

GORE® Filtration Products

*Together, improving life*



REDUCED EMISSIONS.  
LOWER COST OF  
OWNERSHIP.

Through Advanced Filtration Solutions.



# Innovation is our hallmark. Performance is our passion.

Gore's filtration solutions keep you running longer, more efficiently and with greater particulate capture. Our filters are constructed using advanced materials, including expanded PTFE, a highly versatile material that is chemically inert, durable and resistant to extreme temperatures. These attributes make our filters reliable in harsh conditions, over time and when interacting with harmful chemicals.

Across industrial applications – including chemicals and metals processing, waste to energy plants, power generation, and cement production – our filtration solutions perform as promised, every time.

## GORE® LOW DRAG Filter Bags

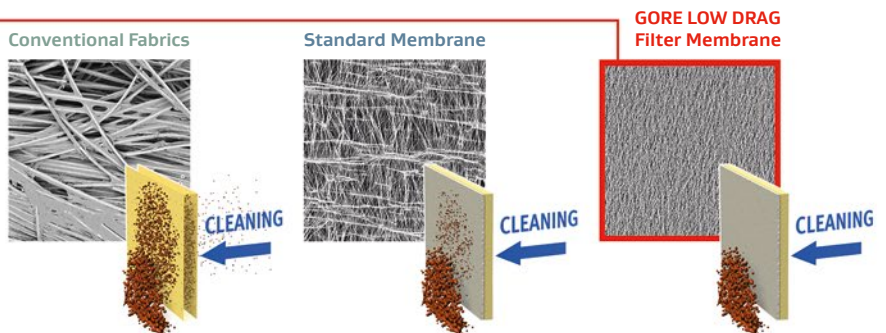
Gore's latest innovation – a revolution in industrial filtration.

GORE LOW DRAG Filter Bags incorporate an entirely new class of membranes which provide a fundamentally more cleanable surface. This results in lower baghouse differential pressure which can either lead to higher airflow during operation or a reduction in fan energy consumption.

The bags improve particulate capture efficiency, leading to lower emissions overall. And with their longer effective bag life, our bags result in reduced cost of ownership.

### Cutting-Edge Technology: The New GORE LOW DRAG Filter Membrane

GORE LOW DRAG Filter Bags are inherently less resistant to airflow, allowing them to more efficiently drive air through them during filtration. The key is improved cleanability, without any effect on durability or particulate capture efficiency.



## Benefits for ...

### Steel Producers

- Increased fan energy efficiency, allowing for considerable cost savings
- Increased flow capacity for improved melt shop evacuation
- Greater flexibility
- Reduced emissions

### Cement Producers

- Reduction in fan energy costs
- Increased O<sub>2</sub> availability in kiln
- Potential increase in use of alternative fuel
- Reliable emissions compliance
- Lower cost of ownership

### Ferroalloy Producers

- Lowest filter resistance and emissions combination in the market
- APC system capacity upgrade without changes to fan or baghouse
- Reliable compliance and long filter life

### Chemical Manufacturers

- Lower emissions and sifting
- Higher airflow and lower dP
- Increased throughput
- Longer bag life
- Reduced total cost of ownership

### Metals Industry

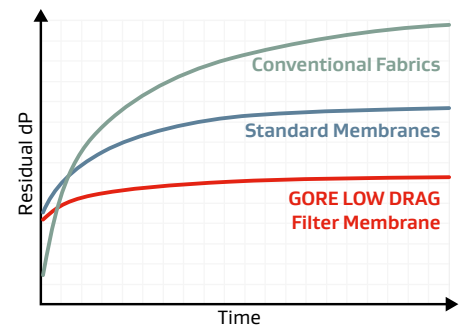
- Cost savings due to fan energy efficiency
- Lower cost of compliance
- System capacity upgrade without changes to process or equipment
- Extremely low emissions

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**Best in Class: 20–25 %  
lower filter resistance**

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$$\text{Filter Resistance} = \frac{\text{Differential Pressure}}{\text{Air to Cloth Ratio}} = \frac{dP}{A/C} = \frac{\text{mmH}_2\text{O}}{\text{m}^3/\text{min}/\text{m}^2} = \frac{\text{inches H}_2\text{O}}{\text{ft}^3/\text{min}/\text{ft}^2}$$



## GORE® Low Emission Filter Bags

GORE Low Emission Filter Bags have a PTFE-based seam tape that makes it virtually impossible for dust to leak through the stitch holes created during manufacturing.

This allows our bags to meet the strictest emissions regulations while providing the same level of quality and reliability as our standard filter bags.

### This technology helps our customers

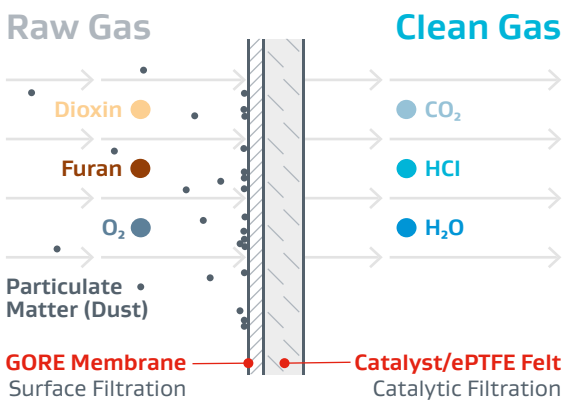
- maximize capture of high-value particulates
- maximize capture of very fine or free-flowing particulates
- meet stringent emissions regulatory limits
- succeed in contamination-sensitive applications



# Gas Phase Remediation Products

## Dioxin and Furan Reduction

The threat of dioxins is drawing increased attention around the world, with reports about dioxin levels in food products generating great concern and new restrictions being issued as a result. GORE® REMEDIA® Catalytic Filter Bags offer substantial benefits over sorbent injection systems for the control of dioxins.



With their no-maintenance technology that is safer for employees and doesn't require new equipment, GORE REMEDIA Filter Bags

- destroy gaseous dioxins
- reduce corrosion and control dust
- lower disposal costs and overall cost of ownership

Remove particulate matter highly efficiently and destroy gaseous pollutants

## NO<sub>x</sub> and NH<sub>3</sub> Reduction

Based on more than 15 years of experience in catalytic filtration, Gore has developed the new GORE® DeNO<sub>x</sub> Catalytic Filter Bags to meet strict compliance requirements for the reduction of NO<sub>x</sub> and ammonia at a much lower investment cost than an SCR tower.

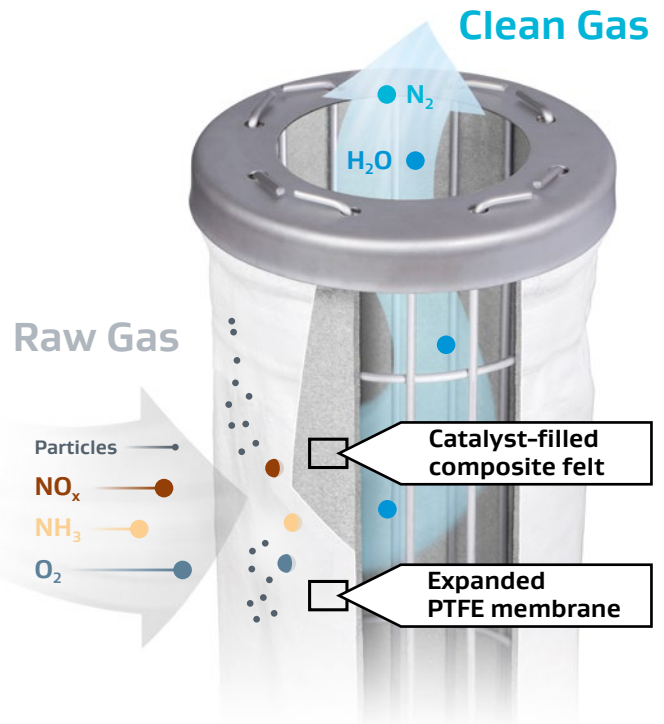
## Benefits for ...

### Existing Baghouses

- Low investment for new equipment
- Easy to install and maintain
- Minor operational changes
- No additional footprint
- No differential pressure increase

### New Plants

- Simplify flue gas treatment line
- Save energy costs
- Reduce capital investment cost
- Easy to install and maintain



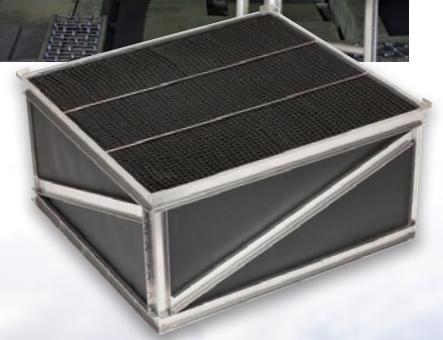


## Mercury Control and SO<sub>2</sub> Control System

The GORE® Mercury and SO<sub>2</sub> Control System is a fixed sorbent system that removes mercury from industrial flue gas streams and reduces SO<sub>2</sub> concentrations. The system is based on discrete stackable modules that are installed downstream of a particulate collection system. The modules' open channel structure enables a low pressure drop – there is no need for an additional booster fan.

### Providing reliable regulatory compliance in

- coal-fired burners for power generation
- sewage sludge, municipal solid waste and hazardous waste incinerators
- cement plants





## Cement Industry

Achieving emissions control with the lowest total cost of ownership is a hot topic in the cement industry. Cement plants are driven by throughput, but failure to comply with environmental regulations could seriously impact production and introduce a slew of additional costs.

This is why cement producers around the globe trust GORE® Filter Bags. Our bags keep plants comfortably in compliance, ensuring safe working conditions and unconstrained operations day after day.

Our filter bags provide the optimal balance of:

- extremely high filtration efficiency
- very low resistance to flow
- extremely long filter life
- reliable low cost of ownership

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### FLUE GAS STREAMS

When mercury must be removed from flue gas streams, the GORE Mercury and SO<sub>2</sub> Control System provides high efficiency and capture capacity with no impact on the final product.

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## Chemicals Industry

Filter bags are a critical process component in chemical manufacturing – they're responsible for capturing the product.

To function reliably, they must withstand constant exposure to aggressive conditions including corrosive atmospheres, high temperature and humidity while enduring mechanical stress.

Chemical manufacturers rely on GORE Filter Bags because they represent an extremely reliable, high-performing and low-cost-of-ownership option. Across a wide range of applications, our filter bags deliver:

- higher productivity
- lower emissions and sifting
- less unscheduled downtime
- longer filter bag life

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### TiO<sub>2</sub>

GORE Filter Bags enable TiO<sub>2</sub> manufacturers to increase production by extending filter bag life significantly and reducing downtime.

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### CARBON BLACK

Installing GORE Filter Bags in cost-sensitive carbon black production helps to optimize the manufacturing process by increasing filter bag life while providing low continuous pressure differential (dP), higher airflow and minimizing damaging emissions and sifting.

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### FUMED SILICA

In the production of fumed silica, GORE Filter Bags are proven to be more effective in the maintenance and operation of the collector while helping to save on overall costs.

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## Metals Industry

The wide-ranging metals industry is united by a need for efficient, reliable and cost-effective filtration solutions.

Across the production of steel, ferroalloys, lead and other non-ferrous metals, GORE Filter Bags deliver extremely high filtration efficiency, very low resistance to flow and extremely long filter life. The results:

- reduced particulate emissions
- reduced pressure drop
- increased fugitive capture efficiencies
- increased reliability / plant availability
- lower fan energy costs

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### STEEL

In steel baghouses, GORE Filter Bags lower overall resistance to airflow, resulting in increased meltshop evacuation, lower dust emissions, improved capture of super fine particulates (< PM1) and reduced overall total cost of ownership. This allows for reliable plant compliance while maintaining cost-effective operations.

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### FERROALLOYS

When used by ferroalloy producers, our filter bags capture more fine particulates, increase capture efficiencies, lower emissions, and last longer than any other filter on the market.

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### SECONDARY LEAD

The goal for lead recycling plants is to absolutely minimize exposure of the environment and workers to lead emissions. With GORE Low Emission Filter Bags, you take emissions capture and worker safety to a new level.

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## Energy Industry

Waste-to-energy and coal-fired power plants must capture air pollutants regulated by the government while controlling costs.

GORE Filter Bags reliably capture fine particulates and destroy volatile pollutants, providing near-zero emissions at a lower overall cost of ownership.

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### WASTE INCINERATION

GORE Filter Bags help waste-to-energy plants reliably control emissions and reduce costs. Our bags deliver long bag life and stability, enable near-zero emissions, and minimize resistance to airflow for more efficient waste processing and steam production.

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### COAL-FIRED BOILERS

With GORE Filter Bags, coal-fired utility and industrial power plants can control energy costs while meeting strict regulations. Our bags increase productivity and bag life while reducing emissions overall.

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## Gore. Your Trusted Partner.

Gore develops products and technologies that address complex product and process challenges in a variety of markets and industries, including aerospace, automotive, pharmaceutical, mobile electronics, oil and gas – and more. Through close collaboration with industry leaders

across the globe, Gore enables customers to design their products and processes to be safer, cleaner, more productive, reliable, durable and efficient across a wide range of demanding environments.

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