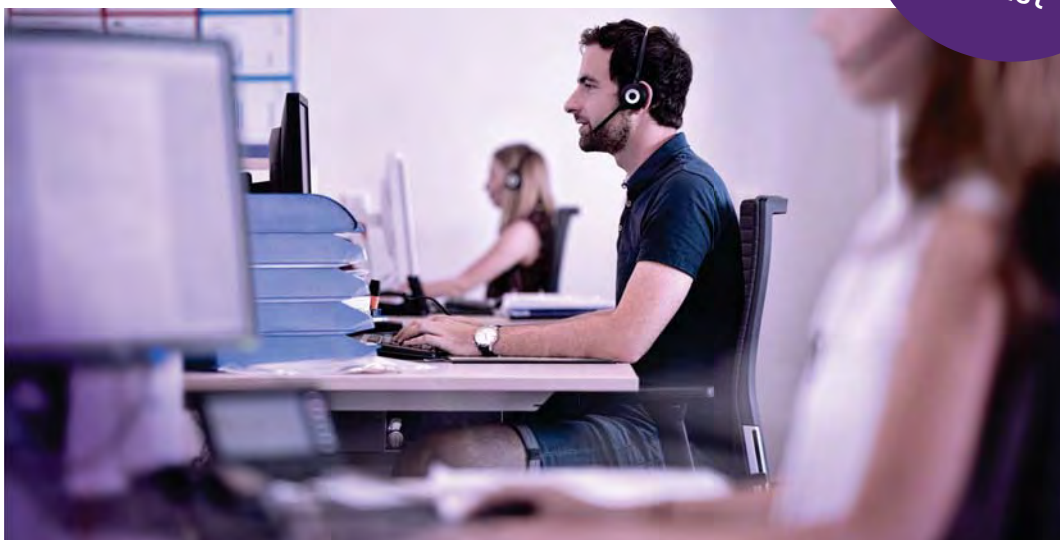
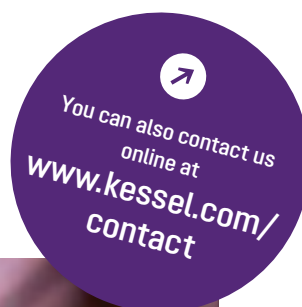


EN 4.0

Contact

We are here for you.

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



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Content

This is KESSEL	6	1. Backwater protection	16
Factory visits / customer forums	8	Planning information	18
Individual solutions	10	Backwater protection range	22
KESSEL Smart Services	12	1.1 Backwater valves	24
Quality	14	Backwater pumping station <i>Pumpfix F</i>	26
Integrated management system	15	Backwater valve <i>Staufix FKA</i>	30
		Twin flap backwater valve <i>Staufix SWA</i>	32
		Clean out <i>Controlfix</i>	34
		Twin flap backwater valve <i>StaufixControl</i>	38
		Twin flap backwater valve <i>Staufix</i>	42
		Single flap backwater valve <i>Staufix</i>	44
		Clean out <i>Staufix</i>	45
		Backwater valve <i>Staufix Basic</i>	48
		Backwater valve <i>Staufix Ø 50 / Ø 75</i>	51
		Backwater valve <i>Staufix Siphon Ø 50</i>	53
		Single flap backwater valve <i>Multitube</i>	54
		Pipe flap valve	55
		1.2 Backwater chambers	56
		Backwater inspection chamber with <i>Controlfix</i>	58
		Engineering system base backwater chamber with <i>Controlfix</i>	61
		Engineering system chamber Ø 1000	62
		1.3 Individual solutions	66
		2. Hybrid lifting stations	68
		Functional principle hybrid lifting system	70
		Hybrid lifting station range	71
		2.1 Hybrid lifting stations	72
		Backwater pumping station <i>Pumpfix F</i>	74
		<i>Hybrid lifting station Ecolift XL</i>	84
		(minimum installation depth)	
		Hybrid lifting station <i>Ecolift XL</i> (installation depth up to 5m)	86
		Engineering system chamber Ø 1000	87
		2.2 Individual solutions	91
		3. Lifting and pumping stations	92
		Which pump or lifting station do I need?	94
		Lifting station range	98

3.1 Lifting stations (above ground)	100	4.2 Project drains	224
Compact lifting station <i>Minilift F</i>	102	Matrix order system floor drain <i>Ecoguss</i>	228
Lifting station <i>Minilift S</i> for free-standing installation	103	Matrix order system floor drain <i>Practicus</i>	233
Lifting station <i>Minilift S</i> for installation in a concrete floor	104	Stainless steel clean out <i>Ferrofix</i> system 100	242
Lifting station <i>Aqualift F Compact</i>	106	Renovation drain <i>Ferrofix</i> system 100	244
Lifting station <i>Aqualift S Compact</i>	112	Matrix order system floor drain <i>Ferrofix</i> system 125	246
Lifting station <i>Aqualift F Basic</i>	119	Matrix order system floor drain <i>Ferrofix</i> system 200	252
Lifting station <i>Aqualift F Mono/Duo</i>	123	Linear / Square channel drain <i>Ferrofix Express</i>	258
Lifting station <i>Aqualift S Duo</i>	129	Box channel <i>Ferrofix</i>	260
Lifting station <i>Aqualift F XL</i>	133	Slotted channel <i>Ferrofix</i>	261
3.2 Pumping stations (below ground)	140	4.3 Basement drains	264
Planning information	142	Backwater pumping station <i>Pumpfix S</i>	267
Pumping station <i>Aqualift F Basic</i>	145	Basement drain <i>The Universal / Drehfix</i>	270
Pumping station <i>Aqualift F</i>	149	Volatile liquid trap	275
Pumping station <i>Aqualift S</i>	151	Basement drain <i>Practicus</i> / without backflow protection	278
Pumping station <i>Aqualift F XL</i> (dry installation)	154	4.4 Outdoor drains	282
Pumping station <i>Aqualift F XL</i>	157	Parking deck drain <i>Ecoguss</i>	284
Pumping station <i>Aqualift S XL</i>	161	Yard drain system 100 / 200 / 400	287
Engineering system chamber Ø 1000	162	Gutter drain system 200	295
3.3 Submersible pumps, warning and control units	168	Flat-roof drain system 200	298
Submersible pump <i>KTP 300 / GTF 500 / GTF 500 resistant</i>	170	Flat-roof drain system 100	302
Submersible pump <i>GTF 1000 / STZ 1000</i>	171	4.5 Individual solutions	303
Retrofit kit <i>Aqualift S Duo</i>	172	5. Separators	304
Retrofit kit <i>Aqualift F XL</i>	173	Separator range	306
230 V-Comfort control units	174	5.1 Grease separators	308
400 V-Comfort control unit	176	Grease separator <i>EasyClean</i> free	316
4. Drains and Channels	180	Grease separator <i>EasyClean Modular</i>	329
Planning informations	182	Grease separator <i>EasyClean</i> ground	337
Drains and channel range	188	5.2 Sediment separators	346
4.1 Bathroom drains and shower channels	190	Sediment separator <i>EasySink</i> free	348
Floor drain <i>The Ultraflat 54</i>	194	Sediment separator <i>EasySink</i> ground	349
Floor drain <i>The Ultraflat 79</i>	195	5.3 Starch separators	350
Bathroom drain <i>Giro</i>	201	5.4 Coalescence / Oil-/Fuel separators	352
Bathroom drain <i>Classic</i>	202	Coalescence separator <i>EasyOil</i> ground	355
Bathroom drain <i>The Superflat</i>	206	Oil-/Fuel separator <i>EasyOil</i> ground	357
Shower channel <i>Linearis Comfort</i>	214	5.5 Individual solutions	362
Shower channel <i>Linearis Compact</i>	215	Article Index	364
Wall drain <i>Scada</i> with matrix order system	220		

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 m²
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

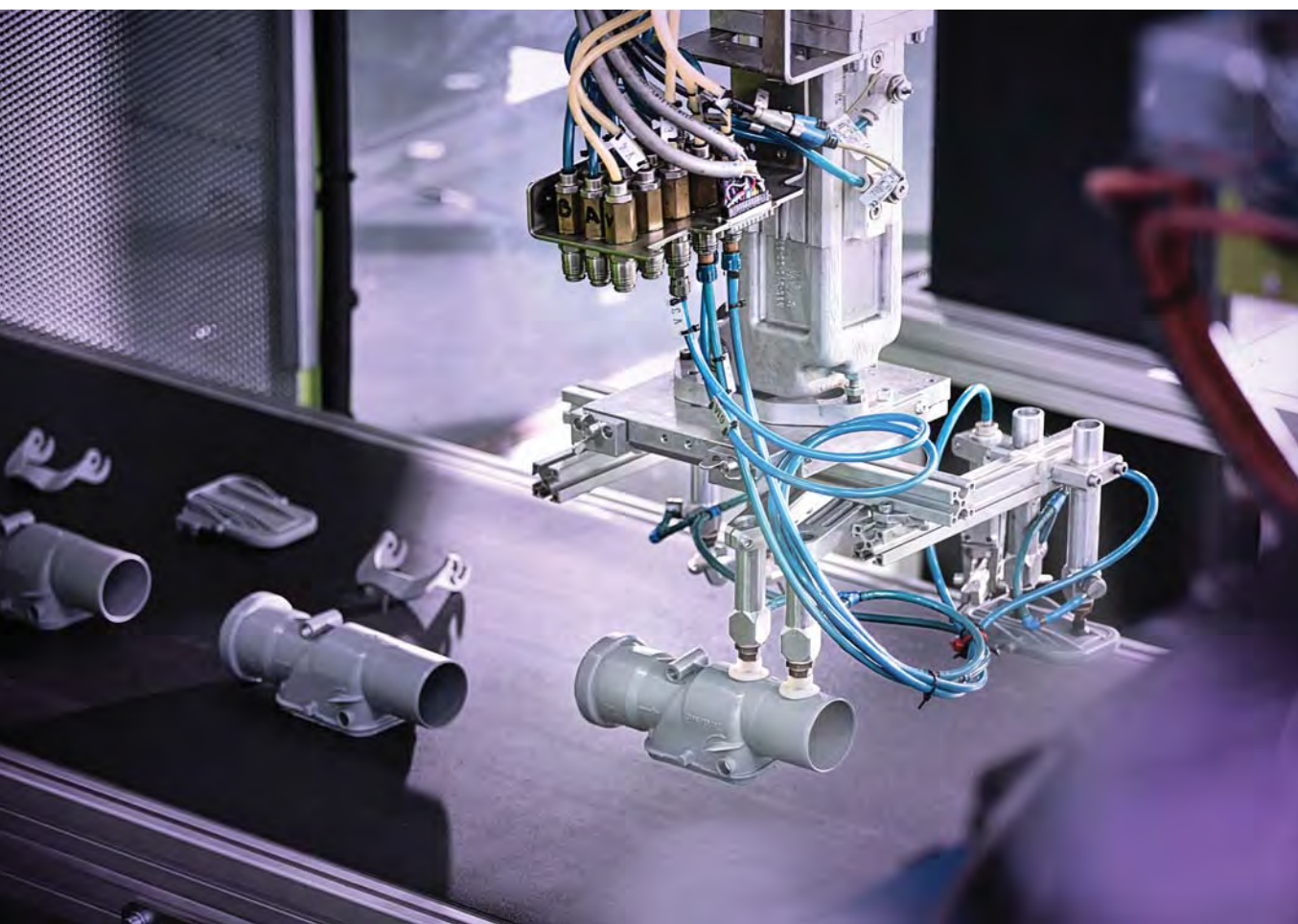
Innovation you can feel

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

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



Individual solutions

info@kessel.com



Standard solution

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



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.

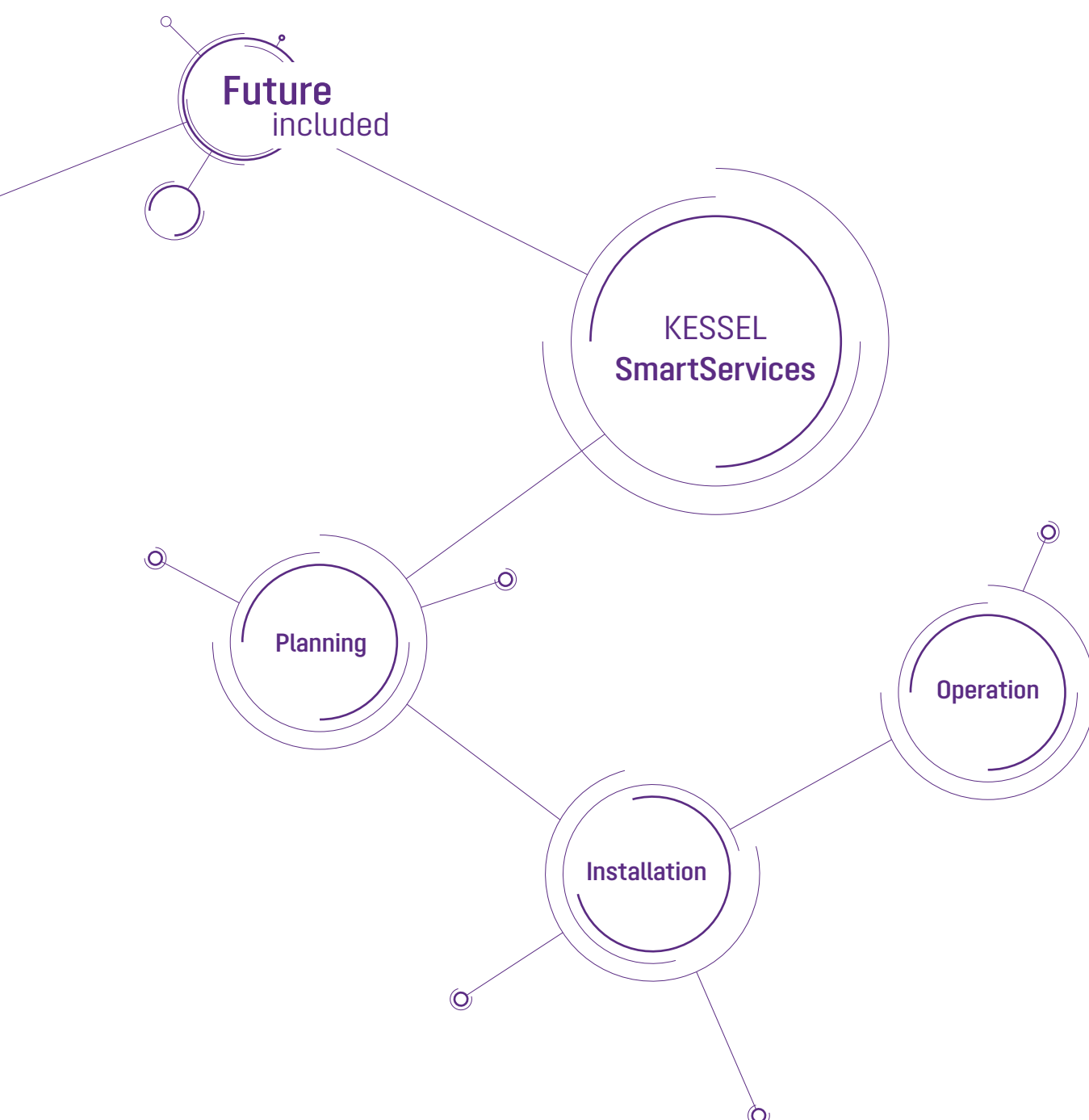


New development

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


-  **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


-  **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


-  **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.



reddot design award
winner 2010

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

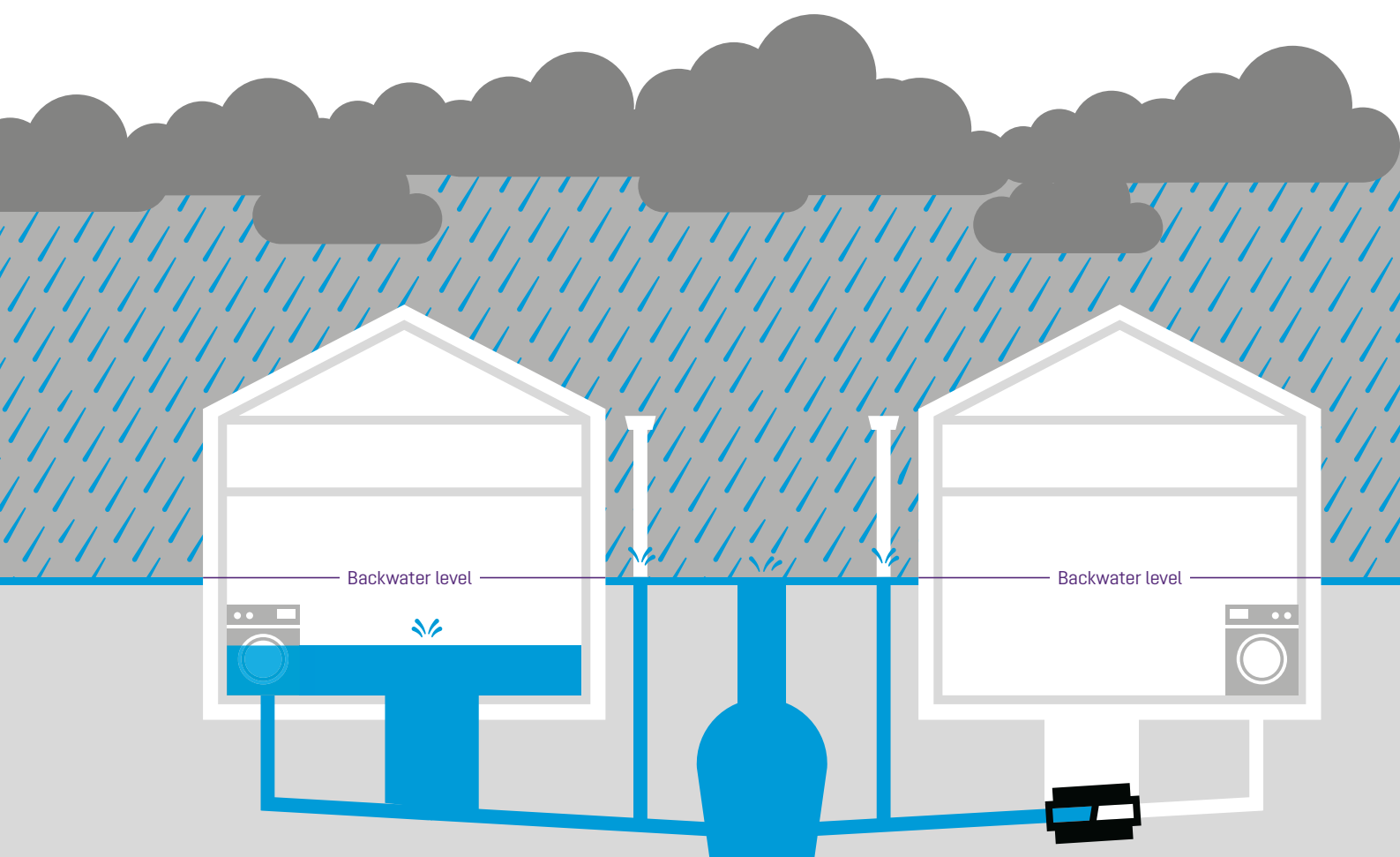
Protection against flooding
due to backwater

Planning information	18
Backwater protection range	22

1.1 Backwater valves	24		
Backwater pumping station <i>Pumpfix F</i>	28	Backwater valve <i>Staufix Ø 50 / Ø 75</i>	52
Backwater valve <i>Staufix FKA</i>	31	Backwater valve <i>Staufix Siphon Ø 50</i>	53
Twin flap backwater valve <i>Staufix SWA</i>	33	Single flap backwater valve <i>Multitube</i>	54
Clean out <i>Controlfix</i>	35	Pipe flap	55
Accessories	36	1.2 Backwater chambers	56
Twin flap backwater valve <i>StaufixControl</i>	40	Standard backwater chamber	58
Twin flap backwater valve <i>Staufix</i>	42	Accessories	59
Single flap backwater valve <i>Staufix</i>	44	Modular backwater chamber	61
Clean out <i>Staufix</i>	45	Accessories for modular chamber	62
Accessories	46	Accessories	64
Backwater valve <i>Staufix Basic</i>	49		
Accessories	50	1.3 Individual Solutions	66

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.

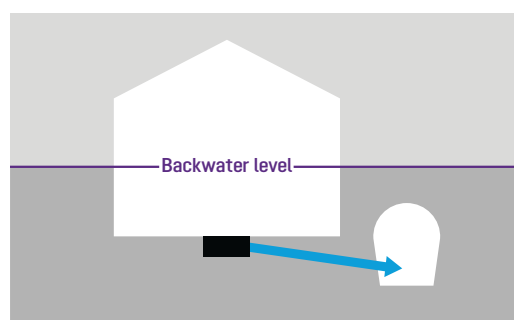
Type 2 Backwater valve for use in horizontal pipes with two automatic closures and one emergency closure, whereby this emergency closure may be combined with one of the two automatic closures.

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

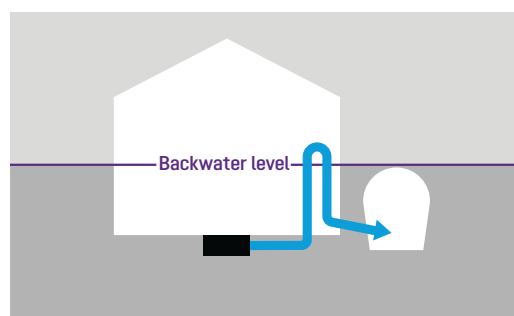


Slope to the main sewer

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

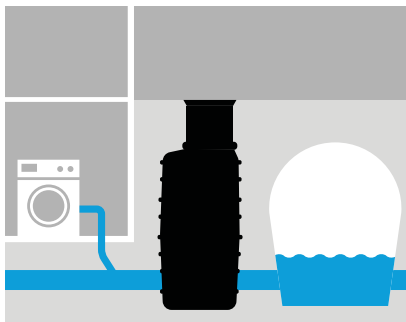
If the sewage pipe is higher than the backwater protection, the wastewater must be lifted to the sewage pipe with a lifting station via a backwater loop.

➤ [Lifting stations: Page 92](#)

➤ [Pumping stations: Page 140](#)

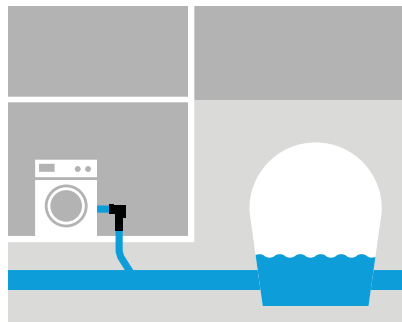
Installation situation

There are three options for installing backwater protection.



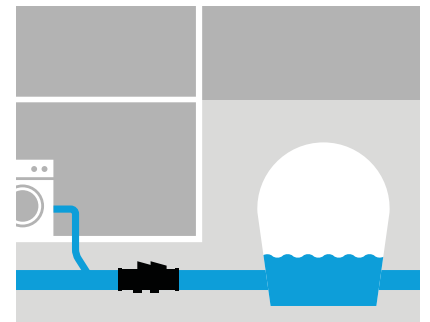
Outdoor, underground installation

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".



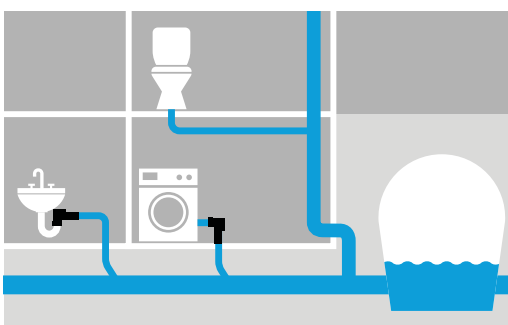
Wastewater without sewage is water without faecal content, for example shower water or water from a washing machine. This is termed "grey water".

Protection strategy



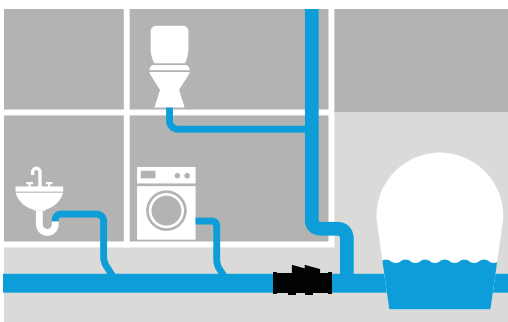
Individual protection

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

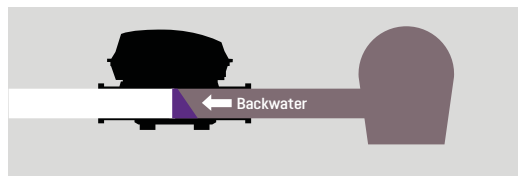


Central protection

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

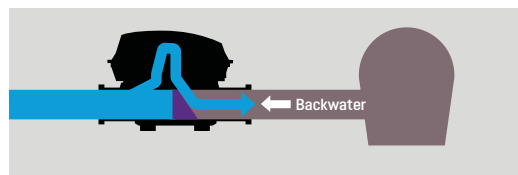


Function



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



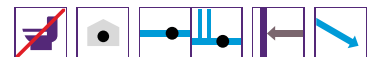
Backwater valve
Staufix SWA

➤ 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 m².

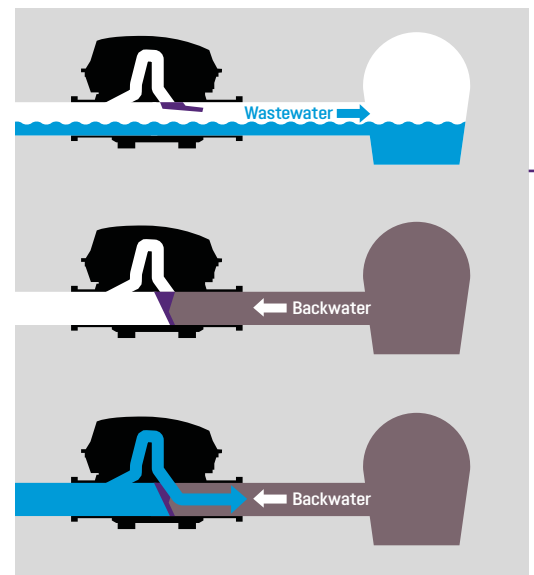
Pumpfix F is available in two variants – for installation in an exposed drainage pipe and for floor slab installation, where you can choose between a black cover or tileable cover.



1 Backwater pumping station 2 Control unit 3 Sealing gasket set



1 Backwater pumping station 2 Control unit

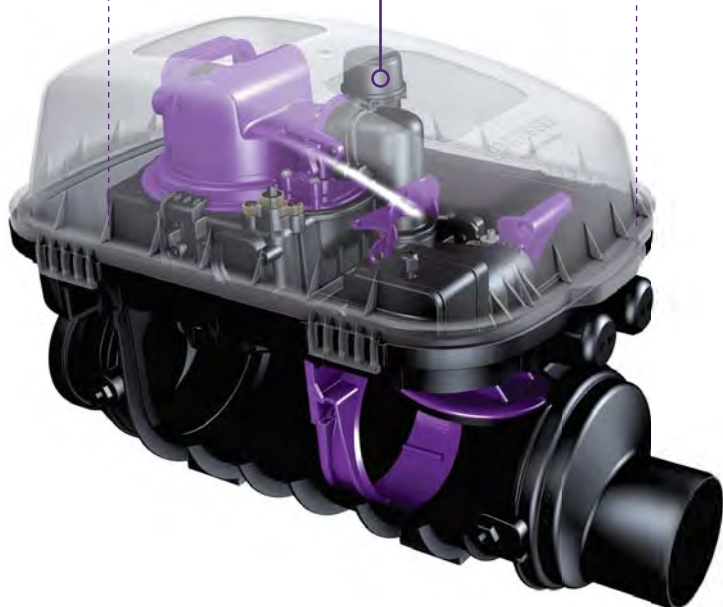
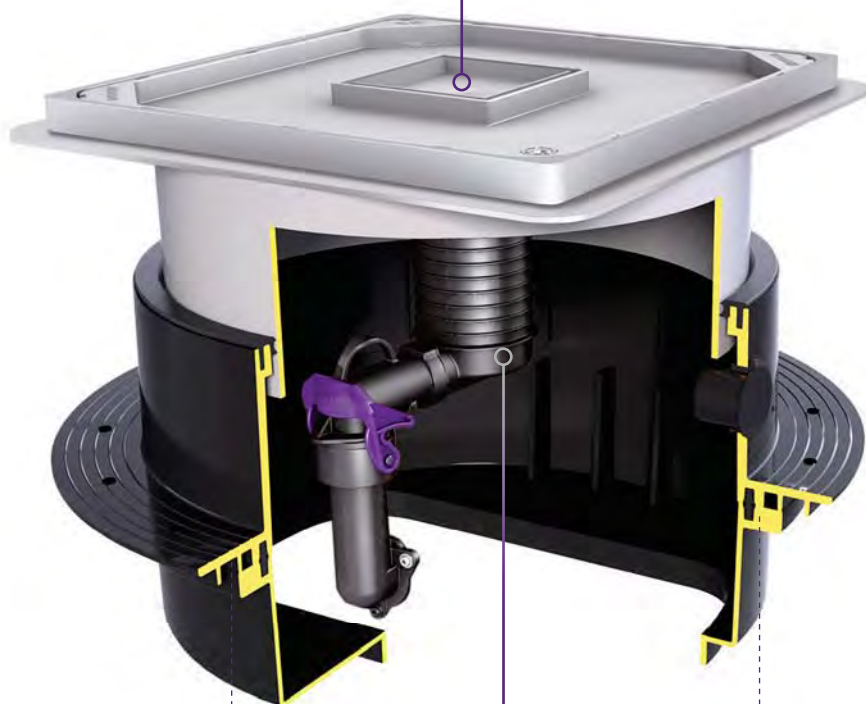


How it works

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 (on request)

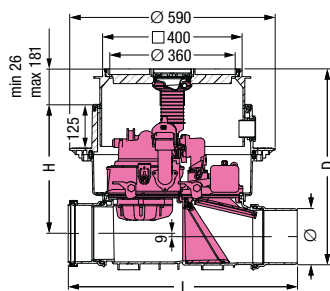
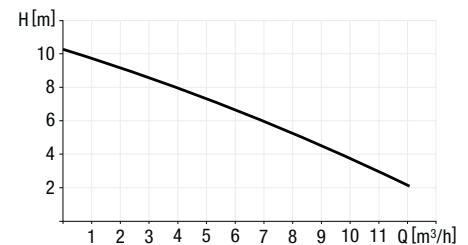
➤ Accessories:

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	24 100X
Ø 125	645 × 387	24 125X
Ø 160	656 × 370	24 150X
Ø 200*	720 × 348	24 200X
With black cover and drain		
Ø 110	642 × 394	24 100S
Ø 125	645 × 387	24 125S
Ø 160	656 × 370	24 150S
Ø 200*	720 × 348	24 200S

Pumping capacity



Backwater pumping station *Pumpfix F*

Installation in an exposed wastewater pipe

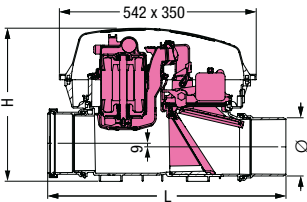
Made of polymer, with protective cover.

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 (on request)

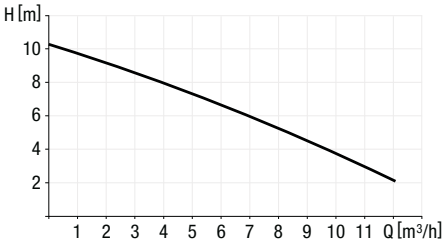


Z-53.2-388



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



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

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.



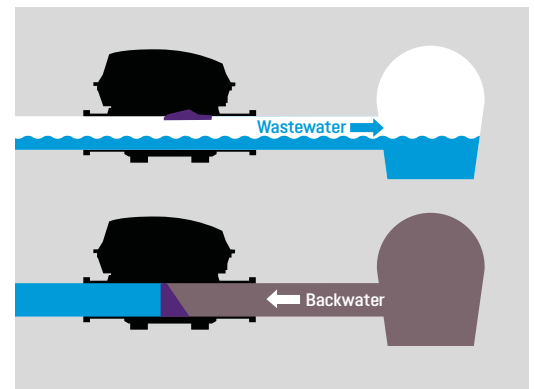
1 Backwater valve 2 Control unit



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.

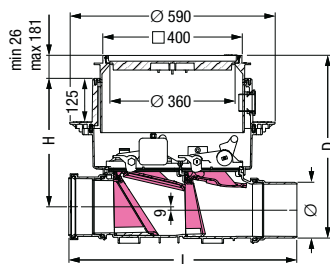
Plug-and-Play control unit with connection option to building management system and alarm, protection type IP 54, with integrated self diagnosis system SDS, display for operating status and battery back-up, motor is rated protection Type IP 68 (3 m, 24 h).

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	84 100X
Ø 125	645 × 387	84 125X
Ø 160	656 × 370	84 150X
Ø 200*	720 × 348	84 200X

With black cover

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



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.

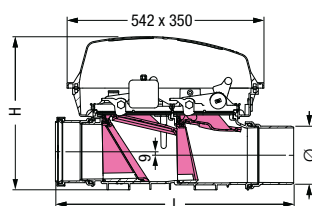
Plug-and-Play control unit with connection option to building management system and alarm, display for operating status and battery back-up, protection type IP 54, with integrated self diagnosis system SDS, display for operating status and battery back-up, motor is rated protection Type IP 68 (3 m, 24 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	84 100
Ø 125	645 × 422	84 125
Ø 160	656 × 422	84 150
Ø 200*	720 × 422	84 200

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



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

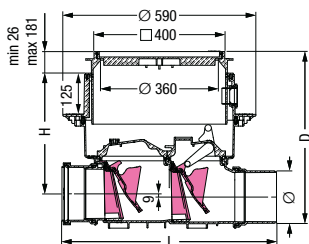
With surface water tight cover plate class A 15 made of polymer.

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



EN 13564 Type 2

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

Twin flap backwater valve *Staufix SWA*

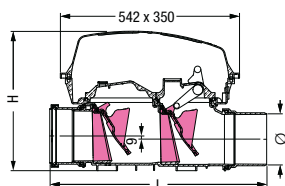
Installation in an exposed wastewater pipe

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



EN 13564 Type 2

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



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

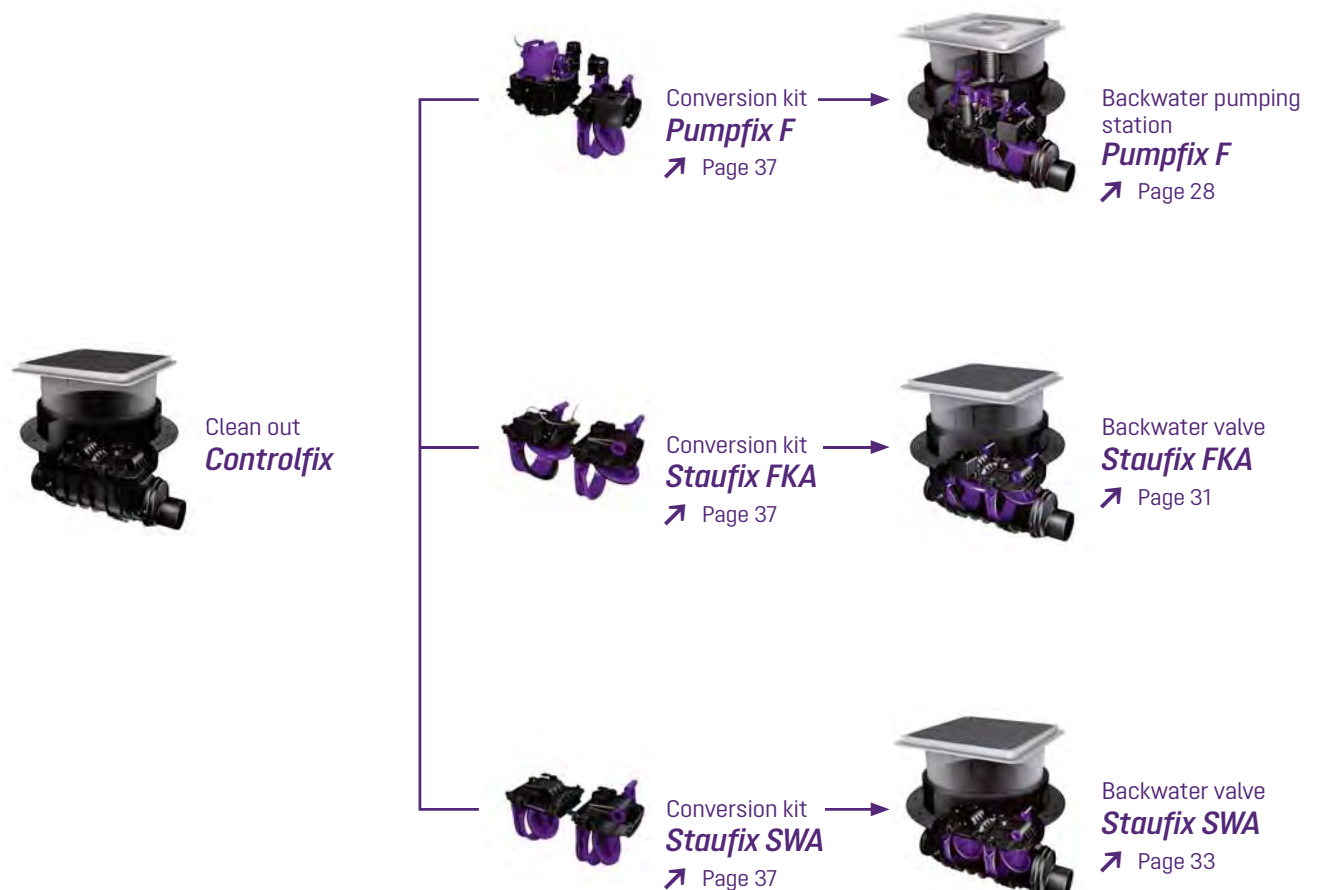


Clean out *Controlfix*

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

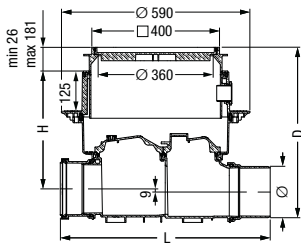
With surface water tight cover plate class A 15 made of polymer.
Installation kit with choice of cover.

- **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	80 100X
Ø 125	645 × 387	80 125X
Ø 160	656 × 370	80 150X
Ø 200*	720 × 348	80 200X

With black cover		
Ø 110	642 × 394	80 100S
Ø 125	645 × 387	80 125S
Ø 160	656 × 370	80 150S
Ø 200*	720 × 348	80 200S



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

Clean out *Controlfix*

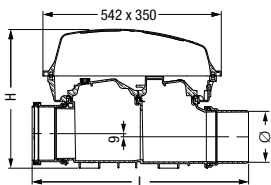
Installation in an exposed wastewater pipe

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	80 100
Ø 125	645 × 422	80 125
Ø 160	656 × 422	80 150
Ø 200*	720 × 422	80 200



* 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.
with centre flange	Additional function: For installation in water-proof 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			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

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

Cover plates

for installation in a concrete floor

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

Hygiene and odour stop

Compatibility see product description

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

Accessories

Pumpfix F / Staufix FKA / Staufix SWA / Controlfix

Conversion kits

for models made on or after Jan 2011

			Art. no.
Backwater pumping Pumpfix F for installation in a concrete slab/floor	Compatibility: For Ø 110 – Ø 200* Inclusive: Comfort control unit with recessed cover for on-site tiling and drain, <i>Multistop</i> , gasket Cable length: 5 m ➤ Cable extension: See page 36		80 098
Backwater pumping Pumpfix F for installation in an exposed wastewater pipe	Compatibility: For Ø 110 – Ø 200* Inclusive: Comfort control unit Cable length: 5 m ➤ Cable extension: See page 36		80 097
Motorized backwater valve Staufix FKA	Compatibility: For installation in a concrete slab/floor and in an exposed wastewater pipe, for Ø 110 – Ø 200* Inclusive: Comfort control unit Cable length: 5 m ➤ Cable extension: See page 36		80 093
Backwater valve Staufix SWA	Compatibility: 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.
Rat protection flap	Inclusive: Stainless steel shield Compatibility: <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.
Testing funnel	Inclusive: Gasket	 	70 214

Spigot and Socket


for backwater valves

		Outer diameter Ø (mm)	Art. no.
Spigot	Function: Removable inlets / outlets, can be mounted in various dimensions		Ø 110 83 081 Ø 125 83 082 Ø 160 83 083 Ø 200* 83 084
Socket	Function: Removable inlets / outlets, can be mounted in various dimensions		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.
Audible alarm	Compatibility: For all control units with SDS function Cable length: 20 m		20 162
Access code potential-free contact	Compatibility: 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.

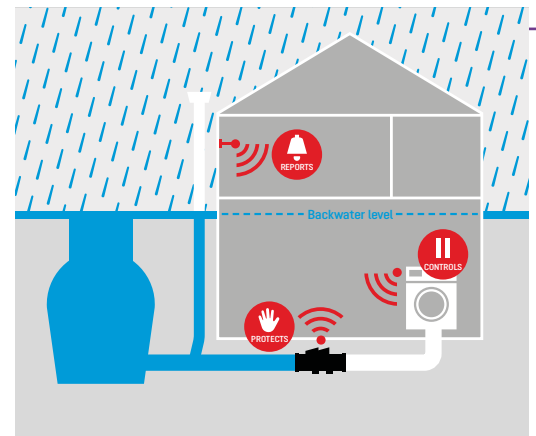
The *StaufixControl* variant offers smart additional functions such as visual and acoustic backwater warnings. *Staufix* and *StaufixControl* are each available in two variants – for installation in an exposed drainage pipe and for floor slab installation, where you can choose between a black cover or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

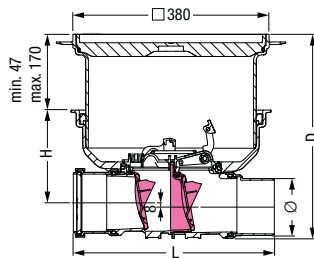
With surface water tight cover plate class A 15 made of polymer.

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	770 090.10X
Ø 110	389 × 179	770 100.10X
Ø 125	515 × 222	770 125.10X
Ø 160	526 × 205	770 150.10X
Ø 200*	590 × 185	770 200.10X

With black cover

Outer diameter Ø (mm)	L × H in mm	Art. no.
Ø 90	389 × 179	770 090.10S
Ø 110	389 × 179	770 100.10S
Ø 125	515 × 222	770 125.10S
Ø 160	526 × 205	770 150.10S
Ø 200*	590 × 185	770 200.10S

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	770 090.10XR
Ø 110	389 × 179	770 100.10XR
Ø 125	515 × 222	770 125.10XR
Ø 160	526 × 205	770 150.10XR
Ø 200*	590 × 185	770 200.10XR

With black cover

Outer diameter Ø (mm)	L × H in mm	Art. no.
Ø 90	389 × 179	770 090.10SR
Ø 110	389 × 179	770 100.10SR
Ø 125	515 × 222	770 125.10SR
Ø 160	526 × 205	770 150.10SR
Ø 200*	590 × 185	770 200.10SR

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

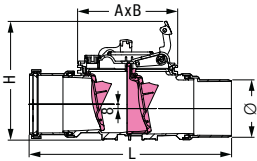


Without rodent protection
(two polymer flaps)

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

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 90	386 × 230	193 × 167	770 090R
Ø 110	389 × 230	193 × 167	770 100R
Ø 125	515 × 306	263 × 214	770 125R
Ø 160	526 × 306	263 × 214	770 150R
Ø 200*	590 × 306	263 × 214	770 200R



EN 13564 Type 2



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

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

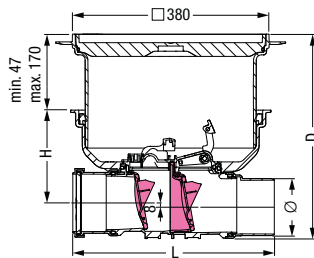
With surface water tight cover plate class A 15 made of polymer.

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

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

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

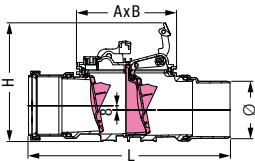


Without rodent protection
(two polymer flaps)

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

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 90	386 × 230	193 × 167	730 090R
Ø 110	389 × 230	193 × 167	730 100R
Ø 125	515 × 306	263 × 214	730 125R
Ø 160	526 × 306	263 × 214	730 150R
Ø 200*	590 × 306	263 × 214	730 200R



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.

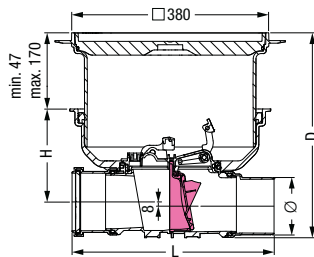
Backwater valve according to EN 13564 Type 1 with one self-closing flap, can be locked by hand as an emergency closure.

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	720 090.10X
Ø 110	389 × 179	720 100.10X
Ø 125	515 × 222	720 125.10X
Ø 160	526 × 205	720 150.10X
Ø 200*	590 × 185	720 200.10X
With black cover		
Ø 90	389 × 179	720 090.10S
Ø 110	389 × 179	720 100.10S
Ø 125	515 × 222	720 125.10S
Ø 160	526 × 205	720 150.10S
Ø 200*	590 × 185	720 200.10S



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

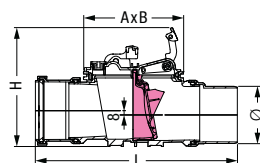
Backwater valve according to EN 13564 Type 1 with one self-closing flap, can be locked by hand as an emergency closure.

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	720 090
Ø 110	389 × 230	193 × 167	720 100
Ø 125	515 × 306	263 × 214	720 125
Ø 160	526 × 306	263 × 214	720 150
Ø 200*	590 × 306	263 × 214	720 200



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

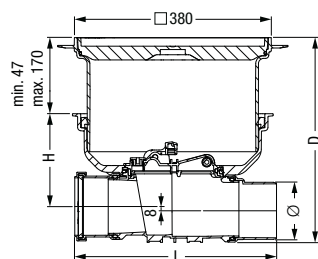
With surface water tight cover plate class A 15 made of polymer.

Installation kit with choice of cover.

➤ **Accessories:** see page 46



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



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

Clean out *Staufix*

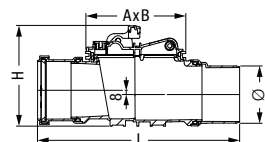
Installation in an exposed wastewater pipe

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	700 090
Ø 110	389 × 230	193 × 167	700 100
Ø 125	515 × 306	263 × 214	700 125
Ø 160	526 × 306	263 × 214	700 150
Ø 200*	590 × 306	263 × 214	700 200



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

Accessories

Staufix and StaufixControl

Extension sections

made of polymer



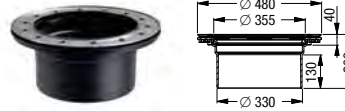
with flange,
for deeper installation

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

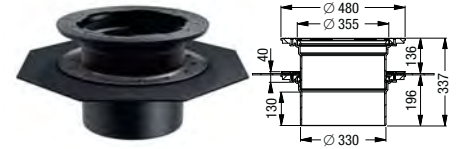
Inclusive: Sealing

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

			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

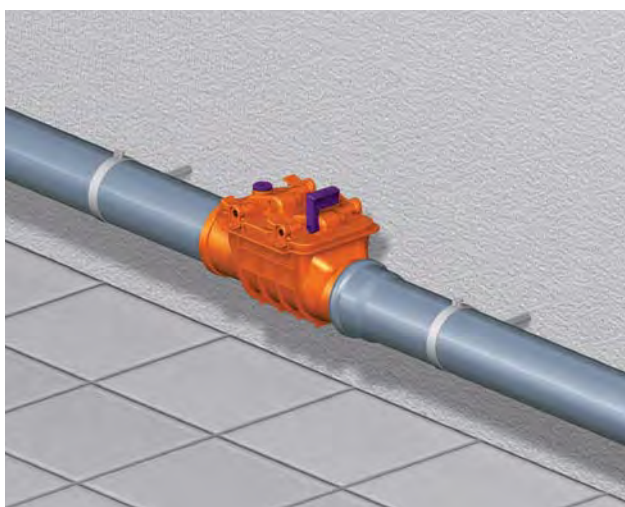
Conversion kits			Outer diameter	
Compatibility see product description			Ø (mm)	Art. no.
Rodent protection flap	Material: Made of stainless steel Compatibility: Art. no. 720 ..., 730 ... and 770 ...		Ø 90 - Ø 110	70 233
			Ø 125 - Ø 200	70 234
Backwater flap	Compatibility: For upgrade from type 1 to 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*

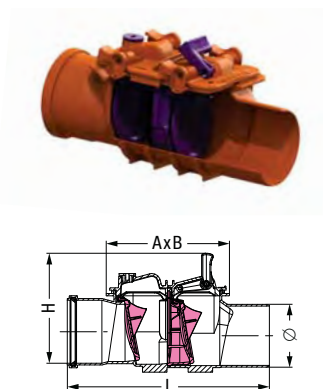
Installation in an exposed wastewater pipe

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*

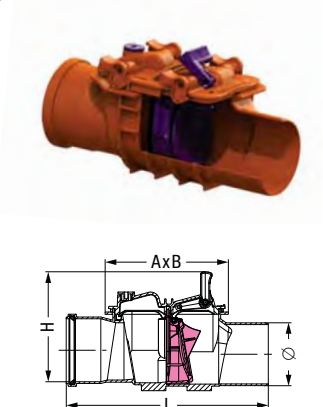
Installation in an exposed wastewater pipe

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	72 100
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*

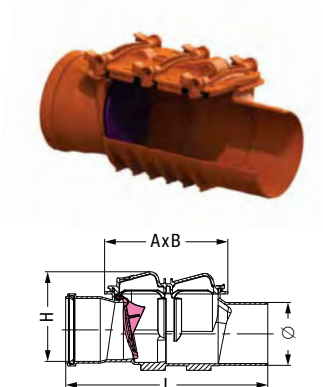
Installation in an exposed wastewater pipe

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

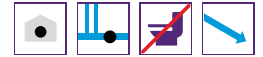
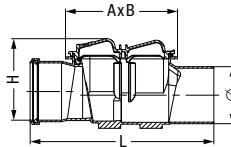
Clean out *Staufix Basic*

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	70 100
Ø 125	405 × 230	270 × 200	70 125
Ø 160	450 × 230	270 × 200	70 150
Ø 200	530 × 278	353 × 248	70 200

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	70 231
Ø 125	70 232
Ø 160	70 232
Ø 200	70 205

Insert flap housing



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

Lockable cover
incl. emergency closure
and sealing gasket



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

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	70 233
Ø 125	70 234
Ø 160	70 234

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

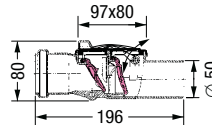
The maintenance and cleaning of the backwater valves is particularly convenient and possible without any tools whatsoever thanks to the quick-release closure.

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



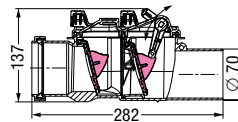
CE EN 13564 Type 2

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



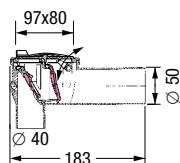
CE EN 13564 Type 2

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.



CE EN 13564 Type 5



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

Twin flap backwater valve *Staufix Siphon* Ø 50

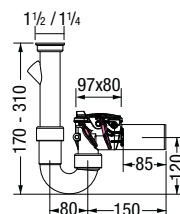
Installation in an exposed wastewater pipe

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



CE EN 13564 Type 5



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

Twin flap backwater valve *Staufix Siphon* Ø 50

Installation in an exposed wastewater pipe

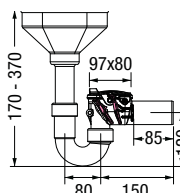
Made of polymer

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



CE EN 13564 Type 5



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

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

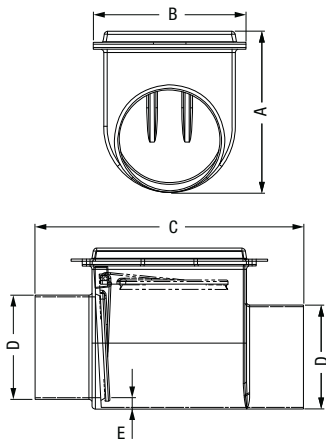


Made of polymer

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.

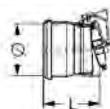


Illustration shows Ø 110 – Ø 200

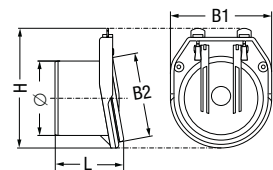


Illustration shows Ø 250 – Ø 638

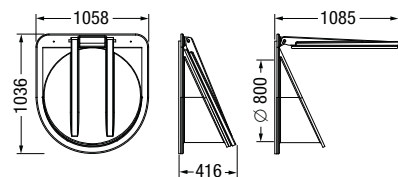


Illustration shows Ø 800

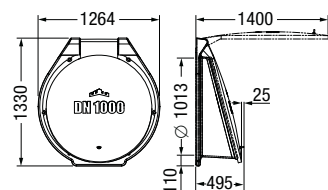


Illustration shows Ø 1000



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.

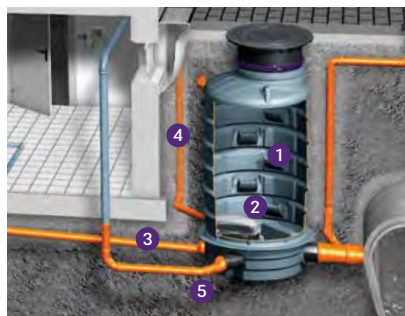


Thanks to the clean out *Controlfix*, the backwater chambers can be equipped with various conversion kits:

- 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.



- ➊ Backwater chamber
- ➋ Clean out
- ➌ Basement drains
- ➍ Roof drains
- ➎ 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



- ➊ System base
- ➋ Clean out
- ➌ System chamber
- ➍ 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.

3 inlets Ø 160 / 1 outlet Ø 200

H1: 1180	88 10 05
H2: 1680	88 15 05
H3: 2180	88 20 05
H4: 2680	88 25 05
H5: 3180	88 30 05

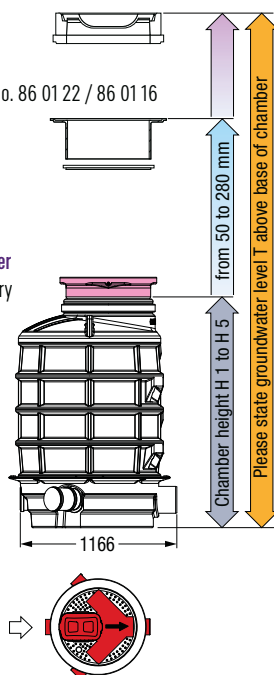
3 inlets Ø 160 / 1 outlet Ø 160

H1: 1180	88 10 05-DN 150
H2: 1680	88 15 05-DN 150
H3: 2180	88 20 05-DN 150
H4: 2680	88 25 05-DN 150
H5: 3180	88 30 05-DN 150

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.
Backwater pumping <i>Pumpfix F</i>	Compatibility: Backwater inspection chamber Ø 1000, for Ø 110 – Ø 200* Inclusive: Komfort control unit Cable length: 15 m ↗ Cable extension: page 36	80 102
Motorized backwater valve <i>Staufix FKA</i>	Compatibility: Backwater inspection chamber Ø 1000, for Ø 110 – Ø 200* Inclusive: Komfort control unit Cable length: 15 m ↗ Cable extension: page 36	80 104
Backwater valve <i>Staufix SWA</i>	Compatibility: 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.
with ventilation	Material: 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
surface water tight	Material: In cast iron	Class A, locked	860 132
		Class B, locked	860 133
		Class D, locked	860 136
	Material: In cast iron and concrete	Class A	860 130
		Class B	860 131

Upper sections

for backwater inspection chambers Ø 1000





		Art. no.
with recesses for a sludge bucket	Compatibility: Not for surface water tight cover plates class A/B/D Inclusive: Fixing ring Installation: Telescopic height adjustable from 100 to 550 mm	860 120
without holders for sludge buckets	Compatibility: Cover plates class A/B/D Inclusive: Fixing ring Installation: Telescopic height adjustable from 100 to 550 mm	860 121
can be assembled with standard concrete rings	Compatibility: For standard bearing ring / concrete/cast covers, class A/B/D Installation: Telescopic height adjustable from 50 to 280 mm	860 122
	Compatibility: For standard bearing ring / concrete/cast covers, class A/B/D Installation: 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.
Lip gasket	Compatibility: Art. no. 860 122, 860 125, 860 120, 860 121		Ø 600	860 116
Embedded step	Compatibility: Art. no. 860 122, 860 125, 860 120, 860 121 Inclusive: Drilling template, step, hand rail, screws Note: The embedded step can be fitted to the upper section (Art. no. 860 120, 860 121, 860 122) in the factory at an additional charge			860 109
Cable piping gasket set	Compatibility: Control unit 230 V Inclusive: 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
Locking and removal key	Compatibility: Chamber cover			915 595

Hole saw

Compatibility see product description

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

Sealing

Compatibility see product description

			Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
Pipe sealing gasket	Drill size: 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	850 114 850 116 850 117 850 118 850 119

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

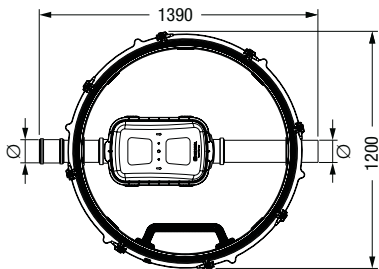
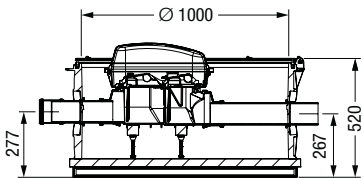


With closed channel passage

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

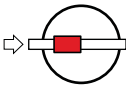
- Conversion kit *Staufix SWA*
- Conversion kit *Staufix FKA*
- Conversion kit *Pumpfix F*



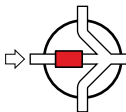
Channel passage:

with closed channel passage Ø...

Version Ø 200: (on request)



with two inlets in direction of flow Ø...
left + right 90°



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

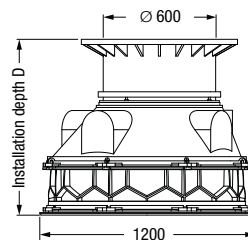
Modular design comprising:

- 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

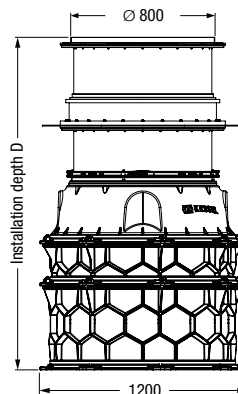
Modular design comprising:

- 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

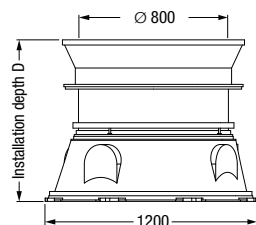


Illustration shows Art. no. 874 01 58

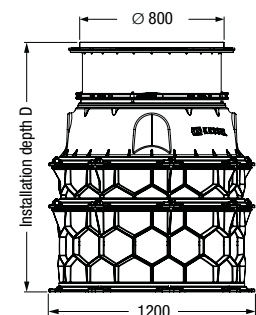


Illustration shows Art. no. 874 00 02

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.
Backwater pumping <i>Pumpfix F</i>	Compatibility: Engineering systems base backwater chamber Ø 1000, for Ø 110 – Ø 200* Inclusive: Komfort control unit Cable length: 15 m ➤ Cable extension: page 36		80 102
Motorized backwater valve <i>Staufix FKA</i>	Compatibility: Engineering systems base backwater chamber Ø 1000, for Ø 110 – Ø 200* Inclusive: Komfort control unit Cable length: 15 m ➤ Cable extension: page 36		80 104
Backwater valve <i>Staufix SWA</i>	Compatibility: 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.
500 mm	Inclusive: 2 access steps, installed Note: Without gasket and connecting wedges		680 371
250 mm	Inclusive: 1 access step, installed Note: 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.
Cable piping gasket set	Compatibility: Control unit 230 V Inclusive: 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
Locking and removal key	Compatibility: Chamber cover			915 595
Set of connecting wedges	Compatibility: Art. no. 680 371 and 680 370 Set-content: 10 pieces			680 373
Profiled gasket	Compatibility: Art. no. 680 371 and 680 370			680 125
Cable attachment set	Compatibility: 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			Ø 50	60	500 101
				Ø 75	92	
				Ø 110	121	
				Ø 110	121	500 100
				Ø 125	133	
				Ø 160	168	

Sealing

Compatibility see product description

Pipe sealing gasket		Drill size:			DN 50	Ø 50	850 114
	Ø 50:	60 mm			DN 70	Ø 75	850 116
	Ø 75:	92 mm			DN 100	Ø 110	850 117
	Ø 110:	121 mm			DN 125	Ø 125	850 118
	Ø 125:	133 mm			DN 150	Ø 160	850 119
	Ø 160:	168 mm					

Not found what you're looking for?

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



Individual solutions

info@kessel.com

2. Hybrid lifting stations

Backwater protection with integrated
wastewater pump

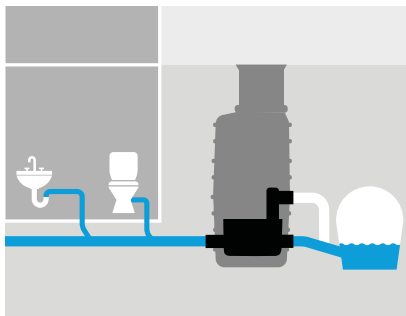
Function example hybrid lifting system	70
Hybrid lifting station range	71

2.1 Hybrid lifting stations	72
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
2.2 Individual Solutions	91

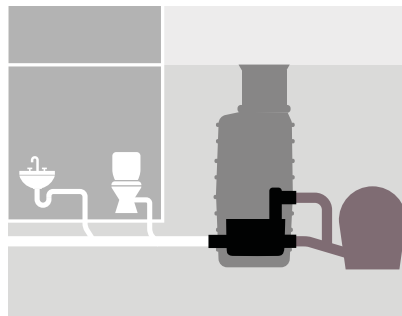
Ecolift functional principle

How does a hybrid lifting station work?

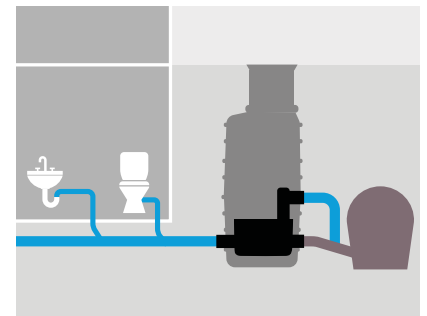
A hybrid lifting station combines the safety of a lifting station with the efficiency of drainage via a natural slope. During normal operation, wastewater flows with gravity through the *Ecolift XL* into the public sewer. When flooding occurs backwater flap(s) automatically shut to protect the building.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

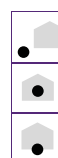


Low

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 m².

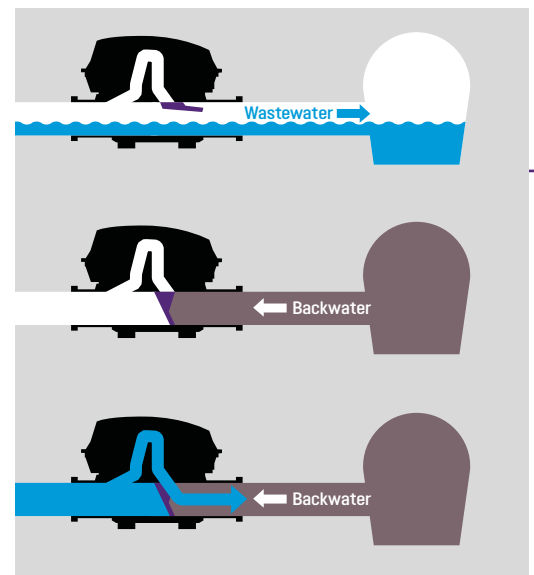
Pumpfix F is available in two variants – for installation in an exposed drainage pipe and for floor slab installation, where you can choose between a black cover or tileable cover.



1 Backwater pumping station 2 Control unit 3 Sealing gasket set



1 Backwater pumping station 2 Control unit

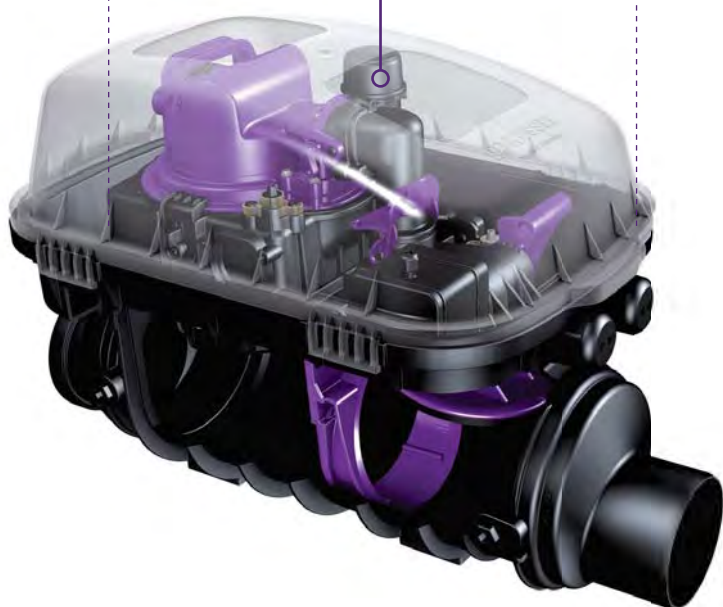
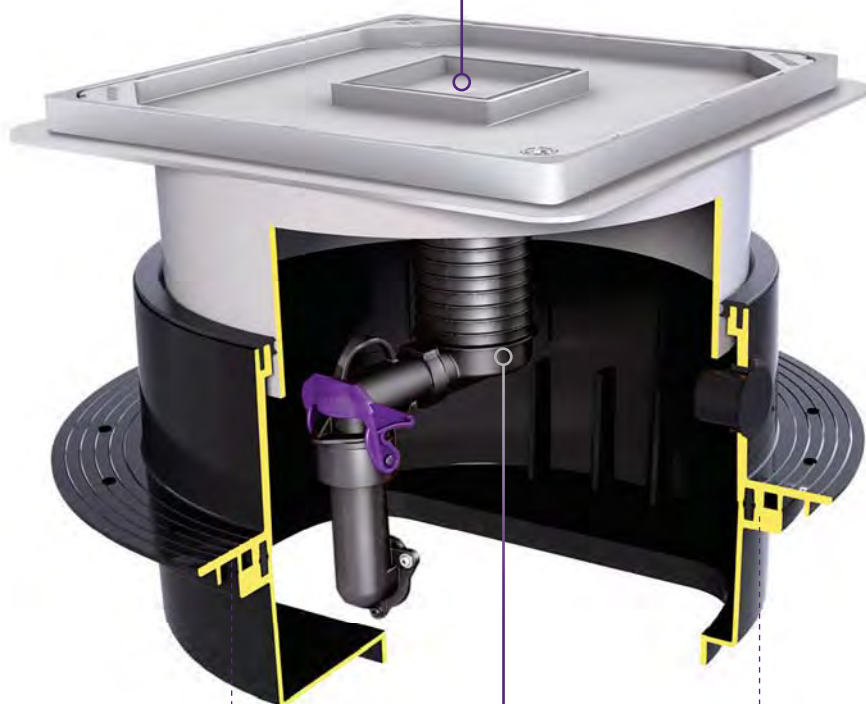


How it works

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).

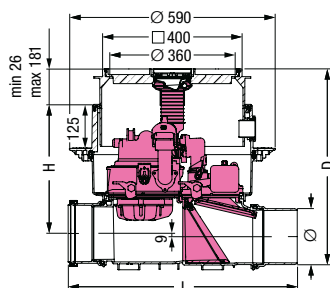
Power cable length: 5 m (15 m available on request).

Note:

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

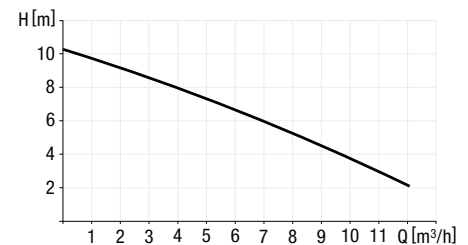
➤ Accessories:

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	24 100X
Ø 125	645 × 387	24 125X
Ø 160	656 × 370	24 150X
Ø 200*	720 × 348	24 200X
With black cover and drain		
Ø 110	642 × 394	24 100S
Ø 125	645 × 387	24 125S
Ø 160	656 × 370	24 150S
Ø 200*	720 × 348	24 200S

Pumping capacity



Backwater pumping station *Pumpfix F*

Installation in an exposed wastewater pipe

Made of polymer, with protective cover.

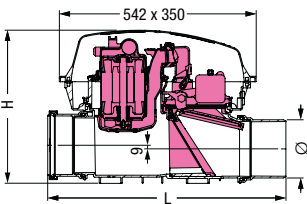
Backwater pumping station according to EN 13564 Type 3 with pump (1kW/230V) and backwater valve, pump activates during backwater, suitable for wastewater with or without sewage.

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).

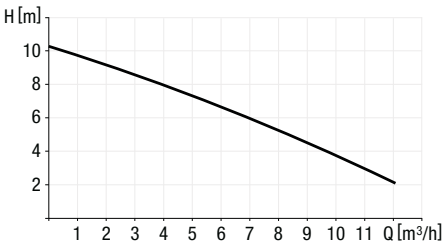
Note:

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


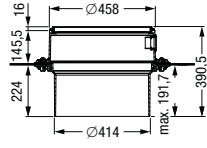

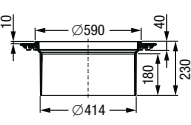

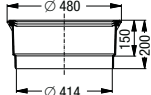


Accessories

Pumpfix F

Extension sections

for installation in a concrete floor

			Art. no.
with centre flange	Additional function: For installation in water-proof 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	 	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



Cable extensions

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

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

Cover plates

for installation in a concrete floor

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

Upper section

for installation in a concrete floor

		Art. no.
Size 220 mm	Version: With flange Extension: Max. 180 mm, height adjustable	83 061

Accessories

Pumpfix F



Hygiene and odour stop

Compatibility see product description

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

Spigot and Socket



for backwater valves

			Outer diameter Ø (mm)	Art. no.
Spigot	Function: Removable		Ø 110 Ø 125 Ø 160 Ø 200*	83 081 83 082 83 083 83 084
Socket	Function: Removable		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.
Audible alarm	Compatibility: For all control units with SDS function Cable length: 20 m		20 162
Access code potential-free contact	Compatibility: 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.

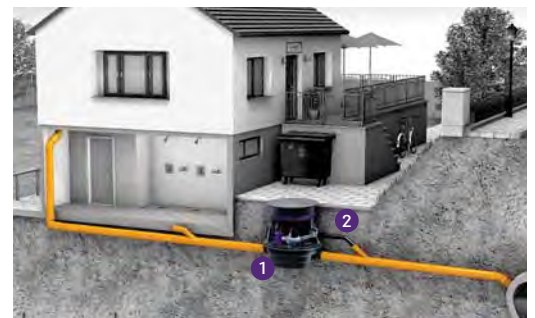
Concentrated power: The *Ecolift XL* is a larger and more powerful version of the *Pumpfix*. This means that the hybrid lifting station is ideally suited to use in commercial buildings and apartment blocks. With a power rating of up to 4.5 kW, the *Ecolift XL* can also reliably pump the wastewater into 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.

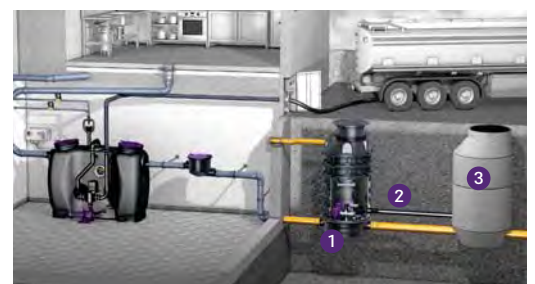


Flexible installation

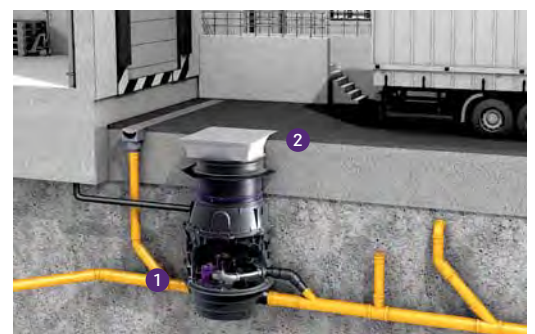
Thanks to the modular construction and the large selection of chamber modules and upper sections, the *Ecolift XL* can be installed as a free-standing set-up on the floor of a building, in the building's concrete floor slab or outdoors underground. The modules are groundwater-resistant to a depth of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

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.



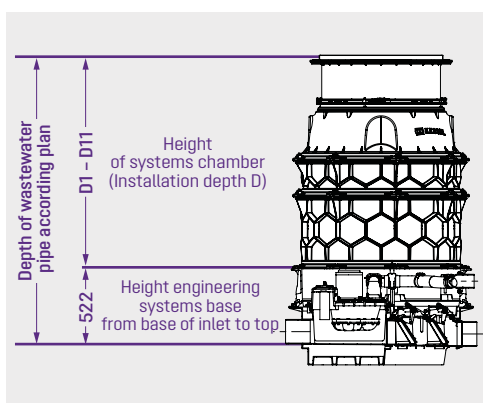
Chamber access opening
Ø 600

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.



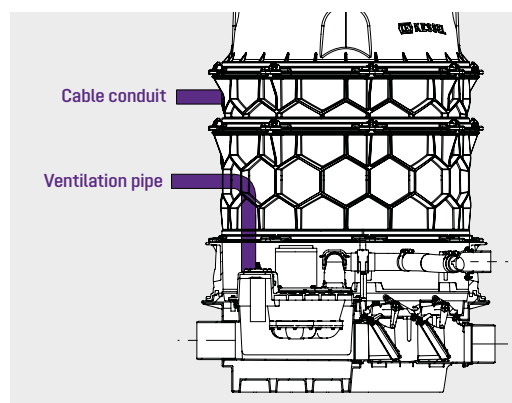
Note: Check the groundwater status.

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:

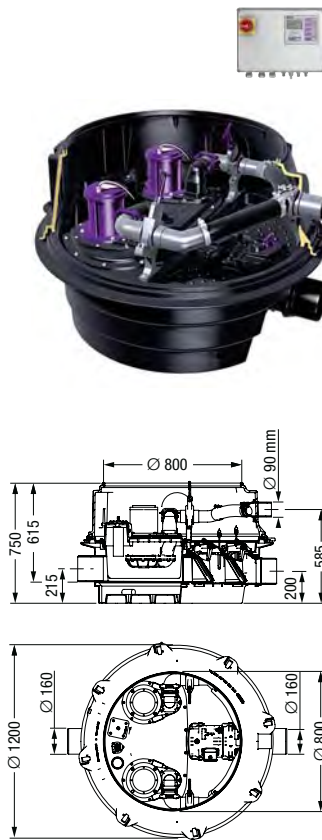
Handles groundwater depths up to 3000 mm

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	874 10 44
1500-S3	400 V	874 10 45
3000-S3	400 V	874 10 46
4500-S3	400 V	874 10 47

With two motor-driven backwater flaps for wastewater with sewage

1400-S3	230 V	874 10 48
1500-S3	400 V	874 10 49
3000-S3	400 V	874 10 50
4500-S3	400 V	874 10 51

Duo version with two pumps

SPF pump	Voltage	Art. no.
----------	---------	----------

With one motor-driven backwater flap for wastewater without sewage

1400-S3	230 V	874 10 60
1500-S3	400 V	874 10 61
3000-S3	400 V	874 10 62
4500-S3	400 V	874 10 63

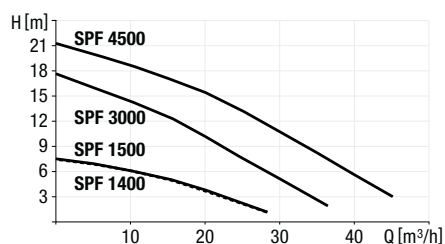
1400-S1	230 V	874 10 64
1500-S1	400 V	874 10 65
3000-S1	400 V	874 10 66
4500-S1	400 V	874 10 67

With two motor-driven backwater flaps for wastewater with sewage

1400-S3	230 V	874 10 68
1500-S3	400 V	874 10 69
3000-S3	400 V	874 10 70
4500-S3	400 V	874 10 71

1400-S1	230 V	874 10 72
1500-S1	400 V	874 10 73
3000-S1	400 V	874 10 74
4500-S1	400 V	874 10 75

Pumping capacity



Pump type

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



Z-53.2-493 ÖNORM B 2501

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.

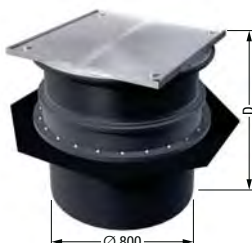
65 – 314

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**

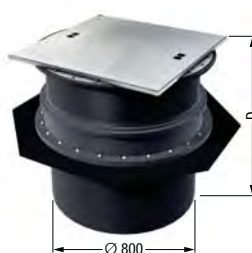
50 – 299

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:

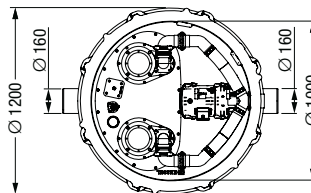
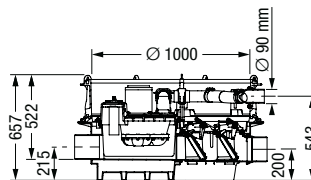
Handles groundwater depths up to 3000 mm

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	874 10 06
1500-S3	400 V	874 10 07
3000-S3	400 V	874 10 08
4500-S3	400 V	874 10 09

With two motor-driven backwater flaps for wastewater with sewage

1400-S3	230 V	874 10 10
1500-S3	400 V	874 10 11
3000-S3	400 V	874 10 12
4500-S3	400 V	874 10 13

Duo version with two pumps

SPF pump Voltage Art. no.

With one motor-driven backwater flap for wastewater without sewage

1400-S3	230 V	874 10 22
1500-S3	400 V	874 10 23
3000-S3	400 V	874 10 24
4500-S3	400 V	874 10 25

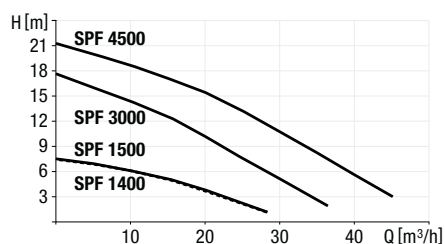
1400-S1	230 V	874 10 26
1500-S1	400 V	874 10 27
3000-S1	400 V	874 10 28
4500-S1	400 V	874 10 29

With two motor-driven backwater flaps for wastewater with sewage

1400-S3	230 V	874 10 30
1500-S3	400 V	874 10 31
3000-S3	400 V	874 10 32
4500-S3	400 V	874 10 33

1400-S1	230 V	874 10 34
1500-S1	400 V	874 10 35
3000-S1	400 V	874 10 36
4500-S1	400 V	874 10 37

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

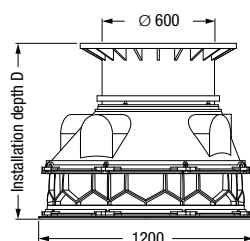
Modular design comprising:

- 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

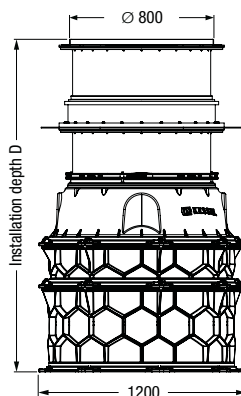
Modular design comprising:

- 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 00 20

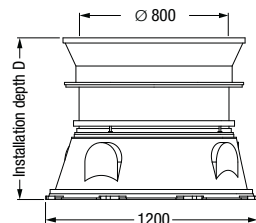


Illustration shows Art. no. 874 01 58

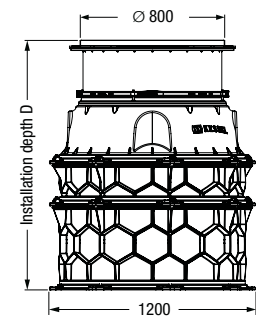


Illustration shows Art. no. 874 00 02

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	Inclusive: 2 access steps, installed Note: Without gasket and connecting wedges	680 371
250 mm	Inclusive: 1 access step, installed Note: Without gasket and connecting wedges	680 370



Gaskets / Connection and attachment set

Compatibility see product description

		Outer diameter Ø (mm)	Art. no.
Cable piping gasket set	Compatibility: Control unit 230 V Inclusive: <ul style="list-style-type: none"> 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
Set of connecting wedges	Compatibility: Art. no. 680 371 and 680 370 Quantity: 10 pieces		680 373
Profiled gasket	Compatibility: Art. no. 680 371 and 680 370		680 125
Cable attachment set	Compatibility: 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.
Cable extension for flap motor(s) (10 m)	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
Cable extension for probe(s) (10 m)	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
Cable extension for pump <i>SPF 1400 S1/S3</i> (10 m)	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*

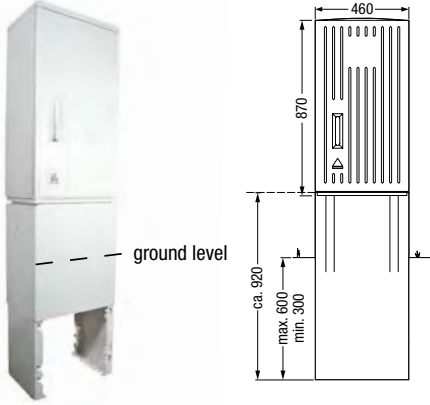
Warning / Alarm / Communication Systems

Compatibility see product description

			Art. no.
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
Audible alarm	Compatibility: For all control units with SDS function Cable length: 20 m		20 162
Warning beacon	Function: 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
Installation set Thermostat / Hygrostat	Function: As an additional module for installation in the outdoor kiosk to reduce condensation		97 713
Air compressor	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

Kiosk for control unit

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

			Height over all in mm	Width / depth in mm	Art. no.
for control unit, heating, warning beacon	Height over ground level: 870 mm		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.

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

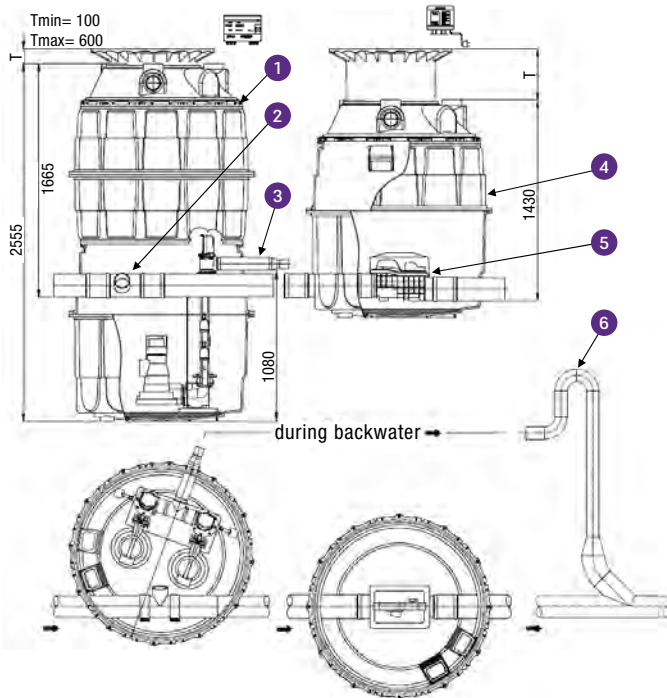
If there is any backwater from the sewer, the sensor system in the backwater valve *Staufix FKA* detects backwater in the drain pipe and closes the motor-driven flap, protecting the building.

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.



- 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

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 m³/h	max. 20.5 m³/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 mm²)	10 m (7×1.5 mm²)

**Please enter the desired values

3. Lifting stations and Pumping stations

For wastewater with and without sewage

Which lifting station or pump station do I need?	94
Lifting station range	98
3.1 Lifting stations (above ground)	100
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

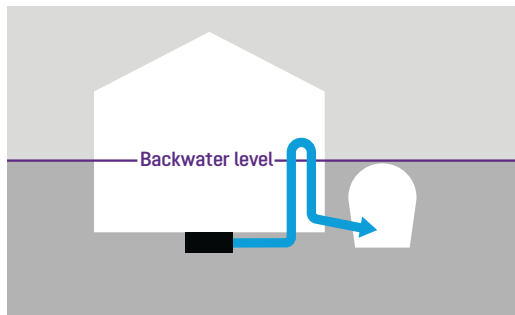
Accessories	125
Lifting station <i>Aqualift S Duo</i> for free-standing installation	128
Accessories	131
Lifting station <i>Aqualift F XL</i>	132
Accessories	136
3.2 Pumping stations (below ground)	140
Planning information	142
Pumping station <i>Aqualift F Basic</i>	144
Accessories	146
Pumping station <i>Aqualift F</i>	148
Pumping station <i>Aqualift S</i>	150
Pumping station <i>Aqualift F XL</i> for minimum installation depth	152
Accessories upper sections	155
Pumping station <i>Aqualift F XL</i>	156

Pumping station <i>Aqualift S XL</i>	160
Accessories engineering system chamber Ø 1000	162
Accessories	164
3.3 Submersible pumps, warning and control units	168
Submersible pump <i>KTP 300</i>	170
Submersible pump <i>GTF 500 / GTF 500 resistant</i>	170
Submersible pump <i>GTF 1000</i>	171
Submersible pump <i>STZ 1000</i>	171
Retrofit kit <i>Aqualift S Duo</i>	172
Retrofit kit <i>Aqualift F XL</i>	173
230 V Comfort control units	174
400 V Comfort control unit	176
Accessories	177

Everything specialists need to know

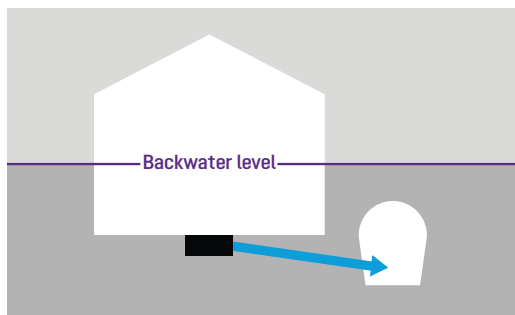
Location of sewer

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

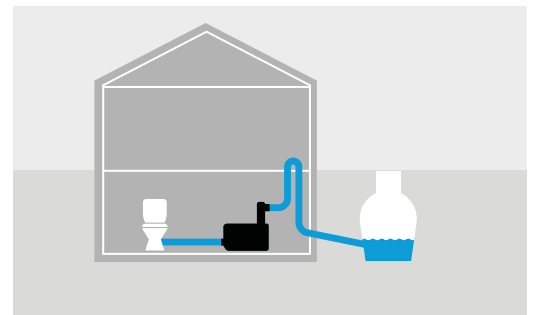


Slope to the sewer

↗ Hybrid lifting stations: Page 68

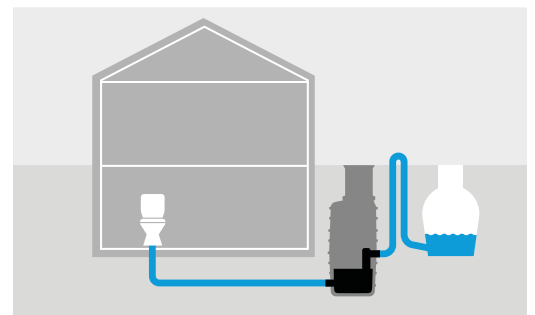
Installation locations

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.

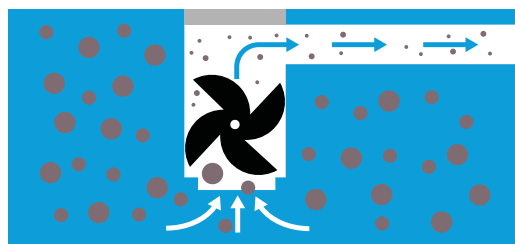
Pump operation classification

KESSEL pumps are classified as S1 or S3 operating duty.

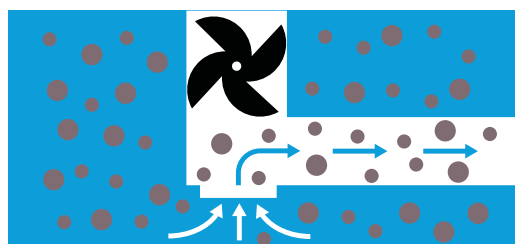
An S1 class pump is a continuous duty pump designed to run without interruption, ideal for rainwater applications or for a continuous industrial wastewater flow.

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.

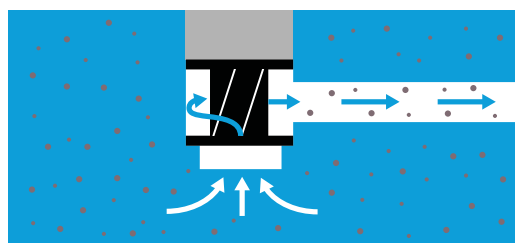
Pump types



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.



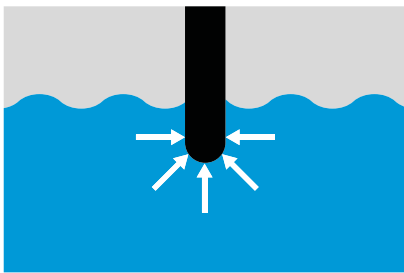
Multi-vane impeller pumps are designed for wastewater with or without raw sewage. A large area inside the pump allows any solids to freely pass into the properly sized pressure pipe without contacting the impeller.



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.

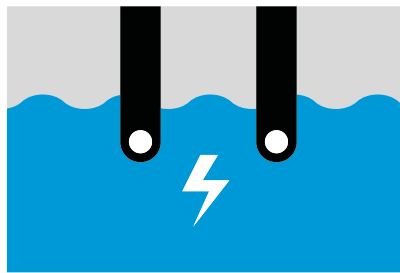
Level sensors/probes and alarm probes

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).



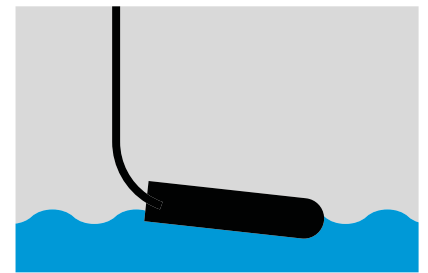
Pressure sensor

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.



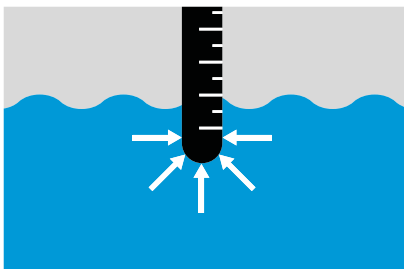
Conductance probe

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.



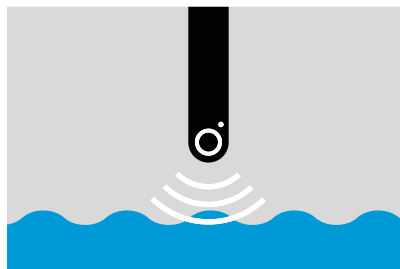
Float switch

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



New



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



New



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

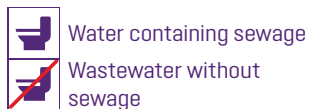


Pumping station
Aqualift S XL

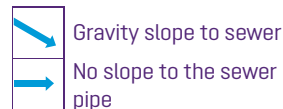
➤ Page 160



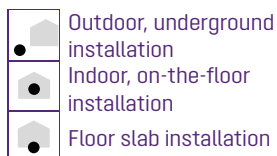
Type of wastewater



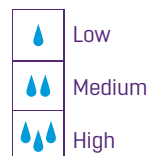
Position relative to sewage pipe



Installation situation



Wastewater quantity



3.3 Submersible pumps, conversions and control units



Submersible pump
KTP

➤ Page 170



Submersible pump
GTF

➤ Page 170



New



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 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

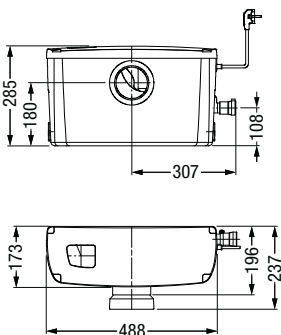


Plug-and-play sewage lifting station with macerator for wastewater disposal from a single toilet.

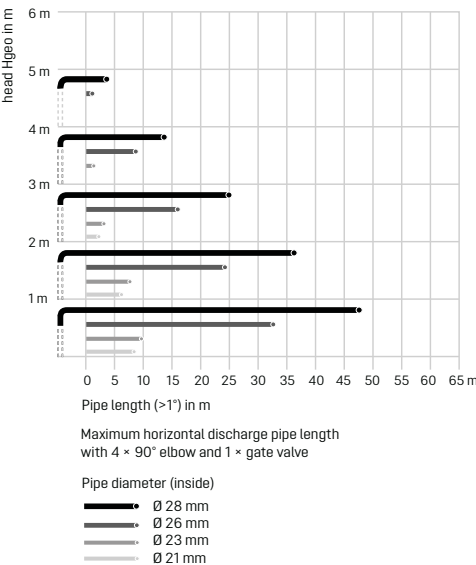
For free-standing set-up.

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*

New
product

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.

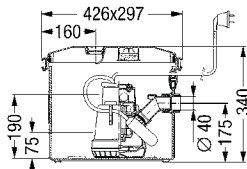
Lifting station *Minilift S* for free-standing installation



Wastewater lifting station made of polymer for above ground installation.

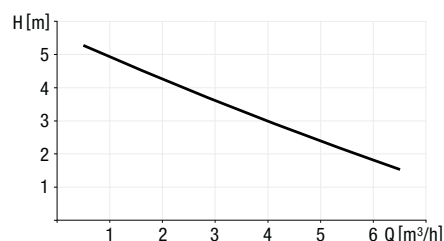
With removable, float switch controlled pump and backwater flap. Pressure connection: 1 1/2 inch outer thread or pressure pipe Ø 40 mm for PVC glued connection. With activated carbon filter
Power cable length: 5 m

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 ⁻¹	integrated	Schuko	10 mm	6.2 m	180 mm	80 mm

*Definition of S1-pumps see page 95



CE EN 12050-2

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smartselect.kessel.com



Lifting station *Minilift S*

For installation in a concrete floor/slab



Pump volume: 7 liters

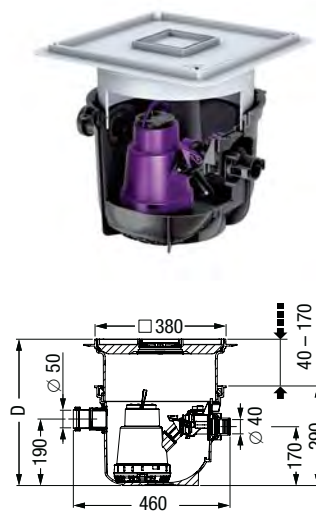
Polyethylene storage chamber for installation in a concrete slab/floor, installation depth (D) 330 to 460 mm, with lateral inlet Ø 50 mm. Installation area 600 × 600 mm.

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.

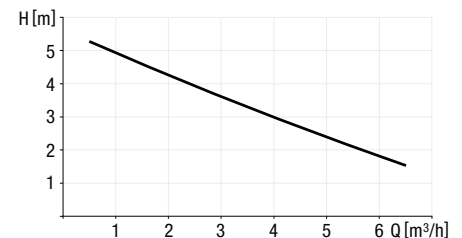
Pump

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	280 570X
With black cover		
300-S1	230 V	280 570S

Pumping capacity



Pump type	Power P1 / P2	Voltage	Amperage	RPM	Plug	Cable length	Pumping height	Pumping capacity
KTP 300-S1*	0.34 kW / 0.21 kW	230 V ~ 50 Hz	1.6 A	2800 min ⁻¹	Schuko	5 m	6 m	8 m³/h

*Definition of S1-pumps see page 95



CE EN 12050-2

Always the right choice: ☐ ☐ ☒ ☐
smartselect.kessel.com

Accessories

Minilift S

Alarm unit

for lifting station *Minilift S*

Art. no.

with electrode probe

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



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

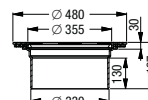
Extension section

for installation in a concrete floor

Art. no.

for deeper installation with flange

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



830 070

Accessories

Minilift S

Cover plates

for installation in a concrete floor

			Cover	Art. no.
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	830 052
			black	830 050

Hygiene and odour stop

Compatibility see product description

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

Pressure pipe set

for lifting station *Minilift S*

			Art. no.
Pressure pipe set	Compatibility: Art. no. 280 570S and 280 570X Inclusive: 5 m pressure pipe hose Ø 40		28 040

Inlet adaptor

Compatibility see product description

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

Hole saw

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

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

Sealing

for installation in a concrete floor

			Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
Pipe sealing gasket	Drill size: Ø 50: 60 mm Ø 75: 92 mm		DN 50	Ø 50	850 114
			DN 70	Ø 75	850 116

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

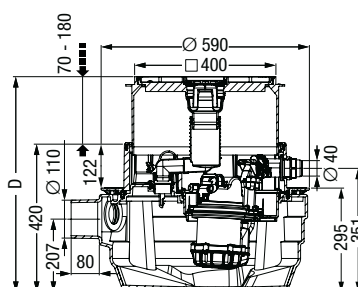
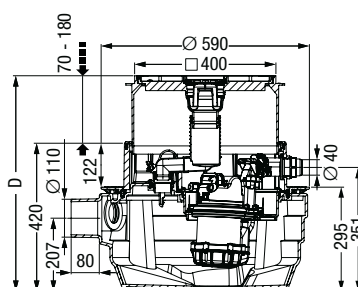
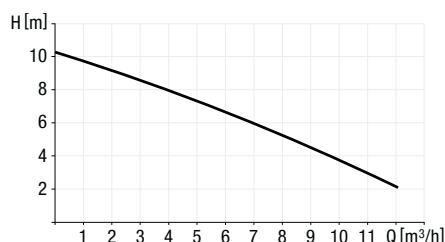


Illustration shows Duo version 28 704-C



Pumping capacity



Pump type

Current type

Voltage

Current

Motor rating P1/P2

RPM

Motor protection

Pumping height

Pumping capacity

SPZ 1000-S3-30%*

Alternating current

230 V

4.9 A

1080 W / 620 W

2800 min⁻¹

integrated

max. 9.5 m

10.9 m³/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 Ø 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 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 28 711-C

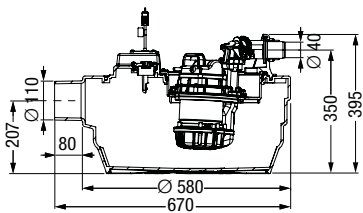
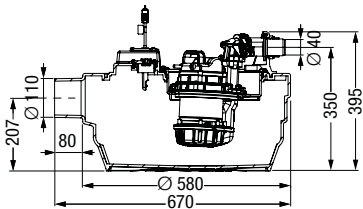
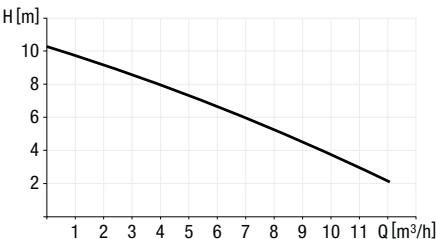


Illustration shows Duo version 28 743-C



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 ⁻¹	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

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

			Art. no.
Hair filter	Compatibility: Art. no. 83 045 and 83 046	 	43 700

Transition section

for installation in a concrete floor

			Outer diameter Ø (mm)	Art. no.
Transition section	Inclusive: Ø 110 socket / Ø 75 spigot for use as connection piece, gasket	 	Ø 75/110	27 602


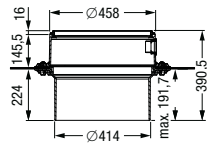

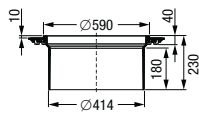

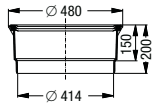
Pressure pipe set

for lifting station *Aqualift F Compact*

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

Extension sections

for installation in a concrete floor

			Art. no.
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	 	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

Accessories

Aqualift F Compact

Alarm unit

for lifting station *Aqualift F Compact*

		Art. no.
with electrode probe	Function: High water / flood alarm system; for conductive liquids Cable length: 5 m (extendable up to 30 m)	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

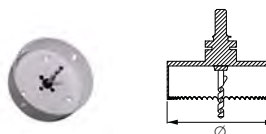
Compatibility see product description

		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



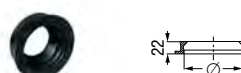
Hole saw

		Outer pipe diameter in mm	Drill size in mm	Art. no.
Hole saw set	Inclusive: 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.
Pipe sealing gasket	Drill size: 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



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 <i>TeleControl</i> 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 F Compact

Retrofit kit

for lifting station Aqualift F Compact

Alarm float switch

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



Art. no.

28 016

Cable extensions

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

	Lifting station Aqualift F Compact Mono	Lifting station Aqualift F Compact Duo		Art. no.
Cable extension for probe (10 m)	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
Cable extension for pump (10 m)	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 Ø 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 Ø 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.

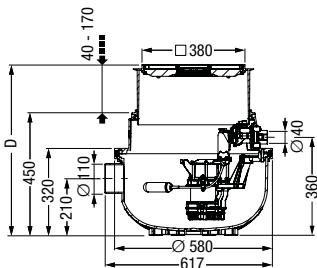
Power cable length: 5 m

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

➤ **Accessories:** page 115

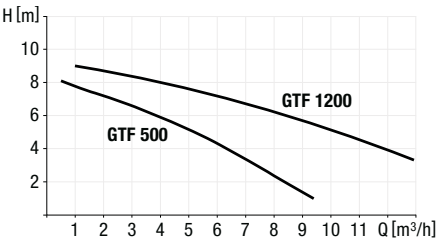


Illustration shows Art. no. 280 500X



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

Pumping capacity



Pump type	Voltage	Amperage	Power P1/P2	RPM	Pumping height	Pumping capacity
GTF 500-S1*	230 V ~ 50 Hz	2.5 A	0.5 kW / 0.36 kW	2800 min ⁻¹	8 m	10 m³/h
GTF 1200-S3*	230 V ~ 50 Hz	6.2 A	1.4 kW / 0.84 kW	2650 min ⁻¹	9 m	15.5 m³/h

*Definition of S1 and S3-pumps see page 95



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 Ø 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 Ø 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

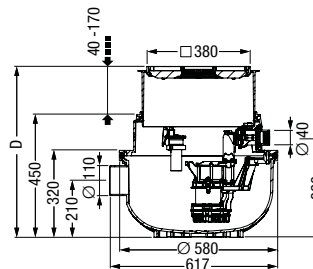
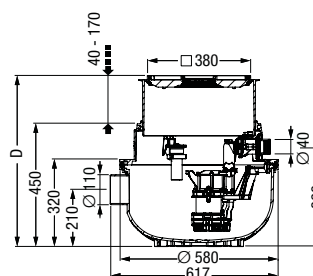


Illustration shows Art. no. 280 550XC



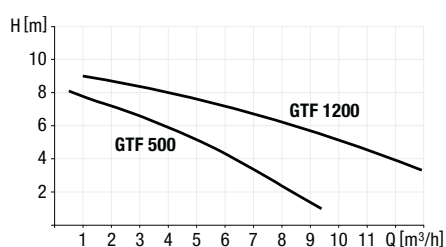
Mono version with one pump

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

Duo version with two pumps

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

Pumping capacity



Pump type	Voltage	Amperage	Power P1/P2	RPM	Pumping height	Pumping capacity
GTF 500-S1*	230 V ~ 50 Hz	2.5 A	0.5 kW / 0.36 kW	2800 min ⁻¹	8 m	10 m³/h
GTF 1200-S3*	230 V ~ 50 Hz	6.2 A	1.4 kW / 0.84 kW	2650 min ⁻¹	9 m	15.5 m³/h

*Definition of S1 and S3-pumps see page 95



CE EN 12050-2

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Accessories

Aqualift S Compact

Hygiene and odour stop

for lifting station *Aqualift S Compact*

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

Cover plates

for installation in a concrete floor

			Cover	Art. no.
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 black	830 052 830 050

Inlet adaptor

for lifting station *Aqualift S Compact*

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

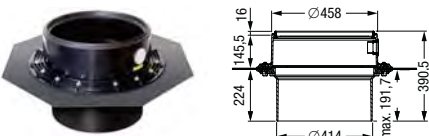
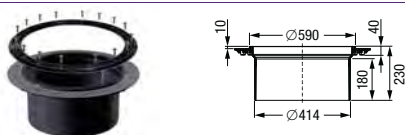

Pressure pipe set

for lifting station *Aqualift S Compact*

			Outer diameter Ø (mm)	Art. no.
Pressure pipe set	Inclusive: 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.
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		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

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

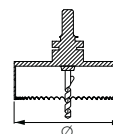


80 072

Hole saw

Hole saw set

Inclusive: Saw blade holder



Outer pipe diameter in mm
Drill size in mm

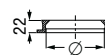
Art. no.

Ø 50	60	500 101
Ø 75	92	
Ø 110	121	

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.
Cable extension for probe (10 m)	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
Cable extension for pump (10 m)	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 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 m³ 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.

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 Ø 50/110 mm. Two additional Ø 110 mm inlet connections at both sides. With Ø 75 mm vent connection. Connection coupling for emergency diaphragm pump Ø 32 mm.

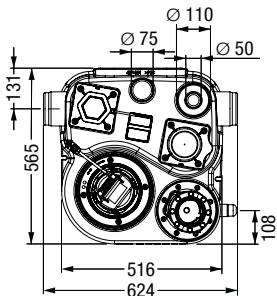
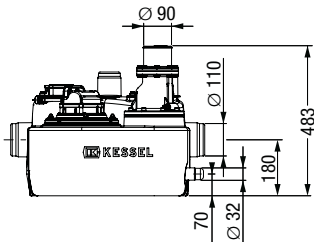
Pump
SPF 1300 pump for wastewater with or without sewage, float switch controlled (level and alarm) with multi-vane impeller. Open channel passage 40 mm. Pump is rated submersible. Pump cable length 5 m. Including back-water preventer, with plastic spigot pressure outlet Ø 90 mm including elastic hose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

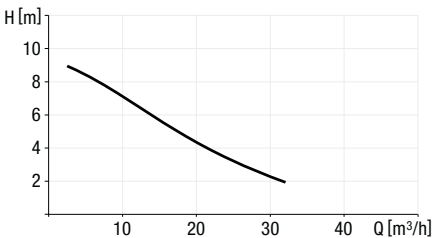
➤ **Accessories:** page 120



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 mm²	40°C	approx. 24 kg	IP 54	2.900	32 m³/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.
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		Ø 90	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

Connection flange

for KESSEL plastic fittings

			Outer diameter Ø (mm)	Art. no.
Connection flange	Function: Spigot end for DN 100 pressure pipe connection Compatibility: 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.
Flexible pressure pipe connection	Inclusive: Two hose clamps Length: 200 mm		Ø 110	28 663

Hole saw

			Outer pipe diameter in mm	Drill size in mm	Art. no.
Hole saw set	Inclusive: 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.
Pipe sealing gasket	Drill size: 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

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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.

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 Ø 110 and ventilation Ø 75,
connection coupling for manual diaphragm pump
Ø 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 Ø 110 with hose section.

Pressure outlet:

vertical Ø 110 without closure valve or
horizontal Ø 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

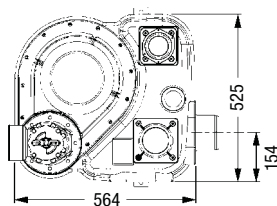
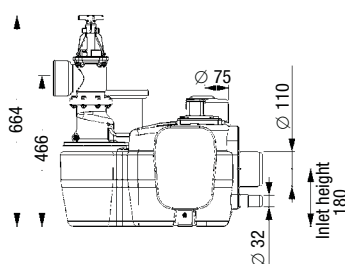
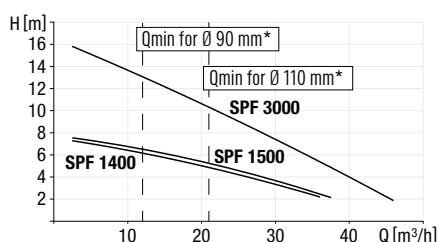


Illustration shows Art. no. 28 648-C

Mono version with one pump

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

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 ²	40°C	23 kg	IP 68	1.370	38 m ³ /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 ²	40°C	24 kg	IP 68	1.415	40 m ³ /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 ²	40°C	24 kg	IP 68	2.845	47 m ³ /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 Ø 110 and ventilation Ø 75, connection coupling for manual diaphragm pump Ø 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 Ø 110 with hose section.

Pressure outlet:

vertical Ø 110 without closure valve or horizontal Ø 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

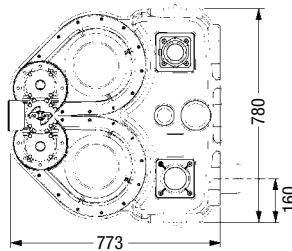
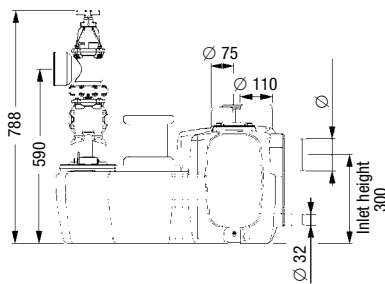
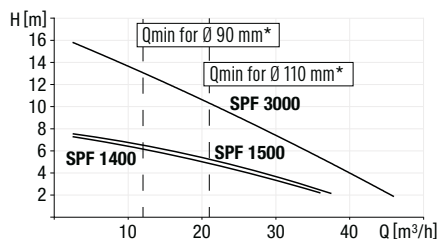


Illustration shows Art. no. 28 629-C

Duo version with two pumps

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

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 mm²	40°C	23 kg	IP 68	1.370	38 m³/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 mm²	40°C	24 kg	IP 68	1.415	40 m³/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 mm²	40°C	24 kg	IP 68	2.845	47 m³/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.
Audible alarm	Compatibility: For all control units 230 V not for warning devices Art. no. 20 222 and 20 223 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

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

Hole saw

		Outer pipe diameter in mm	Drill size in mm	Art. no.
Hole saw set	Inclusive: 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 ¹⁾	200	500 102

1) use a power drill with at least 1000 watts

Sealing

		Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
Pipe sealing gasket	Drill size: 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.
Closure valve	Compatibility: With lateral pressure pipe for lifting stations <i>Aqualift F</i>		Ø 100	28 682
			Ø 110	28 683

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

Compatibility see product description

			Outer diameter Ø (mm)	Art. no.
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 adapter is required. Inclusive: Gasket, screw		Ø 90	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

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

Flexible pressure pipe connection

for PE pipe connections

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

Upgrade set

Compatibility see product description

			Art. no.
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		28 015

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

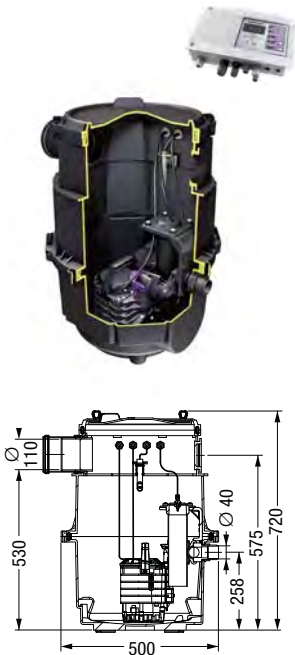
with multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook, IP 54 splash proof control unit housing, for wall mounting, operational voltage - 230 V DC, with potential free contact (BMS) connections. Pressure connection: 1 1/2 inch outer thread 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.

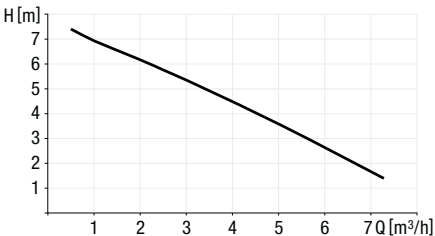
➤ Accessories: page 131



Duo version with two pumps

KTP pump	Voltage	Art. no.
500-S1	230 V	28 541-C

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 ⁻¹	integrated	25 kg	530 mm	720 mm	max. 8 m

*Definition of S1-pumps see page 95

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

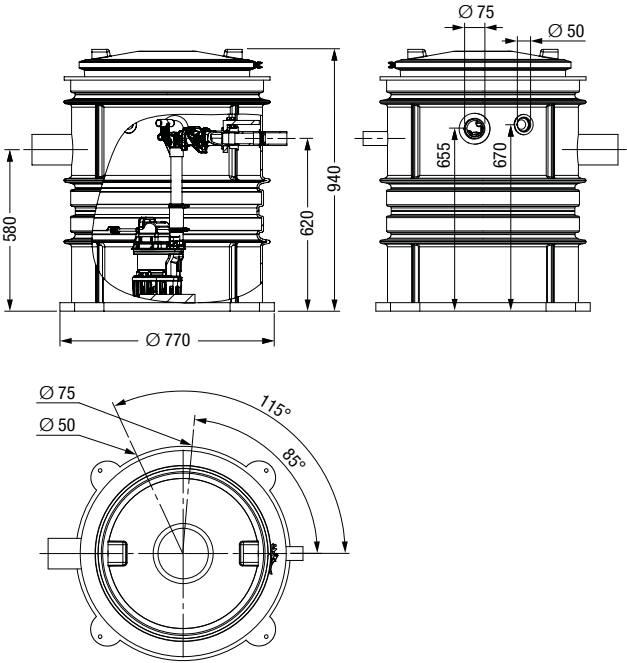
➤ **Accessories:** page 131



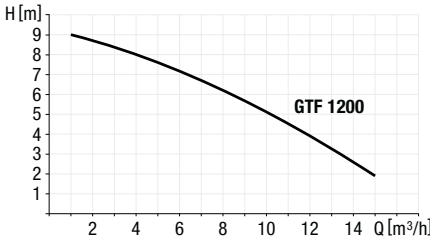
Duo version with two pumps

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.
Audible alarm	Compatibility: For all control units 230 V not for warning devices Art. no. 20 222 and 20 223 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

Alarm unit

Compatibility see product description

		Art. no.
with electrode probe	Function: High water / flood alarm system; for conductive liquids Cable length: 5 m (extendable up to 30 m)	 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

Non-return flap

Compatibility see product description

		Art. no.
Non-return flap	Compatibility: Art. no. 28 541-C	 27 207

Hole saw

		Outer pipe diameter in mm	Drill size in mm	Art. no.
Hole saw set	Inclusive: 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.
Pipe sealing gasket	Drill size: 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.
Cable extension for probe (10 m)	Extension to 15 m: 1×80 889 Extension to 25 m: 2×80 889	 80 889
Cable extension for pump (10 m)	Extension to 15 m: 2×80 891 Extension to 25 m: 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*

Always the right choice: smartselect.kessel.com

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 Ø 50 to Ø 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 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 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 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

Pumping capacity

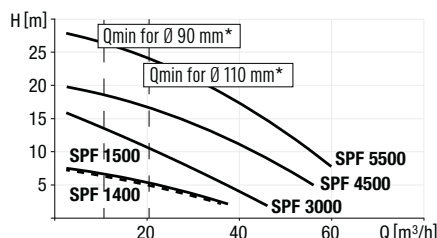


Illustration shows Duo version with plastic closure valve

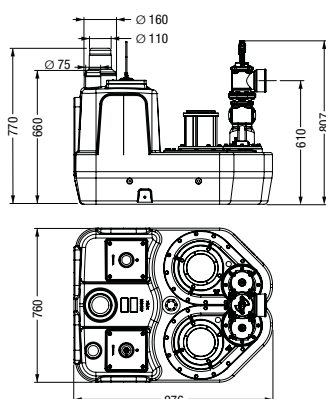
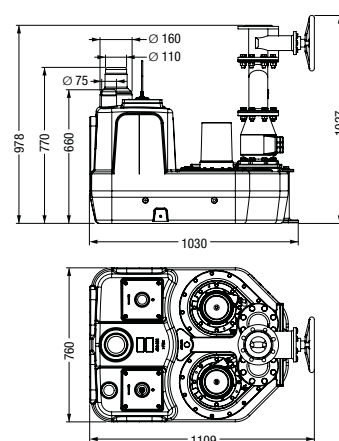


Illustration shows Duo version with cast iron closure valve



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

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



CE EN 12050-1

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 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).

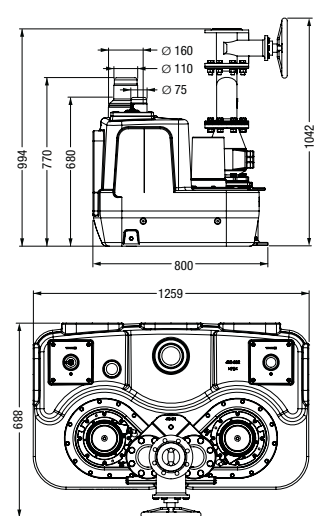
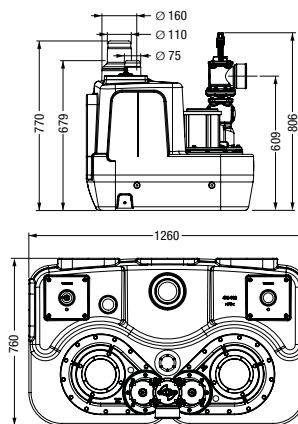
➤ **Accessories:** page 136



Illustration shows Duo version with plastic closure valve



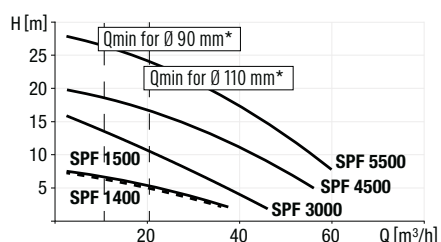
Illustration shows Duo version with cast iron closure valve



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	11 078	-	11 080
1400-S1	230 V	11 090	11 091	-
1500-S1	400 V	11 100	11 101	-
3000-S1	400 V	11 110	11 111	11 113
4500-S1	400 V	11 123	-	11 124

Pumping capacity



Pump type

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



CE EN 12050-1

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

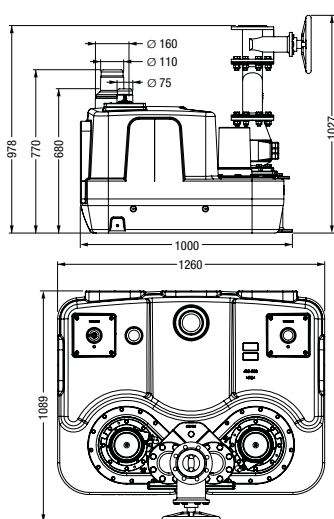
Comfort control unit

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



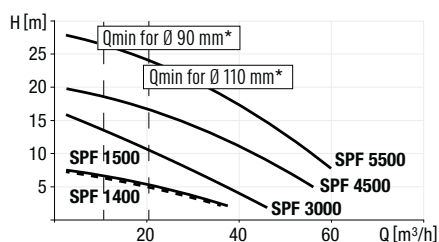
Illustration shows Duo version with cast iron closure valve



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.
Audible alarm	Compatibility: For all control units 230 V not for warning devices Art. no. 20 222 and 20 223 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



Safety

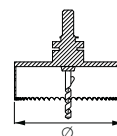
Compatibility see product description

		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



Hole saw

		Outer pipe diameter in mm	Drill size in mm	Art. no.
Hole saw set	Inclusive: 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 ¹⁾	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.
for PE pipe connections	Inclusive: Two hose clamps Length: 200 mm	Ø 90	28 662
		Ø 110	28 663
for cast iron pipe connections	Inclusive: Two hose clamps Length: 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 adapter 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



Ø 118

28 072

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

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

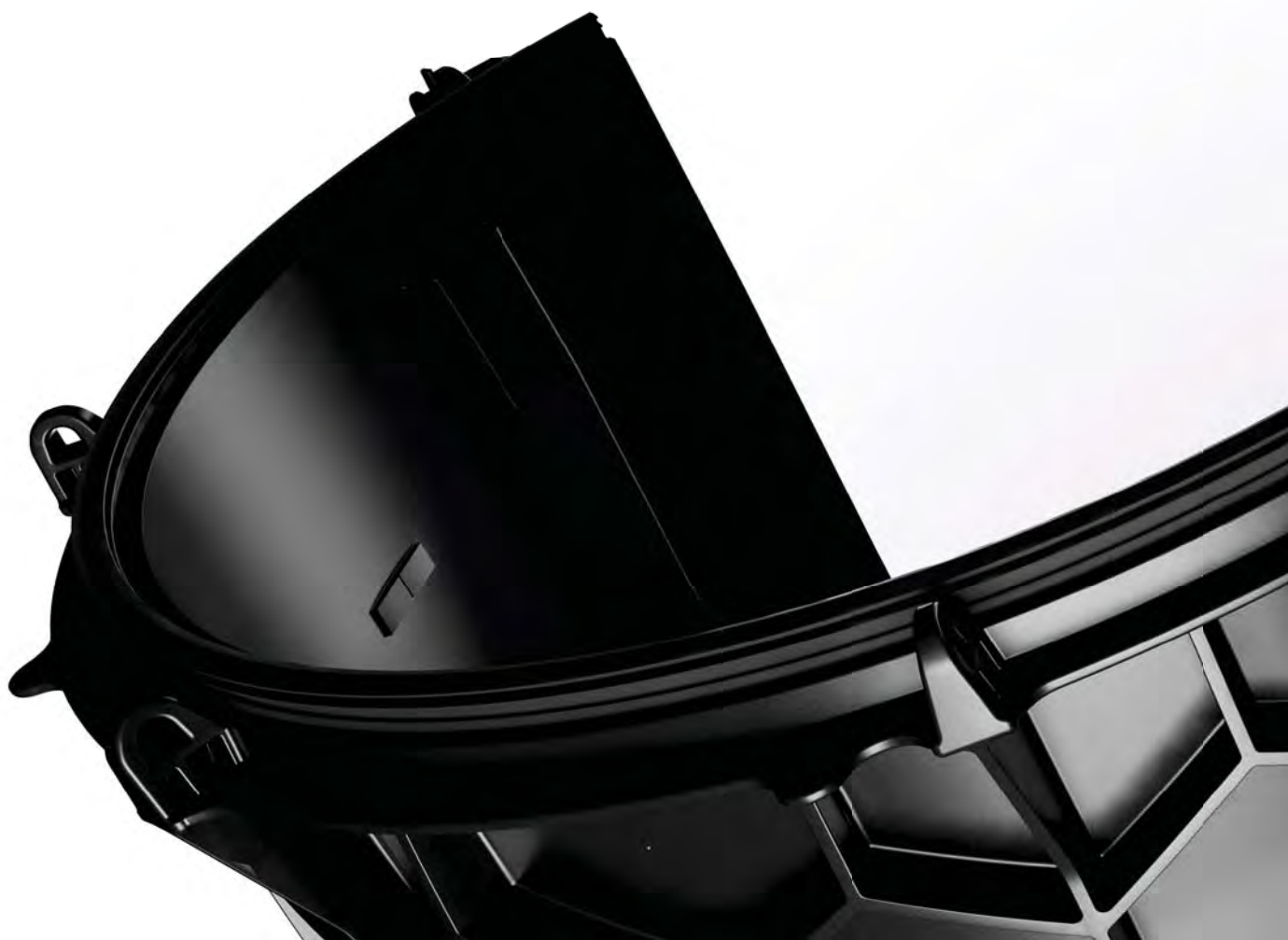
28 043

DN 100

28 044

3.2 Pumping stations

For installation in a floor slab
or underground






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

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).



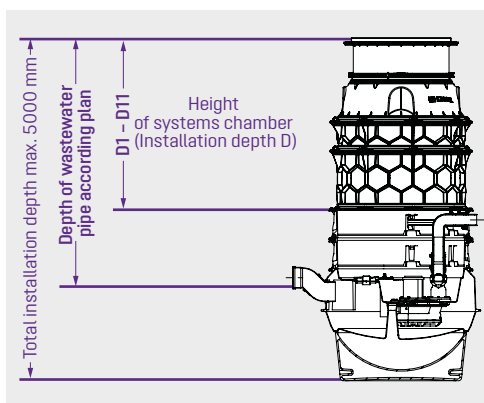
Inlet Ø 600

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.



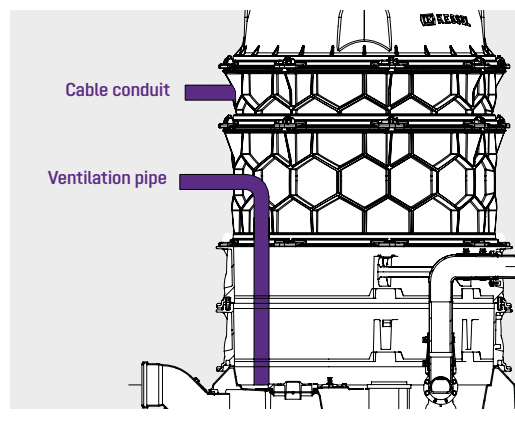
Subtract the height of the system base (height from top to the lower edge of the inlet) from the inlet depth taken from the drainage plan and you have the height of the required engineering chamber. Now you can select a module with the corresponding height and the required cover from the article list. 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).



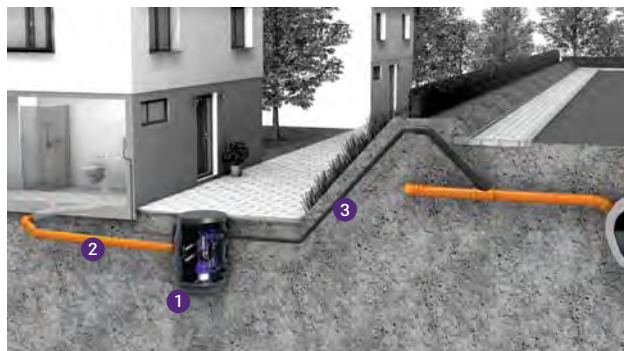
➤ **Optional cable conduit sealing kit:** Page 164

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

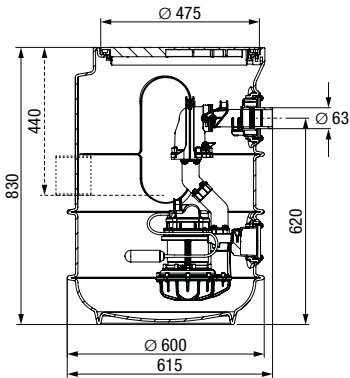


Illustration shows Mono version Art. no. 829 710

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 ⁻¹	21 m ³ /h	max. 10 m

*Definition of S3-pumps see page 95

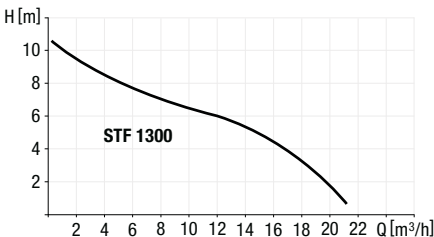
Mono version with one pump

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



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

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.

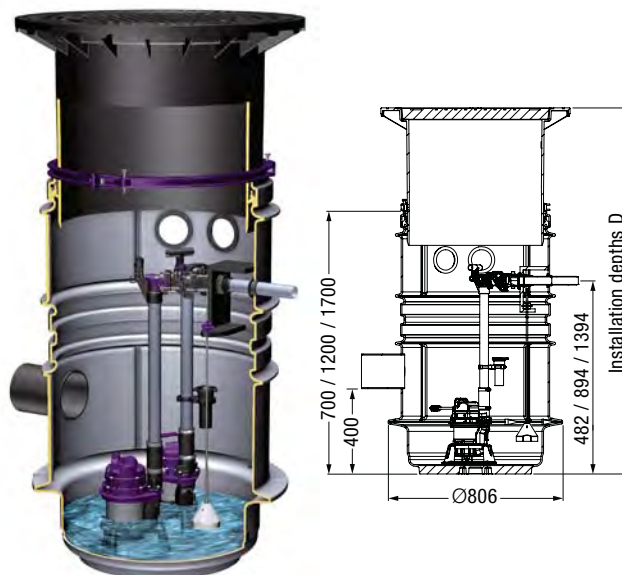
Pressure pipe Ø 40 mm (version B/D) or Ø 40/63 mm (version A) outside diameter for PVC glue connection, with integrated non-return flap. Power cable length: 10 m (Schuko)

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:

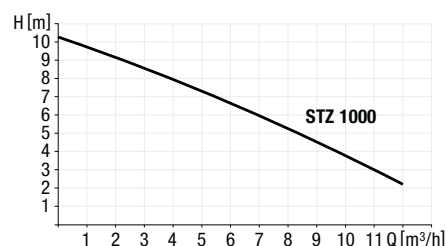
- Consider frost free depth of pressure pipe.
- For installations without explosion proof requirements.



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 ⁻¹	integrated	IP 68	11.5 m ³ /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	827 710A
1000	1300 - 1750	827 720A
1000	1800 - 2250	827 730A
Cover class B		
1000	800 - 1250	827 710B
1000	1300 - 1750	827 720B
1000	1800 - 2250	827 730B
Cover class D		
1000	800 - 1250	827 710D
1000	1300 - 1750	827 720D
1000	1800 - 2250	827 730D

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	827 711A
1000	1300 - 1750	827 721A
1000	1800 - 2250	827 731A
Cover class B		
1000	800 - 1250	827 711B
1000	1300 - 1750	827 721B
1000	1800 - 2250	827 731B
Cover class D		
1000	800 - 1250	827 711D
1000	1300 - 1750	827 721D
1000	1800 - 2250	827 731D

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

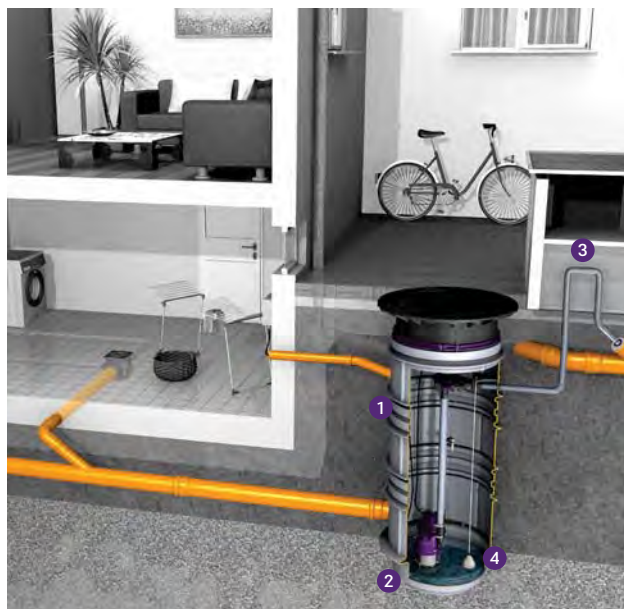
STZ pump	Installation depths D in mm	Art. no.
Cover class A		
1000	800 - 1250	826 711A
1000	1300 - 1750	826 721A
1000	1800 - 2250	826 731A
Cover class B		
1000	800 - 1250	826 711B
1000	1300 - 1750	826 721B
1000	1800 - 2250	826 731B
Cover class D		
1000	800 - 1250	826 711D
1000	1300 - 1750	826 721D
1000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

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.

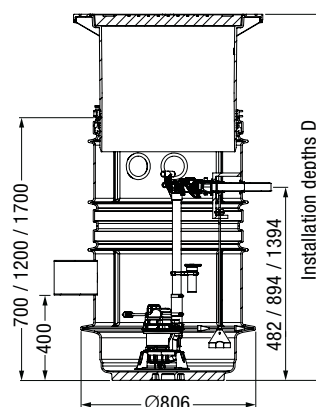
Installation: Handles groundwater depths up to 2500 mm

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)

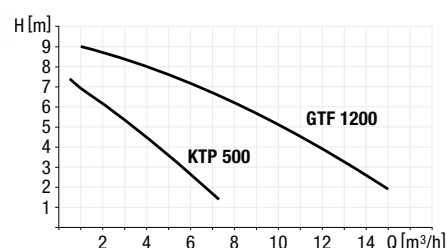
Control unit

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
KTP 500-S1*	Alternating current	230 V	2.12 A	480 W / 310 W	2.800 min ⁻¹	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 ⁻¹	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	825 810B
KTP 500	1300 - 1750	825 820B
KTP 500	1800 - 2250	825 830B
GTF 1200	800 - 1250	827 810B
GTF 1200	1300 - 1750	827 820B
GTF 1200	1800 - 2250	827 830B
Cover class D		
KTP 500	800 - 1250	825 810D
KTP 500	1300 - 1750	825 820D
KTP 500	1800 - 2250	825 830D
GTF 1200	800 - 1250	827 810D
GTF 1200	1300 - 1750	827 820D
GTF 1200	1800 - 2250	827 830D

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	825 811B
KTP 500	1300 - 1750	825 821B
KTP 500	1800 - 2250	825 831B
GTF 1200	800 - 1250	827 811B
GTF 1200	1300 - 1750	827 821B
GTF 1200	1800 - 2250	827 831B
Cover class D		
KTP 500	800 - 1250	825 811D
KTP 500	1300 - 1750	825 821D
KTP 500	1800 - 2250	825 831D
GTF 1200	800 - 1250	827 811D
GTF 1200	1300 - 1750	827 821D
GTF 1200	1800 - 2250	827 831D

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

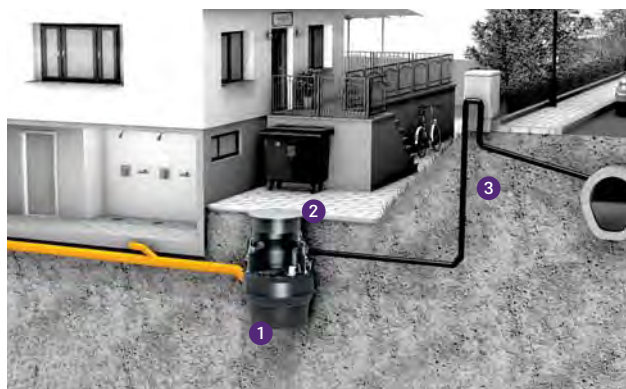
Pump	Installation depths D in mm	Art. no.
Cover class A/B		
KTP 500	800 - 1250	824 811B
KTP 500	1300 - 1750	824 821B
KTP 500	1800 - 2250	824 831B
GTF 1200	800 - 1250	826 811B
GTF 1200	1300 - 1750	826 821B
GTF 1200	1800 - 2250	826 831B
Cover class D		
KTP 500	800 - 1250	824 811D
KTP 500	1300 - 1750	824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

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

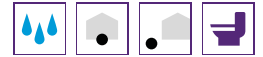
available in ATEX version



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

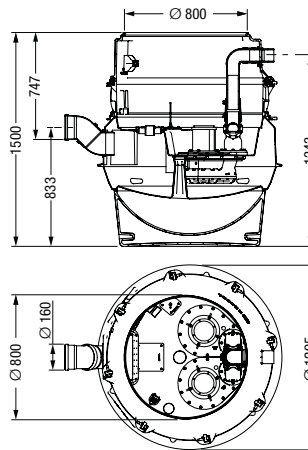
Polyethylene system base for underground installation, resistant to aggressive media. With Ø 160 mm inlet. For connection to Ø 800 mm upper sections. Handles groundwater depths up to 3000 mm.

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	874 20 12
1500-S3	400 V	874 20 13
3000-S3	400 V	874 20 14
4500-S3	400 V	874 20 15

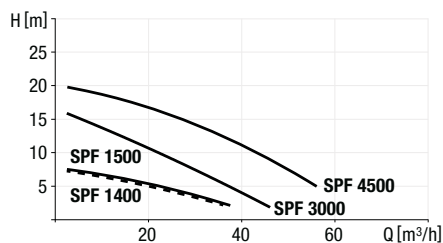
Duo version with two pumps

SPF pump	Voltage	Art. no.
1400-S3	230 V	874 20 16
1500-S3	400 V	874 20 17
3000-S3	400 V	874 20 18
4500-S3	400 V	874 20 19
1400-S1	230 V	874 20 20
1500-S1	400 V	874 20 21
3000-S1	400 V	874 20 22
4500-S1	400 V	874 20 23

Engineering systems base *Aqualift F XL* in combination with an upper section Ø 800



Pumping capacity



Pump type

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

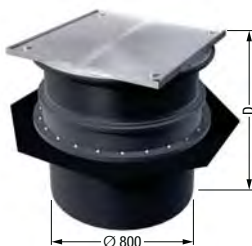
Class A/L 15

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

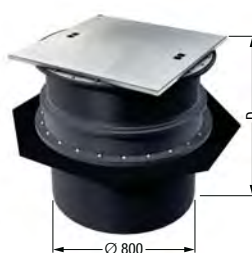
Class A/L 15

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.

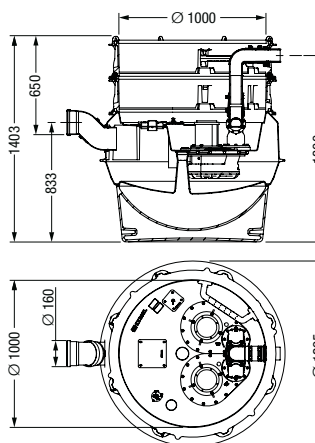
With Ø 160 mm inlet. For connection to Ø 1000 mm system chamber. Handles groundwater depths up to 3000 mm.

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	874 20 00
1500-S3	400 V	874 20 01
3000-S3	400 V	874 20 02
4500-S3	400 V	874 20 03

Duo version with two pumps

SPF pump	Voltage	Art. no.
1400-S3	230 V	874 20 04
1500-S3	400 V	874 20 05
3000-S3	400 V	874 20 06
4500-S3	400 V	874 20 07
1400-S1	230 V	874 20 08
1500-S1	400 V	874 20 09
3000-S1	400 V	874 20 10
4500-S1	400 V	874 20 11

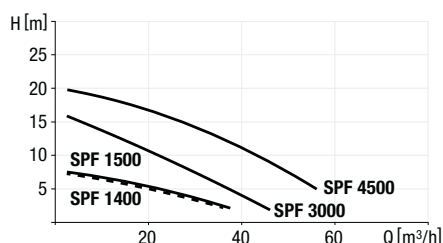
Engineering systems base *Aqualift F XL*
in combination with system chamber Ø 1000

Access opening Ø 600

Access opening 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



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Engineering systems base *Aqualift F XL Mono/Duo*
Wet installation, with macerator / cutting pumps



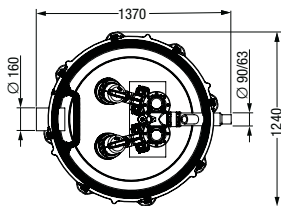
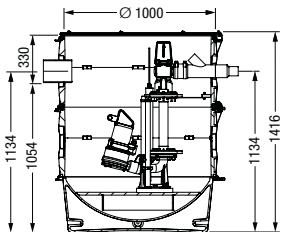
Tank volume: 680 liters
Pump volume: max. 310 liters

Polyethylene system base for underground installation, resistant to aggressive media. With 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 for wastewater with or without sewage. With 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 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

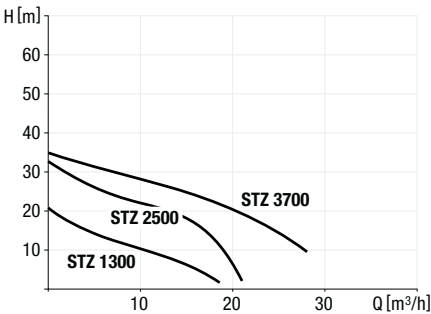
Engineering systems base *Aqualift F XL*
in combination with system chamber Ø 1000

Access opening Ø 600

Access opening Ø 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.

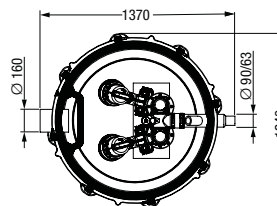
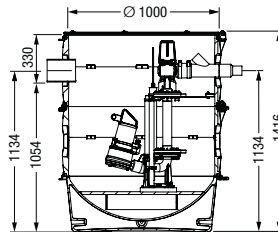
Power cable length: 10 m (30 m on request).

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	874 30 32
1400-S1	340	230 V	874 30 33
1600-S1	350	400 V	874 30 20
2600-S1	350	400 V	874 30 21
4000-S1	350	400 V	874 30 22

GTK pump	Pumping volume in liters	Art. no.
1300-S1	350	874 30 26
2600-S1	350	874 30 27
3700-S1	350	874 30 28

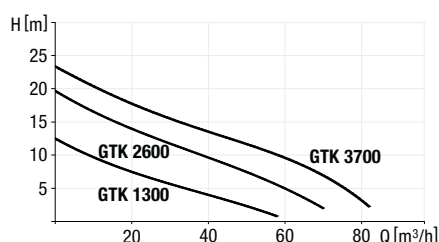
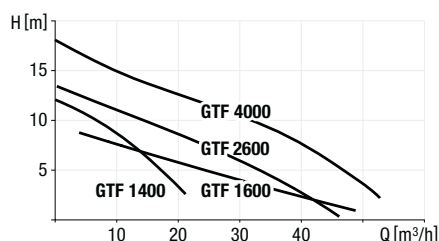
Duo version with two pumps

GTF pump	Pumping volume in liters	Voltage	Art. no.
1400-S1	340	230 V	874 30 34
1600-S1	340	400 V	874 30 23
2600-S1	340	400 V	874 30 24
4000-S1	340	400 V	874 30 25

GTK pump	Pumping volume in liters	Art. no.
1300-S1	340	874 30 29
2600-S1	340	874 30 30
3700-S1	340	874 30 31

** Version with float switch

Pumping capacity



Pump type

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

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)

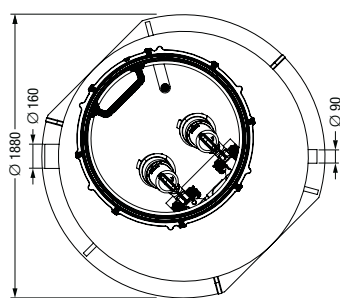
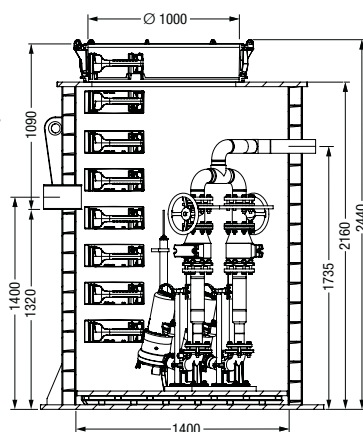
for wastewater with or without sewage (without ATEX requirements). With hydrostatic sensor for level measurement. Pressure pipe Ø 90 mm outside diameter (welded PE pipe is to be used for the pressure pipe), including backflow preventer and closure valve on pressure pipe side. Power cable length: 10 m (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	874 30 35
5200-S1	820	400 V	874 30 36
7500-S1	820	400 V	874 30 37
11000-S1	820	400 V	874 30 38

GTF pump	Pumping volume in liters	Voltage	Art. no.
5200-S1	900	400 V	874 30 43

GTK pump	Pumping volume in liters	Voltage	Art. no.
5200-S1	900	400 V	874 30 45

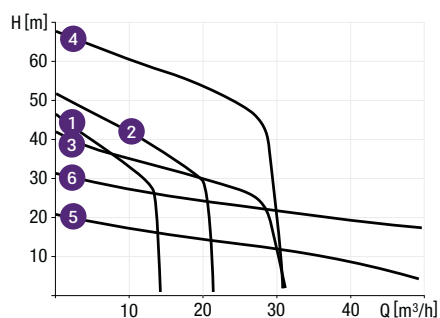
Duo version with two pumps

STZ pump	Pumping volume in liters	Voltage	Art. no.
4400-S1	800	400 V	874 30 39
5200-S1	800	400 V	874 30 40
7500-S1	800	400 V	874 30 41
11000-S1	800	400 V	874 30 42

GTF pump	Pumping volume in liters	Voltage	Art. no.
5200-S1	880	400 V	874 30 44

GTK pump	Pumping volume in liters	Voltage	Art. no.
5200-S1	880	400 V	874 30 46

Pumping capacity



Pump type

	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
1 STZ 4400-S1*	400 V	7.5 A	4.4 kW	3.7 kW	21.3 m³/h	46.7 m
2 STZ 5200-S1*	400 V	8.7 A	5.2 kW	4.4 kW	21.3 m³/h	52 m
3 STZ 7500-S1*	400 V	13 A	7.5 kW	6.4 kW	30.7 m³/h	42 m
4 STZ 11000-S1*	400 V	18.8 A	11 kW	9.5 kW	30.6 m³/h	68 m
5 GTF 5200-S1*	400 V	8.7 A	5.2 kW	4.4 kW	52.8 m³/h	21 m
6 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:

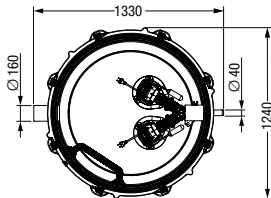
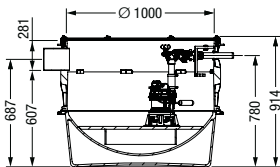
- pump station *Aqualift S XL Mono / Duo* with welded on chamber ring
- inlet Ø 160 mm
- pressure pipe connection Ø 40 mm
- backflow preventer
- closure valve on pressure pipe side
- pressure sensor

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	874 30 04
GTF 1200-S3	100	230 V	874 30 09

With SDS control unit and pneumatic level measurement (with pressure sensor)

KTP 500-S1	90	230 V	874 30 05
GTF 1200-S3	100	230 V	874 30 10

Duo version with two pumps

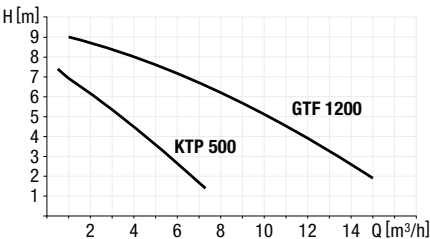
Pump	Pumping volume in liters	Voltage	Art. no.
With SDS control unit and pneumatic level measurement (with pressure sensor)			
KTP 500-S1	90	230 V	874 30 07
GTF 1200-S3	100	230 V	874 30 12

Engineering systems base *Aqualift S XL* in combination with system chamber Ø 1000

Access opening Ø 600 Access opening Ø 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 ⁻¹	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 ⁻¹	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

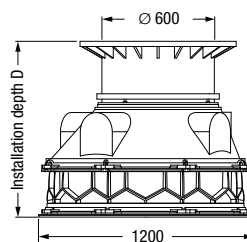
Modular design comprising:

- 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

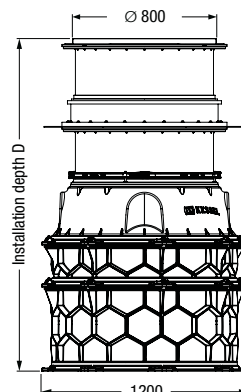
Modular design comprising:

- 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

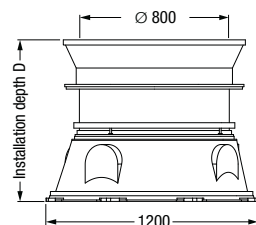


Illustration shows Art. no. 874 01 58

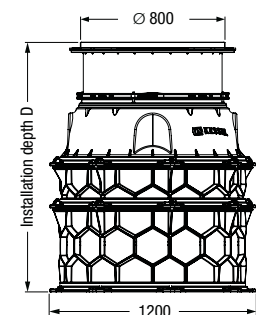


Illustration shows Art. no. 874 00 02

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	Inclusive: 2 access steps, installed Note: Without gasket and connecting wedges		680 371
250 mm	Inclusive: 1 access step, installed Note: Without gasket and connecting wedges		680 370

Gasket/Connection and attachment sets

Compatibility see product description

			Outer diameter Ø (mm)	Art. no.
Cable piping gasket set	Compatibility: Control unit 230 V Inclusive: <ol style="list-style-type: none"> 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
Set of connecting wedges	Compatibility: Art. no. 680 371 and 680 370 Quantity: 10 pieces			680 373
Profiled gasket	Compatibility: Art. no. 680 371 and 680 370			680 125
Cable attachment set	Compatibility: Engineering systems base			28 076

Cable extensions


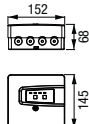
for extension from 20 m or 30 m (cable length delivered: 10 m)

	Mono version 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	Duo version 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.
Cable extension for probe (10 m)	Extension to 20 m: 1×80 889 Extension to 30 m: 2×80 889	Extension to 20 m: 1×80 889 Extension to 30 m: 2×80 889	80 889
Cable extension for pump (10 m)	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



Alarm unit

Compatibility see product description






			Art. no.
with electrode probe	Function: For monitoring and reporting of flooding; for conductive liquids 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 Cable length: 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.
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 <i>TeleControl</i> 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
Warning beacon	Function: 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
Installation set Thermostat / Hygrostat	Function: As an additional module for installation in the outdoor kiosk to reduce condensation		97 713
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

Optical probe

			Art. no.
Optical probe	Inclusive: 3 adaptors Cable length: 5 m (Optional cable extension)		80 888

Pump removal chain

for pumping stations with wet installation

			Length in mm	Art. no.
to remove pumps (made of stainless steel)	Inclusive: Screw hooks, shackles		2	680 528
			3	680 529
			4	680 530
			5	680 531

Junction box

Compatibility see product description

			Art. no.
Junction box	Compatibility: 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

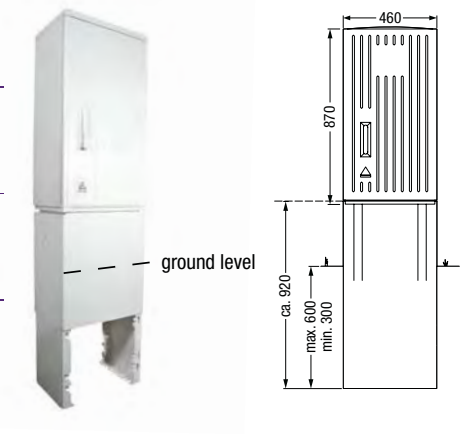
Height over ground level: 870 mm

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



Height over all in mm	Width / depth in mm	Art. no.
1740	460/320	97 716
1740	590/320	97 714
1740	785/320	97 723
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

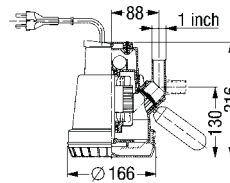
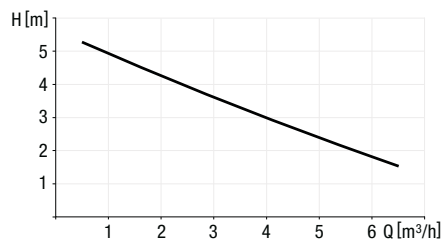
Cable length: 10 m

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 ⁻¹	max. 10 m	integrated	Schuko	8 m³/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.



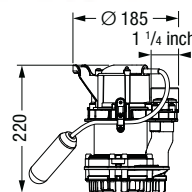
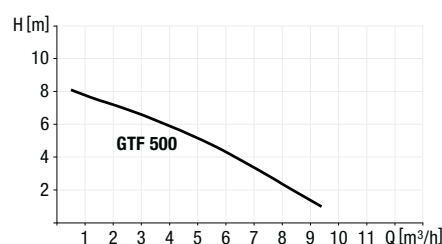
GTF 500

Pressure connection	Art. no.
Without float switch	
1 1/4 inch	280 710
With float switch	
1 1/4 inch	280 810

GTF 500 resistant

Pressure connection	Art. no.
Without float switch	
1 1/4 inch	280 750
With float switch	
1 1/4 inch	280 850

Pumping capacity



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 ⁻¹	integrated	coded plug	10 m³/h	8 m
GTF 500 resistant-S1*	Alternating current	230 V	2.5 A	0.5 kW	0.36 kW	2.800 min ⁻¹	integrated	Schuko	10 m³/h	8 m

*Definition of S1-pumps see page 95

Submersible pump *GTF 1000*

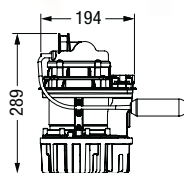
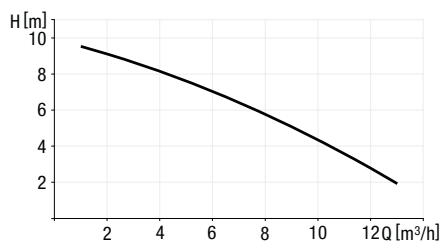
for wastewater without sewage



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 ⁻¹	max. 10 m	integrated	max. 10 mm	11.5 m³/h	10 m

*Definition of S3-pumps see page 95



Submersible pump *STZ 1000*

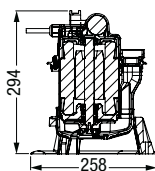
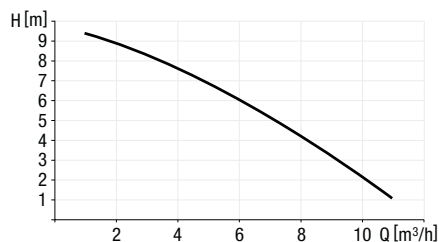
for wastewater containing raw sewage



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 ⁻¹	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

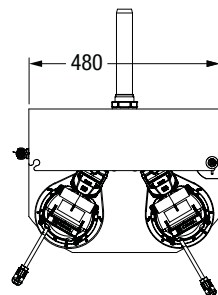
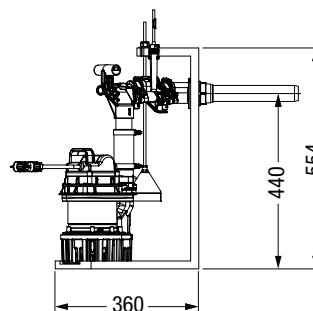
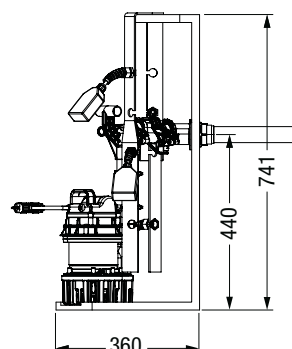


Illustration shows AQUALI500DS

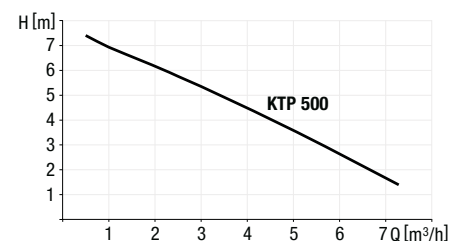
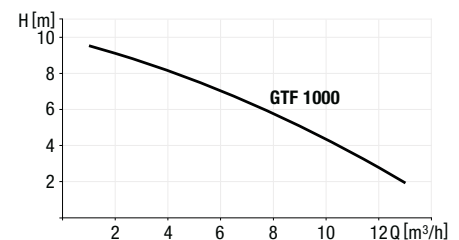


Duo version with two pumps

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. ... m³/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

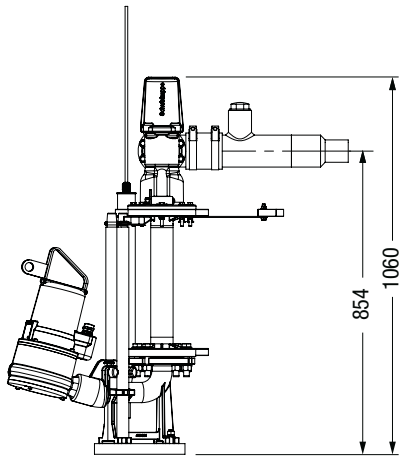
info@kessel.com

Pumping system *Aqualift F XL*:

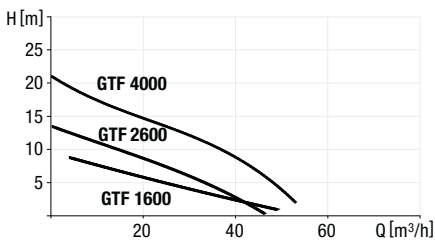
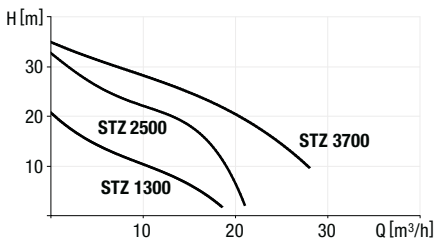
- with pumps STZ
- for wastewater with or without sewage
- Pump(s) with high performance macerating system for operational reliability
- Mono or Duo version
- ATEX Certification

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

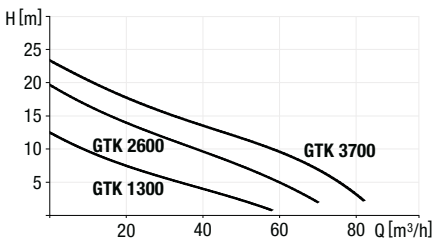
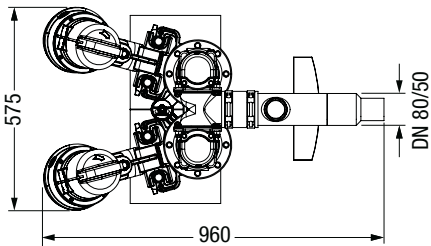


Pumping capacity



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

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

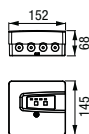
Alarm unit

Compatibility see product description

Art. no.

with electrode probe

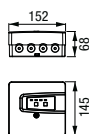
Function: For monitoring and reporting of flooding; for conductive liquids
Inclusive: Visual and audible alarm warning, battery back up, with Logbook, connection for remote alarm speaks (Art. no. 20162) or upgradable with potential free contact.
Voltage: 230 V ~ 50 Hz (IP 54)
Plug: 2 pin grounded
Cable 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

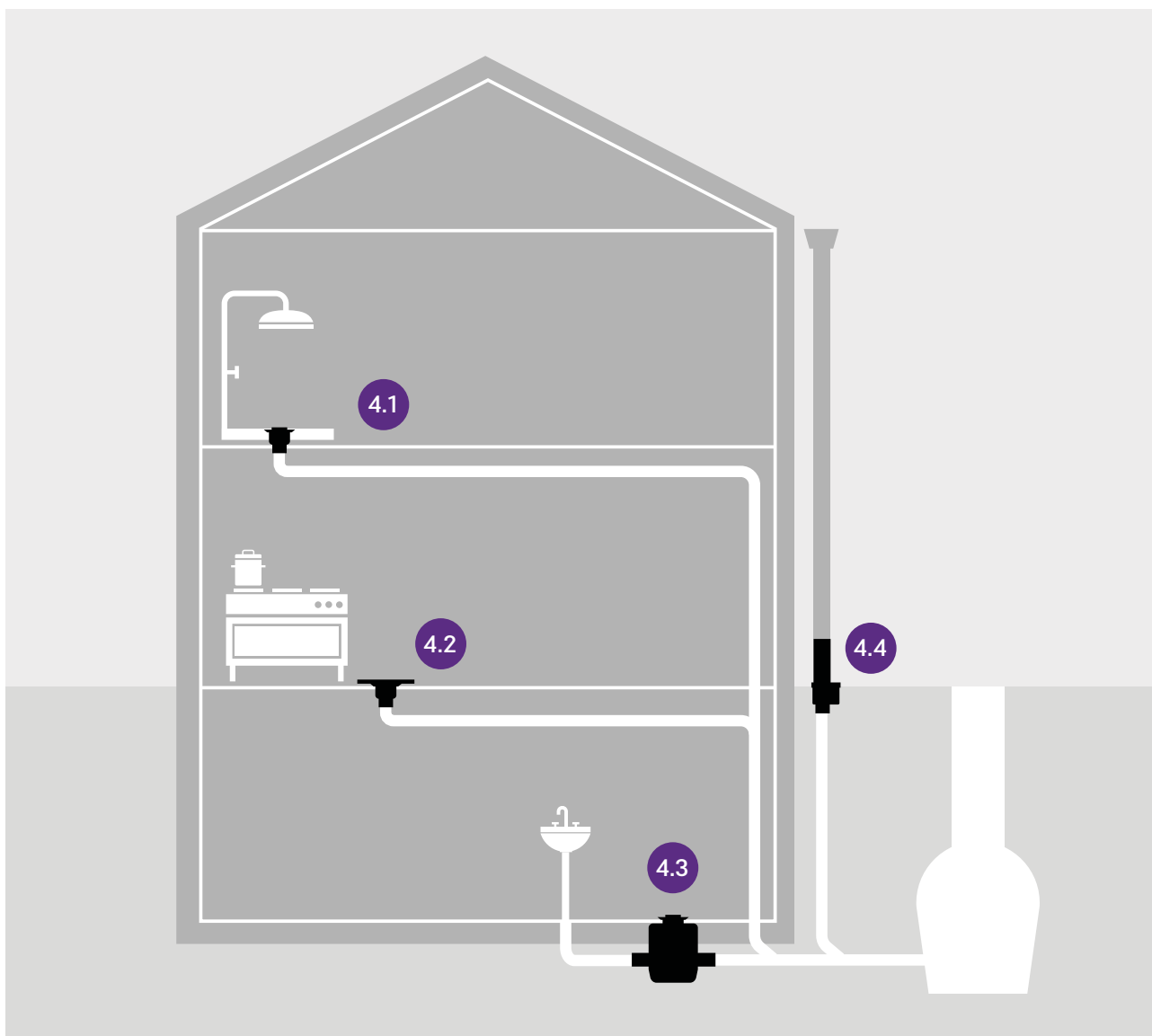
For indoor and outdoor installation

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
4.1 Bathroom drains and shower channels	190	4.2 Project drains	224
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
Accessories	200	Accessories	238
Bathroom drain <i>Giro</i>	201	Stainless steel clean out <i>Ferrofix</i> system 100	240
Bathroom drain <i>Classic</i>	202	Renovation drain <i>Ferrofix</i> system 125	244
Bathroom drain <i>The Superflat</i>	206	Matrix order system floor drain <i>Ferrofix</i> system 125	246
Modular system <i>Giro / Classic / The Superflat</i>	208	Modular system 125 floor drain <i>Ferrofix</i>	248
Accessories	210	Accessories	250
Shower channel <i>Linearis Comfort</i>	212	Matrix order system floor drain <i>Ferrofix</i> system 200	252

Modular system 200 floor drain <i>Ferrofix</i>	254	4.4 Outdoor drains	282
Accessories	256	Parking deck drain <i>Ecoguss</i>	283
Modular system 125 linear / square channel drain <i>Ferrofix Express</i>	258	Modular system parking deck drain <i>Ecoguss</i>	285
Box channel <i>Ferrofix</i>	260	Yard drain system 100	286
Slotted channel <i>Ferrofix</i>	261	Yard drain system 200	288
Accessories	262	Modular system 200 yard drain	289
4.3 Basement drains	264	Yard drain system 400	290
Backwater pumping station <i>Pumpfix S</i>	266	Modular system 400 yard drain	292
Accessories	268	Gutter drain system 200	294
Basement drain <i>The Universal / Drehfix</i>	270	Modular system gutter drain	297
Accessories	272	Flat-roof drain <i>Ecoguss</i>	298
Volatile liquid trap	274	Accessories	299
Accessories	276	Flat-roof drain system 100	302
Basement drain <i>Practicus</i> / without backflow protection	278		
Accessories	280	4.5 Individual Solutions	303

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

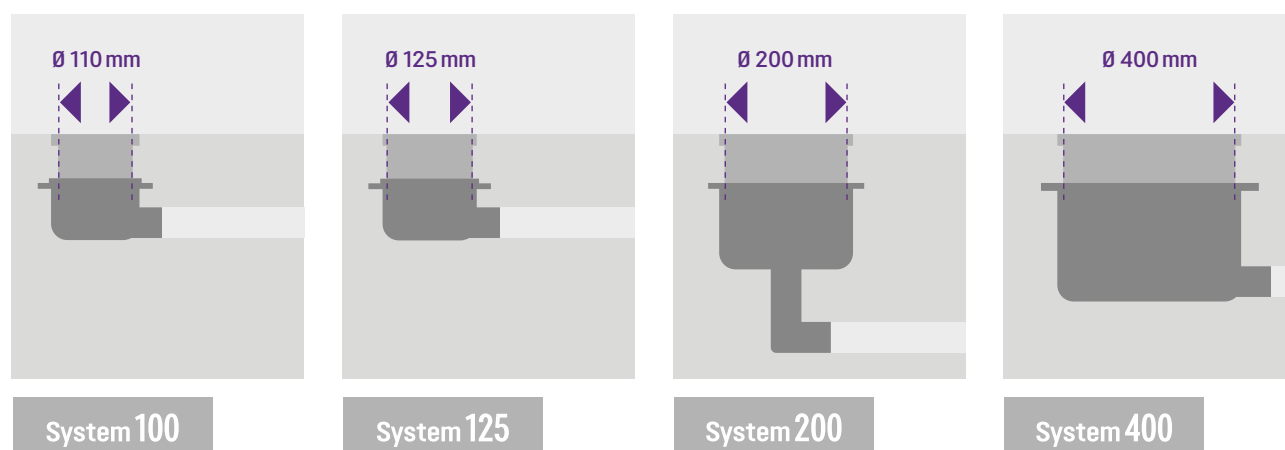
4.3 Basement drains
For dry floors in basement rooms
➤ Page 264

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.



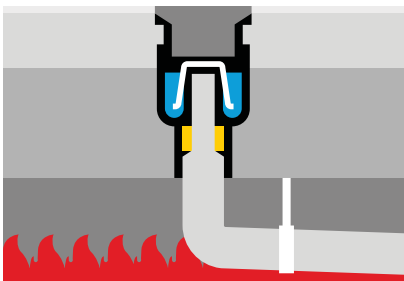
Fire protection

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).

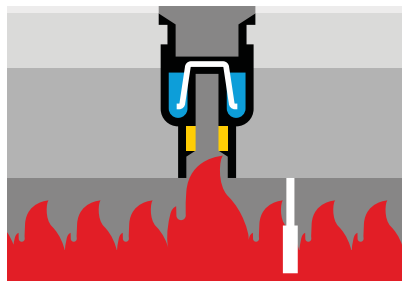
The German State Building Code defines the required fire resistance period in classes as follows:

Fire resistance class	F30	F60	F90	F120
Fire resistance period (minutes)	> 30	> 60	> 90	> 120

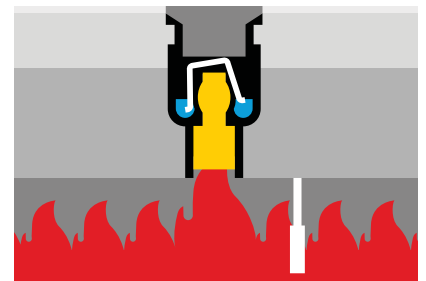
Fire-Kit (Z-19.17-1719)



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.

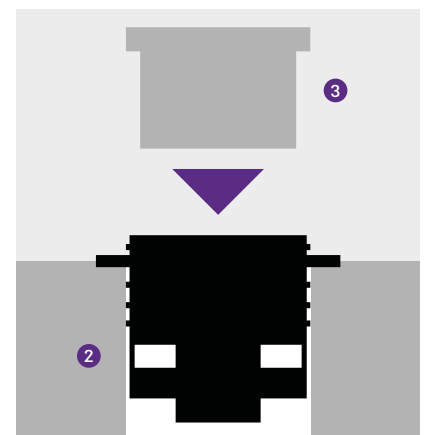
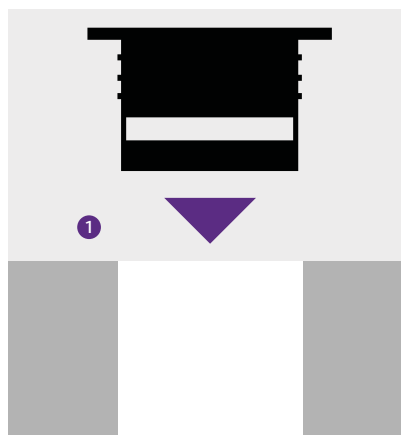


The *Fire-Kit* fire protection insert expands due to the heat and completely seals off the openings in the concrete floor, preventing fire from spreading to the floor above.

Quick-Fit (Z-19.17-1719)

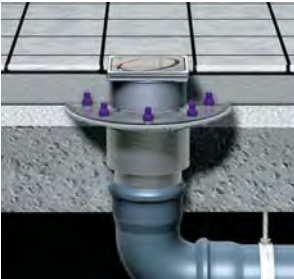
The fire-protection insert provides the necessary fire protection. This is attached by a metal hoop on the lower end of the installation aid. In the event of a fire, the fire protection mass swells up and closes the gap resulting from the melting seal. This guarantees a smoke-tight closure and prevents 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.

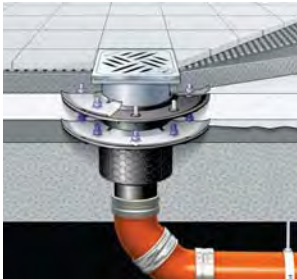


Waterproofing options

The EN 1253 standard requires a waterproofing seal to be installed under ceramic and natural stone floors in wet rooms.



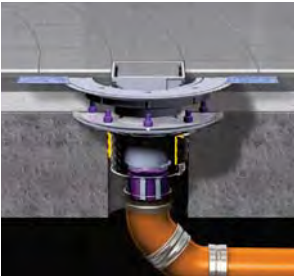
Single waterproofing flange



Double waterproofing flanges



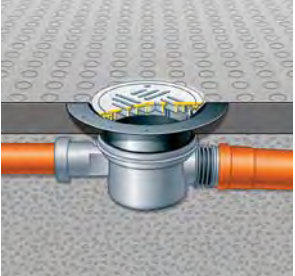
Shallow waterproofing flange



Shallow and lower waterproofing flange



Waterproofing flange for impermeable concrete



Waterproof flooring

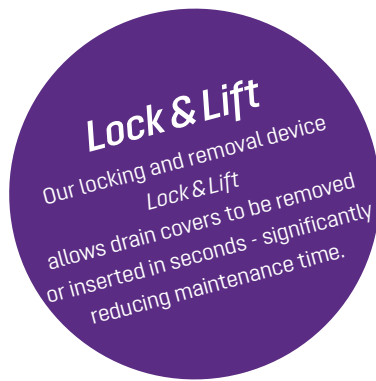
Sound Protection

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

Class K 3	load capacity up to max. 300 kg
	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.
Class L 15	load capacity up to max. 1.5 t
	Areas with light vehicular traffic such as cycleways and domestic drives.
Class M 125	load capacity up to max. 12.5 t
	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

Class A 15	Group 1 For use in areas where only pedestrians have access.
Class B 125	Group 2 For use in car parks and pedestrian areas where only occasional vehicular access is likely
Class C 250	Group 3 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.
Class D 400	Group 4 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	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	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° ✓

ABS	
-	-
40 %	to 50° ✓
saturated	to 100° ✓
	23° ✓
-	-
-	-
	23° ✓
saturated	to 50° ✓
-	-
saturated	to 50° ✓
to 50 %	to 50° ✓
40 %	23° ✓
30 %	50° ✓
	to 50° ✓
saturated	to 50° ✓
10 %	to 20° ✓
	to 50° ✓
saturated	to 50° ✓
saturated	to 50° ✓
10 %	50° ✓
	to 50° ✓
30 %	23° ✓
37 %	23° ✓
to 50 %	50° ✓
ready to use	23° ✓
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

➤ Page 192



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

➤ Page 218

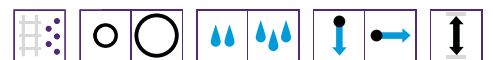


4.2 Project drains



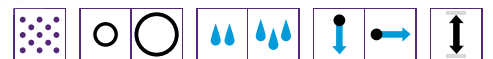
Floor/roof drain
Ecoguss

➤ Page 224



Floor/roof drain
Practicus

















➤ Page 232



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.

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

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 odour 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

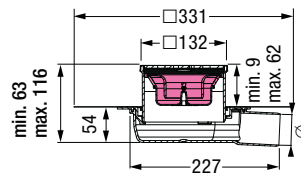


Illustration shows Art. no. 44 740.62M, 44 750.62M, 44 740.20M, 44 750.20M

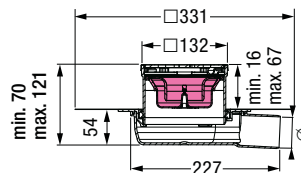


Illustration shows floor drains with *Lock & Lift* locking system

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

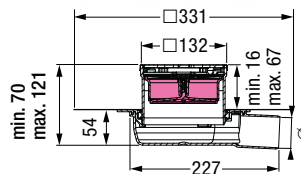
Specifications:

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

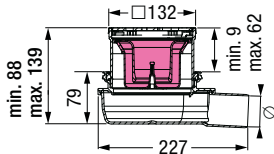


Illustration shows Art. no. 44 700.62, 44 700.20

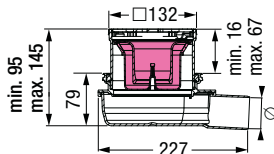


Illustration shows Art. no. 44 700.63

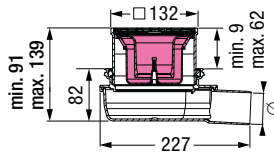


Illustration shows Art. no. 44 700.20 M

System 125



Outer diameter Ø (mm) Art. no.

With design cover, without *Lock & Lift* locking system

Ø 50 **44 700.62**

With slotted cover, without *Lock & Lift* locking system

Ø 50 **44 700.20**

Ø 50 **44 700.20M**

With design cover, with *Lock & Lift* locking system

Ø 50 **44 700.63**

Floor drain *The Ultraflat 79*
with mechanical odour trap *Megastop*

Made in ABS

Specifications:

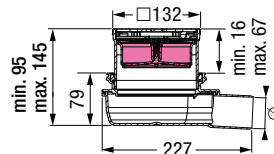
With lateral outlet, mechanical odour trap *Megastop* in the upper section, hair filter, backwater-proof up to 0.1 bar. Drainage capacity in l/sec with 20 mm / 10 mm threshold Ø 50: 1.1 l/sec / 0.7 l/sec. Installation height 88 – 145 mm. Installation area 350 × 350 mm

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



System 125



Outer diameter Ø (mm) Art. no.

Ø 50 **44 700.66**

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

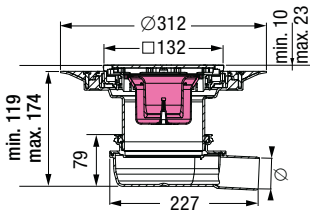


Illustration shows Art. no. 44 700.52, 44 700.53

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

System 125



Made in ABS

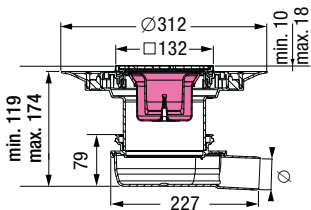
Specifications:

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: 1.3 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

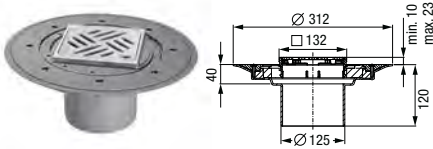
Modular system 125

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

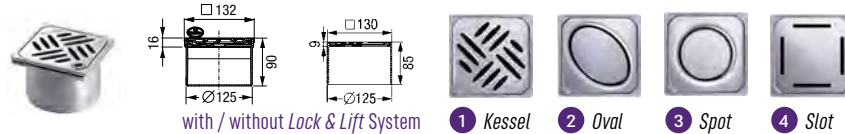
Inclusive: Waterproofing membrane



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

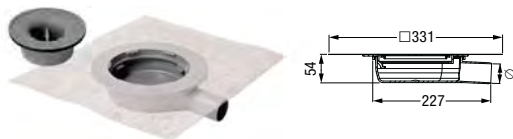
Class: K 3

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

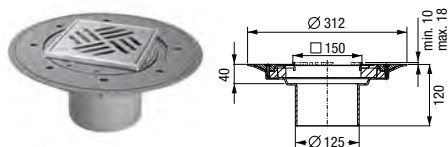
Ø 40 Art. no. 44 740

Ø 50 Art. no. 44 750

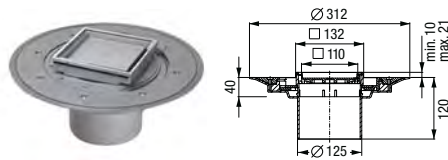
System 125

Variofix shallow bed upper sections

with covers in stainless steel

**with slotted cover**

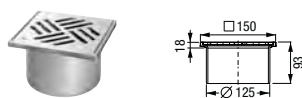
in stainless steel AISI 304 or AISI 316L

Material: ABS, rim in stainless steel**Class:** K 3**Tile thickness:** 8 – 16 mm**Cover:** 138×138 mm, screwed**Inclusive:** Waterproofing membraneAISI 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 membraneAISI 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, screwedAISI 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 mmAISI 304 Art. no. **48 211**, rim in stainless steelABS 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

System 125

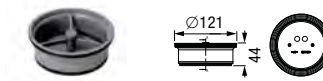
The Ultraflat 54 and The Ultraflat 79

Hygiene and odour stop

for floor drain *The Ultraflat*

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

Hair filter

Compatibility: For *Multistop* and floor drain *The Ultraflat*



44 704

Multistop

Function: Odour, foam, rodent and insect stop



48 500

Installation aid

for the installation of floor drain *The Ultraflat*

for fixing the drain bodies

Inclusive: Fastening material



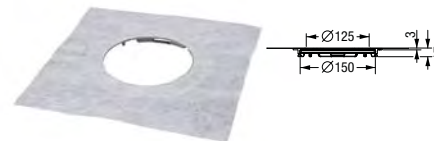
Art. no.

44 702

Clip flange

for floor drain *The Ultraflat*

Inclusive: Factory-mounted waterproofing membrane in accordance with EN 1253-1 and DIN 18534-1-W3-1



Art. no.

44 703

Transition section

for floor drain *The Ultraflat*

Transition section

Inclusive: Sealing ring Ø 50

Outer diameter
Ø (mm)

Art. no.

Ø50/40

27 118

Glue flange

for floor drain *The Ultraflat*

without connection flange

Material: ABS

Dimensions
in mm

Art. no.

48 409

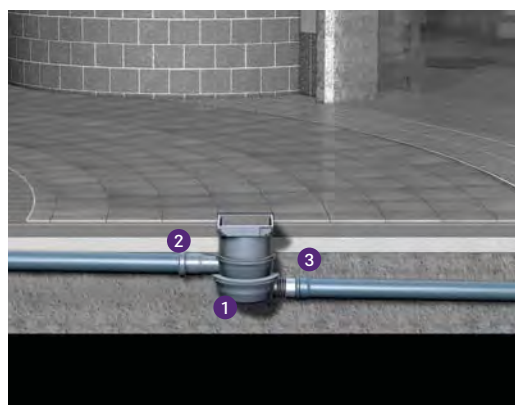
Bathroom drain *Giro*

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

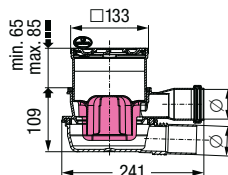
With upper section in ABS

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

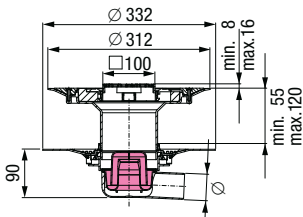


Illustration shows Art. no. 40 159.50

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



EN 1253-1

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

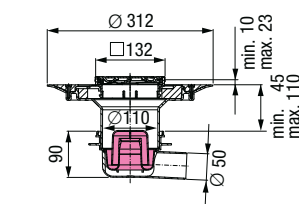


Illustration shows Art. no. 40 150.54

System 100



Lateral outlet

Outer diameter Ø (mm)	Art. no.
Ø 50	40 150.54
Ø 75	40 170.54

With design cover *Oval* with *Lock & Lift* locking system

Ø 50	40 150.50
Ø 75	40 170.50

With standard slotted cover

Ø 50	40 150.51
Ø 75	40 170.51

With slotted cover

Ø 50	40 150.51
Ø 75	40 170.51

Vertical outlet

Outer diameter Ø (mm)	Art. no.
Ø 50	40 250.54
Ø 75	40 270.54

With design cover *Oval* with *Lock & Lift* locking system

Ø 50	40 250.50
Ø 75	40 270.50

With standard slotted cover

Ø 50	40 250.51
Ø 75	40 270.51

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

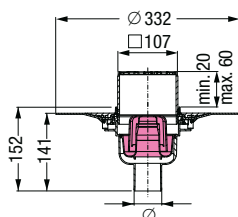


Illustration shows Art. no. 40 250.90

System 100



Lateral outlet

Outer diameter Ø (mm)	Art. no.
Ø 50	40 150.90
Ø 75	40 170.90

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

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

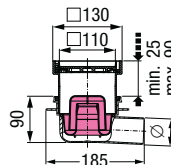


Illustration shows Art. no. 40 150.66



Illustration shows Art. no. 40 150.20

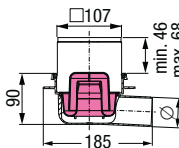


Illustration shows Art. no. 40 150.20

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

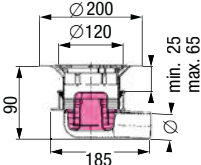


Illustration shows Art. no. 40 170.30



Illustration shows Art. no. 40 250.30

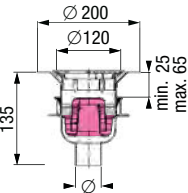


Illustration shows Art. no. 40 270.30

System 100



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

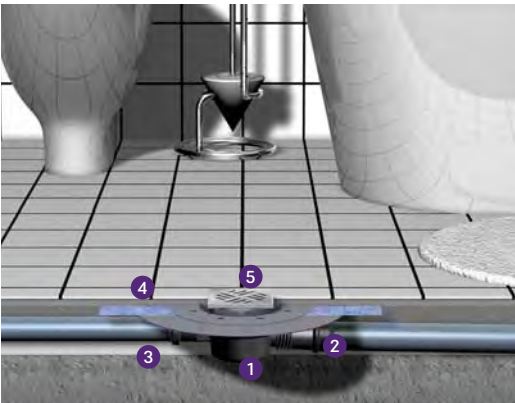
The Superflat

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

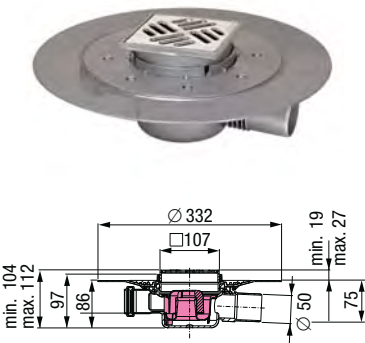
Made in PP

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 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 in stainless steel AISI 304, class K 3



System 100

Outer diameter Ø (mm)	Art. no.
Ø 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

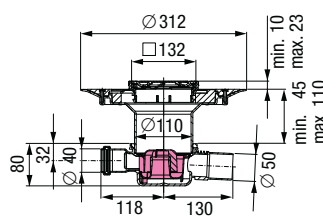


Illustration shows Art. no. 42 701.54

System 100



Lateral outlet

Outer diameter Ø (mm)	Art. no.
Ø 50	42 701.54
Ø 50	42 701.50

With design cover *Oval* with *Lock & Lift* locking system

With standard slotted cover

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.

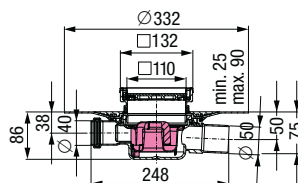
Drainage capacity 0.8 l/sec flow rate.

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.

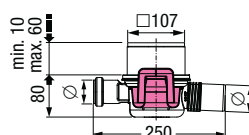
Drainage capacity 0.8 l/sec flow rate.

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



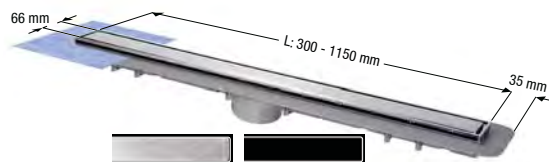
Outer diameter Ø (mm)	Art. no.
Ø 50	42 701.20

Modular system 100

Classic, The Superflat and Floordrain ME

System 100

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



1 Kessel



2 Oval



3 Spot



4 Slot

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.

with Lock & Lift System

1	AISI 304	27 201
2	AISI 304	27 202
3	AISI 304	27 221
4	AISI 304	27 219

Cover

Art. no.

without Lock & Lift System

1	AISI 304	27 225
2	AISI 304	27 226
3	AISI 304	27 220
4	AISI 304	27 218



with slotted cover

in stainless steel AISI 304

Material: ABS, rim in stainless steel

Class: L 15 / K 3

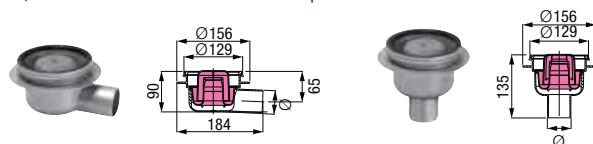
Cover: 138×138 mm

Class L 15 Art. no. **27 176**, anti-slip

Class K 3 Art. no. **27 196**

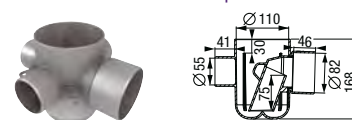
Drain bodies Classic in ABS

with / without removable odour trap



Drain body Floordrain ME in ABS

with 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

Lateral outlet	Art. no.	Vertical outlet	Art. no.
Ø 50	40 150	Ø 50	40 250
Ø 75	40 170	Ø 75	40 270

without removable odour trap

Lateral outlet	Art. no.	Vertical outlet	Art. no.
Ø 50	40 151	Ø 50	40 251
Ø 75	40 171	Ø 75	40 271

Three lateral inlets Ø 55, one lateral outlet Ø 82

Drainage capacity:

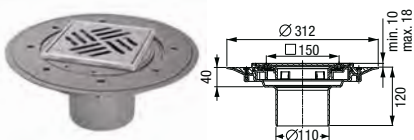
1.8 l/sec with 20 mm threshold

Inclusive: Glue connection according to BS 5255

Art. no. **37 3001**

System 100

Variofix shallow bed upper sections with covers in stainless steel



with slotted cover in stainless steel AISI 304

Material: ABS, rim in stainless steel

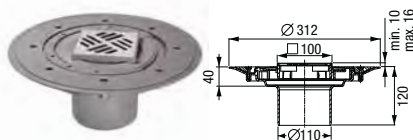
Class: K 3

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

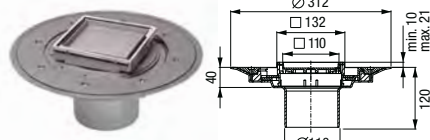
Class: K 3

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

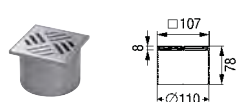
Material: ABS,
rim in stainless steel / polymer

Class: K 3

Cover: 110×110 mm

Art. no. 27 211, rim in stainless steel

Art. no. 27 210, rim in polymer



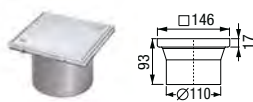
with slotted cover in stainless steel AISI 304

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

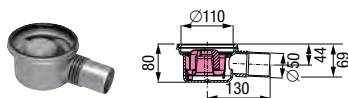
Tile thickness: Use with 1 – 4 mm
vinyl / synthetic flooring

Cover: Ø 120 mm

Art. no. 27 192

Drain bodies *The Superflat* in PP

with removable odour trap



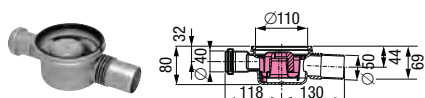
Lateral outlet Ø 50, without lateral inlet

Sealing water height: 30 mm

Drainage capacity:

0.8 l/sec with 20 mm threshold

Art. no. 42 700



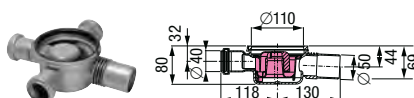
Lateral outlet Ø 50, one lateral inlet Ø 40

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

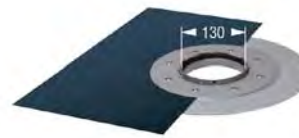


-

43 401

with waterproof membrane

Inclusive: Pre-mounted waterproof membrane in PVC



1200 × 1200
1800 × 2000

43 401.91

43 401.93

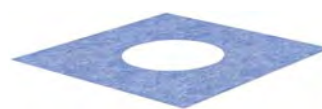
Waterproof membrane

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

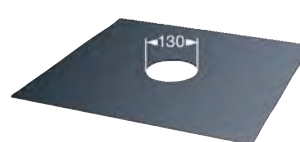
for bathroom drains system 100

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

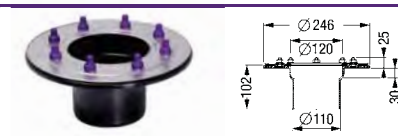
Extension section

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.
with glue flange	Compatibility: Shallow bed gasket Inclusive: 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.
Multistop	Function: Odour, foam, rodent and insect stop		43 500
Hair filter	Material: Polymer		43 700
Sludge trap	Material: Polymer		27 168

Transition section

for bathroom drains Classic and The Superflat

			Outer diameter Ø (mm)	Art. no.
Transition section	Inclusive: Sealing ring Ø 50		Ø 50/75 Ø 50/40	27 126 27 118

Conversion kit

for Floordrain ME Art. no. 37 3001

			Art. no.
DIN push-fit connection	Consist of: 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
DIN glue connection	Consist of: 3 inlet adapter Ø 50 mm, and 1 outlet adapter Ø 75, EN 1451-1		37 3007

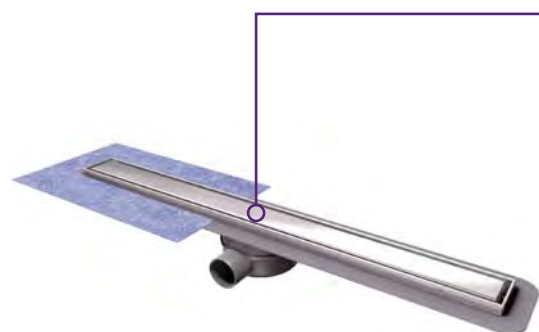
Shower channel

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.

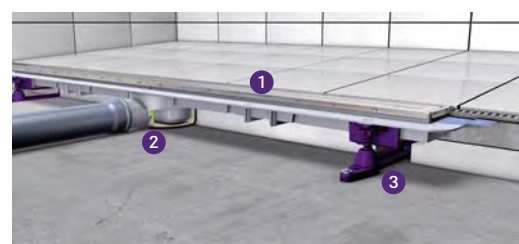
With channel lengths from 300 to 1,150 mm, the *Linearis Comfort* and *Linearis Compact* are available in suitable sizes for different room dimensions. Depending on the area of use, they are supplied with a waterproofing membrane, either enclosed or factory-mounted. The enclosed membrane fulfils water 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.

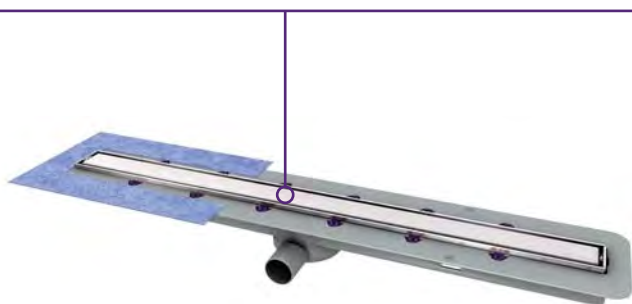


① Channel cover ② Drain body ③ Installation supports



Height-adjustable installation supports

Thanks to the vertically adjustable installation supports, the installation height can be freely adapted to the floor level.



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

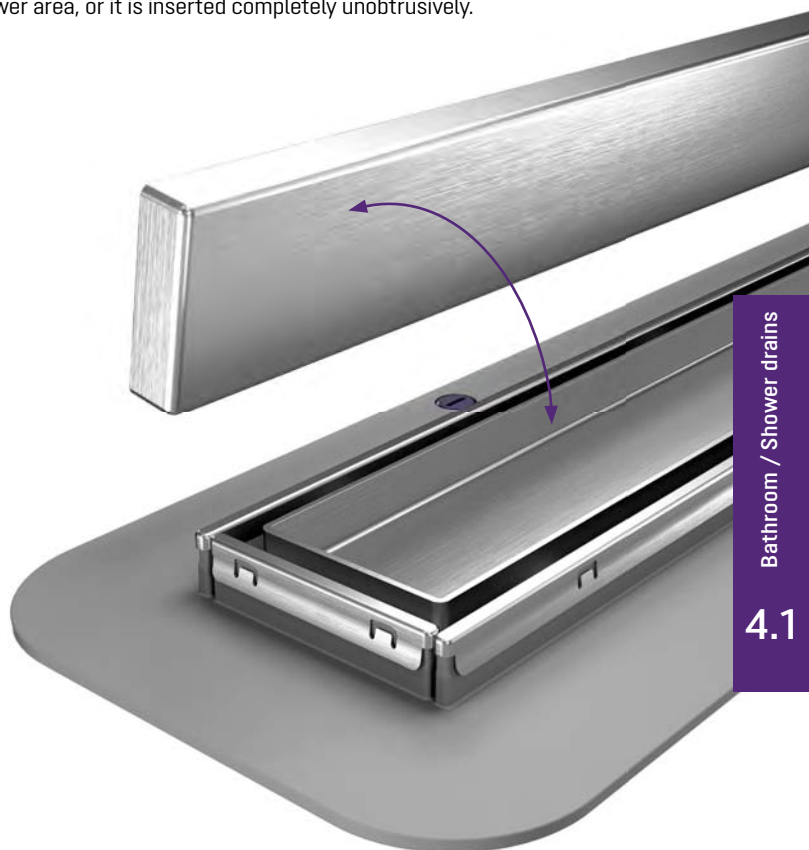
On request, the *Linearis Comfort* can also be supplied as an upper section (without drain body). This opens up numerous possible connections with the drain bodies and accessories of the modular system 125.

➤ Drain body: Page 214

➤ Further accessories: Page 216

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.



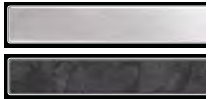
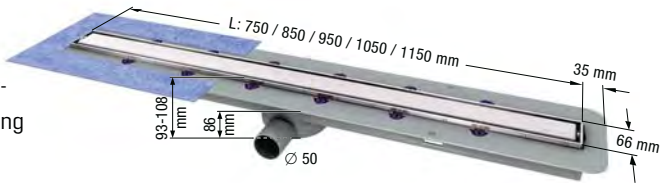
Shower channel *Linearis Comfort*

with cover and rim in stainless steel AISI 304



Made in ABS

With lateral outlet Ø 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

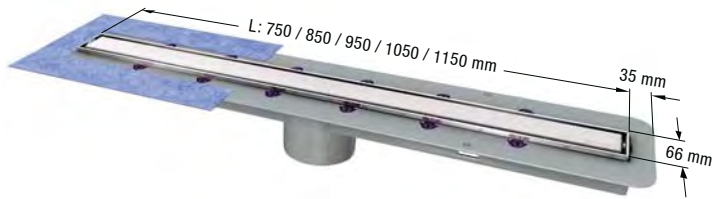
Shower channel upper section *Linearis Comfort*

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

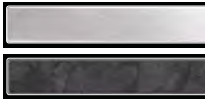
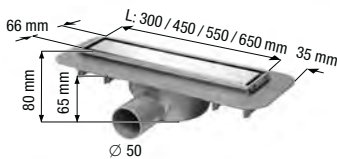
With lateral outlet Ø 50, installation depth only 80 mm, removable odour trap, installation supports and with non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W2-I or factory-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I.

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.

With non-mounted waterproofing membrane	
300	45 600.59
450	45 600.60
550	45 600.61
650	45 600.62

With factory-mounted waterproofing membrane	
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.

With non-mounted waterproofing membrane	
750	45 600.63
850	45 600.64
950	45 600.65
1050	45 600.66
1150	45 600.67

With factory-mounted waterproofing membrane	
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

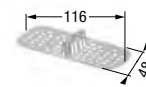


-

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

48 639



Example

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 215 mm 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.

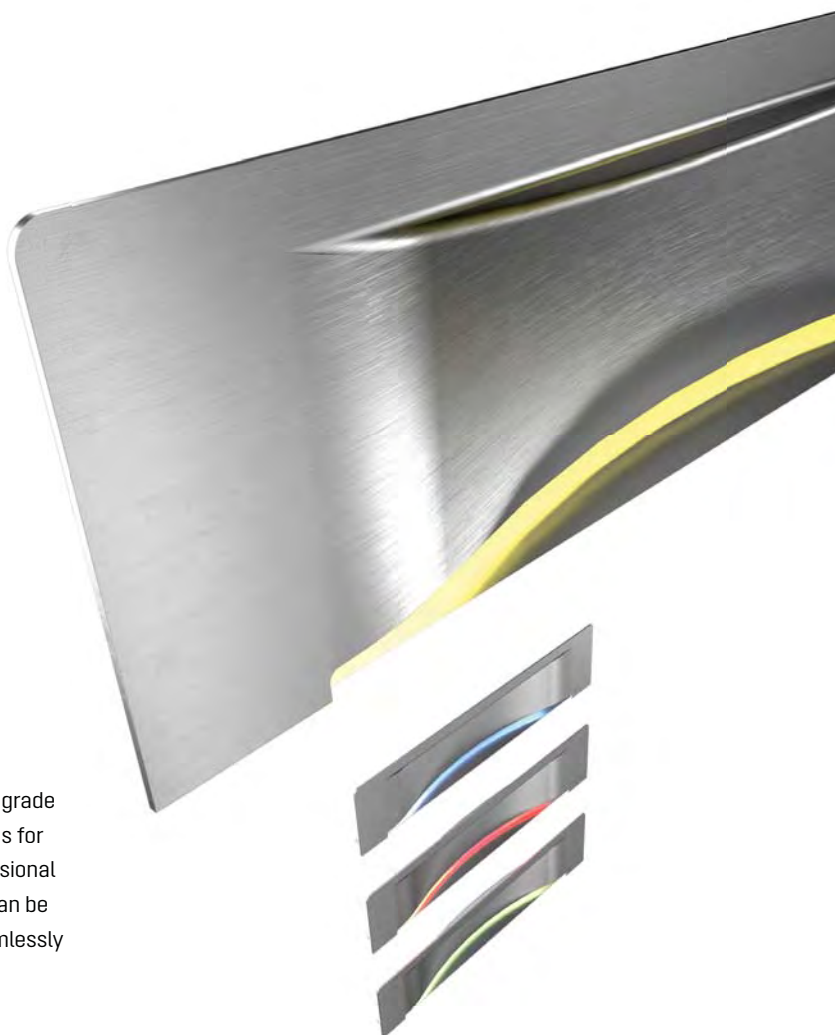
LED

LED lighting

with automatic colour-changing program or individual selection of colour

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

System 125



Drain body

Wall drain Scada

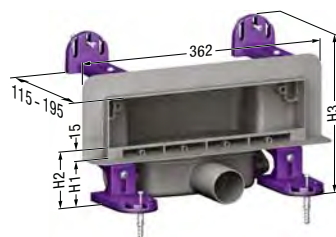
For floor drainage indoors

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



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 000M

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

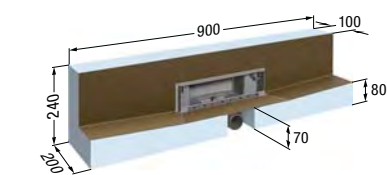
Art. no. 48 000.01M

Art. no. 48 000.02M

Art. no. 48 000.03M

Art. no. 48 000.04M

Installation board 900 × 200 mm



Art. no. 48 001

Item comprised of installation board with drain body Scada and drain cover

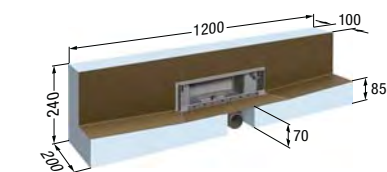
Art. no. 48 001.01

Art. no. 48 001.02

Art. no. 48 001.03

Art. no. 48 001.04

Installation board 1200 × 200 mm



Art. no. 48 002

Item comprised of installation board with drain body Scada and drain cover

Art. no. 48 002.01

Art. no. 48 002.02

Art. no. 48 002.03

Art. no. 48 002.04

Scada with LED-backlighting

Matrix order system

System 125



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

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

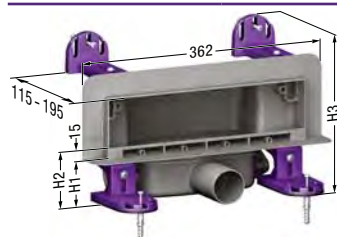


Art. no. **48 013**

Width × height
312 × 67 mm
For floor tiles
up to 17 mm



Art. no. **48 014**



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**

Item comprised of drain body Scada and drain cover

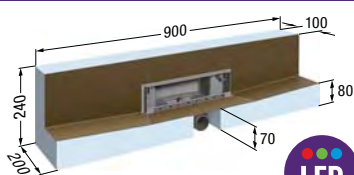
Art. no. **48 003.41M**

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

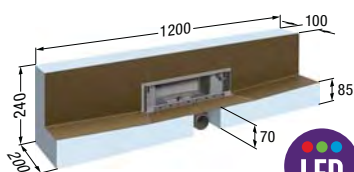
Art. no. **48 004.41**

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 %

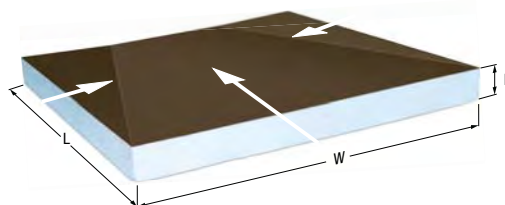
900 × 900 × 80

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

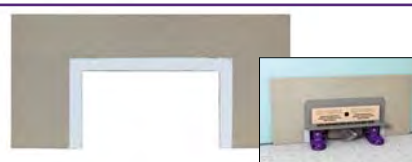
Art. no.

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

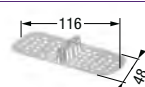
48 400



Hair filter

Material: Polymer

48 800





4.2 Project drains

Floor drains with versatile properties

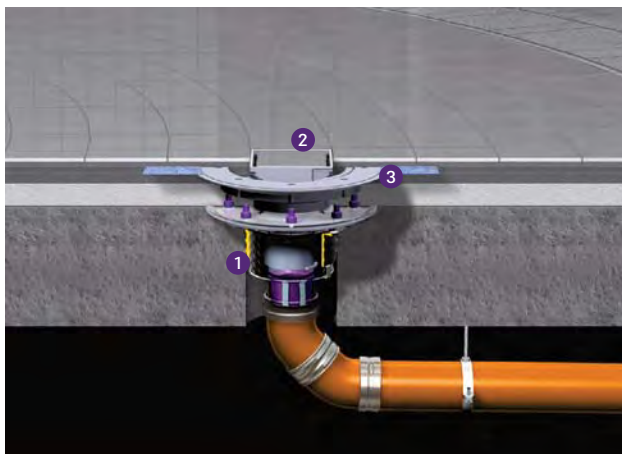


Floor/roof drain

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

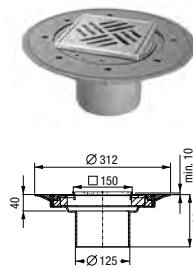
➤ **Modular system**
see pages 236 – 237

Upper sections

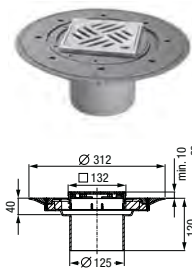
Shallow bed upper section in ABS
with enclosed waterproofing membrane

Slotted cover

138×138 mm
and rim in stainless
steel AISI 304,
class K 3,
screwed

Art. no. **48 963****Design cover Kessel**

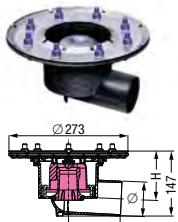
120×120 mm
and rim in stainless
steel AISI 304,
class L 15,
Lock & Lift locking
system

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**

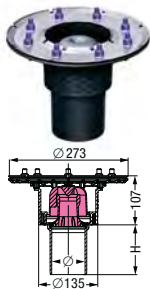
Drainage capacity* 1.7 / 1.0

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



EN 1253-1



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

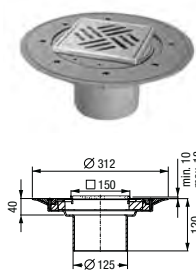
Upper sections

Shallow bed upper section in ABS

with enclosed waterproofing membrane

Slotted cover

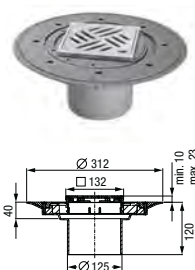
138 × 138 mm
and rim in stainless
steel AISI 304,
class K 3,
screwed



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**

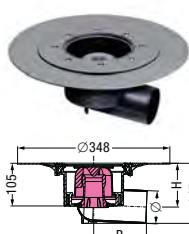
Slotted cover

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**

Drainage capacity* 1.6 / 1.3

Art. no. **48 558.53**

Drainage capacity* 1.5 / 1.2

Art. no. **48 558.63**

Drainage capacity* 1.4 / 1.0

Art. no. **48 558.11**

Drainage capacity* 1.4 / 1.0

Art. no. **48 578.51**

Drainage capacity* 1.6 / 1.2

Art. no. **48 578.53**

Drainage capacity* 1.5 / 1.2

Art. no. **48 578.63**

Drainage capacity* 1.4 / 1.1

Art. no. **48 578.11**

Drainage capacity* 1.4 / 1.1

Art. no. **48 583.51**

Drainage capacity* 1.6 / 1.2

Art. no. **48 583.53**

Drainage capacity* 1.5 / 1.2

Art. no. **48 583.63**

Drainage capacity* 1.4 / 1.1

Art. no. **48 583.11**

Drainage capacity* 1.4 / 1.1

Art. no. **48 511.51**

Drainage capacity* 1.8 / 1.0

Art. no. **48 511.53**

Drainage capacity* 1.8 / 1.0

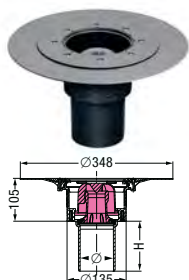
Art. no. **48 511.63**

Drainage capacity* 1.6 / 1.0

Art. no. **48 511.11**

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. **48 658**

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**

Drainage capacity* 2.2 / 1.3

Art. no. **48 658.53**

Drainage capacity* 2.2 / 1.3

Art. no. **48 658.63**

Drainage capacity* 2.0 / 1.0

Art. no. **48 658.11**

Drainage capacity* 2.0 / 1.0

Art. no. **48 678.51**

Drainage capacity* 2.1 / 1.0

Art. no. **48 678.53**

Drainage capacity* 2.1 / 1.0

Art. no. **48 678.63**

Drainage capacity* 2.0 / 1.0

Art. no. **48 678.11**

Drainage capacity* 2.0 / 1.0

Art. no. **48 683.51**

Drainage capacity* 2.1 / 1.0

Art. no. **48 683.53**

Drainage capacity* 2.1 / 1.0

Art. no. **48 683.63**

Drainage capacity* 2.0 / 1.0

Art. no. **48 683.11**

Drainage capacity* 2.0 / 1.0

Art. no. **48 611.51**

Drainage capacity* 2.2 / 1.0

Art. no. **48 611.53**

Drainage capacity* 2.2 / 1.0

Art. no. **48 611.63**

Drainage capacity* 2.0 / 1.0

Art. no. **48 611.11**

Drainage capacity* 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

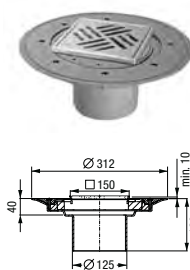
➤ **Modular system**
see pages 236 – 237

Upper sections

Shallow bed upper section in ABS
with enclosed waterproofing membrane

Slotted cover

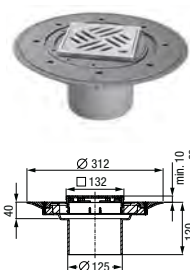
138×138 mm
and rim in stainless
steel AISI 304,
class K 3,
screwed



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**

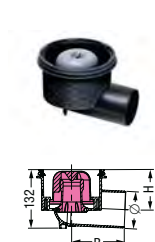
Slotted cover

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. **48 358.53**

Drainage capacity* 1.5 / 1.2

Art. no. **48 358.63**

Drainage capacity* 1.4 / 1.0

Art. no. **48 358.11**

Drainage capacity* 1.4 / 1.0

Art. no. **48 378.51**

Drainage capacity* 1.6 / 1.2

Art. no. **48 378.53**

Drainage capacity* 1.5 / 1.2

Art. no. **48 378.63**

Drainage capacity* 1.4 / 1.1

Art. no. **48 378.11**

Drainage capacity* 1.4 / 1.1

Art. no. **48 383.51**

Drainage capacity* 1.6 / 1.2

Art. no. **48 383.53**

Drainage capacity* 1.5 / 1.2

Art. no. **48 383.63**

Drainage capacity* 1.4 / 1.1

Art. no. **48 383.11**

Drainage capacity* 1.4 / 1.1

Art. no. **48 311.51**

Drainage capacity* 1.7 / 1.2

Art. no. **48 311.53**

Drainage capacity* 1.6 / 1.0

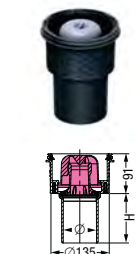
Art. no. **48 311.63**

Drainage capacity* 1.5 / 1.2

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. **48 458.53**

Drainage capacity* 2.2 / 1.3

Art. no. **48 458.63**

Drainage capacity* 2.0 / 1.0

Art. no. **48 458.11**

Drainage capacity* 2.0 / 1.0

Art. no. **48 478.51**

Drainage capacity* 2.1 / 1.0

Art. no. **48 478.53**

Drainage capacity* 2.1 / 1.0

Art. no. **48 478.63**

Drainage capacity* 2.0 / 1.0

Art. no. **48 478.11**

Drainage capacity* 2.0 / 1.0

Art. no. **48 483.51**

Drainage capacity* 2.1 / 1.0

Art. no. **48 483.53**

Drainage capacity* 2.1 / 1.0

Art. no. **48 483.63**

Drainage capacity* 2.0 / 1.0

Art. no. **48 483.11**

Drainage capacity* 2.0 / 1.0

Art. no. **48 411.51**

Drainage capacity* 2.2 / 1.0

Art. no. **48 411.53**

Drainage capacity* 2.2 / 1.0

Art. no. **48 411.63**

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

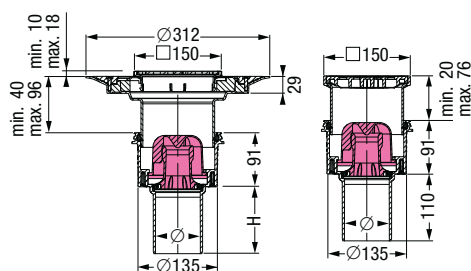


Illustration shows Art. no. 44 458.51, 44 478.51, 44 411.51

Illustration shows Art. no. 44 411.11

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



EN 1253-1

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.

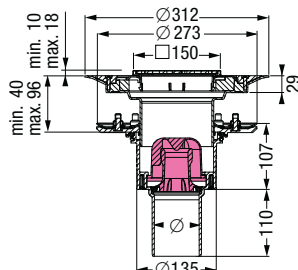
Installation area 300×300 mm

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



EN 1253-1

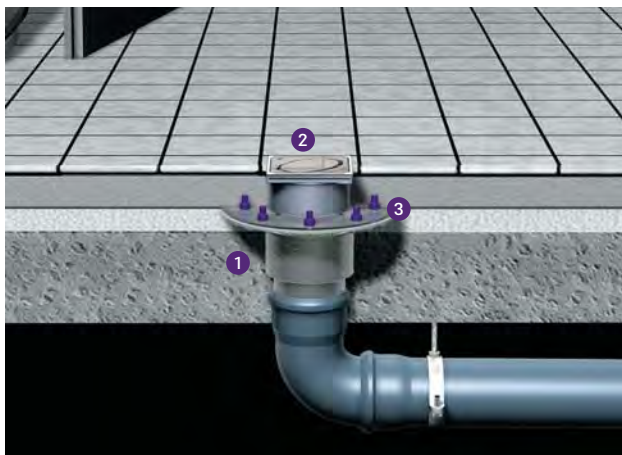
Floor drain

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.



- ❶ Drain body *Practicus*
- ❷ Upper section with cover
- ❸ Pressure sealing flange for waterproofing layer

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

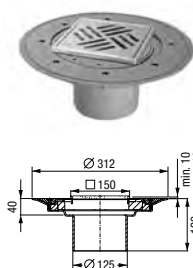
Upper sections

Shallow bed upper section in ABS

with enclosed waterproofing membrane

Slotted cover

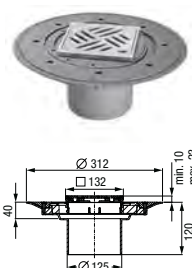
138 × 138 mm
and rim in stainless
steel AISI 304,
class K 3,
screwed



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**

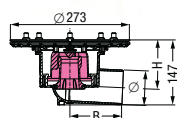
Art. no. **45 159.11**

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**

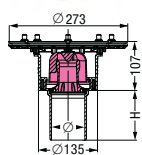
Art. no. **45 259.11**

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

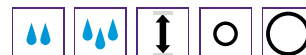
Drainage capacity* 1.9 / 1.0

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*

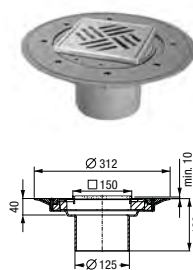
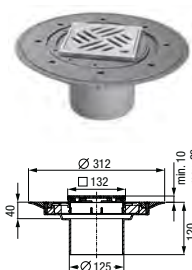
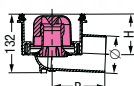
Sealing water height 50 mm

➤ **Modular system**

see pages 236 – 237

Upper sections**Shallow bed upper section in ABS**

with enclosed waterproofing membrane

Slotted cover138×138 mm
and rim in stainless
steel AISI 304,
class K 3,
screwedArt. no. **48 963****Design cover Kessel**120×120 mm
and rim in stainless
steel AISI 304,
class L 15,
Lock & Lift locking
systemArt. 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
systemArt. no. **48 201****Slotted cover**138×138 mm
in stainless steel
AISI 304, class K 3,
screwedArt. 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**

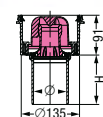
Drainage capacity* 1.6 / 1.0

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)

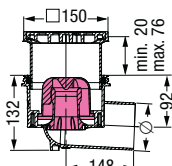


Illustration shows
Art. no. 45 110.40
(lateral outlet)

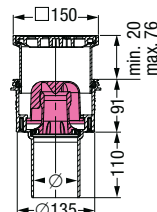


Illustration shows
Art. no. 45 210.40
(vertical outlet)

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.

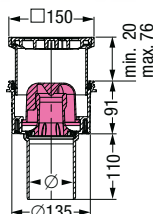
Installation area 180 × 180 mm

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.

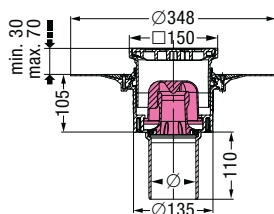
Installation area 350 × 350 mm

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

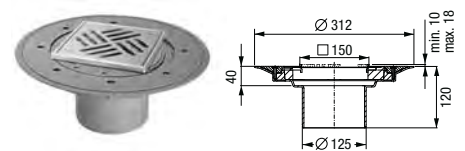
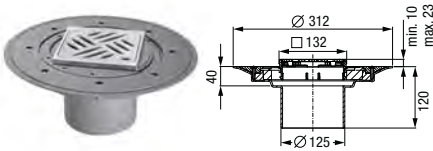
Modular system 125

Ecoguss and Practicus

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 <i>Lock & Lift</i> System		without <i>Lock & 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

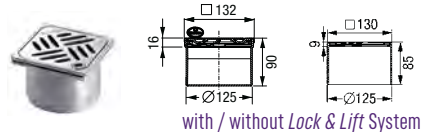
Cover: 138×138 mm, screwed

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 & Lift</i> System		without <i>Lock & 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

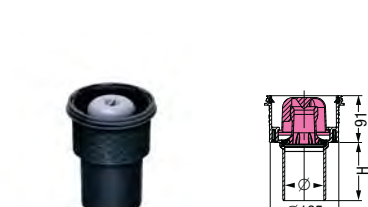
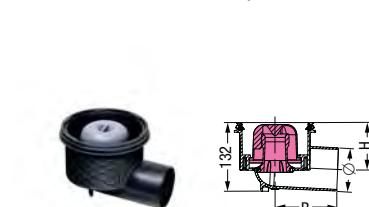
Class: K 3

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

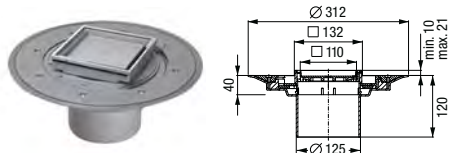
Ø 58	H 100 mm	Art. no. 48 458
Ø 78	H 110 mm	Art. no. 48 478
Ø 83	H 110 mm	Art. no. 48 483
Ø 110	H 110 mm	Art. no. 48 411

*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.

System 125

Variofix shallow bed upper sections

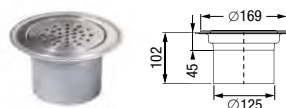
with covers in stainless steel

**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 membraneAISI 304 Art. no. **48 906**AISI 316L Art. no. **48 208****Upper sections**

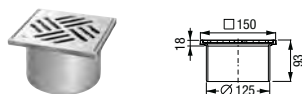
for PVC floorings

**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, screwedAISI 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**

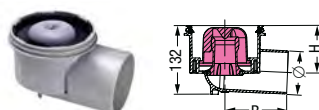
made of polymer

Material: ABS, rim in stainless steel

AISI 304 / 316L or polymer

Class: K 3**Cover:** 110×110 mmAISI 304 Art. no. **48 211**, rim in stainless steelAISI 316L Art. no. **48 207**, rim in stainless steelABS 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 mmØ 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 mmØ 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

Ecoguss and Practicus

System 125


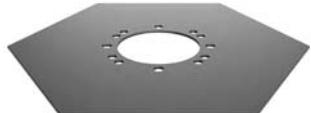
Flanges

can be combined with drain bodies and extension sections

			Dimensions in mm	Art. no.
Clip flange	Inclusive: Factory-mounted waterproofing membrane in accordance with EN 1253-1 and DIN 18534-1-W3-I		280×280	44 703
Glue flange with counter flange	Material: ABS Compatibility: Also for compound seal		Ø 348	48 410
without connection flange	Material: ABS		Ø 268	48 409
Pressure sealing flange	Material: Stainless steel AISI 304 Inclusive: Seeping water opening		Ø 273	48 407

Waterproofing membranes

Compatibility see product description

			Art. no.
Waterproofing membrane	Compatibility: Art. no. 48 410		48 651
2 component adhesive	Compatibility: For gluing of KESSEL waterproofing membranes		48 650
Elastomer waterproofing membrane	Material: NBR Compatibility: Art. no. 48 407		48 981

Intermediate section

Compatibility see product description

			Art. no.
with glue flange	Compatibility: Shallow bed gasket Inclusive: With non-mounted waterproofing membrane according to EN 1253-1 and DIN 18534-1-W3-I		48 900

Extension sections

			Art. no.
without lateral inlet	Material: PP Inclusive: Lip seal		48 987
with lateral inlet Ø 50	Material: PP Inclusive: Lip seal		48 989

Accessories

Ecoguss and Practicus

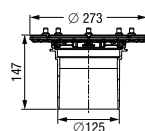
System 125

Extension sections

can be combined with drain bodies and extension sections

with pressure sealing
flange

Material: PP

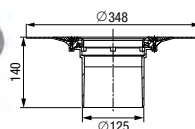


Art. no.

48 404

with glue flange
with counter flange

Material: PP



48 403

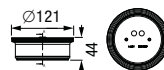
Hygiene and odour stop

for floor drain *Ecoguss* and *Practicus*

Art. no.

Megastop

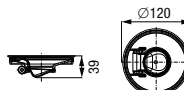
Function: Mechanical odour trap inclusive hair filter for KESSEL upper sections, in combination with design cover with *Lock & Lift* system additional protection against backwater up to 0.1 bar



48 550

Multistop

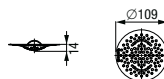
Function: Odour, foam, rodent and insect stop
Note: Not in combination with shower channel upper sections



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

Outer diameter
Ø (mm)

Art. no.

Fire-Kit

Function: Fire protection insert
Compatibility: Only for *Ecoguss* / *Practicus* drains with vertical outlet and odour trap
Certification no.: Z-19.17-1719



48 099
48 099
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



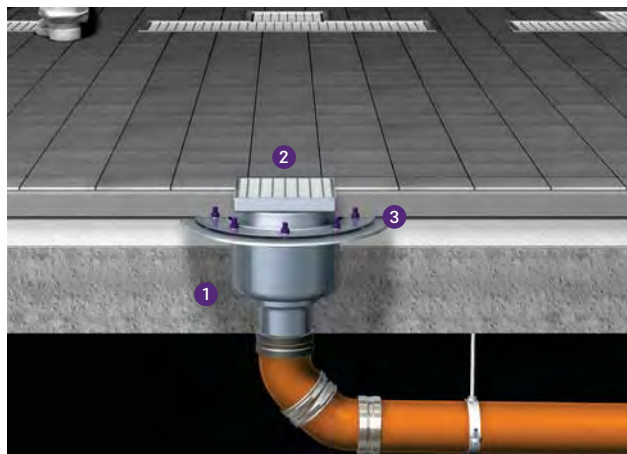
- 48 991

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



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.

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

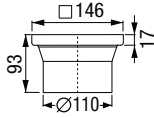
Clean-out *Ferfofix*

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.

Ø 110

27 1916

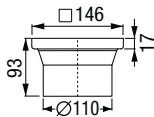
Clean-out *Ferfofix*

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.

Ø 110

27 1966

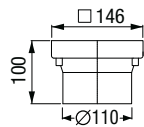
Clean-out *Ferfofix*

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



Connection Ø

Art. no.

Ø 110

27 177-PLF

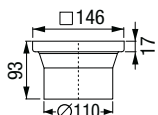
Note: Custom made (delivery time on request)**Clean-out *Ferfofix***

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



Connection Ø

Art. no.

Ø 110

27 177-PL

Note: Custom made (delivery time on request)

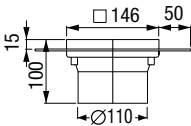
Clean-out *Ferrofix*

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

System 100

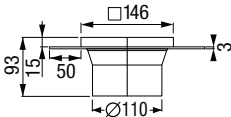
Clean-out *Ferrofix*

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

System 100

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

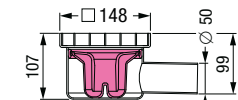


Illustration shows Art. no. 59 305

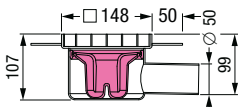


Illustration shows Art. no. 59 315

System 125



Outer diameter
Ø (mm) Art. no.

With connection flange

Ø 50 59 305

With glue flange

Ø 50 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

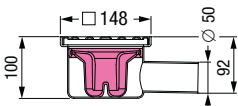


Illustration shows Art. no. 59 325

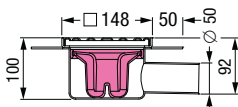


Illustration shows Art. no. 59 335

System 125



Outer diameter
Ø (mm) Art. no.

With connection flange

Ø 50 59 325

With glue flange

Ø 50 59 335

Floor drains *Ferrofix* with pressure sealing flange

Matrix order system

System 125



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

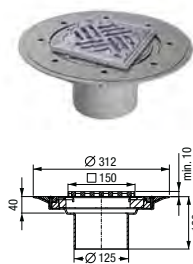
- **Modular system**
see pages 248 – 249
- **Accessories**
see pages 250 – 251

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

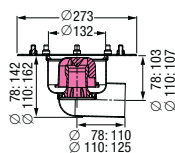


Art. no. 54 914

Drain body with lateral outlet



Ø 78 Art. no. 54 200



Ø 110 Art. no. 54 220

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

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

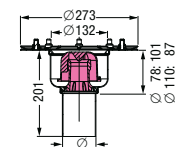
Drainage capacity* 1.9 / 1.0

Drainage capacity* 2.1 / 1.5

Drain body with vertical outlet



Ø 78 Art. no. 54 210



Ø 110 Art. no. 54 230

Complete drain comprising a combination of the upper section and drain body

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

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

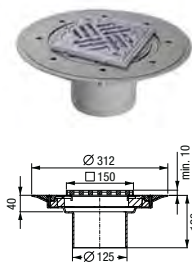
see pages 250 – 251

Upper sections

Shallow bed upper section in ABS
with enclosed waterproofing membrane

Slotted cover

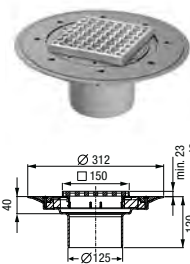
138 × 138 mm
and rim in stainless
steel AISI 304,
anti-slip, class L 15,
screwed



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 stain-
less 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. 54 400

Complete drain comprising a combination of the upper section and drain body

Art. no. 54 400.52

Art. no. 54 400.21

Art. no. 54 400.61

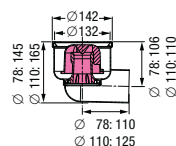
Art. no. 54 400.20

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. 54 420.52

Art. no. 54 420.21

Art. no. 54 420.61

Art. no. 54 420.20

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. 54 410.52

Art. no. 54 410.21

Art. no. 54 410.61

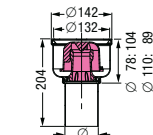
Art. no. 54 410.20

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. 54 430.52

Art. no. 54 430.21

Art. no. 54 430.61

Art. no. 54 430.20

Drainage capacity* 2.3 / 1.1

Drainage capacity* 2.0 / 1.5

Drainage capacity* 2.3 / 0.9

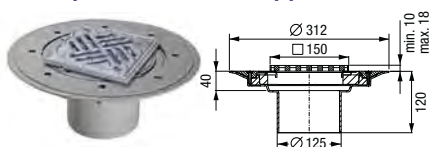
Drainage capacity* 2.2 / 1.5

Modular system 125 *Ferrofix*

Floor drains *Ferrofix* in stainless steel AISI 304

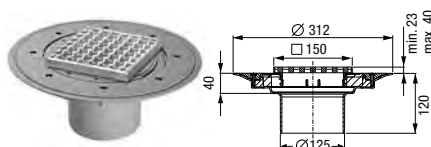
System 125

Variofix shallow bed upper sections



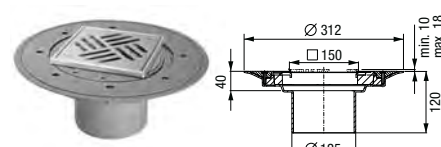
with slotted cover

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

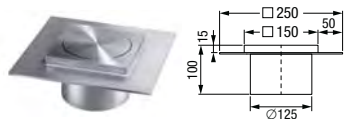
Class: L 15
Cover: 150×150 mm, screwed, gastight, backwater-proof seal up to 0.5 bar, tileable
 Art. no. **54 910**

*Not for combination with *The Ultraflat* 54 / 79 drain bodies

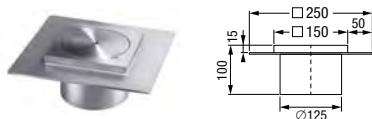
System 125



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*



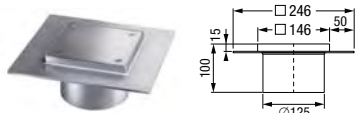
with slotted cover

Class: K 3**Cover:** 100×100 mm**Note:** Not usable with System 125 sludge trap accessory and odour trap Art. no. 54 188.

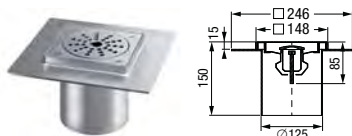
Custom made (delivery time on request)

Art. no. 59 165

Upper sections with glue flange*



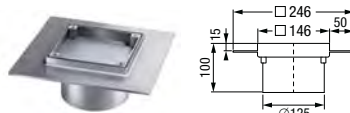
with closed cover

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

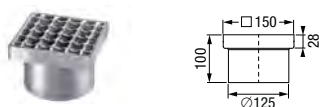
Clean out with glue flange*



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

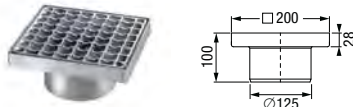
Upper sections*



with anti-slip drain cover

Class: L 15 / M 125

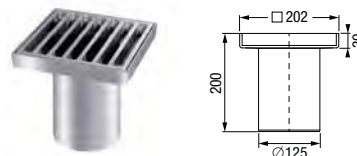
(On-site lining work required)

Cover: 138×138 mm**Art. no.** 54 914

with anti-slip drain cover

Class: L 15 / M 125

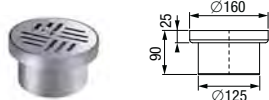
(On-site lining work required)

Cover: 200×200 mm**Art. no.** 54 916

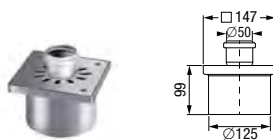
with slotted cover

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

Suitable for
this product

➔ Accessories
from page 250

Accessories

Floor drains *Ferrofix*

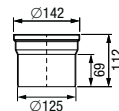
System 125

Extension sections with connection flange

Art. no.

without lateral inlet

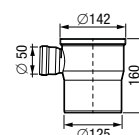
Material: Stainless steel AISI 304
Inclusive: Lip seal



54 900

with lateral inlet Ø 50

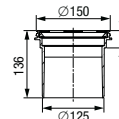
Material: Stainless steel AISI 304
Inclusive: Lip seal



54 902

without lateral inlet

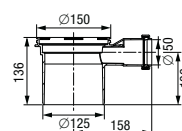
Material: PP
Inclusive: Lip seal



48 987

with lateral inlet Ø 50

Material: PP
Inclusive: Lip seal



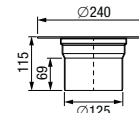
48 989

Extension sections with glue flange

Art. no.

without lateral inlet

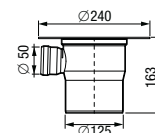
Material: Stainless steel AISI 304
Inclusive: Lip seal



54 901

with lateral inlet Ø 50

Material: Stainless steel AISI 304
Inclusive: Lip seal



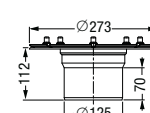
54 903

Extension sections with pressure sealing flange

Art. no.

without lateral inlet

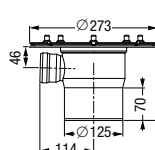
Material: Stainless steel AISI 304
Version: Flange width 70 mm



54 187

with lateral inlet Ø 50

Material: Stainless steel AISI 304
Version: Flange width 70 mm
Inclusive: 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.
Fire-Kit	Function: Fire protection insert Compatibility: Only for drain bodies with vertical outlet and odour trap Certification no.: Z-19.17-1719			Ø 58/78/83 48 099
				Ø 50/75 48 099
				Ø 110 48 100
Quick-Fit with fire protection	Function: For core drilling for drain body vertical outlet Compatibility: Only in combination with <i>Fire-Kit</i> protection insert Certification no.: Z-19.17-1719		-	48 990
Quick-Fit without fire protection	Function: For core drilling for drain body vertical outlet		-	48 991

Hygiene and odour stop

Compatibility see product description

				Art. no.
Sludge trap	Material: Stainless steel AISI 304 Note: Additional sizes on demand			48 636
Sludge trap	Material: Polymer Compatibility: Fits all drain bodies <i>Ferofix</i> System 125			48 168
Odour trap	Material: Stainless steel AISI 304 Sealing water height: 50 mm			54 188

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

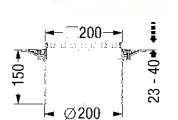
200 × 200 mm
and rim in stainless
steel AISI 304,
anti-slip, class L 15,
screwed



Art. no. 48 978

Anti-slip drain cover

190 × 190 mm
and rim in stainless
steel AISI 304,
anti-slip,
class L 15

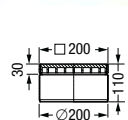


Art. no. 48 969

Upper section in stainless steel AISI 304

Anti-slip drain cover

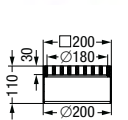
190 × 190 mm
in stainless
steel AISI 304,
anti-slip,
class M 125



Art. no. 57 410

Slotted cover

190 × 190 mm
in stainless
steel AISI 304,
class M 125

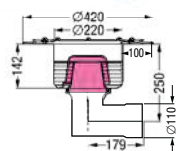


Art. no. 57 420

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

Art. no. 55 550.21

Art. no. 55 550.20

Art. no. 55 550.30

Drainage capacity* 2.1 / 0.8

Drainage capacity* 3.2 / 1.4

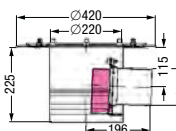
Drainage capacity* 3.2 / 1.4

Drainage capacity* 2.9 / 2.2

Drain body for low installation height:



Ø 110 Art. no. 142 025



Complete drain comprising a combination of the upper section and drain body

Art. no. 142 025.52

Art. no. 142 025.21

Art. no. 142 025.20

Art. no. 142 025.30

Drainage capacity* 3.4 / 1.7

Drainage capacity* 3.8 / 2.7

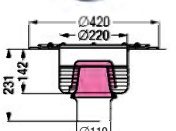
Drainage capacity* 3.8 / 2.7

Drainage capacity* 3.5 / 2.3

Drain body with vertical outlet



Ø 110 Art. no. 55 600



Complete drain comprising a combination of the upper section and drain body

Art. no. 55 600.52

Art. no. 55 600.21

Art. no. 55 600.20

Art. no. 55 600.30

Drainage capacity* 3.0 / 1.9

Drainage capacity* 3.4 / 2.9

Drainage capacity* 3.4 / 2.9

Drainage capacity* 3.0 / 2.2



Floor drains *Ferrofix* with connection flange

Matrix order system

System 200



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

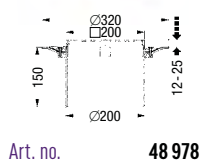
➤ **Modular system**
see pages 254 – 255

➤ **Accessories**
see page 256

Upper sections

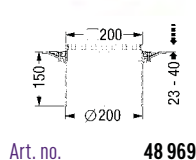
Shallow bed upper section in ABS with enclosed waterproofing membrane

Slotted cover
200 × 200 mm
and rim in stainless
steel AISI 304,
anti-slip, class L 15,
screwed



Art. no. **48 978**

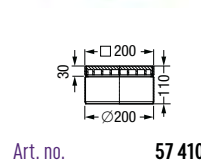
Anti-slip drain cover
190 × 190 mm
and rim in stainless
steel AISI 304,
anti-slip,
class L 15



Art. no. **48 969**

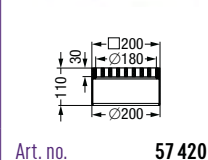
Upper section in stainless steel AISI 304

Anti-slip drain cover
190 × 190 mm
in stainless
steel AISI 304,
anti-slip,
class M 125



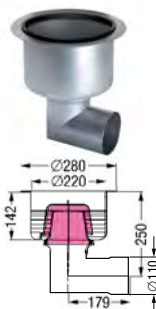
Art. no. **57 410**

Slotted cover
190 × 190 mm
in stainless
steel AISI 304,
class M 125



Art. no. **57 420**

Drain body with lateral outlet



Ø 110 Art. no. **55 350**

Complete drain comprising a combination of the upper section and drain body

Art. no. **55 350.52**

Drainage capacity* 2.1 / 0.8

Art. no. **55 350.21**

Drainage capacity* 3.2 / 1.4

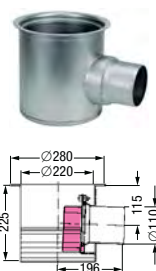
Art. no. **55 350.20**

Drainage capacity* 3.2 / 1.4

Art. no. **55 350.30**

Drainage capacity* 2.9 / 2.2

Drain body for low installation height:



Ø 110 Art. no. **142 026**

Complete drain comprising a combination of the upper section and drain body

Art. no. **142 026.52**

Drainage capacity* 3.4 / 1.7

Art. no. **142 026.21**

Drainage capacity* 3.8 / 2.7

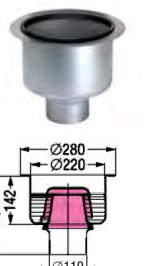
Art. no. **142 026.20**

Drainage capacity* 3.8 / 2.7

Art. no. **142 026.30**

Drainage capacity* 3.5 / 2.3

Drain body with vertical outlet



Ø 110 Art. no. **55 400**

Complete drain comprising a combination of the upper section and drain body

Art. no. **55 400.52**

Drainage capacity* 3.0 / 1.9

Art. no. **55 400.21**

Drainage capacity* 3.4 / 2.9

Art. no. **55 400.20**

Drainage capacity* 3.4 / 2.9

Art. no. **55 400.30**

Drainage capacity* 3.0 / 2.2

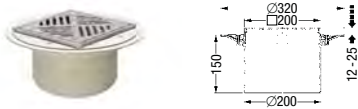


Modular system 200 *Ferrofix*

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



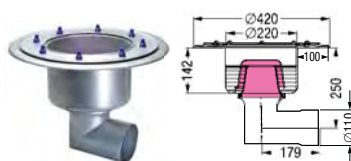
with slotted cover

Class: M 125

Cover: 200×200 mm

Art. no. 57 420

Drain bodies



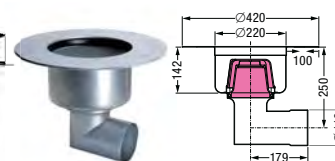
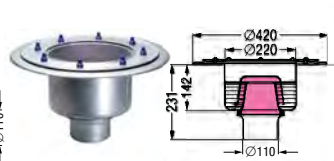
with pressure sealing flange

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

System 200



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

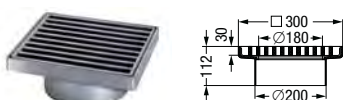
Cover: 200×200 mm

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

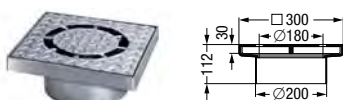


with slotted cover

Class: M 125 (On-site lining work required)

Cover: 290×290 mm

Art. no. 57 425



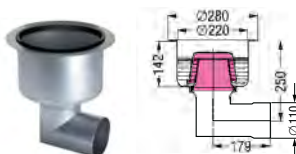
with round-slot cover plate

Class: M 125 (On-site lining work required)

Cover: 290×290 mm, anti-slip

Art. no. 57 435

Drain bodies



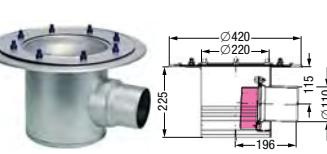
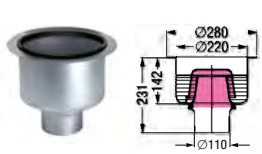
with connection flange

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

Suitable for
this product

➔ Accessories
from page 256

Accessories

Floor drains *Ferrofix*

System 200

Extension sections

			Art. no.
with connection flange	Material: PP Inclusive: Lip seal	 	48 988
with connection flange	Material: Stainless steel AISI 304 Inclusive: Lip seal	 	27 186
with pressure sealing flange	Material: Stainless steel AISI 304	 	27 185

Upper sections

			Art. no.
Shallow bed upper section	Material: ABS Cover: Slotted cover 200 × 200 mm and rim in stainless steel AISI 304, screwed, class L 15 Inclusive: Waterproofing membrane	 	48 968
with support rim	Material: Ecoguss Cover: Round slotted cover Ø 235 mm class B 125, with Lock & Lift System	 	67 985

Hygiene / odour stop / security

			Art. no.
removable odour trap	Material: Stainless steel AISI 304 Sealing water height: 70 mm	 	27 182
Sludge trap	Material: Stainless steel AISI 304 Height: 60 mm	 	67 302
Sludge trap	Material: Stainless steel AISI 304 Height: 150 mm	 	67 301
Sludge trap	Material: PE-HD	 	67 300
Access key	Material: Stainless steel AISI 304 Compatibility: For Art. no. 48 954-S-V2A-KF		48 954-SL

Fire protection insert

			Art. no.
Fire-Kit 200	Compatibility: Only for drain bodies with vertical outlet and odour trap Certification no.: Z-19.17-1719	 	48 200

Modular system 125 *Ferrox* Express

System 125

Linear / Square channel drain *Ferrox* in stainless steel AISI 304

Linear channel drain *Ferrox* 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.

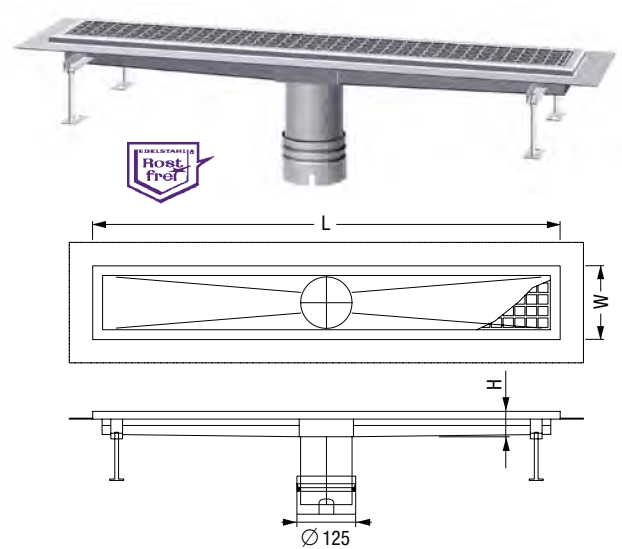
Cover:

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

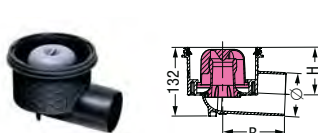
Ø 58/78/83 Art. no. **48 099**

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

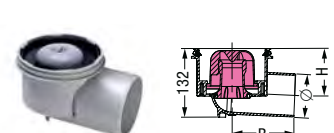
Sealing water height: 50 mm

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**

System 125

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.

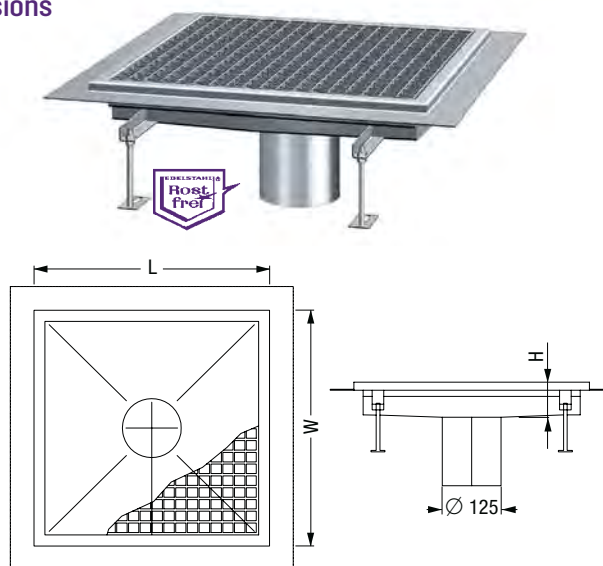
Channel profile for shallow bed seals, with adhesive edge 15 mm deep and 50 mm turned down all-round to the outside, with welded mitre joints.

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



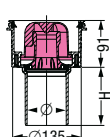
Quick-Fit the passage seal

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

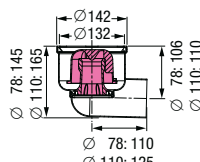
Material: PP

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

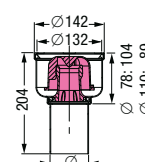
Material: Stainless steel AISI 304

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

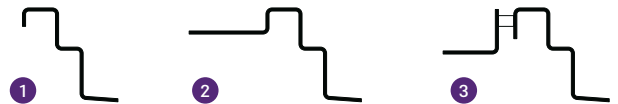
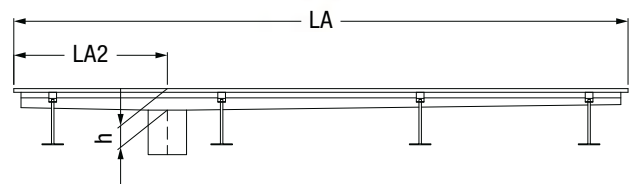
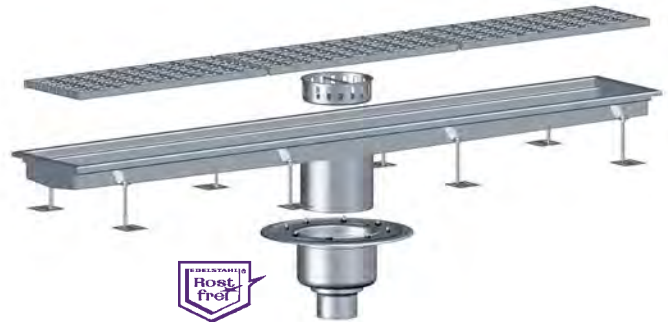
Channel lengths: From 200 mm

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



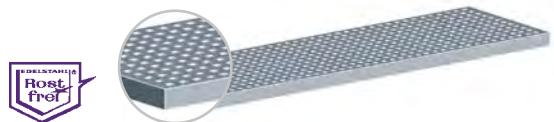
Ribbed plate cover in stainless steel

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

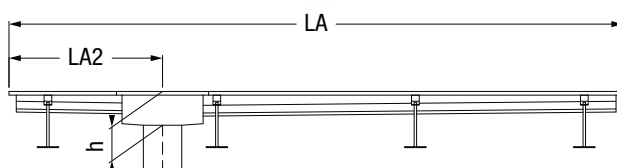
Slot widths: 20 mm (standard width), 8 mm (barefoot area)

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



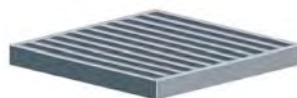
➤ **Sludge trap in stainless steel optional:** System 100, 125, 200 see from page 262, all sludge traps also available in special sizes

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



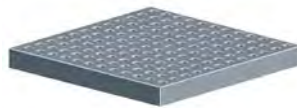
Rod cover in stainless steel

Not anti-slip, acid-treated in pickling bath
Rod clearance 18 mm, supporting member 25×8 mm, class M 125



Slab cover in stainless steel

Not anti-slip, glass bead-blasted
All-round 8 mm inlet, material thickness 10 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



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



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

Stainless steel channels *Ferrofix*

System 100

System 125

System 200

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

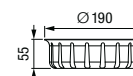
Sludge trap system 200

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

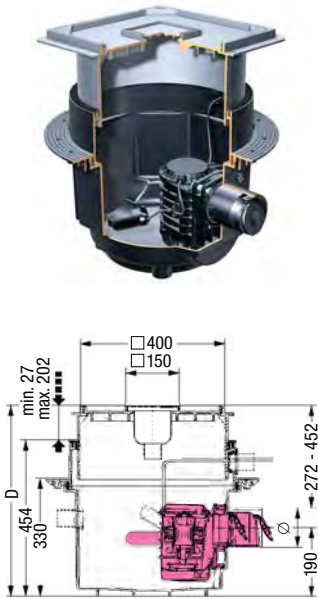
Twin flaps, self-closing, one of which can be
locked by hand, self activating pump during
backwater (pumps against 0.7 bar = 7 m water
column) cable length 5 m. With telescopic
upper section for height and level adjustments

Cover:

Recessed cover for on-site tiling, class A 15,
made of polymer.
With moisture protective sealing flange.

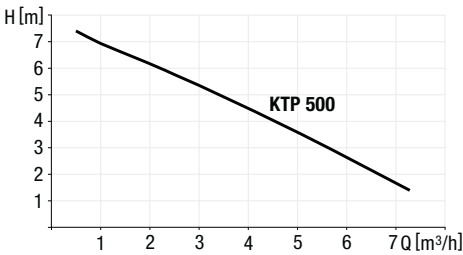
Note: Not for use as a lifting station

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

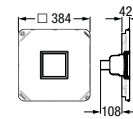
Pumpfix S

Cover plates

for installation in a concrete floor

with drain Ø 75

Version recessed for on-site tiling, grey:
For tile thicknesses of 18 mm



Cover Art. no.

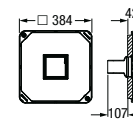
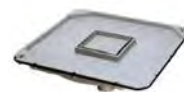
tileable 83 055

Cover plates

for installation in a concrete floor

with drain Ø 75

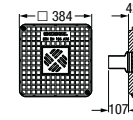
Inclusive: Gasket, *Multistop*
Version recessed for on-site tiling, grey:
For tile thicknesses of 18 mm
Version black:
With integrated grating



Cover Art. no.

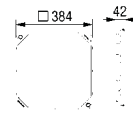
tileable 83 045

black 83 046



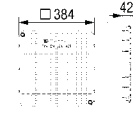
surface water tight

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



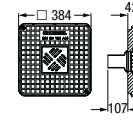
tileable 83 052

black 83 050



without drain

Inclusive: Gasket, with integrated grating
Class: A 15



black 83 053

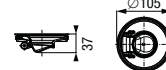
Hygiene and odour stop

Compatibility see product description

Art. no.

Multistop

Function: Odour, foam, rodent and insect stop
Compatibility: Art. no. 83 045 and 83 046



43 500

Hair filter

Compatibility: Art. no. 83 045 and 83 046



43 700

Odour trap

Compatibility: Art. no. 83 055
Sealing water height: 50 mm
(Ventilation always required when in use!)



47 200

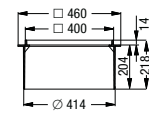
Upper section

for installation in a concrete floor

Art. no.

Size 220 mm

Version: With flange
Extension: Max. 180 mm, height adjustable



83 061



Accessories
Pumpfix S

Extension sections

for installation in a concrete floor

		Art. no.	
with centre flange	<p>Additional function: For installation in waterproof concrete</p> <p>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)</p> <p>Extension: Max. 360 mm</p>		83 075
with flange and counter flange	<p>Additional function: For connection to an on-site sealing sheet</p> <p>Inclusive: Screws</p> <p>Extension: Max. 140 mm (In case of deeper installation ensure maintenance capability!)</p>		83 073
with gasket	<p>Extension: Max. 180 mm (In case of deeper installation ensure maintenance capability!)</p>		83 070

Pipe entrance seals

Pipe entrance seals		Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
Pipe sealing gasket	Requires hole size: 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

Hole saw

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

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

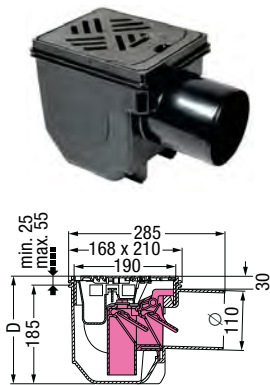
Made in ABS

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	27 301
Without twin flap backwater valve		
Ø 110	210 – 240	33 101

Accessories

The Universal / Drehfix

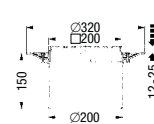
Variofix shallow bed upper section

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

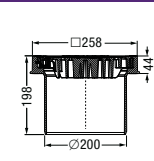
Extension section in *Ecoguss*

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

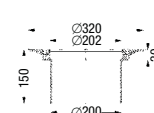
Extension section

for basement drain *The Universal*

Art. no.

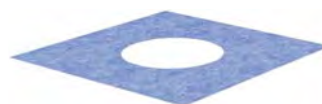
with pressure sealing flange and counter flange

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

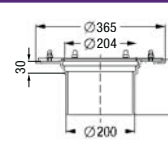
Extension section in *Ecoguss*

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

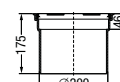
Extension section

for basement drain *The Universal*

Art. no.

Extension section

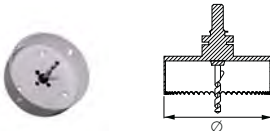







Inclusive: Lip seal
Height: 175 mm



48 988

Accessories

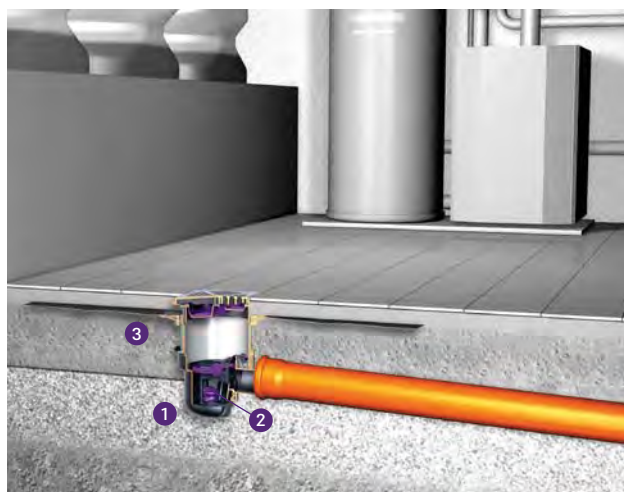
The Universal / Drehfix

Hole saw			Outer pipe diameter in mm	Drill size in mm	Art. no.
Hole saw set	Inclusive: Saw blade holder		Ø 50	60	500 101
			Ø 75	92	
			Ø 110	121	
Inlet adaptor			Outer diameter Ø (mm)	Drill size in mm	Art. no.
for basement drain <i>Drehfix</i>					
Inlet adaptor	Inclusive: Flat seal		Ø 50	60	39 005
			Ø 75	92	39 007
			Ø 110	121	39 100
Transition section			Outer diameter Ø (mm)	Art. no.	
for basement drain <i>The Universal</i> and <i>Drehfix</i>					
Transition section	Inclusive: Ø 110 socket / Ø 75 spigot for use as connection piece, gasket		Ø 75/110	27 602	
Rodent protection			Art. no.		
for basement drain <i>The Universal</i> and <i>Drehfix</i>					
Rodent protection	Material: Stainless steel		27 609		
Twin-flap backwater protection insert			Art. no.		
for basement drain <i>The Universal</i> with twin flap backwater valve					
with integrated odour trap	Inclusive: Odour trap (62 mm)		27 603		
Extension section / slotted cover / sludge trap			Art. no.		
for basement drain <i>Drehfix</i>					
Extension section	Compatibility: For recessed installation Height: 183 mm		38 670		
Slotted cover	Version: Class K 3, with recessed handle for cover removal		27 205		
Sludge trap	Version: With integrated handle for removal		27 308		

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

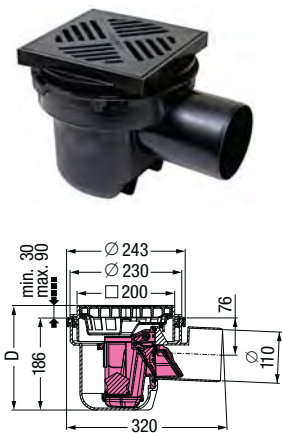
Made in polymer

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

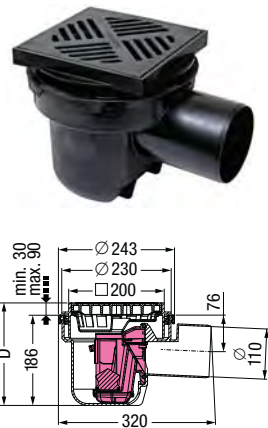
Made in polymer

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

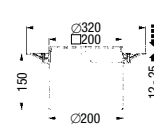
Variofix shallow bed upper section

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

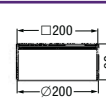
Upper section

for volatile liquid traps

Art. no.

Upper section

Cover: Slotted cover and rim in stainless steel AISI 304, screwed, class K 3



48 954

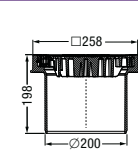
Extension section in Ecoguss

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

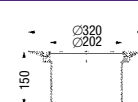
Extension section

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

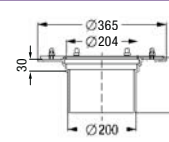
Extension section in Ecoguss

for volatile liquid traps

Art. no.

with pressure sealing flange and counter flange

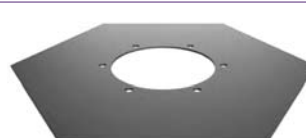
Additional function: For installation in waterproof concrete
Height: 166 mm



48 958

Elastomer waterproof membrane

Material: NBR



48 982

Accessories

Volatile liquid traps

Extension section

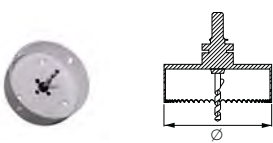
for volatile liquid traps

		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)

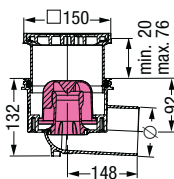


Illustration shows
Art. no. 45 110.40
(lateral outlet)

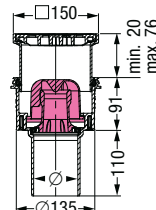


Illustration shows
Art. no. 45 210.40
(vertical outlet)

Outer diameter Ø (mm)	Art. no.
Lateral outlet	
Ø 110	45 110.40
Vertical outlet	
Ø 110	45 210.40

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)

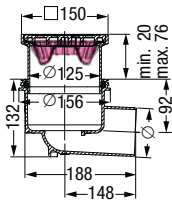


Illustration shows
Art. no. 34 101
(lateral outlet)

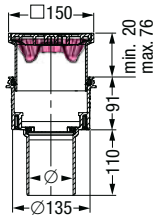


Illustration shows
Art. no. 34 102
(vertical outlet)

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.

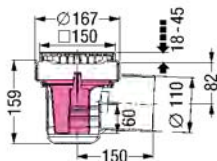
Drainage capacity 1.6 l/sec flow rate.

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

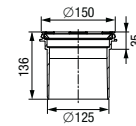
Basement drain *Practicus* without backwater valve

Extension sections

for basement drain *Practicus*

without lateral inlet

Material: PP
Inclusive: Lip seal



Art. no.

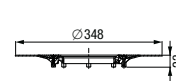
48 987

Flanges

for basement drain *Practicus*

**Glue flange
with counter flange**

Material: ABS

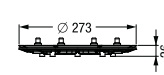


Art. no.

48 410

**Pressure sealing
flange**

Material: Stainless steel AISI 304



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



48 700

**Bell-shaped odour trap
insert**

Sealing water height: 50 mm



27 169

Sludge trap

Material: Polymer



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.	
Hole saw set	Inclusive: Saw blade holder			Ø 50	60	500 101
				Ø 75	92	
				Ø 110	121	
Transition section			Outer diameter Ø (mm)		Art. no.	
for basement drain Art. no. 36 501						
Transition section	Inklusive: Ø 110 socket / Ø 75 spigot for use as connection piece, gasket			Ø 75/110	27 602	
Slotted cover / upper section / extension section			Art. no.			
for basement drain Art. no. 36 501						
Slotted cover	Material: ABS Version: Class K 3			60 101S		
Upper section	Material: PP			27 157		
Extension section	Material: Polymer Extension: Can be extended by 80 mm			36 590		

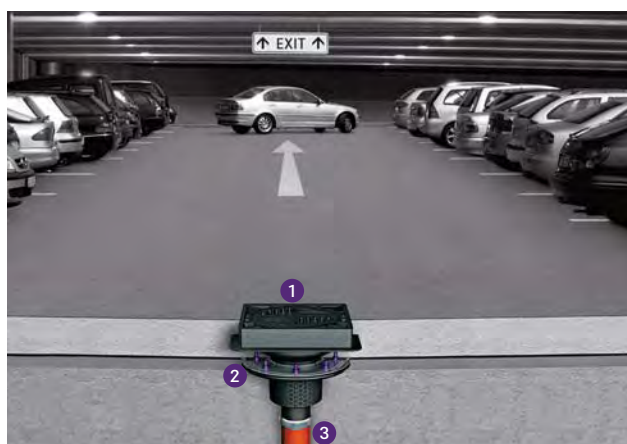
4.4 Outdoor drains

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

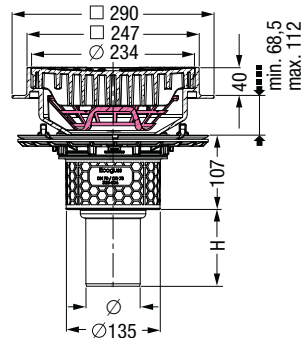
Cover:

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



System 125



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

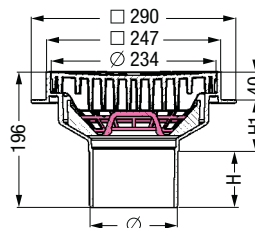


Illustration shows Art. no. 48 501, 48 502

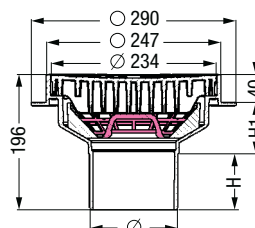


Illustration shows Art. no. 48 503, 48 504

System 100

System 125

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

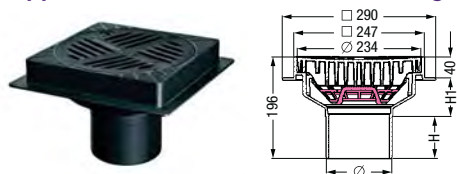
Modular system 100 / 125

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

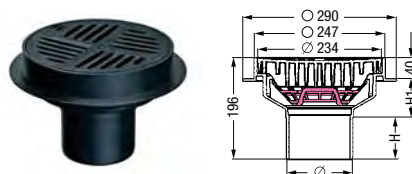
Drainage capacity: 4.5 l/sec flow rate

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. 48 501
System 125 (plastic pipe)	Ø 125	H 79 mm	H1 73 mm	Art. no. 48 502



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

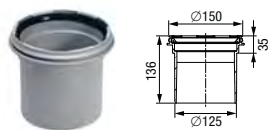
Inclusive: Lock & Lift System, sludge trap

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. 48 503
System 125 (plastic pipe)	Ø 125	H 79 mm	H1 73 mm	Art. no. 48 504

Accessories

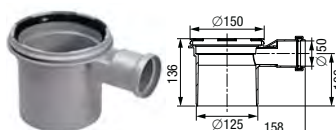


Extension section

Material: PP

Inclusive: Lip seal

without lateral inlet Art. no. **48 987**



Extension section

Material: PP

Inclusive: Lip seal

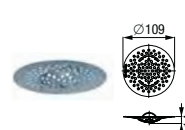
with lateral inlet Ø 50 Art. no. **48 989**



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. 48 099
Ø 110	Art. no. 48 100



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. 48 991
with fire protection*	Art. no. 48 990



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

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.



- 1 Upper section and cover 2 Concrete 3 Sludge basket
4 Locking system

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

System 100



Outer diameter Ø (mm) Art. no.

With square support rim

Ø 110 67 110B

with round support rim

Ø 110 67 111B

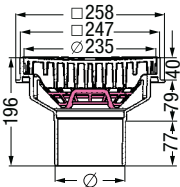


Illustration shows
Art. no. 67 110B

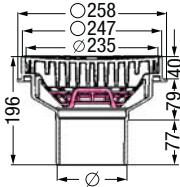


Illustration shows
Art. no. 67 111B

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

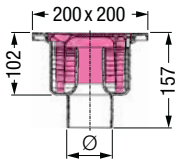


System 100



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

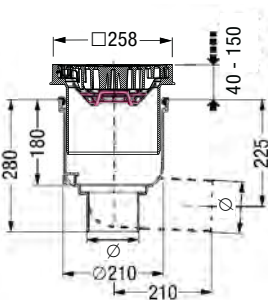


Illustration shows
Art. no. 67 922B, 67 923B



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

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

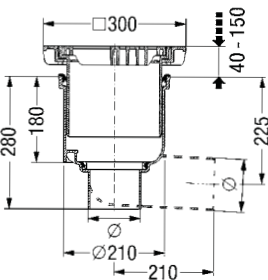


Illustration shows
Art. no. 67 020.30, 67 060.30



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

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

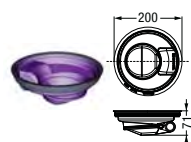
Art. no. 27 140



Lip seal

Non-slip mounting

Art. no. 27 141



Multistop 200

Odour, foam, rodent and insect stop, for Art. no. 67 985, 67 923B, 67 922B

Art. no. 48 520



Bell-shaped odour trap insert

Material: PP, removable

sealing water height:

H = 70 mm (Art. no. 27 170)

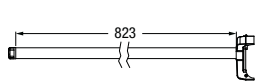
H = 100 mm (Art. no. 27 171)

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.

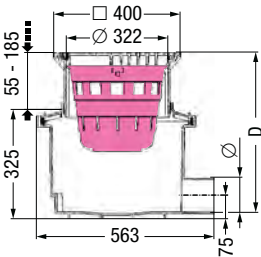
Installation depth (D) from 380 – 510 mm.

Installation area 585×535 mm

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.



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



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.

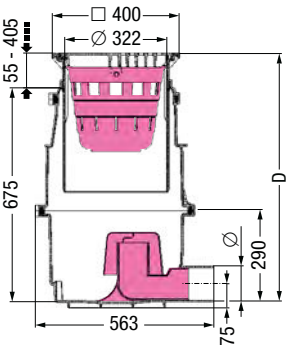
With fuel-resistant gaskets.

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.



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

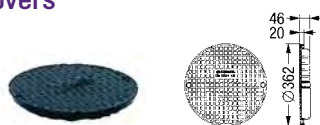


Modular system 400

System 400

Yard drains

Covers



Cover plate in polymer

Class: A (1.5 to.)

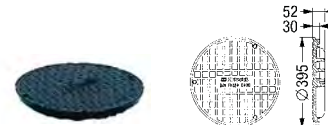
Art. no. 850 132



Cover plate in cast iron

Class: B (12.5 to.)

Art. no. 850 131



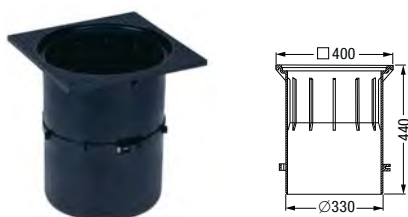
Cover plate in cast iron

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

Connecting wedges

4 pieces

Art. no. 850 111



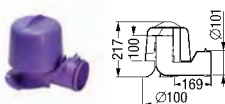
Transition section 450

Art. no. 850 102



Transition section 360

Art. no. 850 103

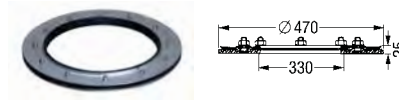
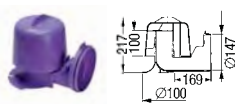


Odour traps

*Compatibility: Art. no. 850 009, 850 010

Ø 110 mm Art. no. 850 141

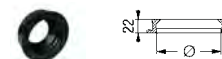
Ø 160 mm* Art. no. 850 142



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

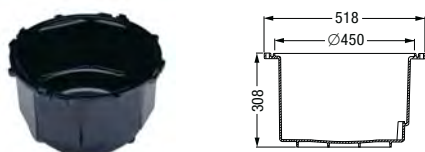
Ø 110 mm Art. no. 850 117

Ø 125 mm Art. no. 850 118

Ø 160 mm Art. no. 850 119

Drain body in polyethylene

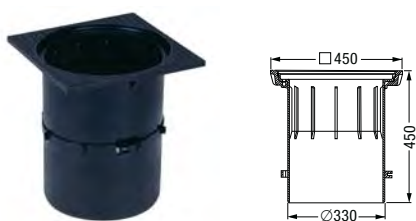
without odour trap



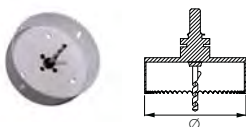
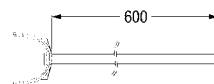
Closed

Art. no. 850 008

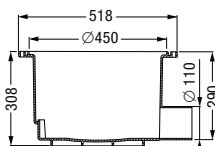
System 400

**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 Ø 50, 75, 110, 125 and 160
(Saw blade holder Ø = 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**
 Ø 110 mm **Art. no.** 850 009
 Ø 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.



- ❶ Downspouts ❷ Drainage pipe ❸ Extension section
❹ Sludge basket ❺ Drain cover ❻ 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

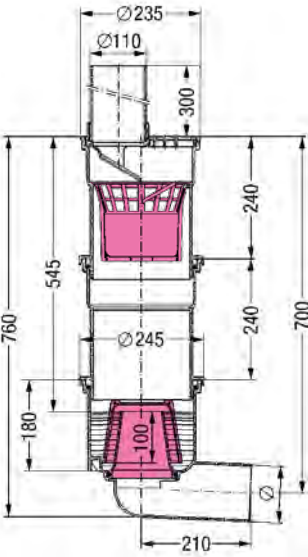


Illustration shows Art. no. 67 970

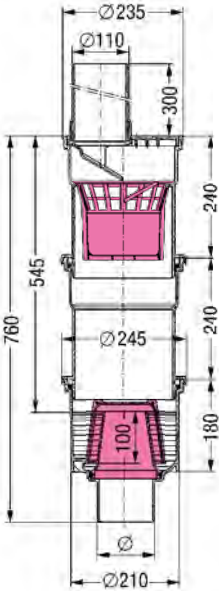


Illustration shows Art. no. 67 960

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

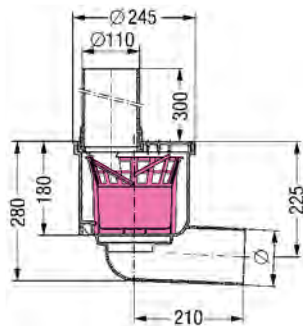


Illustration shows Art. no. 67 945

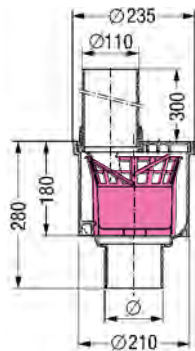


Illustration shows Art. no. 67 940



Illustration shows Art. no. 67 945

System 200



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

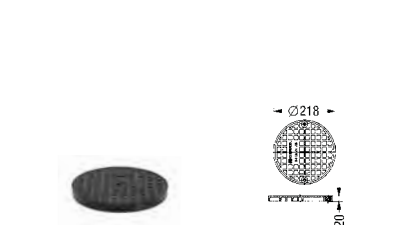
Ø 110 67 997

Modular system 200

Gutter drains

System 200

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

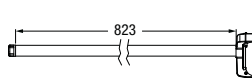
sealing water height:

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

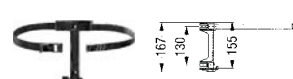


Lifting mechanism

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

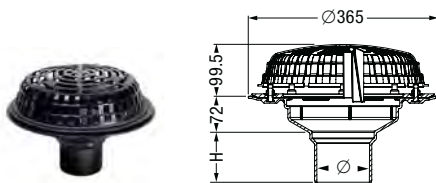
To ensure problem-free drainage of roofs even at low temperatures, our roof drains for flat roof surfaces are available with optional integrated heating. The heating function is integrated in a non-combustible insulated body and therefore does not pose a fire risk.

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**

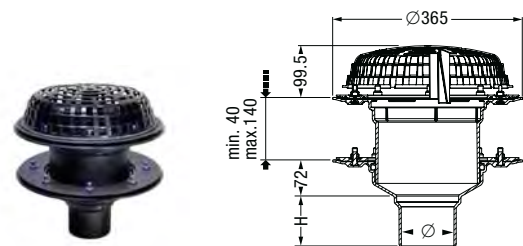
Ø 125 H 93 mm Art. no. **48 312**

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**



EN 1253-1 / DIN 1986-100

Accessories

System 200

Flat-roof drains in *Ecoguss*

Damming ring

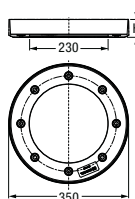
for drainage safety

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

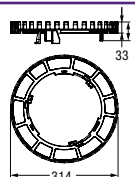
Spacer ring

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

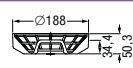
Art. no.



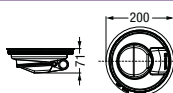
45 301

Leaf trap

Material: PP



48 300

*Multistop 200*Compatibility: Only in combination with *Ecoguss* roof drains with twin sealing system
Function: Odour, foam, rodent and insect stop

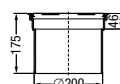
48 520

Extension section

Extension section

Inclusive: Lip seal
Height: 175 mm

Art. no.



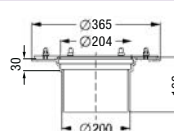
48 988

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.
without heating	Material: Flame proof Class: A 1	48 352
with heating	Material: Flame proof Class: A 1	48 353
Extension section Ø 200	Material: Flame proof Class: A 1	48 354



Reinforcement plate

for flat-roof drain *Ecoguss*

		Art. no.
Reinforcement plate	Material: Galvanized steel Plate size: 600 × 600 mm Cut-out: 270 mm Material thickness: 1.5 mm	48 351

Upgrade example: Single waterproofing

Ø 78, 110 or 125

➤ Flat-roof drain *Ecoguss*:
Product see page 298



Before: Flat-roof drain *Ecoguss*



Conversion

- ➊ Unlock **gravel tap** and remove
- ➋ Remove **counter flange**
- ➌ 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

System 100



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.

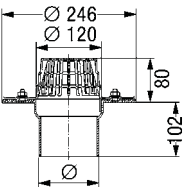
Installation area: 180 × 180 mm



Outer diameter Ø (mm) Art. no.

Ø 110

45 950



Flat-roof drain
with twin pressure sealing flanges

System 100



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.

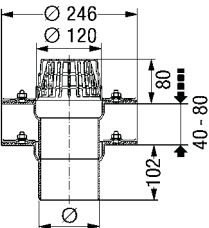
Installation area: 180 × 180 mm



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

5. Separators

Fully certified treatment of contaminated wastewater

Separator range	306
5.1 Grease separator	308
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
Grease separator <i>EasyClean</i> free Standard NS 15 – 30	327
Grease separator <i>EasyClean Modular</i> (two components)	329
Grease separator <i>EasyClean Modular</i> (three components)	330
Accessories	331
Grease separator <i>EasyClean</i> ground Auto Mix & Pump NS 1 - 10	337
Grease separator <i>EasyClean</i> ground Standard NS 1 – 4	338
Grease separator <i>EasyClean</i> ground Standard NS 7 – 35	339
Grease separator <i>EasyClean</i> ground (two components)	340
Accessories	341

5.2 Sediment separators 346

Sediment separator <i>EasySink</i> free NS 1 – 2	348
Sediment separator <i>EasySink</i> ground NS 1 – 2	349

5.3 Starch separators 350

5.4 Coalescence / Oil / Fuel separators 352

Coalescence separator <i>EasyOil</i> ground NS 3 – 6	355
Coalescence separator <i>EasyOil</i> ground NS 3 – 15	356
Oil-/fuel separator <i>EasyOil</i> ground NS 3 – 20	357
Oil-/fuel separator <i>EasyOil</i> ground NS 1.5	358
Accessories	359

5.5 Individual solutions 362

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





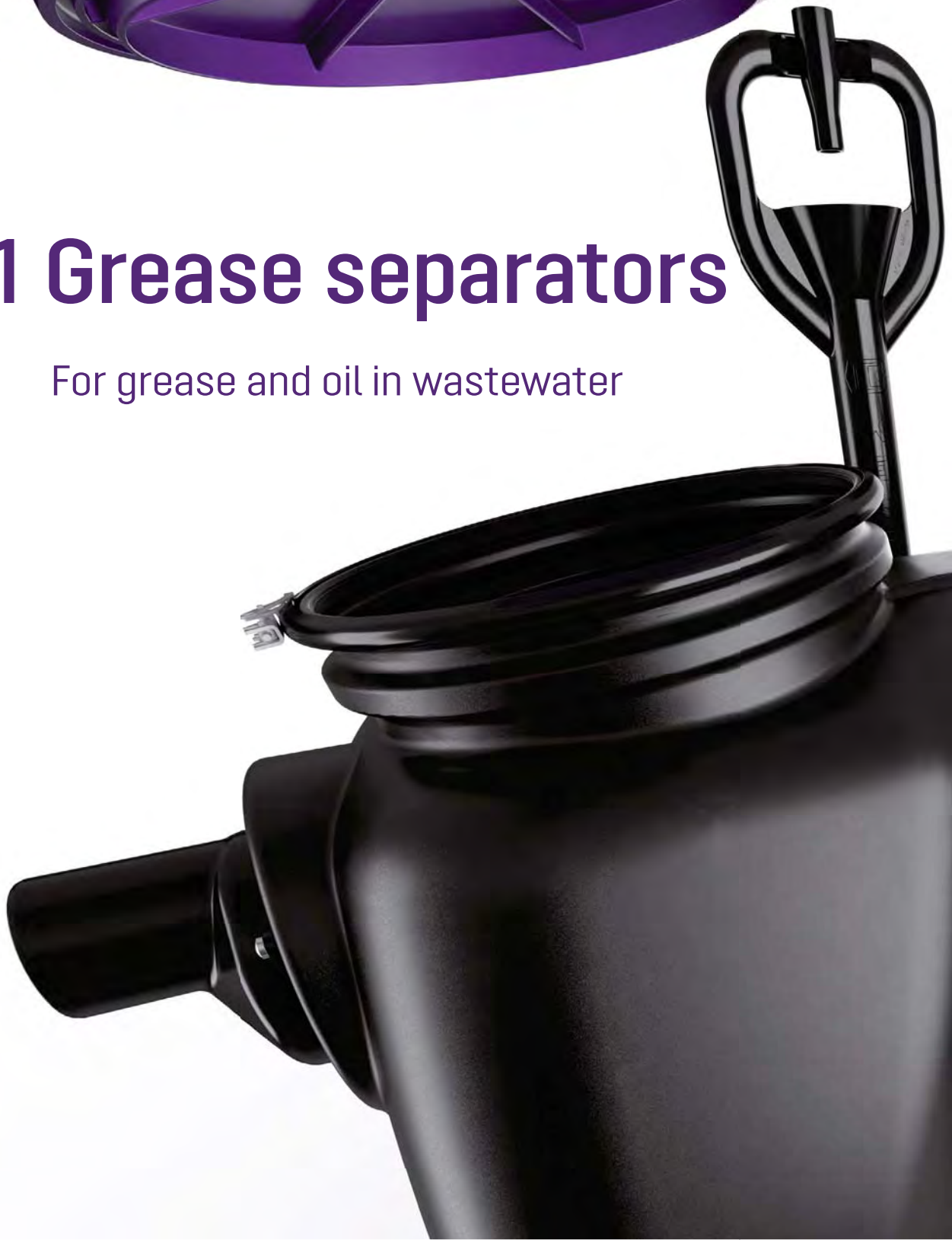
Coalescence and oil separator
EasyOil ground

➤ 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

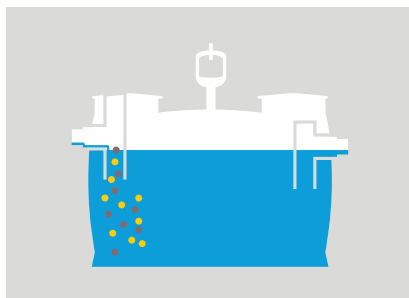
If grease, oil and food residues get into the pipe system, this causes stubborn and foul-smelling deposits that are difficult to remove. The consequences range from corrosion to complete system failure due to blockages – and this in turn means huge costs for the company.

Environmental protection

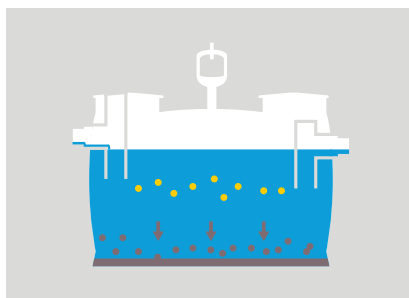
Grease separators prevent the environment from being contaminated by greasy wastewater and contribute to the trouble-free operation of sewage treatment plants.

Operation of a grease separator

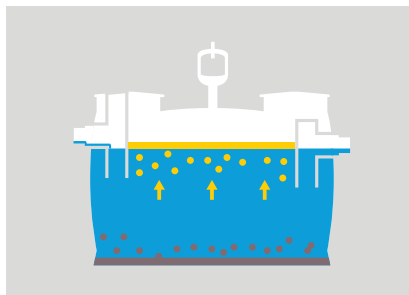
The operation of grease separators is based on the principle of gravity. Lighter than water oil and grease float to the surface of the separator, heavier than water flood sludge settle to the bottom of the separator and the clean treated water leaves the separator via a protected outlet.



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.

SonicControl

The automatic layer thickness measuring device *SonicControl* with ultrasound sensor takes over the precise monitoring of the temperature and grease layer thickness in grease separators.

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	✓					
EasyClean free	↗ P. 316, 322	↗ P. 317, 323	↗ P. 318, 324	↗ P. 319, 325	↗ P. 320, 326	↗ P. 321, 327
EasyClean Modular	–	–	–	–	↗ P. 329	↗ P. 329
EasyClean ground	↗ 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

Different disposal options

Standard

➔ Page 321,327

Direct



➔ Page 320,326

Mix



➔ Page 319,325

Auto Mix



➔ Page 318,324

Mix & Pump

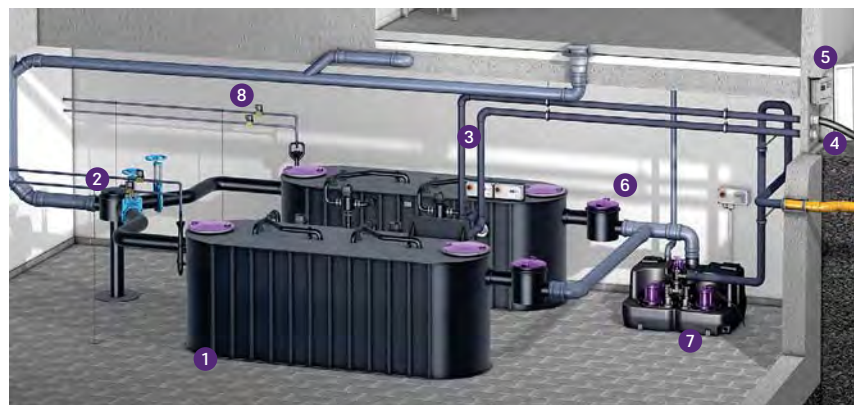


➔ Page 317,323

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

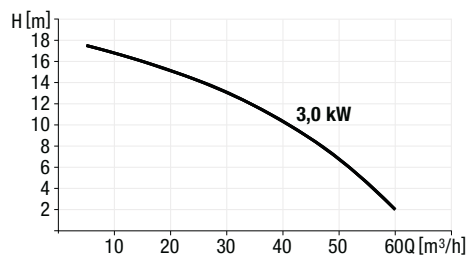
Auto Mix & Pump version fully automated odour free disposal, cleaning and refilling system at touch of button, maintenance free macerating pump (stainless steel blades) for separator cleaning and disposal, includes closure valve for easy pump removal, pump floor mount included with installation hardware 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.

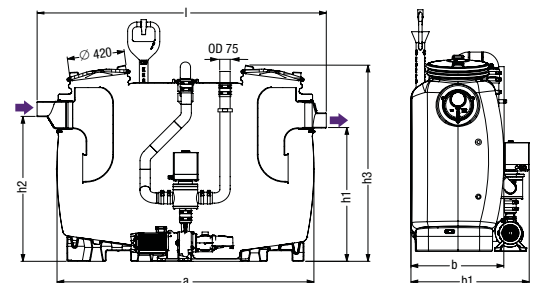
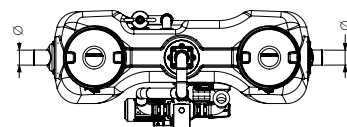
- **Accessories:** Sampling chamber, remote control, *TeleControl* page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330

Pumping capacity



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



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	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 matt, 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"

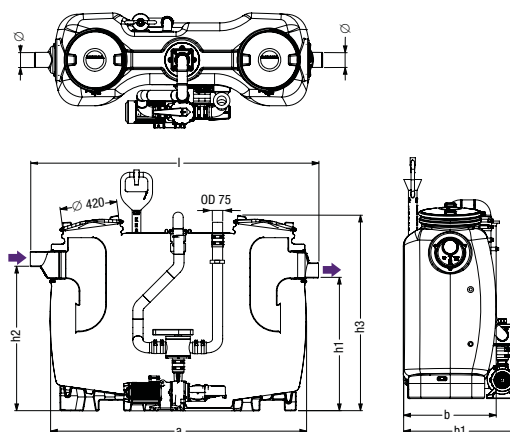
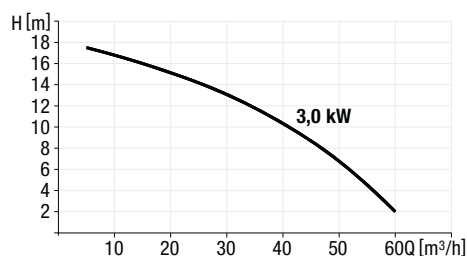
➤ **Technical note** page 330



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

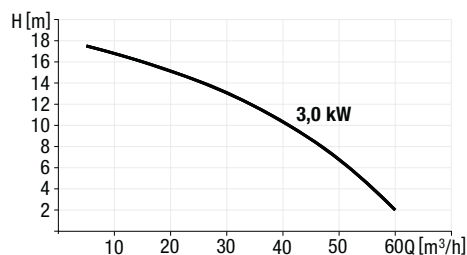
Auto Mix version with simultaneous mixing and cleaning of separator interior - requires disposal truck with vacuum system for separator disposal, disposal is completely odour free, maintenance free macerating pump (stainless steel blades) includes closure valve for easy pump removal, pump floor mount 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.

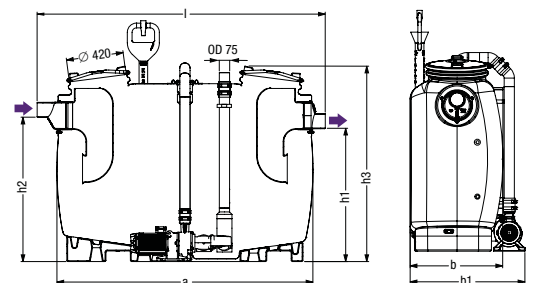
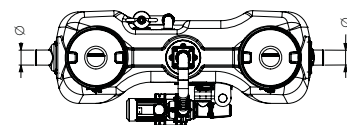
- **Accessories:** Sampling chamber, remote control, *TeleControl* page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330

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"

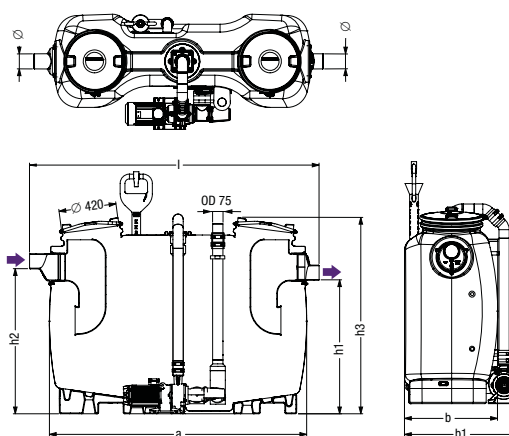
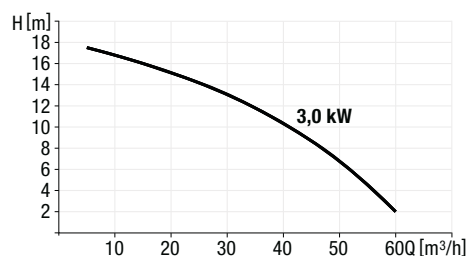
➤ **Technical note** page 330



without *SonicControl* with *SonicControl*

NS	Art. no.	Art. no.
Without inspection window		
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
With inspection window		
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.

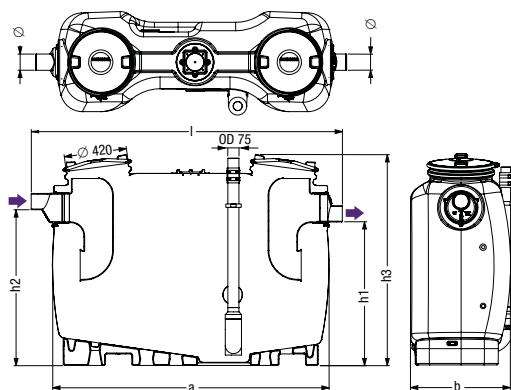
➤ **Accessories:** Sampling chamber, inspection window, refill inlet, retrofitting up to Auto Mix & Pump possible page 331 – 334; lifting stations see chapter "3"

➤ **Technical note** page 330



without *SonicControl* with *SonicControl*

NS	Art. no.	Art. no.
Without accessories		
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
With inspection window		
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
With refill inlet		
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
With inspection window and refill inlet		
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).

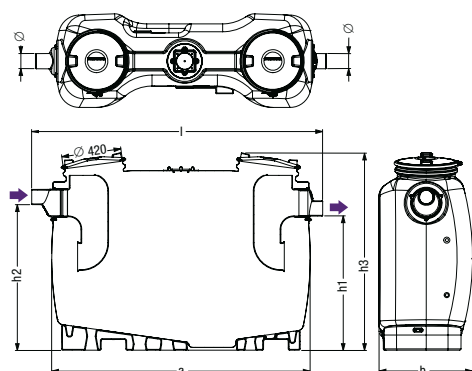
Disposal System

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



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

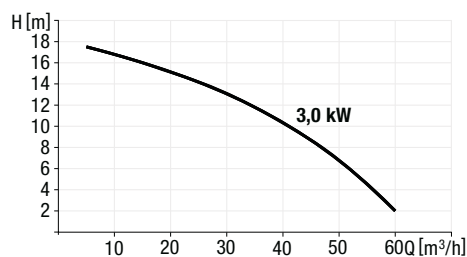
Auto Mix & Pump with program-controlled disposal and rinsing device and Shredder-Mix-System, KESSEL disposal system Auto Mix & Pump with switching distribution and actuator valve, mixing and rinsing device via jet and conic nozzles, external pump(s) 3.0 kW (IP55, 400 V, 50 Hz) with integrated chopping 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.

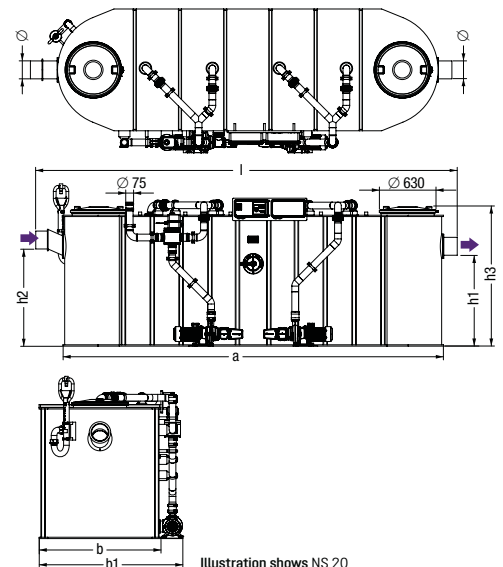
- **Accessories:** Sampling chamber, remote control, *TeleControl*, *SonicControl* level sensing system page 331 – 334; lifting stations see chapter "3"
- **Technical note** page 330

Pumping capacity



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



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 & 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 Ø 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

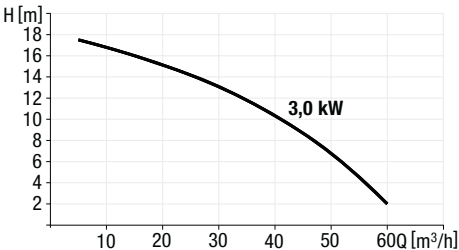
Mix & Pump with manual disposal and rinsing device and Shredder-Mix-System, KESSEL disposal system Mix & Pump with switching distribution, mixing and rinsing device via jet and conic nozzles, external pump(s), with integrated chopping mechanism and closure valve, pumping capacity 3.0 kW, 5 m cable length, 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

Pumping capacity



NS	Ø	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



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

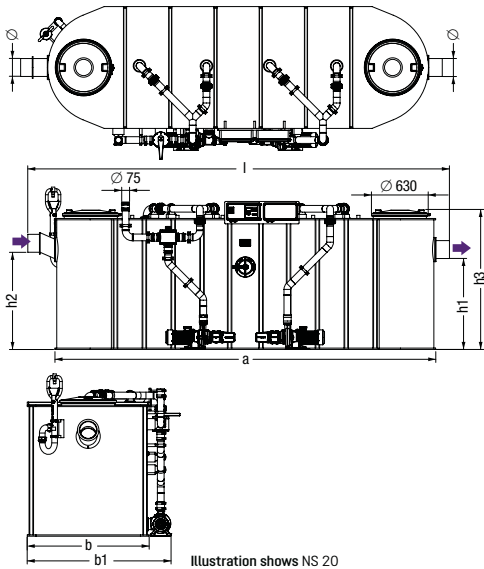


Illustration shows NS 20

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 Ø 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

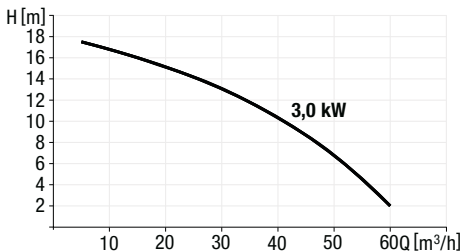
Auto Mix with direct disposal and Shredder-Mix-System, KESSEL Shredder-Mix-System with mixing and rinsing via jet and conic nozzles, external pump(s), with integrated chopping mechanism and closure valve, pumping capacity 3.0 kW, 5 m cable length, refill inlet in accordance with DIN 1988, R 1 connection.

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

Pumping capacity



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

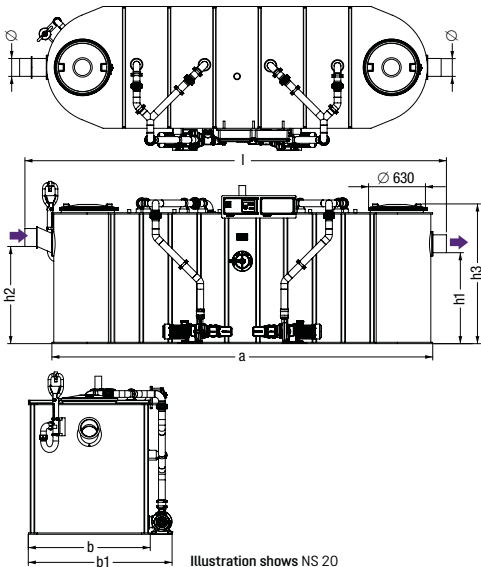


Illustration shows NS 20

NS	Ø	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 Ø 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.

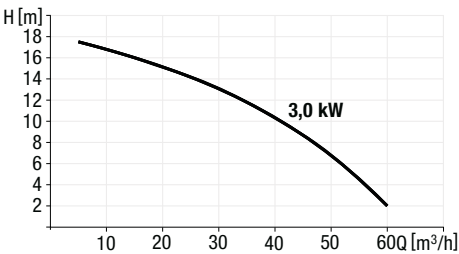
Switch Unit for actuating the pump.

Delivery: System completely assembled.

➤ **Accessories:** Sampling chamber, inspection window, *SonicControl* level sensing system page 331 – 334; lifting stations see chapter "3"

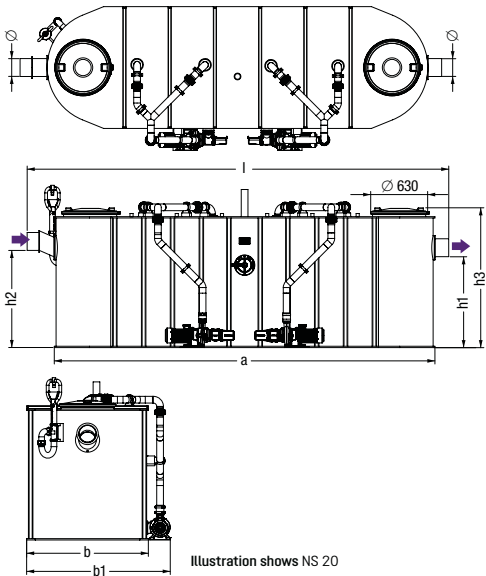
➤ **Technical note** page 330

Pumping capacity



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



NS	Ø	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 Ø 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.

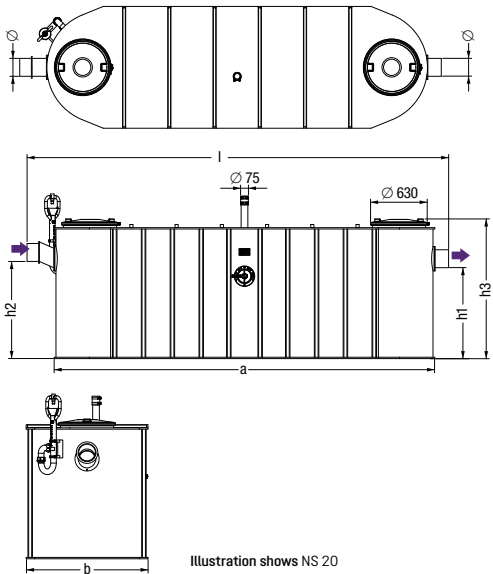
➤ **Accessories:** Inspection window and refill inlet, sampling chamber, retrofit sets up to Auto Mix & Pump from page 331 – 334; lifting stations see chapter "3"

➤ **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	Ø	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 Ø 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.

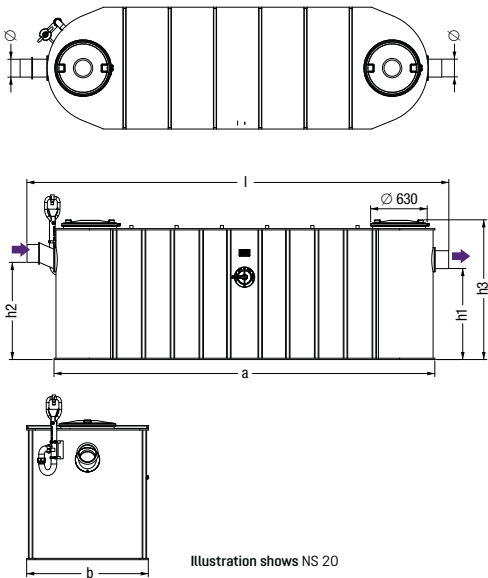
➤ **Accessories:** Inspection window and refill inlet, sampling chamber, retrofit sets up to Auto Mix & Pump from page 331 – 334; lifting stations see chapter "3"

➤ **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



NS	Ø	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 ☒ ☐

Different disposal options

Standard

➤ Page 329

Direct



➤ Page 329



➊ Separator component ➋ Assembled grease separator ➌ 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"

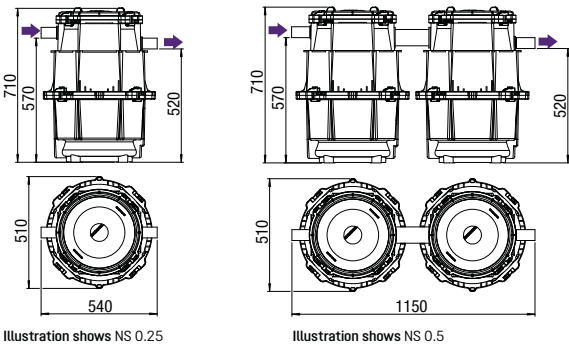


Illustration shows NS 0.25

Illustration shows NS 0.5

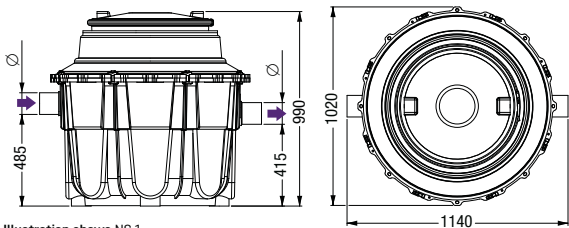


Illustration shows NS 1

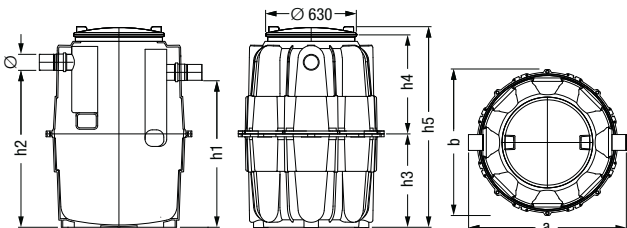


Illustration shows NS 2



Illustration shows
Art. no. 93 025

Illustration shows
Art. no. 93 050

Illustration shows
Art. no. 93 001



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

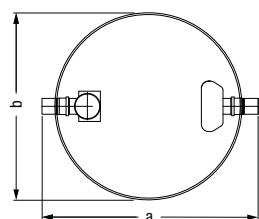
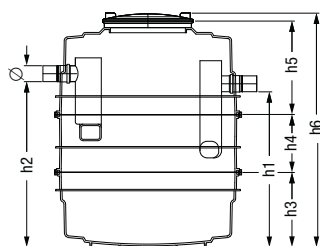


Illustration shows Standard version

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

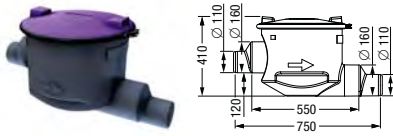
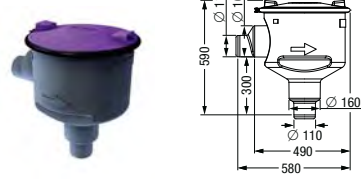
Ø = Outer diameter

Accessories

Grease separators for free-standing installation

Sampling chamber Ø 400

for separation systems

			Outer diameter Ø (mm)	Art. no.
Outlet lateral	<p>Compatibility: 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>Inclusive: Cover sealed odour-tight with snap closure</p> <p>Drop height: 120 mm</p>		Ø 110/Ø 160	915 871
Outlet vertical	<p>Compatibility: 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>Inclusive: Cover sealed odour-tight with snap closure</p> <p>Drop height: 120 mm</p>		Ø 110/Ø 160	915 870
Retrofit sets			Outer diameter Ø (mm)	Art. no.
Direct	Inclusive: Direct disposal connection		-	913 101/D
Mix	Inclusive: Pump, refill inlet, 1 manual hand valve and direct disposal connection		NS 2 - 7 NS 10	913 101/DS 913 101/DS10
Auto Mix	Inclusive: 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
Mix & Pump	Inclusive: 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
Auto Mix & Pump	Inclusive: 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

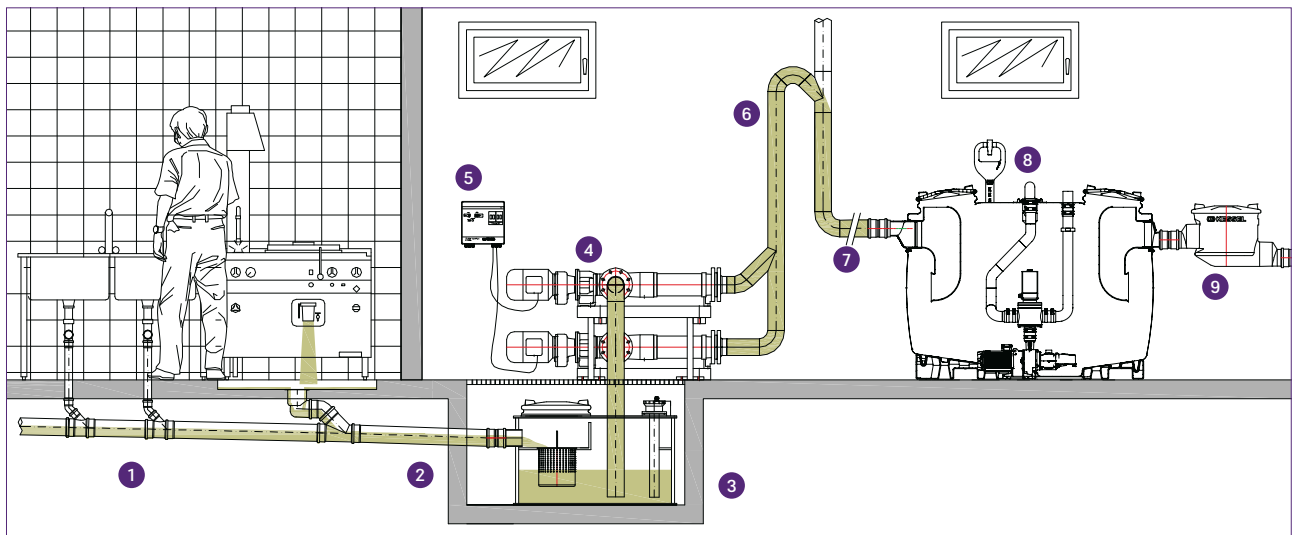
In the case where the grease separator is located higher than the collected wastewater from the kitchen, the EN 1825 norm requires the use of special lifting stations. Standard lifting stations with vortex or macerating pumps 'mix' the wastewater as it is pumped. This causes the food waste and grease 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

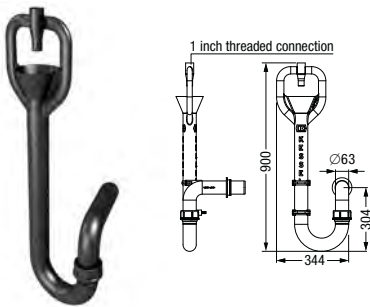
for separation systems

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

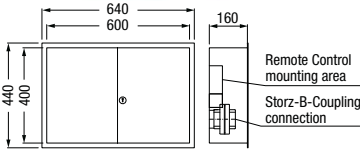
for separation systems

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

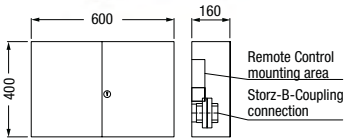


640×440×160

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

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

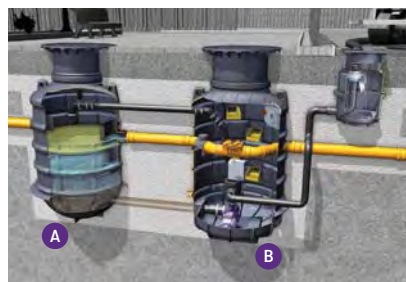
Cable length: 5 m

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

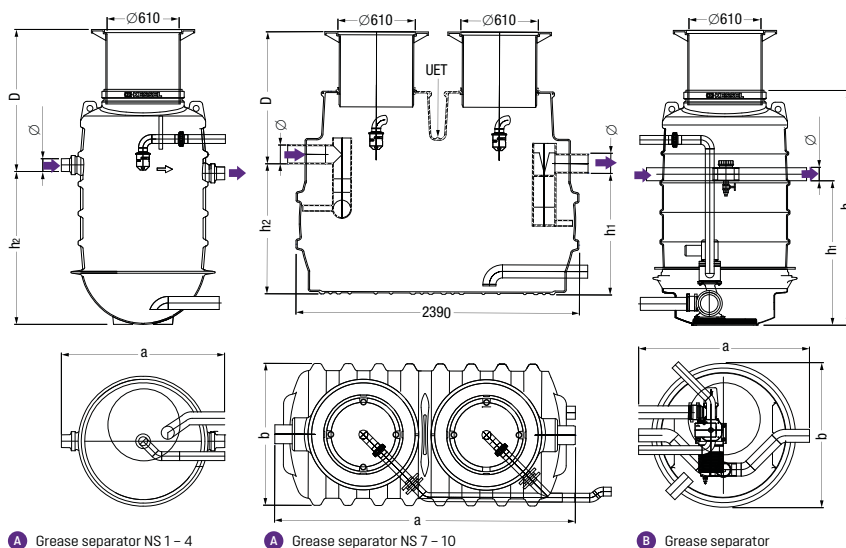


Underground installation frost-free depth 800 mm

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:

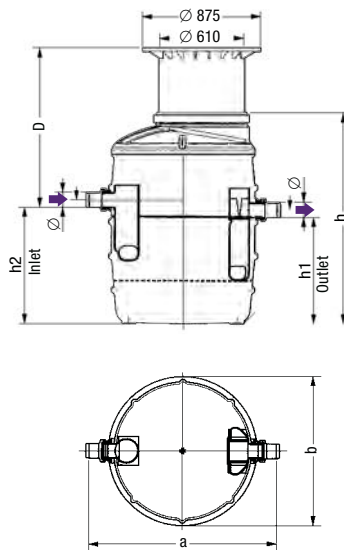
Upper section made of polymer, infinite height and level adjustment, with cover class A/B, D in accordance with EN 124 made of cast iron, sealed odour-tight, incl. lift-out key

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	93 001/80B
NS 2	550 – 950	93 002/80B
NS 4	550 – 950	93 004/80B
Cover class D		
NS 1	550 – 950	93 001/80D
NS 2	550 – 950	93 002/80D
NS 4	550 – 950	93 004/80D

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
NS 2	800 – 1200	93 002/120B
NS 4	800 – 1200	93 004/120B
Cover class D		
NS 1	800 – 1200	93 001/120D
NS 2	800 – 1200	93 002/120D
NS 4	800 – 1200	93 004/120D

NS	Ø	a	b	h ¹⁾	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

¹⁾ 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:

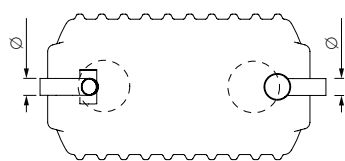
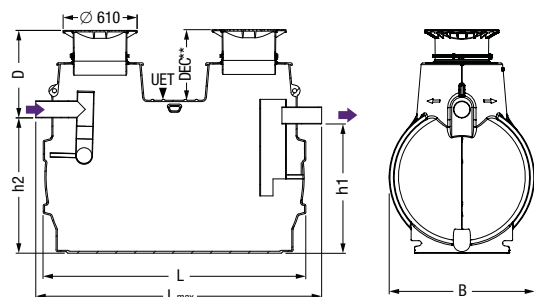
Upper section made of polymer, height and level adjustment, with cover class A/B, D in accordance with EN 124, made of cast iron (can be driven over by cars and trucks), sealed odour-tight, incl. lift-out key

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"

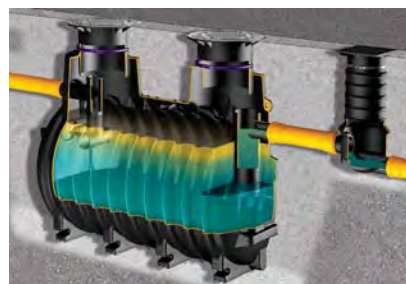
➤ **Technical note** page 340



**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.
Cover class A/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

Cover class D

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.
Cover class A/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

Cover class D

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

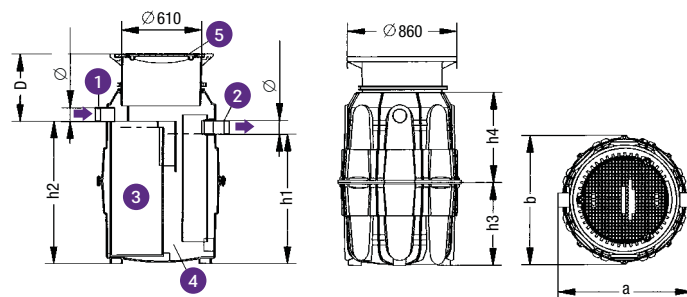
- Resistant when installed in the groundwater up to 500 mm
- A load distribution plate must be provided for class D

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"



- 1 Inlet
- 2 Outlet
- 3 Sludge trap
- 4 Separation chamber
- 5 Upper section with cover class A/B, D

NS	Installation depth D in mm	Art. no.
Cover class A/B		
NS 1	330 – 480	98 201/00B
NS 2	330 – 480	98 202/00B
NS 4	330 – 480	98 204/00B
Cover class D		
NS 1	330 – 480	98 201/00D
NS 2	330 – 480	98 202/00D
NS 4	330 – 480	98 204/00D

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	Art. no.
right	917 419.00
left	917 419.50

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 chamber Ø 400

for grease separators for underground installation

Cover	Art. no.
Class A/B	917 422B
Class D	917 422D

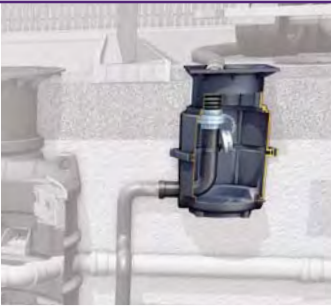
Disposal chamber

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



Joint and connection set

for grease separators for underground installation

Art. no.
917 421

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

Direct disposal, including disposal chamber Ø 400

for grease separators according to EN 1825

Disposal connection	Art. no.
right	917 420.00
left	917 420.50

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



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

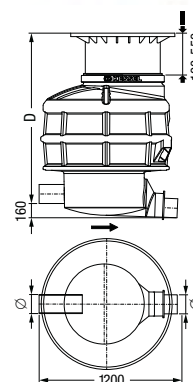
Inclusive: Inlet and outlet Ø ... for synthetic material pipes in: PE-HD (according to EN 12666-1); PVC-KG (according to EN 1401-1); PP or AS.
 With integrated access steps, with vertically height-adjustable upper section made of polymer, with cover class A/B, D according to EN 124 in cast iron sealed 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	Cover class B	Cover class D	In-/Outlet	Art. no.
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			Ø 110/160	915 880A
			Ø 200	915 880A-200
	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		Ø 110/160	915 880B
			Ø 200	915 880B-200
		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	Ø 110/160	915 880D
			Ø 200	915 880D-200

Sampling chamber Ø 450

for underground installation

Cover class A	Cover class B	Cover class D	In-/Outlet	Art. no.
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			Ø 110	915 881A
			Ø 160	915 882A
			Ø 200	915 883A
	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		Ø 110	915 881B
			Ø 160	915 882B
			Ø 200	915 883B
		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	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

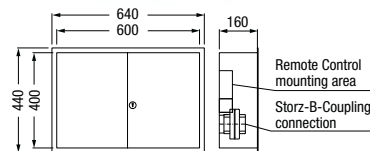
for separation systems

Width×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

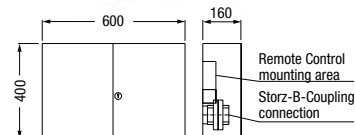


640×440×160

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

5.2 Sediment separators

Wastewater pipe blockage prevention

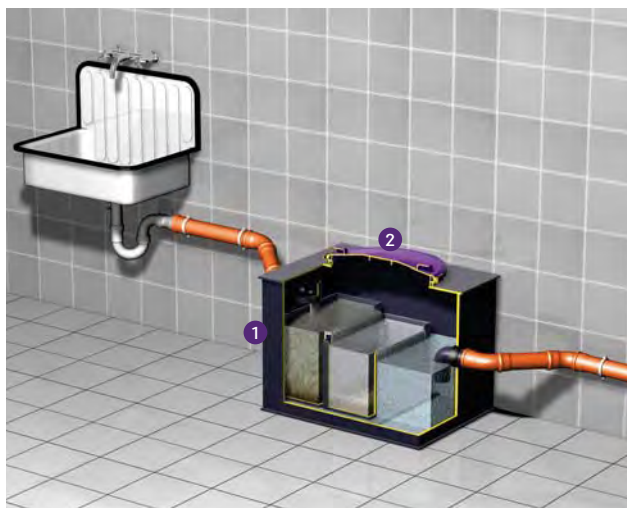
Sediment separators

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)

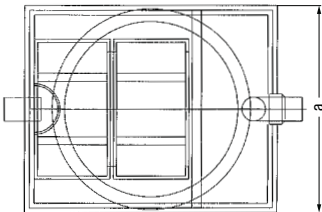
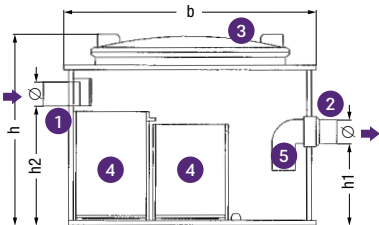
NS 1: 1 collection tank

NS 2: 2 collection tanks

Note: Further nominal sizes on request



Illustration shows Art. no. 97 202/000



- 1 Inlet
- 2 Outlet
- 3 Domed cover
- 4 Collection tank
- 5 Odour trap

NS	Art. no.
NS 1	97 201/000
NS 2	97 202/000

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:

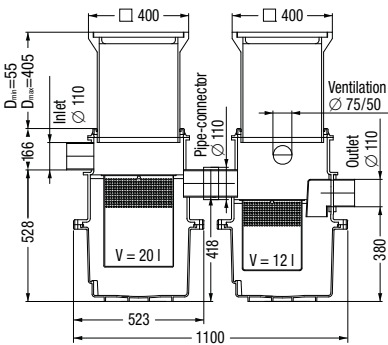
With removable sediment container (hole diameter 5 mm),
outlet odour trap. Vertically adjustable upper section
with cover class A/B/D, odour-tight seal.
Inlet/outlet Ø 110 for plastic adapter DIN 19534;

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.
Cover class A		
NS 1	25	97 201/00A
NS 2	45	97 202/00A
Cover class B		
NS 1	25	97 201/00B
NS 2	45	97 202/00B
Cover class D		
NS 1	25	97 201/00D
NS 2	45	97 202/00D

5.3 Starch separators

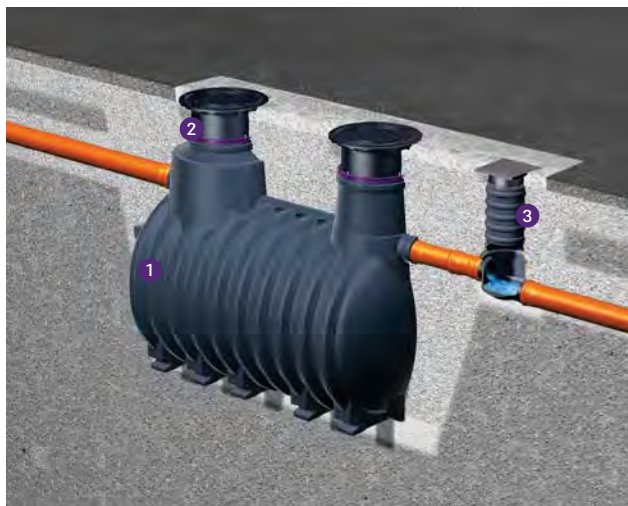
Starch removal from commercial
wastewater

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.



- ❶ Starch separator
- ❷ Height adjustable upper section
- ❸ Sampling chamber

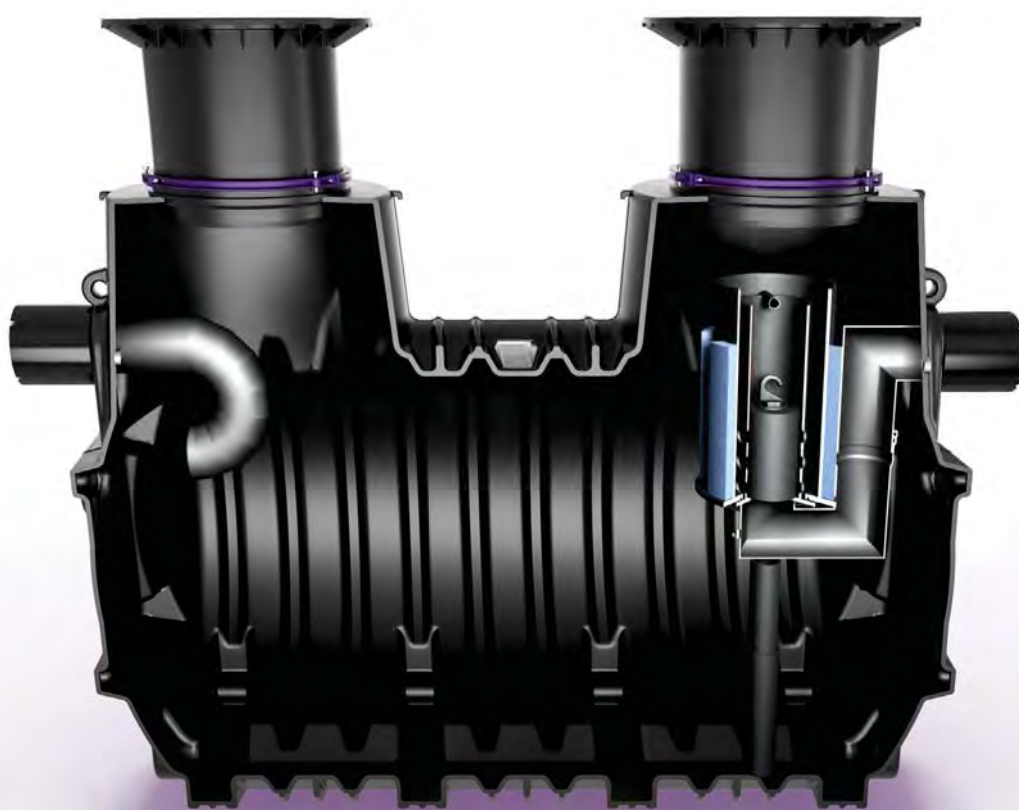
Polymer

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





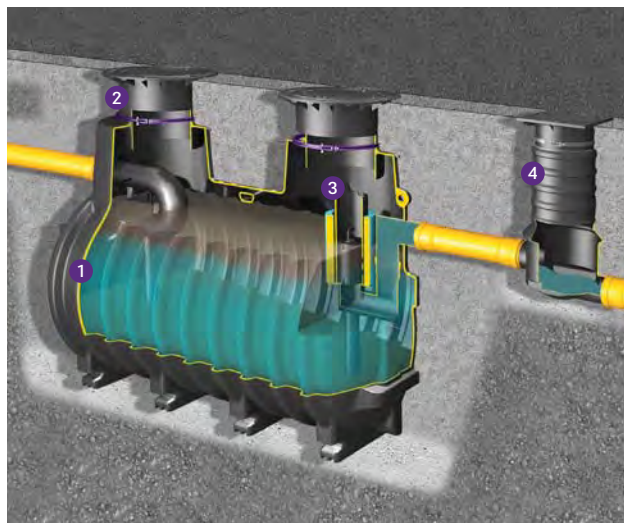
Coalescence and oil/fuel separators

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/cm³.

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

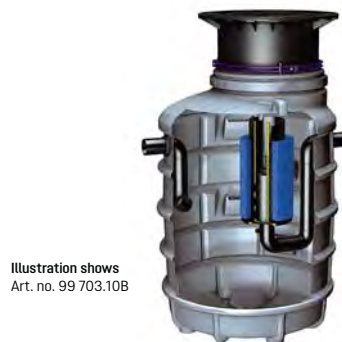


Illustration shows
Art. no. 99 703.10B



Illustration shows Art. no. 99 706.10B

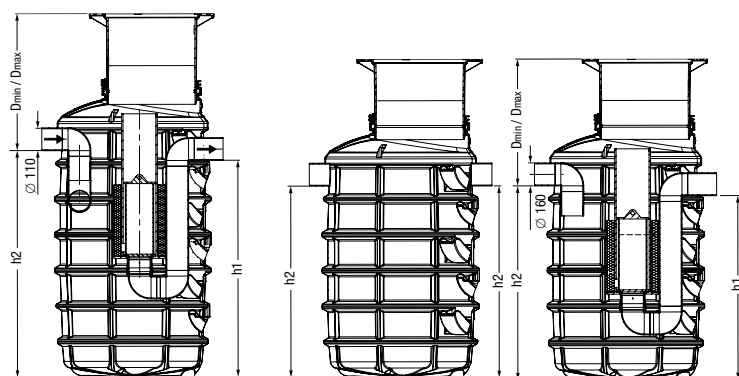


Illustration shows Art. no. 99 703.04B

Illustration shows Art. no. 99 706.18B (Twin-chamber system)

NS Art. no.

Cover class A/B

NS 6	99 706.02B
NS 6	99 706.06B
NS 3	99 703.04B
NS 6 ¹⁾	99 706.10B
NS 3	99 703.10B
NS 6 ¹⁾	99 706.18B

Cover class D

NS 6	99 706.02D
NS 6	99 706.06D
NS 3	99 703.04D
NS 6 ¹⁾	99 706.10D
NS 3	99 703.10D
NS 6 ¹⁾	99 706.18D

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	99 706.02B
6	160	560 – 1090 mm	650 l	175 kg	1590	1520	200 l	1300 l	99 706.06B
3	110	545 – 995 mm	400 l	175 kg	1105	1055	200 l	800 l	99 703.04B
6 ¹⁾	160	560 – 1090 mm	850 l	305 kg	1090	1020	200 l	1700 l	99 706.10B
3	110	545 – 995 mm	850 l	190 kg	1605	1555	200 l	1700 l	99 703.10B
6 ¹⁾	160	560 – 1090 mm	1900 l	320 kg	1590	1520	200 l	3800 l	99 706.18B
6	160	560 – 1090 mm	200 l	205 kg	1090	1020	200 l	400 l	99 706.02D
6	160	560 – 1090 mm	650 l	220 kg	1590	1520	200 l	1300 l	99 706.06D
3	110	545 – 995 mm	400 l	205 kg	1105	1055	200 l	800 l	99 703.04D
6 ¹⁾	160	560 – 1090 mm	850 l	338 kg	1090	1020	200 l	1700 l	99 706.10D
3	110	545 – 995 mm	850 l	220 kg	1605	1555	200 l	1700 l	99 703.10D
6 ¹⁾	160	560 – 1090 mm	1900 l	353 kg	1590	1520	200 l	3800 l	99 706.18D

Based on EN 858

*Ø = Inlet and outlet outer diameter (mm)

¹⁾ 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

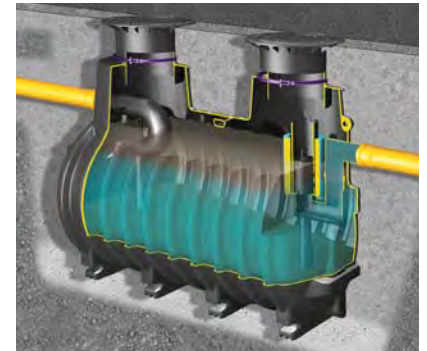
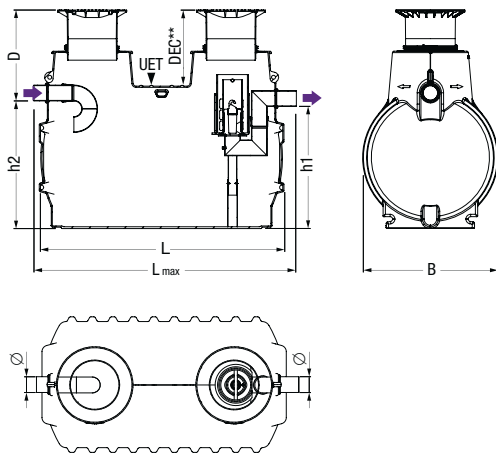
Consisting of:

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 ¹⁾	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 ¹⁾	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)

¹⁾ 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.

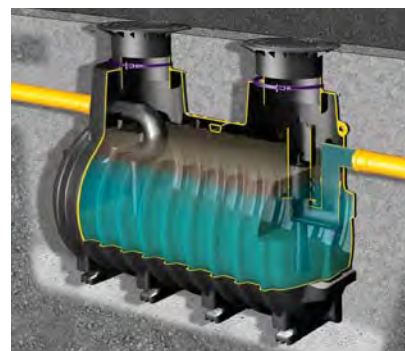
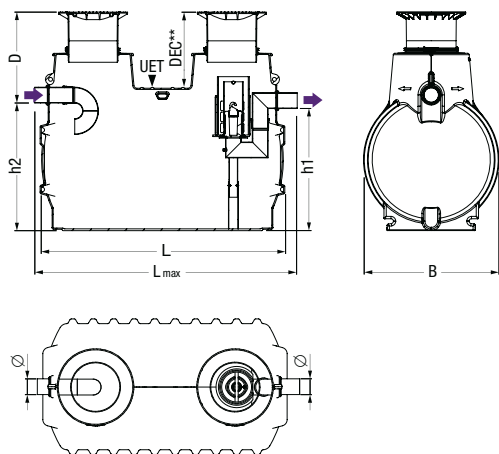
Note:

- 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 ¹⁾	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 ¹⁾	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)

¹⁾ 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

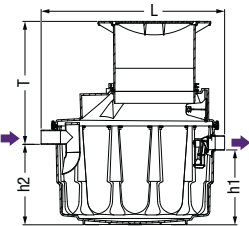


Illustration shows Art. no. 99 601.041D

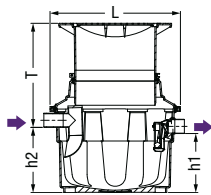


Illustration shows Art. no. 99 601.016B/D

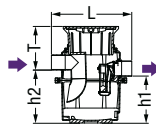


Illustration shows Art. no. 99 601.002B



Illustration shows Art. no. 99 601.041D



Illustration shows Art. no. 99 601.016B/D

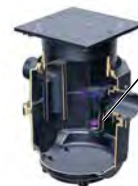


Illustration shows Art. no. 99 601.002B

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.
Cover class B		
400	231 - 324	99 601.002B
800	518 - 942	99 601.016B
Cover class D		
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		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

Sampling chamber Ø 1000

for underground installation

		Outer dia-meter 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	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
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 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

		Art. no.
Extension section	Compatibility: For underground grease separators with 600 mm access cover Height increase: 500 mm	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

Cover class B

Cover class D



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

Extension section

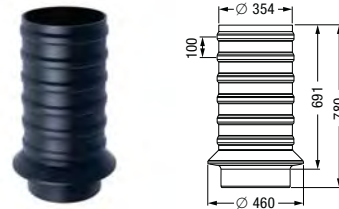
for underground installation

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

Oil layer thickness

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“



Type Art. no.

OA 917 826

O 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.
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

Oil/fuel / Sludge suction system

Compatibility see product description

		Outer diameter Ø (mm)	Art. no.
Oil / fuel suction system	Compatibility: For direct suction of oil / fuel into disposal vehicle, for inlet Ø 160 and Ø 200 Inclusive: Storz B connection coupling	Ø 160 Ø 200	917 803 917 808
Sludge suction system	Compatibility: For direct suction of sludge / sediment into disposal vehicle, for inlet Ø 160 and Ø 200 Inclusive: Storz B connection coupling	Ø 160 Ø 200	917 804 917 809

Coalescence filter insert

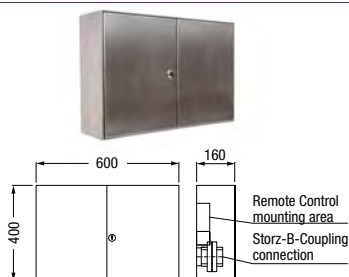
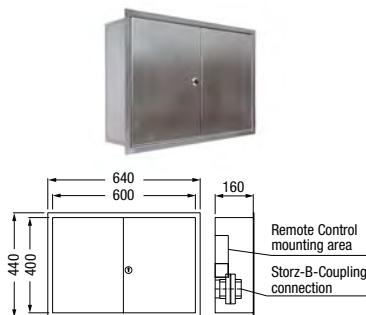
Compatibility see product description

		Art. no.
Coalescence filter insert	Compatibility: For retrofitting the KESSEL Oil/fuel separator NS 3 - NS 15 to coalescence separator with two covers	917 805

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 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 separators. Remote control not included Inclusive: 2 doors, lockable	600×400×160	917 413



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In addition to our standard separators, we also develop individual solutions for special requirements. Please contact info@kessel.com for personal support for a customized separator.



Individual solutions

info@kessel.com

Article index

List of article numbers and page numbers

Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page
1							
11 000	133	142 025.30	252	27 221	208	28 663	120
11 001	133	142 025.52	252	27 225	208	28 664	136
11 002	133	142 026	253	27 226	208	28 665	136
11 003	133	142 026.20	253	27 298	272	28 680	126
11 018	133	142 026.21	253	27 301	271	28 682	126
11 019	133	142 026.30	253	27 308	273	28 683	126
11 020	133	142 026.52	253	27 602	109	28 698	126
11 021	133	185-043	177	27 603	273	28 699	126
11 036	133	185-045	177	27 609	273	28 701-C	107
11 037	133			27 611	270	28 701S	107
11 038	133	2		27 621	270	28 704-C	107
11 039	133	20 162	37	28 014	137	28 704S	107
11 043	133	20 222	104	28 015	126	28 711-C	108
11 054	135	20 223	104	28 016	111	28 712	120
11 055	135	24 100	29	28 020	138	28 713	137
11 057	135	24 100S	28	28 021	138	28 714	137
11 059	133	24 100X	28	28 040	105	28 715	120
11 061	133	24 125	29	28 041	138	28 716	120
11 062	133	24 125S	28	28 042	138	28 731D	175
11 070	135	24 125X	28	28 043	138	28 731DL	175
11 072	133	24 150	29	28 044	138	28 731D0	175
11 073	133	24 150S	28	28 048	90	28 731DS	175
11 074	133	24 150X	28	280 500S	113	28 731LL	176
11 075	133	24 200	29	280 500SC	113	28 731P	174
11 078	134	24 200S	28	280 500X	113	28 731PS	174
11 080	134	24 200X	28	280 500XC	113	28 731S	175
11 082	135	27 118	200	280 530S	114	28 731SX	175
11 083	135	27 126	211	280 530SC	114	28 740	170
11 085	133	27 140	289	280 530X	114	28 743-C	108
11 086	133	27 141	289	280 530XC	114	28 746D	175
11 090	134	27 146	210	280 550S	114	28 746DL	175
11 091	134	27 157	281	280 550SC	114	28 746D0	175
11 095	133	27 165	209	280 550X	114	28 746DS	175
11 096	133	27 168	211	280 550XC	114	28 746LLF	176
11 100	134	27 170	289	280 570S	104	28 746LLV	176
11 101	134	27 171	289	280 570X	104	28 746P	174
11 105	133	27 173	289	28 062	109	28 746PS	174
11 106	133	27 176	208	28 067	138	28 746S	175
11 108	133	27 177-PL	242	28 068	137	28 746SX	175
11 110	134	27 177-PL-KF	243	28 069	138	28 751	123
11 111	134	27 177-PLF	242	280 710	170	28 752	123
11 113	134	27 177-PLF-KF	243	28 072	138	28 753	123
11 115	135	27 180	289	280 750	170	28 754	123
11 116	135	27 182	256	28 076	64	28 755	176
11 118	135	27 185	256	280 810	170	28 756	176
11 120	133	27 186	256	28 082	177	28 757	176
11 121	133	27 1916	242	280 850	170	28 758	176
11 123	134	27 192	209	281 200S	113	28 759	176
11 124	134	27 196	208	281 200X	113	28 760	171
11 126	135	27 1966	209	281 230S	114	28 761	176
11 127	135	27 198	210	281 230X	114	28 762	176
11 604	124	27 199	210	281 250S	114	28 763	176
11 605	124	27 201	208	281 250X	114	28 764	124
11 606	124	27 202	208	28 451	267	28 765	124
11 607	124	27 205	273	28 520	102	28 766	124
11 608	124	27 207	131	28 541-C	129	28 767	124
11 609	124	27 210	209	28 560	103	28 778	171
142 025	252	27 211	209	28 628-C	124	28 779	171
142 025.20	252	27 218	208	28 629-C	124	28 781	176
142 025.21	252	27 219	208	28 646-C	123	28 783	176
		27 220	208	28 648-C	123	28 785	178
				28 662	126	28 792	90

Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page	
28 793	90	40 270.66	204	45 150	237	45 600.63M	215	
28 794	90	40 270.90	203	45 150.11	234	45 600.64	215	
28 798	119	40 271	208	45 150.51	234	45 600.64M	215	
28 799	165	42 700	209	45 150.53	234	45 600.65	215	
28 840	170	42 701	209	45 150.63	234	45 600.65M	215	
28 860	171	42 701.20	207	45 159	233	45 600.66	215	
29 111	270	42 701.50	207	45 159.11	233	45 600.66M	215	
29 121	270	42 701.54	207	45 159.51	233	45 600.67	215	
3		42 701.91	206	45 159.53	233	45 600.67M	215	
		42 701.95	207	45 159.63	233	45 600.83M	214	
		42 703	209	45 170	237	45 600.84M	214	
		43 401	210	45 170.11	234	45 600.85M	214	
		43 401.91	210	45 170.51	234	45 600.86M	214	
		43 401.93	210	45 170.53	234	45 600.87M	214	
		43 500	211	45 170.63	234	45 950	302	
		43 700	211	45 179	233	45 970	302	
33 101	271	43 710	210	45 179.11	233	47 200	105	
34 101	279	43 711	210	45 179.51	233	47 804S	208	
34 102	279	43 730	210	45 179.53	233	47 805S	208	
36 501	279	44 700	199	45 179.63	233	47 806S	208	
36 590	281							
37 287S	287	44 700.20	195	45 210	237	47 807S	208	
373 001	208	44 700.20M	195	45 210.11	234	47 808S	208	
373 007	211	44 700.51	197	45 210.40	234	47 809S	208	
373 008	211	44 700.52	196	45 210.51	234	47 810S	208	
38 670	273	44 700.53	196	45 210.53	234	47 811S	208	
4		44 700.62	195	45 210.63	234	47 812S	208	
		44 700.63	195	45 218.11	234	47 900	211	
		44 700.66	195	45 219	233	47 901	209	
		44 701	199	45 219.11	233	47 902	209	
		44 702	200	45 219.51	233	47 904	208	
	40 150	208	44 703	200	45 219.53	233	47 905	208
	40 150.20	204	44 704	200	45 219.63	233	47 906	209
	40 150.30	205	44 740	198	45 250	237	48 000.01M	220
	40150.50	203	44 740.20	194	45 250.11	234	48 000.02M	220
40 150.51	203	44 740.20M	194	45 250.51	234	48 000.03M	220	
40 150.54	203							
40 150.66	204	44 740.62	194	45 250.53	234	48 000.04M	220	
40 150.90	203	44 740.62M	194	45 250.63	234	48 000M	220	
40 151	208	44 740.63	194	45 259	233	48 001	220	
40 159.50	202	44 740.63M	194	45 259.11	233	48 001.01	220	
40 170	208	44 740.66M	194	45 259.51	233	48 001.02	220	
40 170.20	204							
40 170.30	205	44 740M	198	45 259.53	233	48 001.03	220	
40 170.50	203	44 750	198	45 259.63	233	48 001.04	220	
40 170.51	203	44 750.20	194	45 270	237	48 002	220	
40 170.54	203	44 750.20M	194	45 270.11	234	48 002.01	220	
40 170.66	204	44 750.62	194	45 270.51	234	48 002.02	220	
40 170.90	203							
40 171	208	44 750.62M	194	45 270.53	234	48 002.03	220	
40 179.50	202	44 750.63	194	45 270.63	234	48 002.04	220	
40 250	208	44 750.63M	194	45 279	233	48 003.41M	221	
40 250.20	204	44 750.66M	194	45 279.11	233	48 003.42M	221	
40 250.30	205	44 750M	198	45 279.51	233	48 003.43M	221	
40 250.50	203	45 101.20	201	45 279.53	233	48 003.44M	221	
40 250.51	203	45 110	237	45 279.63	233	48 003M	221	
40 250.54	203	45 110.11	234	45 301	299	48 004	221	
40 250.66	204	45 110.40	234	45 600.59	215	48 004.41	221	
40 250.90	203	45 110.51	234	45 600.59M	215	48 004.42	221	
40 251	208	45 110.53	234	45 600.60	215	48 004.43	221	
40 270	208	45 110.63	234	45 600.60M	215	48 004.44	221	
		45 119	233	45 600.61	215	48 005	221	
40 270.20	204	45 119.11	233	45 600.61M	215	48 005.41	221	
40 270.30	205	45 119.51	233	45 600.62	215	48 005.42	221	
40 270.50	203							
40 270.51	203	45 119.53	233	45 600.62M	215	48 005.43	221	
40 270.54	203	45 119.63	233	45 600.63	215	48 005.44	221	

Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page
48 011	220	48 370.03	298	48 583.51	229	48 811.11	228
48 012	220	48 378	236	48 583.53	229	48 811.51	228
48 013	220	48 378.11	230	48 583.63	229	48 811.53	228
48 014	220	48 378.51	230	48 600	239	48 811.63	228
48 051	222	48 378.53	230	48 611	229	48 812	285
48 052	222	48 378.63	230	48 611.11	229	48 858	228
48 062	222	48 383	236	48 611.51	229	48 858.11	228
48 063	222	48 383.11	230	48 611.53	229	48 858.51	228
48 099	239	48 383.51	230	48 611.63	229	48 858.53	228
48 100	239	48 383.53	230	48 618	198	48 858.63	228
48 165	198	48 383.63	230	48 619	198	48 878	228
48 168	239	48 400	216	48 620	198	48 878.01	284
48 176	246	48 403	239	48 621	198	48 878.11	228
48 193	199	48 404	239	48 625	198	48 878.51	228
48 200	256	48 407	238	48 626	198	48 878.53	228
48 201	198	48 409	200	48 630	216	48 878.63	228
48 202	198	48 410	238	48 636	251	48 879	285
48 203	198	48 411	236	48 639	216	48 883	228
48 204	198	48 411.11	230	48 640	216	48 883.11	228
48 205	199	48 411.51	230	48 650	210	48 883.51	228
48 206	199	48 411.53	230	48 651	210	48 883.53	228
48 207	237	48 411.63	230	48 658	229	48 883.63	228
48 208	237	48 435	249	48 658.11	229	48 889	285
48 209	199	48 458	236	48 658.51	229	48 900	238
48 211	199	48 458.11	230	48 658.53	229	48 904	198
48 218	198	48 458.51	230	48 658.63	229	48 905	198
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
48 226	198	48 478.51	230	48 678.51	229	48 930M	214
48 227	198	48 478.53	230	48 678.53	229	48 931M	214
48 228	198	48 478.63	230	48 678.63	229	48 932M	214
48 300	299	48 483	236	48 683	229	48 950	199
48 302	299	48 483.11	230	48 683.11	229	48 951	199
48 310	298	48 483.51	230	48 683.51	229	48 952	285
48 310.01	298	48 483.53	230	48 683.53	229	48 954	276
48 310.02	298	48 483.63	230	48 683.63	229	48 954-S-V2A-KF	255
48 310.03	298	48 500	200	48 700	239	48 954-SL	256
48 311	236	48 501	284	48 711	228	48 954-Z-V2A-KF	255
48 311.11	230	48 502	284	48 711.11	228	48 958	272
48 311.51	230	48 503	284	48 711.51	228	48 963	199
48 311.53	230	48 504	284	48 711.53	228	48 965	246
48 311.63	230	48 511	229	48 711.63	228	48 968	256
48 312	298	48 511.11	229	48 758	228	48 969	252
48 312.01	298	48 511.51	229	48 758.11	228	48 977	249
48 312.02	298	48 511.53	229	48 758.51	228	48 978	252
48 312.03	298	48 511.63	229	48 758.53	228	48 981	238
48 335	299	48 520	289	48 758.63	228	48 982	272
48 345	299	48 550	115	48 778	228	48 987	238
48 351	300	48 558	229	48 778.11	228	48 988	256
48 352	300	48 558.11	229	48 778.51	228	48 989	238
48 353	300	48 558.51	229	48 778.53	228	48 990	239
48 354	300	48 558.53	229	48 778.63	228	48 991	239
48 358	236	48 558.63	229	48 783	228		
48 358.11	230	48 578	229	48 783.11	228		
48 358.51	230	48 578.11	229	48 783.51	228		
48 358.53	230	48 578.51	229	48 783.53	228		
48 358.63	230	48 578.53	229	48 783.63	228		
48 370	298	48 578.63	229	48 800	216		
48 370.01	298	48 583	229	48 811	228		
48 370.02	298	48 583.11	229	48 811.01	284		

5

500 100	60
500 101	60
500 102	125
50 100	293
51 101	275

Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page
52 101	275	55 350.52	253	67 000	289	70 232	47
54 187	250	55 400	253	67 007	289	70 233	47
54 188	251	55 400.20	253	67 020.30	288	70 234	47
54 189	250	55 400.21	253	67 040	289	70 241	50
54 200	246	55 400.30	253	67 060.30	288	70 242	50
54 200.20	246	55 400.52	253	67 110B	287	70 261	50
54 200.21	246	55 550	252	67 111B	287	70 262	50
54 200.52	246	55 550-KF	254	67 300	256	71 100	49
54 200.61	246	55 550.20	252	67 301	256	71 125	49
54 210	246	55 550.21	252	67 302	256	71 150	49
54 210.20	246	55 550.30	252	67 304	262	71 200	49
54 210.21	246	55 550.52	252	67 305	258	71 250	54
54 210.52	246	55 600	252	67 400	289	71 300	54
54 210.61	246	55 600-KF	254	67 500	289	71 400	54
54 220	246	55 600.20	252	67 600	289	71 500	54
54 220.20	246	55 600.21	252	67 700	297	720 090	44
54 220.21	246	55 600.30	252	67 750	297	720 090.10S	44
54 220.52	246	55 600.52	252	67 775	297	720 090.10X	44
54 220.61	246	57 410	252	67 800	297	720 100	44
54 230	246	57 410-KF	255	67 922B	288	720 100.10S	44
54 230.20	246	57 415	254	67 923B	288	720 100.10X	44
54 230.21	246	57 415-KF	255	67 940	296	720 125	44
54 230.52	246	57 420	252	67 945	296	720 125.10S	44
54 230.61	246	57 420-KF	255	67 960	295	720 125.10X	44
54 400	247	57 425	255	67 970	295	720 150	44
54 400.20	247	57 425-KF	254	67 985	256	720 150.10S	44
54 400.21	247	57 430-KF	254	67 997	296	720 150.10X	44
54 400.52	247	57 435	255	680 071	90	720 200	44
54 400.61	247	57 435-KF	254	680 125	64	720 200.10S	44
54 410	247	59 010	249	680 370	64	720 200.10X	44
54 410.20	247	59 011	248	680 371	64	72 100	49
54 410.21	247	59 012	249	680 373	64	72 100R	49
54 410.52	247	59 013	248	680 528	165	72 125	49
54 410.61	247	59 014	249	680 529	165	72 125R	49
54 420	247	59 165	249	680 530	165	72 150	49
54 420.20	247	59 166	249	680 531	165	72 150R	49
54 420.21	247	59 192	237			72 200	49
54 420.52	247	59 305	244			72 222	47
54 420.61	247	59 315	244			72 223	47
54 430	247	59 325	244			72 224	46
54 430.20	247	59 335	244			72 225	46
54 430.21	247	59 400	249			730 090	43
54 430.52	247					730 090.10S	42
54 430.61	247					730 090.10SR	42
54 900	250					730 090.10X	42
54 901	250	60 101S	281			730 090.10XR	42
54 902	250	60 15 050	258			730 090R	43
54 903	250	60 15 100	258			730 100	43
54 910	248	60 15 150	258			730 100.10S	42
54 911	249	60 15 200	258			730 100.10SR	42
54 912	248	60 30 050	258			730 100.10X	42
54 913	249	60 30 100	258			730 100.10XR	42
54 914	246	60 30 150	258			730 100R	43
54 915	248	60 30 200	258			730 125	43
54 916	249	60 35 035	259			730 125.10S	42
54 917	248	60 50 050	259			730 125.10SR	42
54 919	248	60 50 100	259			730 125.10X	42
54 920	248	60 80 080	259			730 125.10XR	42
55 350	253	61 00 100	259			730 125R	43
55 350.20	253	6101SKH	262			730 150	43
55 350.21	253	6125SKH	262			730 150.10S	42
55 350.30	253	6200SKN	262			730 150.10SR	42

Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page
730 150.10X	42	770 200.10XR	40	826 711B	149	83 045	36
730 150.10XR	42	770 200R	41	826 711D	149	83 046	36
730 150R	43	77 100	49	826 721A	149	83 050	36
730 200	43	79 100	55	826 721B	149	83 052	36
730 200.10S	42	79 1000	55	826 721D	149	83 053	268
730 200.10SR	42	79 125	55	826 731A	149	83 055	268
730 200.10X	42	79 150	55	826 731B	149	83 061	78
730 200.10XR	42	79 200	55	826 731D	149	83 070	36
730 200R	43	79 250	55	826 811-FA	130	83 073	36
73 050	52	79 300	55	826 811B	151	83 075	36
73 051	53	79 400	55	826 811D	151	83 081	37
73 052	53	79 500	55	826 821B	151	83 082	37
73 053	53	79 600	55	826 821D	151	83 083	37
73 070	52	79 800	55	826 831B	151	83 084	37
73 100	49			826 831D	151	83 085	37
73 100.10	33	8		827 710A	149	83 086	37
73 100.10S	33			827 710B	149	83 087	37
73 100.10X	33	80 037	37	827 710D	149	83 088	37
73 100R	49	80 072	110	827 711A	149	83 090	46
73 125	49	80 077	37	827 711B	149	83 091	46
73 125.10	33	80 091	37	827 711D	149	84 100	31
73 125.10S	33	80 093	37	827 720A	149	84 100S	31
73 125.10X	33	80 097	37	827 720B	149	84 100X	31
73 125R	49	80 098	37	827 720D	149	84 125	31
73 150	49	80 100	35	827 721A	149	84 125S	31
73 150.10	33	80 100S	35	827 721B	149	84 125X	31
73 150.10S	33	80 100X	35	827 721D	149	84 150	31
73 150.10X	33	80 102	59	827 730A	149	84 150S	31
73 150R	49	80 104	59	827 730B	149	84 150X	31
73 200	49	80 125	35	827 730D	149	84 200	31
73 200.10	33	80 125S	35	827 731A	149	84 200S	31
73 200.10S	33	80 125X	35	827 731B	149	84 200X	31
73 200.10X	33	80 150	35	827 731D	149	850 008	292
76 100	49	80 150S	35	827 810B	151	850 009	293
770 090	41	80 150X	35	827 810D	151	850 010	293
770 090.10S	40	80 200	35	827 811B	151	850 101	292
770 090.10SR	40	80 200S	35	827 811D	151	850 102	292
770 090.10X	40	80 200X	35	827 820B	151	850 103	292
770 090.10XR	40	80 888	165	827 820D	151	850 111	292
770 090R	41	80 889	36	827 821B	151	850 112	293
770 100	41	80 890	36	827 821D	151	850 113	293
770 100.10S	40	80 891	36	827 830B	151	850 114	60
770 100.10SR	40	80 893	178	827 830D	151	850 115	293
770 100.10X	40	824 811B	151	827 831B	151	850 116	60
770 100.10XR	40	824 811D	151	827 831D	151	850 117	60
770 100R	41	824 821B	151	828 711	145	850 118	60
770 125	41	824 821D	151	829 100	146	850 119	60
770 125.10S	40	824 831B	151	829 200	146	850 120	292
770 125.10SR	40	824 831D	151	829 250	146	850 121	293
770 125.10X	40	825 810B	151	829 710	145	850 123	125
770 125.10XR	40	825 810D	151	829 711	145	850 131	292
770 125R	41	825 811B	151	830 050	105	850 132	292
770 150	41	825 811D	151	830 052	105	850 134	293
770 150.10S	40	825 820B	151	830 070	46	850 135	293
770 150.10SR	40	825 820D	151	830 073	46	850 136	292
770 150.10X	40	825 821B	151	830 075	46	850 137	293
770 150.10XR	40	825 821D	151	830 100	46	850 141	292
770 150R	41	825 830B	151	830 101	46	850 142	292
770 200	41	825 830D	151	830 200	46	850 143	293
770 200.10S	40	825 831B	151	830 202	46	850 144	289
770 200.10SR	40	825 831D	151	83 021	292	851 001	61
770 200.10X	40	826 711A	149	83 022	293	851 003	61

Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page
851 100A	290	874 00 40	88	874 10 07	86	874 20 15	154
851 100B	290	874 00 42	62	874 10 08	86	874 20 16	154
851 100D	290	874 00 43	62	874 10 09	86	874 20 17	154
851 102A	291	874 00 44	63	874 10 10	86	874 20 18	154
851 102B	291	874 00 46	63	874 10 11	86	874 20 19	154
851 102D	291	874 00 48	62	874 10 12	86	874 20 20	154
851 150A	290	874 00 49	62	874 10 13	86	874 20 21	154
851 150B	290	874 00 50	63	874 10 22	86	874 20 22	154
851 150D	290	874 00 52	63	874 10 23	86	874 20 23	154
851 152A	291	874 00 54	62	874 10 24	86	874 30 04	161
851 152B	291	874 00 55	62	874 10 25	86	874 30 05	161
851 152D	291	874 00 56	63	874 10 26	86	874 30 07	161
851 251	61	874 00 58	63	874 10 27	86	874 30 09	161
851 253	61	874 00 60	62	874 10 28	86	874 30 10	161
851 501	61	874 00 61	62	874 10 29	86	874 30 12	161
851 502	61	874 00 62	63	874 10 30	86	874 30 14	157
85 410	60	874 00 64	63	874 10 31	86	874 30 15	157
860 109	60	874 00 66	162	874 10 32	86	874 30 16	157
860 116	60	874 00 67	162	874 10 33	86	874 30 17	157
860 120	59	874 00 68	163	874 10 34	86	874 30 18	157
860 121	59	874 00 70	163	874 10 35	86	874 30 19	157
860 122	59	874 00 72	162	874 10 36	86	874 30 20	158
860 125	59	874 00 73	162	874 10 37	86	874 30 21	158
860 130	59	874 00 74	163	874 10 44	84	874 30 22	158
860 131	59	874 00 76	163	874 10 45	84	874 30 23	158
860 132	59	874 00 78	162	874 10 46	84	874 30 24	158
860 133	59	874 00 79	162	874 10 47	84	874 30 25	158
860 134	59	874 00 80	163	874 10 48	84	874 30 26	158
860 135	59	874 00 82	163	874 10 49	84	874 30 27	158
860 136	59	874 00 84	162	874 10 50	84	874 30 28	158
860 137	59	874 00 85	162	874 10 51	84	874 30 29	158
874 00 00	162	874 00 86	163	874 10 60	84	874 30 30	158
874 00 01	162	874 00 88	163	874 10 61	84	874 30 31	158
874 00 02	63	874 01 22	63	874 10 62	84	874 30 32	158
874 00 03	62	874 01 23	63	874 10 63	84	874 30 33	158
874 00 04	63	874 01 24	63	874 10 64	84	874 30 34	158
874 00 05	62	874 01 25	63	874 10 65	84	874 30 35	159
874 00 06	162	874 01 26	63	874 10 66	84	874 30 36	159
874 00 07	162	874 01 27	63	874 10 67	84	874 30 37	159
874 00 08	63	874 01 28	63	874 10 68	84	874 30 38	159
874 00 09	62	874 01 29	63	874 10 69	84	874 30 39	159
874 00 10	63	874 01 30	63	874 10 70	84	874 30 40	159
874 00 11	62	874 01 31	63	874 10 71	84	874 30 41	159
874 00 12	162	874 01 32	63	874 10 72	84	874 30 42	159
874 00 13	162	874 01 33	163	874 10 73	84	874 30 43	159
874 00 14	63	874 01 34	163	874 10 74	84	874 30 44	159
874 00 15	62	874 01 35	163	874 10 75	84	874 30 45	159
874 00 16	63	874 01 36	163	874 20 00	156	874 30 46	159
874 00 17	62	874 01 41	63	874 20 01	156	88 10 05	58
874 00 18	62	874 01 42	63	874 20 02	156	88 10 05-DN150	58
874 00 19	62	874 01 43	63	874 20 03	156	88 15 05	58
874 00 22	63	874 01 58	63	874 20 04	156	88 15 05-DN150	58
874 00 24	62	874 01 59	63	874 20 05	156	88 20 05	58
874 00 25	62	874 01 60	63	874 20 06	156	88 20 05-DN150	58
874 00 28	63	874 01 75	85	874 20 07	156	88 25 05	58
874 00 30	87	874 01 76	85	874 20 08	156	88 25 05-DN150	58
874 00 31	87	874 01 77	85	874 20 09	156	88 30 05	58
874 00 32	88	874 01 78	85	874 20 10	156	88 30 05-DN150	58
874 00 34	88	874 01 79	85	874 20 11	156		
874 00 36	87	874 01 80	85	874 20 12	154		
874 00 37	87	874 01 81	85	874 20 13	154		
874 00 38	88	874 10 06	86	874 20 14	154		
						913 101/D	331

Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page
913 101/DS	331	93 001-R2	330	93 003.02/MS	317	93 007.02/DS	319
913 101/DS10	331	93 001.00/D1-R2	330	93 003.02/PVS	316	93 007.02/DSP	318
913 101/DSP	331	93 001/120B	338	93 003.11	321	93 007.02/MS	317
913 101/DSP10	331	93 001/120B-K-P1	337	93 003.11/D	320	93 007.02/PVS	316
913 101/MS	331	93 001/120D	338	93 003.12	321	93 007.11	321
913 101/MS10	331	93 001/120D-K-P1	337	93 003.12/D	320	93 007.11/D	320
913 101/PVS	331	93 001/80B	338	93 003.21	321	93 007.12	321
913 101/PVS10	331	93 001/80B-K-P1	337	93 003.21/D	320	93 007.12/D	320
913 109	333	93 001/80D	338	93 003.22	321	93 007.21	321
915 10 10B	342	93 001/80D-K-P1	337	93 003.22/D	320	93 007.21/D	320
915 10 10D	342	93 002-R	329	93 003.31	321	93 007.22	321
915 10 15B	342	93002-R2	330	93 003.31/D	320	93 007.22/D	320
915 10 15D	342	93002.00/D1-R	329	93 003.31/DS	319	93 007.31	321
915 10 20B	342	93002.00/D1-R2	330	93 003.32	321	93 007.31/D	320
915 10 20D	342	93002.01	321	93 003.32/D	320	93 007.31/DS	319
915 402	343	93002.01/D	320	93 003.32/DS	319	93 007.32	321
915 595	60	93002.01/DS	319	93 004-R	329	93 007.32/D	320
915 800	333	93002.01/DSP	318	93 004-R2	330	93 007.32/DS	319
915 870	331	93002.01/MS	317	93 004.00/D1-R	329	93 007/120B	339
915 871	331	93002.01/PVS	316	93 004.00/D1-R2	330	93 007/120B-K-P1	337
915 880A	343	93002.02	321	93 004.01	321	93 007/120D	339
915 880A-200	343	93 002.02/D	320	93 004.01/D	320	93 007/120D-K-P1	337
915 880B	343	93 002.02/DS	319	93 004.01/DS	319	93 007/170B	339
915 880B-200	343	93 002.02/DSP	318	93 004.01/DSP	318	93 007/170D	339
915 880D	343	93 002.02/MS	317	93 004.01/MS	317	93 010.01	321
915 880D-200	343	93 002.02/PVS	316	93 004.01/PVS	316	93 010.01/D	320
915 881A	343	93 002.11	321	93 004.02	321	93 010.01/DS	319
915 881B	343	93 002.11/D	320	93 004.02/D	320	93 010.01/DSP	318
915 881D	343	93 002.12	321	93 004.02/DS	319	93 010.01/MS	317
915 882A	343	93 002.12/D	320	93 004.02/DSP	318	93 010.01/PVS	316
915 882B	343	93 002.21	321	93 004.02/MS	317	93 010.02	321
915 882D	343	93 002.21/D	320	93 004.02/PVS	316	93 010.02/D	320
915 883A	343	93 002.22	321	93 004.11	321	93 010.02/DS	319
915 883B	343	93 002.22/D	320	93 004.11/D	320	93 010.02/DSP	318
915 883D	343	93 002.31	321	93 004.12	321	93 010.02/MS	317
916 601	334	93 002.31/D	320	93 004.12/D	320	93 010.02/PVS	316
917 413	334	93 002.31/DS	319	93 004.21	321	93 010.11	321
917 414	334	93 002.32	321	93 004.21/D	320	93 010.11/D	320
917 419.00	341	93 002.32/D	320	93 004.22	321	93 010.12	321
917 419.50	341	93 002.32/DS	319	93 004.22/D	320	93 010.12/D	320
917 420.00	341	93 002/120B	338	93 004.31	321	93 010.21	321
917 420.50	341	93 002/120B-K-P1	337	93 004.31/D	320	93 010.21/D	320
917 422B	341	93 002/120D	338	93 004.31/DS	319	93 010.22	321
917 422D	341	93 002/120D-K-P1	337	93 004.32	321	93 010.22/D	320
917 460	343	93 002/80B	338	93 004.32/D	320	93 010.31	321
917 803	361	93 002/80B-K-P1	337	93 004.32/DS	319	93 010.31/D	320
917 804	361	93 002/80D	338	93 004/120B	338	93 010.31/DS	319
917 805	361	93 002/80D-K-P1	337	93 004/120B-K-P1	337	93 010.32	321
917 808	361	93 003-R	329	93 004/120D	338	93 010.32/D	320
917 809	361	93 003-R2	330	93 004/120D-K-P1	337	93 010.32/DS	319
917 821	333	93 003.00/D1-R	329	93 004/80B	338	93 010/120B	339
917 822	344	93 003.00/D1-R2	330	93 004/80B-K-P1	337	93 010/120B-K-P1	337
917 826	360	93 003.01	321	93 004/80D	338	93 010/120D	339
917 828	360	93 003.01/D	320	93 004/80D-K-P1	337	93 010/120D-K-P1	337
917 830	360	93 003.01/DS	319	93 007.01	321	93 010/170B	339
917 861	360	93 003.01/DSP	318	93 007.01/D	320	93 010/170D	339
917 862	360	93 003.01/MS	317	93 007.01/DS	319	93 015.01	327
917 863	360	93 003.01/PVS	316	93 007.01/DSP	318	93 015.01/D	326
917 871	333	93 003.02	321	93 007.01/MS	317	93 015.01/DS	325
917 872	333	93 003.02/D	320	93 007.01/PVS	316	93 015.01/DSP	324
917 873	333	93 003.02/DS	319	93 007.02	321	93 015.01/MS	323
93 001	329	93 003.02/DSP	318	93 007.02/D	320	93 015.01/PVS	322

Art. no.	Page	Art. no.	Page	Art. no.	Page	Art. no.	Page
93 015/120B	339	99 503.10BEX	356				
93 015/120D	339	99 503.10DEX	356				
93 015/170B	339	99 601.002B	358				
93 015/170D	339	99 601.016B	358				
93 020.01	327	99 601.016D	358				
93 020.01/D	326	99 601.041D	358				
93 020.01/DS	325	99 606.30B	357				
93 020.01/DSP	324	99 606.30D	357				
93 020.01/MS	323	99 606.80B	357				
93 020.01/PVS	322	99 606.80D	357				
93 020/120B	339	99 610.15B	357				
93 020/120D	339	99 610.15D	357				
93 020/170B	339	99 610.30B	357				
93 020/170D	339	99 610.30D	357				
93 025	329	99 610.80B	357				
93 025.01	327	99 610.80D	357				
93 025.01/D	326	99 615.80B	357				
93 025.01/DS	325	99 615.80D	357				
93 025.01/DSP	324	99 620.80B	357				
93 025.01/MS	323	99 620.80D	357				
93 025.01/PVS	322	99 703.04B	355				
93 030.01	327	99 703.04D	355				
93 030.01/D	326	99 703.10B	355				
93 030.01/DS	325	99 703.10D	355				
93 030.01/DSP	324	99 706.02B	355				
93 030.01/MS	323	99 706.02D	355				
93 030.01/PVS	322	99 706.06B	355				
93 050	329	99 706.06D	355				
93 925/120B	339	99 706.10B	355				
93 925/120D	339	99 706.10D	355				
93 925/170B	339	99 706.18B	355				
93 925/170D	339	99 706.18D	355				
93 930/120B	339	99 706.30BEX	356				
93 930/120D	339	99 706.30DEX	356				
93 930/170B	339	99 706.80BEX	356				
93 930/170D	339	99 706.80DEX	356				
93 935/120B	339	99 710.15BEX	356				
93 935/120D	339	99 710.15DEX	356				
93 935/170B	339	99 710.30BEX	356				
93 935/170D	339	99 710.30DEX	356				
97 201/000	348	99 710.80BEX	356				
97 201/00A	349	99 710.80DEX	356				
97 201/00B	349	99 715.80BEX	356				
97 201/00D	349	99 715.80DEX	356				
97 202/000	348	AQUALI1000D	172				
97 202/00A	349	AQUALI1000DS	172				
97 202/00B	349	AQUALI1200D	172				
97 202/00D	349	AQUALI1200DS	172				
97 713	90	AQUALI500D	172				
97 714	90	AQUALI500DS	172				
97 715	90						
97 716	90						
97 723	90						
97 724	90						
98 201/00B	340						
98 201/00D	340						
98 202/00B	340						
98 202/00D	340						
98 204/00B	340						
98 204/00D	340						
99 403.10B	357						
99 403.10D	357						

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

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