



# Concepts for the separation of mineral oils

ACO Light Oil Separators

Coalisor-P/-R/-RD/-E  
for indoor or below ground installation



## Light Oil Separators

Light liquid separators or petrol separators prevent pollutants from contaminating drinking water and ground water due to the difference in density between petrol and water. By using a coalescence element, ACO separators achieve a very high level of cleaning performance. ACO offers light liquid separators for below ground and free-standing installation.



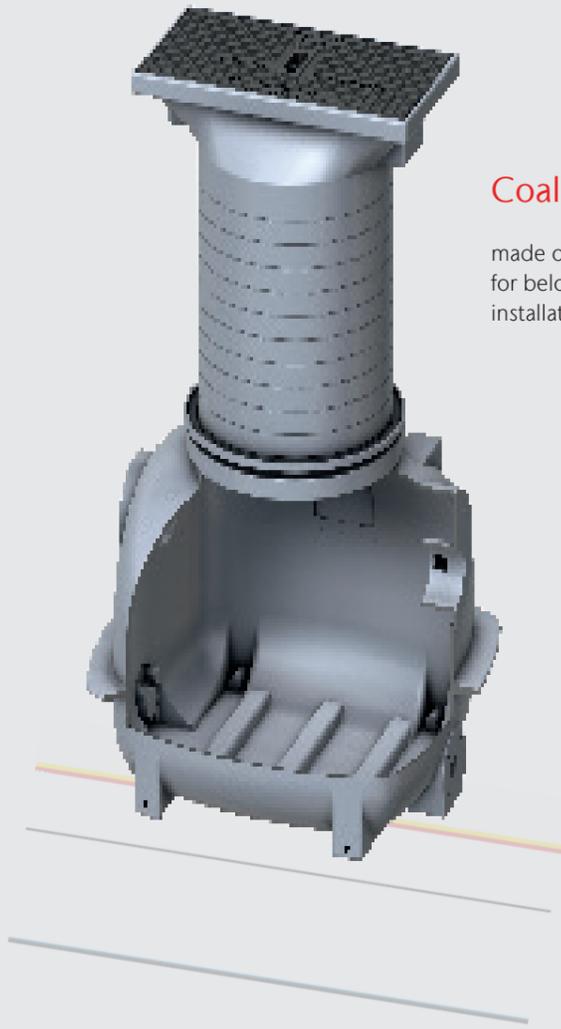
### Coalisator-R

made of stainless steel for free-standing installation



### Coalisator-E

made of stainless steel for free-standing installation

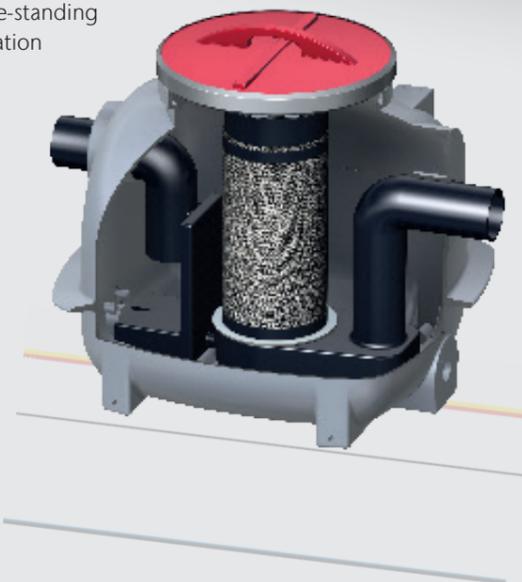


### Coalisator-P

made of polyethylene for below ground installation

### Coalisator-P

made of polyethylene for free-standing installation



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**900 Mio.**

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Production sites in 18 countries



Headquarters of the ACO Group  
in Rendsburg/Büdelndorf



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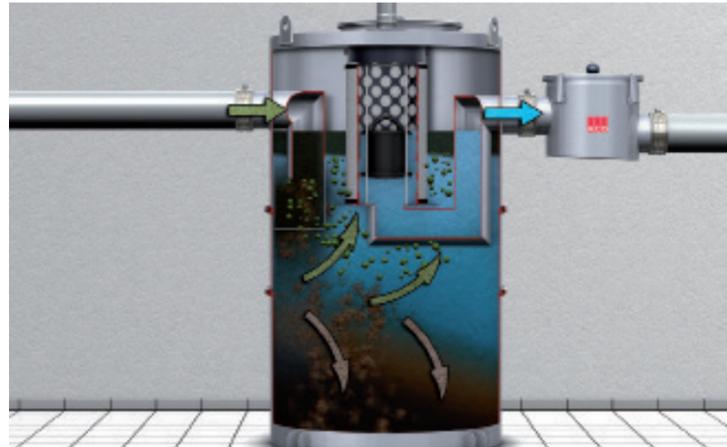
Holder  
Hans-Julius and Iver Ahlmann (left)



## Light Oil Separators – Application

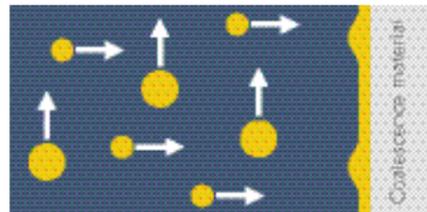
Light liquid separators are used where, due to the application, wastewater (usually rain or cleaning water) mixed with light liquids of mineral origin occurs.

**The application scope for ACO Haustechnik light oil separators**  
e.g. parking areas in basements with drainage systems, elevator shafts, garages, helipads

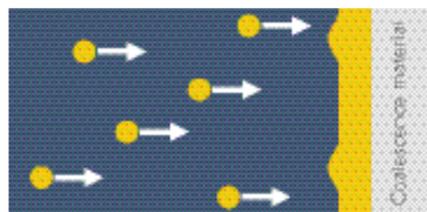


Gravity separation: light liquid collects on the surface, sediments (sludge) fall to the bottom.

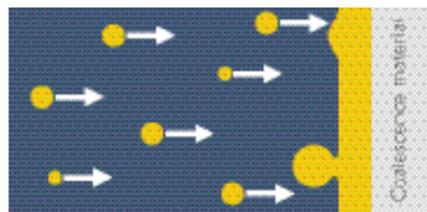
## Coalisator – Function



The small oil droplets that are not separated due to their density difference to water meet the oil-friendly coalescence element and bond.

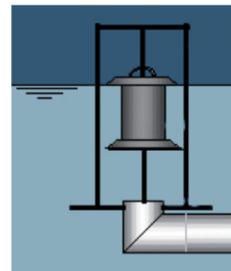


The oil drop spread over the coalescence material, and additional oil droplets are adsorbed and the oil film continues to grow.



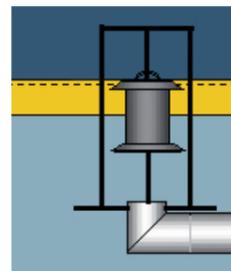
The adhesion of the oil film is exceeded. A large drop of oil begins to separate, floats upward and can therefore be separated.

## Principle of automatic completion

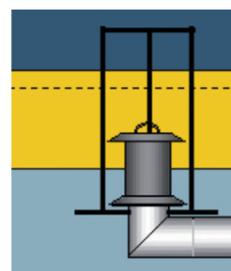


Operating condition without light liquid

Excerpt from EN 858-2, Item 5.2 "Separators must be fitted with automatic closing devices that ensure that no isolated light oils can reach the drain of the separator."



Operating condition with accumulating light liquid



Maximum light liquid accumulation closes outlet via float switch

## Coalisator-P

System overview

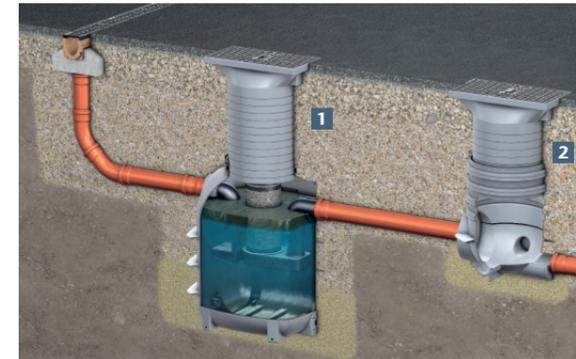


Both the separators and sludge traps feature an inspection cover with OD Ø 450 mm. Optionally, an alarm device can be installed by using one of the available attachment sets (see section "accessories" for more information).

The raising tubes for the below ground installed separators can be shortened on-site according to local demands. The cover is suitable for load class B applications according to EN 124. All light liquid separators comply with the European Standard (EN) 858, Class I.

For enhanced disposal comfort each separator can be equipped with a direct suction line on-site (please see section „accessories“ for more information).

### Application: parking deck



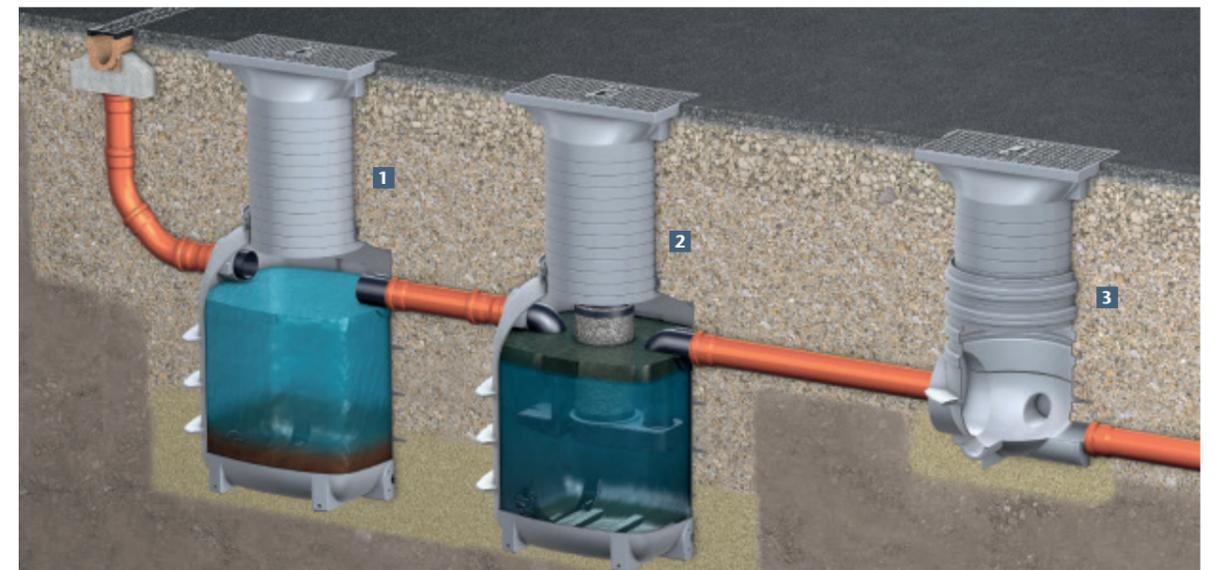
1 Coalisator-P light oil separator 2 Sampling shaft

### Application: garages



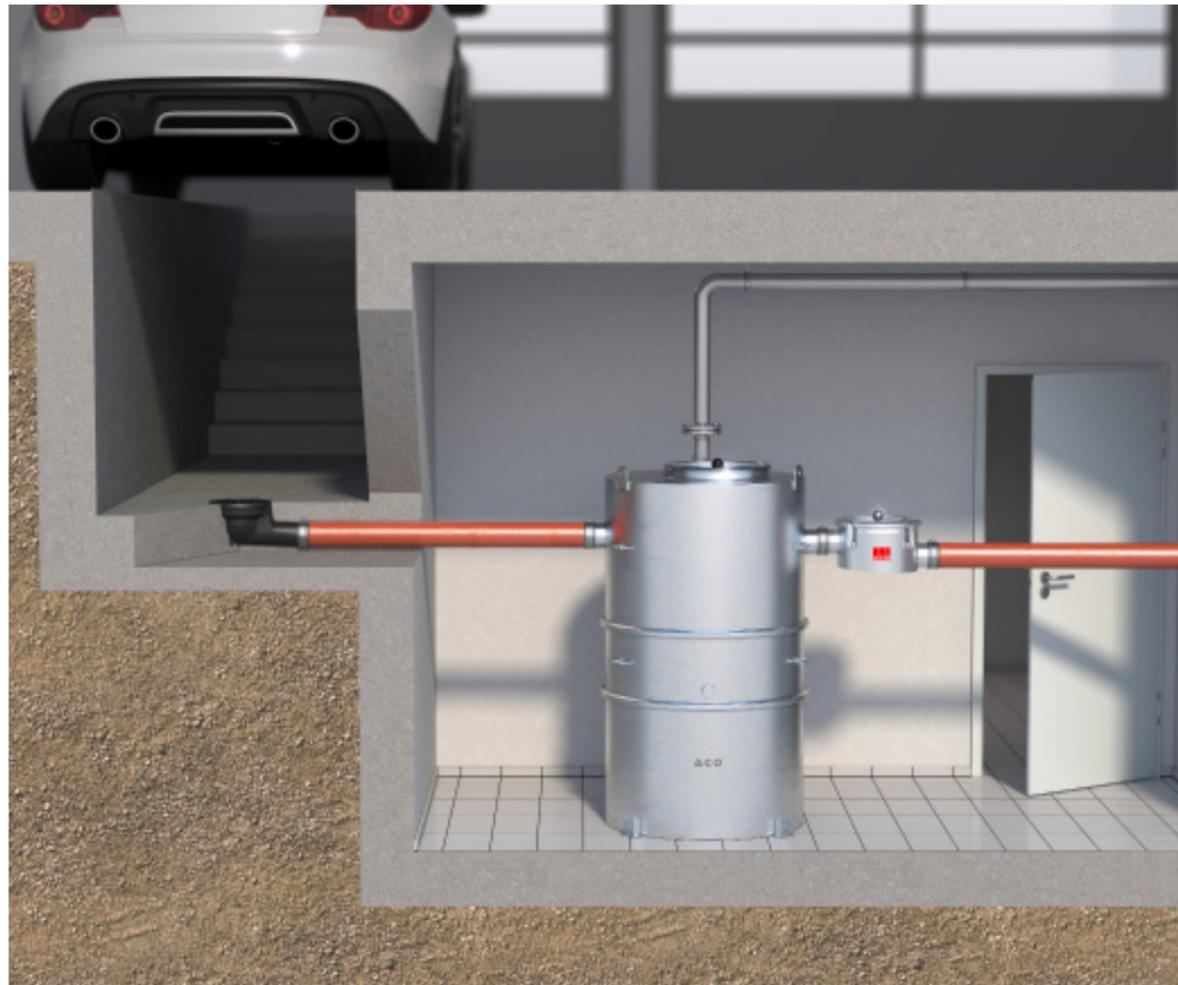
1 Sludge trap 2 Coalisator-P light oil separator

### Application: washing areas



1 Sludge trap 2 Coalisator-P light oil separator 3 Sampling shaft

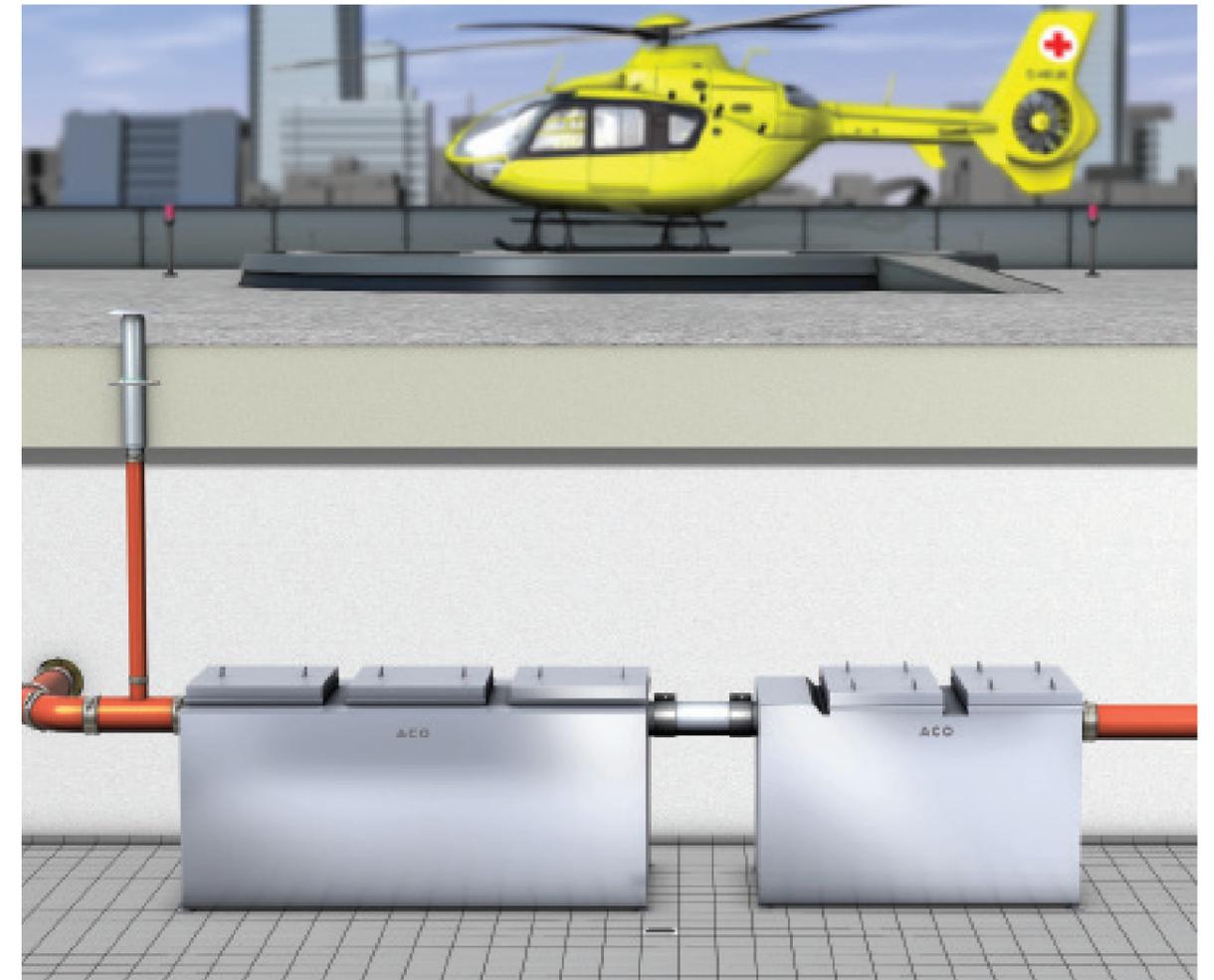
## Coalisator-R and Coalisator-RD for free-standing installation



### Scope

The ACO light liquid separators Coalisator-R and -RD can be freely installed in frost-protected rooms. The round segment design allows the separator to be dismantled by the customer for easier installation in very confined spaces. Thanks to the integrated and optimised sludge trap in accordance with DIN EN 858, the Coalisator-R light liquid separators can be used wherever light liquids with a medium dirt content occur, for example in car pits (oil extraction on request). With the Coalisator-RD, disposal can also be carried out via a DN 65 direct extraction system, which allows an extractor connection outside the building.

## Coalisator-E for free-standing installation with separate sludge trap



### Scope

The ACO Coalisator-E light liquid separators can be used for free-standing installation in frost-protected rooms. The ACO Coalisator-E light liquid separators can be used wherever light liquids with a high dirt content occur, for example in car workshops or e.g. helicopter landing pads, thanks to the separate, large sludge trap that complies with DIN EN 858.

## Coalisator-P for below ground installation

### ACO product advantages

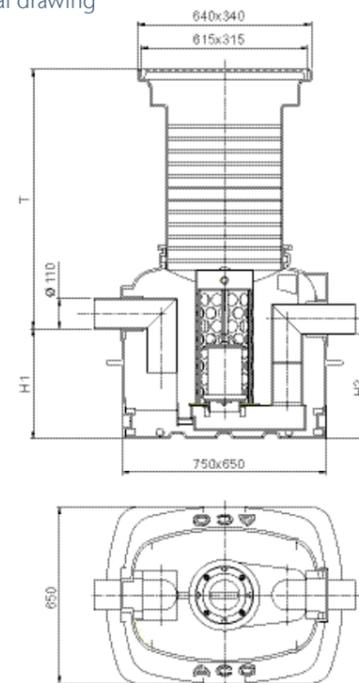
- can be optionally upgraded with direct suction
- can be combined with the separately available sludge trap with 150 or 300 litre volumes



### Product information

- Light liquid separator Class I made of polyethylene
- In accordance with DIN EN 858 and DIN 1999-100
- With automatic closing
  - Float made of plastic
  - Tared for light liquid with a density up to 0.90 g/cm<sup>3</sup>
- With supporting cage and coalescence insert with wire mesh
  - All parts removable
- With height-adjustable top section
  - Can be shortened every 45 mm
- Cover
  - Made of cast iron
  - Load class: B 125
- Inlet and outlet: OD 110
- Inlet and outlet fittings made of stainless steel, material

### Dimensional drawing



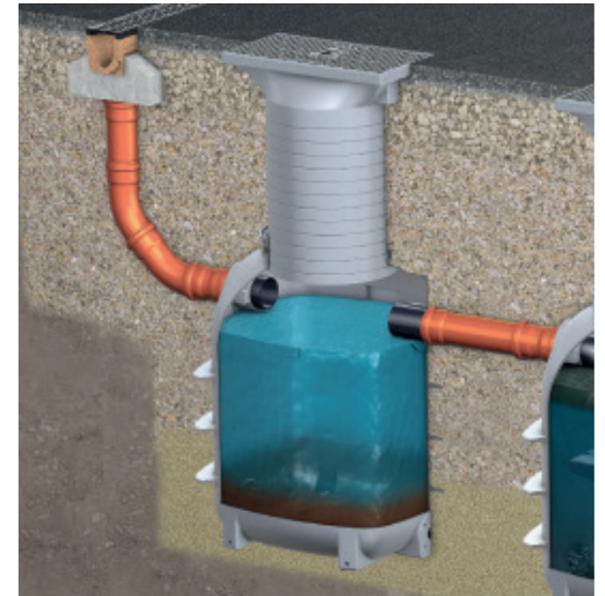
### Order data Coalisator-P

NS	Integrated	Total contents	Oil storage capacity	H1	H2	T	Art. no.
	sludge trap						
	[l]	[l]	[l]	[mm]	[mm]	[mm]	
1,5	—	150	49	405	385	510 – 965	3901.30.10
1,5	150	300	49	765	745	510 – 965	3911.30.10
3	—	150	49	405	405	510 – 965	3903.30.10
3	150	300	49	765	745	510 – 965	3913.30.10

## Sludge trap for Coalisator-P for below ground installation

### ACO product advantages

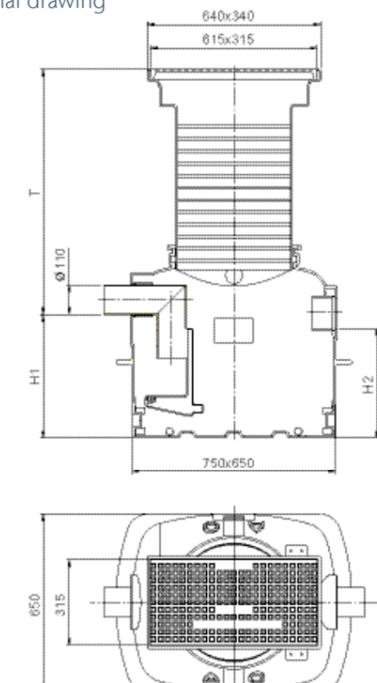
- Can be optionally upgraded with direct suction
- Can be combined with separately available light liquid separators
- Can be used to collect sediments



### Product information

- Separate sludge trap for light liquid separator Coalisator-P
  - Necessary to operate the system
- Made of polyethylene for installation in the ground
- Inlet calming made of polyethylene
- With height-adjustable top section
- Cover
  - Made of cast iron
  - Load class: B 125
- Inlet and outlet: OD 110
- Inlet invert (T): 460 – 915 mm
  - Can be shortened every 45 mm

### Dimensional drawing



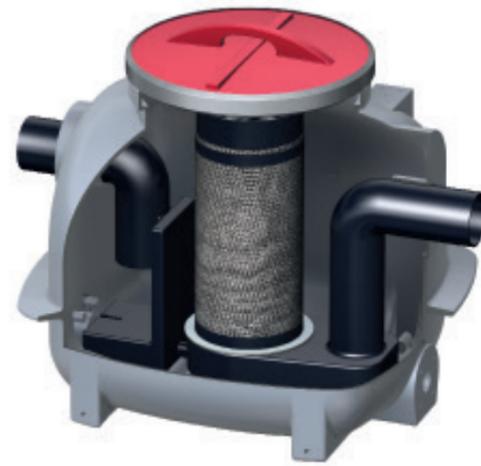
### Order data sludge trap

Type	Sludge trap	H1	H2	T	Art. no.
	[l]	[mm]	[mm]	[mm]	
150	150	455	405	460 – 915	3900.10.20
300	300	765	745	460 – 915	3900.10.21

## Coalisator-P for free-standing installation

### ACO product advantages

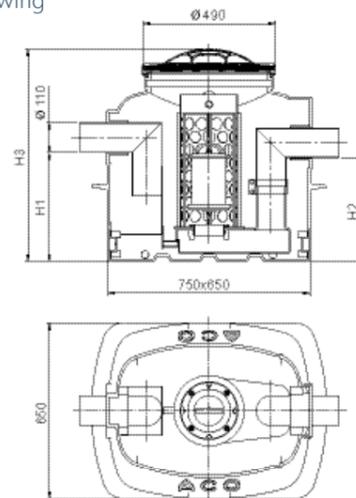
- Optional direct suction can be upgraded
- Can be combined with separately available sludge traps with a volume of 150 or 300 liters



### Product information

- Light liquid separator in accordance with EN 858, Class I, for free-standing installation in frost-free rooms
- Made of polyethylene in an oval design
- With plastic float, tared for light liquids up to a density of 90 g/cm<sup>3</sup>
- With supporting cage and coalescence insert
- Inlet and outlet fittings made of stainless steel, material grade 304
- Plastic inlet and outlet fitting, inlet and outlet connections Ø 110 mm
- With plastic cover Ø 450 mm with clamping ring

### Dimensional drawing



### Order data Coalisator-P

NS	Integrated sludge trap [l]	Total contents [l]	Oil storage capacity [l]	H1 [mm]	H2 [mm]	T [mm]	Art. no.
1,5	–	150	49	405	385	790	3901.00.10
1,5	150	300	49	765	745	1150	3911.00.10
3	–	150	49	405	405	790	3903.00.10
3	150	300	49	765	745	1150	3913.00.10

## Sludge trap for Coalisator-P for free-standing installation

### ACO product advantages

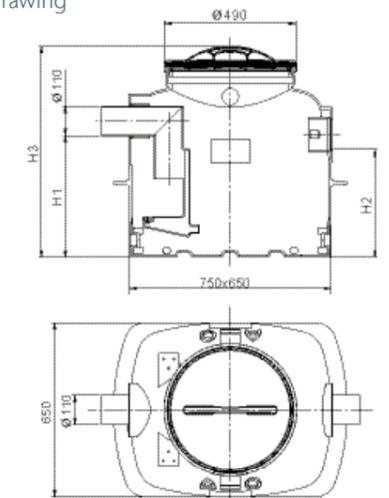
- Optional direct suction can be upgraded
- Can be combined with separately available light liquid separators
- Can be used to collect a variety of sediments



### Product information

- Sludge trap for free-standing installation in frost-free rooms
- Made of polyethylene in an oval design
- With plastic inlet fitting for inlet calming
- Plastic inlet and outlet fitting, inlet and outlet connections Ø 110 mm
- With plastic cover Ø 450 mm with clamping ring

### Dimensional drawing



### Order data sludge trap

Type	Sludge trap [l]	H1 [mm]	H2 [mm]	T [mm]	Art. no.
150	150	455	405	790	3900.00.20
300	300	815	765	150	3900.00.21

## Coalisator-R for free-standing installation

### ACO product advantages

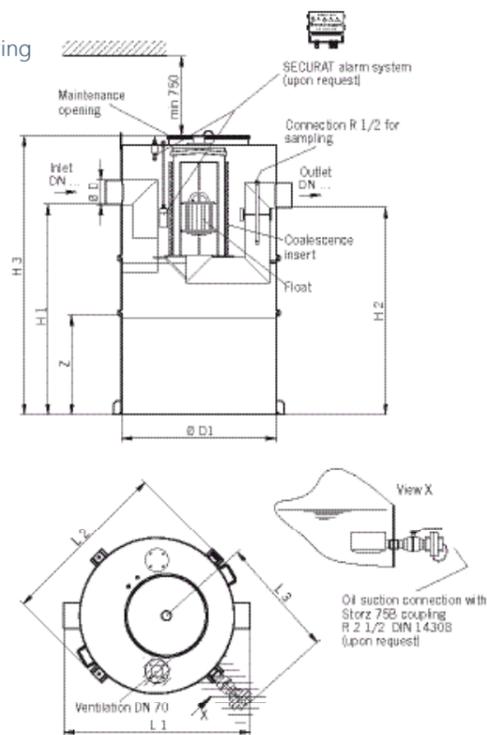
- Easy to transport and assemble due to segment design
- Direct removal of the oil layer possible
- If the coalescence insert is removed, continued operation as a class II separator is possible



### Product information

- Light liquid separator with coalescence insert in accordance with EN 858 and DIN 1999-100 made of stainless steel, material 1.4301
- Made of stainless steel in a round design
- For free-standing installation in frost free spaces
- Float made of stainless steel material 1.4301 for automatic closing, tared with density of 0.90 g/cm<sup>3</sup>
- Connections in accordance with DIN 19522 and DIN EN 877
- For connection to SML pipe, incl. loosely applied maintenance opening DN 500

### Dimensional drawing



### Order data Coalisator-R

Nominal size	Content			Inlet/outlet OD	Dimensions						Number of segments	Total weight [kg]	Art. no.
	Sludge trap [l]	Oil storage [l]	Total [l]		H1 [mm]	H2 [mm]	H3 [mm]	ØL1 [mm]	L2 [mm]	L3 [mm]			
3	448	163	725	110	985	965	1450	980	1180	1090	785/2	170	7603.00.50
6	617	160	980	160	1330	1310	1800	980	1180	1090	830/3	195	7606.00.50
10	1250	798	2570	160	1095	1075	1600	1750	1950	2060	600/3	300	7610.00.50

## Coalisator-RD for free-standing installation

### ACO product advantages

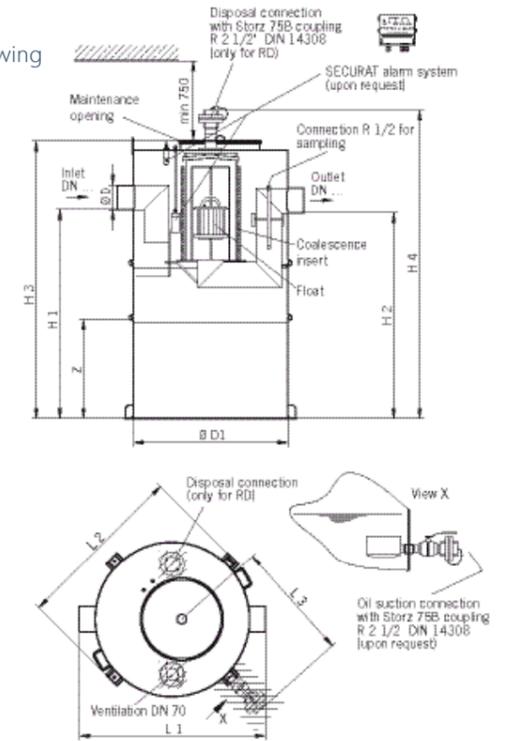
- With direct suction
- Easy to transport and assemble due to segment design
- Direct removal of the oil layer possible
- If the coalescence insert is removed, continued operation as a class II separator is possible



### Product information

- Light liquid separator with coalescence insert in accordance with EN 858 and DIN 1999-100 made of stainless steel, material 1.4301 for free-standing installation in frost-protected rooms
- Made of stainless steel in a round design
- With direct suction DN 65 with Storz coupling 75 B
- R 2 1/2" in accordance with DIN 14308
- Float made of stainless steel material 1.4301 for automatic closing, tared with a density of 0.90 g/cm<sup>3</sup>
- Connections in accordance with DIN 19522 and DIN EN 877
- For connection to SML pipe, incl. loosely applied maintenance opening DN 500

### Dimensional drawing



### Order data Coalisator-RD

Nominal size	Content			Inlet/outlet OD	Dimensions						Number of segments	Total weight [kg]	Art. no.		
	Sludge trap [l]	Oil storage [l]	Total [l]		H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	ØL1 [mm]	L2 [mm]			L3 [mm]	left	right
3	448	163	725	110	985	965	1450	1650	980	1180	1090	785/2	170	7603.11.50	7603.10.50
6	617	160	980	160	1330	1310	1800	2000	980	1180	1090	830/3	195	7606.11.50	7606.10.50
10	1250	798	2570	160	1095	1075	1600	1800	1750	1950	2060	600/3	300	7610.11.50	7610.10.50

## Coalisator-E for free-standing installation

### ACO product advantages

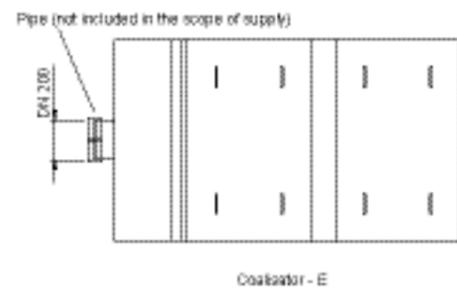
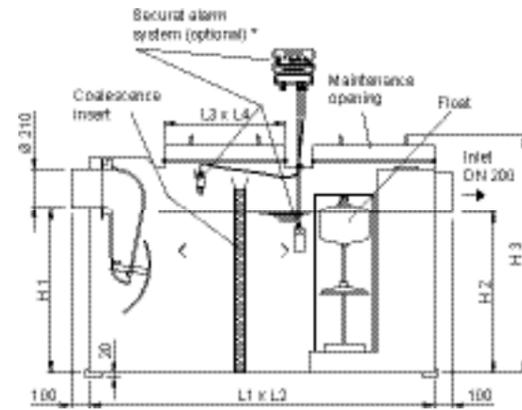
- Optimum separator effect thanks to optional upstream sludge trap
- Full function as a class II separator after removal of the coalescence element



### Product information

- Light liquid separator with coalescence insert in accordance with EN 858 and DIN 1999-100 made of stainless steel, material 1.4301 for free-standing installation in frost-protected rooms
- Made of stainless steel
- Stainless steel float, material 1.4301 for automatic closure
- Inlet and outlet with OD 210 mm

### Dimensional drawing



Coalisator - E

## Sludge trap for Coalisator-E for free-standing installation

### ACO product advantages

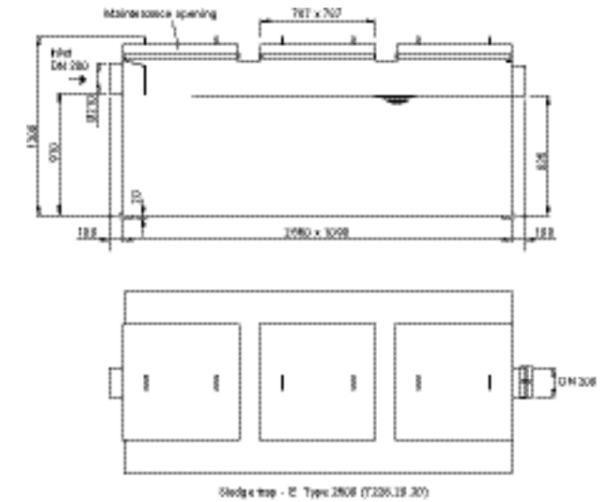
- Adapted for use with Coalisator-E
- Can also be used for other applications (collection of sediments such as sand, gravel, etc.)



### Product information

- Sludge trap with 2500 liters capacity, made of stainless steel, material 1.4301, for free-standing installation
- With baffle plate and three maintenance openings
- Three covers 787 x 787 mm (clear width), without quick release fasteners, loosely applied
- Inlet and outlet with OD 210 mm

### Dimensional drawing



Suitable for	Dimensions			Total weight [kg]	Art. no.
	L [mm]	B [mm]	H [mm]		
<ul style="list-style-type: none"> <li>■ Stainless steel light liquid separator for free-standing installation</li> <li>□ Coalisator-E</li> </ul>	2660	1090	300	400	7226.20.30

NS	OD	Content		Dimensions						Total weight [kg]	Art. no.	
		Sludge trap [l]	Total [l]	A [mm]	B [mm]	C [mm]	D [mm]	H1 [mm]	H2 [mm]		H3 [mm]	Float density 0.85
20	210	425	1725	985	965	1450	980	1180	1090	170	7609.15.70	7609.35.70

Supplementary components

Product	Designation	Suitable for	Description	Art. no.
	Alarm system Securat idOil 20	■ Coalisator-R,-RD,-E	<ul style="list-style-type: none"> <li>■ For monitoring different filling levels</li> <li>■ With ATEX certification</li> <li>■ Operating zone 0</li> <li>■ With visual and acoustic display</li> <li>■ Incl. connectors</li> <li>■ Electrical connection                             <ul style="list-style-type: none"> <li>□ 100-230 V AC</li> <li>□ 50 60 Hz</li> <li>□ IP 65</li> <li>□ without power switch</li> </ul> </li> <li>■ Cable length: 5 m</li> <li>■ 2 probes                             <ul style="list-style-type: none"> <li>□ Oil measurement</li> <li>□ Accumulation measurement</li> </ul> </li> <li>■ Weight: 2.5 kg</li> </ul>	6751.65.41
	Alarm system Securat idOil 20	■ Coalisator-P	<ul style="list-style-type: none"> <li>■ For monitoring different filling levels</li> <li>■ With ATEX certification</li> <li>■ Operating zone 0</li> <li>■ With visual and acoustic display</li> <li>■ Incl. connectors</li> <li>■ Electrical connection                             <ul style="list-style-type: none"> <li>□ 100-230 V AC, 50-60 Hz</li> <li>□ IP 65</li> <li>□ Without power switch</li> </ul> </li> <li>■ Cable length: 5 m</li> <li>■ 2 probes                             <ul style="list-style-type: none"> <li>□ Oil measurement</li> <li>□ Accumulation measurement</li> </ul> </li> <li>■ Weight: 3 kg</li> </ul>	6751.65.61
	Extension cable for a probe	■ alarm system Securat idOil 20	<ul style="list-style-type: none"> <li>■ Type LIYYÖ-OB</li> <li>■ 2 x 0.75</li> <li>■ External diameter: 5 mm</li> <li>■ Blue</li> <li>■ 20 metres</li> </ul>	6752.00.03
	Sampling pot	■ Coalisator-P for free-standing installation	<ul style="list-style-type: none"> <li>■ Made of polyethylene, with cover</li> <li>■ Ø 450 mm</li> <li>□ OD 110 mm</li> </ul>	3300.09.11
	Sampling pot	■ Coalisator-R/RD/E	<ul style="list-style-type: none"> <li>■ For installation in horizontal stainless steel piping</li> <li>■ Material grade 1.4571</li> <li>■ With CE-connector and tempo clutch</li> <li>■ Connections to SML pipe in accordance with DIN 19522                             <ul style="list-style-type: none"> <li>□ OD 110 mm</li> <li>□ OD 160 mm</li> <li>□ OD 210 mm</li> </ul> </li> </ul>	7300.09.10 7300.09.20 7300.09.30

Product	Designation	Suitable for	Description	Art. no.
	Sampling shaft	■ Coalisator-P NS 1.5/3	<ul style="list-style-type: none"> <li>■ Made of plastic, clear width 450 mm</li> <li>■ Inspection opening approx 600 x 300 mm</li> <li>■ For load class B125</li> <li>■ Inlet and outlet DN 100</li> <li>■ For inlet depth 530 – 985 mm (gradient 153 mm) or 660 – 1115 mm (gradient 33 mm)                             <ul style="list-style-type: none"> <li>□ Gradient: 153 mm</li> <li>□ Gradient: 33 mm</li> </ul> </li> </ul>	3301.13.10 3301.13.11
	Extension	■ Sampling shafts	<ul style="list-style-type: none"> <li>■ Made of plastic, material polyethylene</li> <li>■ To be mounted on protruding sampling chamber for recessed installation</li> <li>■ Installation height: 100 – 650 mm (can be shortened every 45 mm by cutting off at the cutting marks)</li> <li>■ Weight: 12 kg</li> </ul>	3300.13.00
	Filling unit	■ Separator for free-standing installation	<ul style="list-style-type: none"> <li>■ NS 1.5/3</li> <li>■ NS 6/10</li> </ul>	0153.06.76 0155.01.70
	Inlet stop valve	■ Separator for free-standing installation	<ul style="list-style-type: none"> <li>■ NS 1.5/3</li> <li>■ NS 6/10</li> </ul>	0175.31.87 0175.31.88
	Adapter kit	■ Coalisator-P	<ul style="list-style-type: none"> <li>■ On-site extraction line DN 65, incl. Storz-B coupling and blind coupling                             <ul style="list-style-type: none"> <li>□ Free-standing installation</li> <li>□ Below ground installation</li> </ul> </li> </ul>	3900.00.31 3900.00.32
	Terminal box	■ Coalisator-P adapter set	<ul style="list-style-type: none"> <li>■ For disposal connection DN 80</li> <li>■ Made of stainless steel, material grade 1.4301</li> <li>■ “Surface mounted” version</li> <li>■ Door hinge, available right or left, door lockable</li> <li>■ Dimensions (width x height x depth): 370 x 330 x 250 mm</li> <li>■ Weight: 8 kg</li> </ul>	7601.80.22
	Flush-mounted frame	■ Connection box		7601.80.23
	Road cap	■ below ground installation Coalisator-Padapter set	<ul style="list-style-type: none"> <li>■ Manhole cover in accordance with DIN EN 124/DIN 1229</li> <li>■ Load class: A 15 Frame and cover made of cast iron</li> <li>■ Diameter: 300 mm</li> <li>■ Clear width: 250 mm</li> <li>■ Weight: 10 kg</li> </ul>	5354.00.00
	Oil extractor	■ Coalisator-R,-RD	<ul style="list-style-type: none"> <li>■ Extraction equipment for separated light liquids</li> <li>■ Nominal width: 65</li> <li>■ With storz coupling 75 B R 2½" according to DIN 14308</li> <li>■ Weight: 3.8 kg</li> </ul>	7600.00.20



## ACO Systems FZE

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