

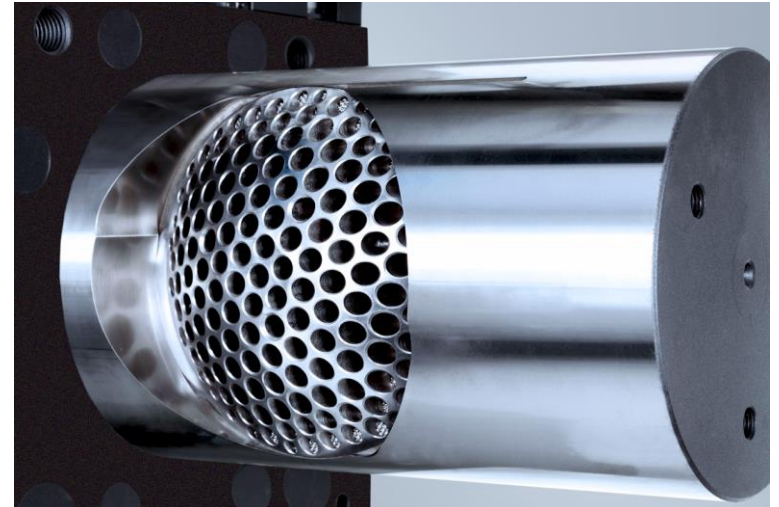
BKG® Filtration Systems

The Ideal Technology

Excellence is our standard.

Optimized down to the last detail.

- Discontinuous, continuous, and self-cleaning filtration systems
- Customized designs provide optimal results
- Different filter media can be utilized to provide increased flexibility (screen packs, filter discs, flex discs and filter candles)
- Increased efficiency of the complete production line
- Numerous patents prove our filtration technology's continuous improvement
- Partnerships with our customers enable us to provide the most effective and efficient solution for even the most demanding applications



BKG® Filtration Systems

A solution to meet your specific application

NorCon™ System: Discontinuous

Main applications:

- Direct extrusion (films, fibers, straps, profiles, sheets, tubes, etc.)
- Compounding (underwater-, strand-, water-ring pelletizing)
- Raw material production (polymerization)
- Recycling (genuine recycled material and production waste/in-house recycling)
- High pressure and process consistency during a screen change
- In each case, the design is adapted to the process with regards to the filter area and pressure consistency



NorCon™ System: Continuous

Main applications:

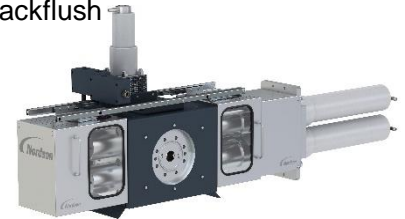
- Quality filtration of virgin polymers
- Protection of downstream equipment (pump protection)
- Masterbatch production and compounding (small batches)



HiCon™ System: Self-Cleaning - Continuous Backflush

Main applications:

- Variety of recycling applications (pelletizing and direct extrusion)
- Processes with high demand for process consistency
- Extended screen life cycle (in polymerization and direct extrusion)
- High pressure and process consistency even during a screen change
- Pressure and volume flow constant backflush screen changers



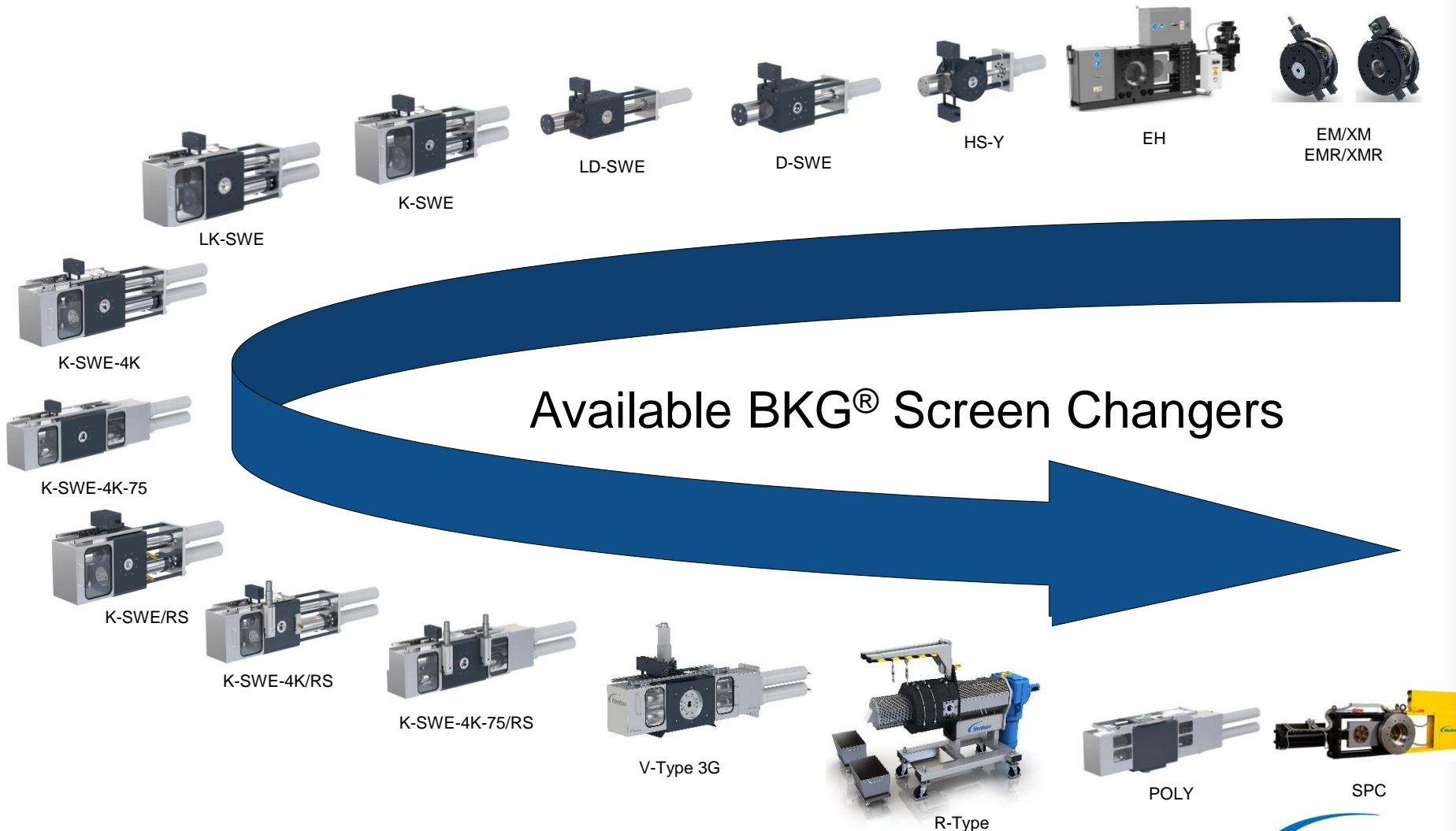
Large Area Filtration Systems

Main applications:

- Most polymerization (pelletizing, fiber, film) and high rate extrusion processes



Choosing the right Screen Changer



NorCon™ System: Discontinuous

BKG NorCon EM/EMR (standard) and XM/XMR (metric) Manual Screen Changer

Swivel plate with 1 screen cavity
(movement by hand with gear system)

- Bolt through extruder connection
- Extruder screw pull through
- Pressure activated sealing
- Optimized flow channel design
- 3 position handle
- Compact extruder interface
- Leak-free operation
- Safe operation
- Optimized polymer rheology
- Low capital and operating cost



Ratchet Option

- Retrofittable design to current EM/XM models (EM/XM → EMR/XMR)
- Less torque requirement = less operator effort to shift slide plate
- Compact line configuration

High Temperature Seal Option

- Expanded low viscosity sealing
- For temperatures between 260-343°C (500-650°F)
- Retrofittable design

Main applications: Most applications that require infrequent changes



NorCon™ System: Discontinuous

BKG NorCon EH Slide Plate Screen Changer

1 slide plate with 2 screen cavities
(movement by hydraulic system)

- Optimized flow channel design with no dead zones
- Up to Ø257 mm (10.1 in.) screen diameter
- For extrusion pressure up to 690 bar (10,000 psi)
- Easy handling, strong and long lasting design, high reliability
- Pressure activated sealing
- Short residence time of material in the system and easy cleaning
- Screw pull through design
- Bolt through extruder connection

High Temperature Seal Option

- Expanded low viscosity sealing
- For temperatures between 260-343°C (500-650°F)
- Retrofittable design

Main applications: Thermoplastic applications ranging from sophisticated multi-layer thin film extrusion to heavy demands of recycling



NorCon™ System: Discontinuous

BKG NorCon HS-Y Single Piston Screen Changer

1 screen bearing piston with 1 screen cavity
(movement by hydraulic system)

- Optimized flow channel design with no dead zones
- Up to Ø148 mm (5.83 in.) screen diameter
- For extrusion pressure up to 350 bar (5,076.32 psi)
- Low Delta p (differential pressure)
- Easy handling, strong and long lasting design, high reliability
- Wear-free metallic sealing system – no additional seal required
- Short residence time of material in the system and easy cleaning
- Optional pull through of the extruder screw available



Main applications: Coextrusion and blown film lines, blow molding machines and masterbatch applications as well as for filtration of virgin materials

NorCon™ System: Discontinuous

BKG NorCon D-SWE and LD-SWE Single Piston Screen Changer

1 screen bearing piston with 1 screen cavity
(movement by hydraulic system)

- Optimized flow channel design with no dead zones
- D-SWE supplied with round shaped screen cavities
 - Up to Ø410 mm (16.14 in.) screen diameter
- LD-SWE supplied with oval shaped screen cavities
 - Up to 340 x 550 mm (13.39 x 21.65 in) screen dimensions
- For extrusion pressure up to 400 bar (5,801.51 psi)
- Low Delta p (differential pressure)
- Easy handling, strong and long lasting design, high reliability
- Wear-free metallic sealing system – no additional seal required
- Short residence time of material in the system and easy cleaning
- Optional pull through of the extruder screw available



Main applications: Coextrusion lines, batch processes, compounding and masterbatches as well as for filtration of virgin materials

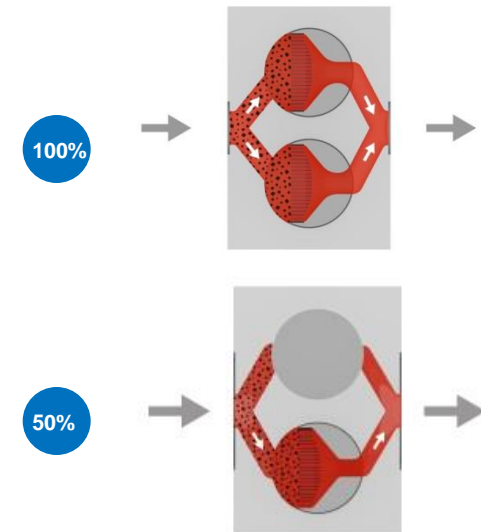


NorCon™ System: Continuous

BKG NorCon K-SWE and LK-SWE Double Piston Screen Changer

2 screen bearing pistons with 2 screen cavities
(1 per piston)

- Optimized flow channel design with no dead zones
- K-SWE supplied with round shaped screen cavities
 - Up to Ø410 mm (16.14 in.) screen diameter
- LK-SWE supplied with oval shaped screen cavities
 - Up to 340 x 550mm (13.39 x 21.65 in) screen dimensions
- For extrusion pressure up to 500 bar (7,251.89 psi)
- Low Delta p (differential pressure)
- Easy handling, strong and long lasting design, high reliability
- Wear-free metallic sealing system – no additional seal required
- Continuous operation, no interruption of the melt flow during screen change
- Large active filtration area available
- Optional automation by fully automated ACS system (Siemens PLS) available



Main applications: Pelletizing, direct extrusion (film, sheet, pipe) and polymerization

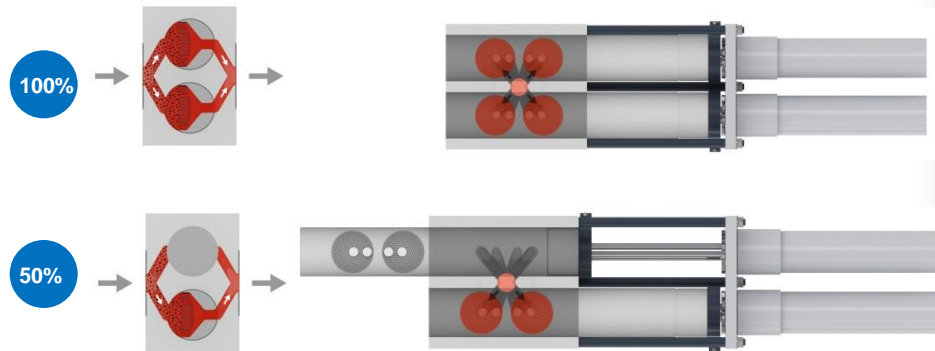
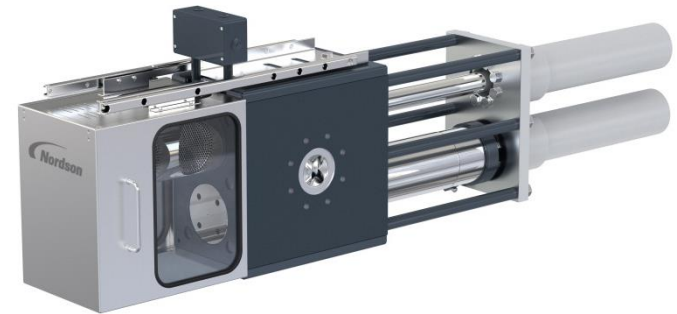


NorCon™ System: Continuous

BKG NorCon K-SWE-4K Double Piston Screen Changer

2 screen bearing pistons with 4 screen cavities (2 per piston)

- Optimized flow channel design with no dead zones
- Up to Ø250 mm (9.84 in.) screen diameter
- For extrusion pressure up to 500 bar (7,251.89 psi)
- Low Delta p (differential pressure)
- Easy handling, strong and long lasting design, high reliability
- Wear-free metallic sealing system – no additional seal required
- Continuous operation, no interruption of the melt flow during screen change
- Optional automation by fully automated ACS system (Siemens PLS) available



Main applications: Pelletizing, direct extrusion (film, sheet, pipe) and polymerization



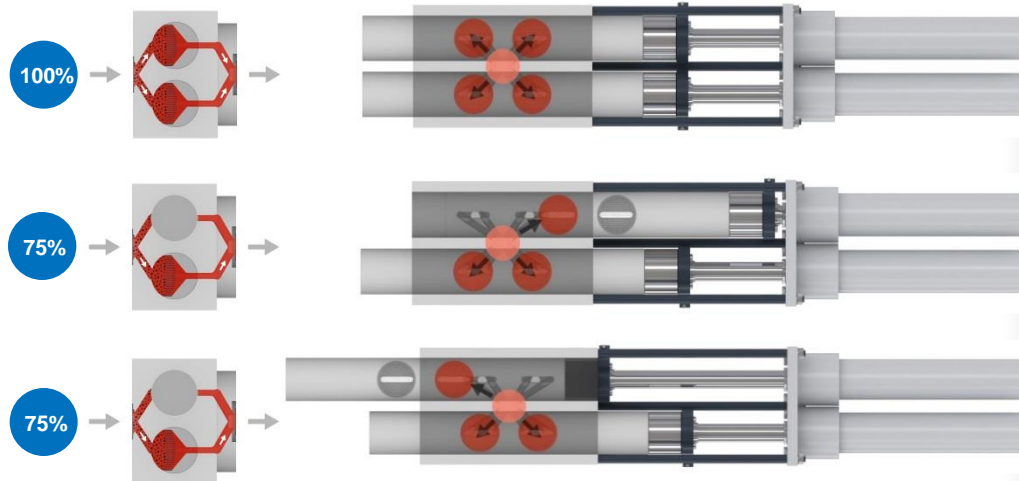
NorCon™ System: Continuous

BKG NorCon K-SWE-4K-75 Double Piston Screen Changer

2 screen bearing pistons with 4 screen cavities (2 per piston)

- Optimized flow channel design with no dead zones
- Up to Ø340 mm (13.39 in.) screen diameter
- For extrusion pressure up to 500 bar (7,251.89 psi)
- Low Delta p (differential pressure)
- Easy handling, strong and long lasting design, high reliability
- Significantly less pressure variations during screen change as 75% of the filtration area is always available
- Screen change on both sides of the screen changer
- Fully automated ACS system (Siemens S7 PLC)

Main applications: Compounding, direct extrusion (film, sheet, pipe), polymerization and sensitive applications



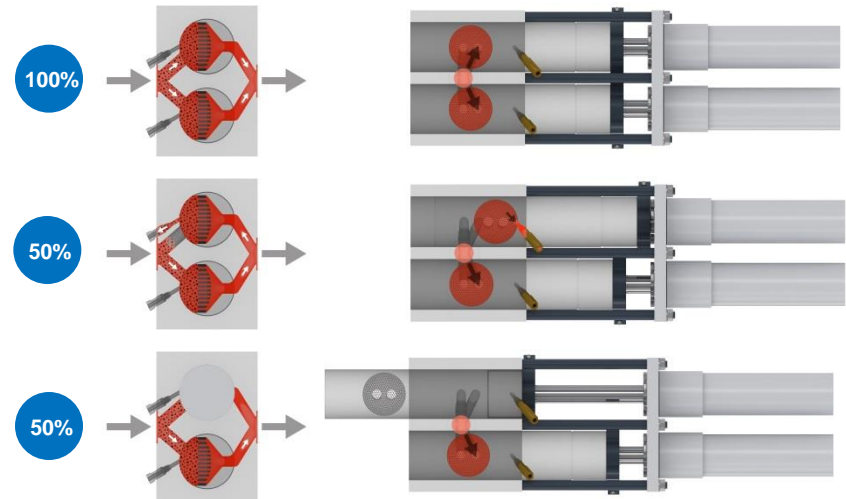
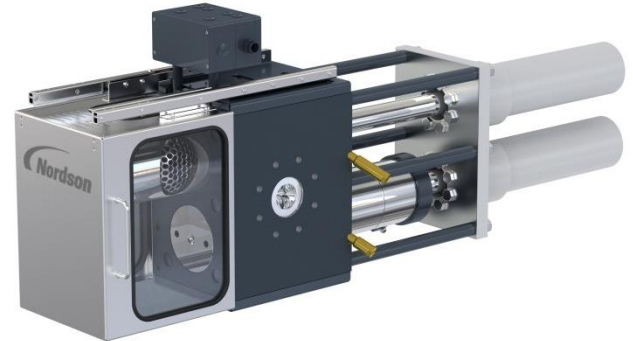
HiCon™ System: Self-Cleaning

BKG HiCon K-SWE/RS Double Piston Backflush Screen Changer

2 screen bearing pistons with 2 screen cavities
(1 per piston)

- Optimized flow channel design with no dead zones
- Up to Ø410 mm (16.14 in.) screen diameter
- For extrusion pressure up to 500 bar (7,251.89 psi)
- Low Delta p (differential pressure)
- Easy handling, strong and long lasting design, high reliability
- Highly efficient self cleaning of the screens at less backflush waste
- Continuous operation, no interruption of the melt flow during screen change and backflush procedure
- Fully automated ACS system (Siemens S7 PLC)

*Main applications: Recycling and direct extrusion
(film, sheet, pipe)*



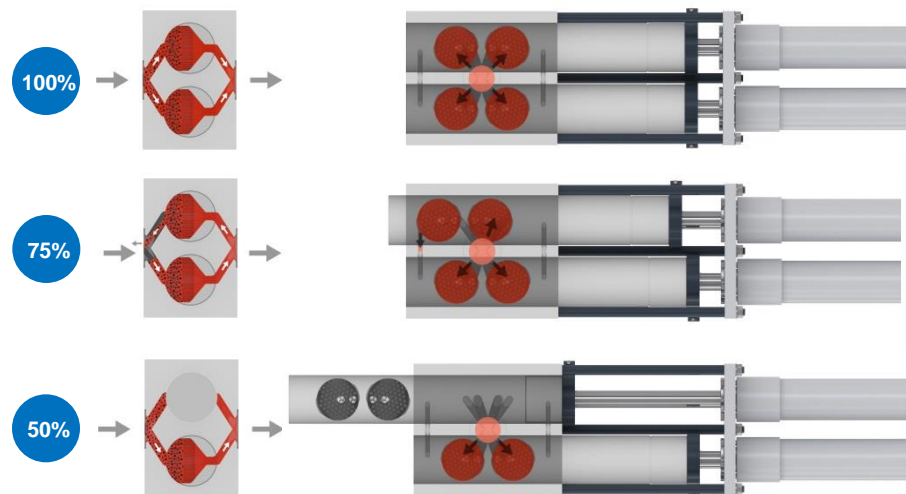
HiCon™ System: Self-Cleaning

BKG HiCon K-SWE-4K/RS Double Piston Backflush Screen Changer

2 screen bearing pistons with 4 screen cavities (2 per piston)

- Optimized flow channel design with no dead zones
- Up to Ø250 mm (9.84 in.) screen diameter
- For extrusion pressure up to 500 bar (7,251.89 psi)
- Low Delta p (differential pressure)
- Easy handling, strong and long lasting design, high reliability
- Highly efficient self cleaning of the screens at less backflush waste
- Continuous operation, extremely low pressure variations due to the 4 cavity principle - (75% filtration area available during backflush)
- Fully automated ACS system (Siemens S7 PLC)

Main applications: Recycling and direct extrusion (film, sheet, pipe)



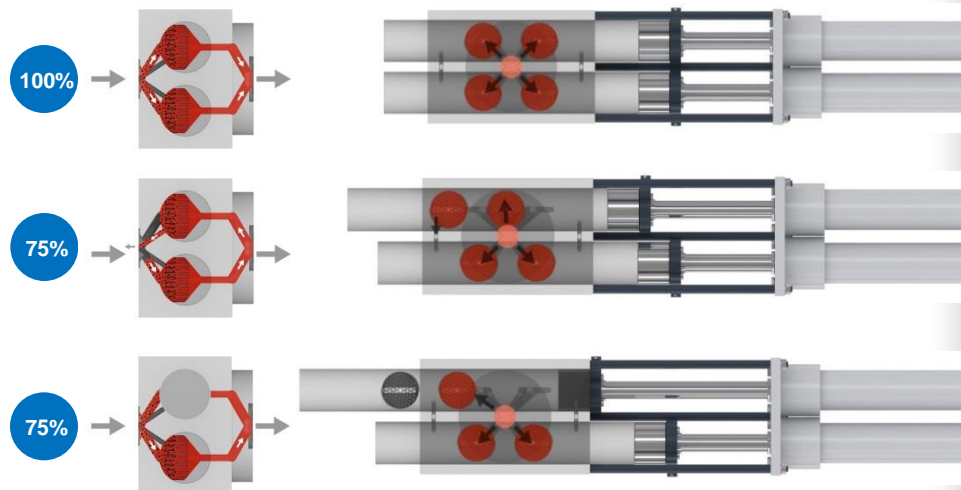
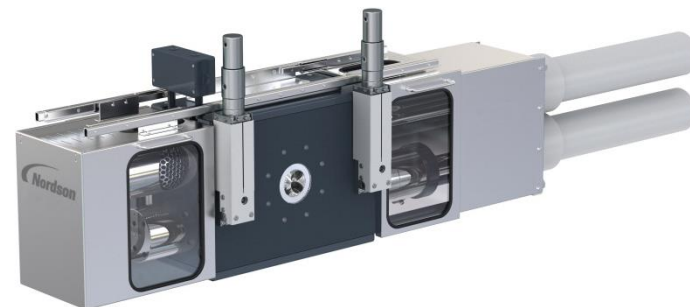
HiCon™ System: Self-Cleaning

BKG HiCon K-SWE-4K-75/RS Double Piston Backflush Screen Changer

2 screen bearing pistons with 4 screen cavities
(2 per piston)

- Optimized flow channel design with no dead zones
- Up to Ø340 mm (13.39 in.) screen diameter
- Low Delta p (differential pressure)
- Easy handling, strong and long lasting design, high reliability
- Highly efficient self cleaning of the screens at less backflush waste
- Continuous operation, extremely low pressure variations due to the 4 cavity principle (75% filtration area available during backflush and screen change)
- Fully automated ACS system (Siemens S7 PLC)

Main applications: Recycling and direct extrusion (film, sheet, pipe), polymerization and sensitive applications



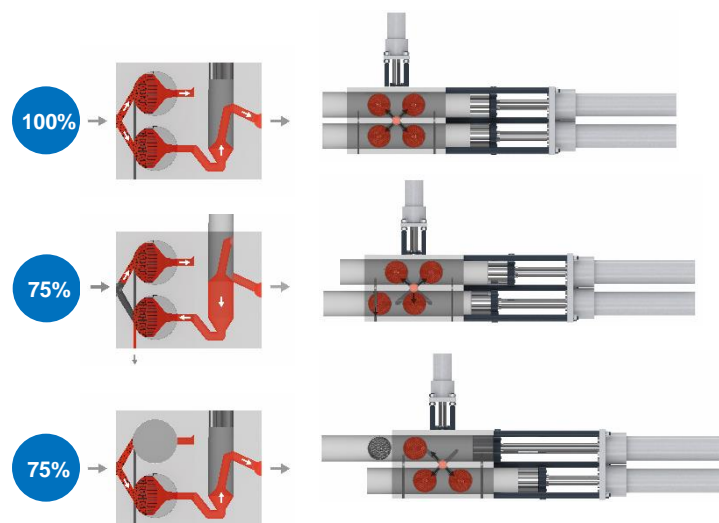
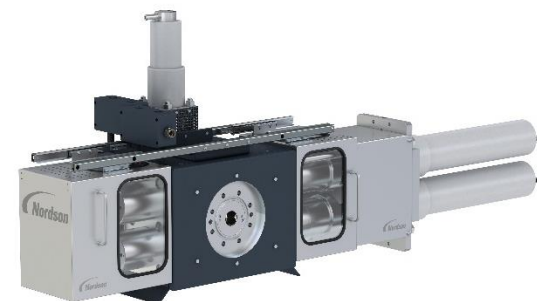
HiCon™ Systems: Self-Cleaning

BKG HiCon V-Type 3G Continuous Process-, Pressure-, and Volume Flow Constant Double Piston Backflush Screen Changer

2 screen bearing pistons with 4 screen cavities
(2 per piston)

- Optimized flow channel design with no dead zones
- Up to Ø340 mm (13.39 in.) screen diameter
- Self-cleaning of screens up to 250 times at extremely less and defined backflush waste
- Best backflush performance in the market due to independent adjustable backflush pressure (75% filtration area available during backflush)
- Easy handling, strong and long lasting design, high reliability
- Low Delta p (differential pressure)
- Fully automatic operation by ACS control system (Siemens S7 PLC)

Main applications: Recycling (e.g. strapping tape, flat film from 100% bottle flake), direct extrusion (film, sheet, pipe), and sensitive applications up to 1%



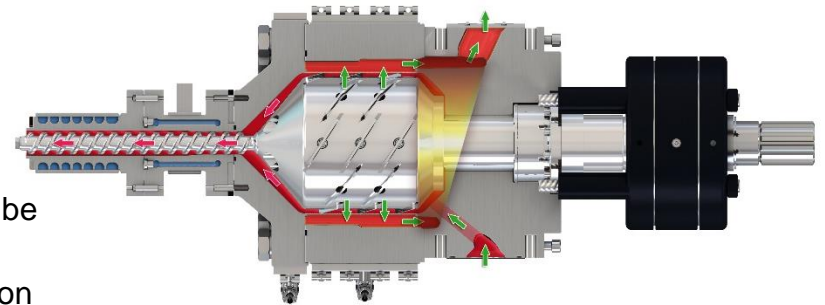
HiCon™ Systems: Self-Cleaning

BKG HiCon R-Type 250

Cylindrical Strainer Tube

- Fully automatic self-cleaning
- Cylindrical, fixed strainer tubes
- Homogeneous cleaning by a variety adjustable scraper blades
- Autonomous control included heating control
- Hardware: Siemens Simatic SPS and HMI
- Analysis of melt pressure and temperature included in the standard delivery (incl. sensor)
- Optional recording of process data and remote maintenance
- Minimal melt loss
- Robust and low-wear design
- Constant melt pressure behind the filter
- No outlet side; minimum pressure required
- User-friendly handling: independent strainer tube can easily be changed by the operator
- Low operating costs through long service life and regeneration ability of the filter media
- No edge flow around the strainer tube

*Main applications: Highly contaminated plastic melt,
Polymers from the family of olefins and styrenes*



Continuous Melt Filtration in Polymerization

BKG POLY Large Area Filtration System

2 screen bearing pistons with 8 screen cavities
(4 per piston)

- Optimized flow channel design with no dead zones
- POLY is supplied with oval shaped screen cavities
- UP to 360 x 780mm (14.17 x 30.71 in) screen dimensions
- Low Delta p (differential pressure)
- Easy handling, strong and long lasting design, high reliability
- Continuous operation, no interruption of the melt flow during screen change
- Less melt volume and shortest residence time of the material in the system for lowest AA levels in PET bottle grade production
- Fully automated ACS system (Siemens S7 PLC)



Main applications: Polymerization of PET, throughputs up to 30,000 kg/hr (66,139 lb/hr)

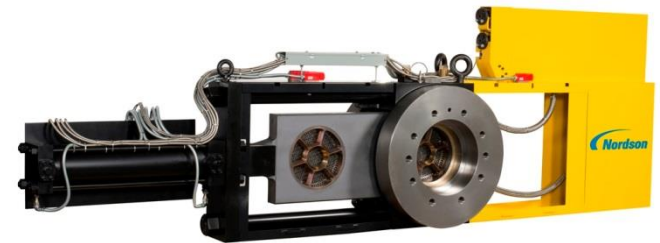


Continuous Melt Filtration in Polymerization

BKG SPC High Capacity Screen Changer

1 screen bearing piston with 2 screen cavities
(movement by hydraulic system)

- Optimized flow channel design with no dead zones
- Up to Ø405 mm (15.9 in.) screen diameter
- Cylindrical screens help achieve a reduced pressure drop, resulting in higher throughputs and longer on-line time between screen changes
- Extended area filter provides longer screen life and allows for finer screen filtration
- Easy handling, strong and long lasting design, high reliability
- Adjustable sealing mechanism
- Fast shift screen changes optimized productivity



Main applications: Compounding, polymerization and high rate extrusion, throughputs up to 27,000 kg/hr (60,000 lb/hr)

