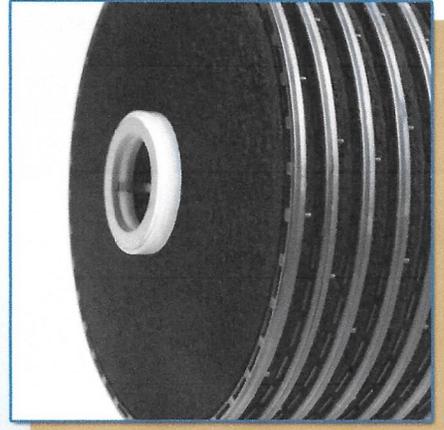
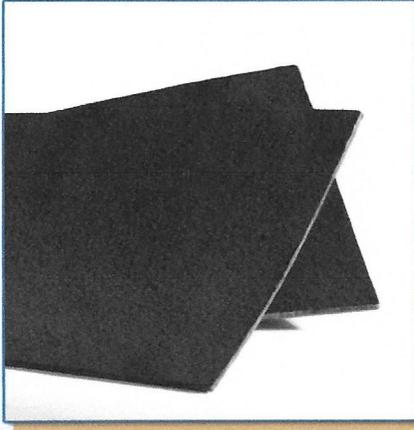




Gusmer Enterprises, Inc.®

Fischer-Robertson, Inc.
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Filtration & Absorbent Products

Filtration Media

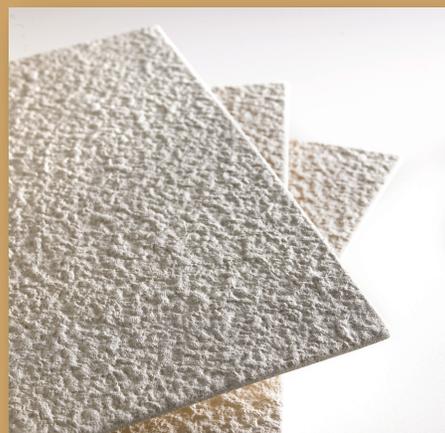
Various filter sheet series and grades are available for coarse, polish, clarifying, sterile, and pre-membrane filtration applications



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Grade	Features
1300SD	Gusmer's 1300SD series of pure cellulose depth filters offers enhanced contaminant loading capacity. This media series contains a blend of cellulose fibers suitable for filtration applications in the 1-20 micrometer range. The 1300SD series exhibits high wet strength, low extractables, and increased throughput and is recommended for applications where diatomaceous earth containing media is unsuitable
1330AO 1330GO	Both the 1330AO and 1330GO series media are specifically formulated to provide superior reconditioning of contaminated dielectric insulating fluids.
1700W	Gusmer's 1700W depth filter sheets are specifically designed for coarse, polish, and sterile filtration applications. The 1700W series consists of 11 different retention grades. Exhibiting a positive zeta potential, the mixtures of cellulose and inorganic filter aids provide reliable filtration performance for all applications.
1900SD	Gusmer's 1900SD series of gradient density depth filters are manufactured under strict process and quality controls to ensure uniform and consistent filtration performance. The combination of highly refined pulp and inorganic filter aids enhance filtration performance and provide higher wet strength, low extractables, and increased throughput.
CSF	Gusmer Enterprises' newly developed range of filter sheet media, the Crystalline Silica Free (CSF) filter series, has been designed and formulated to be free of crystalline silica yet offer the same outstanding performance of conventional filter sheet media. Gusmer's CSF gradient density filter sheets are a composite of the finest cellulose pulps and crystalline silica free filter aids.
1640	Gusmer's Carbac® filter media is a composite of the finest charge modified cellulose pulps, activated carbon powder and inorganic filter aids. An excellent substitute for loose carbon, Carbac® filter media provides you with a fast, clean, easy way to adjust color, aroma, or flavor of your products.



Cellu-Stack®

Gusmer Enterprises' Cellu-Stack filters are a convenient way to utilize depth filtration media in an enclosed system. Offered in all Gusmer media types, these stack filters can be used for coarse, fine, and pre-sterile filtration in numerous filtration applications. Cellu-Stack filters are designed for ease in loading and unloading filter housings. This significantly reduces operating costs and production downtime.

Configuration	Cellu-Stack Materials of Construction	Effective Filtration Area
12" diameter, 16 cell	Propylene edge seal, end rings	17.7 ft ²
16" diameter, 16 cell	Propylene edge seal, end rings	38.0 ft ²
12" diameter, 6 cell	Propylene edge seal, end rings	6.6 ft ²
12" diameter, 9 cell	Propylene edge seal, end rings	10.0 ft ²



Stack Construction

Each Cellu-Stack filter cell is independently sealed through an injection molding process. Edge seal bosses are incorporated as a special feature to prevent cell collapse during prolonged filtration runs. Specially designed anti-rotating spacers are placed between the cells and the entire unit is pre-compressed and sealed in a module format by a series of stainless steel straps. Multiple stacks can be arranged with a housing to form a leak-free, convenient filtration system with exceptional filtration surface area and particle retention. Cellu-Stack filters are assembled under sufficient compression to maintain integrity into 12- or 16- cell configurations. Depending on your filtration needs, a variety of optional gasket materials are available.



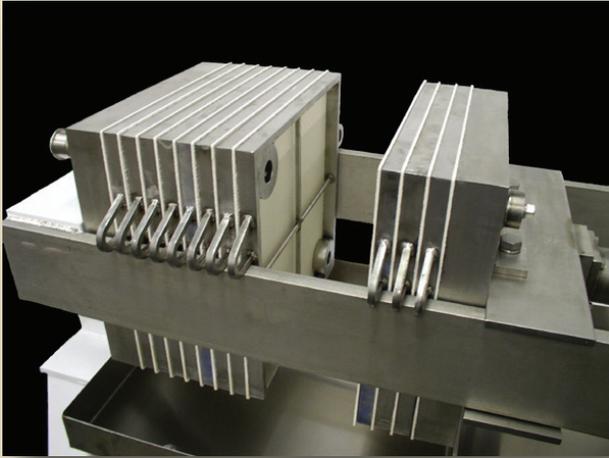
Stack Housing

Gusmer's Cellu-Stack housings were engineered with durability, consistency, and microbial sterility in mind. The housings have a unique removable center post assembly retained by exterior bolts that holds the stacks firmly in place. Further, no threaded parts are exposed to the product being filtered ensuring microbial sterility. The complete line is designed as a cost effective system for high capacity liquid filtration applications. They are offered in Industrial, Sanitary Style Industrial, and Sanitary models to accommodate either 12" or 16" diameter Cellu-Stack filter modules. All housings are available in 1, 2, 3, or 4 stack versions which can be modified with the use of Cellu-Stack take up adapters to accept fewer stacks for partial batch runs or other applications requiring fewer stacks.



Plate & Frame Filter Press

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The precision designed unit consists of a rugged carbon steel frame coated in durable epoxy paint. All wetted contact parts and side rails are fabricated from solid bars, plates and forgings of 304 stainless steel. The internally ported design provides a positive seal when using filter media of various types and thicknesses resulting in near-zero leakage without a need for gaskets. Personalized requests such as: special alloys of construction, desired filtration surface area, and varying sludge frame capacities are accommodated. Various pump styles and additional options are also available. Lab and pilot scale size filter presses are offered in a 4" round frame size.

Posiseal Lab-scale Filter Housing



Posiseal Filter Housings are designed for lab-scale and small-scale filtration production trials for evaluating Gusmer Enterprises' Cellupore filter sheets, Cellu-Stack® filter cartridges, and Cellu-Flo filter aids. These versatile filter housings are available in a variety of sizes and configurations to fit your lab process and provide the means to conduct filtration trials to determine the optimum grade of filter media for specific applications as well as small volume production. A base unit consists of stainless steel head and base plates, a body tube, a support screen, gaskets, retainer bolts and nuts, and hose fittings. Gusmer also offers a variety of gasket choices and body tube lengths to fit your specific application. In addition, accessory stand and gauge kits are available. Contact your Gusmer Representative to help you determine your ideal housing configuration.

BASE MODEL	PSS2H	PSS3.5H	PSS7H
Media Size	2 in (5.1 cm) diameter	3.5 in (8.89 cm) diameter	7 in (17.78 cm) diameter
Effective Filtration Area	0.014 ft ² (13.0 cm ²)	7.09 in ² (46.6 cm ²)	29.2 in ² (188.5 cm ²)
Volume	80 mL	300 mL	2 L
Max. Operating Pressure	50 psi (3.4 bar)	50 psi (3.4 bar)	50 psi (3.4 bar)

Cellu-Flo Filter Aid

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Whether it's pressure leaf filters or candle filters, the basis for all good filter cakes is a sound pre-coat, and Gusmer has been manufacturing the filter pre-coat materials that are used in filtration for decades. Gusmer's Cellu-Flo filter aids are widely used as a pre-coat material because of their ability to form a fibrous matrix on the filter screens that provides a proper site for filter cake formation. This fibrous matrix also serves to protect the filter screens, virtually eliminates bleed through, adds cake stability and allows for a quick and clean cake release at the end of the filter cycle.

Ahlstrom Filter Paper



Ahlstrom Filter Paper is available in grades suitable for coarse filtration, fine filtration, and retention of specified particle size during the process of liquid clarification. It provides high wet strength integrity and is offered in a wide variety of basis weight, thickness, and flow rates.

Absorbent Carriers



Gusmer Enterprises Inc manufactures a variety of absorbent products. Our absorbent carriers are available in a variety of calipers and densities and can easily be cut into precise wicks. These thick and absorbent paperboards are often used as air freshener pads.



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