



Chemical Industry Solutions

GREAT LAKES FILTERS: FILTRATION EXCELLENCE FOR CHEMICAL PROCESSES

Great Lakes Filters, a division of Acme Mills, is a leader in technical fabrics and filtration solutions essential for chemical industry operations. Our filtration products ensure optimal performance in fluid handling, air purification, and process efficiency.



Our Solutions Include:

Acme Mills offers a comprehensive range of filtration solutions designed to improve the performance, durability, and efficiency of thermoforming applications. Our specialized solutions include:



PROCESS FILTRATION

Precision-engineered filter media for maintaining product purity and preventing contamination.



CUSTOM FILTRATION SOLUTIONS

Tailored filtration products designed for chemical-specific challenges, ensuring maximum reliability and longevity.

Why Choose Great Lakes Filters?

- ✓ **Custom Solutions:** Collaborating closely with you to design textile and filtration solutions that meet your exact needs.
- ✓ **Proven Expertise:** A history of delivering dependable solutions for industrial applications.
- ✓ **Regulatory Compliance:** Our products meet or exceed chemical industry standards for safety and performance.
- ✓ **Innovation:** Utilizing cutting-edge materials and technology to improve operational efficiency and reduce downtime.
- ✓ **Sustainability:** Offering eco-friendly solutions to help the chemical industry achieve its environmental goals.



Applications for the Chemical Industry

- ✓ **Protective Fabrics and Industrial Covers:** High-strength textiles for protective barriers, worksite covers, and equipment shields.
- ✓ **Chemical-Resistant Materials:** Fabrics designed to withstand exposure to corrosive substances and extreme conditions.
- ✓ **Liquid and Air Filtration:** Advanced filters for process fluids, air purification, and dust collection.

High-Performance Solutions for the Chemical Industry

Great Lakes Filters is your trusted partner in chemical industry innovation, delivering high-performance materials and filtration solutions to meet the evolving demands of your operations.



Case Study

Enhancing Lab Safety with Formaldehyde Absorbent Pads for a Pharmaceutical/Life Science Supplier

Needs Assessment & Solution Summary

Great Lakes Filters collaborated with a leading supplier in the Pharmaceutical/Life Science market to address a critical health and safety need within laboratory environments. The client required a reliable solution to mitigate the risks posed by formaldehyde fumes during tissue sample examinations. These fumes, emitted from tissue samples preserved in formaldehyde solutions, are highly noxious and known carcinogens, posing a significant hazard to lab technicians' health. Without an effective method to neutralize these vapors, technicians would be exposed to harmful fumes in the laboratory, jeopardizing safety and potentially violating workplace safety regulations. The client faced operational challenges in supplying biopsy kits that met global safety and compliance standards. They needed a pad that not only absorbed and neutralized formaldehyde vapors effectively, but also integrated seamlessly into their biopsy kits for distribution worldwide. Great Lakes Filters developed a specialized absorbent pad featuring a unique composite material, addressing the client's critical safety requirements. By handling the production, cutting, and packaging of these pads, Great Lakes Filters enabled the client to provide a safer, globally compliant biopsy kit to their customers while reducing operational complexities.

Project Specifications

- ⚙️ **Client:** Large supplier in the Pharmaceutical/Life Science market
- ⚙️ **Industry:** Pharmaceutical/Life Science
- ⚙️ **Application:** Absorbent pads for biopsy kits to neutralize formaldehyde fumes
- ⚙️ **Region:** North America





Specifications

- ✓ **Purpose:** Protect lab technicians from formaldehyde vapors during tissue sample observation
- ✓ **Material:** Unique composite material combining a substrate, super-absorbent neutralizing media, and vapor-locking film
- ✓ **Size and Packaging:** Custom cut and packaged for global distribution

Uses & Applications

These absorbent pads are designed to be included in biopsy kits for medical and research laboratories. During tissue examination, technicians place samples preserved in formaldehyde solution on the pads. The pads actively absorb and neutralize harmful fumes, ensuring the lab environment remains safe and compliant with health and safety standards.

Potential Industries



HEALTHCARE

Hospitals and diagnostic labs handling tissue preservation or autopsy procedures.



VETERINARY MEDICINE

Laboratories and clinics processing tissue samples from animals.



EDUCATION AND RESEARCH

University labs and academic research facilities working with preserved specimens.



INDUSTRIAL MANUFACTURING

Facilities handling formaldehyde or similar volatile organic compounds (VOCs) in their processes.



CHEMICAL PROCESSING

Environments where formaldehyde or related substances are used in production or analysis.

Capacity

Great Lakes Filters' advanced converting facility ensures the production and packaging of absorbent pads at scale, meeting the global demand of the client's biopsy kits. The facility's flexibility allows for customized sizes and packaging options to meet specific distribution requirements.



Manufacturing Details

MATERIAL COMPOSITION

The absorbent pads consist of a three-layer composite material:

Substrate Layer: Provides structural integrity and support for tissue samples.

Neutralizing Media: Contains a super-absorbent material chemically formulated to neutralize formaldehyde vapors.

Vapor-Locking Film: Seals in harmful fumes, preventing their escape into the lab environment.



CUTTING AND CONVERTING

Pads are precision-cut to meet specific dimensional requirements.

Advanced converting equipment ensures accuracy and efficiency at scale.



PACKAGING

Pads are packaged in sterile, pharmaceutical-grade materials to ensure compliance with industry standards. Custom packaging configurations are implemented to optimize global distribution.

Quality Control

Great Lakes Filters adhered to stringent quality assurance protocols to meet the client's rigorous pharmaceutical standards:

- ✓ **ISO-Certified Production:** All manufacturing processes were conducted under ISO-certified conditions to ensure consistency and reliability.
- ✓ **Material Testing:** Each composite material batch underwent testing for absorbency, neutralization effectiveness, and structural integrity.
- ✓ **Product Inspection:** Final pads were inspected for dimensional accuracy and packaging integrity.



Value Delivered

The client gained significant value from Great Lakes Filters' solution:

- ✓ **Enhanced Safety:** The absorbent pads provide a critical safety feature for lab technicians, neutralizing hazardous fumes effectively.
- ✓ **End-to-End Service:** Great Lakes Filters handled production, cutting, and packaging, reducing the client's operational burden.
- ✓ **Regulatory Compliance:** The pads met stringent pharmaceutical and ISO standards, ensuring the client's biopsy kits were globally compliant.

Contact Great Lakes Filters

Need assistance in maximizing manufacturing efficiencies to ensure quality and optimize costs? Call or email us today and one of our skilled team members will lead the way. (800) 521-8565 ~ info@acmemills.com