

# FILTRATION SOLUTIONS

## STERILE GAS FILTRATION



## Sterile Gas Filtration

To help ensure the sterility of your critical processes, Amazon Filters offer a comprehensive range of pre-filters, sterile gas filters and associated housings designed for optimum performance within a wide variety of applications.

Supported by comprehensive Product Validation Guides the range is ideal for applications in Life Sciences, Food & Beverage and Dairy. Filters are fully validated to guarantee the sterilisation of air and gas under all expected operating conditions.

Sterilising of the air and gas is achieved through either hydrophobic depth media or PTFE membrane. The ability to provide both technologies ensures the optimal solution for each application.

## Pre-filtration

All the sterile gas filters are designed with some degree of upstream prefiltration to protect the sterilising filter media. However, it is paramount that the gas being processed is adequately prefiltered before it reaches the point of use. With typical gas velocities in connecting pipework  $>20\text{m/sec}$  any particulate such as pipe scale from old air and steam distribution systems can have catastrophic consequences on sterilising grade membranes.

Incorporating a polypropylene depth filter such as the **SupaPore PPG** will ensure the final sterilising grade filter is adequately protected. These filters provide excellent dirt holding capacity couples with high flowrates to ensure system performance is not effected.



# Final Sterile Filtration

## SupaPore H0P

With at least twice the flow rate of membrane based filters, the hydrophobic H0P provides a cost-effective way of providing sterile gas to a wide range of processes. Due to the high flowrates it is ideally suited to vent applications on non-vacuum rated tanks and low pressure sterile blanketing on aseptic filling machines in the Food & Beverage and Dairy industry.

## SupaPore TPB

A robust PTFE membrane filter which can withstand the rigours of multiple steam sterilisations while delivering excellent flow rates to improve system performance when retrofitting. Accompanied by a comprehensive Product Validation Guide and is integrity testable with both Diffusional Flow and Water Intrusion, the filter is an excellent filter for all your critical processes.

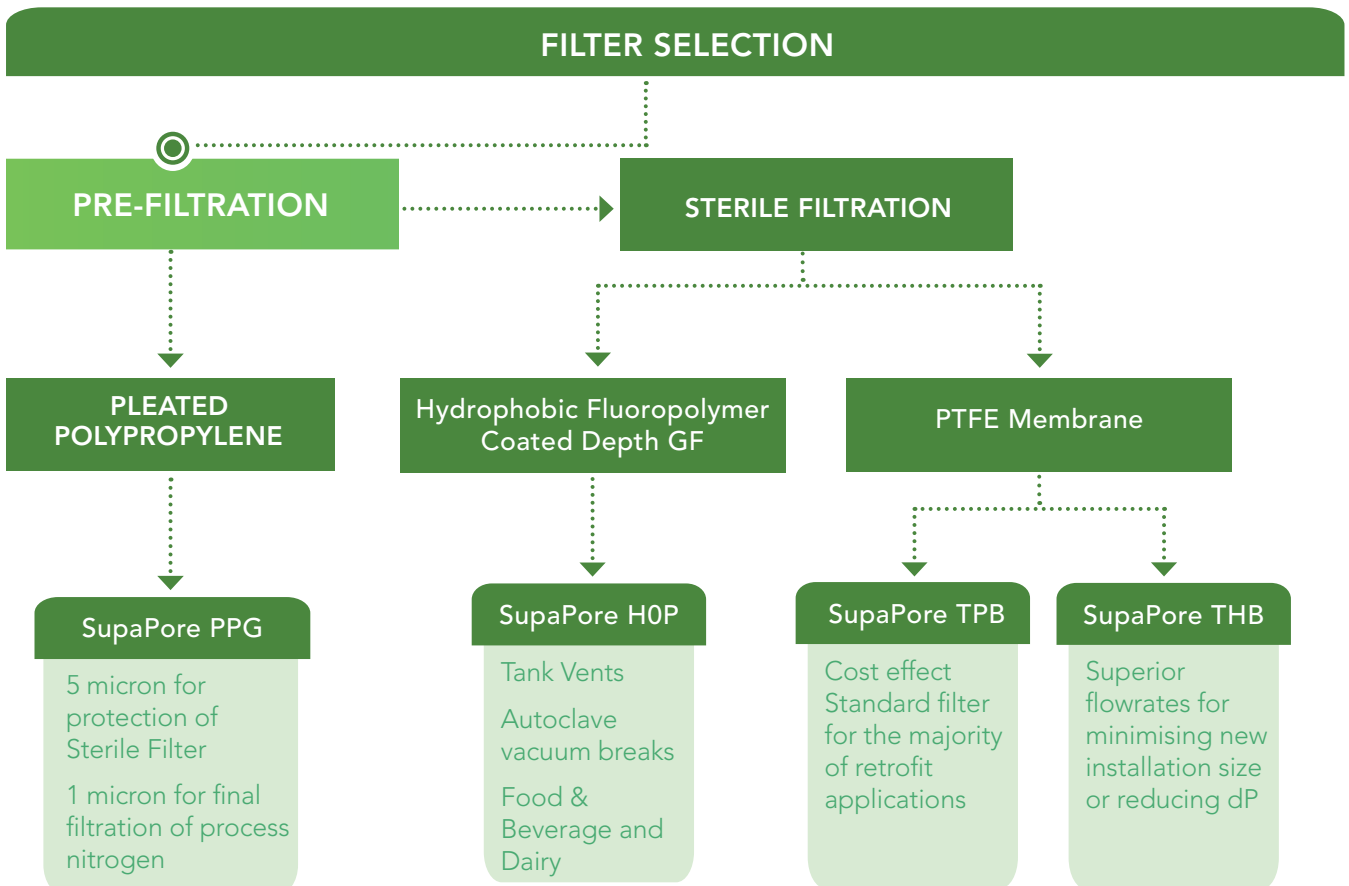
## SupaPore THB

With the same robust construction as the **SupaPore TPB**, the **SupaPore THB** version has the added advantage of modified hardware construction to maximise the potential gas flow through the filter element. This results in lower pressure drops that are market leading. Specifically, the **SupaPore TPB** can be used on new installations to reduce system size or to reduce the pressure drop on existing systems. Reducing dP on each (Point of Use)POU filter can reduce energy costs or free up compressor capacity for additional processes on site. In many cases a 20" **SupaPore THB** can replace a 30" competitor product without any increase in differential pressure.



All Amazon Filter's cartridges come with a full Product Validation Guide.

# Product Selection



## Retrofits

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The Amazon Filter range can be retrofitted to any housing containing competitive cartridges. Refer to the individual datasheets for product code structure. A vent filter format is also available for vacuum breaks on hospital autoclaves.

## Complimentary Products

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To help ensure your process and the filters continue to perform to their full potential / optimum capacity, Amazon has a wide range of complimentary products. A brief overview is given below. For more detailed information refer to the individual product datasheets.



### Steam Filters

To ensure the sterile air and gas filters are protected during steam sterilization, the steam should always be adequately filtered. The **SupaMesh** range of stainless steel filters provide either sintered powder or mesh formats and are available (typically 5 micron) for the protection of final sterilising grade filters.



### Housings

While standard liquid housing can be used in some situations it is advised that specific sterile gas housings are used to maximise the performance of the installed filter. The inclusion of a plenum base, swept bends and larger inlet and outlet connection significantly minimise pressure drops.



### Heating Jackets

For venting of tanks holding product at elevated temperature such as Water for Injection (WFI), a heating jacket is recommended to prevent blinding of the membrane with bulk water in high flow conditions.

## Integrity testing

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All Amazon 16TPB PTFE membrane cartridges are supplied with Water Intrusion and Diffusion Flow values so that you can be assured the cartridges provide sterile gas from the start. These values can be used to validate your filter and system. Please refer to our Technical Support publication TP0003 and the individual Product Validation Guides provided.

For further information support please contact Amazon Filters directly or via your local distributor.

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