

Flat Bed Pressure Filter

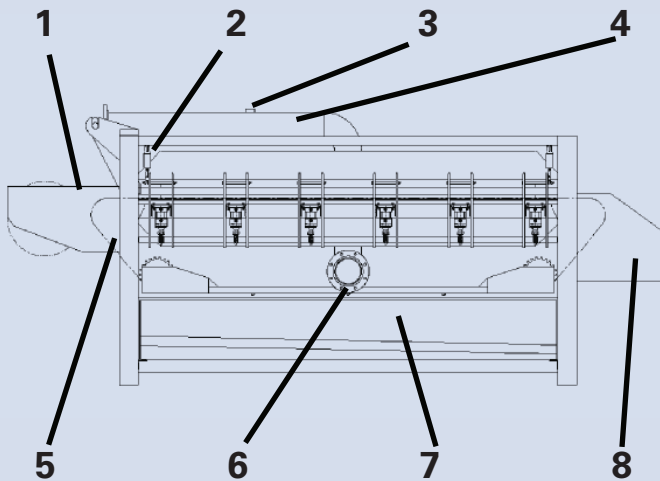


Ecoclean FBPF



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Improving filtration clarity



Ecoclean FBPF

1. Disposable media
2. Filter blinded vent line
3. Blow-down air supply line
4. Supply pipe
5. Endless belt loop
6. Discharge pipe
7. Spill containment
8. Discharge

Overview

1. Supply pipe from dirty receiving tank supply pump is equipped with an auto on-off control valve.
2. A blow-down air supply line with control valves connects to the filter supply pipe just upstream from the filter.
3. A filter blinded vent line with control valve is installed in the filter dome in the event that the filter septum is blinded over, requiring discharging of dome liquid volume via this pipe.
4. Discharge pipe from the lower shell of the FBPF runs unrestricted to the clean tank.
5. Flow from the filter to the clean tank exceeds that required by most machine tools—approximately 10% is overflowed back to the dirty supply tank.

Applications

- Grinding: steel, aluminum, cast iron, ceramics
- Machining: aluminum, cast nodular iron, steel, brass
- Honing and final test stand run-off
- Polish filter
- Stand-alone filter
- In-line filter
- Side stream kidney loop filter

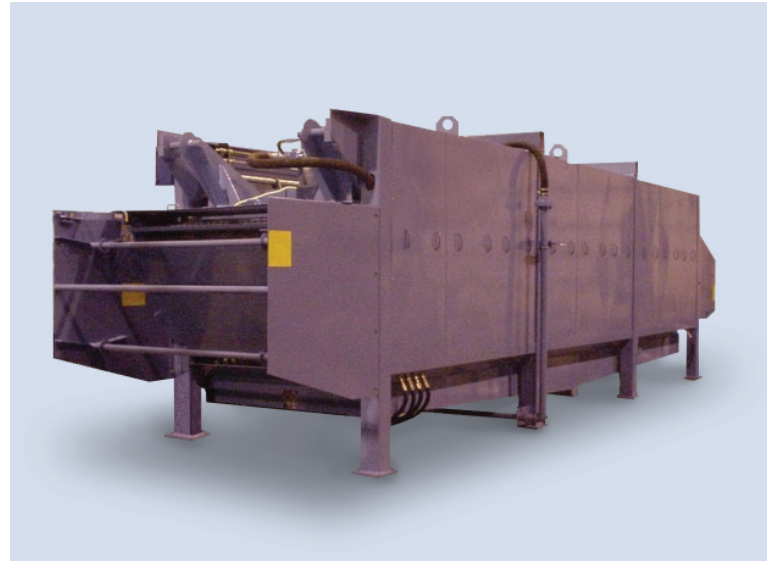
Automatic operation

Sequence of operation

1. Dirty supply pump is turned on and the on-off valve to the flat bed is opened to allow flow into the filter through the septum, and to the clean tank.
2. When a predetermined pressure differential across the septum (inlet pressure on the upper shell) is achieved, the on-off valve to the filter is closed.
3. The blow-down air valve to the filter is opened for a period sufficient to remove all the fluid from the filter (upper shell) and dry the filter cake. This can be a timed function with low pressure indicating that the vessel is empty.
4. After blow down is complete, the vessel lid is raised and the filter belt is indexed and washed. In the case of disposable media, the spent media is indexed out of the filter, and the filter lid is lowered and clamped. The on-off valve is opened and the filter is back on-line.
5. For shut down, the filter is put through an immediate blow-down cycle and the system is shut down.

Maintenance

With Ecoclean's exclusive design, no matter what the task, accessing the pressure chamber is as easy as disconnecting inlet and electrical, then lifting and removing the lid. Belt exchange is simple, whether replacing the entire belt or just a damaged segment.



FBPF is an automatic solution for stand-alone, polish, or in-line pressure filtration—suitable for machining, grinding, honing, transmission test stands, etc.

Capacity	
Flowrate	100 - 3,000 GPM
Filtration area	6 - 120 sq. ft. per unit (depending upon application)

Fluid Compatibility	
<ul style="list-style-type: none">• Soluble coolants• Synthetic coolants• Mineral oils• Other fluids	

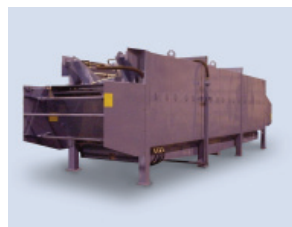
Flat Bed Pressure Filter

Features

- Positive seal eliminates bypass
- Exclusive double seal arrangement
- Molded-in filter/carrier belt seal
- O-ring upper seal
- Completely automatic
- Entire seal perimeter visible for inspection with guards removed
- Endless options of commercially available disposable media and woven belt configurations
- Enhanced tool performance
- Higher finish tolerances and quality

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