

Product Range

Catalogue

 KESSEL

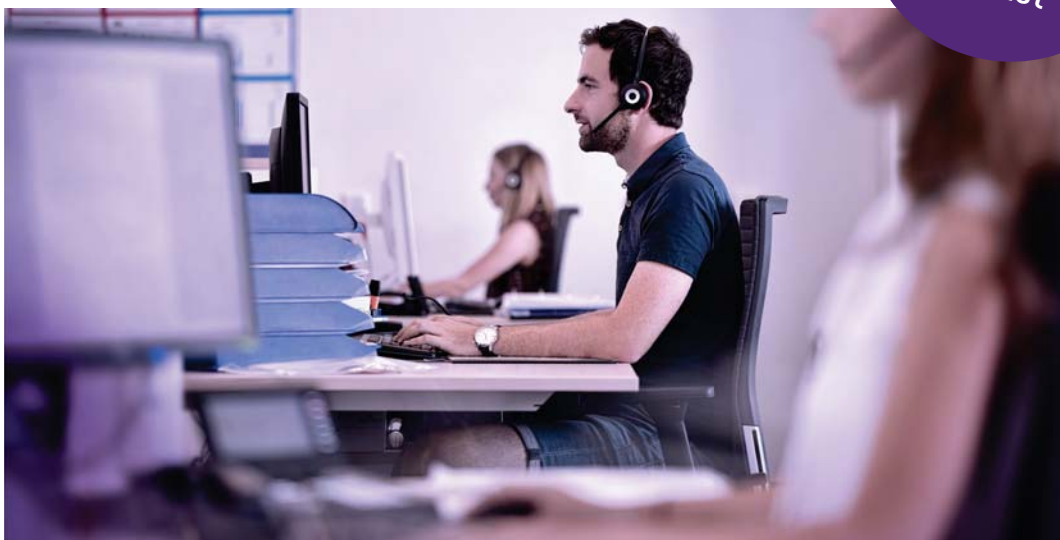
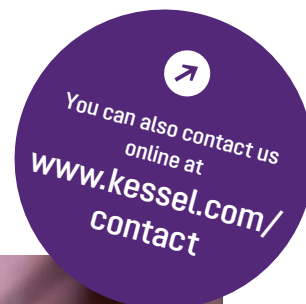
# EN 4.0



# Contact

## We are here for you.

Some questions are easiest answered in person.  
Our experts will be happy to help.



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Company  
**This is KESSEL**



KESSEL Headquarters, Lenting, Germany

Since 1963, KESSEL has stood like no other company for quality, innovation, safety and service in the field of draining technology. As a premium international provider and industry pacesetter, we continuously strive to ensure that our vision is always open to new ideas:

**KESSEL – Leading in drainage**



**600+**  
Employees



**103 million**  
**euros**  
Annual turnover 2018



**92,920 m<sup>2</sup>**  
Factory site



**54**  
Supplied countries

1963



**1972**

*Staufix* clean-out introduced creating the foundation for the successful *Staufix* backwater valve product line.



**1986**

Introduction of the environmental technology segment: *UNIVA* grease and starch separator



**2007**

*Ecoguss* drains, new metallic composite material – the best alternative to cast iron



**2015**

*Ecolift XL* hybrid lifting stations



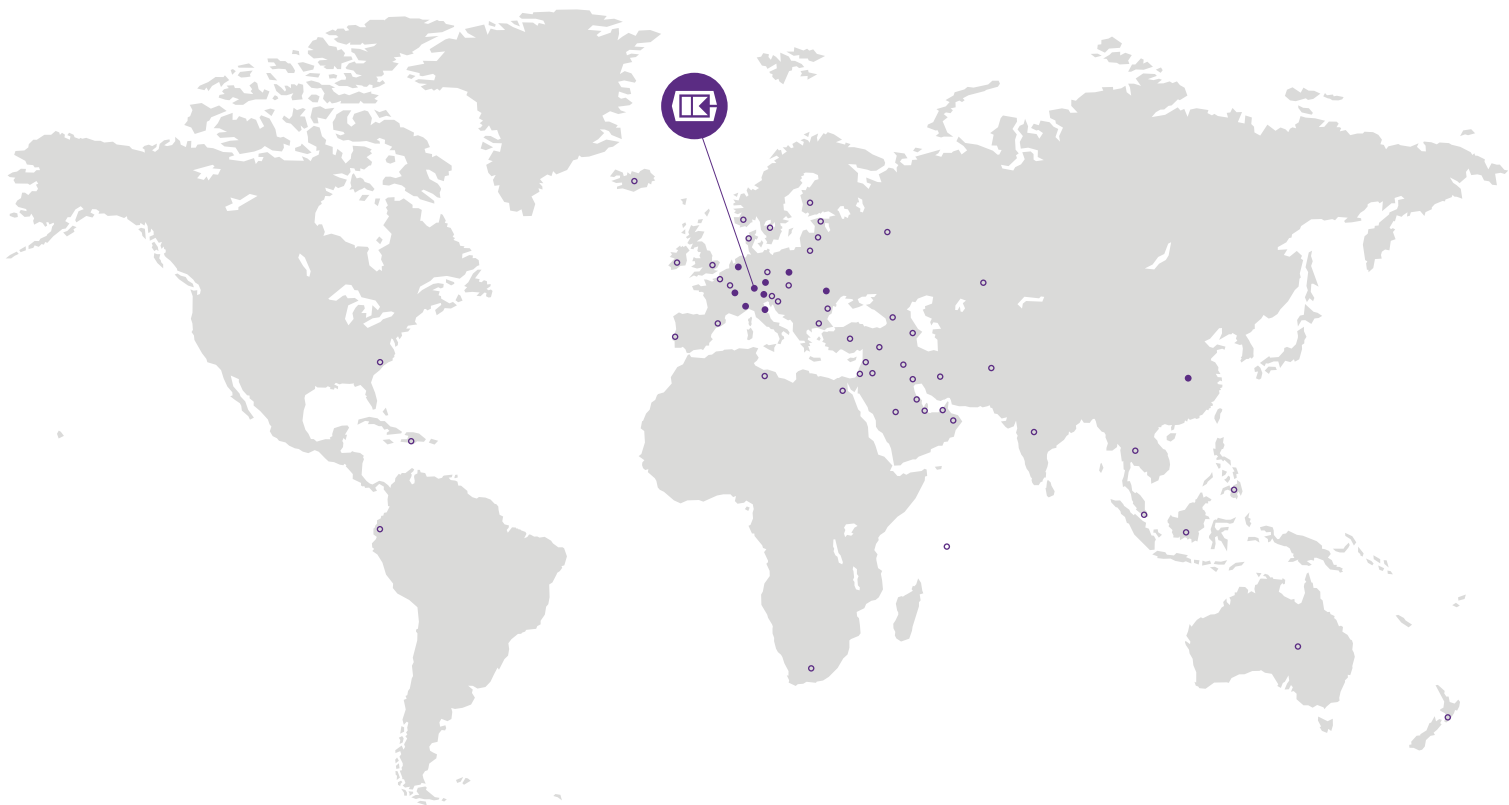
**2017**

The new *StaufixControl* backwater valve – protects, controls and reports in the event of backwater

## Factory visits and customer forums

# Innovation you can feel

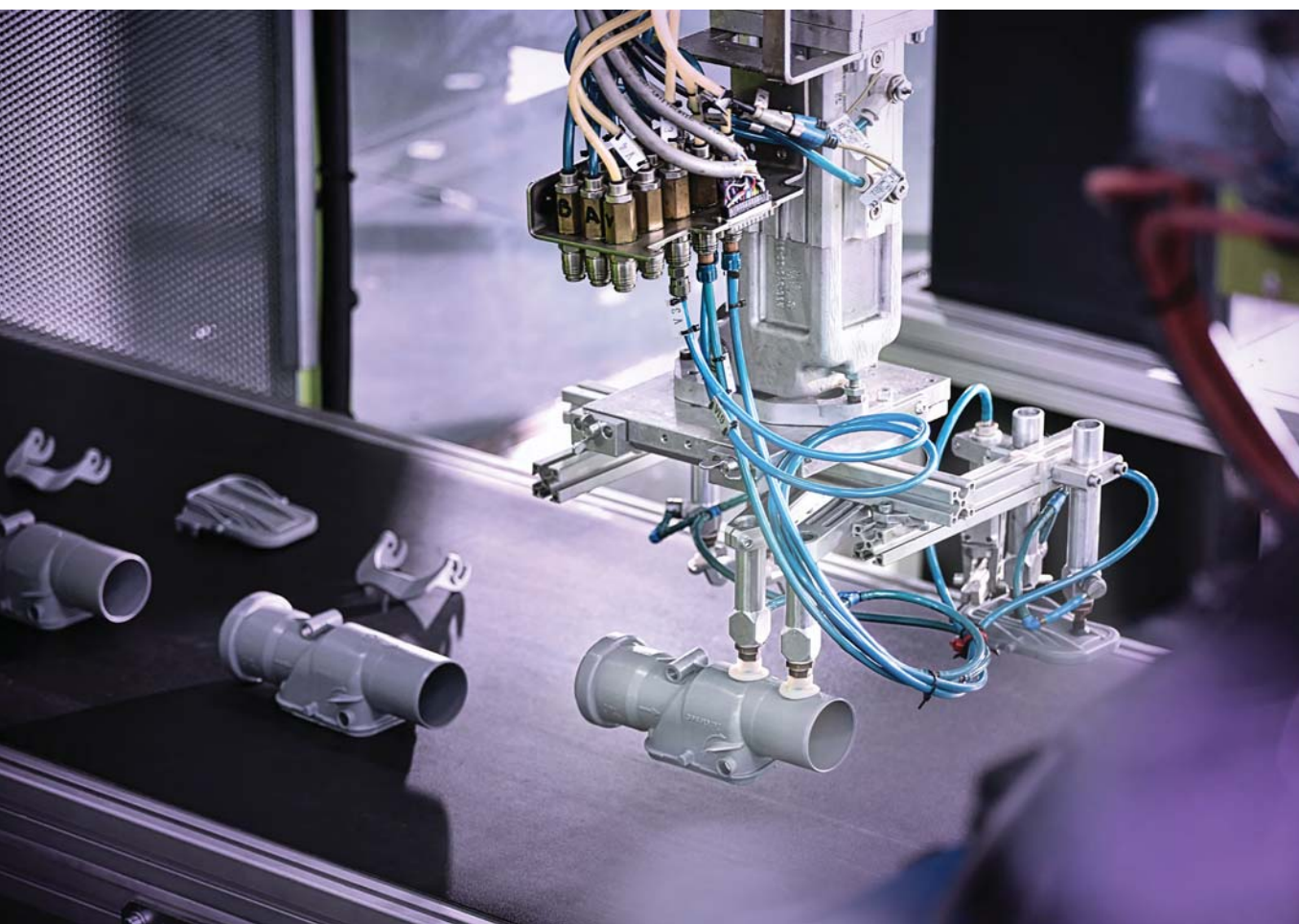
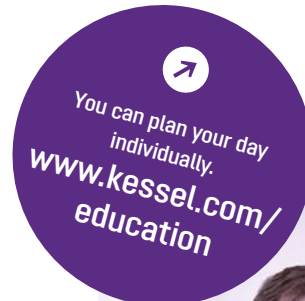
Are you interested in the product range at KESSEL AG and would like to know more about the manufacturing of our innovative drainage products? Then we would be delighted to invite you to visit our site in Lenting, Germany.





Within the course of a comprehensive and expert guided tour we will show you the three manufacturing processes at KESSEL: Injection moulding, rotation production and system construction. Gain an exciting insight behind the scenes and have a look over our employees' shoulders at their everyday work.

We will show you our innovative drainage solutions in typical installation locations in our multimedia exhibition "The world of drainage technology". This is possible with the help of life sized, real photos which show an exact installation example. In addition, comprehensive multimedia presentations await you at each station.



# Individual solutions

For over 20 years we have been developing tailor-made drainage solutions for the specific requirements of our customers.

Our extensive knowledge of polymer engineering enables us to respond to your particular needs at any time. This means we can offer you almost unlimited product variety. To date, we have successfully installed around 20,000 customised solutions.

## Our product lines

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- Lifting stations
- Drains and channels
- Separators
- Hybrid lifting stations
- Backwater protection
- Chambers



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**Individual solutions**

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[info@kessel.com](mailto:info@kessel.com)



### Product adaptation

If a particular shape, size or function of the product is required, we can carry out minor or major modifications to the product to meet these specifications.



### Standard solution

Draining water, treating wastewater, protecting against backwater: all the standard drainage tasks are covered by our standard portfolio.

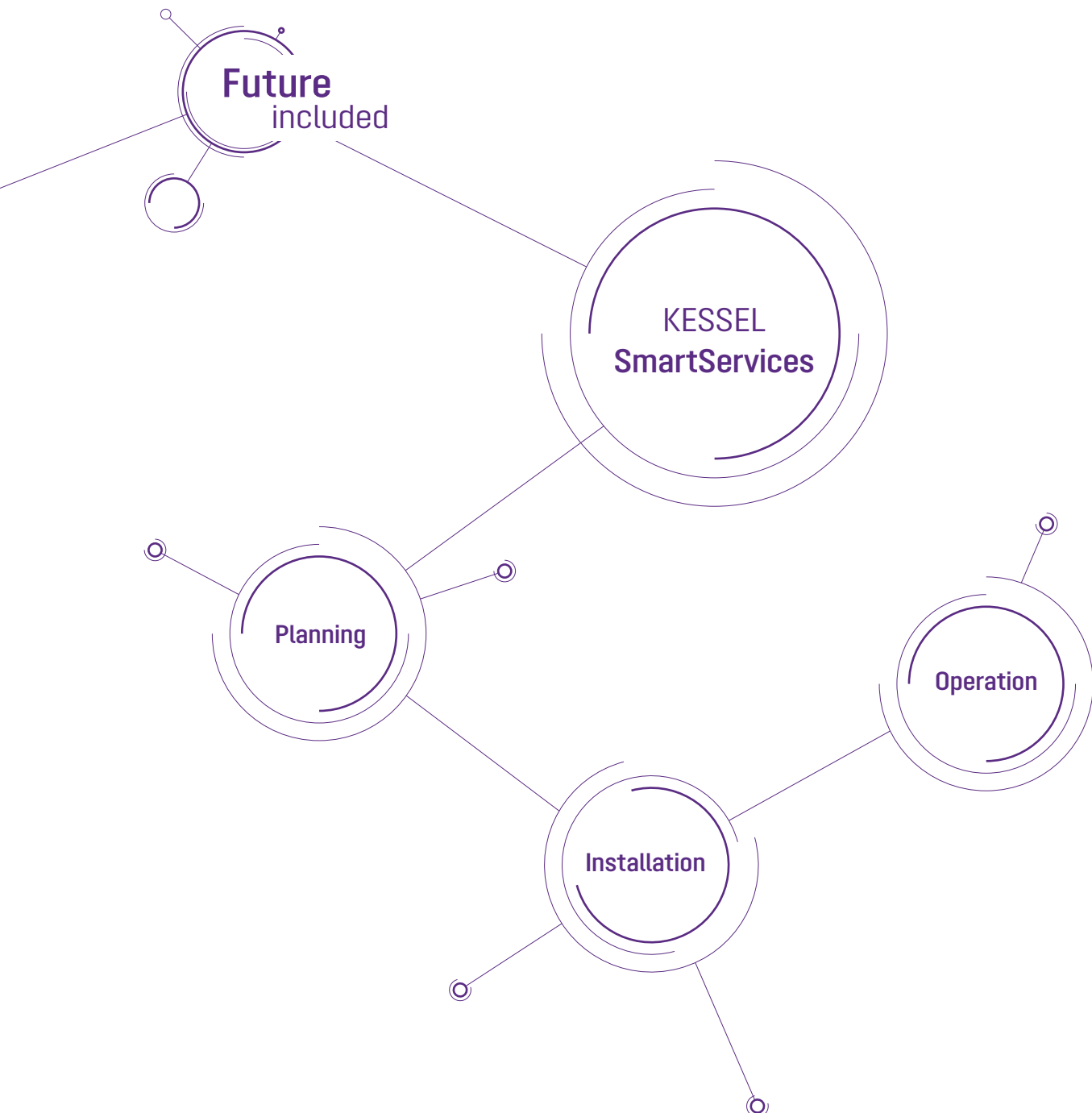


### New development

If the range of tasks differs from the usual framework to an extreme extent, we also develop completely new products for your specific application.

# KESSEL Smart Services

## Our digital services offer









With KESSEL SmartServices the future has already arrived for each of our drainage products. For you as a customer, this not only means extensive digital support for design, installation and operation – but also the certainty that we continue to develop our services for your benefit.




## Planning

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-  **Building Information Modelling (BIM)**  
 All component information for dependable planning
-  **CAD data**  
 Drawing with AutoCAD & similar software.
-  **Specification texts**  
 Simple management of article master data.
-  **Design information**  
 Detailed guide.





## Installation


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-  **Building Information Modelling (BIM)**  
 All important component information for dependable installation.
-  **Assembly/installation videos**  
 Illustrated installation tips.
-  **Installation instructions**  
 Proper installation, step-by-step.


## Operation

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-  **Building Information Modelling (BIM)**  
 All important component information for dependable operation and maintenance.
-  **Spare parts catalogue**  
 Spare parts for maintenance and repair.
-  **Function videos**  
 Illustrated product explanations.
-  **User manuals**  
 Online library for product manuals.

- 
-  **SmartSelect**  
 Design tool for lifting stations and grease separators.

- 
-  **SonicControl**  
 Automatic layer thickness measurement for separators.

-  **Spare part finder**  
 Selection tool for suitable spare parts.

## Quality

# Our promise

The KESSEL name stands for the highest quality. That is why our manufacturing is carried out where we can guarantee our customers the best quality. And this is why Lenting near Ingolstadt has been our main site since 1979. For us, "Made in Germany" is not a marketing slogan, but rather it is the basis for the KESSEL quality promise. In order to remain at the peak, we are continuously optimising our internal processes – backed by ISO management standards.



### DGNB

Member of the association for sustainable construction ["DGNB e.V."] for long-term sustainable quality in construction products.



### LGA design tested and monitored

A recognised independent testing institute ensures that the European standards and all further requirements are met.



### SKZ test seal

The quality seal testifies that the tested products have successfully passed through the testing, monitoring and certification stages.



### Information on ATEX products

Proof that a device complies with the ATEX product guideline 2014/34/EU. For devices and protection systems for proper use in potentially explosive areas, e.g. volatile liquid separators.



### CE mark

Proof that the manufacturer is compliant with the directive 93/42/EEC for Europe-wide regulation of construction products. National requirements should nonetheless be fulfilled during installation and operation.



### Ü mark

Proof of compliance for European or nationally regulated construction products.



### Quality mark for high-quality stainless steel

Stainless steel material 1.4301 or 1.4571 complies fully with the requirements for food-processing plants and guarantees perfect functional use. The KESSEL grate covers are compliant with DIN 1253-1.



### Design awards

The **Red Dot Award** is an international design competition and is awarded in the categories Product design and Communication design. The **DobryDesign** award is bestowed by a Polish interior design magazine and honours particularly attractive products in various segments.



### Polyethylene guarantee

KESSEL extends the warranty period for polyethylene tanks beyond the statutory requirement to 20 years. This covers the air-tightness, usability and static safety of these components.



### EnOcean

Wireless modules from EnOcean are based on miniaturised energy converters, extremely low power electronics and reliable wireless technology.

# Integrated management system Systematic sustainability

Alongside the strategic guidelines, the integrated management system for quality, energy, environment and occupational safety plays a central role at operative levels. Amongst other things, the integrated management system serves to define measurable and realistic objectives for increasing the sustainability in the various areas of activity and to implement these in a controlled manner.



## ISO 9001

### Quality management system

Define quality objectives & introduce and assess corresponding measures

## ISO 14001

### Environmental management system

Use energy and raw materials efficiently, minimise emissions, waste and hazardous substances & assess environmental risks and opportunities

## NLF / ILO-OSH

### Occupational safety management system

Establish a safe, healthy and performance-enhancing working environment for employees



## ISO 50001

### Energy management system

Minimise energy-related emissions, increase proportion of renewable energies & improve energy efficiency

# 1. Backwater protection

Protection against flooding  
due to backwater

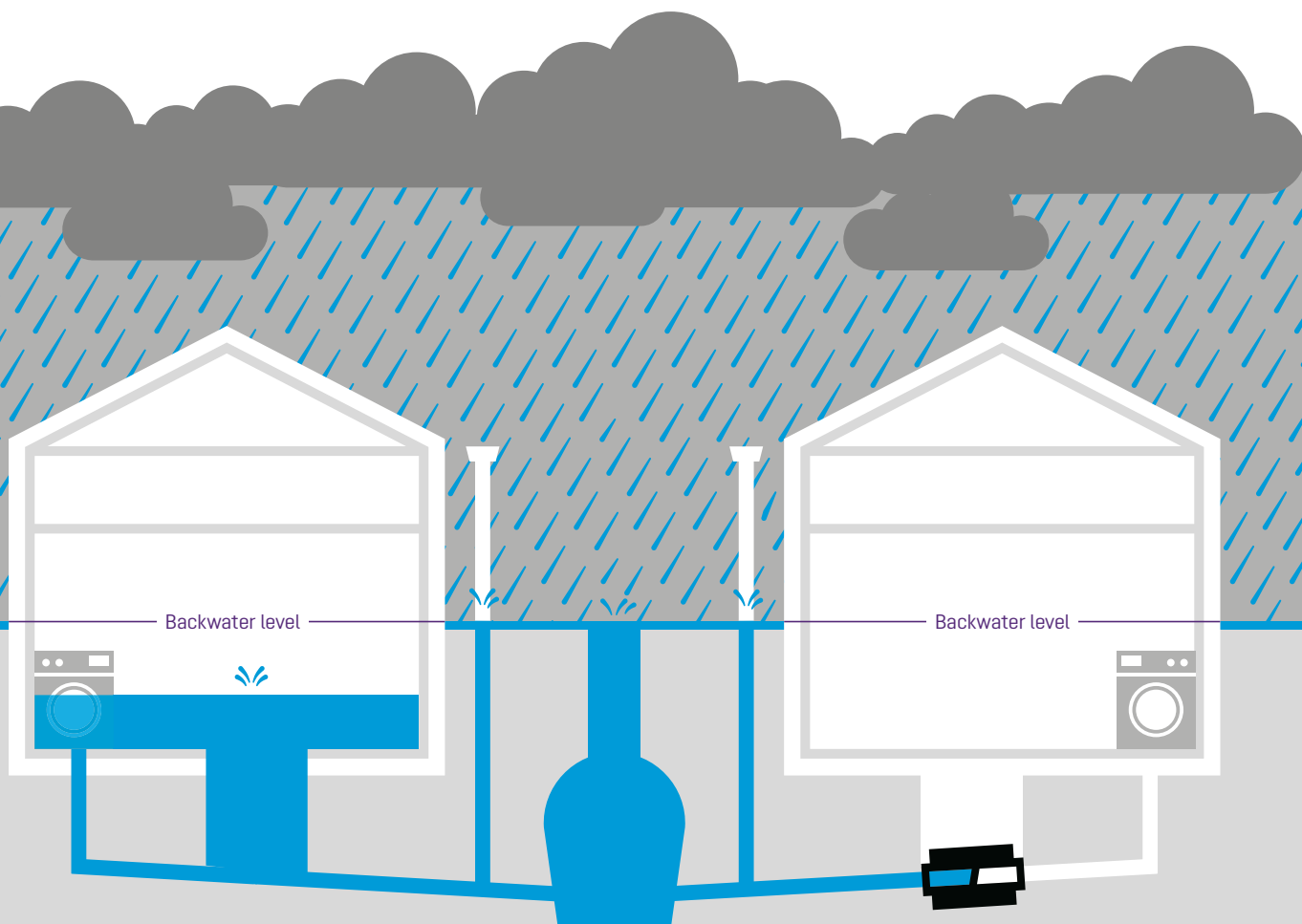
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# Everything specialists need to know

What is backwater and what criteria must be noted for the correct product choice?



## Water drainage system without backwater protection

During heavy rain, the water level rises above the so-called backwater level. This term is usually used to mean street level. Rooms in the basement or cellar quickly become flooded. The results are significant damage and costs.

## Water drainage system with backwater protection

Wastewater that flows with a slope to the sewer will be protected by a backwater valve. In the event of backwater, the flap closes so that no wastewater can enter the building. If the public sewer is higher than the drainage spot in the building, the wastewater must be pumped above the backwater level, for example via an Aqualift lifting station from KESSEL.

## Secure protection through six types of backwater valves

The appropriate backwater protection can only be selected after clarification. The usage conditions set out in EN 12056-4 must be present. According to EN 13564-1, a distinction is made between six types of backwater valves:

**Type 0** Backwater valve for use in horizontal pipes with one closure flap.

**Type 1** Backwater valve for use in horizontal pipes with one automatic closure and one emergency closure, whereby this emergency closure may be combined with the automatic closure.

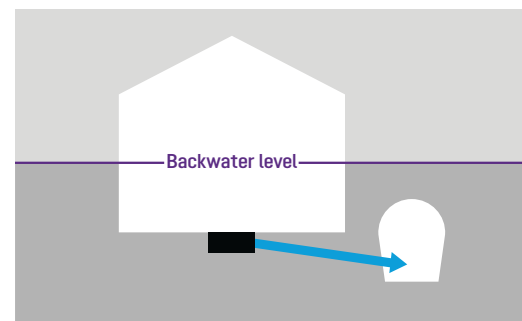
**Type 2** Backwater valve for use in horizontal pipes with two automatic closures and one emergency closure, whereby this emergency closure may be combined with one of the two automatic closures.

**Type 3** Backwater valve for use in horizontal pipes with one automatic closure operated by external energy (electric, pneumatic or other) and one emergency closure which is independent of the automatic closure.

**Type 4** Not permitted in Germany. Floor drain with a self-actuating closure and an emergency closure.

**Type 5** Backwater valve installed in drain fittings or floor drains, with two automatic closures and one emergency closure, whereby this emergency closure may be combined with the automatic closure.

## Slope to the main sewer

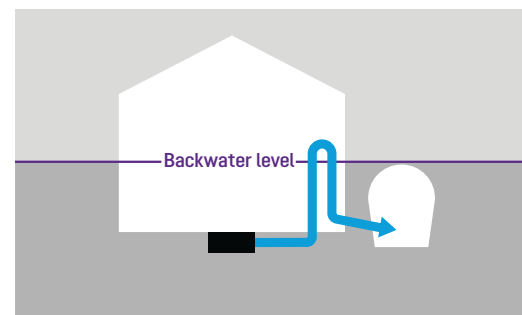


### Slope to the main sewer

If the sewage pipe lies below the backwater protection, the domestic wastewater will be disposed of via the natural slope. Backwater valves and hybrid lifting stations can be used here.

➤ [Backwater valves: Page 24](#)

➤ [Hybrid lifting stations: Page 68](#)



### No slope to the sewage pipe

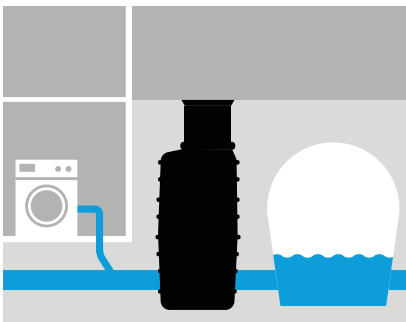
If the sewage pipe is higher than the backwater protection, the wastewater must be lifted to the sewage pipe with a lifting station via a backwater loop.

➤ [Lifting stations: Page 92](#)

➤ [Pumping stations: Page 140](#)

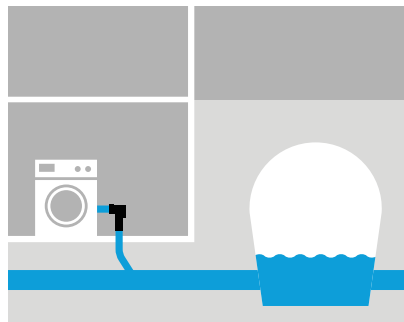
## Installation situation

There are three options for installing backwater protection.



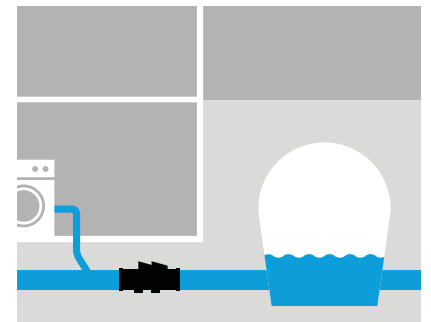
### Outdoor, underground installation

This is the most practical solution. Products to protect against water ingress are installed in a chamber in the ground in front of the building. This saves space in the basement, noise nuisance can be practically ruled out and the installation is functionally secure and maintenance-friendly.



### Exposed installation

This is the simplest solution as it does not require a great deal of structural rework. This means that the installation is quick and that the backwater protection unit is always easily accessible for maintenance and cleaning. Particularly with retrospective installations or in the renovation of older buildings, an exposed installation is often the only alternative.



### Floor slab installation

This is the most convenient solution. With floor slab installation, the backwater valve takes up no living space as it is unobtrusively installed in the underfloor. However, it is still accessible for maintenance or repair via the cover with a single step. Ideal for new-builds.

## Types of wastewater

In principle, we differentiate between two different types of wastewater. Different backwater protection devices can be considered depending on the type of wastewater being dealt with.



**Wastewater with sewage** is water with faecal content coming from urinals or toilets to the sewer. This is termed "black water".



**Wastewater without sewage** is water without faecal content, for example shower water or water from a washing machine. This is termed "grey water".

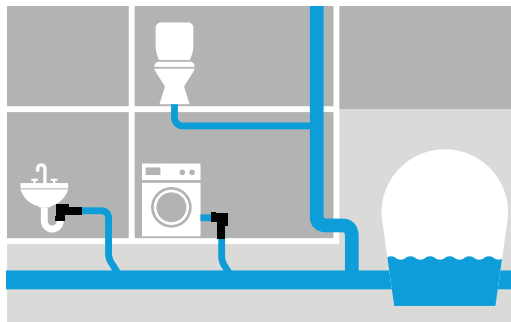


## Protection strategy



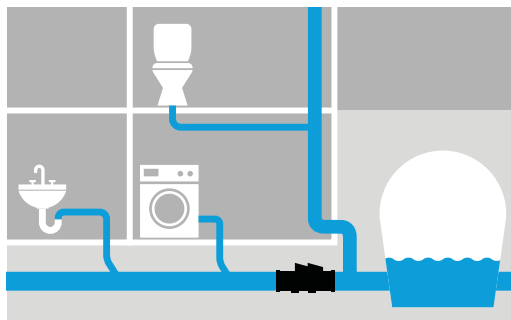
### Individual protection

Each drainage location, such as washbasins, showers or washing machines, is protected with its own backwater protection.

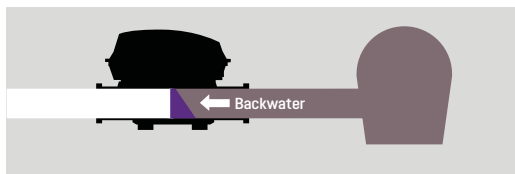


### Central protection

Backwater valves or lifting stations installed in the main wastewater pipe, protecting all drainage fixtures.

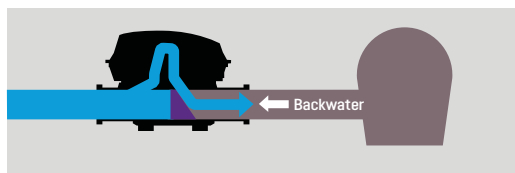


## Function



### Protects in the event of backwater

The backwater flap prevents wastewater from the sewage pipe pushing into the building.



### Disposes in the event of backwater

Despite backwater from the sewage and closed backwater flap, domestic wastewater can be disposed of via a pump. This ensures that the drainage system would remain functionally capable.

# At a glance

## Backwater protection range

### 1.1 Backwater valves



Backwater pumping station  
**Pumpfix F**

➤ Page 28



Backwater valve  
**Staufix or StaufixControl**

➤ Page 40



Backwater valve  
**Staufix FKA**

➤ Page 31



Backwater valve  
**Staufix Basic**

➤ Page 49



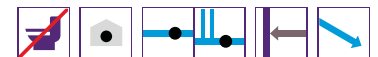
Backwater valve  
**Staufix SWA**

➤ Page 33



Backwater valve  
**Staufix Ø 50 or Ø 75**

➤ Page 52



Clean out  
**Controlfix**

➤ Page 35



Can be converted to:  
Pumpfix F, Staufix  
FKA, Staufix SWA



Backwater valve  
**Multitube**

➤ Page 54



Backwater valve  
**Pipe flap**

➤ Page 55



## 1.2 Backwater chambers



**Standard backwater chamber**  
Ø 1000 with *Controlfix*

➤ Page 58



Can be converted to:  
*Pumpfix F, Staufix FKA, Staufix SWA*



**Modular backwater chamber**  
Ø 1000 with *Controlfix*

➤ Page 61



Can be converted to:  
*Pumpfix F, Staufix FKA, Staufix SWA*

### Type of wastewater



Water containing sewage



Wastewater without sewage

### Installation situation



Outdoor, underground installation



Indoor, exposed installation



Floor slab installation

### Protection strategy



Individual protection



Central protection

### Function



Protects in the event of backwater



Protects and disposes in the event of backwater

### Position relative to sewage pipe



Gravity slope to sewer



No slope to the sewer

### No slope to the sewage pipe?

➤ Lifting stations: Page 92

➤ Pumping stations: Page 140

### Additional KESSEL products with integrated backwater protection:

➤ Basement drains: Page 264

➤ Hybrid lifting stations: Page 68

# 1.1 Backwater valves

Backwater flood protection





## Backwater pumping station *Pumpfix F*

### The unique backwater solution.

More than a backwater valve: *Pumpfix F* is the only backwater valve that pumps against the backwater. In normal operation, the *Pumpfix F* allows the wastewater from the building to flow with gravity into the sewage pipe, making it energy-neutral. In the event of backwater, the backwater flap closes automatically and when wastewater arises this is pumped against the backwater pressure. The integrated cutting wheel shreds solids meaning the *Pumpfix F* is also suitable for use wastewater containing sewage. It can also drain basement staircases up to 5 m<sup>2</sup>.

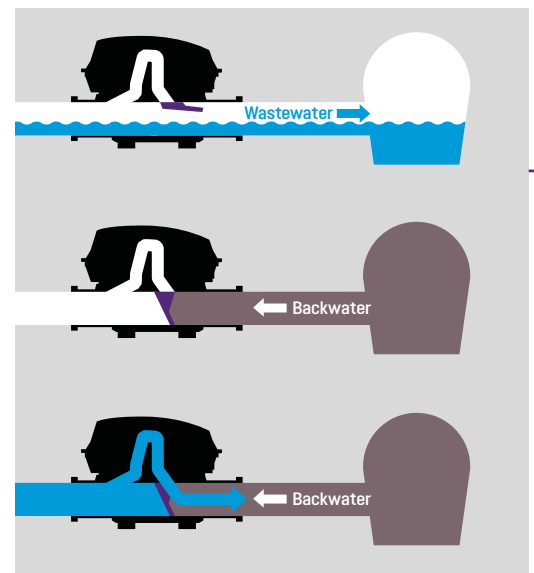
*Pumpfix F* is available in two variants – for installation in an exposed drainage pipe and for floor slab installation, where you can choose between a black cover or tileable cover.



1 Backwater pumping station 2 Control unit 3 Sealing gasket set



1 Backwater pumping station 2 Control unit

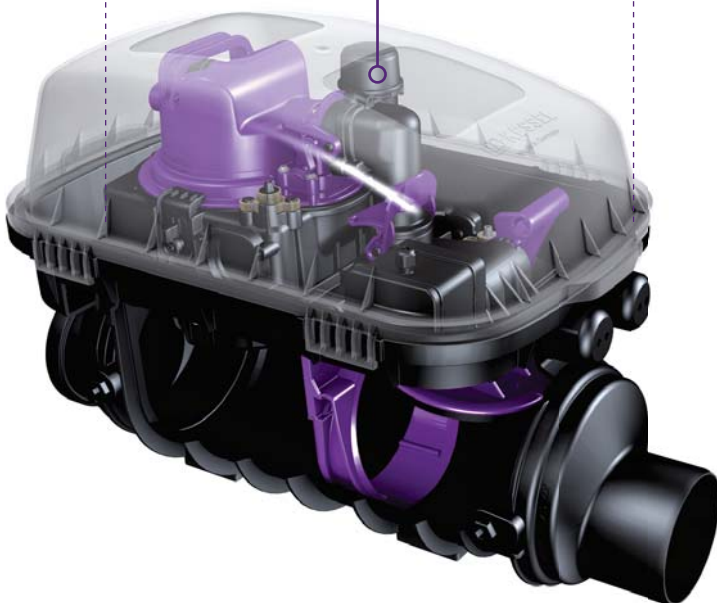
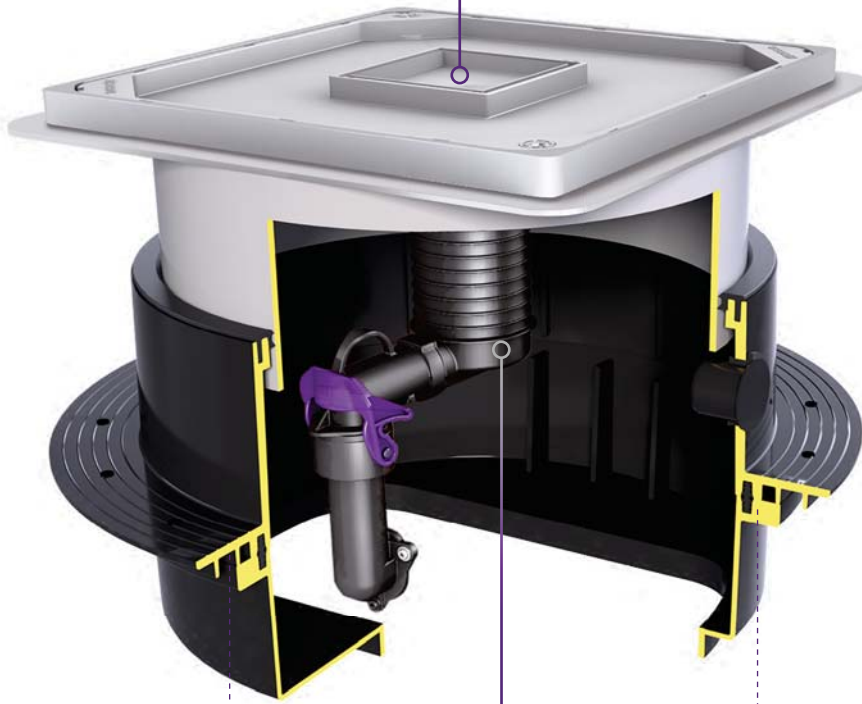


#### How it works

*Pumpfix F* is the only backwater valve with hybrid function: In normal operation it uses the natural slope to the sewage pipe. In the event of backwater from the sewage pipe, the pump is automatically switched on in order to reliably pump the building's wastewater against the backwater pressure.

### Installation kit for the floor slab with integrated drainage function

The backwater valve is available for floor slab installation and can also be installed in waterproof concrete by using an extension piece with central flange and an elastomer waterproofing membrane. The integrated drainage function ensures that any surface water that arises, for example due to a pipe break, will be pumped into the sewage pipe despite there being backwater.



### Self-diagnosis system

The backwater valve has a plug-in-ready, fully wired, convenient control unit with SDS self-diagnosis system, a display for showing the operating status and maintenance information as well as a connection option for centralised control systems. It can be connected without the need for an electrician.



## Backwater pumping station *Pumpfix F*

Installation in a concrete slab/floor

Made of polymer, with telescopic upper section for continuous height- and level adjustment.

For installation depth (D) from 486 – 640 mm, Installation area 750 × 750 mm

With surface water tight polymer cover plate class A 15 and integrated floor drain.

Installation kit with choice of cover.

Backwater pumping station according to EN 13564 Type 3 with pump (1kW/230V) and backwater valve, pump activates during backwater, suitable for wastewater with or without sewage.

Plug-and-Play control unit with connection option to building management system and alarm, display for operating status and battery back-up, protection type IP 54, with integrated self diagnosis system SDS, motorized backwater flap, *Pumpfix F* body rated protection type IP 68 (3 m, 24 h).

**Power cable length:** 5 m (15 m available on request).

**Note:**

With S1-pump, without macerator, capable for continuous operation: [info@kessel.com](mailto:info@kessel.com) (on request)

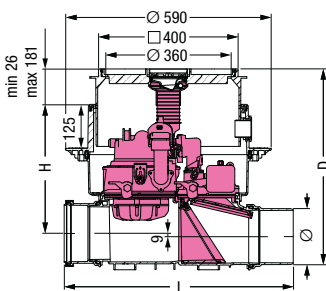
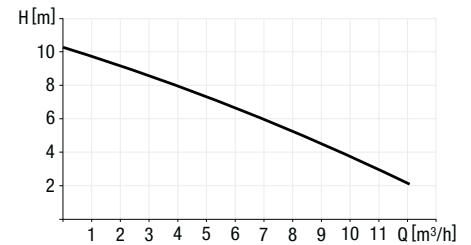
**Accessories:**

Extension sections for installation in waterproof concrete see page 36



Outer diameter Ø (mm)	L × H in mm	Art. no.
With recessed cover for on-site tiling and drain		
Ø 110	642 × 394	<b>24 100X</b>
Ø 125	645 × 387	<b>24 125X</b>
Ø 160	656 × 370	<b>24 150X</b>
Ø 200*	720 × 348	<b>24 200X</b>
With black cover and drain		
Ø 110	642 × 394	<b>24 100S</b>
Ø 125	645 × 387	<b>24 125S</b>
Ø 160	656 × 370	<b>24 150S</b>
Ø 200*	720 × 348	<b>24 200S</b>

### Pumping capacity





## Backwater pumping station *Pumpfix F*

Installation in an exposed wastewater pipe

Made of polymer, with protective cover.

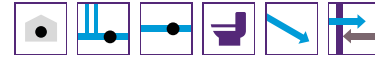
Backwater pumping station according to EN 13564 Type 3 with pump (1kW/230V) and backwater valve, pump activates during backwater, suitable for wastewater with or without sewage.

Plug-and-Play control unit with connection option to building management system and alarm, display for operating status and battery back-up, protection type IP 54, with integrated self diagnosis system SDS, motorized backwater flap, *Pumpfix F* body rated protection type IP 68 (3 m, 24 h).

**Power cable length:** 5 m (15 m available on request).

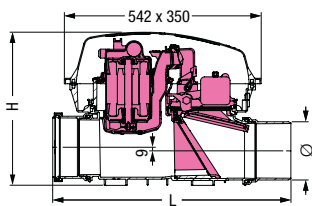
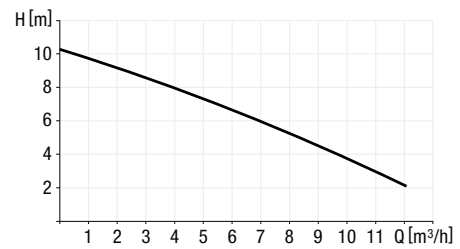
**Note:**

With S1-pump, without macerator, capable for continuous operation:  
[info@kessel.com](mailto:info@kessel.com) (on request)



Outer diameter Ø (mm)	L × H in mm	Art. no.
Ø 110	642 × 422	24 100
Ø 125	645 × 422	24 125
Ø 160	656 × 422	24 150
Ø 200*	720 × 422	24 200

### Pumping capacity



## Backwater valves

# *Staufix FKA*

The reliable solution for wastewater with sewage.

Particularly reliable motor operation: In contrast to conventional backwater valves, the *Staufix FKA* closes the backwater flap with the help of a motor. This means that it is also suitable for wastewater containing sewage – not only for showers, washbasins and washing machines, but also for toilets.

*Staufix FKA* is available in two variants – for installation in an exposed drainage pipe and for floor slab installation, where you can choose between a black cover or tileable cover.



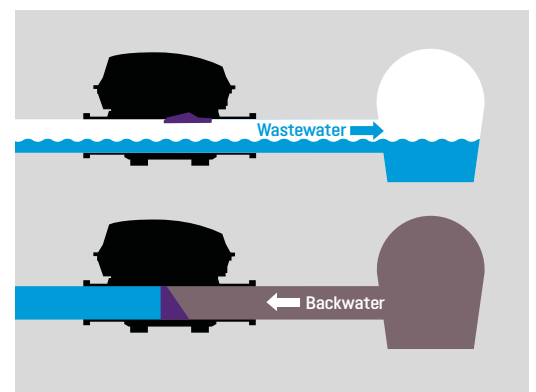
1 Backwater valve 2 Control unit



1 Backwater valve 2 Control unit 3 Sealing gasket set

### Installation kit for the floor slab

The backwater valve is available for floor slab installation with a tileable cover and can also be installed in waterproof concrete by using an extension piece with central flange and an elastomer waterproofing membrane.



### How it works

During normal operations, both flaps are open so that all the wastewater can drain away fully. In the event of backwater from the sewer, the flap is closed and locked by a motor and then opened again automatically afterwards.

---

**The backwater valve has a plug-in, fully wired, convenient control unit with SDS self-diagnosis system.**

## Backwater valve *Staufix FKA*

Installation in a concrete slab/floor

Made of polymer, with telescopic upper section for continuous height- and level adjustment.

For installation depth (D) from 486 – 640 mm, Installation area 750×750 mm

With surface water tight cover plate class A 15 made of polymer.

Installation kit with choice of cover.

Backwater valve according to EN 13564 Type 3 with two open flaps.

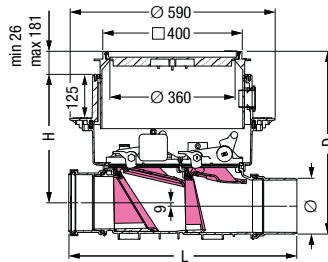
Plug-and-Play control unit with connection option to building management system and alarm, protection type IP 54, with integrated self diagnosis system SDS, display for operating status and battery back-up, motor is rated protection Type IP 68 (3 m, 24 h).

Supply voltage/-frequency: 230 V AC/50 Hz.

**Power cable length:** 5 m (15 m available on request).

➤ **Accessories:**

- Extension sections for installation in waterproof concrete see page 36
- Conversion kits see page 37



Outer diameter Ø (mm)	L × H in mm	Art. no.
-----------------------	-------------	----------

With recessed cover for on-site tiling

Ø 110	642 × 394	<b>84 100X</b>
Ø 125	645 × 387	<b>84 125X</b>
Ø 160	656 × 370	<b>84 150X</b>
Ø 200*	720 × 348	<b>84 200X</b>

With black cover

Ø 110	642 × 394	<b>84 100S</b>
Ø 125	645 × 387	<b>84 125S</b>
Ø 160	656 × 370	<b>84 150S</b>
Ø 200*	720 × 348	<b>84 200S</b>



CE EN 13564 Type 3 F

\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

## Backwater valve *Staufix FKA*

Installation in an exposed wastewater pipe

Made of polymer, with protective cover.

Backwater valve according to EN 13564 Type 3 with two open flaps.

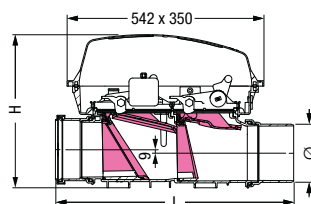
Plug-and-Play control unit with connection option to building management system and alarm, display for operating status and battery back-up, protection type IP 54, with integrated self diagnosis system SDS, display for operating status and battery back-up, motor is rated protection Type IP 68 (3 m, 24 h).

Supply voltage/-frequency: 230 V AC/50 Hz.

**Power cable length:** 5 m (15 m available on request).

➤ **Accessories:**

- Conversion kits see page 37



Outer diameter Ø (mm)	L × H in mm	Art. no.
-----------------------	-------------	----------

Ø 110	642 × 422	<b>84 100</b>
Ø 125	645 × 422	<b>84 125</b>
Ø 160	656 × 422	<b>84 150</b>
Ø 200*	720 × 422	<b>84 200</b>

\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160



CE EN 13564 Type 3 F

## Backwater valves

# *Staufix SWA*

### The reliable solution for wastewater

Double security with two pendulum flaps: The *Staufix SWA* backwater valve for wastewater offers absolute security in protection against backwater. In the event of backwater, the outer flap closes securely with the second flap providing additional security. The system can also be locked with a manually actuated emergency closure. *Staufix SWA* is suitable for showers, washbasins and washing machines.

*Staufix SWA* is available in two versions – for installation in an exposed drainage pipe and for floor slab installation, where you can choose between a black cover or tileable cover.



1 Backwater valve 2 Sealing gasket set



1 Backwater valve

### Simple conversion

The *Staufix SWA* backwater valve can be retrofitted with the *Staufix FKA* and *Pumpfix F* conversion kits – even in its installed state.

- **Backwater valve *Staufix FKA***  
Page 31
- **Backwater pumping station *Pumpfix F***  
Page 28
- **Conversion kits**  
Page 37

## Twin flap backwater valve *Staufix SWA*

Installation in a concrete slab/floor

Made of polymer, with telescopic upper section for continuous height- and level adjustment.

For installation depth (D) from 486 – 640 mm, Installation area 750 × 750 mm

With surface water tight cover plate class A 15 made of polymer.

Installation kit with choice of cover.

Backwater valve according to EN 13564 Type 2 with two self-closing flaps, one of which can be locked by hand as an emergency closure.

### Accessories:

- Extension sections for installation in waterproof concrete see page 36
- Conversion kits see page 37



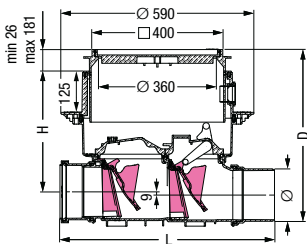
Outer diameter Ø (mm)	L × H in mm	Art. no.
-----------------------	-------------	----------

With recessed cover for on-site tiling

Ø 110	642 × 394	73 100.10X
Ø 125	645 × 387	73 125.10X
Ø 160	656 × 370	73 150.10X
Ø 200*	720 × 348	73 200.10X

With black cover

Ø 110	642 × 394	73 100.10S
Ø 125	645 × 387	73 125.10S
Ø 160	656 × 370	73 150.10S
Ø 200*	720 × 348	73 200.10S



\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

## Twin flap backwater valve *Staufix SWA*

Installation in an exposed wastewater pipe

Made of polymer, with protective cover.

Backwater valve according to EN 13564 Type 2 with two self-closing flaps, one of which can be locked by hand as an emergency closure.

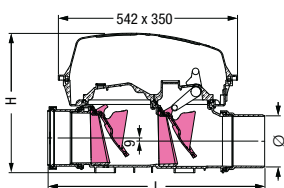
### Accessories:

Conversion kits see page 37



Outer diameter Ø (mm)	L × H in mm	Art. no.
-----------------------	-------------	----------

Ø 110	642 × 422	73 100.10
Ø 125	645 × 422	73 125.10
Ø 160	656 × 422	73 150.10
Ø 200*	720 × 422	73 200.10



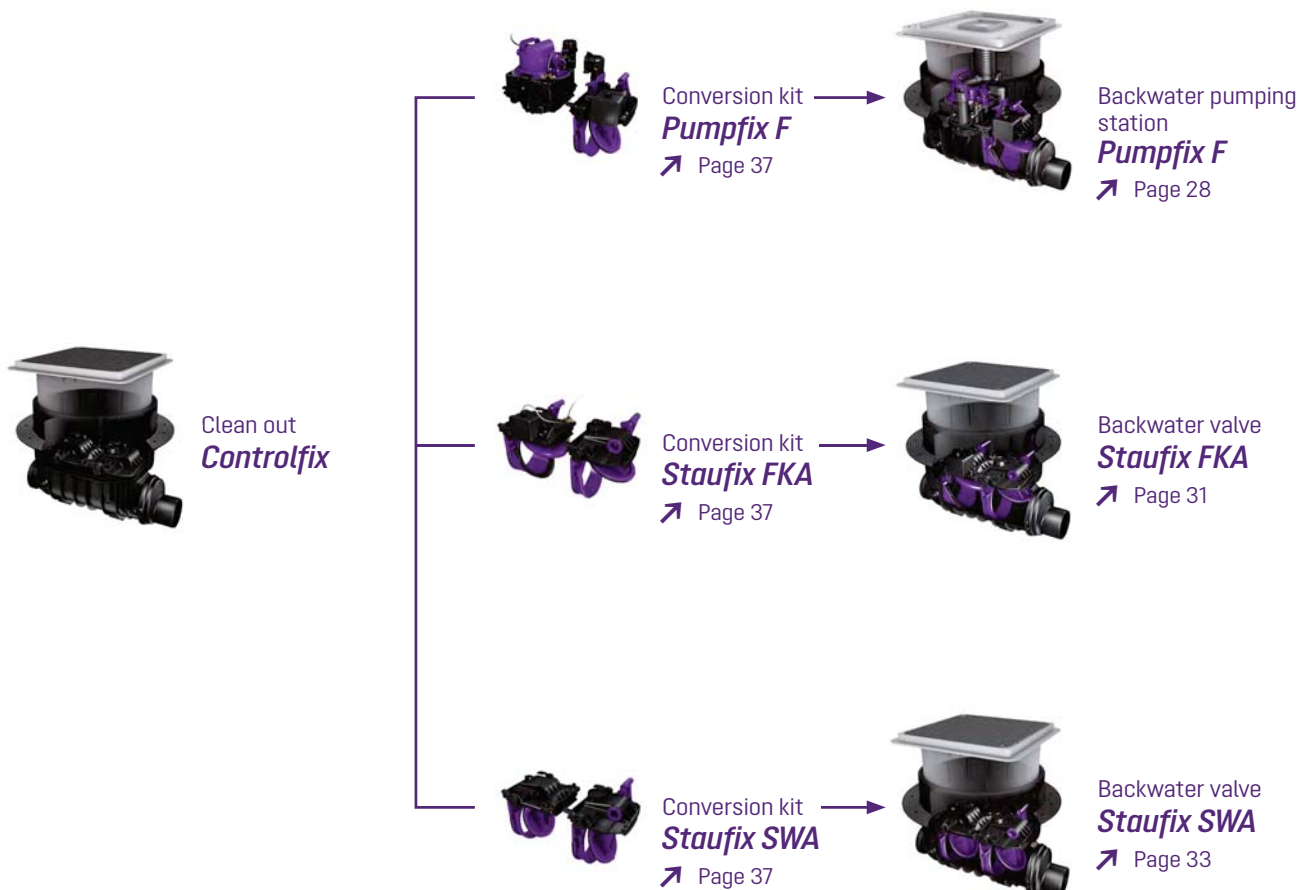
\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

# Clean out *Controlfix*

## The practical upgrade solution.

The foundation stone for your safety: Clean outs are installed at regular intervals in the drainage pipes in order to be able to clear out any blockages more easily. Our clean out *Controlfix* also facilitates this task further with its practical quick-release closures, enabling you to carry out maintenance quickly and without the need for tools.

Would you like to retain the option to retrospectively equip your drainage pipe with a backwater valve? The *Controlfix* clean out is ideally suited for this too – as it can itself be easily upgraded in situ to a *Staufix* backwater valve or a *Pumpfix F* backwater pumping station!



## Clean out *Controlfix*

Installation in a concrete slab/floor

Made of polymer, with telescopic upper section for continuous height- and level adjustment.

For installation depth (D) from 486 – 640 mm, Installation area 750×750 mm

With surface water tight cover plate class A 15 made of polymer.

Installation kit with choice of cover.

**Accessories:**

- Extension sections for installation in waterproof concrete see page 36
- Conversion kits see page 37



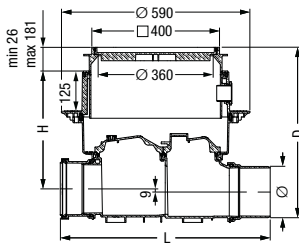
Outer diameter Ø (mm)	L × H in mm	Art. no.
-----------------------	-------------	----------

With recessed cover for on-site tiling

Ø 110	642 × 394	<b>80 100X</b>
Ø 125	645 × 387	<b>80 125X</b>
Ø 160	656 × 370	<b>80 150X</b>
Ø 200*	720 × 348	<b>80 200X</b>

With black cover

Ø 110	642 × 394	<b>80 100S</b>
Ø 125	645 × 387	<b>80 125S</b>
Ø 160	656 × 370	<b>80 150S</b>
Ø 200*	720 × 348	<b>80 200S</b>



\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

## Clean out *Controlfix*

Installation in an exposed wastewater pipe

Made of polymer, with protective cover.

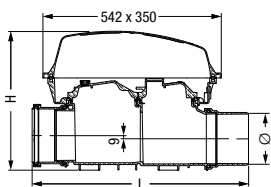
**Accessories:**

Conversion kits see page 37



Outer diameter Ø (mm)	L × H in mm	Art. no.
-----------------------	-------------	----------

Ø 110	642 × 422	<b>80 100</b>
Ø 125	645 × 422	<b>80 125</b>
Ø 160	656 × 422	<b>80 150</b>
Ø 200*	720 × 422	<b>80 200</b>



\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160


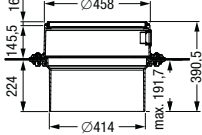

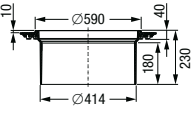

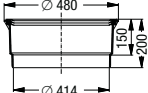


## Accessories

Pumpfix F / Staufix FKA / Staufix SWA / Controlfix



### Extension sections

for installation in a concrete floor

				Art. no.
<b>with centre flange</b>	<p><b>Additional function:</b> For installation in water-proof concrete</p> <p><b>Inclusive:</b> Temporary construction debris cover, fully assembled, gasket set (counter flange made of polymer, screwed, elastomer sealing sheet made of NK/SBR Ø 800 mm)</p> <p><b>Extension:</b> Max. 360 mm</p>			83 075
<b>with flange and counter flange</b>	<p><b>Additional function:</b> For connection to an on-site sealing sheet</p> <p><b>Inclusive:</b> Screws</p> <p><b>Extension:</b> Max. 140 mm (In case of deeper installation ensure maintenance capability!)</p>			83 073
<b>with gasket</b>	<p><b>Extension:</b> Max. 180 mm (In case of deeper installation ensure maintenance capability!)</p>			83 070

### Cable extensions

for extension from 15 m or 25 m (cable length delivered: 5 m)

	for backwater pumping station <i>Pumpfix F</i>	for motorized backwater valve <i>Staufix FKA and Staufix FKA Standard</i> (up to 2015)		Art. no.
<b>Cable extension for motor (10 m)</b>	<p><b>Extension to 15 m:</b> 1×80 890</p> <p><b>Extension to 25 m:</b> 2×80 890</p>	<p><b>Extension to 15 m:</b> 1×80 890</p> <p><b>Extension to 25 m:</b> 2×80 890</p>		80 890
<b>Cable extension for probe (10 m)</b>	<p><b>Extension to 15 m:</b> 2×80 889</p> <p><b>Extension to 25 m:</b> 4×80 889</p>	<p><b>Extension to 15 m:</b> 1×80 889</p> <p><b>Extension to 25 m:</b> 2×80 889</p>		80 889
<b>Cable extension for pump (10 m)</b>	<p><b>Extension to 15 m:</b> 1×80 891</p> <p><b>Extension to 25 m:</b> 2×80 891</p>			80 891

### Cover plates

for installation in a concrete floor

			Cover	Art. no.
<b>with drain Ø 75</b>	<p><b>Inclusive:</b> Gasket, <i>Multistop</i></p> <p><b>Version recessed for on-site tiling, grey:</b> For tile thicknesses of 18 mm</p> <p><b>Version black:</b> With integrated grating</p>		tileable	83 045
			black	83 046
				
				
<b>surface water tight</b>	<p><b>Inclusive:</b> Gasket</p> <p><b>Version recessed for on-site tiling, grey:</b> For tile thicknesses of 18 mm</p>		tileable	83 052
			black	83 050
				
				

### Hygiene and odour stop

Compatibility see product description

				Art. no.
<b>Multistop</b>	<p><b>Function:</b> Odour, foam, rodent and insect stop</p> <p><b>Compatibility:</b> Art. no. 83 045 and 83 046</p>			43 500
<b>Hair filter</b>	<p><b>Compatibility:</b> Art. no. 83 045 and 83 046</p>			43 700



## Accessories

*Pumpfix F / Staufix FKA / Staufix SWA / Controlfix*

### Conversion kits

for models made on or after Jan 2011

			Art. no.
<b>Backwater pumping Pumpfix F</b> for installation in a concrete slab/floor	<b>Compatibility:</b> For Ø 110 – Ø 200* <b>Inclusive:</b> Comfort control unit with recessed cover for on-site tiling and drain, <i>Multistop</i> , gasket <b>Cable length:</b> 5 m ↗ <b>Cable extension:</b> See page 36		80 098
<b>Backwater pumping Pumpfix F</b> for installation in an exposed wastewater pipe	<b>Compatibility:</b> For Ø 110 – Ø 200* <b>Inclusive:</b> Comfort control unit <b>Cable length:</b> 5 m ↗ <b>Cable extension:</b> See page 36		80 097
<b>Motorized backwater valve Staufix FKA</b>	<b>Compatibility:</b> For installation in a concrete slab/floor and in an exposed wastewater pipe, for Ø 110 – Ø 200* <b>Inclusive:</b> Comfort control unit <b>Cable length:</b> 5 m ↗ <b>Cable extension:</b> See page 36		80 093
<b>Backwater valve Staufix SWA</b>	<b>Compatibility:</b> For installation in a concrete slab/floor and in an exposed wastewater pipe, for Ø 110 – Ø 200*  * In-/Outlet Ø 200, hydraulics corresponds to Ø 160		80 091

### Rodent / Insect protection

Compatibility see product description

			Art. no.
<b>Rat protection flap</b>	<b>Inclusive:</b> Stainless steel shield <b>Compatibility:</b> <i>Staufix FKA</i> from 01/2011 to 2015 (with flap in pendulum position)	 	80 037



### Maintenance

for all Staufix backwater valves (Ø 110, Ø 125, Ø 160)

			Art. no.
<b>Testing funnel</b>	<b>Inclusive:</b> Gasket	 	70 214

### Spigot and Socket



for backwater valves

			Outer diameter Ø (mm)	Art. no.
<b>Spigot</b>	<b>Function:</b> Removable inlets / outlets, can be mounted in various dimensions		Ø 110 Ø 125 Ø 160 Ø 200*	83 081 83 082 83 083 83 084
<b>Socket</b>	<b>Function:</b> Removable inlets / outlets, can be mounted in various dimensions		Ø 110 Ø 125 Ø 160 Ø 200*	83 085 83 086 83 087 83 088

\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

### Control unit accessories

Compatibility see product description

			Art. no.
<b>Audible alarm</b>	<b>Compatibility:</b> For all control units with SDS function <b>Cable length:</b> 20 m		20 162
<b>Access code potential-free contact</b>	<b>Compatibility:</b> For Comfort control units beginning model year 2017		80 077

## Backwater valves

# *Staufix* and *StaufixControl*

The original solution for wastewater without sewage – also with additional control function.

You can't improve on an original... But we can! The new *Staufix* is the result of decades of product development and optimisation. It is now even more compact, allowing a simpler installation and more flexible mounting.

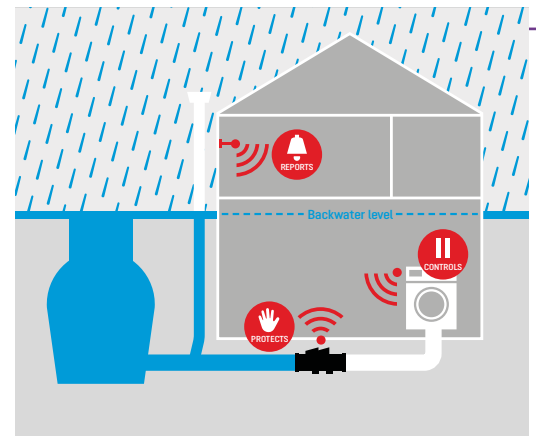
The *StaufixControl* variant offers smart additional functions such as visual and acoustic backwater warnings. *Staufix* and *StaufixControl* are each available in two variants – for installation in an exposed drainage pipe and for floor slab installation, where you can choose between a black cover or tileable cover.



1 Backwater valve 2 Extension section



1 Backwater valve



### Version *StaufixControl*

The new backwater valve *StaufixControl* provides the same safe and reliable protection against backwater as the *Staufix*. In addition it is also equipped with a remote signal generator which emits both a visual and acoustic warning signal when backwater occurs. A further advantage: With the optional wireless receiver as a switchable socket, a washing machine, for example, could be automatically turned off to prevent it from pumping water into a blocked sewer pipe.

### Installation situation

The backwater valves *Staufix* and *StaufixControl* can be installed either in an exposed drainage pipe or in the floor slab – convenient and tidy thanks to the installation kit with telescopic upper section. Even installation in waterproof concrete is possible by means of an extension piece with flange and an elastomer waterproofing membrane.



### Tool-free maintenance

With the quick-fastening, single-hand closure system with lift function, the cover is particularly easy to open and close – for convenient maintenance, with absolutely no tools required.

## Twin flap backwater valve *StaufixControl*

Installation in a concrete slab/floor

Made of polymer, with telescopic upper section for continuous height- and level adjustment.

For installation depth (D)

Ø 90 – 110, 287 – 410 mm

Ø 125 – 200, 341 – 464 mm,

Installation area 750 × 750 mm

With surface water tight cover plate class A 15 made of polymer.

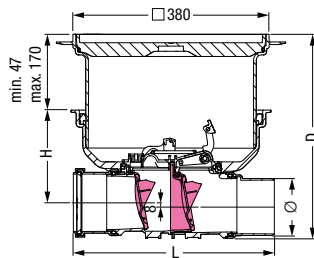
Installation kit with choice of cover.

Backwater valve according to EN 13564 Type 2

with two self-closing flaps, one of which can be locked by hand as an emergency closure.

**Warning:** With visual and acoustic warning in the event of backwater.

➤ **Accessories:** see page 46



### Without rodent protection (two polymer flaps)

Outer diameter Ø (mm)	L × H in mm	Art. no.
With recessed cover for on-site tiling		
Ø 90	389 × 179	<b>770 090.10X</b>
Ø 110	389 × 179	<b>770 100.10X</b>
Ø 125	515 × 222	<b>770 125.10X</b>
Ø 160	526 × 205	<b>770 150.10X</b>
Ø 200*	590 × 185	<b>770 200.10X</b>

### With black cover

Ø 90	389 × 179	<b>770 090.10S</b>
Ø 110	389 × 179	<b>770 100.10S</b>
Ø 125	515 × 222	<b>770 125.10S</b>
Ø 160	526 × 205	<b>770 150.10S</b>
Ø 200*	590 × 185	<b>770 200.10S</b>

### With rodent protection (one polymer and one stainless steel flap)

Outer diameter Ø (mm)	L × H in mm	Art. no.
With recessed cover for on-site tiling		
Ø 90	389 × 179	<b>770 090.10XR</b>
Ø 110	389 × 179	<b>770 100.10XR</b>
Ø 125	515 × 222	<b>770 125.10XR</b>
Ø 160	526 × 205	<b>770 150.10XR</b>
Ø 200*	590 × 185	<b>770 200.10XR</b>

### With black cover

Ø 90	389 × 179	<b>770 090.10SR</b>
Ø 110	389 × 179	<b>770 100.10SR</b>
Ø 125	515 × 222	<b>770 125.10SR</b>
Ø 160	526 × 205	<b>770 150.10SR</b>
Ø 200*	590 × 185	<b>770 200.10SR</b>

## Twin flap backwater valve *StaufixControl*

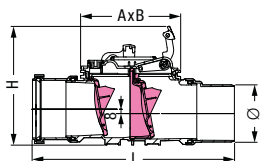
Installation in an exposed wastewater pipe

Made of polymer

Backwater valve according to EN 13564 Type 2 with two self-closing flaps, one of which can be locked by hand as an emergency closure.

**Warning:** With visual and acoustic warning in the event of backwater.

**Accessories:** see page 46



### Without rodent protection (two polymer flaps)

Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
Ø 90	386 × 230	193 × 167	<b>770 090</b>
Ø 110	389 × 230	193 × 167	<b>770 100</b>
Ø 125	515 × 306	263 × 214	<b>770 125</b>
Ø 160	526 × 306	263 × 214	<b>770 150</b>
Ø 200*	590 × 306	263 × 214	<b>770 200</b>

### With rodent protection (one polymer and one stainless steel flap)

Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
Ø 90	386 × 230	193 × 167	<b>770 090R</b>
Ø 110	389 × 230	193 × 167	<b>770 100R</b>
Ø 125	515 × 306	263 × 214	<b>770 125R</b>
Ø 160	526 × 306	263 × 214	<b>770 150R</b>
Ø 200*	590 × 306	263 × 214	<b>770 200R</b>

## Twin flap backwater valve *Staufix*

Installation in a concrete slab/floor

Made of polymer, with telescopic upper section for continuous height- and level adjustment.

For installation depth (D)

Ø 90 – 110, 287 – 410 mm

Ø 125 – 200, 341 – 464 mm,

Installation area 750 × 750 mm

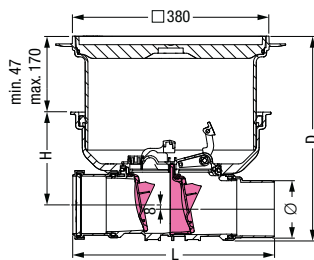
With surface water tight cover plate class A 15 made of polymer.

Installation kit with choice of cover.

Backwater valve according to EN 13564 Type 2 with two self-closing flaps, one of which can be locked by hand as an emergency closure.

**Note:** Can be retrofitted on the *Staufix Control*.

➤ **Accessories:** see page 46



### Without rodent protection (two polymer flaps)

Outer diameter Ø (mm)	L × H in mm	Art. no.
With recessed cover for on-site tiling		
Ø 90	389 × 179	730 090.10X
Ø 110	389 × 179	730 100.10X
Ø 125	515 × 222	730 125.10X
Ø 160	526 × 205	730 150.10X
Ø 200*	590 × 185	730 200.10X

#### With black cover

Ø 90	389 × 179	730 090.10S
Ø 110	389 × 179	730 100.10S
Ø 125	515 × 222	730 125.10S
Ø 160	526 × 205	730 150.10S
Ø 200*	590 × 185	730 200.10S

### With rodent protection (one polymer and one stainless steel flap)

Outer diameter Ø (mm)	L × H in mm	Art. no.
With recessed cover for on-site tiling		
Ø 90	389 × 179	730 090.10XR
Ø 110	389 × 179	730 100.10XR
Ø 125	515 × 222	730 125.10XR
Ø 160	526 × 205	730 150.10XR
Ø 200*	590 × 185	730 200.10XR

#### With black cover

Ø 90	389 × 179	730 090.10SR
Ø 110	389 × 179	730 100.10SR
Ø 125	515 × 222	730 125.10SR
Ø 160	526 × 205	730 150.10SR
Ø 200*	590 × 185	730 200.10SR

## Twin flap backwater valve *Staufix*

Installation in an exposed wastewater pipe

Made of polymer

Backwater valve according to EN 13564 Type 2 with two self-closing flaps, one of which can be locked by hand as an emergency closure.

**Note:** Can be retrofitted on the *Staufix Control*.

➤ **Accessories:** see page 46

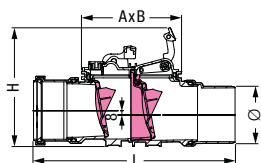


### Without rodent protection (two polymer flaps)

Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
Ø 90	386 × 230	193 × 167	<b>730 090</b>
Ø 110	389 × 230	193 × 167	<b>730 100</b>
Ø 125	515 × 306	263 × 214	<b>730 125</b>
Ø 160	526 × 306	263 × 214	<b>730 150</b>
Ø 200*	590 × 306	263 × 214	<b>730 200</b>

### With rodent protection (one polymer and one stainless steel flap)

Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
Ø 90	386 × 230	193 × 167	<b>730 090R</b>
Ø 110	389 × 230	193 × 167	<b>730 100R</b>
Ø 125	515 × 306	263 × 214	<b>730 125R</b>
Ø 160	526 × 306	263 × 214	<b>730 150R</b>
Ø 200*	590 × 306	263 × 214	<b>730 200R</b>



## Single flap backwater valve *Staufix*

Installation in a concrete slab/floor



Made of polymer, with telescopic upper section for continuous height- and level adjustment.

For installation depth (D)

Ø 90 – 110, 287 – 410 mm

Ø 125 – 200, 341 – 464 mm,

Installation area 750 × 750 mm



With surface water tight cover plate class A 15 made of polymer.

Installation kit with choice of cover.

Backwater valve according to EN 13564 Type 1

with one self-closing flap, can be locked by hand as an emergency closure.

**Note:** Can be upgraded to *Staufix* Type 2.

➤ **Accessories:** see page 46

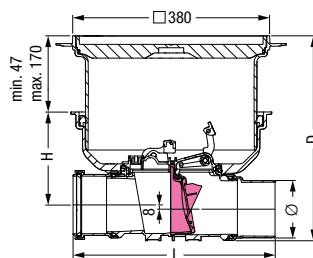
Outer diameter Ø (mm)	L × H in mm	Art. no.
-----------------------	-------------	----------

With recessed cover for on-site tiling

Ø 90	389 × 179	<b>720 090.10X</b>
Ø 110	389 × 179	<b>720 100.10X</b>
Ø 125	515 × 222	<b>720 125.10X</b>
Ø 160	526 × 205	<b>720 150.10X</b>
Ø 200*	590 × 185	<b>720 200.10X</b>

With black cover

Ø 90	389 × 179	<b>720 090.10S</b>
Ø 110	389 × 179	<b>720 100.10S</b>
Ø 125	515 × 222	<b>720 125.10S</b>
Ø 160	526 × 205	<b>720 150.10S</b>
Ø 200*	590 × 185	<b>720 200.10S</b>



CE EN 13564 Type 1

\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

## Single flap backwater valve *Staufix*

Installation in an exposed wastewater pipe



Made of polymer

Backwater valve according to EN 13564 Type 1

with one self-closing flap, can be locked by hand as an emergency closure.

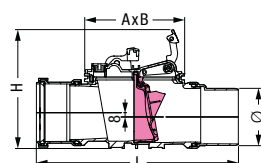
**Note:** Can be upgraded to *Staufix* Type 2.

➤ **Accessories:** see page 46



Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
-----------------------	-------------	-------------	----------

Ø 90	386 × 230	193 × 167	<b>720 090</b>
Ø 110	389 × 230	193 × 167	<b>720 100</b>
Ø 125	515 × 306	263 × 214	<b>720 125</b>
Ø 160	526 × 306	263 × 214	<b>720 150</b>
Ø 200*	590 × 306	263 × 214	<b>720 200</b>



CE EN 13564 Type 1

\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160



### Clean out *Staufix*

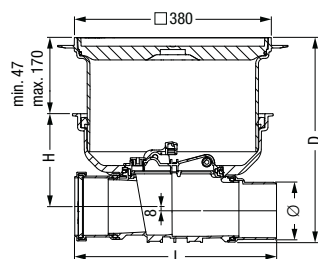
Installation in a concrete slab/floor

Made of polymer, with telescopic upper section for continuous height- and level adjustment.

For installation depth (D)  
 Ø 90 – 110, 287 – 410 mm  
 Ø 125 – 200, 341 – 464 mm,  
 Installation area 750 × 750 mm

With surface water tight cover plate class A 15 made of polymer.  
 Installation kit with choice of cover.

➤ **Accessories:** see page 46



Outer diameter Ø (mm)	L × H in mm	Art. no.
<b>With recessed cover for on-site tiling</b>		
Ø 90	389 × 179	<b>700 090.10X</b>
Ø 110	389 × 179	<b>700 100.10X</b>
Ø 125	515 × 222	<b>700 125.10X</b>
Ø 160	526 × 205	<b>700 150.10X</b>
Ø 200*	590 × 185	<b>700 200.10X</b>
<b>With black cover</b>		
Ø 90	389 × 179	<b>700 090.10S</b>
Ø 110	389 × 179	<b>700 100.10S</b>
Ø 125	515 × 222	<b>700 125.10S</b>
Ø 160	526 × 205	<b>700 150.10S</b>
Ø 200*	590 × 185	<b>700 200.10S</b>

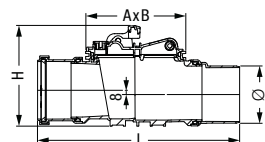
\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

### Clean out *Staufix*

Installation in an exposed wastewater pipe

Made of polymer

➤ **Accessories:** see page 46



Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
Ø 90	386 × 230	193 × 167	<b>700 090</b>
Ø 110	389 × 230	193 × 167	<b>700 100</b>
Ø 125	515 × 306	263 × 214	<b>700 125</b>
Ø 160	526 × 306	263 × 214	<b>700 150</b>
Ø 200*	590 × 306	263 × 214	<b>700 200</b>

\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

## Accessories

*Staufix and StaufixControl*

### Extension sections

made of polymer



**with flange,**  
for deeper installation

**Inclusive:** Sealing

**Extension:** Max. 147 mm

**Note:** In case of deeper installation ensure maintenance capability!

Art. no. **830 070**



**with flange and counter flange,**  
for deeper installation

**Material:** Counter flange made of stainless steel

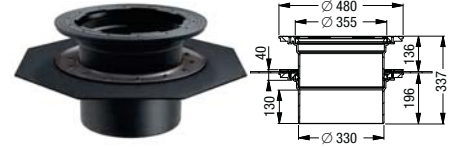
**Inclusive:** Sealing

**Extension:** Max. 147 mm

**Compatibility:** For connection to an on-site membrane

**Note:** In case of deeper installation ensure maintenance capability!

Art. no. **830 073**



**with flange**  
for installation in waterproof concrete

**Inclusive sealing set:**

Elastomer waterproofing membrane made of NK/SBR Ø 700 mm

**Extension:** Max. 294 mm

**Delivery:** Completely assembled.

**Note:** Suitable for installation in the concrete slab/floor.

Art. no. **830 075**

### Lockable cover



#### Lockable cover *Control*

**Compatibility:**

- for Type 1 and Type 2
- Conversion kit as an upgrade to *StaufixControl*

**Warning:** With visual and acoustic warning in the event of backwater.

Ø 90 - Ø 110 Art. no. **72 224**

Ø 125 - Ø 200 Art. no. **72 225**

### Spigot / Socket

made of polymer



#### Spigot

removable fitting mountable on both sides and in different dimensions

Ø 90 Art. no. **83 090**

Ø 100 Art. no. **830 200**

Ø 110 Art. no. **830 100**

Ø 125 Art. no. **83 082**

Ø 160 Art. no. **83 083**

Ø 200 Art. no. **83 084**



#### Socket

removable fitting mountable on both sides and in different dimensions

Ø 90 Art. no. **83 091**

Ø 100 Art. no. **830 202**

Ø 110 Art. no. **830 101**

Ø 125 Art. no. **83 086**

Ø 160 Art. no. **83 087**

Ø 200 Art. no. **83 088**

## Accessories

*Staufix and StaufixControl*

### Radio receiver

for backwater valve *StaufixControl*

Art. no.

#### Radio-based audible alarm

**Function:** For forwarding a visual and acoustic signal in the event of backwater



72 222

#### Radio receiver as switched socket

**Function:** For killing power in the event of backwater (e. g. washing machine)



72 223

### Conversion kits

Compatibility see product description

Outer diameter  
Ø (mm)

Art. no.

#### Rodent protection flap

**Material:** Made of stainless steel  
**Compatibility:** Art. no. 720 ..., 730 ... and 770 ...



Ø 90 - Ø 110

70 233

Ø 125 - Ø 200

70 234

#### Backwater flap

**Compatibility:** For upgrade from type 1 to type 2



Ø 90 - Ø 110

70 231

Ø 125 - Ø 200

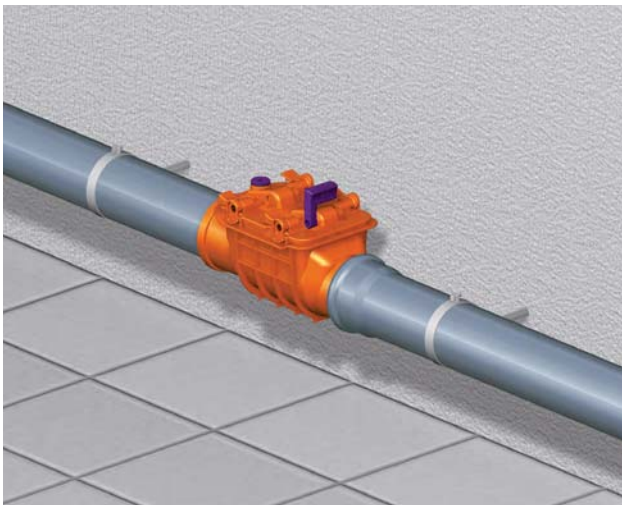
70 232

## Backwater valves

# *Staufix Basic*

The original solution for dry basements.

The original backwater valve *Staufix Basic* has been the standard in the water drainage sector for over 40 years. It is made entirely of polymer and so is completely corrosion-free. The *Staufix Basic* is installed in an individual drainage pipe and prevents the penetration of water and rodents by means of mechanical flaps – simple and secure!



### Low drop

Thanks to the minimal height difference of just 7 mm between the inlet and outlet, the backwater valve is ideally suited to installation in existing drainage pipes.

### Cleaning & maintenance without tools

The cover can be opened or locked by hand thus providing access without the need for tools.

### Rat protection

The optional stainless steel rat protection flap prevents rats and other vermin entering the premises.

### Twin flap backwater valve *Staufix Basic*

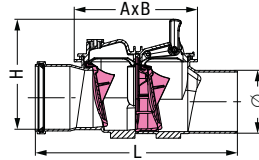
Installation in an exposed wastewater pipe

Made of polymer

Installation area 650 × 300 mm

Twin flaps, self-closing, one of which can be locked by hand as an emergency closure.

Inlet/outlet for connection to PVC pipe according to EN 1566-1.



#### Without rodent protection (two polymer flaps)

Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
Ø 110	355 × 180+25	205 × 155	73 100
Ø 125	405 × 240+40	270 × 200	73 125
Ø 160	450 × 240+40	270 × 200	73 150
Ø 200	530 × 278+50	353 × 248	73 200

#### With rodent protection (one polymer and one stainless steel flap)

Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
Ø 110	355 × 180+25	205 × 155	73 100R
Ø 125	405 × 240+40	270 × 200	73 125R
Ø 160	450 × 240+40	270 × 200	73 150R

CE EN 13564 Type 2

### Single flap backwater valve *Staufix Basic*

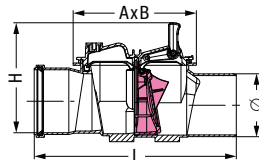
Installation in an exposed wastewater pipe

Made of polymer

Installation area 650 × 300 mm

Self-closing flap, can be locked by hand as an emergency closure.

Inlet/outlet for connection to PVC pipe according to EN 1566-1.



#### Without rodent protection (one polymer flap)

Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
Ø 100	355 × 180+25	205 × 155	77 100
Ø 110	355 × 180+25	205 × 155	72 100
Ø 125	405 × 240+40	270 × 200	72 125
Ø 160	450 × 240+40	270 × 200	72 150
Ø 200	530 × 278+50	353 × 248	72 200

#### With rodent protection (one stainless steel flap)

Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
Ø 110	355 × 180+25	205 × 155	72 100R
Ø 125	405 × 240+40	270 × 200	72 125R
Ø 160	450 × 240+40	270 × 200	72 150R

CE EN 13564 Type 1

### Single flap backwater valve *Staufix Basic*

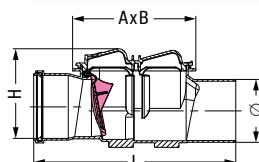
Installation in an exposed wastewater pipe

Made of polymer

Installation area 650 × 300 mm

Self-closing flap.

Inlet/outlet for connection to PVC pipe according to EN 1566-1.



Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
Ø 100	355 × 170	205 × 155	76 100
Ø 110	355 × 170	205 × 155	71 100
Ø 125	405 × 230	270 × 200	71 125
Ø 160	450 × 230	270 × 200	71 150
Ø 200	530 × 278	353 × 248	71 200

CE EN 13564 Type 0

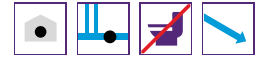
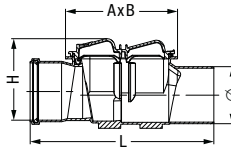
## Clean out *Staufix Basic*

Installation in an exposed wastewater pipe

Made of polymer

Installation area 650 × 300 mm

upgradable to all *Staufix* model backwater valves



Outer diameter Ø (mm)	L × H in mm	A × B in mm	Art. no.
Ø 110	355 × 170	205 × 155	<b>70 100</b>
Ø 125	405 × 230	270 × 200	<b>70 125</b>
Ø 160	450 × 230	270 × 200	<b>70 150</b>
Ø 200	530 × 278	353 × 248	<b>70 200</b>

## Accessories

*Staufix Basic*

### Conversion kits

for *Staufix Basic* from 04/2005 to 12/2017

**for upgrade to Type 2**  
(Twin flap backwater valve *Staufix*)

**Function:**  
The *Staufix Basic* clean out body can be converted to a ***Staufix Basic* twin flap backwater valve by means of two backwater flaps, the insert flap housing and the lockable cover.**

**Please note:** 2x backwater flap 70 205 and the lockable cover are required for the Ø 200 version.

Backwater flap



Outer diameter Ø (mm)	Art. no.
Ø 110	<b>70 231</b>
Ø 125	<b>70 232</b>
Ø 160	<b>70 232</b>
Ø 200	<b>70 205</b>

Insert flap housing



Outer diameter Ø (mm)	Art. no.
Ø 110	<b>70 241</b>
Ø 125	<b>70 242</b>
Ø 160	<b>70 242</b>
Ø 200	<b>70 205</b>

Lockable cover  
incl. emergency closure  
and sealing gasket



Outer diameter Ø (mm)	Art. no.
Ø 110	<b>70 261</b>
Ø 125	<b>70 262</b>
Ø 160	<b>70 262</b>
Ø 200	<b>70 203</b>

**for upgrade to Type 1**  
(Single flap backwater valve *Staufix*)

**Function:**  
The *Staufix Basic* clean out body can be converted to a ***Staufix Basic* single flap backwater valve with emergency closure by means of the backwater flap, insert flap housing and the lockable cover.**

**for upgrade to Type 0**  
(Single flap backwater valve *Staufix*)

**Function:**  
The *Staufix Basic* clean out body can be converted to a ***Staufix Basic* single flap backwater valve by means of a backwater flap** (for *Staufix Basic* from 04/2005).

### Backwater flap made of stainless steel

Compatibility see product description

as rodent protection

**Compatibility:** Art. no.  
70 100, 70 125, 70 150, 71 100, 71 125, 71 150  
72 100, 72 125, 72 150, 73 100, 73 125, 73 150



Outer diameter Ø (mm)	Art. no.
Ø 110	<b>70 233</b>
Ø 125	<b>70 234</b>
Ø 160	<b>70 234</b>

# Backwater valve

## *Staufix* Ø 50 or Ø 75

Standard-compliant in nominal widths  
Ø 50 or Ø 75.

Individual drainage points such as washbasins, showers or washing machines can be very simply protected against backwater with the *Staufix* Ø 50 or *Staufix* Ø 75 backwater valves.

The *Staufix* Ø 50 or Ø 75 can be installed in the pipe to protect several drainage points. There are also additional variants of the *Staufix* Ø 50 with siphon traps, with washing machine connections or with inlet funnel for the emergency overflow of heating systems. This ensures that individual drainage points are protected.



Ø 50 or Ø 75 exposed drainage pipe



Washbasins with odour traps and washing machine connection



Washbasins with odour traps and washing machine connection

### Standard-compliant

The small backwater valves *Staufix* Ø 50 and *Staufix* Ø 75 are each equipped with two flaps and an emergency closure – and the first standard-compliant backwater double valves for wastewater without sewage per EN 13564 Type 2.

### Area of application

The backwater valves are versatile in use: They can be installed as individual safeguards for washbasins, showers or washing machines, as a central backwater protection in horizontal drainage pipes or as an emergency overflow for heating systems.

### Tool-free maintenance

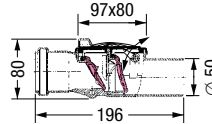
The maintenance and cleaning of the backwater valves is particularly convenient and possible without any tools whatsoever thanks to the quick-release closure.

## Twin flap backwater valve *Staufix* Ø 50

Installation in an exposed wastewater pipe

Made of polymer

Twin flaps, self-closing, one of which can be locked by hand as an emergency closure.  
Inlet/outlet for connection to HT-pipe according to EN 1451-1.



Outer diameter Ø (mm)	Art. no.
--------------------------	----------

Ø 50	73 050
------	--------



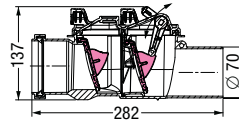
EN 13564 Type 2

## Twin flap backwater valve *Staufix* Ø 75

Installation in an exposed wastewater pipe

Made of polymer

Twin flaps, self-closing, one of which can be locked by hand as an emergency closure.  
Inlet/outlet for connection to HT-pipe according to EN 1451-1.



Outer diameter Ø (mm)	Art. no.
--------------------------	----------

Ø 75	73 070
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EN 13564 Type 2

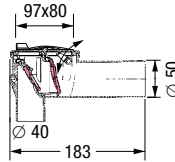


### Twin flap backwater valve *Staufix Siphon* Ø 50

Installation in an exposed wastewater pipe

Made of polymer, for washing stand siphons

Twin flaps, self-closing, one of which can be locked by hand as an emergency closure, incl. wall attachment, inlet connection Ø 40 (1 1/2 inch) at pipe odour trap. Outlet Ø 50 for connection to HT-pipe according to EN 1451-1.



Outer diameter Ø (mm)	Art. no.
Ø 50	73 051



CE EN 13564 Type 5

### Twin flap backwater valve *Staufix Siphon* Ø 50

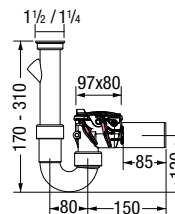
Installation in an exposed wastewater pipe

Made of polymer

Twin flaps, self-closing, one of which can be locked by hand as an emergency closure, incl. wall attachment, outlet Ø 50 for connection to HT-pipe according to EN 1451-1.

**Model contains:**

- pipe odour trap
- washing machine connection



Outer diameter Ø (mm)	Art. no.
Ø 50	73 052



CE EN 13564 Type 5

### Twin flap backwater valve *Staufix Siphon* Ø 50

Installation in an exposed wastewater pipe

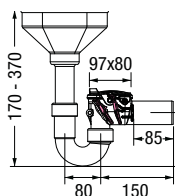
Made of polymer

Two flaps, self-closing, one of which can be locked by hand as an emergency closure, incl. wall attachment. Outlet Ø 50 for connection to an HT-pipe according to EN 1451-1.

**Model contains:**

- pipe odour trap
- inlet funnel

**Installation:** Ideal for the emergency overflow of heating systems



Outer diameter Ø (mm)	Art. no.
Ø 50	73 053



CE EN 13564 Type 5

# Backwater valve *Multitube*

The high-performance solution for larger pipes.

The *Multitube* is a powerful backwater valve for large-diameter pipes in public, municipal and industrial areas. It can be installed in an exposed drainage pipe. The *Multitube* is also completely corrosion free as it is made entirely from polymer. Available in diameters of Ø 260 mm to Ø 515 mm.

### Area of application

The *Multitube* backwater valve is suitable for use in leaching and pond systems and behind cisterns that are separately connected to a rainwater channel or that lead to a drainage ditch. It provides not only reliable protection against backwater, but also provides additional protection against rats, mice, frogs and vermin.



## Single flap backwater valve *Multitube*

Installation in an exposed wastewater pipe

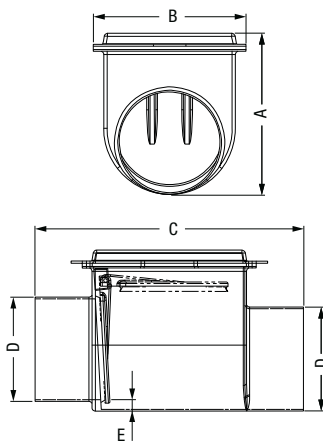


Made of polymer

One self-closing flap



Illustration shows Art. no. 71 400



Outer diameter Ø (mm)	A in mm	B in mm	C in mm	D in mm	E in mm	Connection for pipe size Ø mm	Art. no.
With connection couplings*, for connection to all pipe materials							
Ø 260	485	455	730	260	60	250 - 275	71 250
Ø 320	490	470	825	320	35	310 - 335	71 300
Ø 410	600	610	900	410	30	385 - 410	71 400
Ø 515	730	700	1230	515	40	495 - 525	71 500

\*With connection couplings it is possible to connect pipes of different diameters. Connection couplings are necessary where the difference in outer diameter is > 12 mm. Rights reserved for technical changes

# Backwater valve Pipe flap valve

The dependable solution at the end of the pipe.

The self-actuating pipe flap valves prevent undesirable backwash into wastewater pipes in the event of backwater or high water levels. They are made entirely of polymer and so are 100% corrosion-free. The pipe flap valves are available in various sizes from Ø 110 mm to Ø 1.000 mm.

### Area of application

Pipe flap valves are used in wastewater without sewage, for example in seawater and freshwater environments. Here they serve as a backwater valve in horizontal pipes leading into chambers or outdoors.



## Pipe flap valve

For use as an end piece



Made of polymer

Flap self-closing.

Inlet/outlet for connection to PVC pipe according to EN 1451-1.

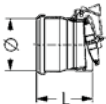


Illustration shows Ø 110 - Ø 200

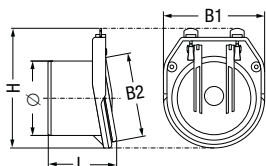


Illustration shows Ø 250 - Ø 638

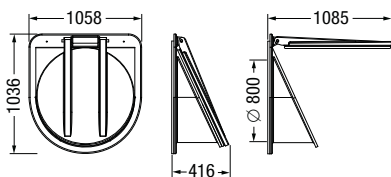


Illustration shows Ø 800

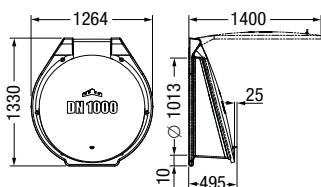


Illustration shows Ø 1000



Illustration shows Ø 160



Illustration shows Ø 250



Illustration shows Ø 800

Outer diameter Ø (mm)	DN in mm	H in mm	L in mm	B1 in mm	B2 in mm	Connection for pipe size Ø mm	Art. no.
Ø 110	-	-	120	-	-	-	79 100
Ø 125	-	-	136	-	-	-	79 125
Ø 160	-	-	142	-	-	-	79 150
Ø 200	-	-	170	-	-	-	79 200

### Without connection coupling, connection according to EN 1451-1

Outer diameter Ø (mm)	DN in mm	H in mm	L in mm	B1 in mm	B2 in mm	Connection for pipe size Ø mm	Art. no.
Ø 250	250	400	220	345	280	-	79 250
Ø 315	300	450	225	400	410	-	79 300

### With connection coupling\*, for connection to all pipe materials

Outer diameter Ø (mm)	DN in mm	H in mm	L in mm	B1 in mm	B2 in mm	Connection for pipe size Ø mm	Art. no.
Ø 405	400	420	295	417	-	385 - 410	79 400
Ø 506	500	500	320	522	-	495 - 525	79 500
Ø 638	600	659	345	655	-	605 - 638	79 600
Ø 800**	-	-	-	-	-	-	79 800
Ø 1000**	-	-	-	-	-	-	79 1000

\* With connection couplings it is possible to connect pipes of different diameters. Connection couplings are necessary where the difference in outer diameter is > 12 mm. Rights reserved for technical changes

\*\*For wall installation

# 1.2 Backwater chambers

For installation in the concrete slab  
or underground

# Standard backwater chamber or modular backwater chamber Ø 1000 with *Controlfix* clean out

## The robust solution in front of the building

A backwater chamber in front of the building offers significant advantages. It enables all drainage points that are at risk of backwater to be safeguarded outside the building at a single central and maintenance-friendly point. Noise nuisance, for example due to pumps or similar, can be ruled out and there is no loss of living space in the building.

### Double use

The backwater chamber can simultaneously be used as a transition chamber – with two side inlets for the drainage of the building, roof and yard.

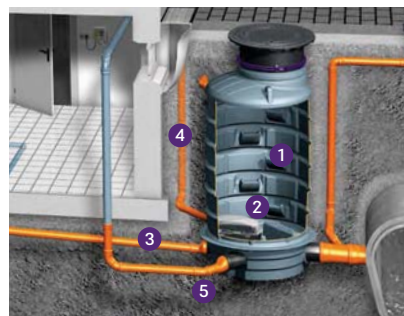


Thanks to the clean out *Controlfix*, the backwater chambers can be equipped with various conversion kits:

- Conversion kit *Staufix SWA*: Page 59
- Conversion kit *Staufix FKA*: Page 59
- Conversion kit *Pumpfix F*: Page 59

### Standard backwater chamber Ø 1000 with *Controlfix*

Thanks to its monolithic construction using unbreakable, impact-resistant material, the standard backwater chamber Ø 1000 is permanently leak-proof and secure against the ingress of roots. In addition, it can also be ideally adapted to the ground level thanks to its vertically, adjustable upper section.



- 1 Backwater chamber
- 2 Clean out
- 3 Basement drains
- 4 Roof drains
- 5 Basement drainage

### Modular backwater chamber Ø 1000 with *Controlfix*

Thanks to its modular construction with a technical module as well as a large selection of chamber modules and upper sections, the modular backwater chamber can be adapted to suit any individual installation situation. Frost-free installation up to a depth of 3.000 mm



- 1 System base
- 2 Clean out
- 3 System chamber
- 4 Height adjustable upper section

## Backwater inspection chamber Ø 1000 with *Controlfix*

For underground installation



Polyethylene PE-HD

Monolithic design, with open continuous channel and clean out *Controlfix*, with integrated access steps, watertight, resistant to aggressive wastewater, with telescopic height-adjustable protective cover made of polymer for use during the construction period (can be used as a cover in green areas).

Triple 160 mm hub type gasketed inlets (left and right inlets with open channel passage through chamber, center hub inlet connected to housing for insertion of KESSEL backwater valve). Available backwater valve options - KESSEL *Staufix SWA*, KESSEL *Staufix FKA* or KESSEL *Pumpfix F*.

For connection to PVC pipe according to EN 1401-1 and PE-HD connections according to EN 12666-1.

**Installation:**

Handles groundwater depths up to 2000 mm

**Distance from base of chamber to:**

Base of inlet approx. 136 mm

Base of outlet approx. 108 mm

**Note:** Further chamber heights (on request)

➤ **Conversion kits:** page 59

➤ **Accessories:** pages 59 – 60

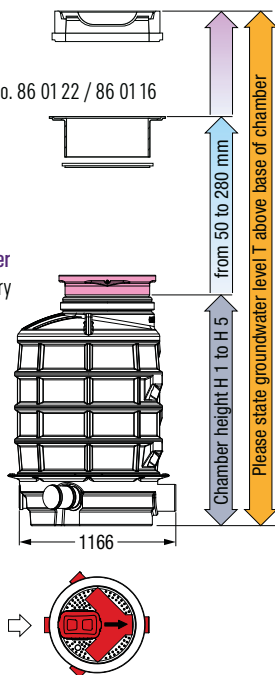


Installation depth in mm	Art. no.
<b>3 inlets Ø 160 / 1 outlet Ø 200</b>	
H1: 1180	<b>88 10 05</b>
H2: 1680	<b>88 15 05</b>
H3: 2180	<b>88 20 05</b>
H4: 2680	<b>88 25 05</b>
H5: 3180	<b>88 30 05</b>
<b>3 inlets Ø 160 / 1 outlet Ø 160</b>	
H1: 1180	<b>88 10 05-DN 150</b>
H2: 1680	<b>88 15 05-DN 150</b>
H3: 2180	<b>88 20 05-DN 150</b>
H4: 2680	<b>88 25 05-DN 150</b>
H5: 3180	<b>88 30 05-DN 150</b>

Standard cover on-site

Accessories Art. no. 86 01 22 / 86 01 16

Inspection chamber including temporary construction debris cover





## Accessories

Complete chamber in monolithic design

### Conversion kits

for models made on or after 01/2011

			Art. no.
<b>Backwater pumping Pumpfix F</b>	<b>Compatibility:</b> Backwater inspection chamber Ø 1000, for Ø 110 - Ø 200* <b>Inclusive:</b> Komfort control unit <b>Cable length:</b> 15 m ↗ Cable extension: page 36		80 102
<b>Motorized backwater valve Staufix FKA</b>	<b>Compatibility:</b> Backwater inspection chamber Ø 1000, for Ø 110 - Ø 200* <b>Inclusive:</b> Komfort control unit <b>Cable length:</b> 15 m ↗ Cable extension: page 36		80 104
<b>Backwater valve Staufix SWA</b>	<b>Compatibility:</b> Backwater inspection chamber Ø 1000, for Ø 110 - Ø 200*  * In-/Outlet Ø 200, hydraulics corresponds to Ø 160		80 091

### Cover plates

for backwater inspection chamber Ø 1000

			Cover	Art. no.
<b>with ventilation</b>	<b>Material:</b> Class A, B in cast iron and concrete Class D in cast iron		Class A	860 134
			Class B	860 135
			Class D, locked	860 137
<b>surface water tight</b>	<b>Material:</b> In cast iron		Class A, locked	860 132
			Class B, locked	860 133
			Class D, locked	860 136
	<b>Material:</b> In cast iron and concrete		Class A	860 130
			Class B	860 131

### Upper sections

for backwater inspection chambers Ø 1000

			Art. no.
<b>with recesses for a sludge bucket</b>	<b>Compatibility:</b> Not for surface water tight cover plates class A/B/D <b>Inclusive:</b> Fixing ring <b>Installation:</b> Telescopic height adjustable from 100 to 550 mm		860 120
<b>without holders for sludge buckets</b>	<b>Compatibility:</b> Cover plates class A/B/D <b>Inclusive:</b> Fixing ring <b>Installation:</b> Telescopic height adjustable from 100 to 550 mm		860 121
<b>can be assembled with standard concrete rings</b>	<b>Compatibility:</b> For standard bearing ring / concrete/cast covers, class A/B/D <b>Installation:</b> Telescopic height adjustable from 50 to 280 mm		860 122
	<b>Compatibility:</b> For standard bearing ring / concrete/cast covers, class A/B/D <b>Installation:</b> Telescopic height adjustable from 50 to 550 mm		860 125







## Accessories

Complete chamber in monolithic design

### Gasket / Embedded step / Locking and removal key

Compatibility see product description

			Outer diameter Ø (mm)	Art. no.
<b>Lip gasket</b>	<b>Compatibility:</b> Art. no. 860 122, 860 125, 860 120, 860 121		Ø 600	<b>860 116</b>
<b>Embedded step</b>	<b>Compatibility:</b> Art. no. 860 122, 860 125, 860 120, 860 121 <b>Inclusive:</b> Drilling template, step, hand rail, screws <b>Note:</b> The embedded step can be fitted to the upper section (Art. no. <b>860 120, 860 121, 860 122</b> ) in the factory at an additional charge			<b>860 109</b>
<b>Cable piping gasket set</b>	<b>Compatibility:</b> Control unit 230 V <b>Inclusive:</b> ① Pipe sealing gasket ② PVC-collar plug ③ Twin flange Ø 110 ④ HT-collar plug ⑤ Cable connections ⑥ Retaining clip with screws		Ø 110	<b>85 410</b>
<b>Locking and removal key</b>	<b>Compatibility:</b> Chamber cover			<b>915 595</b>

### Hole saw

Compatibility see product description

			Outer pipe diameter in mm	Drill size in mm	Art. no.
<b>Hole saw set</b>	<b>Inclusive:</b> Saw blade holder		Ø 50 Ø 75 Ø 110	Ø 60 Ø 92 Ø 121	<b>500 101</b>
			Ø 110 Ø 125 Ø 160	Ø 121 Ø 133 Ø 168	<b>500 100</b>

### Sealing

Compatibility see product description

			Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
<b>Pipe sealing gasket</b>	<b>Drill size:</b> Ø 50: 60 mm Ø 75: 92 mm Ø 110: 121 mm Ø 125: 133 mm Ø 160: 168 mm		DN 50 DN 70 DN 100 DN 125 DN 150	Ø 50 Ø 75 Ø 110 Ø 125 Ø 160	<b>850 114</b> <b>850 116</b> <b>850 117</b> <b>850 118</b> <b>850 119</b>

## Engineering systems base backwater chamber with *Controlfix*



For installation in a concrete slab or outdoor underground installation

Polyethylene PE-HD

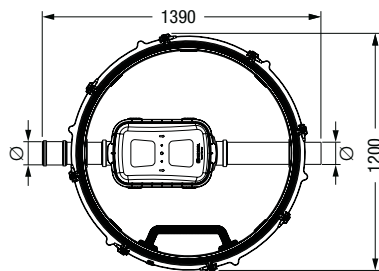
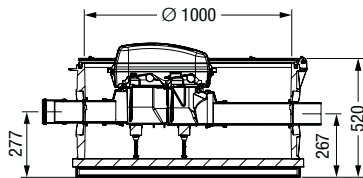
### Version:

- integrated clean out *Controlfix*
- closed channel passage or two inlets in direction of flow

### Installation:

Handles groundwater depths up to 3000 mm

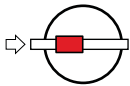
- **Installation:** in combination with system chamber page 62 – 63
- **Conversion kits:** page 64
- **Accessories:** pages 64 – 65



### Channel passage:

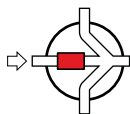
with closed channel passage Ø...

Version Ø 200: (on request)



with two inlets in direction of flow Ø...

left + right 90°



### With closed channel passage

Outer diameter Ø (mm)	Art. no.
Ø 110	85 10 01
Ø 125	85 12 51
Ø 160	85 15 01

### With two inlets 90° in flow direction

Outer diameter Ø (mm)	Art. no.
Ø 110	85 10 03
Ø 125	85 12 53
Ø 160	85 15 02

### Engineering systems base backwater chamber in combination with system chamber Ø 1000

#### Conversion options

- Conversion kit *Staufix SWA*
- Conversion kit *Staufix FKA*
- Conversion kit *Pumpfix F*



## Engineering system chamber Ø 1000 with access opening Ø 600

for combination with engineering system base

Made of polyethylene PE-HD

**Installation:** For underground installation; handles groundwater depths up to 3000 mm

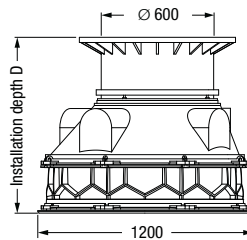
**Modular design comprising:**

- chamber rings with access steps fitted
- with telescopic height adjustable upper section
- round cover made of cast iron
- includes all sealing gaskets and wedge connectors required for installation

**Delivery:** As individual elements

**Remark:** Covers surface water tight

**Note:** Additional installation depths (on request)



Installation depth D in mm	Class A/B	Class D
	Art. no.	Art. no.
1130 - 1379	874 00 18	874 00 19
1380 - 1629	874 00 24	874 00 25
1630 - 1879	874 00 30	874 00 31
1880 - 2129	874 00 36	874 00 37
2130 - 2379	874 00 42	874 00 43
2380 - 2629	874 00 48	874 00 49
2630 - 2879	874 00 54	874 00 55
2880 - 3129	874 00 60	874 00 61

EN 13598 Part 2 Z-42.1-527

## Engineering system chamber Ø 1000 with access opening Ø 800

for combination with engineering system base

Made of polyethylene PE-HD

**Installation:** For installation in the concrete slab; handles groundwater depths up to 3000 mm

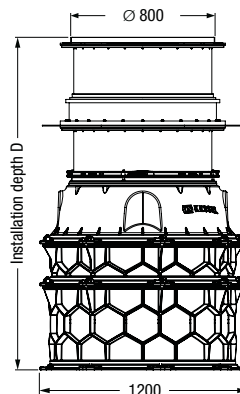
**Modular design comprising:**

- for waterproof concrete with flange and counter flange
- chamber rings with access steps fitted
- with telescopic height adjustable upper section
- square cover made of stainless steel, class A/L 15
- includes all sealing gaskets and wedge connectors required for installation

**Delivery:** As individual elements

**Remark:** Covers surface water tight

**Note:** Additional installation depths, upper sections and covers class B/D (on request)



### Cover tileable

Installation depth D in mm	Art. no.
628 - 877	874 00 03
878 - 1127	874 00 09
1128 - 1377	874 00 15
1378 - 1627	874 00 21
1628 - 1877	874 00 27

### Cover not tileable, anti-slip

Installation depth D in mm	Art. no.
613 - 862	874 00 05
863 - 1112	874 00 11
1113 - 1362	874 00 17
1363 - 1612	874 00 23
1613 - 1862	874 00 29

EN 13598 Part 2 Z-42.1-527

# Engineering system chamber Ø 1000 with access opening Ø 800

for combination with engineering system base

Made of polyethylene PE-HD

**Installation:** For underground installation; handles groundwater depths up to 3000 mm

**Modular design comprising:**

- chamber rings with access steps fitted
- with telescopic height adjustable upper section
- covers made of stainless steel
- includes all sealing gaskets and wedge connectors required for installation

**Delivery:** As individual elements

**Remark:** Covers surface water tight

**Note:** Additional installation depths, upper sections and covers class B/D (on request)



Illustration shows Art. no. 874 01 43



Illustration shows Art. no. 874 00 20

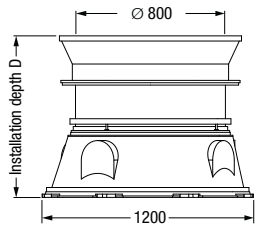


Illustration shows Art. no. 874 01 58

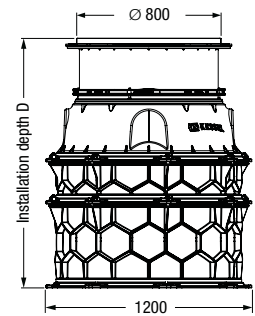


Illustration shows Art. no. 874 00 02

## Round cover

Installation depth D in mm	Art. no.
Class K 3	
375 - 624	874 01 22
625 - 874	874 01 23
875 - 1124	874 01 24
1125 - 1374	874 01 25
1375 - 1624	874 01 26
1625 - 1874	874 01 27
1875 - 2124	874 01 28
2125 - 2374	874 01 29
2375 - 2624	874 01 30
2625 - 2874	874 01 31
2875 - 3124	874 01 32

## Square cover

Installation depth D in mm	Art. no.
Class B	
620 - 869	874 01 41
870 - 1119	874 01 42
1120 - 1369	874 01 43
Class D	
620 - 869	874 01 58
870 - 1119	874 01 59
1120 - 1369	874 01 60

## Square cover







Installation depth D in mm	Art. no.
Class A/L 15, not tileable, anti-slip	
396 - 645	874 00 04
646 - 895	874 00 10
896 - 1145	874 00 16
1146 - 1395	874 00 22
1396 - 1645	874 00 28
1646 - 1895	874 00 34
1896 - 2145	874 00 40
2146 - 2395	874 00 46
2396 - 2645	874 00 52
2646 - 2895	874 00 58
2896 - 3145	874 00 64
Class A/L 15, tileable	
411 - 660	874 00 02
661 - 910	874 00 08
911 - 1160	874 00 14
1161 - 1410	874 00 20
1411 - 1660	874 00 26
1661 - 1910	874 00 32
1911 - 2160	874 00 38
2161 - 2410	874 00 44
2411 - 2660	874 00 50
2661 - 2910	874 00 56
2911 - 3160	874 00 62

## Accessories

Engineering systems base backwater chamber

### Conversion kits

for models made on or after 01/2011

			Art. no.	
<b>Backwater pumping Pumpfix F</b>	<b>Compatibility:</b> Engineering systems base backwater chamber Ø 1000, for Ø 110 - Ø 200* <b>Inclusive:</b> Komfort control unit <b>Cable length:</b> 15 m ➤ Cable extension: page 36		80 102	
<b>Motorized backwater valve Staufix FKA</b>	<b>Compatibility:</b> Engineering systems base backwater chamber Ø 1000, for Ø 110 - Ø 200* <b>Inclusive:</b> Komfort control unit <b>Cable length:</b> 15 m ➤ Cable extension: page 36		80 104	
<b>Backwater valve Staufix SWA</b>	<b>Compatibility:</b> Engineering systems base backwater chamber Ø 1000, for Ø 110 - Ø 200*  * In-/Outlet Ø 200, hydraulics corresponds to Ø 160		80 091	

### Extension section

for engineering systems base backwater chamber

			Art. no.
<b>500 mm</b>	<b>Inclusive:</b> 2 access steps, installed <b>Note:</b> Without gasket and connecting wedges		680 371
<b>250 mm</b>	<b>Inclusive:</b> 1 access step, installed <b>Note:</b> Without gasket and connecting wedges		680 370

### Gasket / Locking and removal key / Connection and attachment sets

Compatibility see product description

			Outer diameter Ø (mm)	Art. no.
<b>Cable piping gasket set</b>	<b>Compatibility:</b> Control unit 230 V <b>Inclusive:</b> ① Pipe sealing gasket ② PVC-collar plug ③ Twin flange Ø 110 ④ HT-collar plug ⑤ Cable connections ⑥ Retaining clip with screws		Ø 110	85 410
<b>Locking and removal key</b>	<b>Compatibility:</b> Chamber cover			915 595
<b>Set of connecting wedges</b>	<b>Compatibility:</b> Art. no. 680 371 and 680 370 <b>Set-content:</b> 10 pieces			680 373
<b>Profiled gasket</b>	<b>Compatibility:</b> Art. no. 680 371 and 680 370			680 125
<b>Cable attachment set</b>	<b>Compatibility:</b> Engineering systems base backwater chamber Ø 1000			28 076

## Accessories

Engineering systems base backwater chamber

### Hole saw

Compatibility see product description

Hole saw set	Inclusive: Saw blade holder		Outer pipe diameter in mm	Drill size in mm	Art. no.	
 			Ø 50	60	<b>500 101</b>	
			Ø 75	92		
			Ø 110	121		
				Ø 110	121	<b>500 100</b>
			Ø 125	133		
			Ø 160	168		

### Sealing

Compatibility see product description

Pipe sealing gasket	Drill size:		Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
 	Ø 50: 60 mm		DN 50	Ø 50	<b>850 114</b>
	Ø 75: 92 mm		DN 70	Ø 75	<b>850 116</b>
	Ø 110: 121 mm		DN 100	Ø 110	<b>850 117</b>
	Ø 125: 133 mm		DN 125	Ø 125	<b>850 118</b>
	Ø 160: 168 mm		DN 150	Ø 160	<b>850 119</b>



## Not found what you're looking for?

In addition to our standard backwater protection devices we also develop customised solutions meeting your exact specifications.



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Individual solutions

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[info@kessel.com](mailto:info@kessel.com)





## 2. Hybrid lifting stations

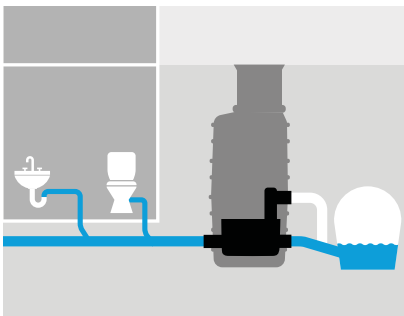
Backwater protection with integrated  
wastewater pump

Function example hybrid lifting system	70	<b>2.1 Hybrid lifting stations</b>	72
Hybrid lifting station range	71	Backwater pumping station <i>Pumpfix F</i>	76
		Accessories	78
		Hybrid lifting station <i>Ecolift XL</i> (minimum installation depth)	84
		Accessories upper sections	85
		Hybrid lifting station <i>Ecolift XL</i> (installation depth up to 5m)	86
		System chambers for <i>Ecolift XL</i>	87
		Accessories	89
		<b>2.2 Individual Solutions</b>	91

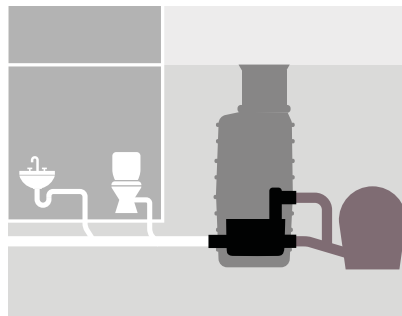
## *Ecolift* functional principle

# How does a hybrid lifting station work?

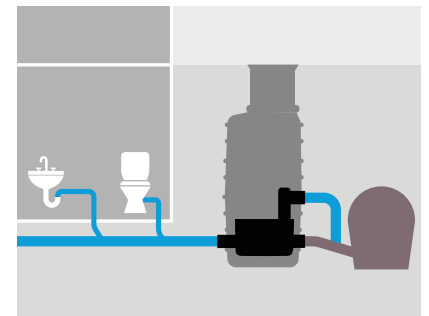
A hybrid lifting station combines the safety of a lifting station with the efficiency of drainage via a natural slope. During normal operation, wastewater flows with gravity through the *Ecolift XL* into the public sewer. When flooding occurs backwater flap(s) automatically shut to protect the building. Pump(s) then activate to discharge the building's wastewater into the public sewer when backwater flap(s) are closed.



Hybrid lifting stations make use of the natural slope to the sewer.



Motorised flap(s) close to prevent backwater from entering from the surcharged sewer.



The building's wastewater is pumped into the surcharged sewer during times of backwater.



Direct drainage  
**is economical.**

A lifting station always pumps wastewater. This is why it constantly consumes energy. A hybrid lifting station is different: It only starts pumping when it is really needed. In addition to the improved eco-balance due to lower power consumption, there is a second major economic advantage: cost reduction due to less required maintenance.



Direct drainage  
**is quiet.**

Despite cutting-edge mechanical designs and the latest noise reduction measures – pumps make noise. This can be a nuisance, particularly when the pumps are in continuous operation. A hybrid lifting station can be a real help it only runs when it is needed.



Direct drainage  
**is safe.**

Absolute operational safety – even in the event of a power failure. A hybrid lifting station provides this safety, because it even works without electricity. It simply uses the natural slope to dispose of the wastewater even if there is a power outage.

# At a glance

## Range of lifting stations with hybrid technology

### 2.1 Hybrid lifting stations



Backwater pumping station  
**Pumpfix F**

➤ Page 76





Hybrid lifting station  
**Ecolift XL**




➤ Page 84





#### Type of wastewater

-  Water containing sewage
-  Wastewater without sewage



#### Wastewater quantity

-  Low
-  Medium
-  High

#### Installation situation

-  Outdoor, underground installation
-  Indoor, exposed installation
-  Floor slab installation

#### Position relative to sewage pipe

-  Gravity slope to sewer
-  No slope to the sewer

If there is no slope to the sewer:

- Lifting stations: Page 92
- Pumping stations: Page 140

# 2.1 Hybrid lifting stations

The economical alternative  
to lifting stations



## Backwater pumping station *Pumpfix F*

The unique backwater solution.

More than a backwater valve: *Pumpfix F* is the only backwater valve that pumps against the backwater. In normal operation, the backwater pumping station continuously disposes of the wastewater via the slope to the main sewer, making it energy-neutral. In the event of backwater, the backwater flap closes automatically and when wastewater arises this is pumped against the backwater pressure. The integrated cutting system shreds solids meaning the *Pumpfix F* can be used with wastewater containing sewage. It can also drain basement staircases up to 5 m<sup>2</sup>.

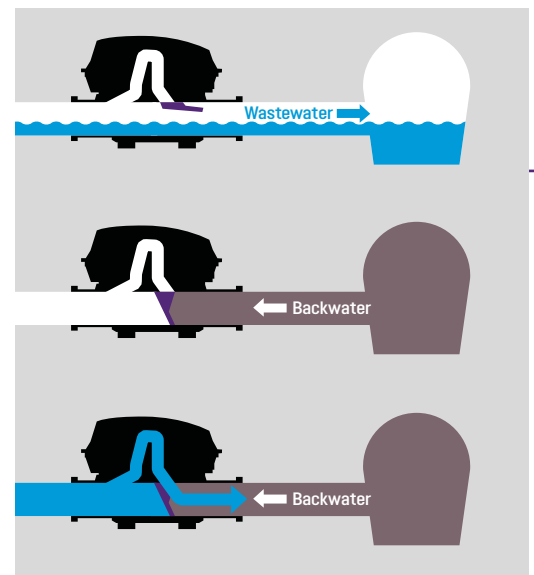
*Pumpfix F* is available in two variants – for installation in an exposed drainage pipe and for floor slab installation, where you can choose between a black cover or tileable cover.



1 Backwater pumping station 2 Control unit 3 Sealing gasket set



1 Backwater pumping station 2 Control unit



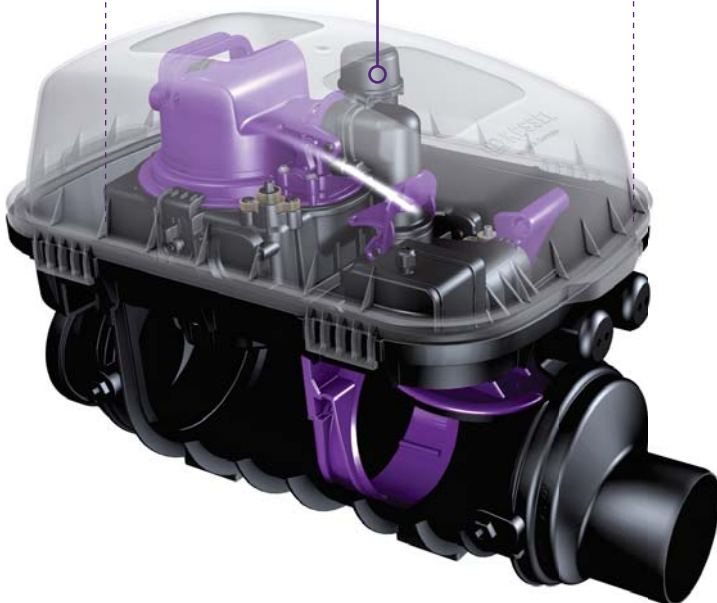
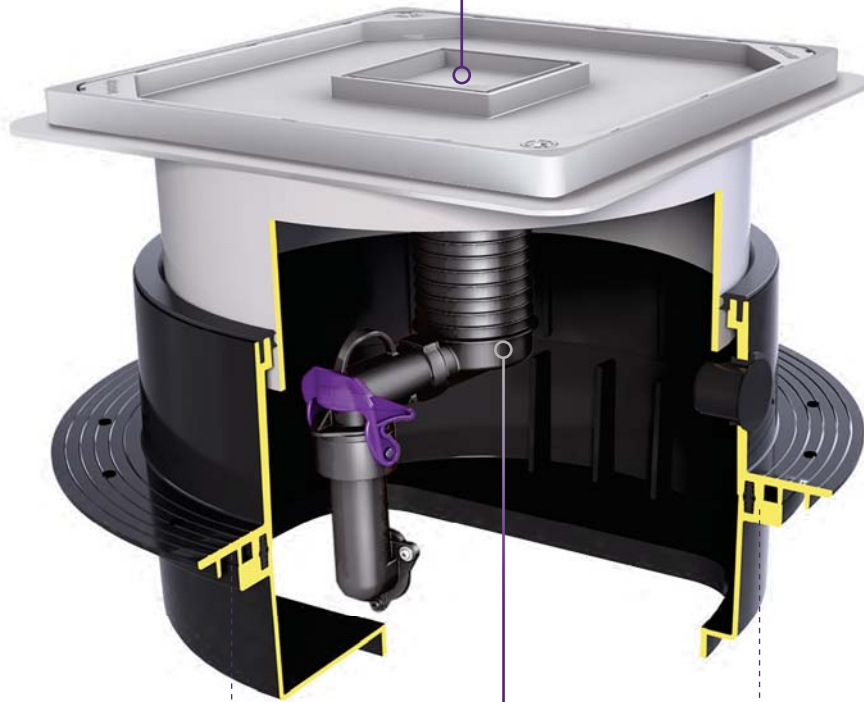
### How it works

*Pumpfix F* is the only backwater valve with hybrid function: In normal operation it uses the natural slope to the sewage pipe. In the event of backwater from the sewage pipe, the pump is automatically switched on in order to reliably pump the building's wastewater into the flooding sewer.



**Installation kit for the floor slab with integrated drainage function**

The backwater valve is available for floor slab installation and can also be installed in waterproof concrete by using an extension piece with central flange and an elastomer waterproofing membrane. The integrated drainage function ensures that any surface water, for example due to a pipe break, will be pumped into the sewer even during times of backwater.



**Self-diagnosis system**

The backwater valve has a plug-in-ready, fully wired, convenient control unit with SDS self-diagnosis system, a display for showing the operating status and maintenance information as well as a connection option for centralised control systems. It can be connected without the need for an electrician.

## Backwater pumping station *Pumpfix F*

Installation in a concrete slab/floor

Made of polymer, with telescopic upper section for continuous height- and level adjustment.

For installation depth (D) from 486 – 640 mm, Installation area 750 × 750 mm

With surface water tight polymer cover plate class A 15 and integrated floor drain.

Installation kit with choice of cover.

Backwater pumping station according to EN 13564 Type 3 with pump (1kW/230V) and backwater valve, pump activates during backwater, suitable for wastewater with or without sewage.

Plug-and-Play control unit with connection option to building management system and alarm, display for operating status and battery back-up, protection type IP 54, with integrated self diagnosis system SDS, motorized backwater flap, *Pumpfix F* body rated protection type IP 68 (3 m, 24 h).

**Power cable length:** 5 m (15 m available on request).

**Note:**

With S1-pump, without macerator, capable for continuous operation: on request

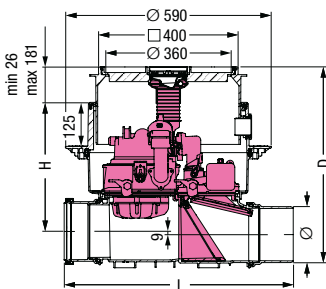
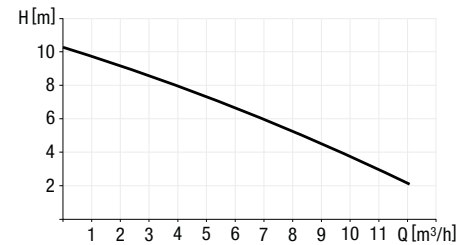
**Accessories:**

Extension sections for installation in waterproof concrete see page 78



Outer diameter Ø (mm)	L × H in mm	Art. no.
With recessed cover for on-site tiling and drain		
Ø 110	642 × 394	<b>24 100X</b>
Ø 125	645 × 387	<b>24 125X</b>
Ø 160	656 × 370	<b>24 150X</b>
Ø 200*	720 × 348	<b>24 200X</b>
With black cover and drain		
Ø 110	642 × 394	<b>24 100S</b>
Ø 125	645 × 387	<b>24 125S</b>
Ø 160	656 × 370	<b>24 150S</b>
Ø 200*	720 × 348	<b>24 200S</b>

### Pumping capacity



## Backwater pumping station *Pumpfix F*

Installation in an exposed wastewater pipe

Made of polymer, with protective cover.

Backwater pumping station according to EN 13564 Type 3 with pump (1kW/230V) and backwater valve, pump activates during backwater, suitable for wastewater with or without sewage.

Plug-and-Play control unit with connection option to building management system and alarm, display for operating status and battery back-up, protection type IP 54, with integrated self diagnosis system SDS, motorized backwater flap, *Pumpfix F* body rated protection type IP 68 (3 m, 24 h).

**Power cable length:** 5 m (15 m available on request).

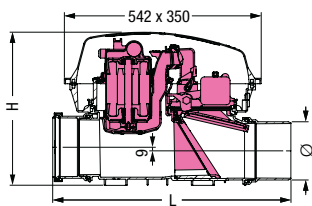
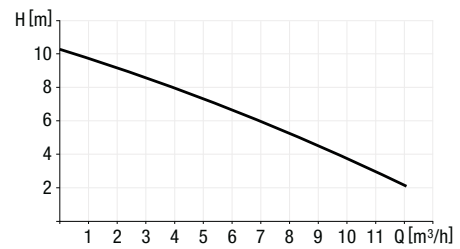
**Note:**

With S1-pump, without macerator, capable for continuous operation: on request



Outer diameter Ø (mm)	L × H in mm	Art. no.
Ø 110	642 × 422	24 100
Ø 125	645 × 422	24 125
Ø 160	656 × 422	24 150
Ø 200*	720 × 422	24 200

### Pumping capacity


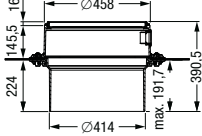

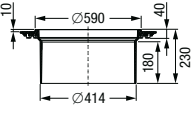

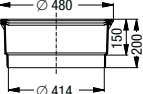


## Accessories

*Pumpfix F*




### Extension sections

for installation in a concrete floor

				Art. no.
<b>with centre flange</b>	<p><b>Additional function:</b> For installation in water-proof concrete</p> <p><b>Inclusive:</b> Temporary construction debris cover, fully assembled, gasket set (counter flange made of polymer, screwed, elastomer sealing sheet made of NK/SBR Ø 800 mm)</p> <p><b>Extension:</b> Max. 360 mm</p>			83 075
<b>with flange and counter flange</b>	<p><b>Additional function:</b> For connection to an on-site sealing sheet</p> <p><b>Inclusive:</b> Screws</p> <p><b>Extension:</b> Max. 140 mm (In case of deeper installation ensure maintenance capability!)</p>			83 073
<b>with gasket</b>	<p><b>Extension:</b> Max. 180 mm (In case of deeper installation ensure maintenance capability!)</p>			83 070

### Cable extensions

for extension from 15 m or 25 m (*Pumpfix F* supplied with 5 meter cables)

			Art. no.
<b>Cable extension for motor (10 m)</b>	<p><b>Extension to 15 m:</b> 1×80 890</p> <p><b>Extension to 25 m:</b> 2×80 890</p>		80 890
<b>Cable extension for probe (10 m)</b>	<p><b>Extension to 15 m:</b> 2×80 889</p> <p><b>Extension to 25 m:</b> 4×80 889</p>		80 889
<b>Cable extension for pump (10 m)</b>	<p><b>Extension to 15 m:</b> 1×80 891</p> <p><b>Extension to 25 m:</b> 2×80 891</p>		80 891

### Cover plates

for installation in a concrete floor

			Cover	Art. no.
<b>with drain Ø 75</b>	<p><b>Inclusive:</b> Gasket, <i>Multistop</i></p> <p><b>Version recessed for on-site tiling, grey:</b> For tile thicknesses of 18 mm</p> <p><b>Version black:</b> With integrated grating</p>		tileable	83 045
			black	83 046

### Upper section

for installation in a concrete floor

			Art. no.
<b>Size 220 mm</b>	<p><b>Version:</b> With flange</p> <p><b>Extension:</b> Max. 180 mm, height adjustable</p>		83 061

## Accessories

Pumpfix F



### Hygiene and odour stop

Compatibility see product description

				Art. no.
<b>Multistop</b>	<b>Function:</b> Odour, foam, rodent and insect stop <b>Compatibility:</b> Art. no. 83 045 and 83 046			43 500
<b>Hair filter</b>	<b>Compatibility:</b> Art. no. 83 045 and 83 046			43 700

### Spigot and Socket



for backwater valves

			Outer diameter Ø (mm)	Art. no.
<b>Spigot</b>	<b>Function:</b> Removable		Ø 110	83 081
			Ø 125	83 082
			Ø 160	83 083
			Ø 200*	83 084
<b>Socket</b>	<b>Function:</b> Removable		Ø 110	83 085
			Ø 125	83 086
			Ø 160	83 087
			Ø 200*	83 088

\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

### Control unit accessories

Compatibility see product description

			Art. no.
<b>Audible alarm</b>	<b>Compatibility:</b> For all control units with SDS function <b>Cable length:</b> 20 m		20 162
<b>Access code potential-free contact</b>	<b>Compatibility:</b> For Comfort control units beginning model year 2017		80 077

## Hybrid lifting station *Ecolift XL*

The powerful solution for commercial applications and multi-family homes.

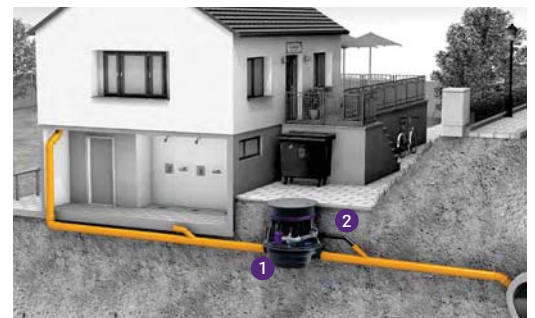
**Concentrated power:** The *Ecolift XL* is a larger and more powerful version of the *Pumpfix*. This means that the hybrid lifting station is ideally suited to use in commercial buildings and apartment blocks. With a power rating of up to 4.5 kW, the *Ecolift XL* can also reliably pump the wastewater into a flooded sewer. Up to two motor-driven closure systems ensure isolation from the sewage pipe. However, this is only necessary in the event of backwater. In normal operation, the pump does not run at all and the wastewater simply drains to the sewer via gravity.

The *Ecolift XL* can be installed as a free-standing set-up, in an underground engineering chamber or in a concrete floor slab. It is available with various pump power ratings, some for a 230 V connection, some for 400 V. The variants with one motor-driven closure system are suitable for grey water and those with two for black water.



### Flexible installation

Thanks to the modular construction and the large selection of chamber modules and upper sections, the *Ecolift XL* can be installed as a free-standing set-up on the floor of a building, in the building's concrete floor slab or outdoors underground. The modules are groundwater-resistant to a depth of 3.000 mm.



1 Hybrid lifting station 2 Pressure pipe



1 Hybrid lifting station 2 Pressure pipe  
3 Pressure relief chamber



1 Hybrid lifting station  
2 Upper section for concrete floor slab





**Reliability**

The *Ecolift XL* not only has particularly powerful pumps but also has up to two motor-driven closure systems, which ensure protection between the sewage pipe and the building in the event of backwater. The pneumatic level measurement and an alarm sensor guarantees additional safety.

with DIBt-approval Z-53.2-493

**Direct drainage**

Hybrid lifting stations use direct drainage, the natural slope to the sewer. Wastewater is only disposed of by a pump in the event of backwater.


➤ The *Ecolift* principle:  
Page 70

This is how it's done

# Planning a hybrid lifting station

## *Ecolift XL*

### 1 Select a system base with suitable pump power

Always the right choice:   
[smartselect.kessel.com](https://smartselect.kessel.com)

Determine the required pump power (e.g. with the calculation module from SmartSelect) and select the corresponding system base with the help of the power diagram.

↗ System base for minimum installation height:  
Page 84

↗ System base for free-standing set-up or installation in ground: Page 86

### 2 Select a system chamber with suitable cover

Depending on the installation situation, when installing underground or in a floor slab, the system chamber can be combined with different upper sections and covers. From class K 3 to class D. In addition, you can also choose between the Ø 600 and Ø 800 mm chamber access openings.



Chamber access opening  
Ø 600

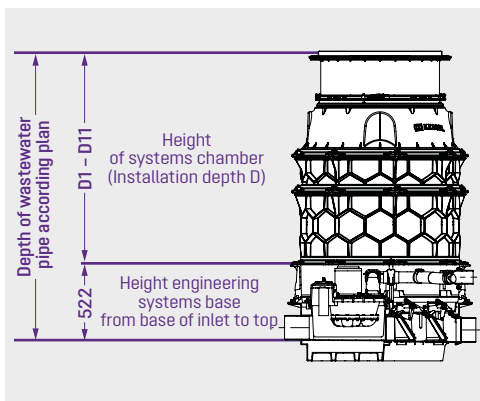
Chamber access opening  
Ø 800

For Ø 600 mm access opening an inlet depth of at least 1.780 mm is required for maintenance



### 3 Calculate the height of the system chamber (D)

Now determine the required chamber height. D is the distance between the ground surface and the base of the inlet pipe.



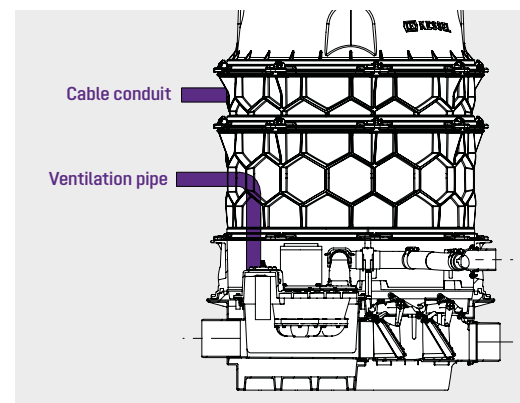
#### Note: Check the groundwater status.

The KESSEL system chambers are resistant to groundwater depths up to 3.000 mm. Now subtract 522 mm from the inlet depth and you have the height of the required engineering chamber. Now you can select a module with the corresponding height and the required cover from the article list. Please note the maximum permissible total installation depth is 5.000 mm.

### 4 Note: Connection pipe for cables and ventilation

During planning, please also note the following:

- The maximum cable length is 30 m.
- Stipulate that the **ventilation pipe** and the **cable conduit** must be laid with a continuous slope toward the *Ecolift XL* (helps drain collected water in the pipe)



➤ Optional cable conduit sealing kit: Page 89

## Hybrid lifting station *Ecolift XL Mono/Duo*

Dry installation, for minimum installation depth



Base section made of PE

For installation in a concrete slab or outdoor underground installation in combination with upper section see page 85.

**Version:**

- backwater lifting station *Ecolift XL Mono / Duo* for connection to Ø 800 mm upper sections
- inlet / outlet Ø 160 mm
- with Comfort Plus control unit
- with one motor-driven backwater flap for wastewater without sewage or with two motor-driven backwater flaps for wastewater with sewage
- 230 V-Versions ready to plug in

**Cable length:** 10 m

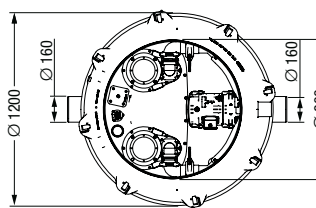
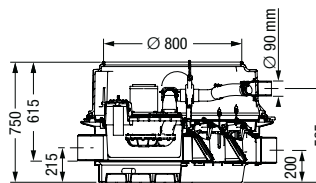
**Installation:**

Handles groundwater depths up to 3000 mm

**Note:**

The pressure pipe must be connected to a welded PE pipe; in the case of pump *SPF 4500* pressure pipe to be connected to a pressure relief chamber (contact KESSEL for questions).

- **Installation:** in combination with upper section Ø 800 page 85
- **Accessories:** pages 89 – 90



### Mono version with one pump

SPF pump	Voltage	Art. no.
With one motor-driven backwater flap for wastewater without sewage		
1400-S3	230 V	<b>874 10 44</b>
1500-S3	400 V	<b>874 10 45</b>
3000-S3	400 V	<b>874 10 46</b>
4500-S3	400 V	<b>874 10 47</b>

With two motor-driven backwater flaps for wastewater with sewage		
1400-S3	230 V	<b>874 10 48</b>
1500-S3	400 V	<b>874 10 49</b>
3000-S3	400 V	<b>874 10 50</b>
4500-S3	400 V	<b>874 10 51</b>

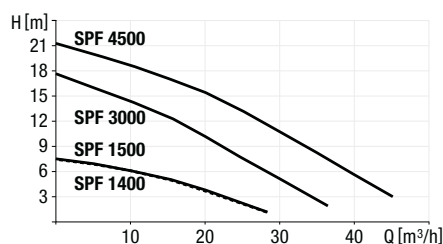
### Duo version with two pumps

SPF pump	Voltage	Art. no.
With one motor-driven backwater flap for wastewater without sewage		
1400-S3	230 V	<b>874 10 60</b>
1500-S3	400 V	<b>874 10 61</b>
3000-S3	400 V	<b>874 10 62</b>
4500-S3	400 V	<b>874 10 63</b>

1400-S1	230 V	<b>874 10 64</b>
1500-S1	400 V	<b>874 10 65</b>
3000-S1	400 V	<b>874 10 66</b>
4500-S1	400 V	<b>874 10 67</b>

With two motor-driven backwater flaps for wastewater with sewage		
1400-S3	230 V	<b>874 10 68</b>
1500-S3	400 V	<b>874 10 69</b>
3000-S3	400 V	<b>874 10 70</b>
4500-S3	400 V	<b>874 10 71</b>
1400-S1	230 V	<b>874 10 72</b>
1500-S1	400 V	<b>874 10 73</b>
3000-S1	400 V	<b>874 10 74</b>
4500-S1	400 V	<b>874 10 75</b>

### Pumping capacity



Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	H [m] = Backwater height
SPF 1400-S1/S3-100/50%*	230 V	7.3 A	1.6 kW	1.1 kW	28 m³/h	7.5 m
SPF 1500-S1/S3-100/50%*	400 V	2.7 A	1.4 kW	1.1 kW	28 m³/h	7.5 m
SPF 3000-S1/S3-100/50%*	400 V	5.4 A	3.3 kW	2.7 kW	36 m³/h	17.5 m
SPF 4500-S1/S3-100/50%*	400 V	7.5 A	4.5 kW	3.7 kW	45 m³/h	21 m

\*Definition of S1 and S3-pumps see page 95



## Upper section Ø 800

Made of polymer/stainless steel

**Compatibility:**

For use as upper section for the engineering system base *Ecolift XL Mono/Duo* for the version with minimum installation depth page 84

**Version:**

with/without waterproof flange

**square, tileable, without waterproof flange**

Installation depth D in mm (min./max.)

Covers

Art. no.

65 - 314

Class A/L 15

**874 01 75**



**square, tileable, with waterproof flange**

282 - 531

Class A/L 15

**874 01 76**



**square, not tileable, without waterproof flange**

50 - 299

Class A/L 15

**874 01 77**



**square, not tileable, anti-slip, with waterproof flange**

267 - 516

Class A/L 15

**874 01 78**



**square, without waterproof flange**

274 - 523

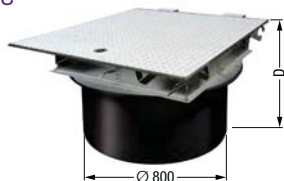
Class B

**874 01 79**

274 - 523

Class D

**874 01 80**



**round, without waterproof flange**

65 - 314

Class K 3

**874 01 81**



## Hybrid lifting station *Ecolift XL Mono/Duo*

Dry installation, free standing or in a concrete slab



Base section made of PE

For on the floor installation in frost-free rooms, outdoor underground installation or installation in a concrete floor in combination with an engineering system chamber see pages 87 – 88.

**Version:**

- backwater lifting station *Ecolift XL Mono / Duo* with welded chamber ring
- inlet / outlet Ø 160 mm
- with Comfort Plus control unit
- with one motor-driven backwater flap for wastewater without sewage or two motor-driven backwater flaps for wastewater with sewage
- 230 V-Versions ready to plug in

**Cable length:** 10 m

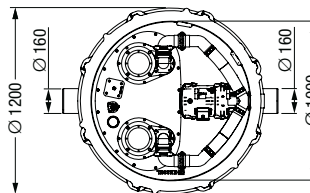
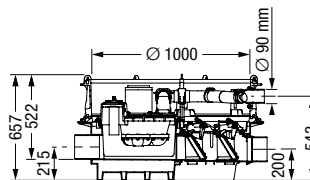
**Installation:**

Handles groundwater depths up to 3000 mm

**Note:**

The pressure pipe must be connected to a welded PE pipe; in the case of pump *SPF 4500* pressure pipe to be connected to a pressure relief chamber (contact KESSEL for questions).

- **Installation:** in combination with an engineering system chamber Ø 1000 page 87 – 88
- **Accessories:** pages 89 – 90



**Mono version with one pump**

SPF pump	Voltage	Art. no.
With one motor-driven backwater flap for wastewater without sewage		
1400-S3	230 V	<b>874 10 06</b>
1500-S3	400 V	<b>874 10 07</b>
3000-S3	400 V	<b>874 10 08</b>
4500-S3	400 V	<b>874 10 09</b>

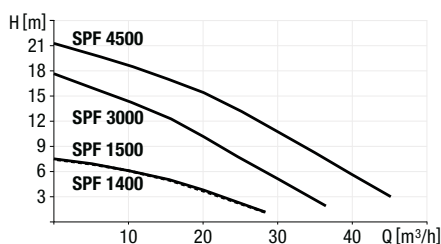
With two motor-driven backwater flaps for wastewater with sewage		
1400-S3	230 V	<b>874 10 10</b>
1500-S3	400 V	<b>874 10 11</b>
3000-S3	400 V	<b>874 10 12</b>
4500-S3	400 V	<b>874 10 13</b>

**Duo version with two pumps**

SPF pump	Voltage	Art. no.
With one motor-driven backwater flap for wastewater without sewage		
1400-S3	230 V	<b>874 10 22</b>
1500-S3	400 V	<b>874 10 23</b>
3000-S3	400 V	<b>874 10 24</b>
4500-S3	400 V	<b>874 10 25</b>
With two motor-driven backwater flaps for wastewater with sewage		
1400-S1	230 V	<b>874 10 26</b>
1500-S1	400 V	<b>874 10 27</b>
3000-S1	400 V	<b>874 10 28</b>
4500-S1	400 V	<b>874 10 29</b>

With two motor-driven backwater flaps for wastewater with sewage		
1400-S3	230 V	<b>874 10 30</b>
1500-S3	400 V	<b>874 10 31</b>
3000-S3	400 V	<b>874 10 32</b>
4500-S3	400 V	<b>874 10 33</b>
1400-S1	230 V	<b>874 10 34</b>
1500-S1	400 V	<b>874 10 35</b>
3000-S1	400 V	<b>874 10 36</b>
4500-S1	400 V	<b>874 10 37</b>

**Pumping capacity**



Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	H [m] = Backwater height
SPF 1400-S1/S3-100/50%*	230 V	7.3 A	1.6 kW	1.1 kW	28 m³/h	7.5 m
SPF 1500-S1/S3-100/50%*	400 V	2.7 A	1.4 kW	1.1 kW	28 m³/h	7.5 m
SPF 3000-S1/S3-100/50%*	400 V	5.4 A	3.3 kW	2.7 kW	36 m³/h	17.5 m
SPF 4500-S1/S3-100/50%*	400 V	7.5 A	4.5 kW	3.7 kW	45 m³/h	21 m

\*Definition of S1 and S3-pumps see page 95



## Engineering system chamber Ø 1000 with access opening Ø 600

for combination with hybrid lifting station *Ecolift XL*

Made of polyethylene PE-HD

**Installation:** For underground installation; handles groundwater depths up to 3000 mm

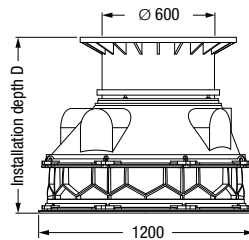
**Modular design comprising:**

- chamber rings with access steps fitted
- with telescopic height adjustable upper section
- round cover made of cast iron
- includes all sealing gaskets and wedge connectors required for installation

**Delivery:** As individual elements

**Remark:** Covers surface water tight

**Note:** Additional installation depths (on request)



Installation depth D in mm	Class A/B	Class D
	Art. no.	Art. no.
1130 - 1379	874 00 18	874 00 19
1380 - 1629	874 00 24	874 00 25
1630 - 1879	874 00 30	874 00 31
1880 - 2129	874 00 36	874 00 37
2130 - 2379	874 00 42	874 00 43
2380 - 2629	874 00 48	874 00 49
2630 - 2879	874 00 54	874 00 55
2880 - 3129	874 00 60	874 00 61

EN 13598 Part 2 Z-42.1-527

## Engineering system chamber Ø 1000 with access opening Ø 800

for combination with hybrid lifting station *Ecolift XL*

Made of polyethylene PE-HD

**Installation:** For installation in the concrete slab; handles groundwater depths up to 3000 mm

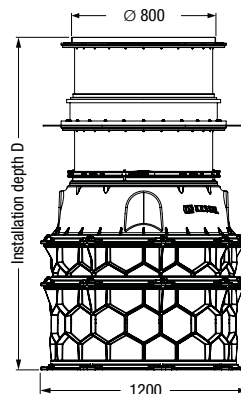
**Modular design comprising:**

- for waterproof concrete with flange and counter flange
- chamber rings with access steps fitted
- with telescopic height adjustable upper section
- square cover made of stainless steel, class A/L 15
- includes all sealing gaskets and wedge connectors required for installation

**Delivery:** As individual elements

**Remark:** Covers surface water tight

**Note:** Additional installation depths, upper sections and covers class B/D (on request)



### Cover tileable

Installation depth D in mm	Art. no.
628 - 877	874 00 03
878 - 1127	874 00 09
1128 - 1377	874 00 15
1378 - 1627	874 00 21
1628 - 1877	874 00 27

### Cover not tileable, anti-slip

Installation depth D in mm	Art. no.
613 - 862	874 00 05
863 - 1112	874 00 11
1113 - 1362	874 00 17
1363 - 1612	874 00 23
1613 - 1862	874 00 29

EN 13598 Part 2 Z-42.1-527

## Engineering system chamber Ø 1000 with access opening Ø 800

for combination with hybrid lifting station *Ecolift XL*

Made of polyethylene PE-HD

**Installation:** For underground installation; handles groundwater depths up to 3000 mm

**Modular design comprising:**

- chamber rings with access steps fitted
- with telescopic height adjustable upper section
- covers made of stainless steel
- includes all sealing gaskets and wedge connectors required for installation

**Delivery:** As individual elements

**Remark:** Covers surface water tight

**Note:** Additional installation depths, upper sections and covers class B/D (on request)



Illustration shows Art. no. 874 01 43

Illustration shows Art. no. 874 01 22

Illustration shows Art. no. 874 00 20

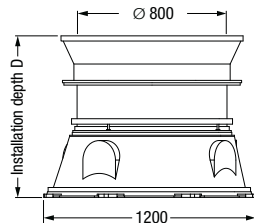


Illustration shows Art. no. 874 01 58

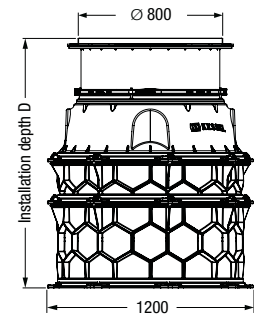


Illustration shows Art. no. 874 00 02

### Round cover

Installation depth D in mm	Art. no.
Class K 3	
375 - 624	874 01 22
625 - 874	874 01 23
875 - 1124	874 01 24
1125 - 1374	874 01 25
1375 - 1624	874 01 26
1625 - 1874	874 01 27
1875 - 2124	874 01 28
2125 - 2374	874 01 29
2375 - 2624	874 01 30
2625 - 2874	874 01 31
2875 - 3124	874 01 32

### Square cover

Installation depth D in mm	Art. no.
Class B	
620 - 869	874 01 41
870 - 1119	874 01 42
1120 - 1369	874 01 43
Class D	
620 - 869	874 01 58
870 - 1119	874 01 59
1120 - 1369	874 01 60

### Square cover

Installation depth D in mm	Art. no.
Class A/L 15, not tileable, anti-slip	
396 - 645	874 00 04
646 - 895	874 00 10
896 - 1145	874 00 16
1146 - 1395	874 00 22
1396 - 1645	874 00 28
1646 - 1895	874 00 34
1896 - 2145	874 00 40
2146 - 2395	874 00 46
2396 - 2645	874 00 52
2646 - 2895	874 00 58
2896 - 3145	874 00 64
Class A/L 15, tileable	
411 - 660	874 00 02
661 - 910	874 00 08
911 - 1160	874 00 14
1161 - 1410	874 00 20
1411 - 1660	874 00 26
1661 - 1910	874 00 32
1911 - 2160	874 00 38
2161 - 2410	874 00 44
2411 - 2660	874 00 50
2661 - 2910	874 00 56
2911 - 3160	874 00 62

## Accessories

Engineering systems base *Ecolift XL*

### Extension section

for engineering systems base *Ecolift XL*

			Art. no.
500 mm	<b>Inclusive:</b> 2 access steps, installed <b>Note:</b> Without gasket and connecting wedges		680 371
250 mm	<b>Inclusive:</b> 1 access step, installed <b>Note:</b> Without gasket and connecting wedges		680 370



### Gaskets / Connection and attachment set

Compatibility see product description

			Outer diameter Ø (mm)	Art. no.
<b>Cable piping gasket set</b>	<b>Compatibility:</b> Control unit 230 V <b>Inclusive:</b> <ul style="list-style-type: none"> <li>① Pipe sealing gasket</li> <li>② PVC-collar plug</li> <li>③ Twin flange Ø 110</li> <li>④ HT-collar plug</li> <li>⑤ Cable connections</li> <li>⑥ Retaining clip with screws</li> </ul>		Ø 110	85 410
<b>Set of connecting wedges</b>	<b>Compatibility:</b> Art. no. 680 371 and 680 370 <b>Quantity:</b> 10 pieces			680 373
<b>Profiled gasket</b>	<b>Compatibility:</b> Art. no. 680 371 and 680 370			680 125
<b>Cable attachment set</b>	<b>Compatibility:</b> Engineering systems base Ø 1000			28 076

### Cable extensions

for extension from 20 m or 30 m (*Ecolift XL* cable length 10 m)

	Hybrid lifting station <i>Ecolift XL</i> with one motor-driven backwater flap	Hybrid lifting station <i>Ecolift XL</i> with two motor-driven backwater flaps		Art. no.
<b>Cable extension for flap motor(s) (10 m)</b>	Extension to 20 m: 1×80 890 Extension to 30 m: 2×80 890	Extension to 20 m: 2×80 890 Extension to 30 m: 4×80 890		80 890
<b>Cable extension for probe(s) (10 m)</b>	Extension to 20 m: 2×80 889 Extension to 30 m: 4×80 889	Extension to 20 m: 3×80 889 Extension to 30 m: 6×80 889		80 889
<b>Cable extension for pump <i>SPF 1400 S1/S3</i> (10 m)</b>	Extension to 20 m: 1×80 891** Extension to 30 m: 2×80 891**	Extension to 20 m: 2×80 891** Extension to 30 m: 4×80 891**		80 891

\*\*400 V extension on-site through qualified electrician









## Accessories

Hybrid lifting station *Ecolift XL*

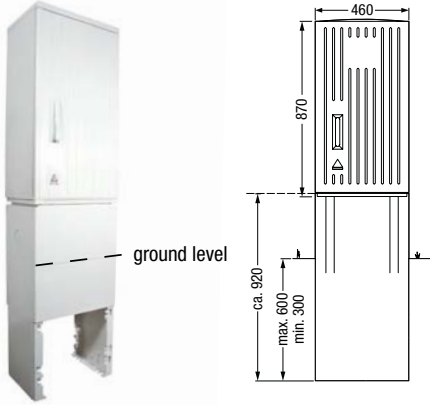
### Warning / Alarm / Communication Systems

Compatibility see product description

			Art. no.
<b>TeleControl telemetric system</b>	<p><b>Compatibility:</b> For connection to KESSEL Comfort control units 230 Volt and 400 Volt</p> <p><b>Function:</b> Relaying of full text messages to up to three mobile phones</p> <p><b>Inclusive:</b> With internal antenna (without SIM card)</p>		28 792
<b>Antenna booster with magnetic base</b>	<p><b>Compatibility:</b> For <i>TeleControl</i> telemetric system to improve the reception</p> <p><b>Cable length:</b> 2.5 m</p>		28 793
<b>Extension cable</b>	<p><b>Compatibility:</b> For antenna booster</p> <p><b>Cable length:</b> 2.5 m</p>		28 794
<b>Audible alarm</b>	<p><b>Compatibility:</b> For all control units with SDS function</p> <p><b>Cable length:</b> 20 m</p>		20 162
<b>Warning beacon</b>	<p><b>Function:</b> For the additional visual display of faults, for installation on the outdoor control cabinet, with switching unit for connection to the control unit</p>		97 715
<b>Installation set Thermostat / Hygrostat</b>	<p><b>Function:</b> As an additional module for installation in the outdoor kiosk to reduce condensation</p>		97 713
<b>Air compressor</b>	<p><b>Function:</b> For use in combination with lifting station and pumping stations with pressure control: prevents soiling, avoids the formation of condensate in the pressure hose, makes operation of systems possible with pressure hose lengths &gt; 10 m</p> <p><b>Inclusive:</b> T-piece connection, 20 m pressure hose</p>		28 048
<b>PE-pressure hose extension (per meter)</b>	<p><b>Compatibility:</b> For Art. no. 28 048</p>		680 071

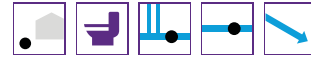
### Kiosk for control unit

for installation of control units, modems, heating element, warning beacon outside of buildings

	Height over ground level		Height over all in mm	Width / depth in mm	Art. no.
for control unit, heating, warning beacon	Height over ground level: 870 mm	 <p>Diagram showing kiosk dimensions: width 460 mm, height 870 mm, total height ca. 920 mm, max. height 600 mm, min. height 300 mm. Ground level is indicated.</p>	1740	460/320	97 716
for heating and pressure pipe	Height over ground level: 870 mm		1740	590/320	97 714
for control unit, modem, heating, warning beacon	Height over ground level: 870 mm		1740	785/320	97 723
for control unit, modem, heating, warning beacon and pressure pipe	Height over ground level: 870 mm		1740	1115/320	97 724

# Hybrid pumping station *Aqualift F Duo*

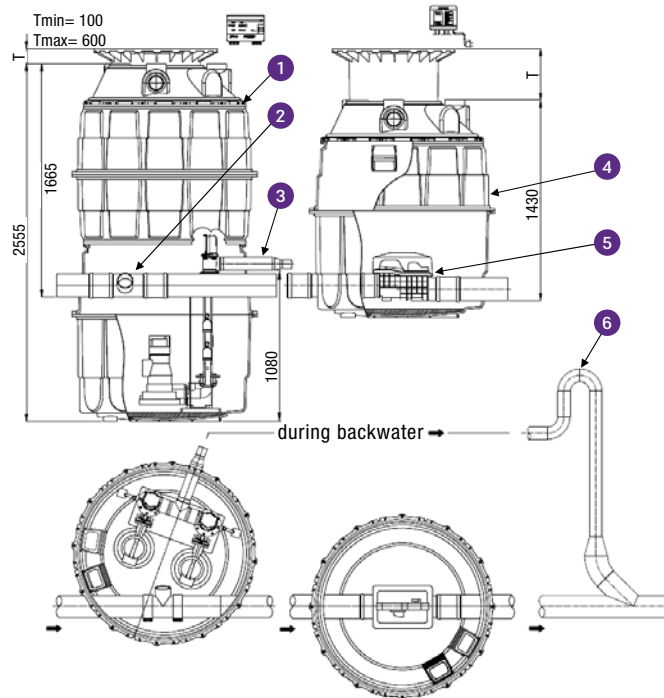
with overflow channel and backwater valve *FKA*



Polyethylene PE-HD

for wastewater with or without sewage, for underground installation, made of polyethylene PE-HD with access steps, watertight, resistant against aggressive wastewater. Polymer upper section for continuous height and level compensation, cover plate made of cast iron according to EN 124. Connection hole with sealing gasket Ø 110 in accordance with EN 1401 and EN 12666-1 for ventilation and cable conduits respectively, pump volume approx. 200 l. Pressure pipe pre-assembled with backwater flap, closure valve and 4 float switches for level control.

Two submersible pumps (available with or with ATEX explosion protection), with cutting unit for pumping wastewater with and without sewage, flood-proof. Electric control unit for fully automatic pump control, splashwater-proof, for wall mounting in dry, frost-free areas of the building, with potential-free contact.



- 1 Pumping station *Aqualift F Duo*
- 2 Channel passage with overflow opening
- 3 Outlet for pressure pipe
- 4 Chamber system *Komfort* Ø 1000
- 5 Backwater valve *Staufix FKA* for wastewater with/without sewage
- 6 Loop via backwater level

## Function

### Standard operation

In standard operation, the connected drainage fixtures can drain by means of natural gravity through the open channel to the sewer.

### Backwater protection

If there is any backwater from the sewer, the sensor system in the backwater valve *Staufix FKA* detects backwater in the drain pipe and closes the motor-driven flap, protecting the building.

### Disposal during the backwater phase

Any wastewater from the building which occurs during this phase pours through the overflow opening into the pumping station. After sufficient wastewater is collected the pump(s) activate and discharge the building's wastewater into the flooded sewer.

### Standard operation

After backwater the backwater valve *Staufix FKA* automatically re-opens, the connected drainage fixtures can be drained through the open channel again.

Chamber system	Komfort Ø 1000
Standard	EN 752
Installation depth in mm	**
Inlet depth in mm	**
Inlet passage channel with overflow opening	**
Pressure socket (DN)	Ø 63 mm / Ø 90 mm
Type of cover	unscrewed
Load class	B 125 (12.5 t)

Pumping station	<i>Aqualift F</i> (Duo system)	<i>Aqualift F</i> (Duo system)
Pump type	TPF 1.3 KE	TPF 1.9 KE
Standard	EN 12050-1	EN 12050-1
Feed rate	max. 15 m <sup>3</sup> /h	max. 20.5 m <sup>3</sup> /h
Pumping height	max. 17.5 m	max. 32.0 m
Rated power	2×1.3 kW	2×1.9 kW
Input power	2×1.75 kW	2×2.6 kW
Operating voltage	400 V DC	400 V DC
Rated frequency	50 Hz	50 Hz
Rated current	3.5 A	4.5 A
Fuse protection	3×16 A slow-blow	3×16 A slow-blow
Protective rating (pumps)	IP 68 EX-protection	IP 68 EX-protection
Protective rating (control unit)	IP 54	IP 54
Cable length	10 m (7×1.5 mm <sup>2</sup> )	10 m (7×1.5 mm <sup>2</sup> )

\*\*Please enter the desired values

# 3. Lifting stations and Pumping stations

For wastewater with and without sewage

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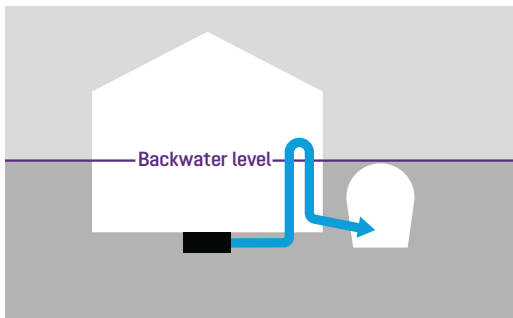
Which lifting station or pump station do I need?	94
Lifting station range	98
<b>3.1 Lifting stations (above ground)</b>	<b>100</b>
Compact lifting station <i>Minilift F</i>	102
Lifting station <i>Minilift S</i> for free-standing installation	103
Lifting station <i>Minilift S</i> for installation in a concrete floor	104
Accessories	105
Lifting station <i>Aqualift F Compact</i>	106
Accessories	109
Lifting station <i>Aqualift S Compact</i>	112
Accessories	115
Lifting station <i>Aqualift F Basic</i>	118
Accessories	120
Lifting station <i>Aqualift F Mono/Duo</i>	122

Accessories	125	Pumping station <i>Aqualift S XL</i>	160
Lifting station <i>Aqualift S Duo</i> for free-standing installation	128	Accessories engineering system chamber Ø 1000	162
Accessories	131	Accessories	164
Lifting station <i>Aqualift F XL</i>	132		
Accessories	136	<b>3.3 Submersible pumps, warning and control units</b>	<b>168</b>
<b>3.2 Pumping stations (below ground)</b>	<b>140</b>	Submersible pump <i>KTP 300</i>	170
Planning information	142	Submersible pump <i>GTF 500 / GTF 500 resistant</i>	170
Pumping station <i>Aqualift F Basic</i>	144	Submersible pump <i>GTF 1000</i>	171
Accessories	146	Submersible pump <i>STZ 1000</i>	171
Pumping station <i>Aqualift F</i>	148	Retrofit kit <i>Aqualift S Duo</i>	172
Pumping station <i>Aqualift S</i>	150	Retrofit kit <i>Aqualift F XL</i>	173
Pumping station <i>Aqualift F XL</i> for minimum installation depth	152	230 V Comfort control units	174
Accessories upper sections	155	400 V Comfort control unit	176
Pumping station <i>Aqualift F XL</i>	156	Accessories	177

# Everything specialists need to know

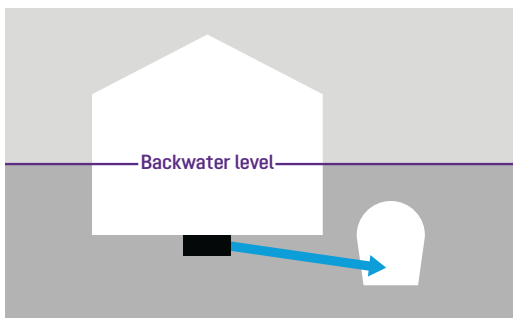
## Location of sewer

If the sewage is higher than the drainage point, the wastewater must be lifted to the sewer with a lifting station via a backwater loop.



**No slope to the sewer**

↗ Lifting stations: Page 100

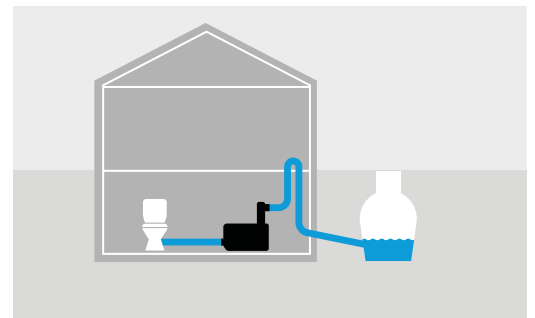


**Slope to the sewer**

↗ Hybrid lifting stations: Page 68

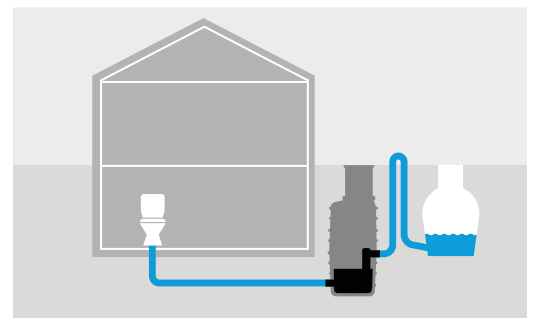
## Installation locations

Is your system to be installed inside or outside the building?



**Inside the building**

↗ Lifting stations: Page 100



**Outside the building**

↗ Pumping stations: Page 140

## Types of wastewater

The particle size of a pump specifies how many millimetres of free passage through the pump are available.



### Lifting stations for water with sewage

EN 12050-1

Wastewater with sewage is involved whenever pipes are connected that transport water from urinals or toilets to the sewer. This is termed "black water".

**Maximum particle size: 40 mm**



### Lifting stations for water without sewage

EN 12050-2

Wastewater without sewage is water without faecal content, for example shower water or water from a washing machine. This is termed "grey water".

**Maximum particle size: 10 mm**

## Explosion protection



Accidents or spills could result in hazardous liquids entering the lifting station which could result in an explosion risk environment. If the possibility is real, an ATEX explosion protected pumping system should be used.

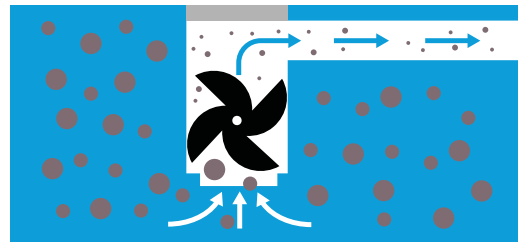
## Pump operation classification

KESSEL pumps are classified as S1 or S3 operating duty.

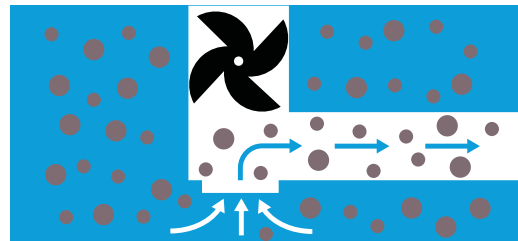
An S1 class pump is a continuous duty pump designed to run without interruption, ideal for rainwater applications or for a continuous industrial wastewater flow.

S3 operating duty pumps are intermittent duty and require periodic breaks to stop and cool down. An S3 50 % classified pump, for example, should not run more than 50 % of the time and are perfect for standard wastewater from homes, apartments or commercial buildings.

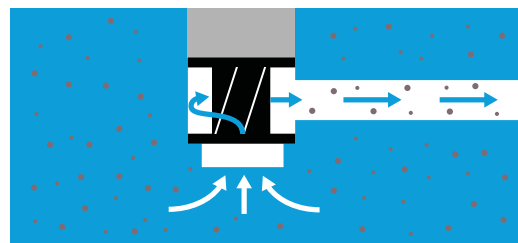
## Pump types



**Macerator pumps** are especially designed for wastewater containing raw sewage. These systems cut the wastewater into small particles which allows connection to small diameter pressure pipes.



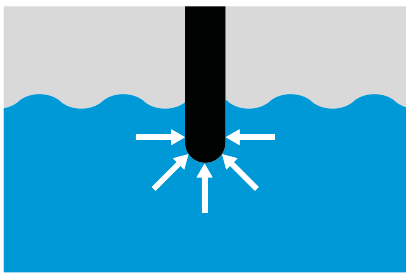
**Multi-vane impeller pumps** are designed for wastewater with or without raw sewage. A large area inside the pump allows any solids to freely pass into the properly sized pressure pipe without contacting the impeller.



**Single-channel impeller pumps** are especially designed for solids free or small particle wastewater. The impeller design efficiently moves high volumes of wastewater with minimal power consumption.

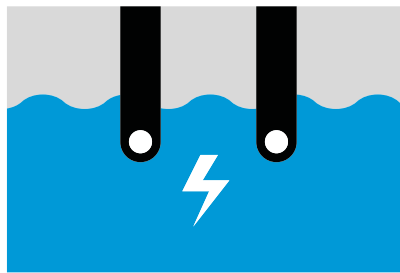
## Level sensors/probes and alarm probes

Level sensors and probes measure the level of the pumping medium in the collecting tank of a lifting station and trigger the pumping process of one or more pumps. If the level in the collecting tank continues to rise, an acoustic alarm signal can be given via an alarm probe (which also measures the level of the pumping medium).



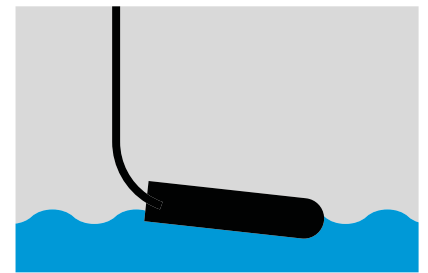
### Pressure sensor

Activates based on changes in air pressure resulting from rising or falling water levels in the tank. Unsuitable for applications when the pumps are very far away from the control unit or if condensation build up in the pressure tube is an issue.



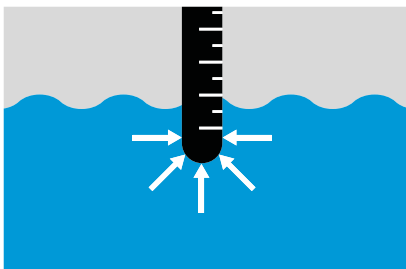
### Conductance probe

Activated when a conductive fluid permits current flow between two measuring points – simple and low-cost, but only works with conductive fluids and cannot be used for pumping rainwater or condensate.



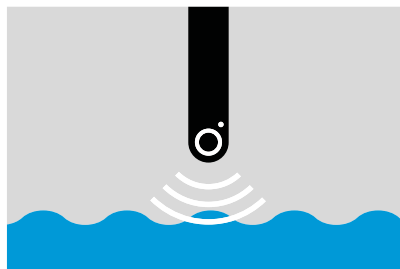
### Float switch

Actuated by a float swimming on the pumping medium's surface – simple and proven, but not recommended for heavily soiled wastewater, as material deposits on the float can interfere with level measurement.



### Hydrostatic sensor

Based on the conversion of different water pressure values to analogue signals – can be used to measure both alarm and pumping levels with a single sensor, but usually costs more than other sensors and probes.



### Optical probe

Detects moisture on the sensor surface by monitoring the refraction angle of an infrared signal – ideal as an alarm probe as it works reliably even after long periods of inactivity, but can be triggered by mistake when wastewater is warm or heavily foaming.



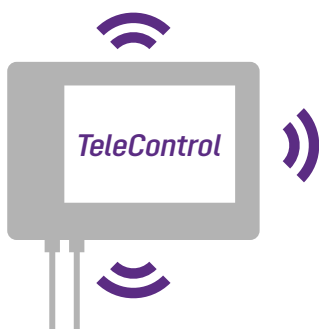
## Telemetric system - TeleControl

The KESSEL TeleControl system allows pump activity, messages or errors to be sent via a GSM interface to up to three mobile phones. This keeps the pump operator informed about the current operational status of the lifting station and allows a quick reaction time if required.



### Operator/owner

Receives a weekly message with the operational status of the lifting station.



### Facility manager

Receives all pump actions, messages and errors and is always kept up-to-date with the status of the lifting station.



### Plumber

Receives all error messages and can decide if and when an on-site inspection of the system is required.

# At a glance

## Range of lifting stations and pumps

If gravity drainage to the sewer is available:  
 ↗ Hybrid lifting stations:  
 Page 68

### 3.1 Lifting stations



Small lifting station  
**Minilift F**

↗ Page 102



Lifting station  
**Aqualift F Basic**

↗ Page 118



Small lifting station  
**Minilift S**

↗ Page 103



Lifting station  
**Aqualift F**

↗ Page 122



Wastewater station  
**Aqualift F Compact**

↗ Page 106



Lifting station  
**Aqualift S Duo**

↗ Page 128



Wastewater station  
**Aqualift S Compact**

↗ Page 112



Lifting station  
**Aqualift F XL**

↗ Page 132



### 3.2 Pumping stations



Pumping station  
**Aqualift F Basic**

➤ Page 144



Pumping station  
**Aqualift F**

➤ Page 148



Pumping station  
**Aqualift S**

➤ Page 150



Pumping station  
**Aqualift F XL**

➤ Page 152



Pumping station  
**Aqualift S XL**

➤ Page 160



#### Type of wastewater

- Water containing sewage
- Wastewater without sewage

#### Position relative to sewage pipe

- Gravity slope to sewer
- No slope to the sewer pipe

#### Installation situation

- Outdoor, underground installation
- Indoor, on-the-floor installation
- Floor slab installation

#### Wastewater quantity

- Low
- Medium
- High

### 3.3 Submersible pumps, conversions and control units



Submersible pump  
**KTP**

➤ Page 170



Submersible pump  
**GTF**

➤ Page 170



Submersible pump  
**STZ**

➤ Page 171



Conversion kits  
for collecting tanks

➤ Page 172



Warning and control units

➤ Page 174

# 3.1 Lifting stations

Suitable for use inside buildings



Lifting stations

3.1

# Lifting station *Minilift F*

The small version with the powerful macerator SharkTwister.

Compact and also suitable for black water: the *Minilift F* for free-standing set-up drains the toilet and other sanitary units in rooms below the backwater level or without sufficient slope to the next wastewater collecting pipe. The small lifting station chops faeces and toilet paper reliably with the powerful high-quality macerator SharkTwister.

### Powerful macerator SharkTwister

The built-in stainless steel pump with the powerful high-quality macerator reliably chops faeces and toilet paper – thus providing maximum operational safety.

### Intelligent control technology

The SharkTwister is controlled by intelligent control technology with an acoustic alarm function – without a separate control unit.

### Straightforward maintenance

The pump is integrated ready to plug in without the help of an electrician and can be removed for maintenance in no time at all.

## Compact lifting station *Minilift F* for free-standing installation in frost protected rooms



Plug-and-play sewage lifting station with macerator for wastewater disposal from a single toilet.

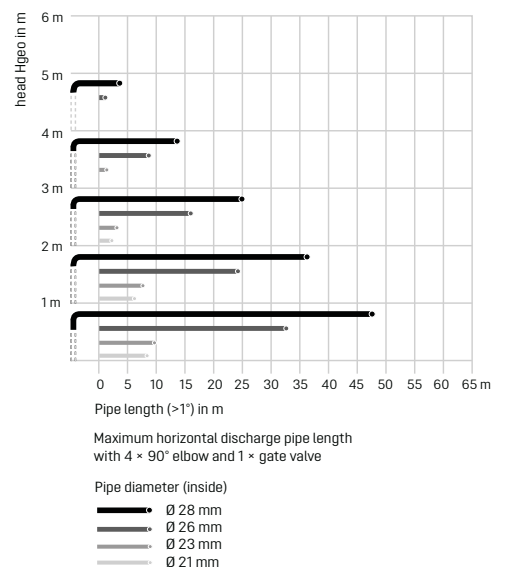
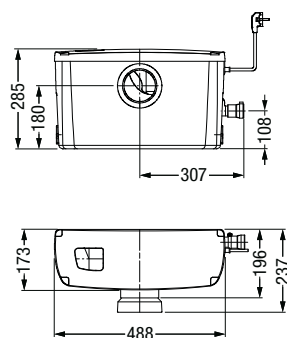
For free-standing set-up.

With pneumatic level control, with activated carbon filter, interior electronics separate from wastewater tank - easy, odour free maintenance

Power cable length: 1.6 m



Voltage	Art. no.
230 V	28 520



# Lifting station *Minilift S*



The space-saving version for wastewater without sewage.

Small and discreet: the *Minilift S* is integrated compactly in the floor slab. A washing machine, shower and further inlets can all be connected to the small lifting station at the same time. The *Minilift S* is delivered ready to plug in with a 300 watt pump with float switch.

### Floor slab installation

The lifting station is almost invisible because it is installed in the floor slab. The integrated drain in the cover handles basement surface water. Even in the event of a pipe burst or flooding, the *Minilift S* continually pumps away the wastewater keeping the basement rooms dry.

### Straightforward maintenance

The pump is integrated ready to plug in without the help of an electrician and can be removed for maintenance in no time at all.

### Convenient installation

The telescopic upper section and the pre-installed inlets make installation simple and fast.

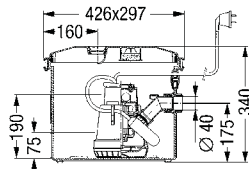
## Lifting station *Minilift S* for free-standing installation



Wastewater lifting station made of polymer for above ground installation.

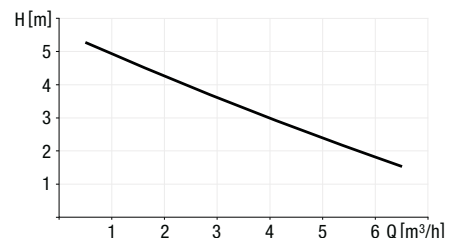
With removable, float switch controlled pump and backwater flap. Pressure connection: 1 1/2 inch outer thread or pressure pipe Ø 40 mm for PVC glued connection. With activated carbon filter  
**Power cable length: 5 m**

**Note:** Version with powerful *KTP 500* or *GTF 1000* pump on request.



KTP pump	Voltage	Art. no.
300-S1	230 V	28 560

### Pumping capacity



Pump type	Current type	Voltage	Current	Input power	RPM	Motor protection	Plug	Max. particle size	Pumping height	Pump on level	Pump off level
KTP 300-S1*	Alternating current	230 V	2.27 A	0.34 kW	2800 min <sup>-1</sup>	integrated	Schuko	10 mm	6.2 m	180 mm	80 mm

\*Definition of S1-pumps see page 95



Always the right choice:

[smartselect.kessel.com](http://smartselect.kessel.com)

## Lifting station *Minilift S*

For installation in a concrete floor/slab



Pump volume: 7 liters

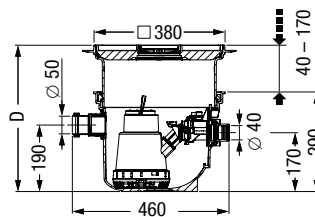
**Polyethylene storage chamber** for installation in a concrete slab/floor, installation depth (D) 330 to 460 mm, with lateral inlet  $\varnothing$  50 mm. Installation area 600 × 600 mm.

### Upper section and cover

Vertically and laterally adjustable upper section, with black / recessed cover for on-site tiling, integrated drain, made of polymer, load class K 3, with moisture protective sealing flange.

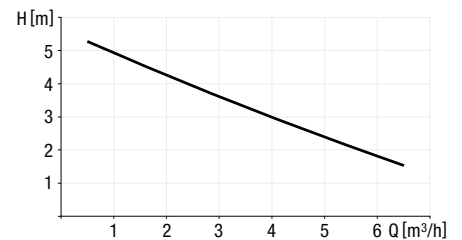
### Pump

Single removable *KTP* pump for wastewater without sewage, float switch, with multi-vane impeller, with integrated non-return flap, pressure pipe connection 40 mm.



KTP pump	Voltage	Art. no.
With recessed cover for on-site tiling		
300-S1	230 V	<b>280 570X</b>
With black cover		
300-S1	230 V	<b>280 570S</b>

### Pumping capacity



Pump type	Power P1 / P2	Voltage	Amperage	RPM	Plug	Cable length	Pumping height	Pumping capacity
<b>KTP 300-S1*</b>	0.34 kW / 0.21 kW	230 V ~ 50 Hz	1.6 A	2800 min <sup>-1</sup>	Schuko	5 m	6 m	8 m <sup>3</sup> /h

\*Definition of S1-pumps see page 95



CE EN 12050-2

Always the right choice:    
[smartselect.kessel.com](http://smartselect.kessel.com)

## Accessories

*Minilift S*

### Alarm unit

for lifting station *Minilift S*

**with electrode probe** **Function:** High water / flood alarm system; for conductive liquids  
**Cable length:** 5 m (extendable up to 30 m)



Art. no.

**20 222**

**with optical probe** **Function:** High water / flood alarm system; for conductive / non-conductive liquids  
**Cable length:** 5 m (extendable up to 30 m)



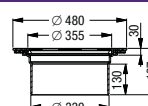
Art. no.

**20 223**

### Extension section

for installation in a concrete floor

**for deeper installation with flange** **Inclusive:** Gasket  
**Extension:** Max. 147 mm (In case of deeper installation ensure maintenance capability!)



Art. no.

**830 070**



## Accessories

*Minilift S*

### Cover plates

for installation in a concrete floor

			Cover	Art. no.	
<b>Surface water tight</b>	<b>Inclusive:</b> Gasket <b>Version recessed for on-site tiling, grey:</b> For tile thicknesses of 18 mm <b>(Ventilation always required when in use!)</b>			tileable	<b>830 052</b>
				black	<b>830 050</b>
					

### Hygiene and odour stop

Compatibility see product description

			Art. no.
<b>Multistop</b>	<b>Function:</b> Odour, foam, rodent and insect stop <b>Compatibility:</b> Art. no. 280 570S and 280 570X		<b>48 500</b>
<b>Odour trap</b>	<b>Compatibility:</b> Art. no. 280 570S and 280 570X <b>Seal water height:</b> 50 mm <b>(Ventilation always required when in use!)</b>		<b>47 200</b>

### Pressure pipe set

for lifting station *Minilift S*

			Art. no.
<b>Pressure pipe set</b>	<b>Compatibility:</b> Art. no. 280 570S and 280 570X <b>Inclusive:</b> 5 m pressure pipe hose $\varnothing$ 40		<b>28 040</b>

### Inlet adaptor

Compatibility see product description

			Outer diameter $\varnothing$ (mm)	Drill size in mm	Art. no.
<b>with gasket and threaded ring</b>	<b>Compatibility:</b> Art. no. 280 570S and 280 570X <b>Inclusive:</b> Flat seal		$\varnothing$ 50	60	<b>39 005</b>
			$\varnothing$ 75	92	<b>39 007</b>

### Hole saw

			Outer pipe diameter in mm	Drill size in mm	Art. no.
<b>Hole saw set</b>	<b>Inclusive:</b> Saw blade holder		$\varnothing$ 50	60	<b>500 101</b>
			$\varnothing$ 75	92	

### Sealing

for installation in a concrete floor

			Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
<b>Pipe sealing gasket</b>	<b>Drill size:</b> $\varnothing$ 50: 60 mm $\varnothing$ 75: 92 mm		DN 50	$\varnothing$ 50	<b>850 114</b>
			DN 70	$\varnothing$ 75	<b>850 116</b>

## Lifting station *Aqualift F Compact*

The compact version for complete basement drainage.

One for all: the *Aqualift F Compact* takes over the complete basement drainage. The lifting station pumps the wastewater, even black water, safely and completely into the sewer located above – even after a pipe burst or flooding – thanks to the floor drain integrated into the cover. The compact dimensions allow for the straightforward installation or free-standing set-up of the *Aqualift F Compact*. It is controlled by the Comfort control unit with self-diagnosis system SDS that is supplied ready for connection.

The *Aqualift F Compact* is available in two versions, either for free-standing set-up or for floor slab installation (available with black or recessed tileable cover). In addition, each device is available as a Mono or Duo lifting station.



- 1 Lifting station 2 Pressure pipe set 3 Extension section  
4 Gasket set 5 Control unit



- 1 Lifting station 2 Control unit 3 Pressure pipe

### Floor slab installation

The *Aqualift F Compact* is almost invisible if it is installed in the floor slab. The integrated drain in the cover handles basement surface water. Even in the event of a pipe burst or flooding, the *Minilift S* continually pumps away the wastewater, keeping the basement rooms dry.

### Installation in waterproof concrete

The KESSEL sealing kit for installation in waterproof concrete ensures reliable protection against moisture damage. The extension section with central flange and elastomeric waterproofing membrane enable implementation also in deeper installation situations.

### Maximum safety

The intelligent control unit with integrated self-diagnosis system SDS and battery buffering continually monitors all electrical components and keeps an electronic operating log which can be read out.

# Lifting station *Aqualift F Compact Mono/Duo*

for installation in a concrete slab/floor



Tank volume: 40 liters

**Polyethylene storage chamber** for installation in a concrete slab/floor, with recessed cover for on-site tiling and drain, installation depth (D) 490 to 600 mm, with odour trap, sealing water height 50 mm, with lateral inlet Ø 110.

Installation area 800 × 800 mm.

### Upper section and cover

With telescopic upper section for free height and level adjustment, recessed cover for on-site tiling, made of polymer class A 15, with moisture protective sealing flange.

### Pump

Single or twin removable *SPZ* pump(s), pressure sensor controlled, with integrated backwater flap.

### Control unit

with SDS control unit (self-diagnosis system) for fully automatic pump control, splash water protected (IP 54), wall mounted. Pressure connection: 1 1/2 inch outer thread or pressure pipe Ø 40 mm for PVC glued connection or pressure pipe set (Art. no. 28 040).

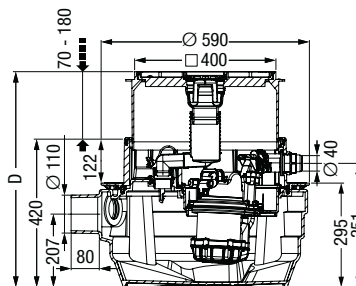
**Power cable length:** 5 m

**Note:** A ventilation pipe must be provided for on site.

➤ **Accessories:** page 109



Illustration shows Mono version 28 701-C



### Mono version with one pump

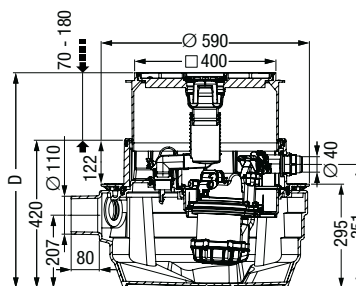
SPZ pump	Voltage	Art. no.
With recessed cover for on-site tiling		
1000-S3	230 V	<b>28 701-C</b>
With black cover		
1000-S3	230 V	<b>28 701S</b>

### Duo version with two pumps

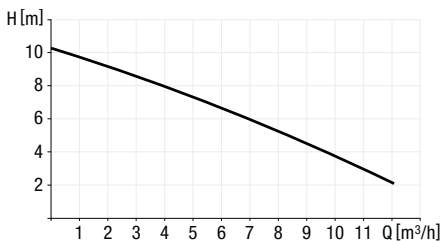
SPZ pump	Voltage	Art. no.
With recessed cover for on-site tiling		
1000-S3	230 V	<b>28 704-C</b>
With black cover		
1000-S3	230 V	<b>28 704S</b>



Illustration shows Duo version 28 704-C



### Pumping capacity



Pump type	Current type	Voltage	Current	Motor rating P1/P2	RPM	Motor protection	Pumping height	Pumping capacity
<b>SPZ 1000-S3-30%*</b>	Alternating current	230 V	4.9 A	1080 W / 620 W	2800 min <sup>-1</sup>	integrated	max. 9.5 m	10.9 m <sup>3</sup> /h

\*Definition of S3-pumps see page 95

## Lifting station *Aqualift F Compact Mono/Duo* for free-standing installation



Tank volume: 40 liters

**Polyethylene storage chamber** for free-standing installation, with lateral inlet  $\varnothing$  110. Installation area 700 × 700 mm.

### Pump

Single or twin removable SPZ pump(s), pressure sensor controlled, with integrated backwater flap.

### Control unit

with SDS control unit (self-diagnosis system) for fully automatic pump control, splash water protected (IP 54), wall mounted.

Pressure connection: 1 1/2 inch outer thread or pressure pipe  $\varnothing$  40 mm for PVC glued connection or pressure pipe set (Art. no. 28 040).

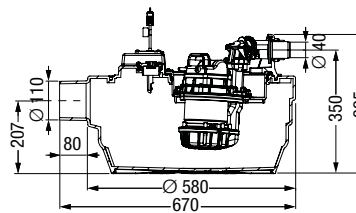
**Power cable length:** 5 m

**Note:** A ventilation pipe must be provided for on site.

➤ **Accessories:** page 109



Illustration shows Mono version 28 711-C



### Mono version with one pump

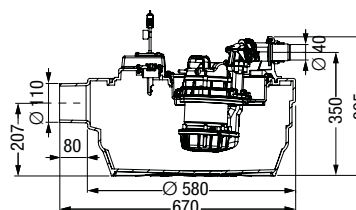
SPZ pump	Voltage	Art. no.
1000-S3	230 V	<b>28 711-C</b>

### Duo version with two pumps

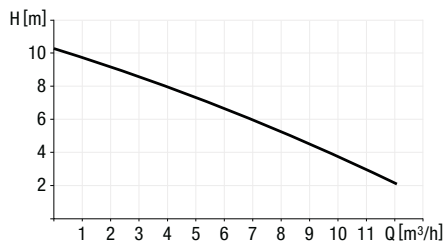
SPZ pump	Voltage	Art. no.
1000-S3	230 V	<b>28 743-C</b>



Illustration shows Duo version 28 743-C



### Pumping capacity



Pump type	Current type	Voltage	Current	Motor rating P1/P2	RPM	Motor protection	Pumping height	Pumping capacity
SPZ 1000-S3-30%*	Alternating current	230 V	4.9 A	1080 W / 620 W	2800 min <sup>-1</sup>	integrated	max. 9.5 m	10.9 m³/h

\*Definition of S3-pumps see page 95

## Accessories

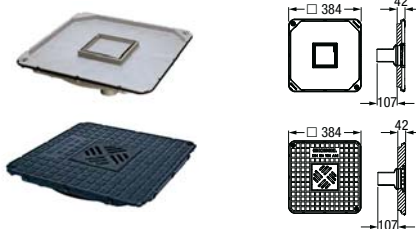
### Aqualift F Compact

#### Cover plates

for installation in a concrete floor

##### with drain Ø 75

**Inclusive:** Gasket, *Multistop*  
**Version recessed for on-site tiling, grey:**  
 For tile thicknesses of 18 mm  
**Version black:**  
 With integrated grating



Cover	Art. no.
tileable	83 045
black	83 046

##### Surface water tight

**Inclusive:** Gasket  
**Version recessed for on-site tiling, grey:**  
 For tile thicknesses of 18 mm  
**(Ventilation always required when in use!)**



tileable	83 052
black	83 050

#### Hygiene

Compatibility see product description

##### Hair filter

**Compatibility:** Art. no. 83 045 and 83 046



Art. no.	43 700
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#### Transition section

for installation in a concrete floor

##### Transition section

**Inclusive:** Ø 110 socket / Ø 75 spigot  
 for use as connection piece, gasket



Outer diameter Ø (mm)	Art. no.
Ø 75/110	27 602

#### Pressure pipe set

for lifting station *Aqualift F Compact*

##### Pressure pipe set

**Compatibility:** Art. no. 280 570S and 280 570X  
**Inclusive:** 5 m pressure pipe hose  
 Ø 40 (DN 32 mm)  
 Ø 50 (DN 40 mm)



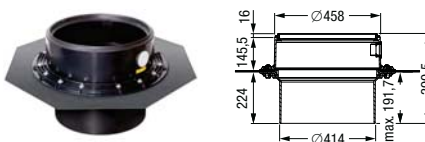
Outer diameter Ø (mm)	Art. no.
Ø 40	28 040
Ø 50	28 062

#### Extension sections

for installation in a concrete floor

##### with centre flange

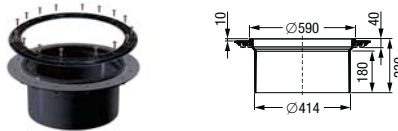
**Additional function:** For installation in waterproof concrete  
**Inclusive:** Temporary construction debris cover, fully assembled, gasket set (counter flange made of polymer, screwed, elastomer sealing sheet made of NK/SBR Ø 800 mm)  
**Extension:** Max. 360 mm



Art. no.	83 075
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##### with flange and counter flange

**Additional function:** For connection to an on-site sealing sheet  
**Inclusive:** Screws  
**Extension:** Max. 140 mm (In case of deeper installation ensure maintenance capability!)



Art. no.	83 073
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##### with gasket

**Extension:** Max. 180 mm (In case of deeper installation ensure maintenance capability!)



Art. no.	83 070
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## Accessories

*Aqualift F Compact*


### Alarm unit

for lifting station *Aqualift F Compact*

			Art. no.
<b>with electrode probe</b>	<b>Function:</b> High water / flood alarm system; for conductive liquids <b>Cable length:</b> 5 m (extendable up to 30 m)		20 222
<b>with optical probe</b>	<b>Function:</b> High water / flood alarm system; for conductive / non-conductive liquids <b>Cable length:</b> 5 m (extendable up to 30 m)		20 223

### Control unit accessories

Compatibility see product description

			Art. no.
<b>Audible alarm</b>	<b>Compatibility:</b> For all control units 230 V <b>Cable length:</b> 20 m		20 162
<b>Potential-free contact</b>	<b>Compatibility:</b> For all control units 230 V		80 072

### Hole saw




			Outer pipe diameter in mm	Drill size in mm	Art. no.
<b>Hole saw set</b>	<b>Inclusive:</b> Saw blade holder		Ø 50	60	500 101
			Ø 75	92	
			Ø 110	121	

### Sealing

			Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
<b>Pipe sealing gasket</b>	<b>Drill size:</b> Ø 50: 60 mm Ø 75: 92 mm Ø 110: 121 mm		DN 50	Ø 50	850 114
			DN 70	Ø 75	850 116
			DN 100	Ø 110	850 117

### Safety

Compatibility see product description

			Art. no.
<b>TeleControl telemetric system</b>	<b>Compatibility:</b> For connection to KESSEL Comfort control units 230 Volt and 400 Volt <b>Function:</b> Relaying of full text messages to up to three mobile phones <b>Inclusive:</b> With internal antenna (without SIM card)		28 792
<b>Antenna booster with magnetic base</b>	<b>Compatibility:</b> For <i>TeleControl</i> telemetric system to improve the reception <b>Cable length:</b> 2.5 m		28 793
<b>Extension cable</b>	<b>Compatibility:</b> For antenna booster <b>Cable length:</b> 2.5 m		28 794
<b>Air compressor set</b>	<b>Function:</b> For use in combination with lifting station and pumping stations with pressure control: prevents soiling, avoids the formation of condensate in the pressure hose, makes operation of systems possible with pressure hose lengths > 10 m <b>Inclusive:</b> T-piece connection, 20 m pressure hose		28 048
<b>PE-pressure hose extension (per meter)</b>	<b>Compatibility:</b> For Art. no. 28 048		680 071

## Accessories

*Aqualift F Compact*

### Retrofit kit

for lifting station *Aqualift F Compact*

Art. no.

#### Alarm float switch


**Compatibility:** Can be combined with 230 V Comfort control units  
**Inclusive:** Float switch, float switch bracket  
**Cable length:** 5 m



28 016

### Cable extensions

for extension from 15 m or 25 m (cable length delivered: 5 m)

	Lifting station <i>Aqualift F Compact Mono</i>	Lifting station <i>Aqualift F Compact Duo</i>		Art. no.
<b>Cable extension for probe (10 m)</b>	Extension to 15 m: 1×80 889 Extension to 25 m: 2×80 889	Extension to 15 m: 1×80 889 Extension to 25 m: 2×80 889		80 889
<b>Cable extension for pump (10 m)</b>	Extension to 15 m: 1×80 891 Extension to 25 m: 2×80 891	Extension to 15 m: 2×80 891 Extension to 25 m: 4×80 891		80 891

## Lifting station *Aqualift S Compact*

The flexible version  
for wastewater without sewage.

The *Aqualift S Compact* is a real quick-change artist. It is the first lifting station in our range that can be converted comfortably from a Mono to a Duo system after floor slab installation. Yet that is not the only feature that makes the *Aqualift S Compact* so special: the free suspension and acoustic decoupling of the pump(s) also makes particularly quiet operation possible.

The *Aqualift S Compact* is available with float switch or pneumatic level measurement. The lifting station can also take up and discharge water additionally from the surface through the drain integrated in the black or tileable cover. It is delivered from the factory with either one or two pumps; the new GTF 500 and GTF 500 resistant (for aggressive wastewater such as heating condensate).



- ① Lifting station
- ② Extension section with flange
- ③ Cover with integrated inlet
- ④ Control unit

### Maximum safety

The *Aqualift S Compact* is available with a pressure sensor *Tronic*, which measures the level of the wastewater precisely and reliably: as soon as the maximum water level is reached, the pump activates and pumps the water through a pressure pipe into the sewer.

### Floor slab installation

The lifting station is almost invisible because it is installed in the floor slab. The integrated drain in the cover handles basement surface water. Even in the event of a pipe burst or flooding, the Minilift S continually pumps away the wastewater keeping the basement rooms dry.

### Installation in waterproof concrete

The KESSEL sealing kit for installation in waterproof concrete ensures reliable protection against moisture damage. The extension section with central flange and elastomeric waterproofing membrane enable implementation also in deeper installation situations.



## Lifting station *Aqualift S Compact Mono*

for installation in a concrete slab/floor



**Pump volume:** 16 liters

### Polyethylene storage chamber

for installation in a concrete slab/floor, installation depth (D) 490 to 620 mm, with lateral inlet  $\varnothing$  110 mm. Installation area 700 × 700 mm.

### Upper section and cover

Vertically and laterally adjustable upper section, with black / recessed cover for on-site tiling, integrated drain, made of polymer, load class K 3, with moisture protective sealing flange.

### Pump

Single removable *GTF* pump for wastewater without sewage, float switch / air pressure sensor controlled with multi-vane impeller, with integrated non-return flap, pumping volume 16 liters (*GTF 500* / *GTF 1200*), pressure pipe connection  $\varnothing$  40 mm.

### Control unit

Tronic versions with SDS control unit (self-diagnosis system) for fully automatic pump control, splash water protected (IP 54), wall mounted.

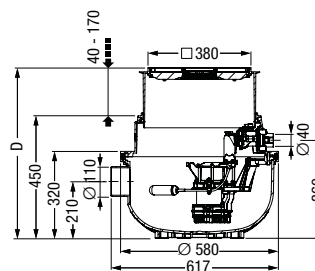
**Power cable length:** 5 m

**Note:** A ventilation pipe must be provided for on site.

➔ **Accessories:** page 115

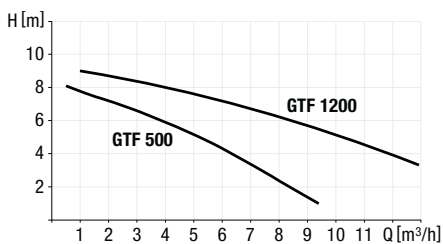


Illustration shows Art. no. 280 500X



GTF pump	Voltage	Art. no.
With recessed cover for on-site tiling		
500-S1	230 V	<b>280 500X</b>
500-S1 resistant	230 V	<b>280 500XC</b>
1200-S3	230 V	<b>281 200X</b>
With black cover		
500-S1	230 V	<b>280 500S</b>
500-S1 resistant	230 V	<b>280 500SC</b>
1200-S3	230 V	<b>281 200S</b>

## Pumping capacity



Pump type	Voltage	Amperage	Power P1/P2	RPM	Pumping height	Pumping capacity
<b>GTF 500-S1*</b>	230 V ~ 50 Hz	2.5 A	0.5 kW / 0.36 kW	2800 min <sup>-1</sup>	8 m	10 m <sup>3</sup> /h
<b>GTF 1200-S3*</b>	230 V ~ 50 Hz	6.2 A	1.4 kW / 0.84 kW	2650 min <sup>-1</sup>	9 m	15.5 m <sup>3</sup> /h

\*Definition of S1 and S3-pumps see page 95



CE EN 12050-2

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## Lifting station *Aqualift S Compact Mono/Duo Tronic* for installation in a concrete slab/floor



Pump volume: 20 liters

### Polyethylene storage chamber

for installation in a concrete slab/floor, installation depth (D) 490 to 620 mm, with lateral inlet  $\varnothing$  110 mm. Installation area 700 × 700 mm.

### Upper section and cover

Vertically and laterally adjustable upper section, with black / recessed cover for on-site tiling, integrated drain, made of polymer, load class K 3, with moisture protective sealing flange.

### Pump

Single or twin removable *GTF* pump(s) for wastewater without sewage, float switch / air pressure sensor controlled with multi-vane impeller, with integrated non-return flap, pumping volume 20 liters (*GTF 500* / *GTF 1200*), pressure pipe connection  $\varnothing$  40 mm.

### Control unit

Tronic versions with SDS control unit (self-diagnosis system) for fully automatic pump control, splash water protected (IP 54), wall mounted.

**Power cable length:** 5 m

**Note:** A ventilation pipe must be provided for on site.

➤ **Accessories:** page 115



Illustration shows Art. no. 280 550X

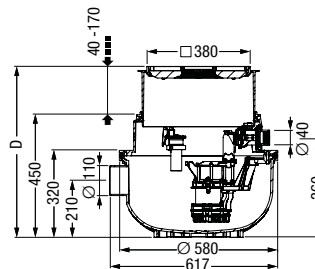
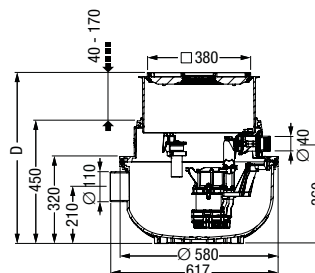


Illustration shows Art. no. 280 550XC



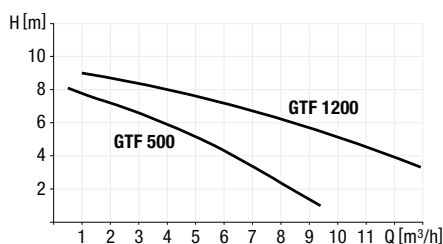
### Mono version with one pump

GTF pump	Voltage	Art. no.
With recessed cover for on-site tiling		
500-S1	230 V	<b>280 550X</b>
500-S1 resistant	230 V	<b>280 550XC</b>
1200-S3	230 V	<b>281 250X</b>
With black cover		
500-S1	230 V	<b>280 550S</b>
500-S1 resistant	230 V	<b>280 550SC</b>
1200-S3	230 V	<b>281 250S</b>

### Duo version with two pumps

GTF pump	Voltage	Art. no.
With recessed cover for on-site tiling		
500-S1	230 V	<b>280 530X</b>
500-S1 resistant	230 V	<b>280 530XC</b>
1200-S3	230 V	<b>281 230X</b>
With black cover		
500-S1	230 V	<b>280 530S</b>
500-S1 resistant	230 V	<b>280 530SC</b>
1200-S3	230 V	<b>281 230S</b>

### Pumping capacity



Pump type	Voltage	Amperage	Power P1/P2	RPM	Pumping height	Pumping capacity
<b>GTF 500-S1*</b>	230 V ~ 50 Hz	2.5 A	0.5 kW / 0.36 kW	2800 min <sup>-1</sup>	8 m	10 m <sup>3</sup> /h
<b>GTF 1200-S3*</b>	230 V ~ 50 Hz	6.2 A	1.4 kW / 0.84 kW	2650 min <sup>-1</sup>	9 m	15.5 m <sup>3</sup> /h

\*Definition of S1 and S3-pumps see page 95



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## Accessories

*Aqualift S Compact*

### Hygiene and odour stop

for lifting station *Aqualift S Compact*

				Art. no.
<b>Megastop</b>	<b>Function:</b> Mechanical odour trap inclusive hair filter for KESSEL upper sections, in combination with design cover with <i>Lock &amp; Lift</i> system additional protection against backwater up to 0.1 bar			48 550
<b>Multistop</b>	<b>Function:</b> Odour, foam, rodent and insect stop			48 500
<b>Odour trap</b>	<b>Seal water height:</b> 50 mm <b>(Ventilation always required when in use!)</b>			47 200

### Cover plates

for installation in a concrete floor

			Cover	Art. no.
<b>Surface water tight</b>	<b>Inclusive:</b> Gasket <b>Version recessed for on-site tiling, grey:</b> For tile thicknesses of 18 mm <b>(Ventilation always required when in use!)</b>		tileable black	830 052 830 050

### Inlet adaptor

for lifting station *Aqualift S Compact*

			Outer diameter Ø (mm)	Drill size in mm	Art. no.
<b>Inlet adaptor</b>	<b>Inclusive:</b> Flat seal		Ø 50 Ø 75 Ø 110	60 92 121	39 005 39 007 39 100

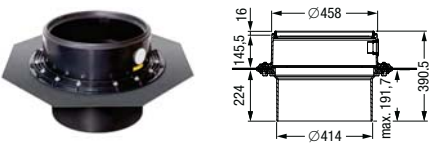
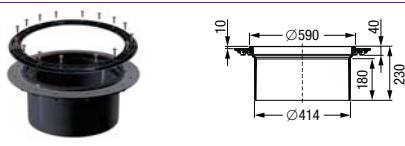

### Pressure pipe set

for lifting station *Aqualift S Compact*

			Outer diameter Ø (mm)	Art. no.
<b>Pressure pipe set</b>	<b>Inclusive:</b> 5 m pressure pipe hose Ø 40 (DN 32 mm) Ø 50 (DN 40 mm)		Ø 40 Ø 50	28 040 28 062*

### Extension sections

for installation in a concrete floor

			Art. no.
<b>with centre flange</b>	<b>Additional function:</b> For installation in waterproof concrete <b>Inclusive:</b> Temporary construction debris cover, fully assembled, gasket set (counter flange made of polymer, screwed, elastomer sealing sheet made of NK/SBR Ø 800 mm) <b>Extension:</b> Max. 360 mm		83 075
<b>with flange and counter flange</b>	<b>Additional function:</b> For connection to an on-site sealing sheet <b>Inclusive:</b> Screws <b>Extension:</b> Max. 140 mm (In case of deeper installation ensure maintenance capability!)		83 073
<b>with gasket</b>	<b>Extension:</b> Max. 180 mm (In case of deeper installation ensure maintenance capability!)		83 070

## Accessories

*Aqualift S Compact*

### Alarm unit

**with electrode probe** **Function:** High water / flood alarm system; for conductive liquids  
**Cable length:** 5 m (extendable up to 30 m)



Art. no.

20 222

**with optical probe** **Function:** High water / flood alarm system; for conductive / non-conductive liquids  
**Cable length:** 5 m (extendable up to 30 m)



20 223

### Control unit accessories

Compatibility see product description

Art. no.

**Audible alarm** **Compatibility:** For all control units 230 V  
**Cable length:** 20 m



20 162

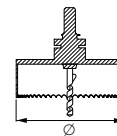
**Potential-free contact** **Compatibility:** For all control units 230 V



80 072

### Hole saw

**Hole saw set** **Inclusive:** Saw blade holder



Outer pipe diameter in mm

Drill size in mm

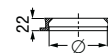
Art. no.

Ø 50 60  
Ø 75 92  
Ø 110 121

500 101

### Sealing

**Pipe sealing gasket** **Drill size:**  
Ø 50: 60 mm  
Ø 75: 92 mm  
Ø 110: 121 mm



Nominal pipe diameter in mm

Outer pipe diameter in mm

Art. no.

DN 50 Ø 50 850 114  
DN 70 Ø 75 850 116  
DN 100 Ø 110 850 117

### Safety

Compatibility see product description

Art. no.

**TeleControl telemetric system** **Compatibility:** For connection to KESSEL Comfort control units 230 Volt and 400 Volt  
**Function:** Relaying of full text messages to up to three mobile phones  
**Inclusive:** With internal antenna (without SIM card)



28 792

**Antenna booster with magnetic base** **Compatibility:** For TeleControl telemetric system to improve the reception  
**Cable length:** 2.5 m



28 793

**Extension cable** **Compatibility:** For antenna booster  
**Cable length:** 2.5 m

28 794

**Air compressor set** **Function:** For use in combination with lifting station and pumping stations with pressure control: prevents soiling, avoids the formation of condensate in the pressure hose, makes operation of systems possible with pressure hose lengths > 10 m  
**Inclusive:** T-piece connection, 20 m pressure hose



28 048

**PE-pressure hose extension (per meter)** **Compatibility:** For Art. no. 28 048


680 071

## Accessories

### Aqualift S Compact

#### Cable extensions

for extension from 15 m or 25 m (cable length delivered: 5 m)

	Lifting station <i>Aqualift S Compact Mono</i>	Lifting station <i>Aqualift S Compact Duo</i>		Art. no.
<b>Cable extension for probe (10 m)</b>	Extension to 15 m: 1×80 889 Extension to 25 m: 2×80 889	Extension to 15 m: 1×80 889 Extension to 25 m: 2×80 889		<b>80 889</b>
<b>Cable extension for pump (10 m)</b>	Extension to 15 m: 1×80 891 Extension to 25 m: 2×80 891	Extension to 15 m: 2×80 891 Extension to 25 m: 4×80 891		<b>80 891</b>

## Lifting station *Aqualift F Basic*

The economic version for domestic wastewater.

The economical alternative: for the disposal of domestic wastewater, we offer the lifting station *Aqualift F Basic* – cutting edge technology at an unbeatable price. It is suitable without any restrictions for the drainage of private toilets, showers and sinks in frost-protected rooms below the backwater level. The lifting station with integrated backflow preventer discharges the wastewater through the pressure pipe by means of a flood-proof pump.



1 Lifting station 2 Pressure pipe

### Pump

The pump SPF 1300 with blockage-proof multi-vane vortex impeller pumps wastewater quantities of up to 32 m<sup>3</sup> over a maximum height of 9.2 m. Thanks to the wedge-shaped tank base, wastewater and solids drain directly into the pump intake.

### Control unit with float switch

The control unit *Aqualift Basic* 230 V is used for continuous water level monitoring and fail-safe / precise pump operation. Switching and alarm levels are measured by a float switch.

### Variable inlets

Ø 50 / 110 mm inlet connection from above, two additional 110 mm inlet connections on both sides. The pre-scored area on the back also enables further inlets with a diameter of up to 110 mm to be attached.

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If you want to use the *Aqualift F Basic* outside the building:

➤ Pumping station *Aqualift F Basic*: Page 144

## Lifting station *Aqualift F Basic* for free-standing installation in frost-free rooms



Tank volume: 50 liters  
Pump volume: 20 liters

**Polyethylene storage chamber** with screwed access opening. Inlet connection from above  $\varnothing$  50/110 mm. Two additional  $\varnothing$  110 mm inlet connections at both sides. With  $\varnothing$  75 mm vent connection. Connection coupling for emergency diaphragm pump  $\varnothing$  32 mm.

### Pump

SPF 1300 pump for wastewater with or without sewage, float switch controlled (level and alarm) with multi-vane impeller. Open channel passage 40 mm. Pump is rated submersible. Pump cable length 5 m. Including back-water preventer, with plastic spigot pressure outlet  $\varnothing$  90 mm including elastic hose connection.

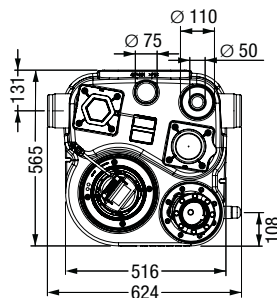
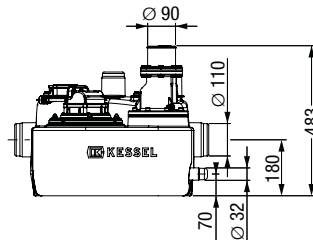
### Control unit Basic 230 V

with function display, button for manual pump start and to reset alarm. Battery buffered alarms (battery included). With connection option for on-site potential free-contact.

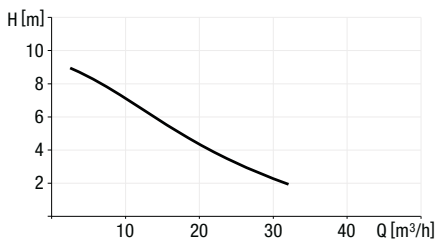
➤ **Accessories:** page 120



SPF pump	Voltage	Art. no.
1300-S3	230 V	28 798



### Pumping capacity



Pump type	Input Power (P1)	Power (P2)	Voltage	Frequency	Amperage	Fuses	Cable connections 5 m Length	Media temperature	Weight (Pump)	Protection	RPM	Pumping capacity	Pumping height
SPF 1300-S3-15%*	1.5 kW	1.0 kW	230 V	50 Hz	6.7 A	C 10 A	3 × 1.5 mm <sup>2</sup>	40°C	approx. 24 kg	IP 54	2.900	32 m <sup>3</sup> /h	9.2 m



\*Definition of S3-pumps see page 95

## Accessories

Aqualift F Basic

### Closure valve

Compatibility see product description

			Outer diameter Ø (mm)	Art. no.
<b>Closure valve, vertical</b>	<b>Function:</b> For the pressure pipe of KESSEL lifting stations with plastic fitting; for connection to pressure pipe, a KESSEL flange connector or adaptor is required. <b>Inclusive:</b> Gasket, screw		Ø 90	28 715
<b>Closure valve with flange adaptor, vertical</b>	<b>Function:</b> For the pressure pipe of KESSEL lifting stations with plastic fitting <b>Inclusive:</b> With screwed flange adaptor, for connection to a standard flange DN 80 according to DIN 2501 (without sealing gasket and screw)		Ø 90	28 716

### Connection flange

for KESSEL plastic fittings

			Outer diameter Ø (mm)	Art. no.
<b>Connection flange</b>	<b>Function:</b> Spigot end for DN 100 pressure pipe connection <b>Compatibility:</b> Also in combination with closure valve Art. no. 28 715		Ø 110	28 712

### Flexible pressure pipe connection

for PE pipe connections

			Outer diameter Ø (mm)	Art. no.
<b>Flexible pressure pipe connection</b>	<b>Inclusive:</b> Two hose clamps <b>Length:</b> 200 mm		Ø 110	28 663

### Hole saw

			Outer pipe diameter in mm	Drill size in mm	Art. no.
<b>Hole saw set</b>	<b>Inclusive:</b> Saw blade holder		Ø 50 Ø 75 Ø 110	60 92 121	500 101

### Sealing

			Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
<b>Pipe sealing gasket</b>	<b>Drill size:</b> Ø 50: 60 mm Ø 75: 92 mm Ø 110: 121 mm		DN 50 DN 70 DN 100	Ø 50 Ø 75 Ø 110	850 114 850 116 850 117





## Lifting station *Aqualift F*

The classic version for domestic wastewater.

The *Aqualift F* is the classic solution for disposing of domestic wastewater. The lifting station transports black water in addition to grey water. Depending on the version, the *Aqualift F* has one or two automatic pumps that switch on as soon as a certain water level has been reached in the tank and transport the wastewater through the pressure pipe into the sewer. The Mono system is equipped with one pump and the Duo system has two pumps that operate alternately. Duo systems are used where no interruptions in operation due to a single pump failure are allowed. Both system types are available with and without a shut-off valve and with pumps of different capacity classes.



1 Lifting station 2 Pressure pipe

Always the right choice:    
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### Pressure sensor

The *Aqualift F* operates with a highly reliable pressure switch for pneumatic level measurement. An optionally available alarm sensor guarantees additional safety.

### Power and control unit

The *Aqualift F* is available as a Mono and Duo system. Both systems have powerful pumps in the versions S1 and/or S3 with a wide range of applications from an input power of 1,400 W to 3,000 W, plug-in ready control units (230 V versions) with self-diagnosis system SDS.

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If you want to use the *Aqualift F* outside the building:

➤ Pumping station *Aqualift F*: Page 148

# Lifting station *Aqualift F Mono*

for free-standing installation in frost-free rooms



Tank volume: 50 liters  
 Pump volume: 20 liters

**Polyethylene storage chamber** with clean-out opening. With sound-absorbing underlay mat (10 mm thick). Connection for inlet  $\varnothing$  110 and ventilation  $\varnothing$  75, connection coupling for manual diaphragm pump  $\varnothing$  32 mm.

**Pump**  
 SPF pump for wastewater with or without sewage, pressure sensor controlled with multi-vane impeller. Open channel passage 40 mm. Pump is rated submersible (IP 68), pump cable length 5 m. Outlet with integrated non-return valve, connection coupling  $\varnothing$  110 with hose section.

**Pressure outlet:**  
 vertical  $\varnothing$  110 without closure valve or horizontal  $\varnothing$  110 with closure valve

**Comfort control unit**  
 with mains power ON / OFF switch and multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook; control unit is splash proof (IP 54), wall mounted, voltage 230 / 400 V 50 Hz. With potential-free contact.

➤ **Accessories:** page 125



Illustration shows Art. no. 28 646-C

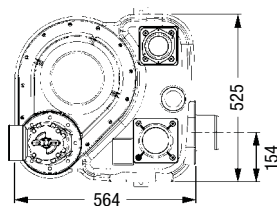
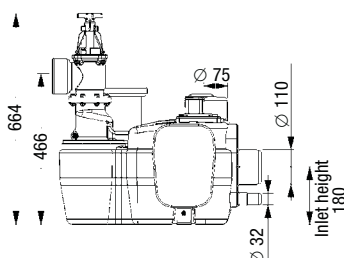
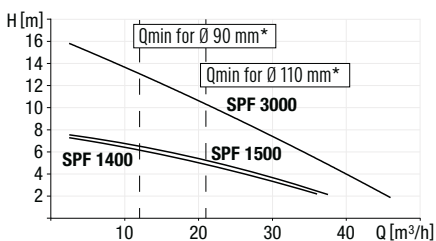


Illustration shows Art. no. 28 648-C

## Mono version with one pump

SPF pump	Voltage	Art. no.
Without closure valve		
1400-S3	230 V	<b>28 646-C</b>
1500-S3	400 V	<b>28 751</b>
3000-S3	400 V	<b>28 752</b>
With closure valve		
1400-S3	230 V	<b>28 648-C</b>
1500-S3	400 V	<b>28 753</b>
3000-S3	400 V	<b>28 754</b>

## Pumping capacity



\* according to EN 12056-4

Pump type	Input Power (P1)	Power (P2)	Voltage	Frequency	Amperage	Fuses surge-proof	Cable connections 5 m Length	Media temperature	Weight (Pump)	Protection	RPM	Pumping capacity	Pumping height
SPF 1400-S3-50%*	1.6 kW	1.1 kW	230 V	50 Hz	7.3 A	16 A	3 × 1.0 mm <sup>2</sup>	40°C	23 kg	IP 68	1.370	38 m <sup>3</sup> /h	7 m
SPF 1500-S3-50%*	1.4 kW	1.1 kW	400 V	50 Hz	2.7 A	3 × 16 A	7 × 1.5 mm <sup>2</sup>	40°C	24 kg	IP 68	1.415	40 m <sup>3</sup> /h	8 m
SPF 3000-S3-50%*	3.2 kW	2.7 kW	400 V	50 Hz	5.4 A	3 × 16 A	7 × 1.5 mm <sup>2</sup>	40°C	24 kg	IP 68	2.845	47 m <sup>3</sup> /h	16 m

\*Definition of S3-pumps see page 95



## Lifting station *Aqualift F Duo* for free-standing installation in frost-free rooms



Tank volume: 120 liters  
Pump volume: 50 liters

**Polyethylene storage chamber** with clean-out opening. With sound-absorbing underlay mat (10 mm thick). Connection for inlet  $\varnothing$  110 and ventilation  $\varnothing$  75, connection coupling for manual diaphragm pump  $\varnothing$  32 mm.

### Pumps

SPF pumps for wastewater with or without sewage, pressure sensor controlled with multi-vane impeller. Open channel passage 40 mm. Pumps are rated submersible (IP 68), pump cable length 5 m. Outlet with integrated non-return valve, connection coupling  $\varnothing$  110 with hose section.

### Pressure outlet:

vertical  $\varnothing$  110 without closure valve or horizontal  $\varnothing$  110 with closure valve

### Comfort control unit

with mains power ON / OFF switch and multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook; control unit is splash proof (IP 54), wall mounted, voltage 230 / 400 V 50 Hz. With potential-free contact.

**Accessories:** page 125



Illustration shows Art. no. 28 628-C

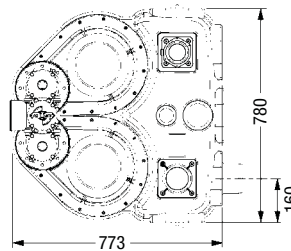
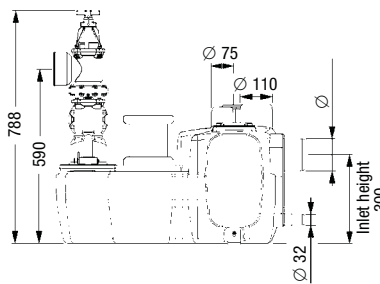
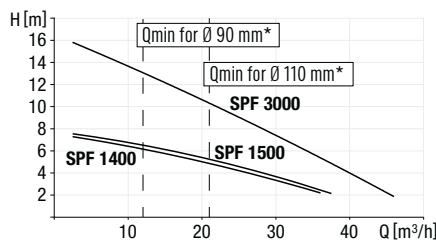


Illustration shows Art. no. 28 629-C

### Duo version with two pumps

SPF pump	Voltage	Art. no.
Without closure valve		
1400-S3	230 V	<b>28 628-C</b>
1500-S3	400 V	<b>28 764</b>
3000-S3	400 V	<b>28 765</b>
1400-S1	230 V	<b>11 605</b>
1500-S1	400 V	<b>11 604</b>
3000-S1	400 V	<b>11 606</b>
With closure valve		
1400-S3	230 V	<b>28 629-C</b>
1500-S3	400 V	<b>28 766</b>
3000-S3	400 V	<b>28 767</b>
1400-S1	230 V	<b>11 608</b>
1500-S1	400 V	<b>11 607</b>
3000-S1	400 V	<b>11 609</b>

### Pumping capacity



\* according to EN 12056-4

Pump type	Input Power (P1)	Power (P2)	Voltage	Frequency	Amperage	Fuses surge-proof	Cable connections 5 m Length	Media temperature	Weight (Pump)	Protection	RPM	Pumping capacity	Pumping height
SPF 1400-S1/S3-100/50%*	1.6 kW	1.1 kW	230 V	50 Hz	7.3 A	16 A	3 × 1.0 mm <sup>2</sup>	40°C	23 kg	IP 68	1.370	38 m <sup>3</sup> /h	7 m
SPF 1500-S1/S3-100/50%*	1.4 kW	1.1 kW	400 V	50 Hz	2.7 A	3 × 16 A	7 × 1.5 mm <sup>2</sup>	40°C	24 kg	IP 68	1.415	40 m <sup>3</sup> /h	8 m
SPF 3000-S1/S3-100/50%*	3.2 kW	2.7 kW	400 V	50 Hz	5.4 A	3 × 16 A	7 × 1.5 mm <sup>2</sup>	40°C	24 kg	IP 68	2.845	47 m <sup>3</sup> /h	16 m

\* Definition of S1 and S3-pumps see page 95





CE EN 12050-1

## Accessories

Aqualift F Mono/Duo




### Control unit accessories

Compatibility see product description


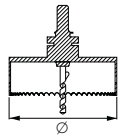
			Art. no.
<b>Audible alarm</b>	<b>Compatibility:</b> For all control units 230 V not for warning devices Art. no. 20 222 and 20 223 <b>Cable length:</b> 20 m		20 162
<b>Potential-free contact</b>	<b>Compatibility:</b> For all control units 230 V not for warning devices Art. no. 20 222 and 20 223		80 072

### Safety

Compatibility see product description

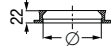
			Art. no.
<b>TeleControl telemetric system</b>	<b>Compatibility:</b> For connection to KESSEL Comfort control units 230 Volt and 400 Volt <b>Function:</b> Relaying of full text messages to up to three mobile phones <b>Inclusive:</b> With internal antenna (without SIM card)		28 792
<b>Antenna booster with magnetic base</b>	<b>Compatibility:</b> For TeleControl telemetric system to improve the reception <b>Cable length:</b> 2.5 m		28 793
<b>Extension cable</b>	<b>Compatibility:</b> For antenna booster <b>Cable length:</b> 2.5 m		28 794
<b>Air compressor set</b>	<b>Function:</b> For use in combination with lifting station and pumping stations with pressure control: prevents soiling, avoids the formation of condensate in the pressure hose, makes operation of systems possible with pressure hose lengths > 10 m <b>Inclusive:</b> T-piece connection, 20 m pressure hose		28 048
<b>PE-pressure hose extension (per meter)</b>	<b>Compatibility:</b> For Art. no. 28 048		680 071

### Hole saw

Hole saw set	Inclusive: Saw blade holder		Outer pipe diameter in mm	Drill size in mm	Art. no.
			Ø 50	60	500 101
			Ø 75	92	
			Ø 110	121	
			Ø 110	121	500 100
			Ø 125	133	
			Ø 160	168	
			Ø 200 <sup>1)</sup>	200	500 102

1) use a power drill with at least 1000 watts

### Sealing

Pipe sealing gasket	Drill size:		Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
	Ø 50: 60 mm Ø 75: 92 mm Ø 110: 121 mm Ø 125: 133 mm Ø 160: 168 mm Ø 200: 210 mm		DN 50	Ø 50	850 114
			DN 70	Ø 75	850 116
			DN 100	Ø 110	850 117
			DN 125	Ø 125	850 118
			DN 150	Ø 160	850 119
			DN 200	Ø 200	850 123

## Accessories

*Aqualift F Mono/Duo*

### Closure valves


Compatibility see product description


			Outer diameter Ø (mm)	Art. no.
<b>Closure valve</b>	<b>Compatibility:</b> With lateral pressure pipe for lifting stations <i>Aqualift F</i>		Ø 100	<b>28 682</b>
			Ø 110	<b>28 683</b>

<b>Closure valve</b>	<b>Compatibility:</b> For installation on the inlet side (no pressure) for lifting stations <i>Aqualift F</i>		Ø 110	<b>28 698</b>
			Ø 160	<b>28 699</b>

### Closure valve

Compatibility see product description

			Outer diameter Ø (mm)	Art. no.
<b>Closure valve, vertical</b>	<b>Function:</b> For the pressure pipe of KESSEL lifting stations with plastic fitting; for connection to pressure pipe, a KESSEL flange connector or adapter is required. <b>Inclusive:</b> Gasket, screw		Ø 90	<b>28 715</b>

<b>Closure valve with flange adaptor, vertical</b>	<b>Function:</b> For the pressure pipe of KESSEL lifting stations with plastic fitting <b>Inclusive:</b> With screwed flange adaptor, for connection to a standard flange DN 80 according to DIN 2501 (without sealing gasket and screw)		Ø 90	<b>28 716</b>
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### Manual diaphragm pump 1 1/2 inch

for manually pumping wastewater

			Art. no.
<b>Manual diaphragm pump in cast iron</b>	<b>Inclusive:</b> With a ball valve on inlet and outlet side		<b>28 680</b>


### Flexible pressure pipe connection

for PE pipe connections

			Outer diameter Ø (mm)	Art. no.
<b>Flexible pressure pipe connection</b>	<b>Inclusive:</b> Two hose clamps <b>Length :</b> 200 mm		Ø 90	<b>28 662</b>
			Ø 110	<b>28 663</b>

### Upgrade set

Compatibility see product description

			Art. no.
<b>Alarm float switch</b>	<b>Compatibility:</b> For use with 230 V and 400 V Comfort control units <b>Inclusive:</b> Float switch, support plate, cover <b>Cable length:</b> 5 m		<b>28 015</b>



## Lifting station *Aqualift S Duo*

The powerful version for wastewater without sewage.

Reliable and hygienic: the *Aqualift S Duo* disposes of wastewater without sewage through a pressure pipe into the sewer. The lifting station is equipped with two pumps and is therefore ideal for applications where no interruptions in operation are permitted. It is often connected to small grease separator systems.

The *Aqualift S Duo* is available with pumps in different capacity classes for installation in frost-protected areas. It is equipped with pneumatic level measurement and the version with the pump type GTF 1200 with a pressure membrane control for conductive and non-conductive liquids.



1 Lifting station 2 Inlet connection 3 Pressure pipe

---

If you want to use the *Aqualift S* outside the building:

➤ Pumping station *Aqualift S*: Page 150



## Lifting station *Aqualift S Duo*

for free-standing installation in frost protected rooms



Tank volume: 55 liters

### Polyethylene storage chamber

#### Pumps

With twin removable, pressure sensor controlled *KTP* pumps, integrated backwater flap, inlet Ø 110, ventilation connection Ø 75 (incl. pipe sealing gasket).

#### Comfort control unit

with multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook, IP 54 splash proof control unit housing, for wall mounting, operational voltage - 230 V DC, with potential free contact (BMS) connections.

Pressure connection: 1 1/2 inch outer thread or pressure pipe Ø 40 mm for PVC glued connection.

**Power cable length:** 5 m (Schuko)

#### Note:

- Ideal for connection after small grease separator systems.
- Version with powerful *GTF 1000* pump on request.

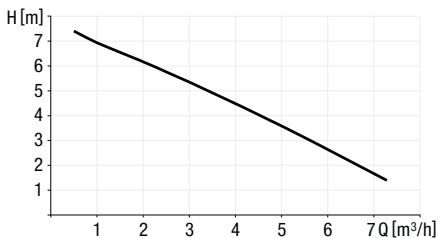
➔ **Accessories:** page 131



### Duo version with two pumps

KTP pump	Voltage	Art. no.
500-S1	230 V	<b>28 541-C</b>

### Pumping capacity



Pump type	Current type	Voltage	Current	Input Power	Power (P1/P2)	RPM	Motor protection	Weight (Pump)	Inlet height	Total height	Pumping height
KTP 500-S1*	Alternating current	230 V	2.12 A	2 × 0.48 kW	480 W / 320 W	2.900 min <sup>-1</sup>	integrated	25 kg	530 mm	720 mm	max. 8 m

\*Definition of S1-pumps see page 95



CE EN 12050-2

Always the right choice:

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## Lifting station *Aqualift S Duo* for free-standing installation



Polyethylene PE-LLD storage chamber Ø 600, watertight, resistant to aggressive media, cover with snap closure. Inlet Ø 110 mm.

### Pumps

Pressure sensor controlled *GTF* pumps, for conductive and non-conductive liquids, with one-hand snap closure, integrated backwater flaps.

### Control unit

for alternating pump control, with optical and audible alarm, splash-proof, for wall mounting in dry,

frost protected rooms.

### Pressure connection:

Ø 40 / 50 mm (PE-HD).

**Cable length:** 10 m (Schuko) ready to plug in

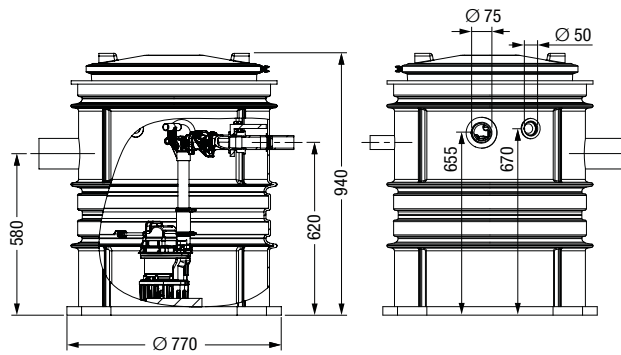
➤ **Accessories:** page 131



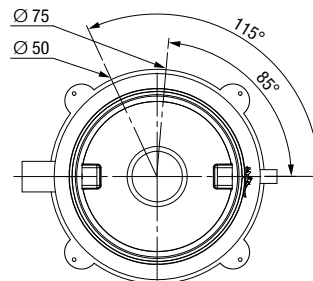
### Duo version with two pumps

GTF pump	Voltage	Art. no.
1200-S3	230 V	826811-FA*

\*special model (delivery time on request)



### Pumping capacity



Pump type	Voltage	Current	Power (P1)	Power (P2)	Protection	Total height	Inlet height	Pumping capacity	Pumping height
GTF 1200-S3-50%*	230 V ~ 50 Hz	4.9 A	1.4 kW	0.8 kW	integrated	940 mm	580 mm (from chamber base to middle of inlet)	max. 15.5 m³/h	max. 9 mm³/h



\*Definition of S3-pumps see page 95

## Accessories

*Aqualift S Duo*

### Control unit accessories

Compatibility see product description

			Art. no.
<b>Audible alarm</b>	<b>Compatibility:</b> For all control units 230 V not for warning devices Art. no. 20 222 and 20 223 <b>Cable length:</b> 20 m		20 162
<b>Potential-free contact</b>	<b>Compatibility:</b> For all control units 230 V not for warning devices Art. no. 20 222 and 20 223		80 072

### Alarm unit

Compatibility see product description

			Art. no.
<b>with electrode probe</b>	<b>Function:</b> High water / flood alarm system; for conductive liquids <b>Cable length:</b> 5 m (extendable up to 30 m)		20 222
<b>with optical probe</b>	<b>Function:</b> High water / flood alarm system; for conductive / non-conductive liquids <b>Cable length:</b> 5 m (extendable up to 30 m)	 Dimensions: 152 x 80 x 145	20 223

### Non-return flap

Compatibility see product description

			Art. no.
<b>Non-return flap</b>	<b>Compatibility:</b> Art. no. 28 541-C	 Dimensions: 40 x 5.5	27 207

### Hole saw

			Outer pipe diameter in mm	Drill size in mm	Art. no.
<b>Hole saw set</b>	<b>Inclusive:</b> Saw blade holder		Ø 50	60	500 101
			Ø 75	92	
			Ø 110	121	
			Ø 110	121	500 100
			Ø 125	133	
			Ø 160	168	

### Sealing

			Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
<b>Pipe sealing gasket</b>	<b>Drill size:</b> Ø 50: 60 mm Ø 75: 92 mm Ø 110: 121 mm Ø 125: 133 mm Ø 160: 168 mm		DN 50	Ø 50	850 114
			DN 70	Ø 75	850 116
			DN 100	Ø 110	850 117
			DN 125	Ø 125	850 118
			DN 150	Ø 160	850 119

### Cable extensions

for extension from 15 m or 25 m (cable length delivered: 5 m)

	Lifting station <i>Aqualift S Duo</i>	Art. no.
<b>Cable extension for probe (10 m)</b>	<b>Extension to 15 m:</b> 1×80 889 <b>Extension to 25 m:</b> 2×80 889	80 889
<b>Cable extension for pump (10 m)</b>	<b>Extension to 15 m:</b> 2×80 891 <b>Extension to 25 m:</b> 4×80 891	80 891

## Lifting station *Aqualift F XL*

The powerful version for commercial, industrial and communal applications.

The *Aqualift F XL* is a powerful lifting station for commercial, industrial and communal applications. It is ideal for lifting rainwater that occurs below the backwater level or for use after a separator. However, it can also be used for wastewater with sewage. All components, such as tanks and pumps, are modular in design and can be used in any combination.

The *Aqualift F XL* can be combined with three different tanks with a capacity of 200, 300 or 450 litres. It is also available with pumps in different capacity classes and as a Mono or Duo system for different requirements.



1 Lifting station 2 Grease separator *EasyClean*

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### Power and control unit

The *Aqualift F XL* has powerful pumps in the versions S1 and/or S3 with a wide range of applications from an input power of 1,400 W to 5,500 W, a sensor control and a Comfort control unit with self-diagnosis system SDS.

### Variable

The *Aqualift F XL* offers variable inlet connection sizes with diameters ranging from 110 to 160 mm and the option of adding further inlets with diameters from  $\emptyset$  50 to  $\emptyset$  200 mm on the pre-scored areas on the sides and back.

If you want to use the *Aqualift F XL* outside a building:

➤ Pumping station *Aqualift F XL*: Page 152

# Lifting station *Aqualift F XL Mono / Duo* 200 liter tank volume

for free-standing installation in frost-free rooms



**Tank volume:** 200 liters  
**Pump volume:** 120 liters

### Polyethylene storage chamber

with clean-out opening. Spigots for vertical inlet  $\varnothing$  110 mm/160 mm, ventilation  $\varnothing$  75 mm and for manual diaphragm pump  $\varnothing$  32 mm. Horizontal inlet  $\varnothing$  50 mm to  $\varnothing$  200 mm by sawing.

### Pumps

Pressure sensor controlled single or twin wastewater *SPF* pumps with multi-vane impeller to pump wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68), pump cable length 5 m. With sound-absorbing underlay mat (10 mm thick).

**Vertical/ horizontal outlet** with integrated non-return valve, with/without closure valve (provided loose), with hose section or flange.

### Pressure outlet:

vertical  $\varnothing$  110 without closure valve,  
 horizontal  $\varnothing$  110 with plastic closure valve or vertical DN 80 with cast iron closure valve

### Comfort control unit

with mains power ON / OFF switch and multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook; control unit is splash proof (IP 54), wall mounted, voltage 230 V or 400 V at 50 Hz. With potential-free/BMS contact (optional 230 V).

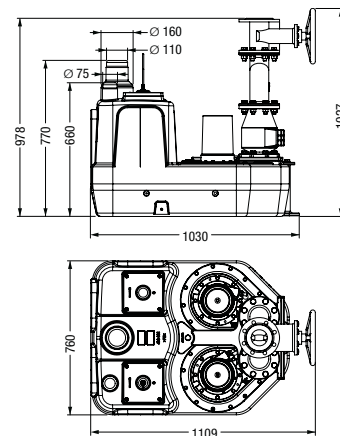
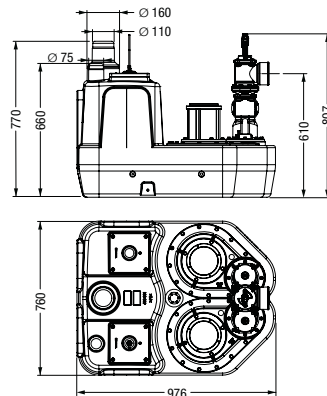
➤ **Accessories:** page 136



Illustration shows Duo version with plastic closure valve



Illustration shows Duo version with cast iron closure valve



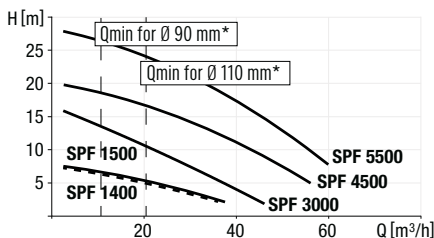
### Mono version with one pump

SPF pump	Voltage	without closure valve	with plastic closure valve	with cast iron closure valve
		Art. no.	Art. no.	Art. no.
1400-S3	230 V	11 000	11 002	-
1500-S3	400 V	11 018	11 020	-
3000-S3	400 V	11 036	11 038	-
4500-S3	400 V	11 059	-	11 061
5500-S3	400 V	11 072	-	11 074

### Duo version with two pumps

SPF pump	Voltage	without closure valve	with plastic closure valve	with cast iron closure valve
		Art. no.	Art. no.	Art. no.
1400-S3	230 V	11 001	11 003	-
1500-S3	400 V	11 019	11 021	-
3000-S3	400 V	11 037	11 039	11 043
4500-S3	400 V	-	-	11 062
5500-S3	400 V	11 073	-	11 075
1400-S1	230 V	11 085	11 086	-
1500-S1	400 V	11 095	11 096	-
3000-S1	400 V	11 105	11 106	11 108
4500-S1	400 V	11 120	-	11 121

### Pumping capacity



### Pump type

Pump type	Input Power (P1)	Power (P2)	Voltage	Amperage	Weight	Pumping capacity	Pumping height
SPF 1400-S1/S3-100/50%*	1.6 kW	1.1 kW	230 V	7.3 A	99 kg	38 m³/h	7 m
SPF 1500-S1/S3-100/50%*	1.4 kW	1.1 kW	400 V	2.7 A	98 kg	40 m³/h	8 m
SPF 3000-S1/S3-100/50%*	3.2 kW	2.7 kW	400 V	5.4 A	188 kg	47 m³/h	16 m
SPF 4500-S1/S3-100/50%*	4.5 kW	3.7 kW	400 V	7.5 A	189 kg	55 m³/h	20 m
SPF 5500-S3-30%*	5.7 kW	4.7 kW	400 V	9.1 A	211 kg	60 m³/h	27 m

\*Definition of S1 and S3-pumps see page 95

## Lifting station *Aqualift F XL Duo* 300 liter tank volume for free-standing installation in frost-free rooms



**Tank volume:** 300 liters  
**Pump volume:** 175 liters

### Polyethylene storage chamber

with clean-out opening. Spigots for vertical inlet  $\varnothing$  110 mm/160 mm, ventilation  $\varnothing$  75 mm and for manual diaphragm pump  $\varnothing$  32 mm. Horizontal inlet  $\varnothing$  50 mm to  $\varnothing$  200 mm by sawing.

### Pumps

Pressure sensor controlled twin wastewater SPF pumps with multi-vane impeller to pump wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68), pump cable length 5 m. With sound-absorbing underlay mat (10 mm thick).

**Vertical/ horizontal outlet** with integrated non-return valve, with/without closure valve (provided loose), with hose section or flange.

### Pressure outlet:

vertical  $\varnothing$  110 without closure valve, horizontal  $\varnothing$  110 with plastic closure valve or vertical DN 80 with cast iron closure valve

### Comfort control unit

with mains power ON / OFF switch and multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook; control unit is splash proof (IP 54), wall mounted, voltage 230 V or 400 V at 50 Hz. With potential-free/BMS contact (optional 230 V).

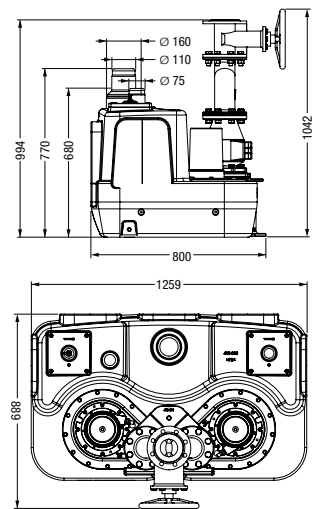
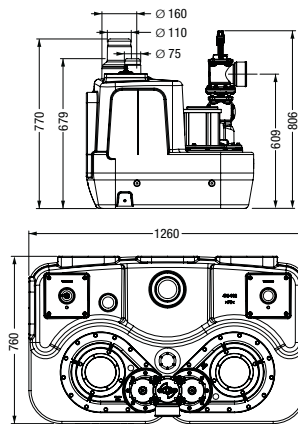
➤ **Accessories:** page 136



Illustration shows Duo version with plastic closure valve



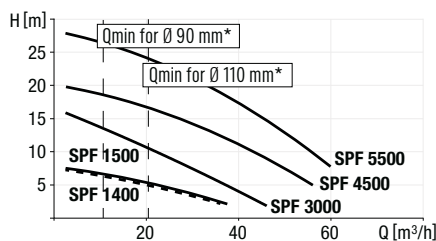
Illustration shows Duo version with cast iron closure valve



### Duo version with two pumps

SPF pump	Voltage	without closure valve	with plastic closure valve	with cast iron closure valve
		Art. no.	Art. no.	Art. no.
5500-S3	400 V	<b>11 078</b>	-	<b>11 080</b>
1400-S1	230 V	<b>11 090</b>	<b>11 091</b>	-
1500-S1	400 V	<b>11 100</b>	<b>11 101</b>	-
3000-S1	400 V	<b>11 110</b>	<b>11 111</b>	<b>11 113</b>
4500-S1	400 V	<b>11 123</b>	-	<b>11 124</b>

### Pumping capacity



Pump type	Input Power (P1)	Power (P2)	Voltage	Amperage	Weight	Pumping capacity	Pumping height
SPF 1400-S1-100%*	1.6 kW	1.1 kW	230 V	7.3 A	99 kg	38 m³/h	7 m
SPF 1500-S1-100%*	1.4 kW	1.1 kW	400 V	2.7 A	98 kg	40 m³/h	8 m
SPF 3000-S1-100%*	3.2 kW	2.7 kW	400 V	5.4 A	188 kg	47 m³/h	16 m
SPF 4500-S1-100%*	4.5 kW	3.7 kW	400 V	7.5 A	189 kg	55 m³/h	20 m
SPF 5500-S3-30%*	5.7 kW	4.7 kW	400 V	9.1 A	211 kg	60 m³/h	27 m

\*Definition of S1 and S3-pumps see page 95



# Lifting station *Aqualift F XL Duo* 450 liter tank volume

for free-standing installation in frost-free rooms



**Tank volume:** 450 liters  
**Pump volume:** 250 liters

### Polyethylene storage chamber

with air pressure level detector, clean-out opening. Spigots for vertical inlet Ø 110 mm/ 160 mm, ventilation Ø 75 mm and for manual diaphragm pump Ø 32 mm. Horizontal inlet Ø 50 mm to Ø 200 mm by sawing.

### Pumps

Pressure sensor controlled twin wastewater *SPF* pumps with multi-vane impeller to pump wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68), pump cable length 5 m. With sound-absorbing underlay mat (10 mm thick).

**Vertical/ horizontal outlet** with integrated non-return valve, with/without closure valve (provided loose), with hose section or flange.

### Pressure outlet:

vertical Ø 110 without closure valve, horizontal Ø 110 with plastic closure valve or vertical DN 80 with cast iron closure valve

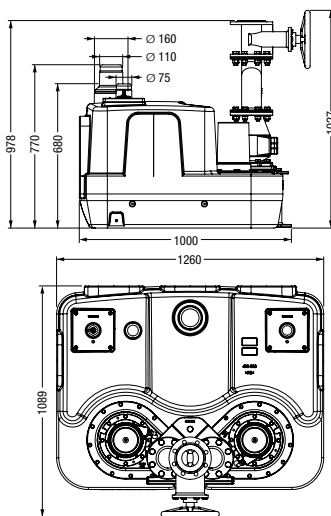
### Comfort control unit

with mains power ON / OFF switch and multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook; control unit is splash proof (IP 54), wall mounted, voltage 230 V or 400 V at 50 Hz. With potential-free/BMS contact (optional 230 V).

➔ **Accessories:** page 136



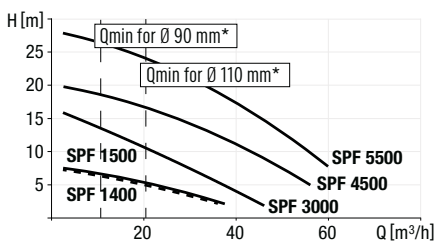
Illustration shows Duo version with cast iron closure valve



### Duo version with two pumps

SPF pump	Voltage	without closure valve	with plastic closure valve	with cast iron closure valve
		Art. no.	Art. no.	Art. no.
3000-S3	400 V	11 054	11 055	11 057
4500-S3	400 V	-	-	11 070
5500-S3	400 V	11 082	-	11 083
3000-S1	400 V	11 115	11 116	11 118
4500-S1	400 V	11 126	-	11 127

### Pumping capacity



### Pump type

Pump type	Input Power (P1)	Power (P2)	Voltage	Amperage	Weight	Pumping capacity	Pumping height
SPF 3000-S1/S3-100/50%*	3.2 kW	2.7 kW	400 V	5.4 A	188 kg	47 m³/h	16 m
SPF 4500-S1/S3-100/50%*	4.5 kW	3.7 kW	400 V	7.5 A	189 kg	55 m³/h	20 m
SPF 5500-S3-30%*	5.7 kW	4.7 kW	400 V	9.1 A	211 kg	60 m³/h	27 m

\*Definition of S1 and S3-pumps see page 95







## Accessories

Aqualift F XL




### Control unit accessories

Compatibility see product description

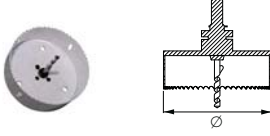
			Art. no.
<b>Audible alarm</b>	<b>Compatibility:</b> For all control units 230 V not for warning devices Art. no. 20 222 and 20 223 <b>Cable length:</b> 20 m		20 162
<b>Potential-free contact</b>	<b>Compatibility:</b> For all control units 230 V not for warning devices Art. no. 20 222 and 20 223		80 072

### Safety

Compatibility see product description

			Art. no.
<b>TeleControl telemetric system</b>	<b>Compatibility:</b> For connection to KESSEL Comfort control units 230 Volt and 400 Volt <b>Function:</b> Relaying of full text messages to up to three mobile phones <b>Inclusive:</b> With internal antenna (without SIM card)		28 792
<b>Antenna booster with magnetic base</b>	<b>Compatibility:</b> For TeleControl telemetric system to improve the reception <b>Cable length:</b> 2.5 m		28 793
<b>Extension cable</b>	<b>Compatibility:</b> For antenna booster <b>Cable length:</b> 2.5 m		28 794
<b>Air compressor set</b>	<b>Function:</b> For use in combination with lifting station and pumping stations with pressure control: prevents soiling, avoids the formation of condensate in the pressure hose, makes operation of systems possible with pressure hose lengths > 10 m <b>Inclusive:</b> T-piece connection, 20 m pressure hose		28 048
<b>PE-pressure hose extension (per meter)</b>	<b>Compatibility:</b> For Art. no. 28 048		680 071

### Hole saw

			Outer pipe diameter in mm	Drill size in mm	Art. no.
<b>Hole saw set</b>	<b>Inclusive:</b> Saw blade holder		Ø 50	60	500 101
			Ø 75	92	
			Ø 110	121	
			Ø 110	121	500 100
			Ø 125	133	
			Ø 160	168	
			Ø 200 <sup>1)</sup>	200	500 102

1) use a drilling machine with at least 1000 watts

### Flexible pressure pipe connection

for PE and cast iron pipe connections

			Outer diameter Ø (mm)	Art. no.
<b>for PE pipe connections</b>	<b>Inclusive:</b> Two hose clamps <b>Length:</b> 200 mm		Ø 90	28 662
			Ø 110	28 663
<b>for cast iron pipe connections</b>	<b>Inclusive:</b> Two hose clamps <b>Length:</b> 200 mm		Ø 100	28 664
			Ø 120	28 665



## Accessories

Aqualift F XL

### Upgrade set

Compatibility see product description

#### Alarm float switch

**Compatibility:** For use with 230 V and 400 V Comfort control units  
**Inclusive:** Float switch, support plate, cover  
**Cable length:** 5 m



Art. no.

28 014

#### Closure valve

Compatibility see product description

##### Closure valve, vertical

**Function:** For the pressure pipe of KESSEL lifting stations with plastic fitting; for connection to pressure pipe, a KESSEL flange connector or adaptor is required.  
**Inclusive:** Gasket, screw



Outer diameter  
 Ø (mm)

Ø 90

Art. no.

28 715

##### Closure valve with flange adaptor, vertical

**Function:** For the pressure pipe of KESSEL lifting stations with plastic fitting  
**Inclusive:** With screwed flange adaptor, for connection to a standard flange DN 80 according to DIN 2501 (without sealing gasket and screw)



Ø 90

28 716

### Manual diaphragm pump 1 1/2 inch

for manually pumping wastewater

#### Manual diaphragm pump in cast iron

**Inclusive:** With a ball valve on inlet and outlet side



Outer diameter  
 Ø (mm)

1 1/2 inch

Art. no.

28 680

### Flange adaptor

Compatibility see product description

#### in PE

**Compatibility:** From KESSEL fitting to standard flange



Outer diameter  
 Ø (mm)

DN 80

Art. no.

28 714

#### in cast iron

**Function:** Adaptor from DN 80 to DN 100  
**Compatibility:** For use with cast iron pressure pipes  
**Inclusive:** Flange according to DIN 2501



-

28 068

### Connection flange

Compatibility see product description

#### in PE

**Compatibility:** For KESSEL plastic fittings



Outer diameter  
 Ø (mm)

Ø 90

Art. no.

28 713



Ø 110

28 712

## Accessories

*Aqualift F XL*

### Backflow preventer

Compatibility see product description

in cast iron

**Inclusive:** DN 80 flange according to DIN 2501, backflow preventer with flap and flap opening lever



Outer diameter  
Ø (mm)

Art. no.

DN 80

28 021

### Connection adaptor

Compatibility see product description

in cast iron

**Compatibility:** For connection from lifting station *Aqualift F XL* to on-site pressure pipe.

Fits PE pressure pipes

**Inclusive:** Flange according to DIN 2501, single gasket

**Outer diameter:**

DN 80: OD 90 mm

DN 100: OD 110 mm



Outer diameter  
Ø (mm)

Art. no.

Ø 90

28 067



Ø 110

28 020



Ø 98

28 069

**Compatibility:** For connection from lifting station *Aqualift F XL* to on-site pressure pipe. Fits cast iron pressure pipes

**Inclusive:** Flange according to DIN 2501

**Outer diameter:**

DN 80: OD 98 mm

DN 100: OD 118 mm



Ø 118

28 072

### Gate closure valve

for lifting stations *Aqualift F XL*

in cast iron

**Inclusive:** DN 80 flange according to DIN 2501, gate closure valve including closure wheel



Outer diameter  
Ø (mm)

Art. no.

DN 80

28 041

### Y-Coupling

for lifting stations *Aqualift F XL*

in cast iron

**Inclusive:** DN 80 (OD 80 mm) flange according to DIN 2501



Outer diameter  
Ø (mm)

Art. no.

Ø 80

28 042

### Sealing gasket

Compatibility see product description

Sealing gasket  
(rubber)

**Compatibility:** Flange according to DIN 2501, for pressure pipe connections



Outer diameter  
Ø (mm)

Art. no.

DN 80

28 043

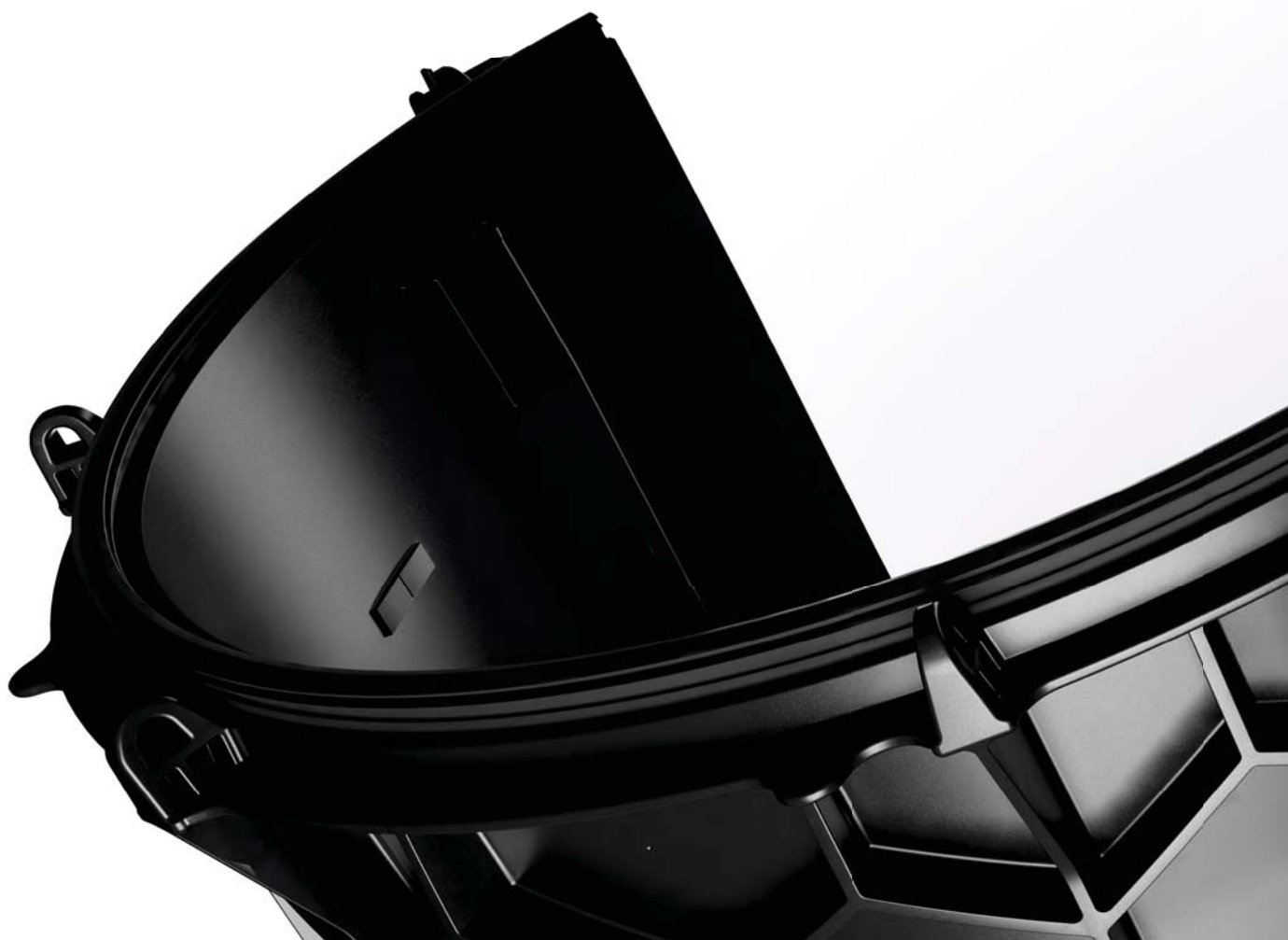
DN 100

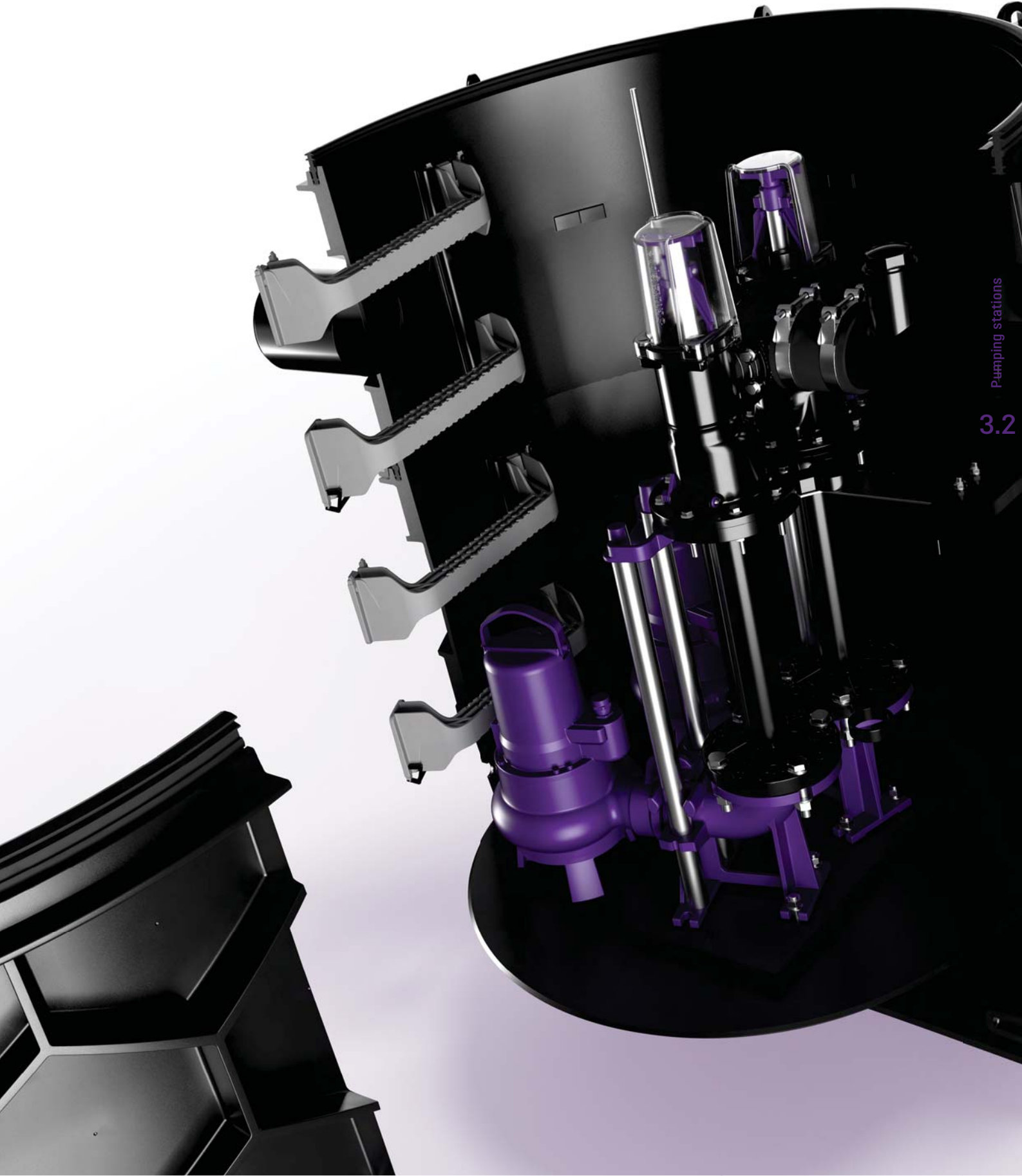
28 044



# 3.2 Pumping stations

For installation in a floor slab  
or underground






Pumping stations

3.2

This is how it's done

## Planning a pumping station

### 1 Select a system base with suitable pump capacity

Always the right choice:   
[smartselect.kessel.com](https://smartselect.kessel.com)

Determine the required pump capacity (e.g. with the calculation module from SmartSelect) and select the corresponding system base with the help of the power diagram.

 System bases: From page 154

### 2 Select an system chamber with suitable cover

Depending on the installation situation, when installing underground or in a floor slab, the system chamber can be combined with different upper sections and covers. From class K 3 to class D. In addition, you can also choose between the 600 mm diameter and 800 mm diameter access openings (note that a minimum inlet depth of 1,780 mm is required for the 600 mm access opening).



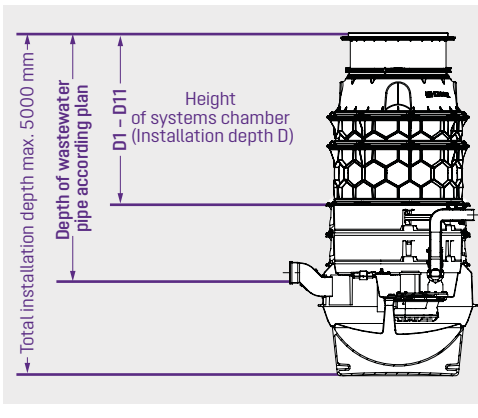
Inlet Ø 600

Inlet Ø 800

**For 600 mm diameter access openings**  
 an inlet depth of at least 1,780 mm is required  
 for maintenance

### 3 Calculate the height of the system chamber (D)

Now determine the required chamber depth for underground installation or for installation in the floor slab. Take the inlet depth from the top surface of the cover to the bottom of the inlet pipe from your drainage plan.



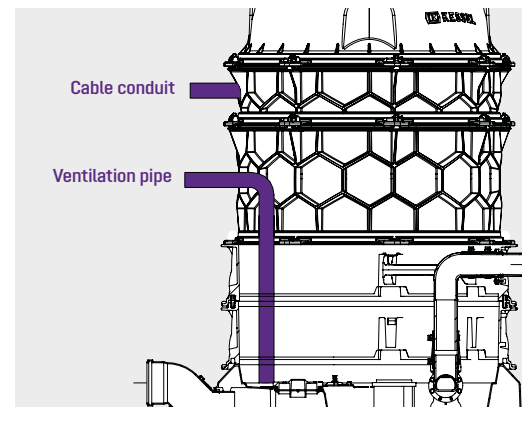
Subtract the height of the system base (height from top to the lower edge of the inlet) from the inlet depth taken from the drainage plan and you have the height of the required engineering chamber. Now you can select a module with the corresponding height and the required cover from the article list. Please note the maximum permissible total installation depth of 5,000 mm and the groundwater resistance of KESSEL engineering chambers of 3,000 mm.

**Note: check the groundwater statur.**

### 4 Note: Connection pipe for cables and ventilation

During planning, please also note the following:

- The maximum cable length is 30 m.
- Stipulate that the **ventilation pipe** and the **cable conduit** must be laid with a continuous incline (to allow water to flow back into the pump station).



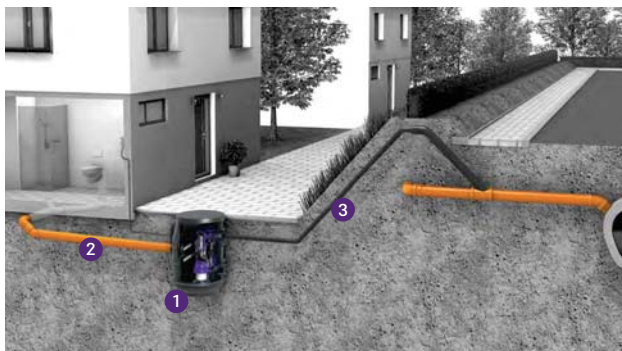
➤ **Optional cable conduit sealing kit: Page 164**

## Pumping station *Aqualift F Basic*

The economic version for wastewater with sewage.

The pumping station *Aqualift F Basic* makes looking for an economic alternative child's play as far as the disposal of wastewater with sewage outside buildings is concerned. It provides cutting-edge technology at an unbeatable price, housed in a sturdy installation chamber.

The pumping station *Aqualift F Basic* is available either as a Mono or Duo system. It is equipped with a float switch and a control unit (Tronic version).



1 Lifting station 2 Inlet connection 3 Pressure pipe

### 100% waterproof and odour-tight

Like all KESSEL installation chambers, the tank of the pumping station *Aqualift F Basic* is absolutely waterproof and odour-tight and is covered by our guarantee, which we have voluntarily extended to 20 years.

### Suspended pump(s)

The pumping station has either one or two freely suspended pumps of the type STF 1300. Noise levels during operation are reduced by decoupling from the tank body.

### Tool-free maintenance

The pump can be removed and serviced very easily thanks to the quick-release closures.

### Variable upper section

The optional upper section is inclinable and height adjustable from 140 to 440 mm.

---

If you want to use the *Aqualift F Basic* inside a building:

➤ Lifting station *Aqualift F Basic*: Page 118



## Pumping station *Aqualift F Basic*

For underground installation



**Pump volume:** 25 liters (Mono) /  
60 liters (Tronic / Duo)

**Polyethylene storage chamber** for underground installation (installation depth max. 440 mm), drilling surfaces on three sides for inlet Ø 110/160 mm, pipe gasket and ventilation. With polymer cover, screwed, load class 300 kg.

Float switch controlled **single or twin removable wastewater pump(s)** with multi-vane impeller for wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68). Pressure pipe connection Ø 50/63 mm with integrated non-return flap.

### Control unit

Tronic versions with Basic control unit with self-diagnosis system (SDS), battery buffering and logbook function, control unit is splash proof (IP 54).

### Note:

- A ventilation pipe must be provided for on site.
- Consider frost free depth of pressure pipe.
- For installations without explosion proof requirements.

➤ **Accessories:** page 146



Illustration shows Mono version Art. no. 829 710



Illustration shows Duo version Art. no. 828 711

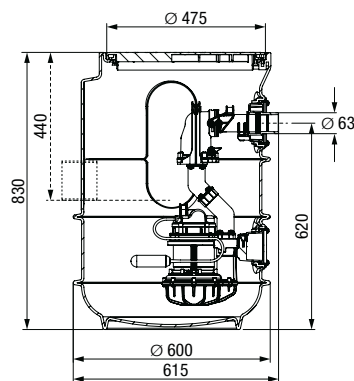


Illustration shows Mono version Art. no. 829 710

Pump type	Voltage	Amperage	Power (P1/P2)	RPM	Pumping capacity	Pumping height
STF 1300-S3-50%*	230 V ~ 50 Hz	6.0 A	1.3 kW / 0.8 kW	2.650 min <sup>-1</sup>	21 m <sup>3</sup> /h	max. 10 m

\*Definition of S3-pumps see page 95

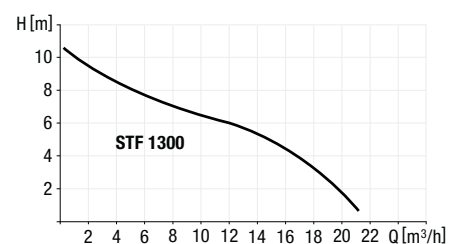
### Mono version with one pump

STF pump	Level measurement	Art. no.
1300-S3	float switch (single)	829 710
1300-S3	float switch (Tronic)	829 711

### Duo version with two pumps

STF pump	Level measurement	Art. no.
1300-S3	float switch (Tronic)	828 711

### Pumping capacity



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## Accessories

*Aqualift F Basic*

---

### Upper section

Art. no.

**Upper section**

**Extension:** From 140 - 440 mm, height adjustable



**829 100**

---

### Closure valves

Compatibility see product description

Art. no.

**Closure valve**

**Compatibility:** Mono version



**829 200**

**Closure valve**

**Compatibility:** Duo version



**829 250**

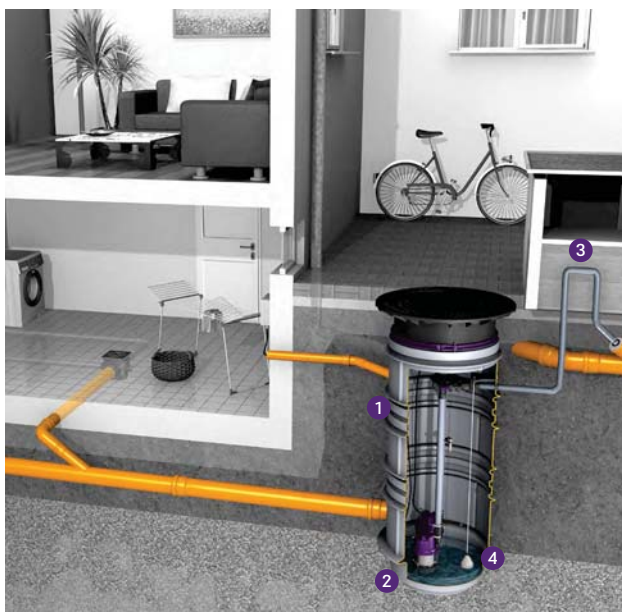
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## Pumping station *Aqualift F*

The compact version for wastewater with sewage.

The pumping station *Aqualift F* is used for the disposal of wastewater with sewage below the backwater level. The installation chamber, 600 mm in diameter, contains the pump STZ 1000 for grey and black water and is resistant to groundwater to a depth of 2000 mm.



1 Pumping station 2 Pump 3 Pressure pipe 4 Pressure sensor

### Height-adjustable upper section

The upper section offers vertical adjustability by up to 500 mm. For simple adaptation to the ground level.

### Innovative pressure sensor

The pumping station is available with an innovative pressure sensor, which measures the level of wastewater precisely and reliably: as soon as the maximum water level is reached, the pump pumps the water into the sewage system via a pressure pipe.

### Maximum safety

The intelligent control unit (for systems with pressure sensor) with integrated self-diagnosis system SDS continually monitors all the electrical components.

### Convenient installation

The low weight of the chamber components, straightforward connection technology, high degree of pre-assembly (lower section of the chamber with pressure pipe), fixed connecting pieces for the inlet and pressure pipe and the bore holes with lip seals for the venting and conduit pipe all contribute to fast and easy installation.

### Permanent protection

The chamber system is absolutely waterproof and resistant to dirt deposits or aggressive media. In addition, it reliably prevents root penetration. Simple pump maintenance work is particularly easy thanks to integrated guide pipes.

**If you want to use the *Aqualift F* inside the building:**

➤ [Lifting station \*Aqualift F\*: Page 122](#)

## Pumping station *Aqualift F*

For underground installation with macerating / cutting pumps



**Polyethylene storage chamber** Ø 600 for underground installation, resistant to aggressive media. With upper section made of polymer, vertically adjustable, cover class A in polymer load up to 600 kg, class B in cast iron and concrete load up to 12.5 t and cover class D in cast iron load up to 40 t. Groundwater resistant. Inlet Ø 160 mm, connection for pipe gasket for Ø 110 according to EN 1401 and EN 12666-1 - each for ventilation or conduit pipe. Installation: Handles groundwater depths up to 2500 mm

With **single or twin removable wastewater pump(s)** with macerator for wastewater with or without sewage. Available with float switch or pressure sensor.

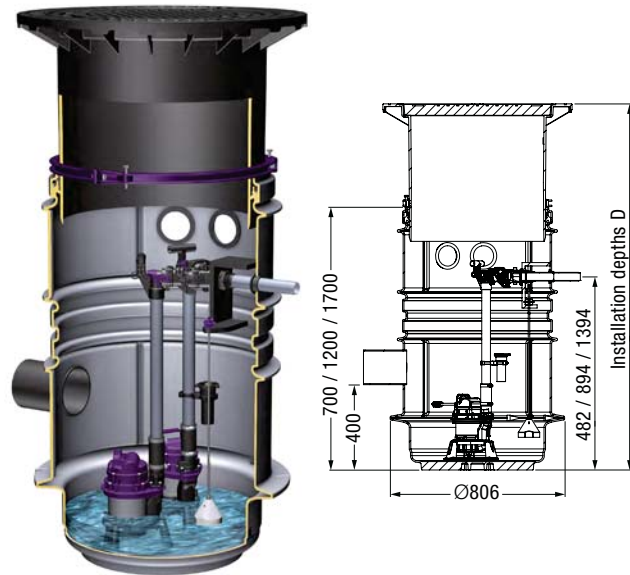
Pressure pipe Ø 40 mm (version B/D) or Ø 40/63 mm (version A) outside diameter for PVC glue connection, with integrated non-return flap. Power cable length: 10 m (Schuko)

### Control unit

Pressure sensor controlled versions with control unit with self-diagnosis system (SDS), battery buffering and logbook function, control unit is splashproof (IP 54).

### Note:

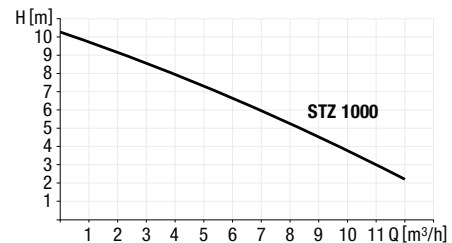
- Consider frost free depth of pressure pipe.
- For installations without explosion proof requirements.



Pump type	Voltage	Amperage	Power (P1/P2)	RPM	Motor protection	Protection	Pumping capacity	Pumping height
STZ 1000-S3-50%*	230 V	5.2 A	1080 W / 620 W	2.800 min <sup>-1</sup>	integrated	IP 68	11.5 m <sup>3</sup> /h	10 m

\*Definition of S3-pumps see page 95

### Pumping capacity



### Single station with one pump and float switch

STZ pump	Installation depths D in mm	Art. no.
Cover class A		
1000	800 - 1250	<b>827 710A</b>
1000	1300 - 1750	<b>827 720A</b>
1000	1800 - 2250	<b>827 730A</b>
Cover class B		
1000	800 - 1250	<b>827 710B</b>
1000	1300 - 1750	<b>827 720B</b>
1000	1800 - 2250	<b>827 730B</b>
Cover class D		
1000	800 - 1250	<b>827 710D</b>
1000	1300 - 1750	<b>827 720D</b>
1000	1800 - 2250	<b>827 730D</b>

### Single station with one pump with SDS control unit and pressure sensor

STZ pump	Installation depths D in mm	Art. no.
Cover class A		
1000	800 - 1250	<b>827 711A</b>
1000	1300 - 1750	<b>827 721A</b>
1000	1800 - 2250	<b>827 731A</b>
Cover class B		
1000	800 - 1250	<b>827 711B</b>
1000	1300 - 1750	<b>827 721B</b>
1000	1800 - 2250	<b>827 731B</b>
Cover class D		
1000	800 - 1250	<b>827 711D</b>
1000	1300 - 1750	<b>827 721D</b>
1000	1800 - 2250	<b>827 731D</b>

### Twin station with two pumps with SDS control unit and pressure sensor

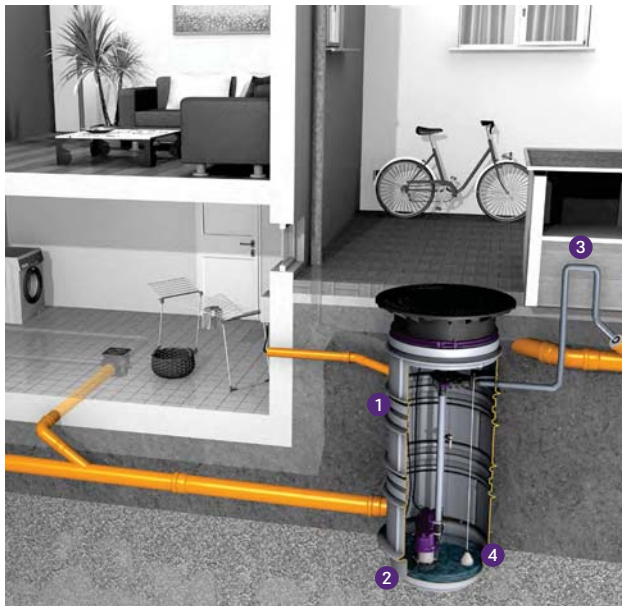
STZ pump	Installation depths D in mm	Art. no.
Cover class A		
1000	800 - 1250	<b>826 711A</b>
1000	1300 - 1750	<b>826 721A</b>
1000	1800 - 2250	<b>826 731A</b>
Cover class B		
1000	800 - 1250	<b>826 711B</b>
1000	1300 - 1750	<b>826 721B</b>
1000	1800 - 2250	<b>826 731B</b>
Cover class D		
1000	800 - 1250	<b>826 711D</b>
1000	1300 - 1750	<b>826 721D</b>
1000	1800 - 2250	<b>826 731D</b>

## Pumping station *Aqualift S*

The compact version for wastewater and rainwater.

The *Aqualift S* is the first choice when it comes to the disposal of wastewater without sewage below the backwater level, backwater protection for separator systems and the clearing of drainage lines. The pumping station comprises a compact chamber with an inner diameter of 600 mm and integrated pumps for wastewater and rainwater. The *Aqualift S* is groundwater resistant down to a depth of 2,500 mm.

The pumping station is available with pumps of different capacity classes. In addition, you can choose between level detection with a float switch or innovative pressure sensor. Two versions are available for installation depths of between 800 and 2,250 mm.



1 Pumping station 2 Pump 3 Pressure pipe 4 Pressure sensor

### Convenient installation

The low weight of the chamber components, height-adjustable upper section, high degree of pre-assembly and the fixed connecting pieces for the inlet and pressure pipe – all contribute to a fast and easy installation.

### Maximum safety

The *Aqualift S* is available with a pressure sensor, which measures the level of the wastewater precisely and reliably: as soon as the maximum water level is reached, the pump activates and pumps the water through a pressure pipe into the sewer. The control unit with integrated self-diagnosis system SDS guarantees additional safety.

### Straightforward maintenance

Maintenance work on the pump is particularly easy thanks to the practical quick-release closure and the integrated guide pipes.

---

If you want to use the *Aqualift S* inside the building:

➤ Lifting station *Aqualift S*: Page 128

## Pumping station *Aqualift S*

For underground installation for non-WC wastewater and rainwater



**Polyethylene storage chamber** Ø 600 for underground installation, resistant to aggressive media. With upper section made of polymer, vertically adjustable, cover class A in polymer load up to 600 kg, class B in cast iron and concrete load up to 12.5 t and cover class D in cast iron load up to 40 t. Groundwater resistant.

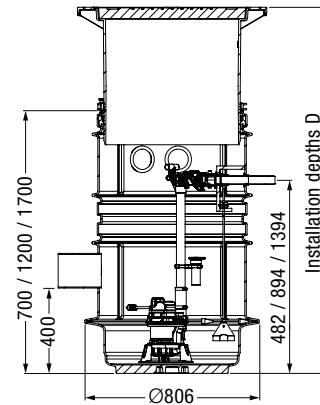
Inlet Ø 110 mm (*KTP 500*) or Ø 160 mm (*GTF 1200*), connection for pipe gasket for Ø 110 according to EN 1401 and EN 12666-1 - each for ventilation or conduit pipe. Installation: Handles groundwater depths up to 2500 mm

With **single or twin removable wastewater pump(s)** with multi-vane impeller for wastewater without sewage. Available with float switch or pneumatic level measurement. Pressure pipe Ø 40 mm outside diameter for PVC glue connection, with integrated non-return flap, 10 mm max solid size. Power cable length: 10 m (Schuko)

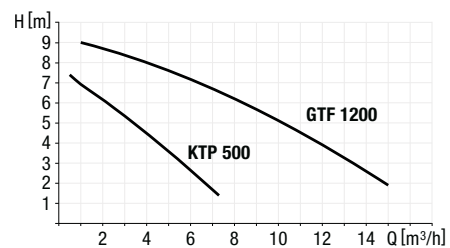
### Control unit

Pneumatic versions with control unit with self-diagnosis system (SDS), battery buffering and logbook function, control unit is splashproof (IP 54).

**Note:** Consider frost free depth of pressure pipe.



### Pumping capacity



Pump type	Current type	Voltage	Amperage	Power (P1/P2)	RPM	Motor protection	Protection	Pumping capacity	Pumping height
<b>KTP 500-S1*</b>	Alternating current	230 V	2.12 A	480 W / 310 W	2.800 min <sup>-1</sup>	integrated	IP 68	8.5 m³/h	8 m
<b>GTF 1200-S3-50%*</b>	Alternating current	230 V	4.9 A	1180 W / 720 W	2.800 min <sup>-1</sup>	integrated	IP 68	15.5 m³/h	9 m

\*Definition of S1 and S3-pumps see page 95

### Single station with one pump and float switch

Pump	Installation depths D in mm	Art. no.
Cover class A/B		
KTP 500	800 - 1250	<b>825 810B</b>
KTP 500	1300 - 1750	<b>825 820B</b>
KTP 500	1800 - 2250	<b>825 830B</b>
GTF 1200	800 - 1250	<b>827 810B</b>
GTF 1200	1300 - 1750	<b>827 820B</b>
GTF 1200	1800 - 2250	<b>827 830B</b>
Cover class D		
KTP 500	800 - 1250	<b>825 810D</b>
KTP 500	1300 - 1750	<b>825 820D</b>
KTP 500	1800 - 2250	<b>825 830D</b>
GTF 1200	800 - 1250	<b>827 810D</b>
GTF 1200	1300 - 1750	<b>827 820D</b>
GTF 1200	1800 - 2250	<b>827 830D</b>

### Single station with one pump with SDS control unit and pneumatic level measurement

Pump	Installation depths D in mm	Art. no.
Cover class A/B		
KTP 500	800 - 1250	<b>825 811B</b>
KTP 500	1300 - 1750	<b>825 821B</b>
KTP 500	1800 - 2250	<b>825 831B</b>
GTF 1200	800 - 1250	<b>827 811B</b>
GTF 1200	1300 - 1750	<b>827 821B</b>
GTF 1200	1800 - 2250	<b>827 831B</b>
Cover class D		
KTP 500	800 - 1250	<b>825 811D</b>
KTP 500	1300 - 1750	<b>825 821D</b>
KTP 500	1800 - 2250	<b>825 831D</b>
GTF 1200	800 - 1250	<b>827 811D</b>
GTF 1200	1300 - 1750	<b>827 821D</b>
GTF 1200	1800 - 2250	<b>827 831D</b>

### Twin station with two pumps with SDS control unit and pneumatic level measurement

Pump	Installation depths D in mm	Art. no.
Cover class A/B		
KTP 500	800 - 1250	<b>824 811B</b>
KTP 500	1300 - 1750	<b>824 821B</b>
KTP 500	1800 - 2250	<b>824 831B</b>
GTF 1200	800 - 1250	<b>826 811B</b>
GTF 1200	1300 - 1750	<b>826 821B</b>
GTF 1200	1800 - 2250	<b>826 831B</b>
Cover class D		
KTP 500	800 - 1250	<b>824 811D</b>
KTP 500	1300 - 1750	<b>824 821D</b>
KTP 500	1800 - 2250	<b>824 831D</b>
GTF 1200	800 - 1250	<b>826 811D</b>
GTF 1200	1300 - 1750	<b>826 821D</b>
GTF 1200	1800 - 2250	<b>826 831D</b>

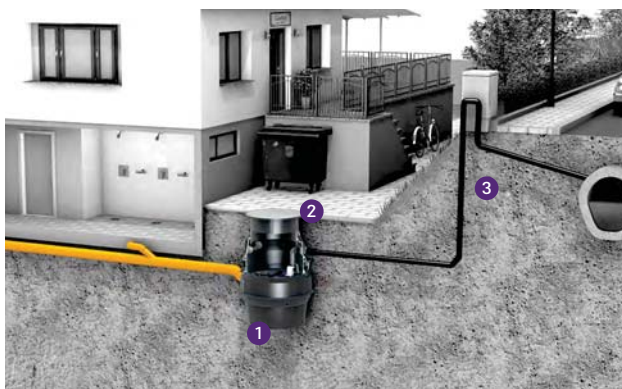


## Pumping station *Aqualift F XL*

The powerful version for commercial, industrial and communal applications.

For the highest demands: the *Aqualift F XL* can cope with large quantities of wastewater containing sewage and is therefore suitable not only for typical residential buildings but also particularly for commercial and industrial use. The pumping station has been designed as a modular system and can be combined variably with engineering and chamber modules.

The *Aqualift F XL* is available as a Mono or Duo system with pumps in different capacity classes. A wide selection of upper sections and covers ensure that the pumping station can be installed flexibly at different installation locations.



1 Pumping station 2 Engineering chamber 3 Pressure pipe



1 Pumping station 2 Engineering chamber 3 Pressure pipe

### Flexible installation

Thanks to the modular design with a large selection of chamber modules and upper sections, the pumping station can be installed both in the ground and in a floor slab. The modules are groundwater-resistant down to a depth of 3,000 mm.

If you want to use the *Aqualift F XL* inside the building:

➤ [Lifting station \*Aqualift F XL\*: Page 132](#)





**Maximum reliability**

The intelligent control unit with integrated self-diagnosis system SDS and battery buffering continually monitors all electrical components and keeps an electronic operating log which can be read out.



**Dry installation**

easy, clean servicing

In comparison with wet installation, dry installation offers mainly hygienic advantages for maintenance and repair, since the pumping station has a separate collecting chamber. In addition, pumps do not require ATEX approval for dry installation.



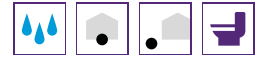
**Wet installation**

available in ATEX version



The pumps can be operated in potentially explosive areas – this means at locations where explosive gases may occur due to wastewater and/or light liquids with sewage.

## Engineering system base *Aqualift F XL Mono/Duo* Dry installation, for minimum installation depth



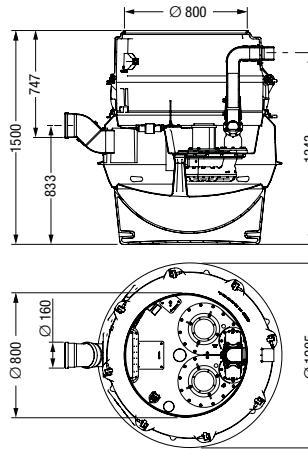
Tank volume: 335 liters  
Pump volume: 160 liters

**Polyethylene system base** for underground installation, resistant to aggressive media. With Ø 160 mm inlet. For connection to Ø 800 mm upper sections. Handles groundwater depths up to 3000 mm.

With **single or twin removable wastewater pump(s)** with multi-vane impeller for wastewater with or without sewage. Dry installation. With pneumatic level measurement. Pressure pipe Ø 90 mm outside diameter (welded PE pipe is to be used for the pressure pipe), including backflow preventer and closure valve on pressure pipe side. Power cable length: 10 m.

**Control unit**  
With control unit with self-diagnosis system (SDS), battery buffering and logbook function, control unit is splashproof (IP 54). 230 V-versions ready to plug in.

- **Installation:** in combination with upper section Ø 800 page 155
- **Accessories:** pages 164



### Mono version with one pump

SPF pump	Voltage	Art. no.
1400-S3	230 V	<b>874 20 12</b>
1500-S3	400 V	<b>874 20 13</b>
3000-S3	400 V	<b>874 20 14</b>
4500-S3	400 V	<b>874 20 15</b>

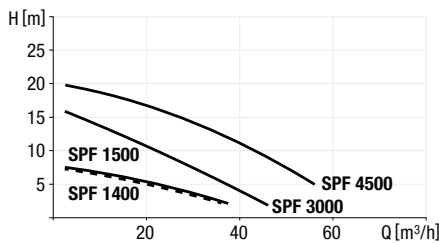
### Duo version with two pumps

SPF pump	Voltage	Art. no.
1400-S3	230 V	<b>874 20 16</b>
1500-S3	400 V	<b>874 20 17</b>
3000-S3	400 V	<b>874 20 18</b>
4500-S3	400 V	<b>874 20 19</b>
1400-S1	230 V	<b>874 20 20</b>
1500-S1	400 V	<b>874 20 21</b>
3000-S1	400 V	<b>874 20 22</b>
4500-S1	400 V	<b>874 20 23</b>

Engineering systems base *Aqualift F XL* in combination with an upper section Ø 800



### Pumping capacity



Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
SPF 1400-S1/S3-100/50%*	230 V	7.3 A	1.6 kW	1.1 kW	38 m³/h	7 m
SPF 1500-S1/S3-100/50%*	400 V	2.7 A	1.4 kW	1.1 kW	40 m³/h	8 m
SPF 3000-S1/S3-100/50%*	400 V	5.4 A	3.2 kW	2.7 kW	47 m³/h	16 m
SPF 4500-S1/S3-100/50%*	400 V	7.5 A	4.5 kW	3.7 kW	55 m³/h	20 m

\*Definition of S1 and S3-pumps see page 95



CE EN 12050-1

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## Upper section Ø 800

Made of polymer/stainless steel

**Compatibility:**

For use as upper section for the engineering system base *Aqualift F XL Mono/Duo* for the version with minimum installation depth page 154

**Version:**

with/without waterproof flange

**square, tileable, without waterproof flange**

Installation depth D in mm (min./max.)

Covers

Art. no.

65 - 314

Class A/L 15

874 01 75

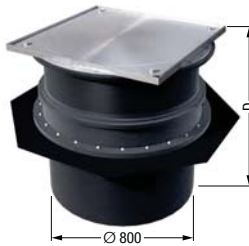


**square, tileable, with waterproof flange**

282 - 531

Class A/L 15

874 01 76



**square, not tileable, without waterproof flange**

50 - 299

Class A/L 15

874 01 77

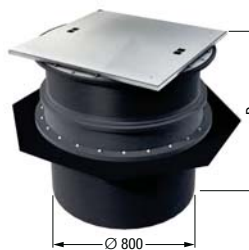


**square, not tileable, anti-slip, with waterproof flange**

267 - 516

Class A/L 15

874 01 78



**square, without waterproof flange**

274 - 523

Class B

874 01 79

274 - 523

Class D

874 01 80



**round, without waterproof flange**

65 - 314

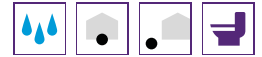
Class K 3

874 01 81



## Engineering systems base *Aqualift F XL Mono/Duo*

Dry installation, for installation in a concrete slab and for outdoor underground installation



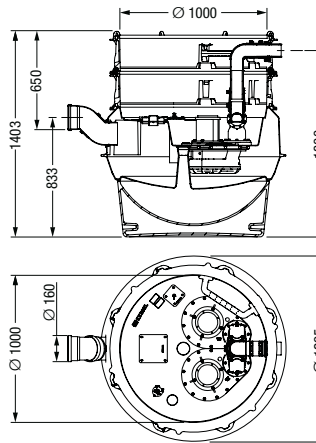
Tank volume: 335 liters  
Pump volume: 160 liters

**Polyethylene system base** for underground installation, resistant to aggressive media.  
With Ø 160 mm inlet. For connection to Ø 1000 mm system chamber. Handles groundwater depths up to 3000 mm.

With **single or twin removable wastewater pump(s)** with multi-vane impeller for wastewater with or without sewage. Dry installation. With pneumatic level measurement. Pressure pipe Ø 90 mm outside diameter (welded PE pipe is to be used for the pressure pipe), including backflow preventer and closure valve on pressure pipe side.  
Power cable length: 10 m.

**Control unit**  
With control unit with self-diagnosis system (SDS), battery buffering and logbook function, control unit is splashproof (IP 54). 230 V-versions ready to plug in.

- **Installation:** in combination with system chambers page 162 – 163
- **Accessories:** pages 164



### Mono version with one pump

SPF pump	Voltage	Art. no.
1400-S3	230 V	<b>874 20 00</b>
1500-S3	400 V	<b>874 20 01</b>
3000-S3	400 V	<b>874 20 02</b>
4500-S3	400 V	<b>874 20 03</b>

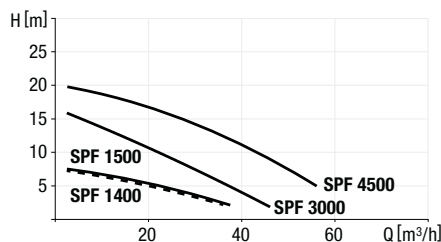
### Duo version with two pumps

SPF pump	Voltage	Art. no.
1400-S3	230 V	<b>874 20 04</b>
1500-S3	400 V	<b>874 20 05</b>
3000-S3	400 V	<b>874 20 06</b>
4500-S3	400 V	<b>874 20 07</b>
1400-S1	230 V	<b>874 20 08</b>
1500-S1	400 V	<b>874 20 09</b>
3000-S1	400 V	<b>874 20 10</b>
4500-S1	400 V	<b>874 20 11</b>

Engineering systems base *Aqualift F XL* in combination with system chamber Ø 1000



### Pumping capacity



Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
SPF 1400-S1/S3-100/50%*	230 V	7.3 A	1.6 kW	1.1 kW	38 m³/h	7 m
SPF 1500-S1/S3-100/50%*	400 V	2.7 A	1.4 kW	1.1 kW	40 m³/h	8 m
SPF 3000-S1/S3-100/50%*	400 V	5.4 A	3.2 kW	2.7 kW	47 m³/h	16 m
SPF 4500-S1/S3-100/50%*	400 V	7.5 A	4.5 kW	3.7 kW	55 m³/h	20 m

\*Definition of S1 and S3-pumps see page 95



CE EN 12050-1

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## Engineering systems base *Aqualift F XL Mono/Duo* Wet installation, with macerator / cutting pumps



Tank volume: 680 liters  
Pump volume: max. 310 liters

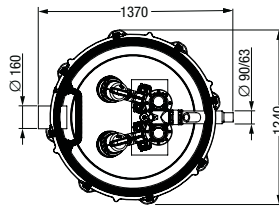
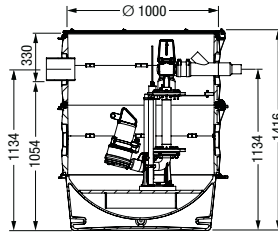
**Polyethylene system base** for underground installation, resistant to aggressive media. With  $\varnothing$  160 mm inlet. For connection to  $\varnothing$  1000 mm system chamber. Handles groundwater depths up to 3000 mm.

With **single or twin removable wastewater pump(s)** with macerator for wastewater with or without sewage. With hydrostatic sensor for level measurement. Pressure pipe  $\varnothing$  63/90 mm outside diameter (welded PE pipe is to be used for the pressure pipe), including backflow preventer and closure valve on pressure pipe side. Power cable length: 10 m (30 m on request).

**Control unit**  
With control unit with self-diagnosis system (SDS), battery buffering and logbook function, control unit is splashproof (IP 54).

➤ **Installation:** in combination with system chambers page 162 – 163

➤ **Accessories:** pages 164



### Mono version with one macerator pump

STZ pump	Pumping volume in liters	Voltage	Art. no.
1300-S1	310	400 V	874 30 14
2500-S1	310	400 V	874 30 15
3700-S1	310	400 V	874 30 16

### Duo version with two macerator pumps

STZ pump	Pumping volume in liters	Voltage	Art. no.
1300-S1	300	400 V	874 30 17
2500-S1	300	400 V	874 30 18
3700-S1	300	400 V	874 30 19

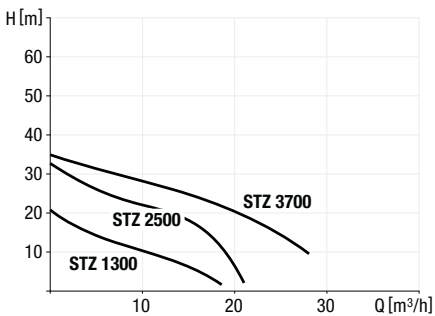
### Engineering systems base *Aqualift F XL* in combination with system chamber $\varnothing$ 1000

Access opening  $\varnothing$  600

Access opening  $\varnothing$  800



### Pumping capacity



Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
STZ 1300-S1	400 V	2.5 A	1.3 kW	0.9 kW	20 m³/h	21 m
STZ 2500-S1	400 V	4.4 A	2.5 kW	1.9 kW	21 m³/h	33 m
STZ 3700-S1	400 V	6.4 A	3.7 kW	3.1 kW	28 m³/h	35 m

\*Definition of S1-pumps see page 95

## Engineering systems base *Aqualift F XL Mono/Duo* Wet installation, with multi-vane or single-channel impeller pumps



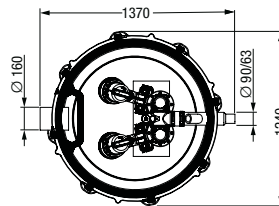
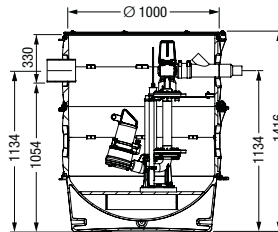
Tank volume: 680 liters  
Pump volume: max. 350 liters

**Polyethylene system base** for underground installation, resistant to aggressive media. With Ø 160 mm inlet. For connection to Ø 1000 mm system chamber. Handles groundwater depths up to 3000 mm.

With **single or twin removable wastewater pump(s)**  
- with multi-vane impeller (GTF)  
- single-channel impeller (GTK)  
for wastewater with or without sewage (without ATEX requirements). With float switch / hydrostatic sensor for level measurement. Pressure pipe Ø 63/90 mm outside diameter (welded PE pipe is to be used for the pressure pipe), including backflow preventer and closure valve on pressure pipe side.  
Power cable length: 10 m (30 m on request).

**Control unit**  
With control unit (versions with hydrostatic sensor) with self-diagnosis system (SDS), battery buffering and logbook function, control unit is splashproof (IP 54).

- **Installation:** in combination with system chambers page 162 – 163
- **Accessories:** pages 164



### Mono version with one pump

GTF pump	Pumping volume in liters	Voltage	Art. no.
1400-S1**	340	230 V	<b>874 30 32</b>
1400-S1	340	230 V	<b>874 30 33</b>
1600-S1	350	400 V	<b>874 30 20</b>
2600-S1	350	400 V	<b>874 30 21</b>
4000-S1	350	400 V	<b>874 30 22</b>

GTK pump	Pumping volume in liters	Voltage	Art. no.
1300-S1	350	400 V	<b>874 30 26</b>
2600-S1	350	400 V	<b>874 30 27</b>
3700-S1	350	400 V	<b>874 30 28</b>

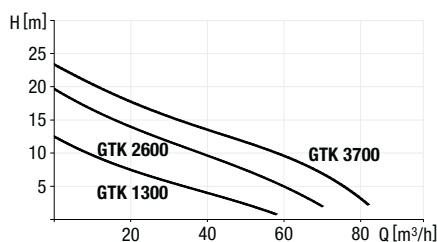
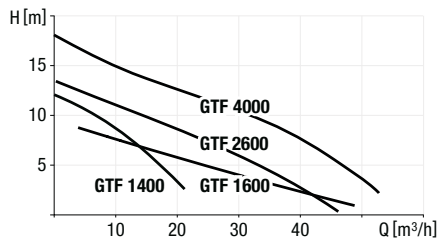
### Duo version with two pumps

GTF pump	Pumping volume in liters	Voltage	Art. no.
1400-S1	340	230 V	<b>874 30 34</b>
1600-S1	340	400 V	<b>874 30 23</b>
2600-S1	340	400 V	<b>874 30 24</b>
4000-S1	340	400 V	<b>874 30 25</b>

GTK pump	Pumping volume in liters	Voltage	Art. no.
1300-S1	340	400 V	<b>874 30 29</b>
2600-S1	340	400 V	<b>874 30 30</b>
3700-S1	340	400 V	<b>874 30 31</b>

\*\* Version with float switch

### Pumping capacity



Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
GTF 1400-S1*	230 V	6.5 A	1.5 kW	1.1 kW	31 m³/h	10.5 m
GTF 1600-S1*	400 V	2.9 A	1.6 kW	1.2 kW	49 m³/h	9.3 m
GTF 2600-S1*	400 V	4.5 A	2.6 kW	2.1 kW	46 m³/h	13.6 m
GTF 4000-S1*	400 V	6.6 A	4.0 kW	3.4 kW	53 m³/h	18 m

\*Definition of S1-pumps see page 95

Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
GTK 1300-S1*	400 V	2.5 A	1.3 kW	1.0 kW	57 m³/h	12.4 m
GTK 2600-S1*	400 V	4.9 A	2.6 kW	2.1 kW	71 m³/h	19.6 m
GTK 3700-S1*	400 V	6.5 A	3.7 kW	3.1 kW	82 m³/h	23.5 m

\*Definition of S1-pumps see page 95



# Engineering systems base *Aqualift F XL Mono/Duo*

Wet installation, for outdoor underground installation



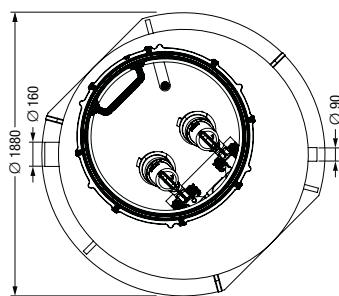
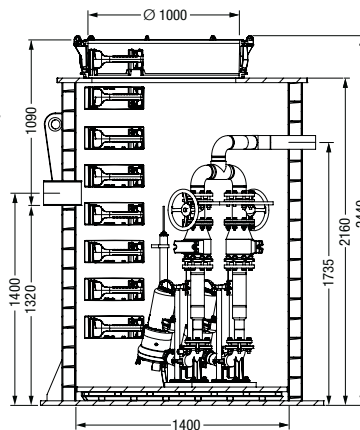
Pump volume: max. 900 liters

**Polyethylene system base (corrugated chamber)** for underground installation, resistant to aggressive media. With Ø 160 mm inlet. For connection to Ø 1000 mm system chamber. Handles groundwater depths up to 3000 mm.

With single or twin removable wastewater pump(s)  
 - with macerator (STZ)  
 - with multi-vane impeller (GTF)  
 - single-channel impeller (GTK)  
 for wastewater with or without sewage (without ATEX requirements). With hydrostatic sensor for level measurement. Pressure pipe Ø 90 mm outside diameter (welded PE pipe is to be used for the pressure pipe), including backflow preventer and closure valve on pressure pipe side. Power cable length: 10 m (30 m on request).

**Control unit**  
 With control unit with self-diagnosis system (SDS), battery buffering and logbook function, control unit is splashproof (IP 54).

- **Installation:** in combination with system chambers page 162 – 163
- **Accessories:** pages 164



### Mono version with one pump

STZ pump	Pumping volume in liters	Voltage	Art. no.
4400-S1	820	400 V	<b>874 30 35</b>
5200-S1	820	400 V	<b>874 30 36</b>
7500-S1	820	400 V	<b>874 30 37</b>
11000-S1	820	400 V	<b>874 30 38</b>

GTF pump	Pumping volume in liters	Voltage	Art. no.
5200-S1	900	400 V	<b>874 30 43</b>

GTK pump	Pumping volume in liters	Voltage	Art. no.
5200-S1	900	400 V	<b>874 30 45</b>

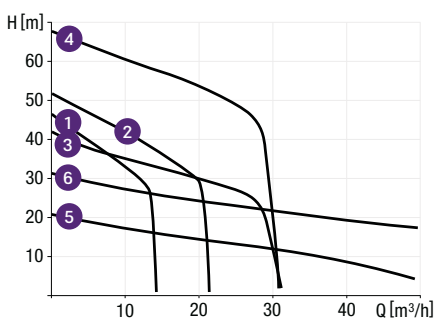
### Duo version with two pumps

STZ pump	Pumping volume in liters	Voltage	Art. no.
4400-S1	800	400 V	<b>874 30 39</b>
5200-S1	800	400 V	<b>874 30 40</b>
7500-S1	800	400 V	<b>874 30 41</b>
11000-S1	800	400 V	<b>874 30 42</b>

GTF pump	Pumping volume in liters	Voltage	Art. no.
5200-S1	880	400 V	<b>874 30 44</b>

GTK pump	Pumping volume in liters	Voltage	Art. no.
5200-S1	880	400 V	<b>874 30 46</b>

### Pumping capacity



Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
➊ STZ 4400-S1*	400 V	7.5 A	4.4 kW	3.7 kW	21.3 m³/h	46.7 m
➋ STZ 5200-S1*	400 V	8.7 A	5.2 kW	4.4 kW	21.3 m³/h	52 m
➌ STZ 7500-S1*	400 V	13 A	7.5 kW	6.4 kW	30.7 m³/h	42 m
➍ STZ 11000-S1*	400 V	18.8 A	11 kW	9.5 kW	30.6 m³/h	68 m
➎ GTF 5200-S1*	400 V	8.7 A	5.2 kW	4.4 kW	52.8 m³/h	21 m
➏ GTK 5200-S1*	400 V	8.7 A	5.2 kW	4.4 kW	51.6 m³/h	31.6 m

\*Definition of S1-pumps see page 95

## Pumping station *Aqualift S XL*

The flexible version for large quantities of wastewater without sewage.

The *Aqualift S XL* disposes of even larger quantities of rainwater and wastewater without sewage. It can also be used for wastewater with sewage depending on the pump type and local normative specifications. This makes the pumping station suitable not only for residential buildings but also for commercial use. The *Aqualift S XL* has been designed as a modular system for installation in the ground or in a floor slab and can be combined variably with engineering and chamber modules. The *Aqualift S XL* is available as a *Mono* and *Duo* system.



1 Gutter drain 2 Pumping station 3 Pump 4 Pressure sensor

### Flexible installation

Thanks to the modular design with a large selection of chamber modules and upper sections, the pumping station can be installed both in the ground and in a floor slab. The chambers are groundwater-resistant down to a depth of 3,000 mm.

### Maximum safety

The intelligent control unit with integrated self-diagnosis system SDS and battery buffering continually monitors all electrical components and keeps an electronic operating log which can be read out.



## Engineering systems base *Aqualift S XL Mono/Duo*

Wet installation, for installation in a concrete slab and for outdoor underground installation



Tank volume: 680 liters  
 Pump volume: approx. 100 liters

Base and inlet / outlet made of PE

For installation in a concrete slab and for outdoor underground installation in combination with system chamber.

**Version:**

- pump station *Aqualift S XL Mono / Duo* with welded on chamber ring
- inlet  $\varnothing$  160 mm
- pressure pipe connection  $\varnothing$  40 mm
- backflow preventer
- closure valve on pressure pipe side
- pressure sensor

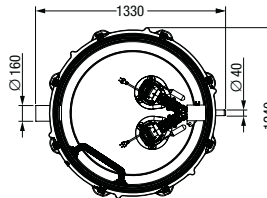
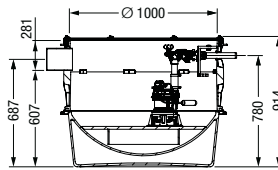
**Cable length:** 10 m (30 m on request)

**Installation:**

Handles groundwater depths up to 3000 mm

➤ **Installation:** in combination with system chambers page 162 – 163

➤ **Accessories:** pages 164



**Mono version with one pump**

Pump	Pumping volume in liters	Voltage	Art. no.
With float switch			
KTP 500-S1	90	230 V	<b>874 30 04</b>
GTF 1200-S3	100	230 V	<b>874 30 09</b>

With SDS control unit and pneumatic level measurement (with pressure sensor)

KTP 500-S1	90	230 V	<b>874 30 05</b>
GTF 1200-S3	100	230 V	<b>874 30 10</b>

**Duo version with two pumps**

Pump	Pumping volume in liters	Voltage	Art. no.
With SDS control unit and pneumatic level measurement (with pressure sensor)			
KTP 500-S1	90	230 V	<b>874 30 07</b>
GTF 1200-S3	100	230 V	<b>874 30 12</b>

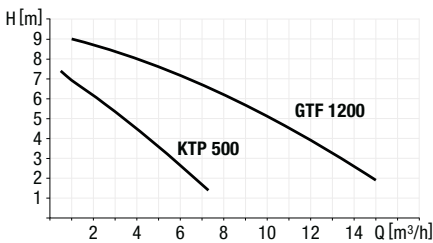
Engineering systems base *Aqualift S XL* in combination with system chamber  $\varnothing$  1000

Access opening  $\varnothing$  600

Access opening  $\varnothing$  800



**Pumping capacity**



Pump type	Current type	Voltage	Amperage	Power (P1/P2)	Rpm	Motor protection	Protection	Pumping capacity	Pumping height
KTP 500-S1*	Alternating current	230 V	2.12 A	480 W / 310 W	2.800 min <sup>-1</sup>	integrated	IP 68	8.5 m³/h	8 m
GTF 1200-S3-50%*	Alternating current	230 V	4.9 A	1180 W / 720 W	2.800 min <sup>-1</sup>	integrated	IP 68	15.5 m³/h	9 m

\*Definition of S1 and S3-pumps see page 95

## Engineering system chamber Ø 1000 with access opening Ø 600

for combination with engineering system base *Aqualift F XL* and *Aqualift S XL*

Made of polyethylene PE-HD

**Installation:** For underground installation; handles groundwater depths up to 3000 mm

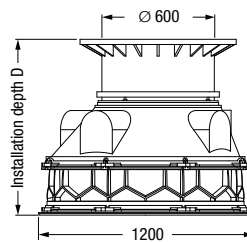
**Modular design comprising:**

- chamber rings with access steps fitted
- with telescopic height adjustable upper section
- round cover made of cast iron
- includes all sealing gaskets and wedge connectors required for installation

**Delivery:** As individual elements

**Remark:** Covers surface water tight

**Note:** Additional installation depths (on request)



Installation depth D in mm	Class A/B	Class D
	Art. no.	Art. no.
D1: 380 - 629*	874 00 00	874 00 01
D2: 630 - 879*	874 00 06	874 00 07
D3: 880 - 1129*	874 00 12	874 00 13
D4: 1130 - 1379	874 00 18	874 00 19
D5: 1380 - 1629	874 00 24	874 00 25
D6: 1630 - 1879	874 00 30	874 00 31
D7: 1880 - 2129	874 00 36	874 00 37
D8: 2130 - 2379	874 00 42	874 00 43
D9: 2380 - 2629	874 00 48	874 00 49
D10: 2630 - 2879	874 00 54	874 00 55
D11: 2880 - 3129	874 00 60	874 00 61
D12: 3130 - 3379**	874 00 66	874 00 67
D13: 3380 - 3629**	874 00 72	874 00 73
D14: 3630 - 3879**	874 00 78	874 00 79
D15: 3880 - 4129**	874 00 84	874 00 85

\*Installation depth D 1 - D 3 only in combination with pumping station  
Wet installation

\*\* Installation depth D 12 -15 pay attention to maximum installation depth 5000 mm in combination with engineering system base

EN 13598 Part 2 Z-42.1-527

## Engineering system chamber Ø 1000 with access opening Ø 800

for combination with engineering system base *Aqualift F XL* and *Aqualift S XL*

Made of polyethylene PE-HD

**Installation:** For installation in the concrete slab; handles groundwater depths up to 3000 mm

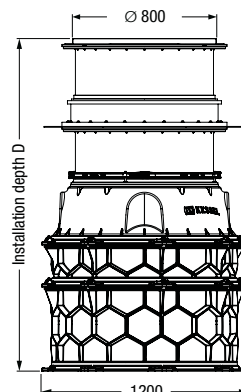
**Modular design comprising:**

- for waterproof concrete with flange and counter flange
- chamber rings with access steps fitted
- with telescopic height adjustable upper section
- square cover made of stainless steel, class A/L 15
- includes all sealing gaskets and wedge connectors required for installation

**Delivery:** As individual elements

**Remark:** Covers surface water tight

**Note:** Additional installation depths, upper sections and covers class B/D (on request)



### Cover tileable

Installation depth D in mm	Art. no.
D1: 628 - 877	874 00 03
D2: 878 - 1127	874 00 09
D3: 1128 - 1377	874 00 15
D4: 1378 - 1627	874 00 21
D5: 1628 - 1877	874 00 27

### Cover not tileable, anti-slip

Installation depth D in mm	Art. no.
D1: 613 - 862	874 00 05
D2: 863 - 1112	874 00 11
D3: 1113 - 1362	874 00 17
D4: 1363 - 1612	874 00 23
D5: 1613 - 1862	874 00 29

EN 13598 Part 2 Z-42.1-527

# Engineering system chamber Ø 1000 with access opening Ø 800

for combination with engineering system base *Aqualift F XL* and *Aqualift S XL*

Made of polyethylene PE-HD

**Installation:** For underground installation; handles groundwater depths up to 3000 mm

**Modular design comprising:**

- chamber rings with access steps fitted
- with telescopic height adjustable upper section
- covers made of stainless steel
- includes all sealing gaskets and wedge connectors required for installation

**Delivery:** As individual elements

**Remark:** Covers surface water tight

**Note:** Additional installation depths, upper sections and covers class B/D (on request)



Illustration shows Art. no. 874 01 43



Illustration shows Art. no. 874 00 20

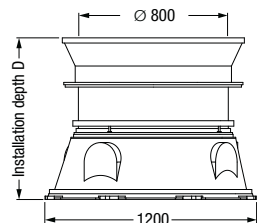


Illustration shows Art. no. 874 01 58

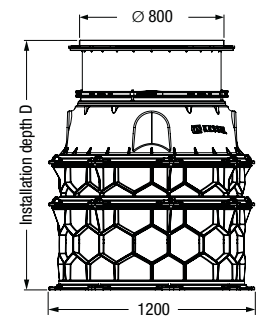


Illustration shows Art. no. 874 00 02

## Round cover

Installation depth D in mm	Art. no.
----------------------------	----------

### Class K 3

D1: 375 - 624	874 01 22
D2: 625 - 874	874 01 23
D3: 875 - 1124	874 01 24
D4: 1125 - 1374	874 01 25
D5: 1375 - 1624	874 01 26
D6: 1625 - 1874	874 01 27
D7: 1875 - 2124	874 01 28
D8: 2125 - 2374	874 01 29
D9: 2375 - 2624	874 01 30
D10: 2625 - 2874	874 01 31
D11: 2875 - 3124	874 01 32
D12: 3125 - 3374**	874 01 33
D13: 3375 - 3624**	874 01 34
D14: 3625 - 3874**	874 01 35
D15: 3875 - 4124**	874 01 36

## Square cover

Installation depth D in mm	Art. no.
----------------------------	----------

### Class B

D1: 620 - 869	874 01 41
D2: 870 - 1119	874 01 42
D3: 1120 - 1369	874 01 43

### Class D

D1: 620 - 869	874 01 58
D2: 870 - 1119	874 01 59
D3: 1120 - 1369	874 01 60

\*\* Installation depth D 12 -15 pay attention to maximum installation depth 5000 mm in combination with engineering system base

## Square cover

Installation depth D in mm	Art. no.
----------------------------	----------

### Class A/L 15, not tileable, anti-slip

D1: 396 - 645	874 00 04
D2: 646 - 895	874 00 10
D3: 896 - 1145	874 00 16
D4: 1146 - 1395	874 00 22
D5: 1396 - 1645	874 00 28
D6: 1646 - 1895	874 00 34
D7: 1896 - 2145	874 00 40
D8: 2146 - 2395	874 00 46
D9: 2396 - 2645	874 00 52
D10: 2646 - 2895	874 00 58
D11: 2896 - 3145	874 00 64
D12: 3146 - 3395**	874 00 70
D13: 3396 - 3645**	874 00 76
D14: 3646 - 3895**	874 00 82
D15: 3896 - 4145**	874 00 88

### Class A/L 15, tileable

D1: 411 - 660	874 00 02
D2: 661 - 910	874 00 08
D3: 911 - 1160	874 00 14
D4: 1161 - 1410	874 00 20
D5: 1411 - 1660	874 00 26
D6: 1661 - 1910	874 00 32
D7: 1911 - 2160	874 00 38
D8: 2161 - 2410	874 00 44
D9: 2411 - 2660	874 00 50
D10: 2661 - 2910	874 00 56
D11: 2911 - 3160	874 00 62
D12: 3161 - 3410**	874 00 68
D13: 3411 - 3660**	874 00 74
D14: 3661 - 3910**	874 00 80
D15: 3911 - 4160**	874 00 86

\*\* Installation depth D 12 -15 pay attention to maximum installation depth 5000 mm in combination with engineering system base

## Accessories

Engineering system base *Aqualift F XL* and *Aqualift S XL*

### Extension section

for engineering systems base backwater chamber

			Art. no.
500 mm	<b>Inclusive:</b> 2 access steps, installed <b>Note:</b> Without gasket and connecting wedges		680 371
250 mm	<b>Inclusive:</b> 1 access step, installed <b>Note:</b> Without gasket and connecting wedges		680 370

### Gasket/Connection and attachment sets

Compatibility see product description

			Outer diameter Ø (mm)	Art. no.
<b>Cable piping gasket set</b>	<b>Compatibility:</b> Control unit 230 V <b>Inclusive:</b> ① Pipe sealing gasket ② PVC-collar plug ③ Twin flange Ø 110 ④ HT-collar plug ⑤ Cable connections ⑥ Retaining clip with screws		Ø 110	85 410
<b>Set of connecting wedges</b>	<b>Compatibility:</b> Art. no. 680 371 and 680 370 <b>Quantity:</b> 10 pieces			680 373
<b>Profiled gasket</b>	<b>Compatibility:</b> Art. no. 680 371 and 680 370			680 125
<b>Cable attachment set</b>	<b>Compatibility:</b> Engineering systems base			28 076

### Cable extensions

for extension from 20 m or 30 m (cable length delivered: 10 m)

	<b>Mono version</b> Pumping station <i>Aqualift F XL</i> dry installation, lifting station <i>Aqualift F</i> with SPF 1400, pumping station <i>Aqualift S</i> Ø 600/1000	<b>Duo version</b> Pumping station <i>Aqualift F XL</i> dry installation, lifting station <i>Aqualift F</i> with SPF 1400, pumping station <i>Aqualift S</i> Ø 600/1000	Art. no.
<b>Cable extension for probe (10 m)</b>	<b>Extension to 20 m:</b> 1×80 889 <b>Extension to 30 m:</b> 2×80 889	<b>Extension to 20 m:</b> 1×80 889 <b>Extension to 30 m:</b> 2×80 889	80 889
<b>Cable extension for pump (10 m)</b>	<b>Extension to 20 m:</b> 1×80 891 <b>Extension to 30 m:</b> 2×80 891	<b>Extension to 20 m:</b> 2×80 891 <b>Extension to 30 m:</b> 4×80 891	80 891

### Alarm unit

Compatibility see product description





			Art. no.
<b>with electrode probe</b>	<b>Function:</b> For monitoring and reporting of flooding; for conductive liquids <b>Cable length:</b> 5 m (extendable up to 30 m)		20 222
<b>with optical probe</b>	<b>Function:</b> For monitoring and reporting of flooding; for conductive / non-conductive liquids <b>Cable length:</b> 5 m (extendable up to 30 m)		20 223

## Accessories

Engineering system base *Aqualift F XL* and *Aqualift S XL*

### Safety

Compatibility see product description


			Art. no.
<b>TeleControl telemetric system</b>	<b>Compatibility:</b> For connection to KESSEL Comfort control units 230 Volt and 400 Volt <b>Function:</b> Relaying of full text messages to up to three mobile phones <b>Inclusive:</b> With internal antenna (without SIM card)		28 792
<b>Antenna booster with magnetic base</b>	<b>Compatibility:</b> For <i>TeleControl</i> telemetric system to improve the reception <b>Cable length:</b> 2.5 m		28 793
<b>Extension cable</b>	<b>Compatibility:</b> For antenna booster <b>Cable length:</b> 2.5 m		28 794
<b>Warning beacon</b>	<b>Function:</b> For the additional visual display of faults, for installation on the outdoor control cabinet, with switching unit for connection to the control unit		97 715
<b>Installation set Thermostat / Hygrostat</b>	<b>Function:</b> As an additional module for installation in the outdoor kiosk to reduce condensation		97 713
<b>Air compressor set</b>	<b>Function:</b> For use in combination with lifting station and pumping stations with pressure control: prevents soiling, avoids the formation of condensate in the pressure hose, makes operation of systems possible with pressure hose lengths > 10 m <b>Inclusive:</b> T-piece connection, 20 m pressure hose		28 048
<b>PE-pressure hose extension (per meter)</b>	<b>Compatibility:</b> For Art. no. 28 048		680 071

### Optical probe

			Art. no.
<b>Optical probe</b>	<b>Inclusive:</b> 3 adaptors <b>Cable length:</b> 5 m (Optional cable extension)		80 888

### Pump removal chain

for pumping stations with wet installation

			Length in mm	Art. no.
<b>to remove pumps</b> (made of stainless steel)	<b>Inclusive:</b> Screw hooks, shackles		2	680 528
			3	680 529
			4	680 530
			5	680 531

### Junction box

Compatibility see product description

			Art. no.
<b>Junction box</b>	<b>Compatibility:</b> For extension of level probe		28 799

## Accessories

Engineering system base *Aqualift F XL* and *Aqualift S XL*

### Kiosk for control unit

for installation of control units, modems, heating element, warning beacon outside of buildings

for control unit, heating, warning beacon  
 Height over ground level: 870 mm

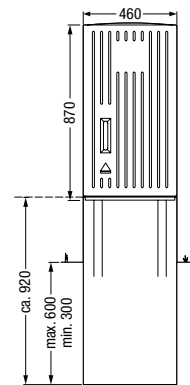
for heating and pressure pipe  
 Height over ground level: 870 mm

for control unit, modem, heating, warning beacon  
 Height over ground level: 870 mm

for control unit, modem, heating, warning beacon and pressure pipe  
 Height over ground level: 870 mm



ground level



	Height over all in mm	Width / depth in mm	Art. no.
for control unit, heating, warning beacon	1740	460/320	97 716
for heating and pressure pipe	1740	590/320	97 714
for control unit, modem, heating, warning beacon	1740	785/320	97 723
for control unit, modem, heating, warning beacon and pressure pipe	1740	1115/320	97 724



# 3.3 Submersible pumps, conversion & control units

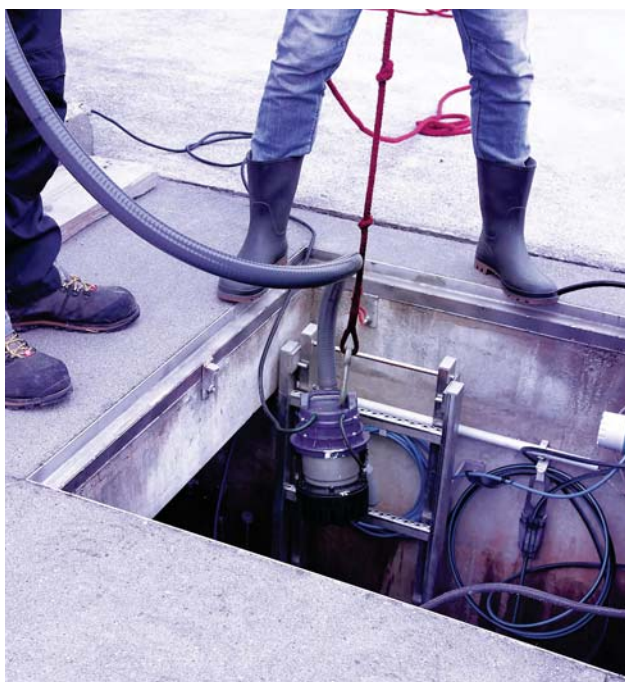
For mobile use



## Submersible pumps *KTP, GTF and STZ*

Pump - whenever and wherever you want.

Use of a permanently installed pump is not always possible or meaningful. Submersible pumps offer flexible solutions for private and commercial applications.



### Powerful

Submersible motor pumps are suitable for pumping larger quantities of clear water, rainwater and wastewater in mobile use. These can be used to pump out chambers, basements or swimming pools.

### Flexible use

Our absolutely corrosion-free submersible pump has a pressure pipe connection R1 1/4, either vertical or lateral. The vertical connection is used for deep and narrow containers, while the lateral one is used for flat and broad water points.

## Submersible pump *KTP 300*

for wastewater without sewage



With/without float switch, with backwater flap, pivotable connection to pressure pipe 1 inch side/vertical

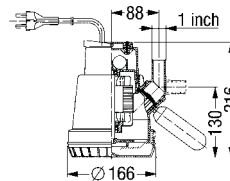
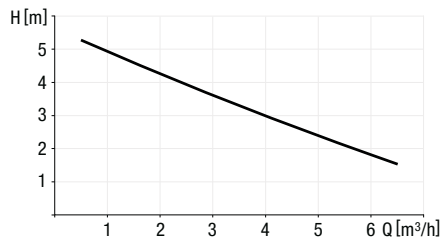
**Cable length:** 10 m

**Note:** Removable input basket - can pump down to a level of 8 mm.



Pressure connection	Art. no.
Without float switch	
1 inch	28 740
With float switch	
1 inch	28 840

### Pumping capacity



Pump type	Current type	Voltage	Current	Power (P1)	Power (P2)	RPM	Submersible depth	Motor protection	Plug	Pumping capacity	Pumping height
KTP 300-S1*	Alternating current	230 V	1.9 A	0.28 kW	1.14 kW	2.800 min <sup>-1</sup>	max. 10 m	integrated	Schuko	8 m <sup>3</sup> /h	6 m

\*Definition of S1-pumps see page 95



## Submersible pump *GTF 500 / GTF 500 resistant*

for wastewater without sewage



With/without float switch, with integrated low-intake, removable suction basket and convenient transport handle, connection to pressure pipe 1 1/4 inch vertical

**Cable length:** 10 m

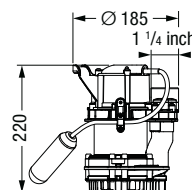
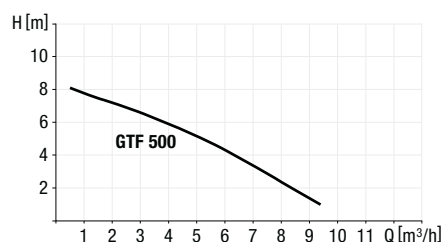
**GTF 500 resistant:**

Resistant against aggressive wastewater containing salts, condensates and effluent from water softening systems.



<i>GTF 500</i>	
Pressure connection	Art. no.
Without float switch	
1 1/4 inch	280 710
With float switch	
1 1/4 inch	280 810

### Pumping capacity



<i>GTF 500 resistant</i>	
Pressure connection	Art. no.
Without float switch	
1 1/4 inch	280 750
With float switch	
1 1/4 inch	280 850

Pump type	Current type	Voltage	Current	Power (P1)	Power (P2)	RPM	Motor protection	Plug	Pumping capacity	Pumping height
GTF 500-S1*	Alternating current	230 V	2.5 A	0.5 kW	0.36 kW	2.800 min <sup>-1</sup>	integrated	coded plug	10 m <sup>3</sup> /h	8 m
GTF 500 resistant-S1*	Alternating current	230 V	2.5 A	0.5 kW	0.36 kW	2.800 min <sup>-1</sup>	integrated	Schuko	10 m <sup>3</sup> /h	8 m

\*Definition of S1-pumps see page 95

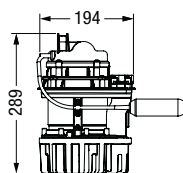
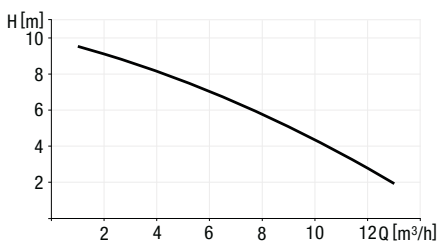
## Submersible pump *GTF 1000*

for wastewater without sewage



With/without float switch, without macerator,  
connection to pressure pipe 1 1/4 inch side/vertical  
Cable length: 10 m

### Pumping capacity



Pressure connection	Art. no.
Without float switch	
1 1/4 inch	28 760
With float switch	
1 1/4 inch	28 860

Pump type	Current type	Voltage	Current	Power (P1/P2)	Power consumption	RPM	Submersible depth	Motor protection	Particle size	Pumping capacity	Pumping height
GTF 1000-S3-30%*	Alternating current	230 V	4.9 A	1080 W / 620 W	1000 W	2.800 min <sup>-1</sup>	max. 10 m	integrated	max. 10 mm	11.5 m³/h	10 m

\*Definition of S3-pumps see page 95



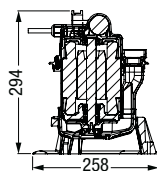
## Submersible pump *STZ 1000*

for wastewater containing raw sewage



With/without float switch, with macerator,  
connection to pressure pipe 1 1/4 inch side/vertical  
Cable length: 10 m

### Pumping capacity



Pressure connection	Art. no.
Without float switch	
1 1/4 inch	28 779
With float switch	
1 1/4 inch	28 778

Pump type	Current type	Voltage	Current	Power (P1/P2)	Power consumption	RPM	Submersible depth	Motor protection	Pumping capacity	Pumping height
STZ 1000-S3-30%*	Alternating current	230 V	4.9 A	1080 W / 620 W	1000 W	2.800 min <sup>-1</sup>	max. 10 m	integrated	12 m³/h	10 m

\*Definition of S3-pumps see page 95



## Pumping system *Aqualift S Duo*

for rainwater or non-WC wastewater, for installation in on-site collection tank



### Version contains:

- two removable pumps
- *Aqualift Comfort* 230 V duo control unit
- pressure sensor level control for conductive and non conductive liquids
- pressure piping with non-return flap and closure lever
- pressure connection: Ø 40 mm pressure pipe for PVC glue connection
- PE-HD fixing mount for installation and mounting of pumping system
- with *Comfort* control unit for wall mounting in dry, frost protected rooms, splash-proof, fully automated pump level control with optical and audible alarm system, detailed operation and warning status in multiple line digital display. Optional forwarding of alarm and fault message via GSM interface

Cable length: 10 m

### AQUALI200D: Pump *GTF 1200-S3*

Pumping capacity: max. 15.5 m³/h  
 Pumping height: max. 9 m  
 Power consumption: 2 × 800 W  
 Voltage: 230 V ~ 50 Hz  
 Current: 6.4 A  
 Fuses: 3 × 16 A  
 Protection: IP 68 (Pump), 20mWS / 48h  
 Operating mode: S3 (50 %)

### AQUALI1000D: Pump *GTF 1000-S3*

Pumping capacity: max. 13.5 m³/h  
 Pumping height: max. 10 m  
 Power consumption: 2 × 1000 W  
 Current: 230 V ~ 50 Hz  
 Fuses: 4.9 A  
 Motor protection: integrated  
 Protection: IP 68 (pumps), IP 54 (control unit)

### AQUALI500D: Pump *KTP 500*

Pumping capacity: max. 8.5 m³/h  
 Pumping height: max. 8 m  
 Power consumption: 2 × 480 W  
 Current: 230 V ~ 50 Hz  
 Fuses: 2.12 A  
 Motor protection: integrated  
 Protection: IP 68 (pumps), IP 54 (control unit)



Illustration shows AQUALI1000D

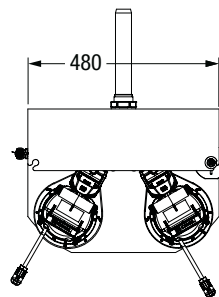
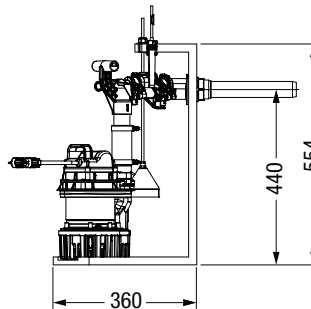
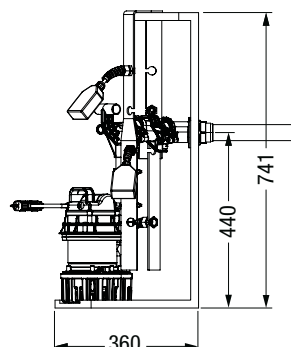


Illustration shows AQUALI500DS

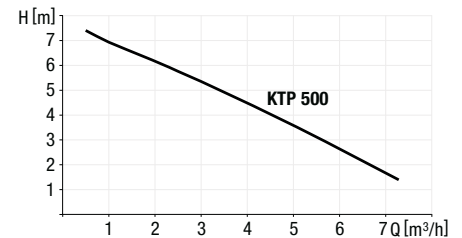
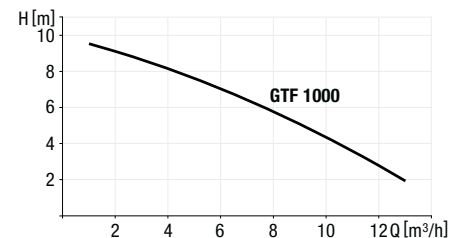


### Duo version with two pumps

Pump	Art. no.
With pressure sensor	
GTF 1200-S3	AQUALI200D*
GTF 1000-S3	AQUALI1000D*
KTP 500	AQUALI500D*
with float switch	
GTF 1200-S3	AQUALI200DS*
GTF 1000-S3	AQUALI1000DS*
KTP 500	AQUALI500DS*

\*Custom made product (delivery time on request)

### Pumping capacity



## Pumping system *Aqualift F XL*

Wet installation, for installation in on-site collection tank



**Version contains:**

- Pump base, backwater flaps and gate closure valves
- Hydrostatic level sensor
- KESSEL Comfort 400 V control unit
- PE pressure pipe with Ø 63mm (DN 50) and Ø 90 mm (DN 80)

**Pumping capacity:** max. ... m<sup>3</sup>/h

**Voltage:** 400 V ~ 50 Hz

**Cable length:** 10 m

**Note:** *Aqualift F XL* should be installed in a chamber with a minimum diameter of 1.000 mm



### Individual solutions

info@kessel.com

**Pumping system *Aqualift F XL*:**

- with pumps *STZ*
- for wastewater with or without sewage
- Pump(s) with high performance macerating system for operational reliability
- Mono or Duo version
- ATEX Certification

**Pumping system *Aqualift F XL*:**

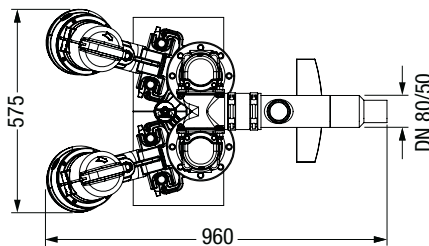
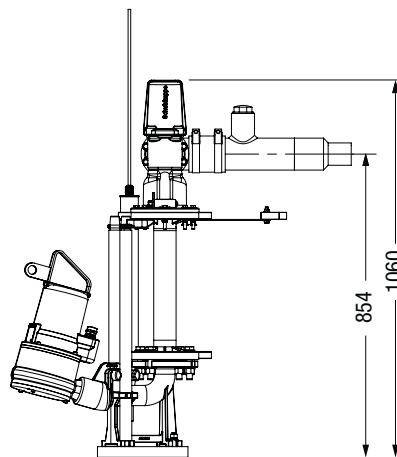
- with pumps *GTF*
- for wastewater with or without sewage (check your local ATEX regulations)
- Macerator pumps for high operational reliability
- Mono or Duo version

**Pumping system *Aqualift F XL Duo*:**

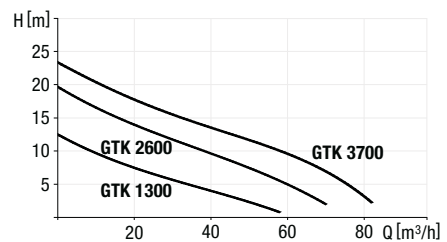
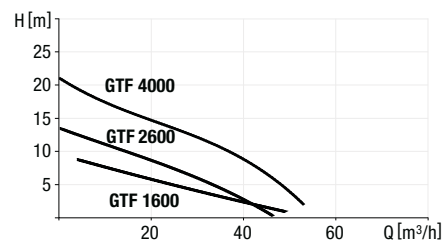
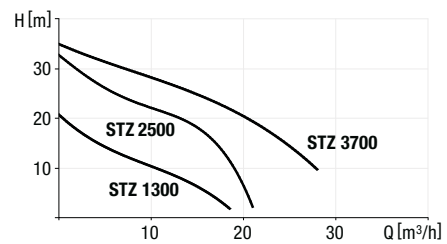
- with pumps *GTK*
- for wastewater with or without sewage (check your local ATEX regulations)
- single-channel impeller pumps - high performance, ultra-low energy usage
- Duo version

**On request:**

- Vertical pressure outlet
- Variable pressure pipe height / lengths
- Custom pressure pipe sizes



### Pumping capacity



## Accessories

*Aqualift F XL*

### Pump removal chain

for pumping stations with wet installation

**to remove pumps**  
(made of stainless steel)

**Inclusive:** Screw hooks, shackles



Length in mm	Art. no.
2	680 528
3	680 529
4	680 530
5	680 531

# Warning and control units

## User-friendly solutions for all types of control tasks.

You can only get the best performance out of your device with the right settings. Whether 230 V or 400 V, all parameters can be set easily with a suitable *Comfort* control unit. Our control units are delivered plug-in ready and can be connected without the help of an electrician. The menu guidance is also very user-friendly – with a multi-line display in six languages. A remote signal generator or even a GSM modem, which sends messages in full text, can be connected for relaying messages.

### Maximum reliability

The intelligent control unit with integrated self-diagnosis system SDS and battery buffering continually monitors all electrical components and keeps an electronic operating log, which can be read out using separate software.

### Adjustable function parameters

The control units *230 V Comfort* and *400 V Comfort* offer convenient menu guidance on the display. This allows the function-relevant parameters and the operating hour counter to be set very easily.

### Countless customising possibilities

KESSEL offers a variety of probes for different requirements – also for products from other manufacturers – such as an ATEX version for potentially explosive areas. It also offers connection options for float switches, building management systems and conductance probes (only 230 V), submersible pressure switches, optical probes (only 230 V), level probes (on a terminal strip) or GSM interfaces for relaying full-text messages.

## 230 V Comfort control unit

Mono-/Duo control unit with hydrostatic level sensor

### Mono-/Duo control unit

Extremely versatile sensor system for measuring the level of wastewater with and without sewage. Including level probe for pneumatic level measurement and failure detection of the level probe via the control unit. The 10 m level probe cable can be extended to 30 m.

### Note:

For greasy or hot wastewater, the use of a small compressor is **not** necessary.

### Versions:

- with hydrostatic level sensor/without extra alarm probe
- with hydrostatic level sensor/float switch: with float switch for alarm level measurement, 10 m float switch cable (can be extended to 30 m)



Illustration shows Art. no. 28 731 P



Illustration shows Art. no. 28 731 PS

### For Mono versions

Art. no.

With hydrostatic level sensor/without extra alarm probe

28 731 P

With hydrostatic level sensor/float switch

28 731 PS

### For Duo versions

Art. no.

With hydrostatic level sensor/without extra alarm probe

28 746 P

With hydrostatic level sensor/float switch

28 746 PS

## 230 V Comfort control unit

Mono-/Duo control unit with pressure sensor

### Mono-/Duo control unit

Extremely versatile sensor system for measuring the level of wastewater with and without sewage. Including plunger for pneumatic level measurement. The 10 m pressure hose can be extended to 15 m (up to 30 m on request).

#### Note:

For greasy or hot wastewater use only in connection with the air compressor set (Article 28 048).

#### Versions:

- with pressure sensor/without extra alarm probe
- with pressure sensor/conductance probe: with separate conductance probe for alarm level measurement, 5 m cable (cannot be extended)
- with pressure sensor/float switch: with separate float switch for alarm level measurement, 10 m float switch cable (can be extended to 30 m)
- with pressure sensor/optical probe: with separate optical probe for alarm level measurement and failure detection of the optical probe via the control unit, 5 m cable for optical probe (can be extended to 30 m)



Illustration shows Art. no. 28 731 D



Illustration shows Art. no. 28 731 DL



Illustration shows Art. no. 28 731 DS



Illustration shows Art. no. 28 731 DO

### For Mono versions

#### Art. no.

With pressure sensor\*/without extra alarm probe

28 731 D

With pressure sensor\*/conductance probe

28 731 DL

With pressure sensor\*/float switch

28 731 DS

With pressure sensor\*/optical probe

28 731 DO

### For Duo versions

#### Art. no.

With pressure sensor\*/without extra alarm probe

28 746 D

With pressure sensor\*/conductance probe

28 746 DL

With pressure sensor\*/float switch

28 746 DS

With pressure sensor\*/optical probe

28 746 DO

\*air compressor available for pressure switches with over 10 m cable

## 230 V Comfort control unit

Mono-/Duo control unit with float switch

### Mono-/Duo control unit

Sensor system for level measurement for wastewater without sewage. With float switches to measure ON 1, ON 2 (only 28 746-S) and OFF levels. The 10 m float switch cable can be extended to 30 m.

#### Versions:

- with float switch/without extra alarm probe
- with float switch/float switch: with separate float switch for alarm level measurement



Illustration shows Art. no. 28 731 S



Illustration shows Art. no. 28 731 SX

### For Mono versions

#### Art. no.

With float switch/without extra alarm probe

28 731 S

With float switch/float switch

28 731 SX

### For Duo versions

#### Art. no.

With float switch/without extra alarm probe

28 746 S

With float switch/float switch

28 746 SX



## 230 V Comfort control unit

Mono-/Duo control unit with conductance probe

### Mono-/Duo control unit

Sensor system for level measurement for wastewater without sewage. Including alarm level measurement. Not suitable for rainwater or non-diluted condensate. Including conductance probes for the measuring of ON 1, ON 2 (28 746-LLF/28746-LLV only), OFF and ALARM level. Switching points cannot be adjusted freely. 5 m cable for conductance probe.

### Versions:

- with conductance probe/conductance probe: Level ON/OFF fixed, alarm level can be adjusted
- with conductance probe/conductance probe: ON 1 fixed/ON 2 variable/ALARM with fixed distance to ON 2
- with conductance probe/conductance probe: ON 1 variable/ON 2 fixed/ALARM with fixed distance to ON 2



Illustration shows  
Art. no. 28 746 LLF

Illustration shows  
Art. no. 28 731 LL

### For Mono versions

Art. no.

With conductance probe/conductance probe

28 731 LL

### For Duo versions

Art. no.

With conductance probe/conductance probe, ON 1 fixed/ON 2 variable

28 746 LLF

With conductance probe/conductance probe, ON 1 variable/ON 2 fixed

28 746 LLV

## 400 V Comfort control unit

Mono-/Duo control units

### Versions:

- Mono-/Duo control unit



Illustration shows  
Art. no. 28 755

### For Mono versions

Art. no.	max. switching current (A) from - to
Without ATEX version	
28 755	2.5 - 4.0
28 756	4.0 - 6.3
28 781	6.3 - 10.0
With ATEX version	
28 759	2.5 - 4.0
28 761	4.0 - 6.3

### For Duo versions

Art. no.	max. switching current (A) from - to
Without ATEX version	
28 757	2×2.5 - 4.0
28 758	2×4.0 - 6.3
28 783	2×6.3 - 10.0
With ATEX version	
28 762	2×2.5 - 4.0
28 763	2×4.0 - 6.3



## Accessories

Warning / control units

### Hydrostatic level sensor

for use with Comfort 230 V and 400 V control units

Art. no.

#### Level sensor

**Compatibility:** For *Aqualift F* lifting stations and pump stations  
**Cable length:** 10 m



28 082

### Float switch

for use with Comfort 230 V and 400 V control units

Art. no.

#### Float switch

**Cable length:** 10 m

**Cable length:** 20 m



185-043

185-045

### Safety

Compatibility see product description

Art. no.

#### TeleControl telemetric system

**Compatibility:** For connection to KESSEL Comfort control units 230 Volt and 400 Volt  
**Function:** Relaying of full text messages to up to three mobile phones  
**Inclusive:** With internal antenna (without SIM card)



28 792

#### Antenna booster with magnetic base

**Compatibility:** For *TeleControl* telemetric system to improve the reception  
**Cable length:** 2.5 m



28 793

#### Extension cable

**Compatibility:** For antenna booster  
**Cable length:** 2.5 m

28 794

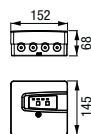
### Alarm unit

Compatibility see product description

Art. no.

#### with electrode probe

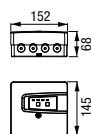
**Function:** For monitoring and reporting of flooding; for conductive liquids  
**Inclusive:** Visual and audible alarm warning, battery back up, with Logbook, connection for remote alarm speaks (Art. no. 20162) or upgradable with potential free contact.  
**Voltage:** 230 V ~ 50 Hz (IP 54)  
**Plug:** 2 pin grounded  
**Cable length:** 5 m (extendable up to 30 m)



20 222

#### with optical probe

**Function:** For monitoring and reporting of flooding; for conductive / non-conductive liquids  
**Inclusive:** Visual and audible alarm warning, battery back up, with Logbook, connection for remote alarm speaks (Art. no. 20162) or upgradable with potential free contact.  
**Voltage:** 230 V ~ 50 Hz (IP 54)  
**Plug:** 2 pin grounded  
**Cable length:** 5 m (extendable up to 30 m)



20 223

## Accessories

Warning / control units

### Connector set

Compatibility see product description

Art. no.

**Connector set**      **Compatibility:** For connection to pump/probe cables for connection to the coded connectors from Art. no. 28 731 / 28 746



80 893

### Control unit accessories

Compatibility see product description

Art. no.

**Audible alarm**      **Compatibility:** For all warning- and control units  
**Cable length:** 20 m



20 162

**Potential-free contact**      **Compatibility:** For all control units 230 V; not for warning devices Art. no. 20 222 and 20 223



80 072

### USB housing socket

Compatibility see product description

Art. no.

**USB housing socket**      **Compatibility:** For routing the USB connection to the outside of the housing.  
For 230 Volt Comfort control units Mono/Duo



28 785

### Safety

Compatibility see product description

Art. no.

**Air compressor set**      **Function:** For use in combination with lifting station and pumping stations with pressure control: prevents soiling, avoids the formation of condensate in the pressure hose, makes operation of systems possible with pressure hose lengths > 10 m  
**Inclusive:** T-piece connection, 20 m pressure hose



28 048

**PE-pressure hose extension** (per meter)      **Compatibility:** For Art. no. 28 048

680 071

### Cable extensions

Compatibility see product description

Art. no.

**for probe**      **Cable length:** 10 m

80 889

**for pump**      **Cable length:** 10 m

80 891



### Waterproof junction box

Compatibility see product description

Art. no.

**Junction box**      **Compatibility:** For extension of level probe

28 799





# 4. Drains and channels

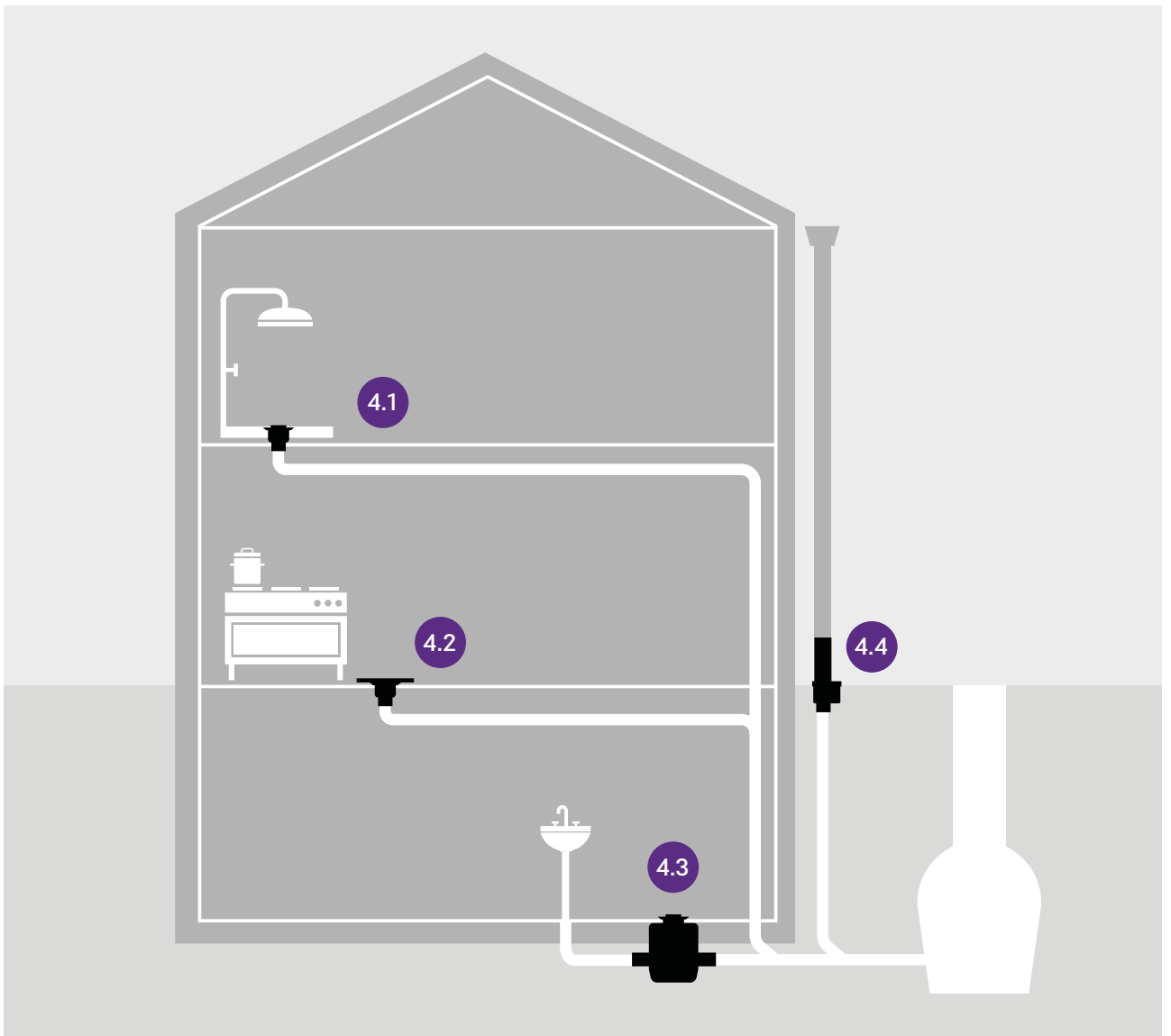
For indoor and outdoor installation

Planning information	182	Shower channel <i>Linearis Compact</i>	215
Fire Protection / Waterproofing options	184	Accessories	216
Material selection	186	Wall drain <i>Scada</i>	218
Drains and channels range	188	Accessories	222
<b>4.1 Bathroom drains and shower channels</b>	<b>190</b>	<b>4.2 Project drains</b>	<b>224</b>
Floor drain <i>The Ultraflat 54</i>	192	Floor drain <i>Ecoguss</i>	226
Floor drain <i>The Ultraflat 79</i>	195	Floor drain <i>Practicus</i>	232
Modular system <i>The Ultraflat</i>	198	Modular system floor drain <i>Ecoguss / Practicus</i>	236
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Modular system 200 floor drain <i>Ferrofix</i>	254	<b>4.4 Outdoor drains</b>	<b>282</b>
Accessories	256	Parking deck drain <i>Ecoguss</i>	283
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Accessories	276	Flat-roof drain system 100	302
Basement drain <i>Practicus</i> / without backflow protection	278	<b>4.5 Individual Solutions</b>	<b>303</b>
Accessories	280		

# Everything specialists need to know

## Different types of drains



**4.1 Bathroom drains**  
Bathroom drainage tailored to requirements  
➤ Page 190

**4.2 Project drains**  
Floor drains with versatile properties  
➤ Page 224

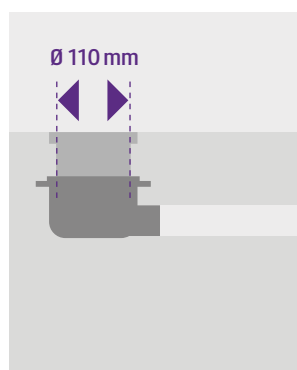
**4.3 Basement drains**  
For dry floors in basement rooms  
➤ Page 264

**4.4 Outdoor drains**  
Robust solutions for particular loads  
➤ Page 282

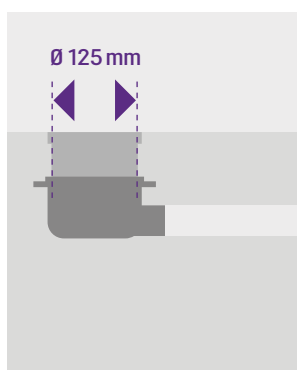
## Modular system

With our modular systems, we provide numerous possible drain combinations.

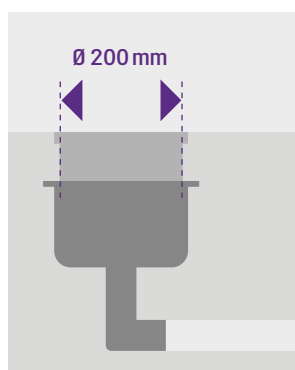
Our extensive offer includes different grate covers, upper sections, drain bodies and other accessories, from which you can individually put together the right drain for you. You can identify which products are compatible with which systems by the corresponding markings on the product pages.



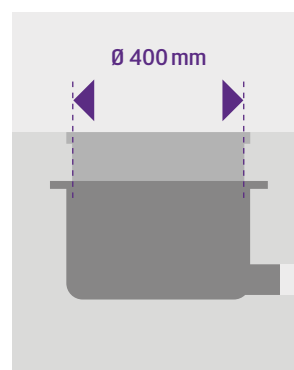
System 100



System 125



System 200



System 400

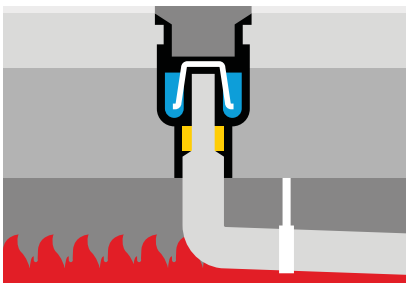
## Fire protection

All KESSEL drain systems with a fire protection feature comply with fire resistance class F120. There is no need for preventative fire protection for floor drains in single-, two-family homes, basements and floor drains with horizontal outlets (under certain conditions).

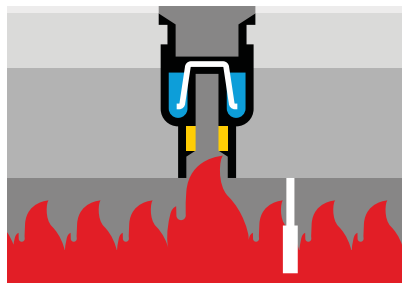
The German State Building Code defines the required fire resistance period in classes as follows:

Fire resistance class	F30	F60	F90	F120
Fire resistance period (minutes)	> 30	> 60	> 90	> 120

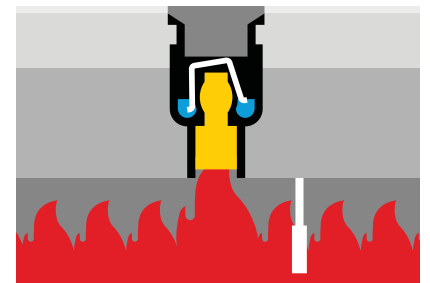
### Fire-Kit (Z-19.17-1719)



Fire burns away all exposed plastic pipe. The flames then reach the outlet of the drain body.



The odour trap built into the drain body combines with sealing water to prevent smoke and gas reaching upper levels of the building.

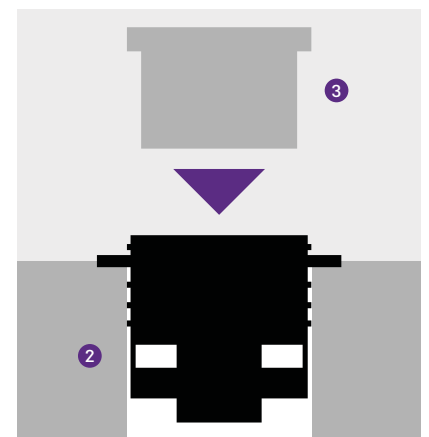
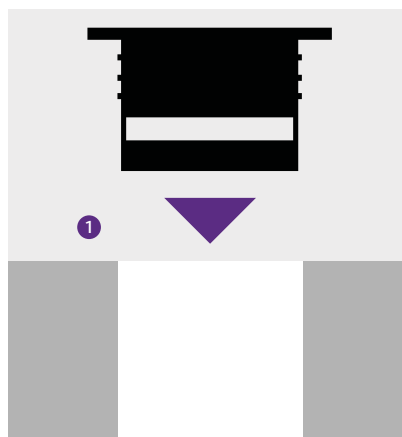


The *Fire-Kit* fire protection insert expands due to the heat and completely seals off the openings in the concrete floor, preventing fire from spreading to the floor above.

### Quick-Fit (Z-19.17-1719)

The fire-protection insert provides the necessary fire protection. This is attached by a metal hoop on the lower end of the installation aid. In the event of a fire, the fire protection mass swells up and closes the gap resulting from the melting seal. This guarantees a smoke-tight closure and prevents the fire from spreading to the floor above.

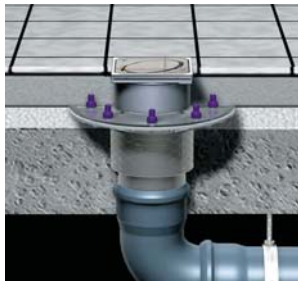
- 1 Insert *Quick-Fit* in core hole (Ø 160 mm).
- 2 Lower the *Ecoguss* drain body with vertical outlet into *Quick-Fit*.
- 3 Fit the upper section.



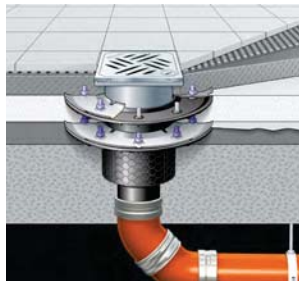


## Waterproofing options

The EN 1253 standard requires a waterproofing seal to be installed under ceramic and natural stone floors in wet rooms.



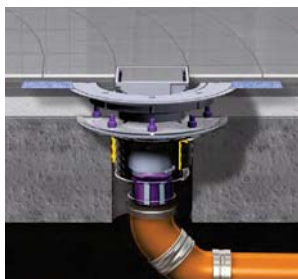
Single waterproofing flange



Double waterproofing flanges



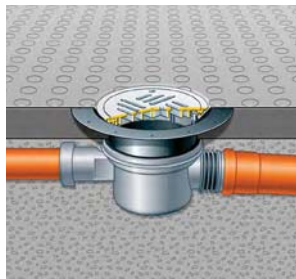
Shallow waterproofing flange



Shallow and lower waterproofing flange



Waterproofing flange for impermeable concrete



Waterproof flooring

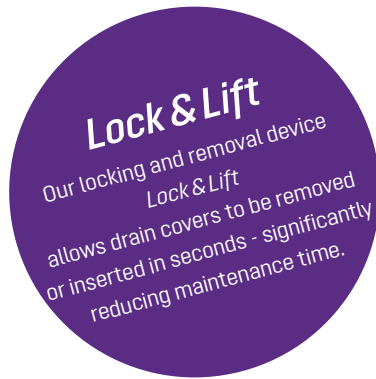
## Sound Protection

The Fraunhofer Institute in Stuttgart measured the following noise levels for KESSEL floor/ceiling drains:

Drains	DIN 4109	VDI 4100 SST II
Project drain <i>Ecoguss</i>	≥ 16 DB (A)	≥ 14 DB (A)
Project drain <i>Practicus</i>	≥ 18 DB (A)	≥ 15 DB (A)
Bathroom drain <i>The Ultraflat 79</i>	≥ 15 DB (A)	≥ 11 DB (A)
Shower channel <i>Linearis Comfort</i>	≥ 17 DB (A)	≥ 13 DB (A)
Shower channel <i>Linearis Compact</i>	≥ 14 DB (A)	≥ 10 DB (A)
Wall drain <i>Scada</i>	≥ 17 DB (A)	≥ 14 DB (A)

## Odour traps

KESSEL drains have a removable odour trap to protect against unpleasant odours from the sewer. Certain models can also be optionally equipped with the waterless odour, foam and rodent stop *Multistop* or the mechanical odour trap *Megastop* with water seal. Combined with the locking and removal device *Lock&Lift*, the *Megastop* mechanical odour trap can be used as backwater protection up to 0.1 bar.



## The right cover

Drains, covers and upper sections must be installed in such a way that they are able to cope with potential loads at the place of installation. The two standards EN 1253-1 (Gullies for buildings) and EN 124 (Gully tops and manhole tops for vehicular and pedestrian areas). In cases of doubt, the higher class must always be chosen.

### Covers and upper sections to EN 1253-1

<b>Class K 3</b>	<b>load capacity up to max. 300 kg</b>	Areas without vehicular traffic, such as bathrooms at home, retirement homes, hotels, schools, swimming baths, public washing and shower facilities, balconies, loggias, terraces and green roofs.
<b>Class L 15</b>	<b>load capacity up to max. 1.5 t</b>	Areas with light vehicular traffic such as cycleways and domestic drives.
<b>Class M 125</b>	<b>load capacity up to max. 12.5 t</b>	Areas with vehicular traffic, such as car parks, factories and workshops - not including light commercial vehicles or heavy wheel loads.

### Covers and upper sections to EN 124

<b>Class A 15</b>	<b>Group 1</b> For use in areas where only pedestrians have access.
<b>Class B 125</b>	<b>Group 2</b> For use in car parks and pedestrian areas where only occasional vehicular access is likely
<b>Class C 250</b>	<b>Group 3</b> For use in car parks, forecourts, industrial sites and areas with slow moving traffic also in highway locations up to 500mm from the kerb and up to 200mm into the verge, excluding motorways.
<b>Class D 400</b>	<b>Group 4</b> For use in areas where cars and lorries have access, including carriageways, hard shoulders and pedestrian areas.

## The right material

Drains are offered in a range of different materials. Which material is used depends on the requirements set by the type of wastewater to be discharged.



### Polymer (PP or ABS)

Drains made of polymer are generally characterised by their high impact resistance, light weight and simple design.



### Ecoguss

Building drains made of the composite material *Ecoguss* are naturally hygienic and highly resistant to chemicals on account of the smooth and corrosion-free surface. Additional protective coatings are not necessary. Weight approx. 70 % lower than cast iron drains, no electrical grounding necessary and suitable for installation in hot bitumen thanks to high-temperature resistance properties.



### Metal

Classic metal drains are hygienic, heat resistant and generally load resistant. They are therefore primarily suitable for extreme conditions in commercial and industrial premises.

Medium	Ecoguss		
1,1,1-trichloroethane		RT	✓
Acetic acid	99 %	RT	✓
Acetone		RT	✓
Formic acid	85 %	RT	✓
Ammoniac 24.5 %		RT	✓
Petrol/benzene mixture		RT	✓
Brake fluid		RT	✓
Butyl alcohol, n-butanol		RT	✓
Calcium chloride		RT	✓
Calcium base liquor		RT	✓
25 % chlorine solution		RT	✓
Diesel		RT	✓
Diethyl ether		RT	✓
Acetic acid 99 %		RT	✓
Ethanol		RT	✓
Ethylene glycol		RT	✓
FAM-DIN 51604-A		RT	✓
FAM-DIN 51604-B		RT	✓
FAM-DIN 51604-C		RT	✓
Frigene 114 (tetrafluorodichloroethane)		RT	✓
Frigene R134 + 5 % Aral Alur EE32		RT	✓
Hydraulic fluid		RT	✓
Isopropanol		RT	✓
Potassium chromate 30 %		RT	✓
Potassium base liquor 45 %		RT	✓
Potassium permanganate 6 % (80°)		RT	✓

Medium	PP		
Acetone	100 %	23°	✓
Formic acid	98 %	23°	✓
Ammonium sulphate		to 100°	✓
Amyl alcohol		60°	✓
Petrol/benzene mixture		23°	✓
Brake fluid		to 60°	✓
Bromine		-	-
Butane		to 60°	✓
Calcium hypochlorite	12.5 % active Cl	to 60°	✓
Chlorine, liquid		-	-
Citric acid	saturated	to 100°	✓
Acetic acid	100 %	23°	✓
Hydrofluoric acid	40 %	to 60°	✓
Formaldehyde		to 60°	✓
Glycerine	100 %	to 60°	✓
Magnesium chloride	saturated	to 100°	✓
Methanol	100 %	to 60°	✓
Lactic acid	10 %	to 60°	✓
Motor oil		23°	✓
Sodium chloride	saturated	to 100°	✓
Sodium thiosulphate	saturated	to 60°	✓
Nitrobenzene	100 %	60°	✓
Perchloroethylene		23°	✓
Phenol	saturated	to 60°	✓
Propanol	100 %	to 60°	✓
Nitric acid	50 %	23°	✓
Hydrochloric acid		to 60°	✓
Sulphuric acid	to 10 %	to 100°	✓
Detergent	ready to use	to 60°	✓
Nitrogen peroxide	3 %	to 100°	✓

Medium	Ecoguss		
Kerosine		RT	✓
Methanol		RT	✓
Methyl-tert.-butyl ether		RT	✓
Lactic acid	90 %	RT	✓
Motor oil		150°	✓
Sodium chloride, saturated		RT	✓
Sodium hypochlorite (80°)		RT	✓
Sodium base liquor 30 %		RT	✓
Sodium base liquor 50 %		RT	✓
n-butyl acetate		RT	✓
n-hexane		RT	✓
Phosphoric acid 40 %		RT	✓
Rapeseed methyl ester		RT	✓
Reference petrol C, ASTM D-471		RT	✓
Nitric acid 10 %		RT	✓
Nitric acid 65 %		RT	✓
Hydrochloric acid	37 %	RT	✓
Sulphuric acid	37 %	RT	✓
Silicone oil		RT	✓
Toluol		RT	✓
Water 90°C up to 1000 h		RT	✓
Water, cold		RT	✓
Xylene		RT	✓
Zinc chloride solution (50 wt.%)		RT	✓
Zinc chloride solution 10 %		RT	✓
Citric acid		RT	✓

Medium	ABS		
Acetone		-	-
Formic acid	40 %	to 50°	✓
Ammonium sulphate	saturated	to 100°	✓
Amyl alcohol		23°	✓
Petrol/benzene mixture		-	-
Brake fluid		-	-
Bromine		-	-
Butane		23°	✓
Calcium hypochlorite	saturated	to 50°	✓
Chlorine, liquid		-	-
Citric acid	saturated	to 50°	✓
Acetic acid	to 50 %	to 50°	✓
Hydrofluoric acid	40 %	23°	✓
Formaldehyde	30 %	50°	✓
Glycerine		to 50°	✓
Magnesium chloride	saturated	to 50°	✓
Methanol		to 20°	✓
Lactic acid	10 %	to 50°	✓
Motor oil		to 50°	✓
Sodium chloride	saturated	to 50°	✓
Sodium thiosulphate	saturated	to 50°	✓
Nitrobenzene		-	-
Perchloroethylene		-	-
Phenol	10 %	50°	✓
Propanol		to 50°	✓
Nitric acid	30 %	23°	✓
Hydrochloric acid	37 %	23°	✓
Sulphuric acid	to 50 %	50°	✓
Detergent	ready to use	23°	✓
Nitrogen peroxide	3 %	to 50°	✓

- ✓ extremely resistant
- ✓ moderately resistant
- not for use
- RT Room temperature

# At a glance Drains and channels

## 4.1 Bathroom drains and shower channels



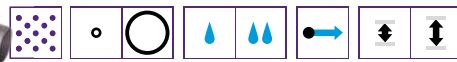
Bathroom drain  
**The Ultraflat**

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Bathroom drain  
**Giro**

➤ Page 201



Bathroom drain  
**Classic**

➤ Page 202



Bathroom drain  
**The Superflat**

➤ Page 206



Shower channel  
**Linearis Comfort/Compact**

➤ Page 212



Wall drain  
**Scada**

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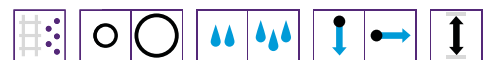


## 4.2 Project drains



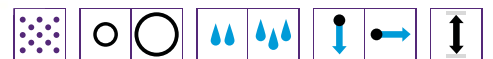
Floor/roof drain  
**Ecoguss**

➤ Page 224



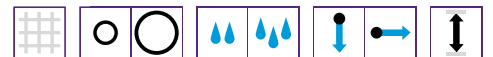
Floor/roof drain  
**Practicus**

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Floor drain/Channel drains/  
Square channel drains  
**Ferrofix**

➤ Page 240



Material	Discharge rate	Installation depth
Ecoguss	0.4-0.9 l/s	min. 63 mm
Polymer	1.0-1.9 l/s	min. 95 mm
Metal	> 2.0 l/s	min. 130 mm
Nominal size (Ø)	Outlet position	Function
Ø 40-50	vertical	Protects in the event of backwater
Ø 50-75	horizontal	Protects and disposes in the event of backwater
≥ Ø 110		

### 4.3 Basement drains

**Basement drain**  
*Pumpfix S*

➤ Page 266









**Basement drain**  
*The Universal*

➤ Page 270























**Basement drain**  
*Drehfix*

➤ Page 271

**Basement drain**  
*Light liquid trap*

➤ Page 274

**Basement drain**  
*without backwater valve*

➤ Page 278








### 4.4 Outdoor drains

**Parking deck drains**

➤ Page 283




















**Yard drains**

➤ Page 286







**Gutter drains**

➤ Page 294

**Roof drains**  
*for flat roof surfaces*

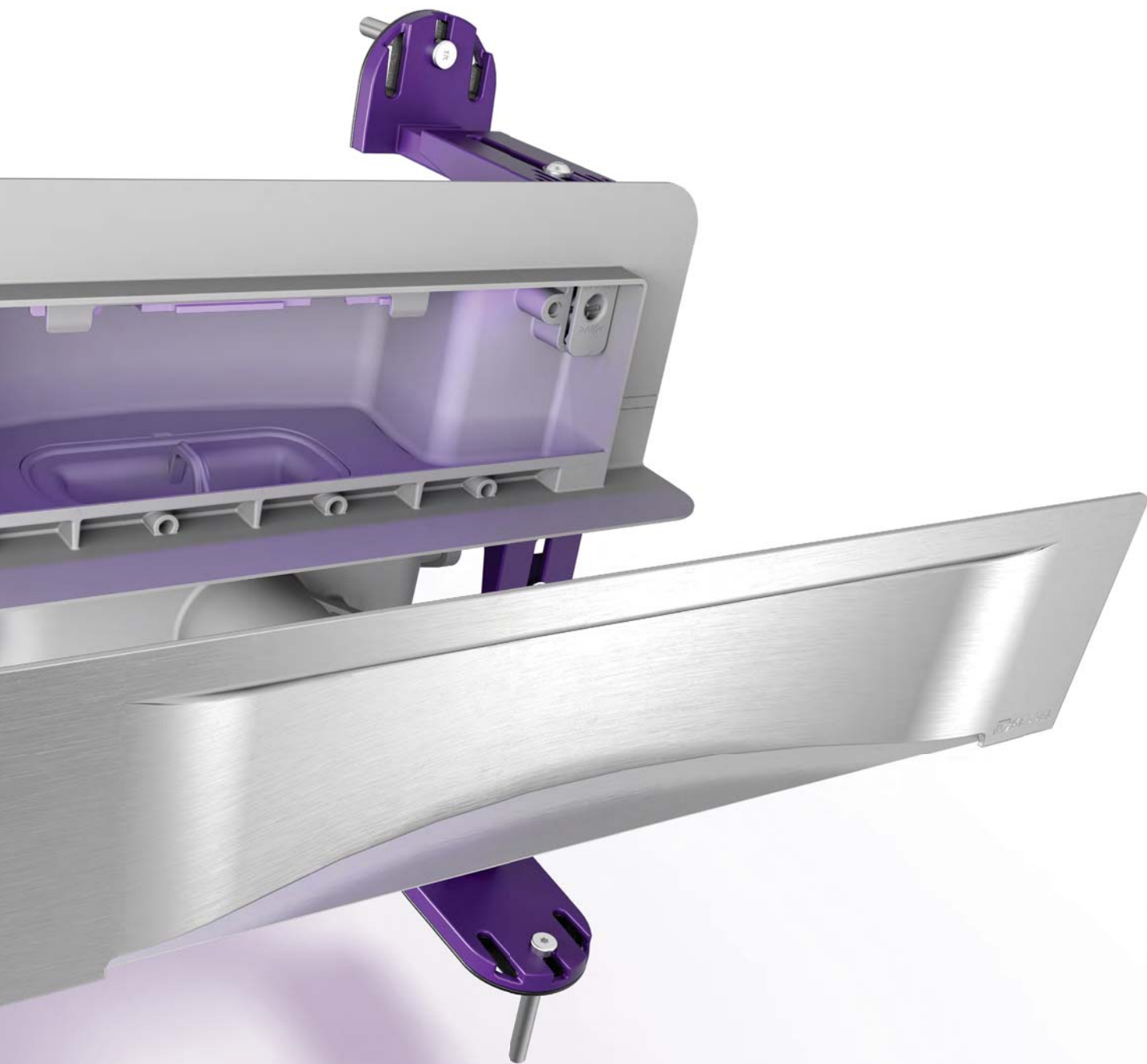
➤ Page 298

# 4.1 Bathroom drains

Bathroom / shower drains and channels







## Bathroom drain

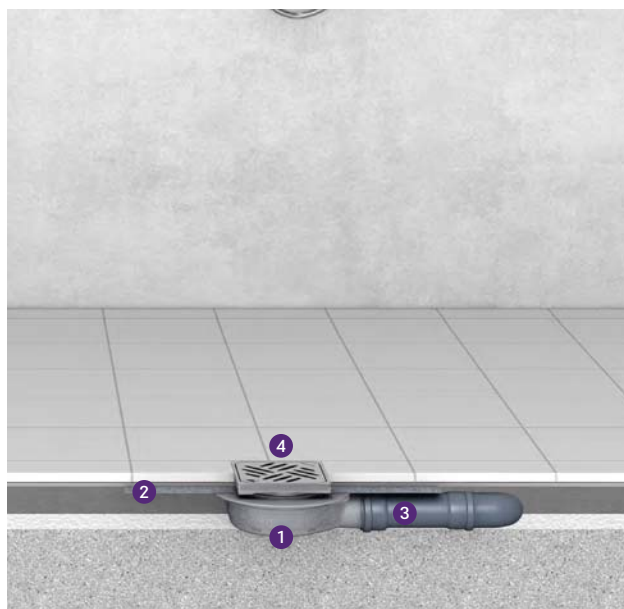
# *The Ultraflat*

The ultra low profile drain - ideal for remodelling / renovation work.

Here the name speaks for itself: the *Ultraflat* is our flattest bathroom drain and is thus predestined for renovation work in existing buildings. *The Ultraflat* can be combined with different design covers and, despite its compact size, provides a high discharge rate of 0.6 to 1.0 l/s.

Two or rather three variants of *The Ultraflat* are available:

*The Ultraflat 54* has a minimum installation depth of 63 mm (54 mm up to top of flange) with outlet nominal sizes Ø 40 mm and Ø 50 mm, or as *The Ultraflat 79* with a minimum installation depth of 88 mm (79 mm up to top of flange) with outlet nominal size Ø 50 mm.

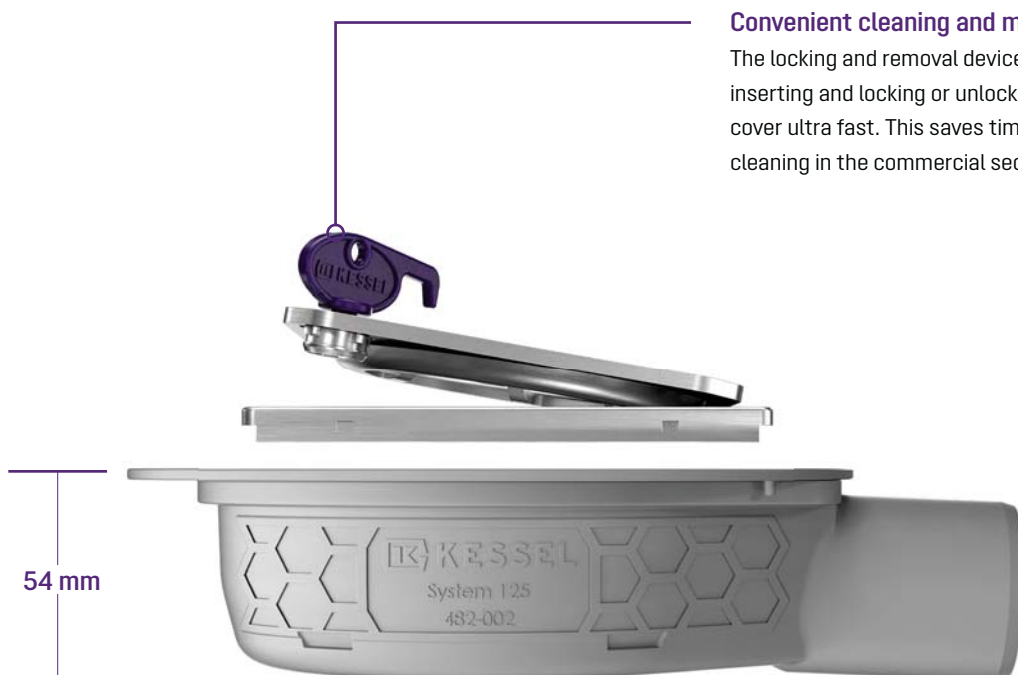


1 Drain 2 Waterproofing membrane 3 Drain pipe 4 Cover

### Odour traps

*The Ultraflat* has a removable odour trap to protect against unpleasant odours from the sewer. Certain models can also be optionally equipped with the waterless odour, foam and rodent stop *Multistop* or the mechanical odour trap *Megastop* with water seal. Combined with the locking and removal device *Lock & Lift*, the *Megastop* mechanical odour trap can be used as backwater protection up to 0.1 bar.





#### Convenient cleaning and maintenance

The locking and removal device *Lock & Lift* makes inserting and locking or unlocking and removing the cover ultra fast. This saves time during mandatory cleaning in the commercial sector.

#### Low installation depth

Our low-profile bathroom drains *The Superflat* and *The Ultraflat* are particularly suitable for renovation projects thanks to their low installation depths.

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On request, *The Ultraflat* can also be supplied as a drain body. This opens up numerous possible combinations with the upper sections and accessories of the modular system 125.

➤ Drain body: Page 198

➤ Further accessories: Page 200

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The polymer installation kit is used to fix *The Ultraflat* in the correct position before installation.

➤ Installation kit: Page 200

## Floor drain *The Ultraflat 54*

with standard odor trap

System 125



Made in ABS

### Specifications:

With lateral outlet, removable odour trap in the upper section, sealing water height 22 mm and with factory-mounted or non-mounted\*\* waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I.

Drainage capacity in l/sec with 20 mm / 10 mm threshold  
 Ø 40: 0.8 (\*0.9) l/sec / 0.7 l/sec  
 Ø 50: 0.8 l/sec / 0.6 l/sec.  
 Installation height 63 – 121 mm.  
 Installation area 350 × 350 mm

### Cover:

Design cover *Kessel* 120 × 120 mm (anti-slip class R9 according to DIN 51130; anti-slip class C according to DIN 51097) and rim made of stainless steel AISI 304 (rim height: 9 mm without *Lock & Lift* locking system, 16 mm with *Lock & Lift* locking system), class L 15 or slotted cover 120 × 120 mm made of stainless steel AISI 304, rim height 9 mm, class K 3



Illustration shows floor drains with *Lock & Lift* locking system

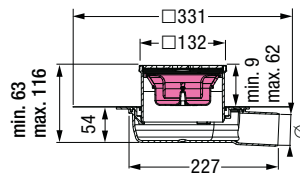


Illustration shows Art. no. 44 740.62M, 44 750.62M, 44 740.20M, 44 750.20M

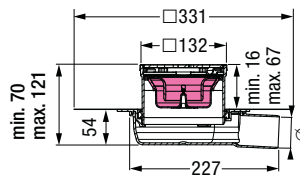


Illustration shows floor drains with *Lock & Lift* locking system

Outer diameter Ø (mm) Art. no.

With design cover, without *Lock & Lift* locking system

Ø 40	44 740.62M
Ø 50	44 750.62M
Ø 40**	44 740.62
Ø 50**	44 750.62

With slotted cover, without *Lock & Lift* locking system

Ø 40	44 740.20M
Ø 50	44 750.20M
Ø 40**	44 740.20
Ø 50**	44 750.20

With design cover, with *Lock & Lift* locking system

Ø 40*	44 740.63M
Ø 50	44 750.63M
Ø 40**	44 740.63
Ø 50**	44 750.63

\*drainage capacity Ø 40: 0.9 l/sec with 20 mm threshold  
 \*\*with non-mounted waterproofing membrane

## Floor drain *The Ultraflat 54*

with mechanical odour trap *Megastop*

System 125



Made in ABS

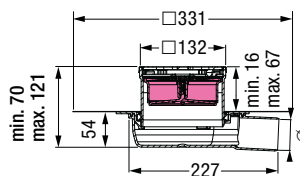
### Specifications:

With lateral outlet, mechanical odour trap *Megastop* in the upper section, hair filter, backwater-proof up to 0.1 bar and with factory-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I.

Drainage capacity in l/sec with 20 mm / 10 mm threshold  
 Ø 40: 0.7 l/sec / 0.6 l/sec  
 Ø 50: 0.6 l/sec / 0.55 l/sec.  
 Installation height 70 – 121 mm.  
 Installation area 350 × 350 mm

### Cover:

Design cover *Kessel* 120 × 120 mm (anti-slip class R9 according to DIN 51130; anti-slip class C according to DIN 51097) and rim made of stainless steel AISI 304 (rim height: 16 mm), class L 15, with *Lock & Lift* locking system



Outer diameter Ø (mm) Art. no.

Ø 40	44 740.66M
Ø 50	44 750.66M

## Floor drain *The Ultraflat 79*

with standard odor trap



Made in ABS

### Specifications:

With lateral outlet, removable odour trap in the upper section, sealing water height 50 mm according to EN 1253-1 and Art. no. **44 700.20M** incl. clip flange with factory-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I. Drainage capacity in l/sec with 20 mm / 10 mm threshold Ø 50: 1.15 l/sec / 0.95 l/sec. Installation height 88 – 145 mm. Installation area 350 × 350 mm

### Cover:

Design cover *Kessel* 120 × 120 mm (anti-slip class R9 according to DIN 51130; anti-slip class C according to DIN 51097) and rim made of stainless steel AISI 304 (rim height: 9 mm without *Lock & Lift* locking system, 16 mm with *Lock & Lift* locking system), class L 15 or slotted cover 120 × 120 mm made of stainless steel AISI 304, rim height 9 mm, class K 3

### Note:

In combination with clip flange Art. no. 44 703 waterproofing layer according to DIN 18534-1-W3-I possible



Illustration shows Art. no. 44 700.63 with *Lock & Lift* locking system

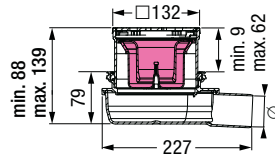


Illustration shows Art. no. 44 700.62, 44 700.20

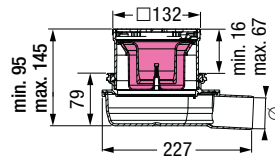


Illustration shows Art. no. 44 700.63

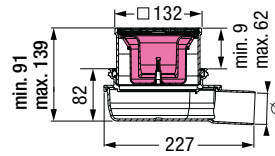


Illustration shows Art. no. 44 700.20 M

Outer diameter Ø (mm)	Art. no.
With design cover, without <i>Lock &amp; Lift</i> locking system	
Ø 50	<b>44 700.62</b>
With slotted cover, without <i>Lock &amp; Lift</i> locking system	
Ø 50	<b>44 700.20</b>
Ø 50	<b>44 700.20M</b>
With design cover, with <i>Lock &amp; Lift</i> locking system	
Ø 50	<b>44 700.63</b>

## Floor drain *The Ultraflat 79*

with mechanical odour trap *Megastop*



Made in ABS

### Specifications:

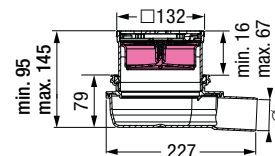
With lateral outlet, mechanical odour trap *Megastop* in the upper section, hair filter, backwater-proof up to 0.1 bar. Drainage capacity in l/sec with 20 mm / 10 mm threshold Ø 50: 1.1 l/sec / 0.7 l/sec. Installation height 88 – 145 mm. Installation area 350 × 350 mm

### Cover:

Design cover *Kessel* 120 × 120 mm (anti-slip class R9 according to DIN 51130; anti-slip class C according to DIN 51097) and rim made of stainless steel AISI 304 (rim height: 16 mm), class L 15, with *Lock & Lift* locking system

### Note:

In combination with clip flange art. no. 44 703 waterproofing layer according to DIN 18534-1-W3-I possible



Outer diameter Ø (mm)	Art. no.
Ø 50	<b>44 700.66</b>

## Floor drain *The Ultraflat 79*

with *Variofix* shallow bed upper section with design cover *Kessel*

System 125



Made in ABS

### Specifications:

With lateral outlet, removable odour trap in the upper section, sealing water height 50 mm according to EN 1253-1 and with non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I.

Drainage capacity in l/sec with 20 mm / 10 mm threshold  
 Ø 50: 1.45 l/sec / 1.25 l/sec.

Installation height 129 – 184 mm.

Installation area 350 × 350 mm

### Cover:

Design cover *Kessel* 120 × 120 mm (anti-slip class R9 according to DIN 51130; anti-slip class C according to DIN 51097) and rim made of stainless steel AISI 304 (rim height: 10 – 23 mm), class L 15



Illustration shows Art. no. 44 700.53 with *Lock & Lift* locking system

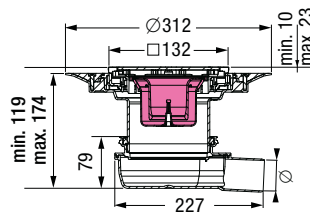


Illustration shows Art. no. 44 700.52, 44 700.53

Outer diameter Ø (mm) Art. no.

With design cover, without *Lock & Lift* locking system

Ø 50 44 700.52

With design cover, with *Lock & Lift* locking system

Ø 50 44 700.53

## Floor drain *The Ultraflat 79*

with *Variofix* shallow bed upper section with slotted cover



Made in ABS

### Specifications:

With lateral outlet, removable odour trap in the upper section, sealing water height 50 mm according to EN 1253-1 and with non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-1.

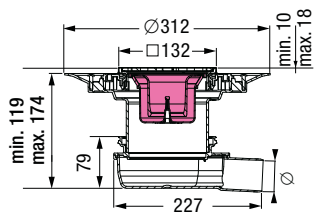
Drainage capacity in l/sec with 20 mm / 10 mm threshold  
 Ø 50: 1.3 l/sec / 1.2 l/sec.

Installation height 129 – 184 mm.

Installation area 350×350 mm

### Cover:

Slotted cover 138×138 mm and rim made of stainless steel AISI 304 (rim height: 8 – 16 mm), screwed, class K 3



Outer diameter Ø (mm)	Art. no.
Ø 50	44 700.51

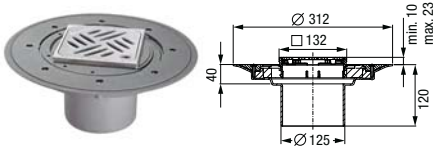
## Modular system 125

The Ultraflat 54 and The Ultraflat 79

System 125

### Variofix shallow bed upper sections

with covers in stainless steel



#### with design cover

in stainless steel AISI 304 or AISI 316L

**Material:** ABS, rim in stainless steel

**Class:** L 15 (*Kessel, Oval*) / K 3 (*Spot, Slot*)

**Tile thickness:** 8 – 21 mm

**Cover:** 120×120 mm

**Anti-slip class design cover Kessel:**

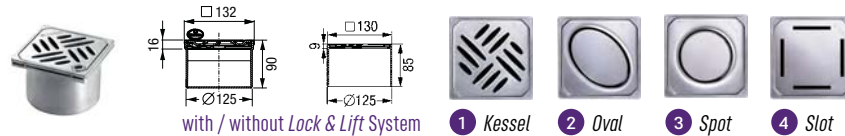
R9 according to DIN 51130; C according to DIN 51097

**Inclusive:** Waterproofing membrane

Cover	Art. no.	Cover	Art. no.
with Lock & Lift System		without Lock & Lift System	
1	AISI 304 48 904	1	AISI 304 48 625
2	AISI 304 48 905	2	AISI 304 48 626
3	AISI 304 48 621	3	AISI 304 48 620
4	AISI 304 48 619	4	AISI 304 48 618
1	AISI 316L 48 204	2	AISI 316L 48 670
2	AISI 316L 48 669		

### Upper sections

with covers in stainless steel



#### with design cover

in stainless steel AISI 304 or AISI 316L

**Material:** ABS, rim in stainless steel

**Class:** L 15 (*Kessel, Oval*) / K 3 (*Spot, Slot*)

**Cover:** 120×120 mm

**Anti-slip class design cover Kessel:**

R9 according to DIN 51130;

C according to DIN 51097

Cover	Art. no.	Cover	Art. no.
with Lock & Lift System		without Lock & Lift System	
1	AISI 304 48 201	1	AISI 304 48 225
2	AISI 304 48 202	2	AISI 304 48 226
3	AISI 304 48 221	3	AISI 304 48 220
4	AISI 304 48 219	4	AISI 304 48 218
1	AISI 316L 48 203	2	AISI 316L 48 228
2	AISI 316L 48 227		

#### with slotted cover

in stainless steel AISI 304

**Material:** ABS

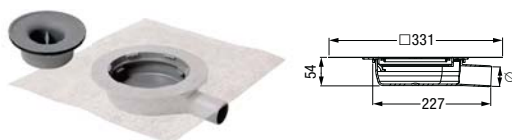
**Class:** K 3

**Cover:** 120×120 mm

AISI 304 Art. no. 48 165

### Drain body The Ultraflat 54

with non-mounted odour trap for installation in an upper section



#### Lateral outlet Ø 40 / Ø 50

Sealing water height: 22 mm

**Inclusive:**

- Non-mounted odour trap for installation in an upper section
- Factory-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I

Ø 40 Art. no. 44 740M

Ø 50 Art. no. 44 750M

#### Lateral outlet Ø 40 / Ø 50

Sealing water height: 22 mm

**Inclusive:**

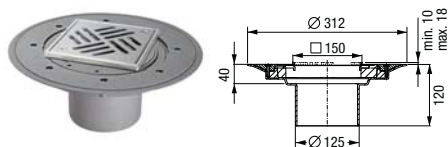
- Non-mounted odour trap for installation in an upper section
- Non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I

Ø 40 Art. no. 44 740

Ø 50 Art. no. 44 750

### Variofix shallow bed upper sections

with covers in stainless steel



#### with slotted cover

in stainless steel AISI 304 or AISI 316L

**Material:** ABS, rim in stainless steel

**Class:** K 3

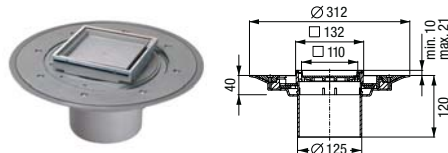
**Tile thickness:** 8 – 16 mm

**Cover:** 138×138 mm, screwed

**Inclusive:** Waterproofing membrane

AISI 304 Art. no. **48 963**

AISI 316L Art. no. **48 206**



#### with recessed polymer cover

for on-site tiling

**Material:** ABS, rim in stainless steel AISI 304 or AISI 316L

**Class:** K 3

**Tile thickness:** 8 – 21 mm

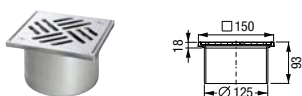
**Cover:** 110×110 mm (polymer)

**Inclusive:** Waterproofing membrane

AISI 304 Art. no. **48 906**

### Upper sections

with covers in stainless steel and polymer



#### with slotted cover

in stainless steel AISI 304 or AISI 316L

**Material:** ABS, rim in stainless steel

**Class:** L 15

**Cover:** 138×138 mm, screwed

AISI 304 Art. no. **48 951**

AISI 316L Art. no. **48 205**



#### with slotted cover

in stainless steel AISI 304 / 316L or ABS

**Material:** ABS

**Class:** K 3

**Cover:** 138×138 mm,  
screwed (only in stainless steel)

AISI 304 Art. no. **48 950**

AISI 316L Art. no. **48 209**

ABS Art. no. **48 193**, black



#### with tileable cover

made of polymer

**Material:** ABS, rim in stainless steel

AISI 304 / 316L or polymer

**Class:** K 3

**Cover:** 110×110 mm

AISI 304 Art. no. **48 211**, rim in stainless steel

ABS Art. no. **48 193**, rim in polymer

### Drain body *The Ultraflat 79*

with non-mounted odour trap for installation in an upper section



#### Lateral outlet Ø 50 without inlet

Sealing water height: 50 mm

Ø 50 Art. no. **44 700**



#### Lateral outlet Ø 50 with inlet Ø 40

Sealing water height: 50 mm

Ø 50 Art. no. **44 701**

Suitable for  
this product

➔ Accessories  
from page 200

## Accessories

The Ultraflat 54 and The Ultraflat 79

### Hygiene and odour stop

for floor drain The Ultraflat

			Art. no.
<b>Megastop</b>	<b>Function:</b> Mechanical odour trap inclusive hair filter for KESSEL upper sections, in combination with design cover with <i>Lock &amp; Lift</i> system additional protection against backwater up to 0.1 bar		48 550
<b>Hair filter</b>	<b>Compatibility:</b> For <i>Multistop</i> and floor drain The Ultraflat		44 704
<b>Multistop</b>	<b>Function:</b> Odour, foam, rodent and insect stop		48 500

### Installation aid

for the installation of floor drain The Ultraflat

			Art. no.
<b>for fixing the drain bodies</b>	<b>Inclusive:</b> Fastening material		44 702

### Clip flange

for floor drain The Ultraflat

			Art. no.
	<b>Inclusive:</b> Factory-mounted waterproofing membrane in accordance with EN 1253-1 and DIN 18534-1-W3-1		44 703

### Transition section

for floor drain The Ultraflat

			Outer diameter Ø (mm)	Art. no.
<b>Transition section</b>	<b>Inclusive:</b> Sealing ring Ø 50		Ø50/40	27 118

### Glue flange

for floor drain The Ultraflat

			Dimensions in mm	Art. no.
<b>without connection flange</b>	<b>Material:</b> ABS		-	48 409



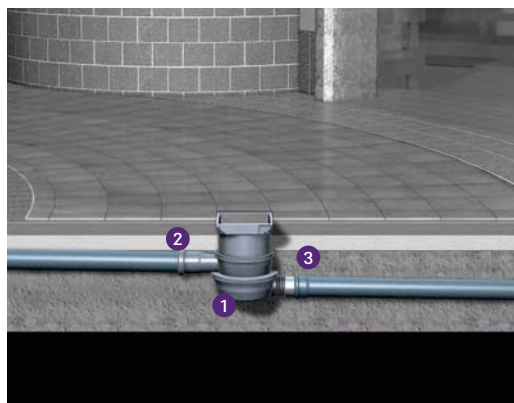
# Bathroom drain *Giro*

The rotatable drain for flexible design.

The *Giro* bathroom drain quite literally opens up all options to you. Its inlet can be rotated 360 degrees around the housing, to align the outlet as required. And thanks to the flexible outlet, connecting to the pipe system is even easier. This gives you maximum flexibility for your bathroom design.

### High degree of user comfort

As the *Giro* is sound insulated, it is extremely effective at absorbing sounds from the pipe system. The integrated odour trap also prevents foul-smelling gas from the sewer from reaching the bathroom.



1 Drain 2 Inlet 3 Outlet

## Bathroom drain *Giro*

with slotted cover in stainless steel

Made in PP

With removable odour trap, fixed lip seal, with rotatable lateral inlet Ø 50, flexible outlet Ø 50, sound-absorbing. Drainage capacity 1.3 l/sec flow rate. Installation area 350×250 mm

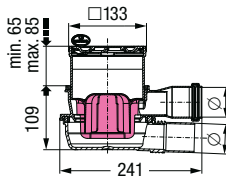
With upper section in ABS

### Cover:

Slotted cover 120×120 mm, class K 3

### Note:

Upper sections can cut and shortened to reach a minimum installation height.



System 125   

Outer diameter Ø (mm)	Art. no.
Ø 50	45 101.20



## Bathroom drain *Classic*

The compact drain with all-rounder qualities.

The *Classic* model is the all-rounder among our bathroom drains. Its compact size, lateral or vertical outlet and various installation options make it particularly versatile. The flow rate is 0.8 l/s.

### Modular design

As part of the modular system 100, the *Classic* can be adjusted any way required and can be combined with numerous accessories – for example, with the Multistop odour trap or a glued flange as a moisture seal.



① Drain ② Outlet ③ Adhesive flange ④ Steel cover

## Bathroom drain *Classic* with twin sealing flanges

Made in ABS

With removable odour trap,  
sealing water height 50 mm, with fixed lip seal.  
Drainage capacity 0.8 l/sec flow rate.  
Installation area 260×180 mm

With *Variofix* shallow bed upper section in ABS,  
with glue flange and counter flange,  
with non-mounted waterproofing membrane  
according to EN 1253-1 and DIN 18534-1-W3-I,  
with two sealing strips

### Cover:

Slotted cover 95×95 mm in stainless  
steel AISI 304,  
for tile thickness 6 – 14 mm, class K 3



Illustration shows Art. no. 40 159.50

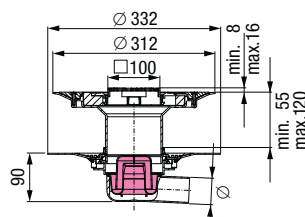


Illustration shows Art. no. 40 159.50

System 100



### Lateral outlet

Outer diameter Ø (mm)	Art. no.
Ø 50	40 159.50
Ø 75	40 179.50

### Vertical outlet

Outer diameter Ø (mm)	Art. no.
Ø 50	40 259.50
Ø 75	40 279.50

## Bathroom drain *Classic*

with *Variofix* shallow bed upper section

Made in ABS

With removable odour trap, sealing water height 50 mm, with fixed lip seal. Drainage capacity 0.8 l/sec flow rate. Installation area 220×180 mm

With *Variofix* shallow bed upper section in ABS, with non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I for shallow bed sealing

### Cover:

Design cover *Oval* 120×120 mm and rim made of stainless steel AISI 304, for tile thicknesses 8 – 21 mm, class L 15; standard slotted cover 95×95 mm made of stainless steel AISI 304, for tile thicknesses 6 – 14 mm, class K 3 or slotted cover 138×138 mm and rim made of stainless steel AISI 304, for tile thicknesses 8 – 16 mm, class L 15



Illustration shows Art. no. 40 150.54 with *Lock & Lift* locking system

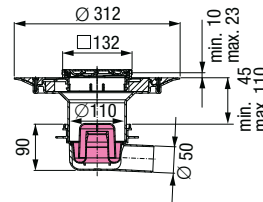


Illustration shows Art. no. 40 150.54

System 100



### Lateral outlet

Outer diameter Ø (mm)	Art. no.
-----------------------	----------

With design cover *Oval* with *Lock & Lift* locking system

Ø 50	40 150.54
Ø 75	40 170.54

With standard slotted cover

Ø 50	40 150.50
Ø 75	40 170.50

With slotted cover

Ø 50	40 150.51
Ø 75	40 170.51

### Vertical outlet

Outer diameter Ø (mm)	Art. no.
-----------------------	----------

With design cover *Oval* with *Lock & Lift* locking system

Ø 50	40 250.54
Ø 75	40 270.54

With standard slotted cover

Ø 50	40 250.50
Ø 75	40 270.50

With slotted cover

Ø 50	40 250.51
Ø 75	40 270.51



EN 1253-1

## Bathroom drain *Classic*

with glue flange

Made in ABS

With removable odour trap, sealing water height 50 mm, with fixed lip seal. Drainage capacity 0.8 l/sec flow rate. Installation area 180×180 mm

With upper section in ABS, with glue flange and counter flange

### Cover:

Slotted cover 100×100 mm in stainless steel AISI 304, class K 3



Illustration shows Art. no. 40 250.90

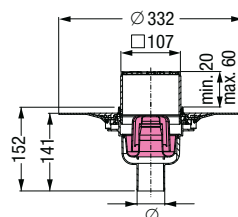


Illustration shows Art. no. 40 250.90

System 100



### Lateral outlet

Outer diameter Ø (mm)	Art. no.
-----------------------	----------

Ø 50	40 150.90
Ø 75	40 170.90

### Vertical outlet

Outer diameter Ø (mm)	Art. no.
-----------------------	----------

Ø 50	40 250.90
Ø 75	40 270.90



EN 1253-1

## Bathroom drain *Classic*

with connection flange

Made in ABS

With removable odour trap, sealing water height 50 mm, with fixed lip seal. Drainage capacity 0.8 l/sec flow rate. Installation area 220 × 180 mm

With upper section in ABS

### Cover:

Recessed polymer drain cover for on-site tiling 110 × 110 mm, class K 3 or slotted cover 100 × 100 mm made of stainless steel AISI 304, class K 3



Illustration shows Art. no. 40 150.66

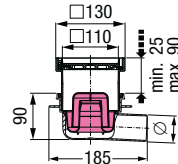


Illustration shows Art. no. 40 150.66



Illustration shows Art. no. 40 150.20

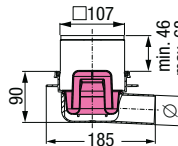


Illustration shows Art. no. 40 150.20

System 100



### Lateral outlet

Outer diameter Ø (mm) Art. no.

With recessed polymer drain cover

Ø 50	40 150.66
Ø 75	40 170.66

With slotted cover

Ø 50	40 150.20
Ø 75	40 170.20

### Vertical outlet

Outer diameter Ø (mm) Art. no.

With recessed polymer drain cover

Ø 50	40 250.66
Ø 75	40 270.66

With slotted cover

Ø 50	40 250.20
Ø 75	40 270.20

## Bathroom drain *Classic*

with connection flange

Made in ABS

Lateral outlet 2.5° / vertical outlet,  
with removable odour trap,  
sealing water height 50 mm, with fixed lip seal.  
Drainage capacity 0.8 l/sec flow rate.  
Installation area lateral 220×180 mm.  
Installation area vertical 180×180 mm

With upper section with sealing flange  
for use with 1 – 4 mm vinyl / synthetic flooring

**Cover:**

Slotted cover Ø 120 mm made of polymer, grey,  
class K 3



Illustration shows Art. no. 40 150.30

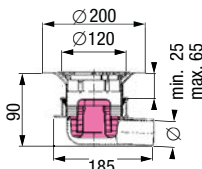


Illustration shows Art. no. 40 170.30



Illustration shows Art. no. 40 250.30

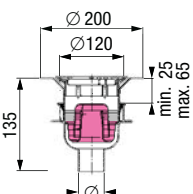


Illustration shows Art. no. 40 270.30

### Lateral outlet

Outer diameter Ø (mm)	Art. no.
Ø 50	40 150.30
Ø 75	40 170.30

### Vertical outlet

Outer diameter Ø (mm)	Art. no.
Ø 50	40 250.30
Ø 75	40 270.30

## Bathroom drain

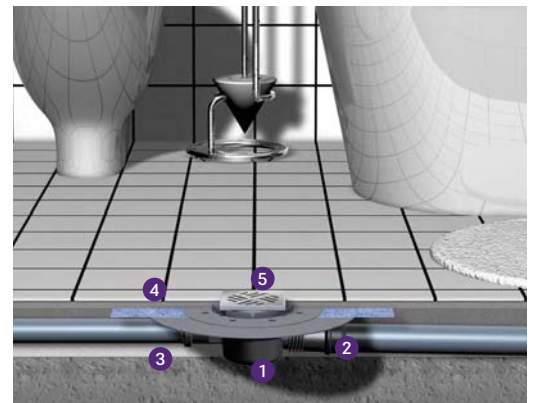
# *The Superflat*

The low profile drain for minimum installation depths.

With its low overall height of 90 mm including cover, The Superflat is especially suitable for low installation depths. The upper section can be shortened according to requirements. The flow rate is 0.8 l/s, the outlet is lateral

### Modular design

As part of the modular system 100, the *Superflat* can be adjusted any way required and can be combined with numerous accessories – for example, with the Multistop odour trap or a glued flange as a moisture seal.



1 Drain 2 Outlet 3 Inlet 4 Adhesive flange 5 Cover

## Bathroom drain *The Superflat*

with glue flange

System 100



Made in PP

For shallow bed gasket with lowest installation height. With removable odour trap, glue flange with non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-1 for shallow bed sealing, sound- absorbing, flexible lateral outlet 2.5°, with lateral inlet  $\varnothing$  40 and fixed lip seal.

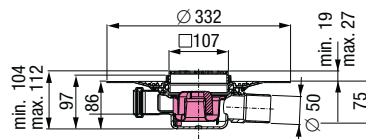
Drainage capacity 0.8 l/sec flow rate.

Installation area 260 × 180 mm

With upper section in ABS

### Cover:

Slotted cover 100 × 100 mm in stainless steel AISI 304, class K 3



Outer diameter  $\varnothing$  (mm)

Art. no.

$\varnothing$  50

42 701.91

## Bathroom drain *The Superflat*

with *Variofix* shallow bed upper section

Made in PP

With removable odour trap, sound- absorbing, flexible lateral outlet 2.5°, with lateral inlet Ø 40 and fixed lip seal.

Drainage capacity 0.8 l/sec flow rate.

Installation area 260×180 mm

With *Variofix* shallow bed upper section in ABS, with non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I for shallow bed sealing

**Cover:**

Design cover *Oval* 120×120 mm and rim made of stainless steel AISI 304, for tile thicknesses 8 – 21 mm, class L 15 or

standard slotted cover 95×95 mm made of stainless steel AISI 304, for tile thicknesses

6 – 14 mm, class K 3



Illustration shows Art. no. 42 701.54 with *Lock & Lift* System

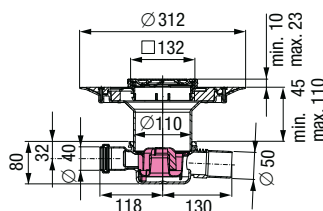


Illustration shows Art. no. 42 701.54

System 100   

### Lateral outlet

Outer diameter Ø (mm)	Art. no.
With design cover <i>Oval</i> with <i>Lock &amp; Lift</i> locking system	
Ø 50	42 701.54
With standard slotted cover	
Ø 50	42 701.50

## Bathroom drain *The Superflat*

with glue flange

Made in PP

With removable odour trap, sound- absorbing, flexible lateral outlet 2.5°, with lateral inlet Ø 40 and fixed lip seal.

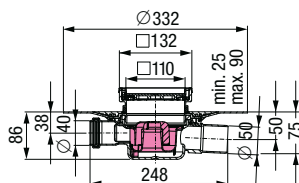
Drainage capacity 0.8 l/sec flow rate.

Installation area 260×180 mm

With upper section in ABS, with glue flange and counter flange

**Cover:**

Recessed polymer drain cover for on-site tiling 110×110 mm and rim made of stainless steel AISI 304, for tile thicknesses up to 10 mm, with locking system



System 100   

Outer diameter Ø (mm)	Art. no.
Ø 50	42 701.95

## Bathroom drain *The Superflat*

with connection flange

Made in PP

With removable odour trap, sound- absorbing, flexible lateral outlet 2.5°, with lateral inlet Ø 40 and fixed lip seal.

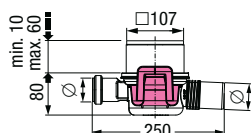
Drainage capacity 0.8 l/sec flow rate.

Installation area 260×180 mm

With upper section in ABS

**Cover:**

Slotted cover 100×100 mm made of stainless steel AISI 304, min. installation height 90 mm, class K 3



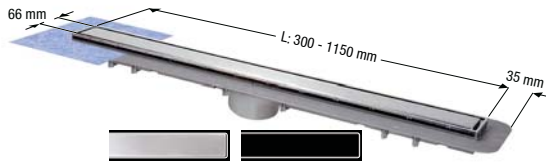
System 100   

Outer diameter Ø (mm)	Art. no.
Ø 50	42 701.20

## Modular system 100

Classic, The Superflat and Floordrain ME

### Shower channel upper section with cover in stainless steel AISI 304



#### Linearis Compact

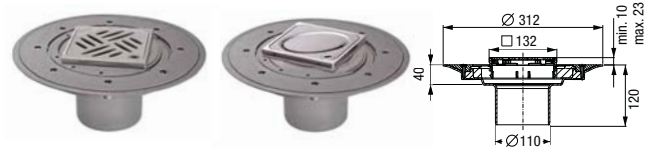
in stainless steel AISI 304

**Material:** ABS, rim in stainless steel  
**Class:** K 3  
**Cover:** Can be reversed and tiled on site  
**Sealing water height:** 50 mm  
**Drainage capacity:** 0.6 l/sec (10 mm threshold)  
**Inclusive:** Removable odour trap (remove from all drain bodies during installation), seeping water opening prepared, installation supports and waterproofing membrane

Channel length in mm	Art. no.
300	47 804S
450	47 805S
550	47 806S
650	47 807S
750	47 808S
850	47 809S
950	47 810S
1050	47 811S
1150	47 812S

### Variofix shallow bed upper sections

with covers in stainless steel



#### with design cover Kessel / Oval

in stainless steel AISI 304

**Material:** ABS, rim in stainless steel  
**Class:** L 15  
**Tile thickness:** 8 - 21 mm  
**Cover:** 120×120 mm  
**Anti-slip class design cover Kessel:** R9 according to DIN 51130; C according to DIN 51097  
**Inclusive:** Waterproofing membrane

*Kessel* Art. no. 47 904  
*Oval* Art. no. 47 905

### Upper sections

with covers in stainless steel



#### with design covers

in stainless steel AISI 304

**Material:** ABS, rim in stainless steel  
**Class:** L 15 (*Kessel, Oval*) / K 3 (*Spot, Slot*)  
**Cover:** 120×120 mm  
**Anti-slip class design cover Kessel:** R9 according to DIN 51130; C according to DIN 51097

Cover	Art. no.	Cover	Art. no.
with Lock & Lift System		without Lock & Lift System	
1	AISI 304 27 201	1	AISI 304 27 225
2	AISI 304 27 202	2	AISI 304 27 226
3	AISI 304 27 221	3	AISI 304 27 220
4	AISI 304 27 219	4	AISI 304 27 218

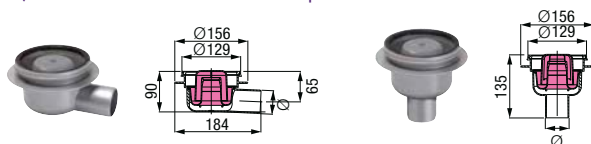
#### with slotted cover

in stainless steel AISI 304

**Material:** ABS, rim in stainless steel  
**Class:** L 15 / K 3  
**Cover:** 138×138 mm  
 Class L 15 Art. no. 27 176, anti-slip  
 Class K 3 Art. no. 27 196

### Drain bodies Classic in ABS

with / without removable odour trap



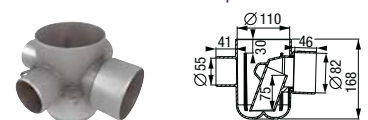
### Lateral outlet / Vertical outlet Ø 50 / Ø 75

**Sealing water height:** 50 mm  
**Drainage capacity:** 0.8 l/sec with 20 mm threshold

with removable odour trap				without removable odour trap			
Lateral outlet	Art. no.	Vertical outlet	Art. no.	Lateral outlet	Art. no.	Vertical outlet	Art. no.
Ø 50	40 150	Ø 50	40 250	Ø 50	40 151	Ø 50	40 251
Ø 75	40 170	Ø 75	40 270	Ø 75	40 171	Ø 75	40 271

### Drain body Floordrain ME in ABS

with removable odour trap

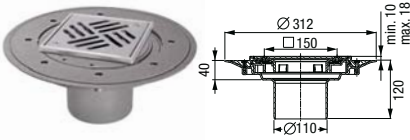


### Three lateral inlets Ø 55, one lateral outlet Ø 82

**Drainage capacity:** 1.8 l/sec with 20 mm threshold  
**Inclusive:** Glue connection according to BS 5255  
 Art. no. 37 3001

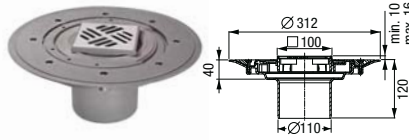


**Variofix shallow bed upper sections**  
with covers in stainless steel



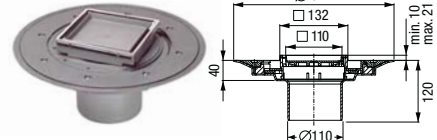
**with slotted cover**  
in stainless steel AISI 304

**Material:** ABS, rim in stainless steel  
**Class:** K 3  
**Tile thickness:** 8 - 16 mm  
**Cover:** 138×138 mm, screwed  
**Inclusive:** Waterproofing membrane  
**Art. no. 47 902**



**with standard slotted cover**  
in stainless steel AISI 304

**Material:** ABS  
**Class:** K 3  
**Tile thickness:** 6 - 14 mm  
**Cover:** 95×95 mm  
**Inclusive:** Waterproofing membrane  
**Art. no. 47 901**



**with recessed polymer cover**  
for on-site tiling

**Material:** ABS, rim in stainless steel AISI 304  
**Class:** K 3  
**Tile thickness:** 10 mm  
**Cover:** 110×110 mm, with locking system  
**Inclusive:** Waterproofing membrane  
**Art. no. 47 906**

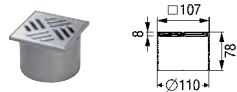
**Upper sections**

with covers in stainless steel and polymer



**with tileable cover**  
made of polymer

**Material:** ABS,  
rim in stainless steel / polymer  
**Class:** K 3  
**Cover:** 110×110 mm  
**Art. no. 27 211**, rim in stainless steel  
**Art. no. 27 210**, rim in polymer



**with slotted cover**  
in stainless steel AISI 304

**Material:** ABS  
**Class:** K 3  
**Cover:** 100×100 mm  
**Art. no. 27 165**



**with closed cover**  
in stainless steel AISI 304

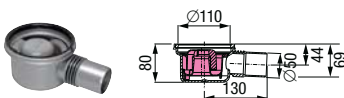
**Material:** ABS,  
rim in stainless steel  
**Class:** L 15  
**Cover:** 150×150 mm, screwed  
**Inclusive:** Gasket  
**Art. no. 27 1966**



**with slotted cover**  
made of polymer

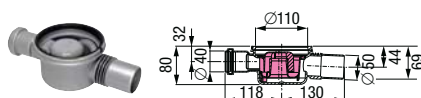
**Material:** PP, with sealing flange  
**Class:** K 3  
**Tile thickness:** Use with 1 - 4 mm  
vinyl / synthetic flooring  
**Cover:** Ø 120 mm  
**Art. no. 27 192**

**Drain bodies The Superflat in PP**  
with removable odour trap



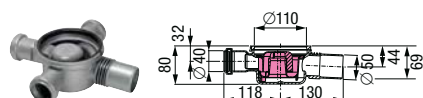
**Lateral outlet Ø 50,**  
**without lateral inlet**

**Sealing water height:** 30 mm  
**Drainage capacity:**  
0.8 l/sec with 20 mm threshold  
**Art. no. 42 700**



**Lateral outlet Ø 50,**  
**one lateral inlet Ø 40**

**Sealing water height:** 30 mm  
**Drainage capacity:**  
0.8 l/sec with 20 mm threshold  
**Art. no. 42 701**



**Lateral outlet Ø 50,**  
**three lateral inlets Ø 40**

**Sealing water height:** 30 mm  
**Drainage capacity:**  
0.8 l/sec with 20 mm threshold  
**Art. no. 42 703**

Suitable for  
this product  
➔ Accessories  
from page 210

## Accessories

System 100

Classic, The Superflat and Floordrain ME

### Glue flange

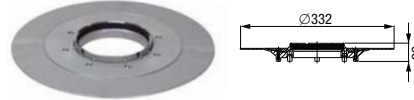
for bathroom drains system 100

Dimensions  
in mm

Art. no.

with counter flange

**Compatibility:** Also for compound seal

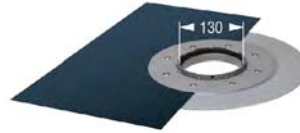


-

43 401

with waterproof membrane

**Inclusive:** Pre-mounted waterproof membrane in PVC



1200 × 1200  
1800 × 2000

43 401.91  
43 401.93

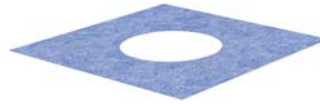
### Waterproof membrane

for bathroom drains system 100

Art. no.

Waterproofing membrane

**Inclusive:** Waterproofing layer against ground moisture  
**Height:** 150 mm



48 651

2 component adhesive

**Compatibility:** For gluing of KESSEL waterproofing membranes

48 650

### Elastomer waterproof membrane

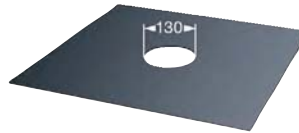
for bathroom drains system 100

Dimensions  
in mm

Art. no.

in PVC

**Note:** The waterproof membrane in PVC is not suitable for connections to asphalt sheeting.



500 × 500

43 710

in EPDM

**Note:** The waterproof membrane in EPDM is not suitable for connections to asphalt sheeting.

500 × 500

43 730

### Waterproof membrane

for bathroom drains system 100

Dimensions  
in mm

Art. no.

Waterproof membrane

**Material:** PVC (without punched-out hole)

1800 × 2000

43 711

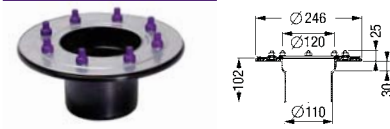
### Extension section

for bathroom drains system 100

Art. no.

in PP

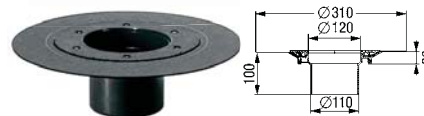
**Inclusive:** Pressure sealing flange in stainless steel AISI 304  
**Flange width:** 63 mm



27 198

in ABS

**Inclusive:** Glue flange and counter flange



27 199

in ABS

**Inclusive:** Lip seal



27 146

## Accessories

System 100

*Classic, The Superflat and Floordrain ME*

### Intermediate section

Compatibility see product description

			Art. no.
<b>with glue flange</b>	<b>Compatibility:</b> Shallow bed gasket <b>Inclusive:</b> With non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I		47 900

### Hygiene and odour stop

for bathroom drains system 100

			Art. no.
<b>Multistop</b>	<b>Function:</b> Odour, foam, rodent and insect stop		43 500

<b>Hair filter</b>	<b>Material:</b> Polymer		43 700
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<b>Sludge trap</b>	<b>Material:</b> Polymer		27 168
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### Transition section

for bathroom drains *Classic* and *The Superflat*

			Outer diameter Ø (mm)	Art. no.
<b>Transition section</b>	<b>Inclusive:</b> Sealing ring Ø 50		Ø 50/75	27 126
			Ø 50/40	27 118

### Conversion kit

for Floordrain ME Art. no. 37 3001

<b>DIN push-fit connection</b>	<b>Consist of:</b> 3 inlet adapter Ø 50 mm, 1 outlet adapter Ø 75 mm and 1 push-fit connection for upper section Ø 110, EN 1451-1		37 3008
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<b>DIN glue connection</b>	<b>Consist of:</b> 3 inlet adapter Ø 50 mm, and 1 outlet adapter Ø 75, EN 1451-1		37 3007
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## Shower channel

# *Linearis Comfort / Linearis Compact*

*Linearis* shower channels - flush floor / wheelchair accessible.

Our shower drains *Linearis Comfort* and *Linearis Compact* provide maximum shower convenience for all who value timeless, purist design in the bathroom: They are integrated in the floor of the shower area, either toward the back wall or below the door, and therefore fit almost seamlessly into the room concept with wheelchair accessibility. The *Linearis Compact* is not only suitable for new buildings, it is also ideal for renovation projects.

With channel lengths from 300 to 1,150 mm, the *Linearis Comfort* and *Linearis Compact* are available in suitable sizes for different room dimensions. Depending on the area of use, they are supplied with a waterproofing membrane, either enclosed or factory-mounted. The enclosed membrane fulfils water action class W2 and is therefore suitable for all private purposes. The membrane attached in the factory is predestined for commercial use with the highest requirements in accordance with water action class W3.



### *Linearis Compact*

Smallest installation depth

With its low minimum installation depth of only 80 mm (flange installation depth: 65 mm), the *Linearis Compact* is particularly suitable for renovation. Nonetheless, it can also be used in new buildings.

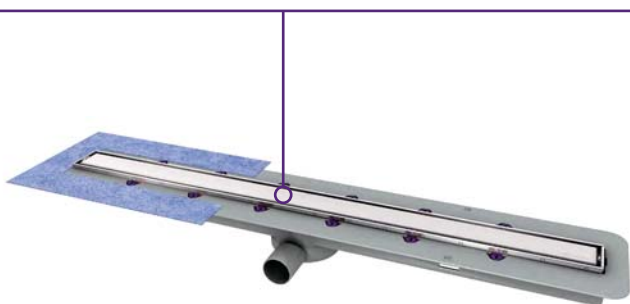


1 Channel cover 2 Drain body 3 Installation supports



#### Height-adjustable installation supports

Thanks to the vertically adjustable installation supports, the installation height can be freely adapted to the floor level.



**Individual design with reversible stainless steel insert**

The shower channel can be individually designed by turning over the stainless steel insert: The reverse side is recessed for floor tiles. In this way the *Linearis Compact* either becomes an eyecatcher that is set apart from the surrounding floor of the shower area, or it is inserted completely unobtrusively.

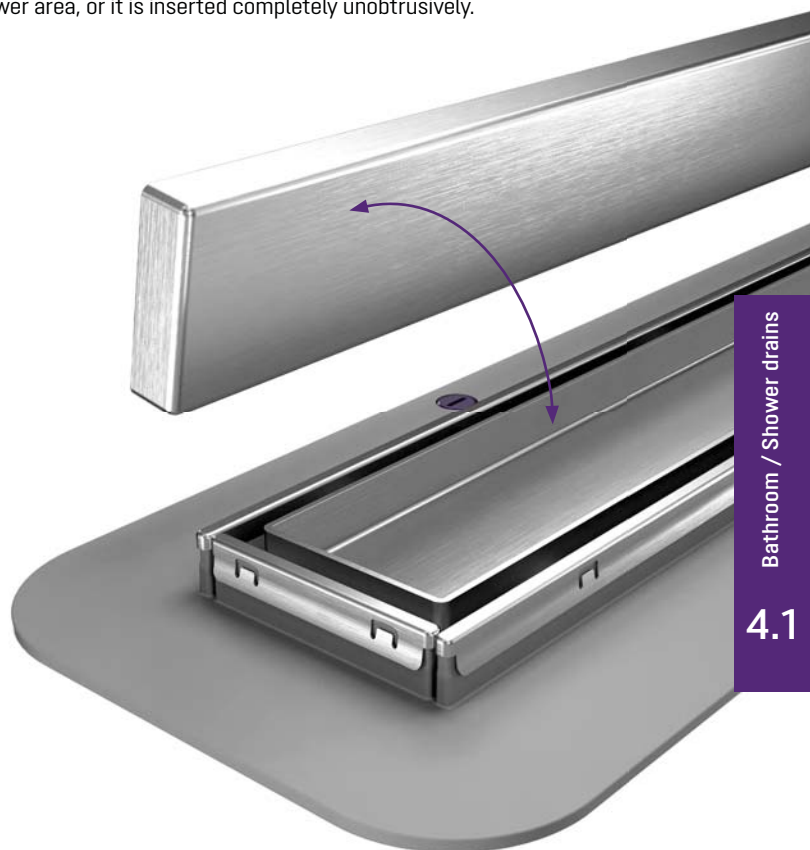
**Linearis Comfort**

Versatile and flexible

Thanks to its adjustable stainless steel insert, the *Linearis Comfort* is particularly versatile to use. This enables it to be easily adapted to different floorings, for example, natural stone.



1 Channel cover 2 Drain body 3 Installation supports



Bathroom / Shower drains

4.1

On request, the *Linearis Comfort* can also be supplied as an upper section (without drain body). This opens up numerous possible connections with the drain bodies and accessories of the modular system 125.

➤ Drain body: Page 214

➤ Further accessories: Page 216

## Shower channel *Linearis Comfort*

with cover and rim in stainless steel AISI 304

System 125



Made in ABS

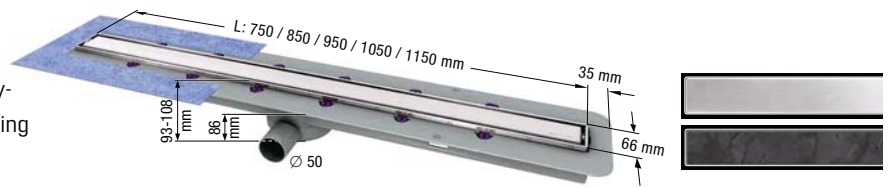
With lateral outlet  $\varnothing 50$ , removable odour trap, installation supports and with factory-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I.

Drainage capacity 1.1 l/sec / 1.0 l/sec with 10 mm / without threshold.

Sealing water height 22 mm

### Cover:

Cover and rim in stainless steel AISI 304 (Channel cover can be reversed and tiled on site), for tile thickness 7 – 22 mm, class K 3, with seeping water opening



Channel length in mm Art. no.

750	45 600.83M
850	45 600.84M
950	45 600.85M
1050	45 600.86M
1150	45 600.87M

## Shower channel upper section *Linearis Comfort*

with cover and rim in stainless steel AISI 304

System 125

Made in ABS

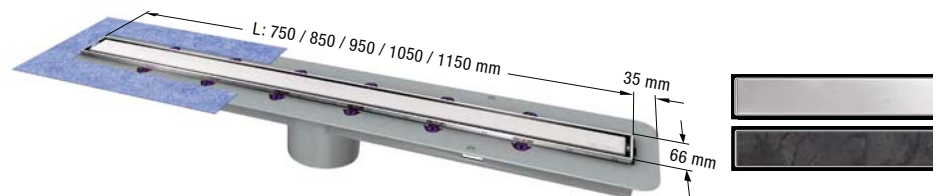
Minimum installation height of upper section excl. drain body 46 mm, with removable odour trap, installation supports and with factory-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I.

Drainage capacity 1.1 l/sec / 1.0 l/sec with 10 mm / without threshold.

Sealing water height 50 mm

### Cover:

Cover and rim in stainless steel AISI 304 (Channel cover can be reversed and tiled on site), for tile thickness 7 – 22 mm, class K 3, with seeping water opening



Channel length in mm Art. no.

With factory-mounted waterproofing membrane

750	48 928M
850	48 929M
950	48 930M
1050	48 931M
1150	48 932M

## Shower channel *Linearis Compact*

with cover and rim in stainless steel AISI 304



Made in ABS

With lateral outlet Ø 50, installation depth only 80 mm, removable odour trap, installation supports and with non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W2-I or factory-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I.

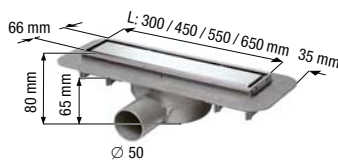
Drainage capacity 0.6 l/sec / 0.5 l/sec with 10 mm / without threshold.

Sealing water height 22 mm

**Cover:**

Cover and rim in stainless steel AISI 304 (Channel cover can be reversed and tiled on site), for tile thickness 15 mm, class K 3, seeping water openings prepared

➤ *Linearis Compact* upper sections for combination with individual system 100 drain bodies: Page 208



Channel length in mm	Art. no.
<b>With non-mounted waterproofing membrane</b>	
300	45 600.59
450	45 600.60
550	45 600.61
650	45 600.62
<b>With factory-mounted waterproofing membrane</b>	
300	45 600.59M
450	45 600.60M
550	45 600.61M
650	45 600.62M

## Shower channel *Linearis Compact*

with cover and rim in stainless steel AISI 304



Made in ABS

With lateral outlet Ø 50, installation depth only 80 mm, removable odour trap, installation supports and with non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W2-I or factory-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I.

Drainage capacity 0.6 l/sec / 0.5 l/sec with 10 mm / without threshold.

Sealing water height 22 mm

**Cover:**

Cover and rim in stainless steel AISI 304 (Channel cover can be reversed and tiled on site), for tile thickness 15 mm, class K 3, seeping water openings prepared

➤ *Linearis Compact* upper sections for combination with individual system 100 drain bodies: Page 208



Channel length in mm	Art. no.
<b>With non-mounted waterproofing membrane</b>	
750	45 600.63
850	45 600.64
950	45 600.65
1050	45 600.66
1150	45 600.67
<b>With factory-mounted waterproofing membrane</b>	
750	45 600.63M
850	45 600.64M
950	45 600.65M
1050	45 600.66M
1150	45 600.67M

## Accessories

System 125

Linearis

### Hygiene and odour stop

for shower channels

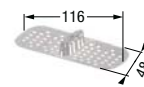
Sealing water  
height in mm Art. no.

**Multistop** **Compatibility:** For shower channel *Linearis Compact*  
**Function:** Odour, foam, rodent and insect stop



- 48 400

**Hair filter** **Compatibility:** For shower channel *Linearis Compact*  
**Material:** Made of polymer



- 48 800

### Installation aid

Compatibility see product description

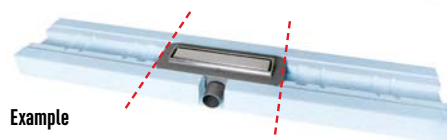
Art. no.

**Linearis Comfort** **Compatibility:** Suitable for all channel lengths from 300 to 1150 mm, can be shortened on-site  
**Function:** Replaces the screed underlining  
**Inclusive:** Mounting adhesive



48 640

**Linearis Compact** **Compatibility:** Suitable for all channel lengths from 300 to 1150 mm, can be shortened on-site  
**Function:** Replaces the screed underlining  
**Inclusive:** Mounting adhesive



Example

48 639

### Adhesive

for gluing of waterproofing membranes

Art. no.

**2 component adhesive** **Function:** For gluing of KESSEL waterproofing membranes



48 650

### Sound protection elements

for installation supports

Art. no.

**Sound protection elements** **Compatibility:** For shower channel *Linearis Compact*  
**Version:** H = 10 mm  
**Note:** Increases the minimal installation height from 80 mm to 90 mm



48 630





## Wall drain *Scada*

The award-winning drain for high end bathrooms.

The design prize-winning, compact wall drain *Scada* is not only set into the floor, but also into the wall, and therefore creates the requirements for a 100% level access, walk-in shower area. Thanks to its minimum installation depth of only 80 mm to the top of the tile, the *Scada* is also ideally suited for renovation projects.

There is a choice of four high-grade drain covers available for *Scada* – even including versions with LED lighting. If necessary, the wall drain can also be pre-assembled and delivered sealed in an installation board. Combined with the shower board with integrated drainage slope, this model is ideal for drywall construction.



- ① Height-adjustable installation supports
- ② Dry wall mount
- ③ Connection option

### Preassembled and sealed complete solution

The *Scada* wall drain is available as a preassembled and sealed complete solution for easy installation. It is made up of an installation board including drain and a shower board with integrated drainage slope.

### Maximum accessibility

As the *Scada* is set into the wall, the floor of the shower area remains completely untouched – accessibility at its finest.

### Factory-mounted waterproofing membrane

The *Scada* is supplied with a factory-mounted waterproofing membrane, which fulfils the highest water action class W3 to DIN 18534-1. It is therefore fully suitable for commercial use.



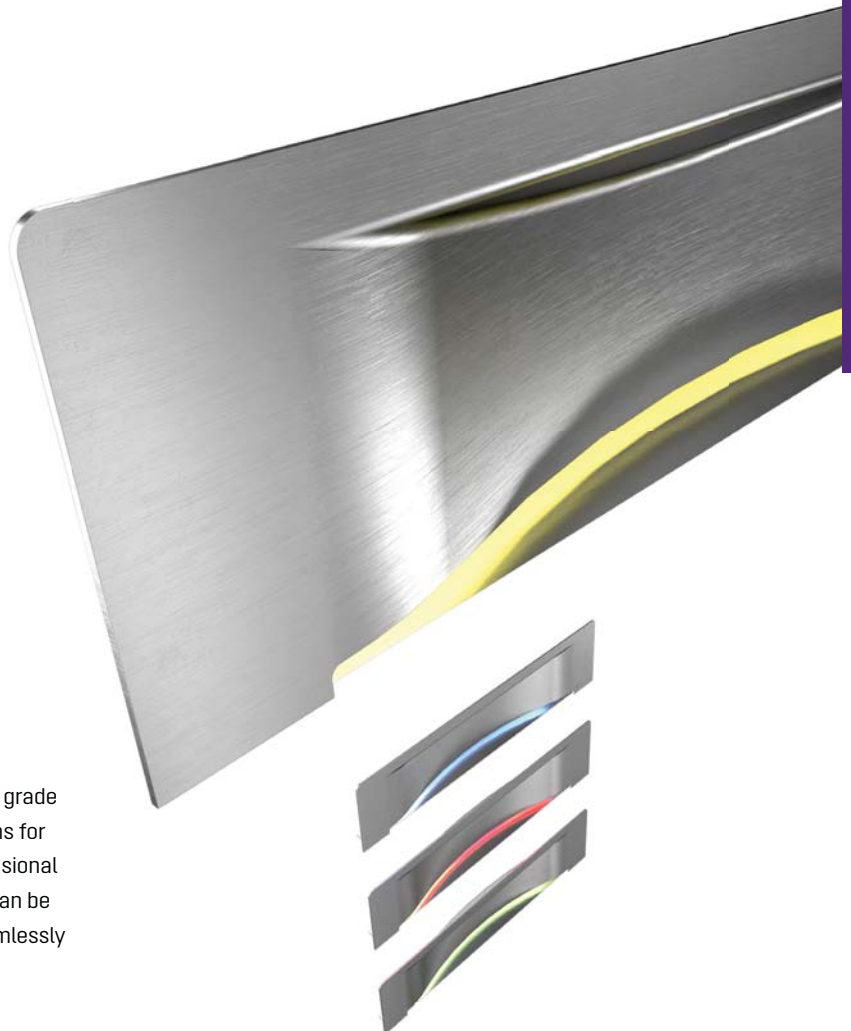
**Height-adjustable installation supports**

Continuously height-adjustable installation supports enable convenient adjustment of the overall installation height from 80 to 215mm up to the top of the tile, as well as individual distances from the wall from 100 to 180 mm. Thanks to triple outlet connection options (front, lateral left or right), it is not necessary to move the drain pipe on site and underfloor heating can be easily laid.



**Award-winning design**

We provide four different drain covers made of V2A grade stainless steel to choose from: two smooth versions for different tile thicknesses, one cover in three-dimensional wave look as well as the "invisible" variant, which can be individually tiled and is thus integrated almost seamlessly into the wall of the shower area.



## Scada without LED-backlighting



Matrix order system

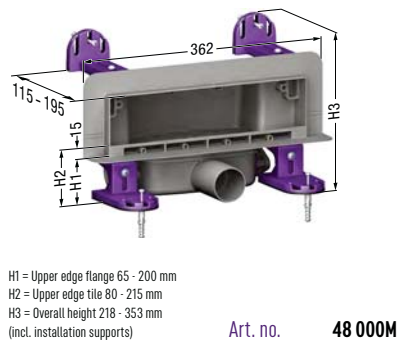
### Drain body

#### Wall drain Scada

For floor drainage indoors

With odor trap and flange for alternative sealing.  
 Drainage capacity 0.5 l/sec flow rate  
 Sealing water height 22 mm

Drain body in ABS, lateral outlet Ø 50, with factory-mounted waterproofing membrane.  
 Connection option at the front, on the left side or right side



### Covers

#### Cover Scada in stainless steel AISI 304

##### Invisible

with stainless steel frame AISI 304  
 Width × height 296 × 61 mm  
 For floor tiles up to 10 mm, can be tiled with wall tiles up to 10 mm



Art. no. **48 011**

Width × height 312 × 74 mm  
 For floor tiles up to 10 mm



Art. no. **48 012**

##### Wave

Width × height 312 × 74 mm  
 For floor tiles up to 10 mm



Art. no. **48 013**

Width × height 312 × 67 mm  
 For floor tiles up to 17 mm

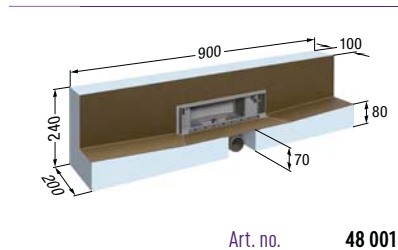


Art. no. **48 014**

#### Item comprised of drain body Scada and drain cover

Art. no. <b>48 000.01M</b>	Art. no. <b>48 000.02M</b>	Art. no. <b>48 000.03M</b>	Art. no. <b>48 000.04M</b>
----------------------------	----------------------------	----------------------------	----------------------------

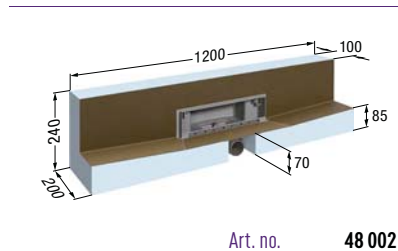
#### Installation board 900 × 200 mm



#### Item comprised of installation board with drain body Scada and drain cover

Art. no. <b>48 001.01</b>	Art. no. <b>48 001.02</b>	Art. no. <b>48 001.03</b>	Art. no. <b>48 001.04</b>
---------------------------	---------------------------	---------------------------	---------------------------

#### Installation board 1200 × 200 mm



#### Item comprised of installation board with drain body Scada and drain cover

Art. no. <b>48 002.01</b>	Art. no. <b>48 002.02</b>	Art. no. <b>48 002.03</b>	Art. no. <b>48 002.04</b>
---------------------------	---------------------------	---------------------------	---------------------------

# Scada with LED-backlighting

System 125



Matrix order system

## Drain body

### Wall drain Scada

with LED-backlighting,  
color of choice

For floor drainage indoors

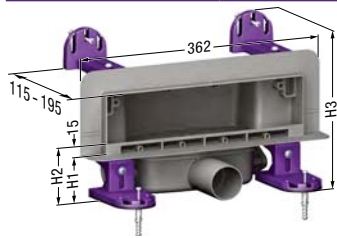
With odor trap and flange  
for alternative sealing.

Drainage capacity 0.5 l/sec flow rate

Sealing water height 22 mm

Drain body in ABS,  
lateral outlet Ø 50, with factory-  
mounted waterproofing membrane.

Connection option at the front,  
on the left side or right side



H1 = Upper edge flange 65 - 200 mm  
H2 = Upper edge tile 80 - 215 mm  
H3 = Overall height 218 - 353 mm  
(incl. installation supports)



Art. no. **48 003M**

## Covers

### Cover Scada in stainless steel AISI 304

#### Invisible

with stainless steel  
frame AISI 304

Width × height  
296 × 61 mm

For floor tiles up  
to 10 mm, can be  
tiled with wall tiles  
up to 10 mm



Art. no. **48 011**

Width × height  
312 × 74 mm  
For floor tiles  
up to 10 mm



Art. no. **48 012**

#### Wave

Width × height  
312 × 74 mm  
For floor tiles  
up to 10 mm



Art. no. **48 013**

Width × height  
312 × 67 mm  
For floor tiles  
up to 17 mm



Art. no. **48 014**

### Item comprised of drain body Scada and drain cover

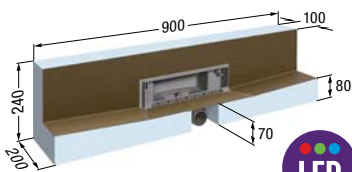
Art. no. **48 003.41M**

Art. no. **48 003.42M**

Art. no. **48 003.43M**

Art. no. **48 003.44M**

### Installation board LED 900 × 200 mm



Art. no. **48 004**

### Item comprised of installation board with drain body Scada and drain cover

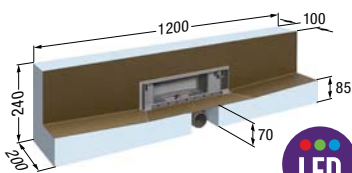
Art. no. **48 004.41**

Art. no. **48 004.42**

Art. no. **48 004.43**

Art. no. **48 004.44**

### Installation board LED 1200 × 200 mm



Art. no. **48 005**

### Item comprised of installation board with drain body Scada and drain cover

Art. no. **48 005.41**

Art. no. **48 005.42**

Art. no. **48 005.43**

Art. no. **48 005.44**

## Accessories

System 125

Scada

### Installation board

for wall drain *Scada*

Dimensions  
L × W × H in mm Art. no.

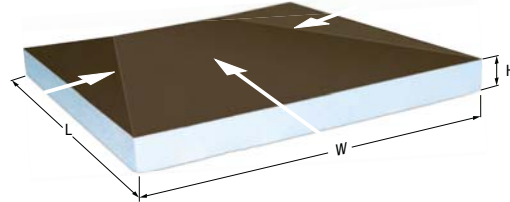
with integrated  
3-side slope

Slope on the left: 2.4 %  
Slope in the middle: 0.8 %  
Slope on the right: 2.4 %

900 × 900 × 80 **48 051**

Slope on the left: 3.7 %  
Slope in the middle: 1.1 %  
Slope on the right: 3.7 %

1200 × 1200 × 85 **48 052**



### Drywall mount

for drain body

Height × width  
in mm Art. no.

Drywall mount

Inclusive: Adhesive

300 × 623 **48 063**



### Sealing set

for shower board

Art. no.

Sealing set

Inclusive: Adhesive and sealing tapes

**48 062**



### Hygiene and odour stop

for wall drain *Scada*

Art. no.

*Multistop*

Function: Odour, foam, rodent and insect stop

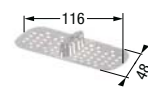
**48 400**



Hair filter

Material: Polymer

**48 800**







## 4.2 Project drains

Floor drains with versatile properties



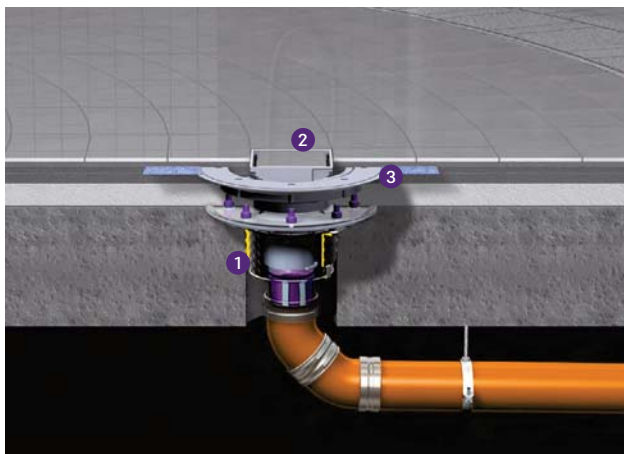


## Floor/roof drain

# *Ecoguss*

The innovative solution for industrial applications.

An innovation, which sets standards: For our floor/roof drain *Ecoguss* we use the especially developed composite material of the same name, which combines the specific advantages of polymer and metal. The *Ecoguss* is therefore an economic and easy to install alternative to drains made of cast iron. At the same time, it offers enormous advantages with regard to hygiene as well as fire protection and sound insulation and is therefore particularly suitable for public buildings such as hotels, hospitals or swimming pools.



- ① Drainbody *Ecoguss* ② "Invisible" drain cover
- ③ *Variofix* upper section with shallow waterproofing flange



The best of both worlds:

### project drains made of *Ecoguss*

Resistance, convenience, cleanliness – all these are offered by *Ecoguss* – our high-tech composite. It is three times lighter than cast iron and at the same time it is temperature resistant as well as being highly resistant to chemical exposure and mechanical loads. In addition, *Ecoguss* does not corrode (rust) and is extremely hygienic – thanks to its smooth, coating-free surface. *Ecoguss* drains can be installed without time-consuming electrical grounding work and are also suitable for connection to SML (flanged) pipes.



### Variable upper sections

Extremely flexible: our rotatable, tiltable and height-adjustable upper sections. The shallow bed *Variofix* upper section also allows the cover to be moved and thus adapted to the tile pattern.

### Highest fire protection standards

#### *Fire-Kit and Quick-Fit*

➤ Fire protection: page 239

With our modular system 125, we provide numerous possible combinations for our project drains.

➤ Upper sections: Page 236

➤ Drain body: Page 236

➤ Further accessories: Page 238

## Ecoguss with pressure sealing flange

Matrix order system

System 125



### Drain body

#### Ecoguss with pressure sealing flange

for connection to SML-pipe,  
with odour trap.  
Drainage capacity in l/sec  
with 20 mm / 10 mm threshold  
see table\*  
Sealing water height 50 mm

➤ **Modular system**  
see pages 236 – 237

### Upper sections

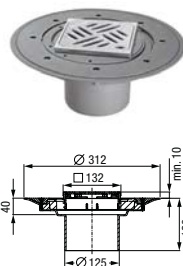
**Shallow bed upper section in ABS**  
with enclosed waterproofing membrane

**Slotted cover**  
138 × 138 mm  
and rim in stainless  
steel AISI 304,  
class K 3,  
screwed



Art. no. **48 963**

**Design cover Kessel**  
120 × 120 mm  
and rim in stainless  
steel AISI 304,  
class L 15,  
*Lock & Lift* locking  
system



Art. no. **48 904**

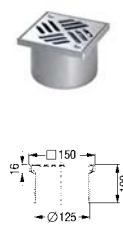
**Upper section in ABS**

**Design cover Kessel**  
120 × 120 mm  
and rim in stainless  
steel AISI 304,  
class L 15,  
*Lock & Lift* locking  
system



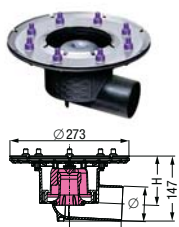
Art. no. **48 201**

**Slotted cover**  
138 × 138 mm  
in stainless steel  
AISI 304, class K 3,  
screwed



Art. no. **48 950**

### Drain body with lateral outlet



Ø	H	B
58	120	245
78	109	134
83	108	134
110	92	148

Ø 58 Art. no. **48 758**

Ø 78 Art. no. **48 778**

Ø 83 Art. no. **48 783**

Ø 110 Art. no. **48 711**

### Complete drain comprising a combination of the upper section and drain body

Art. no. **48 758.51**  
Drainage capacity\* 1.6 / 1.2

Art. no. **48 758.53**  
Drainage capacity\* 1.6 / 1.2

Art. no. **48 758.63**  
Drainage capacity\* 1.4 / 1.0

Art. no. **48 758.11**  
Drainage capacity\* 1.4 / 1.0

Art. no. **48 778.51**  
Drainage capacity\* 1.5 / 1.2

Art. no. **48 778.53**  
Drainage capacity\* 1.5 / 1.2

Art. no. **48 778.63**  
Drainage capacity\* 1.3 / 1.1

Art. no. **48 778.11**  
Drainage capacity\* 1.3 / 1.1

Art. no. **48 783.51**  
Drainage capacity\* 1.6 / 1.2

Art. no. **48 783.53**  
Drainage capacity\* 1.6 / 1.2

Art. no. **48 783.63**  
Drainage capacity\* 1.4 / 1.1

Art. no. **48 783.11**  
Drainage capacity\* 1.4 / 1.1

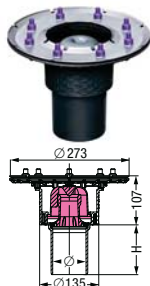
Art. no. **48 711.51**  
Drainage capacity\* 1.7 / 1.0

Art. no. **48 711.53**  
Drainage capacity\* 1.7 / 1.0

Art. no. **48 711.63**  
Drainage capacity\* 1.5 / 1.0

Art. no. **48 711.11**  
Drainage capacity\* 1.6 / 1.0

### Drain body with vertical outlet



Ø	H
58	100
78	110
83	110
110	110

Ø 58 Art. no. **48 858**

Ø 78 Art. no. **48 878**

Ø 83 Art. no. **48 883**

Ø 110 Art. no. **48 811**

### Complete drain comprising a combination of the upper section and drain body

Art. no. **48 858.51**  
Drainage capacity\* 2.1 / 1.3

Art. no. **48 858.53**  
Drainage capacity\* 2.1 / 1.3

Art. no. **48 858.63**  
Drainage capacity\* 1.9 / 1.0

Art. no. **48 858.11**  
Drainage capacity\* 1.9 / 1.0

Art. no. **48 878.51**  
Drainage capacity\* 2.1 / 1.0

Art. no. **48 878.53**  
Drainage capacity\* 2.1 / 1.0

Art. no. **48 878.63**  
Drainage capacity\* 1.9 / 1.0

Art. no. **48 878.11**  
Drainage capacity\* 1.9 / 1.0

Art. no. **48 883.51**  
Drainage capacity\* 2.1 / 1.0

Art. no. **48 883.53**  
Drainage capacity\* 2.1 / 1.0

Art. no. **48 883.63**  
Drainage capacity\* 1.9 / 1.0

Art. no. **48 883.11**  
Drainage capacity\* 1.9 / 1.0

Art. no. **48 811.51**  
Drainage capacity\* 2.1 / 1.0

Art. no. **48 811.53**  
Drainage capacity\* 2.1 / 1.0

Art. no. **48 811.63**  
Drainage capacity\* 1.9 / 1.0

Art. no. **48 811.11**  
Drainage capacity\* 2.0 / 1.0

# Ecoguss with glue flange

Matrix order system

System 125



## Drain body

### Ecoguss with glue flange

for connection to SML-pipe,  
with odour trap.  
Drainage capacity in l/sec  
with 20 mm / 10 mm threshold  
see table\*  
Sealing water height 50 mm

### Modular system

see pages 236 – 237

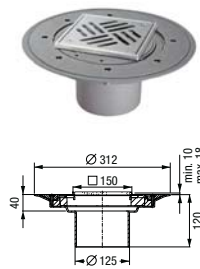
## Upper sections

### Shallow bed upper section in ABS

with enclosed waterproofing membrane

#### Slotted cover

138 × 138 mm  
and rim in stainless  
steel AISI 304,  
class K 3,  
screwed



Art. no. **48 963**

#### Design cover Kessel

120 × 120 mm  
and rim in stainless  
steel AISI 304,  
class L 15,  
Lock & Lift locking  
system



Art. no. **48 904**

### Upper section in ABS

#### Design cover Kessel

120 × 120 mm  
and rim in stainless  
steel AISI 304,  
class L 15,  
Lock & Lift locking  
system



Art. no. **48 201**

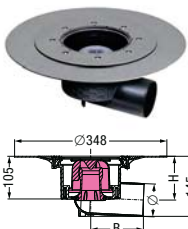
#### Slotted cover

138 × 138 mm  
in stainless steel  
AISI 304, class K 3,  
screwed



Art. no. **48 950**

## Drain body with lateral outlet



Ø	H	B
58	120	245
78	107	134
83	106	134
110	90	148

Ø 58 Art. no. **48 558**

Ø 78 Art. no. **48 578**

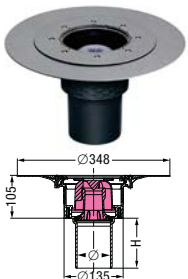
Ø 83 Art. no. **48 583**

Ø 110 Art. no. **48 511**

## Complete drain comprising a combination of the upper section and drain body

Art. no.	48 558.51	48 558.53	48 558.63	48 558.11
Drainage capacity*	1.6 / 1.3	1.5 / 1.2	1.4 / 1.0	1.4 / 1.0
Art. no.	48 578.51	48 578.53	48 578.63	48 578.11
Drainage capacity*	1.6 / 1.2	1.5 / 1.2	1.4 / 1.1	1.4 / 1.1
Art. no.	48 583.51	48 583.53	48 583.63	48 583.11
Drainage capacity*	1.6 / 1.2	1.5 / 1.2	1.4 / 1.1	1.4 / 1.1
Art. no.	48 511.51	48 511.53	48 511.63	48 511.11
Drainage capacity*	1.8 / 1.0	1.8 / 1.0	1.6 / 1.0	1.6 / 1.0

## Drain body with vertical outlet



Ø	H
58	100
78	110
83	110
110	110

Ø 58 Art. no. **48 658**

Ø 78 Art. no. **48 678**

Ø 83 Art. no. **48 683**

Ø 110 Art. no. **48 611**

## Complete drain comprising a combination of the upper section and drain body

Art. no.	48 658.51	48 658.53	48 658.63	48 658.11
Drainage capacity*	2.2 / 1.3	2.2 / 1.3	2.0 / 1.0	2.0 / 1.0
Art. no.	48 678.51	48 678.53	48 678.63	48 678.11
Drainage capacity*	2.1 / 1.0	2.1 / 1.0	2.0 / 1.0	2.0 / 1.0
Art. no.	48 683.51	48 683.53	48 683.63	48 683.11
Drainage capacity*	2.1 / 1.0	2.1 / 1.0	2.0 / 1.0	2.0 / 1.0
Art. no.	48 611.51	48 611.53	48 611.63	48 611.11
Drainage capacity*	2.2 / 1.0	2.2 / 1.0	2.0 / 1.0	2.0 / 1.0

## Ecoguss with connection flange

Matrix order system

System 125



### Drain body

#### Ecoguss with connection flange

for connection to SML-pipe,  
with odour trap.  
Drainage capacity in l/sec  
with 20 mm / 10 mm threshold  
see table\*  
Sealing water height 50 mm

➔ **Modular system**  
see pages 236 – 237

### Upper sections

**Shallow bed upper section in ABS**  
with enclosed waterproofing membrane

#### Slotted cover

138 × 138 mm  
and rim in stainless  
steel AISI 304,  
class K 3,  
screwed



Art. no. **48 963**

#### Design cover Kessel

120 × 120 mm  
and rim in stainless  
steel AISI 304,  
class L 15,  
*Lock & Lift* locking  
system



Art. no. **48 904**

**Upper section in ABS**

#### Design cover Kessel

120 × 120 mm  
and rim in stainless  
steel AISI 304,  
class L 15,  
*Lock & Lift* locking  
system



Art. no. **48 201**

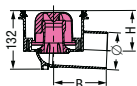
#### Slotted cover

138 × 138 mm  
in stainless steel  
AISI 304, class K 3,  
screwed



Art. no. **48 950**

### Drain body with lateral outlet



Ø	H	B
58	120	245
78	109	134
83	108	134
110	92	148

Ø 58 Art. no. **48 358**

Ø 78 Art. no. **48 378**

Ø 83 Art. no. **48 383**

Ø 110 Art. no. **48 311**

### Complete drain comprising a combination of the upper section and drain body

Art. no. **48 358.51**

Drainage capacity\* 1.6 / 1.3

Art. no. **48 378.51**

Drainage capacity\* 1.6 / 1.2

Art. no. **48 383.51**

Drainage capacity\* 1.6 / 1.2

Art. no. **48 311.51**

Drainage capacity\* 1.7 / 1.2

Art. no. **48 358.53**

Drainage capacity\* 1.5 / 1.2

Art. no. **48 378.53**

Drainage capacity\* 1.5 / 1.2

Art. no. **48 383.53**

Drainage capacity\* 1.5 / 1.2

Art. no. **48 311.53**

Drainage capacity\* 1.6 / 1.0

Art. no. **48 358.63**

Drainage capacity\* 1.4 / 1.0

Art. no. **48 378.63**

Drainage capacity\* 1.4 / 1.1

Art. no. **48 383.63**

Drainage capacity\* 1.4 / 1.1

Art. no. **48 311.63**

Drainage capacity\* 1.5 / 1.2

Art. no. **48 358.11**

Drainage capacity\* 1.4 / 1.0

Art. no. **48 378.11**

Drainage capacity\* 1.4 / 1.1

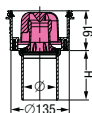
Art. no. **48 383.11**

Drainage capacity\* 1.4 / 1.1

Art. no. **48 311.11**

Drainage capacity\* 1.6 / 1.1

### Drain body with vertical outlet



Ø	H
58	100
78	110
83	110
110	110

Ø 58 Art. no. **48 458**

Ø 78 Art. no. **48 478**

Ø 83 Art. no. **48 483**

Ø 110 Art. no. **48 411**

### Complete drain comprising a combination of the upper section and drain body

Art. no. **48 458.51**

Drainage capacity\* 2.2 / 1.3

Art. no. **48 478.51**

Drainage capacity\* 2.1 / 1.0

Art. no. **48 483.51**

Drainage capacity\* 2.1 / 1.0

Art. no. **48 411.51**

Drainage capacity\* 2.2 / 1.0

Art. no. **48 458.53**

Drainage capacity\* 2.2 / 1.3

Art. no. **48 478.53**

Drainage capacity\* 2.1 / 1.0

Art. no. **48 483.53**

Drainage capacity\* 2.1 / 1.0

Art. no. **48 411.53**

Drainage capacity\* 2.2 / 1.0

Art. no. **48 458.63**

Drainage capacity\* 2.0 / 1.0

Art. no. **48 478.63**

Drainage capacity\* 2.0 / 1.0

Art. no. **48 483.63**

Drainage capacity\* 2.0 / 1.0

Art. no. **48 411.63**

Drainage capacity\* 2.0 / 1.0

Art. no. **48 458.11**

Drainage capacity\* 2.0 / 1.0

Art. no. **48 478.11**

Drainage capacity\* 2.0 / 1.0

Art. no. **48 483.11**

Drainage capacity\* 2.0 / 1.0

Art. no. **48 411.11**

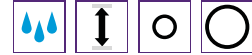
Drainage capacity\* 2.0 / 1.0



## Floor/Roof drain *Ecoguss*

with *Variofix* shallow bed upper section and slotted cover in stainless steel AISI 304

System 125



Made in *Ecoguss*

For connection to SML-pipe according to DIN 19522, with removable odour trap, vertical outlet, with lip seal.

With enclosed waterproofing membrane (articles with *Variofix* shallow bed upper section)

Drainage capacity in l/sec with 20 mm / 10 mm threshold

- Ø 58: 2.2 l/sec / 1.3 l/sec
- Ø 78: 2.1 l/sec / 1.0 l/sec
- Ø 110: 2.2 l/sec / 1.0 l/sec

Sealing water height 50 mm.

Installation area 180×180 mm

With upper section in ABS

**Cover:**

Rim in stainless steel AISI 304 (articles with *Variofix* shallow bed upper section)

or ABS, slotted cover 138×138 mm in stainless steel AISI 304, screwed, class K 3



Illustration shows Art. no. 44 411.51

Outer diameter Ø (mm)

Art. no.

With *Variofix* shallow bed upper section

Ø 58 48 458.51

Ø 78 48 478.51

Ø 110 48 411.51

With connection flange and upper section in ABS

Ø 110 48 411.11

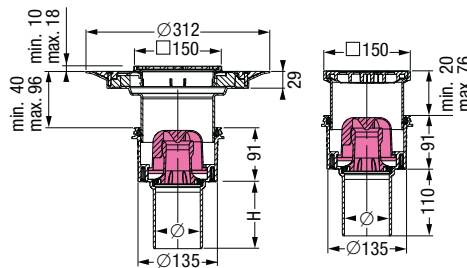


Illustration shows Art. no. 44 458.51, 44 478.51, 44 411.51

Illustration shows Art. no. 44 411.11



## Floor/Roof drain *Ecoguss*

with *Variofix* shallow bed upper section and slotted cover in stainless steel AISI 304

System 125



Made in *Ecoguss*

With removable odour trap, sealing water height 50 mm, vertical outlet, with lip seal.

Drainage capacity in l/sec with 20 mm / 10 mm threshold

Ø 110: 2.2 l/sec / 1.0 l/sec.

Installation area 300×300 mm

With *Variofix* shallow bed upper section in ABS, with pressure sealing flange in stainless steel AISI 304 and with enclosed waterproofing membrane

**Cover:**

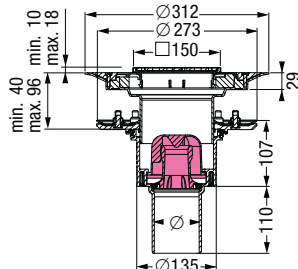
Slotted cover 138×138 mm and rim in stainless steel AISI 304, screwed, class K 3



Outer diameter Ø (mm)

Art. no.

Ø 110 48 811.51

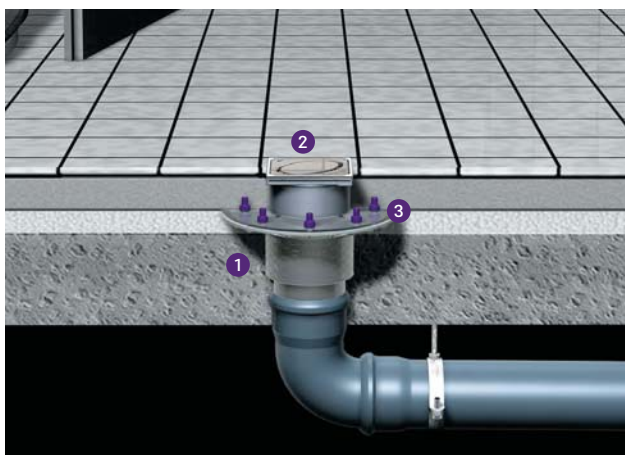


## Floor drain *Practicus*

Developed, manufactured and tested for commercial and industrial use.

Our project drain *Practicus* made of the high-quality polymer polypropylene (PP) is an easy to install alternative to drains made of metal. It also offers other advantages: For example, its rust-resistant and smooth surface prevents deposits and therefore ensures a strong self-cleaning effect. And thanks to its discharge rate of 1.8 l/s, it is also suitable for showers with particularly high water use. All this makes the *Practicus* a thoroughly robust solution with diverse possible uses in project drainage.

The *Practicus* is available with lateral or vertical outlet as well as in different outlet sizes from Ø 50 to Ø 110 mm.



- ① Drain body *Practicus*
- ② Upper section with cover
- ③ Pressure sealing flange for waterproofing layer

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With our modular system 125, we provide numerous possible combinations for our project drains.

➤ Upper sections: Page 236

➤ Drain body: Page 236

➤ Further accessories: Page 238



# Practicus with pressure sealing flange

Matrix order system

System 125



## Drain body

### Practicus with pressure sealing flange

in PP, with odour trap.  
 Drainage capacity in l/sec  
 with 20 mm / 10 mm threshold  
 see table\*  
 Sealing water height 50 mm

➤ **Modular system**  
 see pages 236 – 237

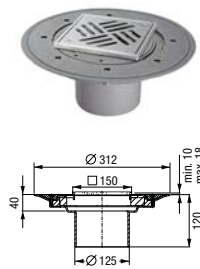
## Upper sections

### Shallow bed upper section in ABS

with enclosed waterproofing membrane

#### Slotted cover

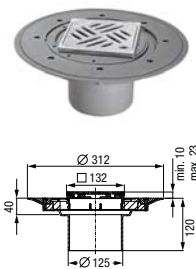
138 × 138 mm  
 and rim in stainless  
 steel AISI 304,  
 class K 3,  
 screwed



Art. no. **48 963**

#### Design cover Kessel

120 × 120 mm  
 and rim in stainless  
 steel AISI 304,  
 class L 15,  
 Lock & Lift locking  
 system



Art. no. **48 904**

### Upper section in ABS

#### Design cover Kessel

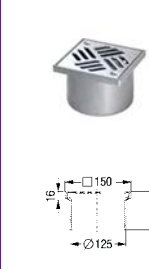
120 × 120 mm  
 and rim in stainless  
 steel AISI 304,  
 class L 15,  
 Lock & Lift locking  
 system



Art. no. **48 201**

#### Slotted cover

138 × 138 mm  
 in stainless steel  
 AISI 304, class K 3,  
 screwed



Art. no. **48 950**

## Drain body with lateral outlet

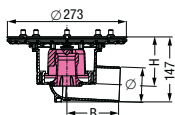
## Complete drain comprising a combination of the upper section and drain body



Ø 50 Art. no. **45 159**

Art. no. **45 159.51** Art. no. **45 159.53** Art. no. **45 159.63** Art. no. **45 159.11**

Drainage capacity\* 1.6 / 1.2 Drainage capacity\* 1.6 / 1.2 Drainage capacity\* 1.4 / 1.0 Drainage capacity\* 1.4 / 1.0



Ø 75 Art. no. **45 179**

Art. no. **45 179.51** Art. no. **45 179.53** Art. no. **45 179.63** Art. no. **45 179.11**

Drainage capacity\* 1.5 / 1.2 Drainage capacity\* 1.5 / 1.2 Drainage capacity\* 1.3 / 1.1 Drainage capacity\* 1.3 / 1.1

Ø	H	B
50	120	245
75	107	134
110	90	148

Ø 110 Art. no. **45 119**

Art. no. **45 119.51** Art. no. **45 119.53** Art. no. **45 119.63** Art. no. **45 119.11**

Drainage capacity\* 1.7 / 1.0 Drainage capacity\* 1.7 / 1.0 Drainage capacity\* 1.5 / 1.0 Drainage capacity\* 1.6 / 1.0

## Drain body with vertical outlet

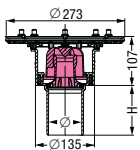
## Complete drain comprising a combination of the upper section and drain body



Ø 50 Art. no. **45 259**

Art. no. **45 259.51** Art. no. **45 259.53** Art. no. **45 259.63** Art. no. **45 259.11**

Drainage capacity\* 2.1 / 1.3 Drainage capacity\* 2.1 / 1.3 Drainage capacity\* 1.9 / 1.0 Drainage capacity\* 1.9 / 1.0



Ø 75 Art. no. **45 279**

Art. no. **45 279.51** Art. no. **45 279.53** Art. no. **45 279.63** Art. no. **45 279.11**

Drainage capacity\* 2.0 / 1.0 Drainage capacity\* 2.1 / 1.0 Drainage capacity\* 1.9 / 1.0 Drainage capacity\* 1.9 / 1.0

Ø	H
50	100
75	110
110	110

Ø 110 Art. no. **45 219**

Art. no. **45 219.51** Art. no. **45 219.53** Art. no. **45 219.63** Art. no. **45 219.11**

Drainage capacity\* 2.1 / 1.0 Drainage capacity\* 2.1 / 1.0 Drainage capacity\* 1.9 / 1.0 Drainage capacity\* 2.0 / 1.0

## Practicus with connection flange

Matrix order system

System 125



### Drain body

#### Practicus with connection flange

in PP, with odour trap.  
 Drainage capacity in l/sec  
 with 20 mm / 10 mm threshold  
 see table\*  
 Sealing water height 50 mm

➤ **Modular system**  
 see pages 236 – 237

### Upper sections

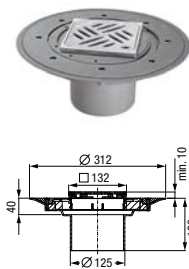
**Shallow bed upper section in ABS**  
 with enclosed waterproofing membrane

**Slotted cover**  
 138 × 138 mm  
 and rim in stainless  
 steel AISI 304,  
 class K 3,  
 screwed



Art. no. **48 963**

**Design cover Kessel**  
 120 × 120 mm  
 and rim in stainless  
 steel AISI 304,  
 class L 15,  
*Lock & Lift* locking  
 system



Art. no. **48 904**

**Upper section in ABS**

**Design cover Kessel**  
 120 × 120 mm  
 and rim in stainless  
 steel AISI 304,  
 class L 15,  
*Lock & Lift* locking  
 system



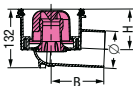
Art. no. **48 201**

**Slotted cover**  
 138 × 138 mm  
 in stainless steel  
 AISI 304, class K 3,  
 screwed



Art. no. **48 950**

### Drain body with lateral outlet



Ø	H	B
50	120	245
75	109	134
110	92	148

Ø 50 Art. no. **45 150**

Ø 75 Art. no. **45 170**

Ø 110 Art. no. **45 110**

### Complete drain comprising a combination of the upper section and drain body

Art. no. **45 150.51**

Drainage capacity\* 1.6 / 1.3

Art. no. **45 150.53**

Drainage capacity\* 1.5 / 1.2

Art. no. **45 150.63**

Drainage capacity\* 1.4 / 1.0

Art. no. **45 150.11**

Drainage capacity\* 1.4 / 1.0

Art. no. **45 170.51**

Drainage capacity\* 1.6 / 1.2

Art. no. **45 170.53**

Drainage capacity\* 1.5 / 1.2

Art. no. **45 170.63**

Drainage capacity\* 1.4 / 1.1

Art. no. **45 170.11**

Drainage capacity\* 1.4 / 1.1

Art. no. **45 110.51**

Drainage capacity\* 1.7 / 1.2

Art. no. **45 110.53**

Drainage capacity\* 1.6 / 1.0

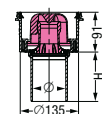
Art. no. **45 110.63**

Drainage capacity\* 1.5 / 1.2

Art. no. **45 110.11**

Drainage capacity\* 1.6 / 1.1

### Drain body with vertical outlet



Ø	H
50	100
75	110
110	110

Ø 50 Art. no. **45 250**

Ø 75 Art. no. **45 270**

Ø 110 Art. no. **45 210**

### Complete drain comprising a combination of the upper section and drain body

Art. no. **45 250.51**

Drainage capacity\* 2.2 / 1.3

Art. no. **45 250.53**

Drainage capacity\* 2.2 / 1.3

Art. no. **45 250.63**

Drainage capacity\* 2.0 / 1.0

Art. no. **45 250.11**

Drainage capacity\* 2.0 / 1.0

Art. no. **45 270.51**

Drainage capacity\* 2.1 / 1.0

Art. no. **45 270.53**

Drainage capacity\* 2.1 / 1.0

Art. no. **45 270.63**

Drainage capacity\* 2.0 / 1.0

Art. no. **45 270.11**

Drainage capacity\* 2.0 / 1.0

Art. no. **45 210.51**

Drainage capacity\* 2.2 / 1.0

Art. no. **45 210.53**

Drainage capacity\* 2.2 / 1.0

Art. no. **45 210.63**

Drainage capacity\* 2.0 / 1.0

Art. no. **45 210.11**

Drainage capacity\* 2.0 / 1.0

## Floor drain *Practicus*

with slotted cover in ABS

Made in PP

With removable odour trap, sealing water height 50 mm, with lip seal.

Drainage capacity in l/sec

with 20 mm / 10 mm threshold

lateral outlet: 1.6 l/sec / 1.0 l/sec

vertical outlet: 2.0 l/sec / 1.0 l/sec.

Installation area:

lateral outlet: 220 × 180 mm

vertical outlet: 180 × 180 mm

With upper section in ABS

slotted cover 138 × 138 mm in ABS,

black, class K 3



EN 1253-1



Illustration shows Art. no. 45 110.40 (lateral outlet)

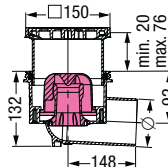


Illustration shows Art. no. 45 110.40 (lateral outlet)

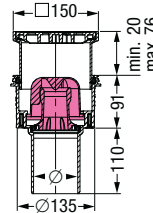


Illustration shows Art. no. 45 210.40 (vertical outlet)

System 125



Outer diameter Ø (mm)

Art. no.

Lateral outlet

Ø 110

45 110.40

Vertical outlet

Ø 110

45 210.40

## Floor drain *Practicus*

with slotted cover in stainless steel AISI 304

Made in PP

With removable odour trap, sealing water height 50 mm, vertical outlet, with lip seal.

Drainage capacity in l/sec

with 20 mm / 10 mm threshold

Ø 110: 2.0 l/sec / 1.0 l/sec.

Installation area 180 × 180 mm

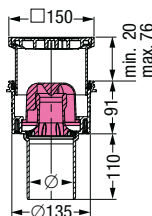
With upper section in ABS,

slotted cover 138 × 138 mm in stainless

steel AISI 304, screwed, class K 3



EN 1253-1



System 125



Outer diameter Ø (mm)

Art. no.

Ø 110

45 210.11

## Floor drain *Practicus*

with slotted cover in stainless steel AISI 304

Made in PP

With removable odour trap, sealing water height 50 mm, vertical outlet, with lip seal.

Drainage capacity in l/sec

with 20 mm / 10 mm threshold

Ø 110: 2.0 l/sec / 1.0 l/sec.

Installation area 350 × 350 mm

With upper section in ABS,

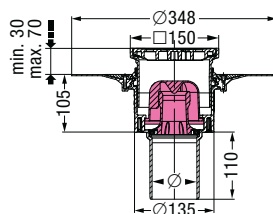
with glue flange and counter flange,

slotted cover 138 × 138 mm in stainless

steel AISI 304, screwed, class K 3



EN 1253-1



System 125



Outer diameter Ø (mm)

Art. no.

Ø 110

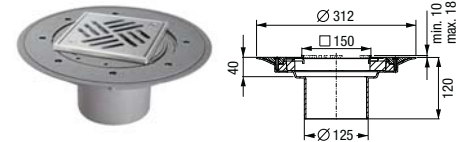
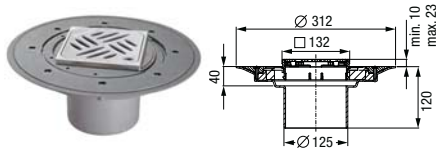
45 218.11

## Modular system 125

*Ecoguss and Practicus*

### Variofix shallow bed upper sections

with covers in stainless steel



#### with design cover

in stainless steel AISI 304 or AISI 316L

**Material:** ABS, rim in stainless steel

**Class:** L 15 (*Kessel, Oval*) / K 3 (*Spot, Slot*)

**Tile thickness:** 8 – 21 mm

**Cover:** 120×120 mm

**Anti-slip class design cover *Kessel*:**

R9 according to DIN 51130;

C according to DIN 51097

**Inclusive:** Waterproofing membrane

Cover	Art. no.	Cover	Art. no.
with <i>Lock &amp; Lift</i> System		without <i>Lock &amp; Lift</i> System	
1	AISI 304 48 904	1	AISI 304 48 625
2	AISI 304 48 905	2	AISI 304 48 626
3	AISI 304 48 621	3	AISI 304 48 620
4	AISI 304 48 619	4	AISI 304 48 618
1	AISI 316L 48 204	2	AISI 316L 48 670
2	AISI 316L 48 669		

#### with slotted cover

in stainless steel AISI 304 or AISI 316L

**Material:** ABS, rim in stainless steel

**Class:** K 3

**Tile thickness:** 8 – 16 mm

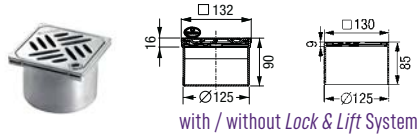
**Cover:** 138×138 mm, screwed

**Inclusive:** Waterproofing membrane

AISI 304 Art. no. 48 963  
AISI 316L Art. no. 48 206

### Upper sections

with covers in stainless steel



#### mit Designrost

in stainless steel AISI 304 or AISI 316L

**Material:** ABS, rim in stainless steel

**Class:** L 15 (*Kessel, Oval*) / K 3 (*Spot, Slot*)

**Cover:** 120×120 mm

**Anti-slip class design cover *Kessel*:**

R9 according to DIN 51130;

C according to DIN 51097

Cover	Art. no.	Cover	Art. no.
with <i>Lock &amp; Lift</i> System		without <i>Lock &amp; Lift</i> System	
1	AISI 304 48 201	1	AISI 304 48 225
2	AISI 304 48 202	2	AISI 304 48 226
3	AISI 304 48 221	3	AISI 304 48 220
4	AISI 304 48 219	4	AISI 304 48 218
1	AISI 316L 48 203	2	AISI 316L 48 228
2	AISI 316L 48 227		

#### with slotted cover

in stainless steel AISI 304

**Material:** ABS

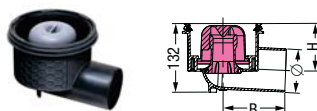
**Class:** K 3

**Cover:** 120×120 mm

AISI 304 Art. no. 48 165

### Drain body *Ecoguss*

with removable odour trap\*



#### with connection flange, lateral outlet

**Material:** *Ecoguss*

**Sealing water height:** 50 mm

Ø 58 B×H 245×120 mm Art. no. 48 358

Ø 78 B×H 134×109 mm Art. no. 48 378

Ø 83 B×H 134×108 mm Art. no. 48 383

Ø 110 B×H 148×92 mm Art. no. 48 311

#### with connection flange, vertical outlet

**Material:** *Ecoguss*

**Sealing water height:** 50 mm

Ø 58 H 100 mm Art. no. 48 458

Ø 78 H 110 mm Art. no. 48 478

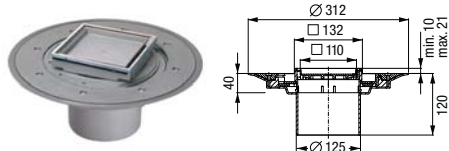
Ø 83 H 110 mm Art. no. 48 483

Ø 110 H 110 mm Art. no. 48 411

\*The *Linearis Comfort* and *Linearis Compact* shower channels already include an odour trap. For this reason, the odour trap must be removed from all drain bodies during installation.

**Variofix shallow bed upper sections**

with covers in stainless steel



**with recessed polymer cover**

for on-site tiling

**Material:** ABS, rim in stainless steel AISI 304 or AISI 316L

**Class:** K 3

**Tile thickness:** 8 – 21 mm

**Cover:** 110×110 mm (polymer)

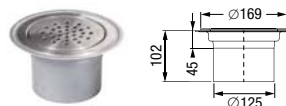
**Inclusive:** Waterproofing membrane

AISI 304 Art. no. **48 906**

AISI 316L Art. no. **48 208**

**Upper sections**

for PVC floorings



**with cover in stainless steel AISI 304**

**Material:** Stainless steel AISI 304

**Class:** L 15

**Tile thickness:** 1 – 4 mm

**Cover:** Ø 133 mm, screwed

**Note:** Not in combination with drain bodies

*The Ultraflat and Multistop (Art. no. 48 500).*

Custom made product: Delivery time on request

AISI 304 Art. no. **59 192**

**Upper sections**

with covers in stainless steel and polymer



**with slotted cover**

in stainless steel AISI 304 or AISI 316L

**Material:** ABS, rim in stainless steel

**Class:** L 15

**Cover:** 138×138 mm, screwed

AISI 304 Art. no. **48 951**

AISI 316L Art. no. **48 205**

**with slotted cover**

in stainless steel AISI 304 / 316L or ABS

**Material:** ABS

**Class:** K 3

**Cover:** 138×138 mm, screwed (only in stainless steel)

AISI 304 Art. no. **48 950**

AISI 316L Art. no. **48 209**

ABS Art. no. **48 193**, black

**with tileable cover**

made of polymer

**Material:** ABS, rim in stainless steel

AISI 304 / 316L or polymer

**Class:** K 3

**Cover:** 110×110 mm

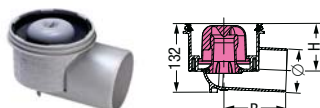
AISI 304 Art. no. **48 211**, rim in stainless steel

AISI 316L Art. no. **48 207**, rim in stainless steel

ABS Art. no. **48 193**, rim in polymer

**Drain body Practicus**

with removable odour trap\*



**with connection flange, lateral outlet**

**Material:** PP

**Sealing water height:** 50 mm

Ø 50 B×H 245×120 mm Art. no. **45 150**

Ø 75 B×H 134×109 mm Art. no. **45 170**

Ø 110 B×H 148×92 mm Art. no. **45 110**

**with connection flange, vertical outlet**

**Material:** PP

**Sealing water height:** 50 mm

Ø 50 H 100 mm Art. no. **45 250**

Ø 75 H 110 mm Art. no. **45 270**

Ø 110 H 110 mm Art. no. **45 210**

Suitable for this product

➔ Accessories from page 238


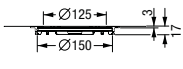

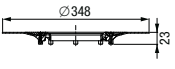

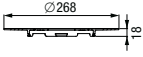

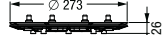
## Accessories

System 125

*Ecoguss and Practicus*

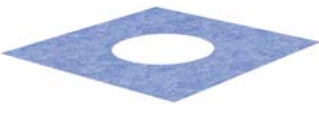
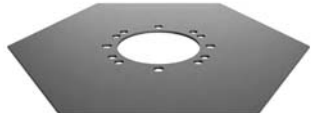
### Flanges

can be combined with drain bodies and extension sections

				Dimensions in mm	Art. no.
<b>Clip flange</b>	<b>Inclusive:</b> Factory-mounted waterproofing membrane in accordance with EN 1253-1 and DIN 18534-1-W3-1			280×280	<b>44 703</b>
<b>Glue flange with counter flange</b>	<b>Material:</b> ABS <b>Compatibility:</b> Also for compound seal			Ø 348	<b>48 410</b>
<b>without connection flange</b>	<b>Material:</b> ABS			Ø 268	<b>48 409</b>
<b>Pressure sealing flange</b>	<b>Material:</b> Stainless steel AISI 304 <b>Inclusive:</b> Seeping water opening			Ø 273	<b>48 407</b>

### Waterproofing membranes

Compatibility see product description

			Art. no.
<b>Waterproofing membrane</b>	<b>Compatibility:</b> Art. no. 48 410		<b>48 651</b>
<b>2 component adhesive</b>	<b>Compatibility:</b> For gluing of KESSEL waterproofing membranes		<b>48 650</b>
<b>Elastomer waterproofing membrane</b>	<b>Material:</b> NBR <b>Compatibility:</b> Art. no. 48 407		<b>48 981</b>

### Intermediate section

Compatibility see product description

			Art. no.
<b>with glue flange</b>	<b>Compatibility:</b> Shallow bed gasket <b>Inclusive:</b> With non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-1		<b>48 900</b>

### Extension sections

			Art. no.
<b>without lateral inlet</b>	<b>Material:</b> PP <b>Inclusive:</b> Lip seal		<b>48 987</b>
<b>with lateral inlet Ø 50</b>	<b>Material:</b> PP <b>Inclusive:</b> Lip seal		<b>48 989</b>

## Accessories

System 125

*Ecoguss and Practicus*

### Extension sections

can be combined with drain bodies and extension sections

**with pressure sealing flange**

**Material:** PP

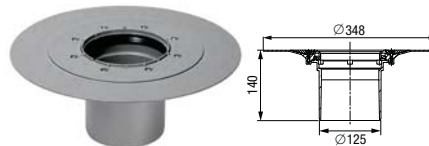


**Art. no.**

**48 404**

**with glue flange with counter flange**

**Material:** PP



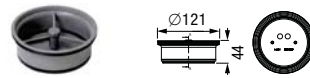
**48 403**

### Hygiene and odour stop

for floor drain *Ecoguss and Practicus*

**Megastop**

**Function:** Mechanical odour trap inclusive hair filter for KESSEL upper sections, in combination with design cover with *Lock & Lift* system additional protection against backwater up to 0.1 bar

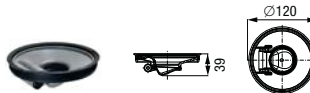


**Art. no.**

**48 550**

**Multistop**

**Function:** Odour, foam, rodent and insect stop  
**Note:** Not in combination with shower channel upper sections



**48 500**

**Hair filter**

**Compatibility:** For *Multistop* and floor drain *Ecoguss and Practicus*



**48 700**

**Odour trap**

**Compatibility:** For all upper sections System 125, sealing water height 50 mm according to norm  
**Note:** Not in combination with tileable upper sections



**48 600**

**Sludge trap**

**Material:** Polymer



**48 168**

### Fire protection / Passage seal

Compatibility see product description

**Fire-Kit**

**Function:** Fire protection insert  
**Compatibility:** Only for *Ecoguss / Practicus* drains with vertical outlet and odour trap  
**Certification no.:** Z-19.17-1719



**Outer diameter  
Ø (mm)**

Ø 58/78/83 **48 099**

Ø 50/75 **48 099**

Ø 110 **48 100**

**Quick-Fit with fire protection**

**Function:** Passage seal for core drillings with *Ecoguss and Practicus* drain bodies, vertical outlet  
**Compatibility:** Only in combination with *Fire-Kit* protection insert  
**Certification no.:** Z-19.17-1719



- **48 990**

**Quick-Fit without fire protection**

**Function:** Passage seal for core drillings with *Ecoguss and Practicus* drain bodies, vertical outlet



- **48 991**

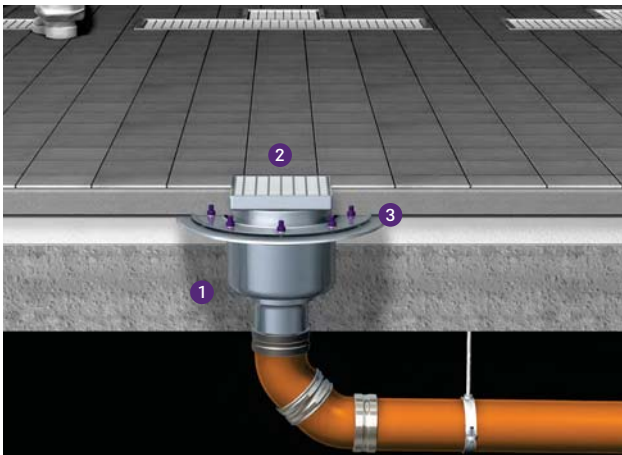


## Floor drain / Channel drains and square channel drains *Ferrofix*

The stainless steel solution.

Our *Ferrofix* drains made of stainless steel are particularly durable solutions for drainage in commercial rooms, in which particular hygiene requirements apply. The stainless steel grade AISI 304 (AISI 316L on request) makes the drain suitable for use in areas with the highest standards, for example, in food processing companies or swimming pools.

Our channel drains and square channel drains are available as Express or modular versions and in different lengths. In general the length is up to six metres, but we can also check whether other dimensions can be supplied if necessary. On request, we also develop individual solutions, which we also tailor to your requirements in addition to the necessary size.



- ① *Ferrofix* drain body
- ② Upper section with anti-slip cover
- ③ Pressure sealing flange for waterproofing layer



### Floor drain

Renovation with *Ferrofix*

On request, the *Ferrofix* is also available as an extremely flat model made of V2A stainless steel – ideal for renovation projects. With low installation depths from 100 to 107 mm, the renovation models are particularly compact. The one-piece drains are supplied with optional connection flange or glued flange.

With our modular systems 125 and 200, we provide numerous possible combinations for our project drains.

➤ Upper sections system 100: Page 242

➤ Modular system 125: Page 246

➤ Modular system 200: Page 252





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## Channel drains and square channel drains

### Express version

On request, we supply the *Ferrofix* as a ready-to-install complete linear and square channel with preassembled outlet sockets, slip-resistant gratings and channel profiles with adhesive flange for shallow bed waterproofing layers. The Express versions are combined with the matching drain bodies *Ferrofix*, *Ecoguss* or *Practicus* as well as optional accessories.

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With our modular systems 100, 125 and 200, we provide numerous possible combinations for our channel drains and square channel drains.

- Upper sections: Page 258
- Drain bodies: Page 258
- Further accessories: Page 262

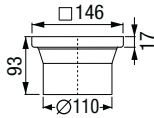
## Clean-out *Ferfofix*

for direct access to piping

System 100

Upper section in ABS

With closed cover and rim 150 × 150 mm made of stainless steel AISI 304, class K 3, screwed, without gasket



Connection Ø	Art. no.
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Ø 110	27 1916
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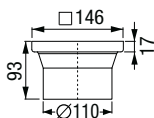
## Clean-out *Ferfofix*

for direct access to piping

System 100

Upper section in ABS

With closed cover and rim 150 × 150 mm made of stainless steel AISI 304, class L 15, screwed, without gasket



Connection Ø	Art. no.
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Ø 110	27 1966
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## Clean-out *Ferfofix*

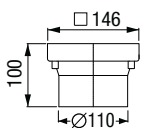
for direct access to piping

System 100

Upper section made of stainless steel AISI 304

With closed, screw-type cover plate 146 × 146 mm made of stainless steel AISI 304, class L 15, gastight and a backwater-proof seal up to 0.5 bar, tileable

**Note:** Custom made (delivery time on request)



Connection Ø	Art. no.
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Ø 110	27 177-PLF
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## Clean-out *Ferfofix*

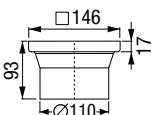
for direct access to piping

System 100

Upper section made of stainless steel AISI 304

With closed, screw-type cover plate 146 × 146 mm made of stainless steel AISI 304, class L 15, screwed odour-tight, with gasket, with a backwater-proof seal up to 0.5 bar

**Note:** Custom made (delivery time on request)



Connection Ø	Art. no.
--------------	----------

Ø 110	27 177-PL
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### Clean-out *Ferrofix*

System 100

with glue flange, for direct access to piping

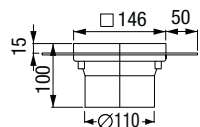
Upper section made of stainless steel AISI 304

With closed, screw-type cover plate 146 × 146 mm made of stainless steel AISI 304, class L 15, screwed odour-tight, with gasket, gastight and a backwater-proof seal up to 0.5 bar, tileable

**Note:** Custom made (delivery time on request)



Connection Ø	Art. no.
Ø 110	27 177-PLF-KF



### Clean-out *Ferrofix*

System 100

with glue flange, for direct access to piping

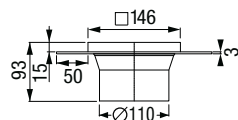
Upper section made of stainless steel AISI 304

With closed cover 146 × 146 mm made of stainless steel AISI 304, class L 15, screwed odour-tight, with gasket, with a backwater-proof seal up to 0.5 bar

**Note:** Custom made (delivery time on request)



Connection Ø	Art. no.
Ø 110	27 177-PL-KF



### Renovation drain *Ferrofix*

made of stainless steel AISI 304, superflat

Made of stainless steel AISI 304

Lateral outlet, with removable odour trap,  
sealing water height 50 mm,  
Drainage capacity 0.8 l/sec flow rate.  
Design height only 107 mm

With slotted cover 138 × 138 mm  
in stainless steel AISI 304, class L 15

**Note:** Custom made (delivery time on request)



Illustration shows Art. no. 59 315

System 125   

Outer diameter Ø (mm)	Art. no.
<b>With connection flange</b>	
Ø 50	59 305
<b>With glue flange</b>	
Ø 50	59 315

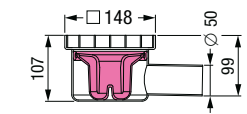


Illustration shows Art. no. 59 305

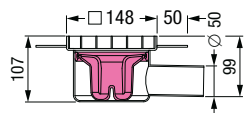


Illustration shows Art. no. 59 315

### Renovation drain *Ferrofix*

made of stainless steel AISI 304, superflat

Made of stainless steel AISI 304

Lateral outlet, with removable odour trap,  
sealing water height 50 mm,  
Drainage capacity 0.8 l/sec flow rate.  
Design height only 100 mm

With slotted cover 138 × 138 mm  
in stainless steel AISI 304, screwed,  
class K 3

**Note:** Custom made (delivery time on request)



Illustration shows Art. no. 59 335

System 125   

Outer diameter Ø (mm)	Art. no.
<b>With connection flange</b>	
Ø 50	59 325
<b>With glue flange</b>	
Ø 50	59 335

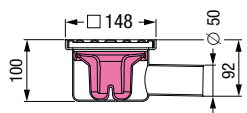


Illustration shows Art. no. 59 325

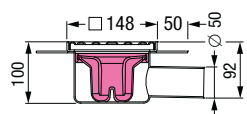


Illustration shows Art. no. 59 335



## Floor drains *Ferrofix* with pressure sealing flange

System 125



Matrix order system

### Drain body

#### Floor drain *Ferrofix* with pressure sealing flange

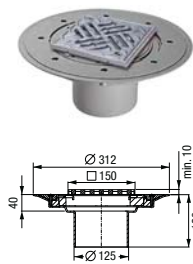
in stainless steel AISI 304, for connection to SML-pipe, with odour trap.  
 Drainage capacity in l/sec with 20 mm / 10 mm threshold see table\*  
 Sealing water height 50 mm

- **Modular system**  
see pages 248 – 249
- **Accessories**  
see pages 250 – 251

### Upper sections

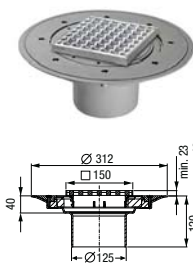
#### Shallow bed upper section in ABS with enclosed waterproofing membrane

**Slotted cover**  
 138 × 138 mm and rim in stainless steel AISI 304, anti-slip, class L 15, screwed



Art. no. **48 907**

**Anti-slip drain cover**  
 138 × 138 mm and rim in stainless steel AISI 304, anti-slip, class L 15



Art. no. **48 965**

#### Upper section in ABS

**Slotted cover**  
 138 × 138 mm and rim in stainless steel AISI 304, anti-slip, class L 15, screwed



Art. no. **48 176**

#### Upper section in stainless steel AISI 304

**Anti-slip drain cover**  
 138 × 138 mm in stainless steel AISI 304, class L 15 / M 125\*



\*On-site lining work required

Art. no. **54 914**

### Drain body with lateral outlet



Ø 78 Art. no. **54 200**

### Complete drain comprising a combination of the upper section and drain body

Art. no. **54 200.52**

Art. no. **54 200.21**

Art. no. **54 200.61**

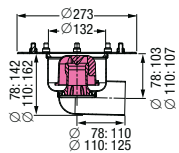
Art. no. **54 200.20**

Drainage capacity\* 1.8 / 1.2

Drainage capacity\* 1.9 / 1.4

Drainage capacity\* 1.6 / 0.9

Drainage capacity\* 1.7 / 1.6



Ø 110 Art. no. **54 220**

Art. no. **54 220.52**

Art. no. **54 220.21**

Art. no. **54 220.61**

Art. no. **54 220.20**

Drainage capacity\* 2.0 / 1.1

Drainage capacity\* 2.3 / 1.6

Drainage capacity\* 1.9 / 1.0

Drainage capacity\* 2.1 / 1.5

### Drain body with vertical outlet



Ø 78 Art. no. **54 210**

Art. no. **54 210.52**

Art. no. **54 210.21**

Art. no. **54 210.61**

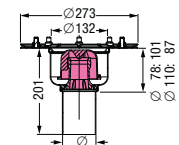
Art. no. **54 210.20**

Drainage capacity\* 2.3 / 1.1

Drainage capacity\* 2.4 / 1.4

Drainage capacity\* 2.3 / 1.1

Drainage capacity\* 2.4 / 1.5



Ø 110 Art. no. **54 230**

Art. no. **54 230.52**

Art. no. **54 230.21**

Art. no. **54 230.61**

Art. no. **54 230.20**

Drainage capacity\* 2.0 / 1.2

Drainage capacity\* 2.3 / 1.6

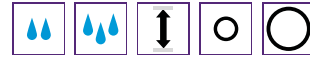
Drainage capacity\* 1.9 / 1.0

Drainage capacity\* 2.1 / 1.6

# Floor drains *Ferrofix* with connection flange

Matrix order system

System 125



## Drain body

### Floor drain *Ferrofix* with connection flange

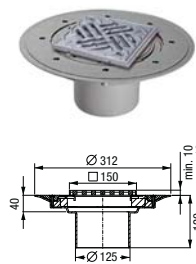
in stainless steel AISI 304, for connection to SML-pipe, with odour trap.  
 Drainage capacity in l/sec with 20 mm / 10 mm threshold see table\*  
 Sealing water height 50 mm

- **Modular system**  
see pages 248 – 249
- **Accessories**  
see pages 250 – 251

## Upper sections

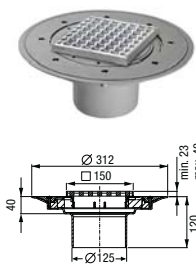
### Shallow bed upper section in ABS with enclosed waterproofing membrane

**Slotted cover**  
 138 × 138 mm and rim in stainless steel AISI 304, anti-slip, class L 15, screwed



Art. no. **48 907**

**Anti-slip drain cover**  
 138 × 138 mm and rim in stainless steel AISI 304, anti-slip, class L 15



Art. no. **48 965**

### Upper section in ABS

**Slotted cover**  
 138 × 138 mm and rim in stainless steel AISI 304, anti-slip, class L 15, screwed



Art. no. **48 176**

### Upper section in stainless steel AISI 304

**Anti-slip drain cover**  
 138 × 138 mm in stainless steel AISI 304, class L 15 / M 125\*



Art. no. **54 914**

\*On-site lining work required

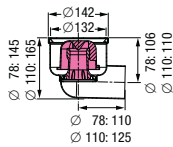
## Drain body with lateral outlet



Ø 78 Art. no. **54 400**

## Complete drain comprising a combination of the upper section and drain body

Art. no. <b>54 400.52</b>	Art. no. <b>54 400.21</b>	Art. no. <b>54 400.61</b>	Art. no. <b>54 400.20</b>
Drainage capacity* 1.7 / 1.1	Drainage capacity* 1.9 / 1.5	Drainage capacity* 1.5 / 1.0	Drainage capacity* 1.7 / 1.6



Ø 110 Art. no. **54 420**

Art. no. <b>54 420.52</b>	Art. no. <b>54 420.21</b>	Art. no. <b>54 420.61</b>	Art. no. <b>54 420.20</b>
Drainage capacity* 1.6 / 1.0	Drainage capacity* 1.8 / 1.5	Drainage capacity* 1.4 / 0.9	Drainage capacity* 1.5 / 1.4

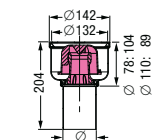
## Drain body with vertical outlet



Ø 78 Art. no. **54 410**

## Complete drain comprising a combination of the upper section and drain body

Art. no. <b>54 410.52</b>	Art. no. <b>54 410.21</b>	Art. no. <b>54 410.61</b>	Art. no. <b>54 410.20</b>
Drainage capacity* 2.4 / 1.2	Drainage capacity* 2.1 / 1.6	Drainage capacity* 2.4 / 1.0	Drainage capacity* 2.4 / 1.6



Ø 110 Art. no. **54 430**

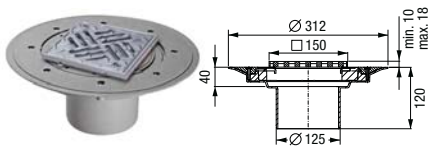
Art. no. <b>54 430.52</b>	Art. no. <b>54 430.21</b>	Art. no. <b>54 430.61</b>	Art. no. <b>54 430.20</b>
Drainage capacity* 2.3 / 1.1	Drainage capacity* 2.0 / 1.5	Drainage capacity* 2.3 / 0.9	Drainage capacity* 2.2 / 1.5

## Modular system 125 *Ferrofix*

Floor drains *Ferrofix* in stainless steel AISI 304

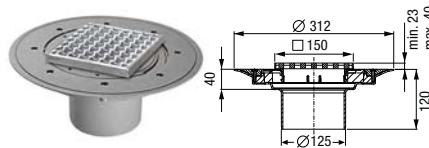
System 125

### Variofix shallow bed upper sections



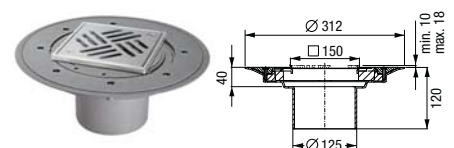
#### with slotted cover

**Material:** ABS, rim in stainless steel  
**Class:** L 15  
**Tile thickness:** max. 16 mm  
**Cover:** 150×150 mm, anti-slip, screwed  
**Inclusive:** Waterproofing membrane  
 Art. no. **48 907**



#### with slotted cover\*

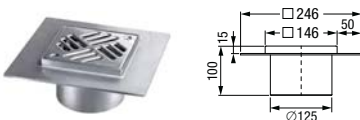
**Material:** ABS, rim in stainless steel  
**Class:** L 15  
**Cover:** 146×146 mm, anti-slip  
**Inclusive:** Waterproofing membrane  
 Art. no. **48 965**



#### with slotted cover

**Material:** ABS, rim in stainless steel  
**Class:** K 3  
**Tile thickness:** max. 18 mm  
**Cover:** 150×150 mm, screwed  
**Inclusive:** Waterproofing membrane  
 Art. no. **48 963**

### Upper sections with glue flange\*



#### with slotted cover

**Class:** K 3  
**Cover:** 146×146 mm  
 Art. no. **54 919**



#### with anti-slip drain cover

**Class:** L 15 / M 125  
**Cover:** 146×146 mm  
 Art. no. **54 915**



#### with anti-slip drain cover

**Class:** L 15 / M 125  
**Cover:** 200×200 mm  
 Art. no. **54 917**

### Sanitary upper sections\*



#### with gas and liquid tight cover

**Class:** L 15  
**Cover:** 150×150 mm  
**Note:** Custom made (delivery time on request), cover available with removal threads  
 Art. no. **59 011**



#### with gas and liquid tight cover

**Class:** L 15  
**Cover:** 150×150 mm, screwed, backwater-proof seal up to 0.5 bar  
**Note:** Custom made (delivery time on request), cover available with removal threads  
 Art. no. **59 013**

### Upper sections for PVC floorings\*



#### with cover

**Class:** L 15  
**Tile thickness:** 1 – 4 mm  
**Cover:** Ø 133 mm, screwed  
**Note:** Custom made (delivery time on request)  
 Art. no. **59 192**

### Clean outs\*



#### with rim and closed cover

**Material:** ABS, cover in stainless steel  
**Class:** L 15  
**Cover:** 150×150 mm, screwed, with gasket  
 Art. no. **54 920**



#### with closed cover

**Class:** L 15  
**Cover:** 150×150 mm, screwed odour-tight, gasket, backwater-proof seal up to 0.5 bar  
 Art. no. **54 912**



#### with closed cover plate

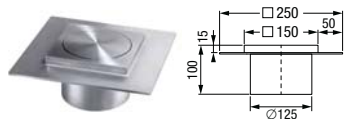
**Class:** L 15  
**Cover:** 150×150 mm, screwed, gastight, backwater-proof seal up to 0.5 bar, tileable  
 Art. no. **54 910**

\*Not for combination with *The Ultraflat 54 / 79* drain bodies



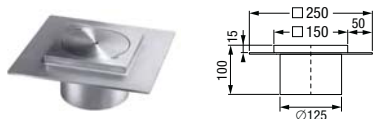


**Sanitary drain covers with glue flange\***



**with gas and liquid tight cover**

**Class:** L 15  
**Cover:** 150×150 mm  
**Note:** Custom made (delivery time on request)  
**Art. no.** 59 012



**with gas and liquid tight cover**

**Class:** L 15  
**Cover:** 150×150 mm, screwed, backwater-proof seal up to 0.5 bar  
**Note:** Custom made (delivery time on request)  
**Art. no.** 59 014

**Upper sections with glue flange\***



**with slotted cover**

**Class:** K 3  
**Cover:** 100×100 mm  
**Note:** Not usable with System 125 sludge trap accessory and odour trap Art. no. 54 188. Custom made (delivery time on request)  
**Art. no.** 59 165

**Upper sections with glue flange\***



**with closed cover**

**Class:** L 15  
**Cover:** 146×146 mm, screwed odour-tight, gasket, backwater-proof seal up to 0.5 bar  
**Art. no.** 54 913



**with perforated cover "Easy Open"**

**Class:** K 3  
**Cover:** 148×148 mm  
**Note:** Custom made (delivery time on request)  
**Art. no.** 59 010

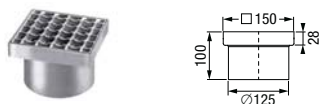
**Clean out with glue flange\***



**with closed cover plate**

**Class:** L 15  
**Cover:** 146×146 mm, screwed, gastight, backwater-proof seal up to 0.5 bar, tileable  
**Art. no.** 54 911

**Upper sections\***



**with anti-slip drain cover**

**Class:** L 15 / M 125  
 (On-site lining work required)  
**Cover:** 138×138 mm  
**Art. no.** 54 914



**with anti-slip drain cover**

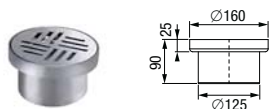
**Class:** L 15 / M 125  
 (On-site lining work required)  
**Cover:** 200×200 mm  
**Art. no.** 54 916



**with slotted cover**

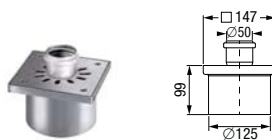
**Class:** D (On-site lining work required)  
**Cover:** 190×190 mm, screwed  
**Note:** Custom made (delivery time on request)  
**Art. no.** 59 400

**Upper sections\***



**with round slotted cover**

**Class:** L 15  
**Cover:** Ø 160 mm  
**Note:** Custom made (delivery time on request), glue flange on request  
**Art. no.** 59 166



**with cover plate / round inlet slot**

**Class:** K 3  
**Cover:** 150×150 mm, with insertion socket connection Ø 50 as free inlet to the floor drain  
**Art. no.** 48 435



**with slotted cover**

**Class:** K 3  
**Cover:** 138×138 mm  
**Art. no.** 48 977



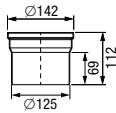


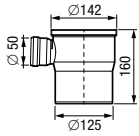

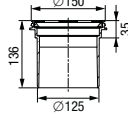

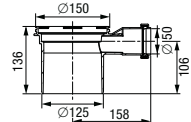


## Accessories

Floor drains *Ferrofix*

System 125

### Extension sections with connection flange

				Art. no.	
without lateral inlet	<b>Material:</b> Stainless steel AISI 304 <b>Inclusive:</b> Lip seal				54 900
with lateral inlet Ø 50	<b>Material:</b> Stainless steel AISI 304 <b>Inclusive:</b> Lip seal				54 902
without lateral inlet	<b>Material:</b> PP <b>Inclusive:</b> Lip seal				48 987
with lateral inlet Ø 50	<b>Material:</b> PP <b>Inclusive:</b> Lip seal				48 989

### Extension sections with glue flange

				Art. no.	
without lateral inlet	<b>Material:</b> Stainless steel AISI 304 <b>Inclusive:</b> Lip seal				54 901
with lateral inlet Ø 50	<b>Material:</b> Stainless steel AISI 304 <b>Inclusive:</b> Lip seal				54 903

### Extension sections with pressure sealing flange

				Art. no.	
without lateral inlet	<b>Material:</b> Stainless steel AISI 304 <b>Version:</b> Flange width 70 mm				54 187
with lateral inlet Ø 50	<b>Material:</b> Stainless steel AISI 304 <b>Version:</b> Flange width 70 mm <b>Inclusive:</b> Plug-in sleeve Ø 50/40				54 189

## Accessories

System 125

Floor drains *Ferrofix*

### Fire protection / Passage seal

Compatibility see product description

			Outer diameter Ø (mm)	Art. no.
<b>Fire-Kit</b>	<b>Function:</b> Fire protection insert <b>Compatibility:</b> Only for drain bodies with vertical outlet and odour trap <b>Certification no.:</b> Z-19.17-1719			Ø 58/78/83 <b>48 099</b>
				Ø 50/75 <b>48 099</b>
				Ø 110 <b>48 100</b>
<b>Quick-Fit with fire protection</b>	<b>Function:</b> For core drilling for drain body vertical outlet <b>Compatibility:</b> Only in combination with <i>Fire-Kit</i> protection insert <b>Certification no.:</b> Z-19.17-1719		-	<b>48 990</b>
<b>Quick-Fit without fire protection</b>	<b>Function:</b> For core drilling for drain body vertical outlet		-	<b>48 991</b>

### Hygiene and odour stop

Compatibility see product description

			Art. no.	
<b>Sludge trap</b>	<b>Material:</b> Stainless steel AISI 304 <b>Note:</b> Additional sizes on demand			<b>48 636</b>
<b>Sludge trap</b>	<b>Material:</b> Polymer <b>Compatibility:</b> Fits all drain bodies <i>Ferrofix</i> System 125			<b>48 168</b>
<b>Odour trap</b>	<b>Material:</b> Stainless steel AISI 304 <b>Sealing water height:</b> 50 mm			<b>54 188</b>

## Floor drains *Ferrofix* with pressure sealing flange

Matrix order system

System 200



### Drain body

#### Floor drain *Ferrofix* with pressure sealing flange

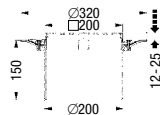
in stainless steel AISI 304, for connection to SML-pipe, with odour trap in stainless steel AISI 304. Drainage capacity in l/sec with 20 mm / 10 mm threshold see table\* Sealing water height 70 mm

- **Modular system**  
see pages 254 – 255
- **Accessories**  
see page 265

### Upper sections

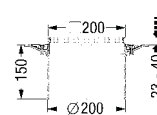
Shallow bed upper section in ABS with enclosed waterproofing membrane

**Slotted cover**  
200 × 200 mm and rim in stainless steel AISI 304, anti-slip, class L 15, screwed



Art. no. **48 978**

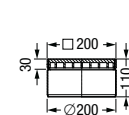
**Anti-slip drain cover**  
190 × 190 mm and rim in stainless steel AISI 304, anti-slip, class L 15



Art. no. **48 969**

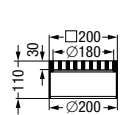
Upper section in stainless steel AISI 304

**Anti-slip drain cover**  
190 × 190 mm in stainless steel AISI 304, anti-slip, class M 125



Art. no. **57 410**

**Slotted cover**  
190 × 190 mm in stainless steel AISI 304, class M 125

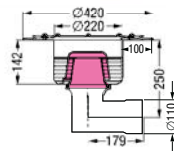


Art. no. **57 420**

### Drain body with lateral outlet



Ø 110 Art. no. **55 550**



### Complete drain comprising a combination of the upper section and drain body

Art. no. **55 550.52**

Drainage capacity\* 2.1 / 0.8

Art. no. **55 550.21**

Drainage capacity\* 3.2 / 1.4

Art. no. **55 550.20**

Drainage capacity\* 3.2 / 1.4

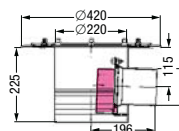
Art. no. **55 550.30**

Drainage capacity\* 2.9 / 2.2

### Drain body for low installation height:



Ø 110 Art. no. **142 025**



### Complete drain comprising a combination of the upper section and drain body

Art. no. **142 025.52**

Drainage capacity\* 3.4 / 1.7

Art. no. **142 025.21**

Drainage capacity\* 3.8 / 2.7

Art. no. **142 025.20**

Drainage capacity\* 3.8 / 2.7

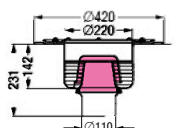
Art. no. **142 025.30**

Drainage capacity\* 3.5 / 2.3

### Drain body with vertical outlet



Ø 110 Art. no. **55 600**



### Complete drain comprising a combination of the upper section and drain body

Art. no. **55 600.52**

Drainage capacity\* 3.0 / 1.9

Art. no. **55 600.21**

Drainage capacity\* 3.4 / 2.9

Art. no. **55 600.20**

Drainage capacity\* 3.4 / 2.9

Art. no. **55 600.30**

Drainage capacity\* 3.0 / 2.2



## Floor drains *Ferrofix* with connection flange

System 200



Matrix order system

### Drain body

#### Floor drain *Ferrofix* with connection flange

in stainless steel AISI 304, for connection to SML-pipe, with odour trap in stainless steel AISI 304. Drainage capacity in l/sec with 20 mm / 10 mm threshold see table\* Sealing water height 70 mm

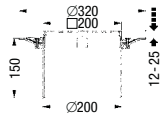
➤ **Modular system**  
see pages 254 – 255

➤ **Accessories**  
see page 256

### Upper sections

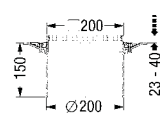
#### Shallow bed upper section in ABS with enclosed waterproofing membrane

**Slotted cover**  
200 × 200 mm and rim in stainless steel AISI 304, anti-slip, class L 15, screwed



Art. no. **48 978**

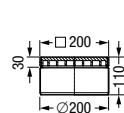
**Anti-slip drain cover**  
190 × 190 mm and rim in stainless steel AISI 304, anti-slip, class L 15



Art. no. **48 969**

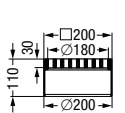
#### Upper section in stainless steel AISI 304

**Anti-slip drain cover**  
190 × 190 mm in stainless steel AISI 304, anti-slip, class M 125



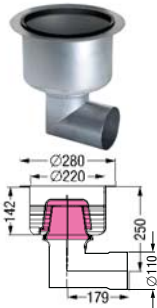
Art. no. **57 410**

**Slotted cover**  
190 × 190 mm in stainless steel AISI 304, class M 125



Art. no. **57 420**

### Drain body with lateral outlet



Ø110 Art. no. **55 350**

### Complete drain comprising a combination of the upper section and drain body

Art. no. **55 350.52**

Art. no. **55 350.21**

Art. no. **55 350.20**

Art. no. **55 350.30**

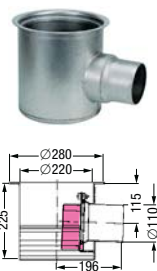
Drainage capacity\* 2.1 / 0.8

Drainage capacity\* 3.2 / 1.4

Drainage capacity\* 3.2 / 1.4

Drainage capacity\* 2.9 / 2.2

### Drain body for low installation height:



Ø110 Art. no. **142 026**

### Complete drain comprising a combination of the upper section and drain body

Art. no. **142 026.52**

Art. no. **142 026.21**

Art. no. **142 026.20**

Art. no. **142 026.30**

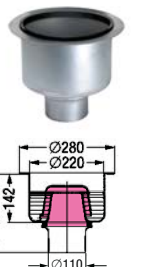
Drainage capacity\* 3.4 / 1.7

Drainage capacity\* 3.8 / 2.7

Drainage capacity\* 3.8 / 2.7

Drainage capacity\* 3.5 / 2.3

### Drain body with vertical outlet



Ø110 Art. no. **55 400**

### Complete drain comprising a combination of the upper section and drain body

Art. no. **55 400.52**

Art. no. **55 400.21**

Art. no. **55 400.20**

Art. no. **55 400.30**

Drainage capacity\* 3.0 / 1.9

Drainage capacity\* 3.4 / 2.9

Drainage capacity\* 3.4 / 2.9

Drainage capacity\* 3.0 / 2.2

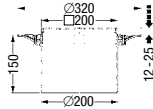


## Modular system 200 *Ferrofix*

Floor drains *Ferrofix* in stainless steel AISI 304

System 200

### Variofix shallow bed upper sections



#### with slotted cover

**Material:** ABS, rim in stainless steel

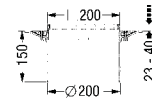
**Class:** L 15

**Tile thickness:** max. 23 mm

**Cover:** 200×200 mm, anti-slip, screwed

**Inclusive:** Waterproofing membrane

**Art. no.** 48 978



#### with slotted cover

**Material:** ABS, rim in stainless steel

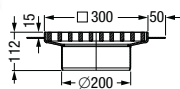
**Class:** L 15

**Cover:** 200×200 mm, anti-slip

**Inclusive:** Waterproofing membrane

**Art. no.** 48 969

### Upper section with glue flange



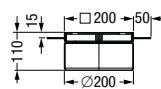
#### with slotted cover

**Class:** L 15 / M 125

**Cover:** 300×300 mm

**Note:** Custom made (delivery time on request)

**Art. no.** 57 425-KF



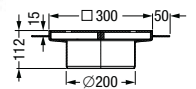
#### with round-slot cover plate

**Class:** L 15 / M 125

**Cover:** 200×200 mm

**Note:** Custom made (delivery time on request)

**Art. no.** 57 430-KF



#### with round-slot cover plate

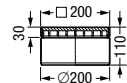
**Class:** L 15 / M 125

**Cover:** 300×300 mm

**Note:** Custom made (delivery time on request)

**Art. no.** 57 435-KF

### Upper sections

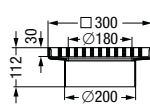


#### with anti-slip drain cover

**Class:** M 125

**Cover:** 200×200 mm, anti-slip

**Art. no.** 57 410

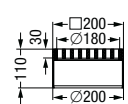


#### with anti-slip drain cover

**Class:** M 125 (On-site lining work required)

**Cover:** 290×290 mm, anti-slip

**Art. no.** 57 415



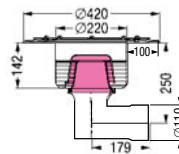
#### with slotted cover

**Class:** M 125

**Cover:** 200×200 mm

**Art. no.** 57 420

### Drain bodies



#### with pressure sealing flange

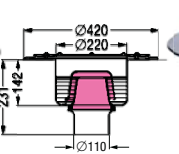
**Version:** Odour trap, connection to SML-pipe

**Outlet:** Lateral / vertical Ø 110

**Sealing water height:** 70 mm

Lateral outlet **Art. no.** 55 550

Vertical outlet **Art. no.** 55 600



#### with glue flange

**Version:** Odour trap, connection to SML-pipe

**Outlet:** Lateral / vertical Ø 110

**Sealing water height:** 70 mm

Lateral outlet **Art. no.** 55 550-KF

Vertical outlet **Art. no.** 55 600-KF



Upper sections with glue flange



with anti-slip drain cover

**Class:** L 15 / M 125  
**Cover:** 200×200 mm  
**Note:** Custom made (delivery time on request)  
**Art. no.** 57 410-KF



with anti-slip drain cover

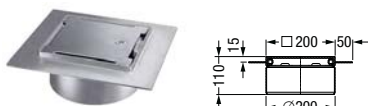
**Class:** L 15 / M 125  
**Cover:** 300×300 mm  
**Note:** Custom made (delivery time on request)  
**Art. no.** 57 415-KF



with slotted cover

**Class:** L 15 / M 125  
**Cover:** 200×200 mm  
**Note:** Custom made (delivery time on request)  
**Art. no.** 57 420-KF

Upper sections with glue flange



with closed cover

**Class:** L 15 / M 125  
**Cover:** 200×200 mm  
**Compatibility:** Special key Art. no. 48 954-SL (optional)  
**Version:** Lateral drain slots, safety valve system  
**Note:** Custom made (delivery time on request)  
**Art. no.** 48 954-S-V2A-KF



with slotted cover, tiltable

**Class:** K 3  
**Cover:** 200×200 mm  
**Version:** Glue flange made of flat steel 50×3 mm, locking system made of stainless steel for standard control cabinet access keys  
**Note:** Custom made (delivery time on request)  
**Art. no.** 48 954-Z-V2A-KF

Upper sections



with slotted cover

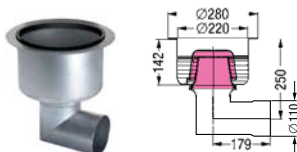
**Class:** M 125 (On-site lining work required)  
**Cover:** 290×290 mm  
**Art. no.** 57 425



with round-slot cover plate

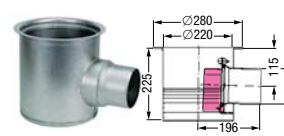
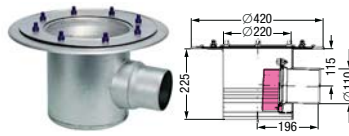
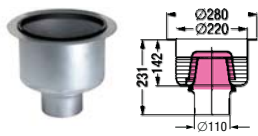
**Class:** M 125 (On-site lining work required)  
**Cover:** 290×290 mm, anti-slip  
**Art. no.** 57 435

Drain bodies



with connection flange

**Version:** Odour trap, connection to SML-pipe  
**Outlet:** Lateral / vertical Ø 110  
**Sealing water height:** 70 mm  
 Lateral outlet **Art. no.** 55 350  
 Vertical outlet **Art. no.** 55 400



with pressure sealing flange / connection flange

**Version:** Odour trap, connection to SML-pipe  
**Outlet:** Lateral / vertical Ø 110  
**Sealing water height:** 70 mm  
 Pressure sealing flange **Art. no.** 142 025  
 Connection flange **Art. no.** 142 026



## Accessories

Floor drains *Ferrofix*

### Extension sections

			Art. no.
with connection flange	<b>Material:</b> PP <b>Inclusive:</b> Lip seal		48 988
			
with connection flange	<b>Material:</b> Stainless steel AISI 304 <b>Inclusive:</b> Lip seal		27 186
			
with pressure sealing flange	<b>Material:</b> Stainless steel AISI 304		27 185
			

### Upper sections

			Art. no.
Shallow bed upper section	<b>Material:</b> ABS <b>Cover:</b> Slotted cover 200 × 200 mm and rim in stainless steel AISI 304, screwed, class L 15 <b>Inclusive:</b> Waterproofing membrane		48 968
			
with support rim	<b>Material:</b> <i>Ecoguss</i> <b>Cover:</b> Round slotted cover Ø 235 mm class B 125, with <i>Lack &amp; Lift System</i>		67 985
			

### Hygiene / odour stop / security

			Art. no.
removable odour trap	<b>Material:</b> Stainless steel AISI 304 <b>Sealing water height:</b> 70 mm		27 182
			
Sludge trap	<b>Material:</b> Stainless steel AISI 304 <b>Height:</b> 60 mm		67 302
			
Sludge trap	<b>Material:</b> Stainless steel AISI 304 <b>Height:</b> 150 mm		67 301
			
Sludge trap	<b>Material:</b> PE-HD		67 300
			
Access key	<b>Material:</b> Stainless steel AISI 304 <b>Compatibility:</b> For Art. no. 48 954-S-V2A-KF		48 954-SL

### Fire protection insert

			Art. no.
<i>Fire-Kit 200</i>	<b>Compatibility:</b> Only for drain bodies with vertical outlet and odour trap <b>Certification no.:</b> Z-19.17-1719		48 200
			





## Modular system 125 *Ferrofix Express*

System 125

Linear / Square channel drain *Ferrofix* in stainless steel AISI 304

### Linear channel drain *Ferrofix Express* versions

Made of stainless steel AISI 304

Material thickness 2.0 mm - acid-treated in pickling bath, visible cover sanded, with longitudinal and transverse slopes, feet for height adjustment, with welded distance grates to secure the covers, including drain pipes in stainless steel.

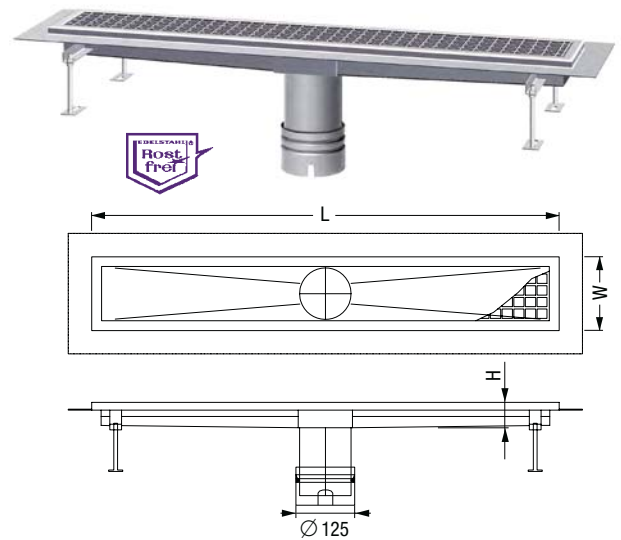
Channel profile for shallow bed seals, with adhesive edge 15 mm deep and 50 mm turned down all-round to the outside, with welded mitre joints.

#### Cover:

With slotted cover in stainless steel AISI 304, anti-slip R11, acid-treated in pickling bath. Mesh width 23×23 mm, load class L 15 (1.5 ton.)

**Note:** Available from stock

➔ **Optionally as an accessory:** Matching drain body System 125 see page below



Dimensions W×L×H in mm Art. no.

158×542×55	60 15 050
158×1042×55	60 15 100
158×1550×58	60 15 150
158×2058×60	60 15 200
300×547×58	60 30 050
300×1047×60	60 30 100
300×1555×63	60 30 150
300×2063×65	60 30 200

### Accessories



#### Sludge trap

**Material:** Stainless steel AISI 304  
**Compatibility:** For channel widths from 300 mm  
**Height:** 31 mm  
**Art. no. 48 636**



#### Sludge trap

**Material:** Stainless steel AISI 304  
**Compatibility:** For channel widths up to 158 mm  
**Height:** 39 mm  
**Art. no. 67 305**

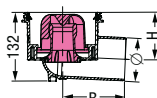


#### Fire-Kit Fire protection insert

Only for drains with vertical outlet and odour trap  
**Certification no.:** Z-19.17-1719  
 Ø 58/78/83 Art. no. **48 099**  
 Ø 50/75 Art. no. **48 099**  
 Ø 110 Art. no. **48 100**

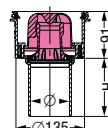
### Drain bodies with connection flange

for connection to SML-pipe and removable odour trap



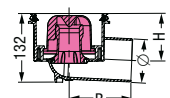
#### Ecoguss, lateral outlet

**Material:** Ecoguss  
**Sealing water height:** 50 mm  
 Ø 58 B×H 245×120 mm Art. no. **48 358**  
 Ø 78 B×H 134×109 mm Art. no. **48 378**  
 Ø 83 B×H 134×108 mm Art. no. **48 383**  
 Ø 110 B×H 148×92 mm Art. no. **48 311**



#### Ecoguss, vertical outlet

**Material:** Ecoguss  
**Sealing water height:** 50 mm  
 Ø 58 H 100 mm Art. no. **48 458**  
 Ø 78 H 110 mm Art. no. **48 478**  
 Ø 83 H 110 mm Art. no. **48 483**  
 Ø 110 H 110 mm Art. no. **48 411**



#### Practicus, lateral outlet

**Material:** PP  
**Sealing water height:** 50 mm  
 Ø 50 B×H 245×120 mm Art. no. **45 150**  
 Ø 75 B×H 134×109 mm Art. no. **45 170**  
 Ø 110 B×H 148×92 mm Art. no. **45 110**

### Square/rectangular channel drain *Ferrofix Express* versions

Made of stainless steel AISI 304

Material thickness 2.0 mm - acid-treated in pickling bath, visible cover sanded, with longitudinal and transverse slopes, feet for height adjustment, with welded distance grates to secure the covers, including drain pipes in stainless steel.

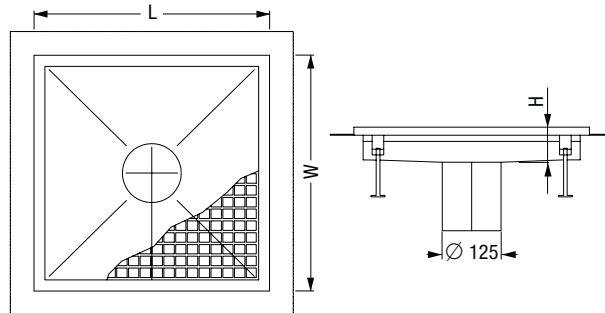
Channel profile for shallow bed seals, with adhesive edge 15 mm deep and 50 mm turned down all-round to the outside, with welded mitre joints.

**Cover:**

With slotted cover in stainless steel AISI 304, anti-slip R11, acid-treated in pickling bath. Mesh width 23×23 mm, load class L 15 (1.5 ton.)

**Note:** Available from stock

➤ **Optionally as an accessory:** Matching drain body System 125 see page below



Dimensions W×L×H in mm      Art. no.

350×350×60	60 35 035
500×500×65	60 50 050
500×953×70	60 50 100
800×800×60	60 80 080
1000×1000×65	61 00 100

### Accessories



#### Quick-Fit the passage seal, with fire protection

For core drilling, for drain body vertical outlet (only use in combination with *Fire-Kit* fire protection insert)

**Certification no.:** Z-19.17-1719

Art. no. **48 990**



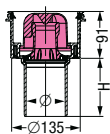
#### Quick-Fit the passage seal

For core drilling, for drain body vertical outlet

Art. no. **48 991**

### Drain bodies with connection flange

for connection to SML-pipe and removable odour trap



#### *Practicus*, vertical outlet

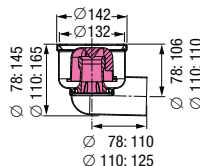
**Material:** PP

**Sealing water height:** 50 mm

Ø 50    H 100 mm    Art. no. **45 250**

Ø 75    H 110 mm    Art. no. **45 270**

Ø 110    H 110 mm    Art. no. **45 210**



#### *Ferrofix*, lateral outlet

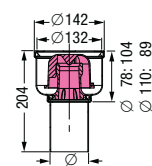
**Material:** Stainless steel AISI 304

**Sealing water height:** 50 mm

Ø 78    Art. no. **54 400**

Ø 110    Art. no. **54 420**

Further nominal sizes (e.g. Ø 50, 53, 56, 58, 63, 75, 83, 90) on request or according to requirement



#### *Ferrofix*, vertical outlet

**Material:** Stainless steel AISI 304

**Sealing water height:** 50 mm

Ø 78    Art. no. **54 410**

Ø 110    Art. no. **54 430**

Further nominal sizes (e.g. Ø 50, 53, 56, 58, 63, 75, 83, 90) on request or according to requirement

## Box channel *Ferrofif*

in stainless steel AISI 304

Made of stainless steel AISI 304

Material thickness 2.0 mm - acid-treated in pickling bath, visible cover sanded, with longitudinal and transverse slopes, feet for height adjustment, with welded distance grates to secure the covers.

Including drain pipes in stainless steel

(System 100 = Ø 110 mm, System 125 = Ø 125 mm, System 200 = Ø 200 mm – depends on channel width), material 1.4301 – AISI 304, (1.4404 or 1.4571 – AISI 316L on request)

**Channel widths:** From 150, 200, 250 etc. to 1000 mm

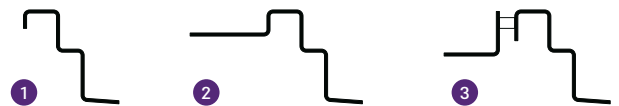
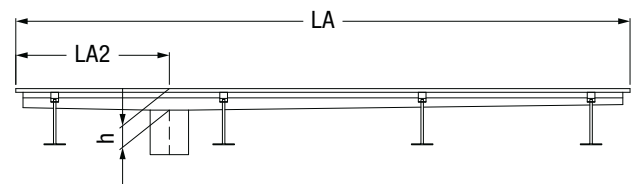
**Channel lengths:** From 200 mm

**Channel shapes:** Straight, L-shaped, U-shaped, T-shaped, grating(s), mitre joint(s)

**Channel profiles:** ① U-profile, ② adhesive edge for shallow bed seals (compound seals), ③ tile connector to protect the tiles from breaking at the edge (not for shallow bed); all profiles also available with hollow-free filling of the visible covers

### ➤ Matching drain body and accessories:

- System 100 on request
- System 125 see from page 246
- System 200 see from page 252



➤ **Sludge trap in stainless steel optional:** System 100, 125, 200 see from page 262, all sludge traps also available in special sizes

## Covers



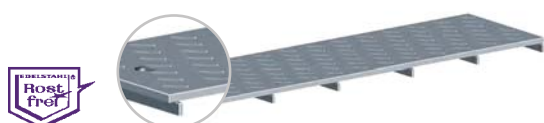
### Cover in stainless steel

Anti-slip R 11, acid-treated in pickling bath  
Mesh width 23×23 mm or 30×30 mm, class L 15 or M 125



### Slab cover in stainless steel

Not anti-slip, glass bead-blasted  
All-round 8 mm inlet, material thickness 10 mm, class M 125



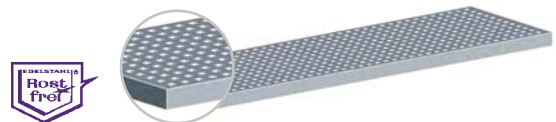
### Ribbed plate cover in stainless steel

Anti-slip R 11, acid-treated in pickling bath  
All-round 8 mm inlet  
Material thickness 10 mm, class M 125



### Rod cover in stainless steel

Not anti-slip, acid-treated in pickling bath  
Rod clearance 18 mm, supporting member 25×8 mm, class M 125



### Bathroom cover in stainless steel

Suitable for barefoot area, brushed surface, perforation 8 x 8 mm,  
Insertion depth 25 mm, thickness 2 mm, class K 3



### Bathroom cover made of polymer

Suitable for barefoot area, with rounded or flat upper profile  
Colours white, grey, beige or yellow (other RAL colours on request)  
Insertion depth 25 mm, class K 3

## Slotted channel *Ferrofix*

in stainless steel AISI 304

Made of stainless steel AISI 304

Material thickness 2.0 mm - acid-treated in pickling bath, visible cover sanded, with longitudinal and transverse slopes, feet for height adjustment.

Including gully, drain pipes in stainless steel  
(System 100 = Ø 110 mm, System 125 = Ø 125 mm, System 200 = Ø 200 mm - depends on the gully width), material 1.4301 - AISI 304, (1.4404 or 1.4571 - AISI 316L on request)

**Channel widths / lengths:** 60 mm, 48 mm / from 600 mm

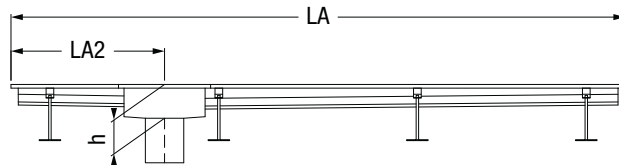
**Slot widths:** 20 mm (standard width), 8 mm (barefoot area)

**Channel shapes and gully:** Straight with gully on the edge of the channel, straight with gully in the middle, L-shaped with gully in the intersection, T-shaped with gully in the intersection, cross-shaped with gully in the intersection

**Channel profiles:** ① U-profile, ② adhesive edge for shallow bed seals (compound seals), ③ tile connector to protect the tiles from breaking at the edge (not for shallow bed); all profiles also available with hollow-free filling of the visible covers

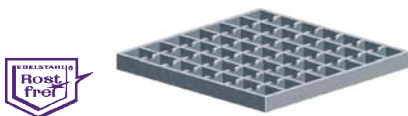
### ➤ Matching drain body and accessories:

- System 100 on request
- System 125 see from page 246
- System 200 see from page 252



➤ **Sludge trap in stainless steel optional:** System 100, 125, 200 see from page 262, all sludge traps also available in special sizes

## Covers



### Cover in stainless steel

Anti-slip R 11, acid-treated in pickling bath  
Mesh width 23×23 mm or 30×30 mm, class L 15 or M 125



### Slab cover in stainless steel

Not anti-slip, glass bead-blasted  
All-round 8 mm inlet, material thickness 10 mm, class M 125



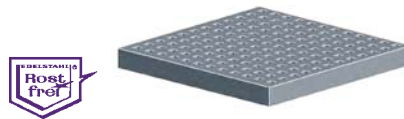
### Ribbed plate cover in stainless steel

Anti-slip R 11, acid-treated in pickling bath  
All-round 8 mm inlet  
Material thickness 10 mm, class M 125



### Rod cover in stainless steel

Not anti-slip, acid-treated in pickling bath  
Rod clearance 18 mm, supporting member 25×8 mm, class M 125



### Bathroom cover in stainless steel

Suitable for barefoot area, brushed surface, perforation 8×8 mm,  
Insertion depth 25 mm, thickness 2 mm, class K 3



### Bathroom cover made of polymer

Suitable for barefoot area, with rounded or flat upper profile  
Colours white, grey, beige or yellow (other RAL colours on request)  
Insertion depth 25 mm, class K 3

## Accessories

System 100   System 125   System 200

Stainless steel channels *Ferrofix*

### Sludge trap system 100

up to 158 mm width

Art. no.

Height 39 mm

**Material:** Stainless steel AISI 304  
**Compatibility:** For box channel *Ferrofix*



67 304

Height 90 mm

**Material:** Stainless steel AISI 304  
**Compatibility:** For stainless steel channels *Ferrofix*  
**Note:** Not for drainage channels *Ferrofix Express*



6101SKH

### Sludge trap system 125

up to 200 mm width

Art. no.

Height 31 mm

**Material:** Stainless steel AISI 304  
**Compatibility:** For stainless steel channels *Ferrofix*



48 636

Height 90 mm

**Material:** Stainless steel AISI 304  
**Compatibility:** For stainless steel channels *Ferrofix*



6125SKH

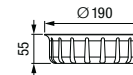
### Sludge trap system 200

up to 300 mm width

Art. no.

Height 55 mm

**Material:** Stainless steel AISI 304  
**Compatibility:** For stainless steel channels *Ferrofix*



6200SKN



## 4.3 Basement drains

High flows, heavy-duty construction,  
available with integrated backwater protection





## Basement drain *Pumpfix S*

The basement drain, which pumps against backwater.

Stronger than the backwater: The *Pumpfix S* is the only basement drain with backwater valve, which pumps against backwater. It normally drains sewage free wastewater to the sewer by gravity – even handles incoming flood water or flooding from a burst water supply pipe. Yet it shows its true strength in case of backwater: The pump then switches on automatically and pumps the building's wastewater a into the flooded sewer. It is also ideally suitable for draining outdoor basement stairs.

The *Pumpfix S* is available in two models: a compact version with polymer grating, which is particularly suitable for renovation projects, and a larger version with multiple inlet connections and a tileable cover.



- 1 *Pumpfix S* 2 Additional inlets (shower or washing machine)  
3 Surface water is drained through the cover 4 Flooded sewer

### Installation in waterproof concrete

The KESSEL sealing kit for installation in waterproof concrete ensures reliable protection against moisture damage. The extension section with central flange and elastomeric waterproofing membrane can also be used for deeper installation.

### Additional inlet connections

In addition to the cover with integrated inlet several lateral inlets can also be attached, for a shower, washing machine and washbasin. The *Pumpfix S* basement drain can therefore also be used as central backwater protection.

## Backwater pumping station *Pumpfix S*

For installation in a concrete floor/slab



Made of polymer

With lateral outlet 2.5°, removable pump, twin flap backwater valve and odour trap, Drainage capacity 1.6 l/sec flow rate. For installation depth (D) from 481 – 656 mm. Installation area 700 × 700 mm

Twin flaps, self-closing, one of which can be locked by hand, self activating pump during backwater (pumps against 0.7 bar = 7 m water column) cable length 5 m. With telescopic upper section for height and level adjustments

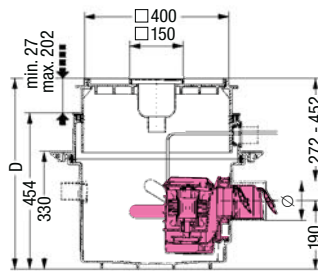
**Cover:**

Recessed cover for on-site tiling, class A 15, made of polymer.

With moisture protective sealing flange.

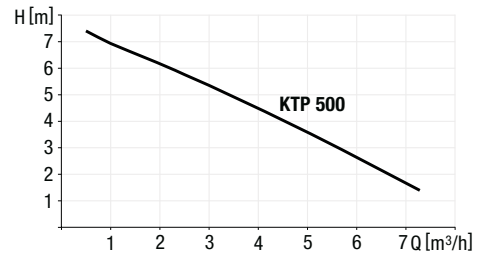
**Note:** Not for use as a lifting station

➤ **Accessories:** see pages 268 – 269



Outer diameter Ø (mm)	Art. no.
Ø 110	28 451

### Pumping capacity



According to EN 13564 Type 5



EN 1253-1

## Accessories

Pumpfix S

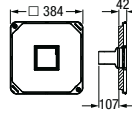

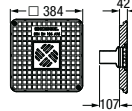
### Cover plates

for installation in a concrete floor

			Cover	Art. no.
<b>with drain Ø 75</b>	<b>Version recessed for on-site tiling, grey:</b> For tile thicknesses of 18 mm			tileable <b>83 055</b>

### Cover plates

for installation in a concrete floor

			Cover	Art. no.
<b>with drain Ø 75</b>	<b>Inclusive:</b> Gasket, <i>Multistop</i> <b>Version recessed for on-site tiling, grey:</b> For tile thicknesses of 18 mm <b>Version black:</b> With integrated grating			tileable <b>83 045</b>
				black <b>83 046</b>

<b>surface water tight</b>	<b>Inclusive:</b> Gasket <b>Version recessed for on-site tiling, grey:</b> For tile thicknesses of 18 mm <b>(Ventilation always required when in use!)</b>			tileable <b>83 052</b>
				black <b>83 050</b>

<b>without drain</b>	<b>Inclusive:</b> Gasket, with integrated grating <b>Class:</b> A 15			black <b>83 053</b>
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### Hygiene and odour stop

Compatibility see product description

				Art. no.
<b>Multistop</b>	<b>Function:</b> Odour, foam, rodent and insect stop <b>Compatibility:</b> Art. no. 83 045 and 83 046			<b>43 500</b>
<b>Hair filter</b>	<b>Compatibility:</b> Art. no. 83 045 and 83 046			<b>43 700</b>
<b>Odour trap</b>	<b>Compatibility:</b> Art. no. 83 055 <b>Sealing water height:</b> 50 mm <b>(Ventilation always required when in use!)</b>			<b>47 200</b>

### Upper section

for installation in a concrete floor

<b>Size 220 mm</b>	<b>Version:</b> With flange <b>Extension:</b> Max. 180 mm, height adjustable			<b>83 061</b>
--------------------	---	--	---	---------------

## Accessories

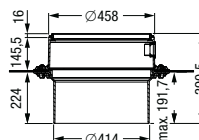
Pumpfix S

### Extension sections

for installation in a concrete floor

#### with centre flange

**Additional function:** For installation in waterproof concrete  
**Inclusive:** Temporary construction debris cover, fully assembled, gasket set (counter flange made of polymer, screwed, elastomer sealing sheet made of NK/SBR Ø 800 mm)  
**Extension:** Max. 360 mm

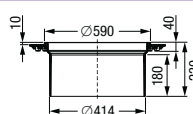


Art. no.

83 075

#### with flange and counter flange

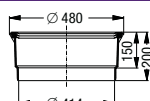
**Additional function:** For connection to an on-site sealing sheet  
**Inclusive:** Screws  
**Extension:** Max. 140 mm (In case of deeper installation ensure maintenance capability!)



83 073

#### with gasket

**Extension:** Max. 180 mm (In case of deeper installation ensure maintenance capability!)



83 070

### Pipe entrance seals

#### Pipe sealing gasket

**Requires hole size:**  
 Ø 50: 60 mm  
 Ø 75: 92 mm  
 Ø 110: 121 mm

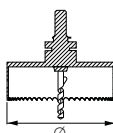


Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
DN 50	Ø 50	850 114
DN 70	Ø 75	850 116
DN 100	Ø 110	850 117

### Hole saw

#### Hole saw set

**Inclusive:** Saw blade holder



Outer pipe diameter in mm	Drill size in mm	Art. no.
Ø 50	60	500 101
Ø 75	92	
Ø 110	121	

## Basement drain *The Universal*

The versatile drain with backwater valve.

It couldn't be more flexible. *The Universal* is a versatile basement drain for sewage free wastewater. It is equipped with a backwater valve and a manually lockable emergency closure. *The Universal* has three inlets as a standard feature (two in Ø 50 and one in Ø 75 mm), the telescopic upper section is also rotatable, tiltable and height-adjustable. This ensures it provides maximum flexibility for the design and installation. *The Universal* is optionally available with a slotted grating made of polymer or stainless steel.



1 Drain 2 Inlet 3 Steel cover

### Basement drain *The Universal*

For installation in a concrete floor/slab



Made in PP

With lateral outlet 2.5°, 2 inlets Ø 50,  
1 inlet Ø 75 mm with blind plug, odour trap  
and sludge trap.

With/without twin flap backwater valve.

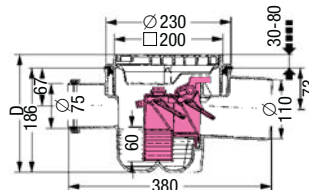
Drainage capacity 1.8 l/sec flow rate.

Installation area 400 × 320 mm

#### Cover:

Slotted cover 188 × 188 mm made of  
polymer, black, class K 3;

slotted cover 187 × 187 mm and rim made  
of stainless steel AISI 304, screwed,  
class L 15



➤ **Accessories:** see pages 272 – 273

#### With twin flap backwater valve

Outer diameter Ø (mm)	Installation depth D in mm	Art. no.
--------------------------	-------------------------------	----------

With black cover

Ø 110	216 – 276	27 611
-------	-----------	--------

With stainless steel cover

Ø 110	216 – 266	27 621
-------	-----------	--------

#### Without twin flap backwater valve

Outer diameter Ø (mm)	Installation depth D in mm	Art. no.
--------------------------	-------------------------------	----------

With black cover

Ø 110	216 – 276	29 111
-------	-----------	--------

With stainless steel cover

Ø 110	216 – 266	29 121
-------	-----------	--------

# Basement drain *Drehfix*

The compact drain for renovation.

The *Drehfix* is a basement drain with integrated, removable backwater valve (Type 5). In addition, it protects connected discharge points such as washbasins, showers or washing machines against wastewater from the sewer. With odour trap, sludge bucket, manually locked emergency closure and a discharge rate of 1.8 l/s, it can be used flexibly and is so compact that it fits in the recesses of old cast iron drains. It is therefore ideally suitable for renovation projects.



1 Drain 2 Inlet

## Basement drain *Drehfix*

For installation in a concrete floor/slab

Made in ABS

With lateral outlet 2.5°, with/without removeable twin flap backwater valve and emergency closure which can be locked by hand, odour trap and sludge trap and integrated, height adjustable upper section.

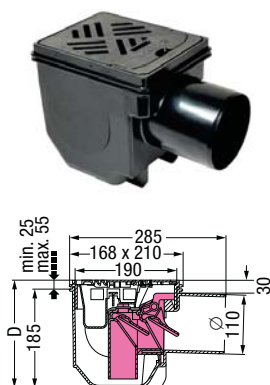
Drainage capacity 1.8 l/sec flow rate.

Installation area 320 × 190 mm

**Cover:**

Slotted cover 150 × 190 mm made of polymer, black, with Easy Entry Function, class K 3

➤ **Accessories:** see pages 272 – 273



Outer diameter Ø (mm)	Installation depth D in mm	Art. no.
With twin flap backwater valve		
Ø 110	210 – 240	<b>27 301</b>
Without twin flap backwater valve		
Ø 110	210 – 240	<b>33 101</b>



## Accessories

*The Universal / Drehfix*

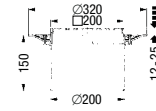
### Variofix shallow bed upper section

for basement drain *The Universal*

Art. no.

**Variofix shallow bed upper section**

**Inclusive:** Waterproofing membrane  
**Cover:** Slotted cover and rim in stainless steel AISI 304, screwed, class K 3



48 968

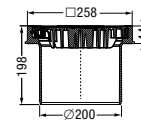
### Extension section in *Ecoguss*

for basement drain *The Universal*

Art. no.

**with support rim and slotted cover**

**Version:** With support rim 250 × 250 mm  
**Cover:** Round slotted cover in *Ecoguss*, Ø 235 mm, class B 125, *Lock & Lift System*



67 985

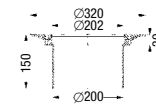
### Extension section

for basement drain *The Universal*

Art. no.

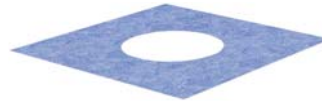
**with pressure sealing flange and counter flange**

**Inclusive:** Waterproofing layer against ground moisture  
**Height:** 150 mm



27 298

**Waterproofing membrane**



48 651

**2 component adhesive**

**Compatibility:** For gluing of KESSEL waterproofing membranes

48 650

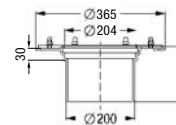
### Extension section in *Ecoguss*

for basement drain *The Universal*

Art. no.

**with pressure sealing flange and counter flange**

**Additional function:** For installation in waterproof concrete  
**Height:** 166 mm



48 958

**Elastomer waterproof membrane**

**Material:** NBR



48 982

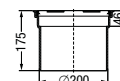
### Extension section

for basement drain *The Universal*

Art. no.

**Extension section**

**Inclusive:** Lip seal  
**Height:** 175 mm

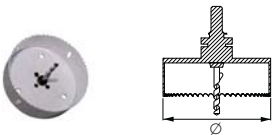

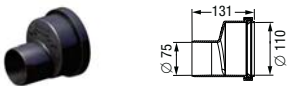


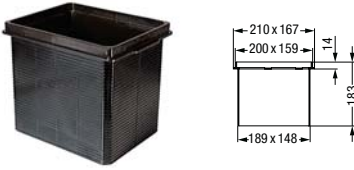
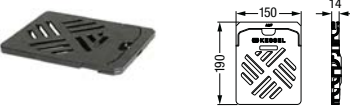



48 988



## Accessories

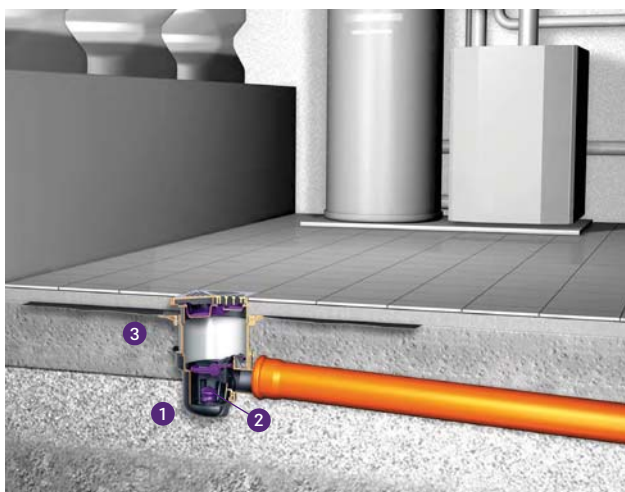
*The Universal / Drehfix*

Hole saw		Outer pipe diameter in mm	Drill size in mm	Art. no.
<b>Hole saw set</b>	<b>Inclusive:</b> Saw blade holder	Ø 50 Ø 75 Ø 110	60 92 121	<b>500 101</b>
				
Inlet adaptor		Outer diameter Ø (mm)	Drill size in mm	Art. no.
<b>Inlet adaptor</b>	<b>Inclusive:</b> Flat seal	Ø 50 Ø 75 Ø 110	60 92 121	<b>39 005</b> <b>39 007</b> <b>39 100</b>
				
Transition section		Outer diameter Ø (mm)	Art. no.	
<b>Transition section</b>	<b>Inclusive:</b> Ø 110 socket / Ø 75 spigot for use as connection piece, gasket	Ø 75/110	<b>27 602</b>	
				
Rodent protection		Art. no.		
<b>Rodent protection</b>	<b>Material:</b> Stainless steel	<b>27 609</b>		
				
Twin-flap backwater protection insert		Art. no.		
<b>with integrated odour trap</b>	<b>Inclusive:</b> Odour trap (62 mm)	<b>27 603</b>		
				
Extension section / slotted cover / sludge trap		Art. no.		
<b>Extension section</b>	<b>Compatibility:</b> For recessed installation <b>Height:</b> 183 mm	<b>38 670</b>		
				
<b>Slotted cover</b>	<b>Version:</b> Class K 3, with recessed handle for cover removal	<b>27 205</b>		
				
<b>Sludge trap</b>	<b>Version:</b> With integrated handle for removal	<b>27 308</b>		
				

## Basement drains with integrated volatile liquid trap

Basement drainage with integrated oil / fuel trap and available backwater protection.

Perfect for the heating room in the basement: Surface water passes through a polymer slotted grating and into the light liquid trap, from where it is discharged into the sewer. If a volatile liquid, for example, heating oil gets into the drain, a floater reliably ensures that contaminated wastewater is not transported into the sewer and cannot cause serious pollution in the sewer and connected wastewater treatment plants. Available in two variants, with and without integrated double backwater valve.



1 Volatile liquid trap 2 Integrated floater 3 Upper section

### How it works

The basement drain not only prevents wastewater contaminated with light liquids from getting into the sewer, but also prevents wastewater pushed back from the sewer (backwater) from getting into the basement.

## Volatile liquid trap

For installation in a concrete floor/slab



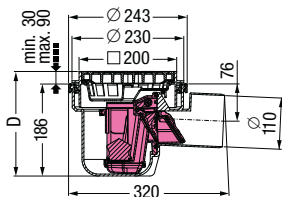
Made in polymer

With twin flap backwater valve,  
with integrated odour trap and sludge trap.  
Drainage capacity 1.0 l/sec flow rate.  
Installation area 400 × 250 mm

**Cover:**

Slotted cover 188 × 188 mm  
made of polymer, black, class K 3

➔ **Accessories:** see pages 276 – 277



Outer diameter Ø (mm)	Installation depth D in mm	Art. no.
Ø 110	216 - 276	52 101

CE EN 13564 Typ 5

## Volatile liquid trap

For installation in a concrete floor/slab



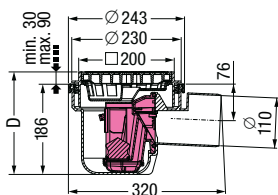
Made in polymer

With integrated odour trap and sludge trap.  
Drainage capacity 1.0 l/sec flow rate.  
Installation area 400 × 250 mm

**Cover:**

Slotted cover 188 × 188 mm  
made of polymer, black, class K 3

➔ **Accessories:** see pages 276 – 277



Outer diameter Ø (mm)	Installation depth D in mm	Art. no.
Ø 110	216 - 276	51 101

## Accessories

Volatile liquid traps

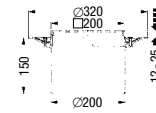
### Variofix shallow bed upper section

for volatile liquid traps

Art. no.

#### Variofix shallow bed upper section

**Inclusive:** Waterproofing membrane  
**Cover:** Slotted cover and rim in stainless steel AISI 304, screwed, class K 3



48 968

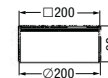
### Upper section

for volatile liquid traps

Art. no.

#### Upper section

**Cover:** Slotted cover and rim in stainless steel AISI 304, screwed, class K 3



48 954

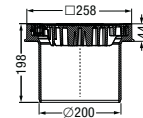
### Extension section in Ecoguss

for volatile liquid traps

Art. no.

#### with support rim and slotted cover

**Version:** With support rim 250 × 250 mm  
**Cover:** Round slotted cover in Ecoguss, Ø 235 mm, class B 125, Lock & Lift System



67 985

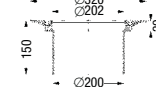
### Extension section

for volatile liquid traps

Art. no.

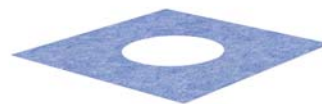
#### with pressure sealing flange and counter flange

**Inclusive:** Waterproofing layer against ground moisture  
**Height:** 150 mm



27 298

#### Waterproofing membrane



48 651

#### 2 component adhesive

**Compatibility:** For gluing of KESSEL waterproofing membranes

48 650

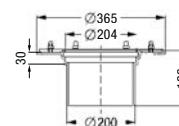
### Extension section in Ecoguss

for volatile liquid traps

Art. no.

#### with pressure sealing flange and counter flange

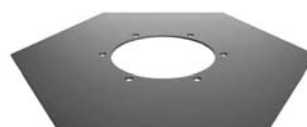
**Additional function:** For installation in waterproof concrete  
**Height:** 166 mm



48 958

#### Elastomer waterproof membrane

**Material:** NBR



48 982

## Accessories

Volatile liquid traps

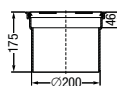
### Extension section

for volatile liquid traps

Art. no.

#### Extension section

**Material:** PP  
**Inclusive:** Lip seal  
**Height:** 175 mm

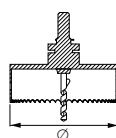


48 988

### Hole saw

#### Hole saw set

**Inclusive:** Saw blade holder



Outer pipe  
diameter in mm

Drill size  
in mm

Art. no.

Ø 50

60

500 101

Ø 75

92

Ø 110

121

### Rodent protection

for volatile liquid traps without twin flap backwater valve

Art. no.

#### Rodent protection

**Material:** Stainless steel



27 609

## Basement drains without backwater valve

The drain for uncomplicated applications.

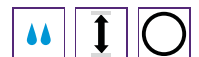
Basement drains without backwater valves are ideally suitable for basements that lie above the backwater level, meaning they are not at risk of backwater flooding. We supply our basement drains without backwater valves with or without odour trap and/or sludge bucket as well as with lateral or vertical outlet.

### Odour trap

We offer different drains with integrated odour traps to protect against unpleasant odours from the sewer. Many drains can also be equipped with our Multistop waterless odour trap, whose tightly sealing flap provides additional protection against foam and vermin.

### Basement drain *Practicus*

For installation in a concrete floor/slab



Made in PP

With removable odour trap, with lip seal and protective cover or use during construction.

Drainage capacity in l/sec with 20 mm / 10 mm threshold  
1.8 l/sec / 1.1 l/sec.

Installation area:

lateral outlet: 220 × 180 mm  
vertical outlet: 180 × 180 mm

With upper section in ABS

#### Cover:

Slotted cover 138 × 138 mm in ABS, black, class K 3

➔ **Accessories:** see page 280



Illustration shows Art. no. 45 110.40  
(lateral outlet)

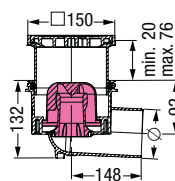


Illustration shows  
Art. no. 45 110.40  
(lateral outlet)

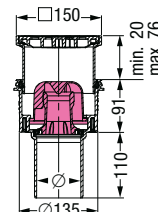


Illustration shows  
Art. no. 45 210.40  
(vertical outlet)

Outer diameter Ø (mm)	Art. no.
<b>Lateral outlet</b>	
Ø 110	<b>45 110.40</b>
<b>Vertical outlet</b>	
Ø 110	<b>45 210.40</b>

## Basement drain *Practicus*

For installation in a concrete floor/slab



Made in PP

With sludge trap,  
with lip seal and protective cover  
for use during construction.

Drainage capacity in l/sec  
with 20 mm / 10 mm threshold  
1.8 l/sec / 1.1 l/sec.

Installation area:

lateral outlet: 220 × 180 mm

vertical outlet: 180 × 180 mm

With upper section in ABS

**Cover:**

Slotted cover 138 × 138 mm in ABS,  
black, class K 3

➤ **Accessories:** see page 280



Illustration shows  
Art. no. 34 101 (lateral outlet)

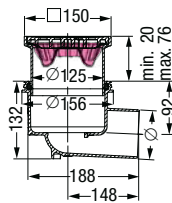


Illustration shows  
Art. no. 34 101  
(lateral outlet)

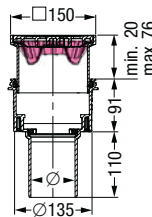


Illustration shows  
Art. no. 34 102  
(vertical outlet)

Outer diameter  
Ø (mm)

Art. no.

Lateral outlet

Ø 110      **34 101**

Vertical outlet

Ø 110      **34 102**

## Basement drain

For installation in a concrete floor/slab



Made in PP

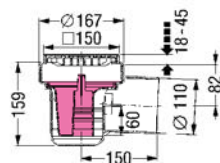
Lateral outlet 2.5°, with removable  
odour trap and sludge trap.  
Drainage capacity 1.6 l/sec flow rate.  
Installation area 220 × 280 mm

With upper section in PP

**Cover:**

Slotted cover 138 × 138 mm made in  
polymer, black, class K 3

➤ **Accessories:** see page 280



Outer diameter  
Ø (mm)

Art. no.

Ø 110      **36 501**

## Accessories

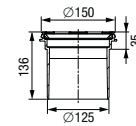
Basement drain *Practicus* without backwater valve

### Extension sections

for basement drain *Practicus*

without lateral inlet

**Material:** PP  
**Inclusive:** Lip seal



**Art. no.**

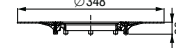
**48 987**

### Flanges

for basement drain *Practicus*

**Glue flange with counter flange**

**Material:** ABS

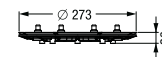


**Art. no.**

**48 410**

**Pressure sealing flange**

**Material:** Stainless steel AISI 304



**Art. no.**

**48 407**

### Elastomer waterproof membrane

for pressure sealing flange Art. no. 48 407

**Membrane**

**Material:** NBR



**Art. no.**

**48 981**

### Hygiene and odour stop

for basement drain *Practicus*

**Multistop**

**Function:** Odour, foam, rodent and insect stop



**Art. no.**

**48 500**

**Hair filter**

**Material:** Polymer



**Art. no.**

**48 700**

**Bell-shaped odour trap insert**

**Sealing water height:** 50 mm



**Art. no.**

**27 169**

**Sludge trap**

**Material:** Polymer



**Art. no.**

**48 168**



## Accessories

Basement drain Art. no. 36 501 without backwater valve

Hole saw		Outer pipe diameter in mm	Drill size in mm	Art. no.
<b>Hole saw set</b>	<b>Inklusive:</b> Saw blade holder	  Ø 50 Ø 75 Ø 110	60 92 121	<b>500 101</b>
Transition section		Outer diameter Ø (mm)	Art. no.	
<b>Transition section</b>	<b>Inklusive:</b> Ø 110 socket / Ø 75 spigot for use as connection piece, gasket	  Ø 75 131 Ø 110	Ø 75/110	<b>27 602</b>
Slotted cover / upper section / extension section		Art. no.		
<b>Slotted cover</b>	<b>Material:</b> ABS <b>Version:</b> Class K 3	  □ 138 12,5	<b>60 101S</b>	
<b>Upper section</b>	<b>Material:</b> PP	  □ 150 50 Ø 160	<b>27 157</b>	
<b>Extension section</b>	<b>Material:</b> Polymer <b>Extension:</b> Can be extended by 80 mm	  Ø 160 120 Ø 154	<b>36 590</b>	

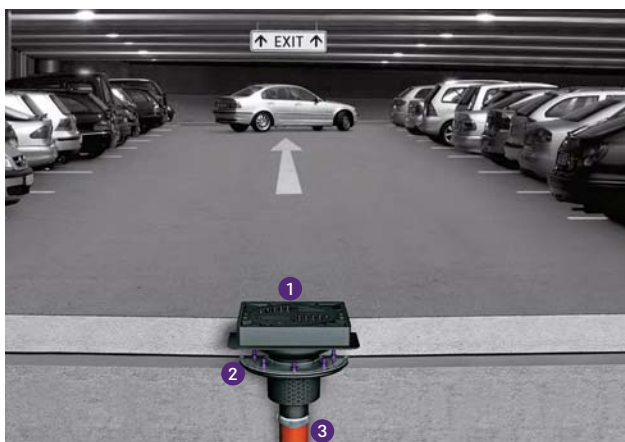
# 4.4 Outdoor drains

Heavy-duty applications

# Parking deck drains

## The load bearers made of *Ecoguss*.

An innovation that sets standards: For parking deck drains we use our *Ecoguss* high-tech composite, which combines the specific advantages of polymer and metal and is an economic and easy to install alternative to drains made of grey cast iron. At the same time, parking deck drains made of *Ecoguss* offer large advantages with regard to hygiene as well as fire protection and sound insulation and are extremely load resistant and break-proof. There are therefore ideally suitable for use in underground car parks, multi-storey car parks and industrial buildings.



1 Upper section 2 Sealing flange 3 Connection to SML-pipe

### Break-proof & load resistant

Our parking deck drains made of *Ecoguss* are break-proof and fulfil the requirements for load class B 125. They can therefore be loaded with up to 12.5 tonnes and can be easily driven on by cars or pick-up trucks.

### Highest fire protection standards

In case of fire, water outlets constitute a risk, as the fire can pass through the discharge pipes and spread to other parts of the building. Our drains can be equipped with the *Fire-Kit* fire and smoke protection insert or the *Quick-Fit* passage seal with integrated fire protection. As soon as fire penetrates the drain body, the fire protection compound inside it swells automatically and seals the pipe socket against flames and smoke. Not only the *Fire-Kit* but also the *Quick-Fit* fulfil the highest fire rating R 120.

Resistance, convenience, cleanliness – all these are offered by *Ecoguss* - our high-tech composite.

➤ Floor/roof drain *Ecoguss*: Page 226

### Parking deck drain *Ecoguss*

with pressure sealing flange in stainless steel AISI 304



Made in *Ecoguss*

Vertical outlet, for connection to SML-pipe according to EN 877, with sludge trap. Drainage capacity 4.5 l/sec flow rate. Installation area 300 × 300 mm

With pressure sealing flange in stainless steel AISI 304, with square upper section in *Ecoguss* with connection flange 247 × 247 mm

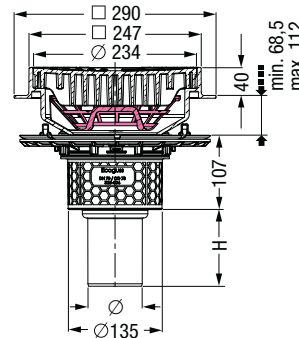
**Cover:**

Round slotted cover Ø 234 mm, class B 125 (12.5 to), with *Lock & Lift System*

**Note:**

Core drilling only Ø 160 mm with *Quick-Fit*

➤ **Accessories:** *Multistop* Art. no. 48 500 see page 285



Outer diameter Ø (mm)	Height H in mm	Height H1 in mm	Art. no.
System 125			
Ø 78	110	-	48 878.01
Ø 110	110	-	48 811.01

### Parking deck drain *Ecoguss*

square or round



Made in *Ecoguss*

Vertical outlet, for connection to SML-pipe according to EN 877, with sludge trap. Drainage capacity 4.5 l/sec flow rate. Installation area 300 × 300 mm

With square (247 × 247 mm) or round (Ø 247 mm) upper section in *Ecoguss* with connection flange

**Cover:**

Round slotted cover Ø 234 mm, class B 125 (12.5 to), with *Lock & Lift System*

**Note:** Can be used as single piece pipe connection drain!

➤ **Accessories:** *Multistop* Art. no. 48 500 see page 285



Illustration shows Art. no. 48 502

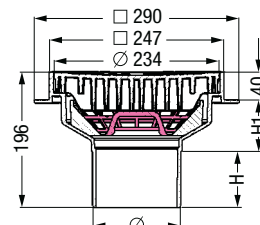


Illustration shows Art. no. 48 501, 48 502

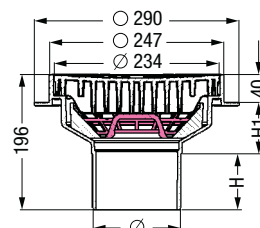


Illustration shows Art. no. 48 503, 48 504

Outer diameter Ø (mm)	Height H in mm	Height H1 in mm	Art. no.
System 100 (SML-pipe) with square upper section			
Ø 110	77	79	48 501
System 125 (plastic pipe) with square upper section			
Ø 125	83	73	48 502
System 100 (SML-pipe) with round upper section			
Ø 110	77	79	48 503
System 125 (plastic pipe) with round upper section			
Ø 125	83	73	48 504

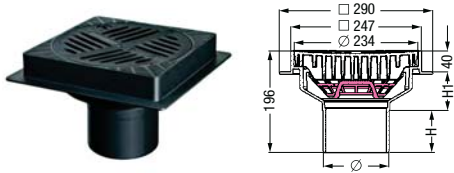
## Modular system 100 / 125

Parking deck drains *Ecoguss*

System 100

System 125

### Upper section with connection flange



#### with square upper section

Material: *Ecoguss*

Class: B 125

Upper section: 247×247 mm

Slotted cover: Ø 234 mm

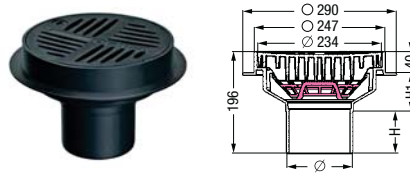
Drainage capacity: 4.5 l/sec flow rate

Inclusive: *Lock & Lift* System, sludge trap

Compatibility: Ø 110 not in combination with drain body *Ecoguss*

Note: Can be used as single piece pipe connection drain!

System 100 (SML-pipe)	Ø 110	H 77 mm	H1 83 mm	Art. no. <b>48 501</b>
System 125 (plastic pipe)	Ø 125	H 79 mm	H1 73 mm	Art. no. <b>48 502</b>



#### with round upper section

Material: *Ecoguss*

Class: B 125

Upper section: Ø 247 mm

Slotted cover: Ø 234 mm

Drainage capacity: 4.5 l/sec flow rate

Inclusive: *Lock & Lift* System, sludge trap

Compatibility: Ø 110 not in combination with drain body *Ecoguss*

Note: Can be used as single piece pipe connection drain!

System 100 (SML-pipe)	Ø 110	H 77 mm	H1 83 mm	Art. no. <b>48 503</b>
System 125 (plastic pipe)	Ø 125	H 79 mm	H1 73 mm	Art. no. <b>48 504</b>

### Accessories

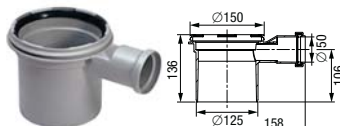


#### Extension section

Material: PP

Inclusive: Lip seal

without lateral inlet Art. no. **48 987**



#### Extension section

Material: PP

Inclusive: Lip seal

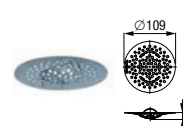
with lateral inlet Ø 50 Art. no. **48 989**



#### Multistop

Odour, foam, rodent and insect stop

Art. no. **48 500**



#### Hair filter

Material: Polymer

Art. no. **48 700**



#### Odour trap

Sealing water height 50 mm acc. to norm

Art. no. **48 600**



#### Fire-Kit Fire protection insert

Only for *Ecoguss* drains with vertical outlet and odour trap  
Art. no. **27 169**

Certification no.: Z-19.17-1719

Ø 58/78/83	Art. no. <b>48 099</b>
Ø 110	Art. no. <b>48 100</b>



#### Bell-shaped odour trap insert

Material: PP  
sealing water height 50 mm

Art. no. **27 169**



#### Quick-Fit the passage seal

The all-round seal for core drillings for *Ecoguss* drain body, vertical outlet (only use Art. no. 48 990 in combination with *Fire-Kit* fire protection insert)

\*Certification no.: Z-19.17-1719

without fire protection	Art. no. <b>48 991</b>
with fire protection*	Art. no. <b>48 990</b>



#### Insulating body

fits all *Ecoguss* drain bodies with vertical outlet

Art. no. **48 952**

### Drain body *Ecoguss*

without odour trap



#### with pressure sealing flange

Version: High temperature resistant

Sealing water height: 50 mm

Drainage capacity: 4.5 l/sec flow rate

Ø 78 H 110 mm Art. no. **48 879**

Ø 83 H 110 mm Art. no. **48 889**

Ø 110 H 110 mm Art. no. **48 812**

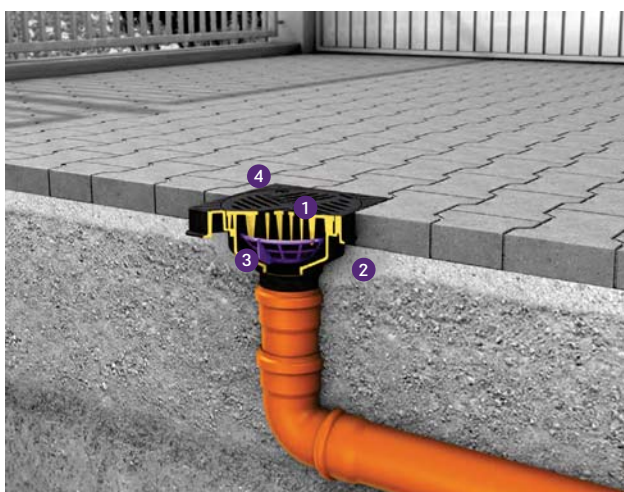
# Yard drains

The load resistant drain for outdoor use.

We supply yard drains not only made of polymer but also made of *Ecoguss*, our high-tech composite, which combines the specific advantages of polymer and metal. They are available in different load classes and can be driven on by vehicles weighing up to 12.5 tonnes.



- 1 System 400 drain body
- 2 Height-adjustable upper section with cover
- 3 Sludge basket



- 1 Upper section and cover
- 2 Concrete
- 3 Sludge basket
- 4 Locking system

## Break-proof & load resistant

Our yard drains are absolutely break-proof and fulfil different load classes up to D. They can therefore be loaded with up to 40 tonnes and can be easily driven on by cars and/or trucks.

## Flexible installation options

Thanks to their unique rotatable, tiltable and up to 350 mm height-adjustable telescopic upper sections, our yard drains can be adjusted exactly to the required ground level.

## Yard drain *Ecoguss*

pipe connection drain - square / round

Made in *Ecoguss*

Vertical outlet, with sludge trap.  
Drainage capacity 4.5 l/sec flow rate

With square (247×247 mm) or round (Ø 247 mm) upper section in *Ecoguss*

**Cover:**

Round slotted cover Ø 235 mm, class B 125 (12.5 to), with *Lock & Lift System*

➤ **Accessories:** *Multistop* Art. no. 48 500 see page 285



Illustration shows Art. no. 67 110B

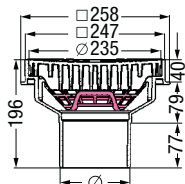


Illustration shows Art. no. 67 110B

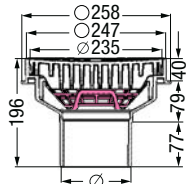


Illustration shows Art. no. 67 111B

System 100   

Outer diameter Ø (mm) Art. no.

With square support rim

Ø 110 **67 110B**

with round support rim

Ø 110 **67 111B**

## Yard drain *Alrondo*

vertical outlet

Made of polymer

Vertical outlet, with integrated odour trap.  
Drainage capacity 1.6 l/sec flow rate

Cover plate 200×200 mm

**Cover:**

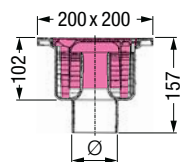
Round slotted cover Ø 140 mm, screwed, can be driven over by vehicles of up to 1 ton



System 100   

Outer diameter Ø (mm) Art. no.

Ø 110 **37 287 S**



### Yard drain *Ecoguss* 200

Lateral or vertical outlet

Upper section made of *Ecoguss*,  
drain body made of polymer

With sludge trap.

Drainage capacity 4.5 l/sec flow rate

Upper section made of *Ecoguss*,  
with square support rim

**Cover:**

Round slotted cover, class B 125 (12.5 to),  
with *Lack & Lift* System



Illustration shows Art. no. 67 923B

System 200



Outer diameter Ø (mm) Art. no.

Lateral outlet

Ø 110 67 923B

Vertical outlet

Ø 110 67 922B

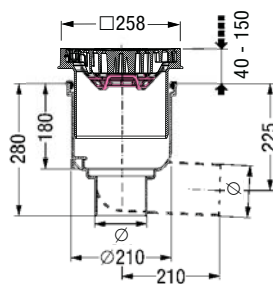


Illustration shows  
Art. no. 67 922B, 67 923B

### Yard drain System 200

Lateral or vertical outlet

Made of polymer

With lip seal and protective cover  
for use during construction.

Drainage capacity 4.5 l/sec flow rate

drain body made of polymer,  
upper section with support rim

**Cover:**

Slotted cover, class A 15



Illustration shows Art. no. 67 020.30

System 200



Outer diameter Ø (mm) Art. no.

Lateral outlet

Ø 110 67 020.30

Vertical outlet

Ø 110 67 060.30

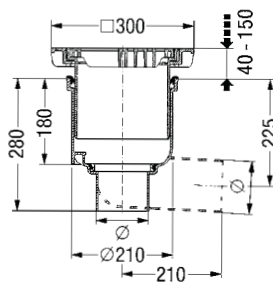


Illustration shows  
Art. no. 67 020.30, 67 060.30

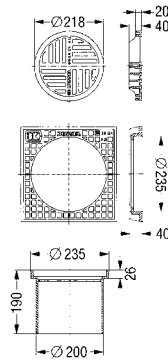
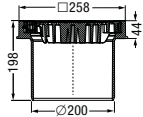


## Modular system 200

Yard drains

System 200

### Upper section



### in *Ecoguss*

**Version contains:** Upper section with support rim 250 × 250 mm, height adjustable

**Cover:** Round slotted cover Ø 235 mm in *Ecoguss*, class B 125, *Lock & Lift* System, height adjustable from 40 - 150 mm

Art. no. 67 985

### in polymer, consists of ...

**Slotted cover:** Ø 218 mm, class A 15 / L 15 (1.5 to.)

Art. no. 27 173

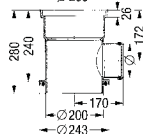
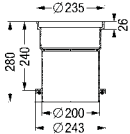
**Support rim:** 250 × 250 mm, class A 15 / L 15 (1.5 to.)

Art. no. 27 180

**Upper section:** Height adjustable from 40 - 150 mm

Art. no. 67 400

### Accessories



### Extension section

**Material:** Polymer

**Installation height:** 240 mm

without lateral inlet Art. no. 67 500

### Extension section

**Material:** Polymer

**Installation height:** 240 mm

with lateral inlet Art. no. 67 600

### Sludge basket

**Material:** PE-HD

Art. no. 67 300

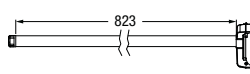
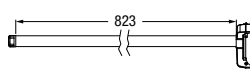
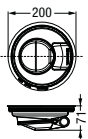
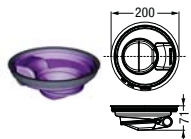
### Lip seal

Art. no. 27 140

### Lip seal

Non-slip mounting

Art. no. 27 141



### Multistop 200

Odour, foam, rodent and insect stop, for Art. no. 67 985, 67 923B, 67922B

Art. no. 48 520

### Bell-shaped odour trap insert

**Material:** PP, removable

**sealing water height:**

H = 70 mm (Art. no. 27 170)

H = 100 mm (Art. no. 27 171)

H 70 mm

Art. no. 27 170

H 100 mm

Art. no. 27 171

### Lifting mechanism

For removing odour trap in case of deeper installation.

**Compatibility:** Art. no. 27 171, 67 960, 67 970

Art. no. 850 144

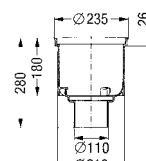
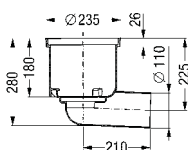
### Locking and removal key

For *Ecoguss* drain covers with *Lock & Lift* System

Art. no. 67 007

### Drain body in polymer

without odour trap



### Lateral outlet 2.5°

**Drainage capacity:** 4.5 l/sec flow rate

Ø 110 Art. no. 67 000

### Vertical outlet

**Drainage capacity:** 4.5 l/sec flow rate

Ø 110 Art. no. 67 040

## Yard drain System 400

for higher load classes

System 400



Made in polyethylene

Lateral outlet 2.5°, with sludge trap.

Water-tight, resistant to aggressive wastewater. With fuel-resistant gaskets.

Drainage capacity 4.5 l/sec flow rate.

Installation depth (D) from 380 – 510 mm.

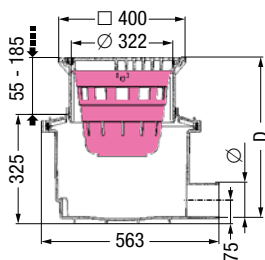
Installation area 585 × 535 mm



Outer diameter Ø (mm) Art. no.

Ø 110	851 100A
Ø 110	851 100B
Ø 110	851 100D
Ø 160	851 150A
Ø 160	851 150B
Ø 160	851 150D

Upper section with slotted cover, class A (1.5 to.) made of polymer, 400 × 400 mm, class B (12.5 to.) in cast iron according to EN 124, 400 × 400 mm and class D (40 to.) in cast iron according to EN 124, 450 × 450 mm for continuous height and level adjustment.



## Yard drain System 400

for higher load classes

Made in polyethylene

Lateral outlet 2.5°, with odour trap and sludge trap.

Water-tight, resistant to aggressive wastewater.

With fuel-resistant gaskets.

Drainage capacity 4.5 l/sec flow rate.

Installation depth (D) from 730 – 1080 mm.

Installation area 585 × 535 mm

Upper section with slotted cover,

class A (1.5 to.) made of polymer, 400 × 400 mm,

class B (12.5 to.) in cast iron according to EN 124,

400 × 400 mm and

class D (40 to.) in cast iron according to EN 124,

450 × 450 mm for continuous height and level

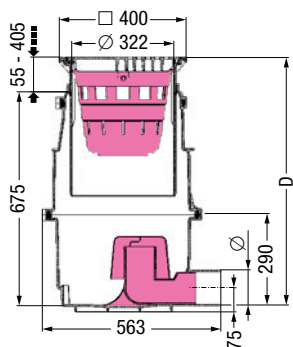
adjustment.

System 400



Outer diameter Ø (mm) Art. no.

Ø 110	851 102A
Ø 110	851 102B
Ø 110	851 102D
Ø 160	851 152A
Ø 160	851 152B
Ø 160	851 152D

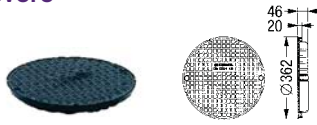


## Modular system 400

System 400

Yard drains

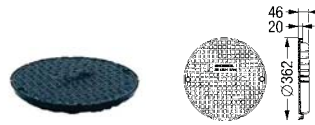
### Covers



#### Cover plate in polymer

Class: A (1.5 to.)

Art. no. 850 132



#### Cover plate in cast iron

Class: B (12.5 to.)

Art. no. 850 131



#### Cover plate in cast iron

Class: D (40 to.)

Compatibility: Art. no. 850 121

Art. no. 850 136

### Upper section

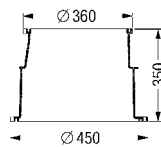


#### Class A, B

Continuously height adjustable, with clamping ring

Art. no. 850 120

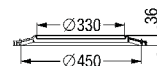
### Accessories



#### Extension section

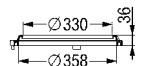
Material: Polyethylene

Art. no. 850 101



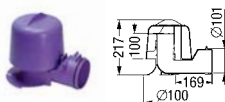
#### Transition section 450

Art. no. 850 102



#### Transition section 360

Art. no. 850 103

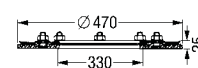
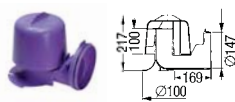


#### Odour traps

\*Compatibility: Art. no. 850 009, 850 010

Ø 110 mm Art. no. 850 141

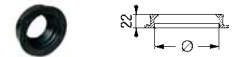
Ø 160 mm\* Art. no. 850 142



#### Pressure sealing flange

Compatibility: Upper section

Art. no. 83 021



#### Gaskets for pipe conduits

Ø 50 mm Art. no. 850 114

Ø 75 mm Art. no. 850 116

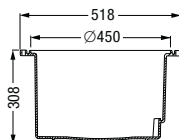
Ø 110 mm Art. no. 850 117

Ø 125 mm Art. no. 850 118

Ø 160 mm Art. no. 850 119

### Drain body in polyethylene

without odour trap



#### Closed

Art. no. 850 008

System 400



**Slotted cover in polymer**

Class: A (1.5 to.)

Art. no. 850 134



**Slotted cover in cast iron**

Class: B (12.5 to.)

Art. no. 850 135

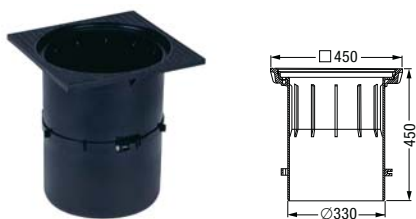


**Slotted cover in cast iron**

Class: D (40 to.)

Compatibility: Art. no. 850 121

Art. no. 850 137



**Class D**

Continuously height adjustable, with clamping ring

Art. no. 850 121



**Sludge trap**

Material: Polymer

Art. no. 850 115



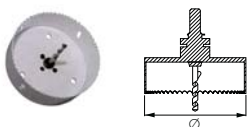
**Profiled gasket 450**

Art. no. 850 113



**Profiled gasket 360**

Art. no. 850 112



**Hole saw**

for drilling lateral surfaces for inlets and outlets  $\varnothing$  50, 75, 110, 125 and 160 (Saw blade holder  $\varnothing$  = 190 mm)

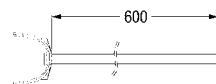
Art. no. 50 100



**Elastomer waterproof membrane**

Material: NK/SBR

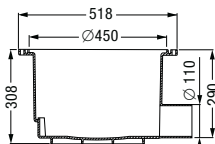
Art. no. 83 022



**Lifting mechanism**

For removing odour trap

Art. no. 850 143



**with outlet**

$\varnothing$  110 mm Art. no. 850 009  
 $\varnothing$  160 mm Art. no. 850 010

# Gutter drains

## The practical side of gutters.

Our practical gutter drains made of polymer are connected directly to the downpipe of the gutter and pass the rainwater through underground wastewater pipes and into the sewer, the stormwater collection tank or soakaways.



- 1 Downspouts   2 Drainage pipe   3 Extension section
- 4 Sludge basket   5 Drain cover   6 Odour trap

### Removable sludge bucket

Our gutter drains are equipped with a sludge bucket as protection against blockages caused by solids such as leaves or branches. The trap basket can be easily accessed through the removable drain cover and is therefore easy to clean.

### Odour trap

We also supply gutter drains with removable bell-shaped odour trap for frost-free depths from 545 mm to protect against unpleasant odours from the sewer.

### Variable connection options

Optional extension sections can be used to attach additional lateral inlets to the gutter drains.

## Gutter drain

Lateral or vertical outlet

Made in polymer

Rain inlet cover with protective pipe made of polymer.

With removable bell-shaped odour trap, two extension sections, sludge trap.

With wall securing device.

Drainage capacity 2.8 l/sec flow rate,

**Note:** For frost-free depth 545 mm

System 200



Outer diameter Ø (mm) Art. no.

Lateral outlet

Ø 110 67 970

Vertical outlet

Ø 110 67 960



Illustration shows Art. no. 67 970

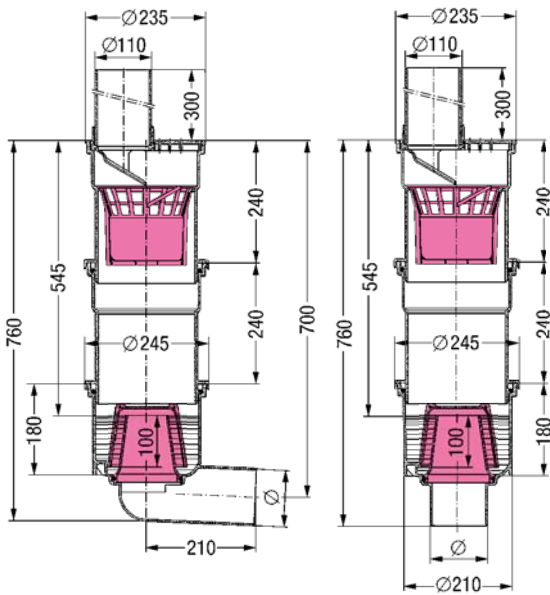


Illustration shows Art. no. 67 970

Illustration shows Art. no. 67 960

## Gutter drain

Lateral or vertical outlet

Made in polymer

Rain inlet cover with protective pipe in synthetic material.

With sludge trap.

With/without wall securing device.

Drainage capacity 4.5 l/sec flow rate

System 200

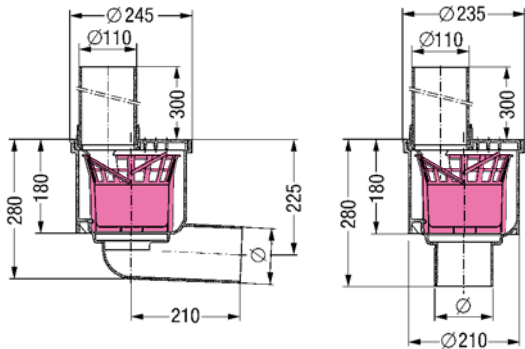


Illustration shows Art. no. 67 945

Illustration shows Art. no. 67 940



Illustration shows Art. no. 67 945

### Lateral outlet

Outer diameter Ø (mm) Art. no.

With wall securing device

Ø 110 **67 945**

### Vertical outlet

Outer diameter Ø (mm) Art. no.

With wall securing device

Ø 110 **67 940**

Without wall securing device

Ø 110 **67 997**



## Modular system 200

System 200

Gutter drains

### Upper section



#### in polymer

**Cover:** Cover plate Ø 218 mm class A 15 / L 15 (1.5 to.), sealed with respect to surface water

Art. no. **67 775**



#### in polymer

**Cover:** Rain inlet cover Ø 218 mm with protective pipe Ø 110

Ø 110 Art. no. **67 750**



#### in polymer

**Cover:** Rain inlet slotted cover Ø 218 mm, for additional surface drainage with protective pipe Ø 110

Ø 110 Art. no. **67 700**

### Accessories



#### Extension section

**Material:** Polymer  
**Installation height:** 240 mm without lateral inlet

Art. no. **67 500**



#### Extension section

**Material:** Polymer  
**Installation height:** 240 mm with lateral inlet

Art. no. **67 600**



#### Sludge basket

**Material:** PE-HD  
Art. no. **67 300**



#### Lip seal

Art. no. **27 140**



#### Lip seal

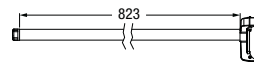
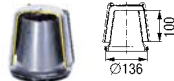
Non-slip mounting  
Art. no. **27 141**



#### Bell-shaped odour trap insert

**Material:** PP, removable  
**sealing water height:**  
H = 70 mm (Art. no. **27 170**)  
H = 100 mm (Art. no. **27 171**)

H 70 mm Art. no. **27 170**  
H 100 mm Art. no. **27 171**



#### Lifting mechanism

For removing odour trap in case of deeper installation.  
**Compatibility:** Art. no. **27 171, 67 960, 67 970**  
Art. no. **850 144**



#### Wall securing device

Art. no. **67 800**

### Drain body in polymer

without odour trap



#### Lateral outlet 2.5°

**Drainage capacity:** 4.5 l/sec flow rate

Ø 110 Art. no. **67 000**



#### Vertical outlet

**Drainage capacity:** 4.5 l/sec flow rate

Ø 110 Art. no. **67 040**

# Roof drains for flat roof surfaces

The well thought-through solution for the roof.

Our offer includes different roof drains for flat roof surfaces for safe and reliable drainage of roofs in all sizes. The drains are available with optional single or double seal and can be converted into a DIN-conforming emergency drain by fitting a retainer ring available as an accessory. We supply roof drains for flat roof surfaces not only made of polymer but also made of *Ecoguss*, our high-tech composite, which combines the specific advantages of polymer and metal. They are available with outlets in nominal sizes from Ø 78 to Ø 125 mm.

Reliable throughout the year, thanks to heating function

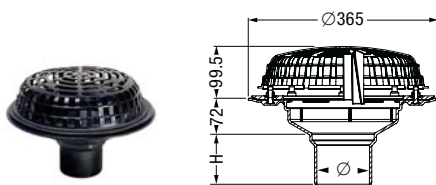
To ensure problem-free drainage of roofs even at low temperatures, our roof drains for flat roof surfaces are available with optional integrated heating. The heating function is integrated in a non-combustible insulated body and therefore does not pose a fire risk.

Resistance, convenience, cleanliness – all these are offered by *Ecoguss* – our high-tech composite.

➤ *Ecoguss* floor drain: Page 226

## Flat-roof drains in *Ecoguss*

System 200



### with single seal

**Inclusive:** Pressure sealing flange in *Ecoguss*, gravel trap

**Installation area:** Ø 227 mm

#### Without heating:

Ø 78 H 96,5 mm Art. no. **48 370**

Ø 110 H 93 mm Art. no. **48 310**

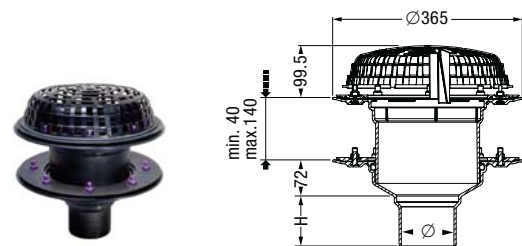
Ø 125 H 93 mm Art. no. **48 312**

#### With heating:

Ø 78 H 96,5 mm Art. no. **48 370.03**

Ø 110 H 93 mm Art. no. **48 310.03**

Ø 125 H 93 mm Art. no. **48 312.03**



### with double seal for installation in waterproof concrete

**Inclusive:** Pressure sealing flange in *Ecoguss* and counter flange, upper section in *Ecoguss* Ø 200, gravel trap

**Installation area:** Ø 227 mm

#### Without heating:

Ø 78 H 96,5 mm Art. no. **48 370.01**

Ø 110 H 93 mm Art. no. **48 310.01**

Ø 125 H 93 mm Art. no. **48 312.01**

#### With heating:

Ø 78 H 96,5 mm Art. no. **48 370.02**

Ø 110 H 93 mm Art. no. **48 310.02**

Ø 125 H 93 mm Art. no. **48 312.02**



## Accessories

System 200

Flat-roof drains in *Ecoguss*

### Damming ring

for drainage safety

**Damming ring**

**Material:** *Ecoguss*



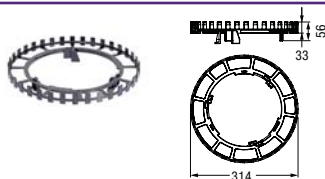
Outer diameter Ø (mm)	H in mm	Art. no.
Ø 75	35	48 335
Ø 110	35	48 335
Ø 125	45	48 345

### Spacer ring

to adapt gravel trap to height of gravel

**Spacer ring**

**Material:** *Ecoguss*



Art. no.

48 302

### Upper section

**Upper section**

**Cover:** Slotted cover and rim in stainless steel AISI 304, screwed, class K 3



Art. no.

48 954

### Hygiene and odour stop

Compatibility see product description

**Temporary protective cover**

**Material:** PP  
**Function:** With drainage function



Art. no.

45 301

**Leaf trap**

**Material:** PP



Art. no.

48 300

**Multistop 200**

**Compatibility:** Only in combination with *Ecoguss* roof drains with twin sealing system  
**Function:** Odour, foam, rodent and insect stop



Art. no.

48 520

### Extension section

**Extension section**

**Inclusive:** Lip seal  
**Height:** 175 mm



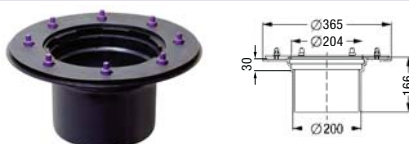
Art. no.

48 988

### Extension section in *Ecoguss*

**with pressure sealing flange and counter flange**

**Additional function:** For installation in waterproof concrete  
**Height:** 166 mm



Art. no.

48 958

## Accessories

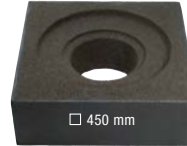
System 200

Flat-roof drains in *Ecoguss*

### Insulating pieces

for flat-roof drain *Ecoguss*

		Art. no.
<b>without heating</b>	<b>Material:</b> Flame proof <b>Class:</b> A 1	<b>48 352</b>
<b>with heating</b>	<b>Material:</b> Flame proof <b>Class:</b> A 1	<b>48 353</b>
<b>Extension section Ø 200</b>	<b>Material:</b> Flame proof <b>Class:</b> A 1	<b>48 354</b>



### Reinforcement plate

for flat-roof drain *Ecoguss*

		Art. no.
<b>Reinforcement plate</b>	<b>Material:</b> Galvanized steel <b>Plate size:</b> 600 × 600 mm <b>Cut-out:</b> 270 mm <b>Material thickness:</b> 1.5 mm	<b>48 351</b>

## Upgrade example: Single waterproofing

Ø 78, 110 or 125

➤ Flat-roof drain *Ecoguss*:  
Product see page 298



Before: Flat-roof drain *Ecoguss*



### Conversion

- 1 Unlock **gravel tap** and remove
- 2 Remove **counter flange**
- 3 Insert **damming ring** as accessory
  - Ø 78, H = 35 mm (Art. no. 48 335)
  - Ø 110, H = 35 mm (Art. no. 48 335) or
  - Ø 125, H = 45 mm (Art. no. 48 345)



After: Flat-roof drain *Ecoguss*  
with emergency overflow

## Flat-roof drain

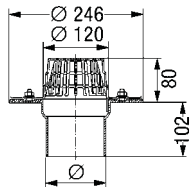
with pressure sealing flange

Made in PP

Vertical outlet, with pressure sealing flange  
with counter flange in stainless steel AISI 304,  
with leaf trap.

Drainage capacity 4.5 l/sec flow rate.

Installation area: 180 × 180 mm



System 100



Outer diameter Ø (mm) Art. no.

Ø 110

45 950



## Flat-roof drain

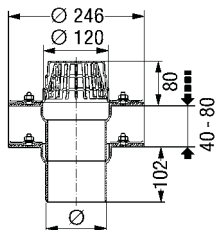
with twin pressure sealing flanges

Made in PP

Vertical outlet, with twin sealing flanges,  
with pressure sealing flange  
with counter flange in stainless steel AISI 304,  
with leaf trap.

Drainage capacity 4.5 l/sec flow rate.

Installation area: 180 × 180 mm



System 100



Outer diameter Ø (mm) Art. no.

Ø 110

45 970



# Not found what you're looking for?

In addition to our standard stainless steel drains and channels we also develop customised solutions at customer request for special demands on form, function and dimensioning.



Individual solutions

[info@kessel.com](mailto:info@kessel.com)

# 5. Separators

Fully certified treatment of contaminated wastewater

Separator range	306
<b>5.1 Grease separator</b>	<b>308</b>
Planning information	310
Grease separator disposal - the right choice	312
Grease separator <i>EasyClean</i> free Auto Mix & Pump NS 2 – 10	316
Grease separator <i>EasyClean</i> free Mix & Pump NS 2 – 10	317
Grease separator <i>EasyClean</i> free Auto Mix NS 2 – 10	318
Grease separator <i>EasyClean</i> free Mix NS 2 – 10	319
Grease separator <i>EasyClean</i> free Direct NS 2 – 10	320
Grease separator <i>EasyClean</i> free Standard NS 2 – 10	321
Grease separator <i>EasyClean</i> free Auto Mix & Pump NS 15 – 30	322
Grease separator <i>EasyClean</i> free Mix & Pump NS 15 – 30	323
Grease separator <i>EasyClean</i> free Auto Mix NS 15 – 30	324
Grease separator <i>EasyClean</i> free Mix NS 15 – 30	325



Grease separator <i>EasyClean</i> free Direct NS 15 – 30	326	<b>5.3 Starch separators</b>	<b>350</b>
Grease separator <i>EasyClean</i> free Standard NS 15 – 30	327		
Grease separator <i>EasyClean Modular</i> (two components)	329	<b>5.4 Coalescence / Oil / Fuel separators</b>	<b>352</b>
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Grease separator <i>EasyClean</i> ground Auto Mix & Pump NS 1 - 10	337	Oil-/fuel separator <i>EasyOil</i> ground NS 3 – 20	357
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Grease separator <i>EasyClean</i> ground (two components)	340		
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Sediment separator <i>EasySink</i> ground NS 1 – 2	349		

# At a glance

## Range of separator technology

### 5.1 Grease separators



Grease separator  
**EasyClean free**

Standard ↗ Page 321, 327

Direct ↗ Page 320, 326



Mix ↗ Page 319, 325



Auto Mix ↗ Page 318, 324



Mix & Pump ↗ Page 317, 323



Auto Mix & Pump ↗ P. 316, 322



Grease separator  
**EasyClean Modular**

Standard ↗ Page 329

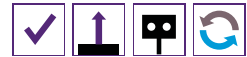
Direct ↗ Page 329






Grease separator  
**EasyClean ground**

Standard ↗ Page 338






Auto Mix & Pump ↗ Page 337



**Installation location**

-  Outdoor, underground
-  Indoor, free-standing
-  Floor slab installation

**Disposal**

-  Connection for direct disposal
-  Shredder-Mix-System
-  Control
-  With disposal pump
-  Fully automatic

**5.2 Sediment separators    5.3 Starch separators**

**5.4 Coalescence / Oil / Fuel separators**



Sediment separators  
**EasySink free & ground**

➤ Page 348



Starch separator  
**EasyStarch free & ground**

➤ Page 351



Coalescence and oil separator  
**EasyOil ground**

➤ Page 355



# 5.1 Grease separators

For grease and oil in wastewater





# Everything specialists need to know

## Why you need a grease separator



### Areas of application

- Kitchen operations and large-scale catering establishments, e.g. restaurants, hotels, canteens, motorway service stations
- Butchers
- Slaughterhouses / Abattoirs
- Soap and stearin factories
- Cooking oil refineries
- Canning factories
- ... and many more

### Statutory provision

Grease separators are required by law for all companies generating greasy wastewater. The use of separator systems is regulated by standards.

### Pipe blockages, corrosion and odour formation

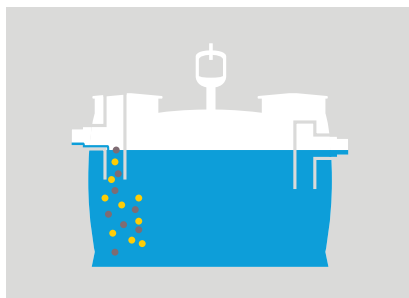
If grease, oil and food residues get into the pipe system, this causes stubborn and foul-smelling deposits that are difficult to remove. The consequences range from corrosion to complete system failure due to blockages – and this in turn means huge costs for the company.

### Environmental protection

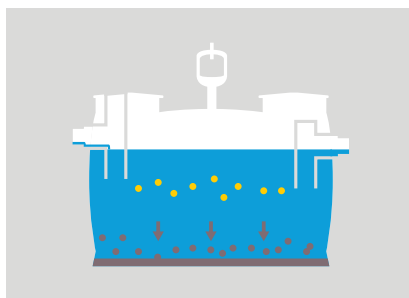
Grease separators prevent the environment from being contaminated by greasy wastewater and contribute to the trouble-free operation of sewage treatment plants.

## Operation of a grease separator

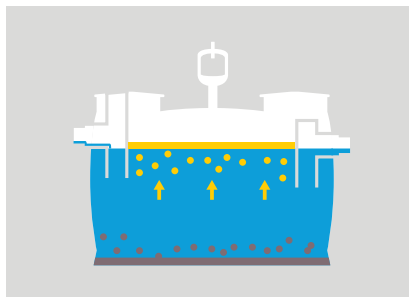
The operation of grease separators is based on the principle of gravity. Lighter than water oil and grease float to the surface of the separator, heavier than water flood sludge settle to the bottom of the separator and the clean treated water leaves the separator via a protected outlet.



The contaminated wastewater is routed into the grease separator where it is slowed down by a deflector plate.



Substances that are heavier than water sink to the bottom and settle in the sludge trap.



Grease and oil rise to the top and form a grease layer that is retained between the inlet and outlet.

## Polymer grease separators

Polymer grease separator systems are an advantageous alternative to stainless steel solutions as they do not need to be refurbished, even after many years.

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, fitness for purpose and structural safety of tanks and upper sections.



## Connection to the drainage system

Unless any official requirements exist, grease separator systems must be connected to the sewer system as follows.



- ① Properly sized lifting station
- ② Two 45° curved fittings
- ③ Wastewater calming section
- ④ Connected drainage fixtures

The wastewater must flow into the grease separator system with gravity. Grease separator systems whose water level is below the backwater level (see EN 752-1) or sewer level should be connected to a properly sized lifting station.


The wastewater pipes to the separator systems must have a gradient of at least 2% (1:50) to prevent grease blockage. If this is not possible for constructional or operational reasons, and/or if longer pipes are necessary, suitable measures must be taken to prevent grease blockages and deposits. The transition from downpipes to horizontal pipes must be executed with two 45° curved fittings with a large radius. A wastewater calming section, the length of which corresponds to at least the 10-fold the inlet pipe's nominal width in millimetres, must then be provided immediately before the inlet of the separator.


Official requirements may limit the greywater temperature at the connection point to the public sewer system. Discharge points, such as floor drains, must be equipped with odour traps and, if necessary, with sludge buckets that can be removed for cleaning.





## Grease separator disposal - the right choice


Grease separators must be completely emptied on a regular basis to dispose of the retained waste materials. The options range from a basic system with manual disposal to a fully automatic disposal system.

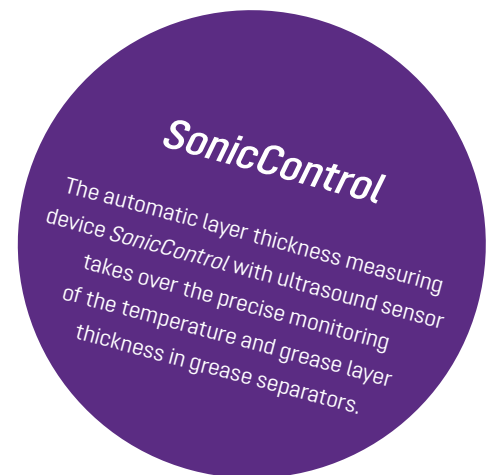
 **Direct disposal**  
Enables the extraction of the grease separator contents through a permanently installed disposal pipe without opening the tank.






 **Shredder-Mix-System**  
Fully mixes the contents of the grease separator into a slurry to aide in the disposal process.

 **Control unit**  
Enables the convenient setting and control of the grease separator functions using a control unit mounted on the wall.

 **Disposal pump**  
Facilitates the emptying of the grease separator in the case of longer distances between the separator and the disposal truck.

 **Fully automatic**  
Controls the disposal and rinsing processes fully automatically.



Disposal options	Auto Mix & Pump	Mix & Pump	Auto Mix	Mix	Direct	Standard
 Connection for direct disposal	✓	✓	✓	✓	✓	
 Shredder-Mix-System	✓	✓	✓	✓		
 Control unit	✓	✓	✓			
 Disposal pump	✓	✓				
 Fully automatic	✓					
<b>EasyClean free</b>	↗ P. 316, 322	↗ P. 317, 323	↗ P. 318, 324	↗ P. 319, 325	↗ P. 320, 326	↗ P. 321, 327
<b>EasyClean Modular</b>	–	–	–	–	↗ P. 329	↗ P. 329
<b>EasyClean ground</b>	↗ P. 337	–	–	–	–	↗ P. 338

# Grease separators *EasyClean free*

The versatile solution  
for free-standing installation

The KESSEL grease separator *EasyClean free* combines ease of installation, cleaning performance and energy efficiency. The narrow tank shape offers two advantages: 1) the complete technology can be integrated on the base area of the separator. 2) it is easier to transport the grease separator through narrow entranceways and set it up directly against the wall, saving a great deal of space.

Always the right choice: [smartselect.kessel.com](http://smartselect.kessel.com)

## Different disposal options

### Standard

➔ Page 321,327

### Direct



➔ Page 320,326

### Mix



➔ Page 319,325

### Auto Mix



➔ Page 318,324

### Mix & Pump



➔ Page 317,323

### Auto Mix & Pump



➔ Page 316,322



1 Grease separator 2 Distribution box 3 Disposal line 4 Connection for disposal truck 5 Remote control system (optional) 6 Sampling chamber 7 Lifting station 8 Solenoid valves



1 Grease separator 2 Shredder-Mix-System 3 Disposal line 4 Connection for disposal truck 5 Remote control system (optional) 6 Sampling chamber 7 Lifting station 8 Solenoid valves

**Changeover muff**

The flow direction can easily be changed on site thanks to the self-sealing changeover muff. A distinction no longer needs to be made between the "in direction of flow right" or "in direction of flow left" version – making the planning much easier.



**Perfect cleaning results**

Integrated sloped base allows wastewater to flow with gravity directly to the suction / pump intake - saving time and disposal costs.

**Nominal sizes NS 2 – 30**

➤ NS 2 – 10: From page 316

➤ NS 15 – 30: From page 322

## Grease separator *EasyClean* free Auto Mix & Pump NS 2 – 10

for free-standing installation



### Tank

Manufactured from virgin, non-recycled polyethylene, for free standing installation in frost protected areas, with integrated sludge trap, sloped interior base improves cleaning and reduces disposal time, inlet flow calming system and outlet flow regulation device, inlet and outlet interchangeable, slanted twin access covers with quick release odour tight snap closures, inspection window with interior cleaning arm, 75 mm OD PN 10 pressure disposal pipe, with integrated fork lift grips at base of separator, low weight - compact design, 100 % corrosion free polyethylene body construction (20 year warranty).

### Disposal System

Auto Mix & Pump version fully automated odour free disposal, cleaning and refilling system at touch of button, maintenance free macerating pump (stainless steel blades) for separator cleaning and disposal, includes closure valve for easy pump removal, pump floor mount included with installation hardware and anti-vibration matt, actuator valve for automated transfer from cleaning to disposal mode, pumping capacity 3.0 kW, 5 m cable length, top mounted water jet(s) for grease layer breakup and water spray nozzles for interior wall cleaning during disposal, twin 1 inch solenoid valves for connection of cold and hot water pipes to separator, 1 inch interior threaded refill inlet with air gap.

**Control Unit** with LCD display control settable in English, German, French, Italian, Dutch or Polish language and mains power safety on/off switch, with BMS connections.

**Delivery:** System completely assembled.

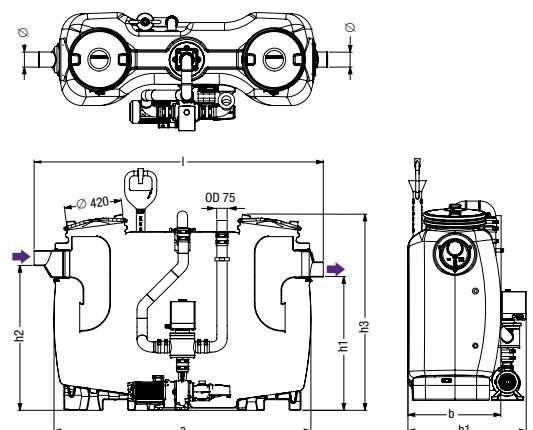
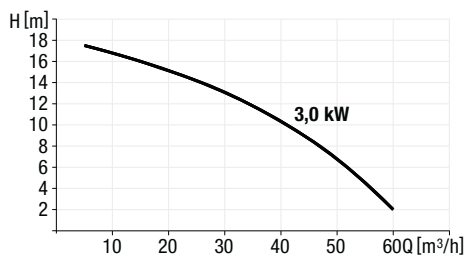
- **Accessories:** Sampling chamber, remote control, *TeleControl* page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330



without *SonicControl*    with *SonicControl*

NS	Art. no.	Art. no.
NS 2	93 002.01/PVS	93 002.02/PVS
NS 3	93 003.01/PVS	93 003.02/PVS
NS 4	93 004.01/PVS	93 004.02/PVS
NS 7	93 007.01/PVS	93 007.02/PVS
NS 10	93 010.01/PVS	93 010.02/PVS

### Pumping capacity



NS	∅	a	Installation dimension l × b	b1	h1	h2	h3	Weight	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
2	110	1500	1735 × 680	860	985	1055	1435	160 kg	200 l	400 l	100 l	600 l
3	110	1500	1735 × 680	860	985	1055	1435	165 kg	300 l	300 l	120 l	600 l
4	110	1880	2115 × 680	860	985	1055	1435	178 kg	400 l	400 l	160 l	800 l
7	160	1910	2145 × 940	1130	1185	1255	1655	226 kg	700 l	650 l	280 l	1350 l
10	160	2590	2820 × 940	1130	1185	1255	1655	272 kg	1000 l	900 l	400 l	1900 l

# Grease separator *EasyClean* free Mix & Pump NS 2 - 10

for free-standing installation



### Tank

Manufactured from virgin, non-recycled polyethylene, for free standing installation in frost protected areas, with integrated sludge trap, sloped interior base improves cleaning and reduces disposal time, inlet flow calming system and outlet flow regulation device, inlet and outlet interchangeable, slanted twin access covers with quick release odour tight snap closures, inspection window with interior cleaning arm, 75 mm OD PN 10 pressure disposal pipe, with integrated fork lift grips at base of separator, low weight - compact design, 100 % corrosion free polyethylene body construction (20 year warranty).

### Disposal System

Mix & Pump version manually controlled odour free disposal, cleaning and refilling system at touch of button, maintenance free macerating pump (stainless steel blades) for separator cleaning and disposal, includes closure valve for easy pump removal, pump floor mount included with installation hardware and anti-vibration mat, manual hand valve for transfer from cleaning to disposal mode, pumping capacity 3.0 kW, 5 m cable length, top mounted water jet(s) for grease layer breakup and water spray nozzles for interior wall cleaning during disposal, 1 inch manual hand valve for water refill, 1 inch interior threaded refill inlet with air gap.

**Control Unit** with LCD display control settable in English, German, French, Italian, Dutch or Polish language and mains power safety on/off switch, with BMS connections.

**Delivery:** System completely assembled.

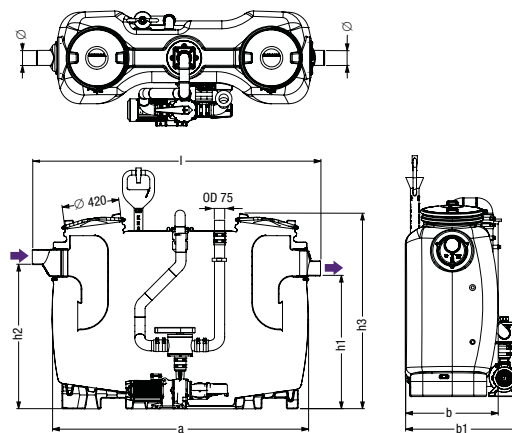
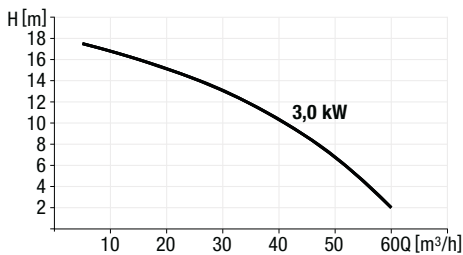
- **Accessories:** Sampling chamber page 331; lifting stations see chapter "3"
- **Technical note** page 330



*without SonicControl*    *with SonicControl*

NS	Art. no.	Art. no.
NS 2	93 002.01/MS	93 002.02/MS
NS 3	93 003.01/MS	93 003.02/MS
NS 4	93 004.01/MS	93 004.02/MS
NS 7	93 007.01/MS	93 007.02/MS
NS 10	93 010.01/MS	93 010.02/MS

### Pumping capacity



NS	Ø	a	Installation dimension l × b	b1	h1	h2	h3	Weight	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
2	110	1500	1735 × 680	860	985	1055	1435	155 kg	200 l	400 l	100 l	600 l
3	110	1500	1735 × 680	860	985	1055	1435	160 kg	300 l	300 l	120 l	600 l
4	110	1880	2115 × 680	860	985	1055	1435	173 kg	400 l	400 l	160 l	800 l
7	160	1910	2145 × 940	1130	1185	1255	1655	221 kg	700 l	650 l	280 l	1350 l
10	160	2590	2820 × 940	1130	1185	1255	1655	267 kg	1000 l	900 l	400 l	1900 l

## Grease separators *EasyClean* free Auto Mix NS 2 – 10

for free-standing installation



### Tank

Manufactured from virgin, non-recycled polyethylene, for free standing installation in frost protected areas, with integrated sludge trap, sloped interior base improves cleaning and reduces disposal time, inlet flow calming system and outlet flow regulation device, inlet and outlet interchangeable, slanted twin access covers with quick release odour tight snap closures, inspection window with interior cleaning arm, 75 mm OD PN 10 pressure disposal pipe, with integrated fork lift grips at base of separator, low weight - compact design, 100 % corrosion free polyethylene body construction (20 year warranty).

### Disposal System

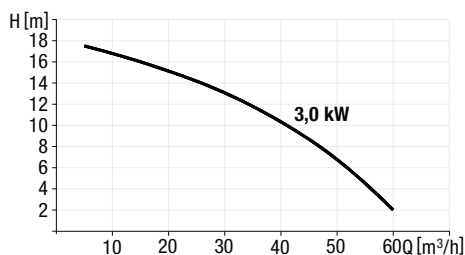
Auto Mix version with simultaneous mixing and cleaning of separator interior - requires disposal truck with vacuum system for separator disposal, disposal is completely odour free, maintenance free macerating pump (stainless steel blades) includes closure valve for easy pump removal, pump floor mount included with installation hardware and anti-vibration matt, top mounted water jet(s) for grease layer breakup and water spray nozzles for interior wall cleaning during disposal, 1 inch interior thread refill inlet with air gap, pumping capacity 3.0 kW, 5 m cable length, twin 1 inch solenoid valves for connection of cold and hot water pipes to separator, with remote control offering full separator disposal control from remote location (from disposal truck location).

**Control Unit** with LCD display control settable in English, German or French language and mains power safety on/off switch, with BMS connections.

**Delivery:** System completely assembled.

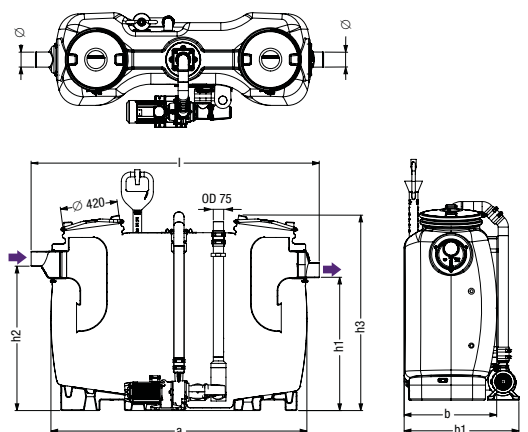
- **Accessories:** Sampling chamber, remote control, *TeleControl* page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330

### Pumping capacity



**without SonicControl    with SonicControl**

NS	Art. no.	Art. no.
NS 2	93 002.01/DSP	93 002.02/DSP
NS 3	93 003.01/DSP	93 003.02/DSP
NS 4	93 004.01/DSP	93 004.02/DSP
NS 7	93 007.01/DSP	93 007.02/DSP
NS 10	93 010.01/DSP	93 010.02/DSP



NS	Ø	a	Installation dimension l × b	b1	h1	h2	h3	Weight	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
2	110	1500	1735 × 680	860	985	1055	1435	150 kg	200 l	400 l	100 l	600 l
3	110	1500	1735 × 680	860	985	1055	1435	155 kg	300 l	300 l	120 l	600 l
4	110	1880	2115 × 680	860	985	1055	1435	168 kg	400 l	400 l	160 l	800 l
7	160	1910	2145 × 940	1130	1185	1255	1655	216 kg	700 l	650 l	280 l	1350 l
10	160	2590	2820 × 940	1130	1185	1255	1655	262 kg	1000 l	900 l	400 l	1900 l



## Grease separators *EasyClean* free Mix NS 2 – 10 for free-standing installation



### Tank

Manufactured from virgin, non-recycled polyethylene, for free standing installation in frost protected areas, with integrated sludge trap, sloped interior base improves cleaning and reduces disposal time, inlet flow calming system and outlet flow regulation device, inlet and outlet interchangeable, slanted twin access covers with quick release odour tight snap closures, inspection window with interior cleaning arm, 75 mm OD PN 10 pressure disposal pipe, with integrated fork lift grips at base of separator, low weight - compact design, 100 % corrosion free polyethylene body construction (20 year warranty).

### Disposal System

Mix version with simultaneous mixing and cleaning of separator interior - requires disposal truck with vacuum system for separator disposal, disposal is completely odour free, maintenance free macerating pump (stainless steel blades) includes closure valve for easy pump removal, pump floor mount included with installation hardware and anti-vibration matt, pumping capacity 3.0 kW, 5 m cable length, top mounted water jet(s) for grease layer breakup and water spray nozzles for interior wall cleaning during disposal, 1 inch interior thread refill inlet with air gap, 1 inch manual hand valve for water refill, with hand held operation controller.

**Delivery:** System completely assembled.

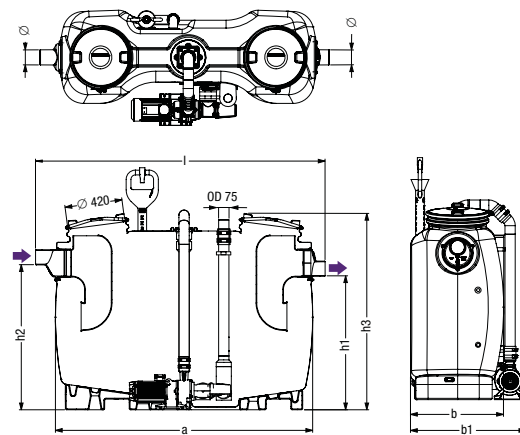
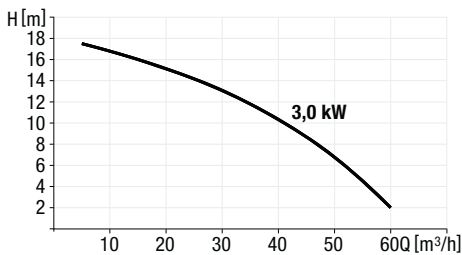
- **Accessories:** Sampling chamber, inspection window page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330



without *SonicControl*    with *SonicControl*

NS	Art. no.	Art. no.
<i>Without inspection window</i>		
NS 2	93 002.01/DS	93 002.02/DS
NS 3	93 003.01/DS	93 003.02/DS
NS 4	93 004.01/DS	93 004.02/DS
NS 7	93 007.01/DS	93 007.02/DS
NS 10	93 010.01/DS	93 010.02/DS
<i>With inspection window</i>		
NS 2	93 002.31/DS	93 002.32/DS
NS 3	93 003.31/DS	93 003.32/DS
NS 4	93 004.31/DS	93 004.32/DS
NS 7	93 007.31/DS	93 007.32/DS
NS 10	93 010.31/DS	93 010.32/DS

### Pumping capacity



NS	Ø	a	Installation dimension l × b	b1	h1	h2	h3	Weight	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
2	110	1500	1735 × 680	860	985	1055	1435	145 kg	200 l	400 l	100 l	600 l
3	110	1500	1735 × 680	860	985	1055	1435	150 kg	300 l	300 l	120 l	600 l
4	110	1880	2115 × 680	860	985	1055	1435	163 kg	400 l	400 l	160 l	800 l
7	160	1910	2145 × 940	1130	1185	1255	1655	211 kg	700 l	650 l	280 l	1350 l
10	160	2590	2820 × 940	1130	1185	1255	1655	257 kg	1000 l	900 l	400 l	1900 l

## Grease separators *EasyClean* free Direct NS 2 – 10 for free-standing installation



### Tank

Manufactured from virgin, non-recycled polyethylene, for free standing installation in frost protected areas, with integrated sludge trap, sloped interior base improves cleaning and reduces disposal time, inlet flow calming system and outlet flow regulation device, inlet and outlet interchangeable, slanted twin access covers with quick release odour tight snap closures, 75 mm OD PN 10 pressure disposal pipe, with integrated fork lift grips at base of separator, low weight - compact design, 100 % corrosion free polyethylene body construction (20 year warranty).

### 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.

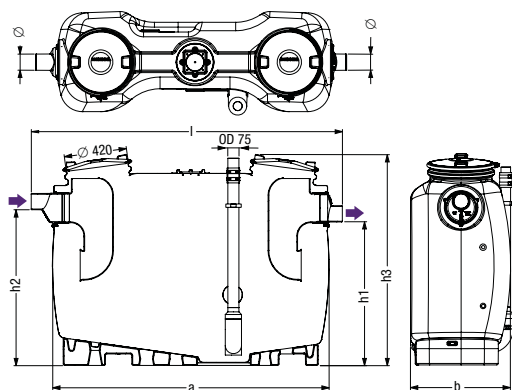
**Delivery:** System completely assembled.

- **Accessories:** Sampling chamber, inspection window, refill inlet, retrofitting up to Auto Mix & Pump possible page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330



**without SonicControl    with SonicControl**

NS	Art. no.	Art. no.
<i>Without accessories</i>		
NS 2	93 002.01/D	93 002.02/D
NS 3	93 003.01/D	93 003.02/D
NS 4	93 004.01/D	93 004.02/D
NS 7	93 007.01/D	93 007.02/D
NS 10	93 010.01/D	93 010.02/D
<i>With inspection window</i>		
NS 2	93 002.21/D	93 002.22/D
NS 3	93 003.21/D	93 003.22/D
NS 4	93 004.21/D	93 004.22/D
NS 7	93 007.21/D	93 007.22/D
NS 10	93 010.21/D	93 010.22/D
<i>With refill inlet</i>		
NS 2	93 002.11/D	93 002.12/D
NS 3	93 003.11/D	93 003.12/D
NS 4	93 004.11/D	93 004.12/D
NS 7	93 007.11/D	93 007.12/D
NS 10	93 010.11/D	93 010.12/D
<i>With inspection window and refill inlet</i>		
NS 2	93 002.31/D	93 002.32/D
NS 3	93 003.31/D	93 003.32/D
NS 4	93 004.31/D	93 004.32/D
NS 7	93 007.31/D	93 007.32/D
NS 10	93 010.31/D	93 010.32/D



NS	ø	a	Installation dimension l × b	b1	h1	h2	h3	Weight	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
2	110	1500	1735 × 680	860	985	1055	1435	69 kg	200 l	400 l	100 l	600 l
3	110	1500	1735 × 680	860	985	1055	1435	74 kg	300 l	300 l	120 l	600 l
4	110	1880	2115 × 680	860	985	1055	1435	87 kg	400 l	400 l	160 l	800 l
7	160	1910	2145 × 940	1130	1185	1255	1655	135 kg	700 l	650 l	280 l	1350 l
10	160	2590	2820 × 940	1130	1185	1255	1655	181 kg	1000 l	900 l	400 l	1900 l

ø = Outer diameter    b1 = Set-up dimensions



## Grease separators *EasyClean* free Standard NS 2 – 10

for free-standing installation

### Tank

Manufactured from virgin, non-recycled polyethylene, for free standing installation in frost protected areas, with integrated sludge trap, sloped interior base improves cleaning and reduces disposal time, inlet flow calming system and outlet flow regulation device, inlet and outlet interchangeable, 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.

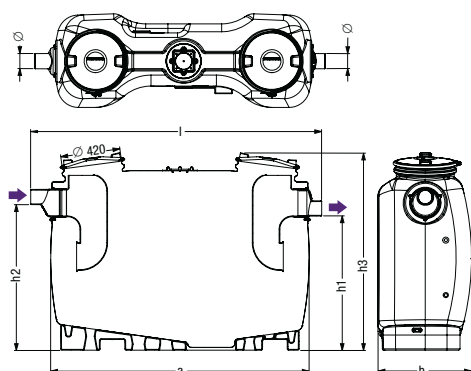
**Delivery:** System completely assembled.

- **Accessories:** Sampling chamber, inspection window, refill inlet, retrofitting up to Auto Mix & Pump possible page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330



without *SonicControl*    with *SonicControl*

NS	Art. no.	Art. no.
Without accessories		
NS 2	93 002.01	93 002.02
NS 3	93 003.01	93 003.02
NS 4	93 004.01	93 004.02
NS 7	93 007.01	93 007.02
NS 10	93 010.01	93 010.02
With inspection window		
NS 2	93 002.21	93 002.22
NS 3	93 003.21	93 003.22
NS 4	93 004.21	93 004.22
NS 7	93 007.21	93 007.22
NS 10	93 010.21	93 010.22
With refill inlet		
NS 2	93 002.11	93 002.12
NS 3	93 003.11	93 003.12
NS 4	93 004.11	93 004.12
NS 7	93 007.11	93 007.12
NS 10	93 010.11	93 010.12
With inspection window and refill inlet		
NS 2	93 002.31	93 002.32
NS 3	93 003.31	93 003.32
NS 4	93 004.31	93 004.32
NS 7	93 007.31	93 007.32
NS 10	93 010.31	93 010.32



NS	Ø	a	Installation dimension l × b	b1	h1	h2	h3	Weight	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
2	110	1500	1735 × 680	860	985	1055	1435	69 kg	200 l	400 l	100 l	600 l
3	110	1500	1735 × 680	860	985	1055	1435	74 kg	300 l	300 l	120 l	600 l
4	110	1880	2115 × 680	860	985	1055	1435	87 kg	400 l	400 l	160 l	800 l
7	160	1910	2145 × 940	1130	1185	1255	1655	135 kg	700 l	650 l	280 l	1350 l
10	160	2590	2820 × 940	1130	1185	1255	1655	181 kg	1000 l	900 l	400 l	1900 l

Ø = Outer diameter    b1 = Set-up dimensions

## Grease separator *EasyClean* free Auto Mix & Pump NS 15 – 30

for free-standing installation



### Tank

Manufactured from virgin, non-recycled polyethylene, for free-standing installation in frost-protected areas, with integrated sludge trap and sloped surfaces for fast and clean disposal, with two domed covers made of polymer, with quickrelease closures, sealed odour-tight, 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. Viewing window with wiper. Inlet and outlet  $\varnothing$  200 / 250 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) 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.

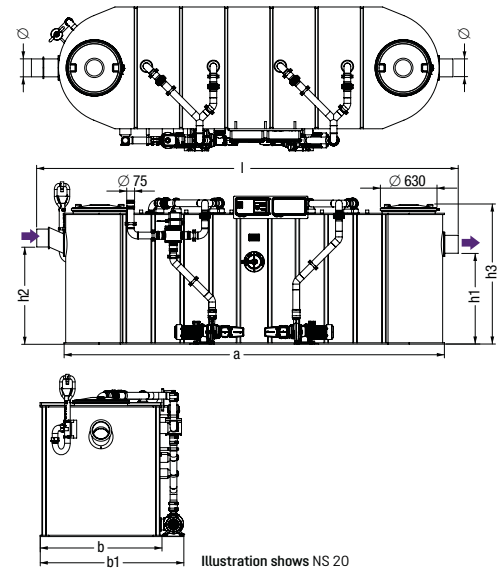
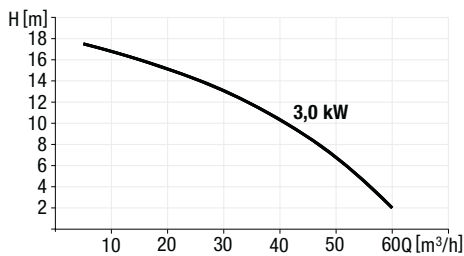
- **Accessories:** Sampling chamber, remote control, *TeleControl*, *SonicControl* level sensing system page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330



### without *SonicControl*

NS	Art. no.
NS 15	93 015.01/PVS
NS 20	93 020.01/PVS
NS 25	93 025.01/PVS
NS 30	93 030.01/PVS

### Pumping capacity



NS	$\varnothing$	a	Installation dimension l x b	b1	h1	h2	h3	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
15	200	3300	3560 x 1350	1620	1130	1200	1625	1500 l	1100 l	600 l	2600 l
20	200	4250	4510 x 1350	1620	1030	1100	1525	2000 l	1370 l	800 l	3370 l
25	200	4500	4760 x 1350	1620	1030	1100	1525	2500 l	1200 l	1000 l	3700 l
30	250	4600	4860 x 1350	1620	1170	1240	1655	3000 l	1370 l	1200 l	4370 l

# Grease separator *EasyClean* free Mix & Pump NS 15 – 30

for free-standing installation



### Tank

Manufactured from virgin, non-recycled polyethylene, for free-standing installation in frost-protected areas, with integrated sludge trap and sloped surfaces for fast and clean disposal, with two domed covers made of polymer, with quickrelease closures, sealed odour-tight, 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. Viewing window with wiper. Inlet and outlet  $\varnothing$  200 / 250 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, 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 page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330

### without *SonicControl*

NS	Art. no.
NS 15	93 015.01/MS
NS 20	93 020.01/MS
NS 25	93 025.01/MS
NS 30	93 030.01/MS

### Pumping capacity

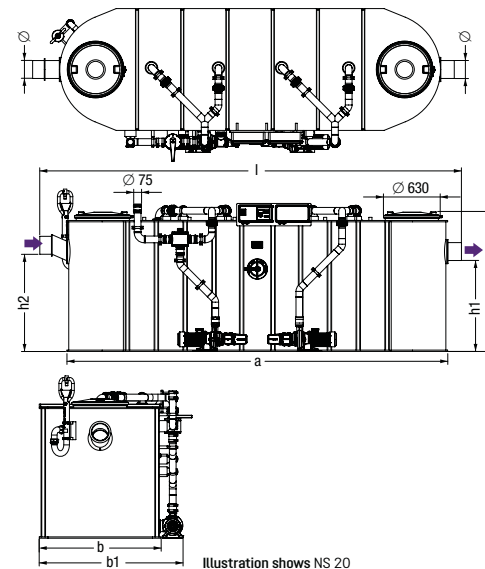
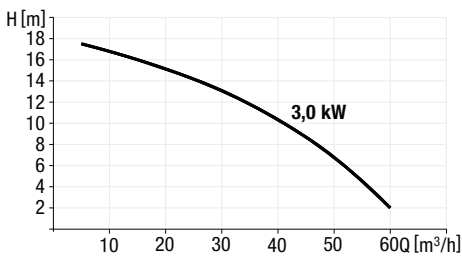


Illustration shows NS 20

NS	$\varnothing$	a	Installation dimension l × b	b1	h1	h2	h3	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
15	200	3300	3560 × 1350	1620	1130	1200	1625	1500 l	1100 l	600 l	2600 l
20	200	4250	4510 × 1350	1620	1030	1100	1525	2000 l	1370 l	800 l	3370 l
25	200	4500	4760 × 1350	1620	1030	1100	1525	2500 l	1200 l	1000 l	3700 l
30	250	4600	4860 × 1350	1620	1170	1240	1655	3000 l	1370 l	1200 l	4370 l

## Grease separator *EasyClean* free Auto Mix NS 15 – 30

for free-standing installation



### Tank

Manufactured from virgin, non-recycled polyethylene, for free-standing installation in frost-protected areas, with integrated sludge trap and sloped surfaces for fast and clean disposal, with two domed covers made of polymer, with quick-release closures, sealed odour-tight, 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, viewing window with wiper. Inlet and outlet  $\varnothing$  200 / 250 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, 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.

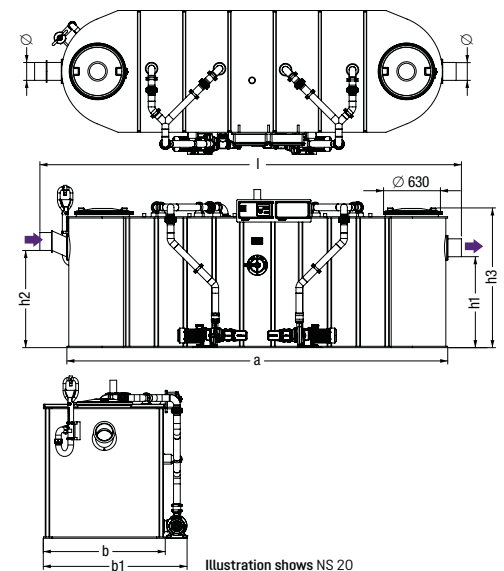
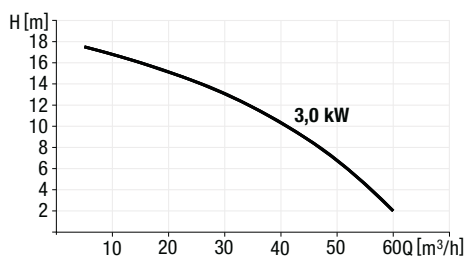
- **Accessories:** Sampling chamber, remote control, *TeleControl*, *SonicControl* level sensing system page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330



### without *SonicControl*

NS	Art. no.
NS 15	93 015.01/DSP
NS 20	93 020.01/DSP
NS 25	93 025.01/DSP
NS 30	93 030.01/DSP

### Pumping capacity



NS	$\varnothing$	a	Installation dimension l × b	b1	h1	h2	h3	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
15	200	3300	3560 × 1350	1620	1130	1200	1625	1500 l	1100 l	600 l	2600 l
20	200	4250	4510 × 1350	1620	1030	1100	1525	2000 l	1370 l	800 l	3370 l
25	200	4500	4760 × 1350	1620	1030	1100	1525	2500 l	1200 l	1000 l	3700 l
30	250	4600	4860 × 1350	1620	1170	1240	1655	3000 l	1370 l	1200 l	4370 l

# Grease separator *EasyClean* free Mix NS 15 – 30

for free-standing installation



### Tank

Manufactured from virgin, non-recycled polyethylene, for free-standing installation in frost-protected areas, with integrated sludge trap and sloped surfaces for fast and clean disposal, with two domed covers made of polymer, with quick-release closures, sealed odour-tight, 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  $\varnothing$  200 / 250 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, 5 m cable length, refill inlet in accordance with DIN 1988, R 1 connection.

**Switch Unit** for actuating the pump.

**Delivery:** System completely assembled.

➤ **Accessories:** Sampling chamber, inspection window, *SonicControl* level sensing system page 331 – 334; lifting stations see chapter "3"

➤ **Technical note** page 330



*without SonicControl*

NS	Art. no.
NS 15	93 015.01/DS
NS 20	93 020.01/DS
NS 25	93 025.01/DS
NS 30	93 030.01/DS

### Pumping capacity

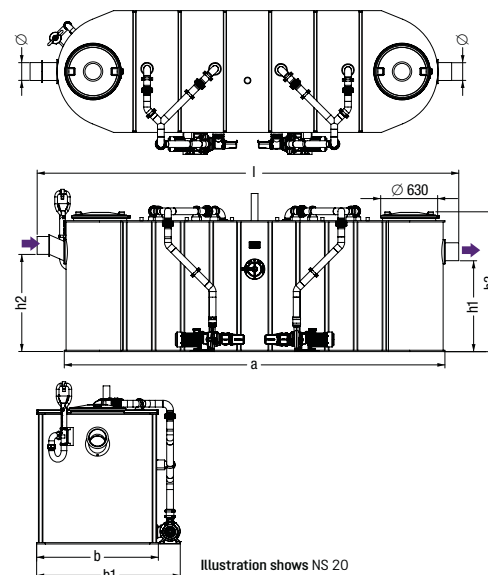
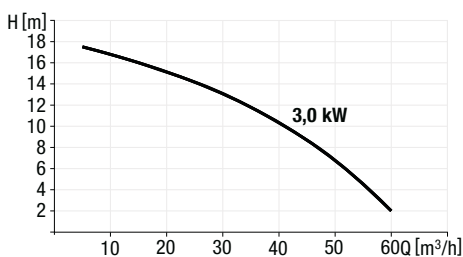


Illustration shows NS 20

NS	$\varnothing$	a	Installation dimension l × b	b1	h1	h2	h3	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
15	200	3300	3560 × 1350	1620	1130	1200	1625	1500 l	1100 l	600 l	2600 l
20	200	4250	4510 × 1350	1620	1030	1100	1525	2000 l	1370 l	800 l	3370 l
25	200	4500	4760 × 1350	1620	1030	1100	1525	2500 l	1200 l	1000 l	3700 l
30	250	4600	4860 × 1350	1620	1170	1240	1655	3000 l	1370 l	1200 l	4370 l

## Grease separator *EasyClean* free Direct NS 15 – 30

for free-standing installation



### Tank

Manufactured from virgin, non-recycled polyethylene, for free-standing installation in frost-protected areas, with integrated sludge trap and sloped surfaces for fast and clean disposal, with two domed covers made of polymer, with quickrelease closures, sealed odour-tight, 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  $\varnothing$  200 / 250 mm for the connection to PE-HD pipes according to DIN 19537, HT pipes according to DIN 19560, PP or AS.

### Disposal System

Direct with direct disposal.

**Delivery:** System completely assembled.

- **Accessories:** Inspection window and refill inlet, sampling chamber, retrofit sets up to Auto Mix & Pump from page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330

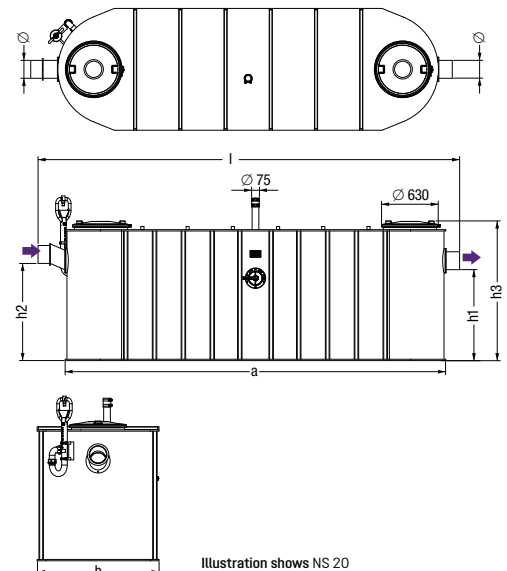


without *SonicControl*

NS Art. no.

Without accessories

NS 15	93 015.01/D
NS 20	93 020.01/D
NS 25	93 025.01/D
NS 30	93 030.01/D



NS	$\varnothing$	a	Installation dimension l × b	h1	h2	h3	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
15	200	3300	3560 × 1350	1130	1200	1625	1500 l	1100 l	600 l	2600 l
20	200	4250	4510 × 1350	1030	1100	1525	2000 l	1370 l	800 l	3370 l
25	200	4500	4760 × 1350	1030	1100	1525	2500 l	1200 l	1000 l	3700 l
30	250	4600	4860 × 1350	1170	1240	1655	3000 l	1370 l	1200 l	4370 l

## Grease separator *EasyClean* free Standard NS 15 – 30

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  $\varnothing$  200 / 250 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

**Delivery:** System completely assembled.

- **Accessories:** Inspection window and refill inlet, sampling chamber, retrofit sets up to Auto Mix & Pump from page 331 – 334; lifting stations see chapter "3"

- **Technical note** page 330



*without SonicControl*

NS	Art. no.
Without accessories	
NS 15	93 015.01
NS 20	93 020.01
NS 25	93 025.01
NS 30	93 030.01

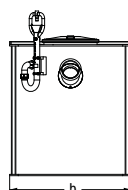
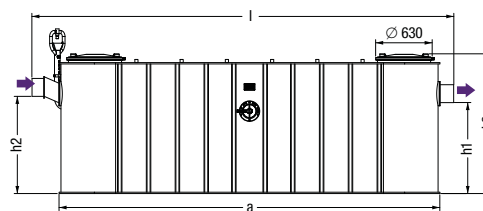
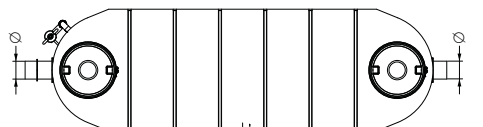


Illustration shows NS 20

NS	$\varnothing$	a	Installation dimension l × b	h1	h2	h3	Sludge trap	Water and sludge	Grease storage	Total (incl. water)
15	200	3300	3560 × 1350	1130	1200	1625	1500 l	1100 l	600 l	2600 l
20	200	4250	4510 × 1350	1030	1100	1525	2000 l	1370 l	800 l	3370 l
25	200	4500	4760 × 1350	1030	1100	1525	2500 l	1200 l	1000 l	3700 l
30	250	4600	4860 × 1350	1170	1240	1655	3000 l	1370 l	1200 l	4370 l





## Grease separators

# *EasyClean* Modular

The flexible solution for limited access / narrow entry.

The *EasyClean* Modular combines the advantages of the *EasyClean* free with maximum transportability. It is the ideal grease separator for extremely narrow entranceways that can make it difficult to transport a standard grease separator to the set-up location. This grease separator can be disassembled into small individual components and assembled at the set-up location.

Always the right choice:   
[smartselect.kessel.com](https://smartselect.kessel.com) 

### Different disposal options

#### Standard

[↗ Page 329](#)

#### Direct



[↗ Page 329](#)



1 Separator component 2 Assembled grease separator 3 Direct disposal connection



# Grease separator *EasyClean Modular Standard* and *Direct NS 0.25 – 4*

for free-standing installation, two component version



Made of polyethylene

**Installation:** In frost-protected rooms

**Version:** Can be disassembled

**Delivery:** System completely assembled

(only NS 0.25/NS 0.5/NS 1)

**Note for NS 0.25/NS 0.5/NS 1:** The separated grease must be skimmed off daily in the case of weekly emptying and cleaning.

**\*Custom made product:** Delivery time on request

➤ **Accessories for NS 2/NS 3/NS 4:** Sampling chamber, refill inlet, inspection window, *SonicControl* from page 331 – 334; lifting stations see chapter "3"

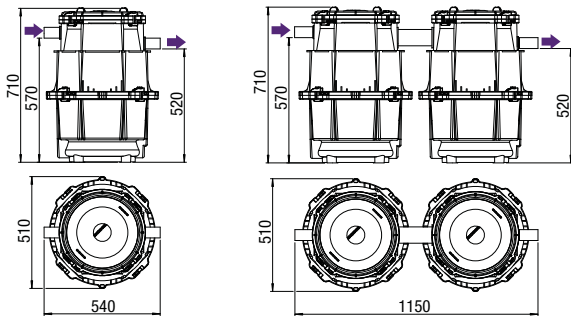


Illustration shows NS 0.25

Illustration shows NS 0.5

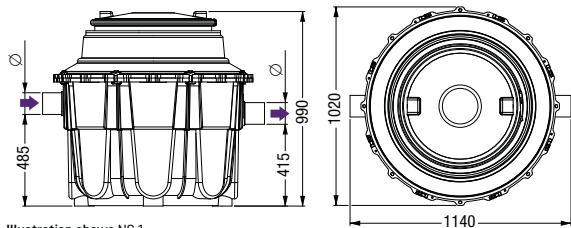


Illustration shows NS 1

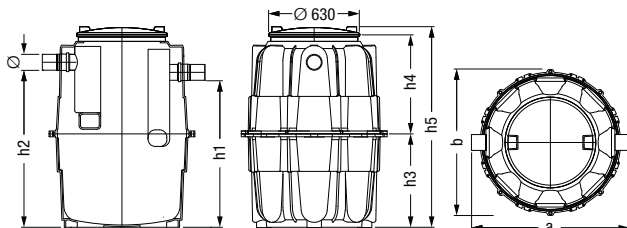


Illustration shows NS 2



Illustration shows Art. no. 93 002-R

## *EasyClean Modular Standard*

NS	Art. no.
NS 0.25	93 025
NS 0.5	93 050
NS 1	93 001
NS 2	93 002-R*
NS 3	93 003-R*
NS 4	93 004-R*

## *EasyClean Modular Direct* with direct disposal

NS	Art. no.
NS 2	93 002.00/D1-R*
NS 3	93 003.00/D1-R*
NS 4	93 004.00/D1-R*

\*Custom made

NS	Ø	a	b	h1	h2	h3	h4	h5	Weight	Sludge trap	Water and sludge	Grease storage
0.25	50	-	-	-	-	-	-	-	20 kg	25 l	28 l	15 l
0.5	50	-	-	-	-	-	-	-	45 kg	50 l	42 l	30 l
1	110	-	-	-	-	-	-	-	65 kg	100 l	100 l	40 l
2	110	1100	1020	1020	1090	650	690	1395	60 kg	200 l	400 l	100 l
3	110	1100	1020	1020	1090	650	690	1395	60 kg	300 l	300 l	120 l
4	110	1400	1300	1090	1160	765	790	1620	110 kg	400 l	560 l	160 l

NS 0.25/NS 0.5/NS 1: KESSEL-Norm    NS 2/NS 3/NS 4: EN 1825

Ø = Outer diameter

## Grease separator *EasyClean Modular* Standard and Direct NS 1 – 4

for free-standing installation, three component version



Made of polyethylene PE-HD

**Installation:** In frost-protected rooms

**Version:** Standard or with direct disposal  
(only *EasyClean Modular Direct*)

**Consisting of:** Integrated sludge trap,  
polyethylene quick release odour tight covers

**Delivery:** System completely assembled.  
Screw connection can be undone to minimum  
installation dimensions.

**Installation:**

Ideal where access is extremely narrow.

Separator can be disassembled into 3 parts for  
installation opening of max. 58 cm.

**Further nominal sizes, models with disposal device  
and on-site welding on request:** info@kessel.com

\*Custom made product: Delivery time on request

- **Accessories:** Sampling chamber, *SonicControl*,  
refill inlet, from page 331 – 334;  
lifting stations see chapter "3"



### *EasyClean Modular Standard*

NS	Art. no.
NS 1	93 001-R2*
NS 2	93 002-R2*
NS 3	93 003-R2*
NS 4	93 004-R2*

### *EasyClean Modular Direct* with direct disposal

NS	Art. no.
NS 1	93 001.00/D1-R2*
NS 2	93 002.00/D1-R2*
NS 3	93 003.00/D1-R2*
NS 4	93 004.00/D1-R2*

\*Custom made

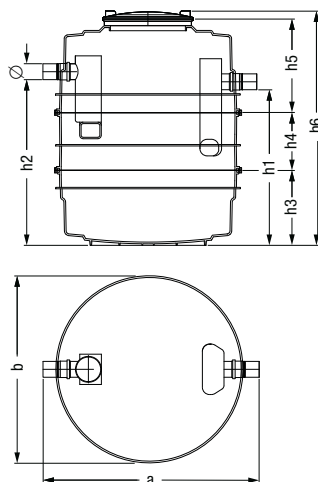


Illustration shows Standard version

#### Technical note for pages 316 – 330

Production and weather related influences can lead to deviations from our specifications in the case of free-standing separators.  
For this reason, please check the height specifications in particular for their actual size before installation. Please adapt the pipework to the actual inlet and outlet dimensions before installing the grease separator. Thermal and mechanical influences must be taken into consideration.

NS	Ø	a	b	h1	h2	h3	h4	h5	h6	Weight	Sludge trap	Water and sludge	Grease storage
1	110	1120	1020	780	850	375	250	500	1236	80 kg	100 l	230 l	80 l
2	110	1120	1020	1020	1090	485	300	550	1386	80 kg	200 l	270 l	100 l
3	110	1120	1020	1020	1090	485	300	550	1386	130 kg	300 l	300 l	120 l
4	110	1500	1300	1080	1150	520	390	580	1550	130 kg	400 l	560 l	160 l

Following approval no. Z-54.1-473

Ø = Outer diameter

## Accessories

Grease separators for free-standing installation

### Sampling chamber Ø 400

for separation systems

			Outer diameter Ø (mm)	Art. no.
<b>Outlet lateral</b>	<p><b>Compatibility:</b> For connection to outlet pipe of separator, no ponding (allows accurate samples). Inlet and outlet Ø ... available options for synthetic material pipes in: PE-HD (according to EN 1519-1); PVC-HT, PP or AS</p> <p><b>Inclusive:</b> Cover sealed odour-tight with snap closure</p> <p><b>Drop height:</b> 120 mm</p>		Ø 110/Ø 160	915 871
<b>Outlet vertical</b>	<p><b>Compatibility:</b> For connection to outlet pipe of separator, no ponding (allows accurate samples). Inlet and outlet Ø ... available options for synthetic material pipes in: PE-HD (according to EN 1519-1); PVC-HT, PP or AS</p> <p><b>Inclusive:</b> Cover sealed odour-tight with snap closure</p> <p><b>Drop height:</b> 120 mm</p>		Ø 110/Ø 160	915 870
<b>Retrofit sets</b>			Outer diameter Ø (mm)	Art. no.
<b>Direct</b>	<b>Inclusive:</b> Direct disposal connection		-	913 101/D
<b>Mix</b>	<b>Inclusive:</b> Pump, refill inlet, 1 manual hand valve and direct disposal connection		NS 2 - 7 NS 10	913 101/DS 913 101/DS10
<b>Auto Mix</b>	<b>Inclusive:</b> Pump, refill inlet, inspection window, 2 solenoid valves, direct disposal connection and control unit		NS 2 - 7 NS 10	913 101/DSP 913 101/DSP10
<b>Mix &amp; Pump</b>	<b>Inclusive:</b> Pump, refill inlet, inspection window, 1 manual hand valve, direct disposal connection and control unit		NS 2 - 7 NS 10	913 101/MS 913 101/MS10
<b>Auto Mix &amp; Pump</b>	<b>Inclusive:</b> Pump, refill inlet, inspection window, 2 solenoid valves, direct disposal connection and control unit		NS 2 - 7 NS 10	913 101/PVS 913 101/PVS10

## Custom lifting stations for pumping kitchen wastewater into grease separators for free-standing installation

**Material:** Polyethylene PE-HD

**Version:**

upstream from the grease separator

**Custom made product:**

e-Mail: [info@kessel.com](mailto:info@kessel.com)

In the case where the grease separator is located higher than the collected wastewater from the kitchen, the EN 1825 norm requires the use of special lifting stations.

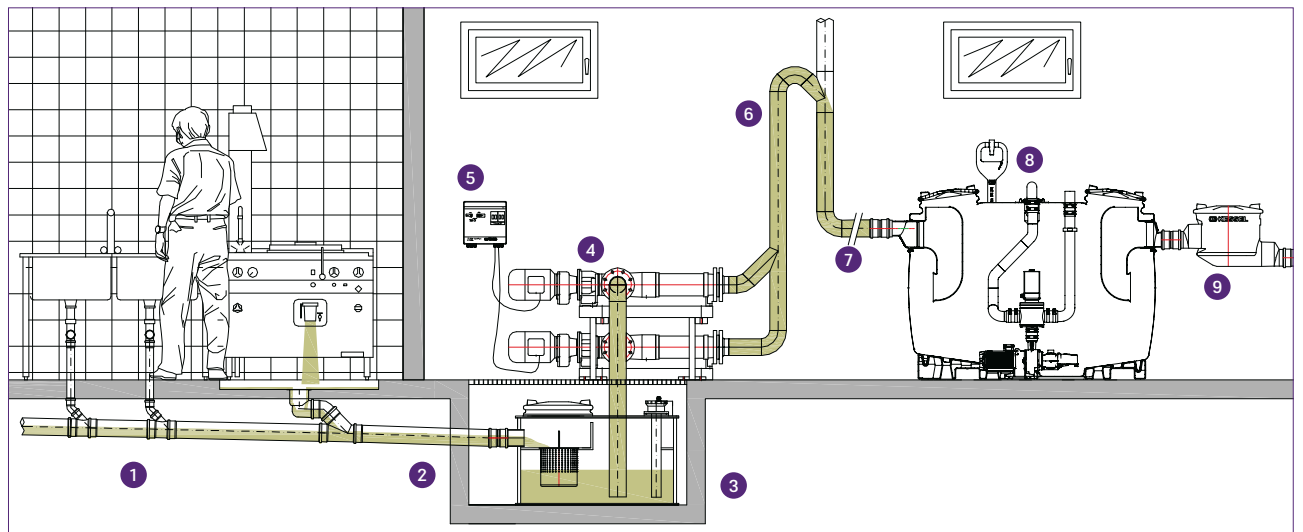
Standard lifting stations with vortex or macerating pumps 'mix' the wastewater as it is pumped. This causes the food waste and grease from the kitchen to fully mix with the wastewater which can negatively effect the efficiency of an EN 1825 grease separator. For this reason, positive displacement pumps (also known as 'screw' pumps) are required for use in these cases. A screw pump 'pushes' the wastewater into the grease separator, without any mixing taking place, allowing for proper grease separator operation.

For additional information concerning Kessel positive displacement pumps, please contact KESSEL directly.



Illustration shows screw pump double system

- 1 Drains in the kitchen
- 2 Inlet pipe
- 3 Collecting tank
- 4 Screw pump double system
- 5 Control unit
- 6 Pressure pipe
- 7 Calmed inlet
- 8 Grease separator
- 9 Sampling chamber



## Accessories

Grease separators for free-standing installation

### SonicControl level sensing system

for free-standing installation according to EN 1825

Art. no.

#### level sensing system

**Inclusive:** Ultra sonic sensor for electronic measurement, display and control of the grease layer thickness and the water temperature; power connection, battery back up, connection for remote speaker; installation set with easy assembly and maintenance; control unit with optical and audible alarm with potential free contact; electronic log book with 12 month capacity. Data transfer by telemetry.  
**Voltage:** 230 V ~ 50 Hz  
**Protection type:** IP 54  
**Plug:** Schuko 1,5 m  
**Cable length:** 10 m (extendable on-site to 60 meters)

917 821



### Cable extension set for SonicControl FA

Art. no.

10 m extension

917 871

20 m extension

917 872

30 m extension

917 873



### Refill inlet

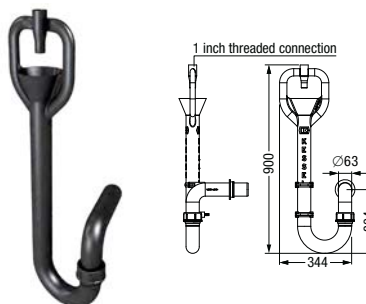
for separation systems

Art. no.

#### Refill inlet

**Compatibility:** According to DIN 1988, for connection to filling and rinsing connection of the separation systems for free-standing installation according to EN 1825  
**Inclusive:** Two pipe clamps, element with pipe sealing gasket Ø 63

915 800



### Inspection window

for separation systems *EasyClean* free according to EN 1825

Art. no.

#### Inspection window

**Compatibility:** For visual inspection of the thickness of the grease layer  
**Inclusive:** High-gloss polished inspection glass, cleaning device, centimetre scale  
**Note:** Only for installation by KESSEL certified workers

913 109



## Accessories

Grease separators for free-standing installation

### Remote control

for separation systems *EasyClean free* according to EN 1825

Art. no.

#### Remote control

**Compatibility:** Fits KESSEL Separation systems for free standing installation, for connection to an isolated ground socket

**Version:** Model Auto Mix & Pump and Auto Mix in accordance with EN 1825

**Cable length:** 15 m



916 601

### Access panel

for separation systems

Width × Height × Depth  
in mm

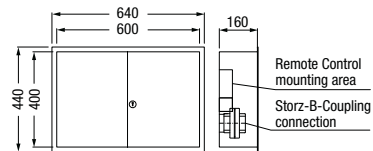
Art. no.

#### Recessed wall installation

**Material:** Stainless steel

**Compatibility:** For Storz-B disposal pipe hook up connection and remote control connection for use with fully automated grease separators. Remote control not included

**Inclusive:** 2 doors, lockable



640 × 440 × 160

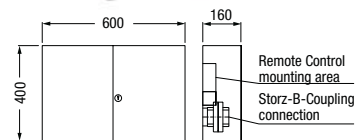
917 414

#### Wall installation

**Material:** Stainless steel

**Compatibility:** For Storz-B disposal pipe hook up connection and remote control connection for use with fully automated grease separators. Remote control not included

**Inclusive:** 2 doors, lockable



600 × 400 × 160

917 413





## Grease separators

# *EasyClean* ground

The space-saving solution  
for underground installation.

Underground installation outside the building is a safe and clean alternative to free-standing set-up. Here, we offer a wide range of grease separators with the *EasyClean* ground that combines the advantages of the *EasyClean* free with more usable operating space. Individual installation depths, continuous adaptation to the ground level and compensation for the ground covering settling are possible thanks to the telescopic polymer upper sections.

Always the right choice: [smartselect.kessel.com](https://www.smartselect.kessel.com)

### Different disposal options

Standard

[↗ Page 338](#)

Auto Mix & Pump



[↗ Page 337](#)



1 Grease separator 2 Height adjustable upper section 3 Sampling chamber



# Grease separator *EasyClean* ground Auto Mix & Pump NS 1 – 10

for underground installation

Made of polyethylene

### Installation

In combination with engineering system chamber

- Grease Separator NS 1 – 4: Resistant when installed in the groundwater up to 500 mm
- Grease Separator NS 7, 10: Resistant when installed in the groundwater up to the upper edge of the tank (UET)
- A load distribution plate must be planned for class D

**Consisting of:** With program-controlled disposal system and Shredder-Mix system, upper section made of polymer material, continuous height and level compensation, with cover, class A/B, D according to EN 124 made of cast iron (can be driven over by cars and trucks), sealed odour-tight, incl. removal mechanism, integrated sampling chamber *Type NBG*, control unit and remote control, mains water supply rinse function, refill inlet, pump

**Pumping capacity:** 2.6 kW

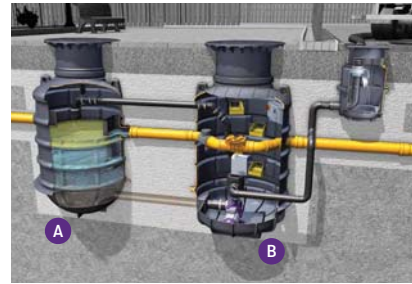
**Cable length:** 5 m

**Delivery:** System completely assembled

**Note:** Further nominal sizes on request

**Accessories:** Jointing / connection set, disposal chamber Ø 400, sampling chamber, intermediate section, *SonicControl* page 341 – 344; pumping stations see chapter "3"

**Technical note** page 340

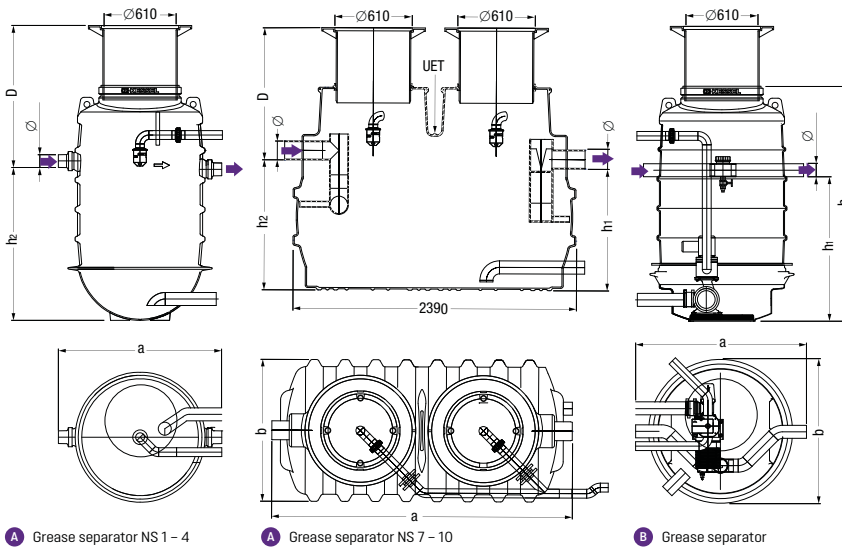


### Underground installation frost-free depth 800 mm

NS	Installation depth D in mm	Art. no.
Cover class A/B		
NS 1	550 – 950	93 001/80B-K-P1
NS 2	550 – 950	93 002/80B-K-P1
NS 4	550 – 950	93 004/80B-K-P1
Cover class D		
NS 1	550 – 950	93 001/80D-K-P1
NS 2	550 – 950	93 002/80D-K-P1
NS 4	550 – 950	93 004/80D-K-P1

### Underground installation frost-free depth 1200 mm

NS	Installation depth D in mm	Art. no.
Cover class A/B		
NS 1	800 – 1200	93 001/120B-K-P1
NS 2	800 – 1200	93 002/120B-K-P1
NS 4	800 – 1200	93 004/120B-K-P1
NS 7	715 – 1165	93 007/120B-K-P1
NS 10	715 – 1165	93 010/120B-K-P1
Cover class D		
NS 1	800 – 1200	93 001/120D-K-P1
NS 2	800 – 1200	93 002/120D-K-P1
NS 4	800 – 1200	93 004/120D-K-P1
NS 7	715 – 1165	93 007/120D-K-P1
NS 10	715 – 1165	93 010/120D-K-P1



A Grease separator NS 1 – 4

A Grease separator NS 7 – 10

B Grease separator

NS	Ø	a	b	h	h1	h2	Weight	Sludge trap	Water and sludge	Grease storage
1	110	1380	1220	1500	690	795	270 kg	140 l	230 l	70 l
2	110	1380	1220	1750	940	1045	300 kg	200 l	370 l	120 l
4	110	1380	1220	2000	1210	1295	325 kg	400 l	370 l	160 l
7	160	2539	1200	1715	1030	1100	525 kg	700 l	1100 l	280 l
10	160	3062	1200	1715	1030	1100	550 kg	1000 l	1600 l	400 l

## Grease separator *EasyClean* ground Standard NS 1 – 4 for underground installation

Made of polyethylene

### Installation

- Resistant when installed in the groundwater up to 500 mm
- A load distribution plate must be provided for class D

### Consisting of:

Upper section made of polymer, infinite height and level adjustment, with cover class A/B, D in accordance with EN 124 made of cast iron, sealed odour-tight, incl. lift-out key

**Delivery:** System completely assembled

**Note:** Further nominal sizes on request

- **Accessories:** Sampling chamber, extension section, direct disposal, *SonicControl* (NS 2 and NS 4) page 341 – 344; pumping stations see chapter "3"
- **Technical note** page 340

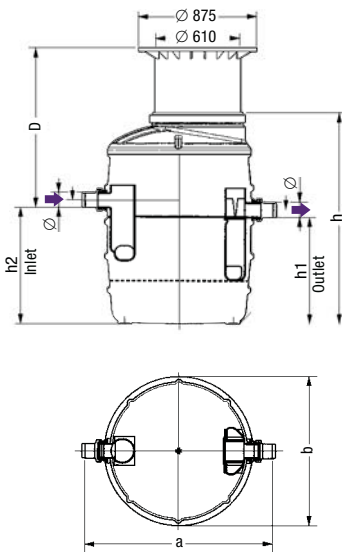


### Underground installation frost-free depth 800 mm

NS	Installation depth D in mm	Art. no.
Cover class A/B		
NS 1	550 - 950	<b>93 001/80B</b>
NS 2	550 - 950	<b>93 002/80B</b>
NS 4	550 - 950	<b>93 004/80B</b>
Cover class D		
NS 1	550 - 950	<b>93 001/80D</b>
NS 2	550 - 950	<b>93 002/80D</b>
NS 4	550 - 950	<b>93 004/80D</b>

### Underground installation frost-free depth 1200 mm

NS	Installation depth D in mm	Art. no.
Cover class A/B		
NS 1	800 - 1200	<b>93 001/120B</b>
NS 2	800 - 1200	<b>93 002/120B</b>
NS 4	800 - 1200	<b>93 004/120B</b>
Cover class D		
NS 1	800 - 1200	<b>93 001/120D</b>
NS 2	800 - 1200	<b>93 002/120D</b>
NS 4	800 - 1200	<b>93 004/120D</b>



NS	Ø	a	b	h <sup>1)</sup>	h1	h2	Weight	Sludge trap	Water and sludge	Grease storage
1	110	1380	1106	1050	540	610	111 kg	140 l	230 l	70 l
2	110	1380	1106	1300	790	860	120 kg	200 l	370 l	120 l
4	110	1380	1106	1550	1040	1110	130 kg	400 l	370 l	160 l

<sup>1)</sup> Specifications apply for type 80. For type 120, h\* = h + 250 mm.

Ø = Outer diameter

D = Installation depth

# Grease separator *EasyClean* ground Standard NS 7 – 35

for underground installation

Made of polyethylene

### Installation

in frost-free depth

- Installation is possible with groundwater up to the upper edge of the tank (UET)
- A load distribution plate must be provided for class D
- Class D = 700 mm ≤ DEC ≤ 1500 mm  
Class A/B = 700 mm ≤ DEC ≤ 1800 mm
- Minimum installation depth achieved by sawing the upper section as required

### Consisting of:

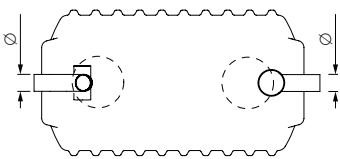
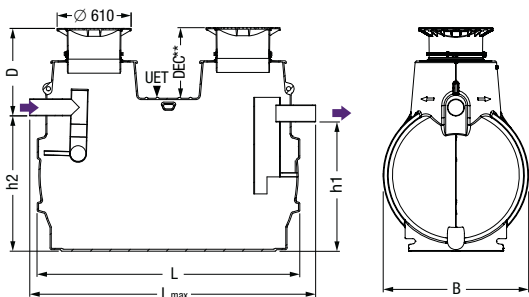
Upper section made of polymer, height and level adjustment, with cover class A/B, D in accordance with EN 124, made of cast iron (can be driven over by cars and trucks), sealed odour-tight, incl. lift-out key

**Delivery:** System completely assembled

**Note:** Further nominal sizes on request

➤ **Accessories:** Sampling chamber, extension section, direct disposal, *SonicControl* page 341 – 344; pumping stations see chapter "3"

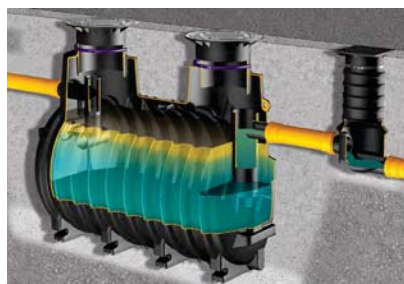
➤ **Technical note** page 340



\*\*DEC = Depth of earth coverage

NS	Ø	L	B	h1	h2	Sludge trap	Water and sludge	Grease storage	D-DEC	Lmax
7	160	2390	1200	1030	1100	700 l	1100 l	280 l	220	2540
10	160	2910	1200	1030	1100	1000 l	1600 l	400 l	220	3060
15	200	2590	1760	1550	1620	1500 l	2800 l	600 l	185	2780
20	200	3110	1760	1550	1620	2000 l	3800 l	800 l	185	3300
25	200	3470	2010	1550	1650	2500 l	5300 l	2000 l	480	3760
30	250	3470	2010	1550	1650	3000 l	4800 l	2000 l	480	3760
35	250	3470	2010	1700	1800	3500 l	4800 l	2000 l	330	3760

Ø = Outer diameter      D = Installation depth



NS	Installation depth D in mm	Weight in kg	Art. no.
<b>Cover class A/B</b>			
NS 7*	740 - 1175	315	93 007/120B
NS 10*	740 - 1175	340	93 010/120B
NS 15*	765 - 1200	435	93 015/120B
NS 20*	765 - 1200	490	93 020/120B
NS 25	800 - 1235	665	93 925/120B
NS 30	800 - 1235	665	93 930/120B
NS 35	650 - 1085	665	93 935/120B

NS	Installation depth D in mm	Weight in kg	Art. no.
<b>Cover class D</b>			
NS 7*	740 - 1175	450	93 007/120D
NS 10*	740 - 1175	480	93 010/120D
NS 15*	765 - 1200	630	93 015/120D
NS 20*	765 - 1200	670	93 020/120D
NS 25	800 - 1235	765	93 925/120D
NS 30	800 - 1235	765	93 930/120D
NS 35	650 - 1085	765	93 935/120D

### Extended version for deeper installation with extension section Ø 800 mm

NS	Installation depth D in mm	Weight in kg	Art. no.
<b>Cover class A/B</b>			
NS 7*	1120 - 1740	345	93 007/170B
NS 10*	1120 - 1740	370	93 010/170B
NS 15*	1130 - 1755	465	93 015/170B
NS 20*	1130 - 1755	520	93 020/170B
NS 25	1155 - 1775	695	93 925/170B
NS 30	1155 - 1775	695	93 930/170B
NS 35	1005 - 1625	695	93 935/170B

NS	Installation depth D in mm	Weight in kg	Art. no.
<b>Cover class D</b>			
NS 7*	1120 - 1740	480	93 007/170D
NS 10*	1120 - 1740	510	93 010/170D
NS 15*	1130 - 1755	660	93 015/170D
NS 20*	1130 - 1755	700	93 020/170D
NS 25	1155 - 1775	795	93 925/170D
NS 30	1155 - 1775	795	93 930/170D
NS 35	1005 - 1625	795	93 935/170D

## Grease separator *EasyClean* ground Standard NS 1 – 4 for underground installation in frost-free depth

Made of polyethylene

### Installation

in frost-free depth

- Resistant when installed in the groundwater up to 500 mm
- A load distribution plate must be provided for class D

### Consisting of:

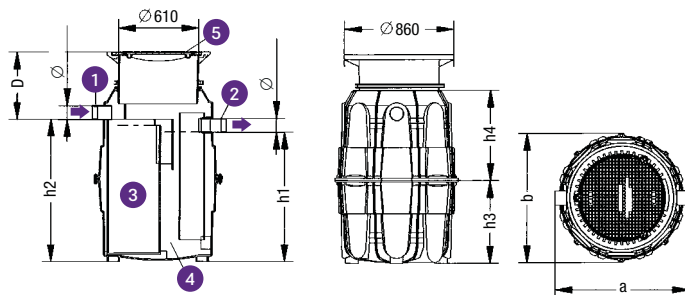
Upper section made of polymer, height and level adjustment, with cover class A/B, D in accordance with EN 124, made of cast iron (can be driven over by cars and trucks), sealed odour-tight, incl. lift-out key

**Delivery:** System completely assembled

- **Accessories:** Sampling chamber, extension section, direct disposal, *SonicControl* (NS 2 and NS 4) page 341 – 344; lifting stations see chapter "3"



NS	Installation depth D in mm	Art. no.
<b>Cover class A/B</b>		
NS 1	330 – 480	<b>98 201/00B</b>
NS 2	330 – 480	<b>98 202/00B</b>
NS 4	330 – 480	<b>98 204/00B</b>
<b>Cover class D</b>		
NS 1	330 – 480	<b>98 201/00D</b>
NS 2	330 – 480	<b>98 202/00D</b>
NS 4	330 – 480	<b>98 204/00D</b>



- 1 Inlet
- 2 Outlet
- 3 Sludge trap
- 4 Separation chamber
- 5 Upper section with cover class A/B, D

**Technical note**  
for pages 337 – 340

Weather-related influences or cooling of the tanks during the installation phase (caused by filling with cold water) can lead to deviations in dimensions from the catalogue specifications in the case of cisterns and separators installed in the ground.

NS	Ø	a	b	h1	h2	h3	h4	Weight	Sludge trap	Water and sludge	Grease storage
1	110	1055	1020	1020	1120	650	720	140 kg	105 l	415 l	40 l
2	110	1355	1300	1136	1236	750	750	190 kg	200 l	945 l	80 l
4*	110	2635	1300	1136	1236	750	750	330 kg	600 l	1150 l	160 l

\*NS 4 separator consist of two chambers

Ø = Outer diameter      D = Installation depth

## Accessories

Grease separators for underground installation

### Direct disposal, without disposal chamber

for grease separators according to EN 1825

**Disposal connection**  
right or left

**Compatibility:** Installed in the ground with direct disposal connection  
**Inclusive:** Flange connection Ø 65, PN 10 (welded collar and loose flange) for the suction pipe on site, with Storz-B coupling R 2 1/2" for disposal vehicle, for nominal sizes NS 1 - NS 35  
**Delivery:** Installed suction device for the joint disposal from sludge trap and separating chamber, tank and direct connection completely assembled, disposal pipe and Storz-B connection on site.  
**Note:** Further installation depths, sizes and connections on request



Disposal connection	Art. no.
right	917 419.00
left	917 419.50

### Disposal chamber Ø 400

for grease separators for underground installation

**Disposal chamber**

**Material:** Polyethylene, watertight  
**Compatibility:** For separator systems Auto Mix & Pump, Auto Mix and Mix for installation in the ground  
**Installation depth:** 630 - 980 mm  
**Inclusive:** With telescopic, height-adjustable upper section made of polymer with clamping ring, cover class A/B, D in accordance with EN 124 made of cast iron, sealed odour-tight, incl. lift-out key, with Storz-B coupling R 2 1/2" for disposal vehicle



Cover	Art. no.
Class A/B	917 422B
Class D	917 422D

### Joint and connection set

for grease separators for underground installation

**Joint and connection set**

**Material:** Polyethylene  
**Compatibility:** For connection of the grease separator (NS 1 - NS 4) to the technical chamber for the versions grease separators Auto Mix & Pump, Auto Mix and Mix in ground installation  
**Inclusive:** Storz-B coupling, pipe clamps

Art. no.
917 421

### Direct disposal, including disposal chamber Ø 400

for grease separators according to EN 1825

**Disposal connection**  
right or left

**Compatibility:** Installed in the ground with direct disposal connection for nominal sizes NS 1 - NS 35  
**Installation depth:** 630 - 980 mm  
**Inclusive:** Flange connection Ø 65, PN 10 (welded collar and loose flange) for the suction pipe on site, with Storz-B coupling R 2 1/2" for disposal vehicle, with chamber system Ø = 400 mm, incl. cover class A/B/D, sealed  
**Delivery:** Installed suction device for the joint disposal from sludge trap and separating chamber, tank and direct connection completely assembled, disposal pipe on site.  
**Note:** Further installation depths, sizes and connections on request



Disposal connection	Art. no.
right	917 420.00
left	917 420.50

## Accessories

Grease separators for underground installation

### SonicControl level sensing system

for underground installation

Art. no.

**Level sensing system** **Inclusive:** Ultra sonic sensor for electronic measurement, display and control of the grease layer thickness and the water temperature; power connection, battery back up, connection for remote speaker; installation set with easy assembly and maintenance; control unit with optical and audible alarm with potential free contact; electronic log book with 12 month capacity. Data transfer by telemetry.  
**Voltage:** 230 V ~ 50 Hz  
**Protection type:** IP 54  
**Plug:** Schuko 1,5 m  
**Cable length:** 10 m (extendable on-site to 60 meters)

917 821



### Cable extension set for SonicControl FA

Art. no.

10 m extension

917 871

20 m extension

917 872

30 m extension

917 873



### Sampling chamber Ø 1000

for underground installation

Outer diameter Ø (mm) Suitable for separator Art. no.

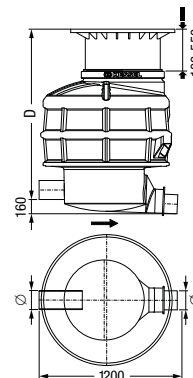
**Cover class A/B** **Compatibility:** For separation systems NS 1 – NS 20 and special models  
**Installation depth (D):** 1180 – 1630 mm (Other installation depths available on request)  
**Drop height:** 160 mm

**Cover class D** **Inclusive:** Inlet and outlet Ø ... for synthetic material pipes in: PE-HD (according to EN 12666-1); PVC-KG (according to EN 1401-1); PP or AS.  
 With integrated access steps, with vertically height-adjustable upper section made of polymer, with cover class A/B, D according to EN 124 in cast iron sealed odour-tight, incl. removal mechanism.



Ø 110	NS 1, NS 2, NS 4	915 10 10B
Ø 160	NS 7, NS 10	915 10 15B
Ø 200	NS 15, NS 20*	915 10 20B
Ø 110	NS 1, NS 2, NS 4	915 10 10D
Ø 160	NS 7, NS 10	915 10 15D
Ø 200	NS 15, NS 20*	915 10 20D

\*Suitable for individual solutions





## Accessories

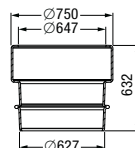
Grease separators for underground installation

### Extension section

for underground installation

#### Extension section

**Compatibility:** For underground grease separators with 600 mm access cover  
**Height increase:** 500 mm



Art. no.

917 460

### Sampling chamber Ø 400

for underground installation

#### Cover class A

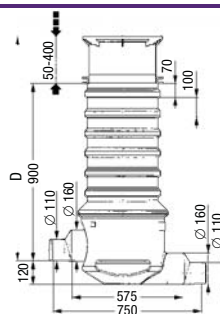
**Compatibility:** For connection to outlet pipe of separator

**Installation depth (D):** 400 - 1300 mm  
 (minimum installation depth can be achieved by cutting off)

**Drop height:** 120 mm (160 mm on request)

**Inclusive:** Telescopic upper section with clamping ring, cover class A/B/D, sealed odour-tight

**Extension:** 600 mm with extension section Art. no. 915 402



In-/Outlet

Art. no.

Ø 110/160 915 880A  
 Ø 200 915 880A-200

#### Cover class B

Ø 110/160 915 880B  
 Ø 200 915 880B-200

#### Cover class D

Ø 110/160 915 880D  
 Ø 200 915 880D-200

### Sampling chamber Ø 450

for underground installation

#### Cover class A

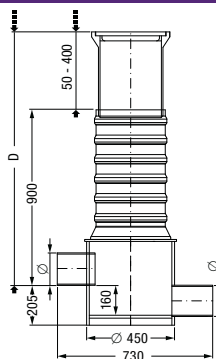
**Compatibility:** For connection to outlet pipe of separator

**Installation depth (D):** 950 - 1300 mm

**Drop height:** 160 mm

**Inclusive:** Telescopic upper section with clamping ring, cover class A/B/D, sealed odour-tight

**Extension:** 600 mm with extension section Art. no. 915 402



In-/Outlet

Art. no.

Ø 110 915 881A  
 Ø 160 915 882A  
 Ø 200 915 883A

#### Cover class B

Ø 110 915 881B  
 Ø 160 915 882B  
 Ø 200 915 883B

#### Cover class D

Ø 110 915 881D  
 Ø 160 915 882D  
 Ø 200 915 883D

### Extension section

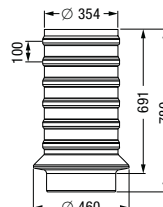
for underground installation

#### Extension section

**Compatibility:** For sampling chamber Ø 400 and Ø 450

**Extension height:** max. 600 mm (can be shortened on-site)

**Check maintenance accessibility!**



Art. no.

915 402

## Accessories

Grease separators for underground installation

### Cable access conduit

for underground installation

Art. no.

#### Cable access conduit

**Compatibility:** For grease separators according to EN 1825 and DIN 4040; for watertight connection of *SonicControl* cable into separator chamber

**Inclusive:** Gasket, cable connection

**Note:** Conduit pipe with chase wire should be planned; requires 50 mm OD conduit pipe (PE-HD) -sourced on-site. Max. distance between separator and control unit 30 m



917 822

### Access panel

for separation systems

Width x Height x Depth  
in mm

Art. no.

#### Recessed wall installation

**Material:** Stainless steel

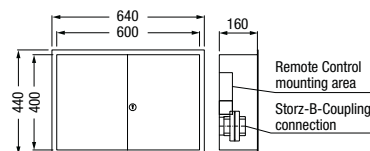
**Compatibility:** For Storz-B disposal pipe hook up connection and remote control connection for use with fully automated grease separators. Remote control not included

**Inclusive:** 2 doors, lockable



640 x 440 x 160

917 414



#### Wall installation

**Material:** Stainless steel

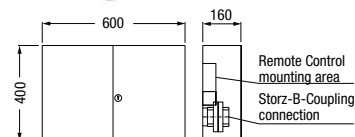
**Compatibility:** For Storz-B disposal pipe hook up connection and remote control connection for use with fully automated grease separators. Remote control not included

**Inclusive:** 2 doors, lockable



600 x 400 x 160

917 413







# 5.2 Sediment separators

Wastewater pipe blockage prevention

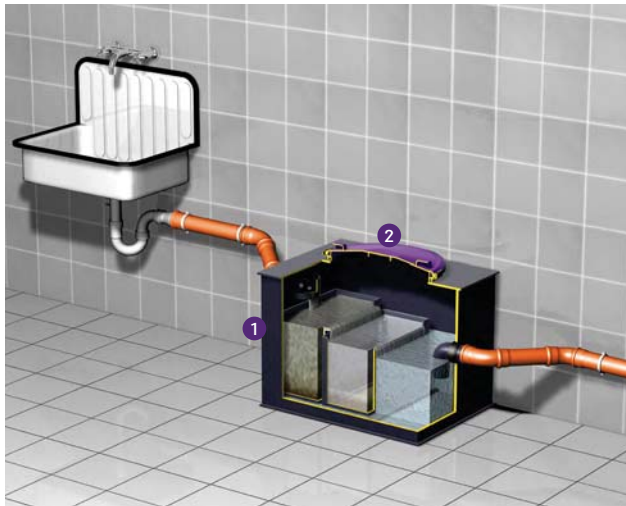
## Sediment separators

# *EasySink* free / ground

The clean solution for wastewater with sediments, sand and sludge.

The clean solution for sediments, sand and sludge. The sediment separator *EasySink* prevents residues, such as plaster, scale and clay, from getting into the sewer system. It is used wherever a lot of sludge, sand and sediment / debris occurs and can lead to blockages in the sewer system.

We offer sediment separators with the nominal sizes NS 1 and NS 2 for free-standing set-up, for installation in the ground and as individual solutions in all desired sizes.



1 Sediment separator 2 Access cover

### Polymer

Polymer sediment 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.

## Sediment separator *EasySink* free NS 1 – 2

for free-standing installation

Made of polyethylene

**Installation:** For free installation in frost protected areas

**Consisting of:**

With removable polymer collection tank(s), polymer inlet cover and outlet odour trap, sealed with odour-tight domed cover.

Inlet/outlet Ø ..... for plastic adapter DIN 19534

**Delivery:** System completely assembled

**Delivery scope:** Tank with access cover and removable collection tank(s)

NS 1: 1 collection tank

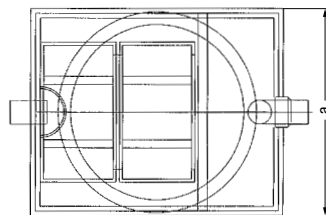
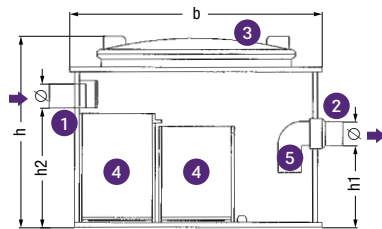
NS 2: 2 collection tank

**Note:** Further nominal sizes on request



Illustration shows Art. no. 97 202/000

NS	Art. no.
NS 1	97 201/000
NS 2	97 202/000



- 1 Inlet
- 2 Outlet
- 3 Domed cover
- 4 Collection tank
- 5 Odour trap

NS	Ø	a	b	h	h1	h2	Weight	Tank volume
1	50	400	570	470	195	305	17 kg	13 l
2	70	650	800	596	255	373	50 kg	51 l

Ø = Outer diameter

## Sediment separator *EasySink* ground Ø 400 NS 1 – 2 for underground installation

Made of polyethylene

### Consisting of:

With removable sediment container (hole diameter 5 mm),  
outlet odour trap. Vertically adjustable upper section  
with cover class A/B/D, odour-tight seal.

Inlet/outlet Ø 110 for plastic adapter DIN 19534;

### Delivery scope:

NS 1: 1 sediment container (12 l) removable

NS 2: 1 sediment container (12 l) + 1 sediment container (20 l)

both are removable

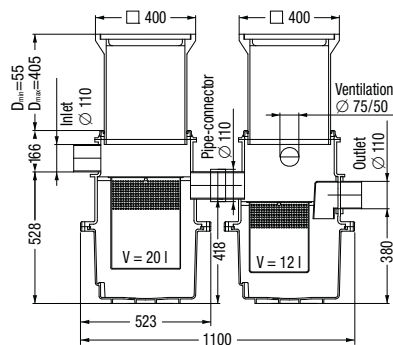
**Delivery:** System completely assembled

**Options:** Inlet/outlet Ø = 40, 50, 75 mm

Stainless steel sediment containers with hole diameter:

3, 6, 8, 10, 12, 15 mm

Optional fine filter (mesh width 1.0 mm)



NS	Weight in kg	Art. no.
<b>Cover class A</b>		
NS 1	25	97 201/00A
NS 2	45	97 202/00A
<b>Cover class B</b>		
NS 1	25	97 201/00B
NS 2	45	97 202/00B
<b>Cover class D</b>		
NS 1	25	97 201/00D
NS 2	45	97 202/00D

# 5.3 Starch separators

Starch removal from commercial  
wastewater

# 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.

The *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 Height adjustable upper section
- ③ Sampling chamber

### 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.

# 5.4 Coalescence / Oil / Fuel Separators

Treatment of oil / fuel contaminated  
wastewater







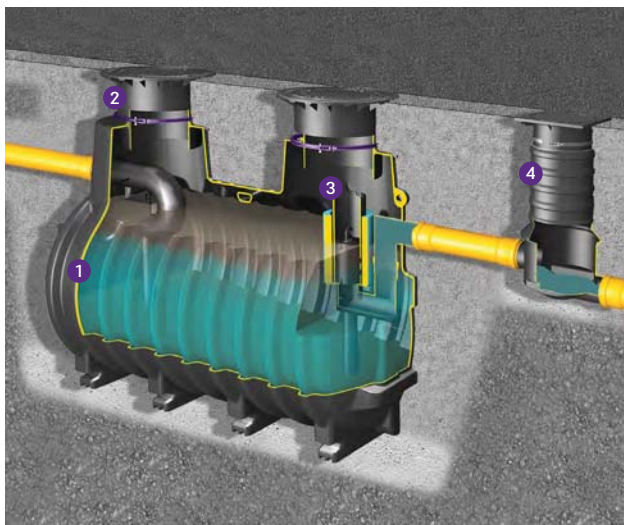
## Coalescence and oil/fuel separators

# *EasyOil* ground

The efficient solution for oil / fuel contaminated wastewater.

*EasyOil* is used to protect water bodies and sewer systems against contamination from mineral oil from wastewater sources such as in petrol stations, car washes, vehicle repair garages and industry.

*EasyOil* is available as a coalescence separator (Class I) or oil/fuel separator (Class II), and with the nominal sizes NS 3 to NS 15 (Class I) and NS 3 to NS 20 (Class II).



- ① Coalescence separator
- ② Height adjustable upper section
- ③ Self-actuated closure lock
- ④ 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

The vertically adjustable upper section of the *EasyOil* is continuously height-adjustable and tiltable through 5° – for optimum adaptation to the ground level and to compensate for the ground covering 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, fitness for purpose 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 and sludge 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.

# Coalescence separator *EasyOil* ground NS 3 – 6, class I, Ø 1000 for underground installation

Made of polyethylene

### Installation

For underground installation, installation depth (D) from ... mm

- Not for installation in high groundwater areas!

### Consisting of:

With integrated sludge trap and self-actuated closure lock, calibrated for light liquid with densities between 0.85 to 0.95 g/cm<sup>3</sup>.

With removable coalescence filter insert. Completely water tight to top of cover, resistant against aggressive wastewaters. Vertically adjustable polymer upper section, tiltable to 5°, cast iron manhole cover according to EN 124, load class D, with removal key, certified structural test.

Inlet and outlet Ø ..... for synthetic material pipes in:

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

**Delivery:** Completely assembled

**Note:** Choose separator size and article number from table below.

Contact KESSEL for separator sizing support if required.

➤ **Accessories:** *SonicControl*, e.g. see page 359 – 361

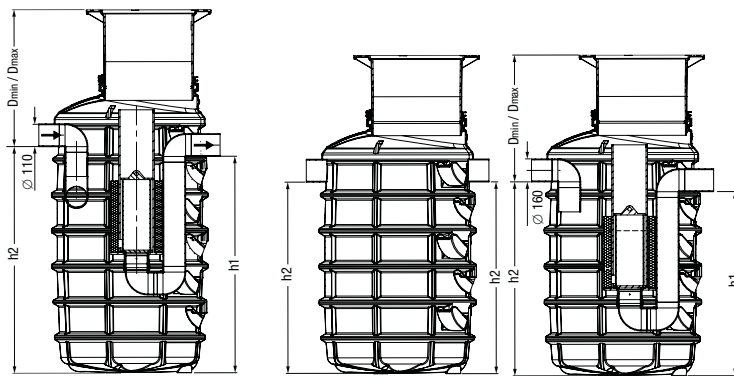
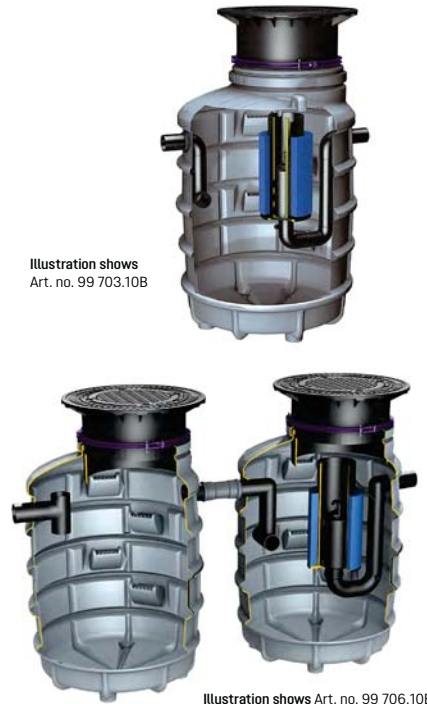


Illustration shows Art. no. 99 703.04B

Illustration shows Art. no. 99 706.18B (Twin-chamber system)

NS	Art. no.
<b>Cover class A/B</b>	
NS 6	<b>99 706.02B</b>
NS 6	<b>99 706.06B</b>
NS 3	<b>99 703.04B</b>
NS 6 <sup>1)</sup>	<b>99 706.10B</b>
NS 3	<b>99 703.10B</b>
NS 6 <sup>1)</sup>	<b>99 706.18B</b>
<b>Cover class D</b>	
NS 6	<b>99 706.02D</b>
NS 6	<b>99 706.06D</b>
NS 3	<b>99 703.04D</b>
NS 6 <sup>1)</sup>	<b>99 706.10D</b>
NS 3	<b>99 703.10D</b>
NS 6 <sup>1)</sup>	<b>99 706.18D</b>

NS	Ø*	Installation depth D (min/max)	Sludge disposal volume	Weight	h2 (Inlet bottom)	h1 (Outlet bottom)	Oil storage capacity	Sludge trap capacity	Art. no.
6	160	560 - 1090 mm	200 l	175 kg	1090	1020	200 l	400 l	<b>99 706.02B</b>
6	160	560 - 1090 mm	650 l	175 kg	1590	1520	200 l	1300 l	<b>99 706.06B</b>
3	110	545 - 995 mm	400 l	175 kg	1105	1055	200 l	800 l	<b>99 703.04B</b>
6 <sup>1)</sup>	160	560 - 1090 mm	850 l	305 kg	1090	1020	200 l	1700 l	<b>99 706.10B</b>
3	110	545 - 995 mm	850 l	190 kg	1605	1555	200 l	1700 l	<b>99 703.10B</b>
6 <sup>1)</sup>	160	560 - 1090 mm	1900 l	320 kg	1590	1520	200 l	3800 l	<b>99 706.18B</b>
6	160	560 - 1090 mm	200 l	205 kg	1090	1020	200 l	400 l	<b>99 706.02D</b>
6	160	560 - 1090 mm	650 l	220 kg	1590	1520	200 l	1300 l	<b>99 706.06D</b>
3	110	545 - 995 mm	400 l	205 kg	1105	1055	200 l	800 l	<b>99 703.04D</b>
6 <sup>1)</sup>	160	560 - 1090 mm	850 l	338 kg	1090	1020	200 l	1700 l	<b>99 706.10D</b>
3	110	545 - 995 mm	850 l	220 kg	1605	1555	200 l	1700 l	<b>99 703.10D</b>
6 <sup>1)</sup>	160	560 - 1090 mm	1900 l	353 kg	1590	1520	200 l	3800 l	<b>99 706.18D</b>

Based on EN 858

\*Ø = Inlet and outlet outer diameter (mm) <sup>1)</sup> Twin-chamber system

## Coalescence separator *EasyOil* ground NS 3 – 15, class I for underground installation with DIBt-certification

Made of polymer

### Installation

- Installation is possible with groundwater up to the upper edge of the tank (UET)
- A load distribution plate must be planned for class D
- Class D = 700 mm ≤ DEC ≤ 1500 mm  
Class A/B = 700 mm ≤ DEC ≤ 1800 mm

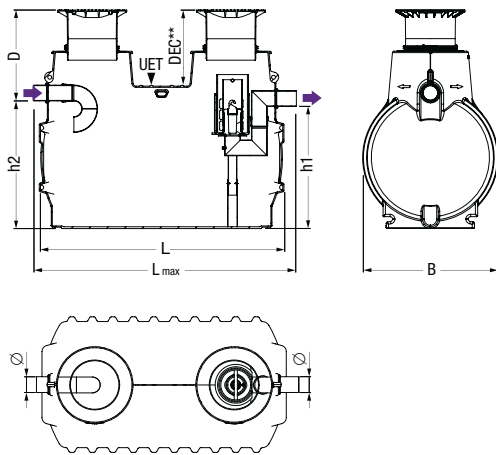
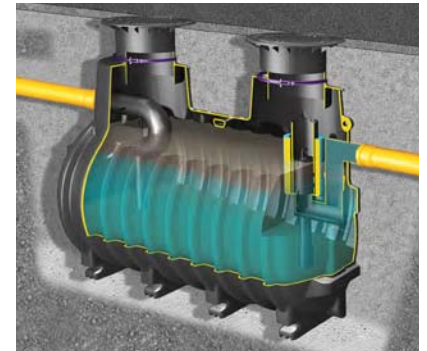
### Consisting of:

With removable coalescence filter. Upper sections made of polymer, continuous height and level adjustment, tiltable to 5°, with covers class A/B, D according to EN 124 in cast iron (can be driven over by cars and trucks), incl. lift-out key. Inlet and outlet Ø ... for synthetic material pipes in: PE-HD (according to EN 12666-1); PVC pipe (according to EN 1401-1); PP or AS.

### Note:

- Suitable for filling stations with high-performance filling pumps, E10 and biodiesel fuels
- Choose separator size and article number from table below. Contact KESSEL for separator sizing support if required

➤ **Accessories:** Sampling chamber for underground installation, extension section for deep installation, alarm units for when the maximum oil level is reached and there is a back-up of water (required according to EN 858 Part 1), oil and sludge suction system, *SonicControl* page 359 – 361; pumping stations see chapter "3"



NS	Installation depth D (min/max) in mm	Art. no.
Cover class A/B		
NS 3	840 – 1240	99 503.10B EX
NS 6	850 – 1230	99 706.30B EX
NS 6	870 – 1250	99 706.80B EX
NS 10	840 – 1240	99 710.15B EX
NS 10	850 – 1230	99 710.30B EX
NS 10	870 – 1250	99 710.80B EX
NS 15	870 – 1250	99 715.80B EX
Cover class D		
NS 3	840 – 1240	99 503.10D EX
NS 6	850 – 1230	99 706.30D EX
NS 6	870 – 1250	99 706.80D EX
NS 10	840 – 1240	99 710.15D EX
NS 10	850 – 1230	99 710.30D EX
NS 10	870 – 1250	99 710.80D EX
NS 15	870 – 1250	99 715.80D EX

### Technical note

Weather-related influences or cooling of the tanks during the installation phase (caused by filling with cold water) can lead to deviations in dimensions from the catalogue specifications in the case of cisterns and separators installed in the ground.

NS	Ø*	Sludge trap capacity	L	B	h1	h2	Oil storage capacity	Excess level	Weight	Total volume	D-DEC	Lmax
3	160	1000 l	2390	1200	1070	1100	215 l	90	395 kg	1800	155	2642
6	200	2500 l <sup>1)</sup>	2590	1760	1600	1630	380 l	120	535 kg	4300	180	2940
6	200	5000 l	3110	1760	1600	1630	470 l	130	610 kg	5800	180	3460
10	160	1500 l	2910	1200	1070	1110	267 l	100	440 kg	2600	155	3162
10	200	2500 l <sup>1)</sup>	2590	1760	1600	1630	380 l	120	535 kg	4300	180	2940
10	200	5000 l	3110	1760	1600	1630	470 l	130	610 kg	5800	180	3460
15	200	5000 L	3110	1760	1600	1630	470 l	130	610 kg	5800	180	3460

\*Ø = Inlet and outlet outer diameter (mm)

<sup>1)</sup> Comparable sludge trap total volume in accordance with the dimensioning according to EN 858.

## Oil-/fuel separator *EasyOil* ground NS 3 – 20, class II

for underground installation with DIBt-certification

Made of polymer

### Installation

- Installation is possible with groundwater up to the upper edge of the tank (UET)
- A load distribution plate must be planned for class D
- Class D = 700 mm ≤ DEC ≤ 1500 mm  
Class A/B = 700 mm ≤ DEC ≤ 1800 mm

### Consisting of:

Upper sections made of polymer, continuous height and level adjustment, tiltable to 5°, with covers class A/B, D according to EN 124 in cast iron (can be driven over by cars and trucks), incl. lift-out key. Inlet and outlet Ø ... for synthetic material pipes in: PE-HD (according to EN 12666-1); PVC pipe (according to EN 1401-1); PP or AS.

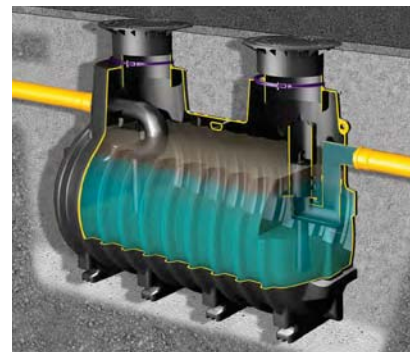
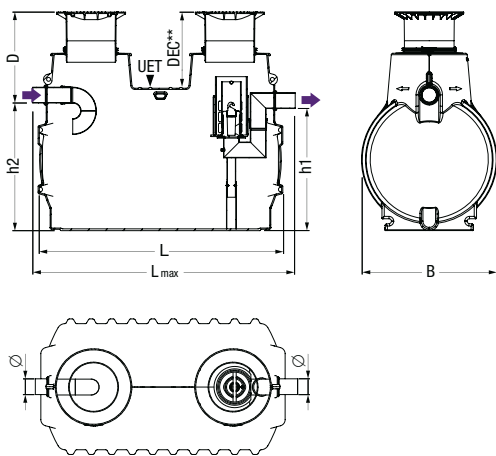
### Note:

- Suitable for filling stations with high-performance filling pumps, E10 and biodiesel fuels
- Choose separator size and article number from table below.

Contact KESSEL for separator sizing support if required

➤ **Accessories:** Sampling chamber for underground installation, extension section for deep installation, alarm units for when the maximum oil level is reached and there is a back-up of water (required according to EN 858 Part 1), oil and sludge suction system, coalescence filter insert for retrofitting to the coalescence separator, *SonicControl* page 359 – 361; pumping stations see chapter "3"

➤ **Technical note** page 356



NS	Installation depth D (min/max) in mm	Art. no.
Cover class A/B		
NS 3	840 - 1240	99 403.10B
NS 6	850 - 1230	99 606.30B
NS 6	870 - 1250	99 606.80B
NS 10	840 - 1240	99 610.15B
NS 10	850 - 1230	99 610.30B
NS 10	870 - 1250	99 610.80B
NS 15	870 - 1250	99 615.80B
NS 20	870 - 1250	99 620.80B

Cover class D		
NS 3	840 - 1240	99 403.10D
NS 6	850 - 1230	99 606.30D
NS 6	870 - 1250	99 606.80D
NS 10	840 - 1240	99 610.15D
NS 10	850 - 1230	99 610.30D
NS 10	870 - 1250	99 610.80D
NS 15	870 - 1250	99 615.80D
NS 20	870 - 1250	99 620.80D

NS	Ø*	Sludge trap capacity	L	B	h1	h2	Oil storage capacity	Excess level	Weight	Total volume	D-DEC	Lmax
3	160	1000 l	2390	1200	1070	1100	215 l	90	379 kg	1800	155	2642
6	200	2500 l <sup>1)</sup>	2590	1760	1600	1630	380 l	120	519 kg	4300	180	2940
6	200	5000 l	3110	1760	1600	1630	470 l	130	594 kg	5800	180	3460
10	160	1500 l	2910	1200	1070	1110	267 l	100	424 kg	2600	155	3162
10	200	2500 l <sup>1)</sup>	2590	1760	1600	1630	380 l	120	519 kg	4300	180	2940
10	200	5000 l	3110	1760	1600	1630	470 l	130	594 kg	5800	180	3460
15	200	5000 l	3110	1760	1600	1630	470 l	130	594 kg	5800	180	3460
20	200	4000 l	3110	1760	1600	1630	470 l	130	600 kg	5800	180	3460

\*Ø = Inlet and outlet outer diameter (mm)

<sup>1)</sup> Comparable sludge trap total volume in accordance with the dimensioning according to EN 858-2.

## Oil-/fuel separator *EasyOil* ground NS 1.5, class II for underground installation

Made of polymer

**Consisting of:** Sludge trap, upper sections made of polymer, continuous height and level adjustment, self-actuated closure lock, inlet and outlet Ø 110 mm.

**Cover:**

Class B (Ø 800/400)

Class D (Ø 1000/800)

**Optional:** Backwater valve according to DIN 13564

**Note:** Not suitable for *SonicControl*

- **Accessories Ø 400:** Sampling chamber for underground installation from page 359; pumping stations see chapter "3"
- **Accessories Ø 800/1000:** Sampling chamber for underground installation, alarm unit to signal maximum oil level and overflow - available as accessory (required based on EN 858) from page 359; pumping stations see chapter "3"
- **Technical note** page 356

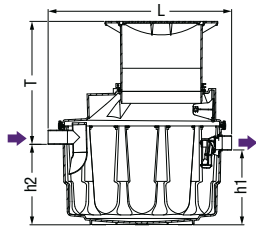


Illustration shows Art. no. 99 601.041D

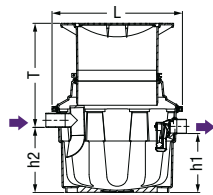


Illustration shows Art. no. 99 601.016B/D

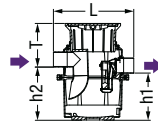


Illustration shows Art. no. 99 601.002B



Illustration shows Art. no. 99 601.041D



Illustration shows Art. no. 99 601.016B/D



Illustration shows Art. no. 99 601.002B

Ø	Ø	Sludge trap capacity	L	B	h1	h2	Oil storage capacity	Excess level	Weight
400	110	17 l	582	520	342	389	17.6 l	50	12 kg
800	110	130 l	1091	1012	461	508	70.5 l	50	74 kg
1000	110	360 l	1425	1300	583	630	110 l	70	110 kg

Ø	Installation depth D (min/max) in mm	Art. no.
<b>Cover class B</b>		
400	231 - 324	99 601.002B
800	518 - 942	99 601.016B
<b>Cover class D</b>		
800	518 - 942	99 601.016D
1000	570 - 995	99 601.041D



## Accessories

Oil-/fuel separator / Coalescence separator for underground installation

### Sampling chamber Ø 450

for underground installation

#### Cover class A

**Compatibility:** For connection to outlet pipe of separator

**Installation depth (D):** 950 - 1300 mm

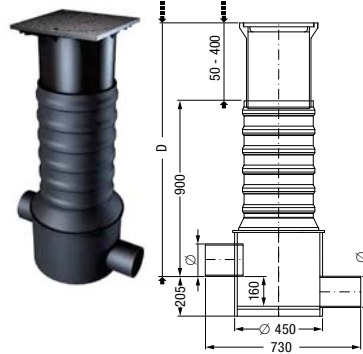
**Drop height:** 160 mm

**Inclusive:** Telescopic upper section with clamping ring, cover class A/B/D, sealed odour-tight

**Extension:** 600 mm with extension section Art. no. 915 402

#### Cover class B

#### Cover class D



In-/Outlet	Art. no.
Ø 110	915 881A
Ø 160	915 882A
Ø 200	915 883A
Ø 110	915 881B
Ø 160	915 882B
Ø 200	915 883B
Ø 110	915 881D
Ø 160	915 882D
Ø 200	915 883D

### Sampling chamber Ø 1000

for underground installation

#### Cover class A/B

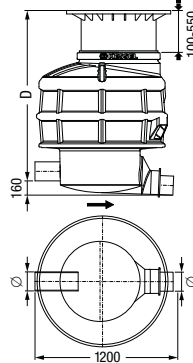
**Compatibility:** For separation systems NS 1 - NS 20 and special models

**Installation depth (D):** 1180 - 1630 mm (Other installation depths available on request)

**Drop height:** 160 mm

#### Cover class D

**Inclusive:** Inlet and outlet Ø ... for synthetic material pipes in: PE-HD (according to EN 12666-1); PVC-KG (according to EN 1401-1); PP or AS. With integrated access steps, with vertically height-adjustable upper section made of polymer, with cover class A/B, D according to EN 124 in cast iron sealed odour-tight, incl. removal mechanism.



Outer diameter Ø (mm)	Suitable for separator	Art. no.
Ø 110	NS 1, NS 2, NS 4	915 10 10B
Ø 160	NS 7, NS 10	915 10 15B
Ø 200	NS 15, NS 20*	915 10 20B
Ø 110	NS 1, NS 2, NS 4	915 10 10D
Ø 160	NS 7, NS 10	915 10 15D
Ø 200	NS 15, NS 20*	915 10 20D

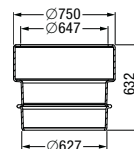
\*Suitable for individual solutions

### Extension section

for underground installation

#### Extension section

**Compatibility:** For underground grease separators with 600 mm access cover  
**Height increase:** 500 mm



Art. no.
917 460

## Accessories

Oil-/fuel separator / Coalescence separator for underground installation

### Sampling chamber Ø 400

for underground installation

#### Cover class A

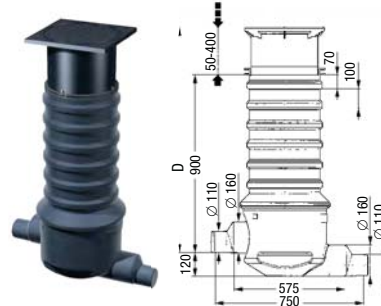
**Compatibility:** For connection to outlet pipe of separator

**Installation depth (D):** 400 – 1300 mm (minimum installation depth can be achieved by cutting off)

**Drop height:** 120 mm (160 mm on request)

**Inclusive:** Telescopic upper section with clamping ring, cover class A/B/D, sealed odour-tight

**Extension:** 600 mm with extension section Art. no. 915 402



In-/Outlet	Art. no.
Ø 110/160	915 880A
Ø 200	915 880A-200
Ø 110/160	915 880B
Ø 200	915 880B-200
Ø 110/160	915 880D
Ø 200	915 880D-200

#### Cover class B

#### Cover class D

### Extension section

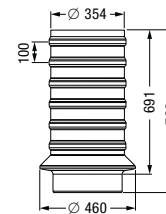
for underground installation

#### Extension section

**Compatibility:** For sampling chamber Ø 400 and Ø 450

**Extension height:** max. 600 mm (can be shortened on-site)

**Check maintenance accessibility!**



Art. no.

915 402

### SonicControl level sensing system

for oil / coalescence separators from NS 3

#### Oil layer thickness and back-up / overflow warning

**Inclusive:** Ultra sonic sensor for centimeter accurate monitoring and display of oil / fuel layer thickness along with backwater / flooding alarm; ATEX certification; power connection, battery back up, connection for remote speaker

**Voltage:** 230 V ~ 50 Hz

**Protection type:** IP 54

**Plug:** Schuko (double pole)

**Cable length:** 30 m with cable duct set. The sensor cable can be extended to a total length of 60 m. Cable extension set see below

**Certification:** BVS 11 ATEX E 040 X

• Sensor can be used in explosive areas (Zone 0)

• Acc. to RL 2014/34/EU designed in ignition protection class „Intrinsic safety“

#### Oil layer thickness

#### back-up / overflow warning



Type Art. no.

0A 917 826

0 917 828

A 917 830

### Cable extension set for SonicControl

for oil / coalescence separators

#### 10 m extension

#### 20 m extension

#### 30 m extension



Art. no.

917 861

917 862

917 863



## Accessories

Oil-/fuel separator / Coalescence separator for underground installation

### Safety

Compatibility see product description

		Art. no.
<b>TeleControl telemetric system</b>	<p><b>Compatibility:</b> For connection to KESSEL Comfort control units 230 Volt and 400 Volt</p> <p><b>Function:</b> Relaying of full text messages to up to three mobile phones</p> <p><b>Inclusive:</b> With internal antenna (without SIM card)</p>	28 792
<b>Antenna booster with magnetic base</b>	<p><b>Compatibility:</b> For TeleControl telemetric system to improve the reception</p> <p><b>Cable length:</b> 2.5 m</p>	28 793
<b>Extension cable</b>	<p><b>Compatibility:</b> For antenna booster</p> <p><b>Cable length:</b> 2.5 m</p>	28 794



### Oil/fuel / Sludge suction system

Compatibility see product description

		Outer diameter Ø (mm)	Art. no.
<b>Oil / fuel suction system</b>	<p><b>Compatibility:</b> For direct suction of oil / fuel into disposal vehicle, for inlet Ø 160 and Ø 200</p> <p><b>Inclusive:</b> Storz B connection coupling</p>	Ø 160 Ø 200	917 803 917 808
<b>Sludge suction system</b>	<p><b>Compatibility:</b> For direct suction of sludge / sediment into disposal vehicle, for inlet Ø 160 and Ø 200</p> <p><b>Inclusive:</b> Storz B connection coupling</p>	Ø 160 Ø 200	917 804 917 809



### Coalescence filter insert

Compatibility see product description

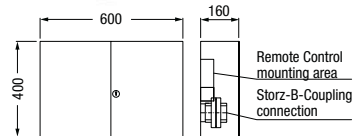
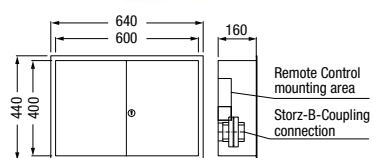
		Art. no.
<b>Coalescence filter insert</b>	<p><b>Compatibility:</b> For retrofitting the KESSEL Oil/fuel separator NS 3 - NS 15 to coalescence separator with two covers</p>	917 805



### Access panel

for separation systems

		Width×Height×Depth in mm	Art. no.
<b>Recessed wall installation</b>	<p><b>Material:</b> Stainless steel</p> <p><b>Compatibility:</b> For Storz-B disposal pipe hook up connection and remote control connection for use with fully automated separators. Remote control not included</p> <p><b>Inclusive:</b> 2 doors, lockable</p>	640×440×160	917 414
<b>Wall installation</b>	<p><b>Material:</b> Stainless steel</p> <p><b>Compatibility:</b> For Storz-B disposal pipe hook up connection and remote control connection for use with fully automated separators. Remote control not included</p> <p><b>Inclusive:</b> 2 doors, lockable</p>	600×400×160	917 413



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Individual solutions

[info@kessel.com](mailto:info@kessel.com)



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48 219	198	48 458.53	230	48 669	198	48 906	199
48 220	198	48 458.63	230	48 670	198	48 907	246
48 221	198	48 478	236	48 678	229	48 928M	214
48 225	198	48 478.11	230	48 678.11	229	48 929M	214
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## KESSEL AG Standard Conditions of Sale (SCS)

### 1. Scope of application, form

(1) The present Standard Conditions of Sale (SCS) apply to all our business relations with our customers ("Purchaser"). The SCS apply only provided the Purchaser is an entrepreneur (§ 14 of the German Civil Code (BGB)), a public-law legal entity or public-law special assets.

(2) The SCS apply particularly to contracts for the sale and/or delivery of movable objects ("Products") as well as the sale of goods, software and technology ("Goods"), irrespective of whether we manufacture the Products/Goods ourselves or purchase them from suppliers (§§ 433, 651 BGB). Unless anything different has been agreed, the version of the SCS which was applicable at the time of the Purchaser's order or at least as last communicated to him in text form will apply as a framework agreement, also in the case of similar future contracts and without our having to refer to them again in each individual case.

(3) Only our SCS apply. Different, contrary or complementary standard terms and conditions of the Purchaser will only be part of the contract when and to the extent that we have expressly consented to their application. This requirement of consent will apply in all circumstances, for example should we also carry out the delivery without reservations, although aware of the Purchaser's standard terms and conditions.

(4) Individual agreements made with the Purchaser in a particular case (including side-agreements, additions and amendments) will in any event have precedence over these SCS. Subject to proof to the contrary, the content of such agreements will be governed by a written contract or our written confirmation.

(5) Legally material declarations and notices by the Purchaser with regard to the contract (e.g. setting of a deadline, report of defects, rescission or a price reduction) must be submitted in writing, i.e. in written or text form (e.g. letter, e-mail, fax). This will not affect legal requirements regarding form and additional evidence, particularly in the event of doubts on the legitimacy of the party making the declaration.

(6) Reference to the application of provisions of the law are only intended for purposes of clarification. Thus, even without such clarification, the provisions of the law will apply unless they are directly amended or expressly excluded in these SCS.

### 2. Conclusion of a contract

(1) Our quotations are subject to change and not binding. This will also be the case should we have provided the Purchaser with catalogues, technical documentation (e.g. drawing, plans, calculations, estimates, reference to DIN norms), other product descriptions or documents – also in electronic form – to which we reserve rights of title and copyright.

(2) The Purchaser's order for Products is considered a binding offer to conclude a contract. Unless the order provides for anything different, we are entitled to accept this offer to conclude a contract within four weeks of having received the offer.

(3) The offer may be accepted either in writing (e.g. by way of an order confirmation) or through delivery of the Products to the Purchaser.

### 3. Reservation regarding matters related to the German Foreign Trade Law

The contract is subject to the reservation that its fulfilment is not subject to any hindrances due to the domestic or international provisions of the Foreign Trade Law or contrary to any embargos and/or other sanctions. Our Goods may be subject to restrictions under the Foreign Trade Law. These are to be understood to include legal prohibitions and/or obligations to obtain permits. Should a Product be purchased that is subject to the requirement that approval is obtained, it will be clarified with the Purchase in each individual case how the goods are to be shipped and whether a contract may be concluded at all. A restriction in terms of the Foreign Trade Law may be related inter alia to the final destination and intended use of the Products. Should Products supplied by us be forwarded to a third party at home or in a foreign country, the Purchaser is required to comply with the applicable provisions of domestic and international foreign trade law. If necessary, the Purchaser is required, immediately on being requested to do so, to provide us with all information and documents required by the responsible authority for approval in accordance with the Foreign Trade Law concerning the ultimate recipient, final destination and intended use of the Products we supply as well as any restrictions in terms of foreign trade law in this regard. Any amendments and errors reserved.

### 4. Delivery period and delivery delays

(1) The delivery period will be agreed individually or stated by us on accepting the order. Should this not be the case, the delivery period is approximately four weeks after the conclusion of the contract.

(2) Should we be unable to meet binding delivery dates for reasons for which we are not responsible (service not available), we will inform the Purchaser of this fact immediately and simultaneously give notification the probable new delivery period. Should the service also not be available within the new delivery period, we are entitled to rescind all or part of the contract; should the Provider have already paid for the service, we will reimburse this immediately. Non-delivery of the service within the meaning of the above is particularly the case in which our supplier does not deliver to us on time, should we have concluded a parallel covering order, should neither we or our supplier be at fault or should we not be required to procure the Products in the particular case. We assume no procurement guarantee.

(3) We will be in arrears with the delivery should we be responsible for the delay in service, whereby our degree of blame in accordance with § 8 of these SCS is limited to deliberate intent and gross negligence. In any event, however, a reminder by the Purchaser is required. Should we fall into arrears with the delivery, the Purchaser may demand a lump-sum amount as compensation for its damages due to the delay. The lump-sum compensation amount of 0.5 % of the net price (delivery value) for every complete week of arrears, subject however to a maximum of 5 % of the delivery value of the Goods delivered late. We reserve the right to prove that the Purchaser has not incurred any damage or has incurred considerably lower damages than the above lump-sum amount.

(4) The Purchaser's rights in accordance with § 8 of these SCS and our legal rights, particularly in the event of an exclusion of the obligation to perform (e.g. due to impossibility or that performance and/or subsequent fulfilment are unreasonable) are not affected.

### 5. Delivery, transfer of risk, formal acceptance, delay in acceptance

(1) The delivery will be made solely in the packing units stated. The delivery is carried out from the warehouse, which is also the place of fulfilment for the delivery and of any subsequent fulfilment. At the request and expense of the Purchaser, the Goods may be delivered to a different destination (sales shipment). Unless anything different has been agreed, we are entitled to determine ourselves the method of shipment (particularly freight forwarder, routing, packaging). Surcharges for freight sent as an urgent or express shipment will be paid by the Purchaser. The Purchaser is required to report transport damage to the freight forwarder/service provider as soon as the shipment is received and to note any damage in writing in the shipment documents.

(2) The risk of accidental destruction and accidental deterioration will pass to the Purchaser at the latest upon delivery. In the case of sales shipments however the risk of accidental destruction and accidental deterioration of the Products as well as the risk of delay will pass already on delivery of the Products to the freight forwarder, transporter or any other person or institution appointed to carry out the delivery. Should formal acceptance have been agreed, this will determine the transfer of risk. Otherwise, an agreed acceptance will also be governed by the provisions of the law relating to contracts for specific tasks as appropriate. Should the Purchaser be in arrears in accepting the Goods, it is irrelevant whether the Goods are handed over or subject to formal acceptance.

(3) Should the Purchaser be in arrears in accepting the Goods, fail to fulfil an obligation to cooperate or should our delivery be delayed for other reasons for which the Purchaser is responsible, we are entitled to demand compensation for damage incurred thereby, including additional expenses (e.g. storage costs). For this purpose, we charge a lump-sum amount of 1.0 % of the net value of the Goods for each complete month as compensation, subject however to a maximum of 5 % of the net value of the Goods, beginning on the delivery date or, in the absence of the delivery date, with the notification that the Goods are ready to be delivered. This does not affect proof of higher damage and our legal rights (particularly compensation for additional expenses, adequate compensation, termination); the lump-sum amount is however to be deducted from additional financial claims. The Purchaser is entitled to prove that we have not incurred any damage or considerably lower damages than the above lump-sum amount.

### 6. Prices and payment conditions

(1) Unless anything different is agreed in the particular case, our current ex warehouse price list at the time the contract is concluded plus the VAT stipulated by law will apply.

(2) In the case of a sales shipment (§ 5 paragraph 1), the Purchaser will pay the costs of transport from the warehouse as well as any transport insurance requested by the Purchaser.

(3) The freight-paid limit begins at 500.00 € net goods value in the case of a closed order, without unloading, within Germany (excluding the German islands) and ex factory below 500.00 € net goods value.

(4) We charge 10.00 € minimum quality surcharge on deliveries of less than 150.00 € net goods value.

(5) A third-party delivery surcharge of 8 % of the net goods value will be charged on orders that are not delivered to the Purchaser's warehouse.

(6) The purchase price is due and payable immediately. We grant a quick-payment discount of 3 % in the event of payment within 8 days of the invoice and delivery or formal acceptance of the Products. We grant 2 % quick-payment discount in the case of payment within 14 days or no quick-payment discount should payment be made within 30 days. We grant 4 % quick-payment discount in the case of direct debit. We are however entitled at any time, even as part of a continuous business relationship, only to deliver all or part of the shipment in return for payment in advance. We will notify such a reservation at the latest with the order confirmation.

(7) The Purchaser will be in arrears 30 days after the payment deadline has expired. The interest rate on arrears stipulated by law will be charged on the purchase price whilst payment is in arrears. We reserve the right to claim additional damages on account of payment arrears. In relations with entrepreneurs, our right to claim the commercial interest rate after the due date (§ 353 of the Commercial Code (HGB)) is not affected.

(8) The Purchaser is only entitled to offset claims and to withhold payment provided its claim has been established in law or is undisputed. In the event of defects in a delivery, the Purchaser's counter-claims, particularly in accordance with section 8 paragraph 6 sentence 2 of these SCS, are unaffected.

(9) Should it become clear after the contract has been concluded (e.g. though an application for the initiation of insolvency proceedings), that our claim to the purchase price is endangered due to lack of ability on the part of the Purchaser to perform, we will be entitled to refuse performance in accordance with the provisions of the law and – if applicable, after having granted a grace period – to rescind the contract (§ 321 BGB). In the case of contracts for the manufacture of products which are not inter-changeable (individual constructions), we may declare rescission immediately; this will not affect the provisions of the law relating to the necessity of setting a grace period.

### 7. Reservation of title

(1) We reserve title to the goods sold until all our current and future claims under the purchase contract and an ongoing business relationship (secured claims) are paid for in full.

(2) Goods subject to reservation of title may neither be mortgaged to third parties nor have title transferred by way of collateral until the secured claims are paid for in full. The Purchaser is required to notify us immediately in writing should insolvency proceedings be applied for or should third parties seize goods belonging to us (e.g. attachments).

(3) In the event of behaviour by the Purchaser in breach of contract, particularly non-payment of the purchase price once due, we are entitled, in accordance with the provisions of the law to rescind the contract and/or to demand the return of the Goods on account of reservation of title.

(4) The Purchaser is authorised until further notice in accordance with (c) below to continue to sell and/or to process reserved goods as part of its regular business activity. In this case, the following provisions will apply additionally.



(a) The reservation of title includes the full value of the products resulting from processing, mixing or combining our goods, whereby we are deemed to be the manufacturer. Should, in the event of processing, mixing or combining with goods belonging to third parties, these third parties retain their rights of ownership, we will acquire co-ownership in proportion to the invoice value of the processed, mixed or combined goods. Otherwise, the same will apply to the resulting product as applies to Goods delivered subject to reservation of title.

(b) The Purchaser cedes to us with immediate effect the receivables due from third parties created as a result of the re-sale of the Goods or the Products, either in their entirety or equal to any co-ownership we might have in accordance with the previous paragraph, as security. We accept the cession. The Purchaser's obligations referred to in paragraph 2 also apply with respect to the ceded receivables.

(c) In addition to us, the Purchaser is entitled to collect the receivables. We undertake not to collect the receivables as long as the Purchaser fulfils its payment obligations to us, as long as there is no deficiency in its ability to perform and we do not enforce the reservation of title by exercising a right in accordance with paragraph 3. Should this be the case, however, we may demand that the Purchaser inform us of the receivables ceded and their debtors as well as all information required to collect the receivables, hands over the relevant documents and notifies the debtors (third parties) of the cession. Moreover, in this case we are entitled to rescind the Purchaser's authority to continue to dispose of and to process the Goods subject to reservation of title.

(d) Should the realisable value of the collateral exceed our claims by more than 10 %, we will, at the Purchaser's request, release collateral of our choice.

#### 8. Purchaser's warranty claims

(1) Unless anything different is agreed below, the Purchaser's rights in the event of quality and legal defects (including incorrect and deficient deliveries as well as incorrect assembly or incorrect assembly instructions) will be governed by the provisions of the law. In any event, the special provisions of the law relating to the final delivery of unprocessed Goods to a consumer are not affected, even should this consumer have further processed the goods (supplier's recourse in accordance with §§ 478 BGB). Claims derived from supplier's recourse are excluded should the defective goods have been further processed by the Purchaser or some other entrepreneur, e.g. as a result of installation in another product.

(2) Liability for defects is based above all on the agreement made on the nature of the Goods. All product descriptions which are the object of the individual contract will be considered an agreement on the nature of the goods.

(3) Should the nature of the goods not have been agreed, the provision, whether a defect is present or not (§ 434 paragraph 1 page 2 and 3 BGB) will be judged by the provision of the law. We assume no liability for statements made by third parties (e.g. advertising claims).

(4) Warranty claims by the Purchaser are conditional on it having fulfilled its legal obligations to examine the Goods and to report defects (§§ 377, 381 HGB). This also includes a visual check for transport damage and an immediate report to the freight forwarder/service provider in accordance with section 5 paragraph 1 of these SCS. Should a defect be identified at the time of the delivery, the examination or at some time subsequently, this must be notified to us immediately in writing. In any event, obvious defects must be reported in writing within five days of the delivery and defects not identified at the time of the examination must be reported in writing within the same period of time from when the defect is discovered. Should the Purchaser fail to carry out an examination correctly and/or fail to report defects correctly, our liability for the defect not reported or not reported on time or properly is excluded in accordance with the provisions of the law.

(5) Should the object delivered be defective, we may initially choose whether we provide subsequent fulfilment by eliminating the defect (rectification) or by the delivery of a defect-free object (replacement shipment). Our right to refuse subsequent fulfilment in accordance with the conditions provided for in law is not affected.

(6) We are entitled to make the required subsequent fulfilment dependent on whether the Purchaser has paid the purchase price due. The Purchaser is however entitled to withhold a reasonable part of the purchase price proportionate to the defect. Reasonable is generally double the costs required in order to remedy the defect.

(7) The Purchaser is required to grant us the time and opportunity required in order to carry out the subsequent fulfilment due, in particular to hand over the Goods complained of for purposes of examination. In the case of a replacement shipment, the Purchaser is required to return the defective object as required by law. Subsequent fulfilment does not include either dismantling or re-assembling the defective object should we originally not have been required to carry out assembly.

(8) We will reimburse the expenses required for examination and subsequent fulfilment, particularly the costs of transport, travel, labour and materials as well as, if applicable, those of dismantling and reassembly, in accordance with the requirements of the law, provided a defect is actually present. Otherwise, we may demand from the Purchaser the reimbursement of the costs of the unjustified request that the defect be eliminated (particularly the costs of examination and transportation), unless the fact that the object was not defective was not evident to the Purchaser.

(9) Should subsequent fulfilment fail or should a time-limit for subsequent fulfilment to be set by the Purchaser expire without the desired result or be unnecessary in accordance with the provisions of the law, the Purchaser may rescind the contract or reduce the purchase price. Should the defect be only minor however, there is no right to rescind the contract.

(10) Claims by the Purchaser for compensation or the reimbursement of costs incurred in vain with regard to defects are only admissible in accordance with § 8 and are otherwise excluded.

#### 9. Other liability

(1) Unless these SCS including the following conditions provide for anything different, we are liable for the infringement of contractual and out-of-court obligations in accordance with the provisions of the law.

(2) We are liable for compensation – irrespective of the legal reason – in accordance with the law of negligence in cases of deliberate intent and gross negligence. In the event of minor

negligence, we are liable, subject to a lesser degree of liability in accordance with the provisions of the law (e.g. duty of care in one's own affairs), only a) for damage due to injury to life, limb or health, b) for damage due to a not inconsiderable infringement of a significant contractual obligation, the fulfilment of which makes the proper implementation of the contract possible at all and on whose compliance the contractual partner normally relies and may rely); in this case, our liability is however limited to compensation for the foreseeable damage typically incurred.

(3) The limitations of liability referred to paragraph 2 also apply to infringements of obligations in favour of persons for whose negligence we are responsible according to the law. They do not apply should we have fraudulently concealed a defect or assumed a guarantee of the nature of the goods and to claims by the Purchaser in accordance with the German Law on Product Liability.

(4) The Purchaser may only rescind or terminate the contract on account of an infringement of an obligation that does not constitute a defect should we be responsible for the infringement of the liability. Free right to terminate on the part of the Purchaser (particularly in accordance with §§ 651, 649 BGB) is excluded. Otherwise, the conditions and legal consequences provided for in law will apply.

#### 10. Time-limitation

(1) The Purchaser's claims will become time-expired within two years of the delivery of the Goods unless the Goods concerned are building materials and/or building modules used in the construction of buildings in accordance their normal intended use.

(2) Building materials and building modules that have been used in the construction of a building in accordance with their normal intended use and which have caused the building to have defects are governed by the provisions of the law.

#### 11. Data processing / data protection

(1) We record, process and use personal data (e.g. name, delivery address, invoice address, telephone number, tax number etc.), that have become known as part of contractual relations and which are required in order to process orders. We also process third parties' data (final customers/ final consumers) transmitted to us by the Purchaser for the purpose of processing as part of the order. For its part, the Purchaser is responsible for processing the data in accordance with data protection within the meaning of the General Data Protection Regulation (GDPR for short) and the German Federal Data Protection Law (BDSG for short) within the meaning of these laws.

(2) We transmit data obtained as part of the business relationship with the Purchaser to external third parties

- for the purpose of preparing quotations,
- for order processing and invoicing purposes
- as part of fulfilling data processing tasks with service partners.

We oblige external third parties to ensure the confidentiality and security of the data. The volume of data transmitted is established contractually. Provided this is required in order to safeguard legitimate interests, we also transmit data to end customers/end users directly or through a contractual partner within the meaning of article 28 GDPR. In doing this, we ensure that the interests of the Purchaser and of end customers/end users worthy of protection are not impinged. Equally, the Purchaser is required to ensure when processing that the interests of end customers/end users worthy of protection are not impinged and that the provisions of the GDPR and BDSG are complied with. In this regard, the Purchaser will ensure in particular that there is a legal basis in accordance with GDPR und BDSG for processing end customers'/ end users' personal data. The Purchaser may ensure this by concluding contracts or by having secured end customer' consent to our further processing of personal data. The Purchaser will for its part also fulfil existing information obligations to its end customers/end users in accordance with GDPR. The Purchaser will inform the end customers /end users in a way that can be proven that their personal data has been forwarded to us in order to carry out the order and for processing purposes.

(3) We reserve the right to obtain information from commercial information agents or credit insurers with regard to the Purchaser's credit rating for purposes of checking his creditworthiness and to report data to him – limited to cases of processing not according to contract, e.g. application for a dunning letter, with regard to an undisputed claim, enforcement order, sequestration measures. Data will only be transmitted provided that this is necessary in order to safeguard our legitimate interests. Balance sheet data will be handled confidentially and used solely for the purpose of credit checking.

The Purchaser expressly gives his consent to the data processing described above. With regard to the processing of contractual partners' and final customers' personal data provided to us by the Purchaser for the purpose of carrying out the order, the Purchaser will irrefutably ensure with documentary evidence that the legal basis required for this purpose in accordance with the GDPR and the BDSG exists in our favour.

#### 12. Choice of law and place of jurisdiction

(1) These SCS and the contractual relationship between ourselves and the Purchaser are subject to the law of the Federal Republic of Germany to the exclusion of international uniformity law, particularly UN purchasing law.

(2) Should the Purchaser be an entrepreneur within the meaning of the Commercial Code, a public-law legal entity or public-law special assets, the sole – also international – place of jurisdiction for all disputes arising directly or indirectly from the contractual relationship is our registered office (Lenting) Ingolstadt. The same will apply should the Purchaser be an entrepreneur within the meaning of § 14 BGB ist. We are however in any event entitled to lodge a claim at the place of performance of the delivery obligation in accordance with these SCS or with an individual agreement having precedence or at the Purchaser's general place of jurisdiction. This will not affect overriding provisions of the law, particularly with respect to exclusive responsibilities.

Lenting, 01.01.2019













Further information  
see

[www.kessel.com](http://www.kessel.com)

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