

# micronex

Filter elements for large-area polymer filtration systems



Maag offers high quality filter elements, designed for long term use and multiple cleanings. Maag can provide standard designs or build to your requirements regarding:

- Type of mesh
- Number of pleats
- Pleat height
- Filter area
- Number of layers
- Layer configuration

## Your benefits

- Filter elements designed for individual processes
- Optimized polymer flow
- Maximized filter area
- Lowest possible pressure loss
- Designed to retain hard and deformable particles

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## Typical Polymers handled

- ABS
- EVA
- HDPE, HMWPE
- PA 6, PA 66
- PB
- PE, LDPE, LLDPE
- PEEK
- PET, PBT
- PP
- PS, HIPS

## Performance Specifications

- Filter ratings: 0,5 up to 200 microns absolute
- Operating pressures up to 300 bar
- Differential pressures up to 300 bar
- Operating temperatures up to 400° C



## Design criteria include

- Micron rating
- Differential pressure
- Product characteristics
- Onstream life requirements
- Disposability
- Cleaning methods

When we design elements for you, we look at your filtration system to optimize the flow and maximize the filter area. All fiber metal felt media elements are bubble tested to ensure specified filter rate.

## Filter Design Choices

**Media** – Maag offers hard or soft sintered fiber metal felt, or wire mesh media supported on both sides by a protective screen. The media can be pleated or flat wrap; pleated media considerably increases filter area per element and flat wraps are better for very high filtration rates.

**Guards** – For most applications, we recommend covering pleated elements with a guard or cover. Guards protect the media from damage during handling, and reverse pulsing during backflush cleaning.

**End Fittings** – These can have internal or external hex, open ends, or clamped compression connections. Threads can be constructed of non-galling materials.

**Materials** – The hardware and wire mesh used in our elements are 316 or 316L stainless steel. Fiber metal felt media is primarily 316L. Other metallurgies such as Hastelloy are also available.

## Typical filter element designs built by Maag

Pleated element with external hex end fitting and protective guard. Guards are recommended to protect the pleats during cleaning and general handling. Several types of guards are available.

Pleated element with an internal hex end fitting and no protective guard. The internal hex design maximizes filter area for a given volume. It also offers fewer voids where polymer may degrade.

Low pressure pleated element supplied with a spiral wound guard. This type guard offers economical external pleat support and easy access for cleaning. Suitable for in-line backflush cleaning.

Removable meshpack. Allows replacing only the media pack, leaving the core pipe and fittings to be reused. Especially desirable when different filtration rates are required.

High pressure flat wrap element without protective guard. Flat wrap elements are especially suitable for very low micron applications and are easily backflushed or cleaned.