



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



domnick
hunter

ENGINEERING YOUR SUCCESS.



Adding value to your business

Through consistently meeting your quality specifications

Parker domnick hunter'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 domnick hunter'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

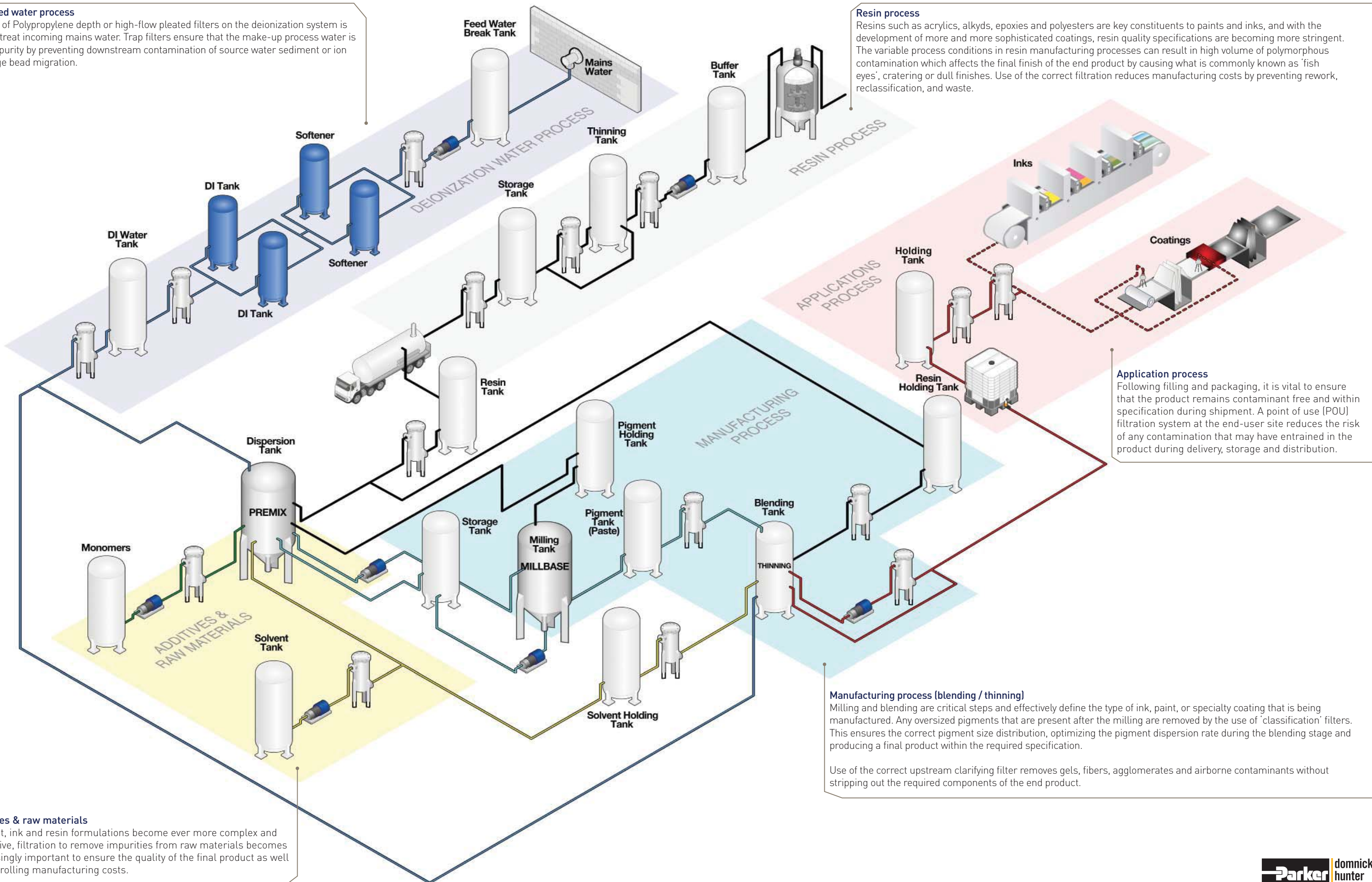
- Automotive
- Clear coats
- Flooring systems
- Fluorescent coatings
- Glaze
- High performance coatings
- Optical coatings
- Protective coatings
- Road paints
- Stains
- Textured finishes
- Transparent armors
- Water proofing

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.

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.



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.

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.

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.

Products for Inks, Paints, & Specialty Coatings

DEPTH MEDIA



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



Fulflo® 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



Fulflo® EcoBond™

High purity filtration with low cost

- Thermally bonded melt blown fiber matrix provides broad compatibility
- Continuous fiber matrix prevents media migration and ensures consistent filtration performance
- Superior inter-layer bonding eliminates contaminant unloading and channelling
- Narrow range fiber size optimizes consistency of filtration performance



Fulflo® MegaBond Plus™

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 – can not contaminate filtered product
- Pure grade materials of construction used ensuring filter integrity and performance



Fulflo® Honeycomb

Offer superior quality for effective particulate removal from 0.5 to 150 µm at nominal capture efficiency.

- Broad range of media provide excellent compatibility with water, a variety of oils and organic solvents
- Continuous strand winding geometry provides consistent performance
- Various O-ring and end cap options available
- Multiple length cartridges minimize change-out time, eliminate spacers, and are available to fit competitor vessels



Fulflo® ProBond™

A patented double layer resin bonded filter

- Outer spiral layer traps agglomerates and large particles
- Inner control layer provides excellent classification efficiency
- Rigid fiber matrix prevents gels and agglomerates from unloading during high differential pressures and pressure surges
- Phenolic coated fibers enable high temperature compatibility and filter strength
- Fibers are certified silicone-free

PLEATED & LARGE DIAMETER PLEATED FILTERS



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%, β=5000)



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 µm.

- 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



Glass-Mate™

Offer better temperature resistance than standard polypropylene cartridges and absolute rated efficiency for 0.45 - 40 µm.

- Absolute-rated media provides reliable removal efficiency
- Thermally bonded end caps eliminates particle bypass
- Laminated media maximizes flow capacity and minimizes media migration
- Non-fiber releasing media with minimal extractables provide high purity filtration

PLEATED & LARGE DIAMETER PLEATED FILTERS (CONT.'D)

Pleated



Fulflo® Poly-Mate™

A unique combination of polypropylene melt blown and spun-bonded media provides high surface area at retention ratings of 0.5 to 60 µm 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
- Finish free and non-fiber releasing polypropylene construction

Pleated



Fulflo® Poly-Mate™ Plus

High surface area and efficiency

'All-Polypropylene' pleated cartridges

- Fixed pore construction provides ultimate particle retention
- Pleat pack optimization offers high flow rates and extended service life
- Non-fiber releasing enabling consistent quality filtration performance
- One-piece integral construction is 100% bonded for maximum cartridge integrity

Large Diameter



Fulflo® ParMax and ParMax Select

Large diameter high flow cartridges.

- Large diameter patented select pleat adds up to 40% extra life
- High flow capacity permits use of fewer elements and cuts capital expenditure
- Inside-out flow pattern ensures positive capture of contaminants
- Absolute retention ratings for critical filtration

METALLIC FILTERS



Fulflo® Metallic

With fourteen nominal ratings from 2 to 840 µm, the Metallic Filter Cartridges are the ideal choice for high temperature and high flow rate filtration applications.

- Available in 304 and 316 Stainless Steel
- Temperature compatibility up to 500°F with synthetic seals; up to 1500°F with NPT connections
- Cartridges may be cleaned and reused
- Welded and crimped construction eliminates need for adhesives which can be a contaminant source and limit temperature range

ENCAPSULATED FILTERS



Polyflow®-G Mini-capsule

These encapsulated filters offer absolute retention at 0.6 to 10 µm 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

MEMBRANE FILTERS



Evadur™

This high purity hydrophilic polyethersulfone membrane cartridge is designed specifically for high purity water and chemical filtration applications with retention ratings of 0.03 to 0.65 µm.

- 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

BAG FILTERS



Fulflo® filter bags

Low cost prefiltration

- Standard filter bags fit Fulflo® vessels and most major competitive models
- Felt bags come standard with glazed surface treatment to effectively control migration of fibers into the filtered product
- In-to-out flow allows positive retention of bulk contaminant
- Low filter disposable costs



Fulflo® pleated bags

A cost-effective alternative with higher removal efficiencies over standard bags. The media material options make it an optimum choice for inks, paints, and coating applications requiring 1 to 90 µm capture at 99% efficiency.

- High capacity reduces filter quantity, decreases change-outs and lowers costs
- High capacity allows for smaller housings and less capital expenditure
- Inside/outside flow captures and retains contaminants to eliminate potential fouling downstream
- Fits CB, FB and SB bag housings

BAG FILTERS (CONT.'D)



Fulflo® basket strainers

Effectively remove large-sized particles ranging from US Mesh 100 to 20 (149 to 840 µm). Fulflo Basket Strainers are useful as prefilters for the collection of gross contaminants in viscous liquids up to 15,000 SSU.

- Constructed of 316 Stainless Steel
- Available in two standard sizes to fit all Fulflo bag filter vessels
- Cleanable permanent media
- Designed for high flow rates and operating pressures up to 150 psi



Fulflo® XLH

All-polypropylene high-efficiency for quality filtration performance.

- Provide twice the dirt-holding capacity at a lower cost than many competitive bags and cartridges of the same micrometer rating
- Require less frequent change out, minimal storage and disposal space, and are easy to install and remove
- Each bag is incinerable (with Quik-Seal™ option), reducing filter disposal costs



FILTER VESSELS



Fulflo® 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 316 SS
- GMP Industrial design with ASME coded options
- Vessels available as standard or custom design



Fulflo® 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 316 SS
- GMP Industrial design with coded options (ASME, PED-CE)
- Vessels available as standard or custom design