Automatic Brush Filter

VAF's revolutionary self-cleaning screen filters enable high quality filtering at degrees of 100 to 4000 micron from different types of fluid sources, such as sewage, reservoirs, rivers, lakes and bores.

Brush Filter Specifications

Materials

Filter Body	• Carbon Steel coated with baked on epoxy
Screen	• 316 Wedgewire or Perf
Filtration Range	• 100 – 4000 micron
Flush Water Consumption (at min working pressure)	• 70 litres
Max Pressure	• 10 bar (145psi)
Min Pressure	• 1 bar (15psi)
Max Temp	• 65°C
Flush Cycle	• 5 – 15 Seconds
Electrical	• 3 phase 0.5hp • Motor 220/440 VAC • Flush Valve 24 VAC

VAF MODEL	Max Flow Rate* (m^3/hr)	Max Flow Rate* (gpm)	Screen Area (cm^2)	Screen Area (in^2)	Flg Sizes
BE-500-04-XXX	80	350	2910	450	4"
BE-800-06-XXX	160	700	4190	650	6"
BE-1000-08-XXX	300	1300	5470	848	8"
BE-1100-08-XXX	430	1900	5880	911	8"
BE-1500-10-XXX	450	2000	5580	911	10"
BE-3000-12-XXX	650	2900	7630	1183	12"
BE-3300-14-XXX	900	3960	7630	1183	14"
BE-4500-16-XXX	1100	4800	11145	1728	16"

*Max flow rate is based on 200 micron filtration – Wedgewire
Flow rate increases as micron increases
XXX = Micron Size

Filtration

Water enters the filter through the “Inlet” (1) and passes through the fine screen (2), which purifies the flow by separating the smaller particles from the water. As more water flows through, impurities build up on the fine screen. As impurities on the screen accumulate, a pressure imbalance is built up between the internal section of the fine screen (2) and its external section.

Cleaning Process

When the difference in pressure reaches the pre-set value on the differential pressure indicator, or the duel time between flushing passed, a series of events is triggered while water continues to flow to the system units. The controller transmits a signal for a 10 second flushing cycle. The flushing valve (4) opens, pressure is released from the inner side of the fine screen (2), the electric motor (5) simultaneously rotates the brushes (3) around its axis. The brushes wipe all of the dirt and efficiently clean the entire internal screen (3) surface.

At the end of the 10 second cycle, the flushing valve (4) closes and the operation of the electric motor (5) is stopped. The filter is now ready for the next cycle, with clean filtered water flowing through the “Outlet” (6).

The 10 second flushing cycle resumes operation whenever the difference in pressure reaches the preset pressure value set on the differential pressure indicator. If the pressure difference remains unchanged after one cycle, another cycle will start after a delay of 10 seconds.

1. Inlet
2. Fine Screen
3. Brush
4. Flushing Valve
5. Electric Motor
6. Outlet