

Fig. 1 Filter system GENO-mat® F 600 A

Designated application

The system is designed for the filtration of pool water in private swimming pools, whirlpools or ornamental pools. Other applications (e. g. well or circulation filtration) are possible upon consultation with Grünbeck.

Function

Filtration

The pool water sucked in by means of a circulation pump is delivered into the filter via the distribution system at the top. The pool water flows through the filter layers from top to bottom, and the top and the bottom distribution systems make sure that the filter material is flown through equally. While flowing through the filter layers, even the finest dirt particles are being filtered from the water. The filtered water flows through the bottom distribution system which is equipped with small slots and is then returned to the pool.

Backwash

Due to the dirt retained, the indicated pressure (pressure gauge) at the filter system increases. If the pressure increases by 0.2 – 0.3 bar above the initial pressure, the filter has to be backwashed. For hygienic reasons, however, a backwash has to take place at least once a week. Depending on the degree of pollution, the backwash process takes about two to three minutes. Furthermore, we recommend a backwash before and after longer periods of standstill. The timer-controlled backwash is initiated by the GENO®-BW-tronic but can just as well be released manually or by differential pressure control (option). The automatic multi-way valve deviates the rinsing water in a way that it flows into the filter via the bottom distribution system. That way, the various filter layers are lifted, flown through and the dirt particles are discharged to the drain via the top distribution system.

The backwash water flowing from the tank can be monitored through a transparent piece of pipe. According to DIN EN 1717, the rinsing water pipe leading

to the drain pipe must have a free outlet.

Rinsing

During the rinsing process (approx. 0.8 min.), the remaining dirt as well as abrasions of the filter material are discharged to the drain. This process works from top to bottom, in the same way as during filtration.

Draining

By means of the circulation pump, the pool volume is delivered to the drain. Avoid suction of air.

Design

Filter tank made of glass fibre reinforced plastic (GRP), completely pre-assembled, manual aeration and deaeration.

Control unit GENO®-BW-tronic (only RC version) for semi or fully automatic operation of filter system via timer programming. Display and operation via keypad and 4-line, backlit LC display, 6 languages to choose from. The control unit is equipped with a two-point temperature controller, incl. voltage-free outlet and serial interface RS 485.

Automatic multi-way valve DN 40 (Ø 50 mm), version with automatic actuator.

Circulation pump made of plastic, low-noise model with integrated hair and fibre strainer. The circulation pump should be installed below the water surface. In exceptional cases, the circulation pump may be installed max. 2 m above the water surface.

Scope of supply

Complete filter system, pre-assembled and wired on base plate, incl. control unit GENO®-BW-tronic, circulation pump, automatic multi-way valve and operation manual.

Accessories

Quartz sand filter filling F 500

Order no. 200 840

AFM filter filling F 500 (glass granulate)

Order no. 240 180

**GENO-mat® F
500/600/610 A; AC/RC**

Quartz sand filter filling F 600

Order no. 200 560

AFM filter filling F 600 (glass granulate)

Order no. 241 800

Hydro-anthrasite filter filling F 600

Order no. 200 565

Quartz sand filter filling F 610

Order no. 242 185

AFM filter filling F 610 (glass granulate)

Order no. 242 180

Hydro-anthrasite filter filling F 610

Order no. 242 190

Differential pressure switch

500/600/610 A/AK

For automatic release of a demand dependent backwash (0.16-1.6 bar).

Order no. - Please inquire

Remote control

GENO®-BW-tip-control

Simplified remote control for GENO®-BW-tronic, the most important functions can be selected by pressing a button.

Order no. 208 645

Touch panel 5.7"

Remote control resp. remote display of all relevant components to interconnect the GENO®-BW-tronic and the measuring and control unit GENO®-CPR-tronic 02.

Order no. 203 545

Installation requirements

Please observe local installation directives, general guidelines and technical specifications. The installation has to be made by a specialist. The installation site must be sufficiently ventilated, should be frost-proof and must not be prone to flooding. Drainage respectively a floor drain (DN 100) is required. The system must be easily accessible for maintenance and repair purposes. A minimum room height of 1200, 1600 or 1800 mm is required for the replacement of the filter material.

Technical specifications/Dimensions	Filter system GENO-mat® F					
	500 A; RC	500 A; AC	600 A; RC	600 A; AC	610 A; RC	610 A; AC
Connection data						
Nominal connection diameter	R 2" / DN 40			R 2" / DN 50		
Nominal diameter of drain connection	DN 100					
Filter pump	GENO®-Top 8		GENO®-Top 14		GENO®-Top 20	
Power supply [V]/[Hz]	400 / 50	230 / 50	400 / 50	230 / 50	400 / 50	230 / 50
Protection/protection class	IP 54/I					
Power input of motor [kW]	0.48	0.58	0.90	0.97	1.32	1.37
Current input* [A]	1.2	3.2	2.1	5.7	3.0	7.4
Fuse protection by others [A]	10			16		
Performance data						
Max. nominal pressure [bar]	2					
Filter/backwash capacity [m³/h]	6/8		12/15		15/20	
Pump capacity (at 8 mWC) [m³/h]	8.5		14		20	
Max. pool volume [m³]	35		70		100	
Max. suction height [m]	2					
Dimensions and weights						
A Height of filter system [mm]	1025		1250		1420	
B Width of filter system [mm]	517		700		741	
C Depth of filter system [mm]	831		915		946	
D Height of drain connection [mm]	692		523		723	
E Min. room height [mm]	1200		1600		1800	
F Height of suction connection [mm]	198					
G Height of pool return [mm]	692		523		723	
H Offset suction connection/ pool return [mm]	-		71		71	
J Operating height [mm]	960		1160		1300	
Empty weight [kg]	41		50		58	
Filter tank Ø [mm]	510		630			
Ambient data						
Max. temperature [°C]	40					
Order no.	240 450	240 470	241 450	241 470	242 450	242 470

* According to the standards, the nominal power of pumps (< 1.3 kW) may be 20 % above the indications by the manufacturer (indicated on the type designation plate); this tolerance has been taken into consideration in the control unit GENO®-BW-tronic and above table.

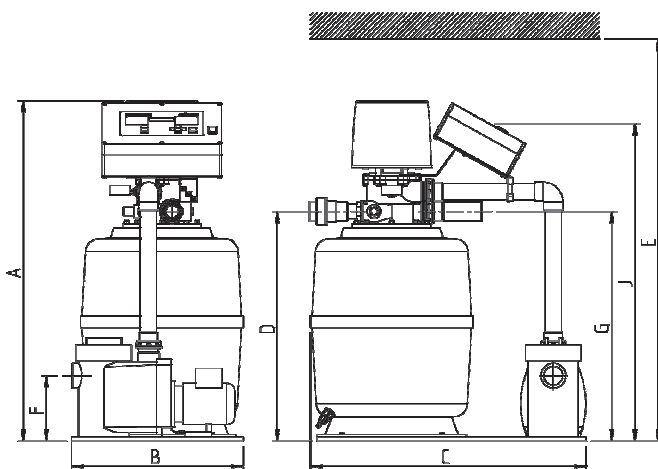


Fig. 2 Dimensional drawing of filter system GENO-mat® F 500 A

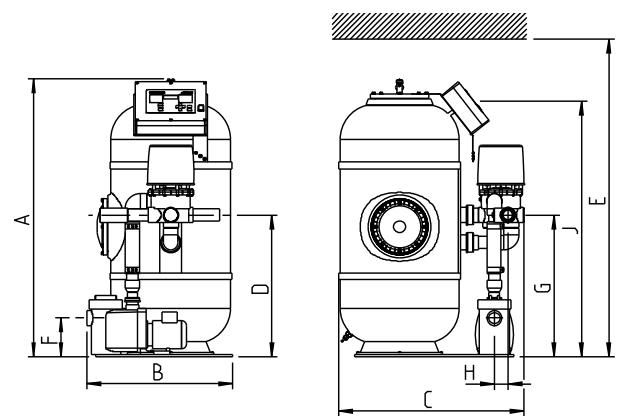


Fig. 3 Dimensional drawing of filter system GENO-mat® F 610 A