



Separator ▶ Light-oil separator

Light-oil separator for ground installation or free-standing installation

Ground installation/free-standing installation

- In the nominal sizes NS: 1.5, 3, 6
- As a class I or class II separator
- Class I has a removable coalescence insert
- Up to load class: B 125
- With various top sections for a variable installation depth
- Sludge trap and alarm device connected upstream as required.

Light-oil separator for free-standing installation

Free-standing installation

- In the nominal sizes NS: 3,6, 10
- Can be divided into segments for difficult installation conditions
- As a class I separator
- Class I has a removable coalescence insert
- Sludge trap, alarm device, direct suction and oil suction connected upstream as required.

Informations

Basics546
 Dimensioning according to EN 858 ..554

Standards

Information for EN 858

- Manufacturers can determine the conformity of the product by confirming it with the standard and document this with the CE code.
 - The structures can consist of concrete, reinforced concrete, metal or plastic materials, the installation parts of steel or plastic.
 - Not regulated and therefore subject to country-specific standards are regulations for third-party inspections, fire protection, static proof and leaks.
- For Germany, these provisions are regulated in the new, supplementary DIN 1999-100. This states:
- The tests of the function shall be performed by a certified testing company.
 - The structure must meet the static requirements for the required traffic and soil load.
 - The intake and outlet pipes within the separator must be manufactured from non-combustible materials and ensure that no fire cannot spread.
 - The seal of the entire separator including the manhole construction must be guaranteed.

Implications for planners and users in practice

- When only applying EN 858, every manufacturer can determine the conformity of his products with the standard in the future at his own responsibility and document these with the CE certification. The test at a testing station would no longer be required. In specific cases, this can
- generally result in hazards for the environment, but also for planners and users:
- Uncontrolled limit value violation due to an inadequate performance of the separator
 - Damages to the separator tank due to insufficient stability and the associated contamination of the soil
 - Spread of fire to the intake and discharge lines when using built-in plastic components
 - Uncontrolled leakage of light oil due to insufficient sealing

Recommendation

- In order to ensure the existing safety standards and in terms of practical planning, we generally recommend applying the EN 858 parts 1 and 2 only in conjunction with DIN 1999-100. Planners and operators can only effectively protect themselves against damages and possible recourse claims in this manner!

Independent quality testing

The ACO light oil separators have been tested for years by the recognized testing centre LGA Bautechnik GmbH!

Static verification

- The tanks must meet the required traffic loads - this can only be documented in form of static proof (usually by type static). In order to minimize the risk, it must be observed that no additional structural reinforcement measures are required when selecting light oil separators.

Fire protection

- In order to ensure fire safety, the inlet and outlet sockets must be at least up to 100 mm below the zero water line and consist of non-combustible materials (generally of metal). ACO light oil separators are generally equipped with such installation components.

Separator classifications

- The light oil separators by ACO Haustechnik are available in two versions:
- Class I corresponds with coalescence separators
 - Class II separators correspond with gravity separators (petrol separators)

Basics

When and why is a light-oil separator installed?

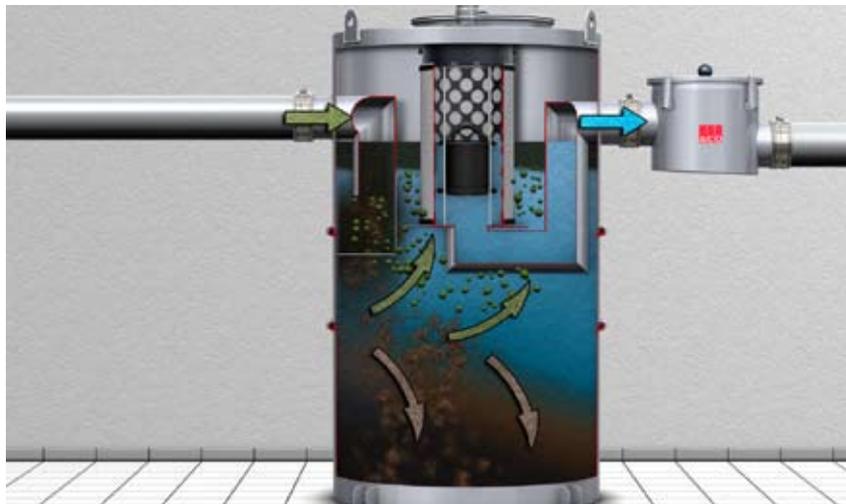
Quote in part from DIN 1986-100, item 6.2.3:

"If mineral oils or light oils, especially those that are flammable or can develop an explosive atmosphere in the drainage system, separator systems for light oil must be used behind the drainage points."

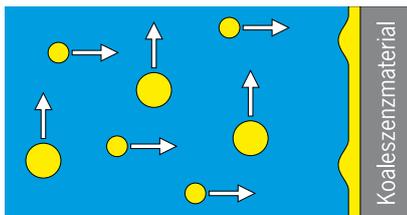
The application scope

e.g. gas stations, parking areas, parking lots, roadways, washing areas, car wash facilities, brush/portal washing systems, engine cleaning, workshops, vehicle recovery, scrap yards, transfer stations, tank pits, transformer stations

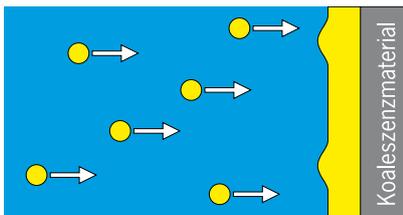
The principle



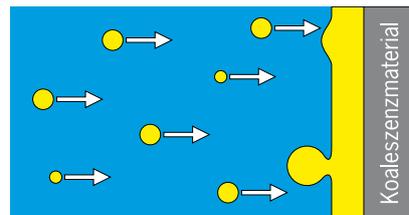
Coalescence processes



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.



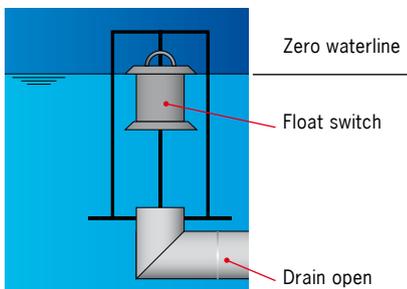
The adhesion of the oil film is exceeded. A large drop of oil begins to separate, floats upward and can therefore be separated.

Principle of automatic completion

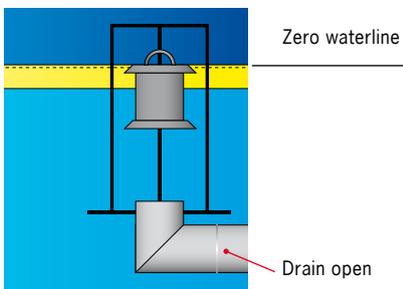
Excerpt from EN 858-2, Item 5.2

"Separators must be fitted with automatic closing devices that ensure that no iso-

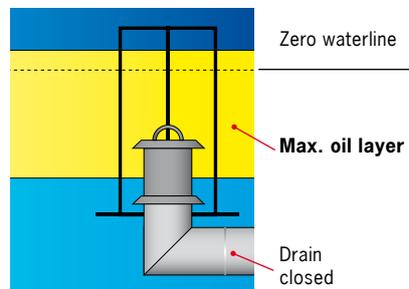
lated light oils can reach the drain of the separator."



Normal condition



Float fully immersed



Float limit

Materials

ACO Haustechnik uses the following materials:

Underground installation

- Cast iron

Free-standing installation

- Stainless steel, material grade 304/316
- Cast iron



Installation

Intake limits, intake points, intake and drainage areas

Transfer limits

(EN 858-2, item 5.1)

"Separators may only be installed in drainage systems, if light oils can be separated from the grey water and retained by separators. They may not be installed in drainage and sewage systems for domestic waste water."

"The drainage of areas in which no light

oil accumulates, such as roofs and yards, should not be transferred into separators."

Intake points

(DIN 1999-100, item 5.5.1)

"The drains provided for the connection to separator systems for light oil do not have an odour seal."

Inlet and outlet areas

(DIN 1999-100, item 5.4)

"In order to facilitate a subsequent leak testing of particular underground installed separators, their inlet and outlet areas must be designed so that they are easily accessible and easy to seal."

Shaft components and shaft structures (DIN 1999-100, item 5.1)

"Shafts, shaft connections, and connections between the separator tank and ceiling plate must be carried out in

accordance with EN 4034-1 in conjunction with EN 1917. The installation of the compensating rings at the transition from the

shaft to the shaft cover must be permanently sealed independent of these."

Material for sealants (EN 858-1, item 6.2.5)

"Only elastomers (rubber) or permanently flexible sealants may be used in separa-

tors. Cement mortar and similar sealing cements or materials may not be used."

Automatic warning devices (EN 858-2, item 5.3)

"Electrical warning systems for light oils, and other electrical equipment which are housed in the separator must be suitable

for the operation in Zone 0 (hazardous area) (see Directive 94/9/EC)."

Fire protection (DIN 1999-100, item 7)

"Separator systems for light oils must be such that the spreading of fire into the inlet and outlet pipe is safety prevented,

- with the exception of the sampling shaft;
- Contents of the separators can not escape.

These requirements apply as being met without any further proof, if the basins,

the ceilings and the parts of the separator that produce the connection of the inlet and outlet, consist of concrete, cast iron or steel.

Free-standing installation of separators (DIN 1999-100, item 5.10)

"Separators with an automatic locking device, which are free-standing, must be set up so that leaking light oils are also

absorbed after closing the automatic locking device, for example, by setting up in a pan."

Protection against leaks of light oils (EN 858-2, item 5.6)

"The light oil may not leak out of the separator or the top sections. Separator systems must be installed so that the top edge of the cover (soil surface) is ar-

ranged sufficiently high when compared to the decisive level of the area to be drained (...). This prevents the light oil from potentially leaking from the system (...)."

Sampling shaft (DIN 1999-100, item 5.5.2)

"The sampling point and - equipment of the separator must be freely accessible and arranged so that only waste water is removed, which has passed through the separator."

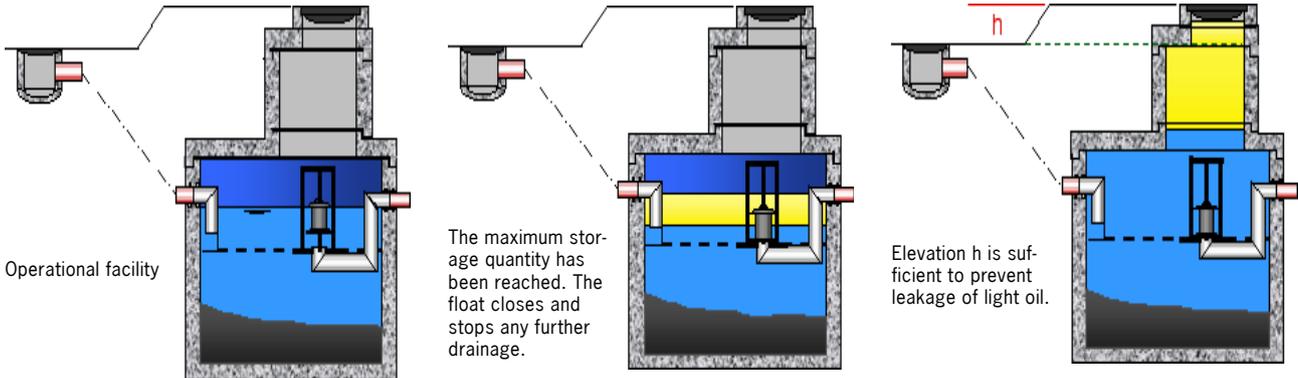
In order to ensure proper sampling and to enable a leak test of the separator, a bottom anchor of at least 160 mm must be provided between the inlet and outlet pipe. If a sufficient drop is not available,

the bottom anchor must equal at least 30 mm.

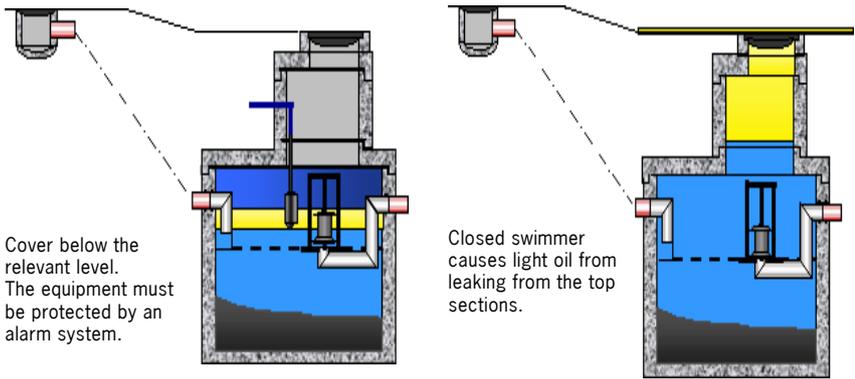
Pipe connections of the ACO components

Nominal width	Outer pipe diameter [mm]	according to standard	Pipe type
100	110	EN 877, DIN 19534, DIN 19537	SML, PVC, KG
150	160	EN 877, DIN 19534, DIN 19537	SML, PVC, KG
200	200	DIN 19534, DIN 19537	PVC, KG
200	210	EN 877	SML

Arrangement with reinforcement



Arrangement without reinforcement with alarm device



Self-monitoring, maintenance, disposal and supervision

General (DIN 1999-100, item 14.1)

"EN 858-2 and the manufacturer's operating and maintenance manuals must be applied for the operation and maintenance."

"Provisions of federal state law for self-monitoring, maintenance and inspection of the separators (type and scope of the activity, the qualifications required to conduct the activities) must be respected."

Operating conditions (DIN 1999-100, item 14.2)

Stable emulsions can not be introduced into the light oil separators. When cleaning oil-contaminated surfaces, the development of stable emulsions is generally not expected, if the washing water pressure on the waste water

- accumulation points is not above 6 MPa (60 bar) (equipment setting) during cleaning processes;
- the washing water temperature is not above 60 °C during cleaning processes (equipment setting)
- the cleaning agents used are separator-compatible (i.e. they only temporarily form stable emulsions);

- only coordinated cleaning agents are used.

Variations in washing water pressure and washing water temperature are possible, if this is authorized under the cleaning product manufacturer's product descriptions for the cleaning agents used. "

Self-monitoring (DIN 1999-100, item 14.3)

The functionality of the separator must be checked monthly by a competent person. Any defects discovered must be removed

immediately, and floating material must be removed. In addition, an operating log must be maintained.

Maintenance (DIN 1999-100, item 14.4)

"The separator must be maintained semi-annually by a competent person according to the manufacturer's specifications..."

Only if the separators are exclusively used for the treatment of storm water polluted with light oils and for securing facilities and areas in conjunction with handling

light oils, maintenance intervals can be extended to a maximum of 12 months.

Disposal (DIN 1999-100, item 14.5)

"The light oil retained in the separator must be removed at least when the quantity of the separated light oil has reached 80% of the maximum amount of storage quantity. ..."

"The sludge contained in the sludge trap/sludge collection chamber must be disposed at least when the separated sludge quantity has filled half the sludge trap volume, i.e. the sludge collection chamber is filled."

"The separators must be refilled with water (such as drinking water, process water, treated water from the separator), which corresponds with the local inlet regulations."

Supervision (general inspection) (DIN 1999-100, item 14.6)

"Prior to the start-up and periodically thereafter at intervals not exceeding 5 years, the separator must be checked for its proper condition and function by an

expert after previously completely emptying the separator."

Operating log (DIN 1999-100, item 14.7)

"An operating log must be maintained, in which the respective dates and results of self-monitoring, maintenance and inspections, the disposal of removed contents and the elimination of any identified deficiencies must be documented."

"Additional evidence must be maintained in the operating log regarding the detergents and cleaning agents as well as operating and auxiliary materials used."

The operator must present the operating log and test reports to the local competent authority upon request.

Securat 2004 - alarm devices for light-oil separators

according to EN 858 and DIN 1999-100 and CENELEC regulations EN 50020

Requirements

Even the best light oil separator system can only work properly if the withheld light oils are regularly collected and the coalescence insert is regularly cleaned. Failure to perform maintenance can have adverse consequences. The safety device for the light oil separator therefore monitors the essential operating conditions in petrol and coalescence separators automatically according to EN 858.

The safety device for light oil warns in time

It can automatically check two conditions:

- The max. permissible light oil layer in gasoline or coalescence separators when reaching the max.oil storage volume

- The max. permitted over-fill in gasoline/coalescence separators (according to the maximum contamination of the coalescence material in coalescence separators) or reaching a certain filling level in an oil collecting tank and therefore signals the necessary maintenance in time. Exactly when it is needed - not before. This makes the most economical operation of the plant possible.

Application scope

The application scope of the alarm system applies to hazardous areas subject to explosions, such as:

- Light oil separator class II EN 858
- Light oil separator class I EN 858
- Oil collection tank
- Oil collecting containers

The safety device for light oil separators can also be installed later.

Limitations of the application scope

- The cable and plastic parts of the over-fill sensor and oil sensor are not resistant against aggressive waste water.
- The maximum allowable cable length between the monitoring device and the oil sensor is 250 m.
- The function of the oil probe can be restricted when liquids flow into the separator (conductivity < 50 µS).

Structure

The safety device for light oil consists of the following components:

Monitoring device

The monitoring unit is considered to be an electrical accessory according to EN 50020:2003 with two intrinsic control circuits and an intrinsically safe signal circuit. The electronic circuitry of the device is located in a wall enclosure with a clear cover and a separate terminal compartment. The terminals for connecting the three intrinsically safe circuits are blue and in accordance with EN 50020:2003 and are separately arranged from the other terminals.

Terminal connection box

The terminal box is made of aluminium. The connection for the potential earthing takes place outside the junction box with a PE-terminal.

Connecting cable

HELUKABEL OZ-BL-Cy 4 x 1.0 blue; length as required L = 0 – max. 250 m. A different coloured cable can also be used, if it is marked as intrinsically safe circuit, for example, by a label. The cable must be installed in the protective pipe when installing underground.

Oil sensor

Conductivity probe with two electrodes; connecting cable of 5m.

Overfill probe

Stainless steel float switch; 5m connecting cable.

Probe holders

are equipment-specific and have different designs.

Allocation: Separator - Securat 2004- alarm device

The **Securat 2004 alarm system SB1** (250 m) must be used for all types of **Curator-GG**.

The **Securat 2004 alarm system SK2** (250 m) must be used for all types of **Coalisator-GG, E and R/RD**.

Securat 2004 – SB 1

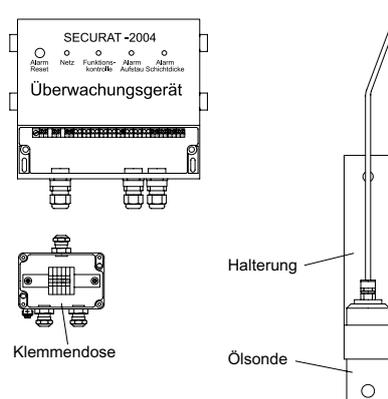
ACO alarm device for separator type Curator-GG NS 1.5/3/6 with visual and acoustic display.

Electrical data

- Power connection: 230 V / 47 ... 64 Hz, 8 VA

consisting of

- Securat 2004 – monitoring device, pre-wired
- Oil probe with a 5 m connecting cable
- Mounting consisting of a retaining ring with setscrew and guide rail
- Terminal box and fastening material
- Weight: 5 kg



Extension cable Article No. 0150.07.94

Type: HELUKABEL OZ-BL-CY 4 x 1.0, for the installation in soil and/or in the blank pipe

Securat 2004 - SB 1 Article No.	for the installation in:
6751.03.00	Curator-GG NS 1.5 and 6
6751.13.00	Curator-GG NS 6

Technical data

Monitoring device

Power connection	230 V (AC) ; 47... 64 Hz; approx. 8 VA U _{max} = 253 V (AC)
Control circuit AC terminal 1 - 2	<ul style="list-style-type: none"> ■ 3 independent switching circuits ■ Intrinsic safety EEx ia II C (corresponds with the requirement of zone 0) ■ refer to EG - Baumusterbescheinigung TÜV 04 ATEX 7059 for electrical data
<ul style="list-style-type: none"> ■ - Connection for oil probe GEFAS 20042 ■ - Adjustable response sensitivity 	
Control circuit DC terminal 5 - 6	
<ul style="list-style-type: none"> ■ - Connection for over-fill sensor GEFAS 20043 	<ul style="list-style-type: none"> ■ Dimensions approx. 230 x 185 x 115 mm ■ Protection class IP 65, ■ ambient temperatures approx. -20° ...+50° C
Signal control circuit terminal 3 - 4	
<ul style="list-style-type: none"> ■ - Connection for local alarm display 	<ul style="list-style-type: none"> ■ Nominal voltage: 250 V (AC) ■ Rated current: 4 A (AC) ■ Nominal switching capacity (ohmic load): 500 VA (AC) ■ DC load limit (ohmic load): 0.3 A at 250 V (DC) ■ DC load limit (inductive load): upon request
Cabinet for the interior and field assembly	
Output "alarm" (relay changeover contact, bistable)	
Output "malfunction" (relay changeover contact, monostable)	<ul style="list-style-type: none"> ■ Nominal voltage: 250 V (AC) ■ Rated current: 4 A (AC) ■ Nominal switching capacity (ohmic load): 500 VA (AC) ■ DC load limit (ohmic load): 0.2 A at 250 V (DC) ■ DC load limit (inductive load): upon request
LED display oil film	Operation: green ; alarm: red flashing
LED display alarm/malfunction	Alarm or malfunction: red flashing
Acoustic centralised alarm signal	Alarm or malfunction: Buzzer approx. 65 dB (A)

Oil probe

Cabinet	Modified polyoxymethylene Sustarin ELS; max. ambient temperature: 60° C
Electrodes	Stainless steel DIN 4571
Connecting cable	PVC/PE cable; BAM 3.12/3543/92; 5m long; blue

Securat 2004 – SK 2

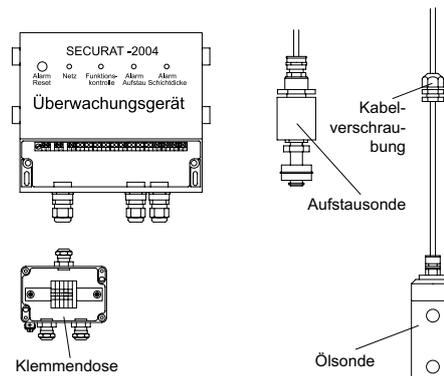
ACO alarm device for separator type Coalisator-GG/R/RD and E with visual and acoustic display.

Electrical data

- Power connection: 230 V / 47 ... 64 Hz, 8 VA

consisting of

- Securat 2004 – monitoring device, pre-wired
- Probe carrier as attachment, complete
 - Oil probe with a 5 m blue connecting cable
 - Over-fill sensor with a 5 m connecting cable
- Terminal box and fastening material
- Weight: 5 kg



Extension cable Article No. 0150.07.94

Type: HELUKABEL 07-BL-C4 4 x 1.0, for the installation in soil and/or in the blank pipe

Securat 2004 - SK 2 Article No.	for the installation in:
6751.63.00	Coalisator-GG NS 1,5 – 6
6751.64.00	Curator-R/RD NS 3 – 10 Curator-E NS 20

Technical data

Monitoring device

Power connection	230 V (AC) ; 47... 64 Hz; approx. 8 VA U _{max} = 253 V (AC)
Control circuit AC terminal 1 - 2	<ul style="list-style-type: none"> ■ 3 independent switching circuits ■ Intrinsic safety EEx ia II C (corresponds with the requirement of zone 0) ■ refer to EG - Baumusterbescheinigung TÜV 04 ATEX 7059 for electrical data
<ul style="list-style-type: none"> ■ - Connection for oil probe GEFAS 20042 ■ - Adjustable response sensitivity 	
Control circuit DC terminal 5 - 6	
<ul style="list-style-type: none"> ■ - Connection for over-fill sensor GEFAS 20043 	
Signal control circuit terminal 3 - 4	
<ul style="list-style-type: none"> ■ - Connection for local alarm display 	
Cabinet for the interior and field assembly	<ul style="list-style-type: none"> ■ Dimensions approx. 230 x 185 x 115 mm ■ Protection class IP 65, ■ ambient temperatures approx. -20°...+50° C
Output "alarm" (relay changeover contact, bistable)	<ul style="list-style-type: none"> ■ Nominal voltage: 250 V (AC) ■ Rated current: 4 A (AC) ■ Nominal switching capacity (ohmic load): 500 VA (AC) ■ DC load limit (ohmic load): 0.3 A at 250 V (DC) ■ DC load limit (inductive load): upon request
Output "malfunction" (relay changeover contact, monostable)	<ul style="list-style-type: none"> ■ Nominal voltage: 250 V (AC) ■ Rated current: 4 A (AC) ■ Nominal switching capacity (ohmic load): 500 VA (AC) ■ DC load limit (ohmic load): 0.2 A at 250 V (DC) ■ DC load limit (inductive load): upon request
LED display oil film	Operation: green ; alarm: red flashing
LED display accumulation	Operation: green ; alarm: red flashing
LED display alarm/malfunction	Alarm or malfunction: red flashing
Acoustic centralised alarm signal	Alarm or malfunction: Buzzer approx. 65 dB (A)

Oil probe

Cabinet	Modified polyoxymethylene Sustarin ELS; max. application temperature: 60° C
Electrodes	Stainless steel DIN 4571
Connecting cable	PVC/PE cable; BAM 3.12/3543/92; 5m long; blue

Over-fill sensor

Float	Stainless steel: AISI 304; modified polyoxymethylene Sustarin ELS; max. ambient temperature: 60° C
Contact/connecting cable	1 opener, PVC/PE cable; BAM 3.12/3543/92; 5 m long; blue

General information

Consignor

Telephone _____ Fax _____

Project/installation site

Replanning Reconstruction

Owner

Telephone _____ Fax _____

Offer to

Information

These records were received on the basis of:

Telephone conversation with: _____

Site visit with: _____

Please note required remarks / amendments under clause 8, or on a separate sheet

1. Waste water accumulation point

1.1 Automotive industry or comparable operating establishments

Open-air spaces

- | | |
|---|--|
| <input type="checkbox"/> Gas station without a roof/
with a partial roof
<input type="checkbox"/> Parking spaces for emergency
vehicles
<input type="checkbox"/> Other areas, such as parking areas,
roadways, | <input type="checkbox"/> Outdoor washing area for
<input type="checkbox"/> passenger vehicles <input type="checkbox"/> trucks <input type="checkbox"/> buses <input type="checkbox"/> _____
<input type="checkbox"/> SB washing area/system with _____ wash boxes
<input type="checkbox"/> with/without central high pressure system, lance quantity _____ units
<input type="checkbox"/> only body wash
<input type="checkbox"/> with HP device <input type="checkbox"/> with hose / brush
<input type="checkbox"/> Body, engine, underbody wash
<input type="checkbox"/> with HP device <input type="checkbox"/> with hose / brush
<input type="checkbox"/> with hot water <input type="checkbox"/> with cold water
<input type="checkbox"/> with cleaning agent <input type="checkbox"/> via HP device <input type="checkbox"/> by hand
<input type="checkbox"/> Quick disconnect (KW-free, pH neutral, low tenside)
<input type="checkbox"/> Emulsifying (KW-containing, alkaline, surfactant-containing) |
|---|--|

Workshops, service buildings

- | | | |
|---|---|---|
| <input type="checkbox"/> Mechanical car wash
(brush/portal washing facilities, car
washes)
<input type="checkbox"/> with waste water recirculation
<input type="checkbox"/> without waste water recirculation
<input type="checkbox"/> passenger vehicles
<input type="checkbox"/> Trucks
<input type="checkbox"/> Buses
<input type="checkbox"/> _____
<input type="checkbox"/> Washings:
<input type="checkbox"/> Body:
<input type="checkbox"/> Underbody
<input type="checkbox"/> with additional HP device | <input type="checkbox"/> Vehicle surface wash/body
<input type="checkbox"/> with HP unit
<input type="checkbox"/> with hose / brush
<input type="checkbox"/> Engine wash
<input type="checkbox"/> with parts wash, large parts
such as engines, transmissions
<input type="checkbox"/> enclosed system,
separate waste water disposal
<input type="checkbox"/> with HP unit
<input type="checkbox"/> with hose / brush
<input type="checkbox"/> with hot water
<input type="checkbox"/> with cold water
<input type="checkbox"/> with cleaning agent
<input type="checkbox"/> Quick disconnect
(KW-free, pH neutral, low
tenside)
<input type="checkbox"/> Emulsifying
(KW-containing, alkaline,
surfactant-containing)
<input type="checkbox"/> via HP unit
<input type="checkbox"/> by hand | <input type="checkbox"/> New car de-waxing
approx. _____ vehicles/week
<input type="checkbox"/> Independent dewaxing box with its
own waste water treatment
(circulation, closed system)
<input type="checkbox"/> with HP unit
<input type="checkbox"/> with hot water
<input type="checkbox"/> with cleaning agent
<input type="checkbox"/> (Other procedures, please describe)

<input type="checkbox"/> Hall floor cleaning
<input type="checkbox"/> Dry cleaning
<input type="checkbox"/> closed system
<input type="checkbox"/> Wet cleaning
<input type="checkbox"/> with HP unit
<input type="checkbox"/> with cleaning agent |
|---|---|---|

Wastewater consumption: max. litres/ day (according to water meter)

Is the separation system used in areas subject to floods?

- yes no

1.2 Other

- | | | |
|--|---|--|
| <input type="checkbox"/> Parking space
<input type="checkbox"/> Multi-storey car park/garage without
vehicle care
<input type="checkbox"/> Vehicle recovery, scrap yard | <input type="checkbox"/> with chip storage
<input type="checkbox"/> without chip storage | <input type="checkbox"/> Barracks
<input type="checkbox"/> Transfer stations, tank pits
<input type="checkbox"/> Transformer station
<input type="checkbox"/> _____ |
|--|---|--|

Several cross markings are possible!

2. Waste water contents

2.1 Sludge

Content in waste water

(See information in item 6: sludge traps)

- low
 average
 high

2.2 Light oil

Which?
Density (spec. weight)
Float valve calibration

 _____ g/cm³

- up to 0.85 g/cm³
 up to 0.90 g/cm³
 up to 0.95 g/cm³

2.3 Cleaner

In general, "quick disconnect cleaner" (KW-free, pH neutral, low tenside) must be used sparingly in the lowest application concentration. Chlorinated hydrocarbons

(CHCs) are prohibited in these cleaners. In cases of doubt, a certificate must be requested from the supplier. If several cleaners are used they must be compat-

ible (clarify with the supplier in case of doubts).

2.4 Emulsions

Stable emulsions cannot be retained in light oil. Stable emulsions, for example, develop from the improper use of HP devices, such as when cleaning agents are sprayed directly on the oil-coated parts via the HP nozzle with high pressure water.

Emulsions can be treated, for example, in emulsion splitting equipment. Separators dimensioned according to EN 858 must be upstream from these systems for pre-cleaning and an economical operation; the splitting systems are supplied by a pump from the batch tank after the separators.

Are stable emulsions in the waste water?

- yes
 no

3. Waste water discharge

3.1 Intake in

- Sewer / combined waste water sewer
 Storm water sewer
 Waterbodies
 in-house wastewater treatment plant

3.2 Intake conditions/threshold values

- Light oil separator according to EN 858 class II
 Light oil separator according to EN 858 class I

- mg/l hydrocarbons in the drain, measured according to DIN 38409 part 18

4. Dimensioning

4.1 Surface water drainage [Q_r]

local rain event*	Surface water drainage [l/s] at			
	100 m ²	300 m ²	500 m ²	800 m ²
l/(s x ha)				
150	1,5	4,5	7,5	12,0
200	2,0	6,0	10,0	16,0
300	3,0	9,0	15,0	24,0

* if necessary, request from the responsible agency; however, it may not equal less than 150 l/(s x ha).

$$Q_r = \frac{\text{m}^2 \times \text{l}/(\text{s} \times \text{ha})}{10.000} = \text{___ l/s}$$

local rain event _____ l/(s x ha)

Surface water collection area 1 = _____ m²

Surface water collection area 1 = _____ m²

Surface water collection area 1 = _____ m²

Total = _____ m²

4.2 Grey water outflow [Q_s]

Q_{s1}: Taps/filling stations

(Taps to which high pressure appliances according to Q_{s3} are connected, are disregarded here).

_____ Unit DN 15 (R ½) 0.5 l/s each _____ l/s

= _____

_____ Unit DN 20 (R ¾) 1.0 l/s each _____ l/s

= _____

_____ Unit DN 25 (R 1) à 1.7 l/s = _____ l/s

Total Q_{s1} = _____ l/s

If no other dimensioning is required or acknowledged by the responsible agency, Q_s must be doubled to define the nominal size of the grey water outflow:

$$2 Q_s = \text{_____ l/s}$$

Q_{s2}: automatic car wash facilities

_____ Each unit 2 l/s Q_{s2} = _____ l/s

Q_{s3}: High pressure cleaning appliances

- Single appliance: 2 l/s
- several appliances: 1. appliance 2 l/s, each additional 1 l/s
- Single appliance in conjunction with automatic car wash facility: 1 l/s

_____ Unit Q_{s3} = _____ l/s

Total Q_s = Q_{s1} + Q_{s2} + Q_{s3} Q_s = _____ l/s

4.3 Surface water or grey water outflow

If rain and grey water from open areas are transported into a common separator and if a simultaneous accumulation of both liquids cannot be expected, the assessment

can be made separately for rainwater and waste water, with the largest resulting nominal size determining the choice of the separator.

Simultaneous accumulation:

- yes
 no

4.4 Density factor [f_d]

Density of light oil [g/cm ³]	Density factor according to EN 858 part 2		
	Light oil separator class II	Light oil separator class I	Light oil separator class I and II
up to 0.85	1	1	1
up to 0.90	2	1,5	1
up to 0.95	3	2	1

Information:

In a normal case for gasoline stations and car wash facilities for vehicles and buses, f_d = 1 can be assumed.

At a large accumulation of light oil, the combination of sludge trap - petrol separator - coalescence separator is recommended.

The density factor for facilities with the components sludge trap - petrol separator - coalescence separator for the petrol separator as well as the coalescence separator can be used at 1 regardless of the density of the light oil

5. Nominal size calculation for the separator

5.1 Dimensioning formula

NS = (+) x Please select the next highest NS!

NS = (+) x = Selected: NS.....

(conditional on official authorization)

5.2 Light-oil storage capacity

This may affect the disposal intervals. Separated light oils are subject to the Waste Management Act; the regulatory requirements must be observed. In the event of any malfunctions,

i.e. in transformer stations, it must be checked, which quantities can accumulate or must be retained in the separator.

Desired / required storage capacity :
 _____ Litre

6. Content determination of sludge trap

A sufficiently dimensioned, hydraulically effective sludge trap must be installed before the separators.

The sludge trap according to EN 858 Part 2 must have a minimum content of 5000 litres for automatic car wash facilities, such as portal car washes or washing lines. Circulating the washing water (recycling) is frequently recommended for automatic washing lines. ACO offers spe-

cial tanks for this. The entire content can be distributed over several sludge traps. Sludge traps with inlets from above, i.e. with grating covers, are not permitted.

6.1 Sludge trap content according to EN 858 part 2

of separators up to NS 10:

Nominal size of the separator	SF according to DIN 1999 part 100	SF min. according to EN 858
up to NS 3	600 litres	300 litres
more than NS 3 to NS 10	2500 litres	see item 6.2

desired/required capacity: approx. |

for separators according to DIN 1999-100 over NS 10 or according to EN 858

Classification sludge trap content I	Sludge accumulation i.e. for
low = 100 x NS*	<ul style="list-style-type: none"> ■ Process waste water with defined low amounts ■ all rainwater collection areas, where neither road abrasion nor dirt from vehicular traffic or the like is obtained, for example, the collecting tank on tank fields
average = 200 x NS*	<ul style="list-style-type: none"> ■ Petrol stations, car-washing by hand, parts washing ■ Bus washing stalls ■ Waste water from repair shops ■ Companies for energy supply, machine factories
large = 300 x NS*	<ul style="list-style-type: none"> ■ - Washing areas for construction vehicles, construction equipment, agricultural machinery ■ - Truck washing stalls ■ - automatic vehicle washing facilities and washing lines

*) The measuring formula according to 5.1 without a density factor f_d can be applied as NS for calculating the sludge trap content.

desired/required capacity: approx. I

7. Execution of the separator system

7.1 Manhole covers

Separators must be arranged outside of traffic areas, if possible; the system must be accessible for disposal and maintenance.

- Installation in traffic areas; Load class B 125 of the covers according to EN 124/DIN 1229:

- Installation outside of traffic areas, raised maintenance shafts; covers made of stainless steel grade 304, not odour-sealed.

7.2 Installation depth

Observe the local frost-free depth: The depth is measured from the top edge of the terrain to the inlet pipe bottom of the separator.
approx. _____ mm.

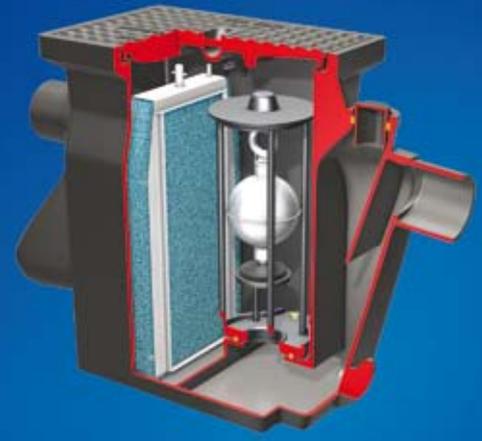
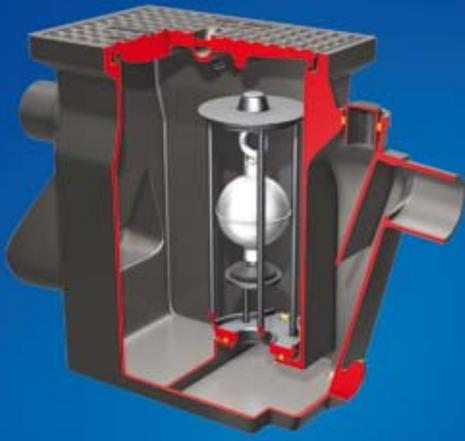
7.3 Accessories

- Sampling pot / shaft
- offer
 - on-site

- Securac 2004 alarm system
Type _____
- Extension cable _____ m to be installed in blank pipes
- offer
 - on-site

- Oil extraction device
- Direct extraction of disposing the entire contents





Separator ▶ Light-oil separator ▶ Ground-/free-standing installation

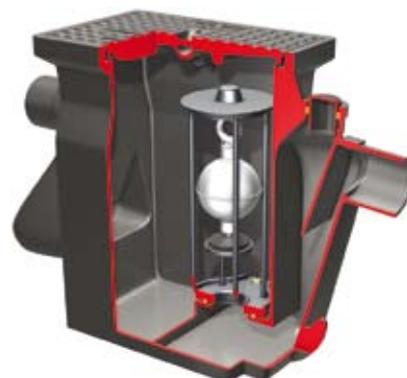
		Pagee
Light-oil separator – class II	Cast iron	Curator-GG without coalescence insert 564
		Accessories 566
Light-oil separator – class I	Cast iron	Curator-GG without coalescence insert 568
		Accessories 570

Light-oil separator
Ground-/free-standing inst.

Curator-GG without coalescence insert

Product information

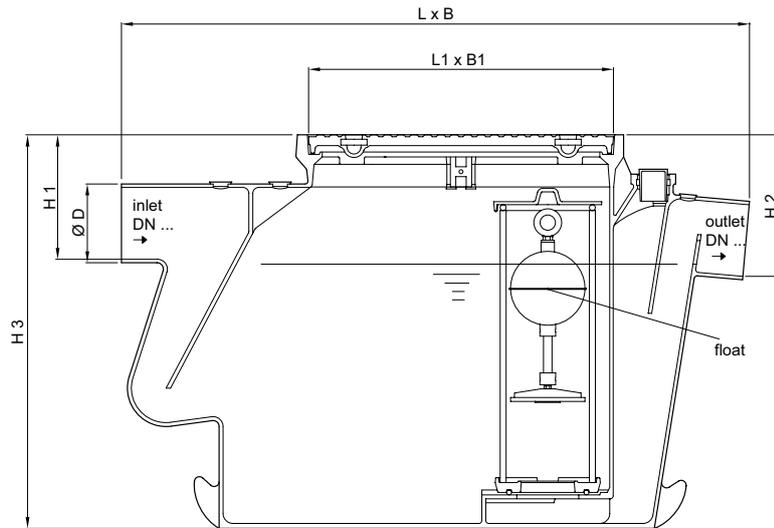
- Cast iron light-oil separator class II
- In accordance with EN 858 and DIN 1999-100
- Inlet/drainage in accordance with EN 877
 - NS 1.5 – 3: DN 100
 - NS 6: DN 150
- With self-activating limit
 - Stainless steel float, material grade 304
 - Tared for light oil with a density of up to 0.85/0.95 g/cm³
 - Rubberized valve plate
- With manhole cover/(load class: B 125)
- With lifting key
- Official approval Z- 54.5-114



Ordering information

Nominal size	Capacity		Density	Height H1	Weight		Article No.
	Oil reservoir	Total capacity			Heaviest individual component	Complete	
	[l]	[l]	[g/cm ³]	[mm]	[kg]	[kg]	
NS 1,5	20	55	0,85	230	105	115	6701.11.00
			0,95	230	105	115	6701.31.00
			0,85	485	105	155	6711.11.00
			0,95	485	105	155	6711.31.00
			0,85	795	105	205	6721.11.00
			0,95	795	105	205	6721.31.00
			0,85	1005	105	235	6731.11.00
			0,95	1005	105	235	6731.31.00
			0,85	1215	105	265	6741.11.00
			0,95	1215	105	265	6741.31.00
NS 3	45	150	0,85	230	180	220	6703.11.00
			0,95	230	180	220	6703.31.00
			0,85	405	180	260	6753.11.00
			0,95	405	180	260	6753.31.00
			0,85	615	180	305	6713.11.00
			0,95	615	180	305	6713.31.00
			0,85	825	180	350	6723.11.00
			0,95	825	180	350	6723.31.00
			0,85	1025	180	390	6733.11.00
			0,95	1025	180	390	6733.31.00
			0,85	1235	180	435	6743.11.00
			0,95	1235	180	435	6743.31.00
NS 6	65	185	0,85	255	240	290	6706.11.00
			0,95	255	240	290	6706.31.00
			0,85	435	240	330	6756.11.00
			0,95	435	240	330	6756.31.00
			0,85	645	240	395	6716.11.00
			0,95	645	240	395	6716.31.00
			0,85	855	240	420	6726.11.00
			0,95	855	240	420	6726.31.00
			0,85	1055	240	465	6736.11.00
			0,95	1055	240	465	6736.31.00
			0,85	1265	240	510	6746.11.00
			0,95	1265	240	510	6746.31.00

Dimensions

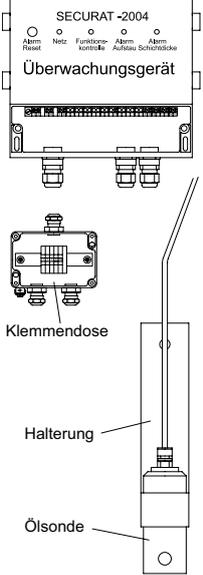
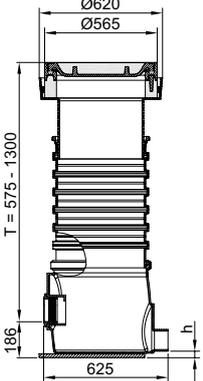
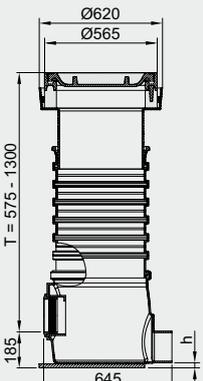


Nominal size	Dimensions						
	L [mm]	B [mm]	L1 [mm]	B1 [mm]	H1 [mm]	H2 [mm]	H3 [mm]
NS 1,5	820	315	433	255	230	255	600
					485	510	850
					795	820	1160
					1005	1030	1370
					1215	1240	1580
NS 3	1050	420	615	315	230	255	740
					405	430	910
					615	640	1120
					825	850	1330
					1025	1050	1530
NS 6	1260	420	615	315	255	290	800
					435	470	980
					645	680	1190
					855	890	1400
					1055	1090	1600
					1265	1300	1810

Light-oil separator
Ground-/free-standing inst.

Remark: The height maB H1 differs relating to the inlet invert. The needed top sections are included in scope of delivery.

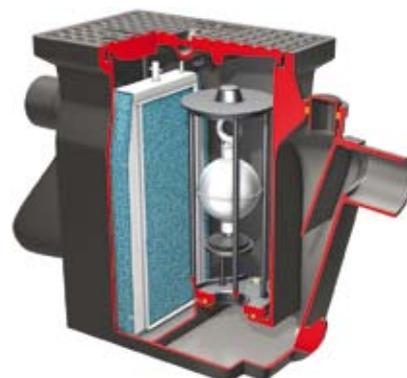
Accessories

	Designation	compatible with	Description	Article No.
	Securat 2004 alarm device SB 1	■ Curator-GG	<ul style="list-style-type: none"> ■ Operating zone 0 ■ With a visual and acoustic display ■ Consisting of <ul style="list-style-type: none"> □ SecurAT 2004 monitoring device, ready for connection □ With oil sensor with 5 mm blue connecting cable ■ Bracket consisting of <ul style="list-style-type: none"> □ Bracket with setscrew □ Guide bar ■ Terminal box and mounting material ■ Electrical connection <ul style="list-style-type: none"> □ 230 V □ 47..64 Hz □ C. 8 VA ■ Dry contact output ■ Weight: 5 kg 	
				NS 1.5/3
		NS 6		6751.13.00
	Connecting cable 4x1, Helukabel OZ-BL-CY	■ Alarm device light-oil separator	<ul style="list-style-type: none"> ■ External diameter: 7.6 mm ■ Blue ■ As connecting cable 	0150.07.94
	Sampling shaft DN 100	<ul style="list-style-type: none"> ■ Grease separator Eco-FPI for ground installation <ul style="list-style-type: none"> □ NS 1 – 4 ■ Starch separator Eco-STP for ground installation <ul style="list-style-type: none"> □ NS 0.5 – 1 ■ Curator/Coalisor GG <ul style="list-style-type: none"> □ NS 1.5 – 3 	<ul style="list-style-type: none"> ■ Plastic, material: polyethylene ■ For installation behind the separating plants for ground installation ■ With BEGU cover <ul style="list-style-type: none"> □ Clear diameter: 450 mm □ Load class: D 400 ■ Odour tight ■ Weight: 128 kg 	Gradient: 33 mm 3300.13.11
	Sampling shaft DN 150	<ul style="list-style-type: none"> ■ Grease separator Eco-FPI for ground installation <ul style="list-style-type: none"> □ NS 7 – 10 ■ Starch separator Eco-STP for ground installation <ul style="list-style-type: none"> □ NS 2 ■ Curator/Coalisor GG <ul style="list-style-type: none"> □ NS 6 	<ul style="list-style-type: none"> ■ Plastic, material: polyethylene ■ For installation behind the separating plants for ground installation ■ With BEGU cover <ul style="list-style-type: none"> □ Clear diameter: 450 mm □ Load class: D 400 ■ Odour tight ■ Weight: 128 kg 	Gradient: 75 mm 3300.13.21

Coalisator GG with coalescence insert

Product information

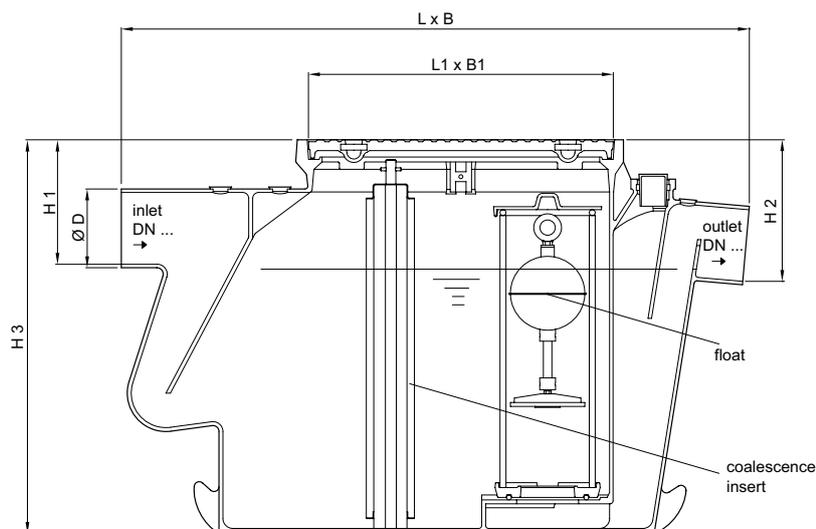
- Cast iron light-oil separator class I
- In accordance with EN 858 and DIN 1999-100
- Inlet/drainage in accordance with EN 877 - SML pipe
 - NS 1.5 – 3: DN 100
 - NS 6: DN 150
- With self-activating limit
 - Stainless steel float, material grade 304
 - Tared for light oil with a density of up to 0.85/0.95 g/cm³
 - Rubberized valve plate
- With removable coalescence insert
- With manhole cover/(load class: B 125)
- With lifting key
- Official approval Z-54.8-218



Ordering information

Nominal size	Capacity		Height H1	Density	Weight		Article No.			
	Oil reservoir	Total capacity			Heaviest individual component	Complete				
	[l]	[l]	[mm]	[g/cm ³]	[kg]	[kg]				
NS 1,5	20	55	230	0,85	105	115	6701.11.30			
				0,95	105	115	6701.31.30			
			485	0,85	105	155	6711.11.30			
				0,95	105	155	6711.31.30			
			795	0,85	105	205	6721.11.30			
				0,95	105	205	6721.31.30			
			1005	0,85	105	235	6731.11.30			
				0,95	105	235	6731.31.30			
			1215	0,85	105	265	6741.11.30			
				0,95	105	265	6741.31.30			
			NS 3	45	150	230	0,85	180	225	6703.11.30
							0,95	180	225	6703.31.30
405	0,85	180				265	6753.11.30			
	0,95	180				265	6753.31.30			
615	0,85	180				310	6713.11.30			
	0,95	180				310	6713.31.30			
825	0,85	180				355	6723.11.30			
	0,95	180				355	6723.31.30			
1025	0,85	180				395	6733.11.30			
	0,95	180				395	6733.31.30			
1235	0,85	180				440	6743.11.30			
	0,95	180				440	6743.31.30			
NS 6	65	185	255	0,85	240	295	6706.11.30			
				0,95	240	295	6706.31.30			
			435	0,85	240	335	6756.11.30			
				0,95	240	335	6756.31.30			
			645	0,85	240	380	6716.11.30			
				0,95	240	380	6716.31.30			
			855	0,85	240	425	6726.11.30			
				0,95	240	425	6726.31.30			
			1056	0,85	240	470	6736.11.30			
				0,95	240	470	6736.31.30			
			1265	0,85	240	515	6746.11.30			
				0,95	240	515	6746.31.30			

Dimensions

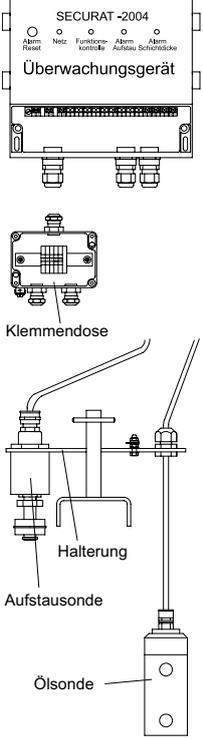
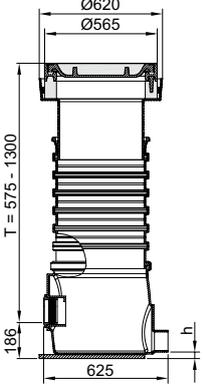
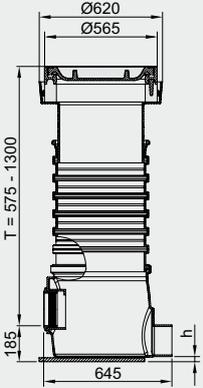


Nominal size	Dimensions						
	L [mm]	L1 [mm]	B [mm]	B1 [mm]	H1 [mm]	H2 [mm]	H3 [mm]
NS 1,5	820	433	315	255	230	255	600
					485	510	850
					795	820	1160
					1005	1030	1370
					1215	1240	1580
NS 3	1050	615	420	315	230	255	740
					405	430	910
					615	640	1120
					825	850	1330
					1025	1050	1530
NS 6	1260	615	420	315	255	290	800
					435	470	980
					645	680	1190
					855	890	1400
					1056	1090	1600
					1265	1300	1810

Light-oil separator
Ground-/free-standing inst.

Remark: The height maB H1 differs relating to the inlet invert. The needed top sections are included in scope of delivery.

Accessories

	Designation	compatible with	Description	Article No.
	Securat 2004 alarm device SK 2	<ul style="list-style-type: none"> ■ Coalisator-GG □ NS 1.5 – 6 	<ul style="list-style-type: none"> ■ Operating zone 0 ■ With a visual and acoustic display ■ Consisting of <ul style="list-style-type: none"> □ SecurAT 2004 monitoring device, ready for connection ■ Sensor bracket for mounting, complete with <ul style="list-style-type: none"> □ Oil sensor with 5 mm blue connecting cable □ Over-fill sensor with 5 mm blue connecting cable □ Terminal box and mounting material ■ Electrical connection <ul style="list-style-type: none"> □ 230 V □ 47..64 Hz □ C. 8 VA □ Dry contact output ■ Weight: 5 kg 	6751.63.00
	Connecting cable 4x1, Helukabel OZ-BL-CY	<ul style="list-style-type: none"> ■ Alarm device light-oil separator 	<ul style="list-style-type: none"> ■ External diameter: 7.6 mm ■ Blue ■ As connecting cable 	0150.07.94
	Sampling shaft DN 100	<ul style="list-style-type: none"> ■ Grease separator Eco-FPI for ground installation □ NS 1 – 4 ■ Starch separator Eco-STP for ground installation □ NS 0.5 – 1 ■ Curator/Coalisator GG □ NS 1.5 – 3 	<ul style="list-style-type: none"> ■ Plastic, material: polyethylene ■ For installation behind the separating plants for ground installation ■ With BEGU cover <ul style="list-style-type: none"> □ Clear diameter: 450 mm □ Load class: D 400 ■ Odour tight ■ Weight: 128 kg 	<p style="text-align: right;">Gradient: 33 mm 3300.13.11</p> <p style="text-align: right;">Gradient: 153 mm 3300.13.10</p>
	Sampling shaft DN 150	<ul style="list-style-type: none"> ■ Grease separator Eco-FPI for ground installation □ NS 7 – 10 ■ Starch separator Eco-STP for ground installation □ NS 2 ■ Curator/Coalisator GG □ NS 6 	<ul style="list-style-type: none"> ■ Plastic, material: polyethylene ■ For installation behind the separating plants for ground installation ■ With BEGU cover <ul style="list-style-type: none"> □ Clear diameter: 450 mm □ Load class: D 400 ■ Odour tight ■ Weight: 128 kg 	<p style="text-align: right;">Gradient: 75 mm 3300.13.21</p> <p style="text-align: right;">Gradient: 159 mm 3300.13.20</p>

Remark: Technical description of alarm device SecurAT 2004-SK 2 is shown page 553.

Light-oil separator
Ground-/free-standing inst.





Separator ▶ Light-oil separator ▶ Free-standing installation

Light-oil separator – class I

Stainless steel (material grade 304)

	Page
Coalisator R	574
Coalisator RD	576
Coalisator E	578
Accessories	579

**Light-oil separator
Free-standing installation**

Coalisor R

Product information

ACO product advantages

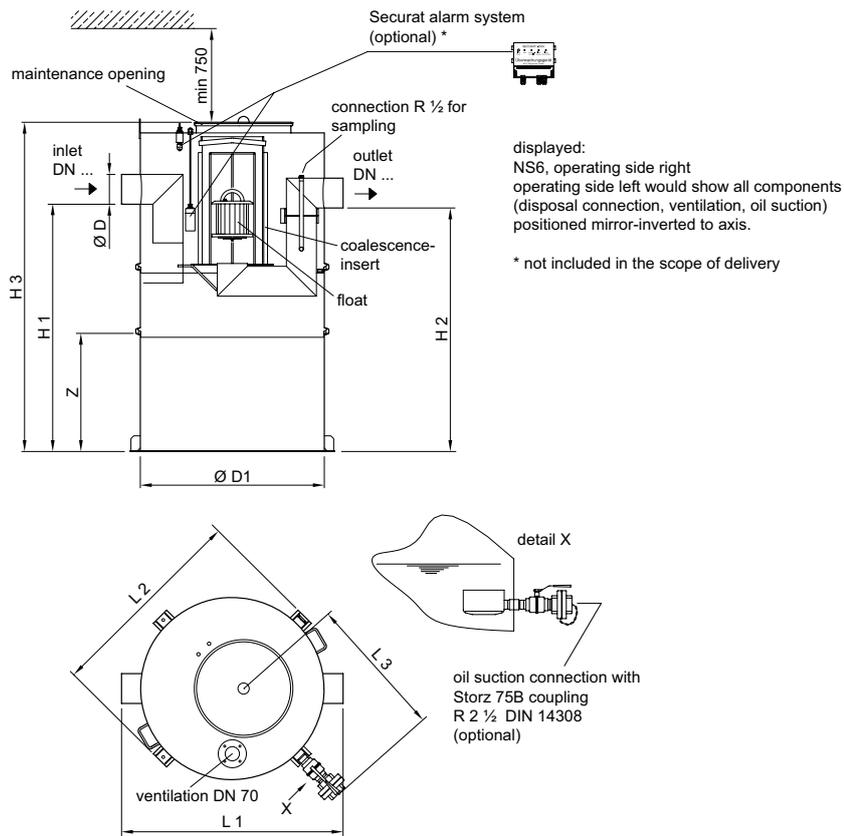
- Segment construction produces easy transport and fitting
 - Low purchase and running costs
 - Continued operation as a class II separator possible upon removal of the coalescence insert (cleaning)
- Light-oil separator plant class I
 - Stainless steel, material grade 304
 - In accordance with EN 858 and DIN 1999-100
 - With self-activating limit
 - Polyethylene float
 - Tared for light oil with a density of 0.9 g/cm³
 - Rubberized valve plate
 - Curved shape
 - Segment construction
- With hydraulically optimized sludge trap in accordance with EN 858
 - With an innovative coalescence technique (System ACO Passavant) for very good separator effect due to reduced flow resistance.
 - Coalescence insert
 - Almost non-wearing and maintenance free
 - Can be taken out to clean, whilst functioning as light-oil separator class II is ensured in accordance with EN 858
 - Inlet and drainage DN 100/DN 150 in accordance with EN 877
 - With 1 (2 for NS 10) odour-tight maintenance opening(s)
 - Diameter: 500 mm
 - Loosely laid on
 - Official approval Z-54.8-381



Ordering information

Nominal size	Nominal width	Type	Capacity			Weight		Article No.
			Sludge trap [l]	Oil reservoir [l]	Total capacity [l]	Heaviest individual component [kg]	Complete [kg]	
NS 3	DN 100	600	450	160	725	85	170	7603.00.50
NS 6	DN 150	1200	617	160	980	65	195	7606.00.50
NS 10	DN 150	2500	1250	798	2570	100	300	7610.00.50

Dimensions



Nominal size	Dimensions							
	L1	L2	L3	H1	H2	H3	D	D1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
NS 3	1180	1090	800	985	965	1450	110	980
NS 6	1180	1090	800	1330	1310	1800	160	980
NS 10	1950	2060	1190	1095	1075	1600	160	1750

Coalisator RD

Product information

ACO product advantages

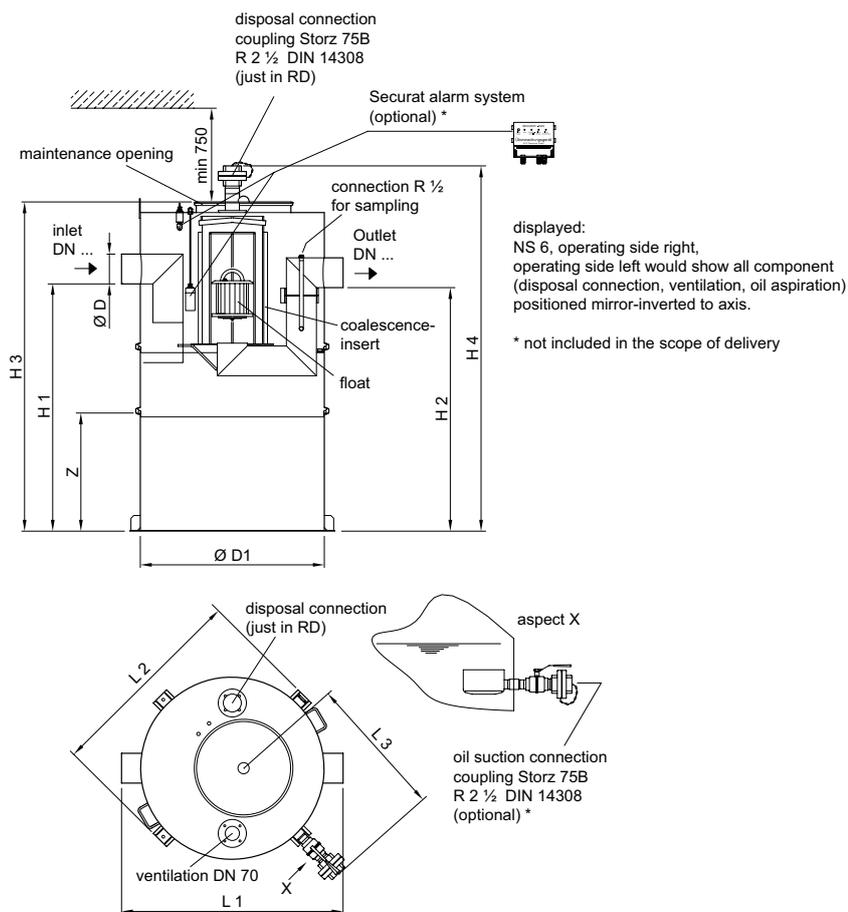
- Segment construction produces easy transport and fitting
 - Low purchase and running costs
 - With direct suction
 - Continued operation as a class II separator possible upon removal of the coalescence insert (cleaning)
- Light-oil separator plant class I
 - Stainless steel, material grade 304
 - In accordance with EN 858 and DIN 1999-100
 - With self-activating limit
 - Polyethylene float
 - Tared for light oil with a density of 0.9 g/cm³
 - Rubberized valve plate
 - Curved shape
 - Segment construction
- With direct suction
 - With hydraulically optimized sludge trap in accordance with EN 858
 - With an innovative coalescence technique (System ACO Passavant) for very good separator effect due to reduced flow resistance.
 - Coalescence insert
 - Almost non-wearing and maintenance free
 - Can be taken out to clean, whilst functioning as light-oil separator class II is ensured in accordance with EN 858
 - Inlet and drainage DN 100/DN 150 in accordance with EN 877
 - With 1 (2 for NS 10) odour-tight maintenance opening(s)
 - Diameter: 500 mm
 - Loosely laid on
 - Official approval Z-54.8-381



Ordering information

Nominal size	Nominal width	Type	Capacity			Weight		Article No.	
			Sludge trap	Oil reservoir	Total capacity	Heaviest individual component	Complete	Right	Left
			[l]	[l]	[l]	[kg]	[kg]		
NS 3	DN 100	600	450	160	725	85	170	7603.10.50	7603.11.50
NS 6	DN 150	1200	617	160	980	65	195	7606.10.50	7606.11.50
NS 10	DN 150	2500	1250	798	2570	100	300	7610.10.50	7610.11.50

Dimensions



Nominal size	Dimensions							
	L1	L2	L3	H1	H2	H3	D	D1
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
NS 3	1180	1090	800	985	965	1450	110	980
NS 6	1180	1090	800	1330	1310	1800	160	980
NS 10	1950	2060	1190	1095	1075	1600	160	1750

Light-oil separator
 Free-standing installation

Coalisator E

Product information

- ACO product advantages**
- Optimal separator effect via up-stream sludge trap
 - Full functioning as a class II separator after removal of the coalescence element

- Light-oil separator plant class I
- Stainless steel, material grade 304
- In accordance with EN 858 and DIN 1999-100
- For free-standing installation

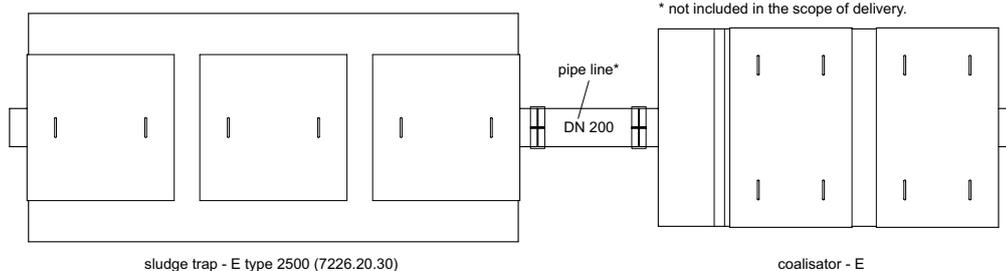
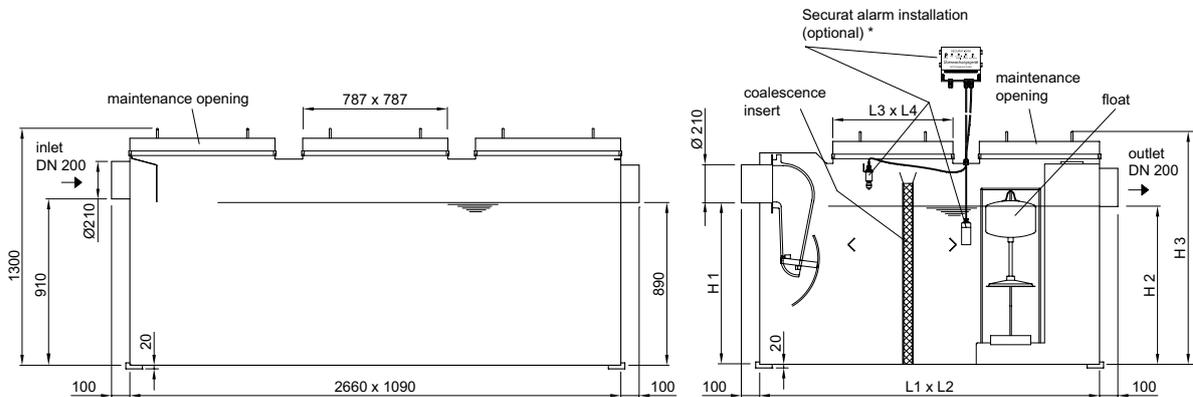
- With 2 cover hoods
- With supporting elements for floor aeration
- Connections DN 200 in accordance with EN 877
- Segment construction
- With self-activating limit
 - Stainless steel float, material grade 304
 - Tared for light oil with a density of 0.85/0.95 g/cm³
 - Rubberized valve plate
- With removable coalescence insert
- With a separate up-stream sludge trap (7226.20.30)
- Official approval Z-54.3-408



Ordering information

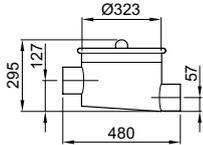
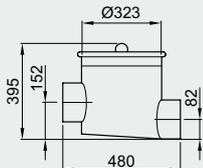
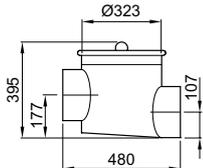
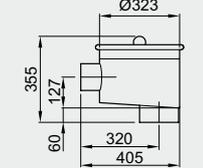
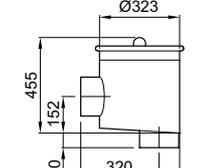
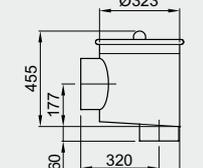
Nominal size	Nominal width	Density [g/cm ³]	Capacity			Weight		Article No.
			Sludge trap [l]	Oil reservoir [l]	Total capacity [l]	Heaviest individual component [kg]	Complete [kg]	
NS 20	DN 200	0,85	2550	425	4280	420	850	7609.15.70
		0,95	2550	425	4280	420	850	7609.35.70

Dimensions

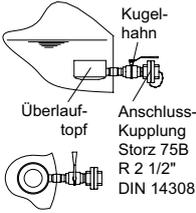
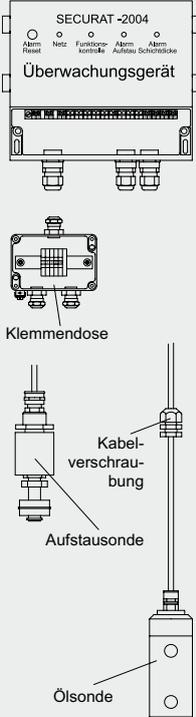


Nominal size	Dimensions						
	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	H1 [mm]	H2 [mm]	H3 [mm]
NS 20	1860	1090	650	1080	890	870	1300

Accessories

	Designation	compatible with	Description	Article No.
	Sampling pipe DN 100	<ul style="list-style-type: none"> ■ Grease separator Lipurex/Lipurat/Lipator/Lipatomat □ NS 1 – 4 ■ Starch separator Fapurat □ NS 0.5 – 1 ■ Light-oil separator Coalisator-R/RD □ NS 3 	<ul style="list-style-type: none"> ■ Stainless steel, material grade 316 ■ Curved design ■ Gradient: 70 mm ■ For installation in horizontal pipes DN 100 behind the separator ■ With pipe connector and tempo clutch ■ Connections in accordance with EN 877 ■ Weight: 13 kg 	7300.09.10
	Sampling pipe DN 150	<ul style="list-style-type: none"> ■ Grease separator Lipurex/Lipurat/Lipator/Lipatomat □ NS 5.5 – 10 ■ Starch separator Fapurat □ NS 2 ■ Light-oil separator Coalisator-R/RD □ NS 6 – 10 	<ul style="list-style-type: none"> ■ Stainless steel, material grade 316 ■ Curved design ■ Gradient: 70 mm ■ For installation in horizontal pipes DN 150 behind the separator ■ With pipe connector and tempo clutch ■ Connections in accordance with EN 877 ■ Weight: 14 kg 	7300.09.20
	Sampling pipe DN 200	<ul style="list-style-type: none"> ■ Grease separator Lipurex/Lipurat/Lipator/Lipatomat □ NS 15 – 20 ■ Light-oil separator Coalisator-E □ NS 20 	<ul style="list-style-type: none"> ■ Stainless steel, material grade 316 ■ Curved design ■ Gradient: 70 mm ■ For installation in horizontal pipes DN 200 behind the separator ■ With pipe connector and tempo clutch ■ Connections in accordance with EN 877 ■ Weight: 15 kg 	7300.09.30
	Sampling pipe DN 100	<ul style="list-style-type: none"> ■ Grease separator Lipurex/Lipurat/Lipator/Lipatomat □ NS 1 – 4 ■ Starch separator Fapurat □ NS 0.5 – 1 ■ Light-oil separator Coalisator-R/RD □ NS 3 	<ul style="list-style-type: none"> ■ Stainless steel, material grade 316 ■ Curved design ■ For installation in vertical pipes DN 100 behind the separator ■ With pipe connector and tempo clutch ■ Connections in accordance with EN 877 ■ Weight: 13 kg 	7300.10.20
	Sampling pipe DN 150	<ul style="list-style-type: none"> ■ Grease separator Lipurex/Lipurat/Lipator/Lipatomat □ NS 5.5 – 10 ■ Starch separator Fapurat □ NS 2 ■ Light-oil separator Coalisator-R/RD □ NS 6 – 10 	<ul style="list-style-type: none"> ■ Stainless steel, material grade 316 ■ Curved design ■ For installation in vertical pipes DN 150 behind the separator ■ With pipe connector and tempo clutch ■ Connections in accordance with EN 877 ■ Weight: 14 kg 	7300.15.20
	Sampling pipe DN 200	<ul style="list-style-type: none"> ■ Grease separator Lipurex/Lipurat/Lipator/Lipatomat □ NS 15 – 20 ■ Light-oil separator Coalisator-E □ NS 20 	<ul style="list-style-type: none"> ■ Stainless steel, material grade 316 ■ Curved design ■ For installation in vertical pipes DN 200 behind the separator ■ With pipe connector and tempo clutch ■ Connections in accordance with EN 877 ■ Weight: 15 kg 	7300.16.20

Light-oil separator
Free-standing installation

	Designation	compatible with	Description	Article No.
	Suction	<ul style="list-style-type: none"> ■ Coalisator R/RD 	<ul style="list-style-type: none"> ■ Draw-off device for drawn-off light oils ■ Nominal width: DN 65 ■ With Storz coupling 75 B R 2½" in accordance with DIN 14308 	7600.00.20
	Securat 2004 alarm device SK 2	<ul style="list-style-type: none"> ■ Coalisator-R/RD <ul style="list-style-type: none"> □ NS 3/6/10 ■ Coalisator-E <ul style="list-style-type: none"> □ NS 20 	<ul style="list-style-type: none"> ■ Bracket: Stainless steel ■ Operating zone 0 ■ With a visual and acoustic display ■ Consisting of <ul style="list-style-type: none"> □ SecurAT 2004 monitoring device, ready for connection ■ Sensor bracket for mounting, complete with <ul style="list-style-type: none"> □ Oil sensor with 5 mm blue connecting cable □ Over-fill sensor with 5 mm blue connecting cable □ Terminal box and mounting material ■ Electrical connection <ul style="list-style-type: none"> □ 230 V □ 47..64 Hz □ C. 8 VA ■ Dry contact output ■ Weight: 5 kg 	6751.64.00
	Connecting cable 4x1, Helukabel OZ-BL-CY	<ul style="list-style-type: none"> ■ Alarm device light-oil separator 	<ul style="list-style-type: none"> ■ External diameter: 7.6 mm ■ Blue ■ As connecting cable 	0150.07.94