PARTICULATE FILTER ASSEMBLIES

Duplex filters are installed directly into the hydraulic line and utilize a manual selector valve to reroute the flow of hydraulic fluid between two filter elements making it possible to change hydraulic filter elements without machine shutdown. FG Fluid Solution's patented design of the selector valve allows for single-hand control and smooth operation. The FG duplex selector valve is known throughout the world for its robustness and ease of use. The duplex filter design allows the filter to do its job during scheduled maintenance without interruption to hydraulic flow when a critical operational shutdown is unacceptable.

FG Fluid Solutions Automatic Filters are capable of self-cleaning without interrupting the filtration process, making these units extremely useful in a large number of industries. The filter is cleaned either when a preset differential pressure limit is reached or after a specified cycle time elapses. Cleaning is accomplished by rotating the filter against a spring actuated scraper or exerting a back-flushing pressure onto the filter.



Self-Cleaning Automatic Filters

To remain competitive, companies across all industries need production processes that maintain the strictest quality standards and fully utilize their production capacities. The constant ingress of particles during process manufacturing requires an automatic filtration system for continuous particle removal.

Self-cleaning automatic filters from Filtration Group allow high-performance, economical filtration of liquids, pastes, and similar substances, to ensure optimal product quality and keep production running smoothly. The self-cleaning function of FG Fluid Solutions automatic metaledge filters and backflush filters runs without interrupting the filtration operation.

Applications

Cooling Tower

Water Treatment

Features

Optional integrated prefiltration

Optional design available for high temperatures up to $750^\circ\,\text{F}\,/\,400^\circ$ C

Volume flow rates up to 4,000 gpm / 900 m³ / h

Benefits

Removes coarse particles and foreign objects

Ideal for harsh environments





Available in an assortment of pressures and configurations. For more information contact technical services at 1.800.241.2342.



FG Fluid Solutions

FG Fluid Solutions automatic metal-edge filters provide efficient mechanical cleaning of the filter surface. Rugged FG Fluid Solutions metal-edge filter elements made from triangular stainless steel wire on a robust core element are used as filter media. Automatic metal-edge filters are ideally suited for low- to high-viscosity liquids and pastes, and can also be used reliably at higher operating pressures and filter ratings >100 µm.

FG Fluid Solutions Automatic Backflush Filters

FG Fluid Solutions automatic backflush filters will reliably clean the filter surface by means of temporary or partial reverse flow. The backflush filters provide efficient filter cleaning without interrupting filtration. High-quality, asymmetric filter media made of multilayer stainless steel wire mesh on a robust core element is used for this purpose.



Self-Cleaning Automatic Filters

Operating principles of the FG Fluid Solutions Self-Cleaning Automatic Filters



01 AF 7x automatic metal-edge filter with radial scraper cleaning AF 9x automatic metal-edge filter with additional integrated prefiltration function

Continuous cleaning is achieved by rotating of the filter element against a spring-mounted scraper. Particles and agglomerates are lifted off the surface and fall into the collector cone, which is then emptied via the drain valve.



02 AF 15x automatic metal-edge and backflush filter with radial scraper cleaning and external pressure cleaning

Continuous cleaning is achieved by rotating the filter element past a springmounted scraper and blackflushing pressure head. As the filter turns, the backflushing head creates a pressure against the surface. The collected particulate material is lifted off the surface and falls into the collector cone, which is then emptied via the drain valve.



03 AF 11x automatic backflush filter with internal pressure cleaning and integrated prefiltration function

Continuous cleaning is achieved by rotating the filter element and backflushing the filter element with the filtrate. For efficient backflushing, there must be an operating overpressure on the outlet side. The collected particulate material is carried off via the scavenging channel. Coarse particles are removed from the collector cone via the drain valve.





04 AF 13x automatic backflush filter with external pressure cleaning Continuous cleaning is achieved by rotating the filter element while backflushing the element segmentby-segment with externally supplied pressure. The collected particulate material is rinsed from the surface and falls into the collector cone, which is then emptied via the drain valve.



05 AF 17x automatic filter with external pressure cleaning and integrated prefiltration function

Continuous cleaning is achieved by rotating the filter element while backflushing the element segment-bysegment with an externally supplied pressure source. The collected particulate material is carried off via the scavenging channel. Coarse particles are removed from the collector cone via the drain valve.



06 Rx automatic backflush filter with internal pressure cleaning

Continuous cleaning is achieved by rotating the rinsing nozzle and backflushing the filter element with the filtrate. For efficient backflushing, there must be an operating overpressure on the outlet side. The collected particulate material is carried off via the rinsing nozzle and rinsing valve.

