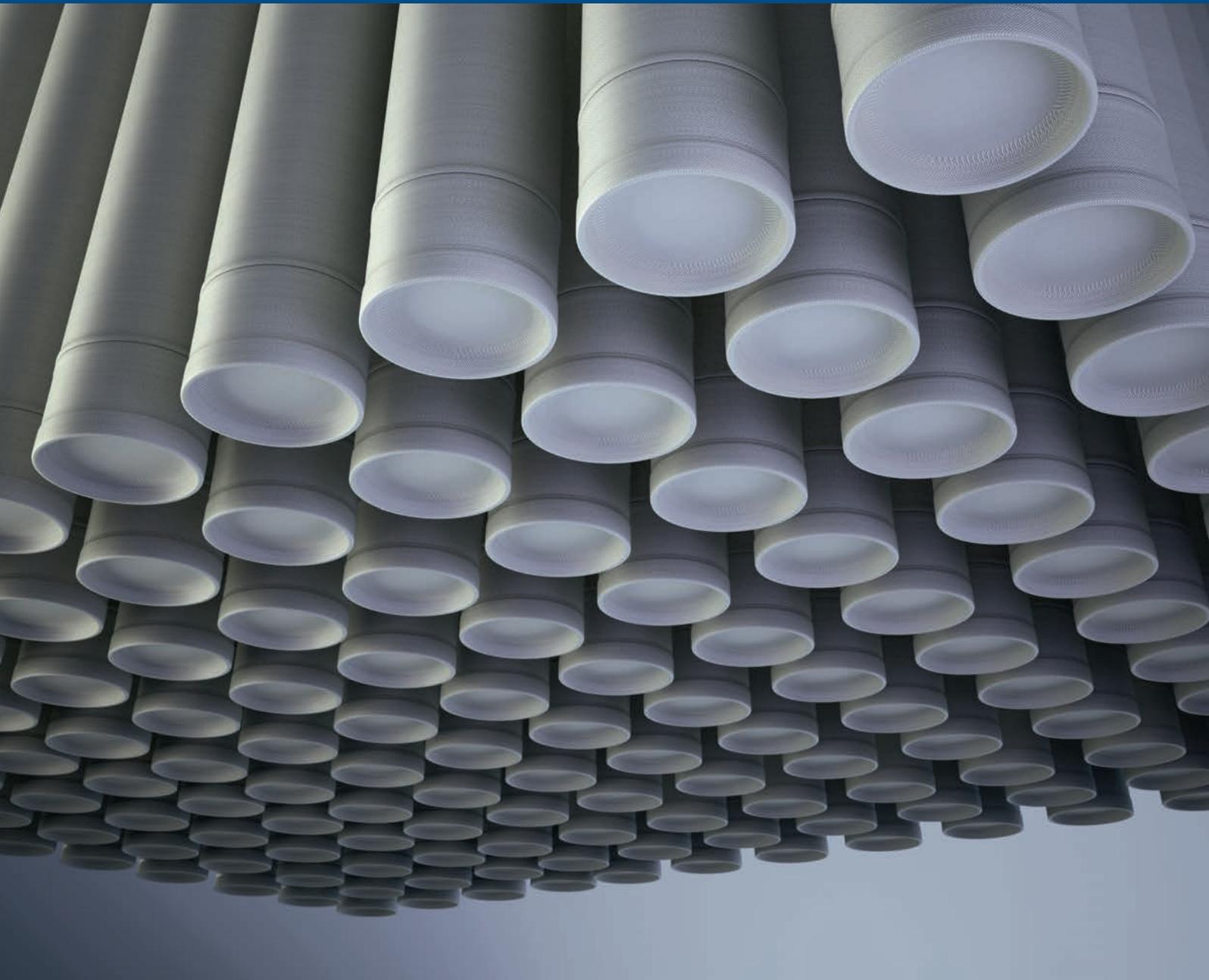


One Source

AFT™ filter bags and accessories



Unmatched experience in filter bag manufacturing

- **World-class manufacturing facility and fabrication techniques**
- **On-site filter media seminars and training**
- **Dirty bag analysis**
- **A-Z system audits**

With years of experience in the manufacture and application of filter bags, FLSmidth AFT's state-of-the-art manufacturing equipment and outstanding fabrication techniques ensure the highest quality possible.

In early 2000, FLSmidth AFT began manufacturing filter bags from their world-class facility in Evans, Georgia, USA, under the name AFT (Advanced Filtration Technologies). Since this time, the global demand has afforded FLSmidth AFT the opportunity to build another state-of-the-art manufacturing facility in Chennai, India, serving Asia and the Middle East.

The range of products offered includes AFT™ filter bags, cartridges, cages, installation and technical services, and other fabric filter accessories designed to exceed customers' performance expectations.

Expert knowledge

FLSmidth AFT filter bag specialists have the expertise to help select the best

media based on application, process conditions, gas temperature, dew point, dust loading, particle size, abrasiveness, potential for process upset and expected life.

Environmental regulation standards

FLSmidth AFT engineers have extensive field experience in all industries and applications worldwide including cement, minerals, utilities, metals, chemicals and carbon black. FLSmidth AFT works 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 (Commercial/Industrial Solid Waste Incinerators)
- IPPC (Integrated Pollution Prevention and Control) – European Union.



Filter bags

Unsurpassed filter media

FLSmidth AFT supplies a wide range of filter media and can fabricate from most filtration media. Choose from:

- **ePTFE membrane filter bags** – for increased throughput, lowest differential pressure and longer bag life
- **Fiberglass filter bags** – best performance for applications up to 500°F (260°C)
- **PPS filter bags** – for improved acid resistance over Aramid at higher temperatures, with a temperature limit of 375°F (190°C)

Membranes

A wide range of woven and felt filter media with ePTFE membrane is available. The membrane lamination 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 membranes:

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



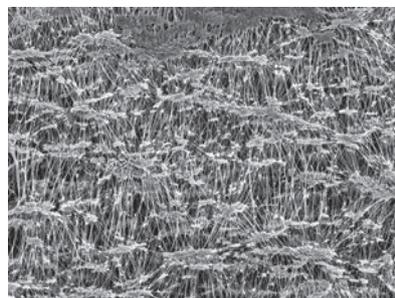
Filter media

Pleated filters and cartridges

Pleated filters provide 2–3 times additional cloth area over standard bags in dust collectors where increased production demands have overwhelmed original capacity. Properly applied, pleated filters will reduce pressure drop, increase collection efficiency and lower pulse air consumption.

FLSmidth AFT offers cartridges and pleated filters made of cellulose, synthetic blends, Aramid, PPS and spun bond polyester with special coatings, finishes or PTFE membrane.

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



PTFE membrane

AFT™ filter media

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

AFT™ finishes

Tri-Component silicone/graphite/PTFE
PTFE
Acid Resistant
Singed
Glazed
Silicone
Oleophobic
Hydrophobic
Many more



Filter bags

Cages

Proper bag-to-cage fit is paramount in obtaining the longest possible service life. FLSmith AFT provides almost every cage style available and reviews 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:

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

Connection styles:

- Twistlock
- Fingerlock
- Slidelock



Accessories



A wide range of accessories to refurbish and improve air pollution control equipment have been designed to meet or exceed the OEM specifications, increasing dependability and reduce costly downtime.

Leak detector powder

Lite-Dust™ is a fluorescent powder that helps detect leaks from the fabric filter after a bag change out 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 detector flashlight and lamp

A UV flashlight or lamp can be used to quickly and easily detect broken bags after a change out. 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 Quick-Start™ means that there is maximum, even air flow and enhanced operational efficiency. Quick-Start™ 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 of Quick-Start™ used should be a minimum of 0.05 lbs. per ft² (0.23 kg per m²) of filter bag cloth area.



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.

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

Accessories

Diaphragm repair kits

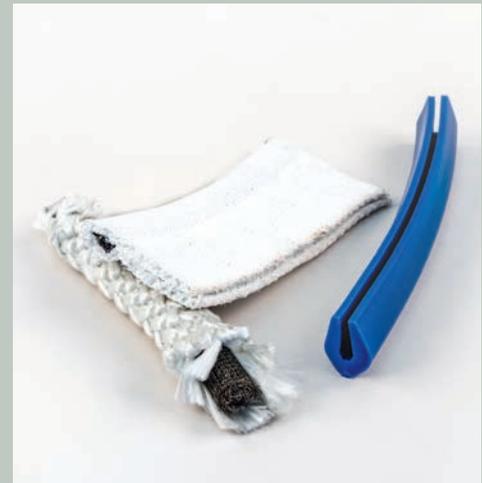
Diaphragm repair kits are stocked to fit all standard pulse valves of the leading manufacturers. We can ship quickly from our inventory and each kit uses premium diaphragm material for maximum long-life performance. Repair kits fit: ASCO®, Autel®, Goyen®, Mecair®, Tae-Ha™, Trimec® and Turbo® pulse valves.



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 EPA

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.

Installation services, engineering support and process reviews

FLSmidth AFT provides everything from standard filter bag replacement to complete fabric filter refurbishment and conversions. To reduce costs and increase system reliability, it is recommended to have dust collection systems serviced by trained filter bag technicians, including:

- Filter bag change out service
- Monthly or quarterly preventative maintenance
- Emergency rebuild or change out
- Troubleshooting service
- Installation supervision
- Pulse jet conversions
- Sonic or shaker conversions
- Media efficiency testing



Engineering support and process review

An A-Z system audit determines your equipment's requirements and limitations and facilitates the design of viable solutions to optimise operation and maximise capacity. FLSmidth AFT application engineers have valuable field experience in ventilation systems and can analyse your application in detail, regardless of the equipment style or manufacturer.

By analysing the air pollution control system and physical installation, we can determine the changes necessary to solve performance problems. This might involve modifying an existing installation, a simple refurbish or upgrade, or a complete modernisation of your equipment. We can also investigate how to optimise the rest of the system, including enclosures, hoods, ductwork, the fan and even the stack.

Lab analysis

Analyzing bag failure is an important part of troubleshooting fabric filter problems and facilitating the ultimate media selection. Industry standard (ASTM) laboratory services performed by FLSmidth AFT lab technicians include:

- **Mullen burst** – to show the relative total strength of fabrics to withstand pulsing or pressure
- **Tensile strength** – provides data on fabric break, elongation and tear
- **MIT flex testing** – to measure the ability of fabrics to withstand self-abrasion from flexing
- **Microscopic examination** – useful for examining both fabric and coatings and can yield data such as particle size, retention, shape, abrasiveness or agglomerating tendencies
- **Loss on ignition** – to determine whether a coated fabric retains the coating
- **Permeability** – to determine the amount of air that can flow through a given cloth area, whether clean or dirty.



Fiber Selection Chart

Fiber	Maximum Temperature	Acid Resistance	Alkali Resistance	Abrasion Resistance	Flex Resistance
Cotton	180°F (82°C)	Poor	Excellent	Average	Very Good
Polypropylene	212°F (100°C)	Excellent	Excellent	Excellent	Very Good
PAN (Acrylic)	260°F (126°C)	Good	Average	Good	Very Good
Polyester	275°F (135°C)	Fair	Fair	Excellent	Very Good
PPS	374°F (190°C)	Very Good	Very Good	Very Good	Very Good
Aramid	392°F (200°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

* Refer to page 3 for ePTFE membrane and fabric finishes



LEARN MORE AND CONTACT
FLSMIDTH AFT FOR MORE
INFORMATION ON FILTER BAGS,
ACCESSORIES AND SERVICE.
TOLL FREE: 888 440 8884

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