

Spun Bonded Filter Cartridge



Spun bonded filter cartridges are made up of 100% polypropylene fibers. The fibers have been carefully spun together to form a true gradient density from outer to inner surface. Filter cartridges are available with core & without core version. The superior structure remains integral even under severe operating conditions and there is no media migration. Polypropylene fibers are blown continuously on central molded core, without any binders, resins or lubricants.

Operation

Unfiltered fluid passes through depth filter matrix and enables the progressive retention of finer particles, which provides high efficiency, high dirt retention & long filter life. Fluid flows from outside to inside through filter media. Particulates are held securely in the filter matrix and clean fluid flows to the downstream side of cartridge.

Salient Features

- Free of surfactants, binders and adhesives
- Excellent flow with low pressure drop
- High dirt holding capacity
- High strength & pressure resistance
- 100 % Polypropylene for wide chemical compatibility
- One piece construction up to 1016 mm & more
- Nominal & absolute filtration rating
- NSF42 and FDA CFR title 21 Certified cartridges are available.

Technical Specifications

Sizes	10", 20", 30", 40", 50", 60" Long
Micron Rating	1, 5, 10, 25, 50, 75, 100
Outer Diameter	64 mm (2.5"), 114mm (4.5"), 6", 8"
Inner Diameter	25mm, 28 mm, 48 mm

Configuration

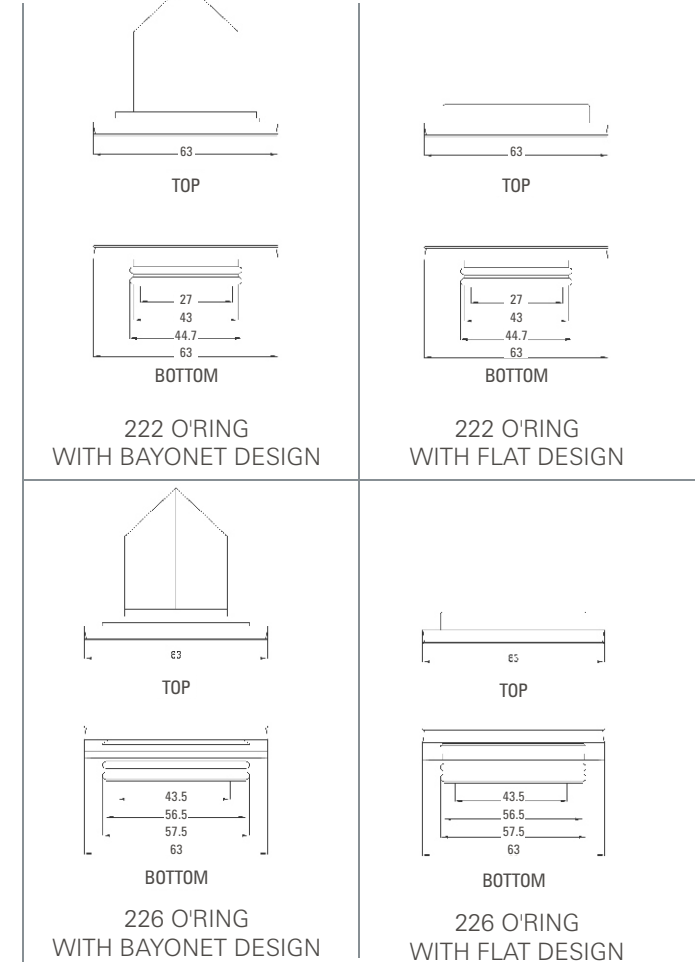
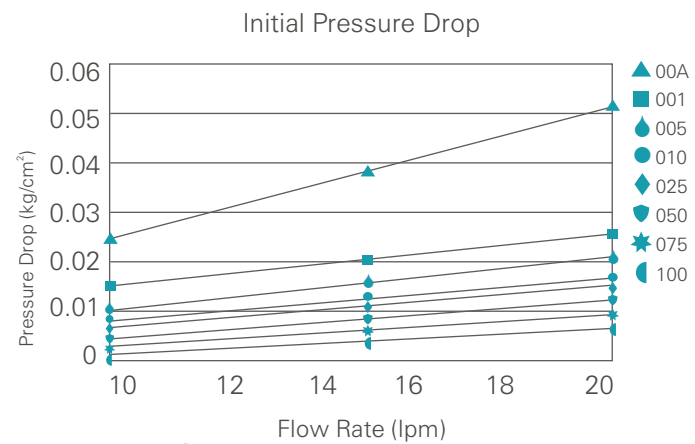
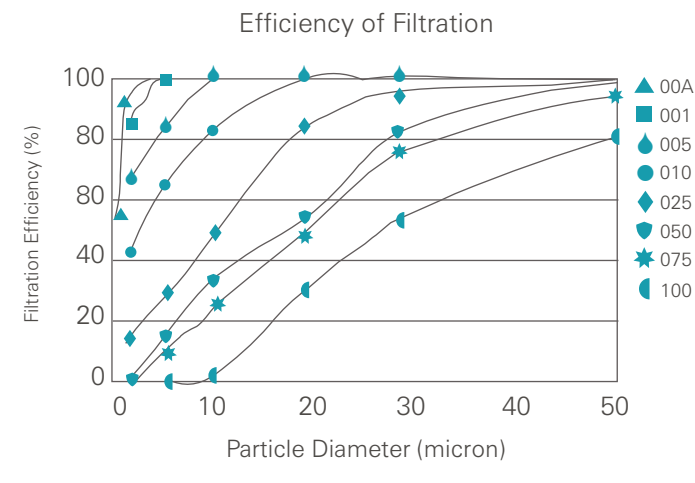
- Double Open Type (DOE Type)
- Code 7S (226 'O' Ring Design / Bayonet)
- Code 7F (226 'O' Ring Design / Flat)
- Code 3S (222 'O' Ring Design / Bayonet)
- Code 3F (222 'O' Ring Design / Flat)

Construction

- Spun bonded filter cartridges are made up of 100% polypropylene.

Applications

• Food & Beverages	Bottled water, Flavors, Polishing Lines
• Pharmaceuticals	Base product clarifications, Membrane prefilter
• Fine Chemicals	Solvents, Process Streams, Water Purification
• Magnetic coating	Dispersions, Coating Lines, Solvents
• Petrochemicals	Water flood, Completion Fluids, Amines
• Cosmetics	Alcohols, Essential oils , Water lines
• Water Treatment	Membrane Protection, Resin Trap
• Metal Finishing	Plating solution, paint and resin products, Wash
• Electronics	Electroplating, Etching, Image development





Carbon block cartridges are designed for high effective filtration of water for certain VOC’S, pesticides, chlorine, odor & test & sediment reduction down to 5 micron. These cartridges are manufactured entirely from FDA compliance materials. They are suitable for potable water filtration, as well as many industrial, commercial & food service applications.

Its nominal filtration rating makes it excellent for polishing filters of pre filters in applications which require very fine filtration. These cartridges are effective at filtering giardia & cryptosporidium cysts from potable drinking water.

Features & Benefits

- High Iodine value
- High flow rate
- High dirt holding capacity
- Greater chlorine removal efficiency
- Good Oil adsorption medium

Type of carbon filters

- Activated coal carbon
- Coconut shell carbon

Construction

• Filter media	Bonded Powdered activated carbon
• End caps	Polypropylene
• Outer wrap	Polypropylene
• Netting	Polypropylene
• Gaskets	Buna N

Technical Specifications

• Sizes	10”, 20” 30”, 40”
• Micron Rating	5, 10 Micron
• Standard Outside Diameter	64mm, 116 mm
• Inner Diameter	28 mm

Applications

• Food & Beverages	Bottled water, Flavors, Polishing Lines
• Pharmaceuticals	Membrane prefilter
• Water Treatment	Membrane Protection, Resin Trap
• Edible Oil	
• Mineral Oil	



Oil adsorption filter cartridges have been specifically developed and manufactured for the high efficiency removal of dissolved & dispersed oils from water within the gas & oil production industries, marine bilge and ballast water treatment systems, contaminated surface water run off & other industrial process industries. Filter media of this cartridge is material containing modified cellulose. This filter media will remove upto 95% of total hydrocarbons from water in a single pass. Dissolved oil, emulsions & dispersed droplets are adsorbed and retained from water by filter media.

Features & Benefits

- Instantaneous adsorption. Better than activated carbon.
- High flow rates
- Removes dissolved and dispersed oils.
- High efficiency removal of oils
- Low pressure drop
- Media can hold 300% of its own weight
- No release of removed hydrocarbon
- Typically, over 90% of total hydrocarbons are removed in a single pass through the cartridge with no release once adsorbed.
- Lower outlet levels of hydrocarbons can be achieved by connecting cartridges in series.
- Higher flow rates also can be achieved by connecting cartridges in parallel.

Construction

Oil adsorbing filter cartridges are made by rolling the sheet material onto a central core support. The core & outer surface of filter media rolls are covered with retaining mesh. The complete module is then encapsulated in to end caps suitable for fitting into a variety of housing configurations.

Technical Specifications

• Standard Sizes	10", 20", 30", 40" Long
• Micron Rating	5, 10, 20 Micron
• Standard Outside Diameter	70 mm, 110 mm
• Inner Diameter	28 mm

Configuration

- Double Open Type (DOE Type)

Applications

• Gas and Oil facilities
• Leisure/Commercial Shipping Bilge Water
• Surface Water Run off (Truck Stops, Airports)
• Auto Service Stations/gate
• Machine Shops
• Industrial Processes
• Factories and Repair Shops
• Car and Truck Washes

PES (Poly Ether Sulphone)
Filter Cartridge



PES Cartridges are made of poly ether Sulphone with uniform pore distribution to ensure maximum performance in bacterial retentions. It’s upstream & down stream polyester support ensures resistance to pressure shocks. Polyethersulphone membrane is hydrophilic in nature, it allows easy integrity testing for all applications where daily controls are required. The membrane possesses broad chemical compatibilities & contains no surfactants. PES Cartridges are produced in controlled environments & under stringent production conditions that ensure filter quality & cleanliness. These are assembled integrally by thermowelding. This process minimizes the presence of oxidization of substance & yield a durable filter cartridges suitable for extended use. This can be sanitized by chemical agents or by inline steaming. PES and polypropylene, the unique two materials used in cartridge manufacturing are chemically inert, not shedding and biologically safe according to F.D.A., USP and EEC requirements for pharmaceutical and food contact use. The filtration area of each cartridge is as high as 0.7 m². Therefore it offers high flow rate, low pressure drop & long service life.

Features & Benefits

- PES Membrane is inherently hydrophilic with excellent hydrolytic stability & chemical compatibility
- Specific pore size distribution for full bacterial retention to ensure sterile effluent even under process upsets
- End caps and connectors are sealed by thermal bond, free from binder.
- Low pressure drop and high flow rate due to high filtration area of 0.7 m² Per 10” cartridge
- Absolute rated
- Autoclave or in situ steam sterilization features
- Integrity test is possible
- FDA approved

Technical Specifications

• Sizes	10”, 20”, 30”, 40” Long
• Micron Rating	0.1, 0.2, 0.45, 1 Micron
• Filtration Area	More Than 0.7 m ² Per 10” cartridge
• Outer Diameter	69 mm
• Inner Diameter	28 mm

Configuration

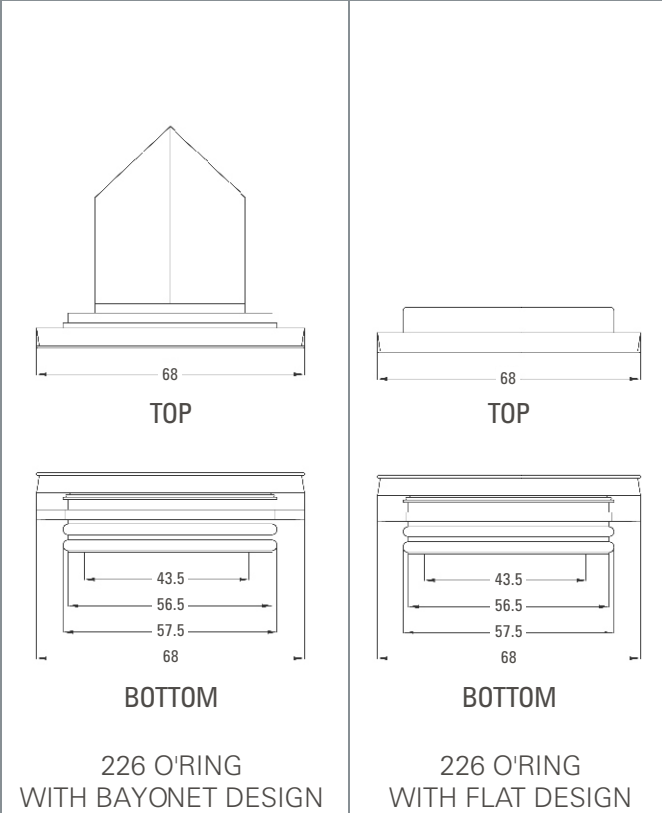
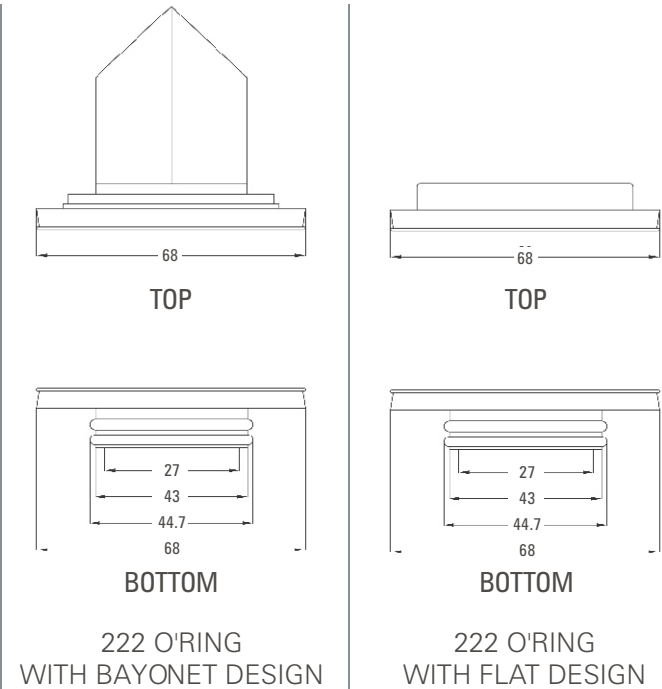
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- Code 7F (226 'O' Ring Design / Flat)
- Code 3S (222 'O' Ring Design / Bayonet)
- Code 3F (222 'O' Ring Design / Flat)

Construction

• Filter Media	PES (Poly Ethersulphone) Membrane
• Support Media	Polypropylene fiber
• Inner Core	High strength polypropylene
• Outer Core	High strength polypropylene
• End Caps	High strength polypropylene
• O Ring / Gaskets	EPDM / Buna N / Silicone / Viton

Applications

• Pharmaceuticals
• Food & Beverages
• DI water Filtration



Polypropylene Pleated Filter Cartridge



Polypropylene filter cartridges are precisely manufactured for use in critical filtration applications within food, pharmaceuticals, biotech, dairy, beverages, brewing, semiconductor, water treatment & other demanding process industries.

Polypropylene pleated cartridges use the very latest gradient density micro fiber media technology to provide a combination of excellent micron ratings, high flow rates and high contaminant holding capacities. A special combination of polypropylene media with variation in the fiber diameter creates a gradient density matrix, ranging from open on the outside to finer on the inside, thereby providing a filter with in filter, which considerably increases contamination holding capacity & throughputs.

All components used in the manufacturing process are biologically safe, chemically inert and meet FDA and other international quality requirements. Polypropylene offers an extremely broad chemical compatibility making it suitable for many applications.

Features & Benefits

- All polypropylene construction
- Absolute & nominal efficiency
- 0.1 to 40 Micron ratings
- Gradient density micron fiber media
- High surface area more than 0.5 m² per 10" filter
- Robust outer cage
- Biologically safe
- Wide chemical compatibility
- No fiber migration
- Thermally welded construction
- FDA approved filters
- End connections to fit all standard housings

Technical Specifications

Sizes	10", 20", 30", 40" Long
Micron Rating	0.1, 0.2, 0.45, 1, 5, 10, 20 Micron
Outer Diameter	69 mm
Inner Diameter	28 mm

Configuration

- Double Open Type (DOE Type)
- Code 7S (226 'O' Ring Design / Bayonet)
- Code 7F (226 'O' Ring Design / Flat)
- Code 3S (222 'O' Ring Design / Bayonet)
- Code 3F (222 'O' Ring Design / Flat)

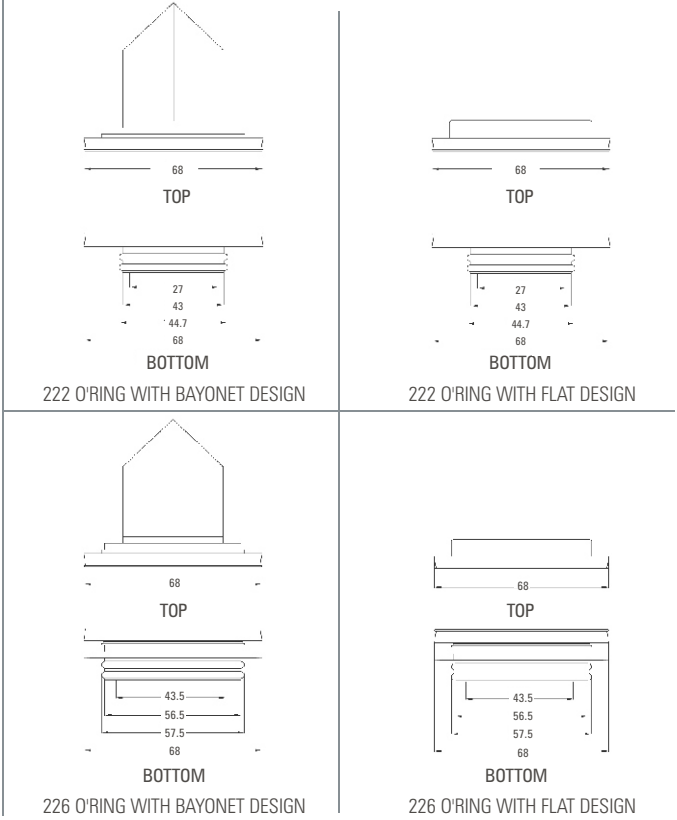
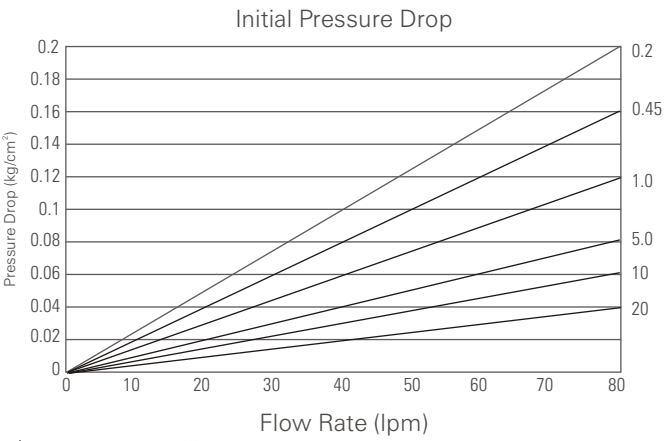
Construction

Filter Media	100 % Melt blown micro denier polypropylene fiber
Support Media	Polypropylene fiber
Inner Core	High strength polypropylene
Outer Core	High strength polypropylene
End Caps	High strength polypropylene
O Ring / Gaskets	EPDM / Buna N / Silicone / Viton

Applications

Fine Chemicals and Pharmaceuticals
• D.I. Water
• R.O.Pre filtration
• Biological Fluids
• Oral Drugs
• Ophthalmic Liquids
Photographic Film & Paper
• Anti-Halation Coatings
• Developer Chemicals
Emulsions
Gelatins

Beverages
• Wine
• Alcohols
• Fruit Juice
• Beer
Electronic and Semi-Conductor
• De-ionized Water Prefiltration
• Magnetic tapes
• Premix Resins
• Tape Coatings
• Photoresists
• Metal Oxide Dispersions
• Solvents



PTFE (Poly Tetra Fluoro Ethylene)
Filter Cartridge



PTFE Cartridges are made up of poly tetrafluoroethylene. PTFE is characterized by high chemical inertness. These are specifically designed for sterile filtration applications of liquid, air & gas streams. They are certified bio safe, non pyrogenic & fully validated to pharmaceutical standards. PTFE and polypropylene, the unique two materials used in cartridge manufacturing are chemically inert, not shedding and biologically safe according to F.D.A., USP and EEC requirements for pharmaceutical and food contact use. PTFE cartridge membrane is used in filtering the highly corrosive solutions such as strong acids, base solution and solvents. The membrane has about 80 – 95 % porosity & uniform pore size distribution. Moreover, the filtration area of each cartridge is as high as 0.7 m². Therefore it offers high flow rate, low pressure drop & long service life. These can be steam sterilized directly or reverse as per standard operating data.

Features & Benefits

- PTFE membrane has excellent chemical resistance
- End caps and connectors are sealed by thermal bond, free from binder.
- Low pressure drop and high flow rate due to high filtration area of 0.7 m² Per 10” cartridge
- Inherently hydrophobic expanded PTFE micro porous membrane for broad chemical compatibility & to prevent moisture obstruction in venting & wet air filtration
- Absolute rated & precisely controlled pore size distribution for superior & constant bacterial retention
- Autoclave or in situ steam sterilization features
- Integrity test is possible
- FDA approved

Technical Specifications

• Sizes	10”, 20”, 30”, 40” Long
• Micron Rating	0.05, 0.1, 0.2, 0.45, 1 Micron
• Filtration Area	More Than 0.7 m ² Per 10” cartridge
• Outer Diameter	69 mm
• Inner Diameter	28 mm

Configuration

- Double Open Type (DOE Type)
- Code 7S (226 'O' Ring Design / Bayonet)
- Code 7F (226 'O' Ring Design / Flat)
- Code 3S (222 'O' Ring Design / Bayonet)
- Code 3F (222 'O' Ring Design / Flat)

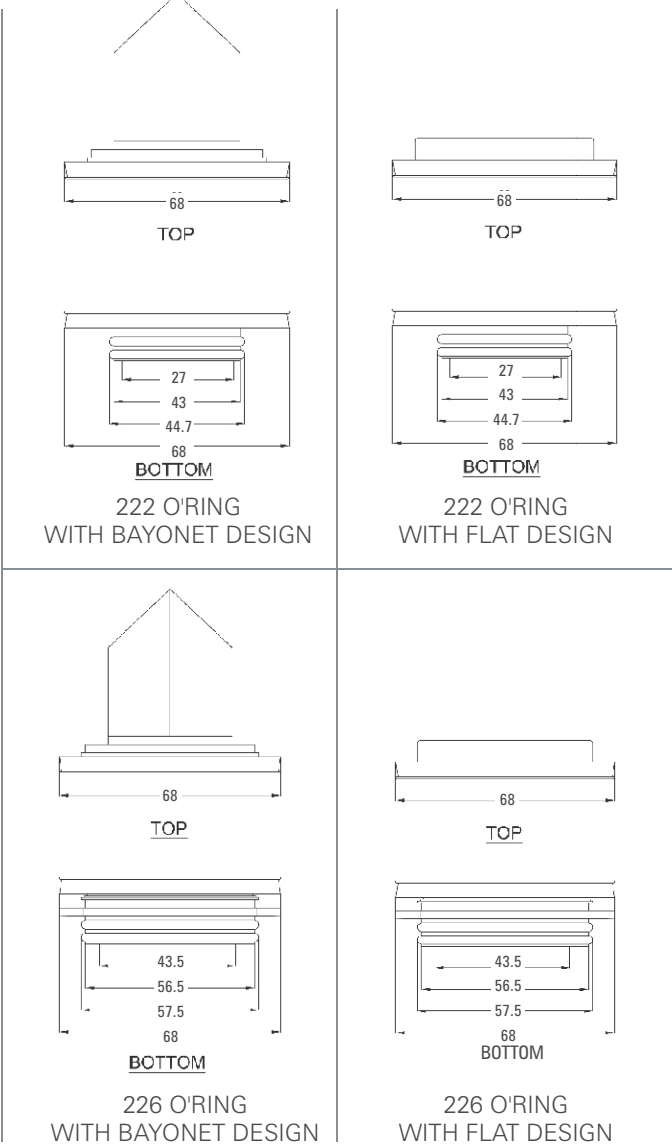
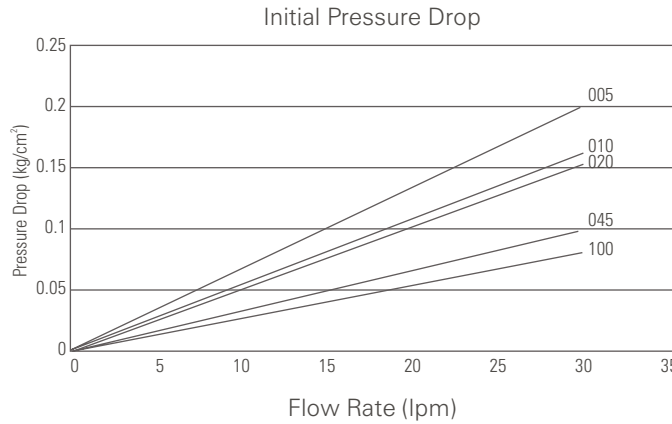
Construction

• Filter Media	100 % PTFE (Poly Tetrafluoroethylene) Membrane
• Support Media	Polypropylene fiber
• Inner Core	High strength polypropylene
• Outer Core	High strength polypropylene
• End Caps	High strength polypropylene
• O Ring / Gaskets	EPDM / Buna N / Silicone / Viton

Applications

Pharmaceuticals
• Sterilization of inlet & exhaust flow
• Vent filter
• Gas purification (like nitrogen & others)
• Compressed air (sterile grade)
• Acid / Solvents & base filtration
• Wet etching process

Electronics Industries
• Semi conductors
• CD- R & DVD – R factory
• Fine filtration of DI water
• Photoelectron chemical filtration





RB (Resin-Bonded) Cartridge is produced from cellulose fibers, which have been intrinsically bonded together by a melamine resin, to create a solid highly durable & porous structure. By treating the fibers in this fashion we can ensure a stronger cartridge that is less likely to collapse than a wound or pleated cartridge.

Features & Benefits

- Free of surfactants, binders and adhesives
- Excellent flow with low pressure drop
- High dirt holding capacity
- Temperature limit 4.4 Deg C to 93.3 Deg C
- Longer service life

Technical Specifications

• Standard Sizes	10", 20", 30", 40"
• Micron Rating	1, 5, 10, 25
• Outside Diameter	64mm
• Inner Diameter	28 mm

Applications

• Food & Beverages	Bottled water, Flavors, Polishing Lines
• Pharmaceuticals	Base product clarifications Membrane prefilter
• Fine Chemicals	Solvents, Process Streams, Water Purification
• Petrochemicals	Water flood, Completion Fluids, Amines
• Cosmetics	Alcohols, Essential oils, Water lines
• Water Treatment	Membrane Protection, Resin Trap
• Metal Finishing	Plating solution, paints and resins, products Wash
• Edible oil	
• Mineral Oil	
• Paints & Inks	
• Resins	
• Gasoline	
• Alcohols	
• Photographic solutions	



Sintering is a process for making articles from its base material in powder .They are made by mixing elemental or alloy powders and compacting the mixture in a die, the resultant shapes are then sintered or heated in a controlled atmosphere furnace to bond the particles. Sintering is traditionally used for manufacturing ceramic objects and after that it is used for filtration application.

Due to sintering process, particles join with each other and form a porous structure which allow any fluid , air or gas to pass through without disturbing its structure. This structure is robust in nature to handle particle above stipulated micron rating. Such elements are back washed some time for cleaning purpose to remove deposited particle load. These sintered solid filters are able to withstand very high differential pressure across the filters.

Features & Benefits

- Made of single base material, hence free from any binder
- Specific Pore size distribution due to sintering process
- Withstand very high differential pressure
- High void volume compared to conventional sintered material
- Easy to clean & back wash
- Wide chemical compatibility

Technical Specifications

• Sizes	10", 20", 30", 40" Long
• Micron Rating	1, 5, 10, 25, 50, 100 Micron
• Outer Diameter	64 mm, 70 mm
• Inner Diameter	28 mm, 40 mm

Configuration

- Double Open Type (DOE Type)

Construction

- Sintered Polypropylene
- Sintered Polystyrene
- Sintered Acrylonitrile
- Sintered Ceramic
- Sintered Polyethylene

Applications

• Compressed air filtration	
• Gas filtration	
• Fine Chemicals	Solvents, Process Streams, Water Purification
• Magnetic coating	Dispersions, Coating Lines, Solvents
• Petrochemicals	Water flood, Completion Fluids, Amines
• Cosmetics	Alcohols, Essential oils , Water lines
• Water Treatment	membrane Protection, Resin Trap
• Metal Finishing	Plating solution, paint and resin products, Washing
• Electronics	Electroplating, Etching, Image development



Stainless steel cartridges are designed to overcome the temperature and chemical compatibility limitations of fabric or synthetic fiber media. This will offer very high temperature resistance & can withstand high differential pressure. Stainless steel cartridges are offered in SS 304, SS 316, & SS 316 L materials. These elements can be plain cylindrical or in pleated configuration to increase filtration area. Normally all stainless steel pleated & cylindrical filters are supported with coarser filter media to ensure no direct damages to main filtering media under process upsets. A bubble point test can be done to certify that no opening larger than the specified pore size exist in product joints or seams. No media migration occurs due to stainless steel material. These elements can be back washed & reused.

Type Of Filters

- Stainless steel wire mesh type
- Stainless steel sintered metal powder type
- Stainless steel random fiber / sintered metal fiber type
- Stainless steel multi layered wiremesh

Type Of Filter Design

- Plain cylindrical design
- Pleated configuration design
- Welded design

Features & Benefits

- Stable pore shapes
- High permeability
- Low pressure drop
- High dirt-holding capacity (longer lifetime)
- High temperature resistance
- High differential pressure withstand capacity
- Strong corrosion resistant
- Back flushing
- Excellent mechanical strength
- No media migration
- Customized Sizes available

Construction Of Sintered Material

The composite fiber material is sintered together with a wire mesh under vacuum conditions and rolled to form mats of a specific thickness. Stainless steel cartridges can be wrought into tubes, cartridges or disks, plain, pleated or according to customer requests.

Technical Specifications

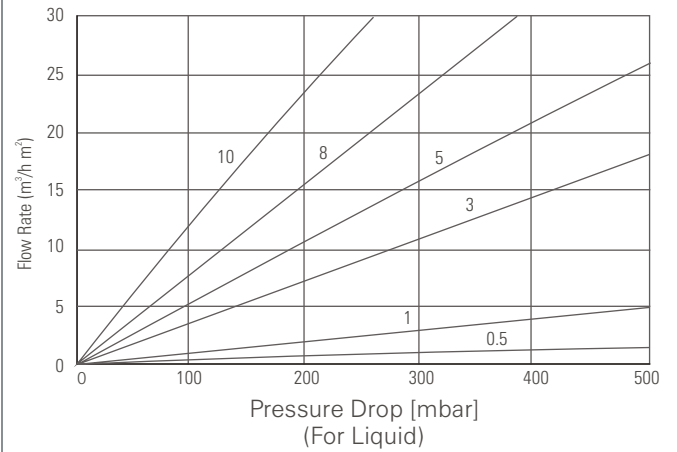
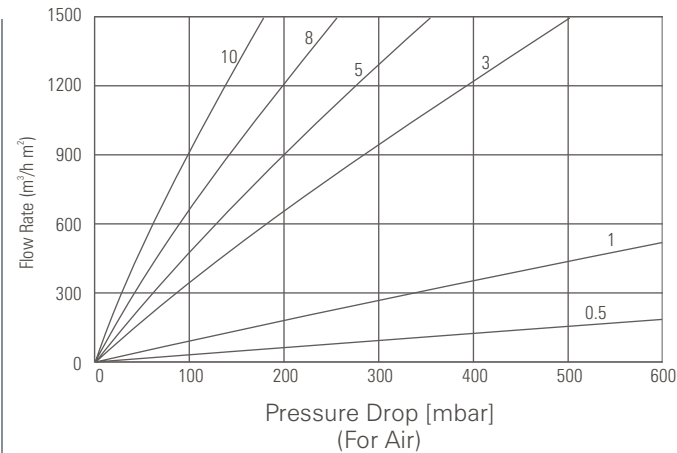
• Sizes	10", 20",30"40" Long (Customized Sizes Are Available)
• Micron Rating	0.2, 0.5, 1, 3,5,10, 20, 25, 50 & More
• Standard Outside Diameter	64 mm
• Inner Diameter	28 mm

Configuration

- Double Open Type (DOE Type)
- Code 7S (226 'O' Ring Design / Bayonet)
- Code 7F (226 'O' Ring Design / Flat)
- Code 3S (222 'O' Ring Design / Bayonet)
- Code 3F (222 'O' Ring Design / Flat)
- 1" NPT / BSP Connection

Applications

- Catalyst Recovery In Petrochemical / Chemical Industries
- Polymer Filtration
- Cross Flow Filtration
- Gas Filtration
- Analytical Devices
- Medical devices
- Oil Filtration
- Aerosol Application
- Gas – Liquid Separation
- Hot Gas Filtration
- Fuel & Hydraulic Oil Filtration
- R.O. Pre Filtration



Wound Filter Cartridge



Wound cartridges are designed to meet the most demanding filtration duties. They offer an economic, compact, easily installed and maintained filtration system for removal of particulates from liquid. Wound cartridges are manufactured from a variety of carefully selected raw materials. These are processed into fibers of specific grades using the latest technology. After carding & spinning into roving they are wound into cartridges with carefully controlled micron rating. From raw materials to finished products we are in control of the quality and filtration characteristics. They are appreciated due to high dirt holding capacity and its rugged construction which allows facing different applications in liquid and gas filtration.

Operation

Unfiltered fluid passes through depth filter matrix, which enables the progressive retention of finer particles, providing high efficiency, high dirt retention & long filter life. Fluid flows from outside to inside through filter media. Particulates are held securely in the filter matrix and clean fluid flows to the downstream side of cartridge.

Salient Features

- Standard and customized sizes to fit most housings
- Filtration rating from 1 to 100 Micron
- High strength & pressure resistance
- Manufactured in continuous length
- Full range of sizes from 10” to 60” Length
- Excellent flow with low pressure drop
- High dirt holding capacity
- Compatible with a wide range of fluids
- NSF & FDA approved filter cartridges are available.

Technical Specifications

• Sizes	10”, 20”, 30”, 40”, 50”, 60” Long
• Micron Rating	1, 5, 10, 25, 50, 75, 100
• Outer Diameter	64 mm (2.5”) 100 mm (4”), 110mm (4.5”) 6”, 8”
• Inner Diameter	25mm

Configuration

- Double Open Type (DOE Type), 226 O’Ring design & 222 O’Ring Design.

Construction

- Polypropylene with polypropylene core
- Cotton with stainless steel core
- Glass fiber with stainless steel core

Applications

Polypropylene wound filter cartridge
• Organic Acids
• Oils
• Concentrated Alkalis
• Water
• Organic solvents
• Electroplating solution
• Photographical process fluid
Cotton wound filter cartridge
• Vegetable Oils
• Dilute Acids
• Alkalis
• Organic solvents
• Portable liquids
Glass fiber wound filter cartridge
• High temperature filtration of
- Mineral Acids
- Organic solvents
- Oils

