

### Filter bag amaFlow Overview

#### 1. Introduction

For a wide number of filtration applications amaFlow filter bags are a simple, easy to use and economical choice.

MAHLE Industrial Filtration supplies a wide range of filter bags and bag filter housings. Our bag filters are excellent for use in the filtration of liquids containing higher concentrations of coarse solids. They are particularly beneficial when handling batches of (various) liquids.

They are also especially suitable for end filtration or polishing of liquids with extremely low concentrations of solids.



## 2. Features

- Bags are quick and easy to change-out.
- Inside-out flow keeps contaminants enclosed in the bag.
- Bags are silicone free (does not apply to 0.5 µm AP bag) and are produced in a silicone free environment.
- amaFlow filter bags are available in needled felt types as well as in woven mesh types to suit your requirements.
- Special bags are available, for example for high efficiency filtration or treatment of liquids.
- Materials used conform to European Directive 2002/72/EC and/or FDA requirements for food and beverage contact.
- The amaFlow filter bags are available in different configurations regarding materials, surface treatment, seams, seals and handles. Please see respective Data Sheets for details.
- Filter bags and bag filter housings are usually employed as closed systems, but open or end-of-pipe applications are attractive alternatives.
- The amaFlow filter bags seal with either a Snap-Collar seal comprising of either carbon steel, stainless steel or polypropylene or with a plastic seal ring in polypropylene. For open systems (uses outside a filter housing) the filter bags can also be supplied without any ring (thus no integrated means of fastening) or with a pull cord only.
- The standard amaFlow filter bags are sized to fit into our baskets and housings, but will also fit into most other housings. Special sizes are available on request.

## 3. Sealing systems

In order for bag filters to function properly, especially with smaller pore sizes, a good seal between bag and support basket is of great importance. For this reason we have two options:

- The Snap-Collar; a felt-covered metal or plastic ring which clicks neatly into the upper collar of the support basket. The felt serves as the sealing.
- The plastic seal type (a plastic flange with handles) which tightly fits into our standard baskets.

## 4. Types

### amaFlow needled felt filter bags

They are mainly employed as depth filters. The amaFlow needled felt bags are available as standard in polyester or polypropylene with many different micron ratings. Other materials such as nylon, viscose, PTFE and PPS are available on request.

### amaFlow monofilament filter bags

They are mainly used as strainers. The amaFlow monofilament bags are available as standard in nylon, polyester or polypropylene with many different micron ratings. Other materials (PTFE) are available on request.

### amaFlow multifilament filter bags

Alternative to monofilament filter bags, but not as accurate as these. The amaFlow multifilament bags are available in nylon or polyester with many different micron ratings.

### amaFlow high efficiency filter bags

These bags have defined efficiencies (absolute rated). The amaFlow high efficiency filter bag types are mainly used for the demanding high end of bag filter applications.

### amaFlow absorptive filter bags

The amaFlow SPAR filter bags are designed especially for their purpose with the functional part for liquid treatment incorporated into the filter bag. The amaFlow absorptive filter bags are available either filled with polypropylene micro-fibres (to remove mineral oils), with activated carbon (to absorb various substances) or as empty bag (with a zip opening for filling).

### amaFlow multi layered and extended life (XL) needled felt filter bags

The amaFlow multi layered and extended life needled felt filter bags are available as standard in polyester or polypropylene with many different micron ratings. They have improved filtration properties and an extended service life due to their increased depth design.

### amaFlow pleated needled felt filter bags for extra life

This amaFlow bag has a significantly increased dirt holding capacity, leading to longer filter service life.

### amaFlow added area filter bags

The filtration area of the added area filter bags is 2/3 higher than for standard size filter bags. The added area leads to longer service life and less bag changes. Changing the filter bag and handling is facilitated because less liquid can remain inside the bag. This results also in less product loss.

## 5. Temperature and chemical resistance

Filter bag grade	polyester	polypropylene	nylon	PTFE	PPS	Viscose	
Max. temperature [ °C]	150*	100	100	250	100	100	
resistance to:							+++ = excellent ++ = good + = fair - = not recommended
inorganic acids	++	++	-	+++	+++	-	
organic acids	++	+++	+	+++	+++	++	
alkalines	+	++	+++	+++	+++	+	
oxidising agents	+	+	-	+++	-	+	
solvents	+++	++	+++	+++	+++	++	
vegetable/animal oils	+++	+++	+++	+++	+++	+++	
micro-organisms	+++	+++	+++	+++	+++	-	

\* 100 °C for polypropylene ring / flange

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04/2010