

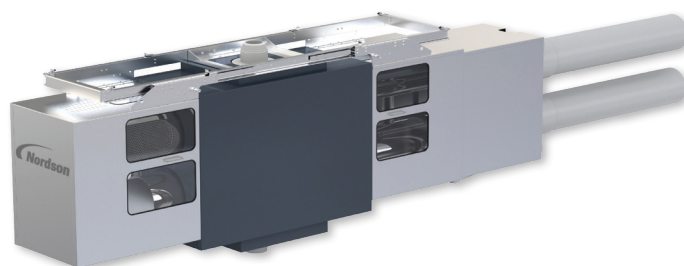
BKG[®] POLY

Large Area Filtration Systems

- Normal operation:** 8 screen cavities (100%) in the process
- Backflush:** Not applicable
- Screen change:** During a screen change, 2 of the screen cavities (25%) are removed from the process, allowing for 6 of the screen cavities (75) to remain in operation

Applications

The POLY is suitable for almost all polymerization processes (pelletizing, fiber, film). This system enables process runs to continue without any system shutdowns while changing the screen.



Benefits

- Low operating costs through the use of low-cost filter media (flat screen mesh); no cleaning and testing of the filter medium is necessary
- Faster and safer screen change compared to filter pots (filter candles, filter discs)
- Easy handling during a screen change since there is no need to use a hoist or lifting device
- Optimized flow channel design (dead spaces free); short residence time eliminates degradation of the polymer
- Fully automated venting procedure (via PLC) reduces operator intervention

Features

- Patented technology allows for 6 of the 8 screens to remain in production during a screen change
- 8 oval-shaped screen cavities enable a large filter area in a compact and small housing
- 2 pistons with 4 oval-shaped screen cavities per piston
- 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	POLY 350-420 - POLY 600-720
Screen Dimensions	300 x 570 mm - 360 x 780 mm (11.81 x 22.44 in - 14.17 x 30.71 in)
Throughput	14,580 - 30,000 kg/h (32,143 - 66,139 lb / hr)
Screen Area	12,000 - 20,000 cm ² (1,860 - 3,100 in ²)
Temperature	Up to 450°C (842°F)
Heating	Fluid or Steam
Max. Operating Pressure	Max. 300 bar (4,351 psi)
Differential Pressure	Max. 100 bar (1,450 psi)

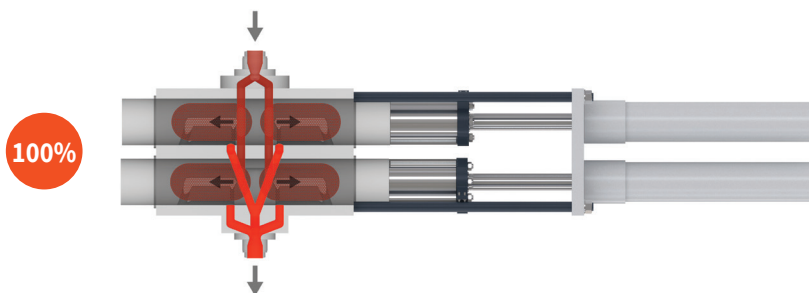
*These throughput values are only estimates. The actual rates are dependent upon the viscosity of the material, filtration fineness, application, and the contamination level of the material; therefore, the values may differ depending on the actual process parameters.



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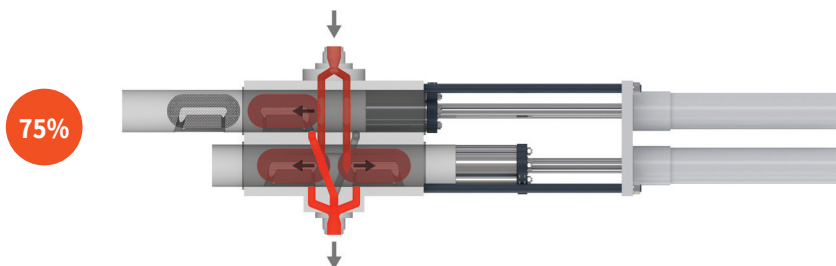
Large Area Filtration Systems

Normal operation



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

Screen change



The exchange of the screens is triggered when reaching a chosen differential pressure (Δp). The screen bearing piston with the changeable filter element is moved out of the housing to allow for the oval screen packs of the piston to be removed and replaced with new filter elements. During the screen change, the other two screen cavities 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.

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