

# FILTRATION SOLUTIONS SUPACLEAN SYSTEM



## SupaClean Filter System

In many industries where hazardous materials are processed there is a continuous challenge to protect the operator and working environment. In other industries such as paints and coatings manufacturers there is a need to avoid cross contamination between different products. The use of filtration in these applications present particular challenges, especially when filters are replaced or different products are processed.

To help filter users meet these challenges Amazon Filters is introducing its new contained filtration system - the **SupaClean** Filter. This system consists of either 1, 3 or 7 of our standard filter cartridges enclosed inside two sealed plastic bags. This results in the filters and any process fluids being contained inside a secure assembly, providing isolation of the product and filters. The whole system is used inside a stainless steel housing which provides the pressure vessel required for the filtration process.



Amazon Filters is able to supply housings and filter assemblies for new applications or for existing applications **SupaClean** systems can be typically used as a direct retrofit.

### Secure and Robust Design

In the development of **SupaClean** assemblies Amazon Filters has paid particular attention to ensure the bags providing containment are reliably sealed into the system.

We aim to ensure the users do not suffer the inconvenience, cost or hazard that may result from bags separating from the rest of the assembly. Careful design, precise manufacturing and extensive validation testing have ensured that the plastic bags enclosing the filters and product remained attached even when full of liquid.



Replace this....



With this....



## Key Features and Benefits of SupaClean Systems

- **Flexibility** - The design of the **SupaClean** system enables the use of a wide range of filter type, micron ratings and sizes, including :-

### VisClear

Spun bonded cartridge manufactured with nylon media specifically designed to operate in the chemical processing and liquid coatings industries. Manufactured using Amazons unique fibre processing system, they offer controlled performance and minimal fibre shed.

### SupaSpun II

Precision graded density depth filters in Polypropylene or nylon media. These absolute rated high performance cartridges excel in dirt holding capacity and give extremely low clean pressure losses as a result of the strictly controlled manufacturing of the fibre matrix.

### SupaGard

Nominal rated spun bonded filter cartridges. These elements exhibit a high void volume that results in low clean differential pressure losses and an excellent dirt holding capacity when compared to similarly rated elements.

materials are being processed.

Typical applications include:-

- Paint systems in automotive production
- Equipment painting and coating systems
- Ink and paint manufacturing
- Coatings production
- Manufacturing of volatile solvents
- Chemicals production
- Multi purpose production and filling lines.



- **Reduced operational costs** - Filter change-out is quick and simple. The filter assembly can be simply lifted out of the housing and replaced by a new unit. No cartridge sealing or housing cleaning are required so labour costs and time are minimised.

- **Reduced quality problems** - The filter unit is supplied already assembled thus eliminating the risk of operators not installing filters correctly and filter by-pass occurring.

- **Operator and environmental protection** - The **SupaClean** system provides containment for both the used filters and the product being filtered. Therefore filter change-out can be achieved with minimal risk of the operator or the surrounding area coming into contact with the product.

- **Elimination of cleaning** - The plastic bags encasing the system prevent the product being filtered from contacting the system housing. Therefore the housing remains uncontaminated and requires no cleaning. This is particularly valuable in multi-product operations, especially where inks, paints and coatings are being processed. In these applications using a conventional filtration system would require the use

of significant volumes of solvent to clean the housing after use.

- **Filter re-use** - The bags surrounding the filter cartridges can also serve as containers for storing filters where re-use is attractive. A typical example of this is a high value inks plant producing multiple colours in small batches on an infrequent basis. Filters contaminated with one colour can not be used for other colours, but the assembly can be labelled and stored for re-use next time a particular colour is produced.

- **Higher pressure and temperature compatibility than capsules** - Due to safety concerns standard capsule filters have limitations on process conditions they can be operated under. **SupaClean** filters are encased within a stainless steel housing providing enhanced safety and enabling the system to be operated in more demanding processes when compared to standard capsule filters.

## Typical Applications

SupaClean systems are particularly suited to applications where cross batch or cross product contamination is a major issue or where hazardous



# Technical Data

## Maximum Operating Conditions

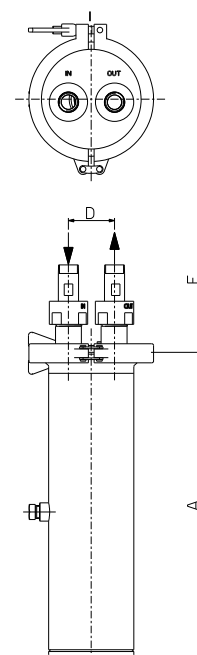
Temperature: 70°C  
Maximum Differential Pressure: 2.5 Bar

## Materials of Construction

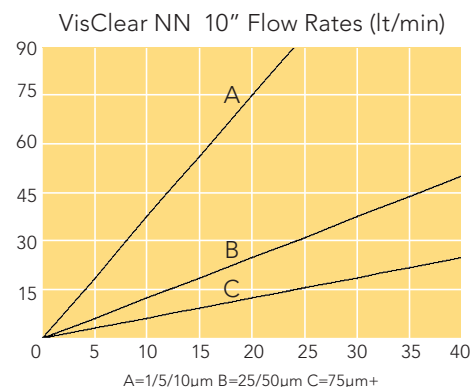
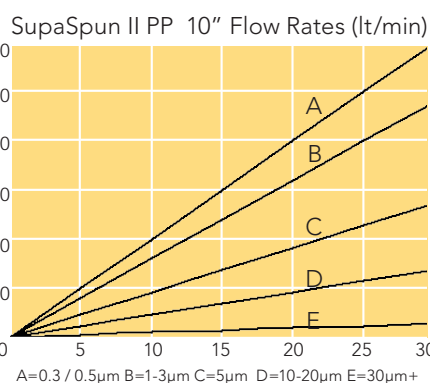
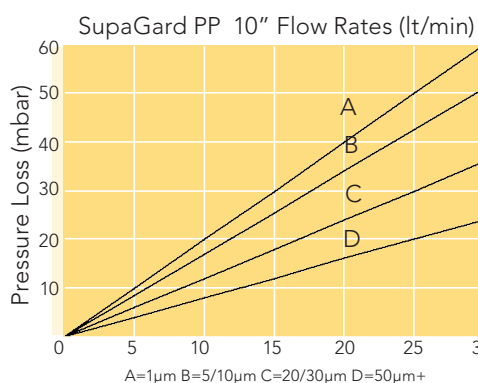
Manifold: Polypropylene  
Containment Bag: Anti Static Polyethylene (other materials available on request)

Product Validation Guides for media content are available on request.  
Technical information for the 65 Series SupaClean housings showing dimensions, volume, maximum design temperatures and design pressures are available on request.

Housing suitable for SupaClean units (drawing shows 1 stack option)



Maximum $\Delta p$	2504 / 2507 PP Media PP Core	2504 / 2507 PP Media GFPP Core	2504 / 2507 P P Media St.St Core	2504 / 2508 Nylon Media Nylon Core	2508 Nylon Media Tinned / St.St Core
@ 20°C	4.0	4.0	4.0	4.0	4.0
@ 50°C	1.5	4.0	4.0	4.0	4.0
@ 70°C	0.25	2.4	4.0	1.0	4.0



# Ordering Guide

2507	P	P	075 -	1	7	P	1
Media	Media Material	Cartridge Core Material	Micron Rating*	Length	No. of Cartridges	Hardware Manifold	Containment Bag
2504 - SupaSpun 2507 - SupaGard 2508 - VisClear	P - Polypropylene* <sup>2</sup> N - Nylon* <sup>3</sup>	P - Polypropylene* <sup>2</sup> N - Nylon D - Reinforced Polypropylene* <sup>2</sup>	From 0.3 to 200µm	0 - 5" * <sup>4</sup> 1 - 10" 2 - 19" 3 - 29" * <sup>5</sup>	1 - 1 3 - 3 7 - 7	P - Polypropylene	1 - Polyethylene 2 - HDPE

Example: 2507PP075-17P1 - 7 x SupaGard cartridges, Polypropylene media and hardware, 75µm, 9" with Polypropylene head and Polyethylene bag configuration.

\* Please refer to individual media datasheets for full range of micron ratings available

\*<sup>2</sup> Not available for 2508 VisClear media \*<sup>3</sup> Not available for 2507 SupaGard media \*<sup>4</sup> 5" length only available for single cartridge assembly

\*<sup>5</sup> 29" only available for 3 and 7 cartridge assembly

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