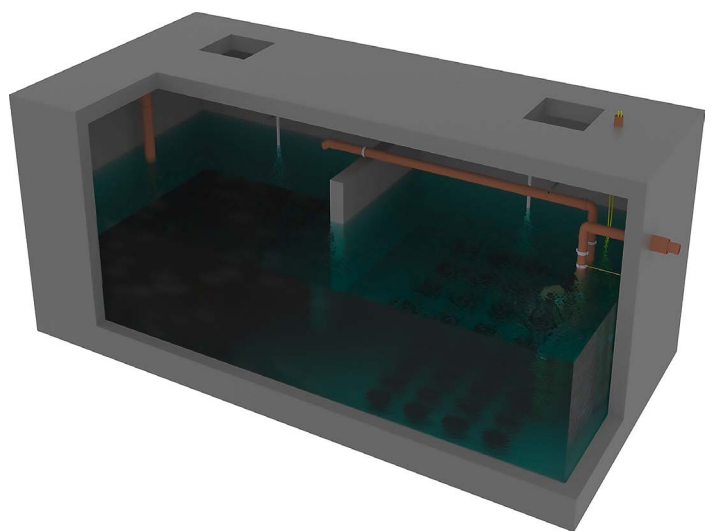


SBR Kit

60 – 500 PE

Benefits of the ClearFox® SBR Kit

- No odor
- Low running costs
- High performance with high quality,
Made in Germany
- Easy installation and handling
- Sludge stabilization/sludge treatment
- Stable and very robust process
technology



Description SBR Kits

operate according to the SBR-Process (Sequencing batch reactor) optional with integrated aerobic sludge stabilization.

The plant consists of two areas: the pre-sedimentation and the bioreactor. The pre-sedimentation consists of a sedimentation chamber, a sludge storage tank and a buffer. The system is designed dimensioned according to the guidelines of the DWA-A 131 and DWA-A 222 for domestic wastewater.

Cleaning efficiency

The cleaning performance is split into classification "C" and "N"

Classification "C"

- COD <150 mg/l

- BOD₅ <40 mg/l

Classification "N"

- COD <90 mg/l
- BOD₅ <10 mg/l
- NH₄-N <10 mg/l

Scope of delivery

ClearFox® SBR Kits consist of an aeration system, airlift pumps, an air compressor, an air distribution manifold with electronic/magnetic valves and a control unit.

Maintenance free disc diffuser mounted on a PE manifold pipe, amount of diffusers and size of manifold according to plant design

- EPDM Membrane; A = 0,55m²; d=275 mm; chemical resistance
- Mounting material

Maintenance free airlift for clearwater, filling and
Secondarysludge

- Free ball passage from 50 up to 150 mm

Standard cabinet

- Powder coated steel cabinet 600x600x300 mm
- Protection class IP 55
- Lockable, incl. key

CF Automation / control unit

- Integrated air distributor (up to 4 stepper motors) for operation with diaphragm compressors
- Pressure sensor-controlled microprocessor technology
- 5 x 230V outputs, individually fused via microfuses
- Convenient 6-key operation
- USB connection with auto-report function (electronic

operation diary and faults) and plug-and-play software updates

- WLAN interface for readout via smartphone
- Console for indoor and outdoor installation IP 44, compressor socket on top of the housing
- Dimensions: 320 x 250 x 130 mm (l, w, h); 3 kg

Solenoid valve manifold separate for system

- 2/2 way, G1 – G2
- EPDM Membrane -10 to + 140°C
- 230 VAC, 12 W, 100% ED

Maintenance free, two stage side channel air compressor

- Capacity according to the dimensioning of the system size
- Associated silencer



Classification "C"

PE	Hydraulic Loading	Organic Loading	Primary treatment		Classification "C"	max. water depth	Compressor size	Dimension airliftpumps
			Sludge storage time					
	m³/day	KG BOD ₅ /day	3 month	1 year	COD = 90 mg/l BOD = 10 mg/l	m	KW	Mm
			V _{tot} [m³]	V _{tot} [m³]	V _{Bio} [m³]			
60	9,00	3.60	10,50	17,40	6,60	2	1,50	75
75	11,25	4,50	13,10	21,80	8,30	2	1,50	75
100	15,00	6,00	17,50	29,00	11,00	2	1,50	75
125	18,75	7,50	21,90	36,30	13,80	2	2,20	100
150	22,50	9,00	26,30	43,50	16,50	2,5	2,20	100
200	30,00	12,00	35,00	58,00	22,00	2,5	2,20	100
250	37,50	15,00	43,80	72,50	27,50	2,5	3,00	100
300	45,00	18,00	52,50	87,00	33,00	2,5	3,00	100
350	52,50	21,00	61,30	101,50	38,50	2,5	3,00	100
400	60,00	24,00	70,00	116,00	44,00	3	3,00	100
450	67,50	27,00	78,80	130,50	49,50	3	4,00	150
500	75,00	30,00	87,50	145,00	55,00	3	5,50	150

PE	Power consumption	Calculated Sludge production		Cleaning cycles		Diameter connecting tube	Paletts for transport
	KWh/day	Kg/Month	l/day	No./day	max. m³/cycle	mm	Pcs.
60	18,00	61,20	198	3	3,00	25	2
75	18,00	76,50	248	3	3,80	25	2
100	18,00	102,00	330	3	5,00	25	2
125	26,40	127,50	413	3	6,30	32	2
150	26,40	153,00	495	3	7,50	32	2
200	26,40	204,00	660	3	10,00	32	2
250	36,00	255,00	825	3	12,50	38	3
300	36,00	306,00	990	3	15,00	38	3
350	36,00	357,00	1155	3	17,50	38	3
400	36,00	408,00	1320	3	20,00	35	3
450	48,00	459,00	1485	3	22,50	50	4
500	66,00	510,00	1650	3	25,00	50	4

Classification "N"

PE	Hydraulic Loading	Organic Loading	Primary treatment		Classification "C"	max. water depth	Compressor size	Dimension airliftpumps
			Sludge storage time					
	m³/day	KG BOD ₅ /day	3 month	1 year	COD = 90 mg/l BOD = 10 mg/l	m	KW	Mm
			V _{tot} [m³]	V _{tot} [m³]	V _{Bio} [m³]			
60	9,00	3.60	10,50	17,40	9,00	2	1,50	75
75	11,25	4,50	13,10	21,80	11,25	2	1,50	75
100	15,00	6,00	17,50	29,00	15,00	2	2,20	100
125	18,75	7,50	21,90	36,30	18,75	2	2,20	100
150	22,50	9,00	26,30	43,50	22,50	2,5	2,20	100
200	30,00	12,00	35,00	58,00	30,00	2,5	3,00	100
250	37,50	15,00	43,80	72,50	37,50	2,5	3,00	100
300	45,00	18,00	52,50	87,00	45,00	2,5	4,00	150
350	52,50	21,00	61,30	101,50	52,50	2,5	4,00	150
400	60,00	24,00	70,00	116,00	60,00	3	5,50	150
450	67,50	27,00	78,80	130,50	67,50	3	5,50	150
500	75,00	30,00	87,50	145,00	75,00	3	5,50	150

PE	Power consumption	Calculated Sludge production		Cleaning cycles		Diameter connecting tube	Paletts for transport
	KWh/day	Kg/Month	l/day	No./day	max. m³/cycle	mm	Pcs.
60	18,00	61,20	198	3	3,00	25	2
75	18,00	76,50	248	3	3,75	25	2
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125	26,40	127,50	413	3	6,25	32	3
150	26,40	153,00	495	3	7,50	32	3
200	36,00	204,00	660	3	10,00	38	3
250	36,00	255,00	825	3	12,50	38	3
300	48,00	306,00	990	3	15,00	50	4
350	48,00	357,00	1155	3	17,50	50	4
400	66,00	408,00	1320	3	20,00	50	4
450	66,00	459,00	1485	3	22,50	50	4
500	66,00	510,00	1650	3	25,00	50	4

Additional equipment

Das ClearFox® SBR system can be upgraded to any required effluent standard. No matter if it is a phosphorous elimination, disinfection or even persistent/trace substances that must be eliminated.

Aluminum Outdoor cabinet RAL 7035

- 1200x600x500
- Protection class IP 55
- Single-door lockable, incl. key
- Material Aluminum Sheet powder-coated

Aluminum Outdoor cabinet RAL 7035

- 1200x800x500
- Protection class IP 55
- Single-door lockable, incl. key
- Material Aluminum Sheet powder-coated

Aluminum Outdoor cabinet RAL 7035

- 1200x1200x500
- Protection class IP 55
- Double-door lockable, incl. key
- Material Aluminum Sheet powder-coated

Technical Room

- 2150x2100x1140
- Galvanized sheet steel
- Electrical Installation
- Damp-proof luminaire
- socket
- Single-door lockable, incl. key

Red alarm light

- Complete set with red lamp housing 230 V

Modem for CF Automation / control unit

- Remote maintenance and remote management possible for customer, maintenance company and manufacturer
- Integrated modem for network connection
- Automatic forwarding of faults by e-mail
- Web portal for access to the control system (display and download of fault messages and operating hours, change of control system parameters depending on authorization, different access levels, system updates)

Phosphorous elimination

At the end of the cleaning process a precipitant is added to the reactor.

This takes the phosphate out and store it in the activated sludge.

- Peristaltic dosing pump 0,2 – 4,5 l/h
- 230 V +/- 10%, 50/60 Hz; 5 VA
- IP65
- Capacity adjustable via potentiometer
- Suction lance with level control

Chlorine disinfection

- The chlorine disinfection also will be handled with a dosing pump.
- The cleaned water will be pumped by the airlift system to a retention tank. During the filling is also the dosing of the chlorine to this tank.
- Peristaltic dosing pump 0,2 – 4,5 l/h
- 230 V +/- 10%, 50/60 Hz; 5 VA
- IP65
- Capacity adjustable via potentiometer
- Suction lance with level control
- Size of the retention tank (customer side) 50% of the daily amount of wastewater

Connection tube 1"

- 50 m roll
- Pressure hose
- Size 1" (25mm) 25x4,3mm
- Stainless steel hose clamps

Connection tube 1 ¼ "

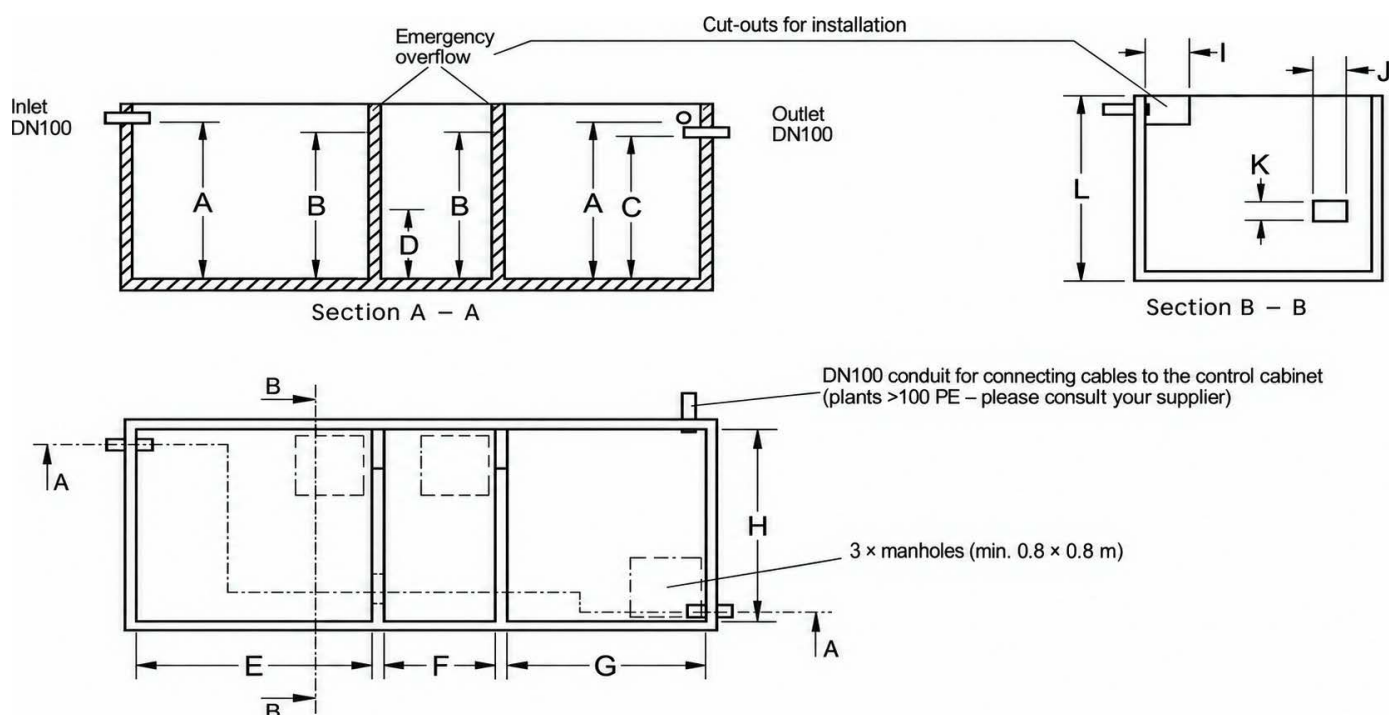
- 50 m roll
- Pressure hose
- Size 1 ¼ " (32mm) 32,4x4,8mm
- Stainless steel hose clamps

Connection tube 1 ½ "

- 50 m roll
- Pressure hose
- Size 1 ½ " (38mm) 38x4,8mm
- Stainless steel hose clamps

Connection tube 2"

- 50 m roll
- Pressure hose
- Size 2" (38mm) 50x5mm
- Stainless steel hose clamps



Classification "C"

PE	A	B	C	D	E	F	G	H	I	J	K
	m	m	m	m	m	m	m	m	m	m	m
60	2,20	2,00	2,10	1,00	1,80	0,90	1,70	2,00	0,40	0,40	0,40
75	2,20	2,00	2,10	1,00	2,20	1,10	2,10	2,00	0,40	0,40	0,40
100	2,20	2,00	2,10	1,00	2,90	1,50	2,80	2,00	0,40	0,40	0,40
125	2,20	2,00	2,10	1,00	2,90	1,50	2,80	2,50	0,40	0,40	0,40
150	2,70	2,50	2,60	1,20	2,80	1,40	2,60	2,50	0,40	0,40	0,40
200	2,70	2,50	2,60	1,20	3,10	1,60	2,90	3,00	0,40	0,40	0,40
250	2,70	2,50	2,60	1,20	3,90	1,90	3,70	3,00	0,40	0,40	0,40
300	2,70	2,50	2,60	1,20	4,00	2,00	3,80	3,50	0,40	0,40	0,40
350	2,70	2,50	2,60	1,20	4,10	2,00	3,90	4,00	0,40	0,40	0,40
400	3,20	3,00	3,10	1,50	3,90	1,90	3,70	4,00	0,40	0,40	0,40
450	3,20	3,00	3,10	1,50	4,40	2,20	4,10	4,00	0,40	0,40	0,40
500	3,20	3,00	3,10	1,50	4,30	2,20	4,10	4,50	0,40	0,40	0,40

Classification "N"

PE	A	B	C	D	E	F	G	H	I	J	K
	m	m	m	m	m	m	m	m	m	m	m
60	2,20	2,00	2,10	1,00	1,80	0,90	2,30	2,00	0,40	0,40	0,40
75	2,20	2,00	2,10	1,00	2,20	1,10	2,80	2,00	0,40	0,40	0,40
100	2,20	2,00	2,10	1,00	2,90	1,50	3,80	2,00	0,40	0,40	0,40
125	2,20	2,00	2,10	1,00	2,90	1,50	3,80	2,50	0,40	0,40	0,40
150	2,70	2,50	2,60	1,20	2,80	1,40	3,60	2,50	0,40	0,40	0,40
200	2,70	2,50	2,60	1,20	3,10	1,60	4,00	3,00	0,40	0,40	0,40
250	2,70	2,50	2,60	1,20	3,90	1,90	5,00	3,00	0,40	0,40	0,40
300	2,70	2,50	2,60	1,20	4,00	2,00	5,10	3,50	0,40	0,40	0,40
350	2,70	2,50	2,60	1,20	4,10	2,00	5,30	4,00	0,40	0,40	0,40
400	3,20	3,00	3,10	1,50	3,90	1,90	5,00	4,00	0,40	0,40	0,40
450	3,20	3,00	3,10	1,50	4,40	2,20	5,60	4,00	0,40	0,40	0,40
500	3,20	3,00	3,10	1,50	4,30	2,20	5,60	4,50	0,40	0,40	0,40

