

SSF.LM – 50/28 Data Sheet



System Overview	<p>A skid-mounted bag filter sidestream filtration system designed to process a portion of the water from the main circuit through a polypropylene bag filter. The system includes a Grundfos circulation pump mounted on the skid, which draws water from the circuit, passes it through the bag filter, and generates enough pressure to return the filtered water back to the main circuit.</p> <p>The controller monitors the current load on the pump and relates this to pressure drop across the filter, and when a threshold setpoint is reached the system provides an alert. A Building Management System (BMS) signal is also available to indicate when the filter bag needs to be replaced and when the unit is in fault.</p>
System Volume	<36m ³
Filter	<ul style="list-style-type: none"> • 1 off Single length bag • 100% Polypropylene • Stable and predictable performance • Bags available in 5, 10, 25, 50 micron ratings • Maximum Temperature range: 100°C • pH Range: 4-10
Filter change	Recommended at $\Delta P < 1$ bar max
Filtration flow	20 - 28m ³ /h
Filter housing	316 Stainless Steel bag filter housing with 2 off pressure gauges and an auto air vent (AAV)
Magnet	Includes 2 off high strength magnets for metal oxide capture
Filter housing Drain	½" BSP with ball valve
Differential Pressure Set Point Range	Settable from 0.4 to 1 bar dP
Power Supply	415V 3ph+N+E, 10.6A
Pump Specification	Grundfos CM25-2 A-R-A-E-AQQE O-A-A-N Circulator 3.7kW, 10.6A @ 415V
Skid frame	Stainless Steel 304 base frame with screwed adjustable feet. Foot print: 710mm x 515mm O/A Height: 1320mm
Connections Inlet/Outlet	DN50/DN50
Max Operating Temp	90°C
Max Operating Pressure	10 Bar
Control	<p>Powder coated mild steel enclosure c/w Siemens Logo and HMI with onscreen 'System Status' Remote/Hand selector switch Lockable rotor isolator switch Pump Start/Stop LED push button switch Current Transducers offering –</p> <ul style="list-style-type: none"> • Filter blocking (differential Pressure) • Pump protection – Underload and Overload.
BMS	<p>BMS – Remote Link: Start/ Stop VFC – General Fault</p> <ul style="list-style-type: none"> • Bag Filter blocked • Pump Trip <p>VFC – Filter Change</p>
Beacon	Change Filter and Blocked/Tripped
Options	<ul style="list-style-type: none"> • Lagging Kit • Tundish and valve for 'Dosing pot' conversion



The diagram illustrates the VFC system components and their interconnections:

- Controller:** A central unit receiving inputs from the BMS (Supply 230/1/50, VFC Bag Change, VFC Fault, BMS Run/Stop) and controlling the Motor.
- Motor:** A circular component with a black triangle inside, driven by the Controller. It is connected to the VFC vessel via a line with two valves and a pressure gauge.
- VFC Vessel:** A vertical cylindrical tank with a domed top and a vent. It features a pressure gauge on the upper section and a bottom outlet with a valve. A side connection includes a valve and a line leading to a final outlet valve.

