

FILTRATION SOLUTIONS MUNICIPAL WATER TREATMENT PROCESSES



Delivering quality filtration products...

As one of Europe's leading manufacturers of process filtration systems, Amazon Filters is able to offer a solution to meet all your filtration needs.

Amazon Filters' understanding and knowledge of the wide range of Water Treatment processes is our strength. We have significant experience in supplying filtration systems for municipal water supply. This expertise enables us to provide you with optimum filtration solutions for your particular process. Our process cartridges offer longer life and greater throughputs or enable the use of smaller systems lowering operating costs and for new installations can also provide savings on capital costs.

We design and manufacture an extensive range of liquid filtration systems, providing one of the widest selections of filtration vessels, depth filters and pleated cartridges available today. Amazon's 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 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 ISO 9001:2008 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. For example, **SupaSpun II** filters have gained accreditation for use in public water supplies under Regulation 31 of the UK Water Supply (Water Quality) Regulations 2000, one of very few products to achieve this high standard of approval. Selected products in this range have been independently tested and verified for the effective removal of Cryptosporidium. These filters are also WRAS Approved and supported by WRAS Approved housings. We also have the ability to carry out in-house testing on products and processes to provide a complete service for all clients.



Municipal Water Processes

Filters Designed and Approved for Municipal Water

DWI Regulation 31 requires that only filtration products approved by the Secretary of State can be used in the supply of drinking water. To help water supply companies meet this legal requirement Amazon has introduced **SupaSpun II R31** filters, which are specifically designed and qualified for use in the purification and supply of public water. These high performance depth cartridges have a precision graded structure that provides absolute ratings, high dirt holding capacity and excellent flow rates. They are available in a wide choice of removal ratings and therefore can be used in a range of applications from removal of *Cryptosporidium* oocysts to reduction of turbidity.



Regulation 31 of the Water Supply (Water Quality) Regulations

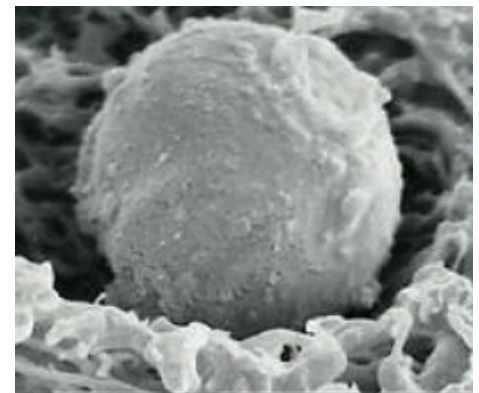
SupaSpun II R31 filters are approved in the UK, Scotland and Wales for use in public water supplies and are included in the UK Secretary of State's List of Approved Products for use in connection with the Supply of Water for Drinking, Washing, Cooking and Food Product Production. Details can be found on the DWI's List of Approved Products for use in Public Water Supply in the United Kingdom under reference number DWI 56/4/702.

Water Regulations Advisory Scheme (WRAS)

SupaSpun II R31 Filters have passed the UK Water Bylaws /WRC 'Full Test of Effect on Water Quality (BS6920-1:2000) and are approved for use in potable water (Approval No. 1202503).

Cryptosporidium Removal

SupaSpun II R31 filters rated at 1 μm have been tested by a DWI approved independent laboratory and typically exhibit >99.998% retention of *Cryptosporidium* oocysts.



Cryptosporidium oocyst



Filter Housings

Amazon designs and manufactures housings to support the use of filter cartridges. These can be supplied as ready to install skids fitted with pipe work, valves, pumps etc, so can easily and quickly be connected to the water treatment system. We also offer fully containerised ready to operate systems including ancillary items such as lighting. Filter housings are also compliant as per Regulation 31 and details can be found on the DWI's List of Approved Products for use in Public Water Supply in the United Kingdom under reference number DWI 56/4/879. Housings from Amazon's 50 Series and 60 Series ranges also have WRAS Approval (Approval Numbers 1404012 and 1404013).

Key Applications

Using modular filter cartridges and housings provides a contamination control system that offers enormous flexibility and one which can be supplied at short notice. In addition to being an important part of projects to upgrade the water purification systems, they are the perfect solution where unexpected problems occur or mobile units are required. To minimize operational costs there is an option to put the system on 'stand-by' when not required. Therefore Amazon Filters' municipal water filtration systems have been adopted by many of the major water supply companies.

Key applications include :-

- Removal of particulates to improve the clarity of the water and meet DWI and OFWAT specifications. Contamination by natural suspended solids such as organic material, silt and sand will increase the turbidity of the water. Cartridge filter systems are an effective method of reducing turbidity levels.
- Control of Cryptosporidium infection as part of risk management strategy or as a solution to an unexpected breakout.
- Protection of membranes used for purification or in desalination plant. The use of SupaSpun II R31 filters can help prevent premature fouling and extend the life of membrane systems.
- Point-of-Entry (boundary box) filtration for where the water quality deteriorates between the pumping station and consumer property



Desalination Systems

The extraction and purification of brackish and seawater is common in coastal municipal water production facilities. Cartridge filters are typically used to protect membrane systems from premature fouling and short life. **SupaGard** and **SupaSpun II** have a proven track record in many plants located around the world in offering excellent membrane protection.

For new builds, the use of standard stainless steel filter housings is not always possible. The alternative options such as lined or Super-Duplex vessels can significantly increase costs. To help overcome these problems Amazon Filters has developed a filtration system comprising of 40" and 60" length **27 Series GRP** polymer based housing and the large diameter **SupaPleat FFC** filter range. Where flow rates are high the use of a high surface area cartridge can provide a more cost effective solution than standard 65mm diameter filters. This system has been specifically designed to offer excellent protection to membrane systems and reduce the filtration costs associated with water purification.

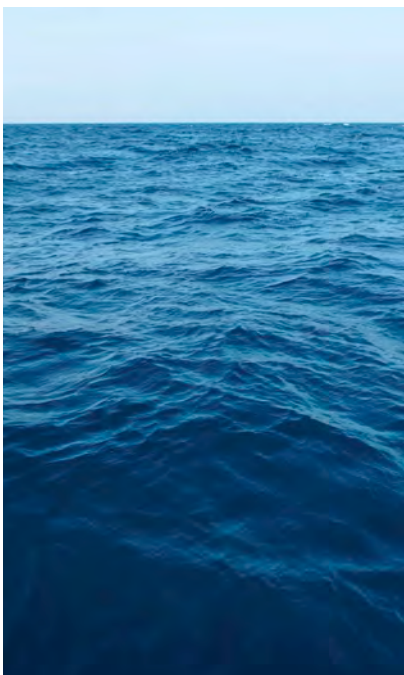
Engineering Capabilities

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

Our design team is fully conversant in 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 designed and built systems offer water treatment plant suppliers, water companies, EPC contractors and end users the right product on time, every time, making us the ideal partner. We have the ability to supply everything you need including single housing systems, ready to plumb in skids and fully operational containerised systems.

For further information on our product ranges for Municipal Water Treatment please contact us at sales@amazonfilters.co.uk.



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