



aerospace  
climate control  
electromechanical  
**filtration**  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding



## Inks, Paints, & Specialty Coatings

An overview of filtration products and services



ENGINEERING YOUR SUCCESS.

# Adding value to your business

Through consistently meeting your quality specifications

Parker's capability is based on understanding the needs of your process. Our dedicated range of filtration products are designed to ensure that your end products meet the required specifications with minimal process downtime and low product waste.

Parker's proven product range and applications experience in the inks, paints, and specialty coatings industry enables us to ensure that every step of the manufacturing process meets the customers' quality specifications. The manufacture and application of an ink or coating can be divided into the following processes:

- Resin processing and introduction of resins to blending and dispersion phases.
- Production of deionized water for use in aqueous based product.
- Additives and raw materials for the dispersion phase.
- Product manufacturing processes where the pigments are milled and blended with either solvent or water and packaged.
- Packaging and transportation of the liquid products to the application, whether it is printed, painted, or coated.

Given the variations of these processes, it is critical to consider the operating parameters when selecting filtration for each stage of manufacturing.

As formulations become more complex, the manufacturing process demands also become increasingly more critical. With increasing energy and disposal costs, it is important that the recommended filtration systems provide minimal process downtime and low product waste, so the total cost of ownership of the filtration system is balanced, without compromising the quality of the end product.

## MARKET APPLICATIONS Additives & Raw Materials

- Diluents
- Fillers
- Primers
- Stabilizers
- Surfactants
- Resins
- Polymers
- Water
- Pigment
- Oils
- Plasticizers
- Emulsions
- Solvents

## Commerical & Industrial Coatings

- Adhesives
- Aerosols
- Architectural paint
- Caulks
- Corrosion inhibitors
- Dyes
- Finishes
- Marine coatings
- Packaging coatings
- Primers
- Sealants
- Shellac
- Varnishes
- Lacquer
- Wood Finishes

## Printing Inks

- Can coatings
- Conductive
- Film coatings
- Flexographic
- Gravure
- Heat set inks
- Ink jet printing
- Lithographic
- Non-impact
- Screen printing
- UV sensitive

## Specialty & Performance Coatings

- Automotive
- Clear coats
- Flooring systems
- Fluorescent coatings
- Glaze
- High performance coatings
- Optical coatings
- Protective coatings
- Road paints
- Stains
- Textured finishes
- Transparent armors
- Water proofing



**MELT BLOWN FILTERS**  
**PLEATED DEPTH FILTERS**

**MEMBRANE FILTERS**

**Deionized water process**

The use of Polypropylene depth or high-flow pleated filters on the deionization system is used to treat incoming mains water. Trap filters ensure that the make-up process water is of high-purity by preventing downstream contamination of source water sediment or ion exchange bead migration.

**LENTICULAR FILTERS**

**MELT BLOWN FILTERS**

**Resin process**

Resins such as acrylics, alkyds, epoxies and polyesters are key constituents to paints and inks, and with the development of more and more sophisticated coatings, resin quality specifications are becoming more stringent. The variable process conditions in resin manufacturing processes can result in high volume of polymorphous contamination which affects the final finish of the end product by causing what is commonly known as 'fish eyes', cratering or dull finishes. Use of the correct filtration reduces manufacturing costs by preventing rework, reclassification, and waste.

**FILTER VESSELS**

**Application process**

Following filling and packaging, it is vital to ensure that the product remains contaminant free and within specification during shipment. A point of use (POU) filtration system at the end-user site reduces the risk of any contamination that may have entrained in the product during delivery, storage and distribution.

**MELT BLOWN FILTERS**

**Manufacturing process (blending / thinning)**

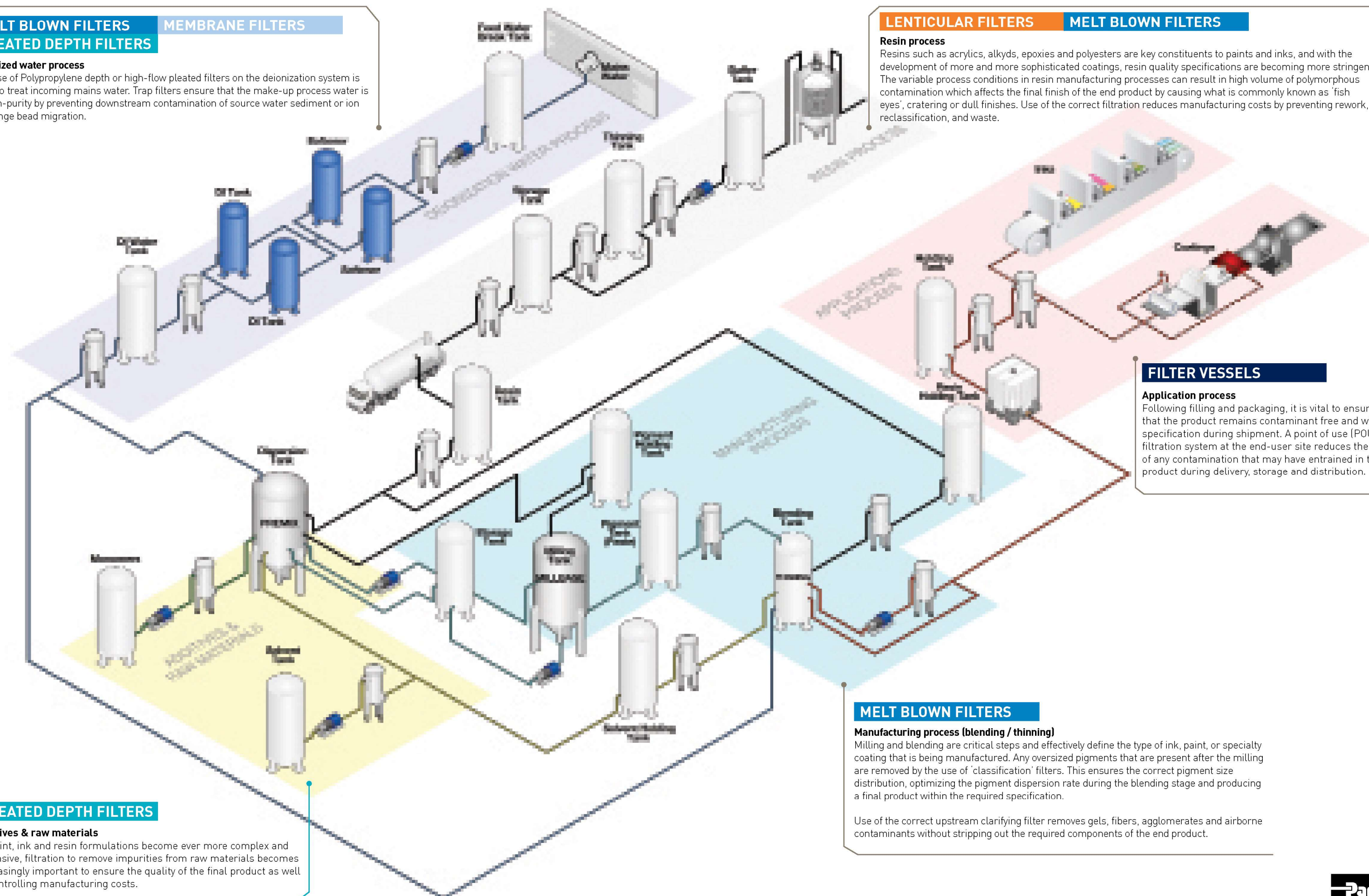
Milling and blending are critical steps and effectively define the type of ink, paint, or specialty coating that is being manufactured. Any oversized pigments that are present after the milling are removed by the use of 'classification' filters. This ensures the correct pigment size distribution, optimizing the pigment dispersion rate during the blending stage and producing a final product within the required specification.

Use of the correct upstream clarifying filter removes gels, fibers, agglomerates and airborne contaminants without stripping out the required components of the end product.

**PLEATED DEPTH FILTERS**

**Additives & raw materials**

As paint, ink and resin formulations become ever more complex and expensive, filtration to remove impurities from raw materials becomes increasingly important to ensure the quality of the final product as well as controlling manufacturing costs.



# Products for Inks, Paints, & Specialty Coatings

## MELT BLOWN FILTERS

Melt blown



### Avasan™

A specially formulated polypropylene polymer produces a uniquely graded density filter cartridge designed specifically for process water filtration.

- Pure polypropylene construction
- Finish-free construction provides optimum fluid purity and eliminates foaming
- Continuous bonding of fibers throughout the filter matrix ensures non-fiber releasing construction
- Graded density construction provides built-in prefiltration and longer life

Melt blown



### DuraBond™

A thermally bonded rigid density 'classification' filter

- Thermally bonded bicomponent construction eliminates media migration
- Fixed pore structure enables classification of particles
- Polyolefin construction offers broad chemical compatibility
- Rigid construction eliminates contaminant unloading and channelling
- Fibers are certified silicone-free

Melt blown



### MegaBond™ Absolute

Absolute rated depth filter with high dirt holding capacity

- True graded density filter matrix enables controlled pore size and distribution
- Continuous fiber matrix eliminates media migration and high filter efficiency
- Free from surfactants and binders

## PLEATED DEPTH FILTERS

Pleated



### Abso-Mate®

Cost-effective and absolute rated for capturing particles 0.2 to 70 microns in size. All-polypropylene construction, and without adhesives that could potentially contaminate fluids.

- Non-fiber releasing and contain minimal extractables
- Single-piece construction eliminates bypass concerns
- All-polypropylene construction offers wide chemical compatibility with most chemicals
- Absolute rated for consistent and reliable performance (99.98%,  $\beta=5000$ )

Pleated



### Claripor™

The best of pleated and depth technologies combine in the Claripor to provide high flow rates, excellent gel removal, and absolute particle retention from 0.5 to 90  $\mu\text{m}$ .

- Graded density layering for superior removal of amorphous particles
- Absolute retention ratings for critical filtration
- Pleated construction yields high flow rates compared to traditional depth filters
- All Polypropylene construction

Pleated



### Poly-Mate™ X

A unique combination of polypropylene melt blown and spun-bonded media provides high surface area at retention ratings of 0.5 to 60  $\mu\text{m}$  at 99% efficiency.

- All Polypropylene construction maximizes chemical resistance
- High pleated surface area for extended service life, low pressure drop and high flow capacity
- One-piece, continuous to 40 inches length, integrally sealed pleated filter media

Pleated



### Polyflow®-G Mini-capsule

These encapsulated filters offer absolute retention at 0.6 to 10  $\mu\text{m}$  for critical applications where cross-batch contamination and hold-up volume are a concern.

- All Polypropylene construction
- Pleated encapsulated media with a variety of inlet/outlet connection options
- High flow rate reduces processing time
- Long service life minimizes change out frequency

# Products for Inks, Paints, & Specialty Coatings (Cont'd)

## MEMBRANE FILTERS



### Clariflow

This high purity hydrophilic polyethersulfone membrane cartridge is designed specifically for high purity water and chemical filtration applications with retention ratings of 0.02 to 0.85  $\mu\text{m}$ .

- High purity polypropylene support structure
- Thermally bonded to exclude liquid capture and extractables
- Strict quality control on measuring rinse-up, integrity testing, flow rate, and extractable levels

## LENTICULAR FILTERS



### Depth-Clear Lenticular

Lenticular depth filters and companion housings provide reliable particle retention utilizing mechanical and electrokinetic capture with enhanced throughput for superior performance.

## FILTER VESSELS



### E-Series Bag Filter Vessels

Bag filter vessels designed for economical filtration of inks, paints, and specialty coatings

- Single and multi-bag housings
- Available in 304 or 316L SS
- Wide variety of stock housings

### E-Series Cartridge Filter Vessels

Cartridge filter vessels designed for economical filtration of inks, paints, and specialty coatings

- Single and multi-cartridge housings
- Available in 304 or 316L SS
- Cartridge filter housings universal seat cup design to take DOE or 222 filter cartridges
- Wide variety of stock housings