



GRASPOINTNER
Sustainable innovation.



V-ALFATEC
BG-Graspointner Group



Protecting the
environment in
the best way.

Wastewater treatment

Plate oil-water separators
Bypass oil-water separators
Grease traps
BG-FILCOTEN green

Environmental protection systems



V-ALFATEC

BG-Graspointner Group



Jozef Vagovič, Director



The company was established in 2007 and is a member of the BG-Graspointner Group, manufacturing and selling plate interceptors, oil-water separators, grease traps, retention and accumulation tanks, water meter shafts and lifting plants, all of which provide major benefits as they help protect the environment.

Our products are used wherever surface water pollution is evident, whenever water needs to be cleaned and when removing dirt and impurities is critical. V-Alfatec's main goals include developing new technologies, maintaining progress in water treatment and providing advice about our products.

An important advantage our company offers is the variability of its technical solutions. We guarantee long-term value for our declared outputs and low-cost operations.

Oil-water separators manufactured from C35/45 XF4 reinforced concrete include three layers of protective polyurethane coating for excellent, trouble-free maintenance as they increase the concrete's resistance to oil while not absorbing any water. Outlets are fitted with automatic shutoff valves. These type interceptors separate spilled oil from wastewater and rainwater. They should be regularly inspected and maintained so they remain effective over the long term. Every separator is manufactured to EN 858-1.2 required parameters with a safety factor of 10. In today's climatic conditions, that means greater protection against overfilling and leaching into the surrounding landscape through the inlet shafts and hatches. Such a phenomenon is quite common in oil-water separators whose dimensions are too small and do not comply with required baseline parameters for storage volume, minimum separator area, trap volume and residence time.

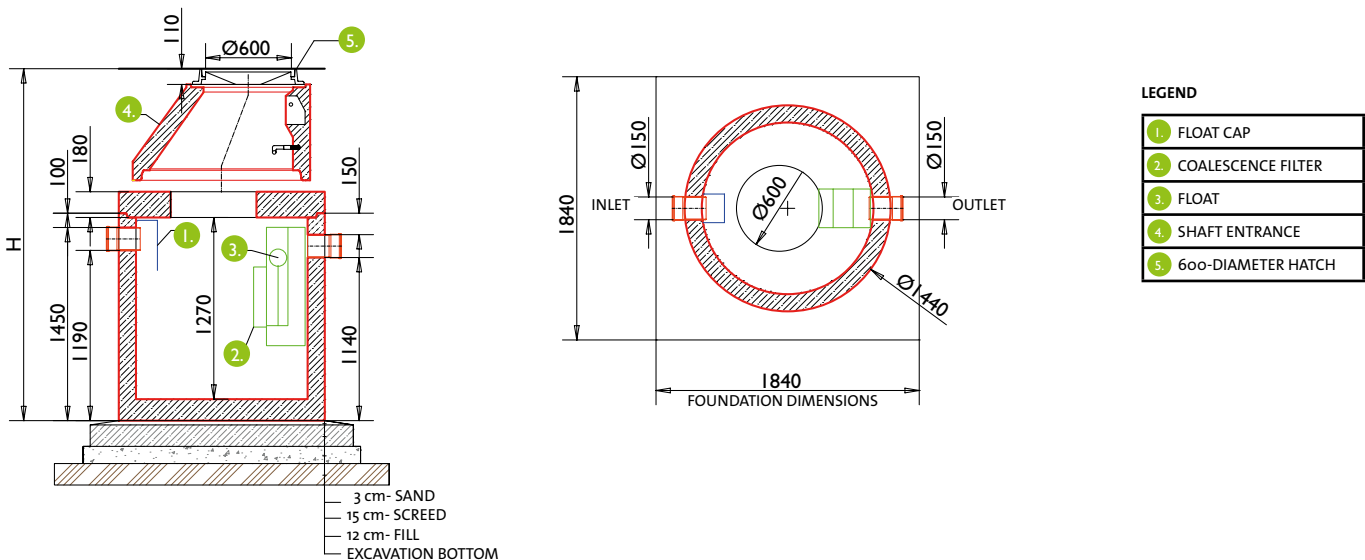
Features

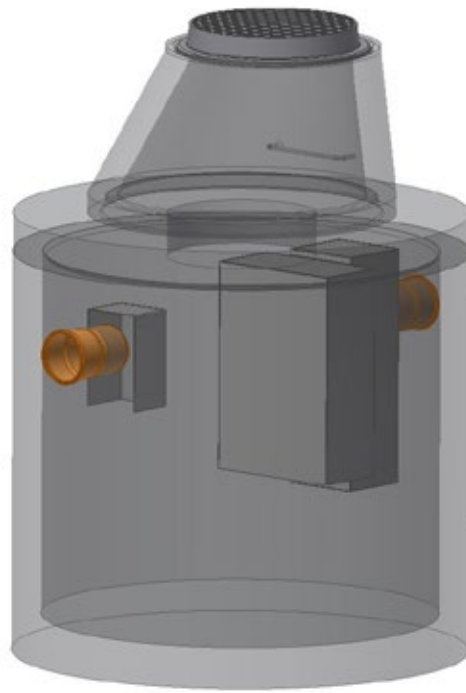
- Protective coating inside guarantees absolute tightness and high chemical resistance
- Innovative and easily cleanable coalescence filter right in the separator ensures simple maintenance and minimal operating costs
- Interior fittings designed for cost-effective appearance and minimal installation requirements
- Ready handling thanks to a reliable suspension system and a very easy to install ceiling plate with a nitrile rubber seal and screw-in tank ceiling plate. This solution provides full watertight integrity with no additional sealing required.
- Built-in inlet and outlet passage makes it easily connectable to sewage pipes

Where to use them

- Motorways and roads
- Pumping and service stations
- Parking areas, garages and workshops
- Rest areas and car washes
- Hypermarkets and logistics centres

Sample drawing of a standard oil-water separator with treated wastewater values of 5 mg/1 NEL

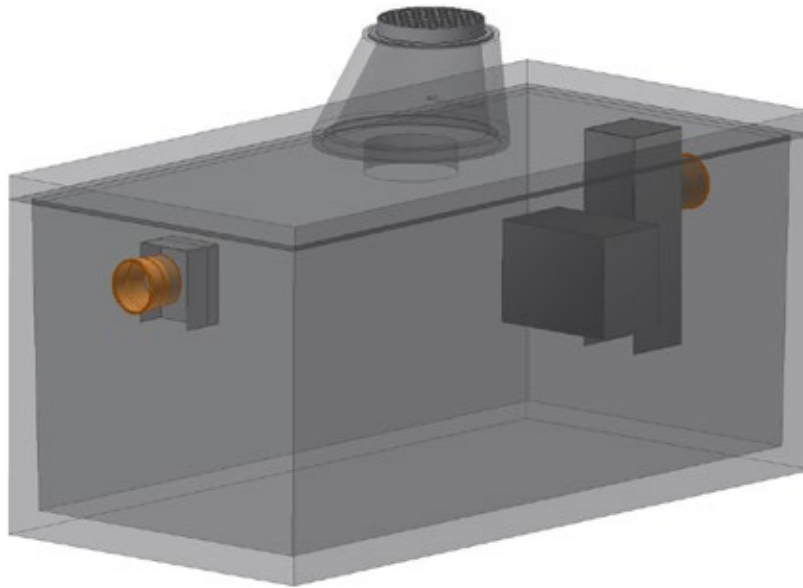




Range of LO Alfa B separators

output up to 5 mg / 1 NEL

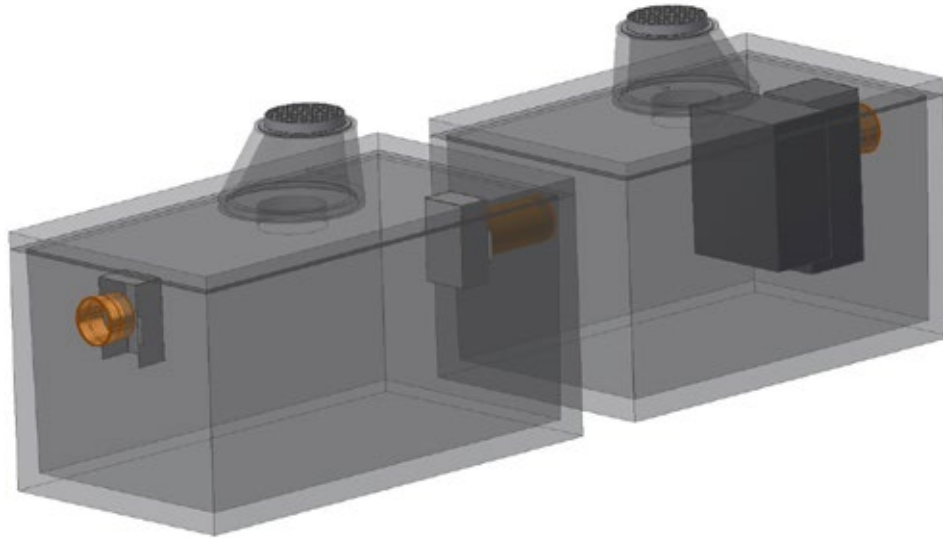
Number	Description	Nominal flow rate	Maximum flow rate	Storage volume	Total volume	Trap	Separated oil	Dimensions (L x W x H)	Inlet/Outlet DN	Heaviest unit	Total Weight
			(l/s)	(m ³)	(m ³)	(m ³)	(m ³)	(mm)	(mm)	(kg)	(kg)
89000100	LO Alfa 3-1B	3	3	1,17	1,55	0,5	0,17	Ø 1440 x 1700	160	2350	3100
89000101	LO Alfa 5-1B	5	5	1,3	1,66	0,6	0,17	Ø 1440 x 1800	160	2500	3250
89000102	LO Alfa 8-1B	8	8	1,5	1,88	0,8	0,17	Ø 1440 x 2000	160	2750	3500
89000103	LO Alfa 10-1B	10	10	2,4	3,15	1,2	0,3	Ø 1840 x 1900	200	3600	4850
89000104	LO Alfa 15-1B	15	15	3	3,75	1,8	0,3	Ø 1840 x 2200	200	4100	5350
89000105	LO Alfa 20-1B	20	20	4,3	5,7	2,2	0,54	Ø 2390 x 1900	200	5100	7100
89000106	LO Alfa 25-1B	25	25	5,3	6,8	3	0,54	Ø 2390 x 2200	250	5750	7750
89000107	LO Alfa 30-1B	30	30	5,95	7,5	3,7	0,54	Ø 2390 x 2400	250	6200	8200
89000108	LO Alfa 40-1B	40	40	7,1	8,9	4,9	0,54	Ø 2390 x 2780	315	7000	9000
89000109	LO Alfa 50-1B	50	50	10,8	14,8	6	1,155	3700x2400x2250	315	10500	14500
89000110	LO Alfa 60-1B	60	60	14,5	19,9	8,1	1,5	4900x2400x2250	315	13500	18500
89000111	LO Alfa 70-1B	70	70	14,5	19,9	8,1	1,5	4900x2400x2250	315	13500	18500
89000112	LO Alfa 80-1B	80	80	16,4	22,4	9,4	1,7	5500x2400x2250	315	14500	22300
89000113	LO Alfa 100-2B	100	100	20,5	29,6	15,5	2,25	2x(3700x2400x2250)	400	10500	29000
89000114	LO Alfa 125-2B	125	125	23,7	34,6	19	2,65	4900x2400x2250 +3700x2400x2250	400	13500	32800
89000115	LO Alfa 150-2B	150	150	29	42,2	22,7	3,2	5500x2400x2250 +4900x2400x2250	400	14300	40500
89000116	LO Alfa 160-2B	160	160	31	48,8	24	3,4	2x(5500x2400x2250)	400	14300	44000
89000117	LO Alfa 175-3B	175	175	33,7	49,4	29	3,8	2x(4300x2400x2250) +3700x2400x2250	400	11800	47500
89000118	LO Alfa 200-4B	200	200	43,6	69,2	36,4	5,27	4x(4300x2400x2250)	500	11800	66000
89000119	LO Alfa 230-4B	230	230	45,2	71,7	38	5,42	3x(4300x2400x2250) +4900x2400x2250	500	13500	67800
89000120	LO Alfa 250-4B	250	250	50	79,2	41,8	6	4x(4900x2400x2250)	500	13500	74000



Range of LO Alfa B separators

output up to 0.5 mg / 1 NEL

Number	Description	Nominal flow rate	Maximum flow rate	Storage volume	Total volume	Trap	Separated oil	Dimensions (L x W x H)	Inlet/Outlet DN	Heaviest unit	Total Weight
			(l/s)	(m ³)	(m ³)	(m ³)	(m ³)	(mm)	(mm)	(kg)	(kg)
89000200	LO Alfa 3-1s B	3	3	1,2	1,66	0,5	0,17	Ø 1440 x 1800	160	2500	3250
89000201	LO Alfa 5-1s B	5	5	1,2	1,66	0,5	0,17	Ø 1440 x 1800	160	2500	3250
89000202	LO Alfa 8-1s B	8	8	1,65	2,1	1	0,17	Ø 1440 x 2200	160	3000	3750
89000203	LO Alfa 10-1s B	10	10	2,66	3,55	1,1	0,3	Ø 1840 x 2100	200	3900	5150
89000204	LO Alfa 15-1s B	15	15	3	3,95	1,5	0,3	Ø 1840 x 2300	200	4250	5500
89000205	LO Alfa 20-1s B	20	20	5,2	6,8	2,25	0,54	Ø 2390 x 2200	200	5750	7750
89000206	LO Alfa 25-1s B	25	25	5,2	7,5	2,8	0,54	Ø 2390 x 2400	250	6200	8200
89000207	LO Alfa 30-1s B	30	30	6	7,9	3,2	0,54	Ø 2390 x 2500	250	6400	8400
89000208	LO Alfa 40-1s B	40	40	10,25	14,8	4,4	1,155	3700x2400x2250	315	10500	14500
89000209	LO Alfa 50-1s B	50	50	12	17,3	5,2	1,33	4300x2400x2250	315	11800	16500
89000210	LO Alfa 60-1s B	60	60	14	19,9	6	1,5	2400x4900x2250	315	13500	18500
89000211	LO Alfa 70-1s B	70	70	15,5	22,4	7	1,72	2400x5500x2250	315	14500	22300
89000212	LO Alfa 80-2s B	80	80	16,9	24,5	12	1,9	2x(3100x2400x2250)	315	8600	23200
89000213	LO Alfa 100-2s B	100	100	20,8	32	15,3	2,45	4300x2400x2250 +3700x2400x2250	400	11800	30850
89000214	LO Alfa 125-2s B	125	125	24,15	37,1	19,5	2,85	5500x2400x2250 +3700x2400x2250	400	14300	36500
89000215	LO Alfa 150-2s B	150	150	29,1	44,8	20,8	3,43	5500x2400x2250 +4900x2400x2250	400	14300	40500
89000216	LO Alfa 160-3s B	160	160	33,7	51,9	27,3	4	3x(4300x2400x2250)	400	11800	49200
89000217	LO Alfa 175-3s B	175	175	33,7	51,9	27,3	4	3x(4300x2400x2250)	400	11800	49200
89000218	LO Alfa 200-4s B	200	200	41,3	69,2	34,3	5,27	4x(4300x2400x2250)	500	11800	66000
89000219	LO Alfa 230-4s B	230	230	44,4	74,3	36,4	5,42	2x(4900x2400x2250) +2x(4300x2400x2250)	500	13500	69600
89000220	LO Alfa 250-4s B	250	250	50	84,2	42,4	0,45	2x(5500x2400x2250) +2x(4900x2400x2250)	500	14300	80600



Range of LO Alfa B separators

output up to 5 mg / 1 NEL

Number	Description	Nominal flow rate	Maximum flow rate	Storage volume	Total volume	Trap	Separated oil	Dimensions (L x W x H)	Inlet/Outlet DN	Heaviest unit	Total Weight
89000300	LO Alfa 3-1ss B	3	3	1,2	1,66	0,5	0,17	Ø 1440 x 1800	160	2500	3250
89000301	LO Alfa 5-1ss B	5	5	1,2	1,66	0,5	0,17	Ø 1440 x 1800	160	2500	3250
89000302	LO Alfa 8-1ss B	8	8	1,65	2,1	1	0,17	Ø 1440 x 2200	160	3000	3750
89000303	LO Alfa 10-1ss B	10	10	2,66	3,55	1,1	0,3	Ø 1840 x 2100	200	3900	5150
89000304	LO Alfa 15-1ss B	15	15	3	3,95	1,5	0,3	Ø 1840 x 2300	200	4250	5500
89000305	LO Alfa 20-1ss B	20	20	5,2	6,8	2,25	0,54	Ø 2390 x 2200	200	5750	7750
89000306	LO Alfa 25-1ss B	25	25	5,2	7,5	2,8	0,54	Ø 2390 x 2400	250	6200	8200
89000307	LO Alfa 30-1ss B	30	30	6	7,9	3,2	0,54	Ø 2390 x 2500	250	6400	8400
89000308	LO Alfa 40-1ss B	40	40	10,25	14,8	4,4	1,155	3700x2400x2250	315	10500	14500
89000309	LO Alfa 50-1ss B	50	50	12	17,3	5,2	1,33	4300x2400x2250	315	11800	16500
89000310	LO Alfa 60-1ss B	60	60	14	19,9	6	1,5	2400x4900x2250	315	13500	18500
89000311	LO Alfa 70-1ss B	70	70	15,5	22,4	7	1,72	2400x5500x2250	315	14500	22300
89000312	LO Alfa 80-2ss B	80	80	16,9	24,5	12	1,9	2x(3100x2400x2250)	315	8600	23200
89000313	LO Alfa 100-2ss B	100	100	20,8	32	15,3	2,45	4300x2400x2250 +3700x2400x2250	400	11800	30850
89000314	LO Alfa 125-2ss B	125	125	24,15	37,1	19,5	2,85	5500x2400x2250 +3700x2400x2250	400	14300	36500
89000315	LO Alfa 150-2ss B	150	150	29,1	44,8	20,8	3,43	5500x2400x2250 + 4900x2400x2250	400	14300	44000
89000316	LO Alfa 160-3ss B	160	160	33,7	51,9	27,3	4	3x(4300x2400x2250)	400	11800	49200
89000317	LO Alfa 175-3ss B	175	175	33,7	51,9	27,3	4	3x(4300x2400x2250)	400	11800	49200
89000318	LO Alfa 200-4ss B	200	200	41,3	69,2	34,3	5,27	4x(4300x2400x2250)	500	11800	66000
89000319	LO Alfa 230-4ss B	230	230	44,4	74,3	36,4	5,42	2x(4900x2400x2250) +2x(4300x2400x2250)	500	13500	69600
89000320	LO Alfa 250-4ss B	250	250	50	84,2	42,4	0,45	2x(5500x2400x2250) +2x(4900x2400x2250)	500	14300	80600

References



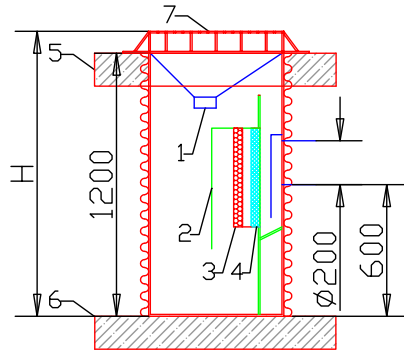
Inlet separators



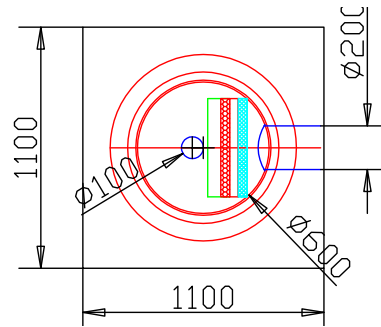
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LO Alfa 2-1 inlet

CROSS SECTION A-A'



TOP VIEW



FOUNDATION DIMENSIONS

Range of LO Alfa separators

Number	Description	Nominal flow rate	Maximum flow rate (l/s)	Storage volume (m ³)	Total volume (m ³)	Trap (m ³)	Separated oil (m ³)	Dimensions (mm)	Inlet/Outlet DN (mm)	Heaviest part (kg)	Total weight (kg)
Výstupné hodnoty 5 mg / l NEL:											
89000400	LO Alfa 1-1 vpust	1	1	0,22	0,34	0,2	0,04	Ø 880 x 1300	200	100	150
89000401	LO Alfa 2-1 vpust	2	2	0,22	0,34	0,2	0,04	Ø 880 x 1300	200	100	150
Výstupné hodnoty 0,5 mg / l NEL:											
89000500	LO Alfa 1-1 s vpust	1	1	0,22	0,34	0,2	0,04	Ø 880 x 1300	200	100	150
89000501	LO Alfa 2-1 s vpust	2	2	0,22	0,34	0,2	0,04	Ø 880 x 1300	200	100	150
Výstupné hodnoty 0,1 mg / l NEL:											
89000600	LO Alfa 1-1 ss vpust	1	1	0,22	0,34	0,2	0,04	Ø 880 x 1300	200	100	150
89000601	LO Alfa 2-1 ss vpust	2	2	0,22	0,34	0,2	0,04	Ø 880 x 1300	200	100	150

Atypical plastic products manufactured on request



Bypass separators

LO Alfa – made of concrete

Oil-water separators manufactured from 35/45 XF4 reinforced concrete include protective polyurethane coating for excellent, trouble-free maintenance as they increase the concrete's resistance to oil while not absorbing any water. The inlets are equipped with regulators and the outlets are fitted with automatic shutoff valves. These type interceptors separate spilled oil from wastewater and rainwater. They should be regularly inspected and maintained so they remain effective over the long term.

Features

- Absolute tightness
- Requires little space
- Minimum operating costs
- High chemical resistance
- Excellent hydraulic parameters
- Cost-effective appearance
- Little maintenance needed

Where to use them

- Motorways and roads
- Parking areas, car garages
- Anywhere flow is allowed to exceed the maximum allowance value and discharged outside the separator



Range of bypass separators

ORL Alfa – 90% bypass

Number	Description	Nominal flow rate	Maximum flow rate (l/s)	Storage volume (m ³)	Total volume (m ³)	Trap (m ³)	Separated oil (m ³)	Dimensions (mm)	Inlet/Outlet DN (mm)	Heaviest part (kg)	Total weight (kg)
89000140	LO Alfa 3-30 B	3	30	2,2	2,95	0,85	0,3	Ø 1840 x 1800	250	3400	4600
89000141	LO Alfa 4-40 B	4	40	2,2	2,95	0,85	0,3	Ø 1840 x 1800	250	3400	4600
89000152	LO Alfa 6-60 B	6	60	2	2,95	0,8	0,3	Ø 1840 x 1800	315	3400	4600
89000153	LO Alfa 8-80B	8	80	2	2,95	0,8	0,3	Ø 1840 x 1800	315	3400	4600
89000143	LO Alfa 10-100 B	10	100	3,85	5,7	1,5	0,54	Ø 2390 x 1900	400	5100	7100
89000126	LO Alfa 15-150 B	15	150	3,85	5,7	1,5	0,54	Ø 2390 x 1900	400	5100	7100
89000145	LO Alfa 20-200 B	20	200	4,6	6,4	2,2	0,54	Ø 2390 x 2100	400	5600	7600
89000147	LO Alfa 25-250 B	25	250	5	7,1	2,6	0,54	Ø 2390 x 2300	500	5800	7800
89000146	LO Alfa 30-300 B	30	300	5,3	7,5	3	0,54	Ø 2390 x 2400	500	6200	8200
89000148	LO Alfa 40-400 B	40	400	10,4	14,8	5,3	1,13	3700x2400x2250	500	10500	14500
89000155	LO Alfa 50-500 B	50	500	10,63	17,3	6	1,3	4300x2400x2250	600	11800	16500
89000149	LO Alfa 60-600 B	60	600	12	19,85	7	1,5	4900x2400x2250	600	13000	18300
89000150	LO Alfa 70-700 B	70	700	13,2	23,4	7,35	1,7	5500x2400x2250	600	14300	22000
89000157	LO Alfa 80-800 B	80	800	14,85	25	9	1,7	6000x2300x2500	800	12000	24000



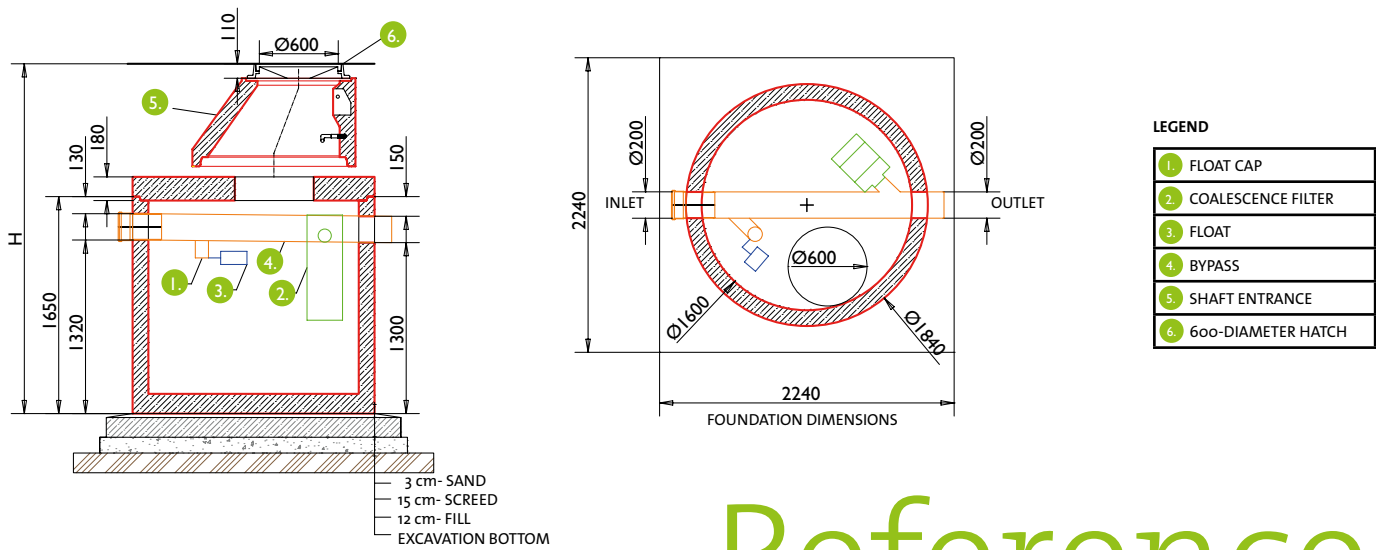
Flow greater than 100 l/s on request

ORL Alfa – 80% bypass

Number	Description	Nominal flow rate	Maximum flow rate (l/s)	Storage volume (m ³)	Total volume (m ³)	Trap (m ²)	Separated oil (m ³)	Dimensions (mm)	Inlet/Outlet DN (mm)	Heaviest part (kg)	Total weight (kg)
89000122	LO Alfa 6-30 B	6	30	2,2	2,95	0,85	0,3	Ø 1840 x 1800	250	3400	4600
89000123	LO Alfa 8-40 B	8	40	2,3	3,15	1	0,3	Ø 1840 x 1900	315	3600	4800
89000124	LO Alfa 10-50 B	10	50	2,5	3,35	1,2	0,3	Ø 1840 x 2000	315	3800	5000
89000125	LO Alfa 15-75B	15	75	2,9	3,75	1,6	0,3	Ø 1840 x 2200	315	4100	5300
89000144	LO Alfa 20-100 B	20	100	4,5	6,4	2,2	0,54	Ø 2390 x 2100	400	5500	7500
89000127	LO Alfa30-150 B	30	150	5,7	7,5	3,3	0,54	Ø 2390 x 2400	400	6200	8200
89000128	LO Alfa 40-200 B	40	200	6	8,2	3,7	0,54	Ø 2390 x 2600	500	6600	8600
89000129	LO Alfa 50-250 B	50	250	8,5	12,25	5,2	0,94	3100x2400x2250	500	9200	12500
89000135	LO Alfa60-300 B	60	300	10,3	14,8	6,3	1,14	3700x2400x2250	500	10500	14500
89000131	LO Alfa 80-400 B	80	400	13,9	22,4	8,1	1,7	5500x2400x2250	600	14300	22000
89000133	LO Alfa 100-500 B	100	500	16,8	25	11,3	1,7	6000x2300x2500	600	12000	24000

i Flow greater than 100 l/s on request

Sample drawing of a bypass oil separator



References



LT Alfa - made of concrete

Grease traps capture and separate animal fat and plant oils in wastewater before it is discharged into sewage or water treatment.

Grease traps manufactured from 35/45 XF4 reinforced concrete include protective polyurethane coating for excellent, trouble-free maintenance as they increase the concrete's resistance to chemicals produced from decomposing organic waste and oil while not absorbing any water. Wastewater flows through a pipe into the grease trap, where gravity separates the grease on the surface.

The trap's holding volume cools down the grease and as its temperature drops, the grease solidifies and floats to the surface. The purified water then flows through a stainless steel barrier and a plastic pipe into the sewer line.

The trap is periodically cleaned, at least every 14 days or at most once a month.

A water baffle allows simple maintenance of the inlet pipe. The baffle is made of stainless steel and can be easily detached from the tank wall for smooth access to the inlet pipe.

As a pre-cleaning unit, water contaminated with grease and food residue flows through baffles fitted to a separate sewer lines, reliably keeping public sewer from becoming clogged and choked with grease.

Quality of purified water achieved: maximum 25 mg/l extractable matter in purified water.



Features

- Easy to handle
- Cost-effective appearance
- Captures animal fats and plant oils in wastewater
- Even non-conventional plastic grease traps can be produced

Where to use them

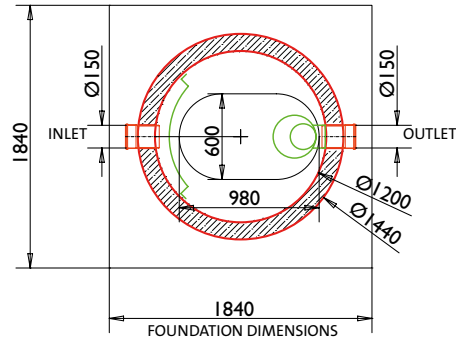
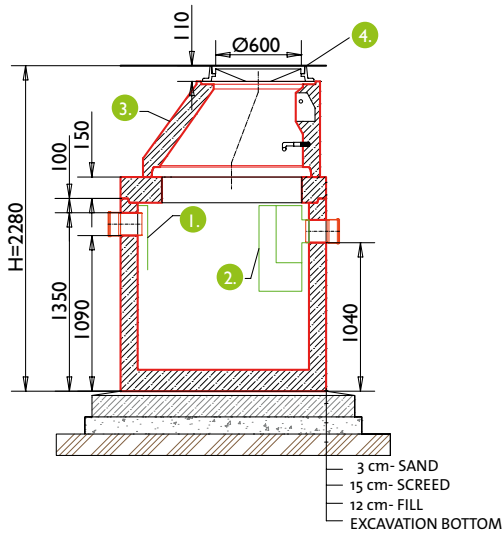
Grease traps are mostly used in meat processing and food production facilities:

- Large-scale soup kitchens
- Catering facilities
- Food dispensers
- Kitchens preparing grilled, baked or fried meals
- Oil mills and pressers

Range of LT Alfa B grease traps

Number	Description	Nominal flow rate	Maximum flow rate (l/s)	Storage volume (m ³)	Total volume (m ³)	Trap (m ³)	Separated grease (m ³)	Dimensions (L x W x H) (mm)	Inlet/Outlet DN (mm)	Heaviest part (kg)	Total weight (kg)
89000700	LT Alfa NS 2B	1	1	0,76	1,1	0,37	0,18	Ø 1440 x 1300	160	1700	2200
89000701	LT Alfa NS 4B	2	2	1	1,32	0,6	0,18	Ø 1440 x 1500	160	2100	2600
89000702	LT Alfa NS 7B	3	4	2,1	2,75	1,2	0,32	Ø 1840 x 1700	200	3300	4300
89000703	LT Alfa NS 10B	5	6	2,5	3,15	1,56	0,32	Ø 1840 x 1900	200	3600	4600
89000704	LT Alfa NS 15B	7	9	4,52	5,7	2,7	0,58	Ø 2390 x 1900	200	5100	7100
89000705	LT Alfa NS 20B	10	12	8,1	12,4	6,6	1	3100x2400x2250	200	8600	11600
89000706	LT Alfa NS 25B	13	15	8,1	12,4	6,6	1	3100x2400x2250	200	8600	11600
89000714	LT Alfa NS 30B	16	17	12,1	15	8	1,2	3700x2400x2250	200	10500	14500
89000715	LT Alfa NS 40B	18	24	15,6	20	10,3	1,64	4900x2400x2250	250	13000	18300

Vzorový výkres lapača tukov LT Alfa B



LEGEND

1	FLOAT CAP
2	FLOW BARRIER
3	SHAFT ENTRANCE
4	600-DIAMETER HATCH

References



Example calculation

Grease trap calculation by dining facility

Example grease trap calculation by nominal size (NS)

The required nominal size of a separator should be calculated for the delivery of 600 warm meals by 12 o'clock noon..

Restaurant	Hospital	Canteen
$t = 12 \text{ hrs}$	$t = 12 \text{ hrs}$	$t = 12 \text{ hrs}$
$M = 600 \text{ meals/day}$	$M = 600 \text{ meals/day}$	$M = 600 \text{ meals/day}$
$V_m = 50 \text{ l/meals (tab. 1)}$	$V_m = 20 \text{ l/meals (tab. 1)}$	$V_m = 5 \text{ l/meals (tab. 1)}$
$F = 8.5 \text{ (tab. 2)}$	$F = 13 \text{ (tab. 2)}$	$F = 20 \text{ (tab. 2)}$
$V = M \cdot V_m$	$V = M \cdot V_m$	$V = M \cdot V_m$
$= 600 \times 50$	$= 600 \times 20$	$= 600 \times 5$
$= 30000 \text{ l/day}$	$= 12000 \text{ l/day}$	$= 3000 \text{ l/day}$
$Q_5 = VF/3600.t$	$Q_5 = V.F/3600.t$	$Q_5 = V.F/3600.t$
$= (30000 \times 8.5)/(3600 \times 12)$	$= (12000 \times 13)/(3600 \times 12)$	$= (3000 \times 20)/(3600 \times 12)$
$= 5.9 \text{ l/sec}$	$= 3.6 \text{ l/sec}$	$= 1.4 \text{ l/sec}$
$NS = Q_s \cdot f_t \cdot f_d \cdot f_r$	$NS = Q_s \cdot f_t \cdot f_d \cdot f_r$	$NS = Q_s \cdot f_t \cdot f_d \cdot f_r$
$NS = 5.9 \times 1.3 \times 1.0 \times 1.3 = 9.9$	$NS = 3.6 \times 1.3 \times 1.0 \times 1.5 = 7.02$	$NS = 1.4 \times 1 \times 1 \times 1.3 = 1.82$
Closest specified NS = 10	Closest specified NS = 7	Closest specified NS = 2

Assumptions:

$f_t = 1.0$ (temperature never rises above 60°C) – always or occasionally higher than $60^\circ\text{C} = 1.3$

$f_d = 1.0$ (density of grease less than 0.94 g/cm^3)

$f_r = 1.3$ (used as detergents) – never used = 1.0, special cases, i.e. in hospitals = al. > 1.5

EN 1825-1,2 requires the volume of the grease trap to be consistent with the preferred nominal size = $100 \times NS$

In slaughterhouses and similar establishments, the volume of the grease trap is recommended to be at least $200 \times NS$

Dining facility	Amount of water for one warm meal V_m (l)
Hotel	100
Restaurant (specialty)	50
Hospital	20
Large-scale kitchen (operating 24 hours)	10
Canteen/plant or office dining room	5

Business	Maximal inequality F
Catering	5,0
Hotel	5.0
Restaurant	8.5
Hospital	13.0
Plant or office canteen/dining room	20.0
Large/scale kitchen (24 hrs.)	22.0
Meat production or butchering	35,0
Small: up to 5 GV/week	30.0
Medium: 6 - 10 GV/week	35.0
Large: 11 to 40 GV/week	40.0
1 GV = 1 cow or 2.5 pigs	

General technical data

1. Standards and regulations

Complies with the following standards:

STN EN 12050-1: Lifting plants for wastewater containing faecal matter

STN EN 12050-2: Lifting plants for faecal free wastewater

2. Use

Lifting plants are designed to pump wastewater, rainwater and for operation wherever the water cannot be drained gravitationally.

3. Construction material

- Reinforced concrete or HD-PE tank without having to encase in concrete
- Internal stainless steel or composite material fittings
- Cast iron D 400 kN hatches or as required

4. Installation

Lifting plants are laid with a crane on horizontal underlying concrete and the sand base. They are designed by structural engineers for protection against groundwater buoyancy according to conditions where they will be installed. Anchor bolts keep the lifting plants in place on the base plate. The anchored section of the lifting plant is concreted to a height of at least 300 mm from the base plate across the entire layout. If groundwater is higher than the concreted section and there is a risk of the lifting plant becoming buoyant, either the inside bottom would have to be weighted down or the ceiling plate would be made thicker, as required and according to calculated statics. The tank would be filled with 0-20 mm of cohesionless fraction material to be gradually compacted into layers.

5. Lifting plant equipment

Lifting plants can be engineered according to customer specifications. It can also be fitted with a work platform, railings, a screen basket and various other accessories.

The control unit and switchgear can be supplemented with a GSM transmitter that sends an SMS message if there is a pump failure.

6. Warranty period

Lifting plants are guaranteed for either 24 or 60 months, depending on investor requirements, except for technological parts whose warranty periods are set by their manufacturers.

7. Delivery terms

Lifting plates are supplied within six weeks at longest. Delivery either includes or does not include equipment, according to the requirements of customer specifications.

Overhead costs covered by customers include excavation work, preparing the underlying gravel, concrete and sand bed, cranes, anchoring and other structural and civil engineering work.



Made of concrete

Reinforced concrete expansion tanks 1200 mm diameter tank

Number	DW (mm)	DN (mm)	H (mm)	Hv (mm)	Tank volume (m ³)	Surface area (m ²)	Weight (kg)	
89001426	1440	1200	1350	1200	1,36	8,29	2100	
89001427	1440	1200	1450	1300	1,47	8,67	2230	
89001428	1440	1200	1550	1400	1,58	9,04	2350	
89001429	1440	1200	1650	1500	1,70	9,42	2480	
89001430	1440	1200	1750	1600	1,81	9,80	2620	
89001431	1440	1200	1850	1700	1,92	10,17	2720	
89001432	1440	1200	1950	1800	2,00	10,55	2850	
89001433	1440	1200	2050	1900	2,14	10,93	2970	
89001434	1440	1200	2150	2000	2,26	11,30	3100	
89001435	1440	1200	2250	2100	2,37	11,68	3220	
89001436	1440	1200	2350	2200	2,48	12,06	3340	
89001392	1440	1200	2450	2300	2,60	12,43	3470	
89001437	1440	1200	2550	2400	2,71	12,81	3600	
89001467	Ceiling plate 1440x180mm							750
89001481	Ceiling plate 1440x250mm							900

1200 mm diameter expansions

Number	DW (mm)	DN (mm)	H (mm)	Tank volume (m ³)	Surface area (m ²)	Weight (kg)
89001313	1440	1200	400	0,45	1,51	500
89001314	1440	1200	500	0,57	1,88	620
89001315	1440	1200	600	0,68	2,26	740
89001316	1440	1200	700	0,79	2,64	870
89001317	1440	1200	800	0,90	3,01	1000
89001318	1440	1200	900	1,02	3,39	1120
89001319	1440	1200	1000	1,13	3,77	1240
89001320	1440	1200	1100	1,24	4,14	1360
89001321	1440	1200	1200	1,36	4,52	1490
89001322	1440	1200	1300	1,47	4,90	1620
89001323	1440	1200	1400	1,58	5,28	1740
89001324	1440	1200	1500	1,70	5,65	1860
89001325	1440	1200	1600	1,81	6,03	2000
89001326	1440	1200	1700	1,92	6,41	2110
89001327	1440	1200	1800	2,03	6,78	2240
89001328	1440	1200	1900	2,15	7,16	2360
89001329	1440	1200	2000	2,26	7,54	2490
89001330	1440	1200	2100	2,37	7,91	2610
89001331	1440	1200	2200	2,49	8,29	2740
89001332	1440	1200	2300	2,60	8,67	2860
89001333	1440	1200	2400	2,71	9,04	2990



Lifting plants



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Reinforced concrete expansion tanks

1600 mm diameter tank

Number	DW (mm)	DN (mm)	H (mm)	Hv (mm)	Tank volume (m ³)	Surface area (m ²)	Weight (kg)	
89001413	1840	1600	1350	1200	2,41	11,05	2940	
89001414	1840	1600	1450	1300	2,61	11,56	3100	
89001415	1840	1600	1550	1400	2,81	12,06	3265	
89001416	1840	1600	1650	1500	3,01	12,56	3430	
89001417	1840	1600	1750	1600	3,22	13,06	3590	
89001418	1840	1600	1850	1700	3,42	13,56	3750	
89001419	1840	1600	1950	1800	3,62	14,07	3900	
89001420	1840	1600	2050	1900	3,82	14,57	4080	
89001421	1840	1600	2150	2000	4,02	15,07	4240	
89001422	1840	1600	2250	2100	4,22	15,57	4400	
89001423	1840	1600	2350	2200	4,42	16,08	4560	
89001424	1840	1600	2450	2300	4,62	16,58	4730	
89001425	1840	1600	2550	2400	4,82	17,08	4890	
89001468	Ceiling plate 1840x180mm							1250
89001482	Ceiling plate 1840x250mm							1500

1600 mm diameter expansions

Number	DW (mm)	DN (mm)	H (mm)	Tank volume (m ³)	Surface area (m ²)	Weight (kg)
89001213	1840	1600	400	0,80	2,01	650
89001214	1840	1600	500	1,00	2,51	810
89001215	1840	1600	600	1,21	3,01	970
89001216	1840	1600	700	1,41	3,52	1140
89001217	1840	1600	800	1,61	4,02	1300
89001218	1840	1600	900	1,81	4,52	1460
89001219	1840	1600	1000	2,01	5,02	1620
89001220	1840	1600	1100	2,21	5,53	1780
89001221	1840	1600	1200	2,41	6,03	1950
89001222	1840	1600	1300	2,61	6,53	2100
89001223	1840	1600	1400	2,81	7,03	2270
89001224	1840	1600	1500	3,01	7,54	2430
89001225	1840	1600	1600	3,22	8,04	2600
89001226	1840	1600	1700	3,42	8,54	2760
89001227	1840	1600	1800	3,62	9,04	2920
89001228	1840	1600	1900	3,82	9,55	3080
89001229	1840	1600	2000	4,02	10,05	3240
89001230	1840	1600	2100	4,22	10,55	3400
89001231	1840	1600	2200	4,42	11,05	3570
89001232	1840	1600	2300	4,62	11,56	3730
89001233	1840	1600	2400	4,82	12,06	3890



Made of concrete

Reinforced concrete expansion tanks

2150 mm diameter tank

Number	DW (mm)	DN (mm)	H (mm)	Hv (mm)	Tank volume (m ³)	Surface area (m ²)	Weight (kg)
89001400	2390	2150	1350	1200	4,35	14,85	4250
89001401	2390	2150	1450	1300	4,72	15,53	4460
89001402	2390	2150	1550	1400	5,08	16,20	4680
89001403	2390	2150	1650	1500	5,44	16,88	4890
89001404	2390	2150	1750	1600	5,81	17,55	5100
89001405	2390	2150	1850	1700	6,17	18,23	5320
89001406	2390	2150	1950	1800	6,53	18,90	5530
89001407	2390	2150	2050	1900	6,89	19,58	5750
89001408	2390	2150	2150	2000	7,26	20,25	5960
89001409	2390	2150	2250	2100	7,62	20,93	6170
89001410	2390	2150	2350	2200	7,98	21,60	6390
89001411	2390	2150	2450	2300	8,35	22,28	6600
89001412	2390	2150	2550	2400	8,71	22,95	6800
89001397	2390	2150	2630	2480	9,00	23,49	7000
89001469	Ceiling plate 2390x180mm						2000
89001483	Ceiling plate 2390x250mm						2650

2150 mm diameter expansions

Number	DW (mm)	DN (mm)	H (mm)	Tank volume (m ³)	Surface area (m ²)	Weight (kg)
89001113	2390	2150	400	1,45	2,70	860
89001114	2390	2150	500	1,81	3,38	1070
89001115	2390	2150	600	2,18	4,05	1280
89001116	2390	2150	700	2,54	4,73	1500
89001117	2390	2150	800	2,90	5,40	1710
89001118	2390	2150	900	3,27	6,08	1930
89001119	2390	2150	1000	3,63	6,75	2140
89001120	2390	2150	1100	3,99	7,43	2350
89001121	2390	2150	1200	4,35	8,10	2570
89001122	2390	2150	1300	4,72	8,78	2780
89001123	2390	2150	1400	5,08	9,45	3000
89001124	2390	2150	1500	5,44	10,13	3210
89001125	2390	2150	1600	5,81	10,80	3420
89001126	2390	2150	1700	6,17	11,48	3640
89001127	2390	2150	1800	6,53	12,15	3850
89001128	2390	2150	1900	6,89	12,83	4060
89001129	2390	2150	2000	7,26	13,50	4280
89001130	2390	2150	2100	7,62	14,18	4490
89001131	2390	2150	2200	7,98	14,85	4700
89001132	2390	2150	2300	8,35	15,53	4920
89001133	2390	2150	2400	8,71	16,20	5130



Lifting plants



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Reinforced concrete expansion tanks

2500 mm diameter tank

Number	DW (mm)	DN (mm)	H (mm)	Hv (mm)	Tank volume (m ³)	Surface area (m ²)	Weight (kg)	
89001051	2740	2500	1500	1350	6,62	25,32	5280	
89001053	2740	2500	1750	1600	7,85	27,28	5870	
89001056	2740	2500	2000	1850	9,08	29,24	6460	
89001058	2740	2500	2250	2100	10,30	31,21	7050	
89001061	2740	2500	2500	2350	11,53	33,17	7650	
89001047	Ceiling plate 2740x200mm							2360
89001048	Ceiling plate 2740x250mm							3020

2500 mm diameter expansions

Number	DW (mm)	DN (mm)	H (mm)	Tank volume (m ³)	Surface area (m ²)	Weight (kg)
89001071	2740	2500	1000	4,91	17,67	2330
89001073	2740	2500	1250	6,13	19,63	2920
89001076	2740	2500	1500	7,36	21,60	3500
89001078	2740	2500	1750	8,59	23,56	4090
89001081	2740	2500	2000	9,81	25,53	4670
89001083	2740	2500	2250	11,04	27,49	5260
89001086	2740	2500	2500	12,27	29,45	5840



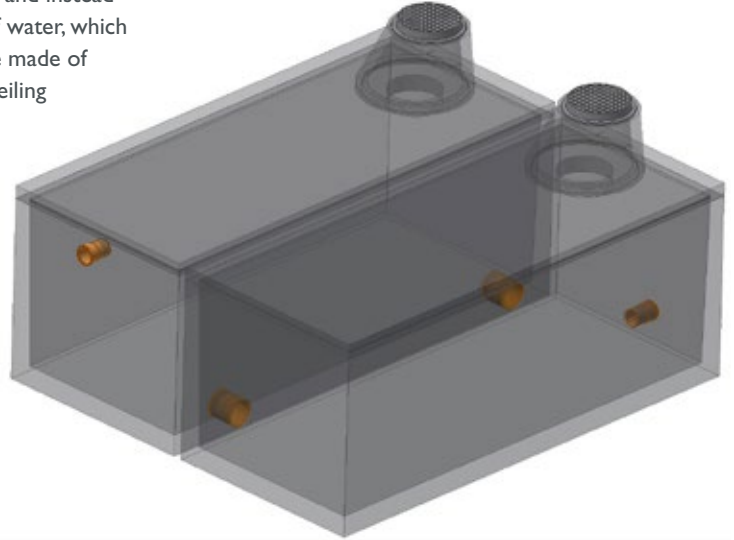


Retention tanks



Alfa concrete retention tanks

Retention tanks are covered, underground watertight tanks with a drainage unit. They are used to retain rainwater either for possible further use such as for irrigation or technical purposes; or the water is not used at all and instead drained at regulated intervals. They also slow down the outflow of water, which can be controlled either with a regulator or a pump. The tanks are made of reinforced C 30/37 concrete, while the connection between the ceiling plate and the tank is closed with a rubber seal. The ceiling plate is screwed to the tank with bolted joints. The bolts are waterproof and remain flexible. A retention tank can be assembled as a single unit or, if a larger volume needs to be retained, of multiple tanks interconnected with each other. These tanks are connected by PVC pipes through transition passages and rubber seals built into the tanks when they are manufactured. The passages between the tanks are watertight and they are very easy and fast to install.



Reinforced concrete expansion tanks

- Variable dimensions

Number	Designated as	Tank volume (m ³)	Dimensions (L x W x H) (mm)	DN (mm)	Heaviest part (kg)	Total weight(kg)
89000900	RN 25	25	6000x2300x2500	as required	12000	24000
89000901	RN 33	33	6000x2300x3300	as required	12000	28800
89000902	RN 38	38	6000x2300x3750	as required	12000	31500
89000903	RN 40	40	6000x4700x2000	as required	10000	40000
89000904	RN 50	50	6000x4700x2500	as required	12000	48000
89000905	RN 75	75	7100x6000x2500	as required	12000	72000
89000906	RN 100	100	9500x6000x2500	as required	12000	96000
89000907	RN 125	125	11900x6000x2500	as required	12000	120000
89000908	RN 150	150	14300x6000x2500	as required	12000	144000
89000909	RN 175 & over	175 & over	as required	as required	12000	as required



Types and system advantages



V-Alfatec offers a system of large-volume rainwater tanks for:

- retention
- detention
- accumulation

Ceiling shutter blocks enable this unconventional method of constructing underground tanks.



Key advantages of the system:

- Reduces the need for concrete and reinforcements = lowers costs and saves money
- Shorter construction time = thanks to ceiling shuttering blocks
- Construction carries a heavier load = can be used below parking areas, roads, storage areas and grassland
- Variability in tank shape and size = can be customised to structural requirements
- Possibility to enter the tank = inspection and cleaning



1.



2.



3.



4.



5.

System characteristics

1. A reinforced concrete and hydraulic cement tub is constructed on a concrete base. At this point, inlet and outlet passages, space for pumping devices, flow regulators, partition walls and other technical requirements of the design are also addressed.

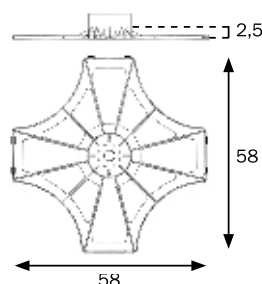
2. The bottom of the tank is stabilised on 58 x 58 cm foundation footings that fit into each other and form exact spacing between the support columns. This is critical for concreting the ceiling and columns so they do not deviate from the axis and reduce the system's load-bearing capacity.

3. 125 cm diameter PVC columns slide into the readied footings. The maximum length of the columns (and tank length) is determined by the filling used above the tank and the calculated statics for the load.

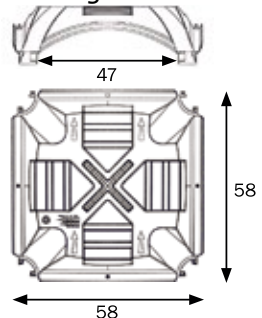
4. 58 x 58 x 15 cm ceiling coffers slide onto the PVC columns while side grooves allow them to be snapped in place against each other.

5. The ceiling coffers are manufactured for a vibrating device to enable the concrete to enter the columns while the ceiling is encased, creating a structure with a high load-bearing capacity.

Stabilisation footing



Ceiling coffer



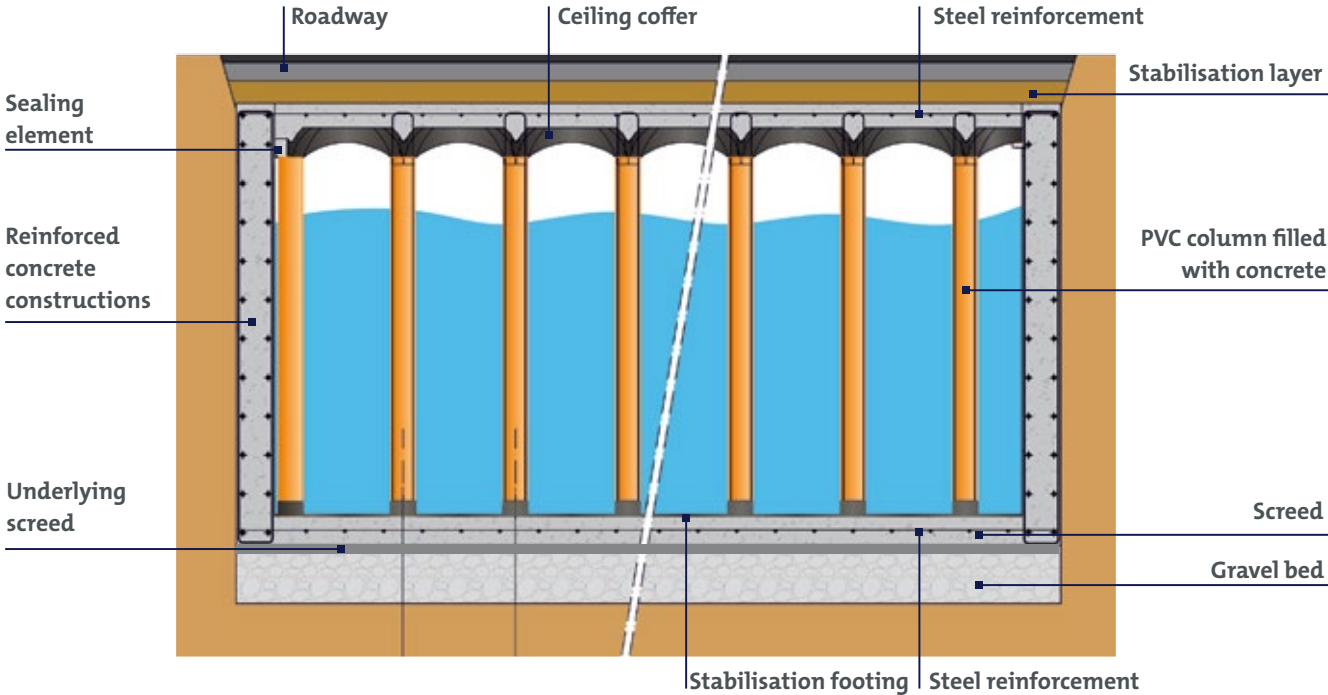
Rainwater tanks



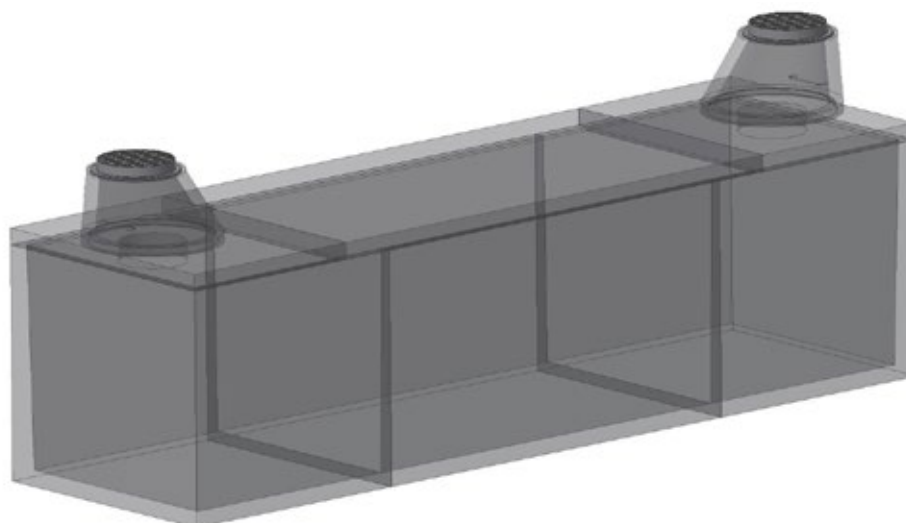
Technical solution

Technical solutions are always differ according to the project and depend on specifications and the situation around the structure. V-Alfatec handles the entire construction of the tank including complete designs. Any solution includes technical parts to operate the tanks, such as sludge chambers, space for pumping equipment, lifting plants, flow regulators, oil separators and more.

Rainwater tank diagram



Reinforced concrete tanks



Alfa MODUL tanks are covered, underground watertight tanks with a drainage unit. They are used to retain rainwater either for possible further use such as for irrigation or technical purposes; or the water is not used at all and instead drained at regulated intervals. They also slow down the outflow of water, which can be controlled either with a regulator or a pump. MODUL tanks can also be used as a reservoir to store water to fight fires and as a wastewater accumulation tank. These tanks are made of reinforced C 30/37 concrete and the advantage of them is the tank's volume is composed of a number of modules closed off at both ends. Water is kept from flowing to another module by rubber seals held in place with bolt screws. The ceiling plates are always screwed to the tank by bolts so that they cover the different connections between the segments.

After the tank is installed, the working joints are sealed with polyurethane so nothing ever leaks into them. The connection holes left for the screws are covered with plastic caps sealed with polyurethane sealant. The tank can be assembled as a single unit or, if a larger volume needs to be retained, of multiple tanks interconnected with each other. The individual tanks are connected by PVC pipes through transition passages and rubber seals built into the tanks when they are manufactured. The passages between the tanks are watertight and they are very easy and fast to install.

Number	Designated as	Tank volume (m ³)	Dimensions (L x W x H) (mm)	DN (mm)	Heaviest part (kg)	Total weight (kg)
89000912	MODUL Tank 26	26	6500x2400x2250	as required	5000	20300
89000913	MODUL Tank 28	28	7000x2400x2250	as required	5000	21700
89000914	MODUL Tank 31	31	7700x2400x2250	as required	6200	23700
89000915	MODUL Tank 33	33	8300x2400x2250	as required	7300	25300
89000916	MODUL Tank 36	36	8900x2400x2250	as required	8400	26900
89000917	MODUL Tank 39	39	9500x2400x2250	as required	9600	28800
89000918	MODUL Tank 47	47	11500x2400x2250	as required	9600	34500
89000919	MODUL Tank 49	49	12000x2400x2250	as required	9600	36100
89000920	MODUL Tank 52	52	12700x2400x2250	as required	9600	38000
89000921	MODUL Tank 55	55	13300x2400x2250	as required	9600	39800
89000922	MODUL Tank 60	60	14500x2400x2250	as required	9600	43000
89000923	MODUL Tank 80	80	19500x2400x2250	as required	9600	57600
89000924	MODUL Tank 100	100	24500x2400x2250	as required	9600	72000
89000925	MODUL Tank 120	120	14500x4900x2250	as required	9600	86000
89000926	MODUL Tank 160	160	19500x4900x2250	as required	9600	115200
89000927	MODUL Tank 200	200	24500x4900x2250	as required	9600	144000



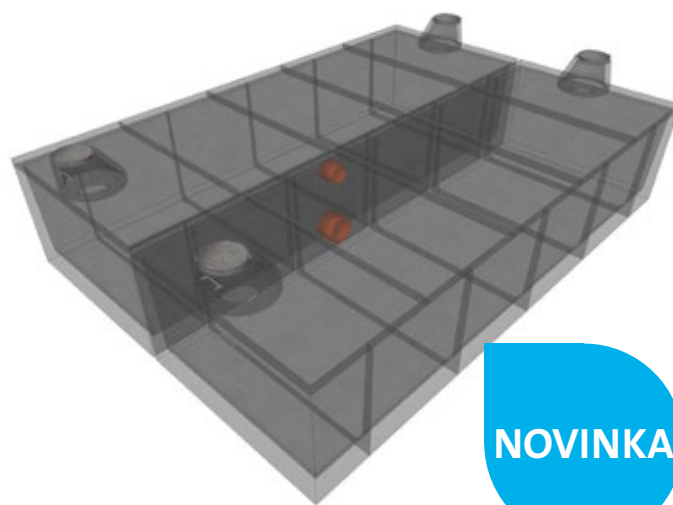
Tank volume can be customised to customer specifications.

Alfa MODUL tanks



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Alfa U tanks are covered, underground watertight tanks with a drainage unit. They are used to retain rainwater either for possible further use such as for irrigation or technical purposes; or the water is not used at all and instead drained at regulated intervals. They also slow down the outflow of water, which can be controlled either with a regulator or a pump. MODUL tanks can also be used as a reservoir to store water to fight fires and as a wastewater accumulation tank. These tanks are made of reinforced C 35/45 XF4 concrete and the advantage of them is the tank's volume is composed of a number of modules closed off at both ends. Water is kept from flowing to another module by rubber seals held in place with bolt screws. The ceiling plates are always screwed to the tank by bolts so that they cover the different connections between the segments. After the tank is installed, the working joints are sealed so nothing ever leaks into them. The connection holes left for the screws are covered with plastic caps sealed with polyurethane. The tank can be assembled as a single unit or, if a larger volume needs to be retained, of multiple tanks interconnected with each other. The individual tanks are connected by PVC pipes through transition passages and rubber seals built into the tanks when they are manufactured. The passages between the tanks are watertight and they are very easy and fast to install.

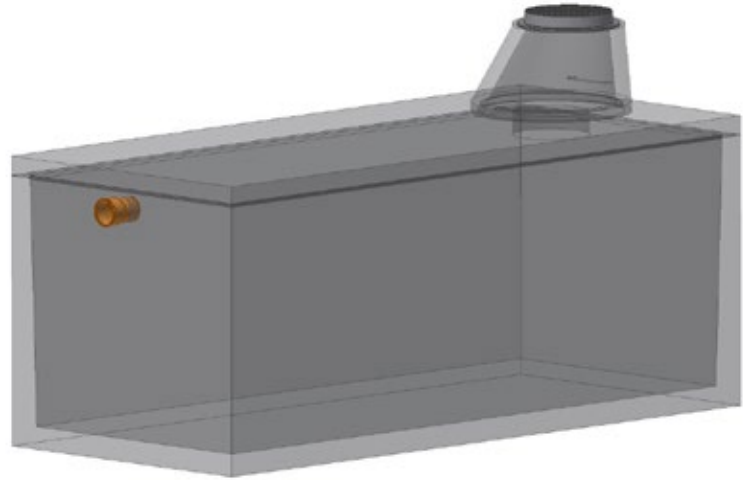


NOVINKA

Art.č.	Označenie	Parametre (d \times š \times v)	DN	Hmotnosť najťažšieho kusu
89001011	U Tank 3.7 x 2.4 x 2.45 m, Volume 18 m ³	3700x2400x2450	as required	8200
89001012	U-end Tank L 3.7x 1.2 x 2.45 m, Volume 8 m ³	3700x1200x2450	as required	7400
89001013	U-end Tank R 3.7x 1.2x 2.45 m, Volume 8 m ³	3700x1200x2450	as required	7400
89001014	U Tank 3.7 x 2.4x 1.91 m, Volume 14 m ³	3700x2400x1910	as required	7300
89001015	U-end Tank L 3.7 x 1.2 x 1.91 m, Volume 6 m ³	3700x1200x1910	as required	6130
89001016	U-end Tank R 3.7 x 1.2 x 1.91 m, Volume 6 m ³	3700x1200x1910	as required	6130
89001017	U Tank 3.7 x 2.4x 1.31 m, Volume 9 m ³	3700x2400x1310	as required	6300
89001018	U-end Tank L 3.7 x 1.2x 1.31 m, Volume 4 m ³	3700x1200x1310	as required	4700
89001019	U-end Tank R 3.7x 1.2x 1.31 m, Volume 4 m ³	3700x1200x1310	as required	4700
89001020	U Tank 4.3 x 2.4 x 2.45 m, Volume 21.5 m ³	4300x2400x2450	as required	8800
89001021	U-end Tank L 4.3 x 1.2 x 2.45 m, Volume 9m ³	4300x1200x2450	as required	8250
89001022	U-end Tank R 4.3 x 1.2 x 2.45 m, Volume 9m ³	4300x1200x2450	as required	8250
89001023	U Tank 4.3 x 2.4 x 1.91 m, Volume 16.5 m ³	4300x2400x1910	as required	7900
89001024	U-end Tank L 4.3 x 1.2 x 1.91 m, Volume 7 m ³	4300x1200x1910	as required	6800
89001025	U-end Tank R 4.3 x 1.2 x 1.91 m, Volume 7 m ³	4300x1200x1910	as required	6800
89001026	U Tank 4.3 x 2.4 x 1.31 m, Volume 10.5 m ³	4300x2400x1310	as required	6900
89001027	U-end Tank L 4.3 x 1.2 x 1.31 m, Volume 4.5 m ³	4300x1200x1310	as required	5300
89001028	U-end Tank R 4.3 x 1.2 x 1.31 m, Volume 4.5 m ³	4300x1200x1310	as required	5300
89001029	U-end Tank L 4.3 x 2.4 x 2.45 m, Volume 20 m ³	4300x2400x2450	as required	12200
89001030	U-end Tank R 4.3 x 2.4 x 2.45m, Volume 20 m ³	4300x2400x2450	as required	12200
89001031	U-end Tank L 4.3 x 2.4 x 1.91 m, Volume 15 m ³	4300x2400x1910	as required	10600
89001032	U-end Tank R 4.3 x 2.4 x 1.91 m, Volume 15 m ³	4300x2400x1910	as required	10600
89001033	U-end Tank L 4.3 x 2.4 x 1.31 m, Volume m 10 m ³	4300x2400x1310	as required	8800
89001034	U-end Tank R 4.3 x 2.4 x 1.31 m, Volume 10 m ³	4300x2400x1310	as required	8800
89001035	U-end Tank L 3.7 x 2.4 x 2.45 m, Volume 16 m ³	3700x2400x2450	as required	11000
89001036	U-end Tank R 3.7 x 2.4 x 2.45 m, Volume 16 m ³	3700x2400x2450	as required	11000
89001037	U-end Tank L 3.7 x 2.4 x 1.91 m, Volume 13 m ³	3700x2400x1910	as required	9600
89001038	U-end Tank R 3.7 x 2.4 x 1.91 m, Volume 13 m ³	3700x2400x1910	as required	9600
89001039	U-end Tank L 3.7 x 2.4 x 1.31 m, Volume 8 m ³	3700x2400x1310	as required	7800
89001040	U-end Tank R 3.7 x 2.4 x 1.31 m, Volume 8 m ³	3700x2400x1310	as required	7800
89001137	Ceiling plate 3,7x2,4x0,25m	3700x2400x250		5550
89001141	Ceiling plate 3,7x1,2x0,25m	3700x1200x250		2780
89001138	Ceiling plate 4,3x2,4x0,25m	4300x2400x250		6500
89001152	Ceiling plate 4,3x1,2x0,25m	4300x1200x250		3220
89001135	Ceiling plate 3,7x2,4x0,3m	3700x2400x300		6660
89001139	Ceiling plate 3,7x1,2x0,3m	3700x1200x300		3330
89001136	Ceiling plate 4,3x2,4x0,3m	4300x2400x300		7740
89001140	Ceiling plate 4,3x1,2x0,3m	4300x1200x300		3870

Reinforced concrete tanks

Accumulation tanks are covered, underground watertight tanks with no drainage, so the sanitary sewer water accumulates. The tanks are usually emptied by a sewer vehicle. Tanks equipped with drains are used to store rainwater for possible further use in irrigation or for technical purposes. The tanks are manufactured from reinforced C 30/37 concrete, while the connection between the ceiling plate and the tank is closed with a rubber seal and bolts that are waterproof and remain flexible.



Reinforced concrete expansion tanks

• Reinforced concrete expansion tanks

Number	Designated as	Storage volume (m ³)	Dimensions (L x W x H) (mm)	DN (mm)	Tank weight (kg)	Total weight (kg)
89001000	AN 2	2	Ø 1440x2100	podľa požiadavky	2850	3580
89001001	AN 3	3	Ø 1840x1800	podľa požiadavky	3430	4680
89001002	AN 5	5	Ø 2390x1700	podľa požiadavky	4680	6680
89001003	AN 9,5	9,5	2500x2400x2250	podľa požiadavky	7900	10600
89001004	AN 12	12	3100x2400x2250	podľa požiadavky	8600	11600
89001005	AN 14,5	14,5	3700x2400x2250	podľa požiadavky	10500	14500
89001008	AN 16,9	16,9	4300x2400x2250	podľa požiadavky	11800	16450
89001009	AN 19,4	19,4	4900x2400x2250	podľa požiadavky	13000	18300
89001006	AN 20	20	6000x2300x2000	podľa požiadavky	10000	20000
89001010	AN 21,9	21,9	5500x2400x2250	podľa požiadavky	14300	22050
89000911	AN 22	22	6000x2300x2250	podľa požiadavky	12000	22000
89001007	AN 25	25	6000x2300x2500	podľa požiadavky	12000	24000



Tank volume can be customised to customer requirements.



Water meter and armature shafts

Reinforced concrete tanks

Product description

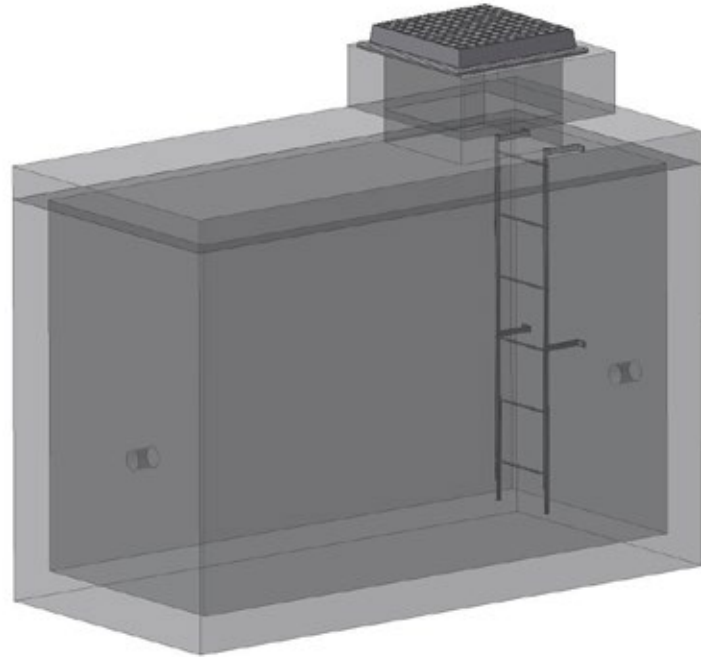
The reinforced concrete shaft is designed as a spatial element. A static system provides a rigid connection between the walls and the bottom plate of the tank. The walls have different thicknesses (120, 140, 160, 180, 200 or 250 mm) as required. The bottom plate measures at least 150 mm thick, while the ceiling plate is a minimum 160 millimetres thick. The thicknesses of the bottom and ceiling plates and of the walls are subject to static calculations and the spatial layout of the shaft.

The reinforced concrete shaft is made of C25/30 concrete.

Purpose and method of use

The reinforced concrete tank is used as a shaft for possible installation of different technological equipment such as valves, flow meters and automatic pressure stations.

An entrance ladder and plastic-coated steps can be added to the shaft when a customer specifies it.



Production series

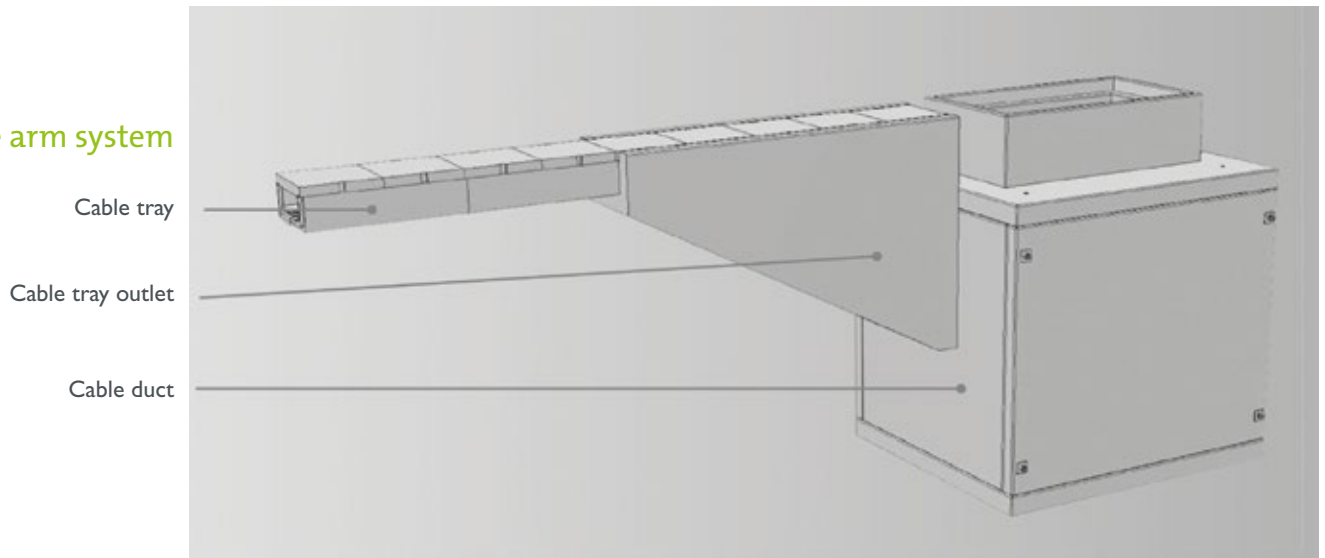
						Number	Internal dimensions (L x W x T) (mm)	Tank volume (m ³)	Heaviest part (kg)	Ceiling plate (kg)	Total weight(kg)
89000800	1200x900x1800	1,9	2 200	600	2 800	89020273	3800x1500x1800	10	9 900	3 200	13 100
89000801	1200x1200x1800	2,6	4 300	950	5 250	89020274	1800x1800x1800	5,8	6 600	1 900	8 500
89000816	1400x1200x1800	3,0	4 600	1 100	5 700	89020275	2100x1800x1800	6,8	7 000	2 150	9 150
89000803	1500x1200x1800	3,3	4 800	1 140	5 940	89000859	2500x1800x1800	8,1	8 000	2 540	10 540
89000818	1800x1200x1800	3,9	5 400	1 360	6 760	89020276	2800x1800x1800	9	8 700	2 800	11 500
89020266	2100x1200x1800	4,5	5 900	1 550	7 450	89000843	3200x1800x1800	10,4	9 500	3 200	12 700
89000806	2500x1200x1800	5,4	5 900	1 800	7 700	89000844	3500x1800x1800	11,3	10 760	3 460	14 220
89020267	2800x1200x1800	6,0	7 200	2 000	9 200	89020277	3800x1800x1800	12,2	11 700	4 000	15 700
89000822	3200x1200x1800	7,0	7 940	2 250	10 190	89020278	2100x2050x1800	8	7 800	2 450	10 250
89020263	3500x1200x1800	7,5	8 500	2 450	10 950	89020279	2500x2050x1800	9,3	7 850	2 350	10 200
89020264	3800x1200x1800	8,2	9 000	2 650	11 650	89020280	2800x2050x1800	10,2	9 280	3 160	12 440
89020265	1400x1400x1800	3,5	5 000	1 230	6 230	89020281	3200x2050x1800	11,9	10 140	3 570	13 710
89000807	1500x1400x1800	3,8	5 200	1 300	6 500	89020282	3500x2050x1800	13	10 780	3 880	14 660
89000824	1800x1400x1800	4,5	5 800	1 530	7 330	89020283	3800x2050x1800	14	11 430	4 200	15 630
89020268	2100x1400x1800	5,3	6 350	1 750	8 100	89020284	4100x2200x1920	16,9	11 720	4 650	16 370
89000804	2500x1400x1800	6,3	7 100	2 000	9 100	89020285	4700x2200x1920	19,4	13 000	5 300	18 300
89020269	2800x1400x1800	7,0	7 600	2 250	9 850	89020286	5300x2200x1920	21,9	14 300	7 750	22 050
89000828	3200x1400x1800	8,0	8 460	2 560	11 020	89001901	Ladder		10	0	10
89000862	3500x1400x1800	8,8	9 000	2 770	11 770	89001092	flue 600x600 H=200mm		150	0	150
89020270	3800x1400x1800	9,6	9 600	3 000	12 600	89000810	flue 600x600 H=250mm		250	0	250
89000802	1500x1500x1800	4	5 400	1 380	6 780	89000811	flue 600x600 H=300mm		300	0	300
89000830	1800x1500x1800	4,9	6 000	1 600	7 600	89001447	Hatch 600x600 tr. A 15kN				15
89020271	2100x1500x1800	5,6	6 570	1 860	8 430	89001447	Hatch 600x600 tr. B 125kN				20
89000860	2500x1500x1800	6,8	7 340	2 160	9 500	89001450	Hatch 600x600 tr. D 400kN				50
89020272	2800x1500x1800	7,5	7 940	2 200	10 140						
89000834	3200x1500x1800	8,6	8 700	2 720	11 420						
89000865	3500x1500x1800	9,5	9 300	2 950	12 250						

Výrobná rada

Number	Internal dimensions (L x W x H) (mm)	Tank volume (m ³)	Heaviest part (kg)	Ceiling plate (kg)	Total weight(kg)	Number	Internal dimensions (L x W x H) (mm)	Tank volume (m ³)	Heaviest part (kg)	Ceiling plate (kg)	Total weight(kg)
89020223	1200x1200x2100	3,0	4 830	950	5 780	89020248	3500x1500x2100	11	10 660	2 950	13 610
89020224	1400x1200x2100	3,5	5 250	1 100	6 350	89020249	3800x1500x2100	12	11 060	3 200	14 260
89020225	1500x1200x2100	3,8	5 440	1 140	6 580	89020250	1800x1800x2100	6,8	7 400	1 900	9 300
89020226	1800x1200x2100	4,5	6 050	1 360	7 410	89020251	2100x1800x2100	7,9	7 900	2 150	10 050
89020227	2100x1200x2100	5,3	6 670	1 550	8 220	89020252	2500x1800x2100	9,45	9 000	2 540	11 540
89020228	2500x1200x2100	6,3	7 470	1 800	9 270	89020253	2800x1800x2100	10,6	9 700	2 800	12 500
89020229	2800x1200x2100	7,0	8 100	2 000	10 100	89020254	3200x1800x2100	12	10 000	3 200	13 200
89020230	3200x1200x2100	8,0	8 920	2 250	11 170	89020255	3500x1800x2100	13	11 270	3 460	14 730
89020231	3500x1200x2100	8,8	9 550	2 450	12 000	89020256	3800x1800x2100	14,3	12 000	4 000	16 000
89020232	3800x1200x2100	9,6	10 150	2 650	12 800	89020257	2100x2050x2100	9	8 680	2 450	11 130
89020233	1400x1400x2100	4,1	5 650	1 230	6 880	89020258	2500x2050x2100	10,7	9 640	2 350	11 990
89020234	1500x1400x2100	4,4	5 870	1 300	7 170	89020259	2800x2050x2100	12	9 890	3 160	13 050
89020235	1800x1400x2100	5,3	6 500	1 530	8 030	89020260	3200x2050x2100	13,8	11 300	3 570	14 870
89020236	2100x1400x2100	6,2	7 150	1 750	8 900	89020261	3500x2050x2100	15	12 000	3 880	15 880
89020237	2500x1400x2100	7,3	8 000	2 000	10 000	89020262	3800x2050x2100	16,3	12 720	4 200	16 920
89020238	2800x1400x2100	8,2	8 450	2 250	10 700	89001901	Ladder		10	0	10
89020239	3200x1400x2100	9,4	9 480	2 560	12 040	89001092	flue 600x600 H=200mm		150	0	150
89020240	3500x1400x2100	10,3	10 100	2 770	12 870	89000810	flue 600x600 H=250mm		250	0	250
89020241	3800x1400x1800	11,2	10 750	3 000	13 750	89000811	flue 600x600 H=300mm		300	0	300
89020242	1500x1500x2100	4,7	6 100	1 380	7 480	89001447	Hatch 600x600 tr. A 15kN				15
89020243	1800x1500x2100	5,6	6 730	1 600	8 330	89001447	Hatch 600x600 tr. B 125kN				20
89020244	2100x1500x2100	6,6	7 400	1 860	9 260	89001450	Hatch 600x600 tr. D 400kN				50
89020245	2500x1500x2100	7,8	8 250	2 160	10 410						
89020246	2800x1500x2100	8,8	8 900	2 200	11 100						
89020247	3200x1500x2100	10	9 800	2 720	12 520						



One arm system



Cable ducts - 5 different sizes

They are used as distribution points and where cables cross. Cables can also be stored in the ducts for the future to extend the line. Ducts are also used to keep lines running in a straight at places such as rail junctions.

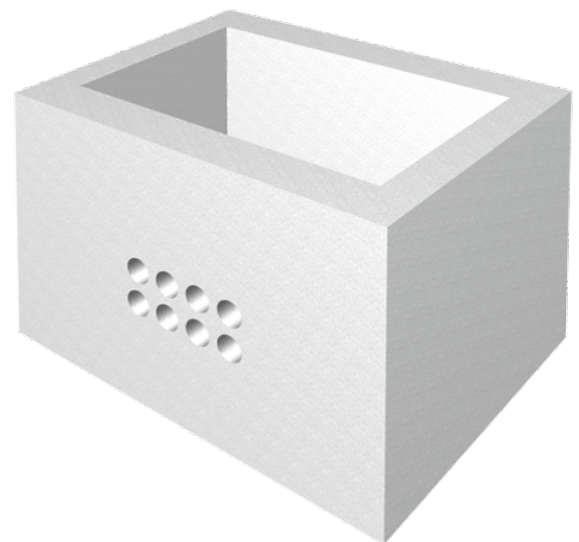
Number	6-piece cable duct	Internal dimensions (L x W x H)	External dimensions (L x W x H)	Weight (approx.)
30200001	Cable duct – part 1 of 6	1750 x 1500 x 2000 mm	2150 x 1900 x 2400 mm	9.650 kg
30200002	Cable duct – part 2 of 6	2000 x 1500 x 2000 mm	2400 x 1900 x 2400 mm	9.948 kg
30200003	Cable duct – part 3 of 6	2000 x 1750 x 2000 mm	2400 x 2150 x 2400 mm	10.557 kg
30200004	Cable duct – part 4 of 6	2500 x 2000 x 2000 mm	2900 x 2400 x 2400 mm	14.297 kg
30200005	Cable duct – part 5 of 6	3000 x 2000 x 1800 mm	3400 x 2400 x 2400 mm	16.242 kg



Cable tray outlets - 5 different sizes

The perfect connecting element between the cable tray and duct to adjust for the height of the tray and duct entrance.

Number	Cable tray outlets	Weight (approx.)
41100	Outlet 1, max. length 2500 mm, max. height 1643 mm	2.000kg
41101	Outlet 2, max. length 2500 mm, max. height 1643 mm	2.150kg
41102	Outlet 3, max. length 2500 mm, max. height 1643 mm	2.300kg
41103	Outlet 4, max. length 2500 mm, max. height 1643 mm	2.400kg
41104	Outlet 5, max. length 2500 mm, max. height 1643 mm	2.500kg



Auxiliary ducts - 2 standard sizes

They are mainly used at platforms and terminals as an intermediate duct to enter into smaller pipeline routes to feed electricity to lightning, loudspeakers and clocks. They can be fitted with openings and wall plugs if desired.

Number	Auxiliary duct single-part	Internal dimensions (L x W x H)	External dimensions (L x W x H)	Weight (approx.)
40050	Simple auxiliary duct single-part	700 x 700 x 1030 mm	1020 x 1020 x 1200 mm	1.664 kg
40051	Dual auxiliary duct single-part	1440 x 700 x 1030 mm	1760 x 1020 x 1200 mm	2.493 kg



6-part duct



Two-part duct - tank + ceiling plate.
Range of different-sized armature shafts



BG-FILCOTEN

Filtering substrate trough

BG-FILCOTEN **green** filters organic and inorganic impurities in impurities before they re-enter the water cycle through seepage or sewerage. See the next page for further details about it.

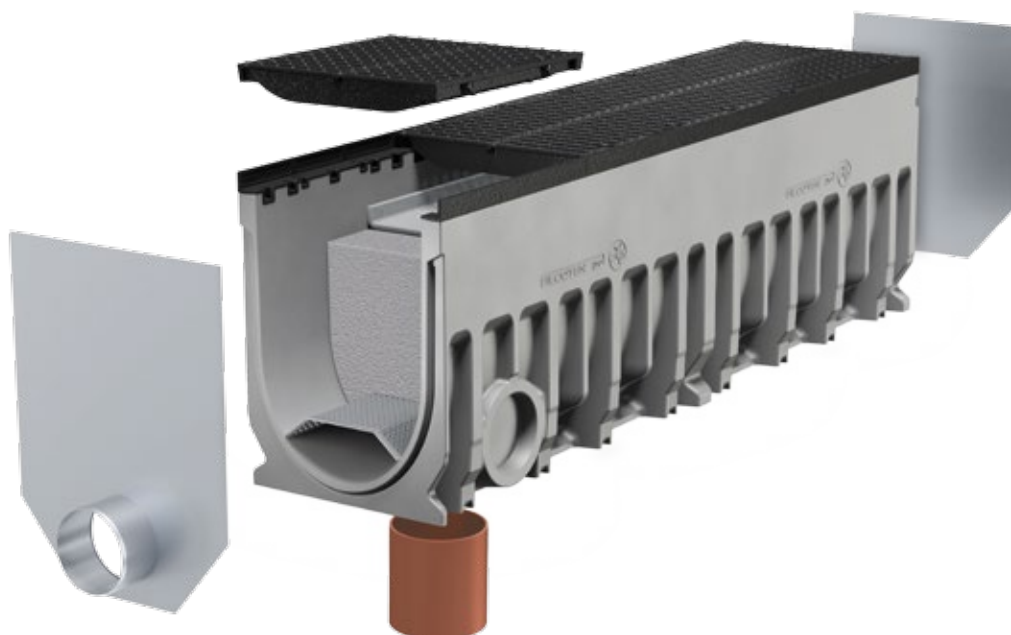
Advantages at first glance

- Sustainably protects underground water and soil
- Retains 99% of heavy metals, organic substances and particles
- Bio-degrades oil residues
- Reduces pollution in the water treatment system
- 20-year useful life
- Able to be integrated in wastewater sewer systems
- Resistant up to class E 600
- Can be managed and cleaned
- Low investment and maintenance costs
- Easy to maintain and replace substrates

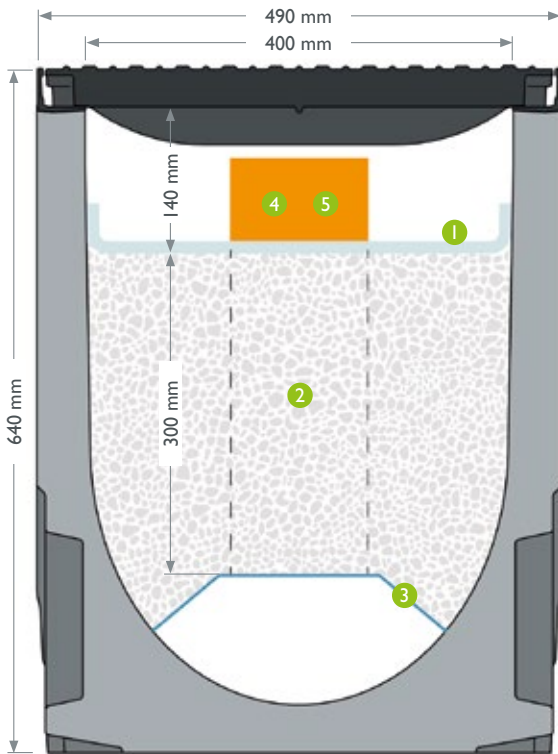
Areas of use: Where ordinary purification is not enough

New BG-FILCOTEN **green** is ideal where surface water treatment is prescribed:

- Public buildings
- Parking areas
- Logistics centres
- Residential units with several parking places
- Buildings with copper or galvanised roofing



Technology up close



1. Filtering cloth for more efficient pre-cleaning

- Filter cloth captures coarse dirt and protects the valuable filter material itself
- Very simple to install, maintain and replace

2. Powerful, integrated technical filter

- Versatile: tested with a false ratio of 1:250 and original classes A, B and C (according to Ö-Norm B2506-3) suitable for paved surfaces and galvanised and copper sheet roofing
- Extremely efficient with nonstop cleaning

2. New cleaning substrate

- Optimal 300 mm ViaSorp substrate
- Highest degree of cleaning
- Complies with ÖWAV RB45 and tested under Ö-Norm B2506-3
- Homogeneous material with nothing excreted during operation
- No danger of heavy metal activation caused by salty water

3. Trapezoidal perforated stainless steel sheeting

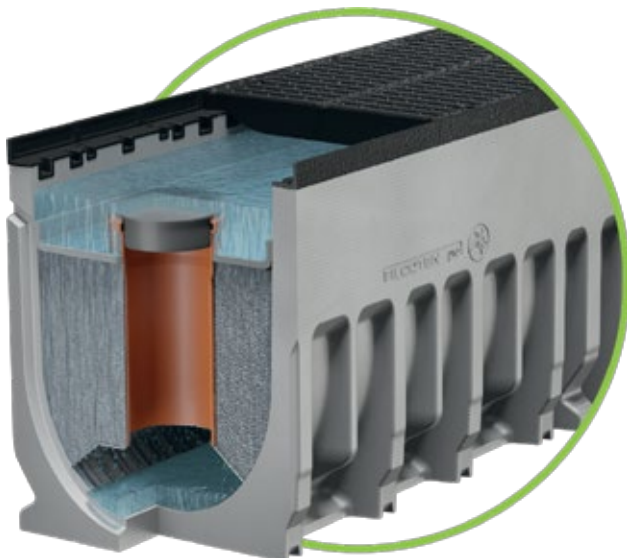
- Substrate zone separated from the inlet for long-term access across the inlet.
- An entrance ladder and plastic-coated steps can be added to the shaft when a customer specifies it

4. Integrated inspection shaft

- Inspection shaft for visual control and sampling of water
- Easy to inspect – remove the grille and take a water sample
- Purified water can be drawn and checked for residual substances - under ÖWAV RB45 and Ö-Norm B2506

5. Innovative DN 150 overflow for more efficient draining in heavy rain

- More effective protection even in extreme rainfall
- Cleans “first wave” pollutants beyond technical filters
- Uncontaminated excess water can controllably flow through the overflow pipe
- Warning: Official permission required to construct gutters.



www.say.bg/sk/green



www.say.bg/en/green_pdf



General Terms and Conditions

for the sale of products supplied by V-Alfatec, s.r.o. (“Commercial Terms”)

I. Validity

These Commercial Terms cover all transactions, commercial contracts and related supplies and additional deliveries concluded between V-Alfatec s.r.o., Kátlovce No. 303, 919 55 Kátlovce (“Seller”) and its business partners (“Buyer”). Products ordered by the Buyer are considered in these Commercial Terms to be accepted. Any other derogation from these Commercial Terms come into force only after the Seller has confirmed them in writing.

II. Quotes and Conclusion of an Agreement

All price data either listed or quoted are non-binding until a commercial and contractual relationship has been established. All dimensions, weights, images, descriptions, sketches and drawings mentioned in catalogues, price lists and other printed matter are indicative, but not binding. Any change in the price of input materials entitles the Seller to change the corresponding price. An agreement is reached only after an order has been placed and the Seller has confirmed the price.

III. Rates, Billing, Supplies and Refunds

Prices quoted and billed are net, exclusive of value added tax (VAT) and ex works V-Alfatec s.r.o., Kátlovce. The dimensions and quantity of actual products delivered and/or the actual extent of services rendered are billed by the Seller at their actual amounts. Costs of transport to the construction site are invoiced separately to the Buyer (unless the Buyer and Seller agree otherwise). The Seller reserves the right to change prices for anything not previously quoted in the order.

The Seller is allowed to accept the return of only those products it supplies, after having given written approval of the return and if they have not been damaged. A 15% handling fee will be deducted from the price of the products and the remainder refunded to the Buyer through a credit memo. The Buyer is not entitled to return any product to V-Alfatec, s.r.o. which it has manufactured according to the Buyer's specifications, unless a complaint about the product is justified.

Orders that have been placed may be partially or completely cancelled only if the Seller agrees to the conditions and the Buyer agrees to pay a 20% cancellation fee.

1. The Seller will supply to the Buyer contracted products and render contracted services at an agreed place and time. The Buyer undertakes to take any ordered products away at the stipulated place and time and to pay the agreed purchase price for them.
2. The Buyer is entitled to use products so delivered only for the purpose for which they are intended. The Seller is not liable for damage either caused to the products themselves or to any other persons or objects were the products to be used in any way other than their intended purpose.
3. The Seller is not considered to be late in supplying contracted products and/or rendering contracted services due to failure by the Buyer to provide proper and timely assistance, to an unavoidable event or if the Buyer fails to pay a negotiated instalment or deposit on time.
4. The commitment by the Seller to deliver the ordered products duly and properly to the place of performance will have been met
 - a) when the products have been supplied to the Buyer at the stipulated place (if transport is provided by the Seller);
 - b) when the products have been taken away by the Buyer at the Seller's establishment (if transport is provided by the Buyer);
 - c) when the products have been handed over to a carrier at a place to be determined by the Buyer;
 - d) at any unjustified refusal by the Buyer to take over the products or to sign the delivery note.

The Seller undertakes to provide the Buyer with a delivery note covering the products when they are handed over. Should products be forwarded directly to the construction site, the Buyer agrees to the Seller handing them over to anybody declaring themselves to be entitled to take over the goods on the Buyer's behalf. Products will be confirmed as having been supplied by either the Buyer's authorised representative or anyone entitled by their own declaration to take over the products on the Buyer's behalf, through their signature and legibly written full name on the delivery note.

5. The Buyer undertakes to remit to the Seller the agreed purchase price or billed amount within thirty (30) days from issuance of the invoice (unless the Buyer and the Seller agree otherwise). Were the Buyer to default on payment of a contracted product and/or service even after having received a written notice thereof from the Seller, then the Seller will be entitled to seek extrajudicial or judicial recovery of the

- claim through a third party or legal representative and the Buyer will undertake to pay to the Seller any and all demonstrable costs for these services within twenty-one (21) days from the Seller having issued an invoice for them.
6. Title to a contracted product passes from the Seller to the Buyer when the purchase price, liquidated damages and any contractual penalties have been paid. The Buyer is not entitled to resell a product to third parties, nor to export, process, machine, use it to settle debts with third parties or otherwise transfer or pledge the product to third parties until the Buyer has paid the full price for it. The Buyer is entitled to resell any product taken from the Seller only with the Seller's written consent and, if the Seller has not been paid the purchase price, the Buyer is obliged to communicate to its customers that the delivered product is not his property and will have to be returned in the event of default of payment. The Seller and the Buyer agree to the Buyer paying to the Seller one-time liquidated damages of 5% from the price of the supplied product, within fourteen (14) days of the Seller's issue of an invoice for the damages, were the Buyer to infringe its obligation to provide this information.
7. Should the Buyer default on the payment of any billed amount, then it undertakes to pay to the Seller a contractual penalty of 0.1% per day of the outstanding amount until it has been paid, without prejudice to any claim of compensation for damages. The Buyer is not entitled to set off its annual receivables against the Seller without the Seller's express consent. The Seller is entitled to repossess any products supplied hereunder for which the Buyer is in default of payment until the Buyer has paid for them, and the Buyer undertakes to provide the Seller with cooperation and support for any such repossession. The Seller is not obliged to enforce the payment of any contractual penalty or liquidated damages by the Buyer, and may opt to waive such payment in cases deserving special consideration, taking into account past and future commercial cooperation.
8. The Seller guarantees the quality of contracted products for a period of twenty-four (24) months from the date when they are taken away.
9. The Buyer is required to file a complaint about any fault or defect clearly evident in a contracted product or part thereof at the time when it is handed and taken over, with this right to lapse thereafter.
10. The Buyer is required to file a written complaint to the Seller about faults and defects the Buyer could only discover afterward while exercising professional care and due diligence, at latest upon the expiry of the warranty period.
11. Any written complaint by the Buyer is required to state the fault or defect and describe how it appeared, while keeping the product or part thereof safe in order for it to be inspected by the Seller.
12. The Seller is not liable for faults and defects in products caused by incorrect use during production and/or installation by the Buyer, or from incorrect handling, improper storage or incorrect utilisation of the supplied product. Complaints may only be made by the Buyer.
13. The Seller and the Buyer undertake to compensate each other for damage caused by having breached contractual and/or legal obligations. No contractual penalty will be taken into account in compensating for damages.
14. The Seller and the Buyer agree to submit all disputes arising between them out of the legal relationships established by these Commercial Terms or in connection herewith, including disputes concerning the validity, interpretation and termination hereof, as well as disputes arising between them or from the legal relationships established in previously concluded contracts or connected therewith, including disputes concerning the validity, interpretation and termination of these contracts for decision by arbitrator JUDr. Tomáš Tomaničik, Sládkovičova 6, 010 01 Žilina. Arbitration proceedings will be conducted according to the Rules of Arbitration by JUDr. Tomáš Tomaničik, Sládkovičova 6, 010 01 Žilina (including the setting of arbitration fees and arbitration procedures), which are available at his website.

The Seller and the Buyer undertake to abide by the decision taken in arbitration proceedings and for such a decision to be final, binding and enforceable upon them. The address for filing the request for arbitration is JUDr. Tomáš Tomaničik, Sládkovičova 6, 010 01 Žilina.

15. These Commercial Terms have been agreed between the Seller and the Buyer in accordance with Section 273 of the Commercial Code and are an integral part of any purchase contract concluded with an order.

Kátlovce: 1 January 2020

Jozef Vagovič
Director, V-Alfatec, s.r.o.

Test Reports

TGLS TECHNICKÝ ÚSTAV VODNÉHO HOSPODÁRSTVA
Národné referenčné laboratórium pre oblasť vód na Slovensku

Stacionárne pracovisko A, Bratislava 93, 910 01, Žitná, tel: +421 2 524 41 80, fax: +421 2 529 34 32, e-mail: info@tglas.sk

PROTOKOL O SKÚŠKE č. 60-15-1802

ZÁKAZKA
Objekt: 60110247
Zákazník: V. ALFATEC, s. r. o., Káňova 303, 919 05 Káňovce, Slovensko

PREDMET SKÚŠKY
Výrobok: odľudňovač nypných lístkov
Výrobcu: Klenčíky so zvláštnymi
Výstavu: Smer 208 21, Káňovce ústa A246, Slovensko
Výrobok/verzia: SN 058-1 (2002/01 - 2004 - Odľudňovacia aparatura ľubôľných kvapalín (napp, ošpa a benzín)) Časť 1. Základná navrhovania, funkcie a skúšky, spracovanie a faktúra kódy

VEDKA VÝROBKU
Opatrovie: odľudňovač nypných lístkov a benzín
LO ALFA B1
Dátum výroby: 2015
Miesto a dátum odberu: 18.09.2015
Odber výrobku: Žilina
Miesto a dátum prevzatia: 18.09.2015
Ostatné podľa laboratória: Žilina

SKÚŠKY
Stanovisko triedy odľudňovača - obsah zvyklovoho ošpa
Metódy presne: EN 808-1, článok 8.3.3.1.3
Typ vzorkovania: vzorky z ošpa
Metódy merania: vzorky z ošpa
Prírodný prísad: skúška bola vykonaná v laboratóriu. Ošpa vzorky skúšaného laboratória VÚVH Bratislava = Národné referenčné laboratórium pre ošpa vód na Slovensku ktoré je akreditovanou organizáciou, na odber a analýzu vzorky odberových vód SN46 podľa ČSN EN 17021, reg. C. 0595-100.

Dátum presne: 9.9.2015
Ostatné podľa: Ing. Peter Múčka

Použití manažé a poradenstvo:
Číslo: 0243
Meno: Jozefína
Meno: 18
Meno: 18

VÝHODNOTENIE:
Na základe výsledkov skúšky obsahu zvyklovoho ošpa je odľudňovač nypných lístkov zaradený do triedy 1 + zvyšok EN 808-1, Tabuľka 1.

PRÍLOHY:
Príloha 1 - Protokol o skúške č. 78598 + 78602

Dátum vypracovania: 1.10.2015
Vypracoval: Ing. Peter Múčka

Smer: Ing. Peter Múčka
Miesto: Bratislava

Podpis:
• Ak odber výrobku vykonajú pracovníci akreditovaného laboratória, ošpa a vzorky, ošpa a vzorky ošpa sa ošpa podľa informácií poskytnutých výrobcom.
• Základ vzorky sa ošpa na ošpa ošpa.
• Protokol o skúške sa na pracovisku ošpa akreditovaného laboratória podľa informácií na ošpa.

Koniec protokolu o skúške



VÝSKUMNÝ ÚSTAV VODNÉHO HOSPODÁRSTVA
Národné referenčné laboratórium pre oblasť vód na Slovensku
Národné referenčné laboratórium pre oblasť vód na Slovensku
Národné referenčné laboratórium pre oblasť vód na Slovensku
Národné referenčné laboratórium pre oblasť vód na Slovensku

PROTOKOL O SKÚŠKACH č. 78604

Registračné číslo vzorky: NKL/78604
Meno žiadateľa: V. ALFATEC, s. r. o.
Adresa žiadateľa: Náklová ul. 4346, 926 01 Sereď
Meno: Ing.
Ostatné údaje žiadateľa: Vozňa č. 2 - LO ALFA B2

Popis a identifikácia vzorky: Odpadová voda
Dátum prijatia vzorky: 9. 9. 2015
Popis odberu vzorky: Ošpa vykonaná pres. NKL (Protokol o odberu č. 78398)
Dátum odberu vzorky: 9. 9. 2015
Dátum vloženia poslednej analýzy do systému: 16. 9. 2015

VÝSLEDKY SKÚŠOK
skúška v tabuľke na strane č. 2 tohto protokolu.

Registračné číslo vzorky: NKL/78604
Dátum prijatia vzorky: 9. 9. 2015

Ukazovateľ	Výsledok	Jednotka	Meranie	Meranie
Národné referenčné laboratórium	0,13	mg/l	NKL/0-00102-1	074 01 0040-04

Podpis prac. zodpovedajúcich za spracovanie údajov: Podpis: [Signature]

VÝSKUMNÝ ÚSTAV VODNÉHO HOSPODÁRSTVA
Národné referenčné laboratórium pre oblasť vód na Slovensku
Národné referenčné laboratórium pre oblasť vód na Slovensku
Národné referenčné laboratórium pre oblasť vód na Slovensku

PROTOKOL O SKÚŠKACH č. 78598

Registračné číslo vzorky: NKL/78598
Meno žiadateľa: V. ALFATEC, s. r. o.
Adresa žiadateľa: Náklová ul. 4346, 926 01 Sereď
Meno: Ing.
Ostatné údaje žiadateľa: Vozňa č. 1 - LO ALFA B1

Popis a identifikácia vzorky: Odpadová voda
Dátum prijatia vzorky: 9. 9. 2015
Popis odberu vzorky: Ošpa vykonaná pres. NKL (Protokol o odberu č. 78398)
Dátum odberu vzorky: 9. 9. 2015
Dátum vloženia poslednej analýzy do systému: 16. 9. 2015

VÝSLEDKY SKÚŠOK
skúška v tabuľke na strane č. 2 tohto protokolu.

Registračné číslo vzorky: NKL/78598
Dátum prijatia vzorky: 9. 9. 2015

Ukazovateľ	Výsledok	Jednotka	Meranie	Meranie
Národné referenčné laboratórium	1,08	mg/l	NKL/0-00102-1	074 01 0040-04

Podpis prac. zodpovedajúcich za spracovanie údajov: Podpis: [Signature]

VÝSKUMNÝ ÚSTAV VODNÉHO HOSPODÁRSTVA
Národné referenčné laboratórium pre oblasť vód na Slovensku
Národné referenčné laboratórium pre oblasť vód na Slovensku
Národné referenčné laboratórium pre oblasť vód na Slovensku

PROTOKOL O SKÚŠKACH č. 78598

Registračné číslo vzorky: NKL/78598
Meno žiadateľa: V. ALFATEC, s. r. o.
Adresa žiadateľa: Náklová ul. 4346, 926 01 Sereď
Meno: Ing.
Ostatné údaje žiadateľa: Vozňa č. 1 - LO ALFA B1

Popis a identifikácia vzorky: Odpadová voda
Dátum prijatia vzorky: 9. 9. 2015
Popis odberu vzorky: Ošpa vykonaná pres. NKL (Protokol o odberu č. 78398)
Dátum odberu vzorky: 9. 9. 2015
Dátum vloženia poslednej analýzy do systému: 16. 9. 2015

VÝSLEDKY SKÚŠOK
skúška v tabuľke na strane č. 2 tohto protokolu.

Registračné číslo vzorky: NKL/78598
Dátum prijatia vzorky: 9. 9. 2015

Ukazovateľ	Výsledok	Jednotka	Meranie	Meranie
Národné referenčné laboratórium	1,08	mg/l	NKL/0-00102-1	074 01 0040-04

Podpis prac. zodpovedajúcich za spracovanie údajov: Podpis: [Signature]

Certifications

TSUS TECHNICKÝ A SKÚŠOBÝ ÚSTAV STAVEBNÝ, s. o.
Bratislava
Súdna 3, 821 04 Bratislava

CERTIFIKÁT VÝROBKU
č. 00034/TSUS/2011
zo dňa 20.10.2011

Ing. Dana Košíková
vedúca certifikačného orgánu

067312

TSUS TECHNICKÝ A SKÚŠOBÝ ÚSTAV STAVEBNÝ, s. o.
Bratislava
Súdna 3, 821 04 Bratislava

CERTIFIKÁT VÝROBKU
č. 00033/TSUS/2011
zo dňa 20.10.2011

Ing. Dana Košíková
vedúca certifikačného orgánu

067310

TSUS TECHNICKÝ A SKÚŠOBÝ ÚSTAV STAVEBNÝ, s. o.
Bratislava
Súdna 3, 821 04 Bratislava

CERTIFIKÁT VÝROBKU
č. 00049/TSUS/2013
zo dňa 05.12.2013

Ing. Dana Košíková
vedúca certifikačného orgánu

059755

VYHLÁSENIE O PARAMETROCH

č. 01/2014

1. Jedinečný identifikačný kód výrobku:

Odušovač ropných látok LO ALFA

2. Typ, sériové číslo: nevzťahuje sa

3. Zamýšľané použitie:

je určený k čisteniu odpadových vôd znečistených vojnými ropnými látkami, alebo ich nestabilnými emulziami

4. Výrobca: V-ALFATEC s.r.o.
Kátľovce 303, 919 55
IČO: 36 757 306

5. Spôsobnosť zastupca: nevzťahuje sa

6. Systém(y) posudzovania a overovania nemerostí parametrov: 4

7. Harmonizovaná norma: EN 858-1:2002/A1:2004
Notifikovaná inštitúcia: TECHNICKÝ A SKÚŠOBÝ ÚSTAV STAVEBNÝ, n. o.

vypracované na základe skúšky typu odľuovača ropných látok LO ALFA (č.60150069) podľa SK TP-15/0048

8. Európsky hodnotiaci dokument: nevzťahuje sa

9. Deklarované parametre:

Podstatné vlastnosti	Parametre	Harmonizované technické špecifikácie
Reakcia na oheň	F	EN 858-1:2002/A1:2004
Vodotesnosť	vyhovuje	
Účinnosť	vyhovuje	
Únosnosť	vyhovuje	
Trvanlivosť	vyhovuje	

Vhodná technická dokumentácia a/alebo špecifická technická dokumentácia: nevzťahuje sa

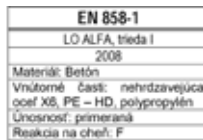
10. Uvedené parametre výrobku sú v zhode so súborom deklarovných parametrov.

Toto vyhlásenie o parametroch sa v súlade s nariadením (EÚ) č. 305/2011 vydáva na výhradnú zodpovednosť uvedeného výrobcu.

Podpísal za a v mene výrobcu: Jozef VAGOVČIČ – konateľ

Sereď, 1.1. 2014

(podpis)



SK VYHLÁSENIE O PARAMETROCH č. 0001/2016

- Druhový a obchodný názov výrobku: Akumulácie, sedimentácie, usadzovacie a retenčné nádrže
- Typ, číslo výrobnej dávky alebo sériové číslo, alebo akryťovok iný prvok umožňujúci identifikáciu šľavebného výrobku: pozri štítk výrobku, na ktorom je uvedené výrobné číslo nádrže a jej objem v m³
- Určená slovenská norma zťahujúca sa na výrobok (označenie, risks vyjadrenia a názov): nevzťahuje sa
- SK technické posúdenie, ak bolo pre výrobok vydané (označenie a názov), a názov autorizovanej osoby, ktorá ho vydala: SK TECHNICKÉ POSÚDENIE SK TP - 150048 Akumulácie, sedimentácie, usadzovacie a retenčné nádrže - vydal Technický a skúšobný ústav stavebný, n. o., Autorizovaná osoba TP04
- Zamýšľané použitie výrobku v súlade s uplatnenou úroňnou normou alebo SK technickým posúdením: Akumulácie, sedimentácie a retenčné nádrže sú určené na akumuláciu, spaliťovací odpadovej a/alebo olejovej vody, vody na protipodpalovú obranu, resp. na umiestnenie technologických šľavovacích odpadových vôd. Alternatívne sa sú vybraných podmenných prešhodných môžu umiestniť vedostany a armatury inžinierskych a káblových sietí.
- Obchodné meno, adresa sídla, IČO výrobcu a miesto výroby: výrobca: V-ALFATEC, s.r.o. IČO: 36757306, 919 55 Kátľovce 303 Slovenská republika miesto výroby: V-ALFATEC, s.r.o. Níkovú 4346, 928 01 Sereď, Slovenská republika
- Mená a adresa spíhomončeného zástupcu, ak je ustanovený: nevzťahuje sa
- Uplatnený systém alebo systémy posudzovania parametrov podľa vyhlášky MÚVRR SR č. 162/2013 Z. z.: systém IS
- Obmedzenia SK certifikátu(ju) a dátum(y) vydania, ak boli(je) vydaný(je), a názov autorizovanej osoby, ktorá ho (ich) vydala: nevzťahuje sa
10. Deklarované parametre

Podstatné vlastnosti	Parametre	Podstato o o štúdie	Por. číslo tab.
Pevnosť v ťahu	≥ 45 MPa	SPRÁVA č. 60150069 O SKÚŠBE TYPU POCOLA SK TP-15/0048	1
Hĺbka preniknutia nitrovní otevu	≤ 20 mm		
Mrazuvzdornosť betónu	súčasť mrazuvzdornosť ≥ 0,85		
Odolnosť voči zráždeniu vody a chemickým roztokoch alebo	po 100 cykloch výšky 2 (3 000 g/m ³)		
Odolnosť voči alkalicko-kremíkové roztok	chemická štúdia ak 4% NaOH + 35 + 30 stábornáková štúdia 11 ± 0,100 %		
Pevnosť v ťahu	500 N/mm ²		
Medera klau	500 N/mm ²		
Hĺbka suchých vrstev náteru	min. 500 µm		
Odolnosť proti vrgu	min. 90 N		
Ráková hľstvosť	min. 4 Nm		
Priodnosť o podkladu	min. 2 N/mm ²		
Chemická odolnosť náteru	stupňí horby štúdií mai štupňí 2 štúdia ošľipnutia náteru max. 1 mm forček profilu Buchholze nastáborná		
Vodotesnosť nádrže	Prímernej pokos Hasiary 3h (priem. za 24 hodín) nemie byf nádrže ako pokos v zrynie štúdiu 4.8 STN TS 0955 - 990		
Únosnosť	Nádrž musí bezpečne prenesť záťažovaním nástupom ámeny výšky 2,3 m a ušľonú pafáhovú		
Podstatné vlastnosti	Parametre	Podstato o o štúdie	Por. číslo tab.
Rozměrová přesnosť	± 20 mm	SPRÁVA č. 60150069 O SKÚŠBE TYPU POCOLA SK TP-15/0048	1
Krytie výstuže	min. 45 mm		
Poloha, druh, počet a prumer výstuže	Súlad s vyhlášenou dokumentáciou		

Vypracoval (sú) tab.: Názov a adresa skúšobného laboratória

1. Technický a skúšobný ústav stavebný, n. o., Súdna 3, 821 04 Bratislava

Názov špecifkej technickej dokumentácie podľa § 5 zákona a dátum jej vydania, ak sa použila:

- nevzťahuje sa

11. Výrobca vyhlasuje, že výrobok zadenovaný v bodoch 1 a 2 má parameter podstatných vlastnosti podľa bodu 10.

12. Toto SK vyhlásenie o parametroch sa vydáva na výhradnú zodpovednosť výrobcu uvedeného v bode 6.

Podpísal za a v mene výrobcu:

Jozef VAGOVČIČ, konateľ

Kátľovce, máj 2016



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Sustainable innovation.

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900 52 Kuchyňa
SLOVENSKO

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E-Mail: office.sk@bg-graspointner.com

Web: www.bg-graspointner.com



V-ALFATEC
BG-Graspointner Group

V-Alfatec s.r.o.
Kátlovce 303, 919 55
SLOVENSKO

Operations:
Niklová ulica 4346
926 01 Sered'

Tel./Fax: +421 31/780 59 00

Mobile: +421 907/ 748 558

E-Mail: v-alfatec@mail.t-com.sk

Website: www.v-alfatec.sk

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