

HydroFIL®

Activated Carbon Cartridge Filter

Type: AKF

Application

Activated carbon cartridge filters are used for removal of chlorine from drinking water and for reverse osmosis systems pre-treatment.

The water to be filtered should preferably be free from any mechanical contaminants.

Due to the surface reaction of the activated carbon with the still free activated chlorine in drinking water, chloride is produced that does not charge the activated carbon. The chloride is discharged with the water. The surface reaction is subsequently reduced by the dirt particles in the water.

Design

Activated carbon filter consisting of stainless steel filter housing, equipped with cartridges, to be used for water treatment. The activated carbon filter cartridges are characterised by a low pressure drop, high dirt absorption capacity and a large activated carbon contact surface.

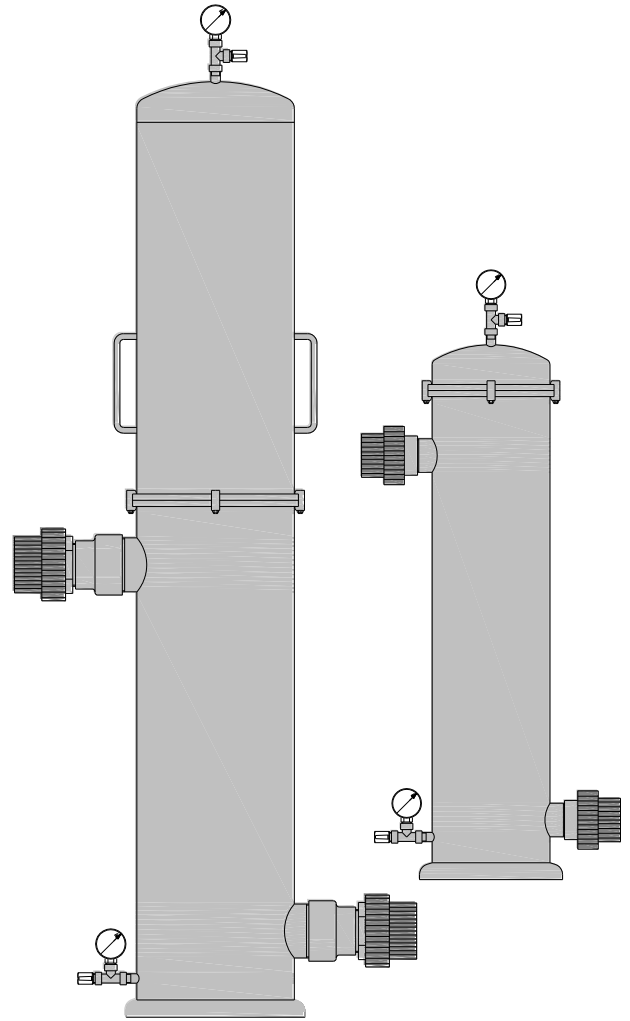
The water to be filtered gets inside the casing passing the inlet nozzle and flows through the cartridges from outside to inside, leaving the filter purified through the outlet. Foreign particulates are kept back on the outside of the filter cartridges.

The filter is equipped with a removable filter top for the ease of cartridge element replacement. The local mains water supply can be connected easily to the inlet and outlet of the filter. Ventilation valves support a service friendly replacement of filter cartridges and enable an optimal commissioning.

The filter has to be installed upright in the local pipe. The connections on inlet and outlet of the filter are designed as screw connection with adhesive union.

The pressure conditions can be controlled by the inlet and outlet pressure gauges.

Should the residual chlorine contents exceed 0.05 mg/l in the filtered water then the activated carbon filter cartridges must be replaced. Such replacement is necessary after 6 months at the latest.



Scope of Delivery

HydroFIL® activated carbon filter cartridge consisting of:

- 1 x stainless steel filter housing
- 1 x ventilation valve on filter head
- 1 x drain valve
- 2 x pressure gauge (inlet / outlet)
- 2 x stainless steel screw connection (inlet / outlet)
- 2 x connection (for local pipe) with PVC-adhesive union (see table for nominal width)

filter cartridges – size, fineness and quantity according to filter size (see table technical data)

1 x manual

Note / Installation Conditions

- Technical data and general technical standards as well as the local installation conditions are to be observed
- Installation of filter cartridge according to DIN 1988 part 2.
- The ambient temperature and possible radiation heat may not exceed 40°C.
- The place of installation has to be frost protected.
- The installation site has to be free from solvent, colour, lacquer, and chemical fumes.
- Particulate removal filter should be installed upstream of the carbon filter to prevent unwanted coarse materials from entering the carbon filter.
- All pipework connections should be made pressure and tension free.
- Free access to the unit must be provided.

Technical Data

HydroFIL®		AKF 1.5	AKF 3.0	AKF 5.0	AKF 7.0	AKF 9.0	AKF 13.0
Connection inlet / outlet (adhesive union)		DN 40	DN 40	DN 50	DN 50	DN 50	DN 50
Nominal pressure		PN 10					
Operating pressure	bar	2.5 - 8					
Pressure drop at max. flow	bar	0.25					
Max. water / ambient temperature	°C	30 / 40					
Mesh size	µm	10	5	5	5	5	5
Flow capacity	l/h	1500 (0.42l/s)	3000 (0.83l/s)	5000 (1.38l/s)	7000 (1.94l/s)	9000 (2.5l/s)	13000 (3.6l/s)
Activated carbon filter cartridge (height)		20"	40"	40"	40"	40"	40"
Number ac filter cartridges	pieces	3	3	5	7	9	13
Height H maximum	mm	870	1375	1343	1410	1420	1445
Height H1	mm	605	605	598	630	270	280
Height H2	mm	85	85	78	120	120	130
Height H2	mm	520	520	520	510	150	150
Width B	mm	370 ± 10	370 ± 10	440 ± 10	560 ± 10	620 ± 10	730 ± 10
Depth T max.	mm	210	210	260	260	305	410
Operating weight ca.	kg	35	54	87	89	125	205

HydroFIL® AKF Activated Carbon Cartridge Filter Dimensions

Example: HydroFIL® AKF 1.5
(height of filter cartridge 20")

HydroFIL® AKF 3.0 - 13.0
(height of filter cartridge 40")

