



ESC-BF – High Performance Filter

Back flush filtration with continuous screen cleaning



The cutting edge ultra-compact high performance filter from MAAG comes along with a large static conical screen area, through which the melt flows from the inside to the outside. An axial aligned moving flushing piston is permanently cleaning sections of contaminated screen area. The contaminated share of material is directly guided outward. Beneficially feature of this new design: The convex room is completely dead space free and flow optimized which doesn't allow any stagnation of material - outcome of this is low residence time. Already purified melt neither get harmed by any moving or blocking parts nor do rotating parts have impact on melt quality. On the basis of continuous and high effective backflush of the whole screen area the pressure deviation in the system remains steady over a very long time.

Your benefits

- 100% permanent availability of filtration surface in the process – also during backflush mode
- Pressure-, process- and volume constant
- Large filter surface in a compact design
- Continuous segmental effective backflush
- No filter cake build-up on the filter screen
- Sectional backflashes remove contaminated material comparatively gently - therefore no influence on the quality of the cleaned melt such as burns or degradation of the material.
- Completely closed system with no contact of melt to the atmosphere

ESC-BF – High Performance Filter

Back flush filtration with continuous screen cleaning

A range of typical applications

- For all kinds of polyolefines, PET, PA, SBS and for higher shares of regranulate
- Blown film
- Cast film
- Sheet
- Pipes
- Profiles
- Recycling
- Compounding

Limits of operation:	
Temperature:	up to 350 °C
Operation pressure:	up to 600 bar
Pressure differential:	up to 200 bar
Max. Screen finest :	20 µm
Degree of contermination:	up to 1.5 %
Back flush loss of material:	est. 0.5 – 1 % from average throughput

Due to the outstanding working principle of efficient backflush the technology is considered to be beneficially even at high level of sensitive plastic materials like blow film extrusion in conjunction with edge cut-offs recycling.

Technical data:	
Filtration area:	475 - 985 cm ²
Mounting:	Compact mounting dimensions, all positions possible

Type	throughput*	Filter size
ESC-BF-500	150 - 1,200 [kg/h]	475 [cm ²]
ESC-BF-1000	350 - 2,500 [kg/h]	985 [cm ²]

* dependent on material, filtration grade and degree of soiling

Continuous screen cleaning

Any kind of contamination and impurities such as gels are immediately lifted off the screen by flushing the core piston. This means that the delta-p can be kept at the same level for longer and elastic particles cannot deform and pass through unfiltered. This filter is especially suitable for the addition of higher proportions of regenerates in all extrusion processes. Due to its compact design, a retrofit of flat sliders can also be easily implemented.

Furthermore this kind of filtration system is especially prepared handling higher shares of regranulate in any kind of extrusion processes. Thanks to the compact design retrofitting of conventional technology like flat screen changer is easy and simply to manage.

