

Filter bag amaFlow needled felt

1. Introduction

For a wide number of filtration applications amaFlow filter bags are a simple, easy to use and economical choice. The amaFlow needled felt bags are mainly employed where depth filtration is required. The three dimensional media provides good depth filtration characteristics and high solids loading versus two dimensional media.



2. Features

- Bags are quick and easy to change-out.
- Inside-out flow keeps contaminants enclosed in the bag.
- Bags are silicone free and are produced in a silicone free environment.
- Materials used for amaFlow AP and SP conform to the European Directive 2002/72/EC for plastic materials and articles intended to come into contact with food stuffs (food & beverage)
- Filter bags and bag filter housings are usually employed as closed systems, but open or end-of-pipe applications are attractive alternatives.
- 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.
- Cost effective at lower microns versus two dimensional media (mesh).

4. 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 flange (with handles) which tightly fits into our standard baskets.

6. Multi layered and pleated felt bags

Bags with multiple layers or pleats offer advantages when removing particles which are difficult to filter and have a longer service life. For information on amaFlow multi layered or pleated felt bags please see Data Sheets of these products.

7. Temperature and chemical resistance

| Filter bag grade | AP polyester | SP polypropylene | N nylon | TF PTFE | RT PPS | HT Nomex® | |
|-----------------------|-----------------|---------------------|------------|------------|-----------|--------------|---|
| Max. temperature [°C] | 150* | 95 | 95 | 250 | 170 | 200 | |
| resistance to: | | | | | | | +++ = excellent ++ = good + = fair - = not recommended |
| inorganic acids | ++ | ++ | - | +++ | +++ | + | |
| organic acids | ++ | +++ | + | +++ | +++ | + | |
| alkalines | + | ++ | +++ | +++ | +++ | ++ | |
| oxidising agents | + | + | - | +++ | - | - | |
| solvents | +++ | ++ | +++ | +++ | +++ | ++ | |
| vegetable/animal oils | +++ | +++ | +++ | +++ | +++ | + | |
| micro-organisms | +++ | +++ | +++ | +++ | +++ | +++ | |

* 95 °C for polypropylene ring / flange

3. Description

The amaFlow needed felt filter bags with Snap-Collar are sewn as standard at the ring, have a welded longitudinal seam and are sewn at the bottom seam. Other configurations are possible depending on material.

The polyester and polypropylene filter bags are equipped with handles as standard:

- S, SS, PO: Finger grips inside bag (size 1, 2: slits in felt). An additional handle strap is optional, from the same material as needed felt.
- P: 2 handles in ring (size 3, 4: 1 handle)

Types

The amaFlow needed felt bags are available as standard in polyester or polypropylene with many different micron ratings.

Other materials such as nylon, PTFE, PPS and Nomex® are available on request.

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 flange. 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.

5. Surface treatment

Polypropylene is thermally treated on the outside as standard, for polyester this is available as an option. This will further minimise any possible release of fibres from the needed felt filter media. During the thermal treating process the softened fibres are bonded together on the downstream side of the bag.

8. Order code

Example

amaFlow AP 10 P 2 S - - -
mm

Material

AP = polyester

SP = polypropylene

N = nylon

TF = PTFE

RT = PPS

HT = Nomex®

Micron rating [µm]

AP: 0.8, 1, 3, 5, 10, 25, 50, 75, 100, 150, 200

SP: 0.8, 1, 3, 5, 10, 25, 50, 75, 100, 150, 200

micron ratings for other materials on request

Finish

P = plain (not for SP)

P/S = standard finish for SP (with improved outer surface: thermally treated)

S = outside thermally treated (AP)

Bag dimensions

1 = size 1 (Ø 178 x 432 mm)

4 = size 4 (Ø 104 x 356 mm)

2 = size 2 (Ø 178 x 787 mm)

30 = size 30 (Ø 106 x 254 mm)

3 = size 3 (Ø 104 x 203 mm)

65 = size 65 (Ø 106 x 559 mm)

Ring/seal

S = carbon steel ring (Snap-Collar)

SS = stainless steel AISI 304 ring (Snap-Collar)

PO = polypropylene ring (Snap-Collar: SP only)

P = polypropylene flange (size 1, 2, 3, 4 : for AP and SP only)

T = PTFE ring (Snap-Collar, TF standard)

DS = draw string

Welded/sewn

- = standard with ring sewn, longitudinal seam welded and bottom seam sewn

For N, TF, RT, HT and for all size 3, 4, 30, and 65 : standard all sewn

Option for AP and SP in size 1 and 2:

WE = all welded (P flange only, standard for SP)

Additional handle

HS = handle strap, from same material as needed felt (standard on size 30 and 65 for S, SS and PO ring)

Other options

1PK = single packed in plastic bag, together in box

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