

HYDROSOLV®

Type: GS

Application

HYDROSOLV® GS systems especially developed and designed for the manganese removal from well water.

The special filter material is acting as a catalyst. Dissolved iron and manganese is oxidizing to a settling shape when contacting the surface of the special filter material. Hydrogen sulfide is formed to insoluble sulfur by oxidation and settles as well on the filter material.

If the oxidation potential of the filter bed is exhausted, backwash is performed. An additional step is a regeneration of the filter material by means of a weak potassium permanganate solution; the settled matter is washed out of the system and special filter material re-activated.

The below conditions must be guaranteed for an optimum operation of the system:

- The pH-value shall be between 6.5 and 8.2
- The well water must be free from oil and include only few traces of hydrogen sulfite
- The amount of organic substances shall not exceed 4-5 mg/l
- The pH-value shall be > 7.0 (on request, the pH-value must be increased by corresponding measurement)
- Regular backwash guarantees free absorption capacity of the filter material. Operation with exhausted filter material reduces the lifetime of the system and causes discoloration of the water.

The below limit values as stipulated by the drinking water regulation can thus be kept:

- Manganese max. 0.05 mg/l
- Iron max. 0.2 mg/l

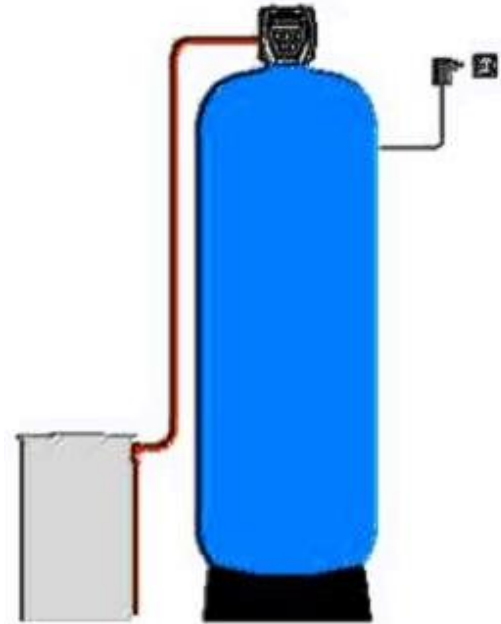
Function

HYDROSOLV® filter designed and constructed as single vessel filter.

A fully automatic operation is guaranteed by a modern and efficient micro processor control. Backwash is preferably with time control and, on request, with volume control as an option.

The following functions and display monitoring can be requested and retrieved via the control:

Diagnose mode
Days since last backwash
Flow (size DN 25 only)
History



Description / Scope of supply

HYDROSOLV® filter consisting of:

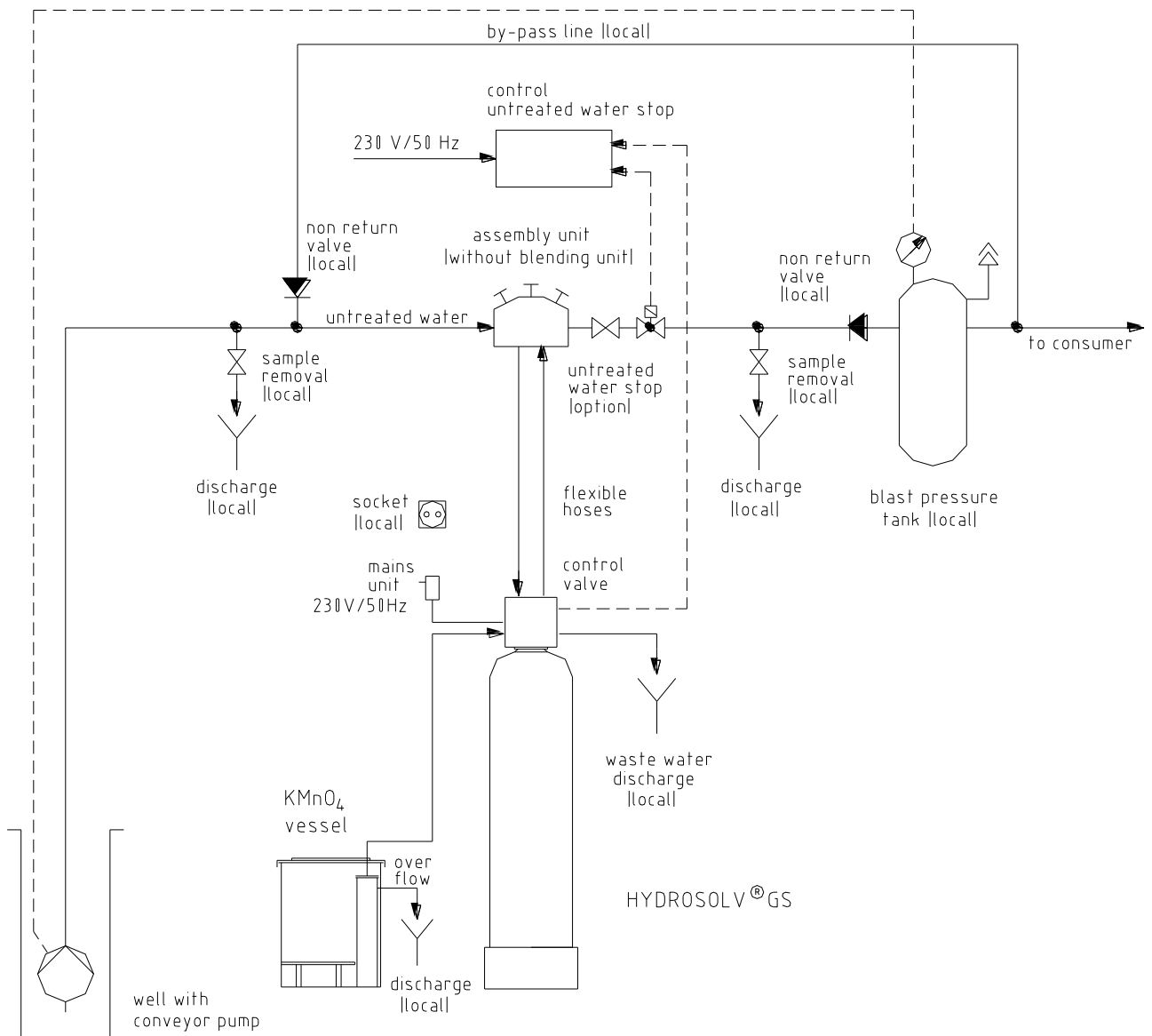
- 1 x pressure vessel
- 1 x filter material (special filter material, quartz gravel)
- 1 x central control valve
 - 1" - plastic (Noryl)
 - 1 ½" – brass with epoxy resin coating
- 1 x vane-type water meter (DN 25 only)
- 1 x throttle valve to adjust the volume flow
- 1 x plug mains unit
- 1 x O&M

Accessories

- Assembly mount DN 25 (excluding blending) – Art. no. 510.016
- Assembly mount DN 40 (excluding blending) – Art. no. 511.100
- Flexible hoses 1" – Art. no. 001.034
- Flexible hoses 1 ½" – Art. no. 001.038
- Untreated water stop DN 25 – Art. no. 550.145
- Untreated water stop DN 40 – Art. no. 520.156
- Vane-type water meter DN 40 – Art. no. 590.446
- Measuring kit iron – Art. no. 500.005
- Measuring kit manganese – Art. no. 500.006
- REGULAN® Oxi

Note / conditions for installation

- The technical data and any general technical regulations as well as local installation rules shall be considered and guaranteed.
- The ambient temperature as well as any possible radiation heat shall not exceed 40°C.
- The installation site shall be resistant to frost.
- The installation site shall be free from fumes from solvents, color, lacquer and chemicals.
- A mains socket (230 V / 50 Hz) shall be provided adjacent to the system.
- A drain shall be provided (DN100) for backwash water.
- When using a lifting appliance, the size shall be adapted to the waste water volume.



HYDROTEC

Hydrotec House, 5 Manor Courtyard, Hughenden Avenue
High Wycombe, Bucks HP13 5RE

T: 01494 796040 F: 01494 796049 E: sales@hydrotec.co.uk

www.hydrotec.co.uk

Technical data		HYDROSOLV® GS						
Type		1054	1354	1465	1665	1865	2162	2472
Connection feed / outlet		DN 25 (R 1" M)					DN 40 (R 1 1/2" F)	
Connection waste water		3/4"	3/4"	1"	1"	1"	1"	1"
Drain line (min.)		DN 100						
Connected load		230 V / 50 Hz AC						
Electrical connection		12 V AC / 500 mA						
Operational pressure min. / max.		2,0 bar / 8,0 bar						
Water temperature min. / max.		5 °C / 30 °C						
Ambient temperature max.		5 °C / 40 °C						
Resin vessel volume	Ltr.	63	105	150	194	257	330	473
Diameter pressure tank	mm	257	336	363	413	486	550	626
Vessel volume (KMnO4)	Ltr.	18	18	18	85	85	85	85
Vessel dimensions (KMnO4)	mm	D 245	D 245	D 245	380x380	380x380	380x380	380x380
Vessel height (KMnO4)	mm	ca. 420	ca. 420	ca. 420	790	790	790	790
Filling								
Greensand filter material	Ltr.	28	56	84	112	140	168	224
Quartz gravel (1 - 2 mm)	kg	12.5	12.5	25	25	38	50	75
Backwash	Min.	10	10	10	10	10	10	10
Draw and Slow Rinse	Min.	48	50	66	68	64	68	62
Rinse	Min.	5	5	5	5	5	5	5
Flow *)	m³/h	1.0	1.5	2.2	3.0	3.5	4.5	5.0
Min. required backwash flow volume	m³/h	1.7	2.5	3.4	3.9	5.7	7.1	9.2
Backwash water volume	m³	0.5	0.7	1.0	1.2	1.7	1.8	2.8
Dimensions								
H = Height max.	mm	1800	1800	2100	2100	2150	2150	2350
H1 = Height pressure tank	mm	1386	1393	1674	1671	1722	1721	1915
H2 = Height feed / outlet control valve	mm	1441	1448	1729	1726	1777	1786	1980
H3 = Height with control valve	mm	1566	1573	1854	1851	1902	1901	2095
B = Width max.	mm	700	720	750	900	950	1100	1150
T = Depth max.	mm	300	350	380	420	500	600	650
Operational weight max.	kg	89	151	222	285	376	477	664

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

Note: Technical layout necessary.

HYDROTEC

Hydrotec House, 5 Manor Courtyard, Hughenden Avenue
High Wycombe, Bucks HP13 5RE
T: 01494 796040 F: 01494 796049 E: sales@hydrotec.co.uk
www.hydrotec.co.uk



Dimensions HYDROSOLV® GS

