

Automatic backwash filter for cooling and processing water

Lenzing CanFil Filter

The CanFil Filter is a fully automatic backwash system that operates continuously. Small diameter wedgewire or metal fiber fabric candles are used to capture solid particles on their inside surface. After a preset pressure differential has been reached as a result of solids build-up on the surface of the candles, one or alternatively two candles are isolated and cleaned at a time. During this step, a small volume of unfiltered fluid is used for backwashing while filtration continues during this sequence.

Advantages

- Filter fineness down to 50 µm
- Throughput as high as 10.000 m³ / h (44,000 gpm)
- Simple and robust

Fluids Filtered

- River water, process water, cooling water, waste water, well water



Filtration

The fluid to be filtered is pumped through the inlet piping located in the bottom of the pressure vessel and is directed to the inside of the filter candles which are fastened to the perforated disc. The filtrate exits through the outlet pipe. An automatic vent removes any gas or air bubbles. Solid contaminants are retained on the inside surface of the candles and flow resistance gradually increases.

Backwashing

As soon as the preset pressure differential is reached or a preselected time interval elapses, a backwashing sequence is triggered. The backwash rotor at the bottom of the inside of the vessel isolates one or alternatively two candles at a time, while the other candles continue to filter. Candles that are isolated for backwash by the rotor received outside-in (reverse) flow from the backwash valve. Following a full rotation of the backwash rotor, the backwash process is complete and the backwash valve is closed.

Operating principle

