PSI POLYMER SYSTEMS INC.

Get More from Your Process

Backflush Continuous Screen Changer (CSC-BF)

Backflush Continuous Screen Changers (CSC-BF) filter contaminated polymer melt streams typical of post-industrial and post-consumer plastic scrap. As contaminants build up on the screen pack, a pressure setpoint or timer initiates backflush operation. The fully automated process efficiently lifts and evacuates impurities from the screen surface before indexing the screen back into service.

Uninterrupted melt filtration is achieved using four (4) online screen pockets. During backflush or screen change, seventy-five percent (75%) of the available filter area remains online. This effectively lowers average extruder backpressure and yields higher production output as well as benefiting extruder life and reducing energy. Each screen is self-cleaned in sequence as needed until the backflush process can no longer effectively remove embedded contaminants and a screen change is signaled.

Backflush frequency varies with contamination levels and line pressure. Screens can be cleaned up to 100 times (process dependent), saving screen costs and labor between screen changes and maintaining continuous operation throughout. The rugged, low-maintenance design has no mechanical valves or seals and can operate leak-free for decades with proper care.

Features

- Operator-free, automated backflush operation
- 4-pocket design. Always 75% of screen area inflow during backflush or screen change
- No mechanical seals – 3-year leak-free guarantee
- Machine-mounted operator screen change station
- Purge discharges directly beneath the housing to a drip tray or floor, creating a cleaner environment for operators
- Minimal waste discharge
- Oversize hydraulic cylinders for higher reliability

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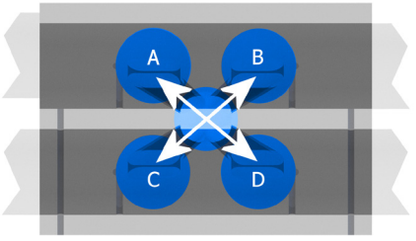
Options

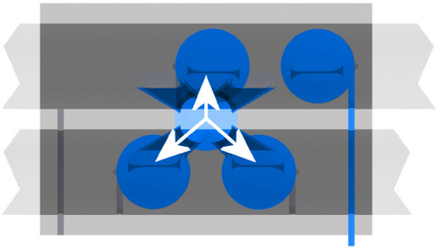
- Special heater voltage
- Internal fluid heat/cool
- Cart mounted Hydraulic Power Unit

Accessories

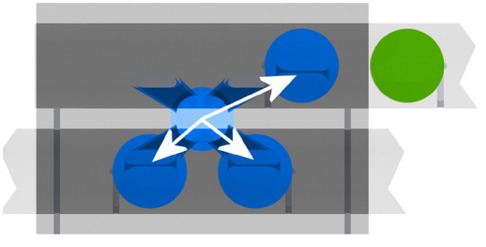
- PLC control
- Locking plate removal tool
- Hydraulic Power Unit
- Support cart
- Adaptors
- Heat zone control



Four (4) positions online.



Position B in backflush.
Three (3) positions online.



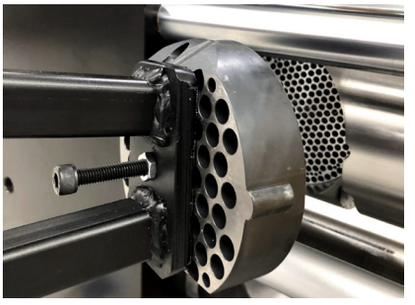
Position B in screen change.
Three (3) positions online.

Technical

Specifications	Standard
Temperature°F [°C]	Up to 650 [343]
Max oper. pressure PSI [bar]	Max. 7,500 [517]
Control zones (housing)	Four (4)
Heating	Electric/Fluid

Round Screen	Max. Throughput*		Screen Diameter		Filter Area	
Model	Lbs/Hr	Kg/Hr	Inches	mm	Inches²	cm²
CSC-125BF	3,100	1,405	4.93	125.3	4 x 19.1	4 x 123.2
CSC-148BF	4,400	2,000	5.84	148.3	4 x 26.8	4 x 172.6
CSC-176BF	6,600	2,995	6.94	176.3	4 x 37.8	4 x 244.1
CSC-200BF	8,400	3,810	7.88	200.3	4 x 48.7	4 x 314.4
CSC-230BF	11,500	5,215	9.07	230.3	4 x 64.5	4 x 416.3
CSC-250BF	19,400	8,800	9.85	250.3	4 x 76.1	4 x 490.8

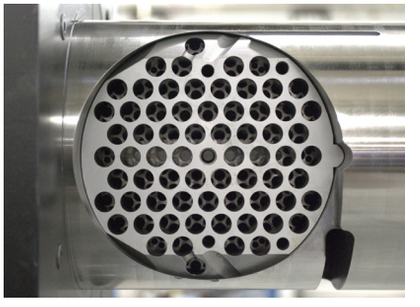
* Throughput rates are estimates and are subject to material, viscosity, pressure, and filtration level.



Left: *Locking plate removal tool.*

Lower left: *Locking plate with breaker plate.*

Lower right: *Breaker plate assembly in crossbolt with backflush discharge port.*



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