

## HydroSOLV® MS 3678 C - 2H Multilayer filter

### Application

**HydroSOLV® MS** is used for treatment of highly contaminated raw water with suspended solids. Solid particles, which are larger than the spaces between the filter bed, are mechanically retained. By combining of several filter materials, the absorption capacity of the system is increased and prevents blocking of the filter. Finest turbidity can also be removed partially by binding to the surface of the filter material.

An application field for example is the treatment of drinking water from a fountain with high proportion of suspended solids.

The **HydroSOLV® MS** is designed and constructed as single-tank filter and comprises a pressure vessel used to treat the incoming water.

### Operation

Operation of **HydroSOLV® MS** multilayer filter is according to the equal-flow method in three steps:

- **Operation = Multilayer filtration**  
The water to be treated is passing the **HydroSOLV® MS** from top to below.
- **Backwash**  
The filter bed is flushed from below to top and loosened up as well as contamination flushed out.
- **Rinse**  
Water is passing the filter bed from top to below whereby any remaining contamination is flushed out and the filter bed is compacted again

The **HydroSOLV® MS** multilayer filtration is again ready for operation.

### Description / Scope of supply

**HydroSOLV® MS** multilayer filter system consisting of:

- 1 Pressure vessel of corrosion resistant GRP and additional vessel mount
- Anthracite filter material grain size 0.8 – 1.6 mm
- Quartz gravel grain sizes 0.4 – 0.8 mm and 1.0 – 2.0 mm
- Control valve with electronics and digital display
- Mains water barrier/locking in the output (option)
- Fittings: proportional ball valve (DLFC)
- O&M manual



fig. 1 – HydroSOLV® MS Multilayer filtration

### Note / Installation conditions

- Technical data and general technical regulations as well as the local installation shall be kept
- Installation site shall be frost-free
- The ambient temperature shall not drop below 5°C and not exceed 40°C. Any radiation heat shall not exceed a temperature of 40°C as well
- A free discharge to the drainage system as per EN 1717 (DIN 1988) for waste water in accordance with the discharge volume shall be provided locally
- Installation shall be located on even floor with level tolerances as per DIN 18202
- A 230 V, 50 Hz, 3 A fused spur shall be provided locally
- The installation site shall be free from solvent, colour and lacquer vapour
- There shall be no pull, compressive or torsional forces to the connection points.
- In order to avoid flooding by leakage, the installation shall be provided with ground drainage discharge or leakage monitor with corresponding alarm

## Technical data

HydroSOLV®			MS – C – 2H
Type			3678
Connection inlet / outlet			DN 50 (2" female thread)
Connection waste water			DN 50 (2")
Drain line (min.)			DN 100
Electrical connection			230 V / 50 Hz
Connected load			24 V DC / 800 mA
Operational pressure min. / max.	bar	2.5 / 8	
Water temperature min. / max.	°C	5 / 30	
Ambient temperature min. / max.	°C	5 / 40	
Filter vessel volume	ltr.	1020	
Diameter filter vessel	mm	927	
Filling			
Anthracite filter material (0.8 – 1.6 mm)	ltr.	140	
Quartz gravel (1 – 2 mm)	kg	200	
Quartz gravel (0.4 – 0.8 mm)	kg	250	
Backwash	min	10	
Rinse	min	5	
Flow *)	m³/h	7	
Min. required backwash flow volume	m³/h	25	
Backwash water volume	m³	6.25	
Dimensions			
Height max.	H	mm	2490
Height pressure tank	H1	mm	2155
Height inlet control valve	H2	mm	2325
Height outlet control valve	H3	mm	2415
Ceiling height	H4	mm	2890
Width max.	B	mm	927
Depth max.	T	mm	927
Operational weight max.	kg	1240	

tab. 1 – technical data

\*) Actual flow dependent on water quality and local installation

## Dimensional drawing

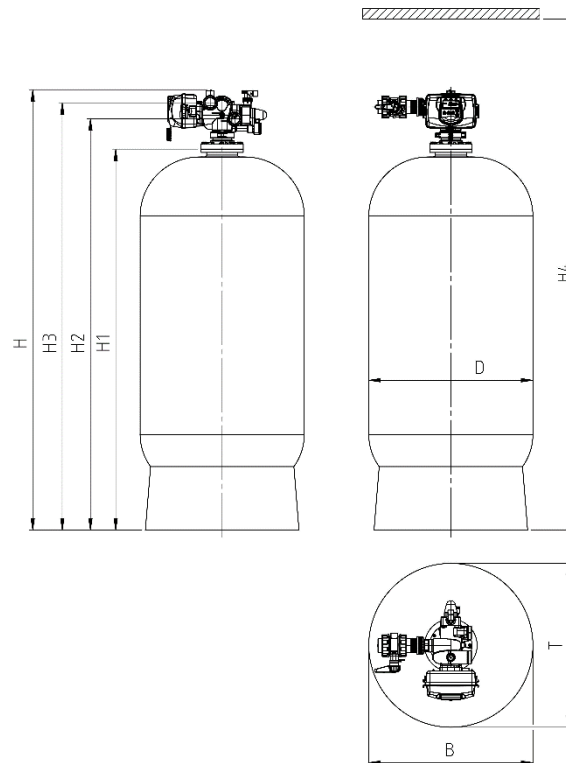


fig. 2 – dimensional drawing