

FILTRATION SOLUTIONS FOR THE AUTOMOTIVE INDUSTRY



FILTRATION SPECIALISTS



Delivering quality filtration products...



As one of Europe's leading manufacturers of filters specifically designed for the Automotive Industry, Amazon Filters is able to offer a solution to meet all your filtration needs.

Amazon Filters has a long history as a major supplier to automotive manufacturing plants throughout the world and our products are being used in many areas of production. The demands of this industry - top quality products, competitive pricing and a service level of the highest order are met and exceeded. Amazon Filters has the capability to satisfy all aspects of the supply chain.

We design and manufacture an extensive range of liquid filtration systems, providing one of the widest selections of filtration vessels to complement our comprehensive ranges of depth filters and pleated cartridges. Filters are manufactured in clean room conditions and 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 and a quick response to enquiries. 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 (certificate number FM 39584). Manufacturing of silicone free products is standard and we also have ability to carry out in-house testing on products and processes to provide a complete service for all clients.

Automotive Engine Plant

Machining Fluids

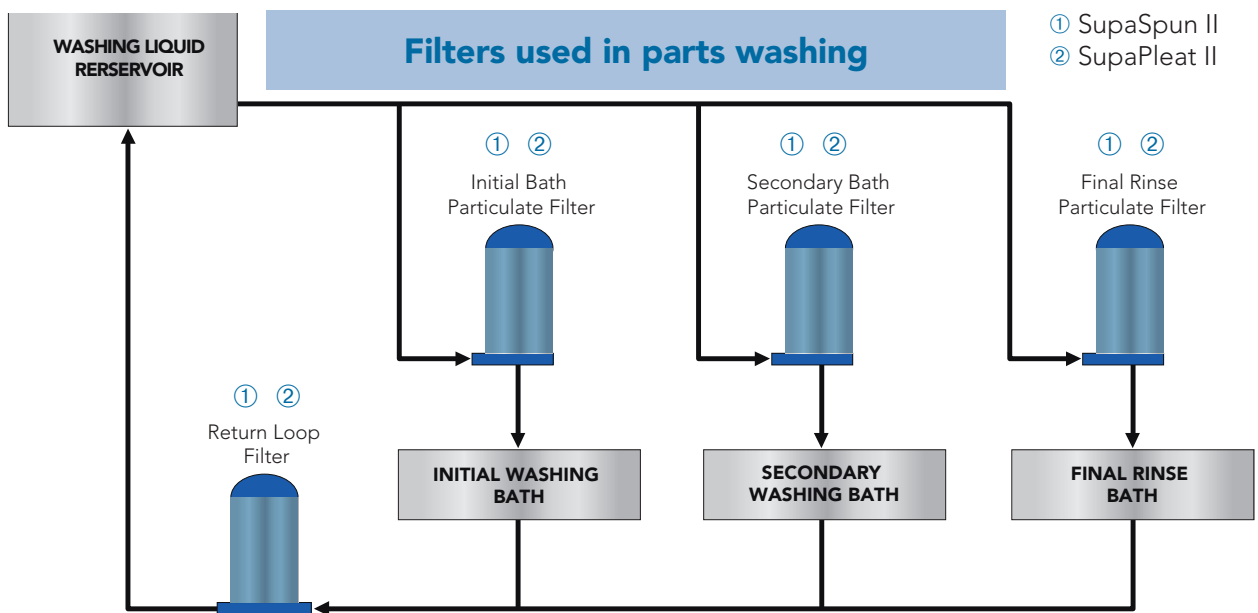
Improvements in technologies have resulted in the tolerances on machined parts becoming much tighter. This has increased the need to remove particles from the feed coolant, lubricating and cutting fluids and to remove debris produced during the machining process. The use of effective filtration reduces defects and rework of the machined parts and helps avoid short tool life.

Typically **SupaSpun II**, **SupaGard** or **SupaPleat II** filters are used for these applications with 5 - 10 µm rated cartridges used on feed lines and more open grades (10 - 30 µm) used on the recycling loops (typically post belt or magnetic filters).

parts are both clean and free from undesirable particulates. **SupaSpun II** and **SupaPleat II** filters rated at 10 - 20 µm are compatible with the higher liquid temperature used in parts washing and are particularly suitable for this application.

Parts Washing

Aqueous or chemical washing baths rely on fine filtration to ensure the



Press Shop Decoiling Lines

1 Wash systems used for cleaning of sheet stock from coil, prior to the sheet being blanked out and pressed into car body panels, rely on filtration to remove particulates from the washing liquids. Typically Amazon **DuoLine** filter bags rated at 25 - 100 µm or **SupaSpun II** filter cartridges rated at 10 - 50 µm are used for the Kerosene based solutions used for this process.



Paint Shop Applications

2 Car Body Pretreatment

Filtration plays an important role in the degreasing and pretreatment process carried out prior to the paint process. Cars bodies coming from the assembly plant will be contaminated by oil, metallic weld splatter and general debris. The contaminants will be transferred to the recirculating degreasing liquids during the cleaning process and will need to be removed by filtration. **DuoLine** filter bags rated at 25 - 100 µm, including the special oil absorbing **DuoLine OilOut** range, are excellent for this application. Filtration is also key for maintaining the quality and effectiveness of rinsing water and the phosphate pretreatment solutions. Products used for these applications are **DuoLine** filter bags, **SupaSpun II** filter cartridges and **SupaPleat HFC** filter cartridges for larger systems. Typically they will be rated at 50 - 100 µm.

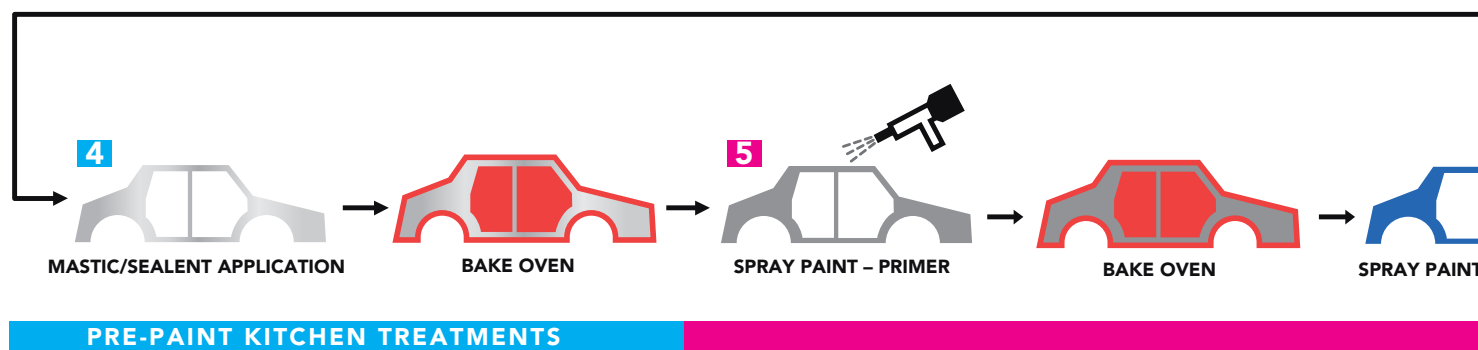
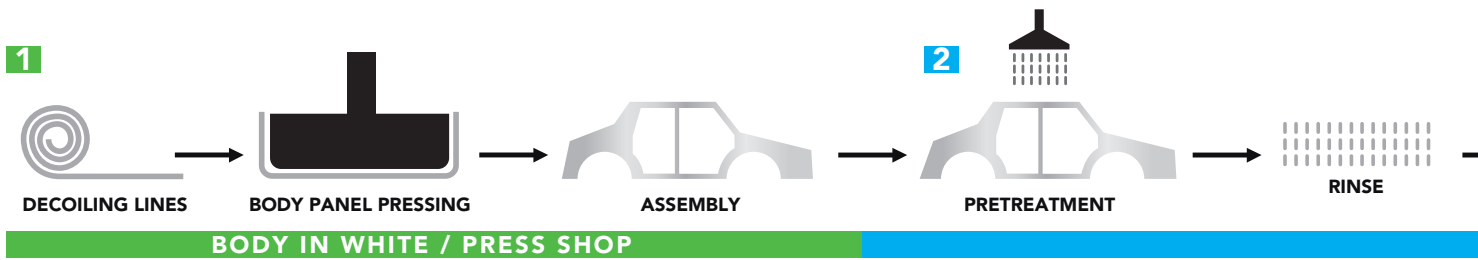
3 Electrophoretic Paint (E-Coat)

Designing an effective E-coat process is key to achieving a high quality final paint finish. Filtration is a critical part of the E-coat process and is typically required to remove poorly dispersed paint, hardened resin, skin fragments and general debris that may contaminate the bath. This is a challenging application and Amazon Filters has specifically designed a range of cartridge and bag filters to help ensure the E-coat is free from defects.

Typical products used to filter the E-coat paint are **DuoLine** filter bags rated at 25 - 50 µm and **Contour** filter cartridges rated at 70 - 100 µm absolute. Post E-coat rinsing water is typically filtered using **SupaPleat HFC** cartridges rated at 50 - 90 µm.

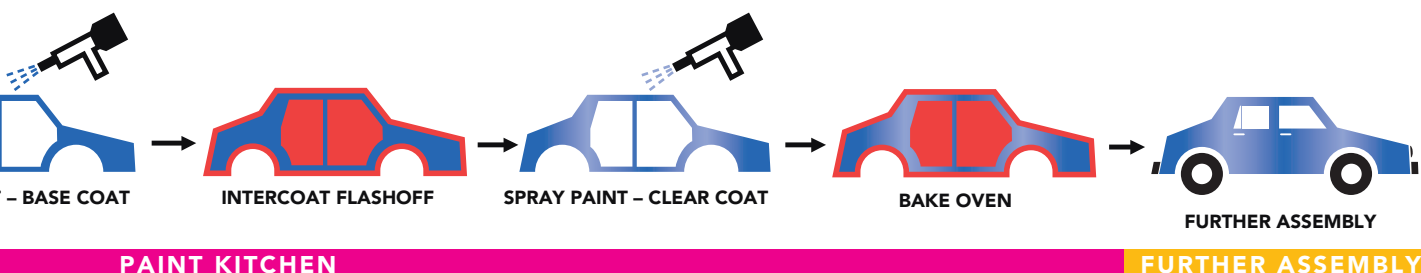
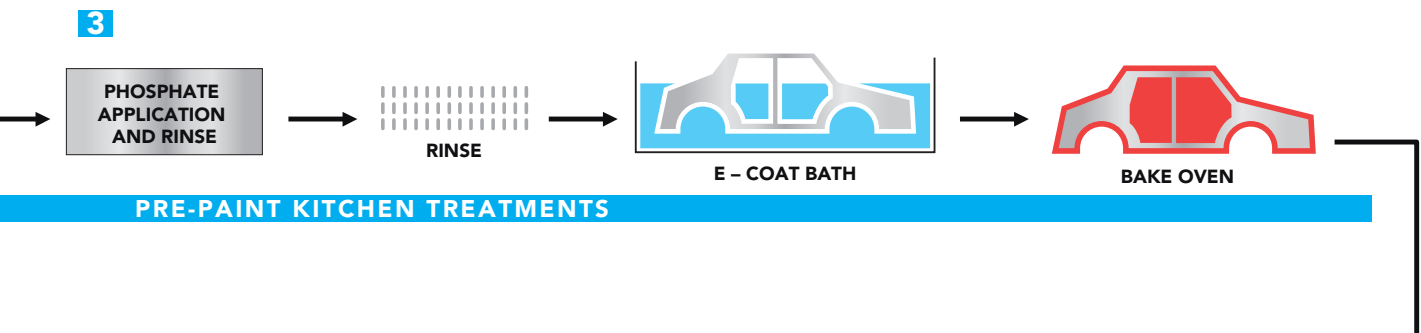
4 Sealant Deck / Mastic Application

PVC sealants, waxes and mastics, used to prevent water ingress and corrosion of joints and spaces, are highly viscous and high pressure systems are required for their application. Filtration of these products is vital to prevent blockage of the gun nozzles, but with viscosities of 70,000 - 100,000 cP this presents a particular challenge. To address this Amazon Filters has developed a special high strength stainless steel cartridge and the high pressure **59 Series** housing. The system is suitable for pressures up to 350 bar and filters are available with ratings between 400 and 1200 µm to ensure optimum protection for the gun nozzles.



5 Paint Kitchen

The various paints used in the Paint Kitchen present different challenges to the filtration systems. Primers, Base coats (Top coats), Clearcoats (Lacquers), metallic and mica based paints all require clarification to ensure particles do not produce paint defects or block spray nozzles. The filters however, also need to allow paint pigments and metallic components to pass through (classification). Amazon Filters manufactures a wide range of clarifying and classifying filters. We are able to offer the optimum solution for contaminant removal on the paint feed and return lines. Typical products used are **DuoLine** filter bags rated at 50 - 250 µm, **SupaSpun II** filter cartridges rated at 50 - 70 µm for Primers, 70 - 90 µm for Basecoat and Clearcoats, and 150 - 180 µm for Mica / Metallic paints. Where there are higher levels of pigment or larger sized Mica / Metallic components that may cause depth filters to block quickly we recommend **SupaPleat II MP** pleated nylon filter cartridges rated at 100 to 400 µm.



Ultrafiltration (UF) System

The UF membranes used to process waste liquids from the paint process are expensive and the incorporation of effective filtration can prevent premature fouling and expensive membrane

replacement. For this application we recommend **SupaSpun II** filter cartridges 40 - 90 µm and **SupaPleat HFC** filter cartridges for higher flow systems.

High Quality Water Production

The high quality rinsing water used throughout the plant is typically produced by a Reverse Osmosis plant. The RO membranes used in the water production system require protection from particulate contamination to avoid

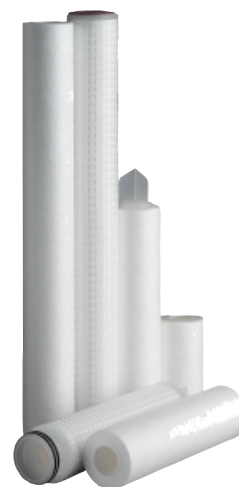
premature fouling and short life. The use of **SupaSpun II** or **SupaPleat II** cartridges rated at 5 - 10 µm are an effective method of helping to avoid short membrane life.

Filter Housings

Amazon Filters' standard product range and its bespoke filter housing design and manufacturing capabilities enable the provision of filtration systems with improved ergonomics, efficiency and Health & Safety benefits. 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.

For further information on our extensive product range for the Automotive Industry please contact us at sales@amazonfilters.co.uk



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