

Filtration Group Application example – Cooling Water Treatment

FG Backflush filter R5-8 for cooling water applications



Factory Equipment

Initial situation

Cooling water systems for removal of surplus heat are found in all sectors. Alongside the standard application cases in thermal power plants and the installations of the chemical industry, the spectrum of applications spans from machine cooling in the production industry to air-conditioning systems in buildings and the cooling of computer centers. The water used must, on top of chemical stability, have the smallest possible particle load in order to preserve the system components and protect against damages.

Solution statement

- Fully automatic backflush filter R5-8 variable segment cleaning with internal medium
- Large filter sizes in combination with high backflush energy ensure reliable filtration even in the event of strongly varying particle loads
- The compact design requires a small amount of space and allows for simple integration into existing systems
- By having minimal flush volumes the overall hydraulic system is not disturbed
- A selection of materials optimal for the relevant application reliably reduces corrosion and wear



Customer value

- Lower maintenance costs increase uptime and reduce operating costs
- Lessened wear of the components reduces the need for replacement
- Automation of the removal of contaminants enables unmanned operation
- Reliable avoidance of system downtime due to intake of particles
- Reliable filtration increases the process reliability of the entire cooling system

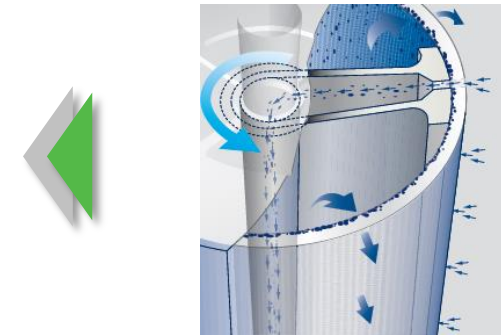


Challenge

The automatic backflush filter is common as a cooling water filter in a recooling cycle, in which a heat exchanger must be protected from contamination. The undesired particles result from the open or semi-open cooling tower, in which the intake of particles comes from the surrounding air. The particular challenge for cooling water systems is how particles are introduced differently depending on region and season. Alongside the variability of the quantity, it is the qualitative variance of the load in particular that necessitates an especially high-performance and reliable filtration system.

Technical data

- Medium: 150 m³/h water
- Filter fineness: 200 µm
- Filter size: 14,750 cm³
- Process temperature: 40 °C
- Flush volume/time: approx. 40 l / 11 sec.



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