

BKG[®] HiCon[™] K-SWE-HD/RS

Double Piston Backflush Melt Filter for Continuous Operation

RECYCLING
EXTRUSION
BLOWN FILM

Normal operation: 2 screen cavities (100%) in the process

Backflush: 1 screen cavity (50%) in the process (melt pressure controlled)

Screen change: During a screen change 1 of the screen cavities (50%) is removed from the process, allowing for 1 of the screen cavities (50%) to remain in operation

Applications

The K-SWE-HD/RS is specifically suitable for processing polyolefin recycles in blown film applications.

It allows for maximum process stability resulting in significantly reduced downtime. Its high automation degree allows for minimum operator intervention and maximum safety.



Benefits

- **Regional Laws**
Compliance with regional laws and prevention of taxes and penalties
- **Pressure**
Pressure consistency for a stable process and high end-product quality
- **Automation**
Less operator intervention through a high automation level
- **Efficiency & Performance**
Low backflush waste, low screen costs and minimal downtime through automated backflush function

Features

- During the process steps “backflush” and “screen change,” 1 of 2 screens remain in production at all times
- Melt pressure controlled automated venting start
- Melt pressure controlled automated backflush function
- Optimized flow channels utilizing rheological data
- Easily integrated into existing blown film lines due to its vertical position
- Crankable safety cover for easier cleaning, maintenance, and maximum operator safety
- Wear-free metallic sealing system - no additional seal required
- Adapted support cart design for easier cleaning and maintenance

Technical Information

Machine Type/Size	K-SWE-121-HD/RS – K-SWE-200-HD/RS
Screen Dimensions	Ø 96.3 – Ø 176.3 mm (3.78 – 6.93 in)
Throughput	190 – 750 kg/h (419 – 1,653 lb/hr)
Screen Area	144 – 488 cm ² (22.3 – 75.64 in ²)
Temperature	Up to 300°C (572°F)
Heating	Electric
Max. Operating Pressure	Max. 600 bar (8,702 psi)
Differential Pressure	Max. 150 bar (2,176 psi)

*These throughput values are only estimates. The actual rates are dependent upon the viscosity of the material, filtration fineness, application, and the contamination level of the material; therefore, the values may differ depending on the actual process parameters.



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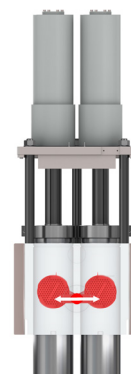
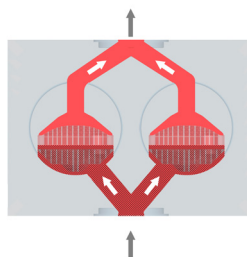
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Normal operation

The heated steel housing allows for two screen bearing pistons, which contain one screen cavity per piston. The melt flow is subdivided into two flow paths, is directed through each of the two screen cavities and reunited in the material outlet after the filtration.

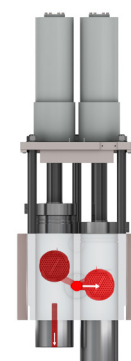
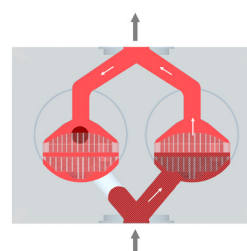
100%



Backflush

If the chosen differential pressure (Δp) increases due to the contamination of the filter screens, the piston automatically moves into the backflush position. The subsequent process is not adversely affected. Through a reversal of the flow inside the screen changer, the contaminations from the screen pack are led outwards via a spillway. The screen pack is fixed within the screen retainer.

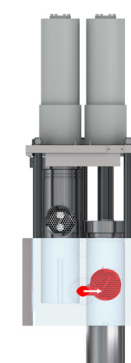
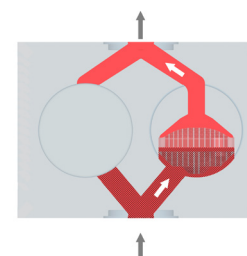
50%



Screen Change

The screen bearing piston with the changeable filter element is moved out of the housing to allow for the screen pack of the piston to be removed and replaced with a new filter element. During the screen change, the screen cavity of the other piston remains in the production position and the melt flow is not interrupted. Fifty percent (50%) of the filter area is still used for filtration. Due to the automated melt pressure controlled venting start procedure, no air can enter the process after the screen exchange.

50%



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