

Sand and Media filters

Advantages of sand bed filtration:

Sand bed filters have an excellent depth filtration with a large dirt-retaining capacity. Those qualities make that the filter can operate for a long time between backflush cycles. Sand filters are excellent for filtering suspended organic contamination.

Advantages of UDI:

The combination of steel strength and resistant plastic allows for a wide range of applications, with a high working pressure (up to 8 bar).

UDI media filters use a unique design of a two chambers, divided by a welded reinforced steel plate. The upper chamber contains the media (sand), the lower chamber is empty and collects the filtered water. The plate is covered by "mushroom" diffusers which are plastic, slotted conical units. They disperse the water uniformly, using effectively the whole media volume avoiding the occurrence of channeling or caking when operated correctly. This filter is particularly suitable for backflushing - a process involving the reversal of the water flow, causing a turbulent expansion of the media as a fluidised bed. This flushes out the entrapped debris effectively. After the backflushing is completed, the filter resumes its normal filtering mode as clean as a new filter. The backflushing process can be activated manually or automatically by controller or computer.

The filters are provided with large service openings for inspection and service.

The **UDI** horizontal sand filter has two rows of filter plugs mounted on a low-lying central pipe. This results in a fairly thick filter bed with a relatively large surface. The additional manhole allows for easy changing of the filling and/or the central pipe.

The **UDI** high-bed (multi)media filters have a filter bottom with removable filter plugs. The raised filter bed results in more contact time with the medium, which provides the possibility of achieving higher capacities. In addition, it is possible to use more layers as a filter medium, which increases capacity and/or enhances quality. These filters are provided with enough manholes to allow for easy inspections and changing of the filter material.

All models can be modularly joined, in conjunction with appropriate flush valves, to form units of any shape and capacity and for continuous service.

To this end, a comprehensive range of fittings, connectors, and rapid couplings of the same make is available.

Coating:

In preparation for the coating to be applied, the filters are provided with a special layer of zinc phosphate. This treatment ensures proper adhesion of the coating, and protects against rusting-through from the inside. Subsequently, the polyester coating is applied electrostatically, both internally and externally, before being furnace-hardened. The entire process involves 7 steps, and results in a perfect coating with a thickness of approximately 120 microns.



Sand and Media filters 4000 series (small) Technical data

Model:

Vertical cylinder with filter bottom, standing on ring base or support legs.

Applications:

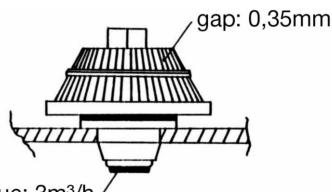
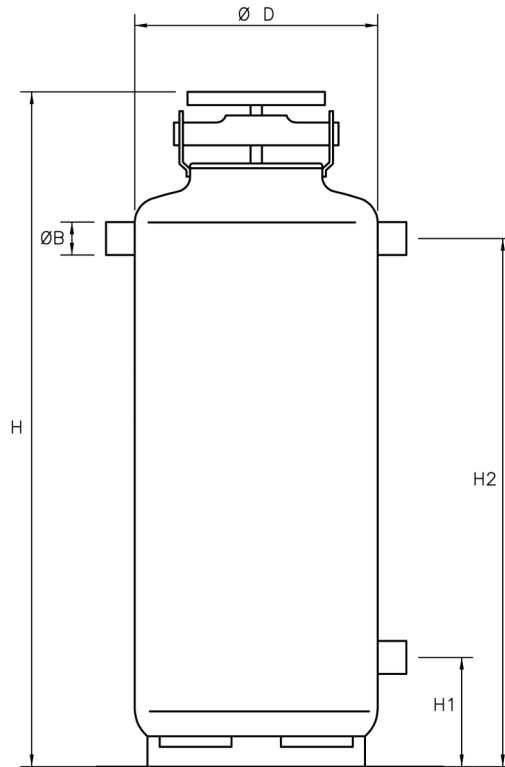
- Pre-filtration of disinfection equipment
- Preparation for micro and ultrafiltration
- Recirculation systems
- Cooling water processes
- Irrigation systems
- Swimming pool filtration
- Basin water filtration
- Groundwater purification

Technical specifications:

- Max pressure: 10 bar
- Working pressure: 8 bar
- Maximum ΔP : 0.5 bar
- Ph 5 - 9 resistant

Materials:

- Polyester-coated steel
- Neoprene rubbers
- Polypropylene filter plugs



kV-value: 3m³/h

Type	Unit	4U4121	4U41615	4U4202	4U4242
Diameter D	inch	12"	16"	20"	24"
Capacity	m ³ /h	3,5	6,5	10	14
Connection B	inch	1"	1,5"	2"	2"
H	mm	1200	1200	1200	1330
H1	mm	120	180	180	245
H2	mm	775	870	880	935
Weight	kg	42	50	70	90
Mushroom diffusers	st	6	9	14	20
Filter-bed height	cm	45	45	45	45
Filling-material (sand)	kg	50	75	125	200
Filling material	liter	30	55	90	130
Manholes		1 x 6"	1 x 8"	1 x 8"	1 x 8"
		1 x 4"	1 x 4"	1 x 6"	1 x 6"
Support legs	pcs	ring	ring	ring	3

Sand and Media filters 4000 series (large) Technical data

Model:

Vertical cylinder with filter bottom, standing on support legs.

Applications:

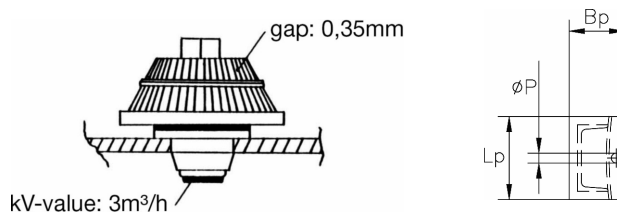
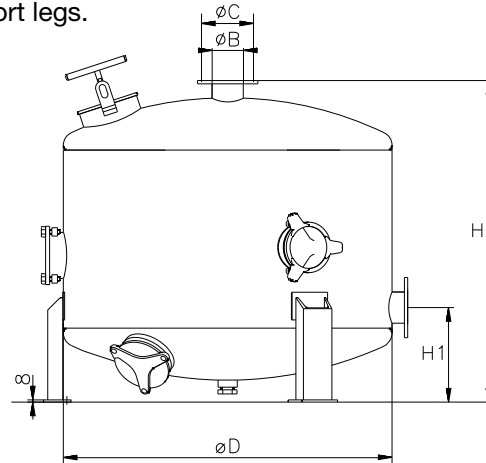
- Pre-filtration of disinfection equipment
- Preparation for micro and ultrafiltration
- Recirculation systems
- Cooling water processes
- Irrigation systems
- Swimming pool filtration
- Basin water filtration
- Groundwater purification

Technical specifications:

- Max pressure: 10 bar
- Working pressure: 8 bar
- Maximum ΔP : 0.5 bar
- Ph 5 - 9 resistant

Materials:

- Polyester-coated steel
- Neoprene rubbers
- Polypropylene filter plugs



Type	Unit	4U43025	4U4363	4U4423	4U4484	4U4604
Diameter D	inch	30"	36"	42"	48"	60"
Capacity	m ³ /h	22	32	45	58	90
Flange (ISO 7005 PN16)						
Connection B	inch	2,5"	3"	3"	4"	4"
Pitch C	mm	145	160	160	180	180
Holes	mm	4 x Ø18	8 x Ø18	8 x Ø18	8 x Ø18	8 x Ø18
H	mm	1070	1085	1100	1180	1470
H1	mm	310	320	335	345	510
Weight	kg	135	185	250	310	750
Mushroom diffusers	pcs	27	42	58	72	104
Filter-bed height	cm	40	40	40	40	40
Filling-material (sand)	kg	250	375	500	650	1000
Filling material	liter	180	260	350	450	700
Manholes		1 x 8"	1 x 8"	1 x 8"	2 x 8"	9 x 8"
		3 x 6"	3 x 6"	4 x 6"	3 x 6"	
Support legs	st	3	3	3	3	4
Lp	mm	110	110	150	150	150
Bp	mm	90	90	10	100	100
ØP	mm	18	18	18	18	18

Sand and Media filter 9000 series Technical data

Model:

Horizontal cylinder with central outlet pipe.

Applications:

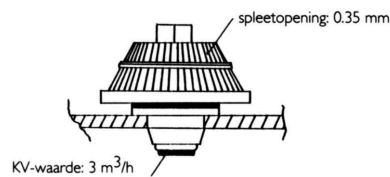
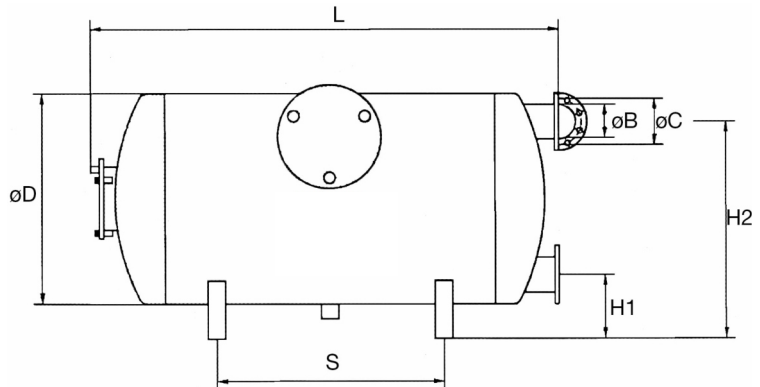
- Pre-filtration of disinfection equipment
- Preparation for micro and ultrafiltration
- Recirculation systems
- Cooling water processes
- Irrigation systems
- Swimming pool filtration
- Basin water filtration
- Groundwater purification

Technical specifications:

- Max pressure: 10 bar
- Working pressure: 8 bar
- Maximum ΔP : 0.5 bar
- Ph 5 - 9 resistant

Materials:

- Polyester-coated steel
- Neoprene rubbers
- Polypropylene filter plugs



Type	Unit	4U9202	4U9243
Diameter D	inch	20"	24"
Capacity	m ³ /h	22	32
Flange (ISO 7005 PN16)			
Connection B	inch	2,5"	3"
Pitch C	mm	145	160
Holes	mm	4 x Ø18	8 x Ø18
H1	mm	150	175
H2	mm	490	635
L	mm	1100	1400
S	mm	600	770
Weight	kg	80	103
Mushroom diffusers	pcs	16	18
Filling-material (sand)	cm	10	15
Filling material	kg	150	250
Manholes		2 x 8"	2 x 8"



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