

Product range

Backwater protection

 **KESSEL**

Make the right choice

**Backwater protection**



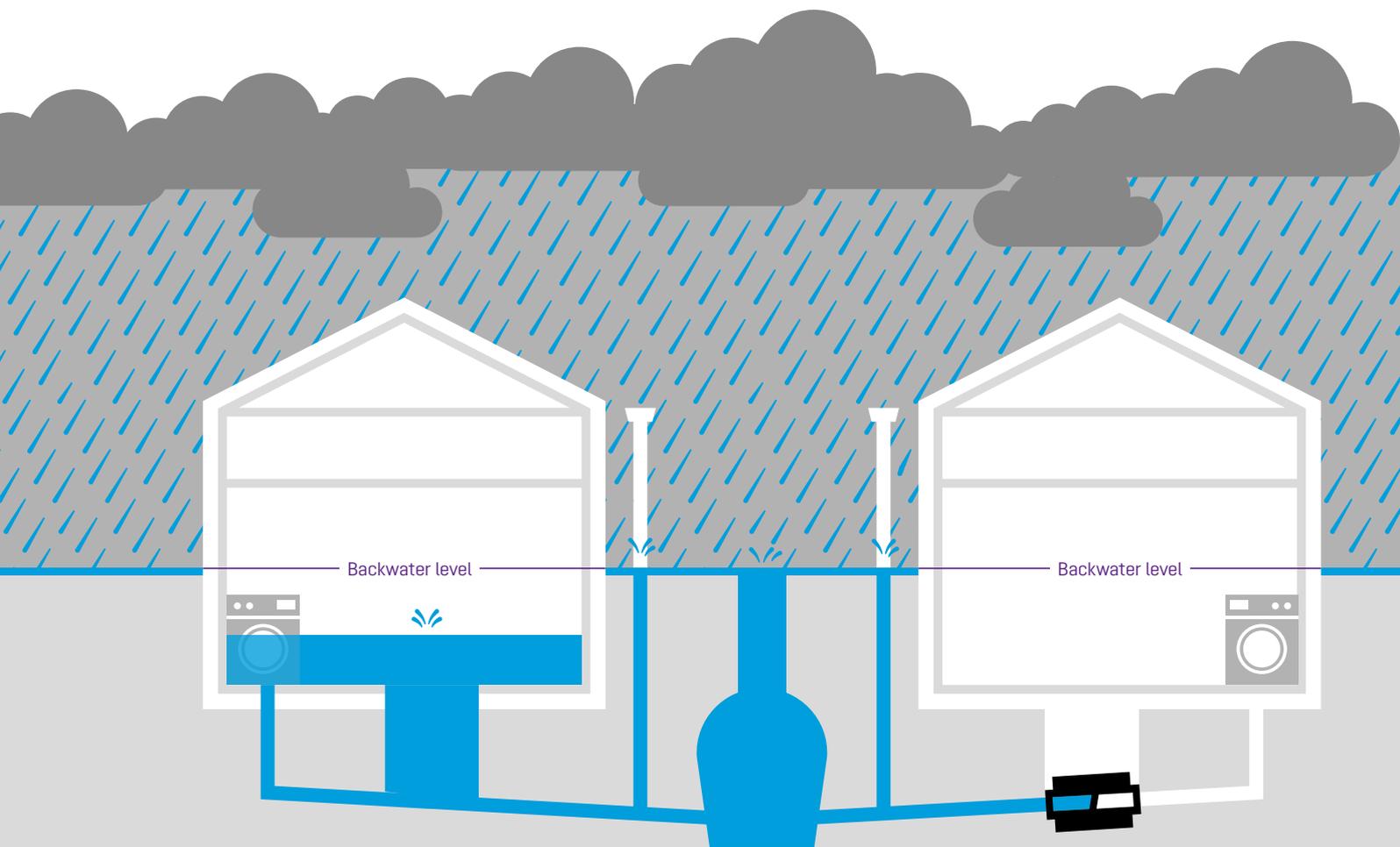
 Made in Germany

Leading in drainage



# 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.

## KESSEL backwater valves according to EN 13564

### With mechanical flap system

*Staufix*, *StaufixControl* 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 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 4** 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.



### 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 one automatic closure operated by external energy (electric, pneumatic or other) and one emergency closure which is independent of the automatic closure.



### 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.

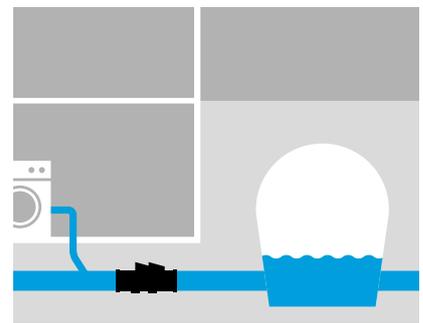
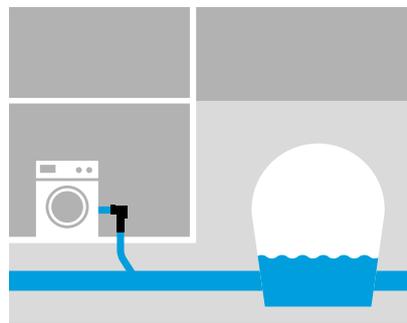
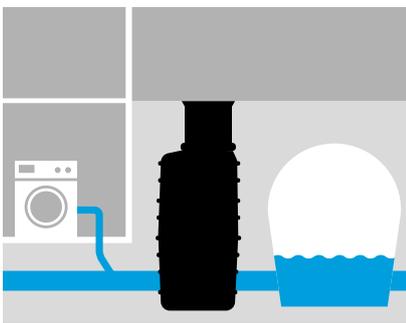
---

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



## 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.

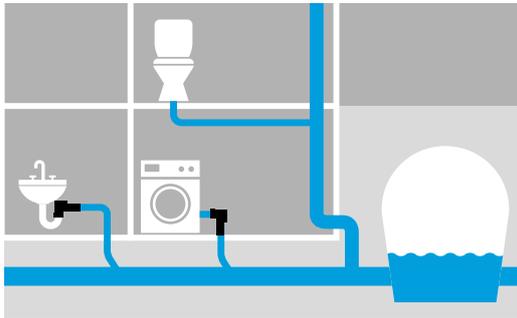


**Wastewater with sewage** is water with faecal content coming from urinals or toilets to the sewer. This is termed "black water".

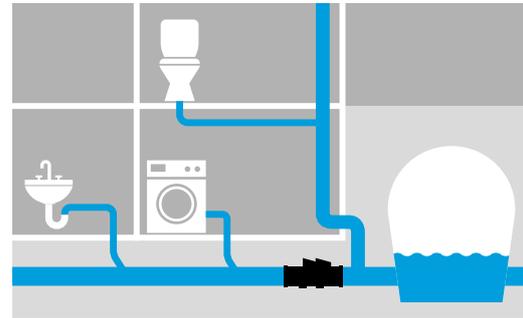


**Wastewater without sewage** is water without faecal content, for example shower water or water from a washing machine. This is termed "grey water".

## Protection strategy

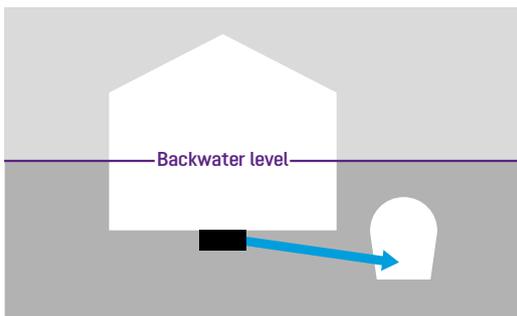


**Individual protection**  
Each drainage location, such as washbasins, showers or washing machines, is protected with its own backwater protection.

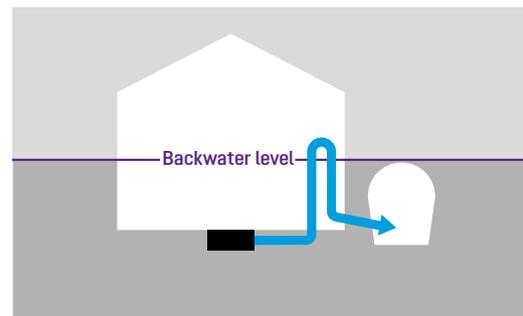


**Central protection**  
Backwater valves or lifting stations installed in the main wastewater pipe, protecting all drainage fixtures.

## Slope to the main sewer

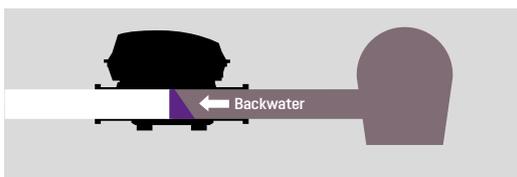


**Slope to the main sewer**  
If the sewage pipe lies below the backwater protection, the domestic wastewater will be disposed of via the natural slope. Backwater valves and hybrid lifting stations can be used here.

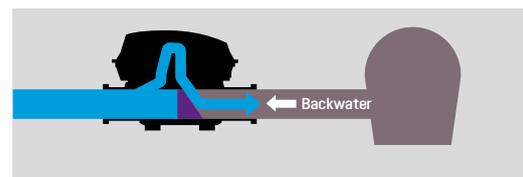


**No slope to the sewage pipe**  
If the sewage pipe is higher than the backwater protection, the wastewater must be lifted to the sewage pipe with a lifting station via a backwater loop.

## Function



**Protects in the event of backwater**  
The backwater flap prevents wastewater from the sewer pipe pushing into the building.



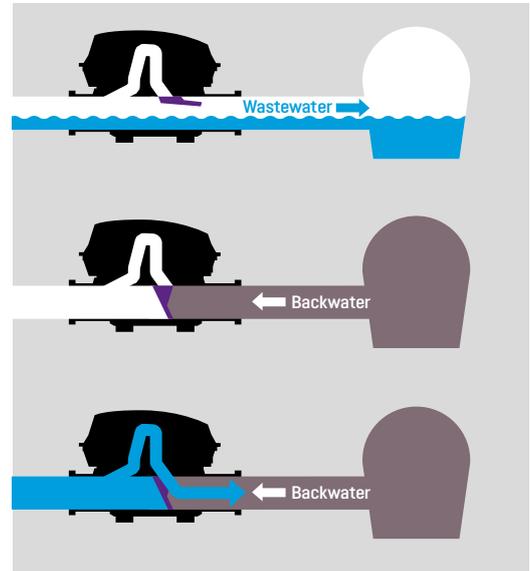
**Disposes in the event of backwater**  
Despite backwater from the sewage and closed backwater flap, domestic wastewater can be disposed of via a pump. This ensures that the drainage system would remain functionally capable.

# Backwater pumping station *Pumpfix F*

## The unique backwater solution.

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

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



### 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.



1 Backwater pumping station 2 Control unit 3 Sealing gasket set



1 Backwater pumping station 2 Control unit

### Ventilation

Integrated ventilation eliminates the requirement for costly roof ventilation pipes

### Motor

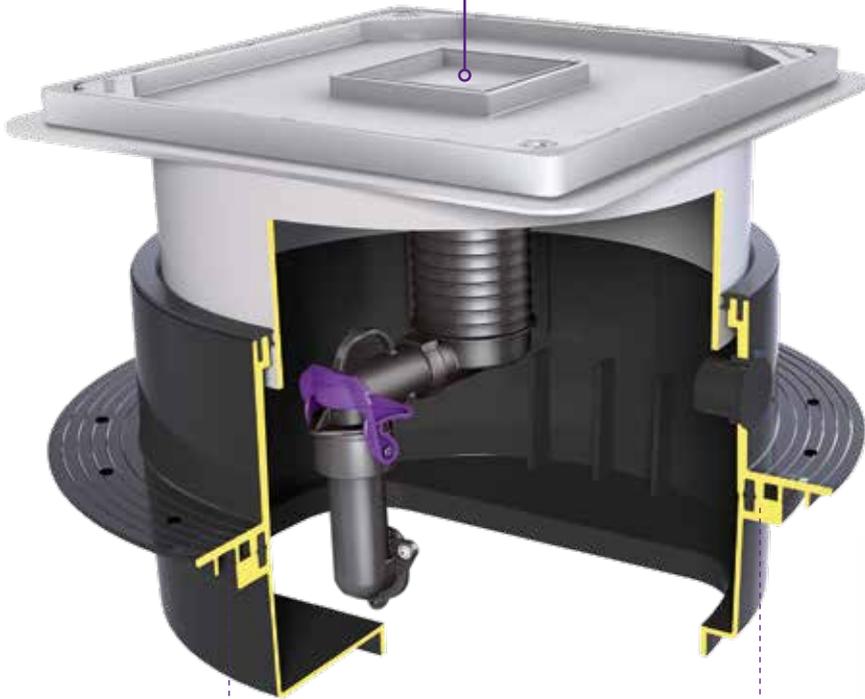
Automatically closes the backwater flap in the event of backwater

### Body with only 9 mm gradient

Ideal for renovation work

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

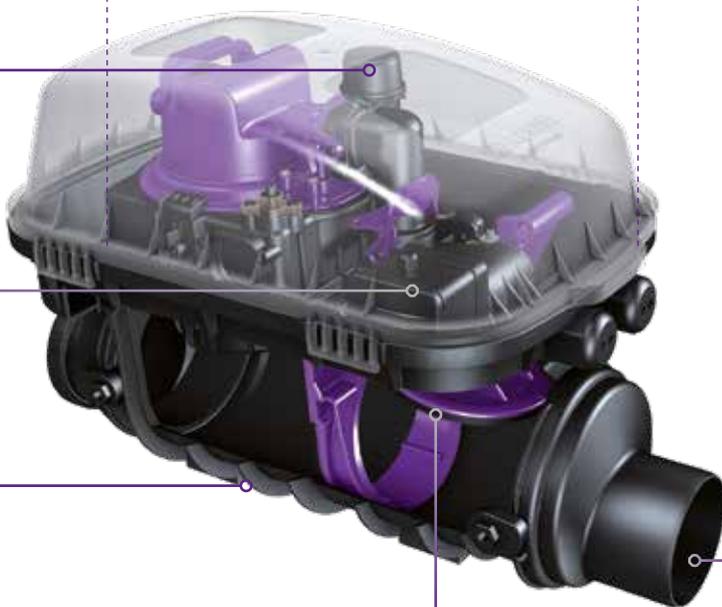
The backwater valve is available for floor slab installation and can also be installed in waterproof concrete by using an extension piece with central flange and an elastomer waterproofing membrane. The integrated drainage function ensures that any surface water, for example due to a pipe break, will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



**New Comfort version** 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



**Motorized Flap**

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

**Removable inlet / outlet connections – also in Ø 200**

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

## 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).

#### Note:

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

#### ➤ Accessories:

Extension sections for installation in waterproof concrete see page 16



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

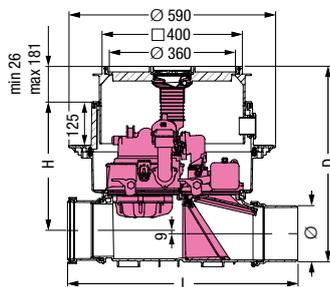
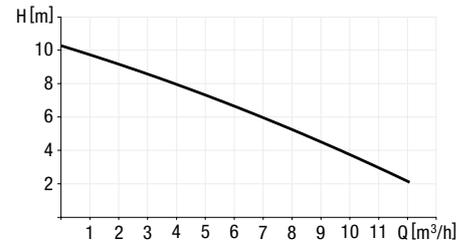
With recessed cover for on-site tiling and drain

Ø 110	642 × 394	<b>24 100X</b>
Ø 125	645 × 387	<b>24 125X</b>
Ø 160	656 × 370	<b>24 150X</b>
Ø 200*	720 × 348	<b>24 200X</b>

With black cover and drain

Ø 110	642 × 394	<b>24 100S</b>
Ø 125	645 × 387	<b>24 125S</b>
Ø 160	656 × 370	<b>24 150S</b>
Ø 200*	720 × 348	<b>24 200S</b>

### Pumping capacity



Z-53.2-388

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

# 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 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).

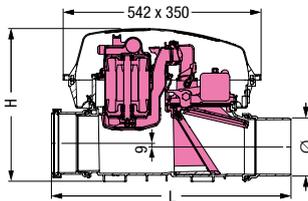
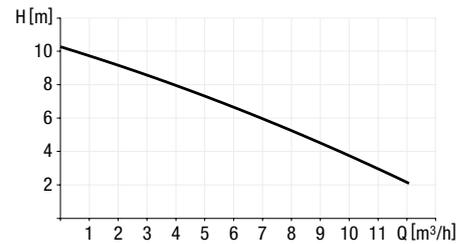
### Note:

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



Z-53.2-388

\* 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.



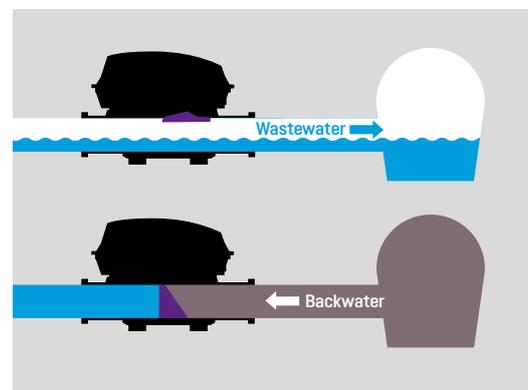
1 Backwater valve 2 Control unit



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



### 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.

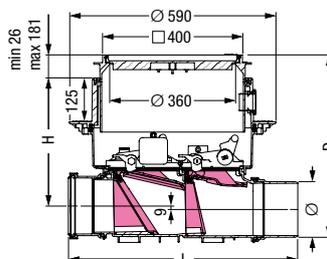
Plug-and-Play control unit with connection option to building management system and alarm, protection type IP 54, with integrated self diagnosis system SDS, display for operating status and battery back-up, motor is rated protection Type IP 68 (3 m, 24 h).

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 16
- Conversion kits see page 17



Outer diameter Ø (mm)	L × H in mm	Art. no.
<b>With recessed cover for on-site tiling</b>		
Ø 110	642 × 394	<b>84 100X</b>
Ø 125	645 × 387	<b>84 125X</b>
Ø 160	656 × 370	<b>84 150X</b>
Ø 200*	720 × 348	<b>84 200X</b>
<b>With black cover</b>		
Ø 110	642 × 394	<b>84 100S</b>
Ø 125	645 × 387	<b>84 125S</b>
Ø 160	656 × 370	<b>84 150S</b>
Ø 200*	720 × 348	<b>84 200S</b>



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

## Backwater valve *Staufix FKA* Installation in an exposed wastewater pipe



### EN 13564 Type 3 F

Made of polymer, with protective cover.

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

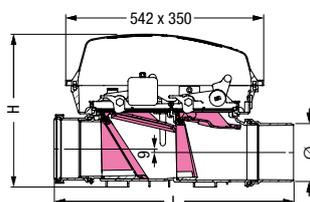
Plug-and-Play control unit with connection option to building management system and alarm, display for operating status and battery back-up, protection type IP 54, with integrated self diagnosis system SDS, display for operating status and battery back-up, motor is rated protection Type IP 68 (3 m, 24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

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

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

#### Accessories:

Conversion kits see page 17



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



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

# 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 11

#### ➤ Backwater pumping station *Pumpfix F*

Page 8

#### ➤ Conversion kits

Page 17

## Twin flap backwater valve *Staufix SWA*

Installation in a concrete slab/floor



### 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.



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

With recessed cover for on-site tiling

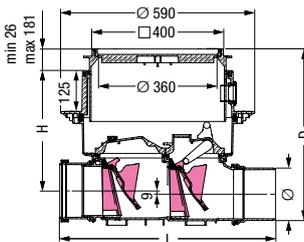
Ø 110	642 × 394	73 100.10X
Ø 125	645 × 387	73 125.10X
Ø 160	656 × 370	73 150.10X
Ø 200*	720 × 348	73 200.10X

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

### ➤ Accessories:

- Extension sections for installation in waterproof concrete see page 16
- Conversion kits see page 17



CE 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



### 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.

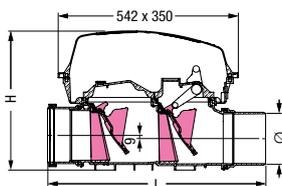


Outer diameter Ø (mm)	L × H in mm	Art. no.
-----------------------	-------------	----------

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

### ➤ Accessories:

Conversion kits see page 17



CE EN 13564 Type 2

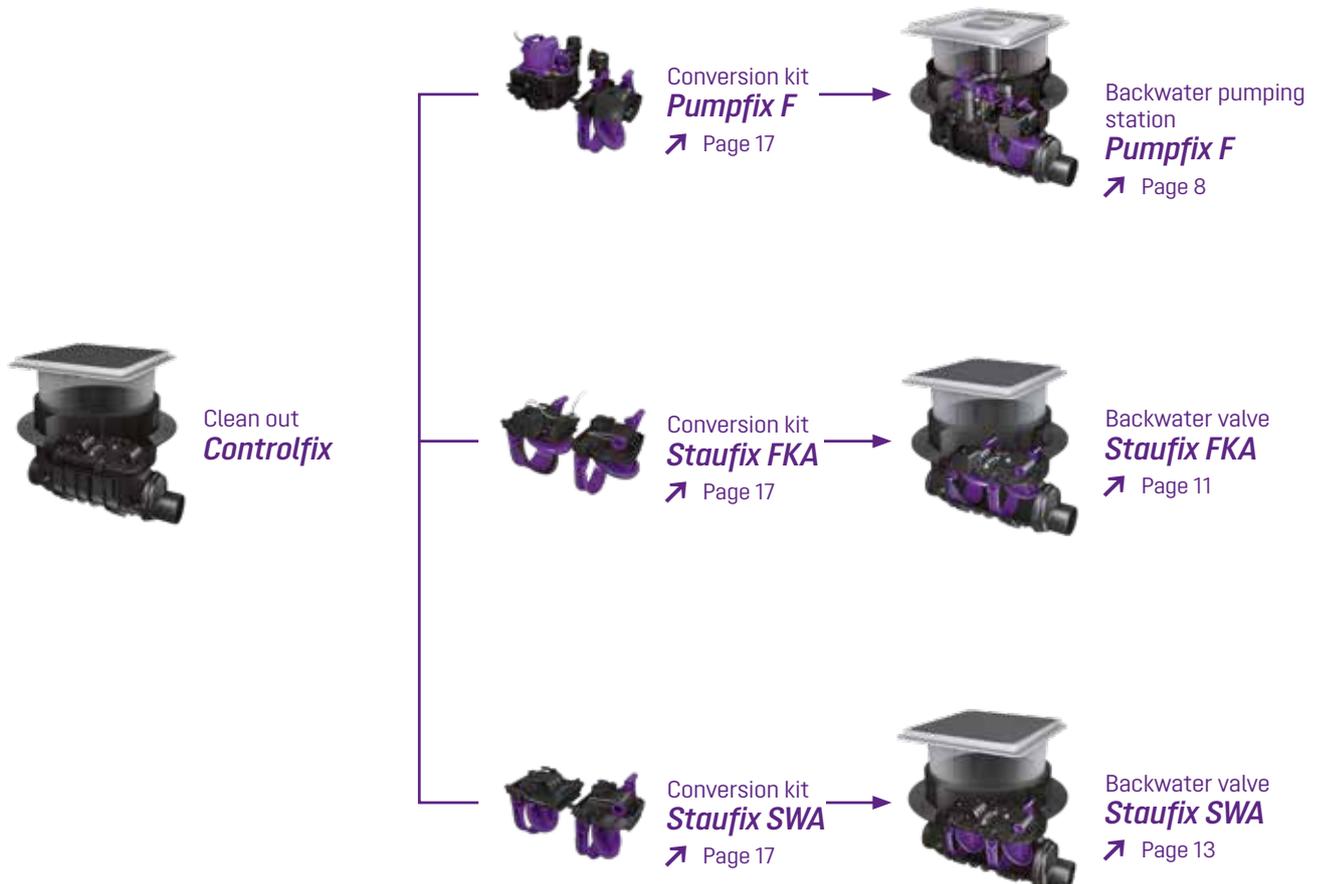
\* In-/Outlet Ø 200, hydraulics corresponds to Ø 160

# Clean out *Controlfix*

## The practical upgrade solution.

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

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



## Clean out *Controlfix*

Installation in a concrete slab/floor

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

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

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

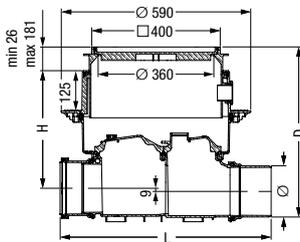
Installation kit with choice of cover.

**Accessories:**

- Extension sections for installation in waterproof concrete see page 16
- Conversion kits see page 17



Outer diameter Ø (mm)	L × H in mm	Art. no.
<b>With recessed cover for on-site tiling</b>		
Ø 110	642 × 394	<b>80 100X</b>
Ø 125	645 × 387	<b>80 125X</b>
Ø 160	656 × 370	<b>80 150X</b>
Ø 200*	720 × 348	<b>80 200X</b>
<b>With black cover</b>		
Ø 110	642 × 394	<b>80 100S</b>
Ø 125	645 × 387	<b>80 125S</b>
Ø 160	656 × 370	<b>80 150S</b>
Ø 200*	720 × 348	<b>80 200S</b>



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

## Clean out *Controlfix*

Installation in an exposed wastewater pipe

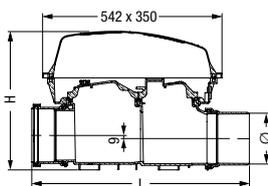
Made of polymer, with protective cover.

**Accessories:**

Conversion kits see page 17



Outer diameter Ø (mm)	L × H in mm	Art. no.
Ø 110	642 × 422	<b>80 100</b>
Ø 125	645 × 422	<b>80 125</b>
Ø 160	656 × 422	<b>80 150</b>
Ø 200*	720 × 422	<b>80 200</b>



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

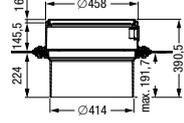
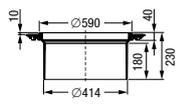
## Accessories

Pumpfix F / Staufix FKA / Staufix SWA / Controlfix

### Extension sections

for installation in a concrete floor

Art. no.

<b>with centre flange</b>	<p><b>Additional function:</b> For installation in water-proof concrete  <b>Inclusive:</b> Temporary construction debris cover, fully assembled, gasket set (counter flange made of polymer, screwed, elastomer sealing sheet made of NK/SBR Ø 800 mm)  <b>Extension:</b> Max. 360 mm</p>			<p>83 075</p>
<b>with flange and counter flange</b>	<p><b>Additional function:</b> For connection to an on-site sealing sheet  <b>Inclusive:</b> Screws  <b>Extension:</b> Max. 140 mm (In case of deeper installation ensure maintenance capability!)</p>			<p>83 073</p>
<b>with gasket</b>	<p><b>Extension:</b> Max. 180 mm (In case of deeper installation ensure maintenance capability!)</p>			<p>83 070</p>
<b>Gasket set</b>	<p><b>Additional function:</b> For installation in water-proof concrete  <b>Inclusive:</b> counter flange made of polymer, screws, elastomer sealing sheet made of NK/SBR Ø 800 mm (Waterproof concrete installation tested by MFPA Leipzig UB 5.1/11-452-1)</p>			<p>83 023</p>

### Cable extensions

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

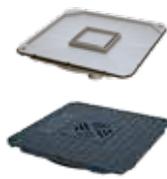
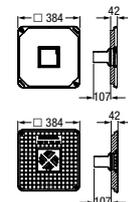
	for backwater pumping station Pumpfix F	for motorized backwater valve Staufix FKA and Staufix FKA Standard (up to 2015)		Art. no.
<b>Cable extension for motor (10 m)</b>	<p><b>Extension to 15 m:</b> 1×80 890  <b>Extension to 25 m:</b> 2×80 890</p>	<p><b>Extension to 15 m:</b> 1×80 890  <b>Extension to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

### Cover plates

for installation in a concrete floor

Cover

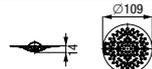
Art. no.

<b>with drain Ø 75</b>	<p><b>Inclusive:</b> Gasket, Multistop  <b>Version recessed for on-site tiling, grey:</b>                  For tile thicknesses of 18 mm  <b>Version black:</b>                  With integrated grating</p>			<p>tileable 83 045</p>	<p>black 83 046</p>
<b>surface water tight</b>	<p><b>Inclusive:</b> Gasket  <b>Version recessed for on-site tiling, grey:</b>                  For tile thicknesses of 18 mm</p>			<p>tileable 83 052</p>	<p>black 83 050</p>

### Hygiene and odour stop

Compatibility see product description

Art. no.

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

## Accessories

Pumpfix F / Staufix FKA / Staufix SWA / Controlfix

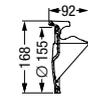
### Conversion kits

for models made on or after Jan 2011

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

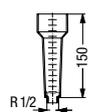
### Rodent / Insect protection

Compatibility see product description

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

### Maintenance

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

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

### Spigot and Socket

for backwater valves

			Outer diameter Ø (mm)	Art. no.
<b>Spigot</b>	<b>Function:</b> Removable inlets / outlets, can be mounted in various dimensions		Ø 110	83 081
			Ø 125	83 082
			Ø 160	83 083
			Ø 200*	83 084
<b>Socket</b>	<b>Function:</b> 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.
<b>Audible alarm</b>	<b>Compatibility:</b> For all control units with SDS function <b>Cable length:</b> 20 m		20 162
<b>Access code potential-free contact</b>	<b>Compatibility:</b> For Comfort control units beginning model year 2017		80 077

## Backwater valves

# *Staufix and StaufixControl*

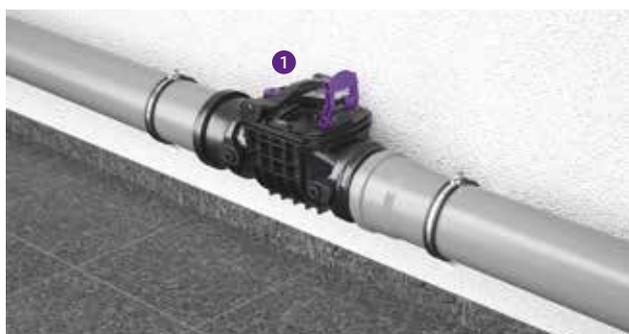
The original solution for wastewater without sewage – also with additional control function.

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

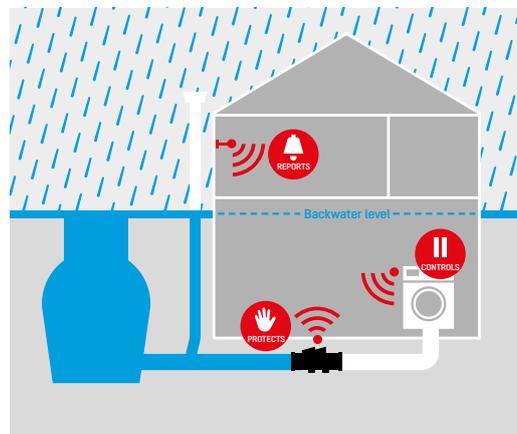
The *StaufixControl* variant offers smart additional functions such as visual and acoustic backwater warnings. *Staufix* and *StaufixControl* are each available in two variants – for installation in an exposed drainage pipe and for floor slab installation, where you can choose between a black cover or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



1 Backwater valve 2 Extension section



1 Backwater valve



### Version *StaufixControl*

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

### Installation situation

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



### Tool-free maintenance

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

## Twin flap backwater valve *StaufixControl*

Installation in a concrete slab/floor

### EN 13564 Type 2

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

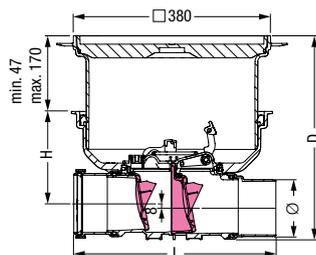
With surface water tight cover plate class A 15 made of polymer.

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 26



### 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

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

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

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.

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

➤ **Accessories:** see page 26

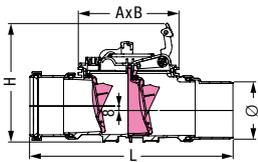


### Without rodent protection (two polymer flaps)

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

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

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



## Twin flap backwater valve *Staufix*

Installation in a concrete slab/floor

### EN 13564 Type 2

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

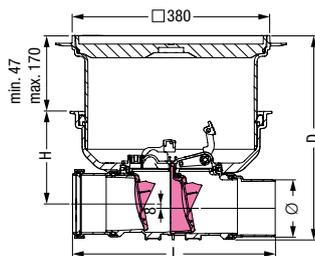
With surface water tight cover plate class A 15 made of polymer.

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 *StaufixControl*.

➤ **Accessories:** see page 26



### Without rodent protection (two polymer flaps)

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

### With black cover

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

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

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

### With black cover

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

## Twin flap backwater valve *Staufix*

Installation in an exposed wastewater pipe

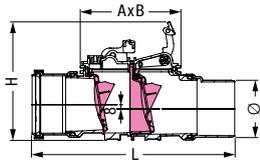
EN 13564 Type 2

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.

**Note:** Can be retrofitted on the *StaufixControl*.

➤ **Accessories:** see page 26



### Without rodent protection (two polymer flaps)

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

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

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

## Single flap backwater valve *Staufix*

Installation in a concrete slab/floor



### EN 13564 Type 1

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



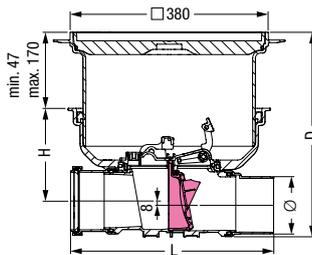
With surface water tight cover plate class A 15 made of polymer.

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 26



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



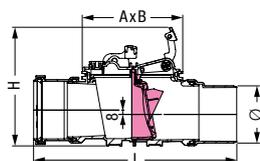
### EN 13564 Type 1

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 26



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 26



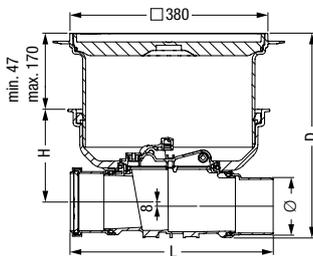
Outer diameter Ø (mm)	L × H in mm	Art. no.
--------------------------	-------------	----------

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

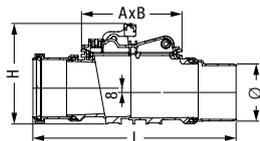
Made of polymer

➤ **Accessories:** see page 26



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*

### Radio receiver

for backwater valve *StaufixControl*

Art. no.

#### Radio-based audible alarm

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



72 222

#### Radio receiver as switched socket

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



72 223

### Conversion kits

Compatibility see product description

Outer diameter  
Ø (mm)

Art. no.

#### Rodent protection flap

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



Ø 90 - Ø 110

70 233

Ø 125 - Ø 200

70 234

#### Backwater flap

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



Ø 90 - Ø 110

70 231

Ø 125 - Ø 200

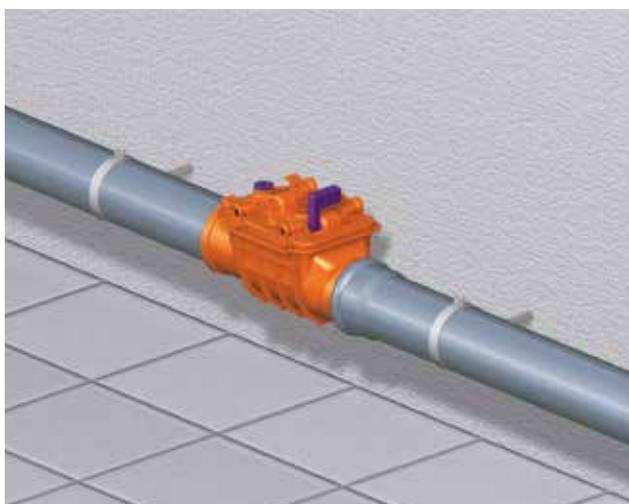
70 232

## Backwater valves

# *Staufix Basic*

The original solution for dry basements.

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



### Low drop

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

### Cleaning & maintenance without tools

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

### Rat protection

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

### Twin flap backwater valve *Staufix Basic*

Installation in an exposed wastewater pipe

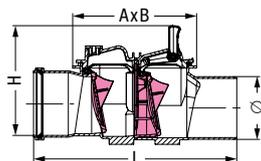
EN 13564 Type 2

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.



#### 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

Ⓢ EN 13564 Type 2

### Single flap backwater valve *Staufix Basic*

Installation in an exposed wastewater pipe

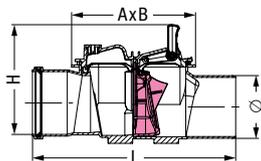
EN 13564 Type 1

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.



#### 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

Ⓢ EN 13564 Type 1

### Single flap backwater valve *Staufix Basic*

Installation in an exposed wastewater pipe

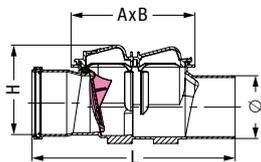
EN 13564 Type 0

Made of polymer

Installation area 650 × 300 mm

Self-closing flap.

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



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

Ⓢ EN 13564 Type 0

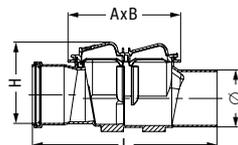
## Clean out *Staufix Basic*

Installation in an exposed wastewater pipe

Made of polymer

Installation area 650 × 300 mm

upgradable to all *Staufix* model backwater valves



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

## Accessories

*Staufix Basic*

### Conversion kits

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

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

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

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

Backwater flap



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

Insert flap housing



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

Lockable cover  
incl. emergency closure  
and sealing gasket



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

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

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

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

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

### Backwater flap made of stainless steel

Compatibility see product description

as rodent protection

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



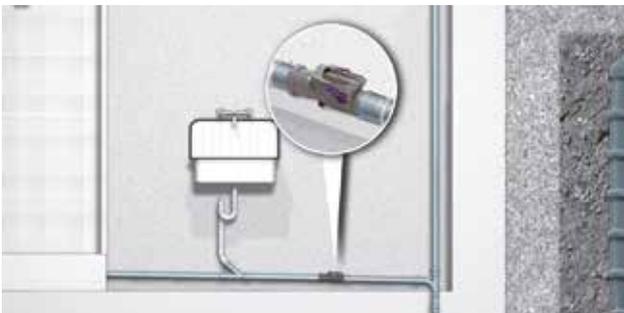
Outer diameter Ø (mm)	Art. no.
Ø 110	<b>70 233</b>
Ø 125	<b>70 234</b>
Ø 160	<b>70 234</b>

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

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

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

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



Ø 50 or Ø 75 exposed drainage pipe



Washbasins with odour traps and washing machine connection



Washbasins with odour traps and washing machine connection

### Standard-compliant

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

### Area of application

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

### Tool-free maintenance

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

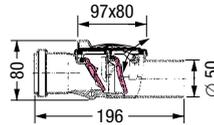
## Twin flap backwater valve *Staufix* Ø 50

Installation in an exposed wastewater pipe

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.



Outer diameter  
Ø (mm)

Ø 50

Art. no.

73 050



EN 13564 Type 2

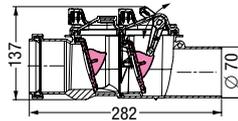
## Twin flap backwater valve *Staufix* Ø 75

Installation in an exposed wastewater pipe

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.



Outer diameter  
Ø (mm)

Ø 75

Art. no.

73 070

EN 13564 Type 2

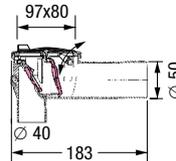
### Twin flap backwater valve *Staufix Siphon* Ø 50

Installation in an exposed wastewater pipe

EN 13564 Type 5

Made of polymer, for washing stand siphons

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



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



CE EN 13564 Type 5

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

Installation in an exposed wastewater pipe

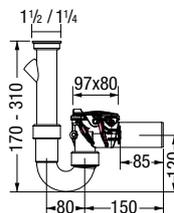
EN 13564 Type 5

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



CE EN 13564 Type 5

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

Installation in an exposed wastewater pipe

EN 13564 Type 5

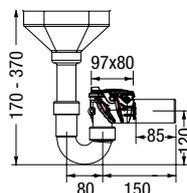
Made of polymer

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



CE EN 13564 Type 5

# Backwater valve *Multitube*

The high-performance solution for larger pipes.

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

### Area of application

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



## Single flap backwater valve *Multitube*

Installation in an exposed wastewater pipe

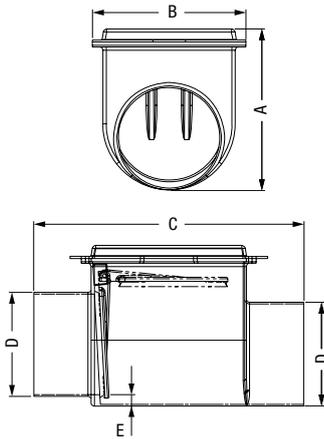


Made of polymer

One self-closing flap



Illustration shows Art. no. 71 400



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

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

# Backwater valve Pipe flap valve

The dependable solution at the end of the pipe.

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

### Area of application

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



## Pipe flap valve

For use as an end piece



Made of polymer

Flap self-closing.

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

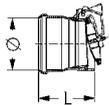


Illustration shows Ø 110 - Ø 200

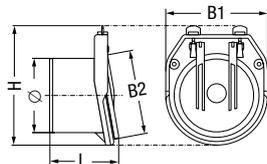


Illustration shows Ø 250 - Ø 638

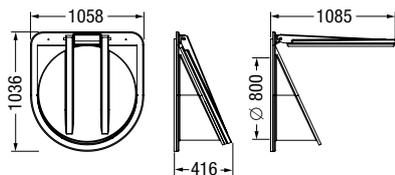


Illustration shows Ø 800

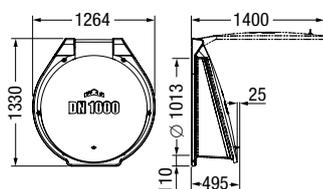


Illustration shows Ø 1000



Illustration shows Ø 160



Illustration shows Ø 250



Illustration shows Ø 800

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

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

Outer diameter Ø (mm)	DN	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	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	-	Ø 385 - 410	79 400
Ø 506	500	500	320	522	-	Ø 495 - 525	79 500
Ø 638	600	659	345	655	-	Ø 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

## 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  $\varnothing 50$  and one in  $\varnothing 75$  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



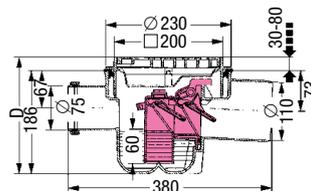
Made in PP

With lateral outlet 2.5°, 2 inlets  $\varnothing 50$ ,  
1 inlet  $\varnothing 75$  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 38 – 39

#### With twin flap backwater valve

Outer diameter $\varnothing$ (mm)	Installation depth D in mm	Art. no.
--------------------------------------	-------------------------------	----------

With black cover

$\varnothing 110$	216 - 276	27 611
-------------------	-----------	--------

With stainless steel cover

$\varnothing 110$	216 - 266	27 621
-------------------	-----------	--------

#### Without twin flap backwater valve

Outer diameter $\varnothing$ (mm)	Installation depth D in mm	Art. no.
--------------------------------------	-------------------------------	----------

With black cover

$\varnothing 110$	216 - 276	29 111
-------------------	-----------	--------

With stainless steel cover

$\varnothing 110$	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

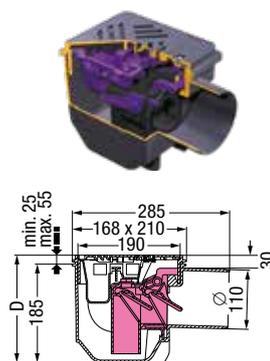
With lateral outlet 2.5", with/without removeable twin flap backwater valve and emergency closure which can be locked by hand, odour trap and sludge trap and integrated, height adjustable upper section.

Drainage capacity 1.8 l/sec flow rate.

Installation area 320 x 190 mm

**Cover:**

Slotted cover 150 x 190 mm made of polymer, black, with Easy Entry Function, class K 3



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:** see pages 38 – 39

## Accessories

The Universal / Drehfix

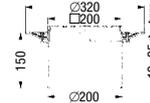
### Variofix shallow bed upper section

for basement drain The Universal

Art. no.

**Variofix shallow bed upper section**

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



48 968

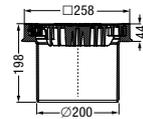
### Extension section in Ecoguss

for basement drain The Universal

Art. no.

**with support rim and slotted cover**

**Version:** With support rim 250 × 250 mm  
**Cover:** Round slotted cover in Ecoguss, Ø 235 mm, class B 125, Lock & Lift System



67 985

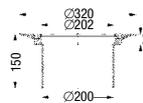
### Extension section

for basement drain The Universal

Art. no.

**with pressure sealing flange and counter flange**

**Inclusive:** Waterproofing layer against ground moisture  
**Height:** 150 mm



27 298

**Waterproofing membrane**



48 651

**2 component adhesive**

**Compatibility:** For gluing of KESSEL waterproofing membranes

48 650

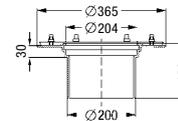
### Extension section in Ecoguss

for basement drain The Universal

Art. no.

**with pressure sealing flange and counter flange**

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



48 958

**Elastomer waterproof membrane**

**Material:** NBR



48 982

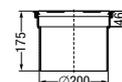
### Extension section

for basement drain The Universal

Art. no.

**Extension section**

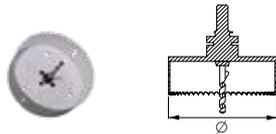
**Inclusive:** Lip seal  
**Height:** 175 mm



48 988

## Accessories

The Universal / Drehfix

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

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

## The robust solution in front of the building

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

### Double use

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

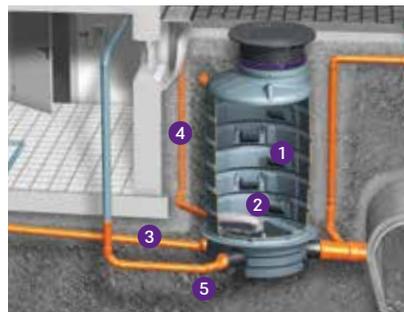


Thanks to the clean out *Controlfix*, the backwater chambers can be equipped with various conversion kits:

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

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

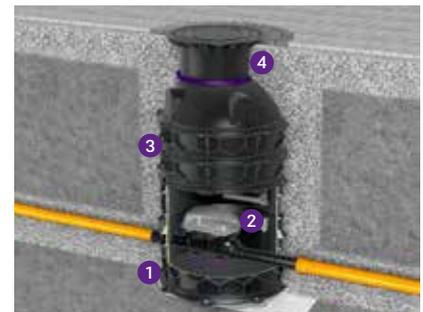
Thanks to its monolithic construction using unbreakable, impact-resistant material, the standard backwater chamber Ø 1000 is permanently leak-proof and secure against the ingress of roots. In addition, it can also be ideally adapted to the ground level thanks to its vertically, adjustable upper section.



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

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

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



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

# Backwater inspection chamber Ø 1000 with *Controlfix*

For underground installation



## 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 2000 mm

### Distance from base of chamber to:

Base of inlet approx. 136 mm

Base of outlet approx. 108 mm

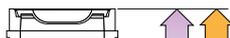
**Note:** Further chamber heights (on request)

**Accessories:** pages 45 – 47



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

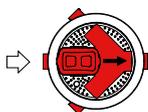
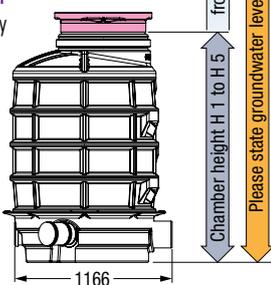
### Standard cover on-site



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



Inspection chamber including temporary construction debris cover



## Engineering systems base backwater chamber with *Controlfix*

For installation in a concrete slab or outdoor underground installation



Polyethylene PE-HD

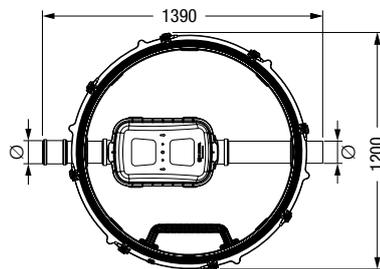
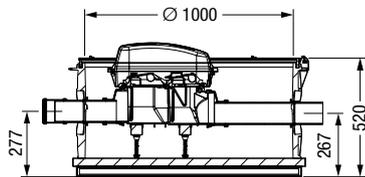
**Version:**

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

**Installation:**

Handles groundwater depths up to 3000 mm

➤ **Accessories:** pages 45 – 47



### 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*

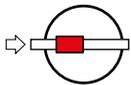
Conversion kit *Pumpfix F*



**Channel passage:**

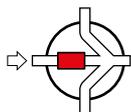
with closed channel passage Ø...

**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

EN 13598 Part 2 Z-42.1-527

Made of polyethylene PE-HD

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

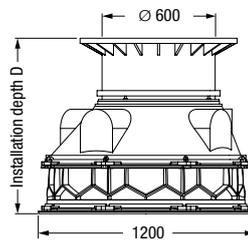
**Modular design comprising:**

- 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	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

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

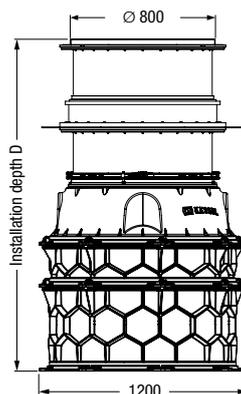
**Modular design comprising:**

- 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
- 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

EN 13598 Part 2 Z-42.1-527

Made of polyethylene PE-HD

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

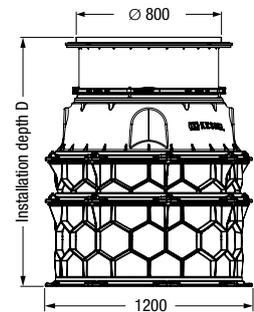
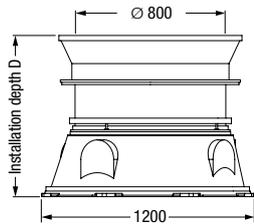
**Modular design comprising:**

- 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)



### Round cover

Installation depth D in mm	Art. no.
<b>Class K 3</b>	
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.
<b>Class B</b>	
620 - 869	874 01 41
870 - 1119	874 01 42
1120 - 1369	874 01 43
<b>Class D</b>	
620 - 869	874 01 58
870 - 1119	874 01 59
1120 - 1369	874 01 60

### Square cover

Installation depth D in mm	Art. no.
<b>Class A/L 15, not tileable, anti-slip</b>	
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
<b>Class A/L 15, tileable</b>	
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

### Conversion kits

for models made on or after 01/2011

Art. no.

<b>Backwater pumping</b> <i>Pumpfix F</i>	<p><b>Compatibility:</b> Backwater inspection chamber Ø 1000, for Ø 110 - Ø 200*</p> <p><b>Inclusive:</b> Komfort control unit</p> <p><b>Cable length:</b> 15 m</p> <p>➤ <b>Cable extension:</b> page 36</p>		<p>80 102</p> 
<b>Motorized backwater valve</b> <i>Staufix FKA</i>	<p><b>Compatibility:</b> Backwater inspection chamber Ø 1000, for Ø 110 - Ø 200*</p> <p><b>Inclusive:</b> Komfort control unit</p> <p><b>Cable length:</b> 15 m</p> <p>➤ <b>Cable extension:</b> page 36</p>		<p>80 104</p> 
<b>Backwater valve</b> <i>Staufix SWA</i>	<p><b>Compatibility:</b> Backwater inspection chamber Ø 1000, for Ø 110 - Ø 200*</p> <p>* In-/Outlet Ø 200, hydraulics corresponds to Ø 160</p>		<p>80 091</p> 

### Cover plates

for backwater inspection chamber Ø 1000

Cover

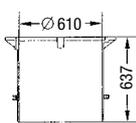
Art. no.

<b>with ventilation</b>	<p><b>Material:</b> Class A, B in cast iron and concrete Class D in cast iron</p>		<p>Class A 860 134 Class B 860 135 Class D, locked 860 137</p>
<b>surface water tight</b>	<p><b>Material:</b> In cast iron</p>		<p>Class A, locked 860 132 Class B, locked 860 133 Class D, locked 860 136</p>
	<p><b>Material:</b> In cast iron and concrete</p>		<p>Class A 860 130 Class B 860 131</p>

### Upper sections

for backwater inspection chambers Ø 1000

Art. no.

<b>with recesses</b> <b>for a sludge bucket</b>	<p><b>Compatibility:</b> Not for surface water tight cover plates class A/B/D</p> <p><b>Inclusive:</b> Fixing ring</p> <p><b>Installation:</b> Telescopic height adjustable from 100 to 550 mm</p>		<p>860 120</p>
<b>without holders</b> <b>for sludge buckets</b>	<p><b>Compatibility:</b> Cover plates class A/B/D</p> <p><b>Inclusive:</b> Fixing ring</p> <p><b>Installation:</b> Telescopic height adjustable from 100 to 550 mm</p>	 	<p>860 121</p>
<b>can be assembled</b> <b>with standard</b> <b>concrete rings</b>	<p><b>Compatibility:</b> For standard bearing ring / concrete/cast covers, class A/B/D</p> <p><b>Installation:</b> Telescopic height adjustable from 50 to 280 mm</p>		<p>860 122</p>
	<p><b>Compatibility:</b> For standard bearing ring / concrete/cast covers, class A/B/D</p> <p><b>Installation:</b> Telescopic height adjustable from 50 to 550 mm</p>		<p>860 125</p>

## Accessories

Backwater chambers

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

Compatibility see product description

Outer diameter  
Ø (mm)

Art. no.

<b>Lip gasket</b>	<b>Compatibility:</b> Art. no. 860 122, 860 125, 860 120, 860 121		Ø 600	<b>860 116</b>
<b>Embedded step</b>	<b>Compatibility:</b> Art. no. 860 122, 860 125, 860 120, 860 121 <b>Inclusive:</b> Drilling template, step, hand rail, screws <b>Note:</b> The embedded step can be fitted to the upper section (Art. no. <b>860 120, 860 121, 860 122</b> ) in the factory at an additional charge			<b>860 109</b>
<b>Cable piping gasket set</b>	<b>Compatibility:</b> Control unit 230 V <b>Inclusive:</b> ① Pipe sealing gasket ② PVC-collar plug ③ Twin flange Ø 110 ④ HT-collar plug ⑤ Cable connections ⑥ Retaining clip with screws		Ø 110	<b>85 410</b>
<b>Locking and removal key</b>	<b>Compatibility:</b> Chamber cover			<b>915 595</b>
<b>Set of connecting wedges</b>	<b>Compatibility:</b> Art. no. 680 371 and 680 370 <b>Set-content:</b> 10 pieces			<b>680 373</b>
<b>Profiled gasket</b>	<b>Compatibility:</b> Art. no. 680 371 and 680 370			<b>680 125</b>
<b>Cable attachment set</b>	<b>Compatibility:</b> Engineering systems base backwater chamber Ø 1000			<b>28 076</b>

## Accessories

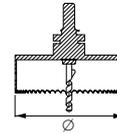
### Backwater chambers

#### Hole saw

Compatibility see product description

##### Hole saw set

**Inclusive:** Saw blade holder



Outer pipe diameter in mm	Drill size in mm	Art. no.
Ø 50	60	500 101
Ø 75	92	
Ø 110	121	
Ø 110	121	500 100
Ø 125	133	
Ø 160	168	

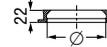
#### Sealing

Compatibility see product description

##### Pipe sealing gasket

**Drill size:**

- Ø 50: 60 mm
- Ø 75: 92 mm
- Ø 110: 121 mm
- Ø 125: 133 mm
- Ø 160: 168 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
DN 125	Ø 125	850 118
DN 150	Ø 160	850 119

#### 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



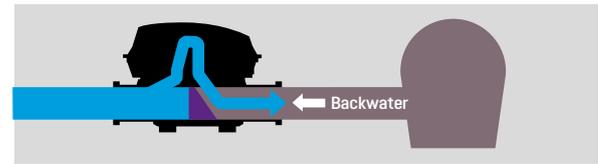
680 370

*Pumpfix F, Staufix FKA, Staufix SWA*



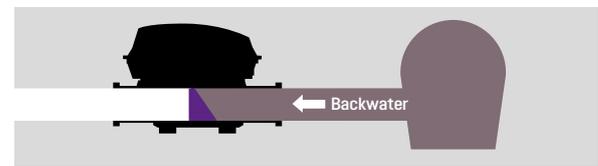
**Do you have a toilet in the basement?**

*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*.

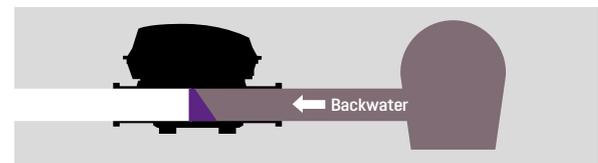


*Staufix Basic, Staufix*



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

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

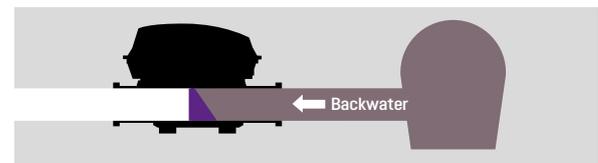


*Staufix, Staufix Siphon*



**Sink, shower, washing machine, heating overflow**

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

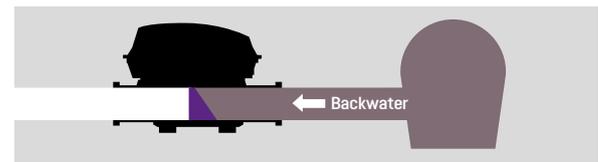


*Drehfix, „The Universal“*



**Floor drain**

Use *Drehfix* or “*The Universal*”.

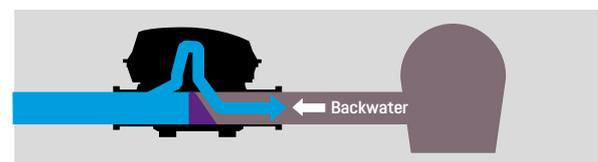


*Pumpfix S*



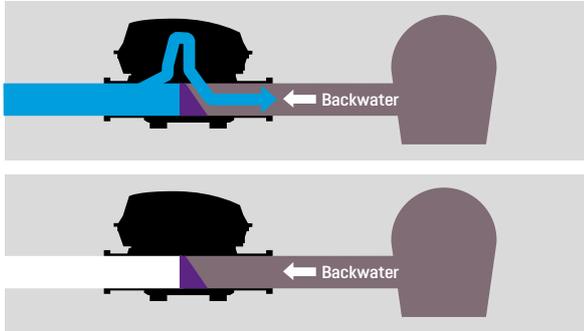
**Flooding through basement steps or windows**

*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.

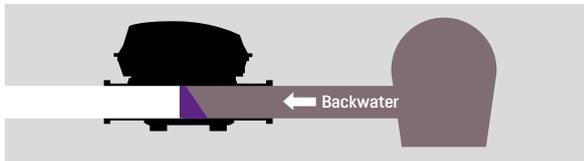


Backwater inspection chamber



**In-line single flap backwater protection**

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

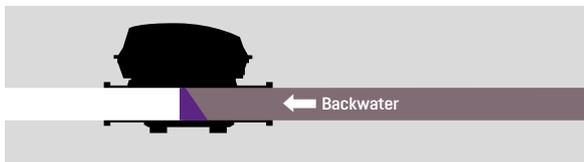


*Multitube*



**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



# This is KESSEL.

Since 1963, KESSEL has stood like no other company for innovative and safe draining technology. We have established ourselves as the impulse generator of the branch for decades and are now a premium international supplier.



**500+**  
employees



**103 million  
euros**  
annual turnover (2018)



**92,920 m<sup>2</sup>**  
factory space



**54**  
export markets

Alongside continuous quality assurance, environmental protection, energy efficiency as well as health and safety at work are especially important to us – both in production and during the operation of our product solutions at the customer's.

We also set great store by sustainability in our customer relations. For this reason, we offer a unique range of services from consultation and planning through installation and commissioning to regular maintenance.

One thing is certain: we remain with quality, innovation, safety and service at the top among the leaders in technology development to live up to our vision again and again:

KESSEL – Leading in drainage



**Made in Germany**



The KESSEL plant Lenting (Germany)

# Leading in drainage.

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

**Backwater protection**

**Pump technology**

**Separator technology**



For further information  
visit

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

**BIM**

files available at  
[www.kessel.com](http://www.kessel.com)



Subject to technical modifications.

**KESSEL AG**

Bahnhofstraße 31 • 85101 Lenting • Germany

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