ALLIED FILTER SYSTEMS LTD RECOGNISES ENVIRONMENTAL MANAGEMENT AS AMONG THE HIGHEST PRIORITIES WITHIN THE BUSINESS.

Our working practices minimise waste generation and resource consumption to safeguard the environment. We continually assess and improve the environmental impacts of our business and work with our suppliers and customers to help develop more environmentally friendly processes and products.

There are no implied warranties, including the implied warranty of merchantability and fitness for a particular purpose not specific herein respecting this agreement or the product being sold here under or the service provided herein.

This brochure has been printed on paper manufactured from renewable timber, produced on a fully sustainable basis and is suitable for recycling.
The pulp used in this paper has been bleached by an elemental chlorine free process (ECF).

Allied Filter Systems Ltd

3 UK manufacturing sites and Sales Offices in the UK, France, Sweden and Singapore.

HEAD OFFICE
Huntsman Drive, Northbank Industrial Park, Irlam, Manchester, M44 5EG
Tel: +44 (0) 161 777 9500, Fax: +44 (0) 161 777 9506
E: sales@alliedfilter.co.uk

FM 36648

www.alliedfilter.co.uk
Visit us for the most up-to-date product, services and company information.
www.alliedfilter.se / www.alliedfilter.fr / www.alliedfilter.sg

Allied Filter Systems Ltd

FILTER BAGS

NEEDLEFELT, MESH AND MELT BLOWN FILTERS

TABLE OF CONTENTS

CONCEPTS

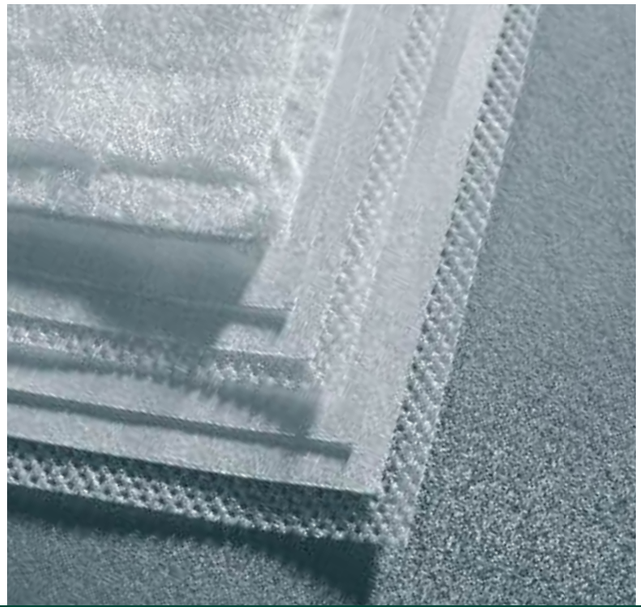
OF BAG FILTER SYSTEMS

A BAG FILTER SYSTEM IS ONE OF THE MOST POPULAR FILTRATION METHODS FOR LIQUID PROCESS APPLICATIONS. IT PROVIDES A VERSATILE, COST EFFECTIVE AND CONSISTENT FILTRATION SYSTEM SUITABLE FOR A BROAD RANGE OF APPLICATIONS FROM SMALL BATCH OPERATIONS TO BULK PROCESSING.

Bag filter housings are available in a wide range of materials and sizes, and can handle any fluid types and flow rates in the range of 1m³/hr to 640m³/hr. Replacement filter bags are selected from the broadest possible range of media.

The required filter media is determined by the size of the particles to be removed (0.5 - 1500 microns), the type of particles to be removed (deformable or non-deformable), the required retention efficiency (60% – 99%) and the chemical and temperature compatibility of the media.

PARTICLES ARE CONTAINED INSIDE THE FILTER BAG, ALLOWING EASY HANDLING AND DISPOSAL, WHICH IS OF PARTICULAR BENEFIT FOR APPLICATIONS INVOLVING AGGRESSIVE CHEMICALS.



ALL FILTER BAGS ARE MANUFACTURED TO ISO 9001 QUALITY STANDARDS AND UNDER FOOD SAFE AND SILICONE FREE CONDITIONS TO MINIMISE ANY POSSIBLE CONTAMINATIONS.

Allied Filter Systems Ltd

STANDARD

FILTER BAGS

ALLIED FILTER SYSTEMS LTD. MANUFACTURES HIGH QUALITY LIQUID FILTER BAGS TO FIT STANDARD SIZE FILTER VESSELS, AS WELL AS CUSTOM DESIGNED PRODUCTS WHERE REQUESTED.

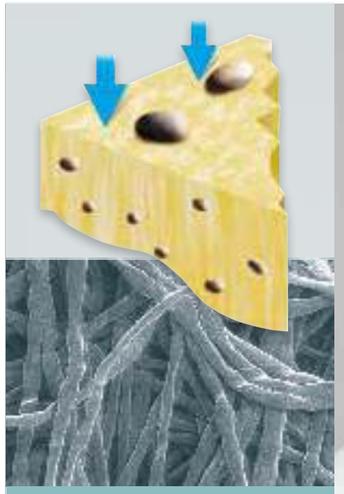
NEEDLEFELTS:
Polypropylene • Polyester • Polypropylene & Polyester extended life • Nylon • M-Aramid • PTFE
Micron rating range 0.5 - 200

MONOFILAMENT MESHES:
Nylon • Polyester • Polypropylene • Fluoropolymer •
Micron rating range 1 - 1500

SPECIALITY MEDIA:
Polyester multifilament meshes • Spun bonds • Melt blowns • Woven cloths • Antistatic fabrics • Water absorbent • PVC

SEWN

NEEDLEFELT FILTER BAGS



Surface of polyester needlefelt

Needlefelts are a versatile and cost effective media providing a high solid holding capacity for both non-deformable and deformable, gelatinous particles.

By means of a depth filtration mechanism, particles penetrate and are captured throughout the depth of the filter media.

They are available in the range of 1 - 200 microns with a nominal (60% -70%) efficiency.

Polypropylene and polyester are the most widely used, and have a calendered or singed external surface finish to eliminate fibre migration into the filtrate. Manufactured from 100% virgin fibres, the constituent materials have been chosen for their purity, consistent high quality and repeatable performance.

Where polypropylene or polyester are not able to be used for reasons of chemical compatibility or temperature, we also offer a range of Nylon, M-Aramid, and PTFE felts.

SEWN POLYPROPYLENE AND POLYESTER NEEDLEFELT FILTER BAGS ARE MANUFACTURED WITH A SEWN RING, A WELDED CENTRE SEAM AND A SEWN BOTTOM.

Nylon, M-Aramid, and PTFE felt filter bags have an all sewn construction.

A comprehensive choice of sealing rings are available to suit the needs of the application:

- 7” or 4” galvanised steel rings (or stainless steel) which fit universally into all filter housings. Polypropylene rings and stainless steel bands are also available. As standard, these products feature integrated lifting handles.
- Custom designed positive sealing **Santaseal** moulded ring, for applications where high temperature or chemical resistance properties are required.

INTEGRATED LIFTING HANDLES AS STANDARD

ALL FILTER BAGS ARE MANUFACTURED TO ISO 9001 QUALITY STANDARDS AND UNDER SILICONE FREE AND FOOD SAFE CONDITIONS.

FULLY WELDED

NEEDLEFELT FILTER BAGS

ALLIED FILTER SYSTEMS LTD. IS A LEADING MANUFACTURER OF FULLY WELDED FILTER BAGS FOR APPLICATIONS REQUIRING POLYPROPYLENE OR POLYESTER FELTS.

All seams are welded rather than sewn, and combined with our positive sealing moulded **Welseal** (polypropylene or polyester) welded ring, no process liquid can bypass through needle holes caused by the sewing process or around a traditional metal ring.

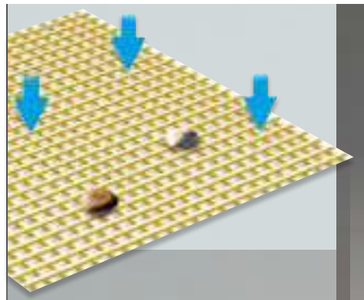
The Welseal ring forms a 360° hermetic seal between the filter bag and housing ensuring maximum filtration performance. The use of moulded ring filter bags is especially important for critical applications where low micron ratings are required.

Welseal rings also feature moulded lifting handles, enabling ease of use as well as faster bag change and installation.

Whilst the Welseal ring perfectly fits our own range of vessels and many of those of our competitors, we are also able to offer our polypropylene XR welded ring which has a compressible top lip and gives excellent sealing when retrofitting in to certain competitor filter housings.

THE WELSEAL RING FORMS A 360° HERMETIC SEAL BETWEEN THE FILTER BAG AND HOUSING ENSURING MAXIMUM FILTRATION PERFORMANCE.

FULLY WELDED FILTER BAGS ARE CONSTRUCTED FROM 100% SYNTHETIC COMPONENTS, MAKING THEM FULLY COMBUSTIBLE.



MESH
FILTER BAGS

Mesh filter bags provide surface filtration - a 'sieving' mechanism, causing particles larger than the pore size of the media to be captured on the surface of the media.

They are excellent for removing non-deformable, solid particles and have no fibre migration.

Mesh filter bags have sewn seams, and are available in all industry standard sizes. **They are produced with a comprehensive choice of sealing rings:**

- 7" or 4" galvanized steel (or stainless steel) which fit universally into all filter housings. Polypropylene rings and stainless steel bands are also available. Integrated lifting handles are standard for fast and easy bag installation and replacement.
- Moulded **Welseal** (polypropylene or polyester) welded rings, giving more positive sealing, needle hole elimination and moulded lifting handles. A **Welseal** ring product is fully combustible.
- Positive sealing **Santaseal** moulded ring, for applications where high temperature or chemical resistance properties are required.

MONOFILAMENT

Monofilament meshes have a woven structure of single filaments which are thermofixed to give a precise micron rating and a high mechanical strength. Typical applications include filtration of paints, inks, resins and other types of coatings where there is a need for a specific absolute micron rating.

The most common polymer is nylon, but we are also able to offer polypropylene, polyester and fluoropolymer monofilament where the chemical compatibility and/or the maximum operating temperature of an application restricts the use of nylon.

Micron ratings range from 1 – 1500 depending on polymer type.

Monofilament mesh filter bags are manufactured in food safe and silicone free conditions.

MULTIFILAMENT

Multifilament meshes are a less accurate, low cost option for non-critical applications. Multiple filaments are twisted together to produce single threads which are woven to give a nominal rated, non-thermofixed mesh structure. They are available in polyester and are rated from 100 to 400 micron.

A BINDING TAPED SEAM IS STANDARD FOR ALL MESHES RATED LOWER THAN 60 MICRON, AND IS OFFERED AS AN OPTION FOR MESHES COARSER THAN 60 MICRON.

ALL FILTER BAGS ARE MANUFACTURED TO ISO 9001 QUALITY STANDARDS.

CUSTOM MADE
FILTER BAGS

For unique applications requiring liquid filter bags which fall outside of the scope of our standard range, our manufacturing flexibility and expertise enables us to design and produce custom made products which perfectly meet your needs.

Such bespoke products include, but are not limited to:

- Filter bags with non-standard dimensions
- Filter bags with tie cord
- Special ring types and sizes e.g. "X100" 5.5" polypropylene moulded collar
- Bucket style bags with circular base
- Square/ rectangular bags
- 'Box-type' bags
- Cylindrical Filter sleeves
- Filter bags made from speciality fabrics, such as our PVC 'carbon' filter bag, antistatic felt or mesh

For demanding applications which require modifications to a standard filter bag product, customisation options include:

- Reinforced seams
- Special lifting handles
- Reverse collar construction
- Filter media with micron ratings other than standard.

'CARBON' FILTER BAG.
When filled with granular carbon, the PVC inner layer channels liquid flow through the carbon bed maximising contact time. Carbon particles are prevented from passing through the filter by the outer filter media layer.

OUR MANUFACTURING FLEXIBILITY ENABLES US TO DESIGN AND PRODUCE CUSTOM MADE FILTER BAGS TO PERFECTLY MEET THE NEEDS OF YOUR UNIQUE APPLICATION.

FOOD & PHARMA
GRADE FILTER BAGS

Bag filters, when used in food, beverage or pharmaceutical applications, must conform to EC directives governing plastics in contact with food.

Migration limits of contaminants from polymers into a food product have been imposed, and independent testing and certification of component materials is required to ensure these regulations are satisfied.

Stringent manufacturing and warehousing conditions as well as special packaging procedures are also required to eliminate other sources of contamination. As well as meeting the EC food contact directives, food grade filter bags are constructed from FDA listed materials conforming to code of Federal Regulations 21 CFR PART 177.

Allied Filter Systems Ltd. is a leading manufacturer of food grade filter bags which fully satisfy the above conditions.

The constituent materials have been chosen for their purity and their superior surface finish, giving low levels of migration and ensuring consistent high quality and performance.

Available materials:

- **Polypropylene and polyester needlefelt**
- **Polypropylene and polyester extended life needlefelt**
- **Nylon monofilament mesh**
- **Polypropylene and polyester melt blown**

Combined with our positive sealing **Welseal** (polypropylene or polyester) welded ring, food grade needlefelt and melt blown filter bags have a fully welded construction as standard.

EACH BAG CAN BE INDIVIDUALLY WRAPPED TO PROTECT THE PRODUCT FROM CONTAMINATION PRIOR TO USE.

ALL FILTER BAGS ARE MANUFACTURED TO ISO 9001 QUALITY STANDARDS. FURTHER INFORMATION ON FOOD GRADE PRODUCTS IS AVAILABLE ON REQUEST.

FILTER BAG AND MEDIA
TECHNICAL DATA

CHEMICAL COMPATIBILITY TABLE

MEDIA / COLLAR TYPE	ACIDS	ALKALI	SOLVENTS	OXIDANTS	MAXIMUM RECOMMENDED OPERATING TEMPERATURE (°C)
Polyester	G	G	E	P	140°C
Polypropylene	E	E	G	E	93°C
Nylon	F	G	E	F	110°C
M-Aramid	G	G	E	E	200°C
PTFE	E	E	E	E	260°C
Santoprene®	E	E	E	E	200°C

Table Key: P = Poor F = Fair G = Good E = Excellent

BAG SIZE	DIAMETER (inches/mm)	LENGTH (inches/mm)	SURFACE AREA (m^2)	VOLUME (l)
1	7”/180mm	17”/430mm	0.25	11.0
2	7”/180mm	32”/810mm	0.50	20.0
1M (3)	4”/104mm	9”/230mm	0.07	1.9
2M (4)	4”/104mm	14”/360mm	0.12	3.2

All dimensions are nominal

MAXIMUM RECOMMENDED FLOW RATES

The maximum recommended flow rates in the table below are a guide for fluids with a viscosity of 1CPS to result in a clean pressure drop of 0.1Bar (includes pressure drop due to filter housing)

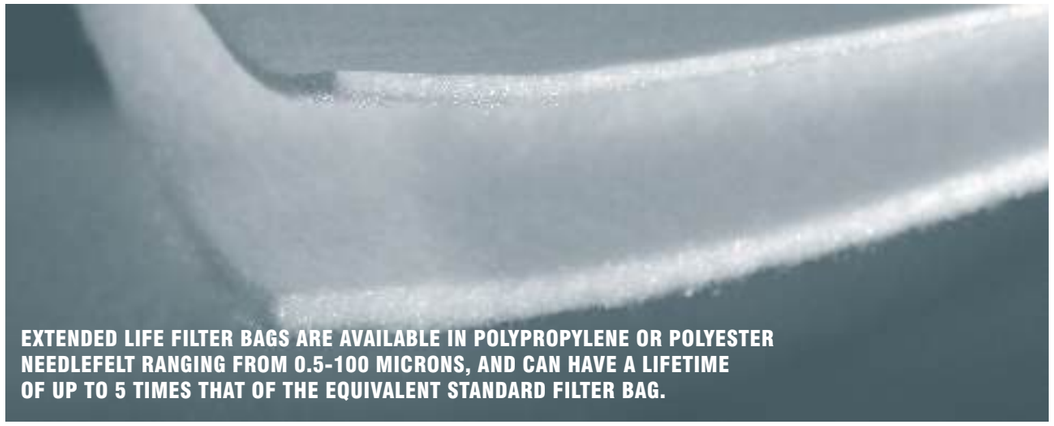
FILTER MEDIA	MAXIMUM RECOMMENDED FLOW RATE (m^3/hr)			
	Size 1	Size 2	Size 1M	Size 2M
FELT – 5 to 200 micron	12	25	3.5	6
FELT – 1 micron	7	15	2	3.5
MESH – 25 to 1500 micron	12	25	3.5	6
MESH – 1 to 10 micron	9	18	2.7	4.5
MELT BLOWN – 1 to 25 micron	7	15	2	3.5

US STANDARD MESH

18	20	25	30	35	40	45	50	60	70	80	100	120	140	170	200	230	270	325	400	550	800	1250
1000	840	710	590	500	420	350	297	250	210	177	149	125	105	88	74	62	53	44	37	25	15	10

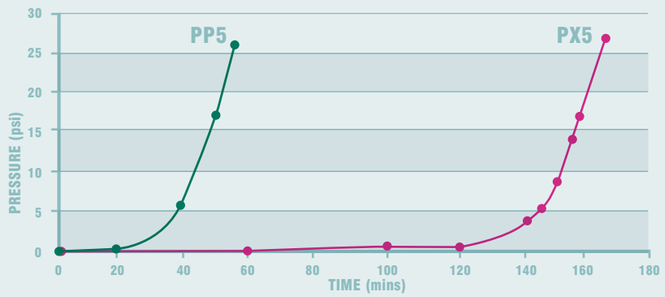
MICRONS

EXTENDED LIFE
FILTER BAGS

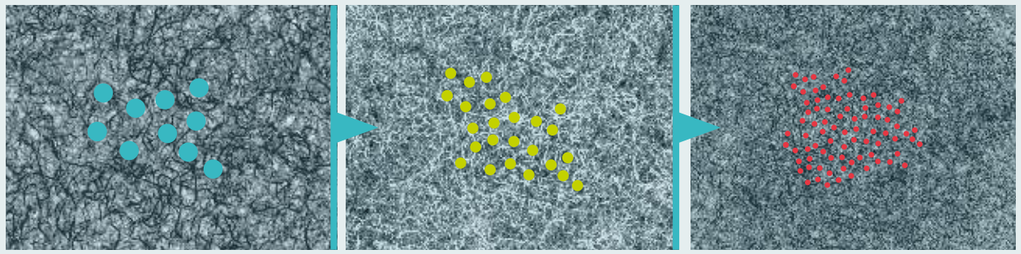


EXTENDED LIFE FILTER BAGS ARE AVAILABLE IN POLYPROPYLENE OR POLYESTER NEEDLEFELT RANGING FROM 0.5-100 MICRONS, AND CAN HAVE A LIFETIME OF UP TO 5 TIMES THAT OF THE EQUIVALENT STANDARD FILTER BAG.

Increased thickness of the filter media compared to that of the equivalent standard felt filter bag enables an increased retention of particles. In addition, the extended life filter media has a graded density structure i.e. progressively smaller particles are captured as the fluid follows a tortuous path through the media, stopping the filter bag from blinding prematurely. The result is a filter media with a higher dirt holding capacity, leading to increased filter bag lifetime.



FLUID PATH THROUGH THE GRADED DENSITY MEDIA



Within the Extended Life series, Allied Filter Systems Ltd is uniquely able to offer a **0.5 micron polyester** filter bag. The filter media has a special construction using a blend of micro denier and fine denier fibres, giving the finest filtration results of any needlefelt product available on the market.

As standard, the Extended Life filter bag is fully welded, maximising filtration efficiency by eliminating fluid bypass through needle holes or around traditional metal rings. The external surface has a special highly glazed finish, eliminating fibre migration into the filtrate.

OTHER BENEFITS INCLUDE:

- More efficient filtration process.
- Minimisation of equipment downtime.
- Minimisation of engineer exposure to process liquids.
- Fewer bags to change and dispose of compared with standard felt filter bags – more environmentally friendly.
- Excellent at removing deformable particles such as gels.
- Conforms to EC food contact directives.

MULTI LAYER
FELT FILTER BAGS

2 LAYERED

MULTI LAYER FELT FILTER BAGS PROVIDE GRADED DENSITY AND MULTI STAGE DEPTH FILTRATION IN A SINGLE FILTER BAG.

A high dirt loading capacity and superior filter bag lifetime is achieved by selecting the optimum micron ratings of the pre-filtration and final filtration layers in accordance with the needs of the filtration process.

Multi Layer filter bags can be produced with 2 or 3 layers of polypropylene or polyester needlefelt, and to further enhance performance, a layer of extended life felt can be incorporated.

An optional mesh exterior cover can also be provided. As well as providing excellent service life, multi layered bags are ideal for filtration of fluids containing gel-like particles.

Example applications include filtration of paints, coatings, chemicals and foodstuff.

3 LAYERED

A HIGH DIRT LOADING CAPACITY FILTER BAG MANUFACTURED UNDER SILICONE FREE CONDITIONS.

MEGA DEPTH SERIES

FILTER BAGS

THE MEGA DEPTH MULTI LAYERED FILTER BAG RANGE HAS BEEN DEVELOPED TO OPTIMISE FILTRATION EFFICIENCY, LIFETIME AND DIRT HOLDING CAPACITY IN EITHER A CONTINUOUS OR BATCH PROCESS.

The constituent filter bag layers are customised and selected to meet the needs of the specific application, giving a filter bag which optimises the filtration process.

By combining a high number of layers of filter media in a way which progressively captures particles of differing sizes, the bag has the ability to hold a very high level of dirt without resulting in any significant pressure drop, leading to a long lifetime.

The overall micron rating of the finished 'MD' filter bag can range from 200 micron nominal to 1 micron at high efficiency.

The 'MD' filter bag can be constructed to fit any standard size filter bag housing or any bespoke or non-standard vessel.

Significant overall cost reductions and improvements are achieved in the filtration process by:

- Significantly increasing filter lifetime
- Reduction of filter change-out time and downtime
- Reduction of disposal costs / more environmentally friendly
- Minimising engineer exposure to process liquids
- Low void volume reducing the amount of unfiltered liquid in the filter vessel after use.

TYPICAL APPLICATIONS INCLUDE AMINE FILTRATION, PAINTS AND COATINGS, INKS, CHEMICAL AND FINE CHEMICAL, WATER TREATMENT AND PARTS CLEANING.

HIGH CAPACITY

FILTER BAGS

NEWLY INSTALLED FILTER BAG HOUSINGS OR EXISTING SYSTEMS CAN UTILISE HIGH CAPACITY FILTER BAGS, WHICH INCREASE THE FILTRATION SURFACE AREA BY 70% COMPARED WITH A SIMILAR SIZED STANDARD BAG.

The High Capacity bag is situated within a stainless steel filter basket with inner support core. Baskets can be supplied to retrofit existing standard size filter bag housings.

Liquid enters the bag and flows through both the outer surface and the central core, enabling higher flow rates to be achieved compared to the equivalent sized standard filter bags. The increased filtration surface area results in a higher dirt holding capacity and therefore prolongs the service life of the filter bag.

By utilising a High Capacity filter bag in a new filter installation, a smaller, lower cost filter housing can achieve the desired flow rate and dirt holding capacity.

When retrofitting an existing filter housing with a High Capacity basket, its performance capability can be increased at minimal cost.

A High Capacity bag also reduces the volume of retained liquid in the filter bag by 30% compared to a standard bag system, lowering the filter bag removal weight and decreasing product wastage.

As standard, construction is from our extended life filter media, although High Capacity bags can be manufactured from any of Allied's filter media, including our range of high efficiency melt blown materials. The filter bag features our **Welseal** collar to provide an excellent seal with the filter housing, and a support ring in the base to assist installation.

HIGH CAPACITY FILTER BAGS ARE AVAILABLE FOR SIZE 1 AND SIZE 2 FILTER HOUSINGS.

MBP 200 SERIES

HIGH EFFICIENCY FILTER BAGS

THE HIGH DENSITY OF SMALL DIAMETER FIBRES COMPARED TO THAT OF A STANDARD NEEDLEFELT ENHANCES PARTICLE RETENTION, LEADING TO SUPERIOR, HIGHLY EFFICIENT FILTRATION.

THE MBP 200 SERIES HIGH EFFICIENCY BAGS ARE AVAILABLE RATED AT 1-25 MICRON, AND PERFORM TO EFFICIENCIES >95%.

The filter bag consists of up to 4 layers of melt blown polypropylene media, including an outer cover to prevent fibre migration into the filtrate as well as providing added support to the filtration media. The high density of small diameter fibres compared to that of a standard needlefelt enhances particle retention, leading to superior, highly efficient filtration.

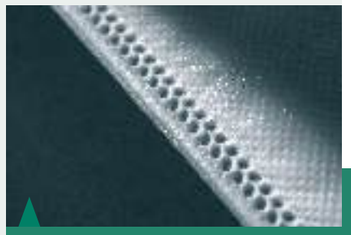
Combined with our polypropylene **Welseal** ring, the **MBP 200** Series high efficiency filter bags are available with a fully welded construction, ensuring that no by-pass of process liquid can occur through needle holes.

Whilst the fully welded versions give optimum performance, sewn versions with a steel or stainless steel ring are also available for universal fitting into all makes of standard size housings, or for custom manufacture to non-standard sizes.

We also offer the unique **MBPE Series**, which features an all polyester construction. This enables high performance filtration at temperatures in excess of 100°C. (e.g. filtration of edible oils or resins). It is also used in applications where polypropylene is unsuitable for chemical compatibility reasons.

MBP AND MBPE SERIES HIGH EFFICIENCY FILTER BAGS MEET EC FOOD CONTACT DIRECTIVES AND ARE CONSTRUCTED FROM FDA LISTED MATERIALS CONFORMING TO CODE OF FEDERAL REGULATIONS 21 CFR PART 177.

MBP and MBPE bags are used in applications previously dominated by expensive cartridge filtration due to higher dirt holding capacities, longer service life and lower overall cost whilst maintaining or increasing the required filtration efficiency. Example applications include protection of membranes in reverse osmosis systems, carbon removal and final filtration of critical fluids. They can also be used as a pre-filter to prolong the life of expensive, sub-micron cartridges.



FULLY WELDED SEAMS MAXIMISE FILTRATION EFFICIENCY.

MBP 300 SERIES

HIGH EFFICIENCY FILTER BAGS

ALLIED FILTER SYSTEMS LTD HAS DEVELOPED THE MBP 300 SERIES, A UNIQUE RANGE OF ABSOLUTE RATED FILTER BAGS RATED FROM 1 - 10 MICRON, PERFORMING TO AN EFFICIENCY OF >99% AT THE STATED MICRON RATING.

For processes requiring absolute filtration, the use of filter cartridges has previously been the method of choice to achieve high performance in critical applications with consumable filter elements.

The **MBP 300 Series** utilises filter media which enables processes to achieve the same or better efficiencies using bag filters whilst benefiting from the advantages that a bag filter system has over an equivalent sized cartridge system.

These advantages include:

- Higher dirt holding capacities
- Higher flow rates (i.e. lower quantity of filter elements required to achieve the same flow rate as an equivalent sized cartridge system)
- Lower initial pressure drops, resulting in longer service life
- Solids are collected inside the bag, rather than on the exterior of a cartridge, leading to easier and quicker filter element disposal and less cleaning of filter housing.
- Ease of handling leading to increased speed of change out (less process downtime)
- Lower number of sealing points compared with equivalent number of cartridges
- Less storage space required for filter bags compared with necessary number of cartridges.
- Lower disposal cost due to the lower quantity of filter elements required

The result is a high performance filter for the most critical applications which provides a significant reduction in the cost of filtration, without compromise to your process.

The **MBP 300** Series filter bags are constructed from up to 5 layers of polypropylene melt blown media, graded to give progressively finer filtration as the process liquid passes through the filter bag. This ensures that the dirt loading of fine particles is distributed effectively within the filter media.

To prolong filter bag lifetime, a coarse melt blown pre-filter layer is present to give a high dirt holding capacity and protection to the finer filtration layers.

ALL CONSTITUENT MATERIALS CONFORM TO EC AND FDA REQUIREMENTS FOR FOOD AND PHARMACEUTICAL CONTACT APPLICATIONS.

OA SERIES

FILTER BAGS

THE OA SERIES FILTER BAGS HAVE A HIGH OIL AND HYDROCARBON ABSORPTION CAPACITY, AND ARE AVAILABLE RATED AT 1-25 MICRON WITH PARTICLE REMOVAL EFFICIENCIES >90%.

The filter bag has 3 or 4 layers depending on micron rating, and includes a central polypropylene microfibre layer with enhanced oil and hydrocarbon absorption properties, and an outer cover to eliminate fibre migration and give added support to the filter media. It is constructed with sewn seams, with a choice of any ring type, including our polypropylene **Welseal** collar.

Originally designed to remove silicones, fluorocarbons and hydrocarbons from electrocoat paints in the automotive industry, like all our filter bags, the OA Series is manufactured under silicone free conditions.

The OA Series filter bags have excellent particle removal efficiencies, and therefore are not only used in applications requiring the oil absorbent properties of the filter media. .

For example, the OA Series is well suited to applications requiring an increase in filtration efficiency compared to using standard nominal rated felt bags or where industrial filter cartridges are used.

To give longer service lifetimes, the OA filter media can also be combined with a pre-filter layer of standard needlefelt or extended life filter media.

DESIGNED TO REMOVE SILICONES, FLUOROCARBONS AND HYDROCARBONS FROM ELECTROCOAT PAINTS IN THE AUTOMOTIVE INDUSTRY.

OIL ABSORPTION

INSERTS AND BOOMS

OIL ABSORPTION INSERT

For processes requiring oil removal from a liquid stream, Allied Filter Systems has introduced the new Oil Absorption Insert.

The insert is simply positioned within a standard filter bag, which can be any single layered type selected in accordance with the particle retention needs of the process. Use of the insert requires no modification to the baskets of standard filter housings.

The insert is available in size 1 or 2, and has a 100% polypropylene construction.

It features a perforated central core to ensure that the liquid flow is split equally through the insert, and contains 0.38Kg (size 1) or 0.75Kg (size 2) of oil absorbent 'spaghetti' filter media. The size 1 insert can absorb over 5 litres of oil, whilst the size 2 insert can absorb more than 10 litres.

The 'spaghetti' media has a large surface area, so as well as providing a substantial oil absorption capacity, an excellent dirt holding capacity can also be achieved.

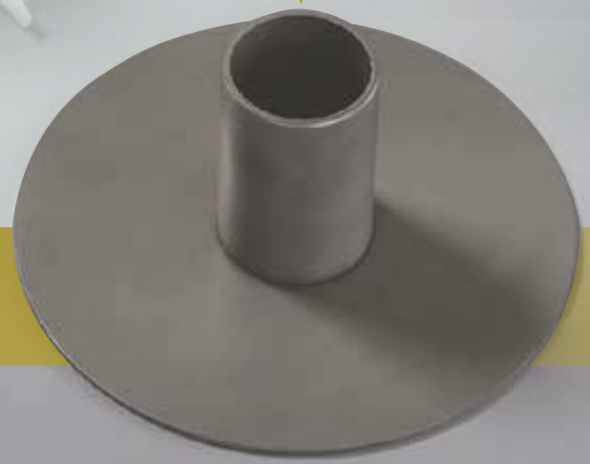
OIL ABSORBENT BOOMS

Oil Absorbent Booms are manufactured from hydrophobic polypropylene microfibre, and are used to absorb silicones and hydrocarbons such as fuel oils, hydraulic oil, petrol, diesel, motor oil and aviation fuels. Booms are normally produced with ties to enable them to be suspended on the surface of a tank, and are manufactured under silicone free conditions.

Example applications include:

- Hydrocarbon, fluorocarbon and silicone removal from electrocoat paints
- Control, clean up and skimming of oil on water.
- Contain and absorb industrial hydrocarbon spills on land.

TO OPTIMISE PERFORMANCE, WE ALSO PROVIDE A STAINLESS STEEL 316L DEFLECTOR PLATE. THE NOZZLE CHANNELS THE PROCESS FLUID INTO THE CENTRAL CORE OF THE INSERT.



500 SERIES

HIGH EFFICIENCY FILTER BAGS

THE 500 SERIES FILTER BAG FROM ALLIED FILTER SYSTEMS LTD CONTAINS IN EXCESS OF 7M² OF MATERIALS, AND PROVIDES A VERY HIGH OIL AND DIRT HOLDING CAPACITY AT HIGH EFFICIENCY. IT IS CONSTRUCTED FROM 100% MELT BLOWN POLYPROPYLENE MICROFIBRE FILTER MEDIA, GIVING A BROAD CHEMICAL COMPATIBILITY.

The constituent media has enhanced oil absorbent properties, and coupled with the high surface area, the 500 Series is most commonly used for applications where a high amount of oil absorbance is required.

For example, it is widely used in the automotive industry for heavily contaminated electrocoat baths.

The multi layered construction provides an exceptional depth of filter media. The layers of oil absorbent media are separated by drainage layers, ensuring a good flow of liquid and minimising the pressure drop across the filter bag.

The outer layers of the filter provide an effective final filtration of the process fluid, retaining very high levels of solids.

Particle retention is >95% at the stated micron rating.

The depth of the filter media makes the 500 Series very effective at filtering fluids containing gels or deformable particles.

The 500 Series is manufactured with fully welded seams and our Santaseal ring for optimum performance, or with sewn seams and steel or stainless steel ring. It is available rated at 1 - 25 micron in size 1 and size 2 only.

FILTER BAG SIZE	MAXIMUM RECOMMENDED FLOW RATE	OIL ABSORPTION CAPACITY	CLEAN DIFFERENTIAL PRESSURE DROP*
1	$5m^3/hr$	2.5kg	0.08 Bar @ $5m^3/hr$
2	$10m^3/hr$	5kg	0.17 Bar @ $10m^3/hr$

*includes pressure drop due to the filter housing

MORE THAN 7m² OF FILTER MEDIA PROVIDING HIGH OIL AND DIRT HOLDING CAPACITY.

WA SERIES

FILTER BAGS

ALLIED FILTER SYSTEMS HAS DEVELOPED THE WATER ABSORBENT (WA) SERIES FOR PROCESSES REQUIRING WATER REMOVAL FROM HYDROCARBONS.

Available in both size 1 and 2 with a choice of either plastic or metallic rings, the WA series filter bag can reduce water content from several thousand ppm to acceptable levels in line with the needs of your process. As the filter media absorbs water by hydrogen bonding, the filter does not release water under pressure.

The standard construction of the filter bag has an inner polypropylene support layer, a super absorbent fibre water absorbent media central layer, followed by an outer melt blown polypropylene cover.

As an option, the WA series can be provided with an additional felt layer to provide enhanced particle removal efficiency and protection from premature blocking of the WA media.

CAPACITY BASED ON SIZE 2 FILTER BAG:

Absorbency volume (DM water)
>20 Litres

Absorbency volume (0.9% saline)
>6.5 Litres

THE WA SERIES FILTER BAG CAN REDUCE WATER CONTENT FROM SEVERAL THOUSAND PPM TO ACCEPTABLE LEVELS.