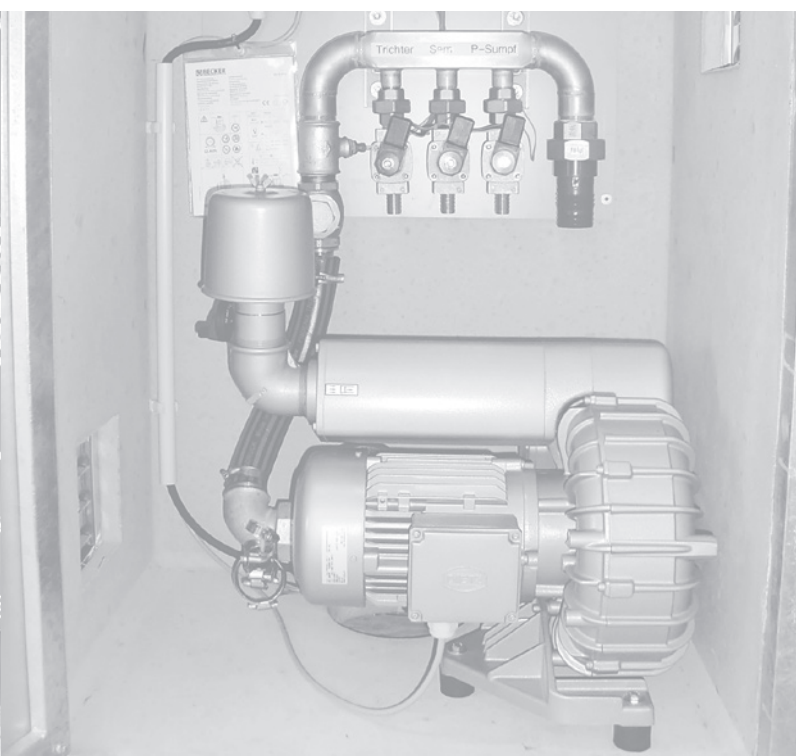


Wastewater Ordinance NeutraClear recirculation watertreatment system



Mall pre-treatment basin NeutraTwin

Sludge trap and pre-separator

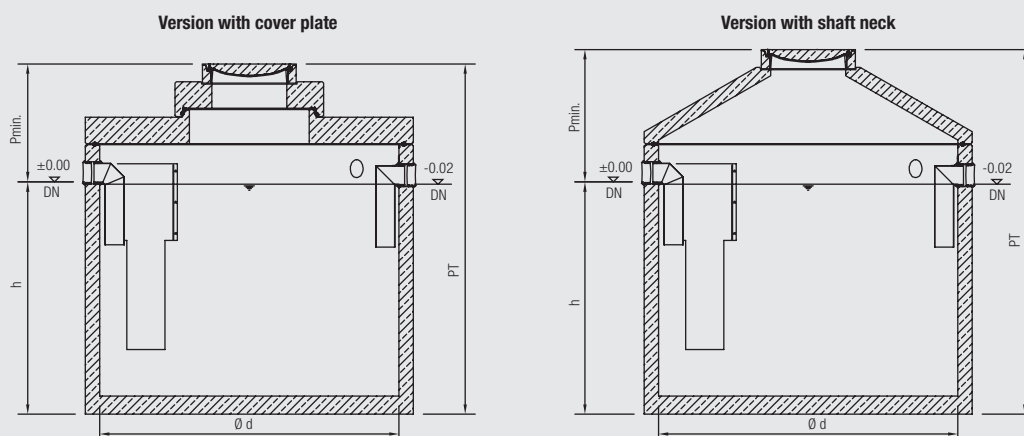
Pre-treatment basin for the NeutraClear recirculating water treatment system for the retention of sinking and floating substances to minimise the load on and protect the downstream system technology

Order number	Contents I	Inner Ø d mm	Total depth H mm	Inlet depth T _{min} mm	Height h mm	Nominal size DN	Total content I	Heaviest single weight kg	Total weight kg
S V Twin 6600	6600	2000	3275	985	2290	150	6600	6.410	8.860
Twin 8700	8700	2500	2925	985	1940	150	8700	7.430	10.930
Twin 10000	10000	2500	3275	985	2290	150	10000	8.300	11.800
Twin 14300	14300	3000	3195	1005	2190	150	14300	11.980	17.530
Twin 22800	22800	4000	3040	1100	1940	200	22800	8.880	28.940

S V Version with shaft neck

Twin 6600 K	6600	2000	3395	1105	2290	150	6600	6.410	7.970
Twin 8700 K	8700	2500	3045	1105	1940	150	8700	7.430	9.400
Twin 10000 K	10000	2500	3395	1105	2290	150	10000	8.300	10.270

- With light liquid-resistant inner coating
- Resistant sealing elements suitable for plastic pipes (e.g. PE-HD, PP) are installed at the factory for the articulated pipe connection.
- Additional pipe connections by arrangement
- Dimensions valid for cover class D 400. With cover class B 125, the inlet depth (T_{min}) and total depth (H) are reduced by 35 mm, the total weight by 80 kg.
- To increase the inlet depth (T_{min}), extension pieces according to DIN 4034-1 are available.

 Webcode **M5546**


NeutraClear mall treatment basin

Z-83.4-6



Animation at:
www.mall.info/tv

Mechanical-biological recirculation water treatment

Order number	Maximum waste water quantity l/min.	Maximum wastewater load kg BSB ₅ /d	Inner Ø d mm	Electrical connected load 400 V/50Hz	Heaviest single weight kg	Total weight kg
C 1500	100	3,23	1500	0,75 kW	5.820	8.830
C 2000	180	8,15	2000	1,1 kW	8.670	14.490
C 2500	280	12,66	2500	2,2 kW	11.250	20.100
C 3000	530	18,24	3000	1 x 3,0 kW	17.680	30.930
C 4000	760	29,59	4000	2 x 3,0 kW	9.580	44.120

- With general building authority approval
- In quality-monitored prefabricated construction made of jointless reinforced concrete C35/45 (B45), reinforced for crack resistance, with type-tested structural analysis
- With factory-fitted, durable sealing elements suitable for plastic pipes (e.g. PE-HD, PP) for the articulated pipe connection
- Filter and support material applied over reinforced concrete support grid
- Mammoth pumps and sludge discharge hoppers for removing flotage and excess biomass
- With shaft superstructures in accordance with DIN 4034-1, including pre-lubricated mechanical seal
- With manhole cover in accordance with DIN EN 124 and DIN 1229
- Side channel blower with air distributor and control unit factory-fitted; optionally in a weatherproof appliance box equipped with a lockable steel door for outdoor installation or in a frame for indoor installation
- The system is pre-assembled at the factory. Final assembly and commissioning by Mall installation service
- Compatible with all vehicle washing systems that can use water

Design criteria

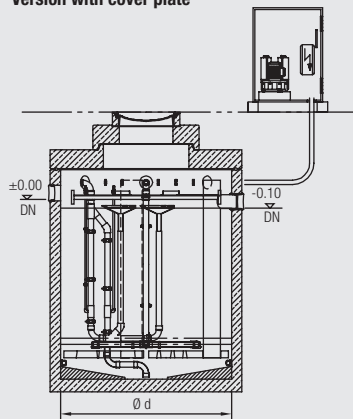
1. wastewater generation

- Washing number
- Washing and make-up water / vehicles
- Pre-washing
- Washing time in min. / vehicle
- Further wastewater generation
- Gantry car wash for cars, lorries and buses
- Car wash for cars
- Washing area/hall
- Manual vehicle cleaning (wash bay/hall) with HD device for cars, lorries or buses
- Self-service car wash for cars

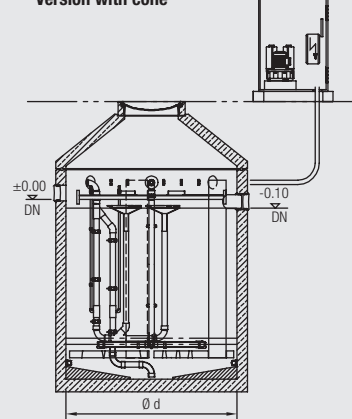
- The dimension T is matched to the drainage depth of the upstream pre-treatment tank, but can also be adjusted in individual cases.
- Transport costs and other total heights or inlet depths on request
- Dimensions valid for cover class D 400. With cover class B 125, the inlet depth (T_{min}) and total depth (H) are reduced by 35 mm, the total weight by 80 kg.
- In order to increase the inlet depth (T_{min}), extension pieces according to DIN 4034-1 are available.

Webcode **M5820**

Version with cover plate



Version with cone



Mall post-treatment basin NeutraTub

The post-treatment tank forms a process unit with the treatment tank. In it, the excess sludge is separated from the treated circulation water by settling. The lamella packs used in the partition wall of the secondary treatment tank increase the effective sedimentation area and thus improve the settling effect. The inclined position of the lamellae ensures that the excess sludge slides down into the sludge collection chamber.

Order number	Contents I	Inner Ø d mm	Total depth H mm	Inlet depth T _{min} mm	Height h mm	Nominal size DN	Heaviest single weight kg	Total weight kg
Tub 3000-150	15000	3000	3505	1200	2305	150	14.980	21.710
Tub 3000-200	15000	3000	3505	1200	2305	200	14.980	21.710

- In quality-monitored prefabricated construction made of jointless reinforced concrete C35/45 (B45), reinforced for crack resistance, with type-tested statics
- The dimension T is matched to the drain depth of the upstream treatment basin, but can also be adjusted in individual cases.
- Resistant sealing elements suitable for plastic pipes (e.g. PE-HD, PP) are installed at the factory for the articulated pipe connection.
- Dimensions valid for cover class D 400. With cover class B125, the inlet depth (T_{min}) and total depth (H) are reduced by 35 mm, the total weight by 80 kg.
- In order to increase the inlet depth (T_{min}), extension pieces according to DIN 4034-1 are available.

Mall process water template NeutraSam

Underground process water supply to the NeutraClear circulation water treatment system

Order number	Contents I	Inner Ø d mm	Total depth H mm	Inlet depth T _{min} mm	Height h mm	Nominal size DN	Heaviest single weight kg	Total weight kg
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Version with cover plate

Sam-B 2500	2500	1500 ¹⁾	2280	730	1550	150	4.210	5.660
Sam-B 5000	5000	2000	2725	985	1740	150	5.270	7.720
Sam-B 10000	10000	2500	3275	985	2240	200	8.250	11.840

Version with shaft neck

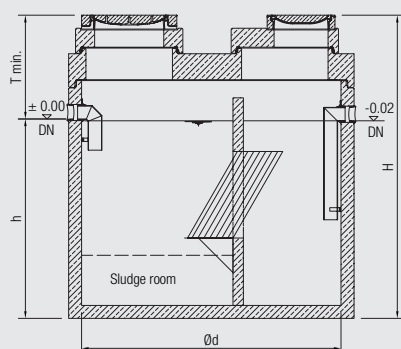
Sam-B 2500 K	2500	1500	2680	1130	1550	150	4.210	5.690
Sam-B 5000 K	5000	2000	2845	1105	1740	150	5.270	6.830
Sam-B 10000 K	10000	2500	3395	1105	2240	200	8.250	10.220

¹⁾ Version without transition plate

- In quality-monitored prefabricated construction made of jointless reinforced concrete C35/45 (B45), reinforced for crack resistance, with type-tested statics
- With mammoth pump for pool aeration
- The dimension T is matched to the drain depth of the upstream treatment tank, but can also be adjusted in individual cases.
- Resistant sealing elements suitable for plastic pipes (e.g. PE-HD, PP) are installed at the factory for the articulated pipe connection.
- Lead-throughs for pipework and electrical cables by arrangement
- Larger systems and special designs on request
- Dimensions valid for cover class D 400. With cover class B 125, the inlet depth (T_{min}) and total depth (H) are reduced by 35 mm, the total weight by 80 kg
- To increase the inlet depth (T_{min}), top pieces according to DIN 4034-1 are available

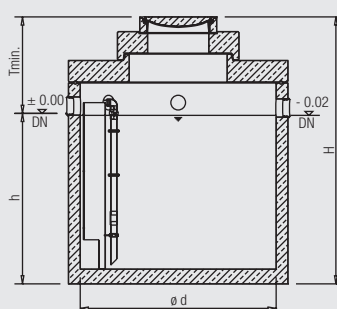
Webcode **M5520** 

Post-treatment basin

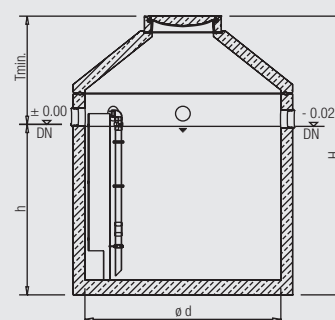


Service water supply

Version with cover plate



Version with shaft neck



Mall recirculating water treatment system NeutraClear C1400 as a compact system

Z-83.4-6

Webcode **M5821** 

Use

For washing customer vehicles in car dealerships (40 cars or 15 buses / lorries per day). The water is purified and biologically, without the addition of chemicals, and fed back into the washing process.

Characteristic values

- Waste water flow rate up to 80 l/min
- Pre-treatment tank volume: 5,20 m³
- Volume of service water supply: 1,50 m³
- Pre-treatment, treatment and process water supply in one

Order number	Max. waste water volume l/min	Max. waste water load kg BSB5/d	Inner Ø d mm	Contents reserved operating basin l	Contents operating water template l	Nominal size DN	Electrical connection power 400V/50Hz kW	Heaviest single weight kg	Total weight kg
C1400	80	3,17	2500	5200	1500	150	0,75	11.200	16.420

- With general building authority approval
- In quality-monitored prefabricated construction made of jointless reinforced concrete C35/45 (B45), reinforced for crack resistance, with type-tested statics
- With factory-fitted, durable sealing elements suitable for plastic pipes (e.g. PE-HD, PP) for the articulated pipe connection
- Filter and support material applied over reinforced concrete support grid
- Mammoth pumps and sludge discharge hoppers for removing flotage and excess biomass
- With shaft superstructures in accordance with DIN 4034-1, including pre-lubricated mechanical seal
- With manhole cover in accordance with DIN EN 124 and DIN 1229
- Side channel blower with air distributor and control unit factory-fitted; optionally in a weatherproof appliance box equipped with a lockable steel door for outdoor installation or in a frame for indoor installation
- The system is pre-assembled at the factory. Final assembly and commissioning by Mall installation service

Mall recirculating water treatment system NeutraClear

Options

■ Service water supply

For the intermediate storage of treated wash water in an above-ground service water reservoir in order to be able to connect the conductivity measuring probe and one or more pumps to supply the vehicle wash system. Installation of an above-ground service water tank in the technical room with drinking water connection in accordance with DIN EN 1717, the associated submersible motor pump in the NeutraSam, float switch and control unit Tank sizes: 500, 1000 and 2000 litres

■ Conductivity measurement

The wash water is measured at all times to prevent salinisation. If the conductivity increases, the drinking water feed is automatically regulated to reduce the conductivity.

The measuring probe is mounted in the above-ground service water supply and the control unit in the control cabinet door

■ Rainwater storage

For intermediate storage of treated rainwater in an above-ground rainwater storage tank Rainwater utilisation instead of drinking water (make-up water) for rinsing the vehicles after the washing process Installation of an above-ground rainwater storage tank in the technical room with drinking water connection in accordance with DIN EN 1717, the associated submersible motor pump in the rainwater storage tank, water meter, float switch and control unit. Reservoir sizes: 500, 1000 and 2000 litres

Information on suitable Mall rainwater storage tanks for the rainwater storage option can be found in chapter 1.

Mall recirculating water treatment system NeutraClear for free-standing installation

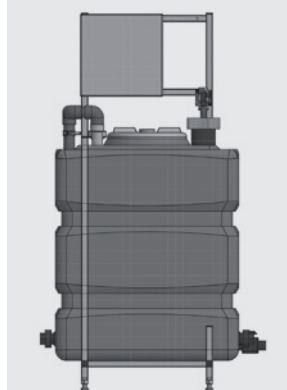
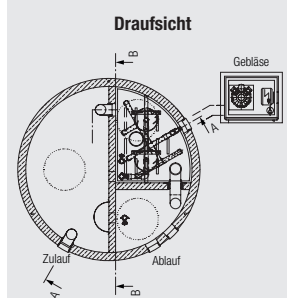
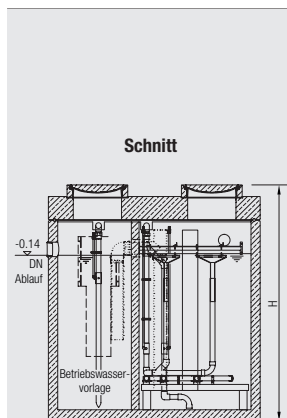
If the local conditions do not permit the underground installation of a wash water treatment system, the NeutraClear tanks can also be installed outdoors. For this purpose, frost-protected cellar rooms or a large technical room on the ground floor are used.

The basins of the system are made of plastic (PP) and are part of the general technical approval.

The C1500, C2000, C2500 and C3000 system consists of the following components:

- Pre-treatment basin
- Treatment basin
- Service water supply with sampling point

As the basins are installed freely, the service water supply is also the interface to the washing system. The conductivity measurement option can be integrated if required. If the treatment system is located on the ground floor, a pump shaft with feed pump is installed upstream so that the wash water can enter the treatment system.



NeutraClear for free-standing installation

Mall NeutraSed sludge trap in accordance with DIN EN 858-1 and DIN 1999-100 as a component of wash water treatment systems

Adapted to the requirements of non-freestanding wash water treatment systems from other manufacturers

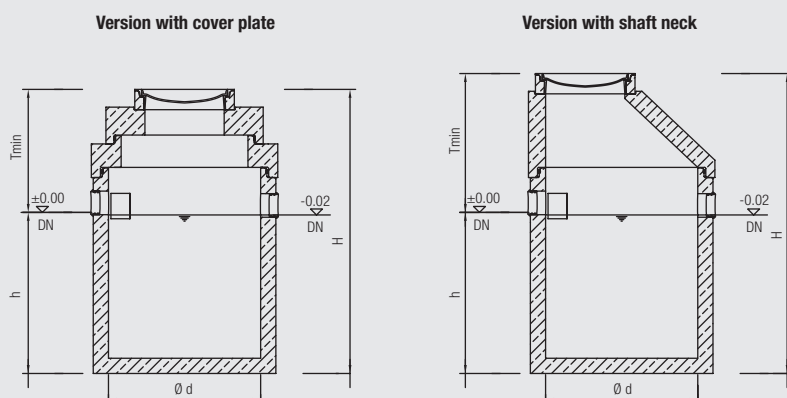
with light liquid-resistant inner coating



Order number KL. D 400	Contents I	suitable before NS	Inner Ø d mm	Total depth H mm	Inlet depth T _{min} mm	Height h mm	Nominal size DN	Heaviest single weight kg	Total weight kg
[S] Version with cover plate									
Sed 5000-150	5000	3, 6, 10	2000	2725	985	1740	150	5.280	7.710
Sed 5000-200	5000	15, 20	2000	2825	1035	1790	200	5.480	7.910
Sed 6000-250	6000	30	2000	3175	1085	2090	250	6.190	8.620
Sed 8000-300	8000	40, 50, 65	2500	2925	1125	1800	300	7.420	10.930
Sed 10000-150	10000	3, 6, 10	2500	3275	985	2290	150	8.270	11.780
Sed 10000-200	10000	15, 20	2500	3275	1035	2240	200	8.270	11.780
Sed 10000-250	10000	30	2500	3275	1085	2190	250	8.270	11.780
Sed 10000-300	10000	40, 50, 65	2500	3275	1125	2150	300	8.270	11.780
Sed 12000-300	12000	40, 50, 65	3000	2955	1190	1765	300	11.390	16.445
Sed 13000-300	13000	40, 50, 65	3000	3205	1190	2015	300	11.950	17.505
Sed 15000-200	15000	15, 20	3000	3405	1105	2300	200	12.680	18.235
Sed 15000-300	15000	40, 50, 65	3000	3505	1195	2310	300	13.060	18.615
Sed 16000-400	16000	80, 100	3000	3755	1295	2460	400	13.990	19.545
Sed 19300-150	19300	3, 6, 10	3000	3955	1055	2900	150	14.720	20.275

- Resistant sealing elements suitable for plastic pipes (e.g. PE-HD, PP) are installed at the factory for the articulated pipe connection.
- Version with PE lining on request
- Dimensions valid for cover class D 400. With cover class B 125, the inlet depth (T_{min}) and total depth (H) are reduced by 35 mm, the total weight by 80 kg.
- Top pieces according to DIN 4034-1 are available to increase the inlet depth (T_{min}). **Alternatively, a version with a cone is possible.**

Webcode **M5509**



NeutraSam mall withdrawal basin as a component of washing water treatment systems

Webcode **M5520** 

Adapted to the respective requirements of the various washing system manufacturers and recirculating water treatment systems

Order number	Contents	Inner Ø d mm	Total depth H mm	Inlet depth T _{min} mm	Height h mm	Nominal size DN	Heaviest single weight kg	Total weight kg
KL D 400	I							

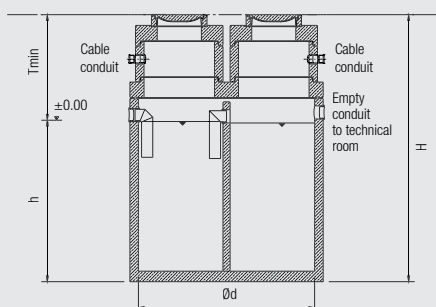
Version with cover plate

Sam-E 2500*	2500	1500	2280	730	1550	150	4.280	5.750
Sam-E 5000*	5000	2000	2725	985	1740	150	5.330	6.890
Sam-E 10000*	10000	2500	3275	985	2290	150	8.320	10.290

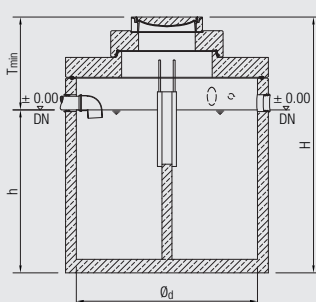
- Resistant sealing elements suitable for plastic pipes (e.g. PE-HD, PP) are installed at the factory for the articulated pipe connection.
- Additional empty conduit connections (property-related)
- Version with PE lining possible
- Dimensions valid for cover class D 400. With cover class B 125, the inlet depth (T_{min}) and total depth (H) are reduced by 35 mm, the total weight by 80 kg.
- In order to increase the inlet depth (T_{min}), top pieces according to DIN 4034-1 are available. **Alternatively, a version with a cone is possible.**

* If necessary, with support for further above-ground industrial wastewater treatment

Stacking basin
with transition plate



NeutraClean pump container
Version with cover plate



NeutraSam extraction basin

