



Sedimentation devices

# ACO Stormwater

# Management

ACO Stormsed  
ACO Stormsed Vortex



## The ACO system chain

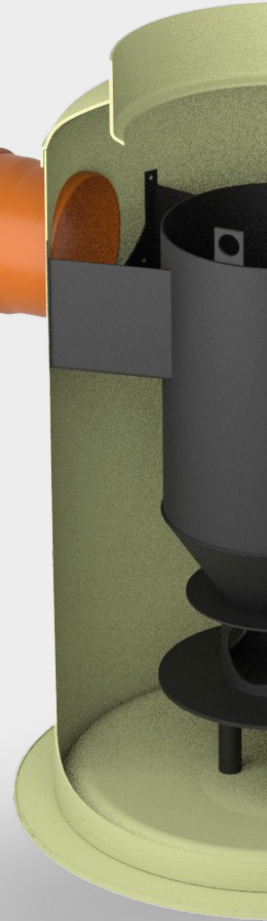
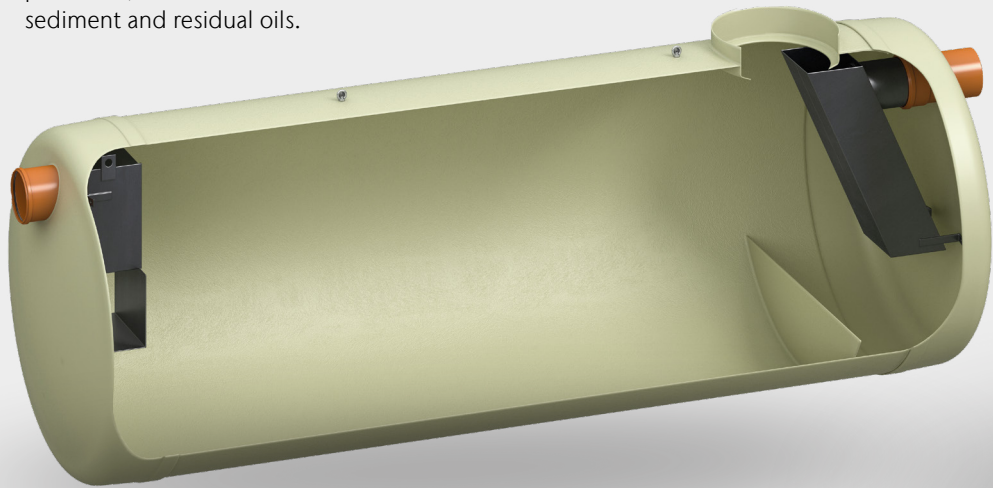
creates drainage solutions for the environmental conditions of tomorrow.

## ACO Stormsed Vortex

enables sedimentation via hydrodynamic or vortex separation.

## ACO Stormsed

captures and retains pollutants, such as fine sediment and residual oils.



**COLLECT:**  
collect and  
remove



**CLEAN:**  
pre-treat and  
process



**HOLD:**  
protect and  
attenuate



**REUSE:**  
pump, discharge, ground-  
water infiltration and reuse



# ACO Stormwater Management

ACO Stormsed  
ACO Stormsed Vortex

The simplest treatment method of removing pollutants from stormwater before it leaves the urban environment is **sedimentation**.

Sedimentation removes suspended solids (particles) and any associated bound pollutants. Around 75% of chemical pollution, such as metals and residual oils, is attached to sediments.

Sedimentation devices can be used either independently or as a preliminary stage in stormwater treatment. Implementing them in stormwater management solutions can extend the service life of downstream products and shorten their maintenance intervals (blockage of ACO Filter Media Storm/Storm+, Stormbrixx).

ACO offers two types of sedimentation devices: Stormsed and Stormsed Vortex. Both products are effective in capturing sediment, as well as other pollutants such as organic substances and oil.

For more information about  
ACO Stormwater Management  
see the full-video animation



# ACO Stormsed

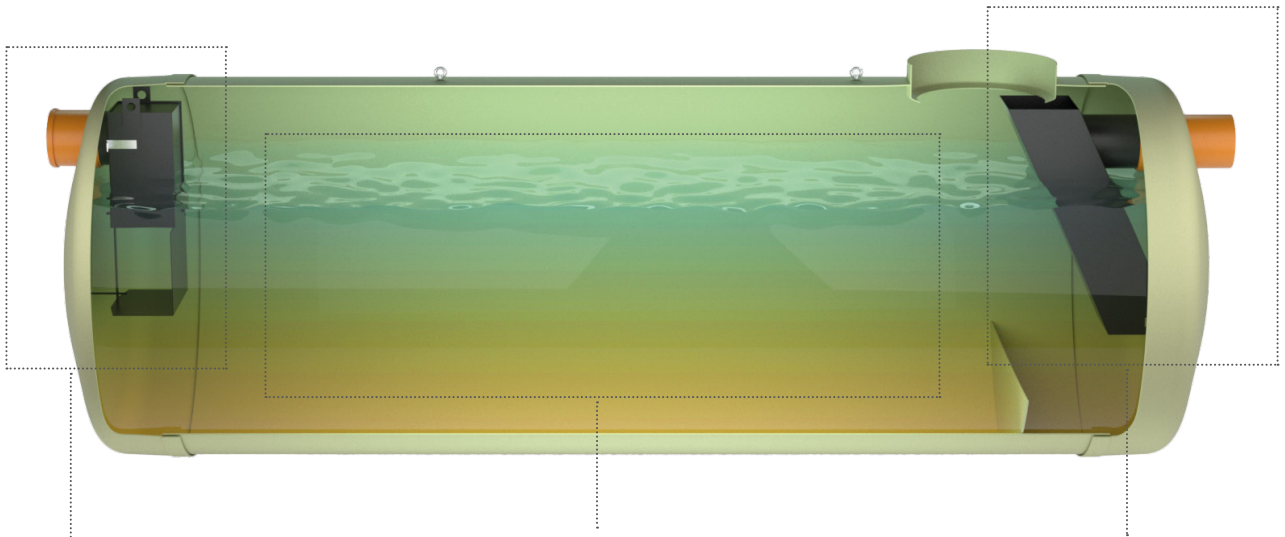
The ACO Stormsed stormwater treatment unit captures and retains pollutants, such as fine sediment and residual oils. It is a modern solution for applications with a low risk of high mineral oil spillage, making it ideal for use on streets and car parks where compliance with EN 858 is not required.

ACO Stormsed is also an ideal treatment element to be connected to attenuation systems or used for pre-treatment with the Stormclean stormwater filter.

## Benefits

- Wide range of sizes for matching required flows
- High elimination of sediment (up to 80%) and floatables
- SMART design of inner parts comparing standard sludge traps which influence functionality
- Large retention for sediment and floatables
- Easy service access
- Possibility of various outlet angles 90°–180° (optional)

## Product overview



The ideal inlet for even flow distribution and protecting captured sediment

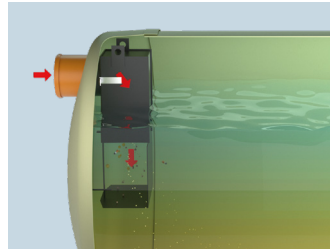
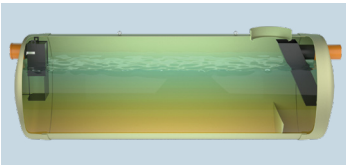
The large area for efficient sedimentation and large space for settlement and floatables.

The angled outlet ideal for retention of floatables and oils.



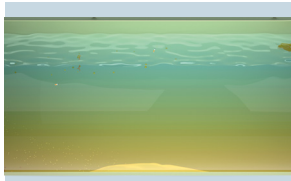
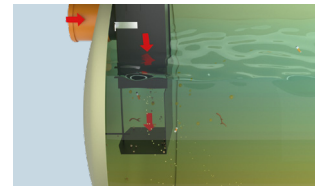
## Treatment process

**ACO Stormsed** is an important part of treating stormwater. The tank allows sediment to settle out and capture pollutants such as oil, organic matter, and litter. The unique design of its internal parts maximizes the area of capturing pollutants.



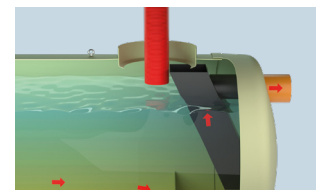
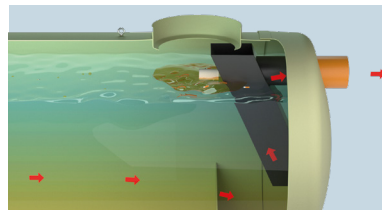
Polluted stormwater flows into the Stormsed. The inlet design distributes flow evenly across the device and protects already captured sediment.

Larger sediment settles upon entry.



The large area of Stormsed means even fine sediment has time to settle to the bottom, and oils time to separate at the water's surface.

The outlet baffle prevents captured sediment from reaching the outlet and potentially being washed out. The angled outlet structure ensures the entire area of the tank is available for the capture and retention of floatables and oils.

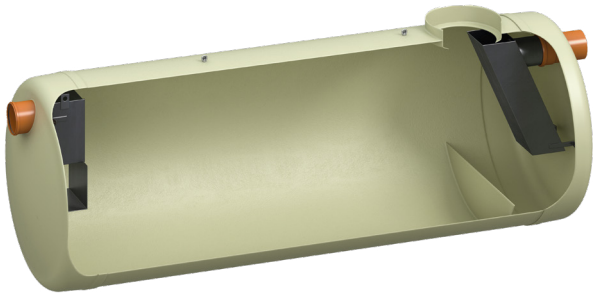


Which can be easily accessed during maintenance thanks to the conveniently located inspection shaft.

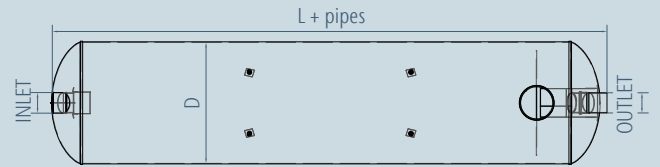
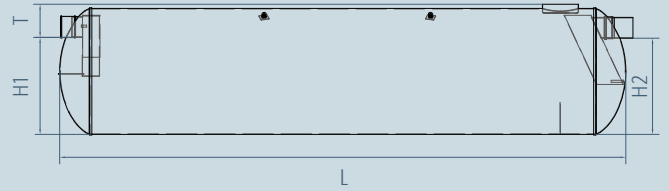
For more information about  
ACO Stormsed treatment process  
see the full-video animation



ACO Stormsed G



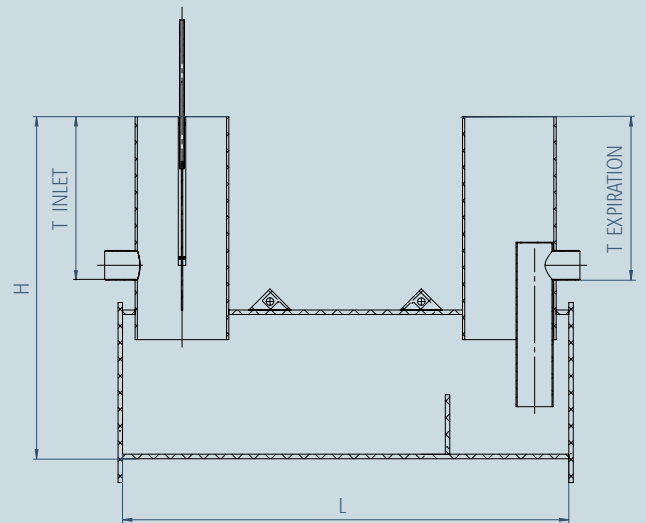
ACO Stormsed G



ACO Stormsed P



ACO Stormsed P



## ACO Stormsed G

Desc.	Inlet/ Outlet DN	Water flow (SLR 18 m <sup>3</sup> ·h <sup>-1</sup> )	Water flow (SLR 9 m <sup>3</sup> ·h <sup>-1</sup> )	L GRP body	Total length incl. pipes	Diam.		H1	H2	T tank	Total vol.	Max. oil stor.	Sludge trap vol.	Wgt.	Sludge sensor C	Oil sensor B	Cover	Item No.
[m <sup>2</sup> ]	[mm]	[l/s]	[l/s]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[l]	[l]	[l]	[kg]	[mm]	[mm]	[DN]	
3.8	200	19	10	2720	2950	1520	1150	1130	462	3460	1860	600	270	235	869	600	12835.01	
5.2	200	26	13	3650	3880	1520	1150	1130	462	4780	2550	940	310	235	869	600	12836.01	
8.1	250	40	20	4610	4780	1820	1400	1380	514	8890	6510	1720	465	285	1054	600	12837.01	
10.3	250	52	26	4890	5250	2200	1780	1760	542	15040	8530	2840	920	345	1320	600	12838.01	
14.1	315	71	35	6630	6840	2200	1715	1695	607	19900	12600	3950	1100	345	1288	600	12839.01	
17.9	315	90	45	7680	7960	2402	1920	1900	582	27720	15500	5580	1350	370	1430	600	12840.01	
24.9	400	124	62	10570	10870	2402	1835	1815	667	36900	28200	7890	1800	370	1388	600	12841.01	
31.7	400	159	79	12800	13000	2570	2000	1980	692	50300	35900	10250	2450	425	1504	600	12842.01	
39	500	195	98	13590	13740	3000	2330	2310	696	78900	45200	16290	3500	485	1755	600	12843.01	

## ACO Stormsed P

Type	Inflow/ outflow	Treatment flow	Mud storage	Oil storage	Height	Length	T inlet	T expiration	Oil storage	Item No.
	[mm]	[l/s]	[l]	[l]	[mm]	[mm]	[l/s]	[l]	[l]	
3000	110 – 315	15	400	150/400	2460	3000	1150	1150	150/400	725399
6000	160 – 400	30	800	150/530		6000	1150	1150	150/530	725400
9000	200 – 500	45	1200	150/750						725401

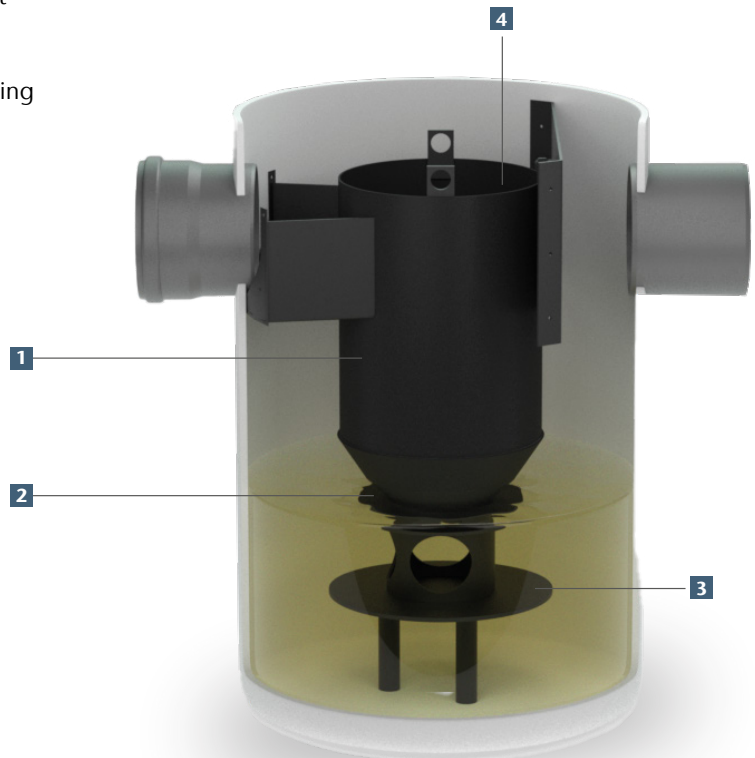
# ACO Stormsed Vortex

ACO Stormsed Vortex enables sedimentation through hydrodynamic or vortex separation. Designed according to NJDEP specifications, the patented solution can remove up to 80% of pollutants and capture 100% of floatables. The unique design of ACO Stormsed Vortex separates high flows from captured sediment, allowing it to treat a wide range of flow rates from sites of less than 1,000 sqm to over 20,000 sqm depending on the country of specification. Its small footprint requires less excavation during installation, and variable connection outlet angles are available.

Vortex flow allows Stormsed Vortex to operate at high treatment flow rates without the hydraulic shortcutting or sediment remobilisation issues found in other sedimentation technologies, making it perfect for high flow applications!

## Product overview

- 1 Vortex Treatment Chamber
- 2 Sediment Distribution Unit (SDU)
- 3 Large captured sediment storage chamber
- 4 Baffle



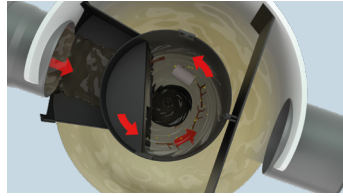
## Benefits

- Wide range of flow rates
- Designed for 80% TSS removal of 75-micron particles at high treatment flow rates
- Compact treatment solution with low footprint
- Patented design
- Easy maintenance
- Inner parts are made of high-density polyethylene (HDPE)
- Possibility of various outlet angles 90°–180° (optional)



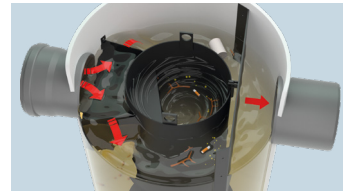
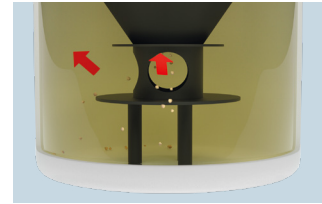
## Treatment process

**ACO Stormsed Vortex** is an important part of treating high flow stormwater. The patented design of the device creates a vortex effect in the central Treatment chambre which allows effective capture of pollutants.



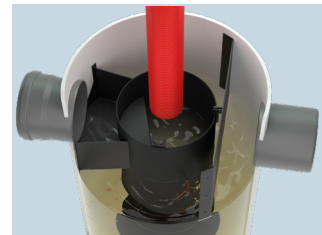
Stormwater carrying litter, suspended solids, organic matter and oils flows into the central Treatment area where a vortex effect is used to capture those pollutants. The floatables are kept in this central treatment area.

The unique design distributes flow evenly across the device and prevents captured sediment from being flushed out.



During high flows when the overflow is active, the outlet baffle plate ensures new floatables are still captured.

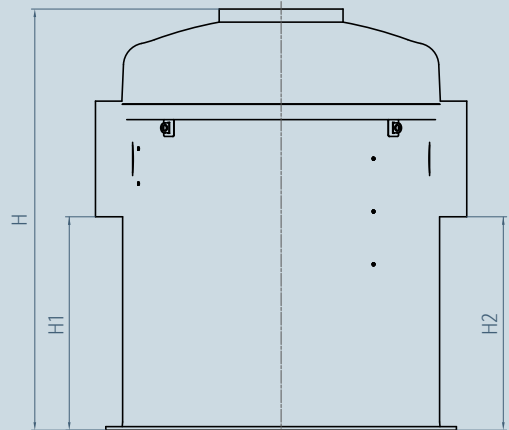
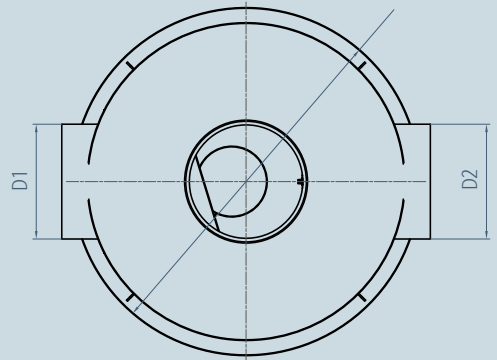
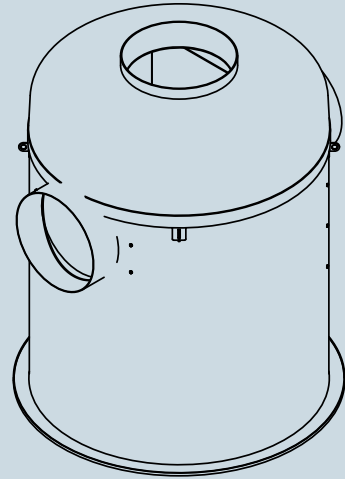
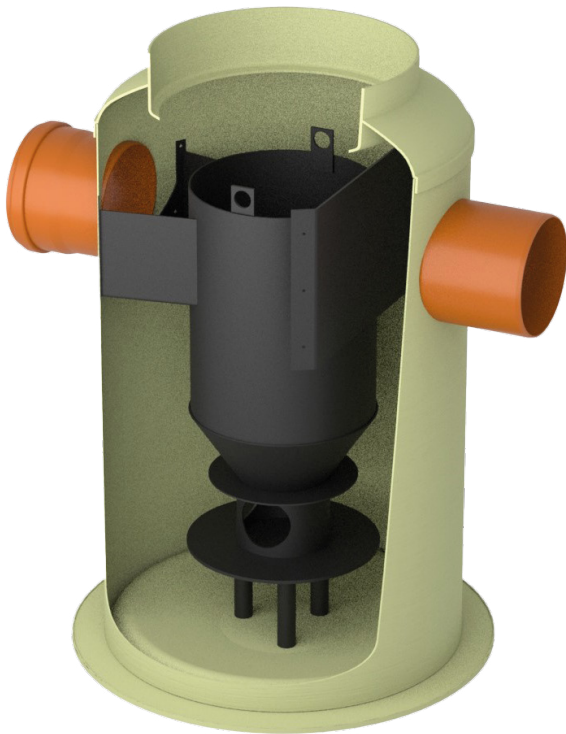
The unique design allows for easy maintenance from the surface to be performed through a single manhole access. The majority of captured floatables could be easily accessed in the active treatment chamber. If required during maintenance, captured sediment can also be easily accessed.



For more information about  
ACO Stormsed Vortex treatment process  
see the full-video animation



ACO Stomsed Vortex G

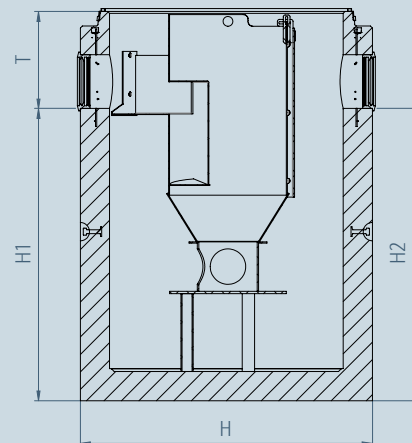
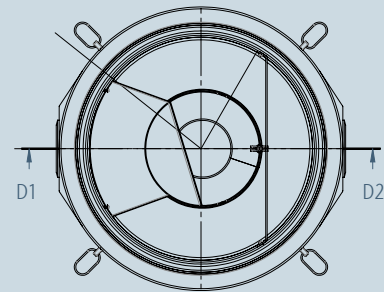
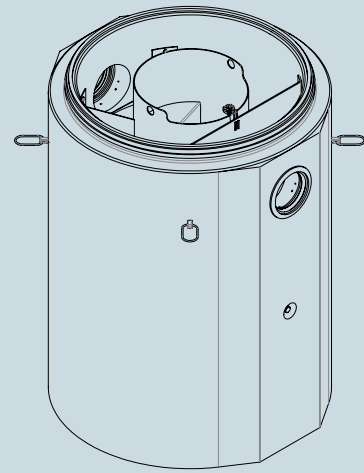


## ACO Stomsed Vortex G

Chamber diameter	50% TSS elimination based on NJCAT [l/s]	Max. hydraulic flow rate [l/s]	Manhole cover size [DN]	Pipe connections [DN]	Oil / debris storage capacity [l]	Sediment storage capacity [l]	Item No.
1000	20,8	170	1xDN600	400	80	425	12975.41
1200	29,9	170	1xDN600	400	130	515	12976.41
1500	46,7	220	1xDN600	500	220	653	12977.41
1800	67,3	390	1xDN600	600	450	1531	12978.41
2200	100,6	600	1xDN600	800	630	974	12979.41
3000	186,9	600	1xDN600	800	1410	2393	12981.41

H1 [mm]	H2 [mm]	H [mm]	D1 [mm]	D2 [mm]	T tank [mm]	Weight [kg]	Total Volume	Item No.
1510	1510	2250	1000	1240	740	107	1150	12975.41
1450	1450	2200	1200	1400	750	161	1590	12976.41
1420	1420	2290	1500	1720	870	282	2390	12977.41
1735	1735	2866	1800	2040	1131	425	4350	12978.41
1495	1495	2758	2200	2440	1263	625	5150	12979.41
1630	1630	3300	3000	3300	1670	982	11460	12981.41

# ACO Stomsed Vortex C

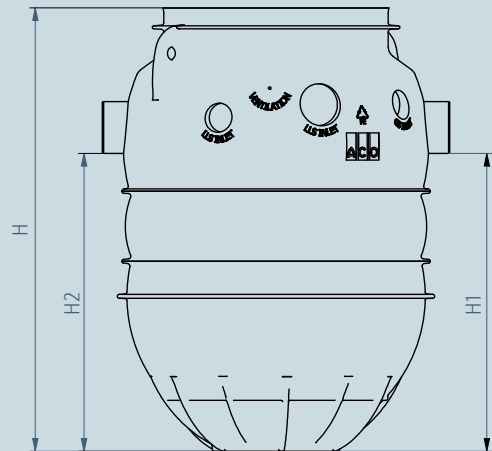
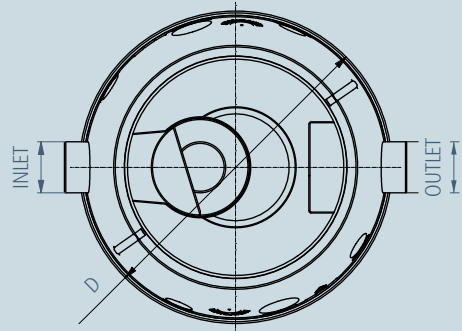
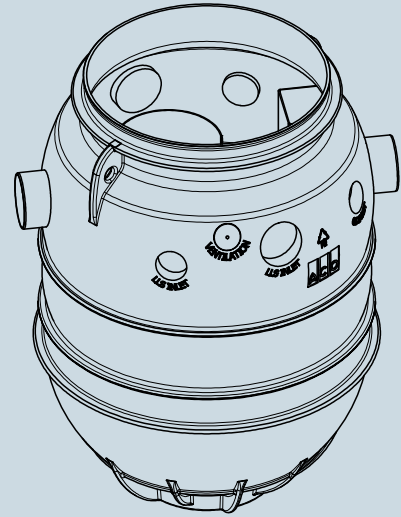


## ACO Stomsed Vortex C

Chamber diameter	50% TSS elimination based on NJCAT [l/s]	Max. hydraulic flow rate [l/s]	Manhole cover size [DN]	Pipe connections [DN]	Oil / debris storage capacity [l]	Sediment storage capacity [l]	Item No.
1000	20,8	36,9	1x600	200	80	314	3006269
1200	29,9	66,6	1x600	250	130	452	3010274
1500	46,7	107,8	1x800	315	220	707	3008903
1750	63,6	107,8	1x800	315	450	962	3006302
2200	100,6	230,4	1x800	400	630	1475	3006303
2700	151,5	414	1x800	500	980	2290	3007013

H1 [mm]	H2 [mm]	H [mm]	D1 [mm]	D2 [mm]	T tank [mm]	Weight [kg]	Total Volume	Item No.
1495	1495	2000	1000	1300	505	2880	1056	3006269
1520	1520	2000	1200	1500	480	3473	1549	3010274
1625	1625	2500	1500	1800	875	5820	2518	3008903
1660	1660	2430	1750	2050	770	6406	3512	3006302
1710	1710	2440	2200	2450	730	7021	5740	3006303
1760	1760	2975	2700	3000	1215	13717	8932	3007013

ACO Stormsed Vortex P-X





## ACO Stormsed Vortex P-X

Chamber diameter	50% TSS elimination based on NJCAT [l/s]	Max. hydraulic flow rate [l/s]	Manhole cover size [DN]	Pipe connections [DN]	Oil / debris storage capacity [l]	Sediment storage capacity [l]	Item No.
750	11,7	27	1xDN600	200	30	247	411348
1000	20,8	79	1xDN600	300	80	182	411349
1200	29,9	79	1xDN600	300	130	405	411350

H1 [mm]	H2 [mm]	H [mm]	D1 [mm]	D2 [mm]	T tank [mm]	Weight [kg]	Total Volume	Item No.
1150	1150	1712	1225	1230	562	74	944	411348
1300	1300	1924	1225	1230	624	89	1093	411349
1550	1550	2194	1225	1230	644	101	1334	411350

ACO. we care for water



Every ACO product supports  
the ACO WaterCycle



- 
- ACO stormwater management
  - ACO pumping stations
  - ACO oil separators
  - ACO grease separators
  - ACO hydrodynamic separators
  - ACO stormwater filters
  - ACO sedimentation tanks
- 

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Edition 04/2024 – Subject to alterations

