



# Grease disposal concepts

ACO Grease separators

For full and partial disposal  
For free-standing installation



## Grease separators for the catering industry, hotel trade and food production

Very greasy wastewater is a risk to pipelines and sanitary drainage objects. Greases and oils deposit on the walls of the pipes together with other wastewater constituents and can lead to corrosion, blockages and odour nuisance. For these reasons, the use of grease separators is mandatory in industrial and commercial environments where grease-polluted wastewater is produced.



### LipuSmart

Grease separator with integrated lifting plant, sampling and system control



### LipuJet

Free standing grease separator made of stainless steel or plastic



## Lipator

Grease separator for partial disposal of grease and sludge



## Lifting plants

Free standing installation made of polyethylene for high dimensions



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The family-owned company headquartered in Rendsburg/Büdelndorf, Germany, was founded in 1946 on the site of the Carlshütte foundry – Schleswig-Holstein's first industrial company. It still has very strong roots in the region. The innovation strength of the ACO Group is built on intense research and development, and its technical expertise in processing polymer concrete, plastic, cast iron, stainless steel and reinforced concrete.

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**900 Mio.**

Euro Sales in 2019

**35**

production sites in 18 countries



ACO Academy  
for practical training

Holder  
Hans-Julius und Iver Ahlmann (left)



# Healthy kitchen – clean and safe

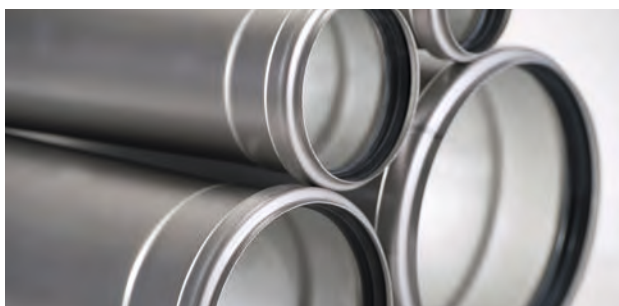
The discharge of kitchen waste water is of the utmost importance when considering all relevant hygiene aspects: The kitchen waste water must be collected as quickly as possible via suitable drain and piping systems and then pre-treated in separation systems. It can then be released into the public sewage system.

If these drainage systems are not properly planned and installed, the drainage of wastewater can be disrupted. This in turn leads to the flooding of the kitchen area with all the associated hygiene problems.

## The influencing factors for hygienic kitchen drainage



Stainless steel channels from ACO in various designs are configured according to the processes in commercial kitchens. Efficient drainage is essential for hygiene and safety: the discharge of wastewater means safety at the workplace and effective disposal of dirt and germs..



All components of the ACO PIPE pipe system are manufactured and tested according to DIN EN 1124.

They are primarily used in commercial kitchens where hygiene is of great importance. Optionally, it can be manufactured from the corrosion-resistant materials stainless steel 1.4301 or 1.4571.



For operational reasons as well as due to local regulations, fatty waste water from commercial kitchens may not be discharged directly. ACO grease separators pre-treat the wastewater, which prevents the pipes connected to the drain from becoming greasy, thereby ensuring the operational safety of the kitchen.





## The professional planning of kitchen drainage

From a planning point of view, catering establishments are to be designed in such a way that the entire collection of kitchen waste water, its discharge and the associated treatment in grease separators is exactly tailored to the respective kitchen.

As market leader for all product solutions associated with this process, ACO Building Drainage can provide advice on all issues during planning, design and installation. All the important milestones for appropriate planning are explained below.



## 1. Definition and positioning of the sanitary drainage objects

Efficient work processes must be economical as well as hygienic and reliable in commercial kitchens. Therefore, the drainage objects required for the work processes must be planned with the following criteria in mind:

### ■ Capacity/discharge capacity

When selecting the drain or channel type, the properties of the drainage objects which are to be connected must be taken into account. For this purpose, the connection values of the kitchen objects (e.g. taps or the volumes of the heating tanks) are to be used.

### ■ Sealing ring

The floor structure must be protected from damage by the kitchen waste water. It must be determined where and how the floor structure is to be secured (e.g. by alternative or foil sealing).

### ■ Slip resistance

If drainage channels are located directly in employee work areas, covers/grates must be selected in such a way that sufficient slip resistance is ensured.

## 2. Planning and selection of drainage systems

The choice of drainage systems depends on the amount of kitchen wastewater that has to be drained directly via the floor covering or directly above the drainage point.

Depending on the application, pump outlets, slotted channels, box channels or high capacity channels are used.

## 3. Project planning for the piping systems which are to be connected

For needs-based drainage of kitchen waste water collected via drain and channel systems, the pipe systems to be connected must be selected according to the following criteria:

- As far as the diameters are concerned, the pipes must be connected to the drain systems without any problems.
- Due to the intended applications, care must be taken to ensure that the pipe systems have a high temperature resistance.
- When passing through ceilings, the respective fire protection regulations must be observed.

## 4. Evaluation and selection of suitable systems for the retention of fatty components in kitchen waste water

For needs-based drainage of kitchen wastewater collected via drain and channel systems, the pipe systems to be connected must be selected according to the following criteria:

- The size determination (NS) of the grease separator must be calculated. Calculations according to DIN EN 1825 are recommended. A calculation can be made based on furnishings or the catering establishment.
- Depending on the installation situation and taking into account the nominal size, a grease separator must be selected which can be installed either as an individual component or in a segmented design.

## ACO grease separators – products for every requirement



Food preparation

Whilst cleaning pans, dishes and other kitchen equipment units in commercial kitchens, a great deal of waste water containing grease or fat is produced, which cannot be fed into the sewage system just like that.

This primarily applies to hotels, university refectories, canteens, service stations and hospitals, as well as cafeterias in shopping centres and large kitchens which grill, roast and fry.



Factories producing meat

When slaughtering and dismembering animals, as well as processing them into meat and sausage products, large amounts of waste water still with a very high grease content are created. This could add up to several tons per day,

depending on the particular production processes used in the factory and the grease has to be removed from this waste water accordingly. Besides meat and sausage factories, this primarily applies to slaughterhouses and butchers.





## Food industry

Due to the production processes used in various food industries, waste water containing animal and vegetable fats that can be retained may arise during food manufacture.

This could be the case, for example, in edible oil refineries, peanut roasters and factories producing crisps and chips.



## Materials and shapes for every building situation

ACO grease separators are made from polyethylene or stainless steel. Polyethylene is characterised, for instance, by its lightweight construction and long lifetime, whilst stainless steel also offers high temperature resistance. By choosing the shape that best fits the building project

(e.g. round, oval or split), grease separators can be easily retrofitted into buildings during renovation work, for example. Unusual conditions can be dealt with by means of special constructions and site welds.

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## Technical information

### Grease separator plants

Industries generating waste water must have pre-treatment plants to ensure that solids and liquids that release harmful and unpleasant vapours, attack building materials and drainage installations or interfere with operations, are not discharged into public pipelines.

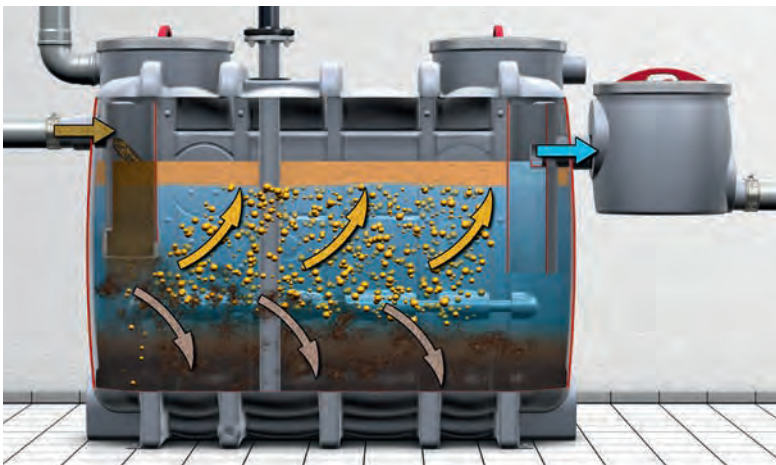
In businesses which generate waste water containing grease or fat, grease separators in accordance with EN 1825 must be installed in order to retain organic fats and oils from the grey water. This applies, for example, to catering and meat processing establishments.



# Principles and function

A grease separator works purely physically, applying gravity (difference in density), i.e. heavy waste water contents sink to the bottom and light substances such as animal oils and fats rise to the top of the separator.

The grease layer can be broken down in a targeted manner using the high-pressure jet of up to 150 bar from the special rotating cleaning head and homogenised so it is ready to destroy. Depending on the location situation, the contents of the separator can be sucked out by the disposal vehicle via permanently installed local piping or conveyed too using an optional disposal pump.



### Operating principle for full disposal/free-standing installation

With grease separators for full disposal, sludge and grease are collected in the separator container installed in the building and picked up by a disposal contractor at certain intervals or as required.



### Operating principle for partial disposal

With grease separators for partial disposal, sludge and grease are collected in separate containers. This can be done manually or automatically via an additional control.

## Materials and models



### Polyethylen

- **Very durable**  
Polyethylene has excellent corrosion-resistance properties
- **Recycling**  
Polyethylene is environmentally-friendly and reusable
- **Maintenance**  
Cleaning is simple thanks to the smooth wax-like surface
- **Transport**  
Low weight for easy transport and installation

### Stainless steel

- **Fire protection**  
Stainless steel is completely inflammable and therefore presents zero fire-risk. It is also very temperature-resistant
- **Strength**  
Stainless steel has very high levels of mechanical strength and is therefore vandal-proof
- **Hygiene**  
Stainless steel has been used for many decades in all applications specifying strict hygiene regulations (e.g. hospitals)
- **Chemical resistance**  
Stainless steel is extremely resistant to organic substances

#### Oval Model

The container dimensions of the oval grease separators made of polyethylene and stainless steel have been optimised to maximise ease of access in awkward situations. This means they can be easily carried into areas via narrow stairs and door openings.



NS 1-4:  
max. width 800 mm  
NS 5.5-10:  
max. width 1050 mm

#### Round Models

The round grease separator models made of stainless steel or polyethylene can be dismantled into separate components. This design also means that the nominal size can be enlarged on site by simply replacing the middle components (e.g. replacing NS 7 with NS 10).



Number of separate components:  
NS 2-4:  
2 components; Ø 1000 mm  
NS 7-10:  
3 components; Ø 1500 mm  
NS 15-20:  
3 components; Ø 1750 mm

#### Split Design

This product line is made of polyethylene and is specially designed for remediation projects with very narrow access routes. The separator can be split into three parts.



Maximum segment dimensions (LxWxH):  
NS2:  
670 x 700 x 1360 mm  
NS4:  
1140 x 700 x 1360 mm

## Grease separators for full disposal



A grease separator for full disposal operates purely physically on the basis of gravity (density differences), i.e. heavy waste water constituents sink to the floor of the separator, light substances such as animal fats and oils, rise to the top of the grease separator. The treated waste water is discharged into the sewers via a drainage outlet pipe. The sludge trap and the separator must be completely emptied and cleaned at least once a month pursuant to EN 1825. Emptying the sludge trap and the separator is carried out by a disposal company and it is recommended that this operation be carried out every two weeks. The separator then has to be refilled with water (e.g. drinking water or process water) in compliance with the local water regulations.

## For free-standing installation



- Structural stability of the container with proof of stability for over 25 years
- Minimises disposal and maintenance costs thanks to economic step increases in nominal size
- Easy upgrade of simple separator variants with additional components for convenient operation and disposal
- Various shapes and materials



## Grease separators for partial disposal (fresh grease separators)

Grease separators working on the partial disposal principle also operate purely physically on the basis of gravity (density differences), i.e. heavy waste water constituents sink to the floor of the separator, whilst light substances such as animal oils and fats rise to the top of the separator. The separated substances (grease and sludge) are collected in separate containers. The treated waste water is then discharged into the sewers via the drainage outlet pipe. Draining the separated substances from the grease separator

into the collecting drums is done by opening the relevant drainage valve on the separator (specifics depend on the type of operation).

This can be undertaken independently of normal operations. For example, it can be done without interrupting the work being carried out in a kitchen.

Because the collecting drums only take up grease and sludge, the grease separator does not have to be filled after disposal with expensive fresh water.



### Concepts for partial disposal

ACO Building Services provides two types of grease separator for partial disposal: grease separators for manual, or automatic partial disposal. Both of these versions are only available for free-standing installation.

The grease separators for manual partial disposal (Lipator-S-RM) have mechanical drainage valves. These must be opened several times a day as required by the operator (after heating up first). The transparent hoses reveal whether all of the substances collected at any given time have completely drained into the drums.

The grease separators with automatic partial disposal (Lipator-S-RA) have electrically actuated ball valves. A programme control automatically activates the pre-heating and opens the valves.

An optical and acoustic warning signal is activated when the collecting drums are full. Full drums are simply replaced and collected by a disposal company.

#### Lipator-S-RM:

Grease separator for partial disposal, for manual grease/sludge extraction



#### Lipator-S-RA:

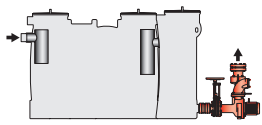

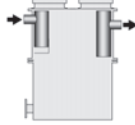
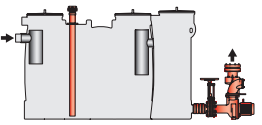


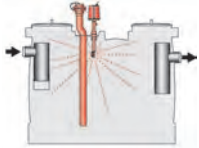
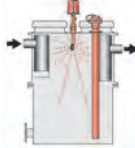
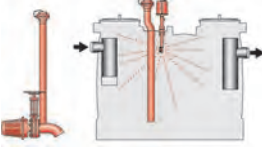
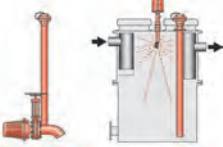
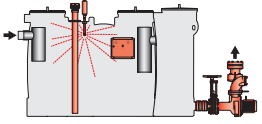

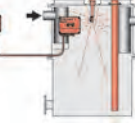
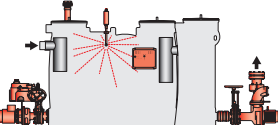
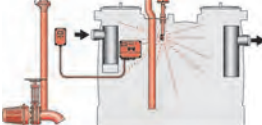

Grease separator for partial disposal, for automated grease/sludge extraction



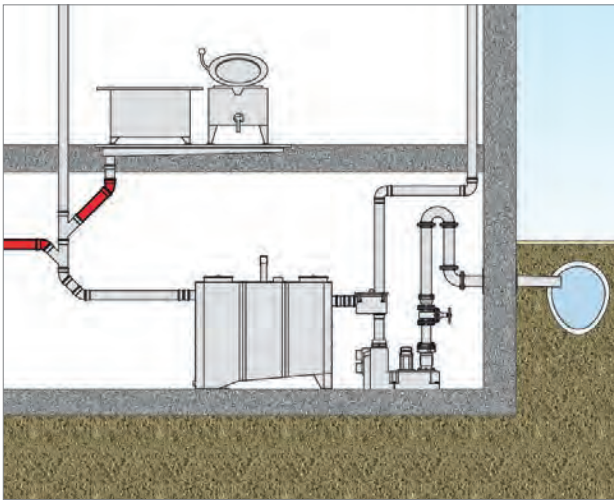
## Product benefits: ACO extension stage system

A grease separator must be emptied at regular intervals by a disposal vehicle. The extension stage system means that odour nuisance can be reduced during disposal and cleaning. The higher the extension stage, the easier to carry

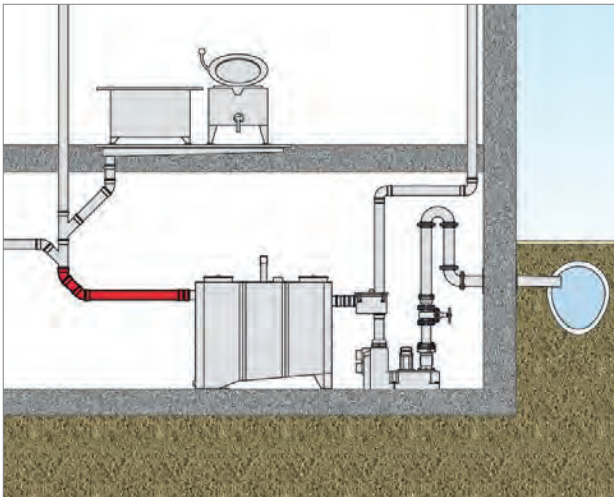
out the disposal and cleaning of the grease separator. The available extension stages and the respective ease of disposal and cleaning they provide can be seen in the table below.

Extension stage	LipuSmart-P	LipuJet-P	LipuJet-S
	<b>for free-standing installation</b>		
Basic version	 -OB	 -OB	 -RB
1	 -OD	 -OD	 -RD
2	—	 -OM	 -RM
2 with disposal pump	—	 -OMP	 -RMP
3	 -OA	 -OA	 -RA
3 with disposal pump	 -OAP	 -OAP	 -RAP

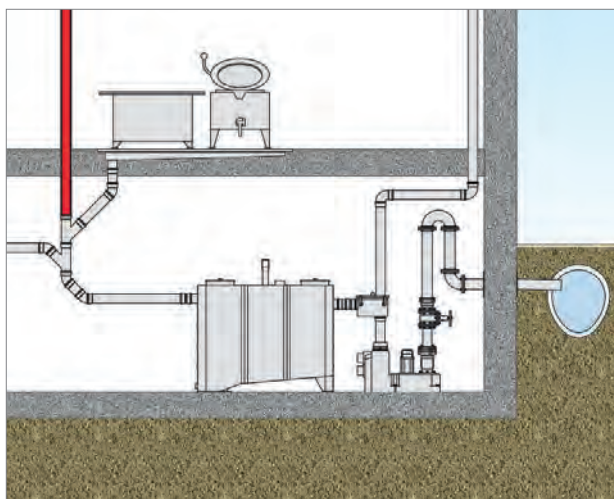
## Pipework, ventilation (EN 1825-2)



- When installing the inlet line through unheated or freely accessible spaces where there is a danger of frost, this section of the route must be designed with auxiliary pipe heating (e.g. self-regulating strip heaters and insulation).



- Inlet lines must be designed and installed carefully, as even this can have a positive or negative influence on separator efficiency.
- Where vertical inlet lines meet the horizontal pipe, they must be designed as follows in order to prevent impermissible whirling of the waste water and its greasy contents:
  - Vertical downpipe, 45° bend, straight pipe section, horizontal pipeline of at least 250 mm, at least 10 x DN long at the grease separator inlet.  
Example: DN 100 = 1000 mm, DN 150 = 1500 mm



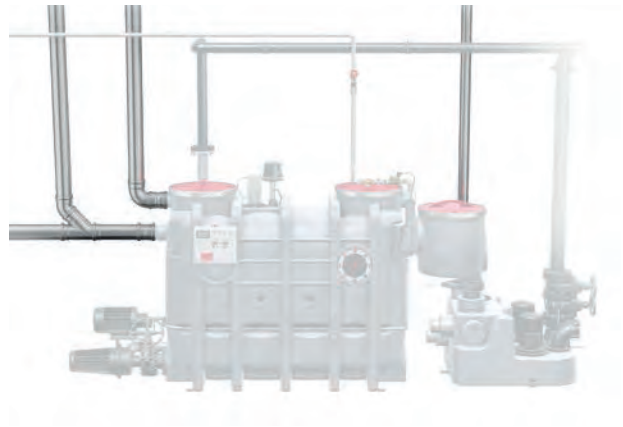
- The inlet and outlet lines on grease separator systems must be adequately ventilated. To this end, route the vent stack to above the roof (EN 1825-2).
- Other horizontal connecting lines longer than 5 m must be ventilated in addition. If the horizontal inlet line is longer than 10 m and there are no other additionally ventilated connecting lines, the inlet line must be fitted with an extra vent stack right by the separator inlet (EN 1825-2).



## Pipework with ACO PIPE

Materials that are resistant to corrosion and fatty acids must be used for the inlet and ventilation lines of grease separator plants in particular. Stainless steel, material grade 316 is recommended here.

With ACO PIPE, ACO Building Drainage provides a pipe system that is ideally suited for this purpose.



## Pendulum gas line

In the gastronomy and food industry, compliance with hygiene regulations is essential. It is therefore advisable to plan the grease separator systems in these companies in such a way that disposal is as odourless as possible. In addition to the ACO odour neutralisation system, the appropriate choice of a high equipment level and the installation of a pendulum gas pipe is another way to meet the high hygiene standards.

Pendulum gas lines are used where odourless disposal processes are absolutely necessary. This is the case wherever third parties must not be affected by the necessary disposal of the grease separator contents. This can be necessary for businesses in the upscale gastronomy and

hotel industry, as well as for restaurants in the inner city or wherever increased odour nuisance must be avoided.

The use of a pendulum gas line ensures odourless disposal. A second pipe of the same dimension and pressure rating (PN6/10) is laid parallel to the disposal pipe from the disposal connection box back to the grease separator. The pendulum gas line is connected directly to the ventilation line of the grease separator system, which is vented via the roof.

No other sanitation items may be connected to this vent pipe. Modern waste disposal vehicles are equipped in such a way that the contaminated discharge air can be returned via the pendulum gas line without any problems.



Separate pendulum gas pipe above the roof



Pendulum gas line connected to ventilation line of grease separator



Pendulum gas line connected to grease separator

## High-pressure inner cleaning of ACO grease separators



High-pressure inner cleaning of a grease separator for disposal leaving no residue



Unpleasant smells produced when disposing of the contents of grease separators are often equated with hygiene deficiencies. In order to prevent this, ACO grease separators are available with optional hydro-mechanic high-pressure inner cleaning. This enables the inside walls of the grease separator to be intensively cleaned, without having to open the covers.

The spread of smells throughout the premises where the grease separator is installed is therefore minimised during the cleaning process. A rotating cleaning head, which rotates not only horizontally, but also vertically, is used here.

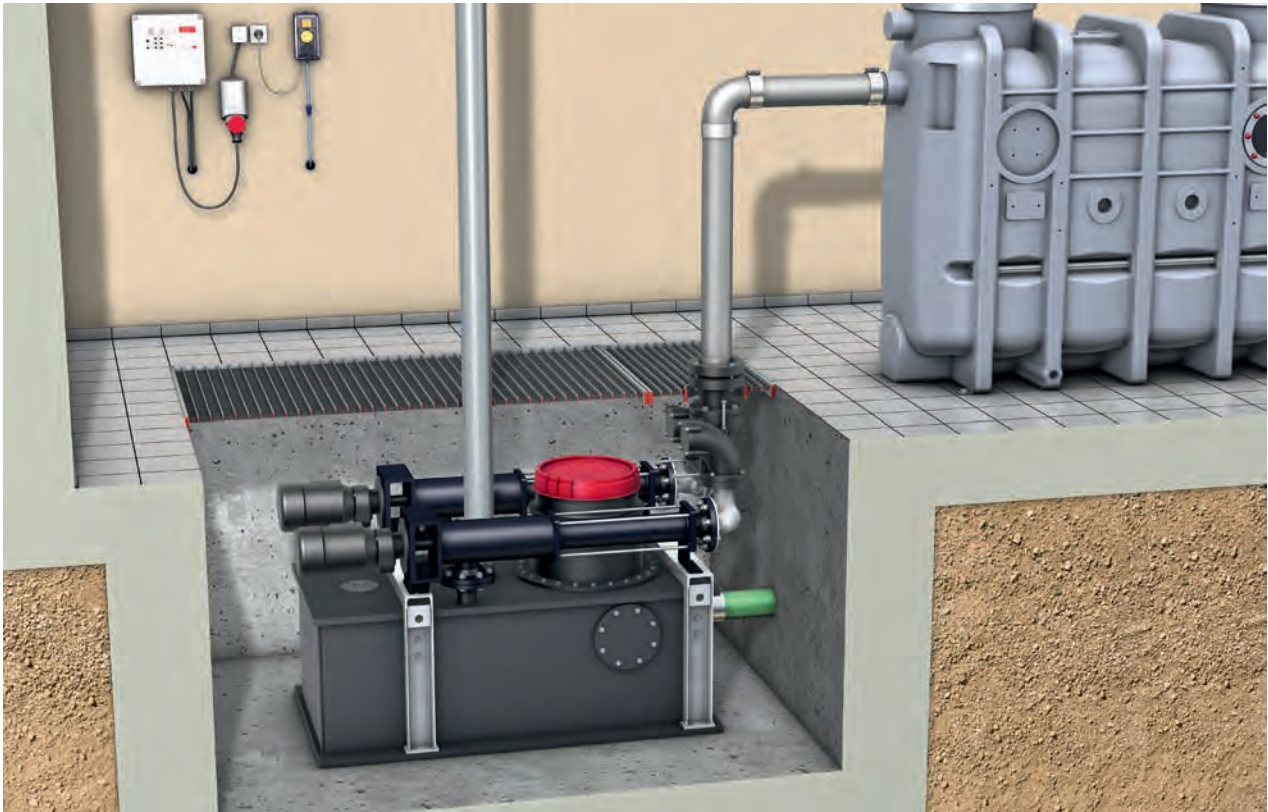
The cleaning head performs two tasks:

- Breaks up the grease layer and homogenises it to facilitate suction emptying
- Cleans the inside walls of the container

Only a cold water connection is required for the associated high-pressure pump. The cleaning unit can be designed for either manual or fully automatic control. Cleaning progress can be checked through the inspection window provided.



## Upstream tank plants with eccentric screw pumps

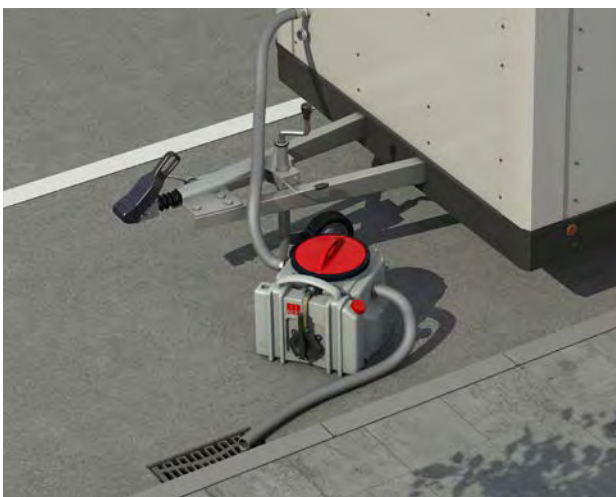


### **Application: inlet connection upstream of grease separator plants too low**

Low inlet heights always lead to problems if there is no gradient between the inlet line and the grease separator. If structural conditions mean the grease separator cannot be placed any lower in such cases, then the waste water must be pumped to it.

However, due to the grease content of the waste water, this cannot be done using a traditional lifting plant. This would furthermore cause whirling to occur in the separator, which would impair the separation process.

## Grease separator for mobile use



The ACO LipuMobil-P 0.8 was specially developed for use in snack bars, bistros, small fast food restaurants, grill carts and food trucks. The small separator for mobile installations (tested in accordance with DIN EN 1825) is characterised by its optimised dimensions, low inlet height and the maximum permitted inlet of up to 0.8 l/s.

A grease collection tank is optionally available. This tank contains a hand pump with which the grease can be removed from the separator without opening the lid and therefore without odour. It is therefore not necessary to siphon off the grease in the separator.



## ACO LipuTherm heat exchanger

The wastewater produced, e.g. in commercial kitchens and in the catering industry, is often still very hot when it is fed into the separator system. The temperature of wastewater is increasingly becoming the focus for the inspection authorities. The basis for this are the local regulations, which can penalise the discharge of commercial waste water into the public sewerage system at temperatures above 35°C with additional heavy pollution surcharges.

However, wastewater can be used as an innovative heat source and contribute to the economic recovery of energy. This is made possible by the LipuTherm system technology, which not only reduces the temperature in the separator, but also results in considerable cost savings for the operator. Grease separators not only retain grease or oils from the generated wastewater, but also serve as a

kind of buffer storage. At this first wastewater "collection point" the temperature fluctuations are not so high and a continuous recovery process can be started. The savings can be considerable, depending on the size of the kitchen and the temperature of the waste water.

Through the combination of the ACO LipuTherm heat exchanger with a power-controlled heat pump, the energy recovered from the wastewater is made available to the operator for a wide variety of possible applications.

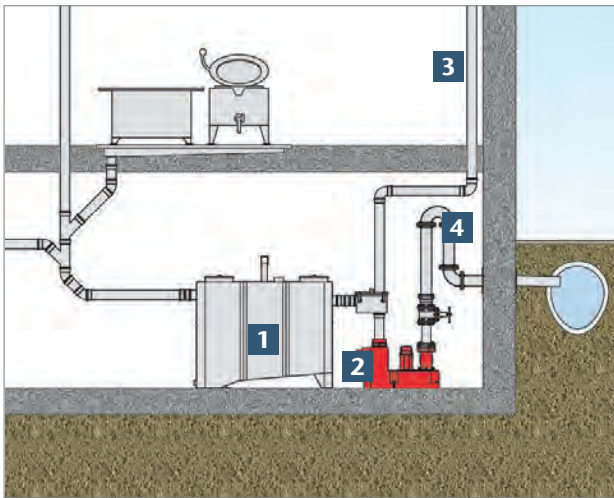
- Underfloor heating
- Solar systems
- Support for hot-water treatment
- Connection to heat recovery systems already installed



The hot water generated by the catering establishment enters the grease separator (2) through the inlet (1). This wastewater is drawn through the connection sleeve on the grease separator and out of the separator (3) by means of the circulation unit (5). Then the still hot wastewater flow into the heat exchanger (8) where it is cooled down and then it flows back into the grease separator (10).

This significantly lowers the temperature at the outlet (4) of the grease separator. This is cleaned at regular intervals by the cleaning unit (9) to prevent deposits in the interior of the heat exchanger. The energy recovered by the heat exchanger is transferred to the brine circuit (7) of the heat pump (6) and is therefore available for different applications.

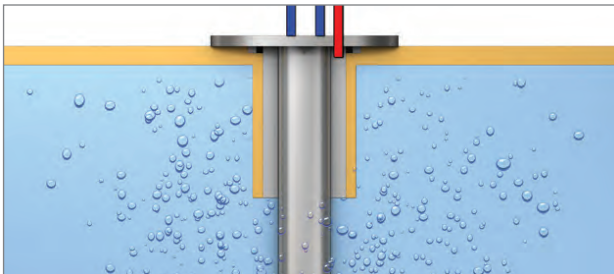
## Drainage below the backflow level



- 1** Grease separator plant
- 2** Lifting plant
- 3** Ventilation line (separately over roof)
- 4** Backflow loop

If the grease separator is installed below the backflow level, drainage must be ensured by a twin lifting plant. Where grease separators installed in a basement are concerned, the top of the road surface (edge of curbstone) usually forms the backflow level. As such, practically every grease separator must be drained via a twin lifting plant. This requirement must be strictly observed, particularly for free-standing separators in buildings, even if there is only an occasional risk of backflow. The grease separator is only suitable and approved for operation without pressure. Odour-proof is not the same as backflow-proof! A twin lifting plant must be installed (requirement in industrial and commercial fields) in order to ensure uninterrupted operation should one pump fail. Furthermore, it should be noted that greasy contents can become separated from waste water again downstream of every grease separator, leading to deposits in the lifting plant container. It is therefore necessary to regularly inspect the lifting plant in conjunction with servicing the grease separator. These grease deposits also have a negative impact on filling level measuring components such as float switches, ball joint switches and pilot tubes whose cross sections are not large enough. Filling level measuring equipment should be installed that has a generously dimensioned pilot tube cross section with air bubble injection for self-cleaning purposes.

## Increased operational safety thanks to air bubble injection



Air is blown into the pilot tube continuously via a compressor. The air bubbles which rise at the end of the pilot tube create a constant motion beneath it, so no media that generate floating surfaces (e.g. residual grease from the separator) are able to set. This guarantees that level measuring equipment works very reliably.

## Application: grease separator below backflow level with downstream lifting plant



Waste water lifting plants convey waste water above the backflow level into the higher sewage system. EN 12056 stipulates that waste water lifting plants must be used where drainage points are below the backflow level, i.e. for almost all free-standing grease separator plants. Depending on the application scope, ACO offers a choice of different waste water lifting plants that can be installed directly behind the grease separators.

## ACO pumping stations

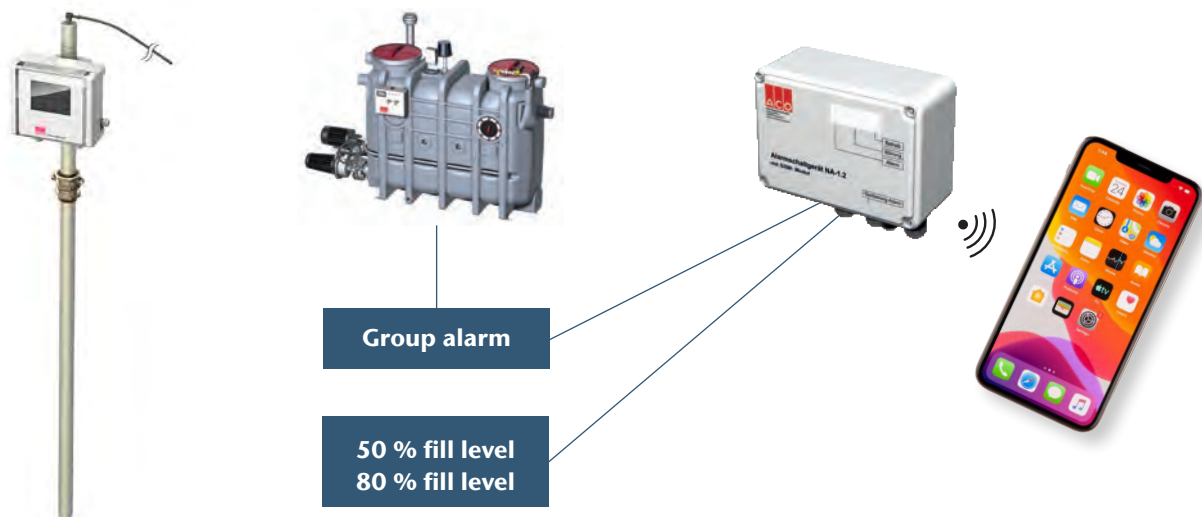


If construction conditions are very confined, in some cases it may be necessary to install a pumping station outside the building, instead of a lifting plant inside it.

The size of the pumping station to be chosen will depend on the upstream separator and any other volume flows to be introduced. ACO pumping station containers are made of polyethylene and characterised, amongst other things, by good stability, high resistance and maximum protection against upwelling.

ACO pumping stations have been designed based on a modular principle: the customer is able to select the load class, the control, the type of level measuring, the pump and any miscellaneous accessories.

## GSM module for checking operating conditions



The sensor head of the measuring equipment for grease layer thickness uses electrodes arranged in various ways to detect the difference in the conductivity of water, grease and air. This enables the boundary layers between the water phase and the grease layer that is floating up, and between the grease layer and the surrounding air to be determined. Maximum fill levels are then indicated on the fill level monitoring lamp display.

The operator has a high degree of flexibility in terms of device maintenance thanks to a GSM module that makes the process of checking and servicing grease separators, waste water lifting plants, backflow stops and process engineering plants much easier, more adaptable and faster.

It is particularly well suited to grease separator plants and their stringent drainage requirements and is available as a constituent part or as a component for retrofitting. Grease separators with a traditional design are equipped with inspection windows so the grease layer thickness can be measured visually, whereas on modern devices, this measurement is taken automatically by measuring equipment for grease layer thickness.

The GSM module enables the operating parameters to be retrieved via mobile phone and takes care of data transfer and the notification of disposal cycles and malfunctions – all fully automatically.



## ACO LipuFloc dosing station



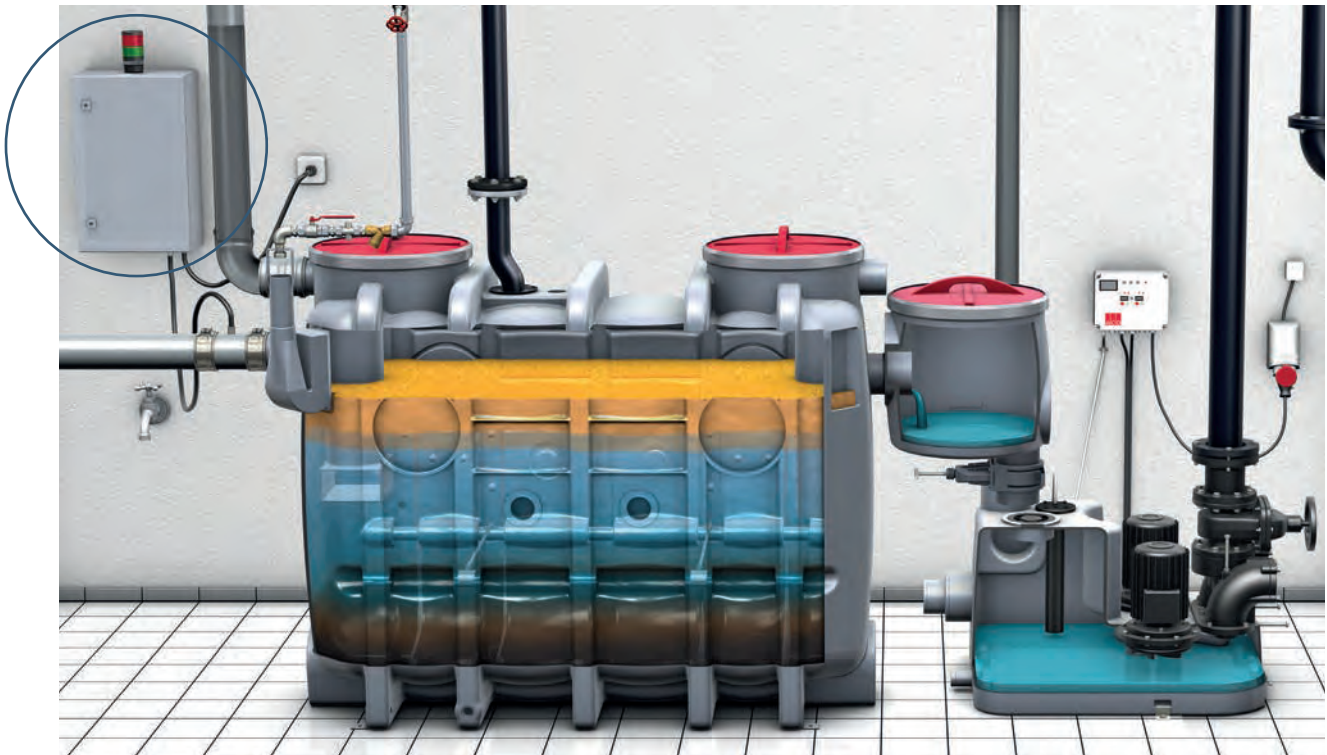
### **Chemical-physical wastewater treatment**

The ACO LipuFloc ECO dosing system mainly consists of three components: the stainless steel control cabinet for the dosing equipment, the splitting agent drum and the circulation unit. The dosing pump, a colour touch screen and a status display with possible connection to the BMS are located directly on the control cabinet. The dosing pump that is used conveys the chemical in the direction of the grease separator in a time and quantity-dependent manner. To achieve this, it is conveyed directly from the exchangeable plastic drum by means of a suction lance with fill level control. The level and quantity of the container is recorded continuously.

The control system is the central component, this is where all information on filling levels and operating states converge. The central control unit can be conveniently operated via touch panel.

The second component is powered and controlled from the system section. This is a waste water pump that returns the pre-treated kitchen waste water from the grease separator outlet to the grease separator inlet after the addition of the chemicals.

## ACO odour neutraliser



The ACO odour neutraliser significantly reduces the formation of noxious smells in all vent stacks and plant components.

The composition of the waste water means that unpleasant smells are created in the grease separator both when the kitchen is operational and during idle periods. If vent stacks have been installed incorrectly, this can lead to a perceptible odour nuisance at critical line components and drainage points. But help is at hand in the form of the ACO odour neutraliser: a flexible interval timer controls the dosing of an odour neutralising agent, preferably into the

ventilation line, which overrides the unpleasant smells in the plant components.

Irrespective of any problems with line components, this makes really good sense primarily for low extension stages which require a lot of cleaning, as it can significantly reduce the spread of odours through the premises during monthly disposal of the separator contents.

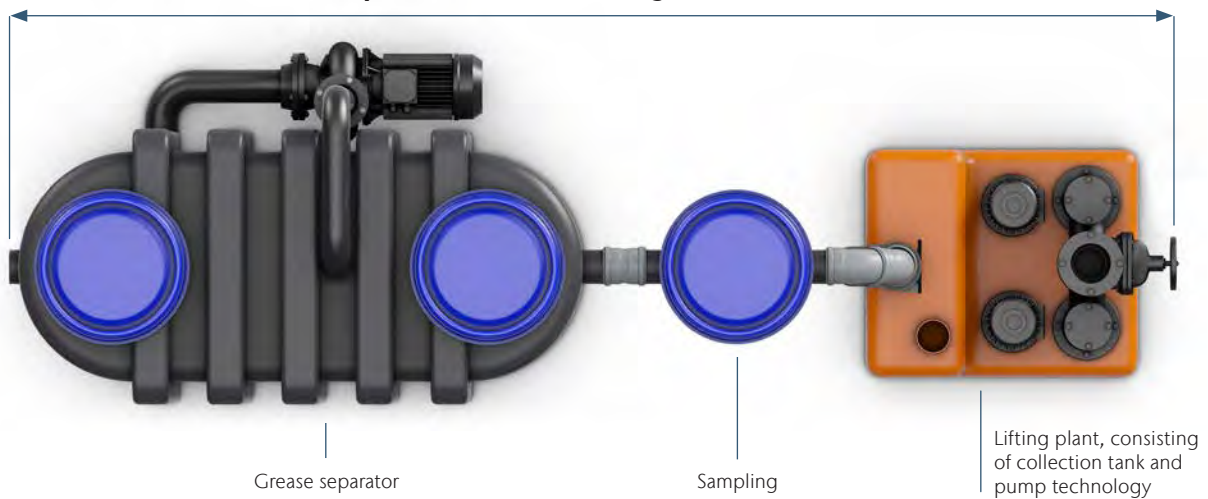
## 4-in-1-solution with ACO LipuSmart

The installation of a lifting plant behind a grease separator involves numerous planning and installation steps. Pipelines must be laid between the components, not forgetting the sampling unit. Furthermore, in addition to the separator, a second ventilation pipe must be routed above the roof and a second control system must be installed: With ACO LipuSmart, backflow protection is integrated into the product through the already installed lifting system and the sampling. This eliminates the need for pipework between the individual components and enables a significantly shorter overall installation. The minimisation of the overall length also meets the required minimum length of the stilling section required by DIN 4040-100, which in turn improves the separation efficiency. Since the pump technology can be mounted from the collection tank of

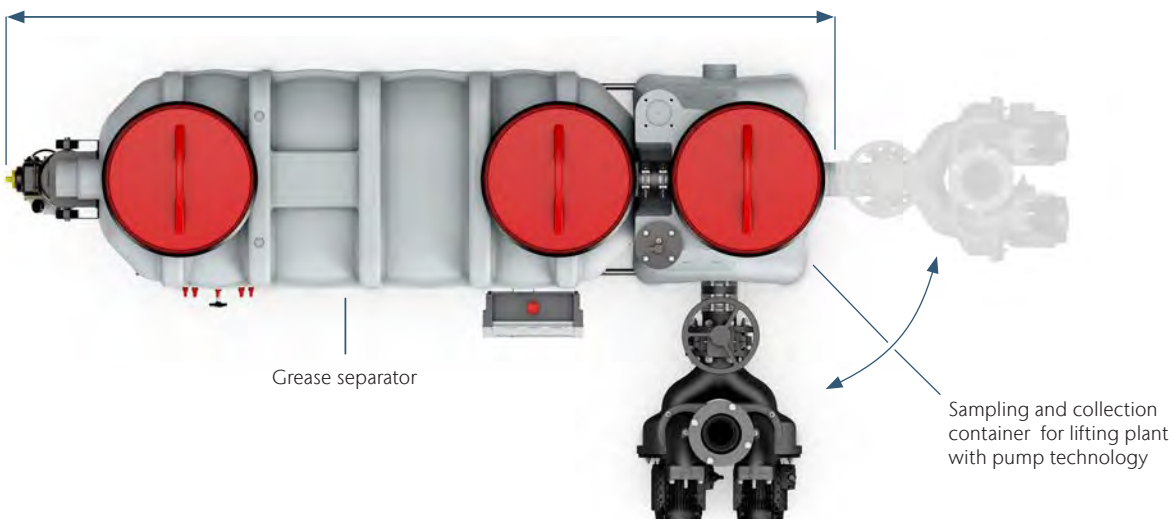
the lifting plant not only on the front side, but also on the matching connection pipe on the left or right in the flow direction, the length of the overall installation can be further reduced in extreme installation situations.

When constructing new buildings or restoring buildings, the number of pipes that need to be installed plays an important role. Due to the compact overall system, only one ventilation pipe is required when planning LipuSmart, which not only simplifies planning but also minimizes construction costs. LipuSmart can be easily integrated into the building management system and by controlling all system components by means of an overall system control, permanent monitoring of the system is made possible without the need for an additional control device and its installation.

**Individual components increase the length of the overall installation**



**ACO LipuSmart: Integration of all components in one product**





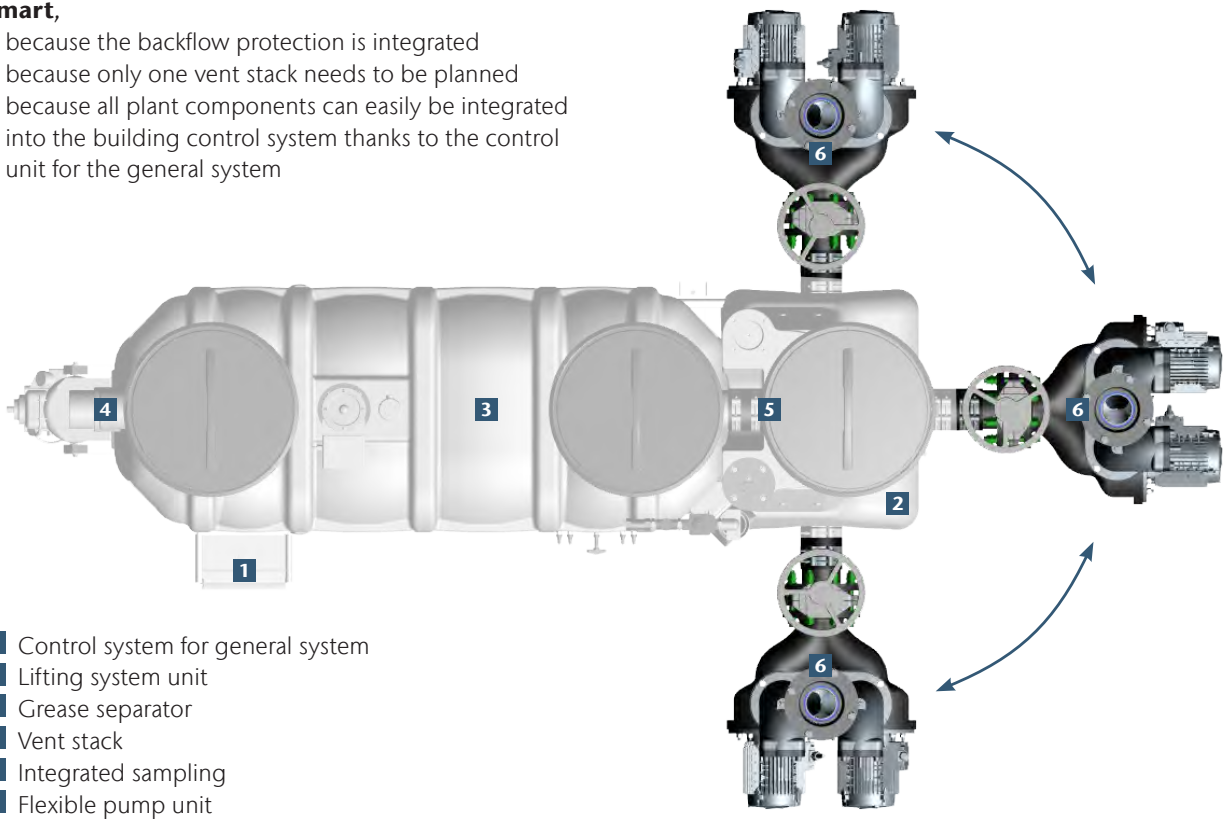
**Entire competence in one product**

Thanks to the powerful integrated separator and pump equipment, and the direct sampling option, the ACO LipuSmart greatly reduces the planning and layout work. The control unit for the general system combines the individual control units of the grease separator and the lifting plant into one complete unit. Thanks to its clear menu structure, the graphic presentation of the grease separator

disposal processes, a logging function and the signalling unit with a GSM module, the control unit for the general system facilitates operation of the plant. The Bluetooth interface that is standard from extension stage 3 can also be replaced with the Modbus as an option. The inspection window allows additional control of the grease separator contents.

**Smart,**

- because the backflow protection is integrated
- because only one vent stack needs to be planned
- because all plant components can easily be integrated into the building control system thanks to the control unit for the general system



- 1** Control system for general system
- 2** Lifting system unit
- 3** Grease separator
- 4** Vent stack
- 5** Integrated sampling
- 6** Flexible pump unit

Grease separator and lifting system require separate ventilation lines



ACO LipuSmart: one ventilation duct for both integrated applications

5







# Product overview

## ACO grease separators

### Full disposal

page 36

The entire waste water contents of grease separators for full disposal must be disposed of at regular intervals in accordance with legal standards. Then the containers must be cleaned, depending on requirements. The higher the extension stage of the grease separator, the easier it is to dispose of the waste water contents, clean the container and re-fill the separator, and the less odour will be produced.

### Mobile solution

page 63

The waste water containing grease produced by mobile snack bars and the like can be treated using mobile grease separators. In such cases, the accumulated grease must be disposed of daily.

### Partial disposal

page 64

Grease separators for partial disposal give the operator the option to collect grease and sludge in separate drums. These separators are mainly used where structural or logistical restrictions mean it is not possible to use disposal vehicles to empty the contents of the grease separator. Full drums must be constantly replaced with empty containers in order to guarantee operational safety.



# Overview of grease separators

Free standing installation  
full disposal

## LipuSmart-P

NS 2 to NS 10



-OB



-OD



-OA



-OAP

## LipuJet-P

NS 1 to NS 10



-OB



-OM



-OA



-OD



-OMP



-OAP



NS 15 to NS 30  
welded containers  
made of PE

## Accessories for free standing installation



## LipuJet-P

NS 2 to NS 20



-RB



-RD



-RM



-RMP



-RA



-RAP



# Overview of grease separators

Free standing installation  
full disposal

## LipuJet-S

NS 1 to NS 10



-OB



-OD



-OM



-OMP



-OA



-OAP

## LipuJet-S

NS 2 to NS 20



-RB



-RD



-RM



-RMP



-RA



-RAP

## Accessories for free standing installation



## Accessories for -S





## Free standing installation

segment construction

### LipuJet-P

NS 2 and NS 4



-SB



-SD

partial disposal

### Lipator

NS 2 to NS 25



-S-RM



-S-RA

NS 4 to NS 25



-P-RM



-P-RA

mobile disposal

### LipuMobil



-P



-S

## Accessories for Lipator



### Accessories for -P



## ACO LipuSmart-P – oval grease separators made of polyethylene for free-standing installation

### Product advantages

- 4-in-1 complete solution
- Innovative control system for general system
- Optional Bluetooth or Modbus connection
- Structural stability of the container with 25-year stability verification
- Compact erection dimensions
- Only one vent stack necessary



### Product informationen

- Grease separator according to DIN 1825
- Waste water lifting plant acc. to EN 12050-2
- For free-standing erection in frost free spaces
- Integrated sampling option

### Table of dimensions

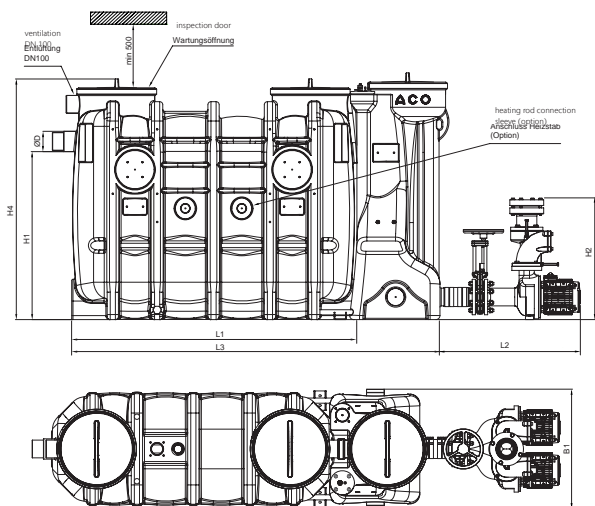
NS	DN	Separator content			Lifting plan			Dimensions											
		Sludge store	Grease store	Total	Usable volume	P2-Power	H1	H2	H3	H4	L1	L2	L3	L4	L5	B1	B2	B3	D
		[l]	[l]	[l]		[kw]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
<b>2</b>	100	210	100	440	155	1.5	1055	753	1680	1500	1100	800	1625	300	680	742	880	930	110
<b>3</b>	100	300	150	630	155	1.5	1055	753	1680	1500	1450	800	1975	300	680	742	880	930	110
<b>4</b>	100	400	200	830	155	1.5	1055	753	1680	1500	1760	800	2285	300	680	742	880	930	110
<b>5.5</b>	150	725	360	1430	235	4.0	1250	753	1880	1700	1760	835	2287	300	680	960	1130	1180	160
<b>7</b>	150	800	400	1600	235	4.0	1250	753	1880	1700	1960	835	2487	300	680	960	1130	1180	160
<b>8.5</b>	150	940	475	1900	235	4.0	1250	753	1880	1700	2250	835	2777	300	680	960	1130	1180	160
<b>10</b>	150	1000	520	2000	235	4.0	1250	753	1880	1700	2450	835	2977	300	680	960	1130	1180	160

[www.aco-haustechnik.de/catalogue/Article no.](http://www.aco-haustechnik.de/catalogue/Article no.)

All digital contents (data sheets (PDF)), dimensional drawings (DXF, IGS) and article descriptions (Datanorm, GAEB, TXT) relating to the grease separators and additional components represented here can be retrieved from the website stated above using the respective article number.

Dimensional drawings

**LipuSmart-P-OB (Basic version)**



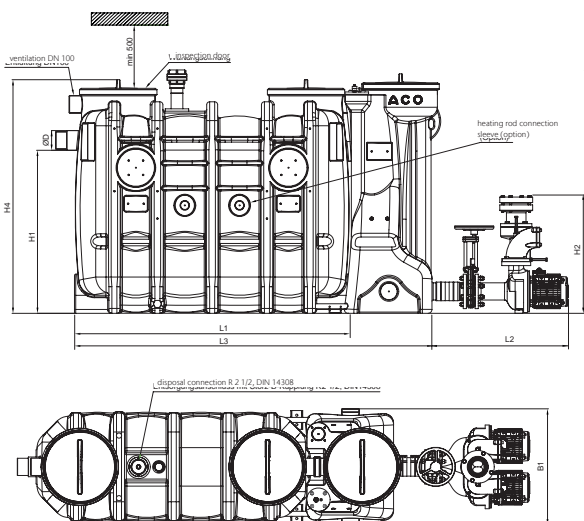
**LipuSmart-P-OB**

NS Basic version

**Article no.**

<b>2</b>	3552.36.00
<b>3</b>	3553.36.00
<b>4</b>	3554.36.00
<b>5.5</b>	3555.36.00
<b>7</b>	3557.36.00
<b>8.5</b>	3558.36.00
<b>10</b>	3560.36.00

**LipuSmart-P-OD (Extension stage 1)**



**LipuSmart-P-OD**

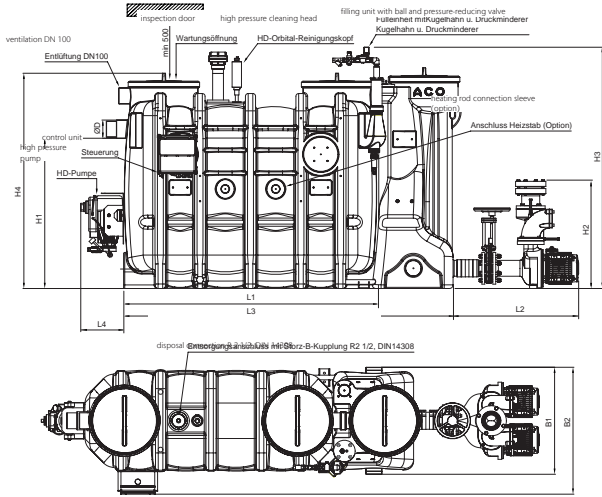
NS Extension stage 1

**Article no.**

<b>2</b>	3552.66.00
<b>3</b>	3553.66.00
<b>4</b>	3554.66.00
<b>5.5</b>	3555.66.00
<b>7</b>	3557.66.00
<b>8.5</b>	3558.66.00
<b>10</b>	3560.66.00

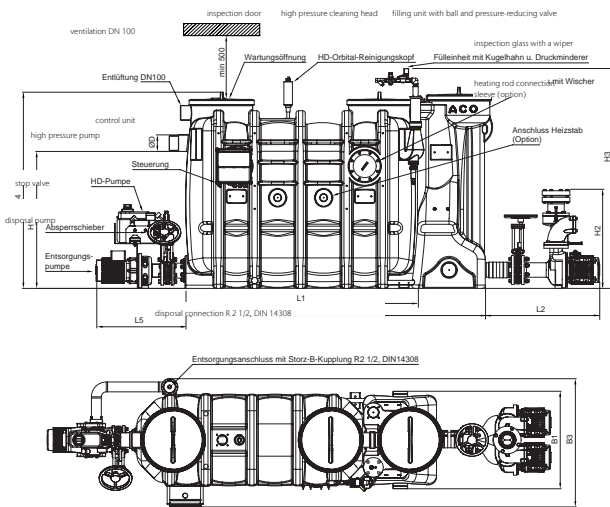


**LipuSmart-P-OA (Extension stage 3)**



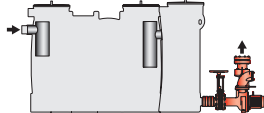
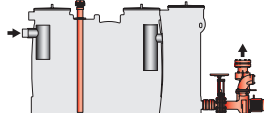
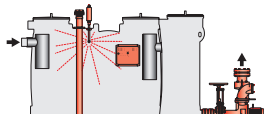
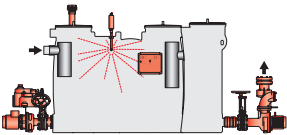
<b>LipuSmart-P-OA</b> Extension stage 3		
NS	Operating side left	Operating side right
	Article no.	
2	3552.76.32	3552.76.42
3	3553.76.32	3553.76.42
4	3554.76.32	3554.76.42
5.5	3555.76.32	3555.76.42
7	3557.76.32	3557.76.42
8.5	3558.76.32	3558.76.42
10	3560.76.32	3560.76.42

**LipuSmart-P-OAP (Extension stage 3 with disposal pump)**



<b>LipuSmart-P-OAP</b> Extension stage 3 with disposal pump		
NS	Operating side left	Operating side right
	Article no.	
2	3552.86.32	3552.86.42
3	3553.86.32	3553.86.42
4	3554.86.32	3554.86.42
5.5	3555.86.32	3555.86.42
7	3557.86.32	3557.86.42
8.5	3558.86.32	3558.86.42
10	3560.86.32	3560.86.42

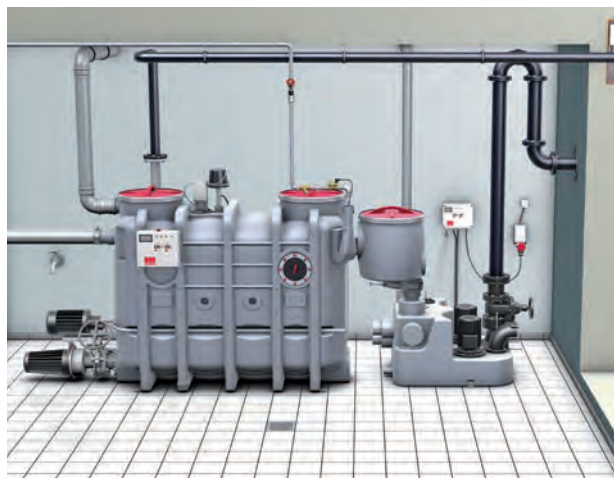
LipuSmart extension stage system

Model	Disposal		Description
	No annoying odours	Convenience	
<b>LipuSmart-P-OB</b> (Basic version) 	✓	–	<ul style="list-style-type: none"> <li>■ Disposal and cleaning by opening the covers (associated with the formation of noxious smells)</li> </ul>
<b>LipuSmart-P-OD</b> (Extension stage 1) 	✓	–	<ul style="list-style-type: none"> <li>■ Manual, odour-free disposal via direct suction</li> <li>■ Odour-free disposal via a connector to direct suction</li> <li>■ After-cleaning by opening the covers (associated with the slight formation of noxious smells)</li> <li>■ Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> </ul>
<b>LipuSmart-P-OA</b> (Extension stage 3) 	✓	automatic	<ul style="list-style-type: none"> <li>■ Program-controlled, odour-free disposal/cleaning via direct suction and hydro-mechanical high-pressure inner cleaning</li> <li>■ Disposal connection DN 65, mating flange with Storz coupling 75B and blind connector 2½"</li> <li>■ Filling device with solenoid valve for refilling with fresh water</li> <li>■ Hydro-mechanical inner cleaning via a high-pressure pump and spray head</li> <li>■ Bluetooth interface</li> </ul>
<b>LipuSmart-P-OAP</b> (Extension stage 3 with disposal pump) 	✓	automatic	<ul style="list-style-type: none"> <li>■ Identical to LipuSmart-P-OA, however also with the disposal pump with a vortex impeller (necessary when the total delivery head exceeds 6 metres)</li> </ul>

## ACO LipuJet-P – oval grease separators made of polyethylene for free-standing installation

### Product advantages

- Rugged construction with 25-year stability verification
- Disposal and maintenance cost minimisation thanks to staggered nominal sizes (e.g. NS 5.5 and 8.5)
- Extension stages 2 and 3 with multi-functional filling unit for high pressure internal cleaning and container filling



### Product informationen

- Grease separator plant according to EN 1825
- With integrated sludge trap
- For free-standing installation in frost-proof premises
- Inlets and outlets for connections to plastic pipes

### Table of dimensions

NS	DN	Separator content			Dimensions								Extension dimensions					
		Grease Sludge trap	storage volume	Total	H1	H2	H3	H4	L1	L2	B1	B2	D	H5	L3	B3	L4	B4
		[l]	[l]	[l]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
<b>1</b>	100	106	100	320	830	760	1480	1300	1100	1300	700	770	110	1500	1400	800	1800	930
<b>2</b>	100	210	100	440	1055	985	1680	1500	1100	1300	700	770	110	1700	1400	800	1800	930
<b>3</b>	100	300	150	630	1055	985	1680	1500	1450	1650	700	770	110	1700	1750	800	2150	930
<b>4</b>	100	400	200	830	1055	985	1680	1500	1760	2000	700	770	110	1700	2060	800	2460	930
<b>5.5</b>	150	725	360	1430	1250	1180	1880	1700	1760	2000	950	950	160	1900	2060	1050	2460	1180
<b>7</b>	150	800	400	1600	1250	1180	1880	1700	1960	2200	950	950	160	1900	2260	1050	2660	1180
<b>8.5</b>	150	940	475	1900	1250	1180	1880	1700	2250	2485	950	950	160	1900	2550	1050	2950	1180
<b>10</b>	150	1000	520	2000	1250	1180	1880	1700	2450	2690	950	950	160	1900	2750	1050	3150	1180

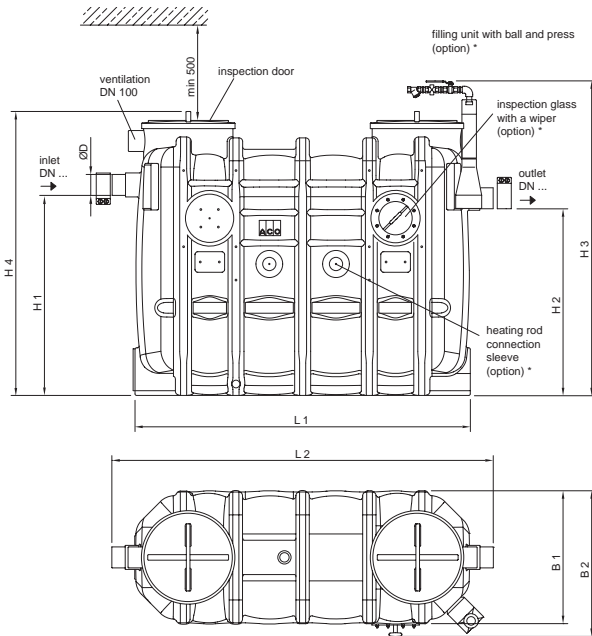
[www.aco-haustechnik.de/catalogue/Article no.](http://www.aco-haustechnik.de/catalogue/Article no.)

All digital contents (data sheets (PDF)), dimensional drawings (DXF, IGS) and article descriptions (Datanorm, GAEB, TXT) relating to the grease separators and additional components represented here can be retrieved from the website stated above using the respective article number.

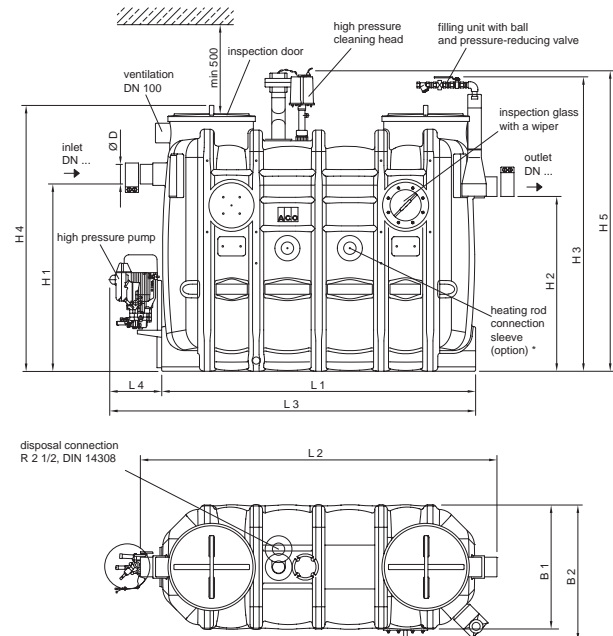


Dimensional drawings

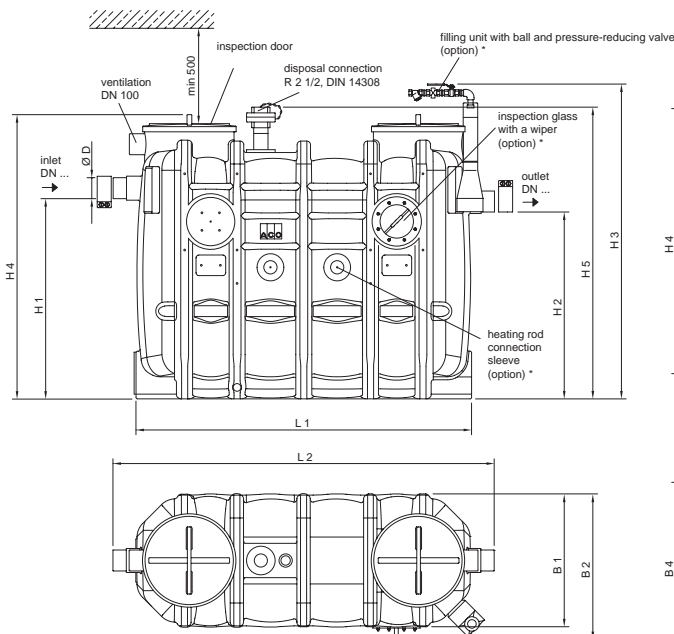
**Lipujet-P-OB (Basic model)**



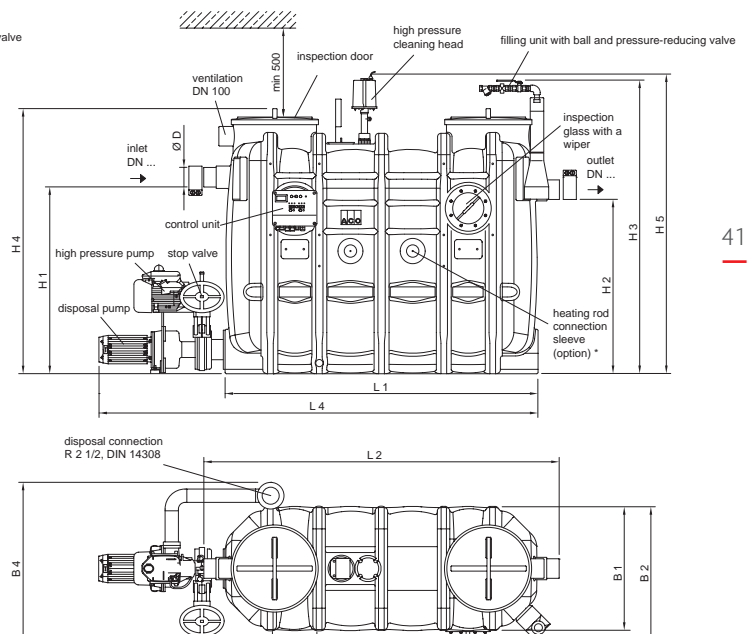
**Lipujet-P-OM (Extension stage 2)**



**Lipujet-P-OD (Extension stage 1)**

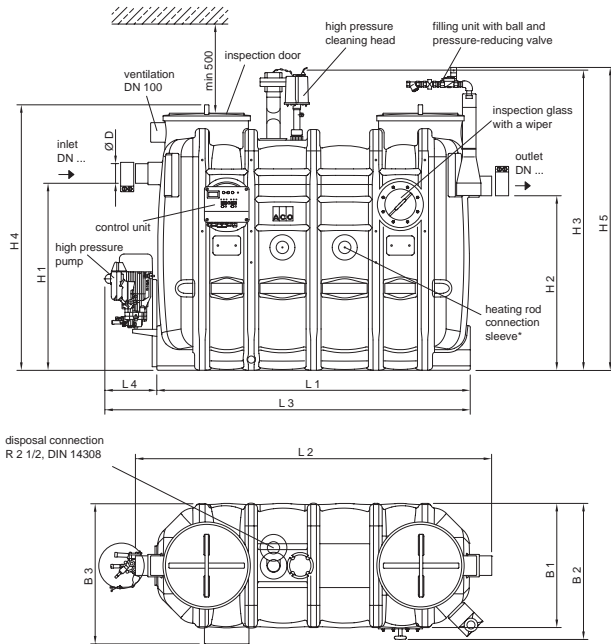


**Lipujet-P-OMP (Extension stage 2 with disposal pump)**

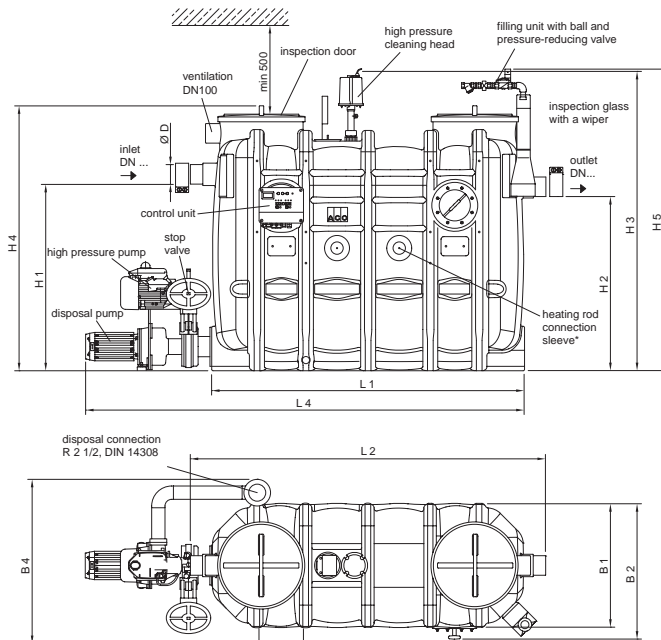


Dimensional drawings

**Lipujet-P-OA (Extension stage 3)**



**Lipujet-P-OAP (Extension stage 3 with disposal pump)**



NS	Lipujet-P-OB	Lipujet-P-OB
	Basic model	Basic model
Article no.		
1	3551.34.00	3551.64.00
2	3552.34.00	3552.64.00
3	3553.34.00	3553.64.00
4	3554.34.00	3554.64.00
5.5	3555.34.00	3555.64.00
7	3557.34.00	3557.64.00
8.5	3558.34.00	3558.64.00
10	3560.34.00	3560.64.00


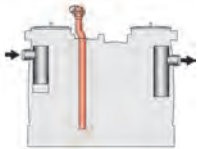
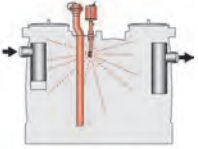
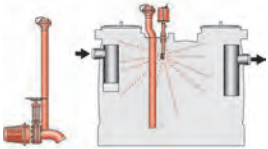
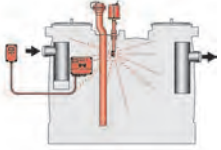
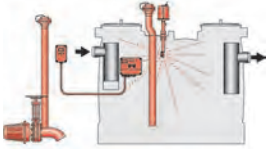


NS	Lipujet-P-OM		Lipujet-P-OMP	
	Extension stage 2		Extension stage 2 with disposal pump	
	Operating side left	Operating side right	Operating side left	Operating side right
Article no.				
1	3571.74.41	3571.74.31	3571.84.41	3571.84.31
2	3572.74.41	3572.74.31	3572.84.41	3572.84.31
3	3573.74.41	3573.74.31	3573.84.41	3573.84.31
4	3574.74.41	3574.74.31	3574.84.41	3574.84.31
5.5	3575.74.41	3575.74.31	3575.84.41	3575.84.31
7	3577.74.41	3577.74.31	3577.84.41	3577.84.31
8.5	3578.74.41	3578.74.31	3578.84.41	3578.84.31
10	3580.74.41	3580.74.31	3580.84.41	3580.84.31



NS	Lipujet-P-OA		Lipujet-P-OAP	
	Extension stage 3		Extension stage 3 with disposal pump	
	Operating side left	Operating side right	Operating side left	Operating side right
Article no.				
1	3551.74.42	3551.74.32	3551.84.42	3551.84.32
2	3552.74.42	3552.74.32	3552.84.42	3552.84.32
3	3553.74.42	3553.74.32	3553.84.42	3553.84.32
4	3554.74.42	3554.74.32	3554.84.42	3554.84.32
5.5	3555.74.42	3555.74.32	3555.84.42	3555.84.32
7	3557.74.42	3557.74.32	3557.84.42	3557.84.32
8.5	3558.74.42	3558.74.32	3558.84.42	3558.84.32
10	3560.74.42	3560.74.32	3560.84.42	3560.84.32

## LipuJet-P extension stage system

Model	Disposal		Description
	No annoying odours	Convenience	
<b>LipuJet-P-OB</b> (basic model) 	–	–	<ul style="list-style-type: none"> <li>Disposal and cleaning by opening the covers (associated with the formation of noxious smells)</li> </ul>
<b>LipuJet-P-OD</b> (extension stage 1) 	✓	–	<ul style="list-style-type: none"> <li>Odour-free disposal via a connector to direct suction</li> <li>After-cleaning by opening the covers (associated with the slight formation of noxious smells)</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> </ul>
<b>LipuJet-P-OM</b> (extension stage 2) 	✓	manual	<ul style="list-style-type: none"> <li>Odour-free disposal via direct suction and automated inner cleaning due to high pressure spray head</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> <li>Filling device with ball valve for re-filling with fresh water</li> <li>Hydro-mechanic inner cleaning via high-pressure pump and spray head</li> </ul>
<b>LipuJet-P-OMP</b> (extension stage 2 with disposal pump) 	✓	manual	<ul style="list-style-type: none"> <li>Identical to LipuJet-P-OM, but with additional disposal pump with free flow impeller (required for a total delivery head of over 6 metres)</li> <li>Automated disposal and inner cleaning</li> </ul>
<b>LipuJet-P-OA</b> (extension stage 3) 	✓	automatic	<ul style="list-style-type: none"> <li>Programmed, odour-free disposal/cleaning via direct suction and hydro-mechanic high-pressure inner cleaning</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> <li>Filling device with solenoid valve for re-filling with fresh water</li> <li>Hydro-mechanic inner cleaning via high-pressure pump and spray head</li> </ul>
<b>LipuJet-P-OAP</b> (extension stage 3 with disposal pump) 	✓	automatic	<ul style="list-style-type: none"> <li>Identical to LipuJet-P-OA, but with additional disposal pump with free flow impeller (required for a total delivery head of over 6 metres)</li> </ul>

Supplementary components: page 70 ff.



## ACO LipuJet-P – round grease separators made of polyethylene for free-standing installation

### Product advantages

- NS 2 – 20 transport-friendly and easy installation because can be dismantled into separate components
- Optimal and easy cleaning thanks to round shape
- Project-specific special solutions realisable with parallel modular extensions  
Project-specific special solutions realisable with parallel modular extensions



### Product informationen

- Grease separator plant according to EN 1825
- With integrated sludge trap
- For free-standing installation in frost-proof premises
- Inlets and outlets for connections to plastic pipes

### Table of dimensions

NS	DN	Separator content			Dimensions								Extension dimensions				
		Grease Sludge trap	storage volume	Total	H1	H2	H3	H4	L1	L2	L3	Z/n*	D	H5	L4	L5	D1
		[l]	[l]	[l]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]
2	100	290	120	680	975	905	1320	1370	1255	60	150	795/2	110	1520	260	260	1020
4	100	500	160	890	1240	1170	1580	1630	1255	60	150	820/2	110	1780	260	260	1020
7	150	830	400	2120	1430	1330	1880	1930	1820	60	150	785/3	160	2080	260	260	1660
10	150	1150	400	2450	1600	1500	2050	2100	1820	60	150	785/3	160	2250	260	260	1660
15	200	1950	800	3610	1765	1665	2200	2250	2130	60	150	880/3	200	2400	260	260	1915
20	200	2440	800	4070	1955	1855	2400	2400	2130	60	150	880/3	200	2600	260	260	1915

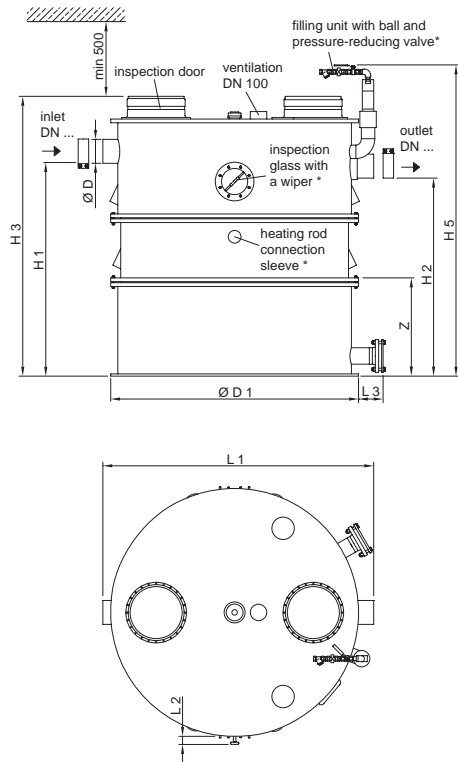
\*n = number of segments

[www.aco-haustechnik.de/catalogue/Article no.](http://www.aco-haustechnik.de/catalogue/Article no.)

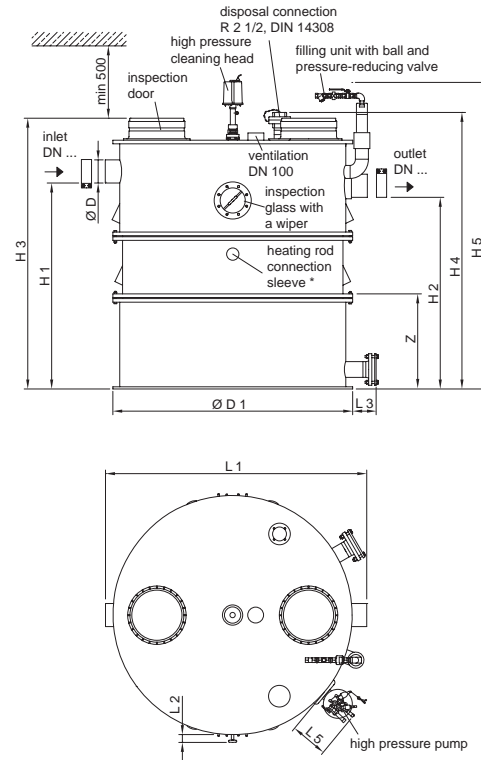
All digital contents (data sheets (PDF)), dimensional drawings (DXF, IGS) and article descriptions (Datanorm, GAEB, TXT) relating to the grease separators and additional components represented here can be retrieved from the website stated above using the respective article number.

Dimensional drawings

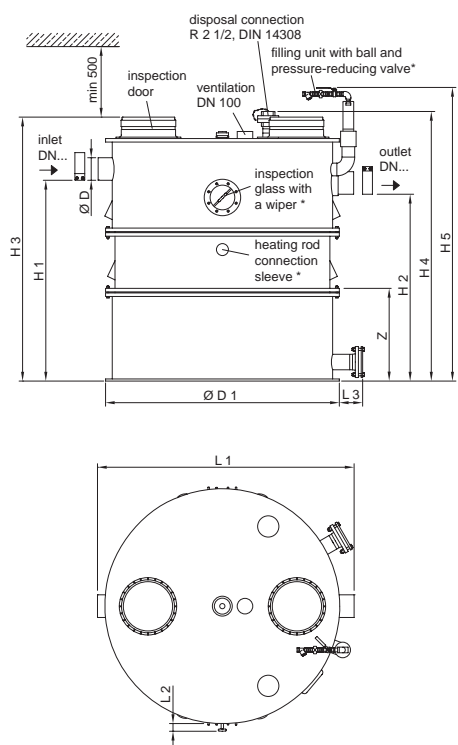
**Lipujet-P-RB (Basic model)**



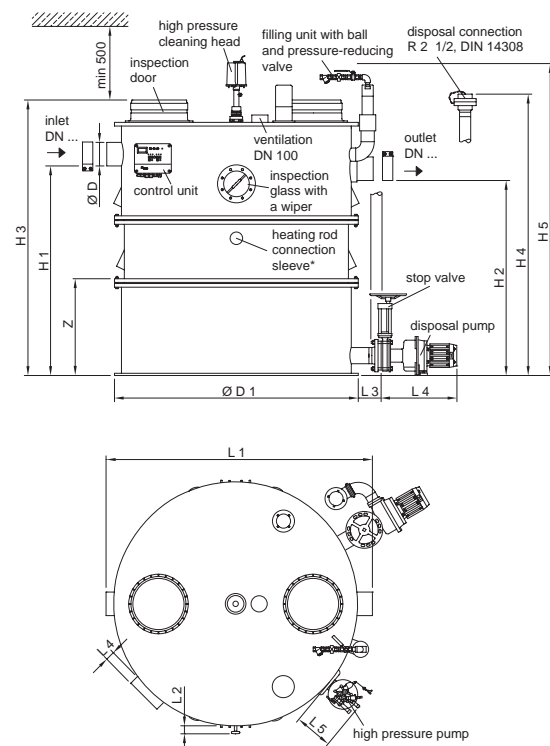
**Lipujet-P-RM (Extension stage 2)**



**Lipujet-P-RD (Extension stage 1)**

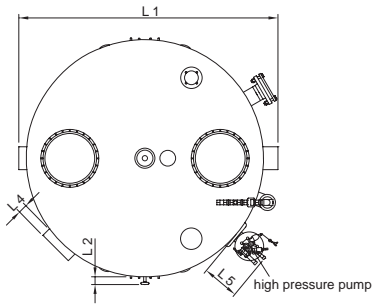
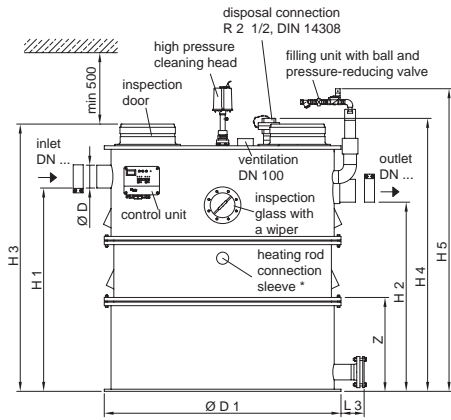


**Lipujet-P-RMP (Extension stage 2 with disposal pump)**



Dimensional drawings

**LipuJet-P-RA (Extension stage 3)**

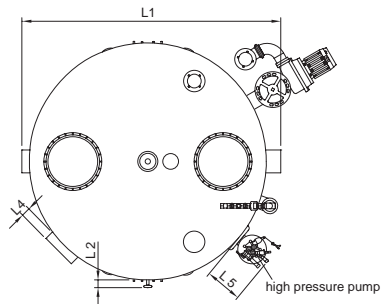
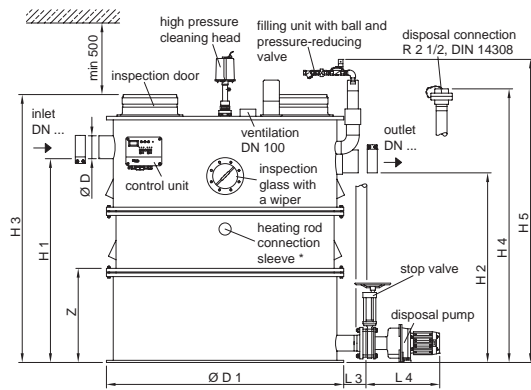


NS	LipuJet-P-RB	LipuJet-P-RD
	Basic model	Extension stage 1
Article no.		
2	3502.32.30	3502.62.30
4	3504.32.30	3504.62.30
7	3507.32.30	3507.62.30
10	3510.32.30	3510.62.30
15	3515.32.30	3515.62.30
20	3520.32.30	3520.62.30



NS	LipuJet-P-RM		LipuJet-P-RMP	
	Extension stage 2		Extension stage 2 with disposal pump	
	Operating side left	Operating side right	Operating side left	Operating side right
Article no.				
2	3502.73.41	3502.73.31	3502.73.81	3502.73.71
4	3504.73.41	3504.73.31	3504.73.81	3504.73.71
7	3507.73.41	3507.73.31	3507.73.81	3507.73.71
10	3510.73.41	3510.73.31	3510.73.81	3510.73.71
15	3515.73.41	3515.73.31	3515.73.81	3515.73.71
20	3520.73.41	3520.73.31	3520.73.81	3520.73.71

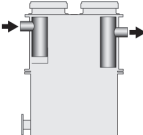
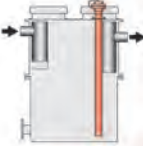
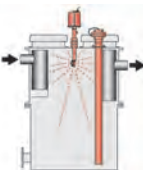
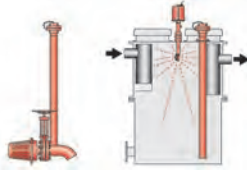
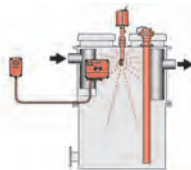
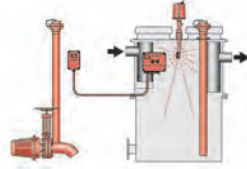
**LipuJet-P-RAP (Extension stage 3 with disposal pump)**



NS	LipuJet-P-RA		LipuJet-P-RAP	
	Extension stage 3		Extension stage 3 with disposal pump	
	Operating side left	Operating side right	Operating side left	Operating side right
Article no.				
2	3502.73.42	3502.73.32	3502.73.82	3502.73.72
4	3504.73.42	3504.73.32	3504.73.82	3504.73.72
7	3507.73.42	3507.73.32	3507.73.82	3507.73.72
10	3510.73.42	3510.73.32	3510.73.82	3510.73.72
15	3515.73.42	3515.73.32	3515.73.82	3515.73.72
20	3520.73.42	3520.73.32	3520.73.82	3520.73.72



## LipuJet-P extension stage system

Model	Disposal		Description
	No annoying odours	Convenience	
<b>LipuJet-P-RB</b> (basic model)  	–	–	<ul style="list-style-type: none"> <li>Disposal and cleaning by opening the covers (associated with the formation of noxious smells)</li> </ul>
<b>LipuJet-P-RD</b> (extension stage 1)  	✓	–	<ul style="list-style-type: none"> <li>Odour-free disposal via a connector to direct suction</li> <li>After-cleaning by opening the covers (associated with the slight formation of noxious smells)</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> </ul>
<b>LipuJet-P-RM</b> (extension stage 2)  	✓	manual	<ul style="list-style-type: none"> <li>Odour-free disposal via direct suction and automated inner cleaning due to high pressure spray head</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> <li>Filling device with ball valve for re-filling with fresh water</li> <li>Hydro-mechanic inner cleaning via high-pressure pump and spray head</li> </ul>
<b>LipuJet-P-RMP</b> (extension stage 2 with disposal pump)  	✓	manual	<ul style="list-style-type: none"> <li>Identical to LipuJet-P-RM, but with additional disposal pump with free flow impeller (required for a total delivery head of over 6 metres)</li> <li>Automated disposal and inner cleaning</li> </ul>
<b>LipuJet-P-RA</b> (extension stage 3)  	✓	automatic	<ul style="list-style-type: none"> <li>Programmed, odour-free disposal/cleaning via direct suction and hydro-mechanic high-pressure inner cleaning</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> <li>Filling device with solenoid valve for re-filling with fresh water</li> <li>Hydro-mechanic inner cleaning via high-pressure pump and spray head</li> </ul>
<b>LipuJet-P-RAP</b> (extension stage 3 with disposal pump)  	✓	automatic	<ul style="list-style-type: none"> <li>Identical to LipuJet-P-RA, but with additional disposal pump with free flow impeller (required for a total delivery head of over 6 metres)</li> </ul>

## ACO LipuJet-S – oval grease separators made of stainless steel for free-standing installation

### Product advantages

- Rugged construction with 25-year stability verification.
- Disposal and maintenance cost minimisation thanks to staggered nominal sizes (e.g. NS 5.5 and 8.5)
- Extension stages 2 and 3 with multi functional filling unit for high pressure internal cleaning and container filling



### Product informationen

- Grease separator plant according to EN 1825
- For free-standing installation in frost-proof premises
- With integrated sludge trap
- Inlets and outlets for connections to plastic pipes

### Table of dimensions

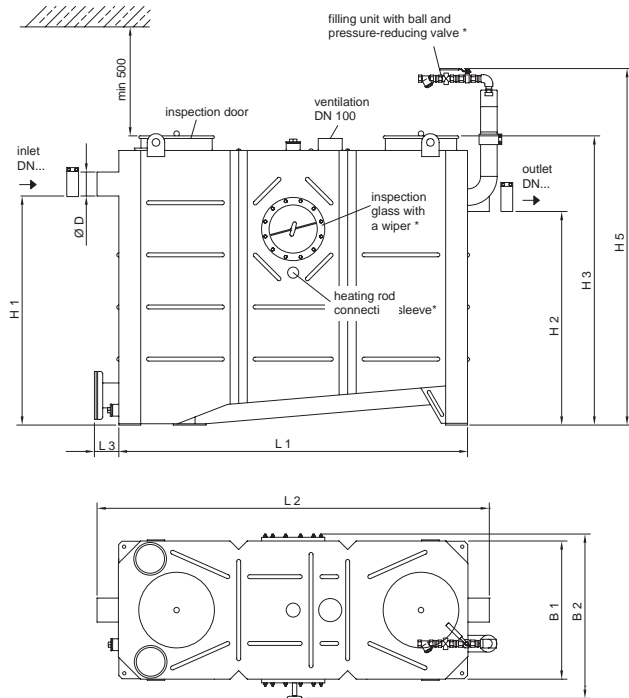
NS	DN	Separator content			Dimensions								Extension dimensions					
		Grease Sludge trap	storage volume	Total	H1	H2	H3	H4	L1	L2	B1	B2	D	H5	L3	B3	L4	B4
		[l]	[l]	[l]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
<b>1</b>	100	100	100	320	830	760	1200	1380	905	1100	635	760	110	1550	1320	370	1850	800
<b>2</b>	100	200	100	440	1055	985	1320	1500	905	1100	635	760	110	1700	1320	370	1850	800
<b>3</b>	100	300	150	630	1055	985	1320	1500	1255	1450	635	760	110	1700	1670	370	2200	800
<b>4</b>	100	400	200	830	1055	985	1320	1500	1605	1800	635	760	110	1700	2020	370	2550	800
<b>5.5</b>	150	550	360	1430	1255	1185	1570	1750	1655	1920	885	1010	160	1950	2070	550	2600	1000
<b>7</b>	150	700	400	1600	1255	1185	1570	1750	1855	2120	885	1010	160	1950	2270	550	2800	1000
<b>8.5</b>	150	850	475	1900	1255	1185	1570	1750	2155	2420	885	1010	160	1950	2570	550	3100	1000
<b>10</b>	150	1000	520	2000	1255	1185	1570	1750	2345	2610	885	1010	160	1950	2760	550	3300	1000

[www.aco-haustechnik.de/catalogue/Article no.](http://www.aco-haustechnik.de/catalogue/Article no.)

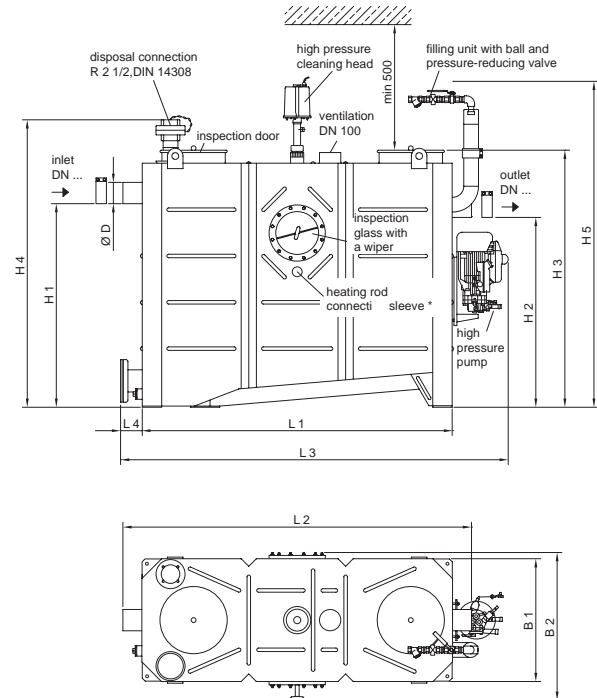
All digital contents (data sheets (PDF)), dimensional drawings (DXF, IGS) and article descriptions (Datanorm, GAEB, TXT) relating to the grease separators and additional components represented here can be retrieved from the website stated above using the respective article number.

Dimensional drawings

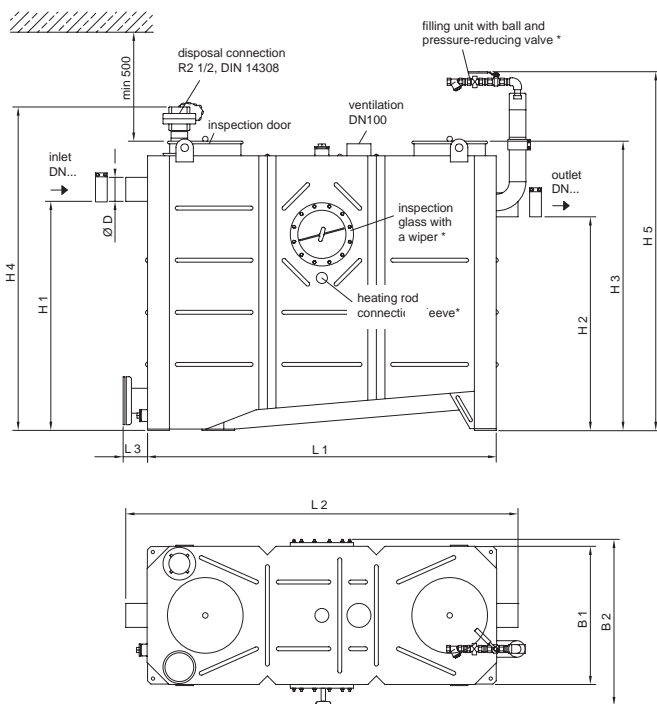
**Lipujet-S-OB (Basic model)**



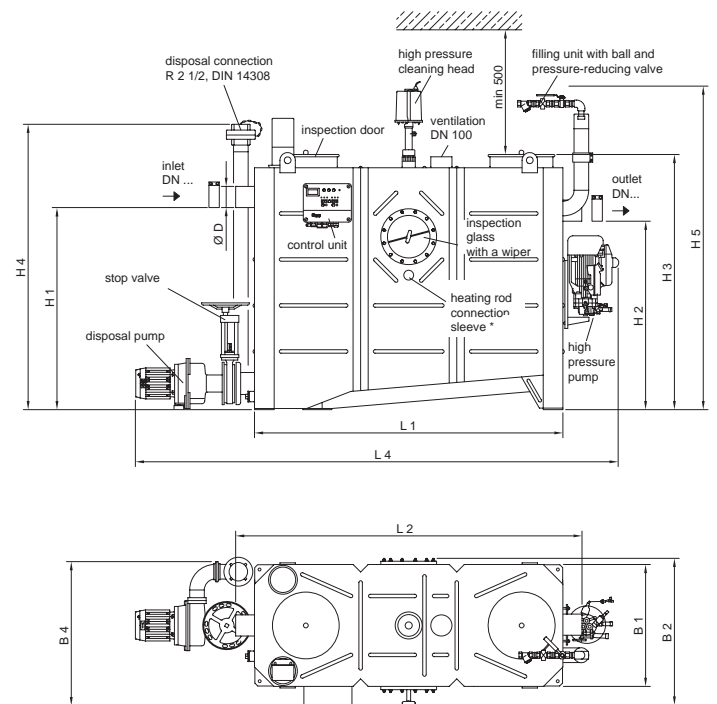
**Lipujet-S-OM (Extension stage 2)**



**Lipujet-S-OD (Extension stage 1)**



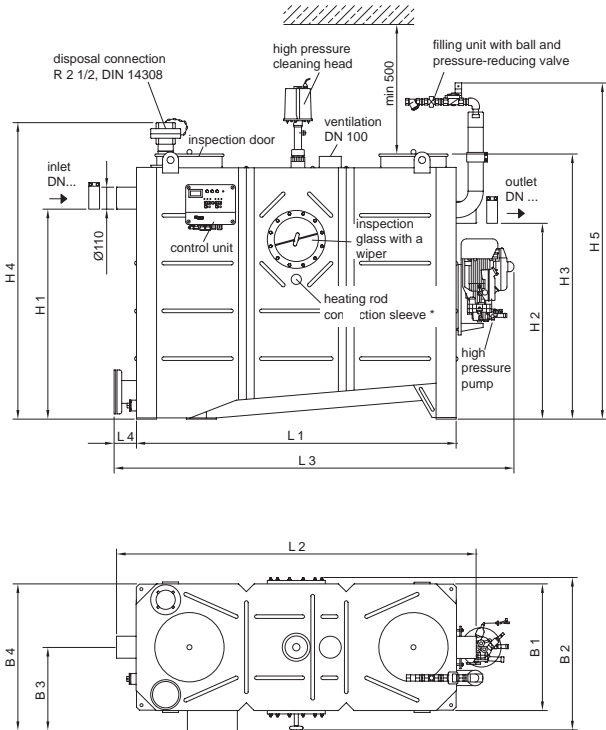
**Lipujet-S-OMP (Extension stage 2 with disposal pump)**



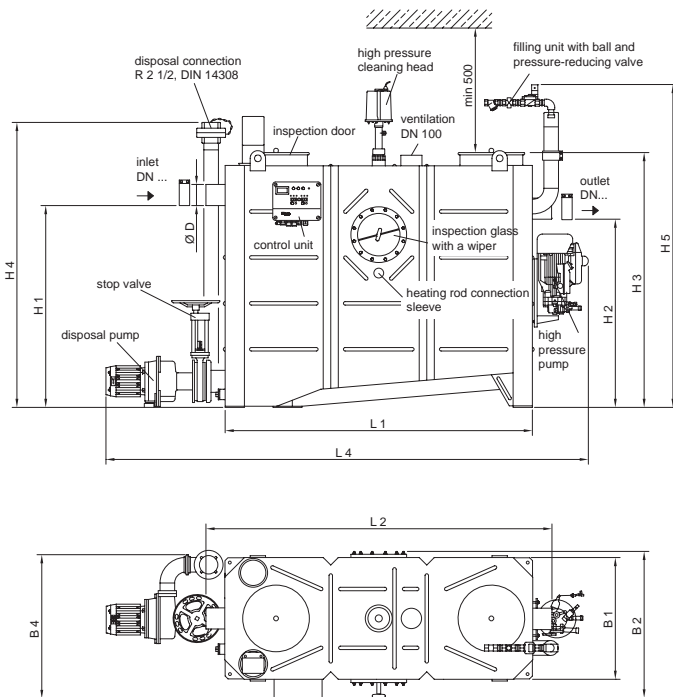


Dimensional drawings

**Lipujet-S-OA (Extension stage 3)**



**Lipujet-S-OAP (Extension stage 3 with disposal pump)**



NS	Lipujet-S-OB	Lipujet-S-OD
	Basic model	Extension stage 1
<b>Article no.</b>		
<b>1</b>	7551.34.00	7551.64.00
<b>2</b>	7552.34.00	7552.64.00
<b>3</b>	7553.34.00	7553.64.00
<b>4</b>	7554.34.00	7554.64.00
<b>5.5</b>	7555.34.00	7555.64.00
<b>7</b>	7557.34.00	7557.64.00
<b>8.5</b>	7558.34.00	7558.64.00
<b>10</b>	7560.34.00	7560.64.00

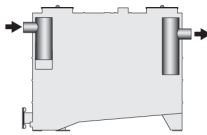
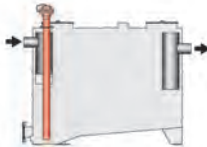
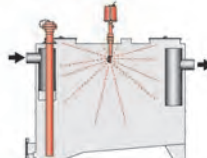
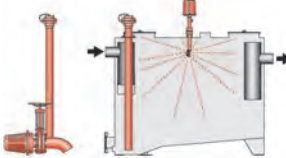
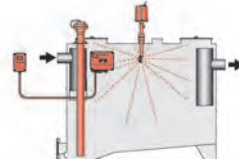
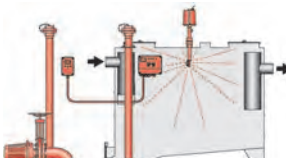


NS	Lipujet-S-OM		Lipujet-S-OMP	
	Extension stage 2		Extension stage 2 with disposal pump	
	Operating side left	Operating side right	Operating side left	Operating side right
<b>Article no.</b>				
<b>1</b>	7571.74.41	7571.74.31	7571.84.41	7571.84.31
<b>2</b>	7572.74.41	7572.74.31	7572.84.41	7572.84.31
<b>3</b>	7573.74.41	7573.74.31	7573.84.41	7573.84.31
<b>4</b>	7574.74.41	7574.74.31	7574.84.41	7574.84.31
<b>5.5</b>	7575.74.41	7575.74.31	7575.84.41	7575.84.31
<b>7</b>	7577.74.41	7577.74.31	7577.84.41	7577.84.31
<b>8.5</b>	7578.74.41	7578.74.31	7578.84.41	7578.84.31
<b>10</b>	7580.74.41	7580.74.31	7580.84.41	7580.84.31



NS	Lipujet-S-OA		Lipujet-S-OAP	
	Extension stage 3		Extension stage 3 with disposal pump	
	Operating side left	Operating side right	Operating side left	Operating side right
<b>Article no.</b>				
<b>1</b>	7571.74.42	7571.74.32	7571.84.42	7571.84.32
<b>2</b>	7572.74.42	7572.74.32	7572.84.42	7572.84.32
<b>3</b>	7573.74.42	7573.74.32	7573.84.42	7573.84.32
<b>4</b>	7574.74.42	7574.74.32	7574.84.42	7574.84.32
<b>5.5</b>	7575.74.42	7575.74.32	7575.84.42	7575.84.32
<b>7</b>	7577.74.42	7577.74.32	7577.84.42	7577.84.32
<b>8.5</b>	7578.74.42	7578.74.32	7578.84.42	7578.84.32
<b>10</b>	7580.74.42	7580.74.32	7580.84.42	7580.84.32

## LipuJet-S extension stage system

Model	Disposal		Description
	No annoying odours	Convenience	
<b>LipuJet-S-OB</b> (basic model) 	–	–	<ul style="list-style-type: none"> <li>Disposal and cleaning by opening the covers (associated with the formation of noxious smells)</li> </ul>
<b>LipuJet-S-OD</b> (extension stage 1) 	✓	–	<ul style="list-style-type: none"> <li>Odour-free disposal via a connector to direct suction</li> <li>After-cleaning by opening the covers (associated with the slight formation of noxious smells)</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> </ul>
<b>LipuJet-S-OM</b> (extension stage 2) 	✓	manual	<ul style="list-style-type: none"> <li>Odour-free disposal via direct suction and automated inner cleaning due to high pressure spray head</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> <li>Filling device with ball valve for re-filling with fresh water</li> <li>Hydro-mechanic inner cleaning via high-pressure pump and spray head</li> </ul>
<b>LipuJet-S-OMP</b> (extension stage 2 with disposal pump) 	✓	manual	<ul style="list-style-type: none"> <li>Identical to LipuJet-S-OM, but with additional disposal pump with free flow impeller (required for a total delivery head of over 6 metres)</li> <li>Automated disposal and inner cleaning</li> </ul>
<b>LipuJet-S-OA</b> (extension stage 3) 	✓	automatic	<ul style="list-style-type: none"> <li>Programmed, odour-free disposal/cleaning via direct suction and hydro-mechanic high-pressure inner cleaning</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> <li>Filling device with solenoid valve for re-filling with fresh water</li> <li>Hydro-mechanic inner cleaning via high-pressure pump and spray head</li> </ul>
<b>LipuJet-S-OAP</b> (extension stage 3 with disposal pump) 	✓	automatic	<ul style="list-style-type: none"> <li>Identical to LipuJet-S-OA, but with additional disposal pump with free flow impeller (required for a total delivery head of over 6 metres)</li> </ul>

## ACO LipuJet-S – round grease separators made of stainless steel for free-standing installation

### Product advantages

- NS 2 – 20 transport-friendly and easy installation because can be dismantled into separate components
- Optimal and easy cleaning thanks to round shape
- Project-specific special solutions realisable with parallel modular extensions



### Product informationen

- Grease separator plant according to EN 1825
- With integrated sludge trap
- For free-standing installation in frost-proof premises
- Inlets and outlets for connections to plastic pipes

### Table of dimensions

NS	DN	Separator content			Dimensions								Extension dimensions				
		Grease Sludge trap	storage volume	Total	H1	H2	H3	H4	L1	L2	L3	Z/n*	D	H5	L4	L5	D1
		[l]	[l]	[l]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
2	100	210	120	715	975	905	1200	1400	1180	120	785/2	110	1520	250	110	1000	1020
4	100	420	165	915	1240	1170	1450	1650	1180	120	785/2	110	1770	250	110	1000	1020
7	150	705	400	1950	1430	1330	1780	1930	1800	120	790/3	160	2100	250	110	1500	1660
10	150	1000	400	2250	1600	1500	1950	2100	1800	120	790/3	160	2270	250	110	1500	1660
15	200	1630	800	3350	1755	1685	2120	2250	2050	120	820/3	210	2440	250	110	1750	1915
20	200	2110	800	3820	1935	1885	2320	2450	2050	120	820/3	210	2640	250	110	1750	1915

\*n = number of segments

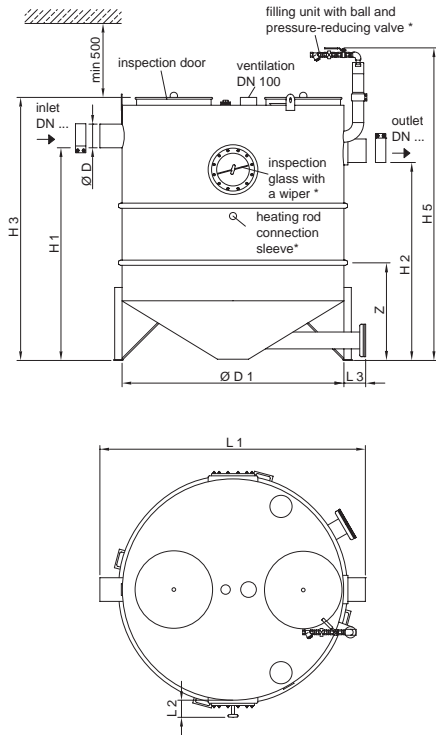
[www.aco-haustechnik.de/catalogue/Article no.](http://www.aco-haustechnik.de/catalogue/Article no.)

All digital contents (data sheets (PDF)), dimensional drawings (DXF, IGS) and article descriptions (Datanorm, GAEB, TXT) relating to the grease separators and additional components represented here can be retrieved from the website stated above using the respective article number.

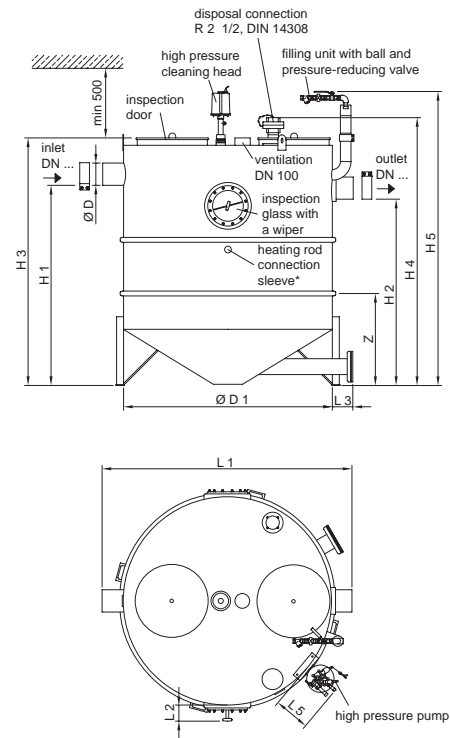


Dimensional drawings

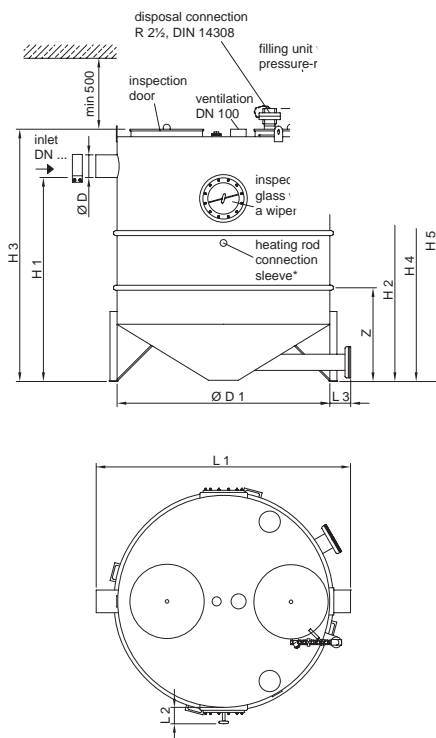
**Lipujet-S-RB (Basic model)**



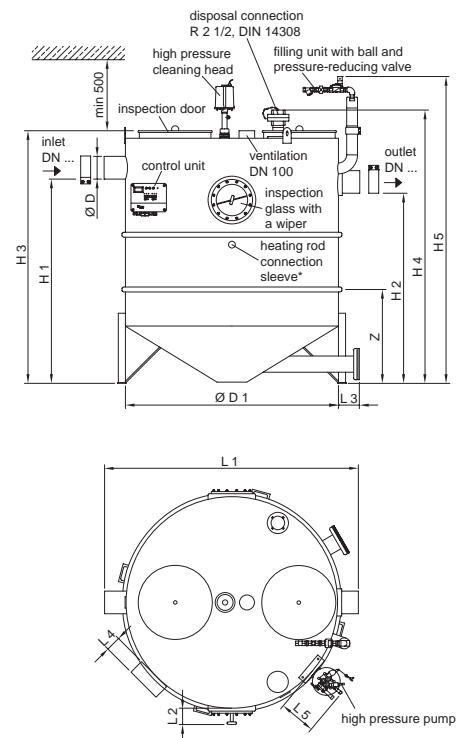
**Lipujet-S-RM (Extension stage 2)**



**Lipujet-S-RD (Extension stage 1)**

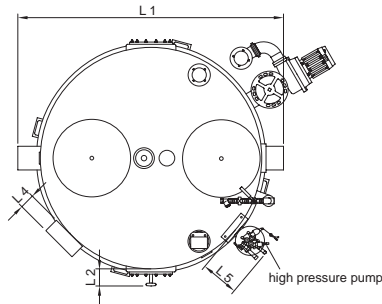
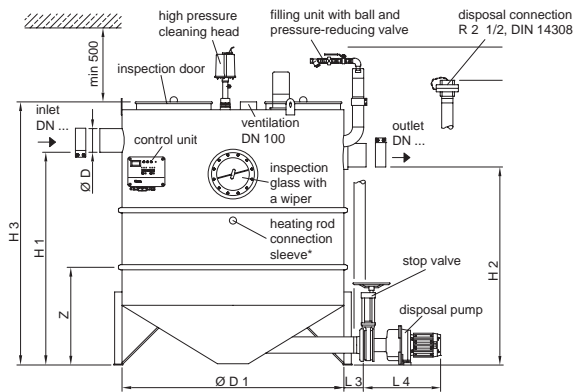


**Lipujet-S-RA (Extension stage 3)**



Dimensional drawings

**Lipujet-S-RMP (Extension stage 2 with disposal pump)**



NS	Lipujet-S-RB	Lipujet-S-RD
	Basic model	Extension stage 1
<b>Article no.</b>		
<b>2</b>	7502.32.00	7502.62.00
<b>4</b>	7504.32.00	7504.62.00
<b>7</b>	7507.32.00	7507.62.00
<b>10</b>	7510.32.00	7510.62.00
<b>15</b>	7515.32.00	7515.62.00
<b>20</b>	7520.32.00	7520.62.00

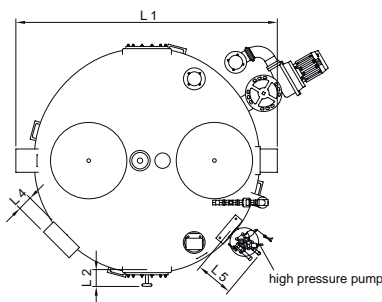
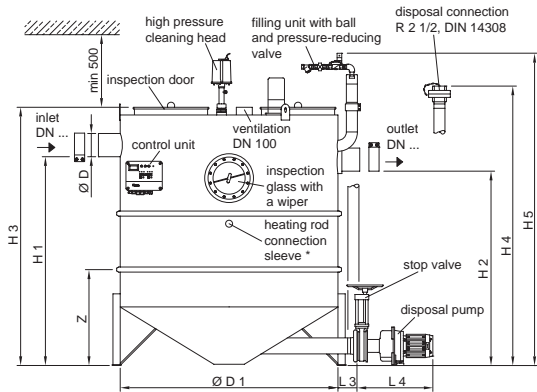


NS	Lipujet-S-RM		Lipujet-S-RMP	
	Extension stage 2		Extension stage 2 with disposal pump	
	Operating side left	Operating side right	Operating side left	Operating side right
<b>Article no.</b>				
<b>2</b>	7502.73.41	7502.73.31	7502.73.61	7502.73.51
<b>4</b>	7504.73.41	7504.73.31	7504.73.61	7504.73.51
<b>7</b>	7507.73.41	7507.73.31	7507.73.61	7507.73.51
<b>10</b>	7510.73.41	7510.73.31	7510.73.61	7510.73.51
<b>15</b>	7515.73.41	7515.73.31	7515.73.61	7515.73.51
<b>20</b>	7520.73.41	7520.73.31	7520.73.61	7520.73.51

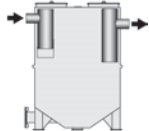

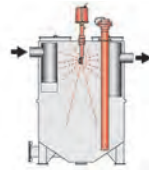
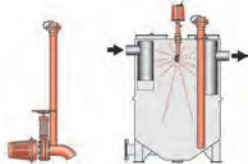
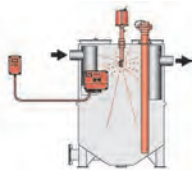
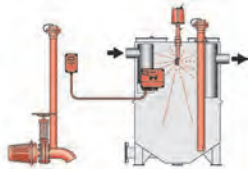


NS	Lipujet-S-RA		Lipujet-S-RAP	
	Extension stage 3		Extension stage 3 with disposal pump	
	Operating side left	Operating side right	Operating side left	Operating side right
<b>Article no.</b>				
<b>2</b>	7502.73.42	7502.73.32	7502.73.62	7502.73.52
<b>4</b>	7504.73.42	7504.73.32	7504.73.62	7504.73.52
<b>7</b>	7507.73.42	7507.73.32	7507.73.62	7507.73.52
<b>10</b>	7510.73.42	7510.73.32	7510.73.62	7510.73.52
<b>15</b>	7515.73.42	7515.73.32	7515.73.62	7515.73.52
<b>20</b>	7520.73.42	7520.73.32	7520.73.62	7520.73.52

**Lipujet-S-RAP (Extension stage 3 with disposal pump)**



## LipuJet-S extension stage system

Model	Disposal		Description
	No annoying odours	Convenience	
<b>LipuJet-S-RB</b> (Basic model) 	–	–	<ul style="list-style-type: none"> <li>Disposal and cleaning by opening the covers (associated with the formation of noxious smells)</li> </ul>
<b>LipuJet-S-RD</b> (Extension stage 1) 	✓	–	<ul style="list-style-type: none"> <li>Odour-free disposal via a connector to direct suction</li> <li>After-cleaning by opening the covers (associated with the slight formation of noxious smells)</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> </ul>
<b>LipuJet-S-RM</b> (Extension stage 2) 	✓	manual	<ul style="list-style-type: none"> <li>Odour-free disposal via direct suction and automated inner cleaning due to high pressure spray head</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> <li>Filling device with ball valve for re-filling with fresh water</li> <li>Hydro-mechanic inner cleaning via high-pressure pump and spray head</li> </ul>
<b>LipuJet-S-RMP</b> (Extension stage 2 with disposal pump) 	✓	manual	<ul style="list-style-type: none"> <li>As before, but with additional disposal pump with free flow impeller (required for a total delivery head of over 6 metres)</li> <li>Automated disposal and inner cleaning</li> </ul>
<b>LipuJet-S-RA</b> (Extension stage 3) 	✓	automatic	<ul style="list-style-type: none"> <li>Programmed, odour-free disposal/cleaning via direct suction and hydro-mechanic high-pressure inner cleaning</li> <li>Disposal connection DN 65, counter flange with fire hose quick coupling 75B and 2½" blank cap</li> <li>Filling device with solenoid valve for re-filling with fresh water</li> <li>Hydro-mechanic inner cleaning via high-pressure pump and spray head</li> </ul>
<b>LipuJet-S-RAP</b> (Extension stage 3 with disposal pump) 	✓	automatic	<ul style="list-style-type: none"> <li>As before, but with additional disposal pump with free flow impeller (required for a total delivery head of over 6 metres)</li> </ul>



## ACO LipuJet-P-SB – split-design grease separators for free-standing installation

### Product advantages

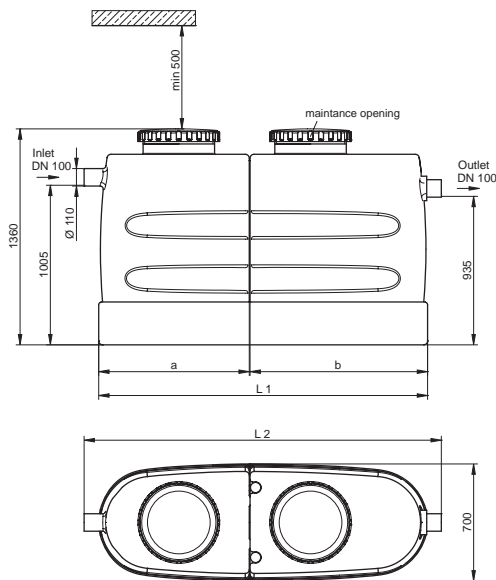
- Very useful in applications with narrow access routes because can be split into three parts
- Easy to transport and assemble



### Product informationen

- Grease separator plant according to EN 1825
- For indoor installation – frost-free
- With separate sludge trap
- Odour-proof maintenance opening, diameter: 450 mm
- Inlets and outlets for connections to plastic pipes

### Dimensional drawing



### Table of dimensions

NS	Separator content			Dimensions				Weight		Article no.
	Sludge trap	Grease storage volume	Total	L1	L2	a	b	empty	full	
	[l]	[l]	[l]	[mm]	[mm]	[mm]	[mm]	[kg]	[kg]	
2	210	80	480	1180	1360	510	660	75	555	3802.00.00
4	420	165	880	2070	2250	945	1115	115	995	3804.00.00

## ACO LipuJet-P-SD – split-design grease separators for free-standing installation with direct suction extraction

### Product advantages

- Very useful in applications with narrow access routes because can be split into three parts
- Easy to transport and assemble
- Integrated suction extraction pipe to reduce odour-emissions during disposal

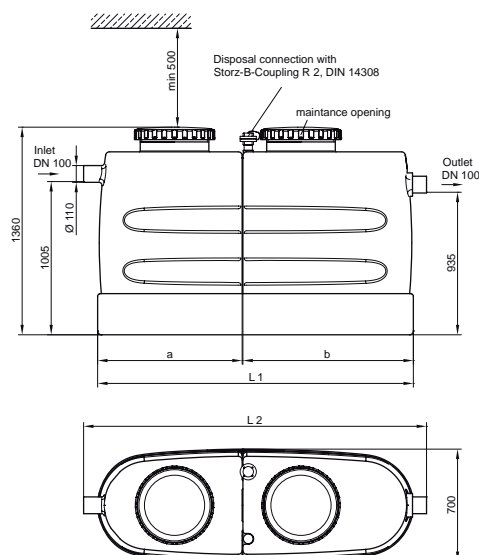


### Product informationen

#### Product information

- Grease separator plant according to EN 1825
- For indoor installation – frost-free
- With separate sludge trap
- With draining connection DN 50 and fire hose quick coupling B 2"
- Suction and emptying sump with drain plug socket 1"
- Odour-proof maintenance opening, diameter: 450 mm
- Inlets and outlets for connections to plastic pipes

### Dimensional drawing



### Table of dimensions

NS	Separator content			Dimensions				Weight		Article no.
	Sludge trap	Grease storage volume	Total	L1	L2	a	b	empty	full	
	[l]	[l]	[l]	[mm]	[mm]	[mm]	[mm]	[kg]	[kg]	
2	210	80	480	1180	1360	510	660	75	555	3802.50.00
4	420	160	880	2070	2250	945	1115	115	995	3804.50.00

## ACO LipuJet-P-OB oval grease separator made of polyethylene

### Product advantages

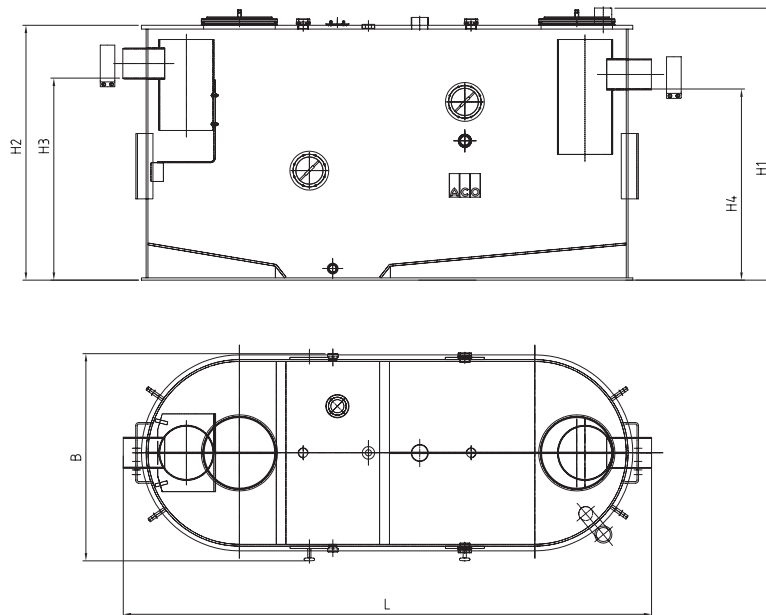
- With two inspection windows for sludge and grease control
- Optionally with filling device
- Optionally with grease level sensor



### Product informationen

- Grease separator plant according to EN 1825 for free-standing installation in frost proof rooms
- Manufactured of welded polyethylene in oval shape
- Two odour proof maintenance openings OD 450 mm
- Inlet and outlet for plastic pipe connection
- Two inspection windows with wiper for grease and sludge control

### Dimensional drawing



### Table of dimensions

NS	Inlet/outlet OD [mm]	Sludge trap [l]	Grease storage [l]	Total capacity [l]	Dimensions						Article no.	Article no.
					L [mm]	B [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]		
15	200	1580	630	2850	3210	1340	1750	1640	1300	1230	3815.35.42	3815.35.32
20	200	2070	850	3760	3910	1340	1750	1640	1300	1230	3820.35.42	3820.35.32
25	200	2550	1070	4660	4610	1340	1850	1740	1300	1230	3825.35.42	3825.35.32
30	250	3020	1290	5550	5310	1340	1850	1740	1300	1230	3830.35.42	3830.35.32

Parallel devices on request

## ACO LipuJet-P-OD oval grease separator made of polyethylene for free standing installation

### Product advantages

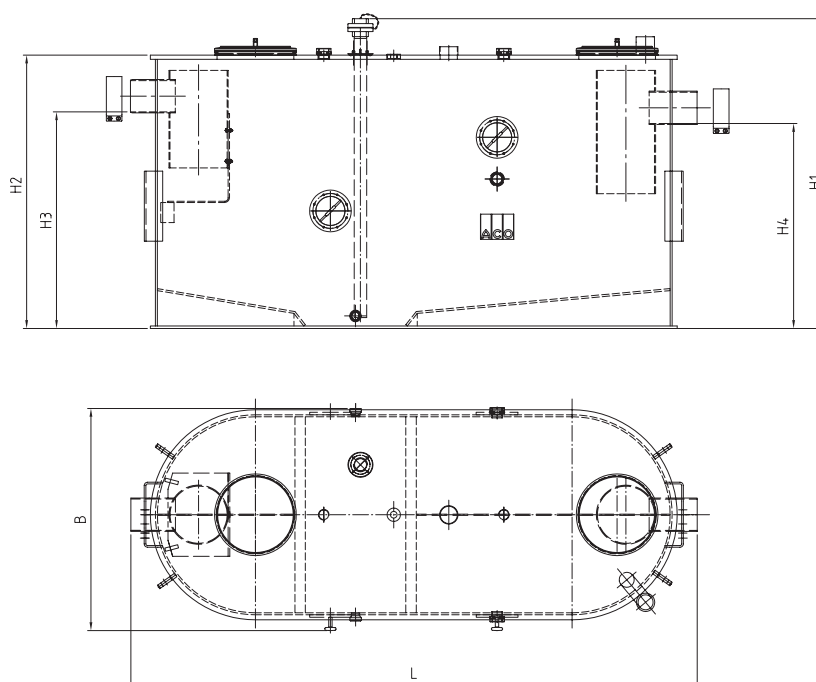
- With two inspection windows for sludge and grease control
- Optionally with filling device
- Optionally with grease level sensor



### Product informationen

- Grease separator plant according to EN 1825 for free-standing installation in frost proof rooms
- Manufactured of welded polyethylene in oval shape
- Two odour proof maintenance openings OD 450 mm
- Inlet and outlet for plastic pipe connection
- Two inspection windows with wiper for grease and sludge control
- Disposal connection OD 75 mm and coupling Storz B R 2½"

### Dimensional drawing



### Table of dimensions

NS	Inlet/outlet OD	Sludge trap	Grease storage	Total capacity	Dimensions						Article no.	Article no.
					L	B	H1	H2	H3	H4		
	[mm]	[l]	[l]	[l]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
15	200	1580	630	2850	3210	1340	1850	1640	1300	1230	3815.45.42	3815.45.32
20	200	2070	850	3760	3910	1340	1850	1640	1300	1230	3820.45.42	3820.45.32
25	200	2550	1070	4660	4610	1340	1950	1740	1300	1230	3825.45.42	3825.45.32
30	250	3020	1290	5550	5310	1340	1950	1740	1300	1230	3830.45.42	3830.45.32

Parallel devices on request



## ACO LipuJet-P-OA oval grease separator made of polyethylene for free standing installation

### Product advantages

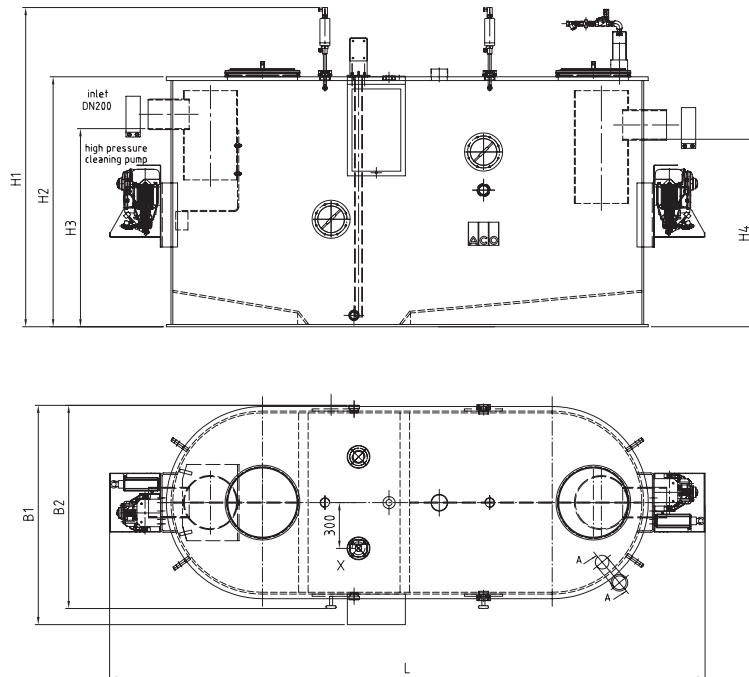
- With two inspection windows for sludge and grease control
- With two high pressure spray heads for perfect inner body cleaning
- Control unit with presets and flexible adjustments (cleaning and filling times)



### Product informationen

- Grease separator plant according to EN 1825 for free-standing installation in frost proof rooms
- Manufactured of welded polyethylene in oval shape
- Two odour proof maintenance openings OD 450 mm
- Inlet and outlet for plastic pipe connection
- Two inspection windows with wiper for grease and sludge control
- Disposal connection OD 75 mm and coupling Storz B R 2½"
- Two automatically operated high pressure pumps 3,9 kW and high pressure spray heads with 150 bar for crushing and mixing of separator contents and cleaning of separator body
- Automatically operated filling device R ¾" (solenoid valve)
- Electric connection 400 V / 50 Hz / 16 A / 7,8 kW

### Dimensional drawing



### Table of dimensions

NS	Inlet/outlet OD [mm]	Sludge trap [l]	Grease storage [l]	Total capacity [l]	Dimensions						Article no. Operating side right	Article no. Operating side left
					L [mm]	B [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]		
15	200	1580	630	2850	3210	1530	1340	1640	1300	1230	3815.75.42	3815.75.32
20	200	2070	850	3760	3910	1530	1340	1640	1300	1230	3820.75.42	3820.75.32
25	200	2550	1070	4660	4610	1530	1340	1740	1300	1230	3825.75.42	3825.75.32
30	250	3020	1290	5550	5310	1530	1340	1740	1300	1230	3830.75.42	3830.75.32

Parallel devices on request

## ACO LipuJet-P-OAP oval grease separator made of polyethylene for free standing installation

### Product advantages

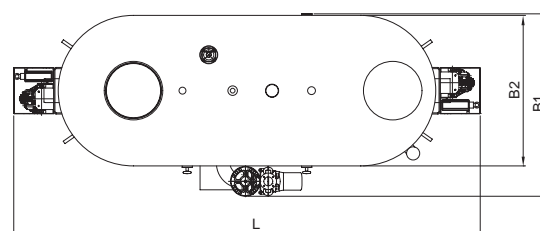
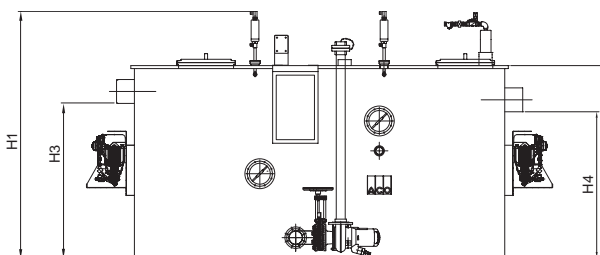
- With two inspection windows for sludge and grease control
- With two high pressure spray heads for perfect inner body cleaning
- Disposal pump for maximum lift heights up to 18 meters with 10 m<sup>3</sup>/h disposal performance
- Control unit with presets and flexible adjustments (cleaning and filling times)



### Product information

- Grease separator plant according to EN 1825 for free-standing installation in frost proof rooms
- Manufactured of welded polyethylene in oval shape
- Two odour proof maintenance openings OD 450 mm
- Inlet and outlet for plastic pipe connection
- Two inspection windows with wiper for grease and sludge control
- Automatically operated disposal pump 3,7 kW with shut-off valve, disposal connection OD 75 mm and coupling Storz B R 2 1/2"
- Two automatically operated high pressure pumps 3,9 kW and high pressure spray heads with 150 bar for crushing and mixing of separator contents and cleaning of separator body
- Automatically operated filling device R 3/4" (solenoid valve)
- Electric connection 400 V / 50 Hz / 16 A / 11,5 kW

### Dimensional drawing



### Table of dimensions

NS	Inlet/outlet OD [mm]	Sludge trap [l]	Grease storage [l]	Total capacity [l]	Dimensions							Article no. Operating side right	Article no. Operating side left
					L [mm]	B1 [mm]	B2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]		
15	200	1580	630	2850	3210	1530	1340	2090	1640	1300	1230	3815.85.42	3815.85.32
20	200	2070	850	3760	3910	1530	1340	2090	1640	1300	1230	3820.85.42	3820.85.32
25	200	2550	1070	4660	4610	1530	1340	2190	1740	1300	1230	3825.85.42	3825.85.32
30	250	3020	1290	5550	5310	1530	1340	2190	1740	1300	1230	3830.85.42	3830.85.32

## ACO LipuJet-P-OAP oval grease separator made of polyethylene for free standing installation

### Product advantages

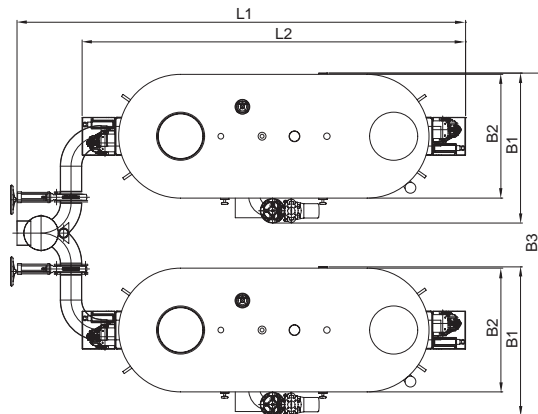
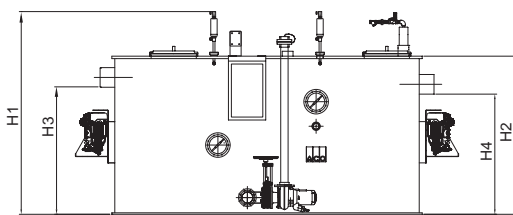
- Each separator with two inspection windows for sludge and grease control
- Each separator with two high pressure spray heads for perfect inner body cleaning
- Each separator with disposal pump for maximum lift heights up to 18 meters with 10 m<sup>3</sup>/h disposal performance
- Each separator with control unit with presets and flexible adjustments (cleaning and filling times)



### Product informationen

- Grease separator plant according to EN 1825 for free-standing installation in frost proof rooms
- In parallel installation, with distribution unit inlet OD 250 mm, piping and two manual valves between distribution unit and separators
- Manufactured of welded polyethylene in oval shape
- Two odour proof (each separator) maintenance openings OD 450 mm
- Inlet and outlet for plastic pipe connection
- Two inspection windows (each separator) with wiper for grease and sludge control
- Automatically operated disposal pump 3,7 kW with shut-off valve, disposal connection OD 75 mm and coupling Storz B R 2½" for each separator
- Two automatically operated high pressure pumps 3,9 kW and high pressure spray heads with 150 bar for crushing and mixing of separator contents and cleaning of separator body for each separator
- Automatically operated filling device R ¾" (solenoid valve) for each separator
- Electric connection 400 V / 50 Hz / 16 A / 11,5 kW for each separator

### Dimensional drawing



### Table of dimensions

NS	Inlet/outlet OD	Sludge trap	Grease storage capacity	Total capacity	Dimensions								Article no.
					L	B1	B2	B3	H1	H2	H3	H4	
	[mm]	[l]	[l]	[l]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	Operating side right
40	200	4140	1700	7520	3910	1530	1340	3500	2090	1640	1300	1230	3840.85.42
50	200	5100	2140	9320	4610	1530	1340	3500	2190	1740	1300	1230	3850.85.42
60	250	6040	2580	11100	5310	1530	1340	3500	2190	1740	1300	1230	3860.85.42

## ACO LipuMobil-P type 0.8 made of polyethylene

### Product advantages

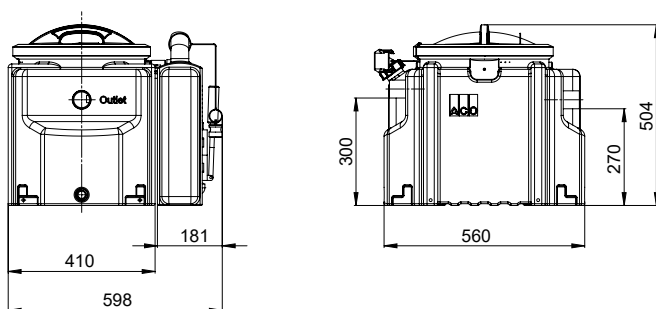
- Low inlet height for food truck connection
- Odour-proof cover
- Flexible connecting options
- Type tested according to EN 1825
- Optionally with transportation wheels, grease storage tank or discharge valve



### Product informationen

- For free-standing installation in frost-proof areas, odour-proof sealed, with removable cover and fastening ring
- Inlet and outlet DN 50 (OD 50 mm) for connection with fitting pipe systems
- Total volume: 48 liters
- Grease storage volume: 15 liters
- Sludge storage volume: 16 liters
- Optionally with grease storage tank from PE, mounted at the separator, with discharge pump, volume 10 liters
- Type test report for flow rate (NS): 60143586-001
- Suitable for flow rates up to 0.8 l/s

### Dimensional drawing



Execution	Article no.
Without grease storage tank	3700.04.00
With grease storage tank (operating side right)	3700.04.10
With grease storage tank (operating side left)	3700.04.20



## ACO Lipator-P-RM

### Product advantages

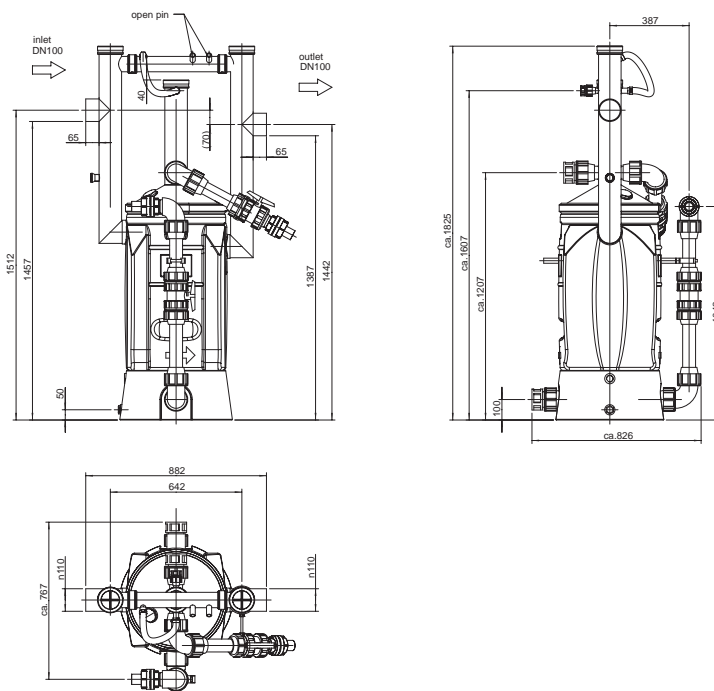
- Compact footprint dimensions for small applications
- Easy handling and insertion
- Self-explaining and illuminated control box



### Product information

- Grease separator according to EN 1825 for partial disposal of grease and sludge
- For installation in frost-free premises
- With integrated sludge trap
- Manufactured of polyethylen
- Inlet and outlet connections as per EN 877 with OD 110 mm
- With manual valves DN 50 for grease and sludge extraction

### Dimensional drawing



### Order information

NS	Heating rod and control box	Flow rate [m³/h]	Total capacity [l]	Weight empty [kg]	Article no.
	[mm]				
1	with	3.6	120	30	3570.40.10
1	without	3.6	120	25	3570.40.00
Operating set consisting of four barrels and two connecting sets					0170.30.35
Retrofit set for pressure increase					0170.29.87

## ACO Lipator-P-OM

### Product advantages

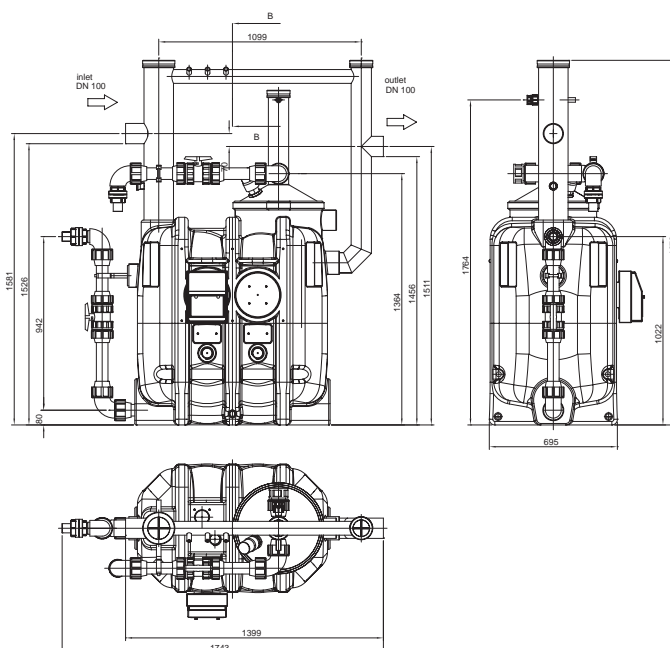
- Compact footprint dimensions for small applications
- Easy handling and insertion
- Self-explaining and illuminated control box



### Product informationen

- Grease separator according to EN 1825 for partial disposal of grease and sludge
- For installation in frost-free premises
- With integrated sludge trap
- Manufactured of polyethylene
- Inlet and outlet connections as per EN 877 with OD 110 mm
- With manual valves DN 50 for grease and sludge extraction

### Dimensional drawing



### Order information

NS	Heating rod and control box [mm]	Flow rate [m <sup>3</sup> /h]	Total capacity [l]	Weight emty [kg]	Article no.
2	with	7.2	325	75	3571.40.10
2	without	3.6	120	25	3571.40.00
Operating set consisting of four barrels and two connecting sets					0170.30.35
Retrofit set for pressure increase					0170.29.87

## ACO Lipator-P-RM grease separator for partial disposal made of polyethylene for free standing installation

### Product advantages

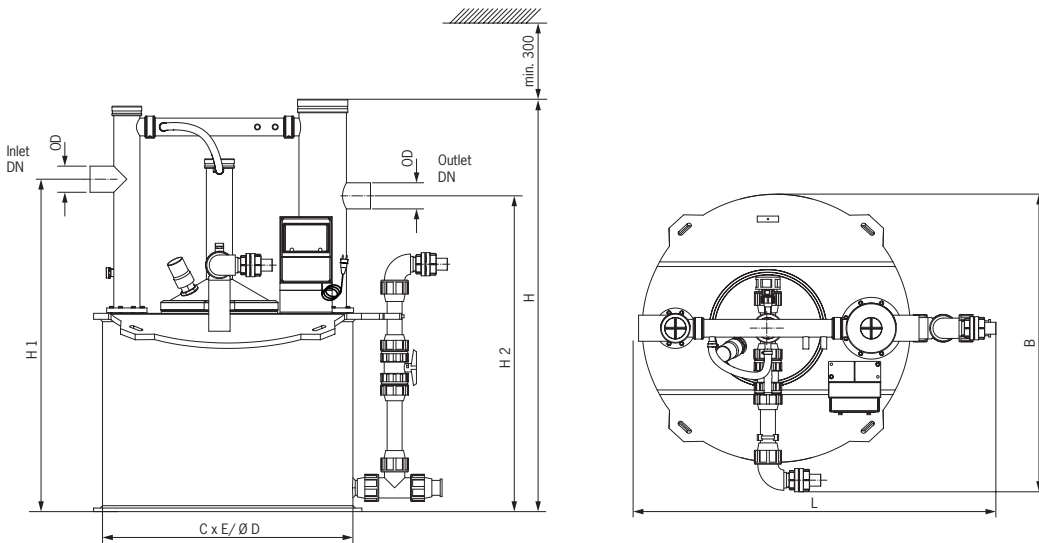
- Compact footprint dimensions for small applications
- Easy handling and insertion
- Self-explaining and illuminated control box
- Adjustable timer clock for flexible grease extraction



### Product informationen

- Grease separator plant according to EN 1825 for free-standing installation in frost proof rooms
- Manufactured of welded polyethylene
- Inlet and outlet for plastic pipe connection
- With extraction valves DN 50 for grease and sludge extraction
- With heating rod and timer clock for homogenizing of grease
- Electric connection: 230 V, 50/60 Hz

### Dimensional drawing



### Table of dimensions

NS	Inlet/outlet OD	Dimensions						Largest single component	Article no.
		L	B	Ø D	H	H1	H2		
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
4	110	1500	1270	1055	1830	1400	1330	Ø 1270 x 860	3574.40.10
10	160	1990	1530	1525	2210	1800	1730	Ø 1660 x 660	3580.40.10
20	200	2240	1910	1775	2320	1900	1830	Ø 1920 x 700	3590.40.10
25	200	2240	1910	1775	2420	2000	1930	Ø 1920 x 700	3595.40.10

## ACO Lipator-S-RM grease separator for partial disposal made of stainless steel for free standing installation

### Product advantages

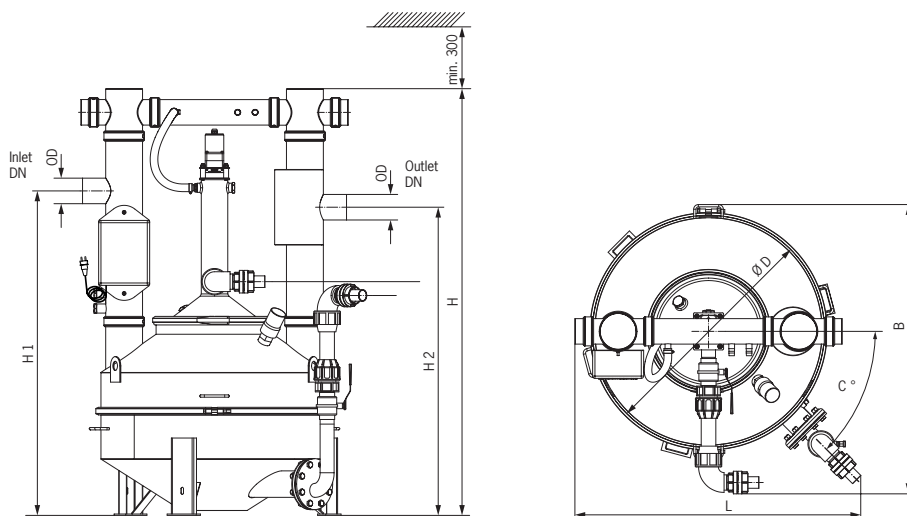
- Compact footprint dimensions for small applications
- Easy handling and insertion
- Self-explaining and illuminated control box
- Adjustable timer clock for flexible grease extraction



### Product information

- Grease separator plant according to EN 1825 for free-standing installation in frost proof rooms
- Manufactured of stainless steel, material grade 316
- Inlet and outlet for plastic pipe connection
- With extraction valves DN 50 for grease and sludge extraction
- With heating rod and timer clock for homogenizing of grease
- Electric connection: 230 V, 50/60 Hz

### Dimensional drawing



### Table of dimensions

NS	Inlet/outlet OD	Dimensions							Largest single component Ø D x H	Article no. with agitating device	Article no. without agita- ting device
		L	B	C	Ø D	H	H1	H2			
	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[mm]	[mm]		
2	110	1170	970	115	640	1700	1300	1230	Ø 750 x 880	7672.40.50	7672.40.10
4	110	1240	1300	45	980	1850	1400	1330	Ø 980 x 450	7674.40.50	7674.40.10
10	160	1710	1670	45	1500	2200	1800	1730	Ø 1500 x 650	7680.40.50	7680.40.10
20	200	1950	1880	45	1750	2320	1900	1830	Ø 1750 x 780	7690.40.50	7690.40.10
25	200	1950	1880	45	1750	2420	2000	1930	Ø 1750 x 780	7695.40.50	7695.40.10



## ACO Lipator-P-RA grease separator for partial disposal made of polyethylene for free standing installation

### Product advantages

- Compact footprint dimensions for small applications
- Easy handling and insertion
- Self-explaining and illuminated control box
- Adjustable timer clock for flexible grease extraction
- Automated grease and sludge extraction



### Product informationen

- Grease separator plant according to EN 1825 for free-standing installation in frost proof rooms
- Manufactured of welded polyethylene
- Inlet and outlet for plastic pipe connection
- With automated grease and sludge extraction
- With hoses and four tanks 60 liters for grease and sludge collection
- With agitating device and scraper
- With heating rod and timer clock for homogenizing of grease
- Electric connection: 230 V, 50/60 Hz

### Dimensional drawing

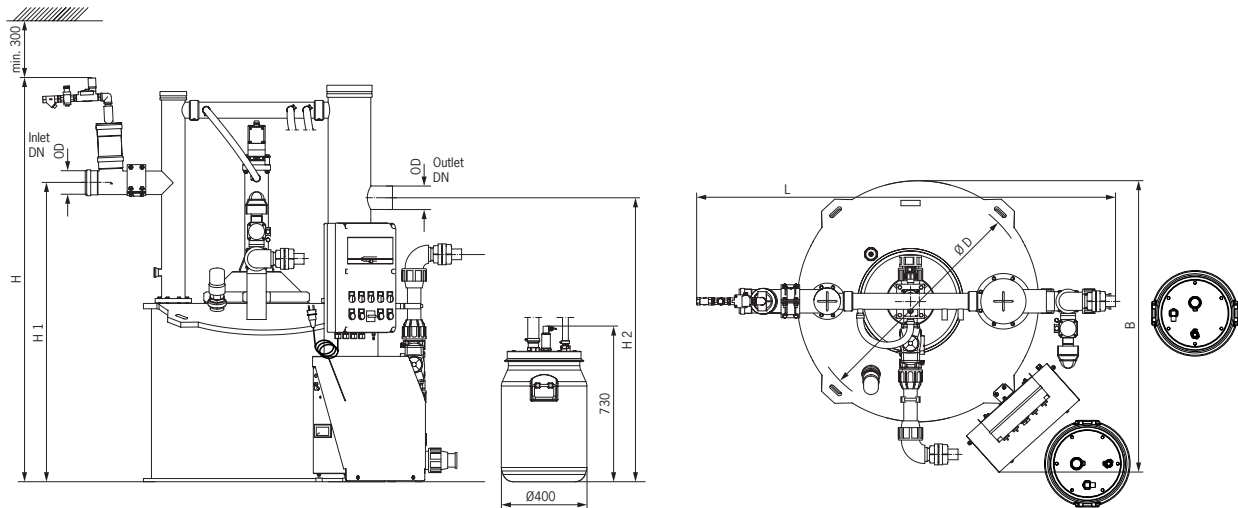


Table of dimensions

Inlet/outlet	NS	OD	Dimensions					Largest single component	Article no.	
			L	B	Ø D	H	H1			H2
			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
4		110	1950	1350	1060	1850	1400	1330	Ø 1270 x 860	3574.70.10
10		160	250	1850	1530	2320	1800	1730	Ø 1660 x 660	3580.70.10
20		200	2750	2050	1780	2560	1900	1830	Ø 1920 x 700	3590.70.10
25		200	2750	2050	1780	2660	2000	1930	Ø 1920 x 700	3595.70.10

## ACO Lipator-S-RA grease separator for partial disposal made of stainless steel for free standing installation

### Product advantages

- Compact footprint dimensions for small applications
- Easy handling and insertion
- Self-explaining and illuminated control box
- Adjustable timer clock for flexible grease extraction
- Automated grease and sludge extraction



### Product informationen

- Grease separator plant according to EN 1825 for free-standing installation in frost proof rooms
- Manufactured of stainless steel, material grade 316
- Inlet and outlet for plastic pipe connection
- With automated grease and sludge extraction
- With hoses and four tanks 60 liters for grease and sludge collection
- With agitating device and scraper
- With heating rod and timer clock for homogenizing of grease
- Electric connection: 230 V, 50/60 Hz

### Dimensional drawing

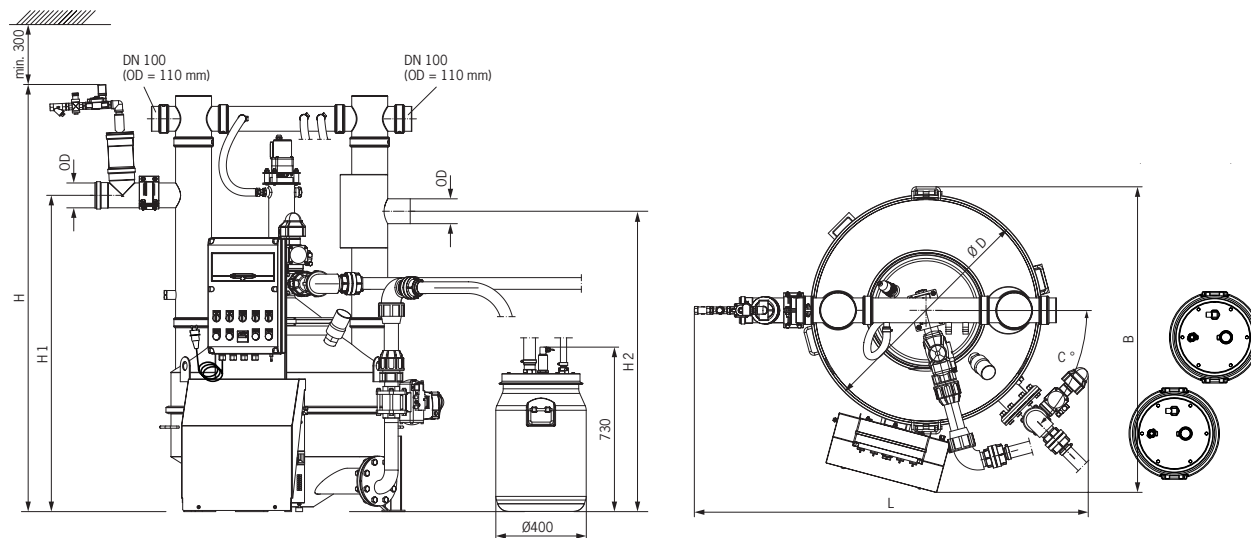
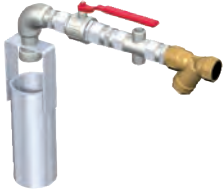








Table of dimensions



NS	Inlet/outlet		Dimensions					Largest single component	Article no.		
	OD		L	B	C	Ø D	H			H1	H2
	[mm]		[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[mm]	[mm]	
2	110		1170	970	115	640	1700	1300	1230	Ø 750 x 880	7672.70.10
4	110		1240	1300	45	980	1850	1400	1330	Ø 980 x 450	7674.70.10
10	160		1710	1670	45	1500	2200	1800	1730	Ø 1500 x 650	7680.70.10
20	200		1950	1880	45	1750	2320	1900	1830	Ø 1750 x 780	7690.70.10
25	200		1950	1880	45	1750	2420	2000	1930	Ø 1750 x 780	7695.70.10

Product	Designation	To fit	Description	Article no.
	Grease level sensor Classic	<ul style="list-style-type: none"> <li>■ LipuSmart-P                             <ul style="list-style-type: none"> <li>□ Oval NS 1 – 10</li> </ul> </li> <li>■ LipuJet-P                             <ul style="list-style-type: none"> <li>□ Oval NS 1 – 10</li> <li>□ Round NS 2 – 20</li> </ul> </li> <li>■ LipuJet-S                             <ul style="list-style-type: none"> <li>□ Oval NS 1 – 10</li> <li>□ Round NS 2 – 20</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ For electronic measurement of grease layer</li> <li>■ Suitable for liquid and/or congealing grease</li> <li>■ Measuring device with cable, length: 3 m</li> <li>■ With two isolated change-over contacts to display full warning (80%) and advance warning of fill level (50%)</li> <li>■ With visual display of fill level</li> <li>■ With heated probe rod to increase operating reliability</li> <li>■ Operating voltage: 230 VAC/5 VA</li> <li>■ Max. consumption: 12 W</li> </ul>	3300.11.50
	Grease level sensor Comfort	<ul style="list-style-type: none"> <li>■ LipuSmart-P                             <ul style="list-style-type: none"> <li>□ Oval NS 1 – 10</li> </ul> </li> <li>■ LipuJet-P                             <ul style="list-style-type: none"> <li>□ Oval NS 1 – 10</li> <li>□ Round NS 2 – 20</li> </ul> </li> <li>■ LipuJet-S                             <ul style="list-style-type: none"> <li>□ Oval NS 1 – 10</li> <li>□ Round NS 2 – 20</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ To determine the disposal intervals of grease separators</li> <li>■ Suitable for liquid and/or harden fats</li> <li>■ Delineation with colour-touchpanel</li> <li>■ Continuous measure in percent</li> <li>■ With integrated SD-card (4GB) for recording of the measuring process</li> <li>■ With heated sounding stick (temperature is adjustable) to increase the operation safety</li> <li>■ Three free of potential contacts for outpot of pre-alarm (adjustable), full-alarm (adjustable) and error</li> <li>■ Measuring stick with adjusting scale</li> <li>■ Delineation with plug-in cable connection, 3 m</li> <li>■ Service voltage: 100 240VAC 50/60 Hz, 2 A</li> <li>■ Power: ca. 43 W</li> <li>■ Weight: 2.7 kg</li> </ul>	3300.12.50
	Signalling unit with GSM module	<ul style="list-style-type: none"> <li>■ Grease separators extension stage 3</li> <li>■ Grease level sensor</li> </ul>	<ul style="list-style-type: none"> <li>■ Mains-independent</li> <li>■ Visible and audible alarm signals</li> <li>■ 6 digital &amp; 2 analogue freely configurable inputs</li> <li>■ 1 alarm output 12 V</li> <li>■ Includes GSM antenna (2.5 m cable)</li> <li>■ Relaying alarms to mobile phones by SMS</li> <li>■ For mounting outside the ex area</li> <li>■ Housing: 155 x 180 x 103 mm</li> <li>■ Slot for standard SIM card</li> <li>■ Protection type: IP 54 (with mounted antenna plug IP 44)</li> <li>■ Operating voltage: 230 V/AC 50/60 Hz</li> </ul>	0150.46.94
	Heating rod	<ul style="list-style-type: none"> <li>■ Grease separators</li> </ul>	<ul style="list-style-type: none"> <li>■ To liquefy grease layer</li> <li>■ Incl. control</li> <li>■ Electrical connection                             <ul style="list-style-type: none"> <li>□ 400 V/50 Hz/16 A/6.0 kW</li> </ul> </li> </ul>	7300.01.00





Product	Designation	To fit	Description	Article no.
	Filling device	<ul style="list-style-type: none"> <li>■ LipuSmart-P-OB, -OD</li> <li>■ LipuJet-P-OB, -OD, -RB, -RD</li> </ul>	<ul style="list-style-type: none"> <li>■ Free outlet according to DIN 1988 Part 4</li> <li>■ For connection to drinking water supply</li> <li>■ With ball valve R 3/4"</li> <li>■ With pressure relief valve</li> </ul>	3300.11.22
		<ul style="list-style-type: none"> <li>■ LipuJet-S-OB, -OD, -RB, -RD</li> </ul>	<ul style="list-style-type: none"> <li>■ Free outlet according to DIN 1988 Part 4</li> <li>■ For connection to drinking water supply</li> <li>■ With ball valve R 3/4"</li> <li>■ With pressure relief valve</li> </ul>	7602.00.25
		<ul style="list-style-type: none"> <li>■ LipuJet-P-SB, -SD</li> </ul>	<ul style="list-style-type: none"> <li>■ Free outlet according to DIN 1988 Part 4</li> <li>■ For connection to drinking water supply</li> <li>■ With ball valve R 3/4"</li> <li>■ With pressure relief valve</li> </ul>	0153.06.76
	Remote control	<ul style="list-style-type: none"> <li>■ LipuSmart-P-OA, -OAP</li> <li>■ LipuJet-P-OA, -OAP, -RA, -RAP</li> <li>■ LipuJet-S-OA, -OAP, -RA, -RAP</li> <li>■ LipuMax-P-DA</li> </ul>	<ul style="list-style-type: none"> <li>■ For inside assembly or mounting in connection boxes</li> <li>■ Control line without local protective conductor <ul style="list-style-type: none"> <li>□ Up to 50 m: 7 x 1.0 mm<sup>2</sup></li> <li>□ 50 – 200 m: 7 x 1.5 mm<sup>2</sup></li> </ul> </li> <li>■ IP 54 protection type</li> <li>■ Weight: 1 kg</li> </ul>	0150.59.89
	Remote control	<ul style="list-style-type: none"> <li>■ LipuJet-P-OA, -OAP</li> <li>□ Oval NS 15 – 30</li> </ul>	<ul style="list-style-type: none"> <li>■ For internal fitting or fitting in connection boxes</li> <li>■ Control line without protective conductor on-site <ul style="list-style-type: none"> <li>□ Up to 50 m: 7 x 1.0 mm<sup>2</sup></li> <li>□ 50 – 200 m: 7 x 1.5 mm<sup>2</sup></li> </ul> </li> <li>■ Weight: 1.5 kg</li> </ul>	0150.37.58
	Connection box	<ul style="list-style-type: none"> <li>■ Grease separators</li> </ul>	<ul style="list-style-type: none"> <li>■ For disposal connection and remote control</li> <li>■ Made of stainless steel, material grade 304</li> <li>■ Fixing: "on-wall"</li> <li>■ Dimensions (width x height x depth): 500 x 500 x 160 mm</li> </ul>	7601.80.20
	In-wall frame	<ul style="list-style-type: none"> <li>■ Connection box</li> <li>□ 7601.80.22</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of stainless steel, material grade 304</li> <li>■ Dimensions (width x height x depth): 421 x 381 x 25 mm</li> </ul>	7601.80.21
	Inspection window	<ul style="list-style-type: none"> <li>■ LipuSmart-P-OB, -OD</li> <li>■ LipuJet-P-OB, -OD, -R, -RD</li> </ul>	<ul style="list-style-type: none"> <li>■ Nominal width: DN 200</li> <li>■ With wiper</li> <li>■ Weight: 5 kg</li> </ul>	3300.11.10
	Inspection window	<ul style="list-style-type: none"> <li>■ LipuJet-S-OB, -OD, -R, -RD</li> </ul>	<ul style="list-style-type: none"> <li>■ Nominal width: DN 200</li> <li>■ With wiper</li> <li>■ Weight: 5 kg</li> </ul>	7602.00.26



Product	Designation	To fit	Description	Article no.
	Sampling pot DN 100	<ul style="list-style-type: none"> <li>■ LipuJet-P/Lipator-P-RM, -RA</li> <li>□ NS 1 – 4</li> </ul>	<ul style="list-style-type: none"> <li>■ For installation in horizontal pipelines DN 100 downstream of separator plants</li> <li>■ Material: PE</li> <li>■ Round shape with                             <ul style="list-style-type: none"> <li>□ Coupling socket seal (material SBR) on inlet and spigot on outlet</li> <li>□ Odour-proof maintenance opening DN 450</li> </ul> </li> <li>■ Weight: 7 kg</li> </ul>	3300.09.11
	Sampling pot DN 150	<ul style="list-style-type: none"> <li>■ LipuJet-P</li> <li>□ NS 5.5 – 10</li> <li>■ Lipator-P-RM, -RA</li> <li>□ NS 7 – 10</li> </ul>	<ul style="list-style-type: none"> <li>■ For installation in horizontal pipelines DN 150 downstream of separator plants</li> <li>■ Material: PE</li> <li>■ Round shape with                             <ul style="list-style-type: none"> <li>□ Coupling socket seal (material SBR) on inlet and spigot on outlet</li> <li>□ Odour-proof maintenance opening DN 450</li> </ul> </li> <li>■ Weight: 7 kg</li> </ul>	3300.09.21
	Sampling pot DN 200	<ul style="list-style-type: none"> <li>■ LipuJet-P/Lipator-P-RM, -RA</li> <li>□ NS 15 – 25</li> </ul>	<ul style="list-style-type: none"> <li>■ For installation in horizontal pipelines DN 200 downstream of separator plants</li> <li>■ Material: PE</li> <li>■ Round shape with                             <ul style="list-style-type: none"> <li>□ Coupling socket seal (material SBR) on inlet and spigot on outlet</li> <li>□ Odour-proof maintenance opening DN 450</li> </ul> </li> <li>■ Weight: 7 kg</li> </ul>	3300.09.31
	Sampling pot DN 100	<ul style="list-style-type: none"> <li>■ LipuJet-P/Lipator-P-RM, -RA</li> <li>□ NS 1 – 4</li> </ul>	<ul style="list-style-type: none"> <li>■ For installation in vertical pipelines DN 100 downstream of separator plants</li> <li>■ Material: PE</li> <li>■ Round shape with                             <ul style="list-style-type: none"> <li>□ Coupling socket seal (material SBR) on inlet and spigot on outlet</li> <li>□ Odour-proof maintenance opening DN 450</li> </ul> </li> <li>■ Weight: 7 kg</li> </ul>	3300.10.11
	Sampling pot DN 150	<ul style="list-style-type: none"> <li>■ LipuJet-P</li> <li>□ NS 5.5 – 10</li> <li>■ Lipator-P-RM, -RA</li> <li>□ NS 7 – 10</li> </ul>	<ul style="list-style-type: none"> <li>■ For installation in vertical pipelines DN 150 downstream of separator plants</li> <li>■ Material: PE</li> <li>■ Round shape with                             <ul style="list-style-type: none"> <li>□ Coupling socket seal (material SBR) on inlet and spigot on outlet</li> <li>□ Odour-proof maintenance opening DN 450</li> </ul> </li> <li>■ Weight: 7 kg</li> </ul>	3300.10.21
	Sampling pot DN 200	<ul style="list-style-type: none"> <li>■ LipuJet-P/</li> <li>■ Lipator-P-RM, -RA</li> <li>□ NS 15 – 25</li> </ul>	<ul style="list-style-type: none"> <li>■ For installation in vertical pipelines DN 200 downstream of separator plants</li> <li>■ Material: PE</li> <li>■ Round shape with                             <ul style="list-style-type: none"> <li>□ Coupling socket seal (material SBR) on inlet and spigot on outlet</li> <li>□ Odour-proof maintenance opening DN 450</li> </ul> </li> <li>■ Weight: 7 kg</li> </ul>	3300.10.31

Product	Designation	To fit	Description	Article no.
	Sampling pot DN 100	<ul style="list-style-type: none"> <li>■ LipuJet-S/ Lipator-S-RM, -RA</li> <li>□ NS 1 – 4</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of stainless steel, material grade 316</li> <li>■ Round shape</li> <li>■ Gradient: 70 mm</li> <li>■ For installation in horizontal pipelines DN 100 downstream of separator plants</li> <li>■ With pipe connector and claw</li> <li>■ Connections according to EN 877</li> <li>■ Weight: 13 kg</li> </ul>	7300.09.10
	Sampling pot DN 150	<ul style="list-style-type: none"> <li>■ LipuJet-S/ Lipator-S-RM, -RA</li> <li>□ NS 5.5 – 10</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of stainless steel, material grade 316</li> <li>■ Round shape</li> <li>■ Gradient: 70 mm</li> <li>■ For installation in horizontal pipelines DN 150 downstream of separator plants</li> <li>■ With pipe connector and claw</li> <li>■ Connections according to EN 877</li> <li>■ Weight: 14 kg</li> </ul>	7300.09.20
	Sampling pot DN 200	<ul style="list-style-type: none"> <li>■ LipuJet-S/ Lipator-S-RM, -RA</li> <li>□ NS 15 – 25</li> </ul>	<ul style="list-style-type: none"> <li>■ Round shape</li> <li>■ Gradient: 70 mm</li> <li>■ For installation in horizontal pipelines DN 200 downstream of separator plants</li> <li>■ With pipe connector and claw</li> <li>■ Connections according to EN 877</li> <li>■ Weight: 15 kg</li> </ul>	7300.09.30
	Sampling pot DN 100	<ul style="list-style-type: none"> <li>■ LipuJet-S/ Lipator-S-RM, -RA</li> <li>□ NS 1 – 4</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of stainless steel, material grade 316</li> <li>■ Round shape</li> <li>■ For installation in vertical pipelines DN 100 downstream of separator plants</li> <li>■ With pipe connector and claw</li> <li>■ Connections according to EN 877</li> <li>■ Weight: 13 kg</li> </ul>	7300.10.20
	Sampling pot DN 150	<ul style="list-style-type: none"> <li>■ LipuJet-S/ Lipator-S-RM, -RA</li> <li>□ NS 5.5 – 10</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of stainless steel, material grade 316</li> <li>■ Round shape</li> <li>■ For installation in vertical pipelines DN 150 downstream of separator plants</li> <li>■ With pipe connector and claw</li> <li>■ Connections according to EN 877</li> <li>■ Weight: 14 kg</li> </ul>	7300.15.20
	Sampling pot DN 200	<ul style="list-style-type: none"> <li>■ LipuJet-S/ Lipator-S-RM, -RA</li> <li>□ NS 15 – 25</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of stainless steel, material grade 316</li> <li>■ Round shape</li> <li>■ For installation in vertical pipelines DN 200 downstream of separator plants</li> <li>■ With pipe connector and claw</li> <li>■ Connections according to EN 877</li> <li>■ Weight: 15 kg</li> </ul>	7300.16.20

Product	Designation	To fit	Description	Article no.
	Inlet valve DN 50	<ul style="list-style-type: none"> <li>■ LipuMobil-P, 0.3</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of PVC</li> <li>■ 50 mm push socket on both sides with lip seal</li> <li>■ Overall dimensions: 91 x 250 mm</li> <li>■ Weight: 2.1 kg</li> </ul>	0175.18.33
	Inlet valve DN 100	<ul style="list-style-type: none"> <li>■ Polyethylene separators</li> <li>□ NS 1 – 4</li> <li>■ LipuMobil-P, 0.5</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of PVC</li> <li>■ 110 mm push socket on both sides with lip seal</li> <li>■ Overall dimensions: 176 x 330 mm (L x H)</li> <li>■ Weight: 2.75 kg</li> </ul>	0175.13.84
	Inlet valve DN 150	<ul style="list-style-type: none"> <li>■ Polyethylene separators</li> <li>□ NS 5,5 – 10</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of PVC</li> <li>■ 160 mm push socket on both sides with lip seal</li> <li>■ Overall dimensions: 226 x 510 mm (L x H)</li> <li>■ Weight: 6.5 kg</li> </ul>	0175.13.85
	Inlet valve DN 200	<ul style="list-style-type: none"> <li>■ Polyethylene separators</li> <li>□ NS 15 – 25</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of PVC</li> <li>■ 50 mm push socket on both sides with lip seal</li> <li>■ Overall dimensions: 290 x 740 mm</li> <li>■ Weight: 9.5 kg</li> </ul>	0170.20.83
	Stop valve DN 200	<ul style="list-style-type: none"> <li>■ Grease separators for free-standing installation</li> <li>■ Starch separators for free-standing installation</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of cast iron</li> <li>■ Valve plate, spindle made of stainless steel, material grade 304</li> <li>■ Length (L): 60 mm</li> <li>■ Spindle travel (H1 – H2): 542 – 743 mm</li> <li>■ Hand wheel diameter: 250 mm</li> </ul>	7610.00.12
	Flange connection DN 200	<ul style="list-style-type: none"> <li>■ Stop valve</li> <li>□ 7610.00.12</li> </ul>	<ul style="list-style-type: none"> <li>■ Made of stainless steel, material grade 304</li> <li>■ Sealing: NBR</li> <li>■ Length (L): 120 mm</li> </ul>	7610.00.13
	Coarse trap	<ul style="list-style-type: none"> <li>■ Lipator-P-RM, -RA</li> <li>□ DN 100</li> <li>□ DN 150</li> <li>□ DN 200</li> </ul>	<ul style="list-style-type: none"> <li>■ PE with cone and penstock</li> <li>■ Housing 480 mm</li> <li>■ Drainage connection DN 100 (OD 110 mm) with stop valve</li> <li>■ Ventilation connection DN 20 for venting the on-site collecting tank</li> <li>■ Cover with clamping ring</li> <li>■ Odourproof</li> <li>■ Tabs for ceiling fixing on site</li> </ul>	0170.31.62 0170.31.63 0170.31.64
	Drums		<ul style="list-style-type: none"> <li>■ 2 drums for Lipator-P/S-RM series</li> <li>□ Complete with hoses</li> <li>□ Capacity 60 liters</li> <li>□ With Plexiglas cover</li> <li>□ With clamping ring and hose connection DN 25 and DN 40</li> <li>□ 2 hoses DN 25 (length 2,500 mm) and 2 hoses DN 40 (length 1,500 mm)</li> <li>■ 2 replacement drums 60 liters with cover and clamping ring only</li> </ul>	0170.30.35

Product	Designation	To fit	Description	Article no.
	Wheels	■ LipuMobil-P 0.8	<ul style="list-style-type: none"> <li>■ Set of four wheels</li> <li>■ Two wheels with manual stoppers for tank fixation</li> </ul>	3700.04.30
	Extraction	■ LipuMobil-P 0.8	<ul style="list-style-type: none"> <li>■ Extraction valve of plastic for manual tank discharge</li> </ul>	3700.04.40
	Drum	■ LipuMobil-P 0.8	<ul style="list-style-type: none"> <li>■ Collecting tank</li> <li>■ 60 liters capacity</li> <li>■ Odour-proof with fastening ring</li> </ul>	7600.00.15
	Shut-off valve	■ LipuMobil-P 0.8	<ul style="list-style-type: none"> <li>■ Shut-off valve DN 50 for inlet pipe</li> </ul>	0175.18.33







## Process optimisation

### Grease separator plants

#### **ACO LipuFloc dosing station**

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The high level of organic pollution by oils and fats in waste water from kitchens requires the installation of a grease separator plant. In the separators, the waste water is treated solely by gravity, which means only freely separable oils, fats and sediments are retained. Emulsified and dissolved components will pass through the separator virtually unimpeded. This can mean exceeding the limit values where more stringent requirements on the levels of non-volatile lipophilic substances apply. As this parameter is high on the agenda of the authorities in many cities (e.g. Frankfurt), the focus is increasingly on adding treatment methods which go further, downstream of the grease separator plants.

#### **ACO odour neutraliser**

page 79

Incorrectly designed or damaged ventilation lines can cause unpleasant smells to escape from grease separator plants. An ACO odour neutraliser can prevent such smells from spreading, with the odour neutralising agent being dosed under timer control.

## ACO LipuFloc dosing station

### Product advantages

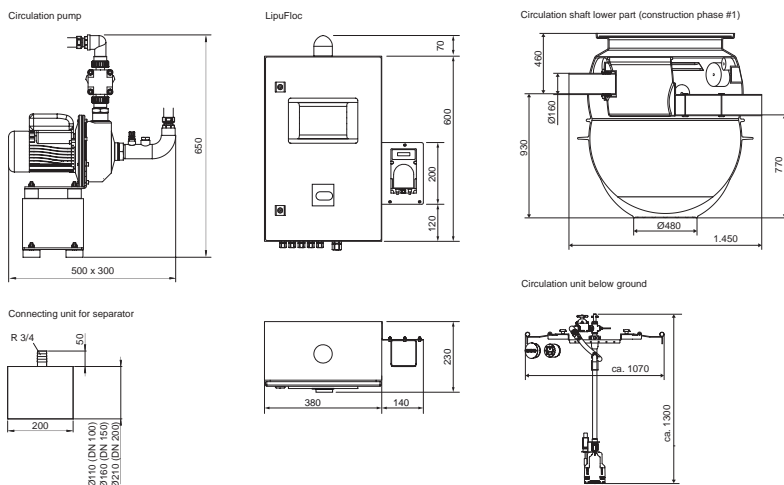
- Compact, space-saving shape
- Ready to connect, rapid to install
- Low cost of maintenance
- Rapid top up of active agent (flocculant)
- Suitable for waste water containing grease or fat, for ACO grease separators up to NS 25
- Functions fully automatically with effective adjustment to kitchen's pattern of working



### Product informationen

- Chemical-physical waste water treatment to reduce concentrations of fats and oils in ACO grease separator gullies
- Energy-saving and user-friendly automatic operation to treat waste water from restaurant kitchens
- Touch panel
  - 7" colour touch panel
  - Process display
  - Inspection and setting of parameters
- Dosing pump
  - Nominal pressure 3 bars (non-stop operation)
  - Maximum lifting performance 2 l/h
  - Power consumption 15 W
- Circulation pump
  - Maximum lifting performance 300 l/min.
  - Maximum lifting height 10 metres
  - Power consumption 0.35 kW
  - Protection class IP 55
- Controls
  - In-situ power supply 230 V/50 – 60 Hz/16 A
  - IP 54 protection type
  - Potential free contact for operation and fault report
- Dosing liquid 125 kg

### Dimensional drawing



Dosing station/accessories	To fit	Weight [kg]	Article no.
ACO LipuFloc	ACO grease separators free standing	65	7980.20.11
	ACO grease separators below ground	120	7980.20.31
Barrel of flocculant	ACO LipuFloc	125	0150.69.36

## ACO odour neutraliser

### Product advantages

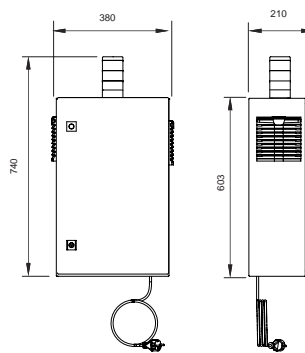
- Effective neutralisation of unpleasant smells
- Simple, uncomplicated application
- Retrofittable at any time
- Independent of extension stages
- Dosing quantity and time can be adjusted to the individual catering establishment
- For universal use



### Product informationen

- System for neutralising unpleasant smells
- Possible uses: grease separators
- The odour neutraliser consists of:
  - Switchgear
  - Time-controlled dosing pump
  - Odour neutralising agent

### Dimensional drawing



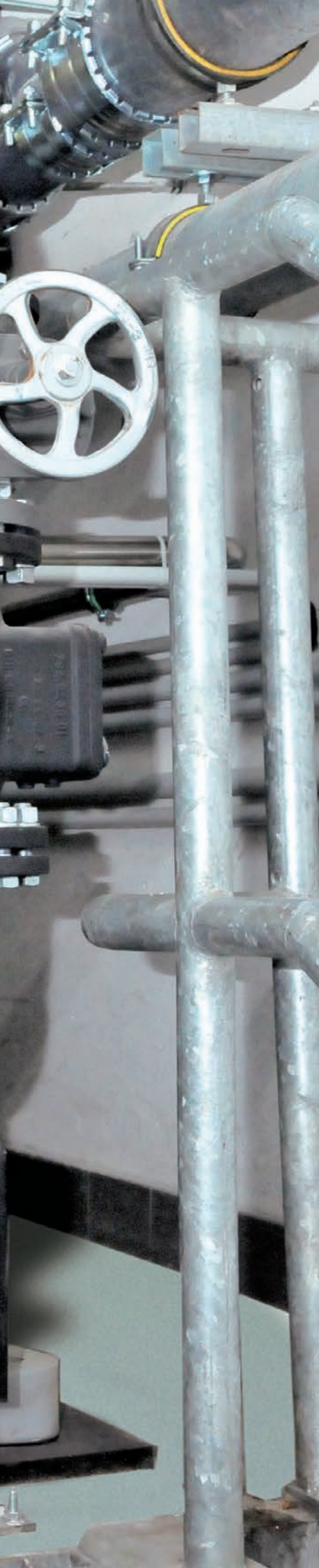
Designation	To fit	Weight [kg]	Article no.
ACO odour neutraliser	Grease separators	25	7980.80.00
Refilling liquid citral 9 liters	Odour neutraliser	10	0155.25.67



5







## Operating reliability

### Lifting Plants

Grease separators whose static water level is below the backflow level must be connected to the waste water system via a lifting plant on the outlet side. In doing so, the discharge pressure line must be pulled above the backflow level by means of a backflow loop. To increase operating reliability, lifting plants with two pumps must always be used.

## ACO lifting plants for grease separators NS 15 and 20

### Product advantages

- Large usable tank volume
- Various inlet heights
- Good operational safety thanks to pilot tube and air bubble injection
- Suitable for waste water containing grease or fat
- Can be extended into a parallel plant
- Energy-saving channel impeller
- Adjusted for door width of: 780 mm



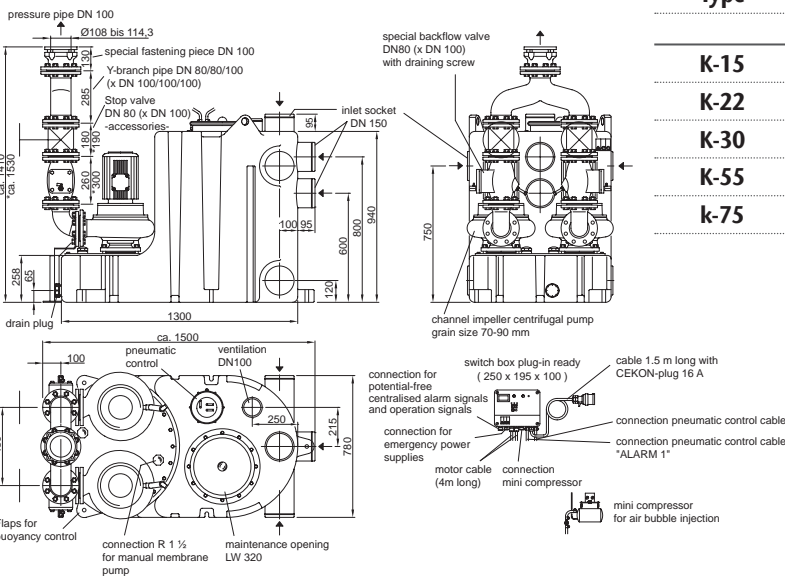
### Muli Pro-PE K-15 parallel lifting plant for installation downstream of grease separators

- Two polyethylene tanks with a drain plug or connection for a manual membrane pump R 1½", fixing kit for buoyancy safety
- Total volume: 1040 litres
- Operating volume depending on the inlet height selected, various inlets Ø 160 mm at various positions
- Two inspection openings, clear width 320 mm, ventilation line Ø 110 mm, discharge pressure line connection

for pressure tubing made of plastic or SML with external diameter from 108 to 114.3 mm

- Two pumps 400 V, 50 Hz, IP 68 protection type (for performance data, see diagram on next page), with air bubble injection for maximum operational safety
- Switching device with warning device IP 54 protection type with digital display, for alternate operation of the two pumps, with 1.5 metre cable and CEE plug 16 A (from 4 kW, 32 A), with isolated contact for group alarm to central technical supervision, with 7 metres of cabling between lifting plant and switching device

### Dimensional drawing



Type	Motor capacity (P1)	Weight	Article no.
	[kw]	[kg]	
<b>K-15</b>	1.5	315	3574.70.10
<b>K-22</b>	2.2	325	3580.70.10
<b>K-30</b>	3.0	420	3590.70.10
<b>K-55</b>	5.5	465	3595.70.10
<b>k-75</b>	7.5	510	

## ACO lifting plants for grease separators NS 25 and 30

### Product advantages

- Tank can be configured individually to customer requirements
- Good operational safety and reliability
- Pump with adaptive impeller reduces blockages in operation
- No need to ventilate the pump, as it is installed horizontally
- Large usable volume (standard up to 1100 l)
- Energy-saving channel impeller
- Selectable inlet height (375 – 1325 mm depending on model)

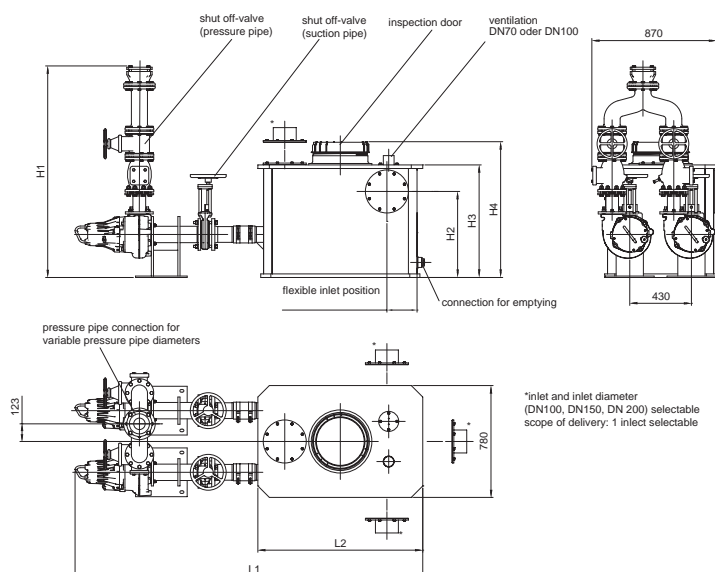


### Muli Pro-PE K XL lifting plant for installation downstream of grease separators

- Polyethylene tank with fixing kit for in-situ anchorage to prevent upwelling
- Inlet connection  $\varnothing$  200 mm (selectable position), ventilation connection  $\varnothing$  110 mm for connecting pressure tubing from 114.3 mm
- Flexible container dimensions according to the table below, corresponding operating volume

- Two pumps 400 V, 50 Hz, IP 68 protection type, both pumps with piping and with two stop valves each
- Pneumatic switching system with air bubble injection for maximum operational safety
- Multi Control switching device IP 54 protection type with digital display for alternate operation of the two pumps, with 1.5 metre cable and CEE plug 16 A, wired and ready to plug in, with isolated contact for group alarm and operating signal, with 10 metres of cabling between switching device and lifting plant

### Dimensional drawing



Type	Flexible dimensions						Article no.
	L1	L2	H1	H2	H3	H4	
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
<b>Muli Pro-PE K XL</b>	2260 – 3110	1150 – 2000	Approx. 1475	375 – 1325	560 – 1510	722 – 1672	Article no./price on demand


Lifting plants for installation downstream of grease separators for free-standing installation

Product	Designation	To fit	Description	Article no.
	Muli-Mini duo	<ul style="list-style-type: none"> <li>■ For separators up to NS 4</li> </ul>	<ul style="list-style-type: none"> <li>■ Polyethylene tank</li> <li>■ Usable volume 55 – 130 litres</li> <li>■ Two grey water submerged pumps IP 68</li> <li>■ Operating voltage 230 or 400 volts</li> <li>■ Pneumatic level switching</li> <li>■ Discharge pressure line connection Rp 2"</li> <li>■ Inlet socket DN 100</li> <li>■ Ventilation connection DN 70</li> <li>■ Container dimensions (L x W x H): 600 x 815 x 710 mm</li> <li>■ Empty weight:                             <ul style="list-style-type: none"> <li>□ 66 kg (Muli-Mini DDP 1.1) and</li> <li>□ 74 kg (Muli Mini DDP 1.2)</li> </ul> </li> </ul> <p>DDP 1.1 (P2 = 0.55 kW)                      DDP 1.2 (P2 = 1.1 kW)                      DWP 1.1 (P2 = 0.55 kW)                      DWP 1.2 (P2 = 1.1 kW)</p>	<p>1206.00.01                      1206.00.02                      1206.00.03                      1206.00.04</p>
	Muli-Star DDP	<ul style="list-style-type: none"> <li>■ For separators up to NS 15</li> </ul>	<ul style="list-style-type: none"> <li>■ Polyethylene tank</li> <li>■ Usable volume 65 – 185 litres</li> <li>■ Two pumping sets IP 68</li> <li>■ Operating voltage 400 volts</li> <li>■ Pneumatic level switching</li> <li>■ Pressure connection for pressure tubing Ø 108 – 114.3 mm</li> <li>■ Inlet socket: DN 100/150/200</li> <li>■ Ventilation socket DN 70/100</li> <li>■ Container dimensions (L x W x H): 920 mm x 770 mm x 690 mm</li> <li>■ Empty weight: 104 – 128 kg</li> </ul> <p>DDP 1.1 (P2 = 1.5 kW)                      DDP 1.2 (P2 = 3.0 kW)                      DDP 2.1 (P2 = 1.5 kW)                      DDP 2.2 (P2 = 3.0 kW)</p>	<p>1202.00.01                      1202.00.02                      1202.00.04                      1202.00.05</p>


Note:  
 To increase operating reliability, if this product is used we recommend equipping the plant with air bubble injection downstream of grease separators.

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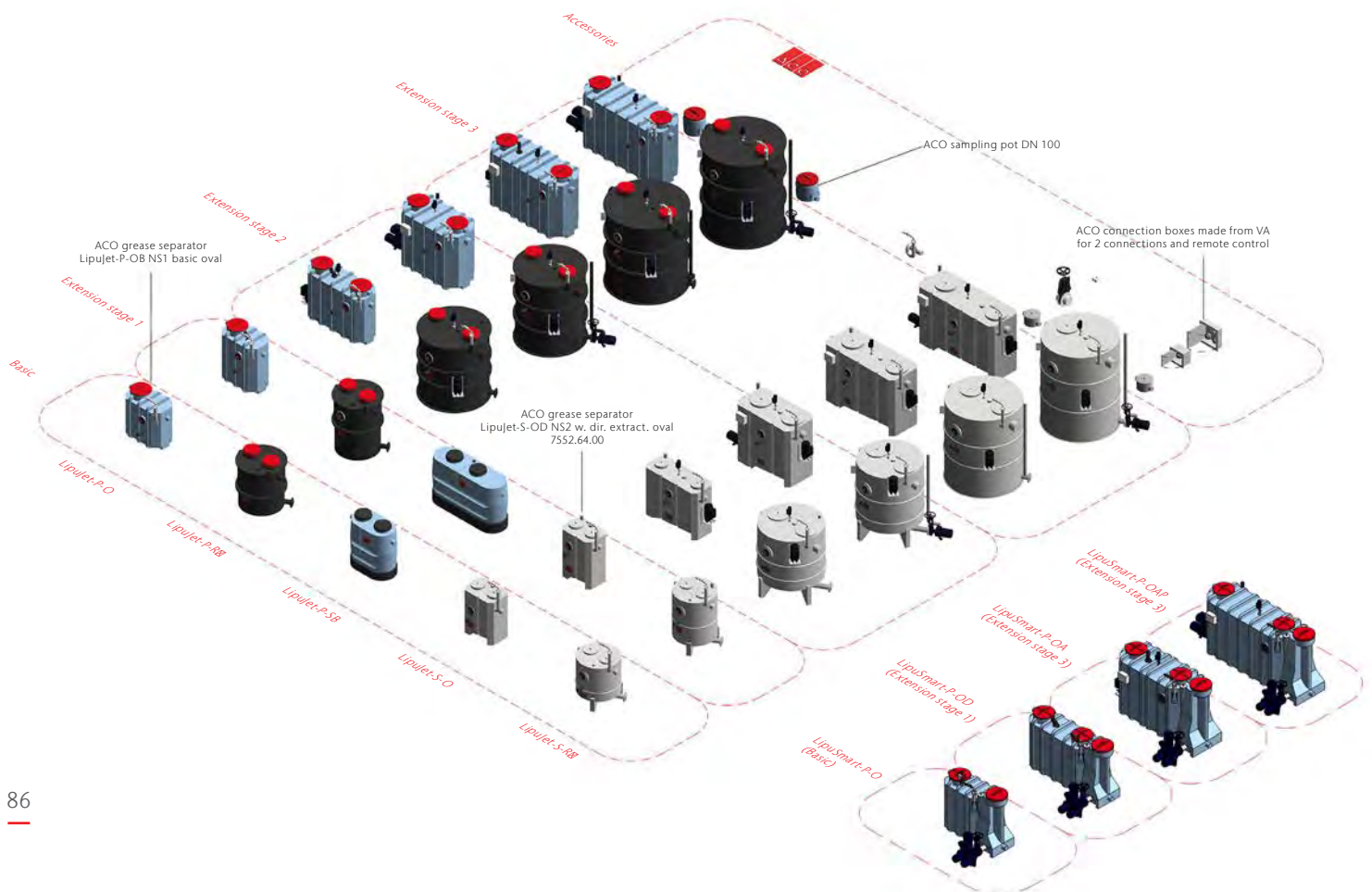
Product	Designation	To fit	Description	Article no.
	Muli-Pro PE K duo with air bubble injection	<ul style="list-style-type: none"> <li>■ For separators up to NS 20</li> </ul>	<ul style="list-style-type: none"> <li>■ Polyethylene tank</li> <li>■ Usable volume 240 – 330 litres</li> <li>■ Two pumping sets IP 68</li> <li>■ Operating voltage 400 volts</li> <li>■ Pneumatic level switching incl. air bubble injection for reliable function</li> <li>■ Pressure connection for pressure tubing Ø 108 – 114.3 mm</li> <li>■ Inlet socket DN 150</li> <li>■ Ventilation socket DN 100 – container dimensions (L x W x H): 1500 mm x 780 mm x 1035 mm</li> <li>■ Empty weight: 295 – 495 kg</li> </ul>	
			K-15 (P2 = 1.5 kW)	0175.13.17
			K-22 (P2 = 2.2 kW)	0175.13.18
			K-30 (P2 = 3.0 kW)	0175.13.19
			K-55 (P2 = 5.5 kW)	0175.13.20
			K-75 (P2 = 7.5 kW)	0175.13.21

## Supplementary components

Product	Designation	To fit	Description	Article no.
	Air bubble injection	<ul style="list-style-type: none"> <li>■ Muli-Mini duo</li> <li>■ Muli-Star DDP</li> </ul>	<ul style="list-style-type: none"> <li>■ For retro-fitting on Muli-Mini and Muli-Star DDP wastewater lifting plants</li> <li>■ With min compressor and connectors</li> <li>■ To increase operational safety</li> <li>■ To deal with generation of floating layers (wastewater containing grease)</li> </ul>	3700.04.30

# ACO Building Drainage and BIM data on grease separators

The Revit pack for the ACO grease separator includes all structural shapes - circular and oval separators in all materials and all extension stages - from the basic model up to extension stage 3. The packet for ACO LipuSmart also includes all extension stages.



## Revit packet for ACO grease separators

In total there are two Revit packet - for the ACO grease separator and ACO LipuSmart

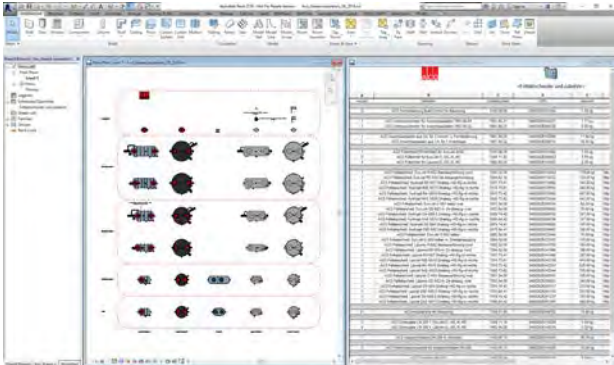
The grease separators packet is divided into five main groups:

- Stainless steel circular separator
- Stainless steel oval separator
- Plastic circular separator
- Plastic oval separator
- Plastic split separator

The ACO LipuSmart packet includes all 4in1 solutions in the four different extens on stages as well as accessories.

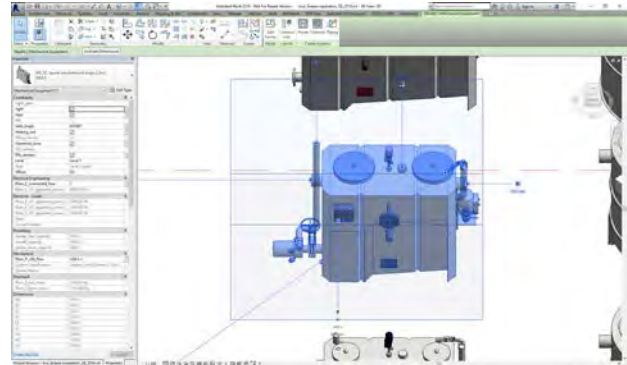
- ▶ All models are available in the Revit versions 2014/2015/2016/2017/2018/2019 and IFC

## Detailed views of BIM data on grease separators



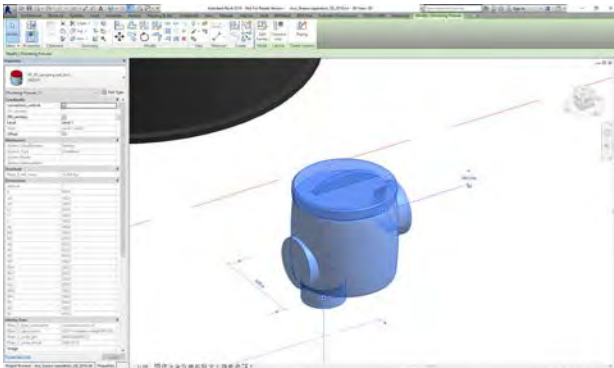
**Detailed image 1**

Overviews of the complete Revit packet for ACO grease separators are grouped according to extension stage. The product overview, including characteristics such as GTIN, article number etc. is located on the right-hand part of the screen.



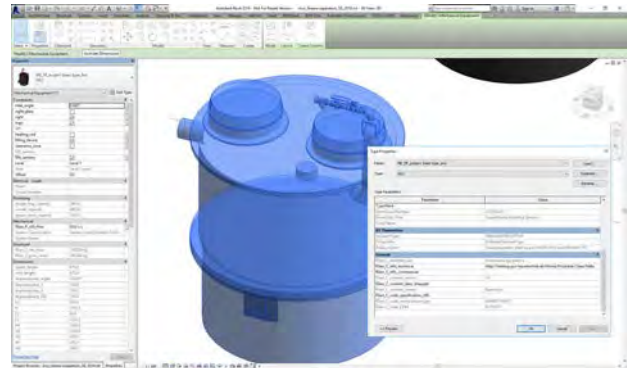
**Detailed image 2**

The example shows the Revit model of the ACO grease separator LipuJet-S-OAP (extension stage 3 with disposal pump) made from stainless steel with all connection facilities. On the left-hand part of the screen you can see the delivery dimensions and other properties of the product such as sludge trap, etc. The switch box is specifically marked as an electronic component.



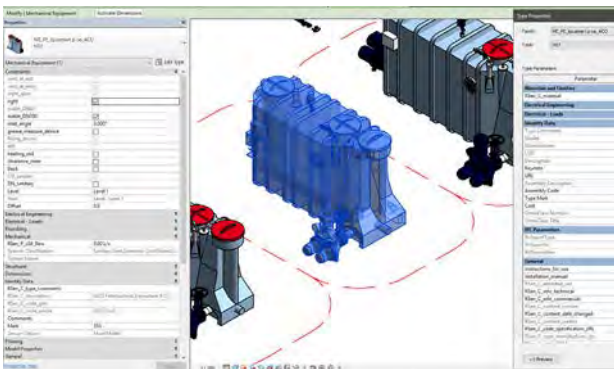
**Detailed image 3**

Revit model of a sampling pot including connection facilities.



**Detailed image 4**

The properties of the product are displayed in this box - this is where you can also find the link to the ACO Online Catalogue and the accompanying data sheet.



**Detailed image ACO LipuSmart**

The respective extension stage and nominal size can be selected in the selection menu. This applies to both grease separators and the ACO LipuSmart. The separator types, which are used most often by TGA specialist planners, can be found in the templates box.

**ACO BIM data packet available to download online:**

<http://bim.aco-haustechnik.de>





Add here your local address

**ACO. creating  
the future of drainage**



03/2020