

FILTRATION SOLUTIONS HIGH FLOW SYSTEMS





High Flow Filtration Systems

The Amazon High Flow Filtration System consists of a combination of large bore, high flow SupaPleat FFC cartridges and a housing from either the 66 Series FFC stainless steel housing range or the 27 Series GRP polymer housing range. The system is particularly suited to large scale high flow applications. The use of high surface area large bore cartridges, instead of many more standard diameter cartridges, can greatly reduce the time required for filter change-out. These combinations of filters and housings provide a filtration system that offers maximum efficiency, ease of use, high flow rates and long life.

The housings are designed so that flow through the cartridge is optimised in the 'out to in' mode and they can be supplied with a range of inlet and outlet fittings.

The **66 Series FFC** housing range is available in a selection of sizes and with a choice of connections and closure types, therefore the optimum housing can be provided for each application. They are available to be used with either 1,3,4,5 or 7 **SupaPleat FFC** cartridges. The **27 Series GRP** single cartridge housing is available in a range of lengths and is particularly suited to brackish or sea water applications.

High flow **SupaPleat FFC** filters are available with either polypropylene or glass microfibre media and with removal ratings of $0.5 - 90\mu$ m. Therefore Amazon Filters' high flow systems are suitable for a wide range of applications including water treatment and the production of beverages, chemicals and pharmaceuticals.

Typical Applications

Food and Beverage	Bottled water, Beers, Wines, Polishing lines, General Clarification	Water treatment (Boiler feed sweetening), Return condensate lines	Power Generation
Water Treatment	Pre reverse osmosis, UV protection, Resin and carbon trap, Desalination plants	Wash solutions, Cooling fluid, Blanking wash oils, Electrophoretic paints	Automotive
Fine Chemicals	Polymers, Acids, Bases, Solvents	Water injection systems, Amine streams, Glycols	Oil & Gas

Filter Housings

Single Cartridge Housings

The 66 Series FFC high quality electro-polished 316L stainless steel housing is easy to use and is suited to many filtration processes across a range of industries. It is available to be used with 20", 40" or 60" cartridges. Housings can be installed in either the vertical or horizontal position and can be supplied with fixed or adjustable legs. This ensures that the housing can often be used even where space or changes to inlet and outlet pipework are limited. They can be operated at full vacuum and up to 3 bar in gases and 10 bar in liquids. They are suitable for temperatures in the range of -10 – 150°C.

The **27 Series GRP** housing consists of a glass reinforced polymeric body with super duplex stainless steel connections.

The robust construction provides a maximum operating pressure of 16 bar and maximum operating temperature of 45° C. The external surface is painted and coated to provide protection from UV light damage.

Multi Cartridge Housings

These high quality 316L stainless steel housings come fitted with a built-in stand and are available with a choice of connection types and sizes. To provide maximum convenience and safety, vent and drain ports are provided both upstream and downstream and the housings are fitted with lifting lugs.



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They are finished with a high quality external bead blast.

The housings are designed to be used in a horizontal orientation and have a hinged and bolted closure to enable easy opening and closing. They can accommodate 3, 4, 5 and 7 filter cartridges in either 40" or 60" lengths.

Key Features and Benefits of Amazon's High Flow Housings

- Designed for high flow systems
- Utilises large diameter cartridges allowing easy and quick filter change-out
- Suitable for 1, 3, 4, 5 or 7 cartridges
- Available for 20", 40" or 60" filters
- Housings manufactured from 316L stainless steel or GRP
- High quality finish
- Each housing is etched with a unique serial number for full traceability
- Available with a range of connection types and sizes
- Stainless steel housing rated at FV / 10 bar in liquids

Technical Data

Max Operating Conditions Max Pressure: Temperature Range: **27 Series** 16 bar g 45°C

Materials of Construction

Body: End Fittings: Closure:

PED Status Fluid Groups:

Markings: **ATEX:** Glass Reinforced Plastic Super duplex St. Steel Polypropylene / Composite

Compliant with 97/23/EC Liquids Group 2 N/A SEP **66 Series Single** FV / 10 bar g -10°C / 150°C

316L St.Steel N/A Vee Clamp: 304 St. Steel Bolts: Zinc plated carbon steel

Compliant with 97/23/ECCompLiquids Group 1 + 2LiquidsGas Group 2N/ACECECompliant 94/8/EC, level CE Ex II 2 GDc X

66 Series Multi FV / 10 bar g -10°C / 110°C

316 St. Steel N/A N/A 316 St.Steel

Compliant with 97/23/EC Liquids Group 1 + 2 N/A CE GDc X

Technical drawings for each individual housing showing dimensions,volume, weights, maximum temperatures and design pressures available on request. Please refer to the individual datasheet for the full range of options available.

• Single cartridge stainless steel

Each housing is hydrostatically

PED Compliance - CE Marked

gases

pressure tested

housing also rated at FV / 3 bar in



SupaPleat FFC High Flow Filters

SupaPleat FFC filters are large bore, high surface area cartridges offering maximum efficiency and exceptionally high flow capabilities. Developed to suit large scale processes where high performance is required, the filters incorporate advanced pleated depth media providing low pressure loss and high dirt capacity. These large diameter cartridges are operated in the 'out to in' direction and manufactured from either polypropylene or glass microfibre depth media with removal ratings of 0.5 – 90µm. This makes SupaPleat FFC cartridges the ideal choice for a wide range of applications.

Manufactured with polypropylene end caps and internal support core, thermal welding processes seal all components, eliminating adhesives and extractables, thus optimising cartridge integrity. Inhouse developments have optimised the pleat pack ensuring rigidity is maintained at all flow rates.

Technical Data

Dimensions

Outside Diameter: Typical Surface Area: Length:

153mm 5.2 - 10.7m² per 40" filter See individual datasheet

Maximum Operating Conditions

Temperature:

80°C Recommended Maximum ΔP : Forward Flow - 4.0 Bar @ 20°C

Materials of Construction

Filter Media: Cage, Core & End Caps: Polypropylene

PP - Polypropylene GP - Borosilicate Glass Fibre with resin binder

Product Validation Guide for the SupaPleat FFC are available on request. Please refer to the individual datasheet for the full range of options available.

Product Features

- High surface area melt blown polypropylene of glass microfibre pleated depth media operating in 'out to in' mode
- Available with different connectors to allow retrofitting of existing high flow systems
- Special CRY Cryptosporidium removal grade designed for Food and Beverage applications
- All cartridges are thermally bonded and adhesive free
- Polypropylene filters meet requirements on materials used for articles intended to come into contact with food as described in CFR Title 21, as well as the appropriate European guidelines
- Manufactured under strict control with batch number identification, giving full traceability on all components.

Key Features and Benefits

- High flow rates and long life to minimise filtration costs
- Available in 20", 40 " and 60" lengths
- Quick cartridge replacement
- Absolute removal ratings for consistent and reliable performance
- Available in numerous removal ratings (0.5 - $90\mu m$) so suitable for a wide range of applications
- Cryptosporidium removal grade (CRY) with typical 10⁴ log reduction value
- Full Product Validation Guide available
- Manufactured under strict control with batch number identification, giving full traceability on all components.

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