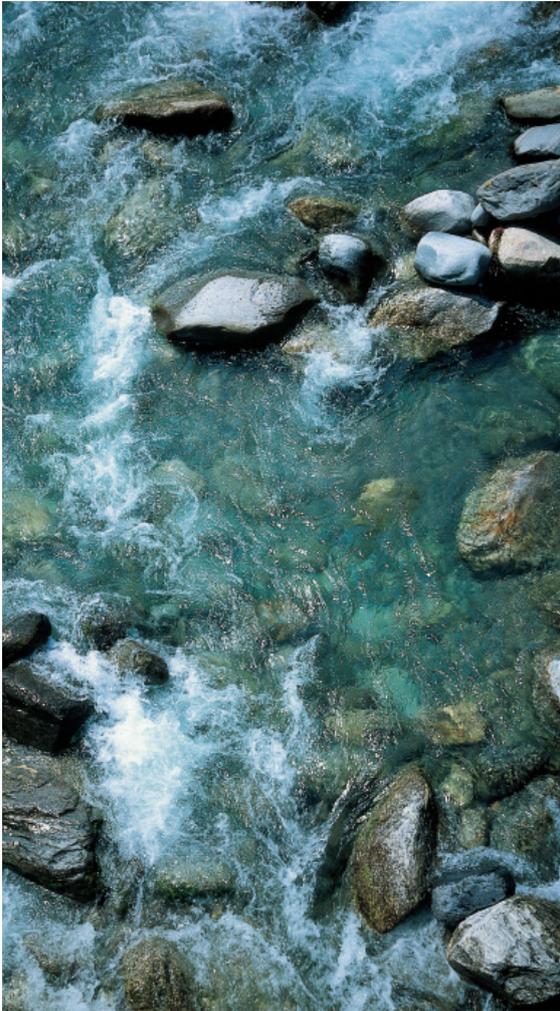


Competence in water protection

ACO Light oil separators class I and II

- ACO CURATOR-GG
- ACO COALISATOR-GG
- ACO COALISATOR-R/-RD
- ACO COALISATOR-E with separate sludge trap

An environmental-friendly solution from ACO for every application



Fields of application

- Petrol stations
- Parking spaces
- Parking areas
- Carriageways
- Cleaning sites and car-wash plants
- Workshops
- Vehicle recycling
- Heliports
- Transformer substations
- Elevator shafts

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Applications

When should light oil separators be used? Their use is stipulated by the regulations in DIN 1986-100, Section 6.2.3: "If petroleum or light oils, especially those that are combustible or can form explosive atmospheres, enter the sewers, separator systems for light oils must be used downstream of the discharge points." Discharging petroleum and light oils into public sewers can cause groundwater and drinking water contamination, and in serious cases, cause extensive environmental damage to flora and fauna. The solution to this problem is a light oil separator.

Any light oil in the wastewater is collected in a separator tank and prevented from being discharged from the separator. The discharge outlet closes automatically when the maximum storage capacity has been reached. The light oil which collects in the separator is disposed of by certified recycling companies at regular intervals.

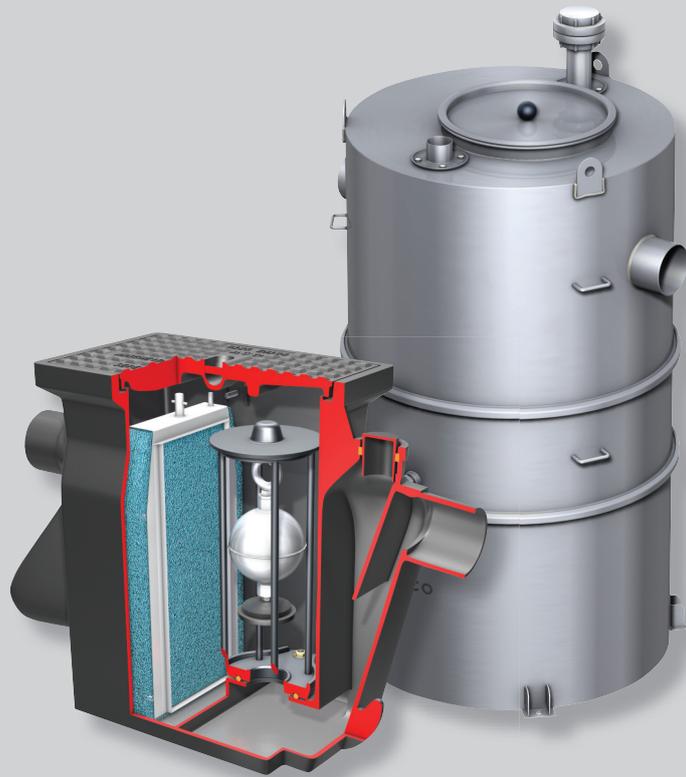
Standards and tests

All ACO light oil separators are manufactured in accordance with the applicable standards DIN EN 858 and DIN 1999-100.

All the separators in the range are hydraulically tested and have General Building Supervisory Authority Authorisation or the new application authorisation from DIBt Berlin.

The separators also undergo regular inspection by the Bavarian State Trading Agency, which checks the production to make sure it complies with the latest testing standards.





Contents

Introduction – light oil separation, coalescence process and automatic seal

Page 4

Function/application

Product solution

For free-standing installation or for ground installation – of cast iron – class II

ACO CURATOR-GG NS 1.5/3/6

Page 6

For free-standing installation or for ground installation – of cast iron – class I

ACO COALISATOR-GG NS 1.5/3/6

Page 6

For free-standing installation of stainless steel class I with integrated sludge trap

ACO COALISATOR-R NS 3/6/10

Page 8

For free-standing installation of stainless steel class I with integrated sludge trap and with direct suction

ACO COALISATOR-RD NS 3/6/10

Page 10

For free-standing installation of stainless steel class I with separate sludge trap 2.500 litres

ACO COALISATOR-E NS 10/20

Page 12

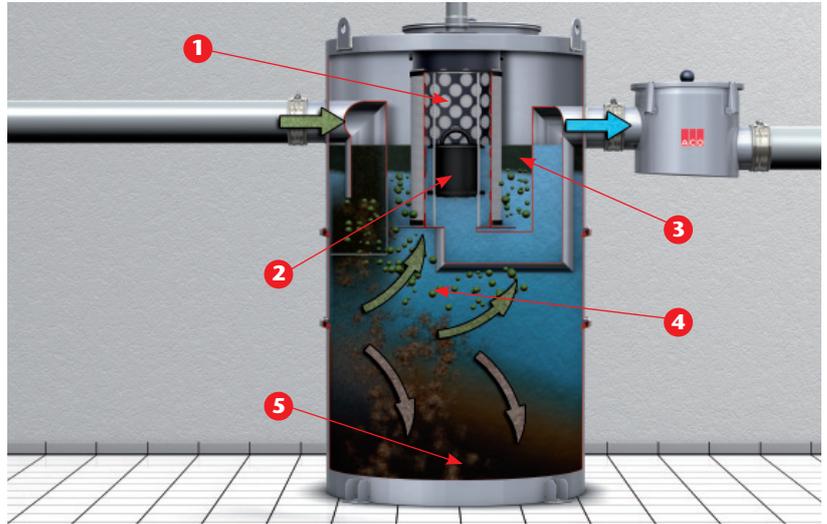
Supplementary components

Alarm devices (ACO CURATOR and ACO COALISATOR)
 Sampling pipes
 Covers
 Floats
 Coalescence material
 Lifting keys

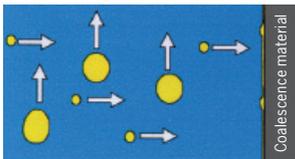
Page 14

The functional principle behind light oil separation

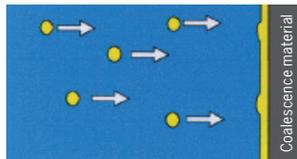
Wastewater contaminated with light oil flows into the separator chamber (4) through the inlet pipe. Dense substances (e.g. sand) sink to the base of the tank and accumulate in the sludge trap (5). The light oils (e.g. oil or petrol) rise to the surface where they separate out to form a light oil layer (3). This is gravity separation. In Class II gravity separators of this kind, the wastewater leaving the separator through the outlet pipe can have residual oil concentrations of 100 milligrammes per litre. This level can be reduced to below 5 milligrammes per litre by using a coalescence element (1) in a Class I separator.



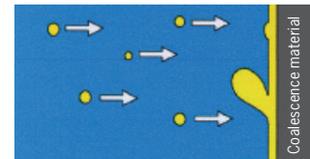
Coalescence process (only in Class I separators)



The small oil droplets which cannot be separated from the water on the basis of their difference in density to the water, hit and stick to the lipophilic coalescence unit.



The drops of oil spread out on the coalescence material, and are joined by more oil drops, which causes the oil film to expand.

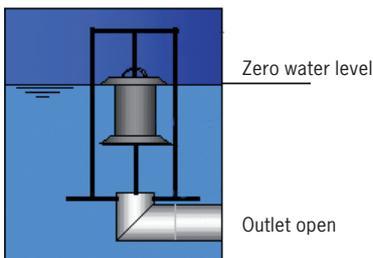


At some point, enough oil has collected to exceed the adhesive power of the oil film, and a large drop of oil starts to break away.

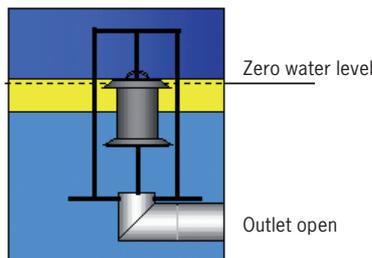
The principle behind automatic closure

The material collecting in the light oil layer (3) must not enter the sewers. This means that the separators must have an automatic closing device which automatically closes the separator outlet when the maximum volume of light oil has accumulated in the separation tank. The closing mechanism has a float (2) with a specific density which is pressed down further and further by the light oil layer as it builds up.

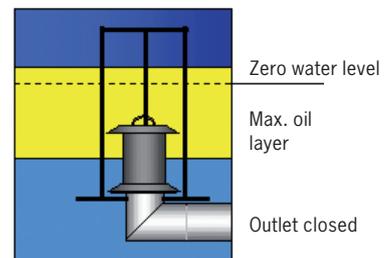
When the float has shut off the outlet, no more wastewater can be discharged through the separator. Further operation first requires the contents of the separator to be removed by a certified recycling company, followed by refilling with water, which then reopens the outlet pipe.



Normal condition

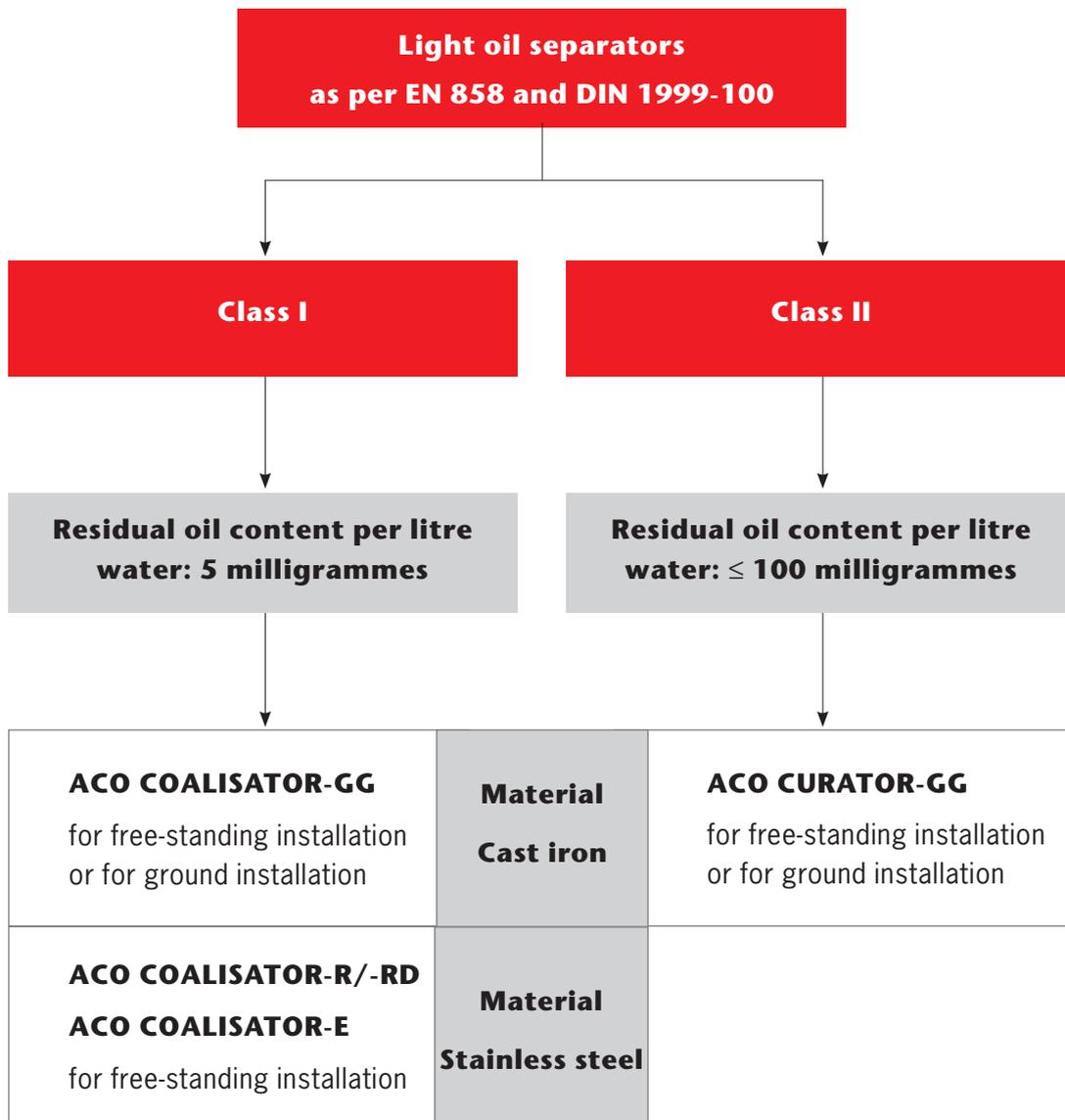


Float fully immersed



Float seal

The ACO COALISATOR and ACO CURATOR range

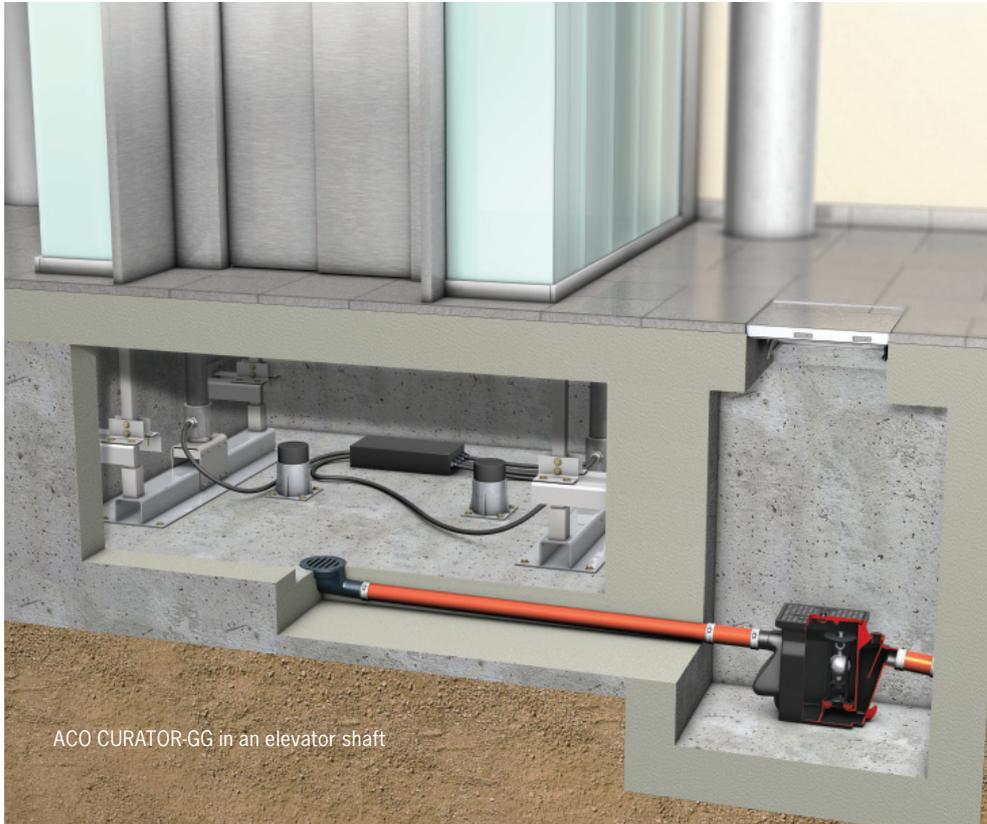


■ Sludge traps for free-standing installation and for ground installation upon request.

■ Light oil separators of reinforced concrete:
www.aco-tiefbau.de

For free-standing installation or for ground installation – of cast iron

ACO CURATOR-GG and ACO COALISATOR-GG



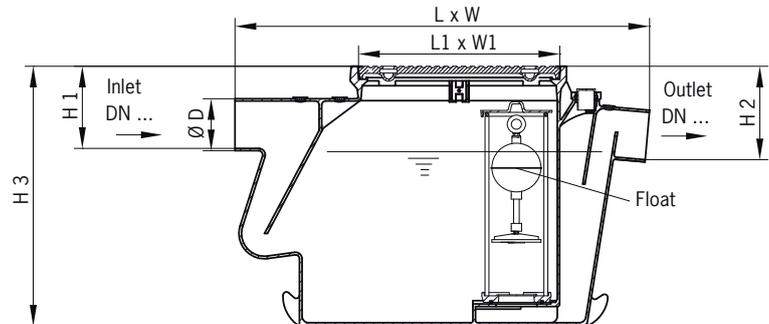
ACO CURATOR-GG in an elevator shaft

Applications

ACO light oil separators CURATOR-GG and COALISATOR-GG are suitable for free-standing installation (non-frostproof models), and for ground installation when equipped with the necessary concrete construction components (supplied as standard). The manhole cover is designed for a maximum load of 12.5 tonnes. ACO light oil separator CURATOR-GG can be converted to an ACO COALISATOR-GG with the addition of a coalescence insert. The basic versions of these separators are designed for applications where light oils accumulate with very minor amounts of dirt, e.g. elevator shafts or transformer substations. Sludge traps should be installed upstream of separators when treating wastewater containing high concentrations of dirt.

Official test sign Z-54.5-114
(ACO CURATOR-GG)
Official test sign Z-54.8-218
(ACO COALISATOR-GG)

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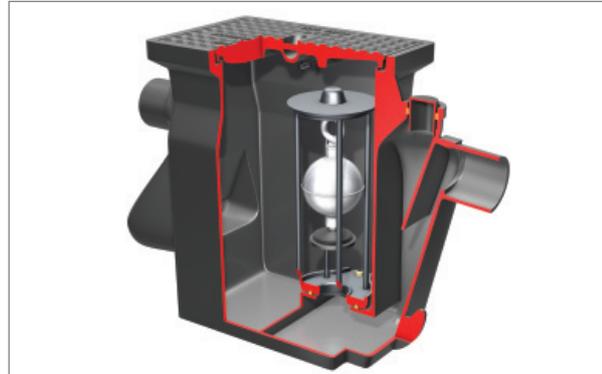
Dimensions
ACO CURATOR-GG/ACO COALISATOR-GG

| | NS 1.5 | | | NS 3 | | | NS 6 | | |
|--------------------------------|-----------|------|------|------------|------|------|------------|------|------|
| Inlet/outlet | DN 100 | | | DN 100 | | | DN 100 | | |
| L1 x W1 (mm) | 820 x 316 | | | 1050 x 420 | | | 1260 x 420 | | |
| L2 x W2 (mainten. opening, mm) | 433 x 255 | | | 615 x 315 | | | 615 x 315 | | |
| Light oil storage capacity | 20 l | | | 45 l | | | 65 l | | |
| Total wastewater content | 55 l | | | 150 l | | | 185 l | | |
| Installation depth (mm) | H1 | H2 | H3 | H1 | H23 | H3 | H1 | H2 | H3 |
| Non-frostfree | 230 | 255 | 600 | 230 | 255 | 740 | 255 | 290 | 800 |
| 400 | – | – | – | 405 | 430 | 910 | 435 | 470 | 980 |
| 500 | 485 | 510 | 850 | – | – | – | – | – | – |
| 600 | – | – | – | 615 | 640 | 1120 | 645 | 680 | 1190 |
| 800 | 795 | 820 | 1160 | 825 | 850 | 1330 | 855 | 890 | 1600 |
| 1000 | 1005 | 1030 | 1370 | 1025 | 1050 | 1530 | 1055 | 1090 | 1600 |
| 1200 | 1215 | 1240 | 1580 | 1235 | 1260 | 1740 | 1265 | 1300 | 1810 |

ACO CURATOR-GG – NS 1.5/3/6 – class II

Light oil separator as per EN 858 and DIN 1999-100, of cast iron DIN EN 1561.
 With manhole cover load class B125 incl. lifting key, stainless steel float, material grade 1.4301 for automatic seal.
 Light oil storage capacity: litres
 Total wastewater contents: litres
 Connections DN as per DIN EN 877 for SML pipe,
 Float density g/cm³

- Supplementary components as from page 14
- Sludge traps upon request

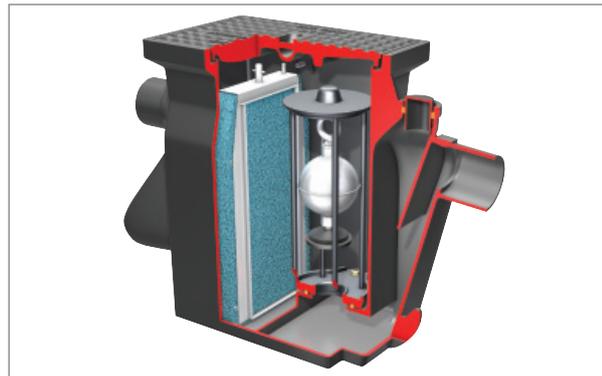


| | Float density | Installation depth in mm | | | | | | |
|--------|---------------|--------------------------|------------|------------|------------|------------|------------|------------|
| | | Non-frostfree | 400 | 500 | 600 | 800 | 1000 | 1200 |
| NS 1,5 | Density 0.85 | 6701.11.00 | – | 6711.11.00 | – | 6721.11.00 | 6731.11.00 | 6741.11.00 |
| | Density 0.95 | 6701.31.00 | – | 6711.31.00 | – | 6721.31.00 | 6731.31.00 | 6741.31.00 |
| | Weight | 115 kg | – | 155 kg | – | 205 kg | 235 kg | 265 kg |
| NS 3 | Density 0.85 | 6703.11.00 | 6753.11.00 | – | 6713.11.00 | 6723.11.00 | 6733.11.00 | 6743.11.00 |
| | Density 0.95 | 6703.31.00 | 6753.31.00 | – | 6713.31.00 | 6723.31.00 | 6733.31.00 | 6743.31.00 |
| | Weight | 220 kg | 260 kg | – | 305 kg | 350 kg | 390 kg | 435 kg |
| NS 6 | Density 0.85 | 6706.11.00 | 6756.11.00 | – | 6716.11.00 | 6726.11.00 | 6736.11.00 | 6746.11.00 |
| | Density 0.95 | 6706.31.00 | 6756.31.00 | – | 6716.31.00 | 6726.31.00 | 6736.31.00 | 6746.31.00 |
| | Weight | 290 kg | 330 kg | – | 395 kg | 420 kg | 465 kg | 510 kg |

ACO COALISATOR-GG – NS 1.5/3/6 – class I

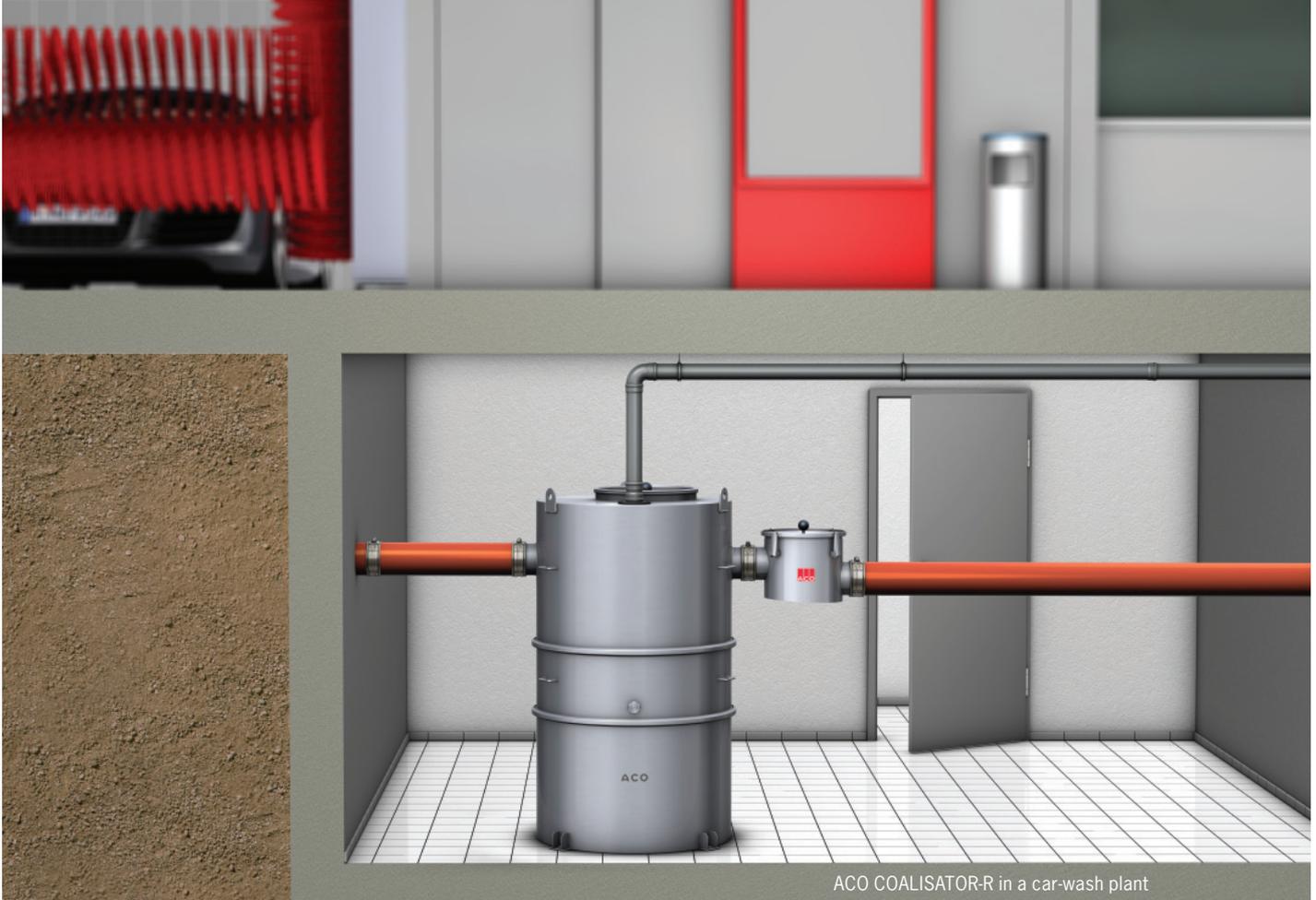
Light oil separator with coalescence insert as per EN 858 and DIN 1999-100, of cast iron DIN EN 1561.
 With manhole cover load class B125 incl. lifting key, stainless steel float, material grade 1.4301 for automatic seal.
 Light oil storage capacity: litres
 Total wastewater contents: litres
 Connections DN as per DIN EN 877 for SML pipe,
 Float density g/cm³

- Supplementary components as from page 14
- Sludge traps upon request



| | Float density | Installation depth in mm | | | | | | |
|--------|---------------|--------------------------|------------|------------|------------|------------|------------|------------|
| | | Non-frostfree | 400 | 500 | 600 | 800 | 1000 | 1200 |
| NS 1,5 | Density 0.85 | 6701.11.30 | – | 6711.11.30 | – | 6721.11.30 | 6731.11.30 | 6741.11.30 |
| | Density 0.95 | 6701.31.30 | – | 6711.31.30 | – | 6721.31.30 | 6731.31.30 | 6741.31.30 |
| | Weight | 115 kg | – | 155 kg | – | 205 kg | 235 kg | 265 kg |
| NS 3 | Density 0.85 | 6703.11.30 | 6753.11.30 | – | 6713.11.30 | 6723.11.30 | 6733.11.30 | 6743.11.30 |
| | Density 0.95 | 6703.31.30 | 6753.31.30 | – | 6713.31.30 | 6723.31.30 | 6733.31.30 | 6743.31.30 |
| | Weight | 220 kg | 260 kg | – | 305 kg | 350 kg | 390 kg | 435 kg |
| NS 6 | Density 0.85 | 6706.11.30 | 6756.11.30 | – | 6716.11.30 | 6726.11.30 | 6736.11.30 | 6746.11.30 |
| | Density 0.95 | 6706.31.30 | 6756.31.30 | – | 6716.31.30 | 6726.31.30 | 6736.31.30 | 6746.31.30 |
| | Weight | 290 kg | 330 kg | – | 395 kg | 420 kg | 465 kg | 510 kg |

For free-standing installation of stainless steel **class I** with integrated sludge trap
ACO COALISATOR-R – NS 3/6/10



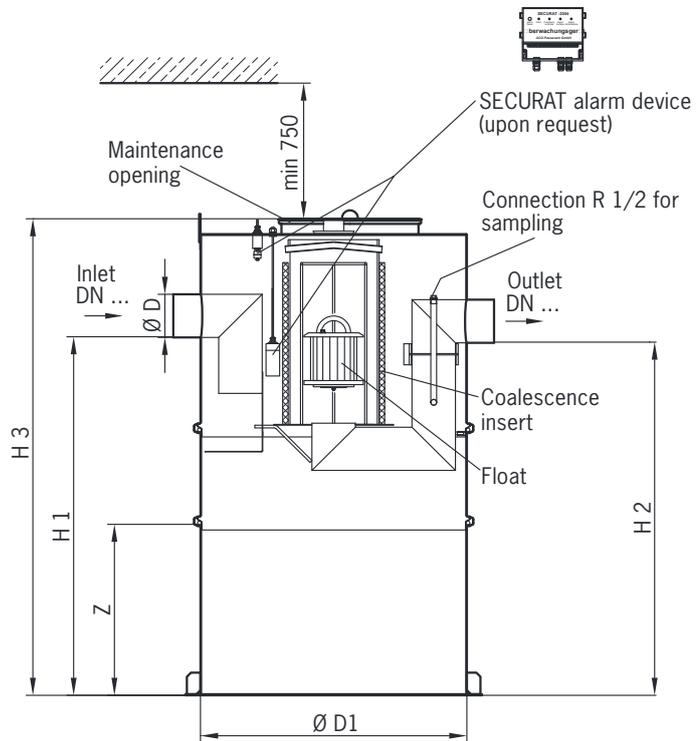
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Applications

ACO light oil separator COALISATOR-R is suitable for free-standing installation in frost-free rooms. The round modules allow the separator to be dismantled on site for easier transport into small spaces.

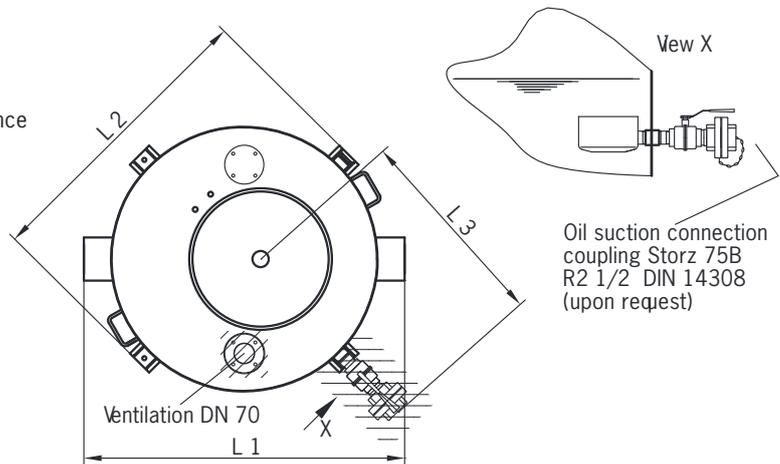
ACO light oil separator COALISATOR-R has an integrated and optimised sludge trap pursuant to DIN EN 858, and can therefore be used in applications where wastewater is contaminated by light oil and only moderate amounts of dirt, e.g. car inspection pits (oil suction upon request).

Official test sign Z-54.8-381



Light oil separator with coalescence insert as per EN 858 and DIN 1999-100 of stainless steel, material grade 1.4301 for free-standing installation in frostproof rooms.
 Float made of stainless steel, material grade 1.4301 for automatic seal, tared with density 0.90 g/cm³.
 Light oil storage capacity: litres
 Total wastewater capacity: litres
 Connections DN ... as per DIN 19522 and DIN EN 877 for connection to SML pipe, incl. loosely applied maintenance opening DN 500.

■ Supplementary components as from page 14



| Nom. size | Type | Capacity in litres | | | Inlet/outlet DN | Dimensions in mm | | | | | | Number of segments | Weight in kg | | Art. no. |
|-----------|------|--------------------|-------------|-------|-----------------|------------------|------|------|------|------|------|--------------------|--------------|---------|------------|
| | | Sludge trap | Oil storage | Total | | H1 | H2 | H3 | Ø L1 | L2 | L3 | | Total | Compon. | |
| 3 | 600 | 448 | 163 | 725 | 100 | 985 | 965 | 1450 | 980 | 1180 | 1090 | 785/2 | 170 | 85 | 7603.00.50 |
| 6 | 1200 | 617 | 160 | 980 | 150 | 1330 | 1310 | 1800 | 980 | 1180 | 1090 | 830/3 | 195 | 65 | 7606.00.50 |
| 10 | 2500 | 798 | 798 | 2570 | 150 | 1095 | 1075 | 1600 | 1750 | 1950 | 2060 | 600/3 | 300 | 100 | 7610.00.50 |

For free-standing installation of stainless steel **class I** with integrated sludge trap
ACO COALISATOR-RD – NS 3/6/10 – with direct suction



ACO COALISATOR-RD
in a workshop

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II

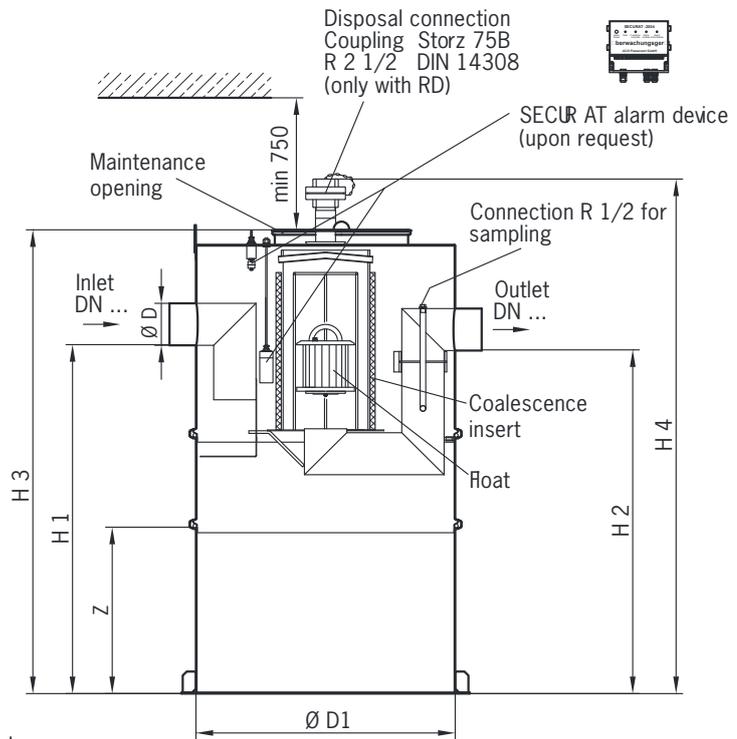
Applications

ACO light oil separator COALISATOR-RD is suitable for free-standing installation in frost-free rooms. The round modules allow the separator to be dismantled on site for easier transport into small spaces.

ACO light oil separator COALISATOR-RD has an integrated and optimised sludge trap pursuant to DIN EN 858, and can therefore be used in applications where wastewater is contaminated by light oil and only moderate amounts of dirt, e.g. car inspection pits.

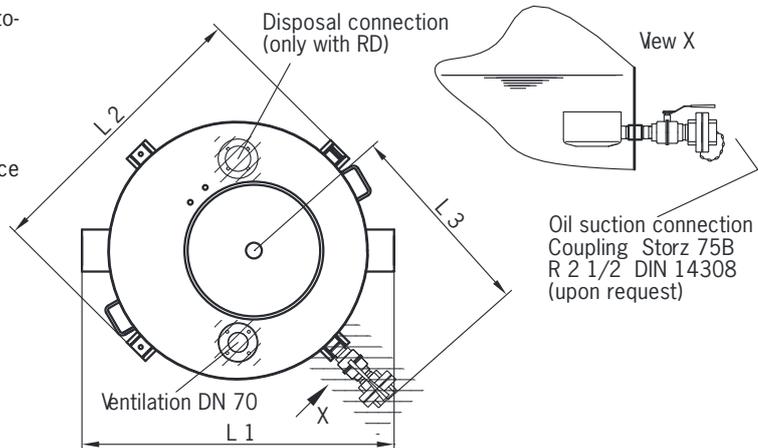
Disposal of the separator contents can be done by direct DN65 suction pipe, also with a connection outside the building.

Official test sign Z-54.8-381



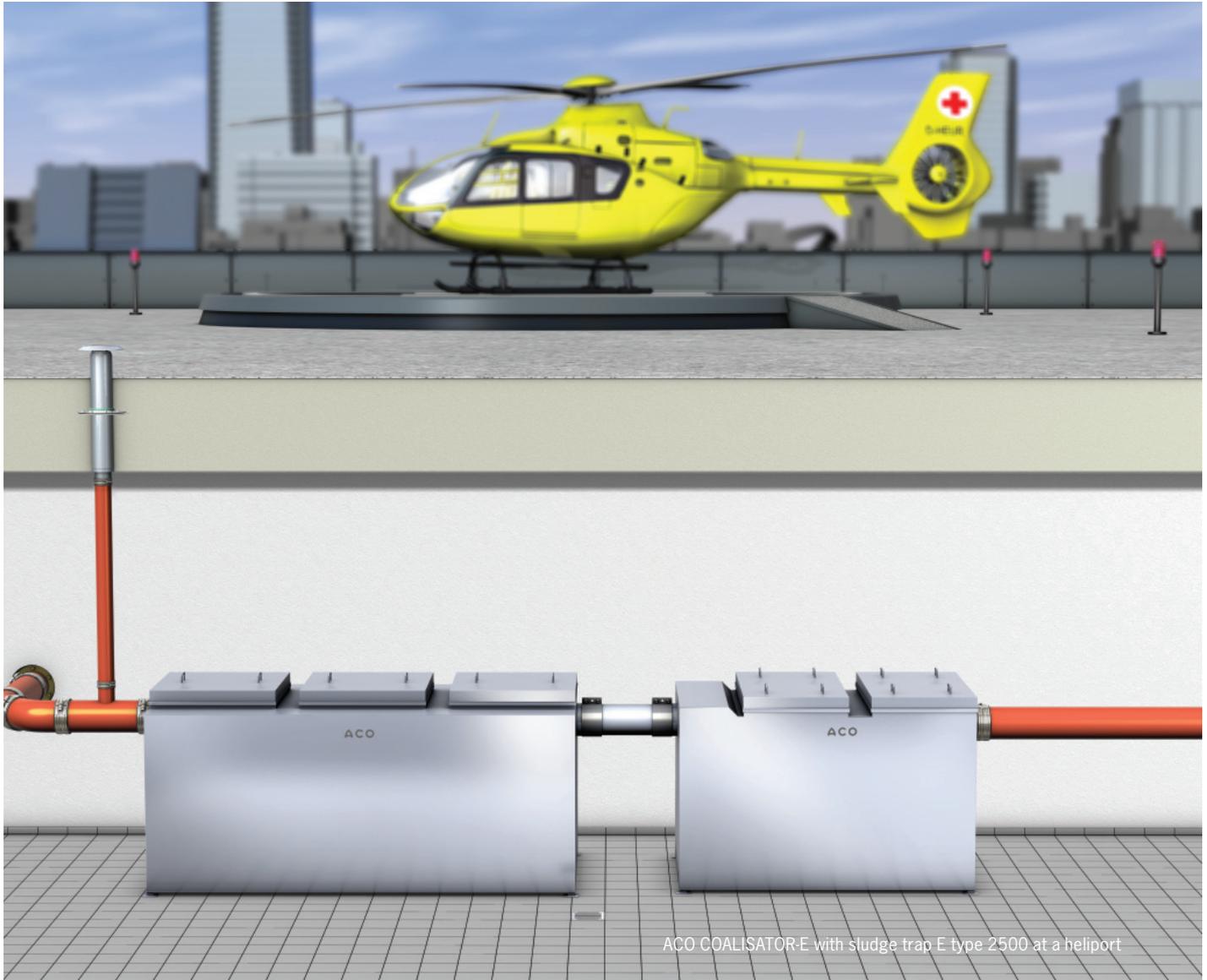
Light oil separator with coalescence insert as per EN 858 and DIN 1999-100 of stainless steel, material grade 1.4301 for free-standing installation in frostproof rooms.
 With direct suction DN 65 with fire hose quick coupling Storz 75 B R 2 1/2" as per DIN 14308, float made of stainless steel, material grade 1.4301 for automatic seal, tared with density 0.90 g/cm³.
 Light oil storage capacity: litres
 Total wastewater capacity: litres
 Connections DN ... as per DIN 19522 and DIN EN 877 for connection to SML pipe, incl. loosely applied maintenance opening DN 500.

■ Supplementary components as from page 14



| om. size | Type | Contents in litres | | | Inlet/outlet DN | Dimensions in mm | | | | | | | Number of segments | Weight in kg | | Art. no. | |
|----------|------|--------------------|-------------|-------|-----------------|------------------|------|------|------|------|------|------|--------------------|--------------|---------|------------|------------|
| | | Sludge trap | Oil storage | Total | | H1 | H2 | H3 | H4 | Ø L1 | L2 | L3 | | Total | Compon. | left | right |
| 3 | 600 | 448 | 163 | 725 | 100 | 985 | 965 | 1450 | 1650 | 980 | 1180 | 1090 | 785/2 | 170 | 85 | 7603.10.50 | 7603.11.50 |
| 6 | 1200 | 617 | 160 | 980 | 150 | 1330 | 1310 | 1800 | 2000 | 980 | 1180 | 1090 | 830/3 | 195 | 65 | 7606.10.50 | 7606.11.50 |
| 10 | 2500 | 798 | 798 | 2570 | 150 | 1095 | 1075 | 1600 | 1800 | 1750 | 1950 | 2060 | 600/3 | 300 | 100 | 7610.10.50 | 7610.11.50 |

For free-standing installation of stainless steel class I with separate sludge trap 2.500 litres
ACO COALISATOR-E – NS 10/20



ACO COALISATOR-E with sludge trap E type 2500 at a heliport

Applications

ACO light oil separator COALISATOR-E is suitable for free-standing installation in frost-free rooms.

ACO light oil separator COALISATOR-E has a separate and large sludge trap pursuant to DIN EN 858, and can therefore be used in applications where wastewater is contaminated by light oil and large amounts of dirt, e.g. vehicle workshops or heliports.

Official test sign Z-54.3-408

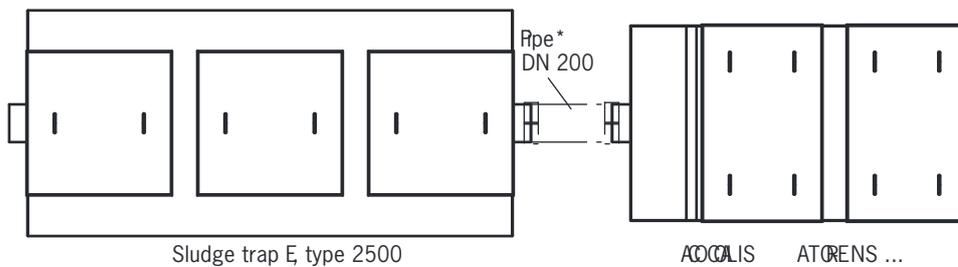
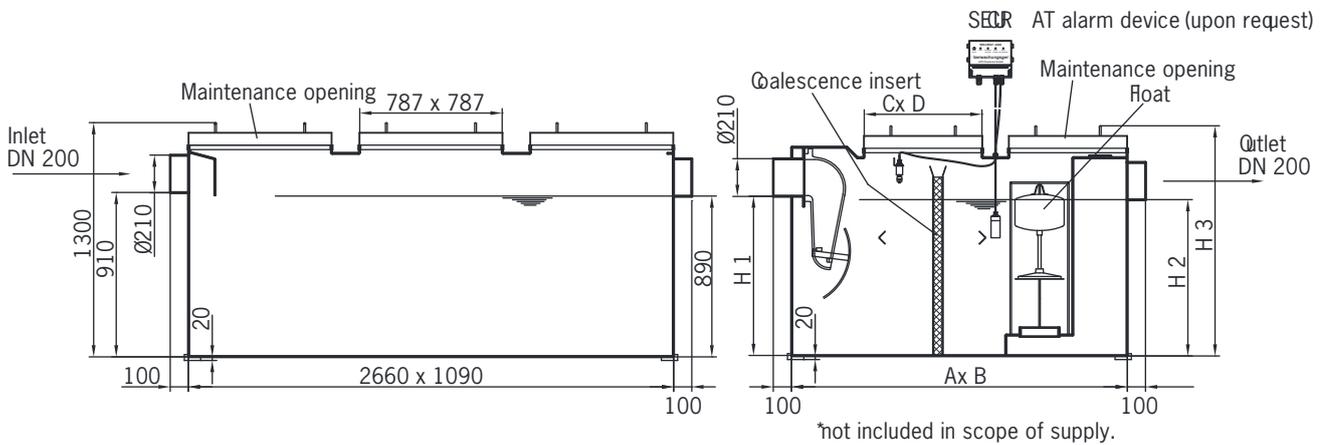
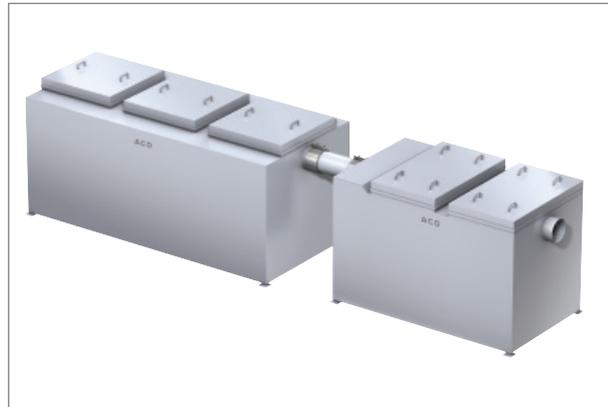
Light oil separator with coalescence insert as per EN 858 and DIN 1999-100 of stainless steel, material grade 1.4301 for free-standing installation in frostproof rooms.

Float made of stainless steel, material grade 1.4301 for automatic seal, float density g/cm³.

Light oil storage capacity: litres

Total wastewater capacity: litres

Connections DN 200 as per DIN 19522 and DIN EN 877 for connection to SML pipe, incl. loosely applied cover hoods.



| NS | Sludge trap type | DN | Contents in litres | | | Dimensions in mm | | | | | | | Weight in kg | | Float density 0.85 | Float density 0.95 |
|----|------------------|-----|--------------------|-------------|-------|------------------|------|-----|------|-----|-----|------|--------------|---------|--------------------|--------------------|
| | | | Sludge trap | Oil storage | Total | A | B | C | D | H1 | H2 | H3 | Total | Compon. | Art. no. | Art. no. |
| 10 | 2500 | 200 | 2550 | 155 | 2980 | 1340 | 525 | 590 | 520 | 640 | 620 | 900 | 600 | 420 | 7608.15.70 | 7608.35.70 |
| 20 | 2500 | 200 | 2550 | 425 | 4280 | 1860 | 1090 | 650 | 1080 | 890 | 870 | 1300 | 850 | 420 | 7609.15.70 | 7609.35.70 |

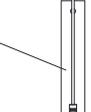
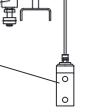
Separate sludge trap E type 2500

Sludge trap with 2500 litres capacity, of stainless steel, material 1.4301, for free-standing installation, consisting of:
 Inlet and outlet DN 200 for SML connection as per DIN 19522. With baffle plate and three maintenance openings.

Three covers 787 x 787 mm (clear opening), without snap closures, loosely applied, dimensions (LxWxH):
 2660 mm x 1090 mm x 1300 mm
 Weight: app. 400 kg
Art. no.: 7226.20.30

■ Supplementary components as from page 14

Supplementary components for light oil separators

| Description | Design | Art. no. | |
|--|---|--|--|
| <p>SECURAT 2004 SB 1 Alarm device for separator type CURATOR-GG with visual and audible signal. Mains connection: 230 V / 47 ... 64 Hz. app. 8 VA Alarm device, consisting of: – SECURAT 2004, monitoring device – Oil probe with 5 m blue connecting cable – Fixation consisting of retaining ring with set screw and guide bar – Terminal strip and fixing material Weight app. 5 kg</p> | <p>For ACO CURATOR-GG NS 1.5 and 3 For ACO CURATOR-GG NS 6</p> | <p>6751.03.00 6751.13.00</p> | <p>Monitoring device </p> <p>Terminal strip </p> <p>Fixation </p> <p>Oil probe </p> |
| <p>SECURAT 2004 SK 2 Alarm device for separator type COALISATOR-GG and COALISATOR-R with visual and audible signal. Mains connection: 230 V / 47 ... 64 Hz. app. 8 VA Alarm device, consisting of: – SECURAT 2004, monitoring device – Oil probe with 5 m blue connecting cable – Accumulation probe with 5 m blue connecting cable – Terminal strip and fixing material Weight app. 5 kg</p> | <p>For ACO COALISATOR-GG NS 1.5 – 6 For ACO COALISATOR-R/-RD NS 3/6/10 and ACO COALISATOR-E NS 10 and 20</p> | <p>6751.63.00 6751.64.00</p> | <p>Monitoring device </p> <p>Terminal strip </p> <p>Fixation </p> <p>Accumulation probe </p> <p>Oil probe </p> |
| <p>Extension cable For SECURAT SB 1 and SECURAT SK 2 alarm devices Type: HELUKABEL OZ-BL-CY 4 x 1.0, to be laid in ground or/and in blank pipe</p> | <p>1 meter</p> | <p>0150.07.94</p> | |
| <p>Sampling pipe For installation in horizontal pipeline, of stainless steel, material grade 1.4571, with CE connector and claw, connections as per DIN 19522 to SML pipe.</p> | <p>DN 100 DN 150 DN 200</p> | <p>7300.09.10 7300.09.20 7300.09.30</p> |  |

| Description | Design | Art. no. | |
|--|--|--|---|
| <p>GG cover For ACO CURATOR-GG and ACO COALISATOR-GG</p> | <p>NS 1.5 NS 3 and NS 6</p> | <p>6701.11.20 6703.11.20</p> |  |
| <p>Float, complete For ACO CURATOR-GG and ACO COALISATOR-GG</p> | <p>NS 1.5 – density 0.85 g/cm³ NS 3 and 6 – density 0.85 g/cm³ NS 1.5 – density 0.95 g/cm³ NS 3 and 6 – density 0.95 g/cm³</p> | <p>6701.10.15 6703.10.15 6701.30.15 6703.30.15</p> |  |
| <p>Coalescence insert, complete For ACO COALISATOR-GG</p> | <p>NS 1.5 NS 3 NS 6</p> | <p>6701.10.16 6703.10.16 6706.10.16</p> |  |
| <p>Coalescence mats (one set) For ACO COALISATOR-GG</p> | <p>NS 1.5 NS 3 NS 6</p> | <p>6701.10.06 6703.10.06 6706.10.06</p> |  |
| <p>Lifting key for manhole cover For ACO CURATOR-GG and ACO COALISATOR-GG</p> | | <p>4145.00.00</p> |  |
| <p>Lifting key for coalescence insert For ACO COALISATOR-GG</p> | | <p>6701.00.08</p> | |

The ACO Haustechnik product range

Draining

- Flat roof, balcony and terrace drains
- Floor drains and channels
- Bath drainage
- Pipe systems
- Backflow stops
- Manhole covers

Separating

- Grease separators
- Starch separators
- Process technology

Pumping

- Wastewater lifting plants
- Submerged pumps
- Prefabricated pumping stations