



FILTRATION SOLUTIONS
CHEMICALS AND
COATINGS INDUSTRIES



FILTRATION SPECIALISTS

Delivering quality filtration products...



As one of Europe's leading manufacturers of filters specifically designed for the Chemicals and Coatings industries, Amazon Filters are able to offer solutions to meet all your filtration needs.

Amazon Filters' understanding and knowledge of the key processes and applications found in these industries is our strength. This industry experience enables us to provide you with optimum filtration solutions for your particular process.

We design and manufacture an extensive range of liquid and gas filtration systems, providing one of the widest selections of filtration vessels, depth filters and pleated cartridges available today. Our filter media range encompasses a wide range of polymers including polypropylene, nylon, Halar and PTFE, as well as stainless steel. Whether it's for a submicron absolute rated PTFE membrane element for a critical speciality chemical for the electronics industry, or a simple 50 µm filter bag for tanker loading, Amazon have a cost effective solution. Manufactured in clean room conditions using silicone free materials, all products come with detailed Product Validation Guides and Technical Support documentation.

Customer Commitment

Delivering quality filtration products to our customers is only one of the major factors in Amazon Filters' success. Another is in providing a level of customer service that few, if any, competitors can match. Recognised as a reliable and trustworthy supplier, Amazon targets first class service performance in terms of on-time deliveries; same-day dispatch; quick response to enquiries and answering 95% of telephone calls within two rings. These are some of the factors that make Amazon stand out from the rest.

Quality Approval

Amazon Filters is accredited to ISO9001:2008 by one of the world's most prestigious and respected accreditation bodies, the British Standards Institute. Our certificate number is FM 39584. To support and complement the Company's quality systems, Amazon Filters is also actively engaged in gaining approvals for its products in specific industries. Our products have approval for use on automotive paint systems (silicone free) by various major vehicle manufacturers. We also have the ability to carry out in-house testing on products and processes to provide a complete service for all clients.

Filter housings can be designed to International pressure vessel design codes (ASME VIII, EN13445 and PD5500) and are ATEX and Pressure Equipment Directive (PED) 97/23/EC compliant. We are also accredited for self certification to Module H of the PED. Our expertise includes manufacturing vessels using a wide range of stainless steels and exotic alloys.

Coatings, Paints and Inks

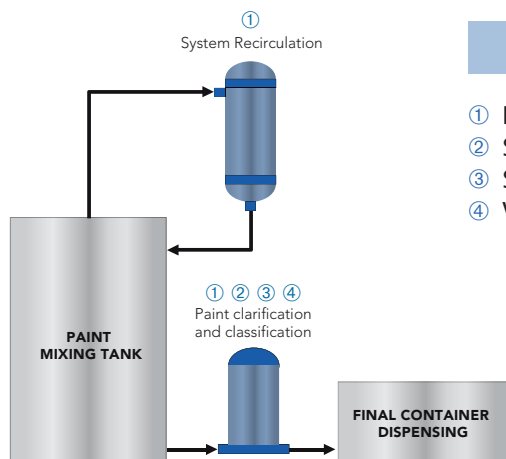


Every type of product, whether a decorative, protective or product-enhancing surface coating will require filtration at some stage in its manufacturing process. The use of effective filtration is vital to meet the product quality specification and to ensure the end user will achieve the intended final finish. Amazon Filters are working with leading Coatings, Paints and Ink companies and have experience of a wide range of products including printing inks, lacquers, solvent based trade paints, emulsions, electrodeposition and high quality industrial paints. We have the product ranges and the experience to ensure the performance and cost targets are met for each application.

Key Applications

The ingredients and products being manufactured will contain a wide range of contaminants that will need removing during the production process. These will include particulates introduced from the equipment or environment, agglomerated or undispersed pigments, deformable gels, films and fibres. Filters used to remove these contaminants must also avoid removal of the pigment particles, so filters need to have a very well defined removal rating. Filters need to provide both clarification and classification.

To ensure the optimum filter is used in each application, Amazon Filters has developed a wide range of products. Our range includes DuoLine filter bags, meltblown depth filters such as polypropylene SupaSpun II and nylon VisClear and pleated media filters such SupaPleat II and SupaPore PPG. Therefore we are able to provide the ideal filter even if the need is to remove deformable contaminants and fibres or the liquid is highly viscous. Our cartridge and bag filter systems are often preferred to traditional plate and frame systems as they are easier to clean, suffer less product losses and offer better protection to the operators from VOCs used for solvent based products. Where a simple mesh strainer is required we offer filters from Amazon's SupaMesh product range.



Paint Production

- ① DuoLine
- ② SupaSpun II
- ③ SupaGard
- ④ VisClear

Production of Chemicals, Solvents and Resins

Chemical and solvent manufacturers rely on Amazon's filters to ensure the quality of their products and to lower production costs. We supply filters manufactured from a diverse range of media with removal ratings from 0.03 to 1000 µm and in different formats, so can always provide the best filtration solution for each individual application.

Typical Products Requiring Filtration

- Acids, bases, organic solvents, resins, monomers, polymers and raw materials
- Industrial gases
- Process water, boiler feed, demineralised feed, pre-reverse osmosis and waste water

KEY APPLICATIONS

Filtration of Raw Materials, Intermediates and Final Products

Final products need to be free of contaminants such as fibres, solid particles, deformable gels and where the product is a clear liquid, such as an organic solvent, free from haze. Experience has shown that limiting the use of effective filtration to just the final product is not a good strategy if the required product quality is to be achieved at an acceptable cost. It is important to control contamination levels in the raw materials and



intermediate process streams, in addition to final product. This will help ensure overall filtration costs are controlled, quality targets are met and product rework is minimised.

Amazon manufactures filters using a variety of materials to match the variety of liquids to be processed, therefore we are able to choose the most appropriate filter for each application. Our range of products includes both depth and pleated filters. Media options include polypropylene and glass fibre and we also offer PTFE, halar and nylon filter media where higher compatibility is required.

Filters typically used are :-

- Polypropylene **SupaSpun II** and nylon **VisClear** meltblown depth filters
- **SupaWind** wound yarn filters
- **SupaPore** PTFE and Halar pleated filters
- Polypropylene **SupaPleat II** pleated cartridges
- **DuoLine** bag filters

Filters are available with ratings as fine as 0.03 µm and up to 1000 µm, so are suitable for all particle control applications.

For particularly aggressive chemicals or solvents, high temperature applications or high viscosity products such as resins requiring high pressures, we offer **SupaMesh** filters manufactured entirely from stainless steel media and hardware.

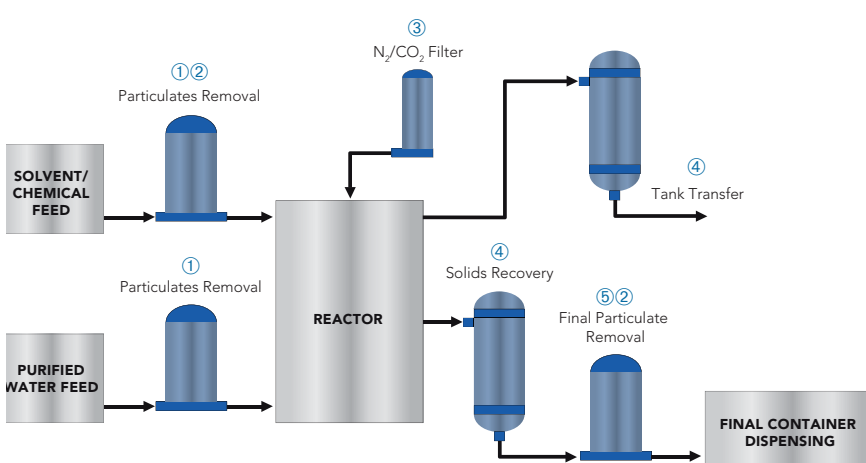
Solids Removal

During the reaction process or during the purification process there will often be a requirement to separate solids from the liquid. This can be achieved by surface filtration using cartridge filters such as **SupaPore PPG** or by utilising high solids retaining **DuoLine** bag filters.

Carbon Treatment

Activated carbon is often used in chemical and solvent manufacturing to remove impurities produced during the reaction steps or as part of the catalyst recovery process. Cartridge filters such

Chemical Production



- ① SupaSpun II
- ② SupaPore Halar
- ③ SupaPore PPG
- ④ DuoLine
- ⑤ SupaPore TPG



as **SupaPore PPG** or **DuoLine** bags are used to remove spent bulk carbon. A better alternative to bulk activated carbon is to use Amazon **SupaCarb** activated carbon cartridges in single pass or recirculating mode. These can offer a more compact, cleaner, easier to handle and cost effective carbon treatment solution.

Industrial Gases

Process gases should be filtered to prevent contamination of the product and damage to process equipment such as control valves. Where the gas is the final product, particle control is required to ensure final quality specifications are met. Amazon Filters recommends **SupaPleat II** or **SupaPore PPG** cartridges for general particulate control and **SupaPore TP PTFE** where a hydrophobic media is advantageous. For high temperature or high pressure applications, we offer **SupaMesh** filters containing stainless steel media.

Water Treatment

Amazon Filters have years of experience in all areas of Water Treatment processes and our products are an essential resource to this important utility. Incoming mains water, post carbon bed traps, pre and post UV and pre-RO filters are just a few of the applications where Amazon products can be relied upon. Typically **SupaSpun II** depth cartridges or **SupaPleat II** pleated filters are used for particulate removal and membrane protection. In high flow systems the large diameter **Contour** or **SupaPleat HFC** filters are used.

For more information on Amazon's capabilities in this application contact us for a copy of our Water Treatment Application Brochure.

Key Benefits of Using Amazon's Filters in the Production of Chemical and Coatings

Amazon Filters, through years of experience, has developed unparalleled understanding and knowledge of the key processes and applications found in the Chemicals and Coatings industries. This enables us to provide you with optimum filtration solutions for your particular process, whether you are filtering raw materials, intermediates or end product. We offer a wide range of filter types in different materials of construction to ensure the best filter is available for each application.

Our range of products offer :-

- Defined removal ratings for consistent filtrate quality throughout service life
- Enhanced contaminant removal, particle loading and high throughputs
- Reduced filter change-out frequency reducing product loss, labour costs, downtime and filter stocking
- Lower processing costs



Engineering Capabilities

Amazon Filters has particular strength in the design and manufacture of filter housings for the critical demands of the Chemicals and Coatings industries. We have extensive experience in the manufacturing of vessels in Duplex (UNS S31803), Super-Duplex (UNS S32750/60) and 316 stainless steels. We also supply carbon steel vessels lined with rubber, vinyl ester or glass flake.

We can modify most of our existing housings with a range of additions. These include heating jackets, adjustable legs and all common connection styles.

The connections can be set in the orientation to suit the process. We also have the design and build resources to provide customer specific systems, including fully functional trolleys and skids fitted with pumps and valving.

Our design team is fully conversant with the increasing technical demands of pressure vessel design codes including ASME VIII, PD5500 and EN13445. All our products meet the demand of ATEX and conform to the latest version of

the Pressure Equipment Directive (PED) 97/23/EC. Amazon Filters' accredited design and build system has offered EPC contractors and final clients the products demanded on time, every time, making us the ideal partner of choice.



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