BKG® HiCon™ K–SWE–4K-75/RS

Double Piston Backflush Screen Changer for Continuous Operation

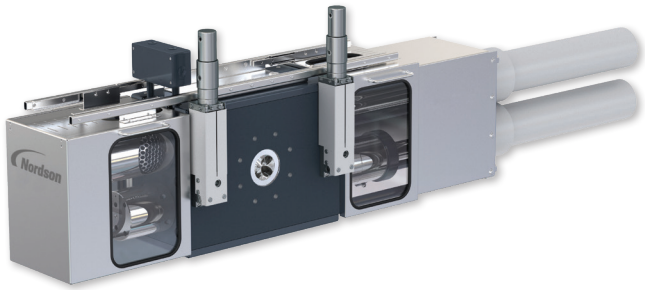
Normal operation: 4 screen cavities (100%) in the process

Backflush: 3 screen cavities (75%) in the process

Screen change: During a screen change 1 of the screen cavities (25%) is removed from the process, allowing for 3 of the screen cavities (75%) to remain in operation

Applications

The K-SWE-4K-75/RS is suitable for almost all processes and materials. It is used in pressure constant processes (e.g. strap, film, fiber, strand pelletizing). It can manage processes with a high proportion of contaiminates (recycling) and enables process runs to continue without any system shutdowns while changing the screen.



Benefits

- Reduced spare parts costs recognized due to the integrated self-cleaning (backflush) process, allowing screens to be used repeatedly
- Fully automated backflush and venting procedure (via PLC) reduced operator intervention
- Significant reduction in operating costs (screen & labor costs) is ensured by up to 100 backflushes
- 4 screen cavities provide a large filter area in a comparably small housing and minimize the number of self-cleaning backflushes at the same time

Features

- During the process steps “backflush” and “screen change,” 3 of 4 screens remain in production at all times (patented 75% technology)
- Backflush function
- Optimized flow channels utilizing rheological data
- Wear-free metallic sealing system - no additional seal required
- Easily integrated into the line controls
- Includes complete guard system, offering maximized safety for the operators

Technical Information

Machine Type/Size	K-SWE-101-4K-75/RS – K-SWE-380-4K-75/RS
Screen Dimensions	Ø 76 – Ø 340 mm (2.99 – 13.39 in)
Throughput	160 – 6,500 kg/h (353 – 14,330 lb/hr)
Screen Area	180 – 3,632 cm^2 (27.9 – 563 in^2)
Temperature	Up to 450°C (842°F)
Heating	Electric, Fluid, or Steam
Max. Operating Pressure	From size 100 to size 200: Max. 500 bar (7,252 psi) Size 250 and up: Max. 300 bar (4,351 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.

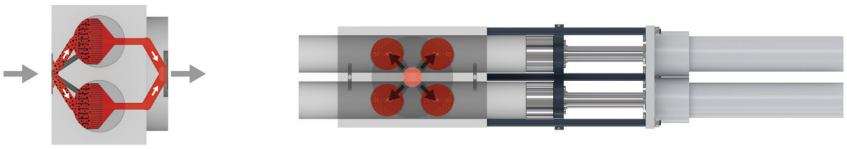
Nordson

BKG® HiCon™ K – SWE – 4K - 75 / RS

Double Piston Backflush Screen Changer for Continuous Operation

Normal operation

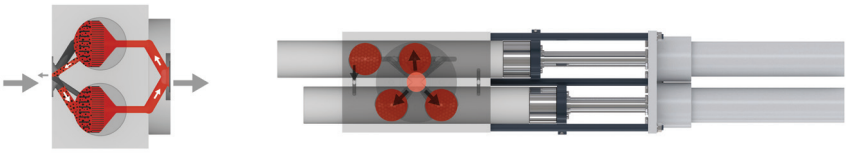
100%



The heated steel housing allows for two screen bearing pistons, which contain two screen cavities per piston. The melt flow is subdivided into four flow paths and is directed through each of the four screen cavities.

Backflush

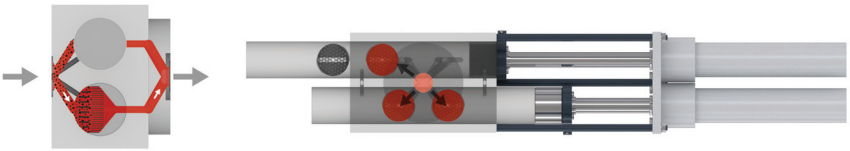
75%



If the chosen differential pressure (Δp) increases due to the contamination of the filter screens, the bearing 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. After cleaning of this filter element, the adjacent screen of the same bearing piston is cleaned in an identical manner. During each backflush, 75% of the screen area remains in production.

Screen change

75%



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 second screen cavity of this piston and the screen cavities of the other piston remain in the production position and the melt flow is not interrupted. Seventy-five percent (75%) of the filter area is still used for filtration. Due to a special venting procedure, no air can enter the process after the screen exchange.

Nordson BKG GmbH
Hessenweg 3-5
48157 Münster / Germany
Phone +49.251.26501.0

USA
Phone +1.828.326.9888

China
Phone +86.21.5785.091.8

Japan
Phone +81.3.5762.2770

nordsonpolymerprocessing.com | info@nordsonpolymerprocessing.com