Product range

Backwater protection

KESSEL

Make the right choice

Backwater protection

Backwater valves
Backwater chambers

Made in Germany

www.kessel.com

This is KESSEL.

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

Competent partner
since 1963

International player
60+ countries

Innovative premium supplier
3.000+ products

Safe employer
765 employees

Sustainable company
141,5 mio. € in sales

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

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

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

KESSEL – Leading in drainage

Made in Germany

KESSEL Headquarters Lenting, Germany

Leading in drainage.

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

Backwater protection

Backwater valves
Backwater chambers

Pump technology

Backwater pumping station
Hybrid lifting station
Lifting stations
Pumping stations
Submersible pumps, conversions and control units

Drains & channels

Bathroom drains
Floor drains
Basement drains
Outdoor drains

Separators

Grease separators
Coalescence / Oil / Fuel separators
Sediment separators
Starch separators

Everything from one source

The KESSEL system

Bathroom drains

Floor drains
Shower channels
Wall drains

Stainless steel drains

Floor drains
Floor trays
Box channels
Slotted channels

Outdoor drains

Roof drains
Gutter drains

Outdoor drains

Floor drains
Yard drains
Parking deck drains

Backwater protection

Backwater valves
Backwater chambers
Backwater pumping stations

Separators

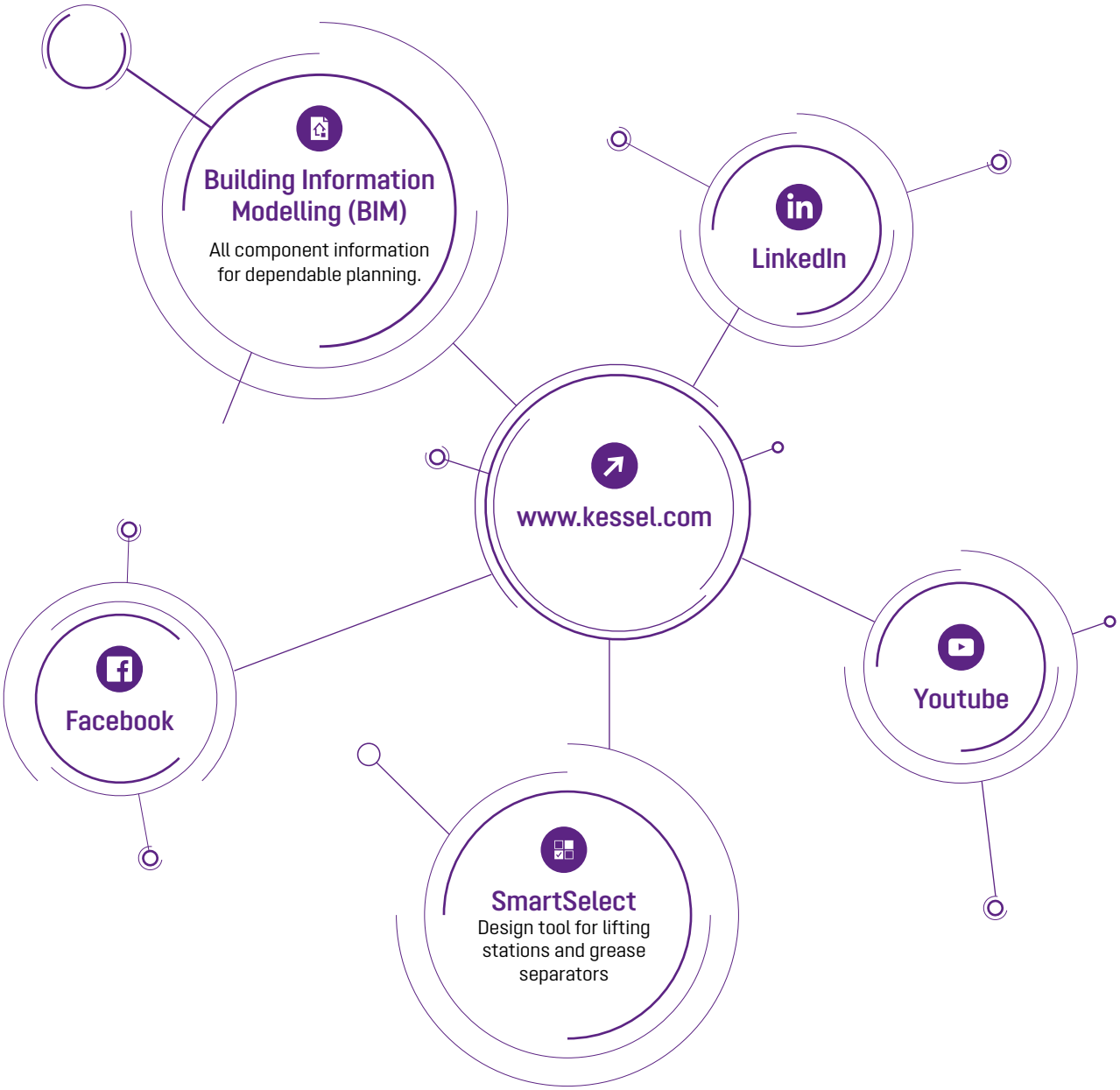
Grease separators
Light liquid separators
Starch separators
Sediment separators

Pumping technology

Lifting stations
Pumping stations
Submersible pumps
Hybrid lifting stations

KESSEL SmartServices

Our digital services offer



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about KESSEL and our products

BIM LinkedIn Facebook SmartSelect Youtube

Overview of
Backwater protection range

Backwater valves

Backwater pumping station
Pumpfix F

↗ Page 12

Backwater valve
Staufix FKA

↗ Page 16

Backwater valve
Staufix SWA

↗ Page 18

Clean out
Controlfix

↗ Page 20

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

Backwater valve
Staufix
Ø 110, 125, 160, 200

↗ Page 22

Backwater valve
Staufix Basic
Ø 100, 110, 125, 160, 200

↗ Page 28

Backwater valve
Staufix
Ø 50 or Ø 75

↗ Page 31

Backwater valve
Multitube
Ø 260, 320, 410, 515

↗ Page 34

Backwater valve
Pipe flap
Ø 110 - 1000

↗ Page 35

Type of wastewater

- Wastewater containing sewage
- Wastewater without sewage

Installation situation

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

Function

- Protects in the event of backwater
- Protects and disposes in the event of backwater

Backwater chambers for backwater valves

Backwater chamber

Standard backwater chamber

Ø 1000 with *Controlfix*

↗ Page 39

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

Modular backwater chamber

Ø 1000 with *Controlfix*

↗ Page 39

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

Basement drains

Backwater pumping station

Pumpfix S

↗ Page 46

Backwater valve

Universale Plus

↗ Page 47

Backwater valve

The Universal

↗ Page 48

Backwater valve

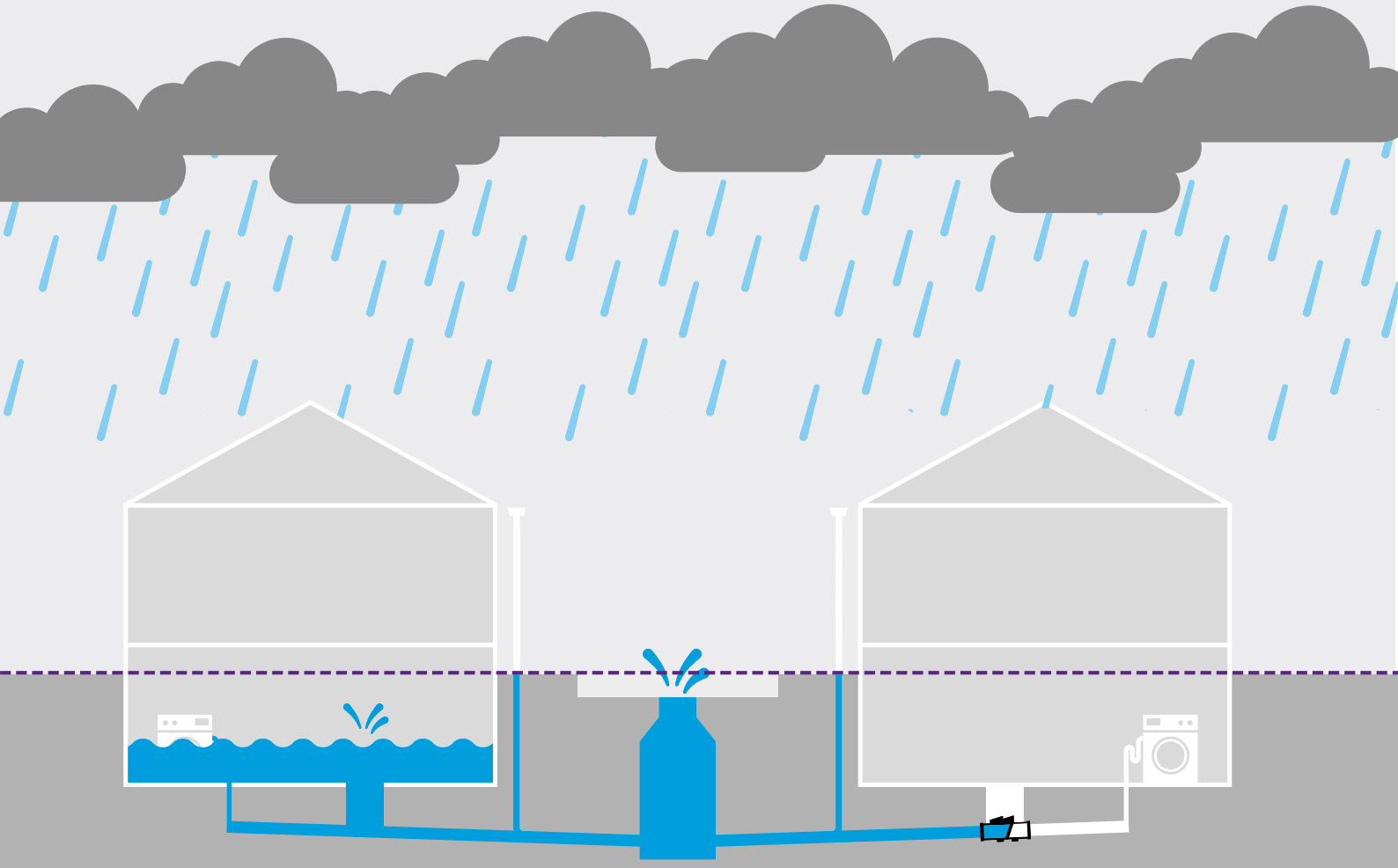
Drehfix

↗ Page 49

Everything specialists need to know

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

BIM
files available at
www.kessel.com



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.

KESSEL backwater valves
according to EN 13564

With mechanical flap system

Staufix and *Staufix SWA* backwater valves are available with one or two vertically hanging flaps.
Additionally they can be equipped with a flap locking lever.

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

Type 1 Backwater valve for use in horizontal pipes with one self actuating closure flap equipped with locking lever.

Type 2 Backwater valve for use in horizontal pipes with two self actuating closure flaps one of which equipped with a locking lever.

Type 4 Floor drain with integrated self actuating closure flap equipped with locking lever.

Type 5 Floor drain with two integrated self actuating closure flaps one of which is equipped with a locking lever.

With electronic open flap system

The *Staufix FKA* has two open flaps. One closes electrically during backwater and additionally it has a back-up manually closable flap. This is the ideal product for use with raw sewage.

Type 3 Backwater valve for use in horizontal pipes with an automated closure flap operated by external energy (electric, pneumatic or other) and a second back-up manual closure flap.

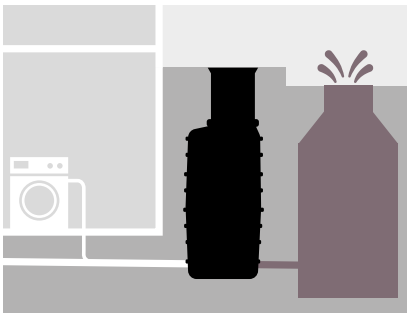
With electronic open flap system and sewage pump

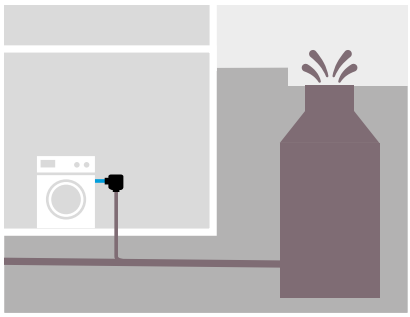
The flap of the *Pumpfix F* closes electrically and the integrated sewage pump discharges the building's wastewater into the sewer during backwater.

Type 3 Backwater valve for use in horizontal pipes with an automated closure flap operated by external energy (electric, pneumatic or other) and a second back-up manual closure flap.

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.

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. Ideal for new construction.

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.

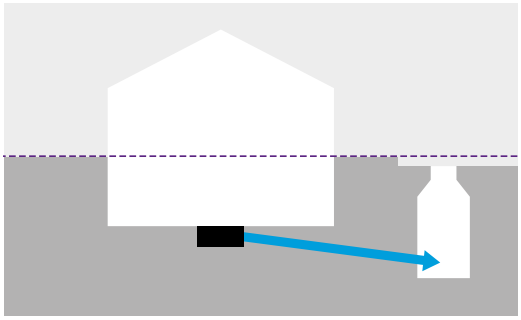
Wastewater with sewage

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

Wastewater without sewage

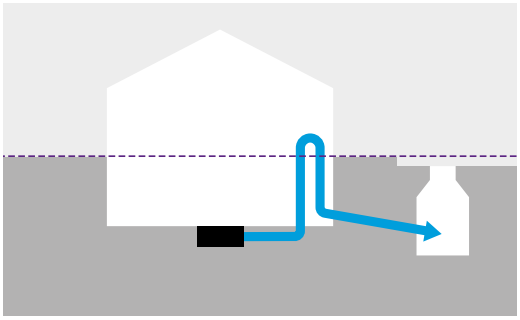
is water without faecal content, for example shower water or water from a washing machine. This is termed "grey water".

Slope to the public sewer



Slope to the public sewer

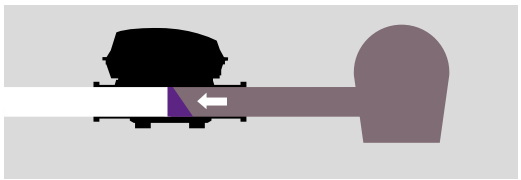
Backwater valves and hybrid lifting stations can be used here.



No slope to the public sewer

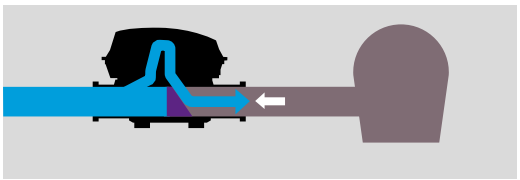
If the public sewer is higher than the basement level, the wastewater must be lifted to the sewage pipe with a lifting station via a backwater loop.

Function



Protects in the event of backwater

The backwater flap prevents wastewater from the public sewer from backing up through the drainage pipe and flooding the building.



Disposes in the event of backwater

Despite backwater from the public sewer and closed backwater flap(s), domestic wastewater can be disposed of via a pump. This ensures that the building's drainage system functions even in the event of backwater.

Backwater pumping station *Pumpfix F*

The unique backwater solution.

More than a backwater valve: *Pumpfix F* is the only backwater valve that pumps against 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 automatially to protect the building from flooding and any wastewater from the building is pumped into the flooded sewer via the integrated sewage. 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.

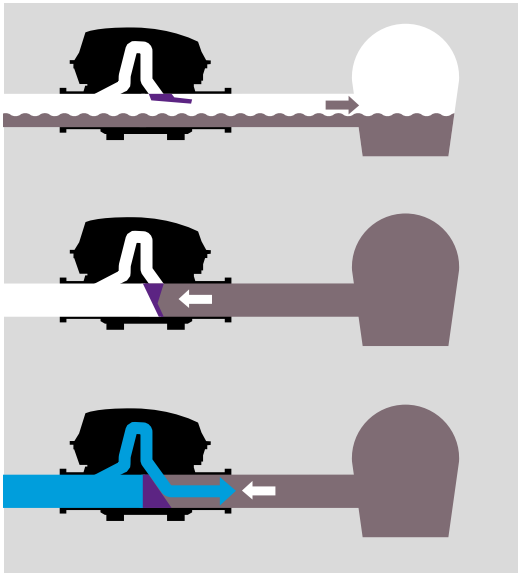
Pumpfix F is available in two variants – for installation in an e xposed drainage pipe and for floor slab installation, where you can choose between a black cover or tileable cover.

Application

For flats under the backwater level with no access to a toilet above backwater level.

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 flooded sewer.

Ventilation

Integrated ventilation eliminates the requirement for costly roof ventilation pipes

Motor

Automatically closes the backwater flap in the event of backwater

Body with only 9 mm integrated slope

Ideal for renovation work

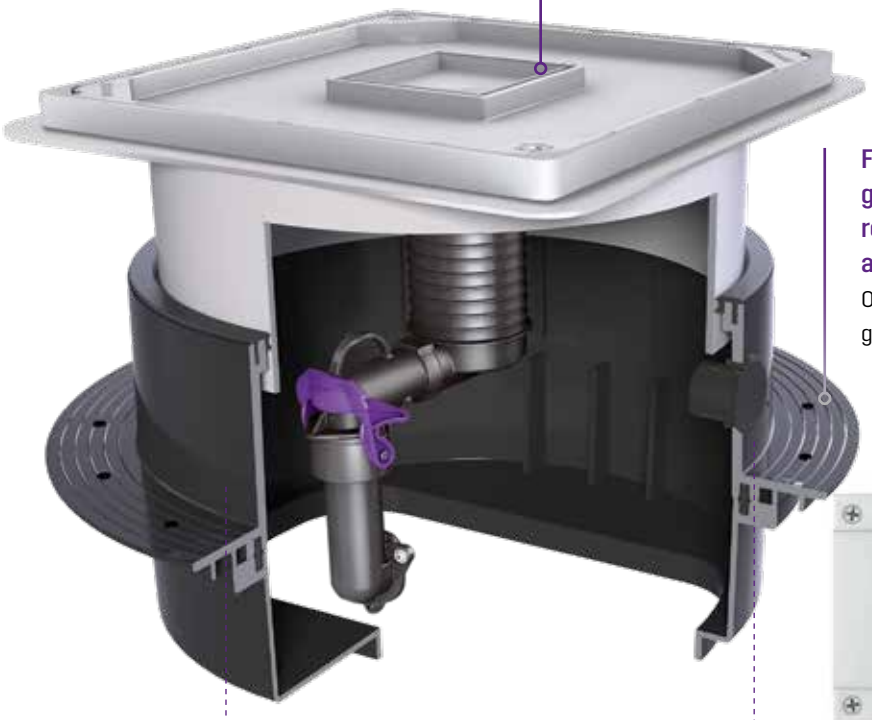
Installation kit for the floor slab with integrated drainage function

The backwater valve is available for floor slab installation and can also be installed in waterproof concrete by using an extension piece with sealing 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.

Pumpfix F

Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

↗ www.kessel.com/pumpfix-f

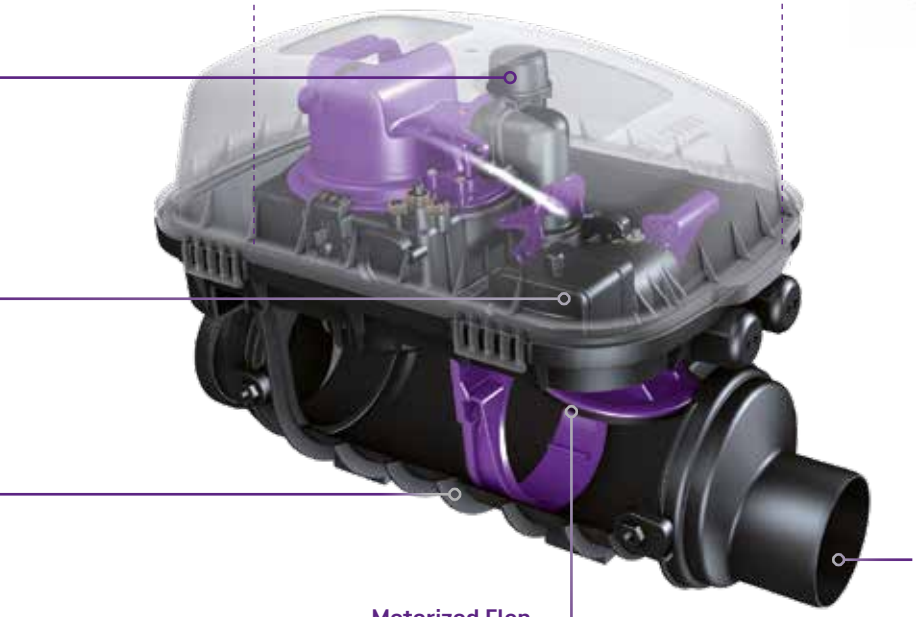


Flange for groundwater resistance available.

Optional with gasket set.

Comfort control unit

with multilingual (EN, DE, FR, IT, PL, NL) digital display for operating state and servicing instructions as well as connection option for building management system



Plug & Play control unit

with self-diagnosis system SDS for maximum safety

Removable inlet / outlet connections – also in Ø 200

- Flange/spigot for customized connections
- Variable inlet and outlet sizes available

Motorized Flap

Closed backwater flap with integrated gasket provides secure and reliable protection during backwater

Backwater pumping station *Pumpfix F*

Installation in a concrete slab / floor

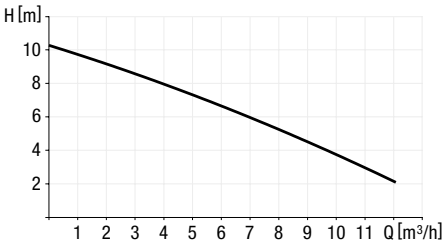
Z-53.2-388

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).

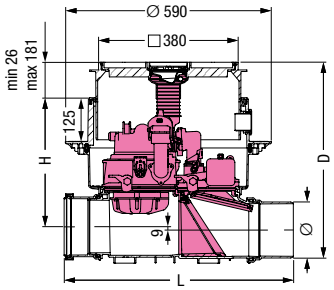
Accessories:
Extension sections for installation in waterproof concrete see page 36

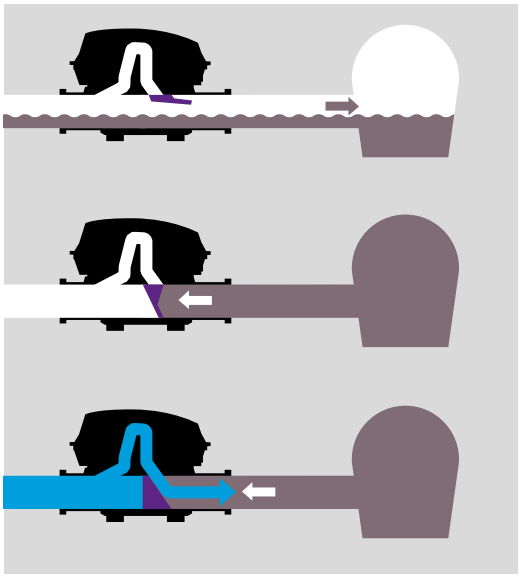
Outer diameter Ø (mm)	L × H in mm	Art. no.
With recessed cover for on-site tiling with integrated drain		
Ø 110	642 × 394	**24 100X**
Ø 125	645 × 387	**24 125X**
Ø 160	656 × 370	**24 150X**
Ø 200*	720 × 348	**24 200X**
With black cover with integrated drain		
Ø 110	642 × 394	**24 100S**
Ø 125	645 × 387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

Pumping capacity



H [m] = Backwater height





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 flooded sewer.

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

TÜVRheinland CERTIFIED Type Tested and Monitored www.tuv.com ID 1111241793

Backwater pumping station *Pumpfix F*

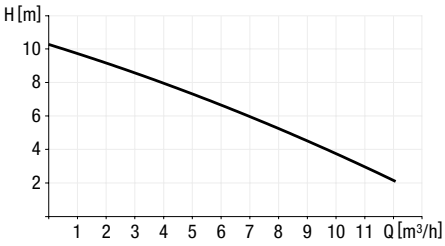
Installation in an exposed wastewater pipe

Z-53.2-388

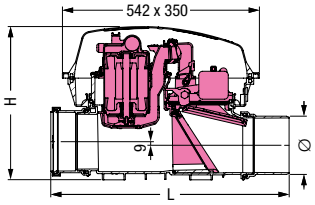
Made of polymer, with protective cover. Backwater pumping station according to EN 13564 Type 3 with pump (1kW/230V) and backwater valve, pump activates during backwater, suitable for wastewater with orwithout sewage.
Plug-and-Play control unit with connection option to building management system and alarm, display for operating status and battery back-up, protection type IP 54, with integrated self diagnosis system SDS, motorized back-water flap, *Pumpfix F* body rated protection type IP 68 (3 m, 24 h).
Power cable length: 5 m (15 m available on request).

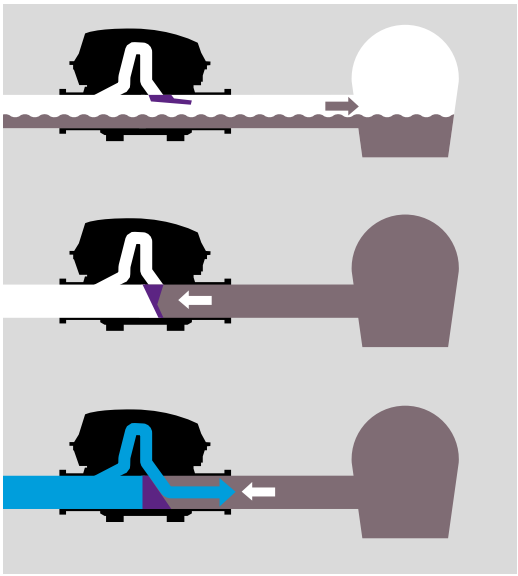
Outer diameter Ø (mm)	L × H in mm	Art. no.
Ø 110	642 × 422	**24 100**
Ø 125	645 × 422	**24 125**
Ø 160	656 × 422	**24 150**
Ø 200*	720 × 422	**24 200**

Pumping capacity



H [m] = Backwater height





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 flooded sewer.

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

Type Tested and Monitored
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www.tuv.com ID 1111241793

Backwater valves
Staufix FKA

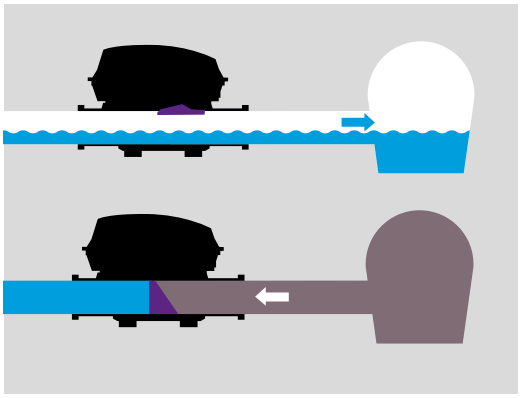
The reliable solution for wastewater with sewage.

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



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.

Staufix FKA

Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

www.kessel.com/staufix-fka

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.

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

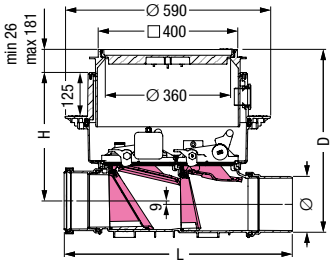
CE EN 13564 Type 3 F

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 21

Type Tested and Monitored
TÜVRheinland CERTIFIED
www.tuv.com ID 1111242698



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**

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

Backwater valve *Staufix FKA*

Installation in an exposed wastewater pipe

CE EN 13564 Type 3 F

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 21

Type Tested and Monitored
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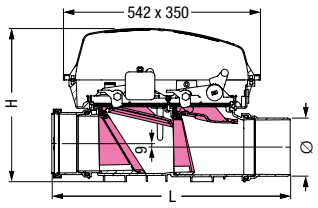


Outer diameter Ø (mm)	L × H in mm	Art. no.
Ø 110	642 × 422	**84 100**
Ø 125	645 × 422	**84 125**
Ø 160	656 × 422	**84 150**
Ø 200*	720 × 422	**84 200**

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

Backwater valves
Staufix SWA

The reliable solution for wastewater

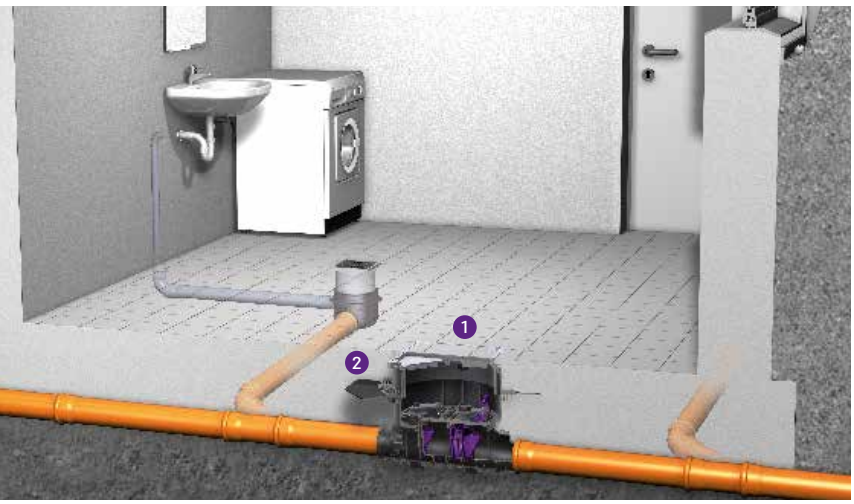
Double security with two pendulum flaps: The *Staufix SWA* backwater valve for wastewater offers absolute security in protection against backwater. In the event of backwater, the outer flap closes with the second flap providing additional security. The system can also be locked with a manually actuated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

Staufix SWA

Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

↗ **www.kessel.com/staufix-swa**



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 16
↗ **Backwater pumping station *Pumpfix F***
Page 12
↗ **Conversion kits**
Page 21

Twin flap backwater valve *Staufix SWA*

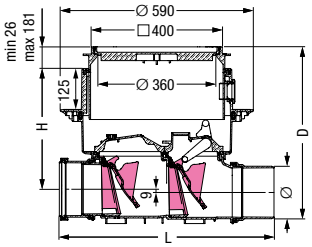
Installation in a concrete slab / floor

CE EN 13564 Type 2

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 21



Type Tested and Monitored
TÜVRheinland CERTIFIED
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Outer diameter Ø (mm)	L × H in mm	Art. no.
With recessed cover for on-site tiling		
Ø 110	642 × 394	**73 100.10X**
Ø 125	645 × 387	**73 125.10X**
Ø 160	656 × 370	**73 150.10X**
Ø 200*	720 × 348	**73 200.10X**
With black cover		
Ø 110	642 × 394	**73 100.10S**
Ø 125	645 × 387	**73 125.10S**
Ø 160	656 × 370	**73 150.10S**
Ø 200*	720 × 348	**73 200.10S**

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

Twin flap backwater valve *Staufix SWA*

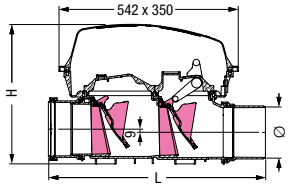
Installation in an exposed wastewater pipe

CE EN 13564 Type 2

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 21



Type Tested and Monitored
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Outer diameter Ø (mm)	L × H in mm	Art. no.
Ø 110	642 × 422	**73 100.10**
Ø 125	645 × 422	**73 125.10**
Ø 160	656 × 422	**73 150.10**
Ø 200*	720 × 422	**73 200.10**

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

Clean out *Controlfix*

The practical upgrade solution.

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

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

Controlfix

Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

↗ **www.kessel.com/controlfix**

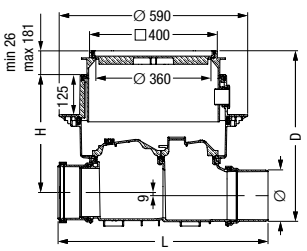
Clean out *Controlfix*

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 21



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**

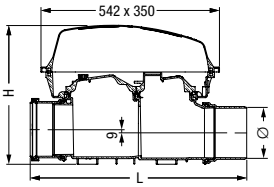
* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

Clean out *Controlfix*

Installation in an exposed wastewater pipe

Made of polymer, with protective cover.

↗ **Accessories:**
Conversion kits see below



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

Conversion kits

for *Pumpfix F*, *Staufix FKA* and *Staufix SWA* 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, *Multistop*, 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**

Backwater valves
Staufix

The original solution for wastewater without sewage.

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.

Staufix is 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.

Staufix
Article numbers • Data sheets
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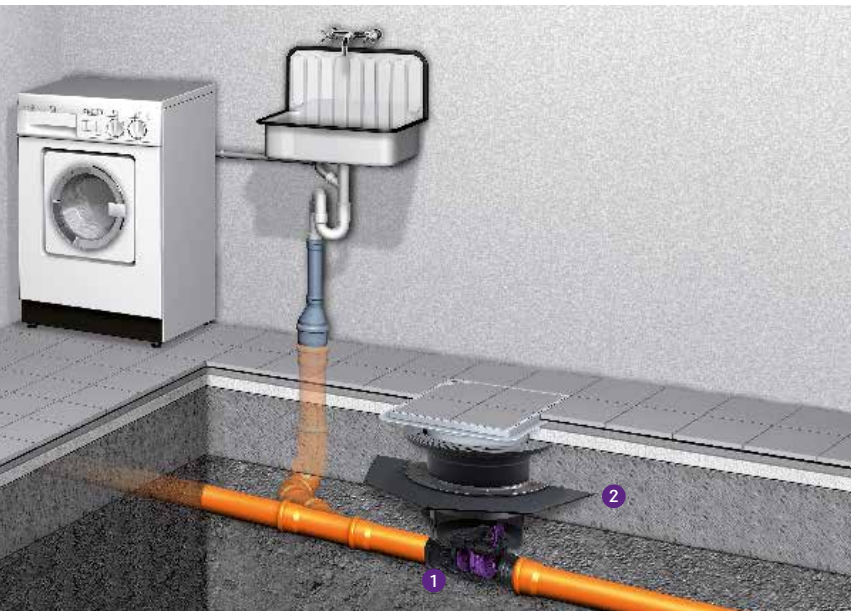


1 Backwater valve 2 Extension section

Flexibly installable

The new installation kit is available with three different extension sections and can therefore be installed flexibly at depths of up to 65 cm. Choose from a standard extension section, an extension section with flange, and mating flange made of stainless steel as well as with elastomer waterproofing membrane for deeper installation in waterproof concrete.

Individually combinable

The sockets and spigots are available in the same or in different nominal inlet and outlet sizes – and can be individually combined with different drain bodies. The interchangeable sockets therefore flexibly fit on all standard pipes. This is especially practical if old and new pipes have to be joined in case of structural alterations or renovation work.

Installation situation

The backwater valves *Staufix* 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.

Individually combinable

The sockets and spigots are available with the same sizes or different inlet and outlet sizes – and can be individually combined with two different pipe sizes. The two-way sockets thus fit flexibly on all pipes. This is especially practical if old pipes have to be joined to new pipes for structural alteration or renovation work.

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.

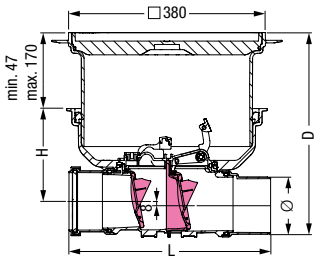
Twin flap backwater valve *Staufix*

Installation in a concrete slab / floor

CE EN 13564 Type 2

Made of polymer, with telescopic upper section for continuous height- and level adjustment.
For installation depth (D)
Ø 90 – 110, 276 – 399 mm
Ø 125 – 200, 328 – 450 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: see page 36



Without rodent protection (two polymer flaps)

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

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

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

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

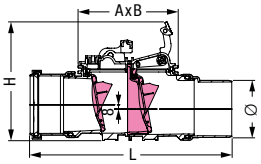
Twin flap backwater valve *Staufix*

Installation in an exposed wastewater pipe

CE EN 13564 Type 2

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.

↗ **Accessories:** see page 36



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**

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www.tuv.com ID 1111242698

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

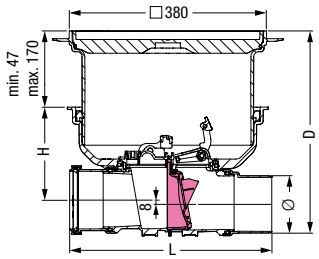
Single flap backwater valve *Staufix*

Installation in a concrete slab / floor

CE EN 13564 Type 1

Made of polymer, with telescopic upper section for continuous height- and level adjustment.
For installation depth (D)
Ø 90 – 110, 276 – 399 mm
Ø 125 – 200, 328 – 450 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 36



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**

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

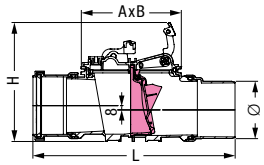
Single flap backwater valve *Staufix*

Installation in an exposed wastewater pipe

CE EN 13564 Type 1

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 36



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**

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

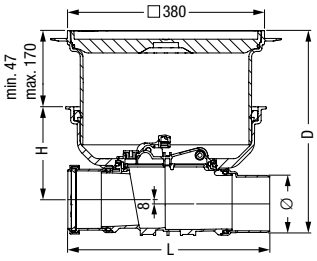
TÜVRheinland CERTIFIED Type Tested and Monitored www.tuv.com ID 1111242698

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, 276 – 399 mm
Ø 125 – 200, 328 – 450 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 36



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**

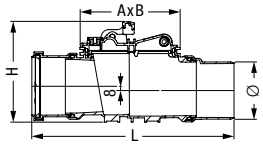
* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

Clean out *Staufix*

Installation in an exposed wastewater pipe

Made of polymer

↗ **Accessories:** see page 36



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

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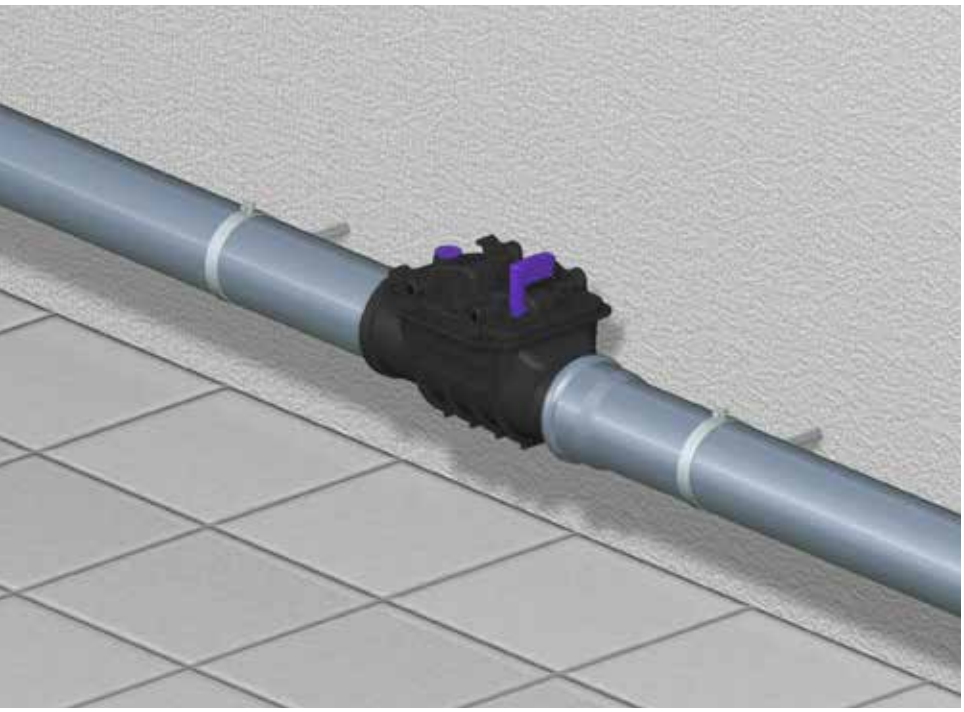
Backwater valves
Staufix Basic

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!

Black is the new orange!



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.

Staufix Basic

Article numbers • Data sheets
Accessories • Spareparts
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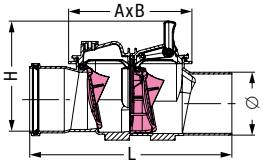
↗ www.kessel.com/staufix-basic

Twin flap backwater valve *Staufix Basic*

Installation in an exposed wastewater pipe

CE EN 13564 Type 2

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.



Type Tested and Monitored
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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**

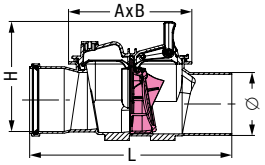
Single flap backwater valve *Staufix Basic*

Installation in an exposed wastewater pipe

CE EN 13564 Type 1

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.

↗ Conversion kits: page 44
↗ Accessories: pages 54 – 57



Type Tested and Monitored
TÜVRheinland CERTIFIED
www.tuv.com ID 1111242698

Without rodent protection (one polymer flap)

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

With rodent protection (one stainless steel flap)

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

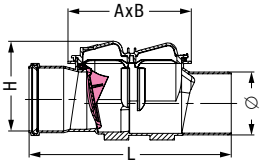
Single flap backwater valve *Staufix Basic*

Installation in an exposed wastewater pipe

CE EN 13564 Type 0

Made of polymer. Installation area 650×300 mm, Self-closing flap. Inlet/outlet for connection to PVC pipe according to EN 1566-1.

↗ Conversion kits: page 44
↗ Accessories: pages 54 – 57



Type Tested and Monitored
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www.tuv.com ID 1111242698

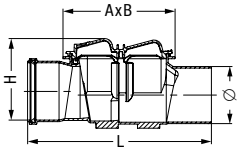
Outer diameter Ø (mm)	L×H in mm	A×B in mm	Art. no.
Ø 100	355×170	205×155	**76 100**
Ø 110	355×170	205×155	**71 100**
Ø 125	405×230	270×200	**71 125**
Ø 160	450×230	270×200	**71 150**
Ø 200	530×278	353×248	**71 200**

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

↗ **Conversion kits:** see below
↗ **Accessories:** pages 54 – 57



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**

Conversion kits

for *Staufix Basic* from 04/2005

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.

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).

		Outer diameter Ø (mm)	Art. no.
Backwater flap		Ø 110	**70 231**
		Ø 125	**70 232**
		Ø 160	**70 232**
		Ø 200	**70 205**
Insert flap housing		Ø 110	**70 241**
		Ø 125	**70 242**
		Ø 160	**70 242**
		Ø 200	**70 205**
Lockable cover incl. emergency closure and sealing gasket		Ø 110	**70 261**
		Ø 125	**70 262**
		Ø 160	**70 262**
		Ø 200	**70 203**

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

Twin flap backwater valve with inlet funnel for emergency overflow of heating system

Staufix Ø 50 or Ø 75

Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

↗ **www.kessel.com/staufix-50-75**

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.

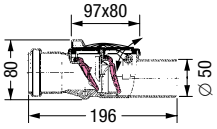
Twin flap backwater valve *Staufix Ø 50*

Installation in an exposed wastewater pipe

CE EN 13564 Type 2

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.

Type Tested and Monitored
TÜVRheinland CERTIFIED
www.tuv.com ID 1111242698



Outer diameter Ø (mm)	Art. no.
Ø 50	**73 050**

Twin flap backwater valve *Staufix Ø 75*

Installation in an exposed wastewater pipe

CE EN 13564 Type 2

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.

Type Tested and Monitored
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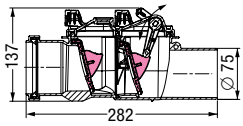


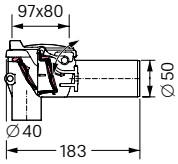
Outer diameter Ø (mm)	Art. no.
Ø 75	**73 070**

Twin flap backwater valve *Staufix Siphon Ø 50*

Installation in an exposed wastewater pipe

CE EN 13564 Type 5

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



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

Twin flap backwater valve *Staufix Siphon Ø 50*

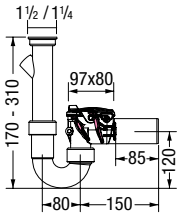
Installation in an exposed wastewater pipe

CE EN 13564 Type 5

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

Model contains:

- pipe odour trap
- washing machine connection



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

Twin flap backwater valve *Staufix Siphon Ø 50*

Installation in an exposed wastewater pipe

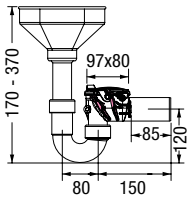
CE EN 13564 Type 5

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

Model contains:

- pipe odour trap
- inlet funnel

Installation: Ideal for the emergency overflow of heating systems



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

Type Tested and Monitored
TÜVRheinland CERTIFIED
www.tuv.com ID 1111242331

Multitube

Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

www.kessel.com/multitube

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

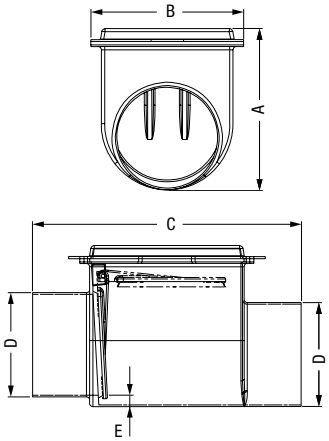
The *Multitube* backwater valve is suitable for use in leaching and pond systems and behind cisterns that are separately connected to a rainwater channel or that lead to a drainage ditch. It provides not only reliable protection against backwater, but also provides additional protection against rats,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

Single flap backwater valve *Multitube*

Installation in an exposed wastewater pipe

Made of polymer,
One self-closing flap,
incl. two connection couplings

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

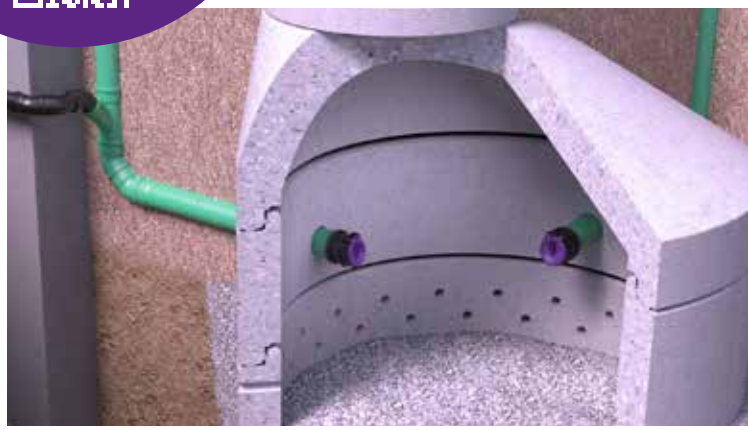
Pipe flap valve

Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

www.kessel.com/pipe-flap

Backwater valve
Pipe flap valve

The dependable solution for open end drainage pipes.



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 connection to open end drainage pipes

Flap self-closing. Inlet/outlet for connection to PVC pipe according to EN 1451-1. KESSEL-Pipe Flap, manufactured from polymer, with free hanging self activating backwater flap. For connection to open end of pipe, gasketed inlet for push-fit connection to PVC drainage piping according to DIN 19534 and PE-HD piping according to DIN 19537.

Illustration shows Ø 160

Illustration shows Ø 250

Illustration shows Ø 800

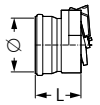


Illustration shows Ø 110 – Ø 200

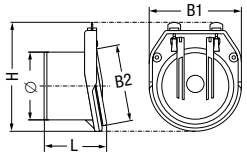


Illustration shows Ø 250 – Ø 638

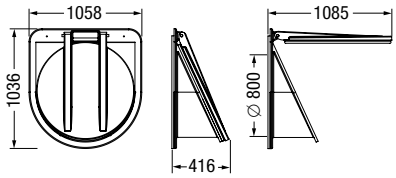


Illustration shows Ø 800

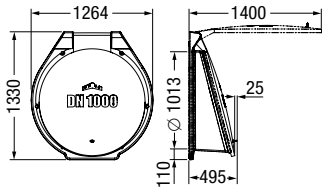


Illustration shows Ø 1000

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	315	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**

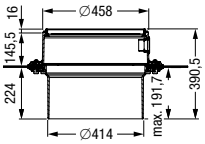
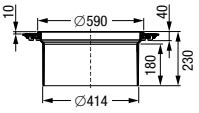
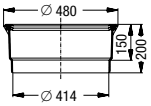
* With connection couplings it is possible to connect pipes of different diameters. Connection couplings are necessary where the difference in outer diameter is > 12 mm. Rights reserved for technical changes

** For wall installation

Accessories

Pumpfix F, *Staufix FKA*, *Staufix SWA* and *Controlfix*

Extension sections

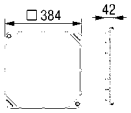
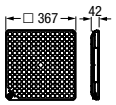
			Art. no.
with centre flange	**Compatibility:** For installation in a concrete floor *Pumpfix F*, *Staufix FKA*, *Staufix SWA* and *Controlfix* **Additional function:** For installation in water-proof concrete **Inclusive:** Temporary construction debris cover, fully assembled, gasket set (counter flange 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	**Compatibility:** For installation in a concrete floor *Pumpfix F*, *Staufix FKA*, *Staufix SWA* and *Controlfix* **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	**Compatibility:** For installation in a concrete floor *Pumpfix F*, *Staufix FKA*, *Staufix SWA* and *Controlfix* **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 *Pumpfix F*	for motorized backwater valve *Staufix FKA* and *Staufix FKA Standard* (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

				Cover	Art. no.
surface water tight	**Compatibility:** For installation in a concrete floor *Pumpfix F*, *Staufix FKA*, *Staufix SWA* and *Controlfix* **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**

Spigot and Socket

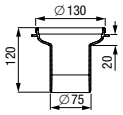
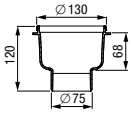
			Outer diameter Ø (mm)	Art. no.
Spigot	**Compatibility:** For backwater valves *Pumpfix F*, *Staufix FKA*, *Staufix SWA* and *Controlfix* **Function:** Removable inlets / outlets		Ø 110 Ø 125 Ø 160 Ø 200*	**83 081** **83 082** **83 083** **83 084**
Socket	**Compatibility:** For backwater valves *Pumpfix F*, *Staufix FKA*, *Staufix SWA* and *Controlfix* **Function:** Removable inlets / outlets		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

Accessories

Pumpfix F, *Staufix FKA*, *Staufix SWA* and *Controlfix*

Hygiene and odour stop

			Cover	Art. no.
Drain body	**Compatibility:** For lowest installation; for backwater pumping station *Pumpfix F*	 	black grey	**680 796** **680 798**
Drain body	**Compatibility:** Seal water height 50 mm; for backwater pumping station *Pumpfix F*	 	black grey	**680 795** **680 797**
additionally *Multistop*	**Compatibility:** For backwater pumping station *Pumpfix F* **Function:** Odour, foam, rodent and insect stop	  		**48 500**
additionally *Megastop*	**Compatibility:** For backwater pumping station *Pumpfix F* **Function:** Mechanical odour trap inclusive hair filter for KESSEL upper sections	  		**48 550**
additionally odour trap	**Compatibility:** For backwater pumping station *Pumpfix F* **Seal water height:** 50 mm **(Ventilation always required when in use!)**			**680 696**

Hygiene

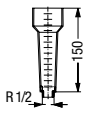
			Art. no.
Hair filter	**Compatibility:** Art. no. 48 500; for backwater pumping station *Pumpfix F*	 	**48 700**

Rodent / Insect protection

for *Staufix FKA* and *Staufix SWA*

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

Maintenance

			Art. no.
Testing funnel	**Compatibility:** For all *Staufix FKA* and *Staufix SWA* backwater valves (Ø 110, Ø 125, Ø 160) **Inclusive:** Gasket	 	**70 214**

Control unit accessories

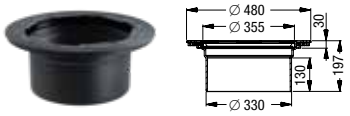
			Art. no.
Audible alarm	**Compatibility:** For all control units with SDS function **Cable length:** 20 m		**20 162**
Potential-free contact	**Compatibility:** For all control units up to 12/2016 with SDS function		**80 072**
Activation code for potential-free contact	**Compatibility:** For Comfort control units beginning model year 2017		**80 077**

Accessories

Staufix

Extension sections

made of polymer

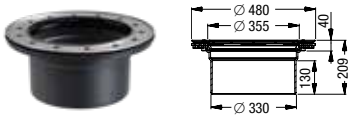


with flange

for deeper installation

Inclusive: Sealing
Extension: Max. 147 mm
Note: In case of deeper installation ensure maintenance capability!

Art. no. **830 070**

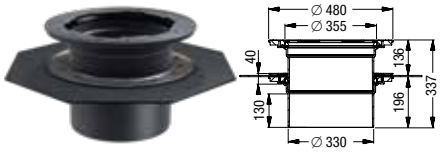


with flange and counter flange

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**

Spigot / Socket

made of polymer

Spigot

removable fitting mountable on both sides and in different dimensions

Outer diameter Ø (mm)	Art. no.
Ø 90	**83 090**
Ø 100	**830 200**
Ø 110	**830 100**
Ø 125	**83 082**
Ø 160	**83 083**
Ø 200	**83 084**

Socket

removable fitting mountable on both sides and in different dimensions

Outer diameter Ø (mm)	Art. no.
Ø 90	**83 091**
Ø 100	**830 202**
Ø 110	**830 101**
Ø 125	**83 086**
Ø 160	**83 087**
Ø 200	**83 084**

Conversion kits

			Outer diameter Ø (mm)	Art. no.
Rodent protection flap	**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, 720 ..., 730 ... **Material:** Made of stainless steel		Ø 90 - Ø 110 Ø 125 - Ø 200	**70 233** **70 234**
Backwater flap	**Compatibility:** For upgrade from type 1 to type 2		Ø 90 - Ø 110 Ø 125 - Ø 200	**70 231** **70 232**

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 lost space inside 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 21
↗ **Conversion kit *Staufix FKA*:** page 21
↗ **Conversion kit *Pumpfix F*:** page 21

Backwater chambers

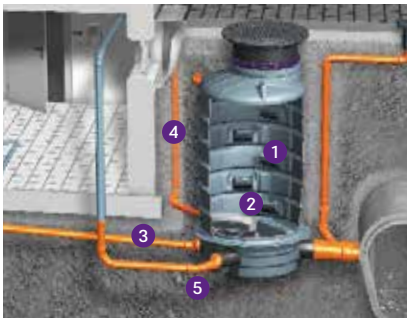
Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

↗ **www.kessel.com/backwater-chambers**

Standard backwater chamber

Ø 1000 with *Controlfix*

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



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

Modular backwater chamber

Ø 1000 with *Controlfix*

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

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

Backwater inspection chamber Ø 1000 with *Controlfix*

For underground installation

Z-42.1-333

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 2.000 mm

Distance from base of chamber to:
Base of inlet approx. 136 mm
Base of outlet approx. 108 mm

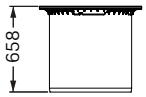
Note: Further chamber heights (on request)

↗ **Conversion kits:** see page below
↗ **Accessories:**
- page 44
- Depending on installation depth, entrance access steps may be required (see page 45)

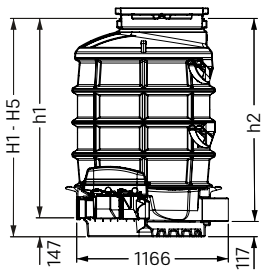
Installation depth in mm	Art. no.
3 inlets Ø 160 / 1 outlet Ø 200	
H1: 1180	**88 10 05**
H2: 1680	**88 15 05**
H3: 2180	**88 20 05**
H4: 2680	**88 25 05**
H5: 3180	**88 30 05**
3 inlets Ø 160 / 1 outlet Ø 160	
H1: 1180	**88 10 05-DN 150**
H2: 1680	**88 15 05-DN 150**
H3: 2180	**88 20 05-DN 150**
H4: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

Standard cover on-site

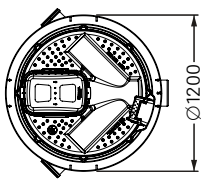
Accessories Art. no. 86 01 22 / 86 01 16



Inspection chamber including temporary construction debris cover



Height	h1	h2
H1	1046	1072
H2	1528	1558
H3	2028	2058
H4	2533	2563
H5	3033	3063



Conversion kits

for models made on or after Jan 2011

		Art. no.
Backwater pumping *Pumpfix F*	**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 *Staufix FKA*	**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 *Staufix SWA*	**Compatibility:** Engineering systems base backwater chamber Ø 1000, for Ø 110 – Ø 200*	**80 091**

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

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

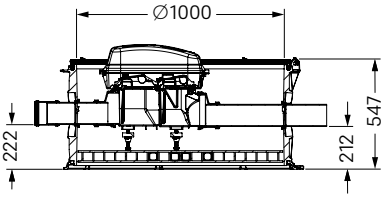
Installation:

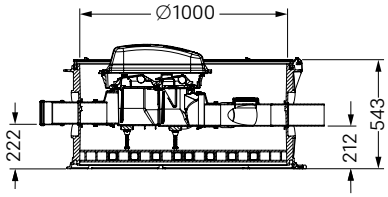
Handles groundwater depths up to 3.000 mm

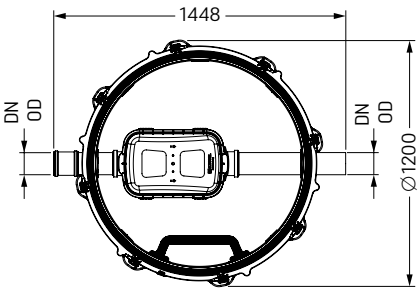
↗ **Installation:** in combination with system chamber page 42

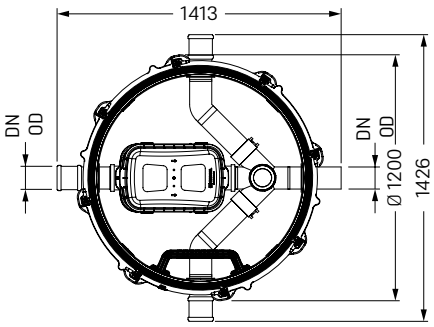
↗ **Conversion kits:** see page below

↗ **Accessories:** pages 44









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

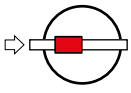
Conversion options

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

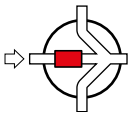
Channel passage:

with closed channel passage Ø...

Version Ø 200: (on request)



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



Conversion kits

for models made on or after Jan 2011

		Art. no.
Backwater pumping *Pumpfix F*	**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 *Staufix FKA*	**Compatibility:** Engineering systems base backwater chamber Ø 1000, for Ø 110 – Ø 200* **Inclusive:** Komfort control unit **Cable length:** 15 m ↗ Cable extension: page 54	**80 104**
Backwater valve *Staufix SWA*	**Compatibility:** Engineering systems base backwater chamber Ø 1000, for Ø 110 – Ø 200*	**80 091**

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

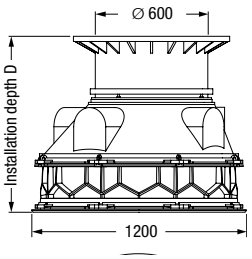
Engineering system chamber Ø 1000 with access opening Ø 600

for combination with engineering system base

EN 13598 Part 2 **Z-42.1-527**

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

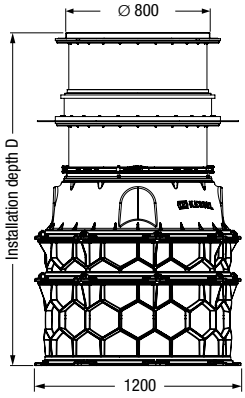
Engineering system chamber Ø 1000 with access opening Ø 800

for combination with engineering system base

EN 13598 Part 2 **Z-42.1-527**

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 or round cover in class K 3
- 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, square

Installation depth D in mm	Art. no.
668 - 917	874 00 03
918 - 1167	874 00 09
1168 - 1417	874 00 15
1418 - 1667	874 00 21
1668 - 1917	874 00 27

Cover not tileable, square, anti-slip

Installation depth D in mm	Art. no.
653 - 902	874 00 05
903 - 1152	874 00 11
1153 - 1402	874 00 17
1403 - 1652	874 00 23
1653 - 1902	874 00 29

Cover not tileable, round

Installation depth D in mm	Art. no.
638 - 887	874 02 22
888 - 1137	874 02 23
1138 - 1387	874 02 24
1388 - 1637	874 02 25
1638 - 1887	874 02 26

Engineering system chamber Ø 1000 with access opening Ø 800

for combination with engineering system base

EN 13598 Part 2 **Z-42.1-527**

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)

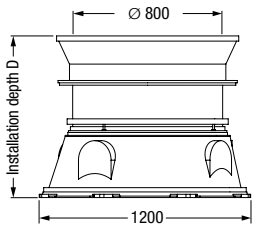


Illustration shows Art. no. 874 01 58

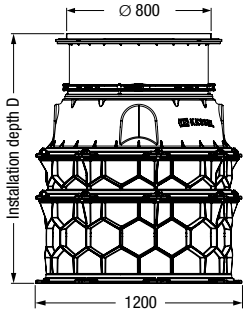


Illustration shows Art. no. 874 00 02

Illustration shows Art. no. 874 01 43

Illustration shows Art. no. 874 01 22

Illustration shows Art. no. 874 00 20

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**

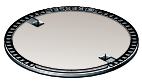
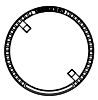
Square cover

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**

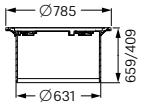
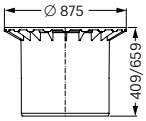
Accessories

Backwater chambers

Cover plates

			Cover	Art. no.
with ventilation	**Compatibility:** Backwater inspection chamber Ø 1000 **Material:** Class A, B in cast iron and concrete Class D in cast iron **Inclusive:** Lockable cover plates with *Lock & Lift*-function	 	Class A Class B Class D, *Lock & Lift*	**860 134** **860 135** **860 164**
surface water tight	**Compatibility:** Backwater inspection chamber Ø 1000 **Material:** In cast iron **Inclusive:** Lockable cover plates with *Lock & Lift*-function	 	Class A/B, *Lock & Lift* Class D, *Lock & Lift*	**860 161** **860 160**
	Compatibility: Backwater inspection chamber Ø 1000 **Material:** In cast iron and concrete	 	Class A Class B	**860 130** **860 131**

Upper sections

			Telescopic height adjustable	Art. no.
without recesses for a sludge bucket	**Compatibility:** Covers class A/B/D **Inclusive:** Clamping ring, with Lock & Lift function	 	65 - 579 65 - 329	**860 152** **860 153**
can be assembled with standard concrete rings	**Compatibility:** For standard bearing ring / concrete/cast covers, class A/B/D; for backwater inspection chamber Ø 1000	 	79 - 579 79 - 329 79 - 579	**860 154** **860 155** **860 156**

Extension section

			Art. no.
500 mm	**Compatibility:** Engineering systems base backwater chamber **Inclusive:** 2 access steps, installed **Note:** Without gasket and connecting wedges		**680 371**
250 mm	**Compatibility:** Engineering systems base backwater chamber **Inclusive:** 1 access step, installed **Note:** Without gasket and connecting wedges		**680 370**

Accessories

Backwater chambers

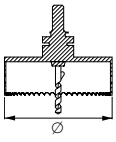
Gasket / Embedded step / Locking and removal key / Connection and attachment sets

			Outer diameter Ø (mm)	Art. no.
Lip gasket	**Compatibility:** Art. no. 860 152, 860 153, 860 154, 860 155		Ø 600	**860 116**
Embedded step	**Compatibility:** Art. no. 860 152, 860 153, 860 154, 860 155 **Inclusive:** Drilling template, step, hand rail, screws **Note:** The embedded step can be fitted to the upper section (Art. no. **860 152, 860 153, 860 154, 860 155**) in the factory at an additional charge			**860 109**

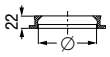
Locking and removal key / Connection and attachment sets

				Voltage	Art. no.
Cable piping gasket set	**Compatibility:** Control unit 230 V and 400 V		in the building	230 V	**85 401**
			in the building	400 V	**85 402**
			in the chamber	230 V	**85 403**
			in the chamber	400 V	**85 404**
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 **Set-content:** 3 pieces of clamps				**28 076**

Hole saw

			Outer pipe diameter in mm	Drill size in mm	Art. no.
Hole saw set	**Compatibility:** Engineering systems base backwater chamber Ø 1000 **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	**Compatibility:** Engineering systems base backwater chamber Ø 1000 **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**

Backwater pumping station
Pumpfix S

The Special solution with backwater valve and pump.

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 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.

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 water-proofing 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 wash-basin. The *Pumpfix S* basement drain can therefore also be used as central backwater protection.

Pumpfix S

Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

www.kessel.com/pumpfix-s

Backwater valve
Universale Plus

More advantages, less hassle with an extra measure of innovation: this plan works out! On the following pages you will find out how the *Universale Plus* basement drain with integrated backwater valve and odour trap makes it even easier for you to drain basement rooms in future.

But that's not all. Also discover why you not only save time but also save money with the *Universale Plus* – from the design to the installation through to maintenance.

New

Universale Plus

Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

www.kessel.com/universale-plus

The installation is also possible without waterproofing where high groundwater is not an issue

With *Ecoguss* upper section for up to 12.5 tonne loads

Installation with waterproofing against groundwater

Backwater valve
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 flexibilty for the design and installation. *The Universal* is optionally available with a slotted grating made of polymer or stainless steel.

The Universal

Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

↗ **www.kessel.com/the-universal**

1 Drain 2 Inlet 3 Steel cover

Backwater valve
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

Drehfix

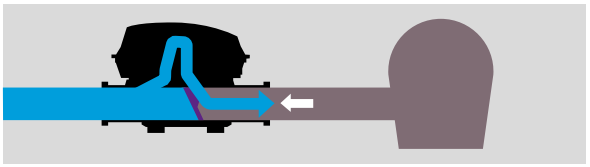
Article numbers • Data sheets
Accessories • Spareparts
Videos • Download • BIM

www.kessel.com/drehfix

Pumpfix F, Staufix FKA, Staufix SWA

Do you have a toilet in the basement?

Pumpfix F uses the natural gradient to the sewer!



- Minimum energy consumption
- No pumping noises – increased living comfort
- No interruption in operation in the event of a power failure
- Integrated drain function

... or protect your basement using the motorised backwater valve *Staufix FKA* or mechanical backwater valve *Staufix SWA*.

Staufix Basic, Staufix

Multiple basement drainage pipes connected to a single main wastewater pipe ...

... centrally protect multiple drainage fixtures against backwater using the Staufix backwater valve.

Staufix, Staufix Siphon

Sink, shower, washing machine, heating overflow

Protect the drainage fixtures elements with *Staufix* backwater valve Ø 50, Ø 75 or *Staufix Siphon* Ø 50.

Drehfix, the Universal, the Universale Plus

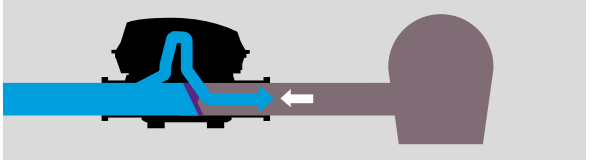
Floor drain

Use *Drehfix, the Universal or the Universale Plus.*

Pumpfix S

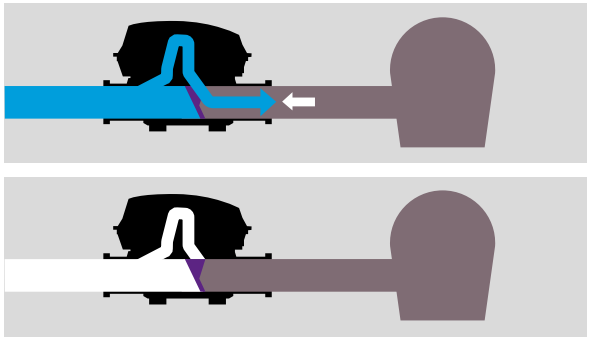
Flooding through basement steps or windows

Pumpfix S pumps the basement dry!



Underground backwater protection

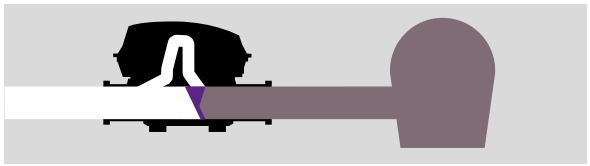
Triple inlet underground chamber for rainwater, above ground sewer and underground sewer pipe connections. For use with KESSEL *Staufix SWA, Staufix FKA* and *Pumpfix F* backwater valves.



Backwater inspection chamber

In-line single flap backwater protection

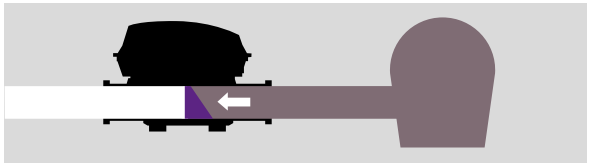
For indoor or outdoor underground backwater protection in industrial sized gravity wastewater pipes.



Multitube

End of pipe backwater protection

Protection of water discharge from large public, municipal and industrial sector drainage pipes into flood prone areas (rivers, oceans and large public sewers).



Pipe flaps

BIM

files available at
www.kessel.com

Subject to technical modifications.

KESSEL AG
Bahnhofstraße 31 • 85101 Lenting • Germany
www.kessel.com

010-328 P24/CK 08/23