

# Driving the Future of Fluid Filtration

**A complete line of filtration products  
from a single source**

- High Performance Products
- Sustainable Designs
- Engineering and Technical Support
- User Friendly Features
- Global Customer Reach



# 3M Purification Areas of Expertise

3M Purification provides filtration and separation solutions for a wide range of industrial processes including:



Paint & Coatings



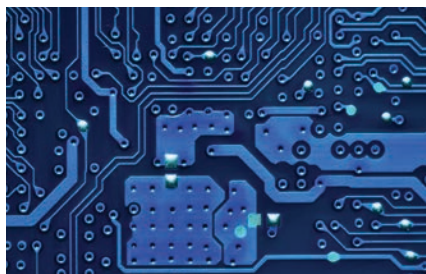
General Industrial



Oil & Gas Processing



Petrochemical/Chemical



Electronics



Food & Beverage



Life Science

Whether the application is process water clarification, high purity water filtration for semiconductor manufacturing, fine ink pigment classification, or the removal of contaminants in petroleum, 3M Purification has the application knowledge and products to provide solutions to the most challenging of requirements. From cost effective, coarse filtration using filter bags, to the finest particle removal using membrane filters, customers depend on 3M Purification for filtration solutions.

Supporting 3M Purification's filtration offering is a dedicated multi-disciplinary team providing a vital link between 3M Purification's filtration knowledge base and customer needs. Using 3M Purification's extensive field and laboratory capabilities, this team is expertly equipped to identify filtration solutions using either the broad array of existing filter products or by working with Research & Development to design a custom solution for the application.

3M Purification (formerly CUNO) is a wholly owned subsidiary of 3M Company. The combination of 3M's history of innovation with CUNO's filtration application knowledge provides for unmatched capabilities for customers' current and future filtration needs.

# Large Diameter Cartridges, Bag Filters and Specialty Systems

## Large Diameter Cartridge Systems

**High Flow:** 7" diameter cartridges containing high efficiency polypropylene microfiber media in a unique radial pleat configuration. Available in 10", 40", and 60" lengths. High flow capability (up to 500 gpm for 60" cartridge) makes it ideal for large flow, low contaminant applications (pre-RO, process water). Utilizes specially designed housings available in a variety of sizes, materials, and configurations. High flow cartridge capability reduces required housing size for a given flow rate optimizing housing foot print and capital costs.



**740 Series:** 7" diameter, 30" & 40" length cartridges containing high efficiency polypropylene microfiber media in a unique radial pleat configuration. Designed for use in high contaminant applications (amine, coolant) <80 gpm.

## Bag Products

**DF Series:** Graded porosity polypropylene & polyester felt media in a unique two cylinder design providing for higher dirt holding capacities and up to five times the life of conventional nominally rated bags. Easily retrofitable for use in bag housing systems.



**NB Series:** Polypropylene & Polyester felt and Nylon Monofilament nominally rated filter bags providing cost effective filtration for industrial applications.



**100 Series:** Single layer high efficiency polypropylene microfiber media in a bag configuration. Ideal for oil contamination removal.



**500 Series:** Multi layer high efficiency polypropylene microfiber media in a unique wrapped bag configuration. High dirt holding capacity allows for much longer life than conventional bags.



# Metal Cartridges

For those applications where use of reusable metal based cartridge is preferred, 3M Purification offers the below products:



**CUNO™ EF Series Self Cleaning Metal Filter:** Metal edge filters capable of filtering highly viscous fluids. Spacing between two metal surfaces determines the degree of filtration. Typical applications include lubricating oils, fuel oils, hydraulic fluids, and greases. CUNO EF series self cleaning metal filters cleaned by turning a handle, resulting in solids reduction and full flow restoration. Larger capacity CUNO EF series self cleaning metal filters available with self cleaning capabilities. Two-stage filtration version of CUNO EF series self cleaning metal filters available capable of reducing particles down to 37 micron (nominal).

**CUNO™ Metal Screen Filters:** Stainless steel screen mesh elements ideal for corrosive fluids and other fluids that cannot be filtered by fiber type media.



## Depth Filter Cartridges

3M Purification offers a full line of cartridges in a cylindrical depth filter construction in various materials, configurations, and grades designed to meet the application needs.

### Nominally Rated:

**Micro-Klean™ RB Series Filters:** Graded-density resin bonded cartridges ideal for coatings and general industrial applications.

**Micro-Klean™ RT Series Filters:** Rigid polypropylene cartridges providing cost effective filtration for water based and other industrial fluid applications.

**Micro-Klean™ D Series Filters:** Blanket wrapped cartridges incorporating a unique filter media blanket in a wound support structure.



### Absolute Rated:

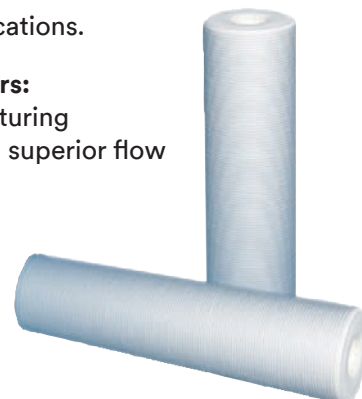
**Betapure™ BK Series Filters:** Absolute rated version of Micro-Klean III Filters for more demanding applications.

**Betapure™ PK Series Filters:** Absolute rated resin bonded cartridges designed specifically for Oil & Gas applications.

**Betapure™ AU Series Filters:** Rigid cartridges manufactured from thermally bonded polyolefin fibers. An exceptional classification filter for coatings

and specialty chemical applications.

**Betapure™ NT-T Series Filters:** Polypropylene cartridges featuring innovative design resulting in superior flow characteristics.





# Surface Filter Cartridges

For applications requiring high surface area and low pressure drops, 3M Purification offers an extensive line of absolute rated, pleated cartridge filters in a variety of materials, configurations and micron ratings.

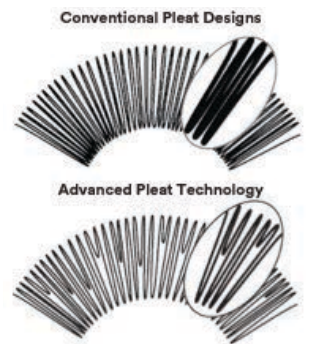


## Betafine™ Series Pleated Polypropylene Filters

**Betafine™ DP Series Filters:** All polypropylene pleated filter cartridges providing high surface area and excellent chemical compatibility. Cost effective absolute rated filtration for demanding applications

**Betafine™ XL Series Filters:** Enhanced version of the DP Series incorporating Advanced Pleat Technology. The increased surface area and improved pleat utilization leads to lower pressure drops, reduced filter change outs and lower overall operating costs.

**Betafine™ PEG, PBG Series Filters:** Combines Advanced Pleat Technology and our graded density filtration media for even greater contaminant holding capacity and extended filter life for the most critical applications.



## Membrane: LifeASSURE™ Series Filters

### Food & Beverage Applications

**LifeASSURE™ BNA** series filters employ a highly-asymmetric polyether sulfone (PES) membrane that delivers excellent spoilage microorganism retention while greatly minimizing any organoleptic interference. This durable membrane/cartridge design withstands repeated exposure to hot water sanitation and steam sterilization as well as common chemical cleaning and sanitizing agents.

**LifeASSURE™ BA** series cartridge filter membrane technology allows casting of an integral membrane onto a variety of substrates. The result is a microporous membrane with characteristics, such as increased flow and reduced pressure drop, tailored to provide ideal performance for the intended application.

**LifeASSURE™ BW** series are used as long-life final filters in bottled water and other beverage grade water requiring exceptionally high removal of cysts, bacteria and other microorganisms, without the use of ozone.

### Life Science Application

**LifeASSURE™ PFS:** PTFE cartridges offering compatibility with aggressive fluids. Also designed for vent and process gas filtration.



# Charge Modified Filter Cartridges

3M Purification offers a full line of charge modified depth cartridges (Zeta Plus™ Series) composed of cellulose and diatomaceous earth materials, trapping contaminants smaller than the rated pore size via electrokinetic adsorption.

**Zeta Plus™ H Series:** Designed for high efficiency filtration in repeated elevated operating temperatures. Commonly used to clarify beverages, including beer, wine and spirits.

**Zeta Plus™ Activated Carbon Series:** Carbon containing cartridges capable of removing trace organics without the cleanup problems associated with bulk activated carbon.

**Zeta Plus™ U Series:** Designed for high efficiency and cost effective filtration of resins.

**Zeta Plus™ U2 & UW Utility Series**  
Designed for removal of particle contaminants and moisture from dielectric oils. Commonly used in the power generation industry.



## Industrial Filter Housings

3M Purification carries a complete line of filter housings for use in industrial applications offering superior quality, ease of use, flexibility, and economy. From single cartridge housings to large multi cartridge housings designed to handle flow rates in the thousands of gallons per minute, 3M Purification provides housings capable of meeting even the most stringent process requirements.

### Bag Housings

**3M™ DF Series Bag Housings:** ASME code design stainless steel single round housings for use with DF™ elements.

**3M™ BHN Series Bag Housings:** Economical stainless steel single round bag housings available for those applications not requiring ASME code design.



### Filter Housings - Single Cartridge

**Model 1A:** Aluminum two piece single cartridge housing featuring centerpost construction used with 3 3/4" length cartridges.



**Model 1B:** All metal three piece single cartridge housings featuring centerpost construction.



**Model 1M:** Single cartridge housings constructed from plastic providing broad chemical compatibility and durability.

**Model 1H:** An all-welded, high pressure design single cartridge housing with bolt-on type head suitable for compressed air & gas applications as well as liquids.

**Model GP101:** Single cartridge housing with threaded-style sump, designed for in-line high pressure applications.

**Model CT:** Stainless steel three piece single cartridge housings with ring nut closure available in 1, 2, and 3 high configurations.



## Filter Housings - Multi Cartridge



**Model DC & Model SS:** Economical stainless steel multi cartridge housings available in a wide variety of sizes for those applications not requiring ASME code design.

**Model ES:** ASME Code multi cartridge designs housing available in a wide variety of sizes, materials, pressure ratings, and choice of cartridge diaphragms.

3M Purification can also design custom filter housings based on specifications on individual applications.

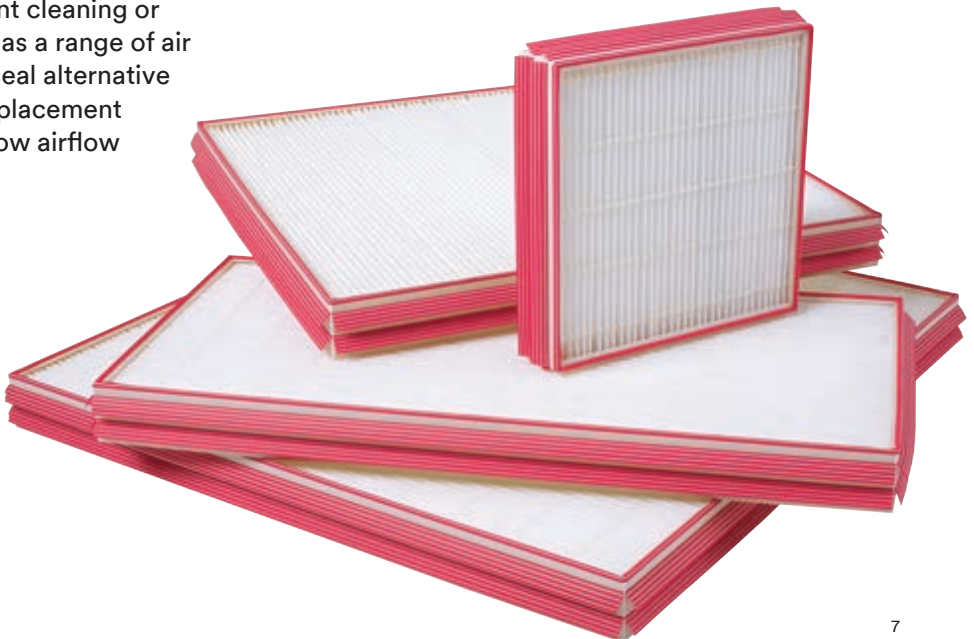
## HVAC Filters

Using 3M technologies, these commercial HVAC filters offer an industry leading combination of low pressure drop, robust efficiency, longevity, low weight as well as unique design features. These design features include nested pleats for reduced pressure drop and highly engineered media with a precise balance of mechanical and electret characteristics. The robust efficiency of these filters is tested to the rigorous industry filter conditioning standard.

### HVAC - Cleaner Air, Less Energy

The problem with certain kinds of conventional air filters is that depending on the filter type they can have high initial differential pressure or can block too much airflow as particles become trapped in the filter particularly on the surface of the media. The end result is that airflow through the equipment can be severely restricted. To maintain the required airflow, the filters may require frequent replacement, and / or the equipment may require frequent cleaning or other maintenance. 3M Purification has a range of air filtration media which may offer an ideal alternative in applications where regular filter replacement is difficult or impractical, but where low airflow resistance is important.

3M HVAC media was developed using innovative 3M technologies. This media has an open channel construction which offers low initial airflow resistance, while its unique microstructure and electrostatic charge provides effective particle capture and retention. In certain applications, this may translate into fewer filter changeouts, reduced coil cleaning and/or reduced maintenance costs.



Product data sheets are available for all 3M Purification products.

For additional information, please visit [3Mpurification.com](http://3Mpurification.com)  
or contact your local 3M Purification representative.

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