

Separators

2021 New Product Update

Grease separator *EasyClean* round free
Biological grease treatment *Bifena*
Grease separator chemical treatment
Coalescence separator *EasyOil* free
Starch separators *EasyStarch* free



Grease separator

EasyClean round free

The economic treatment system for commercial kitchen wastewater

The *EasyClean* round free grease separators are the latest models in our quality line of EN 1825 grease separators. They have been developed to satisfy all of the requirements of modern wastewater technology at a market entry price level.

The result are separators made of durable polyethylene material designed to last for decades to come. The separators are available in all models from Basic to our fully automated, odour-free Auto Mix&Pump market leading version.

The *EasyClean* round free is the new standard and **economic solution** for wastewater treatment in kitchens and food processing facilities.

Made in Germany! Made by KESSEL!

Installation location



Outdoor, underground

Indoor, free-standing

Floor slab installation

Disposal



Connection for direct disposal

Shredder-Mix-System

Control

With disposal pump

Fully automatic

Direct disposal

Enables the extraction of the grease separator contents through a permanently installed odour free disposal pipe - without opening the tank covers (Direct version).

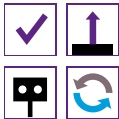
Quick release access covers

Twin access covers with quick release odour tight snap closures for quick and easy maintenance and cleaning.

**100 % corrosion free polyethylene body**

The polyethylene material used is resistant to aggressive fatty acids – and therefore particularly durable. In addition to the statutory provision, we provide a 20-year warranty with regard to the leak tightness and structural stability of the separator tanks.

Grease separator *EasyClean* round free Auto Mix & Pump NS 10 – 20
for free-standing installation



Tank

Manufactured from virgin, non-recycled polyethylene, for free-standing installation in frost-protected areas, with integrated sludge trap, with integrated sloped base directing wastewater into mixing / disposal pump, twin access covers with quick-release odour tight covers, with suction device installed for the joint disposal of contents of sludge trap and grease separator chamber, intake pipe 75 mm OD PN 10 in accordance with DIN 2501, Storz-B coupling R 2 1/2 for connection to the disposal vehicle. Inspection window with wiper. Inlet and outlet Ø 160 / 200 mm for the connection to PE-HD pipes according to DIN 19537, HT pipes according to DIN 19560, PP or AS.

Disposal System

Auto Mix & Pump with program-controlled disposal and rinsing device and Shredder-Mix-System, KESSEL disposal system Auto Mix & Pump with switching distribution and actuator valve, mixing and rinsing device via jet and conic nozzles, external pump(s) 3.0 kW (IP55, 400 V, 50 Hz; stronger pumps available on request) with integrated chopping mechanism and closure valve, 5 m cable length, 2 solenoid valves 1", with refill inlet in accordance with DIN 1988.

Control Unit for actuating the pump(s) with potential-free contact.

Delivery: System completely assembled.

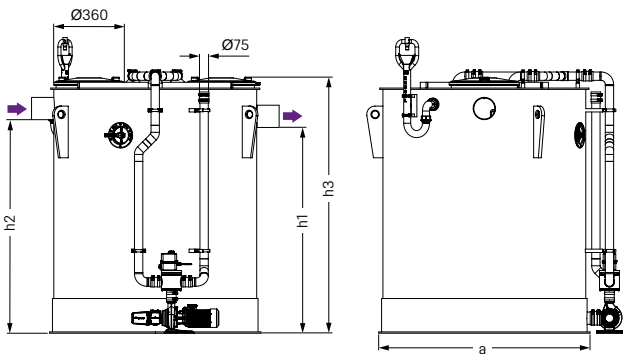
➤ **Accessories:** Sampling chamber, remote control, *TeleControl*, *SonicControl* level sensing system; lifting stations

➤ **Note:** Also available in 60 Hz / 400 V

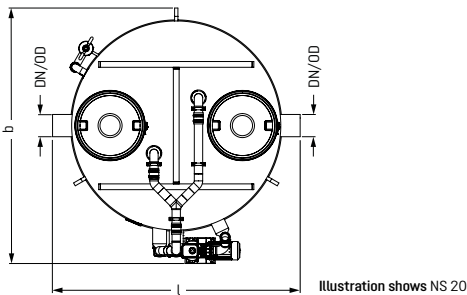
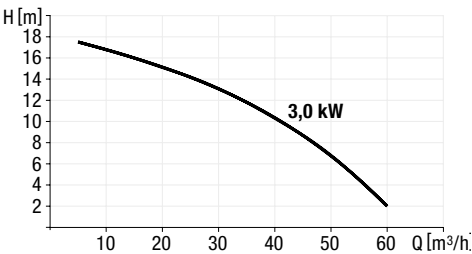


without *SonicControl*

NS	Art. no.
NS 10	93 010.05/PVS
NS 15	93 015.05/PVS
NS 20	93 020.05/PVS



Pumping capacity



NS	Outer diameter Ø (mm)	a (mm)	Installation dimension l × b (mm)	h1 (mm)	h2 (mm)	h3 (mm)	Sludge trap (l)	Water and grease (l)	Grease storage (l)	Total (l)
10	160	1570	1900 × 1915	1500	1570	1910	1000	1500	400	2500
15	200	1880	2230 × 2300	1550	1620	2020	1500	2300	600	3800
20	200	1880	2230 × 2300	1850	1920	2300	2000	2650	800	4650

Grease separator *EasyClean* round free Mix & Pump NS 10– 20
for free-standing installation



Tank
Manufactured from virgin, non-recycled polyethylene, for free-standing installation in frost-protected areas, with integrated sludge trap, with integrated sloped base directing wastewater into mixing / disposal pump, twin access covers with quick-release odour tight covers, with suction device installed for the joint disposal of contents of sludge trap and grease separator chamber, intake pipe 75 mm OD PN 10 in accordance with DIN 2501, Storz-B coupling R 2 1/2 for connection to the disposal vehicle. Inspection window with wiper. Inlet and outlet Ø 160 / 200 mm for the connection to PE-HD pipes according to DIN 19537, HT pipes according to DIN 19560, PP or AS.

Disposal System
Mix & Pump with manual disposal and rinsing device and Shredder-Mix-System, KESSEL disposal system Mix & Pump with switching distribution, mixing and rinsing device via jet and conic nozzles, external pump(s), with integrated chopping mechanism and closure valve, pumping capacity 3.0 kW (stronger pumps available on request), 5 m cable length, refill inlet in accordance with DIN 1988.

Control Unit for actuating the pump(s).

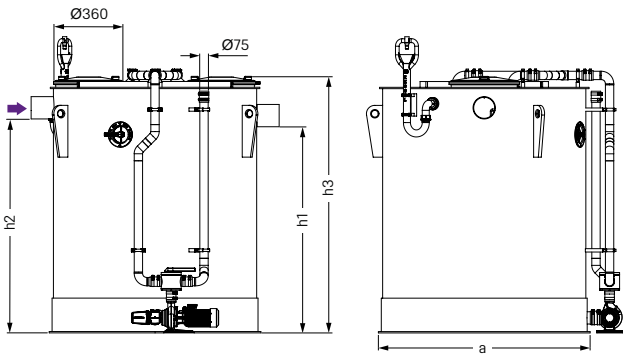
Delivery: System completely assembled.

- **Accessories:** Sampling chamber, *SonicControl* level sensing system; lifting stations
- **Note:** Also available in 60 Hz / 400 V

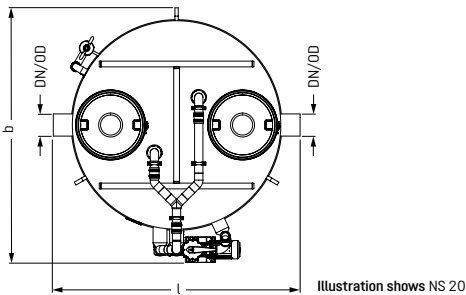
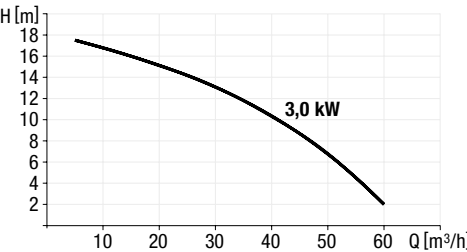


without *SonicControl*

NS	Art. no.
NS 10	93 010.05/MS
NS 15	93 015.05/MS
NS 20	93 020.05/MS



Pumping capacity



NS	Outer diameter Ø (mm)	a (mm)	Installation dimension l × b (mm)	h1 (mm)	h2 (mm)	h3 (mm)	Sludge trap (l)	Water and grease (l)	Grease storage (l)	Total (l)
10	160	1570	1900 × 1915	1500	1570	1910	1000	1500	400	2500
15	200	1880	2230 × 2300	1550	1620	2020	1500	2300	600	3800
20	200	1880	2230 × 2300	1850	1920	2300	2000	2650	800	4650

Grease separator *EasyClean* round free Auto Mix NS 10 – 20
for free-standing installation



Tank

Manufactured from virgin, non-recycled polyethylene, for free-standing installation in frost-protected areas, with integrated sludge trap, with integrated sloped base directing wastewater into mixing / disposal pump, twin access covers with quick-release odour tight covers, with suction device installed for the joint disposal of contents of sludge trap and grease separator chamber, intake pipe 75 mm OD PN 10 in accordance with DIN 2501, Storz-B coupling R 2 1/2 for connection to the disposal vehicle. 2 solenoid valves 1", viewing window with wiper, inspection window with wiper. Inlet and outlet Ø 160 / 200 mm for the connection to PE-HD pipes according to DIN 19537, HT pipes according to DIN 19560, PP or AS.

Disposal System

Auto Mix with direct disposal and Shredder-Mix-System, KESSEL Shredder-Mix-System with mixing and rinsing via jet and conic nozzles, external pump(s), with integrated chopping mechanism and closure valve, pumping capacity 3.0 kW (stronger pumps available on request), 5 m cable length, refill inlet in accordance with DIN 1988, R 1 connection.

Control Unit for actuating the pump(s) and the solenoid valves.

Delivery: System completely assembled.

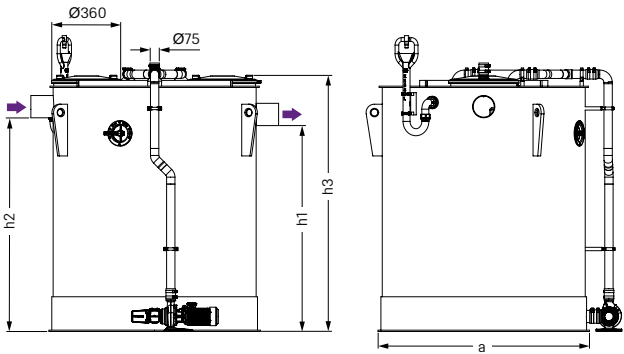
➤ **Accessories:** Sampling chamber, remote control, *TeleControl*, *SonicControl* level sensing system; lifting stations

➤ **Note:** Also available in 60 Hz / 400 V

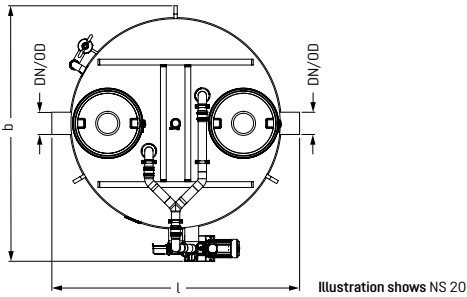
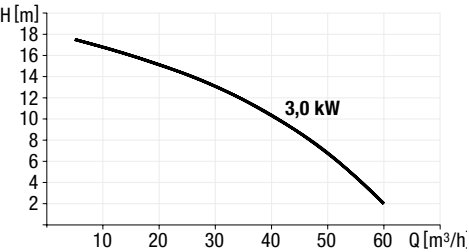


without *SonicControl*

NS	Art. no.
NS 10	93 010.05/DSP
NS 15	93 015.05/DSP
NS 20	93 020.05/DSP



Pumping capacity



NS	Outer diameter Ø (mm)	a (mm)	Installation dimension l × b (mm)	h1 (mm)	h2 (mm)	h3 (mm)	Sludge trap (l)	Water and grease (l)	Grease storage (l)	Total (l)
10	160	1570	1900 × 1915	1500	1570	1910	1000	1500	400	2500
15	200	1880	2230 × 2300	1550	1620	2020	1500	2300	600	3800
20	200	1880	2230 × 2300	1850	1920	2300	2000	2650	800	4650

Grease separator *EasyClean* round free Mix NS 10 – 20
for free-standing installation



Tank
Manufactured from virgin, non-recycled polyethylene, for free-standing installation in frost-protected areas, with integrated sludge trap, with integrated sloped base directing wastewater into mixing / disposal pump, twin access covers with quick-release odour tight covers, with suction device installed for the joint disposal of contents of sludge trap and grease separator chamber, intake pipe 75 mm OD PN 10 in accordance with DIN 2501, Storz-B coupling R 2 1/2 for connection to the disposal vehicle. Inlet and outlet Ø 160 / 200 mm for the connection to PE-HD pipes according to DIN 19537, HT pipes according to DIN 19560, PP or AS.

Disposal System
Mix with direct disposal and Shredder-Mix-System, KESSEL Shredder-Mix-System with mixing and rinsing via jet and conic nozzles, external pump(s), with integrated chopping mechanism and closure valve, pumping capacity 3.0 kW (stronger pumps available on request), 5 m cable length, refill inlet in accordance with DIN 1988, R 1 connection.

Control Unit for actuating the pump.

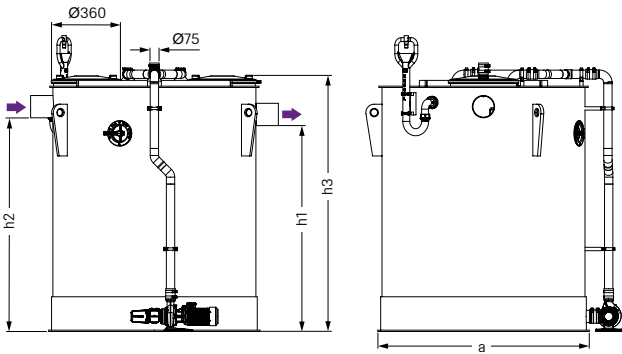
Delivery: System completely assembled.

- **Accessories:** Sampling chamber, inspection window, *SonicControl* level sensing system; lifting stations
- **Note:** Also available in 60 Hz / 400 V

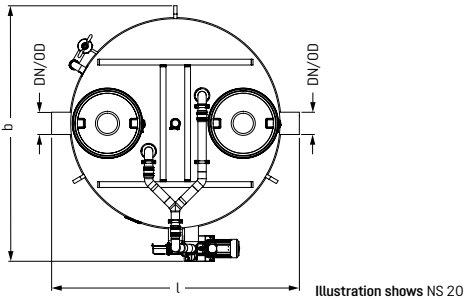
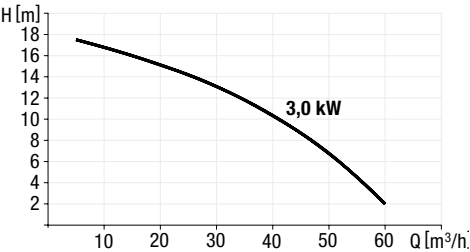


without *SonicControl*

NS	Art. no.
NS 10	93 010.05/DS
NS 15	93 015.05/DS
NS 20	93 020.05/DS



Pumping capacity



NS	Outer diameter Ø (mm)	a (mm)	Installation dimension l × b (mm)	h1 (mm)	h2 (mm)	h3 (mm)	Sludge trap (l)	Water and grease (l)	Grease storage (l)	Total (l)
10	160	1570	1900 × 1915	1500	1570	1910	1000	1500	400	2500
15	200	1880	2230 × 2300	1550	1620	2020	1500	2300	600	3800
20	200	1880	2230 × 2300	1850	1920	2300	2000	2650	800	4650

Grease separator *EasyClean* round free Direct NS 10 – 20

for free-standing installation



Tank

Manufactured from virgin, non-recycled polyethylene, for free-standing installation in frost-protected areas, with integrated sludge trap, with integrated sloped base directing wastewater into mixing / disposal pump, twin access covers with quick-release odour tight covers, with suction device installed for the joint disposal of contents of sludge trap and grease separator chamber, intake pipe 75 mm OD PN 10 in accordance with DIN 2501, Storz-B coupling R 2 1/2 for connection to the disposal vehicle. Inlet and outlet Ø 160 / 200 mm for the connection to PE-HD pipes according to DIN 19537, HT pipes according to DIN 19560, PP or AS.

Disposal System

Direct version with factory installed pressure pipe suction outlet - requires disposal truck with vacuum system for separator disposal, disposal is completely odour free.

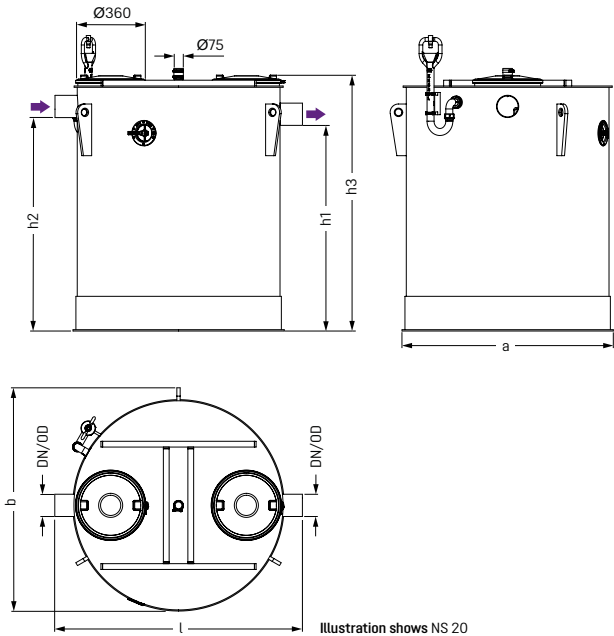
Delivery: System completely assembled.

- **Accessories:** Inspection window and
refill inlet, sampling chamber;
lifting stations



without *SonicControl*

NS	Art. no.
Without accessories	
NS 10	93 010.05/D
NS 15	93 015.05/D
NS 20	93 020.05/D



NS	Outer diameter \varnothing (mm)	a (mm)	Installation dimension l x b (mm)	h1 (mm)	h2 (mm)	h3 (mm)	Sludge trap (l)	Water and grease (l)	Grease storage (l)	Total (l)
10	160	1570	1900 x 1690	1500	1570	1910	1000	1500	400	2500
15	200	1880	2230 x 1922	1550	1620	2020	1500	2300	600	3800
20	200	1880	2230 x 1922	1850	1920	2300	2000	2650	800	4650

Grease separator *EasyClean* round free Standard NS 10 – 20
for free-standing installation

Tank
Manufactured from virgin, non-recycled polyethylene, for free-standing installation in frost-protected areas, with integrated sludge trap, two domed covers made of polymer, with quick-release closure, sealed odour-tight. Inlet and outlet Ø 160 / 200 mm for the connection to PE-HD pipes according to DIN 19537, HT pipes according to DIN 19560, PP or AS.

Disposal System
Standard version requires disposal truck with vacuum system for separator disposal.

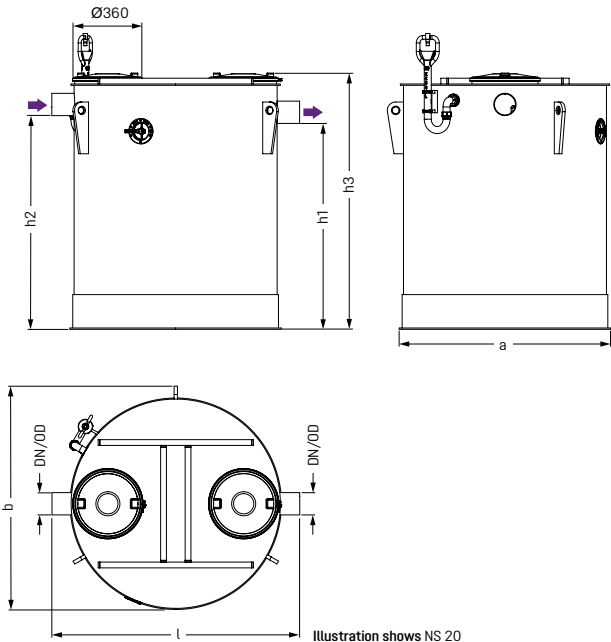
Delivery: System completely assembled.

➤ **Accessories:** Inspection window and
refill inlet, sampling chamber;
lifting stations



without *SonicControl*

NS	Art. no.
Without accessories	
NS 10	93 010.05
NS 15	93 015.05
NS 20	93 020.05



NS	Outer diameter Ø (mm)	a (mm)	Installation dimension l × b (mm)	h1 (mm)	h2 (mm)	h3 (mm)	Sludge trap (l)	Water and grease (l)	Grease storage (l)	Total (l)
10	160	1570	1900 × 1690	1500	1570	1910	1000	1500	400	2500
15	200	1880	2230 × 1922	1550	1620	2020	1500	2300	600	3800
20	200	1880	2230 × 1922	1850	1920	2300	2000	2650	800	4650

Secondary wastewater treatment

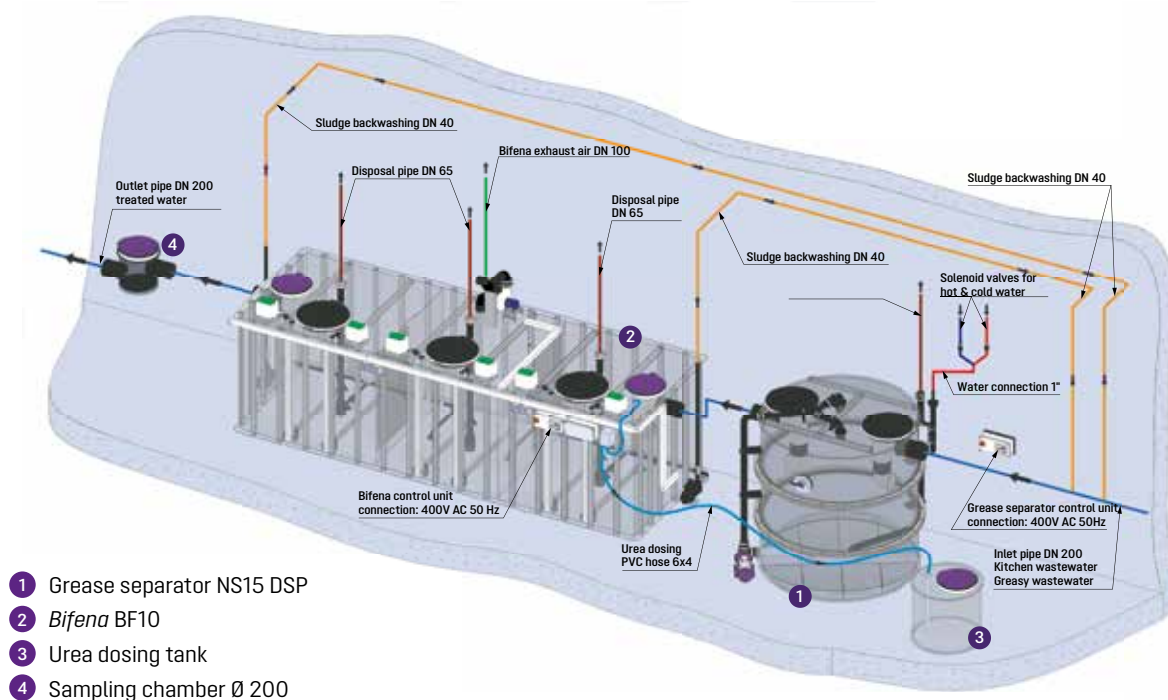
Bifena

When a grease separator alone is not enough: after treatment, wastewater draining out of a properly sized and certified EN 1825 grease separator normally has a residual value of lipophilic substances of approx. 300 mg/l. If the municipalities require a limit value of below 300 mg/l, biological grease treatment with a Bifena unit is needed. It removes residual grease from the wastewater with the help of bacteria.

Bifena units are available for free-standing or underground installation. The individual dimensioning is based on a wastewater sample analysis to determine what additional treatment measures need to be taken to meet local wastewater limits. Contact us – we will be happy to advise you and develop an individual solution for your specific requirements. On the other hand, it may be necessary for chemical substances to be added. In this case a dosing station is advisable, with which the correct quantity of chemicals can be added to the separator. The unit consists of a mixing and a dosing station and can be installed near the separator.

Technical support

info@kessel.com



***Bifena* units for biological grease treatment**

for free-standing installation / for underground installation

Material: Polymer

Version:

- *Bifena* modules for connection after grease separators NS 2/4/7/10/15 and 20

***Bifena* BF 2 and *Bifena* BF 4**

Delivery: Completely assembled system
or on-site welding

***Bifena* with larger dimensions**

Delivery: on-site welding

Dimensioning: Following a wastewater sample analysis to determine what additional treatment measures need to be taken to meet local wastewater limits

Accessories: Lifting stations, sampling devices, etc. from the KESSEL range are matched to the respective project-dependent system

Customised solution:

e-Mail: info@kessel.com



Unit for chemical treatment

for free-standing installation

Material: Polymer

Version:

- Dosing station for combination with grease separators in nominal sizes NS 2 – NS 30

Delivery: Mixing and dosing station
for preliminary or secondary treatment

Accessories: Lifting stations, sampling devices, etc.

Customised solution:

e-Mail: info@kessel.com

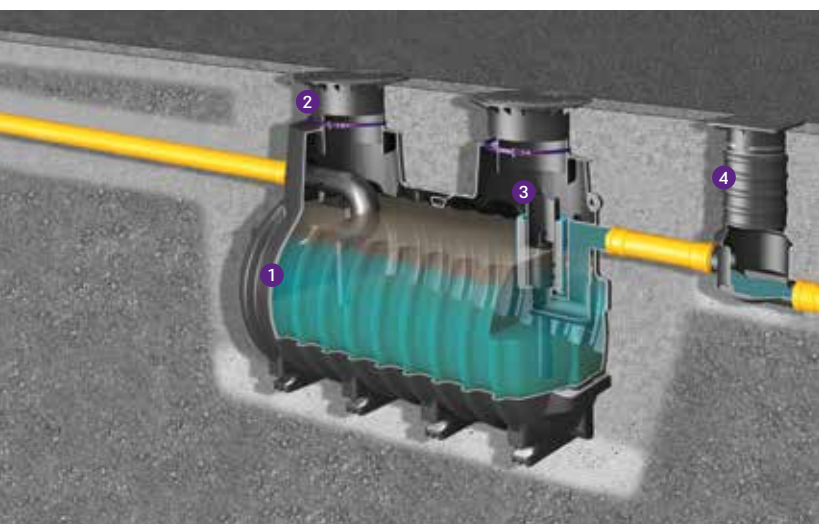


Coalescence and oil/fuel separators *EasyOil* free/ground

For the treatment of oil / fuel
contaminated wastewater

EasyOil separators are available in Class I high efficiency coalescence separators for use in treating wastewater from petrol stations, car washes, vehicle repair garages or any source with oil/fuel contaminated wastewater.

The *EasyOil* separators are available for above-ground and under-ground installation.



- ❶ Coalescence separator ❷ Height adjustable upper section
- ❸ Self-actuated closure lock ❹ Sampling chamber

Emergency float switch

EasyOil is equipped with a self-actuated closure lock. This emergency system prevents the leakage of light liquids into the sewer pipe.

Vertically adjustable upper section

Underground models are equipped with vertically adjustable upper section which are also tiltable up to 5° – for optimum adaptation to the ground level and to compensate for ground settling.

Polymer

EasyOil is the first series of polymer coalescence and oil/fuel separator systems on the German market with national technical approval. The polyethylene material used is resistant to bioethanol (E10) and biodiesel – and therefore particularly durable. In addition to the statutory provision, we provide a 20-year warranty with regard to the leak tightness and structural safety of tanks and upper sections.

SonicControl

The automatic layer thickness measuring device *SonicControl* with ultrasonic sensor takes over the precise monitoring and reporting of the oil layer thickness in coalescence and oil/fuel separators. Operators can therefore monitor the actual volumes of oil and fuel inside the separator to determine the precise disposal date.

***EasyOil* ground**

see www.kessel.com

Coalescence separator *EasyOil* free NS 3 and NS 6, class I, Ø 1000
for free-standing installation according to EN 858

EN 858

Installation

For free standing installation

Consisting of:

Integrated sludge trap and self-actuated closure lock, calibrated for light liquids with densities between 0.85 to 0.95 g/cm³. With removable coalescence filter insert. Completely water tight to top of cover, resistant against aggressive wastewaters, certified structural test. Corrosion free HDPE

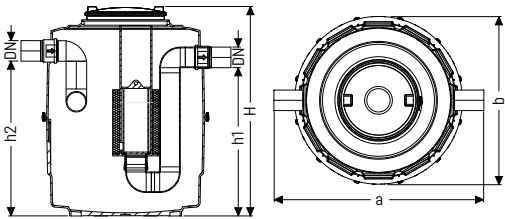
Inlet and outlet Ø for connection pipes:

PE-HD (according to EN 12666-1),
PVC pipe (according to EN 1401-1), PP or AS.

Delivery: Completely assembled



NS	Art. no.
NS 3	99 703.10F
NS 6	99 706.06F



NS	DN	Outer diameter Ø (mm)	Cover Ø (mm)	a (mm)	b (mm)	h1 (mm)	h2 (mm)	H (mm)	Weight empty (kg)	Sludge trap capacity (l)	Oil storage capacity (l)	Total (l)
3	100	110	630	1550	1322	1055	1105	1615	210	300	150	850
6	150	160	630	1580	1322	1155	1205	1615	220	600	180	880

Ø = Outer diameter

Starch separator *EasyStarch* free/ground

The strong solution for starchy wastewater.

Strong-acting against starch: *EasyStarch*. Starch occurs during the processing of potatoes, rice and grain. The starch separator *EasyStarch* is used to prevent deposits, encrustations and blockages in the drainage pipes.

EasyStarch is available for free-standing installation and underground installation. Please get in touch with us – we will be happy to advise you and develop an individual solution for your specific requirements.



1 Starch separator 2 Sampling chamber 3 Lifting station

Polymer

Polymer starch separators are an advantageous alternative to metal solutions as they do not need to be refurbished, even after many years.

The polyethylene material used is particularly durable. In addition to the statutory provision, we provide a 20-year warranty with regard to the leak tightness, fitness for purpose and structural safety of tanks and upper sections.

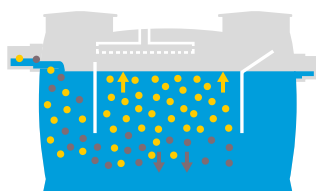


EasyStarch ground

see www.kessel.com

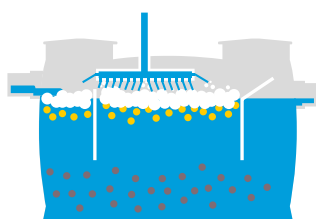
What happens inside a starch separator?

Starch settles to the base of a starch separator due to it being heavier than water. However, foam formation can be expected inside the separator which needs to be reduced by an internal foam reduction spray system.



Wastewater discharge

Wastewater from the potato peeling machine is discharged into the starch separator via a flow calming section (calming section at least 1 m)

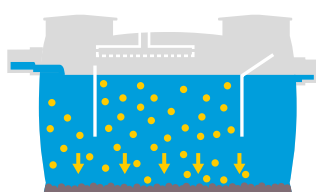


Formation of foam layer

Starch foam is reduced by a water spray system. Where possible, the water connection of the spray system is activated by switching on the potato peeler machine.

Option: Additional device for water spray system (#ZESA40)

Submersible pump operates the spray system with water from the clean water zone of the starch separator.



Formation of starch layer

Spraying the starch foam causes the starch to settle to the bottom of the tank. The treated wastewater flows out of the starch separator via gravity.

Starch separators *EasyStarch* free Standard NS 0.5 – 3
for free-standing installation

Tank

Manufactured from virgin, non-recycled polyethylene, for free standing installation in frost protected areas, foam suppressing rinsing rod system, sloped interior base improves cleaning and reduces disposal time, inlet flow calming system and outlet flow regulation device, slanted twin access covers with quick release odour tight snap closures, integrated fork lift grips at base of separator, 100 % corrosion free polyethylene body construction (20 year warranty).

Disposal System

Standard version requires disposal truck with vacuum system for separator disposal.

Delivery: System completely assembled.

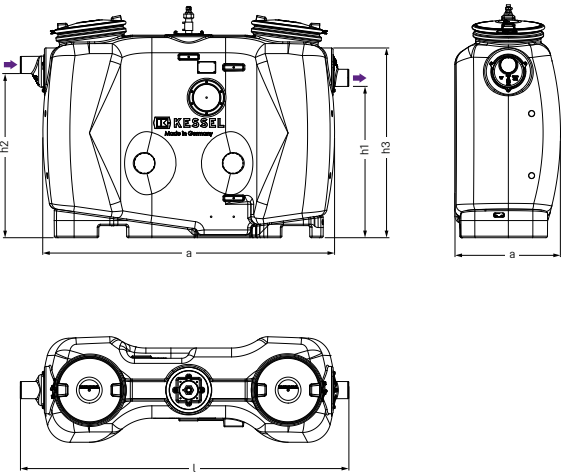
Recommended accessory: ZESA40

ZESA40 is a water supply system for the foam suppressing system consisting of a pump (Type GTF 500), suction hose (DN32/PN6) and high-pressure pipe DN32/PN6 (DA = 40 × 2.3 mm), control unit

 **Accessories:** Sampling chamber



NS	Art. no.
Without accessories	
NS 0.5	94 200.01
NS 1	94 201.01
NS 2	94 202.01
NS 3	94 203.01



NS	Outer diameter Ø (mm)	a (mm)	Installation dimension l × b (mm)	h1 (mm)	h2 (mm)	h3 (mm)	Weight (kg)	Total (l)
0.5	110	1500	1735 × 680	985	1055	1435	84	600
1	110	1880	2115 × 680	985	1055	1435	97	800
2	110	1910	2145 × 940	1185	1255	1655	145	1350
3	110	2590	2820 × 940	1185	1255	1655	191	1900

KESSEL Worldwide

KESSEL supplies our market leading drainage products to over 60 countries throughout the world.

For any questions you may have, please contact our local partner in your country.



● KESSEL offices ○ Partners worldwide

This is KESSEL.

Since 1963, KESSEL has stood like no other company for innovative and reliable drainage technology. We have established ourselves as the impulse generator in the industry and are now a worldwide premium supplier.



Competent partner
since 1963



International player
**60+
countries**



Innovative premium supplier
**3.000+
products**



Safe employer
**550+
employees**



Sustainable company
**110+ mio. €
in sales**

During the production of our products as well as their operation on-site, we keep quality assurance, environmental protection and worker's safety at the top of our list.

We also place great value in the relationship with our customer, providing consultation, installation support, commissioning and after-sales service.

One thing is certain, our innovation, quality, reliability and service is number one in the industry.

KESSEL – Leading in drainage



Made in Germany





KESSEL Headquarters Lenting, Germany

Leading in drainage.

No matter whether the task involves discharging water, wastewater treatment or backwater protection: if the best solution is required, there is no option but KESSEL.

Backwater protection

Pump technology

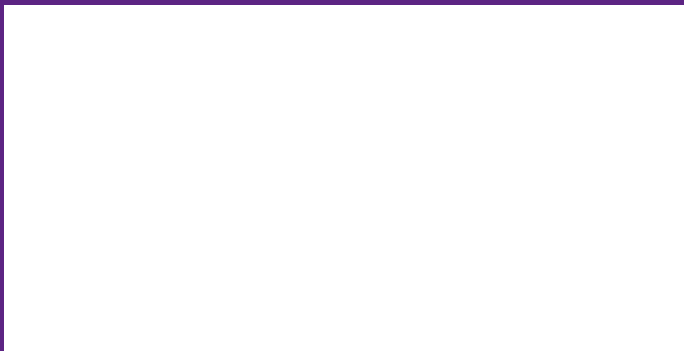
Separator technology

Drainage technology



For further information
visit

www.kessel.com



Subject to technical modifications.

KESSEL AG

Bahnhofstraße 31 • 85101 Lenting, Germany

www.kessel.com

