between the bag and cage.

Cages are fabricated from:

- Galvanized Carbon Steel
- 304 Stainless Steel
- 316 Stainless Steel
- Coated

Connection styles:

- Twistlock
- Fingerlock
- Slidelock

Ring styles:

- OptiSize
- Star
- Circular



Fiber	Maximum Temperature	Acid Resistance	Alkali Resistance	Abrasion Resistance	Flex Resistance
Polypropylene	212°F (100°C)	Excellent	Excellent	Excellent	Very Good
Acrylic	260°F (126°C)	Good	Average	Good	Very Good
Polyester	275°F (135°C)	Fair	Fair	Excellent	Very Good
PPS	375°F (190°C)	Very Good	Very Good	Very Good	Very Good
Aramid	375°F (190°C)	Fair/Poor	Good	Excellent	Excellent
P-84®	473°F (245°C)	Good	Fair	Good	Good
PTFE	500°F (260°C)	Excellent	Excellent	Fair/Poor	Good
Fiberglass	500°F (260°C)	Good	Fair	Average	Average

ACCESSORIES

We offer a wide range of baghouse accessories to improve upon performance of baghouse and dust collector equipment. These include leak detection powder, leak detection flashlights and lamps, precoat filter aid, diaphragm repair kits, door seals, clamps, broken bag detectors, and tensioning assemblies, to name a few.



Leak Detection Powder

This is a fluorescent powder that helps detect leaks from the fabric filter after a bag changeout, to ensure that the system is leak-free in the initial start-up, or at any time throughout the life of the bags. It is introduced into the system with the fan running at a rate of 1 lb. per 1000 ft² (0.45 kg per 93 m²) of cloth area.



Leak Detection Flashlight and Lamp

A UV flashlight or lamp can be used to quickly and easily detect broken bags after a changeout. The UV cordless flashlight kit includes 120V or 220V charger, 12 V DC for portable charging, plastic carrying/storage case and UV enhancing glasses. The UV lamp kit includes a corded UV lamp, UV absorbing glasses, plastic carrying/storage case and 8 oz dye cleaner spray bottle. UV lamp kits are available in 120V/60Hz (American) and 230V/50Hz (European).



Precoat

Using the precoat results in maximum, even airflow and enhanced operational efficiency. This is a chemically inert light density powder that is injected into the fabric filter to establish uniform porous dust cake on the filter bags. The amount used should be a minimum of 0.05 lbs. per ft² (0.23 kg per m²) of filter bag cloth area.



Diaphragm Repair Kits

Diaphragm repair kits are stocked to fit all standard pulse valves of the leading manufacturers. We can ship quickly from our inventory and each kit uses premium diaphragm material for maximum long-life performance. Repair kits fit: ASCO®, Autel®, Goyen®, Mecair®, Tae-Ha™, Trimec® and Turbo® pulse valves.



Broken Bag Detectors

The broken bag detectors are used to monitor fugitive emissions during operation. It is essential to monitor and control solutions for fabric filters and cartridge dust collectors for optimum process control and meeting environmental regulations. Benefits include improved differential pressure and airflow control, preventing particulate emissions, reduced maintenance costs, protecting downstream equipment, lowering energy use and preventing unforeseen downtime.



Door Seals

We have a variety of door seals and gaskets that prevent outside air from leaking into your fabric filter. Properly sealed doors can prevent fugitive emissions, reduction of airflow and production loss condensation from in-leakage.



Tensioning Assembly

Maintaining proper tension is very important to the life and performance of reverse air fabric filters and a full range of hanging hardware is available, including:

- Draw bar assemblies
- J bolts
- Chain S hook type
- Linear springs
- Non-linear springs
- Coined hangers
- Specialty hanging hardware



Clamps

Clamps are often the cause of dust leakage and bag failure. There are different clamps for different applications – Worm Gear, T-Bolt or Spring Latch – that our technical specialists can recommend.

INSTALLATION SERVICES, ENGINEERING SUPPORT AND PROCESS REVIEWS

When it's time to replace your filter bags or cages, Cleanova provides complete peace of mind. Our experienced team assists you in selecting the correct filter media and cages for your specific industry and operating conditions. We then supervise and execute full bag installation and any necessary repairs, ensuring optimal performance, compliance, safety, and minimal disruption to your operations.



Cleanova | Micronics provides everything from filter bag replacement to complete Baghouse Upgrades & Conversions.

To reduce costs and increase system reliability, we recommend that trained filter bag technicians service your dust collector systems. Services that our full-time service professionals perform include:

- Complete filter bag changeout services
- Monthly or quarterly preventative maintenance and inspections
- Troubleshooting services
- Emergency services
- Installation supervision
- Pulse-Jet conversions
- Shaker conversions
- Media efficiency testing, and more

Technical Field Services

We offer professional and dedicated turnkey filter replacement services for any size baghouse and dust collector. We are available 24/7 year round to meet your production and outage schedule. All service projects have a dedicated onsite Field Superintendent that oversees the project from start to finish. Every project is handled by a Cleanova | Micronics Project Manager, certified, trained professionals, along with proper MSHA and OSHA approved equipment, tailored to the demands of your baghouse.

We offer a comprehensive array of Baghouse Maintenance & Repair Services including:

- Baghouse Mechanical and Welding Repairs
- Maintenance service programs – monthly, quarterly or during a scheduled outage
- Inspections and equipment repairs
- Leak detection services and spot replacement of filters
- Precoating and baghouse start-up services
- Baghouse conversions and retrofits
- Bag Installation supervision

IN-HOUSE LABORATORY ANALYSIS AND BAGHOUSE TRAINING SEMINARS

In-House Laboratory Analysis

Analyzing bag failure is an important part of troubleshooting fabric filter problems and facilitating the best filter media selection for your industry and operating conditions. We perform a range of expert in-house laboratory services including:

Mullen Burst Strength Test – a measure of the two-dimensional or planar strength of the filter media and its ability to withstand pulsing or pressure.

Tensile Strength Test – a measure of the directional strength of the fabric, providing data on fabric break, elongation, and tears.

MIT Flex Test – used to measure the ability of fabrics to withstand self-abrasion from flexing. The MIT Flex Test is often used to help determine the rate of deterioration of fiberglass bags used in coal-fired baghouses, for instance.

Microscopic Examination – useful for examining both fabric and coatings and can yield important information about particle size, retention, particle shape, abrasive or agglomerating tendencies

Loss on Ignition (LOI) Testing – important to determine whether a coated fabric retains the coating

Permeability Testing – to determine the amount of air measured in cubic feet per minute (CFM) that can flow through a given cloth area. Relative to dust filtration by bag filter media, a higher air permeability means that the analyzed sample would allow more air to pass through so that the differential pressure drop decreases.



Dust Collector and Fabric Filtration Training

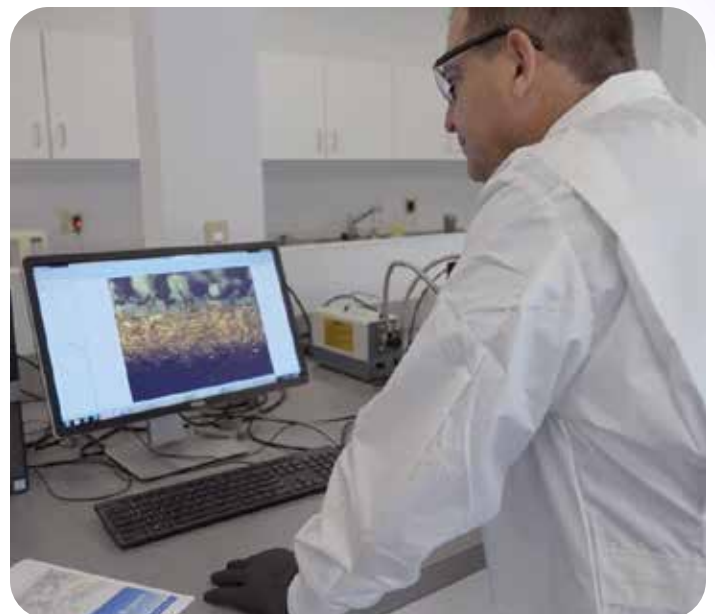
Cleanova | Micronics offers expert Baghouse & Fabric Filtration training to provide a working understanding of how a baghouse operates and how to identify typical baghouse operating and maintenance problems.

Seminars can be tailored to your specific application and the types of baghouses and operating conditions at your facility. Seminars can be performed at your facility or at one of our filter bag manufacturing facilities.

Typically, our Baghouse Seminars provide training in:

- Baghouse Safety
- Baghouse Design Considerations
- Baghouse Operation and Filter Bag Installation Considerations
- Filter Bag Media and Fabric Finishes
- Baghouse Maintenance and Troubleshooting
- Importance of Establishing a Regular Preventative Maintenance and Inspection Program
- Leak Testing
- Precoating
- Filter Bag Testing and Analysis

Contact us to learn more about our high-quality Filter Bags and Accessories, extending the life of your baghouse filters, and our full range of Baghouses Services. Our filter bags and expertise will help you maintain regulatory compliance, reduce operating costs, and eliminate unplanned outages.



HIGH-QUALITY FILTER BAGS, PLEATED BAGS, CARTRIDGES & ACCESSORIES



Improving operating efficiencies,
protecting the environment,
contributing to sustainability,
and ensuring a cleaner tomorrow.

Cleanova offers the industry's best filter bags manufactured in multiple high-quality manufacturing facilities to serve demanding industries like yours. We pair our deep Filter Media expertise – High temperature and Low temperature - with exceptional Baghouse Maintenance & Repair Services to help you maintain regulatory compliance, reduce operating costs, and eliminate unplanned baghouse outages.

Our industry-leading baghouse maintenance, mechanical and welding crews are standing by to mobilize at a moment's notice to meet your needs. Our trained technical specialists will make sure your facility is ready for your next environmental compliance test.

We are Cleanova. You can count on us and our trusted industrial filtration brands - Micronics, AFT, SOLAFT, CPE, UPC, NFM, Filterfab, SFM, and Action Filtration - to be a single source for all your baghouse/dust control filter needs.