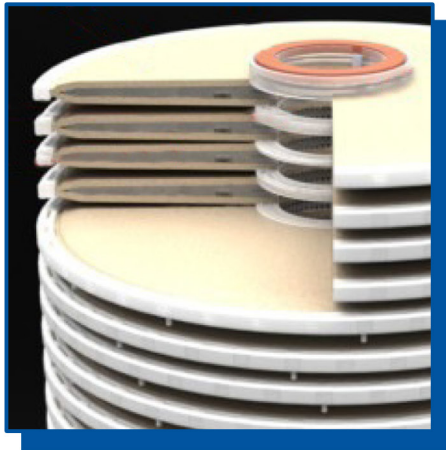




Gusmer Enterprises, Inc.[®]



Cellu-Stack[®] Filters

About Gusmer Enterprises, Inc. ®

Gusmer Enterprises, Inc. offers a wide variety of filtration products, processing aids and filtration equipment to multiple industries including: Flavor, Fragrance, Wine, Brewing, Distilling, Pharmaceuticals, Food, Chemical, Cosmetics, Gelatin, Dielectric Fluids, Dyes, Inks and many more industries. Gusmer is the leading manufacturer, supplier and innovator when it comes to providing the most exceptional products and services to the liquid processing industries.

For 90 years Gusmer Enterprises has taken a revolutionary approach to serving our customers by supplying the highest quality goods and all of our manufactured products are made in the USA. Gusmer's *Service with Knowledge*® is our hallmark, providing unsurpassed service with in-house technical expertise and a consultative sales approach. Gusmer is well known for its quality, dependability and flexibility in addressing customer and business needs.

About Cellu-Stack®

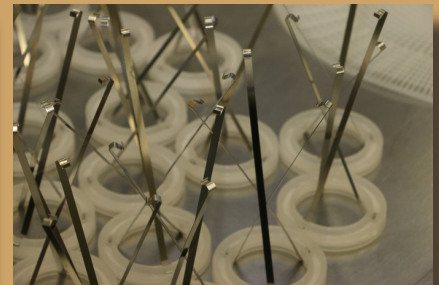
Gusmer Enterprises' Cellu-Stack filters are a convenient way to utilize depth filtration media in an enclosed system. Offered in all Gusmer media types, these stack filters can be used for coarse, fine, and pre-sterile filtration in numerous filtration applications.

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 within a housing to form a leak-free, convenient filtration system with exceptional filtration surface area and particle retention. These filtration systems often require a lower capital investments in comparison to other filtration options.



Cellu-Stack filters are designed for ease in loading and unloading filter housings. This significantly reduces operating costs and production downtime.



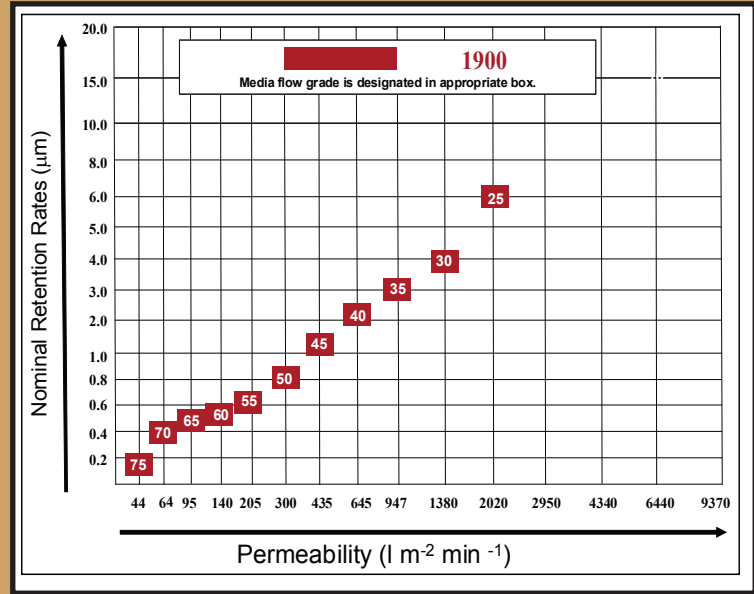


MEDIA OFFERINGS

Gusmer's standard media series offer a broad range of material options to best meet our customer's needs.

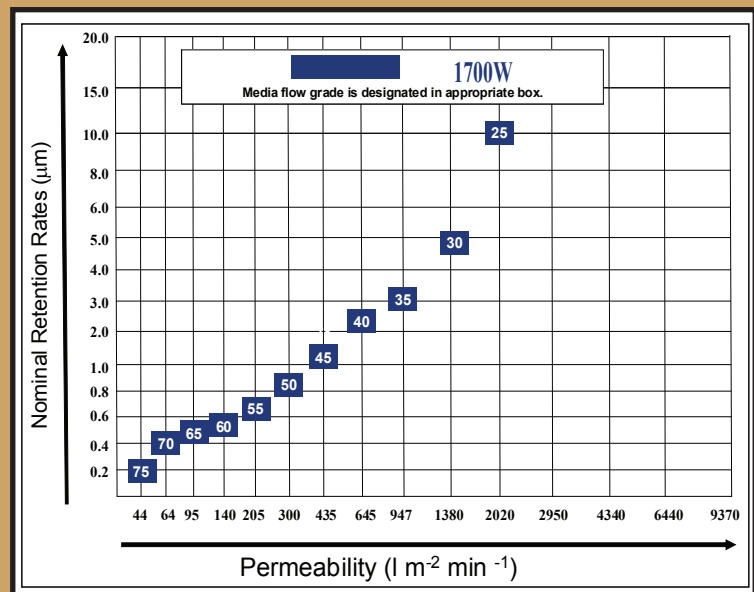
Cellupore® 1900 Series

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.



Cellupore® 1700W Series

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.

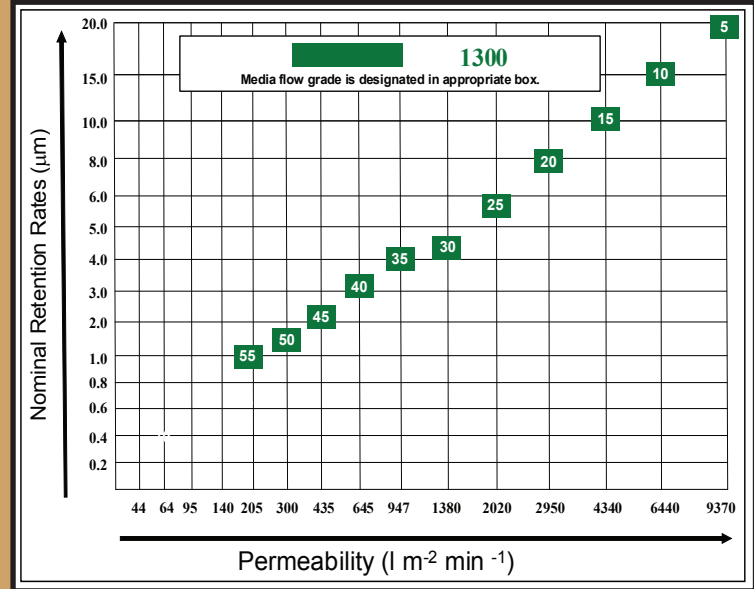




MEDIA OFFERINGS

Cellupore® 1300 Series

Gusmer's 1300SD all cellulose filter series is a blend of refined cellulose fibers and wet strength resins which offers enhanced contaminant loading capacity. This filter series is the best option for low extractables, high wet strength, and increased throughput.



1330AO / 1330GO Utility Series

Gusmer's 1330AO and 1330GO series media are specifically formulated to provide superior reconditioning of contaminated dielectric insulating fluids. The AO grade is specifically designed with an advanced absorbent layer for high capacity water removal.



Carbac® 1600 Carbon Series

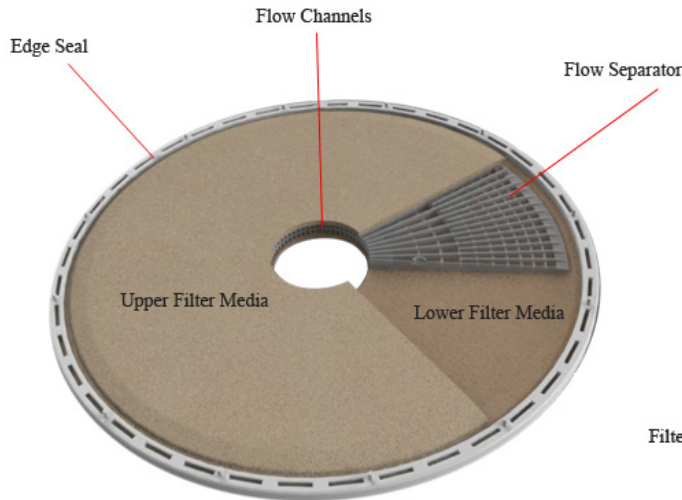
Gusmer's Carbac® filter media is a composite of the finest charge modified cellulose pulps, activated carbon powder and inorganic filter aids. An excellent substitute for loose carbon, Carbac® filter media provides you with a fast, clean, easy way to adjust color, aroma, or flavor of your products.





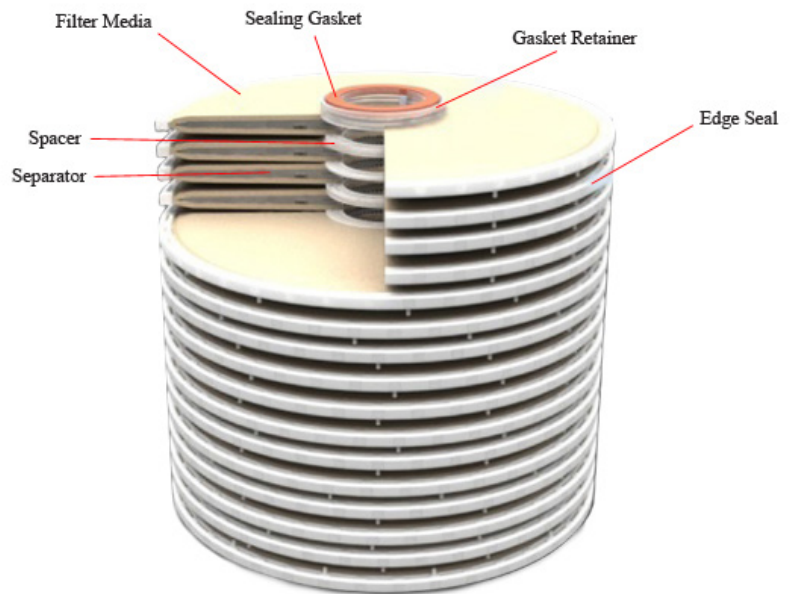
STACK CONSTRUCTION

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 SPECIFICATIONS

Max. Operating Temp.	176°F (80°C)
Steam in Place - 3 cycles	253°F (123°C)
Max. Differential Pressure	30 psid (2.1 bar)
Recommended Rinse Volume	2.5 gal/ft ² (100L/m ²)



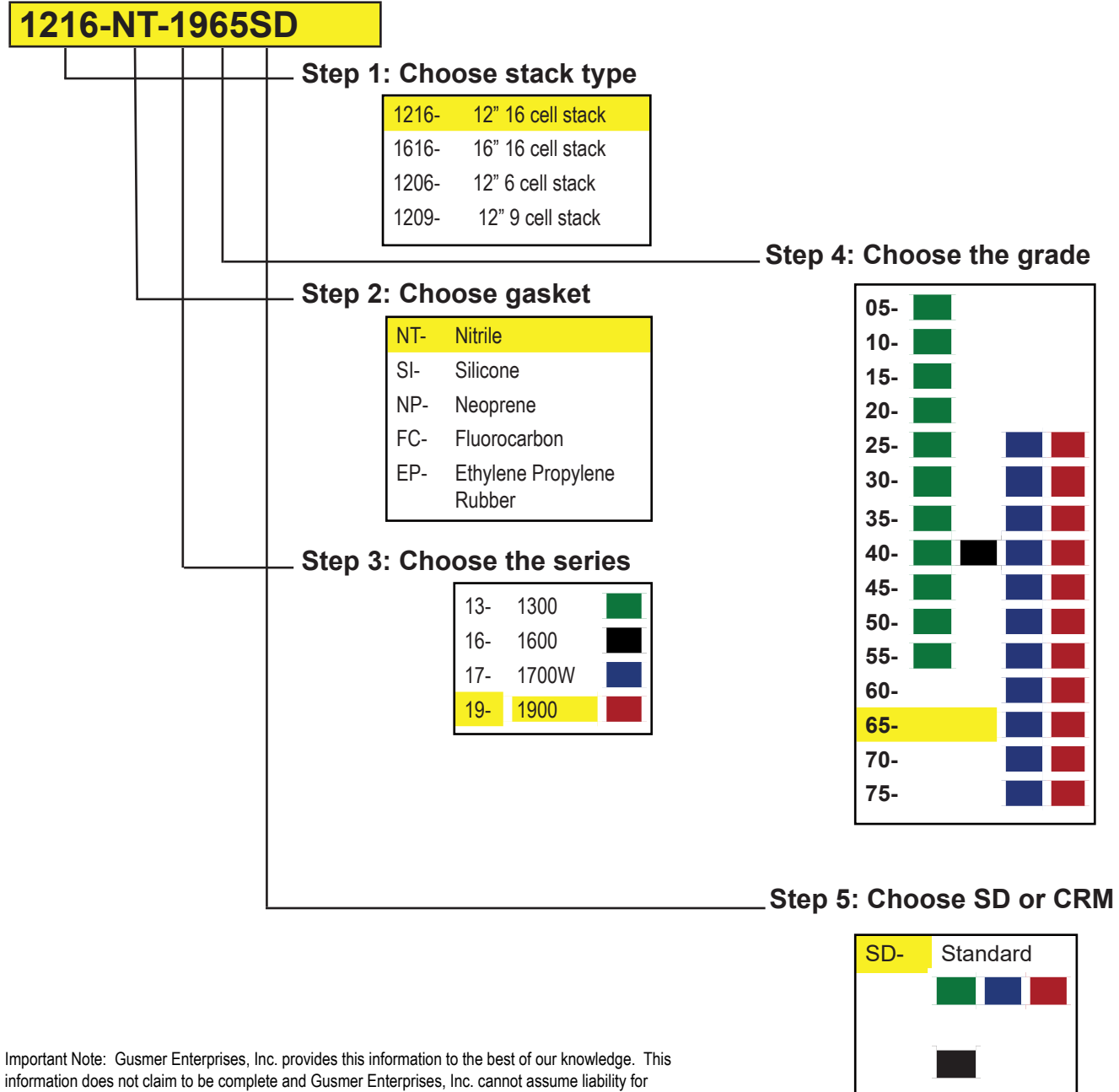
STACK SPECIFICATIONS

All Cellupore® depth filter sheet grades are available in Cellu-Stack® formats. The stack configurations are manufactured in 12" (284 mm) and 16" (410 mm) diameters. Note: Custom stack configurations with a different number of cells are available upon request following validation.

Configuration	Cellu-Stack Materials of Construction	Effective Filtration Surface 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

CELLU-STACK® ORDERING

To order a 1900 Series 12" 16 cell Cellu-Stack® Filter with nitrile gaskets in a 65-flow standard grade, the part number should read:



Important Note: Gusmer Enterprises, Inc. provides this information to the best of our knowledge. This information does not claim to be complete and Gusmer Enterprises, Inc. cannot assume liability for improper use. All users are advised to test products to meet their specific needs.