Range

Pump technology

KESSEL

The complete range of

pump technology

Lifting stations
Pumping stations
Submersible pumps
Hybrid lifting stations

Made in Germany

Leading in drainage

At a glance

Range of (hybrid-) lifting stations and pumps

Lifting stations

Small lifting station

Minilift F

↗ Page 10

Wastewater station

Aqualift F Compact

↗ Page 11

Lifting station

Aqualift F Basic

↗ Page 14

Lifting station

Aqualift F

↗ Page 16

Lifting station

Aqualift F XL

↗ Page 19

Small lifting station

Minilift S

New

↗ Page 24

Wastewater station

Aqualift S Compact

New

↗ Page 26

Lifting station

Aqualift S Duo

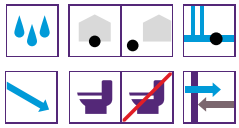
↗ Page 29

BIM
files available at
www.kessel.com

Hybrid lifting stations

Hybrid lifting station
Ecolift XL

↗ Page 62



Pumping stations

Pumping station
Aqualift F Basic

↗ Page 34

Pumping station
Aqualift F

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Pumping station
Aqualift F XL

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Pumping station
Aqualift S

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Pumping station
Aqualift S XL

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Submersible pumps

Submersible pump
KTP

↗ Page 52

Submersible pump
GTF

↗ Page 52

New

Submersible pump
STZ

↗ Page 53

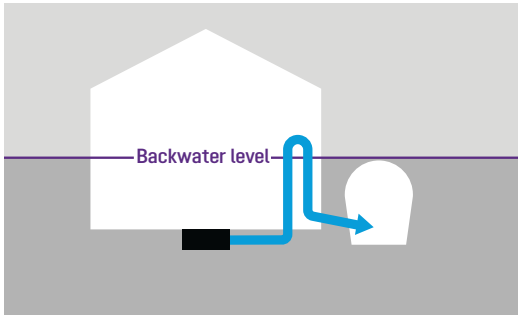
Conversion kits for collecting tanks

↗ Page 54

Everything specialists need to know

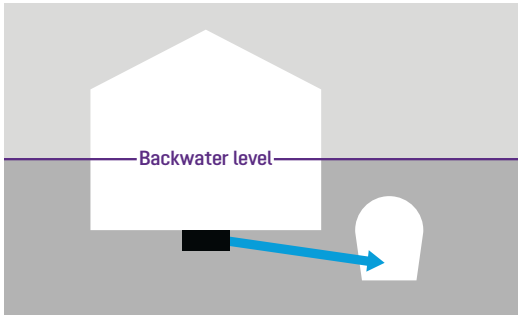
Location of sewer

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



No slope to the sewer

↗ **Lifting stations:** Page 10

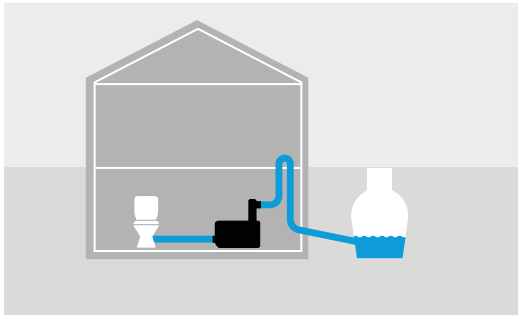


Slope to the sewer

↗ **Hybrid lifting stations:** Page 62

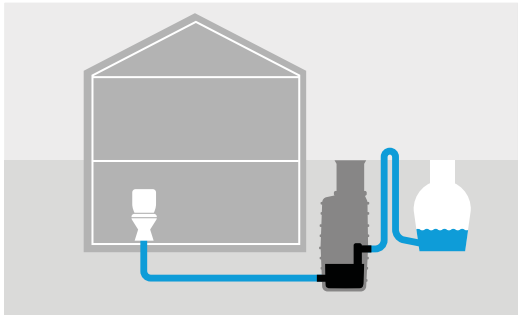
Installation locations

Will the system be installed inside or outside the building?



Inside the building

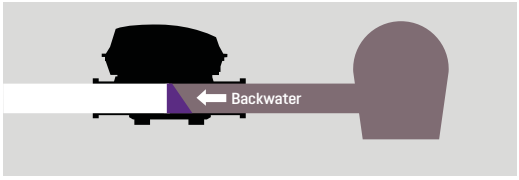
↗ **Lifting stations:** Page 10



Outside the building

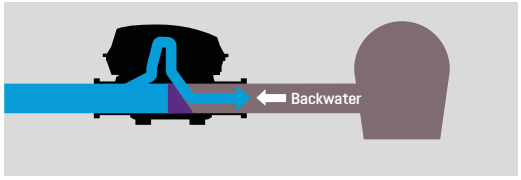
↗ **Pumping stations:** Page 24

Function



Protects in the event of backwater

The backwater flap prevents wastewater from backing up the wastewater pipe and flodding the building.



Disposes in the event of backwater

Despite backwater from the sewer and a closed backwater flap, domestic wastewater can be disposed of via a pump. This ensures that the buidling's drainage remains operational even during times of backwater / flooding.

Types of wastewater

The ‘free channel passage’ size determines how large of an object can pass through a pump.

Lifting stations for water with sewage
EN 12050-1

Wastewater with sewage is involved whenever pipes are connected that transport water from urinals or toilets to the sewer. This is termed "black water".
Maximum particle size: 40 mm

Lifting stations for water without sewage
EN 12050-2

Wastewater without sewage is water without faecal content, for example shower water or water from a washing machine. This is termed "grey water".
Maximum particle size: 10 mm

Explosion protection

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

Pump operation classification

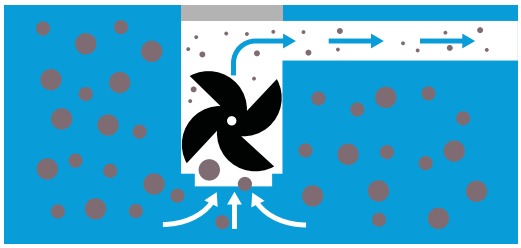
KESSEL pumps are classified as S1 or S3 operating duty.
An S1 class pump is a continuous duty pump designed to run without interruption, ideal for rainwater applications or for a continuous industrial wastewater flow.
S3 operating duty pumps are intermittent duty and require periodic breaks to stop and cool down. An S3 50 % classified pump, for example, should not run more than 50 % of the time and are perfect for standard wastewater from homes, apartments or commercial buildings.

Protection strategy

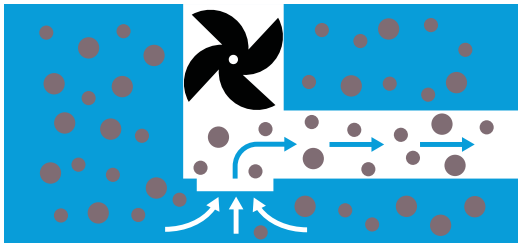
Individual protection
Each drainage location, such as washbasins, showers or washing machines, is protected with its own backwater protection.

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

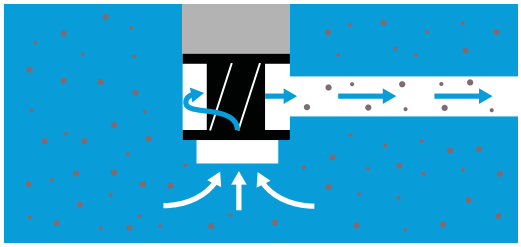
Pump types



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



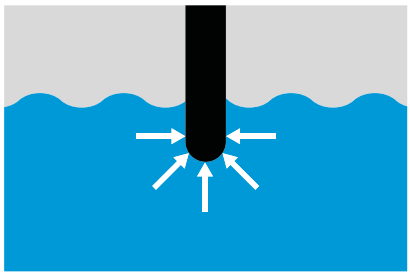
Multi-vane impellered pumps are designed for wastewater with or without raw sewage. A large area inside the pump allows any solids to freely pass into the properly sized pressure pipe without contacting the impeller.



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

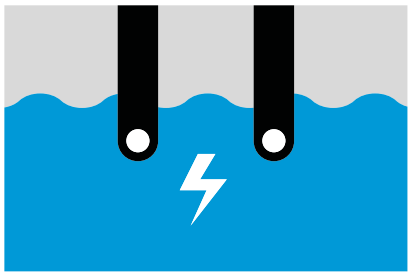
Level sensors/probes and alarm probes

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



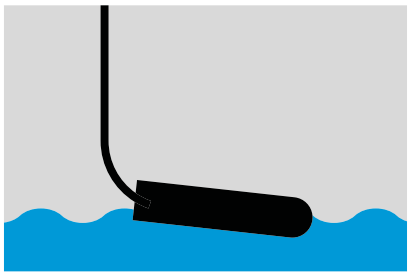
Pressure sensor

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



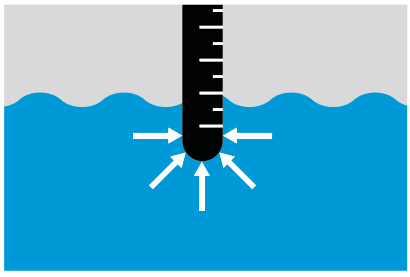
Conductance probe

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



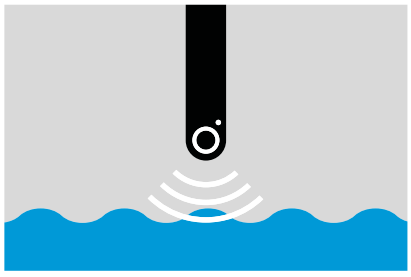
Float switch

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



Hydrostatic sensor

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



Optical probe

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

Telemetric system - TeleControl

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

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

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

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

Lifting stations

Suitable for use inside buildings

Lifting station
Minilift F

The small version with the powerful macerator SharkTwister.

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

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

Intelligent control technology
The SharkTwister is controlled by intelligent control technology with an acoustic alarm function – without the need for a control unit.

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

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

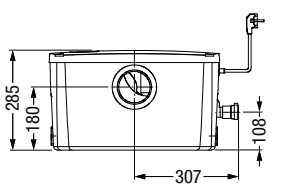
EN 12050-3

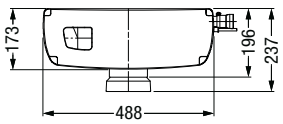
Plug-and-play sewage lifting station with macerator for wastewater disposal from a single toilet.

For free-standing set-up.

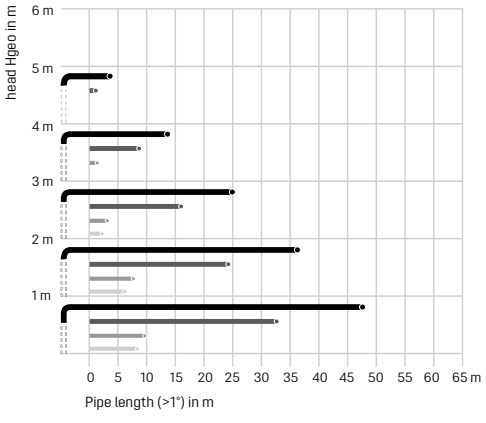
With pneumatic level control, with activated carbon filter, interior electronics separate from wastewater tank - easy, odour free maintenance

Power cable length: 1.6 m





Voltage	Art. no.
230 V	**28 520**



Maximum horizontal discharge pipe length with 4 × 90° elbow and 1 × gate valve

Pipe diameter (inside)
- Ø 28 mm
- Ø 26 mm
- Ø 23 mm
- Ø 21 mm

EN 12050-3

Lifting station
Aqualift F Compact

The compact version for complete basement drainage.

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

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

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

1 Lifting station 2 Control unit 3 Pressure pipe

Floor slab installation

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

Installation in waterproof concrete

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

Maximum safety

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

Lifting station *Aqualift F Compact Mono/Duo*

for installation in a concrete slab/floor

Z-53.2-484

Tank volume: 40 liters

Polyethylene storage chamber for installation in a concrete slab/floor, with recessed cover for on-site tiling and drain, installation depth (D) 490 to 600 mm, with odour trap, sealing water height 50 mm, with lateral inlet Ø 110.
Installation area 800 × 800 mm.

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

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

Control unit
with SDS control unit (self-diagnosis system) for fully automatic pump control, splash water protected (IP 54), wall mounted.
Pressure connection: 1 1/2 inch outer thread or pressure pipe Ø 40 mm for PVC glued connection or pressure pipe set (Art. no. 28 040).
Power cable length: 5 m

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

↗ **Accessories:** page 68

Illustration shows Mono version 28 701-C

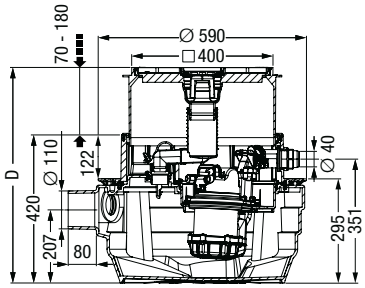
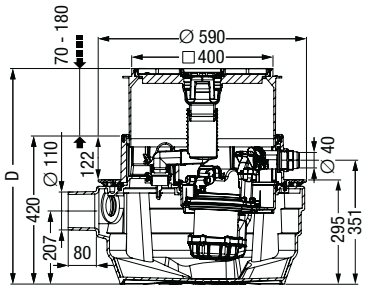


Illustration shows Duo version 28 704-C



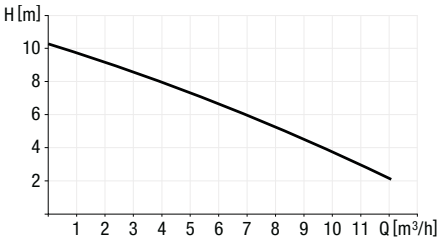
Mono version with one pump

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

Duo version with two pumps

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

Pumping capacity



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

*Definition of S3-pumps see page 5

Lifting station *Aqualift F Compact Mono/Duo*

for free-standing installation

Z-53.2-484

Tank volume: 40 liters

Polyethylene storage chamber for free-standing installation, with lateral inlet Ø 110.
Installation area 700 × 700 mm.

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

Control unit
with SDS control unit (self-diagnosis system) for fully automatic pump control, splash water protected (IP 54), wall mounted.
Pressure connection: 1 1/2 inch outer thread or pressure pipe Ø 40 mm for PVC glued connection or pressure pipe set (Art. no. 28 040).
Power cable length: 5 m

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

↗ **Accessories:** page 68

Illustration shows Mono version 28 711-C

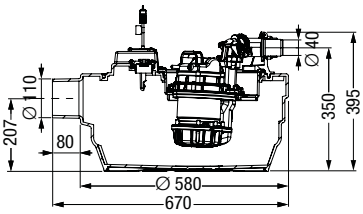
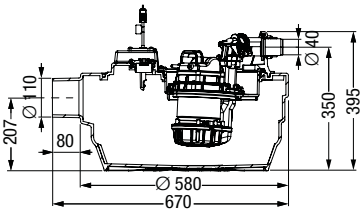
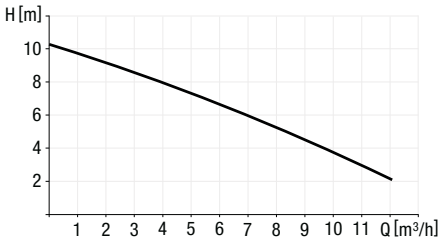


Illustration shows Duo version 28 743-C



Pumping capacity



Mono version with one pump

SPZ pump	Voltage	Art. no.
1000-S3	230 V	**28 711-C**

Duo version with two pumps

SPZ pump	Voltage	Art. no.
1000-S3	230 V	**28 743-C**

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

*Definition of S3-pumps see page 5

Lifting station
Aqualift F Basic

The economic version for domestic wastewater.

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

1 Lifting station 2 Pressure pipe

Pump

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

Control unit with float switch

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

Variable inlets

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

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

↗ **Pumping station *Aqualift F Basic*:** Page 34

Lifting station *Aqualift F Basic*

for free-standing installation in frost-free rooms

EN 12050-1

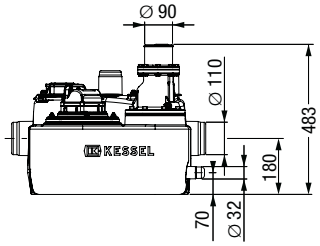
Tank volume: 50 liters
Pump volume: 20 liters

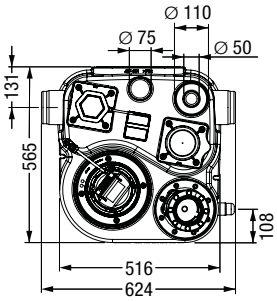
Polyethylene storage chamber with screwed removable inspection opening. Inlet connection from above Ø 50/110 mm. Two additional Ø 110 mm inlet connections at both sides. With Ø 75 mm vent connection. Connection coupling for emergency diaphragm pump Ø 32 mm.

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

Control unit Basic 230 V
with function display, button for manual pump start and to reset alarm. Battery buffered alarms (battery included). With connection option for on-site potential free-contact.

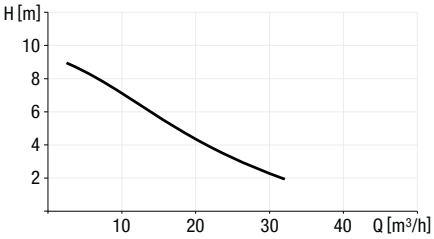
↗ **Accessories:** page 68





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

Pumping capacity



Pump type	Input Power (P1)	Power (P2)	Voltage	Frequency	Amperage	Fuses	Cable connections 5 m Length	Media temperature	Weight (Pump)	Protection	RPM	Pumping capacity	Pumping height
SPF 1300-S3-15%*	1.5 kW	1.0 kW	230 V	50 Hz	6.7 A	C 10 A	3 × 1.5 mm²	40°C	approx. 24 kg	IP 54	2.900	32 m³/h	9.2 m

*Definition of S3-pumps see page 5

Lifting station
Aqualift F

The classic version for domestic wastewater.

Always the right choice:
smartselect.kessel.com

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

1 Lifting station 2 Pressure pipe

Pressure sensor

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

Power and control unit

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

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

↗ **Pumping station *Aqualift F*:** Page 36

Lifting station *Aqualift F Mono*

for free-standing installation in frost-free rooms

EN 12050-1

Tank volume: 50 liters
Pump volume: 20 liters

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

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

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

↗ **Accessories:** page 68

Illustration shows Art. no. 28 646-C

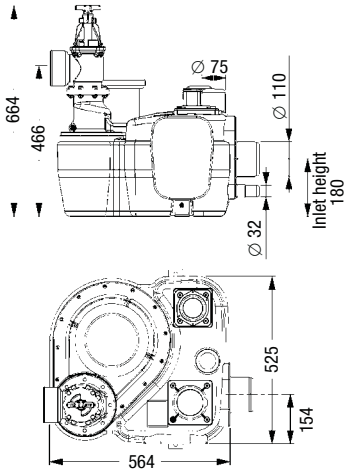
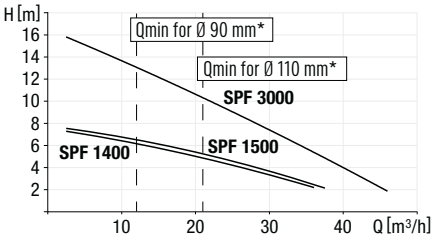


Illustration shows Art. no. 28 648-C

Mono version with one pump

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

Pumping capacity



* according to EN 12056-4

Pump type	Input Power (P1)	Power (P2)	Voltage	Frequency	Amperage	Fuses surge-proof	Cable connections 5 m Length	Media temperature	Weight (Pump)	Protection	RPM	Pumping capacity	Pumping height
SPF 1400-S3-50%*	1.6 kW	1.1 kW	230 V	50 Hz	7.3 A	16 A	3 × 1.0 mm²	40°C	23 kg	IP 68	1.370	38 m³/h	7 m
SPF 1500-S3-50%*	1.4 kW	1.1 kW	400 V	50 Hz	2.7 A	3 × 16 A	7 × 1.5 mm²	40°C	24 kg	IP 68	1.415	40 m³/h	8 m
SPF 3000-S3-50%*	3.2 kW	2.7 kW	400 V	50 Hz	5.4 A	3 × 16 A	7 × 1.5 mm²	40°C	24 kg	IP 68	2.845	47 m³/h	16 m

*Definition of S3-pumps see page 5

CE EN 12050-1

Lifting station *Aqualift F Duo*

for free-standing installation in frost-free rooms

EN 12050-1

Tank volume: 120 liters
Pump volume: 50 liters

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

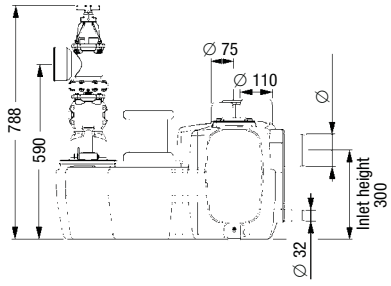
Pumps
SPF pumps for wastewater with or without sewage, pressure sensor controlled with multi-vane impeller. Open channel passage 40 mm. Pumps are rated submersible (IP 68), pump cable length 5 m. Outlet with integrated non-return valve, connection coupling Ø 110 with hose section.

Pressure outlet:
vertical Ø 110 without closure valve or horizontal Ø 110 with closure valve

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

↗ **Accessories:** page 68

Illustration shows Art. no. 28 628-C



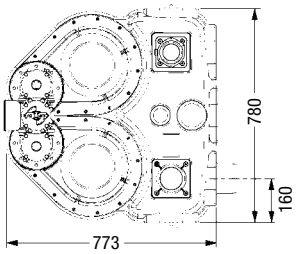
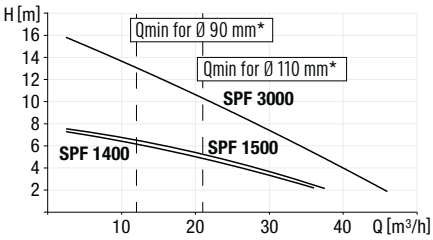


Illustration shows Art. no. 28 629-C

Duo version with two pumps

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

Pumping capacity



* according to EN 12056-4

Pump type	Input Power (P1)	Power (P2)	Voltage	Frequency	Amperage	Fuses surge-proof	Cable connections 5 m Length	Media temperature	Weight (Pump)	Protection	RPM	Pumping capacity	Pumping height
SPF 1400-S1/S3-100/50%*	1.6 kW	1.1 kW	230 V	50 Hz	7.3 A	16 A	3 × 1.0 mm²	40°C	23 kg	IP 68	1.370	38 m³/h	7 m
SPF 1500-S1/S3-100/50%*	1.4 kW	1.1 kW	400 V	50 Hz	2.7 A	3 × 16 A	7 × 1.5 mm²	40°C	24 kg	IP 68	1.415	40 m³/h	8 m
SPF 3000-S1/S3-100/50%*	3.2 kW	2.7 kW	400 V	50 Hz	5.4 A	3 × 16 A	7 × 1.5 mm²	40°C	24 kg	IP 68	2.845	47 m³/h	16 m

*Definition of S1 and S3-pumps see page 5

CE EN 12050-1

Lifting station
Aqualift F XL

The powerful version for commercial, industrial and public applications.

Always the right choice:
smartselect.kessel.com

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

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

1 Lifting station 2 Grease separator *EasyClean*

Power and control unit

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

Variable

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

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

↗ **Pumping station *Aqualift F XL*:** Page 38

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

for free-standing installation in frost-free rooms

EN 12050-1

Tank volume: 200 liters
Pump volume: 120 liters

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

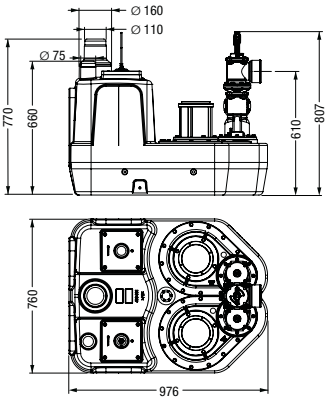
Pumps
Pressure sensor controlled single or twin wastewater *SPF* pumps with multi-vane impeller to pump wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68), pump cable length 5 m. With sound-absorbing underlay mat (10 mm thick).
Vertical/ horizontal outlet with integrated non-return valve, with/without closure valve (provided loose), with hose section or flange.
Pressure outlet:
vertical Ø 110 without closure valve, horizontal Ø 110 with plastic closure valve or vertical DN 80 with cast iron closure valve

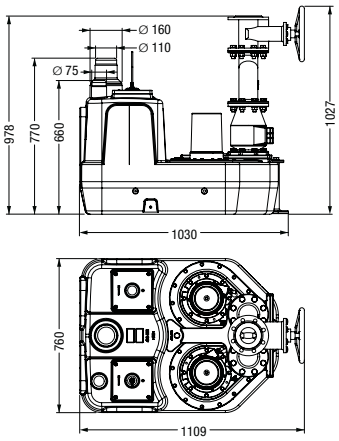
Comfort control unit
with mains power ON / OFF switch and multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook; control unit is splash proof (IP 54), wall mounted, voltage 230 V or 400 V at 50 Hz. With potential-free/BMS contact (optional 230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

↗ **Accessories:** page 68

Illustration shows Duo version with plastic closure valve

Illustration shows Duo version with cast iron closure valve





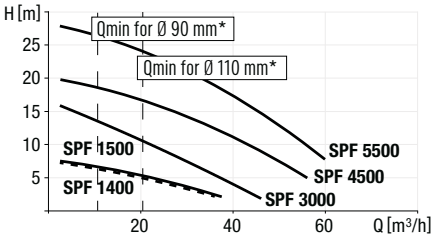
Mono version with one pump

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

Duo version with two pumps

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

Pumping capacity



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

CE EN 12050-1

*Definition of S1 and S3-pumps see page 5

Lifting station *Aqualift F XL Duo* 300 liter tank volume

for free-standing installation in frost-free rooms

EN 12050-1

Tank volume: 300 liters
Pump volume: 175 liters

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

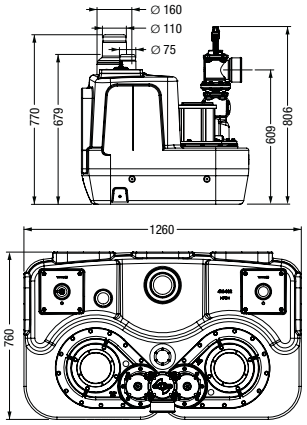
Pumps
Pressure sensor controlled twin wastewater *SPF* pumps with multi-vane impeller to pump wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68), pump cable length 5 m. With sound-absorbing underlay mat (10 mm thick).
Vertical/ horizontal outlet with integrated non-return valve, with/without closure valve (provided loose), with hose section or flange.
Pressure outlet:
vertical Ø 110 without closure valve, horizontal Ø 110 with plastic closure valve or vertical DN 80 with cast iron closure valve

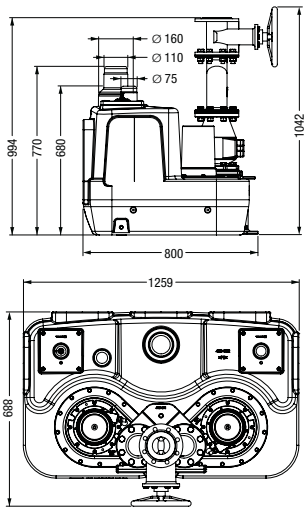
Comfort control unit
with mains power ON / OFF switch and multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook; control unit is splash proof (IP 54), wall mounted, voltage 230 V or 400 V at 50 Hz. With potential-free/BMS contact (optional 230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

↗ **Accessories:** page 68

Illustration shows Duo version with plastic closure valve

Illustration shows Duo version with cast iron closure valve

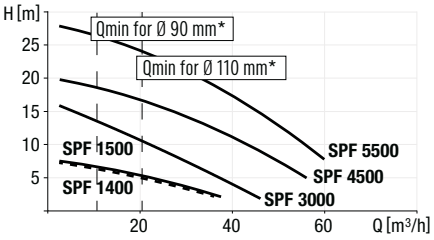




Duo version with two pumps

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

Pumping capacity



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

*Definition of S1 and S3-pumps see page 5

CE EN 12050-1

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

for free-standing installation in frost-free rooms

EN 12050-1

Tank volume: 450 liters
Pump volume: 250 liters

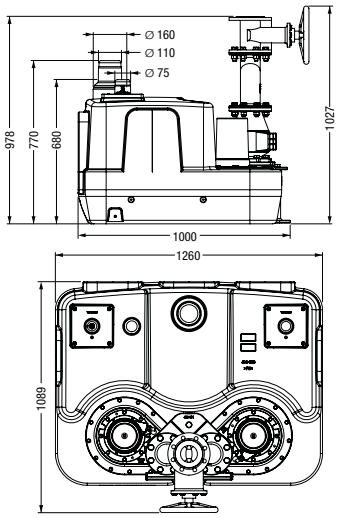
Polyethylene storage chamber
with air pressure level detector, clean-out opening. Spigots for vertical inlet Ø 110 mm/ 160 mm, ventilation Ø 75 mm and for manual diaphragm pump Ø 32 mm.
Horizontal inlet Ø 50 mm to Ø 200 mm by sawing.

Pumps
Pressure sensor controlled twin wastewater *SPF* pumps with multi-vane impeller to pump wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68), pump cable length 5 m. With sound-absorbing underlay mat (10 mm thick).
Vertical/ horizontal outlet with integrated non-return valve, with/without closure valve (provided loose), with hose section or flange.
Pressure outlet:
vertical Ø 110 without closure valve, horizontal Ø 110 with plastic closure valve or vertical DN 80 with cast iron closure valve

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

↗ **Accessories:** page 68

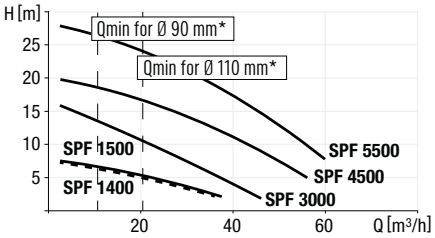
Illustration shows Duo version with cast iron closure valve



Duo version with two pumps

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

Pumping capacity



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

*Definition of S1 and S3-pumps see page 5

CE EN 12050-1

Lifting station *Minilift S*

New product

The space-saving version for wastewater without sewage.

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

Floor slab installation

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

Straightforward maintenance

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

Convenient installation

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

Lifting station *Minilift S*

for free-standing installation

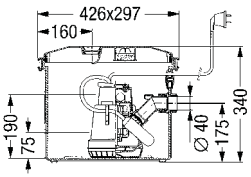
EN 12050-2

Wastewater lifting station made of polymer for above ground installation.

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

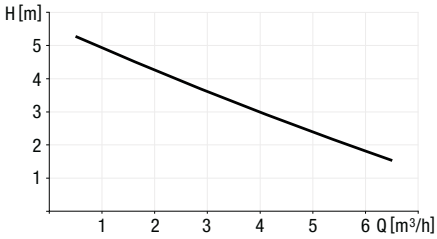
Power cable length: 5 m

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



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

Pumping capacity



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

*Definition of S1-pumps see page 5

CE EN 12050-2

Always the right choice: smartselect.kessel.com

Lifting station *Minilift S*

For installation in a concrete floor/slab

EN 12050-2

Pump volume: 7 liters

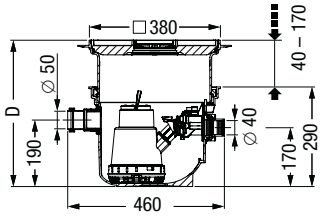
Polyethylene storage chamber for installation in a concrete slab/floor, installation depth (D) 330 to 460 mm, with lateral inlet Ø 50 mm. Installation area 600 × 600 mm.

Upper section and cover

Vertically and laterally adjustable upper section, with black / recessed cover for on-site tiling, integrated drain, made of polymer, load class K3, with moisture protective sealing flange.

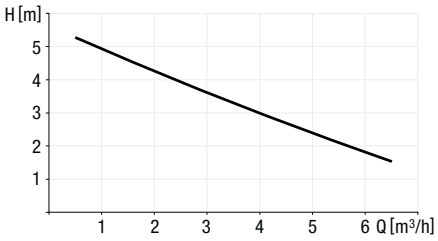
Pump

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



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

Pumping capacity



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

*Definition of S1-pumps see page 5

CE EN 12050-2

Lifting station
Aqualift S Compact

The flexible version for wastewater without sewage.

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

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

New product

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

Maximum safety

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

Floor slab installation

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

Installation in waterproof concrete

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

Lifting station *Aqualift S Compact Mono*

for installation in a concrete slab/floor

EN 12050-2

Pump volume: 16 liters

Polyethylene storage chamber

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

Upper section and cover

Vertically and laterally adjustable upper section, with black / recessed cover for on-site tiling, integrated drain, made of polymer, load class K3, with moisture protective sealing flange.

Pump

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

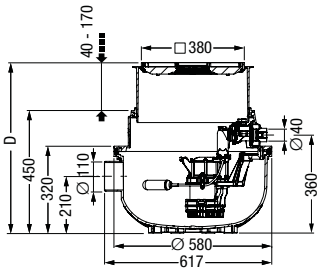
Control unit

Tronic versions with SDS control unit (self-diagnosis system) for fully automatic pump control, splash water protected (IP 54), wall mounted.
Power cable length: 5 m

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

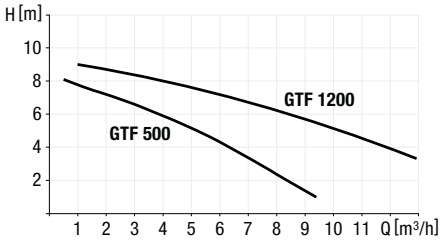
↗ **Accessories:** page 68

Illustration shows Art. no. 280 500X



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

Pumping capacity



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

*Definition of S1 and S3-pumps see page 5

Lifting station *Aqualift S Compact Mono/Duo Tronic*

for installation in a concrete slab/floor

EN 12050-2

Pump volume: 20 liters

Polyethylene storage chamber
for installation in a concrete slab/floor,
installation depth (D) 490 to 620 mm,
with lateral inlet Ø 110 mm.
Installation area 700 × 700 mm.

Upper section and cover
Vertically and laterally adjustable upper section, with black / recessed cover for on-site tiling, integrated drain, made of polymer, load class K3, with moisture protective sealing flange.

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

Control unit
Tronic versions with SDS control unit (self-diagnosis system) for fully automatic pump control, splash water protected (IP 54), wall mounted.
Power cable length: 5 m

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

↗ **Accessories:** page 68

Illustration shows Art. no. 280 550X

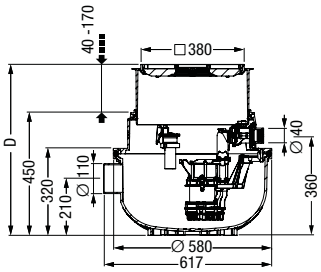
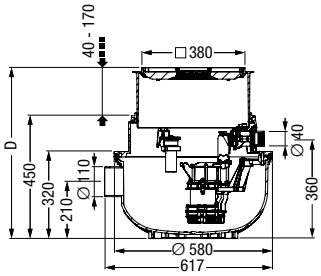


Illustration shows Art. no. 280 550XC



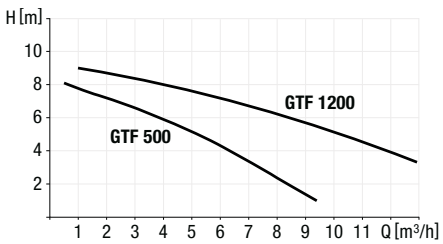
Mono version with one pump

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

Duo version with two pumps

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

Pumping capacity



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

*Definition of S1 and S3-pumps see page 5

CE EN 12050-2

Lifting station
Aqualift S Duo

The powerful version for wastewater without sewage.

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

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

1 Lifting station 2 Inlet connection 3 Pressure pipe

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

↗ **Pumping station *Aqualift S*:** Page 46

Lifting station *Aqualift S Duo*

for free-standing installation in frost protected rooms

EN 12050-2

Tank volume: 55 liters

Polyethylene storage chamber

Pumps

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

Comfort control unit

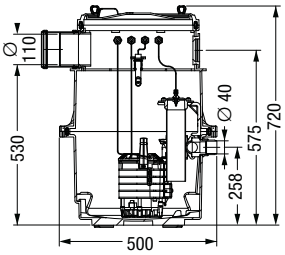
with multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook, IP 54 splash proof control unit housing, for wall mounting, operational voltage - 230 V DC, with potential free contact (BMS) connections. Pressure connection: 1 1/2 inch outer thread or pressure pipe Ø 40 mm for PVC glued connection.

Power cable length: 5 m (Schuko)

Note:

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

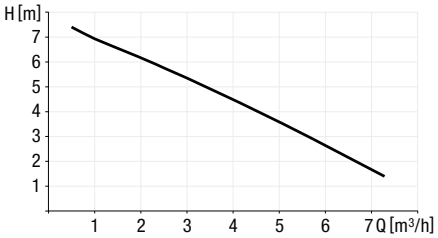
↗ **Accessories:** page 68



Duo version with two pumps

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

Pumping capacity



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

*Definition of S1-pumps see page 5

CE EN 12050-2

Lifting station *Aqualift S Duo*

for free-standing installation

EN 12050-2

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

Pumps

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

Control unit

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

Pressure connection:

Ø 40 / 50 mm (PE-HD).

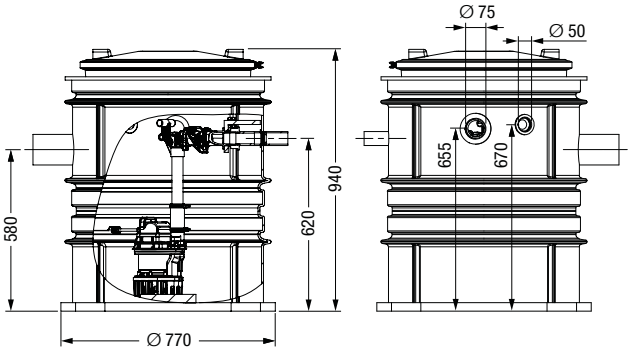
Cable length: 10 m (Schuko) ready to plug in

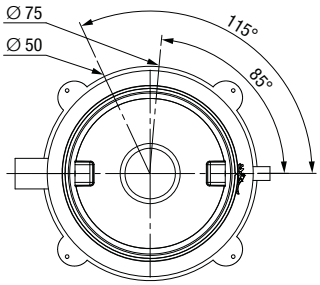
↗ **Accessories:** page 68

Duo version with two pumps

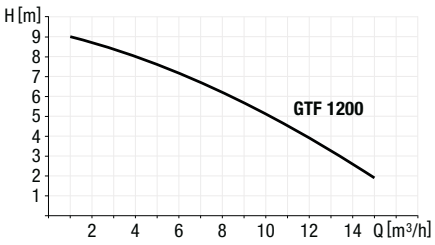
GTF pump	Voltage	Art. no.
1200-S3	230 V	**826811-FA***

*special model (delivery time on request)





Pumping capacity



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

*Definition of S3-pumps see page 5

Pumping stations

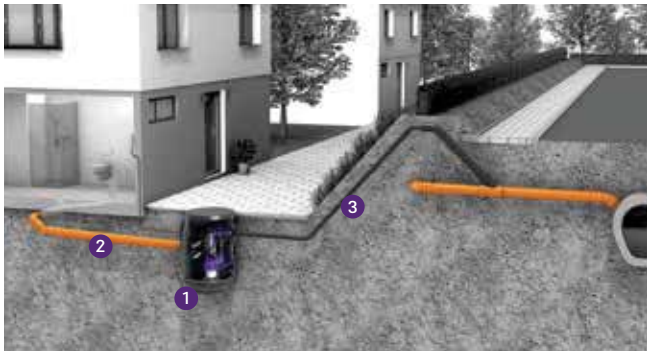
For installation in a floor slab
or underground

Pumping station
Aqualift F Basic

The economic version for wastewater with sewage.

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

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



1 Lifting station 2 Inlet connection 3 Pressure pipe

100% waterproof and odour-tight

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

Suspended pump(s)

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

Tool-free maintenance

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

Variable upper section

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

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

↗ Lifting station *Aqualift F Basic*: Page 14

Pumping station *Aqualift F Basic*

For underground installation

EN 12050-1

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

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

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

Control unit

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

Note:

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

Accessories: page 68

Illustration shows Mono version Art. no. 829 710

Illustration shows Duo version Art. no. 828 711

Mono version with one pump

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

Duo version with two pumps

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

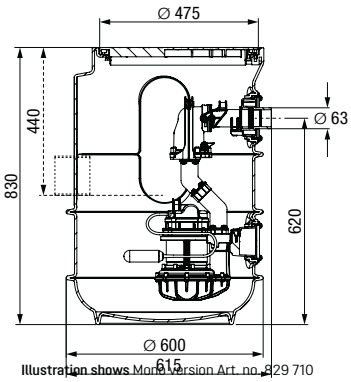
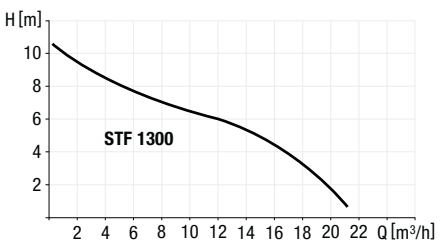


Illustration shows Mono version Art. no. 829 710

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

*Definition of S3-pumps see page 5

Pumping capacity

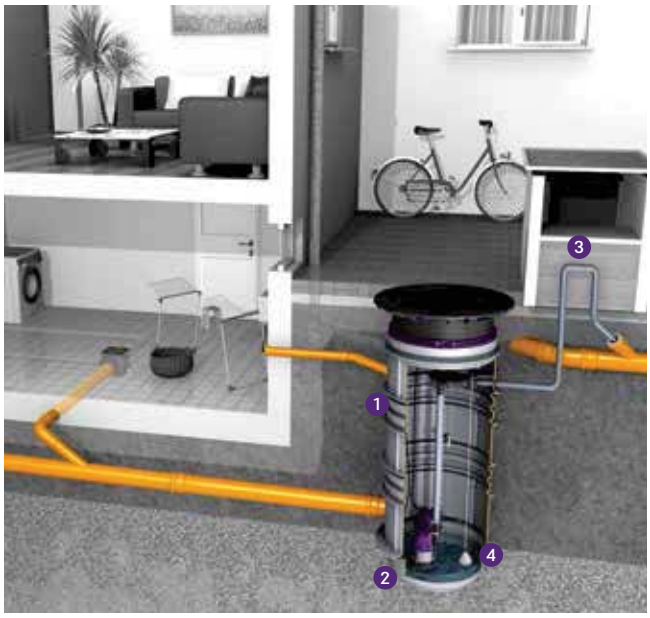


CE EN 12050-1

Pumping station *Aqualift F*

The compact version for wastewater with sewage.

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



1 Pumping station 2 Pump 3 Pressure pipe 4 Pressure sensor

Height-adjustable upper section

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

Innovative pressure sensor

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

Maximum safety

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

Convenient installation

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

Permanent protection

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

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

↗ **Lifting station *Aqualift F*:** Page 16

Pumping station *Aqualift F*

For underground installation with macerating / cutting pumps

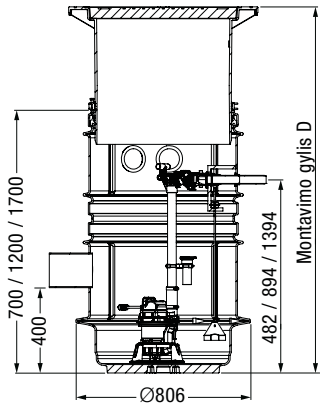
EN 12050 (max 2 WC connections)

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

With **single or twin removable wastewater pump(s)** with macerator for wastewater with or without sewage. Available with float switch or pressure sensor.
Pressure pipe Ø 40 mm (version B/D) or Ø 40/63 mm (version A) outside diameter for PVC glue connection, with integrated non-return flap. Power cable length: 10 m (Schuko)

Control unit

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



Note:

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

Pumping capacity

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

*Definition of S3-pumps see page 5

Single station with one pump and float switch

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

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

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

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

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

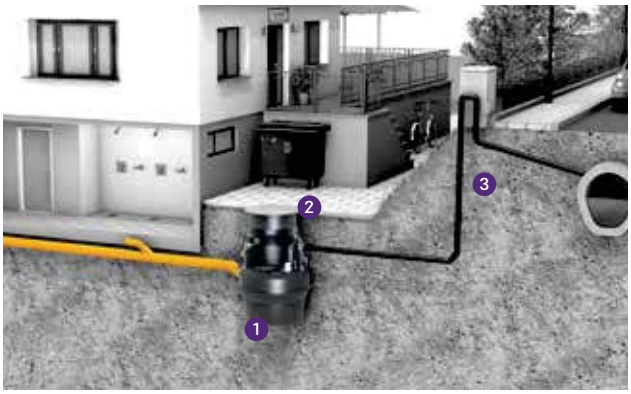
CE EN 12050 (max 2 WC connections)

Pumping station
Aqualift F XL

The powerful version for commercial, industrial and public applications.

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

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



1 Pumping station 2 Engineering chamber 3 Pressure pipe

1 Pumping station 2 Engineering chamber 3 Pressure pipe

Flexible installation

Thanks to the modular design with a large selection of chamber modules and upper sections, the pumping station can be installed both in the ground and in a floor slab. The modules are groundwater-resistant down to a depth of 3000 mm.

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

↗ **Lifting station *Aqualift F XL*:** Page 19

Maximum reliability

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

Dry installation

easy, clean servicing

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

Wet installation

available in ATEX version

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

Engineering system base *Aqualift F XL Mono/Duo*

Dry installation, for minimum installation depth

EN 12050-1

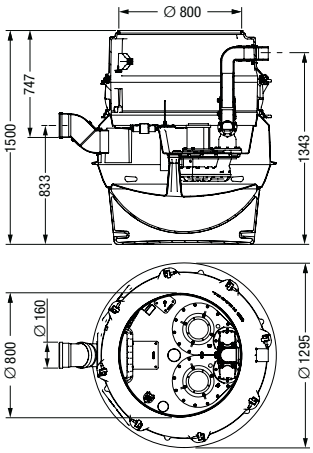
Tank volume: 335 liters
Pump volume: 160 liters

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

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

Control unit
With control unit with self-diagnosis system (SDS), battery buffering and logbook function, control unit is splashproof (IP 54). 230 V-versions ready to plug in.

↗ **Installation:** in combination with upper section Ø 800 page 65
↗ **Accessories:** pages 68



Mono version with one pump

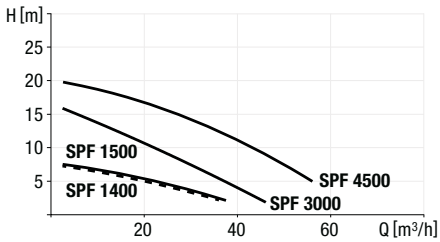
SPF pump	Voltage	Art. no.
1400-S3	230 V	**874 20 12**
1500-S3	400 V	**874 20 13**
3000-S3	400 V	**874 20 14**
4500-S3	400 V	**874 20 15**

Duo version with two pumps

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

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

Pumping capacity



Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
SPF 1400-S1/S3-100/50%*	230 V	7.3 A	1.6 kW	1.1 kW	38 m³/h	7 m
SPF 1500-S1/S3-100/50%*	400 V	2.7 A	1.4 kW	1.1 kW	40 m³/h	8 m
SPF 3000-S1/S3-100/50%*	400 V	5.4 A	3.2 kW	2.7 kW	47 m³/h	16 m
SPF 4500-S1/S3-100/50%*	400 V	7.5 A	4.5 kW	3.7 kW	55 m³/h	20 m

*Definition of S1 and S3-pumps see page 5

CE EN 12050-1

Engineering systems base *Aqualift F XL Mono/Duo*

Dry installation, for installation in a concrete slab and for outdoor underground installation

EN 12050-1

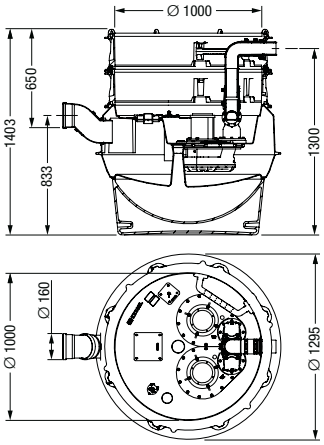
Tank volume: 335 liters
Pump volume: 160 liters

Polyethylene system base for underground installation, resistant to aggressive media. With Ø 160 mm inlet. For connection to Ø 1000 mm system chamber. Handles groundwater depths up to 3000 mm.

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

Control unit
With control unit with self-diagnosis system (SDS), battery buffering and logbook function, control unit is splashproof (IP 54). 230 V-versions ready to plug in.

↗ **Installation:** in combination with system chambers page 66 – 67
↗ **Accessories:** pages 68



Mono version with one pump

SPF pump	Voltage	Art. no.
1400-S3	230 V	**874 20 00**
1500-S3	400 V	**874 20 01**
3000-S3	400 V	**874 20 02**
4500-S3	400 V	**874 20 03**

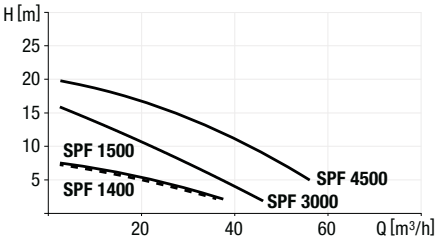
Duo version with two pumps

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

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

Access opening Ø 600 **Access opening Ø 800**

Pumping capacity



Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
SPF 1400-S1/S3-100/50%*	230 V	7.3 A	1.6 kW	1.1 kW	38 m³/h	7 m
SPF 1500-S1/S3-100/50%*	400 V	2.7 A	1.4 kW	1.1 kW	40 m³/h	8 m
SPF 3000-S1/S3-100/50%*	400 V	5.4 A	3.2 kW	2.7 kW	47 m³/h	16 m
SPF 4500-S1/S3-100/50%*	400 V	7.5 A	4.5 kW	3.7 kW	55 m³/h	20 m

*Definition of S1 and S3-pumps see page 5

Engineering systems base *Aqualift F XL Mono/Duo*

Wet installation, with macerator / cutting pumps

EN 12050-1

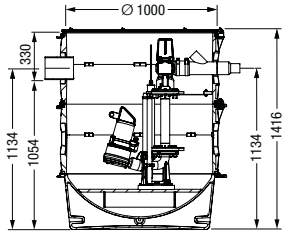
Tank volume: 680 liters
Pump volume: max. 310 liters

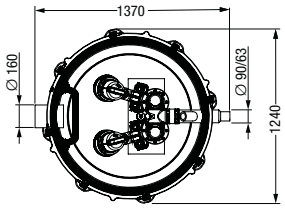
Polyethylene system base for underground installation, resistant to aggressive media. With Ø 160 mm inlet. For connection to Ø 1000 mm system chamber. Handles groundwater depths up to 3000 mm.

With **single or twin removable wastewater pump(s)** with maceratorr for wastewater with or without sewage. With hydrostatic sensor for level measurement. Pressure pipe Ø 63/90 mm outside diameter (welded PE pipe is to be used for the pressure pipe), including backflow preventer and closure valve on pressure pipe side.
Power cable length: 10 m (30 m on request).

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

↗ **Installation:** in combination with system chambers page 66 – 67
↗ **Accessories:** pages 68





Mono version with one macerator pump

STZ pump	Pumping volume in liters	Voltage	Art. no.
1300-S1	310	400 V	**874 30 14**
2500-S1	310	400 V	**874 30 15**
3700-S1	310	400 V	**874 30 16**

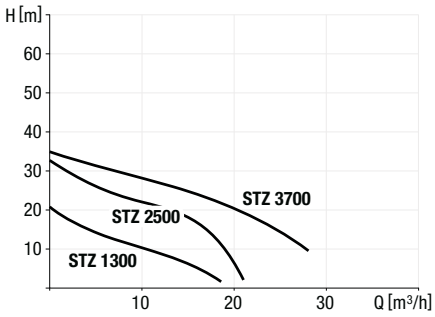
Duo version with two macerator pumps

STZ pump	Pumping volume in liters	Voltage	Art. no.
1300-S1	300	400 V	**874 30 17**
2500-S1	300	400 V	**874 30 18**
3700-S1	300	400 V	**874 30 19**

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

Access opening Ø 600 | Access opening Ø 800

Pumping capacity



Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
STZ 1300-S1	400 V	2.5 A	1.3 kW	0.9 kW	20 m³/h	21 m
STZ 2500-S1	400 V	4.4 A	2.5 kW	1.9 kW	21 m³/h	33 m
STZ 3700-S1	400 V	6.4 A	3.7 kW	3.1 kW	28 m³/h	35 m

*Definition of S1-pumps see page 5

CE EN 12050-1 Ex ATEX version

Engineering systems base *Aqualift F XL Mono/Duo*

Wet installation, with multi-vane or single-channel impeller pumps

EN 12050-2

Tank volume: 680 liters
Pump volume: max. 350 liters

Polyethylene system base for underground installation, resistant to aggressive media. With Ø 160 mm inlet. For connection to Ø 1000 mm system chamber. Handles groundwater depths up to 3000 mm.

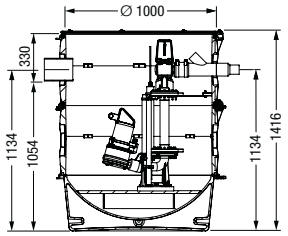
With **single or twin removable wastewater pump(s)**
- with multi-vane impeller (GTF)
- single-channel impeller (GTK)

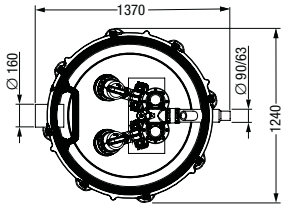
for wastewater with or without sewage (without ATEX requirements). With float switch / hydrostatic sensor for level measurement. Pressure pipe Ø 63/90 mm outside diameter (welded PE pipe is to be used for the pressure pipe), including backflow preventer and closure valve on pressure pipe side.
Power cable length: 10 m (30 m on request).

Control unit

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

↗ **Installation:** in combination with system chambers page 66 – 67
↗ **Accessories:** pages 68





Mono version with one pump

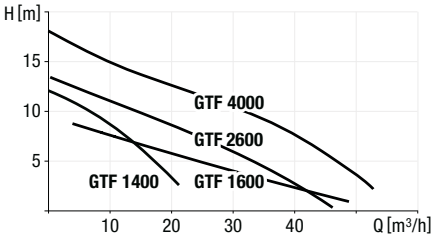
GTF pump	Pumping volume in liters	Voltage	Art. no.
1400-S1**	340	230 V	**874 30 32**
1400-S1	340	230 V	**874 30 33**
1600-S1	350	400 V	**874 30 20**
2600-S1	350	400 V	**874 30 21**
4000-S1	350	400 V	**874 30 22**
GTK pump	**Pumping volume in liters**		**Art. no.**
1300-S1	350	400 V	**874 30 26**
2600-S1	350	400 V	**874 30 27**
3700-S1	350	400 V	**874 30 28**

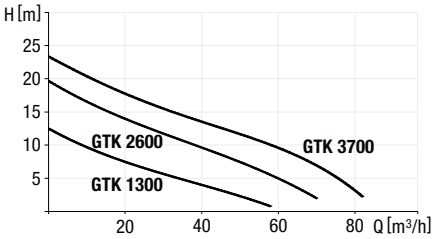
Duo version with two pumps

GTF pump	Pumping volume in liters	Voltage	Art. no.
1400-S1	340	230 V	**874 30 34**
1600-S1	340	400 V	**874 30 23**
2600-S1	340	400 V	**874 30 24**
4000-S1	340	400 V	**874 30 25**
GTK pump	**Pumping volume in liters**		**Art. no.**
1300-S1	340	400 V	**874 30 29**
2600-S1	340	400 V	**874 30 30**
3700-S1	340	400 V	**874 30 31**

** Version with float switch

Pumping capacity





Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
GTF 1400-S1*	230 V	6.5 A	1.5 kW	1.1 kW	31 m³/h	10.5 m
GTF 1600-S1*	400 V	2.9 A	1.6 kW	1.2 kW	49 m³/h	9.3 m
GTF 2600-S1*	400 V	4.5 A	2.6 kW	2.1 kW	46 m³/h	13.6 m
GTF 4000-S1*	400 V	6.6 A	4.0 kW	3.4 kW	53 m³/h	18 m

*Definition of S1-pumps see page 5

Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
GTK 1300-S1*	400 V	2.5 A	1.3 kW	1.0 kW	57 m³/h	12.4 m
GTK 2600-S1*	400 V	4.9 A	2.6 kW	2.1 kW	71 m³/h	19.6 m
GTK 3700-S1*	400 V	6.5 A	3.7 kW	3.1 kW	82 m³/h	23.5 m

*Definition of S1-pumps see page 5

CE EN 12050-2

Engineering systems base *Aqualift F XL Mono/Duo*

Wet installation, for outdoor underground installation

EN 12050-1

Pump volume: max. 900 liters

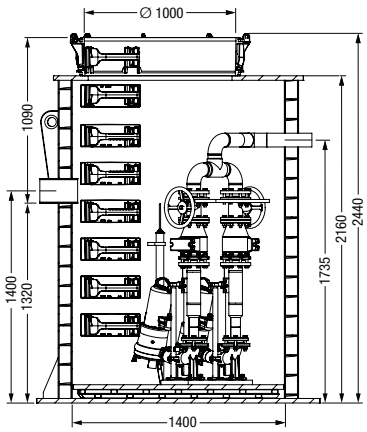
Polyethylene system base (corrugated chamber)
for underground installation, resistant to aggressive media. With Ø 160 mm inlet. For connection to Ø 1000 mm system chamber.
Handles groundwater depths up to 3000 mm.

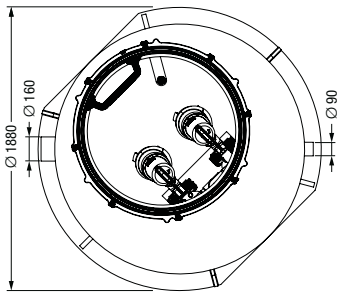
With **single or twin removable wastewater pump(s)**
- with macerator (STZ)
- with multi-vane impeller (GTF)
- single-channel impeller (GTK)

for wastewater with or without sewage (without ATEX requirements). With hydrostatic sensor for level measurement. Pressure pipe Ø 90 mm outside diameter (welded PE pipe is to be used for the pressure pipe), including backflow preventer and closure valve on pressure pipe side. Power cable length: 10 m (30 m on request).

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

↗ **Installation:** in combination with system chambers page 66 – 67
↗ **Accessories:** pages 68





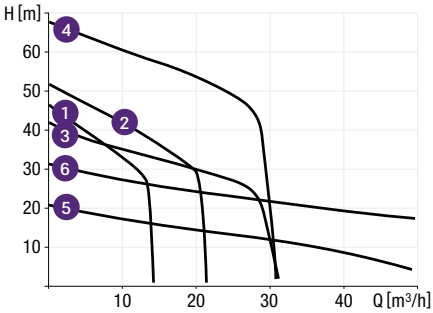
Mono version with one pump

STZ pump	Pumping volume in liters	Voltage	Art. no.
4400-S1	820	400 V	**874 30 35**
5200-S1	820	400 V	**874 30 36**
7500-S1	820	400 V	**874 30 37**
11000-S1	820	400 V	**874 30 38**
GTF pump	**Pumping volume in liters**	**Voltage**	**Art. no.**
5200-S1	900	400 V	**874 30 43**
GTK pump	**Pumping volume in liters**	**Voltage**	**Art. no.**
5200-S1	900	400 V	**874 30 45**

Duo version with two pumps

STZ pump	Pumping volume in liters	Voltage	Art. no.
4400-S1	800	400 V	**874 30 39**
5200-S1	800	400 V	**874 30 40**
7500-S1	800	400 V	**874 30 41**
11000-S1	800	400 V	**874 30 42**
GTF pump	**Pumping volume in liters**	**Voltage**	**Art. no.**
5200-S1	880	400 V	**874 30 44**
GTK pump	**Pumping volume in liters**	**Voltage**	**Art. no.**
5200-S1	880	400 V	**874 30 46**

Pumping capacity



Pump type	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
1 **STZ 4400-S1***	400 V	7.5 A	4.4 kW	3.7 kW	21.3 m³/h	46.7 m
2 **STZ 5200-S1***	400 V	8.7 A	5.2 kW	4.4 kW	21.3 m³/h	52 m
3 **STZ 7500-S1***	400 V	13 A	7.5 kW	6.4 kW	30.7 m³/h	42 m
4 **STZ 11000-S1***	400 V	18.8 A	11 kW	9.5 kW	30.6 m³/h	68 m
5 **GTF 5200-S1***	400 V	8.7 A	5.2 kW	4.4 kW	52.8 m³/h	21 m
6 **GTK 5200-S1***	400 V	8.7 A	5.2 kW	4.4 kW	51.6 m³/h	31.6 m

*Definition of S1-pumps see page 5

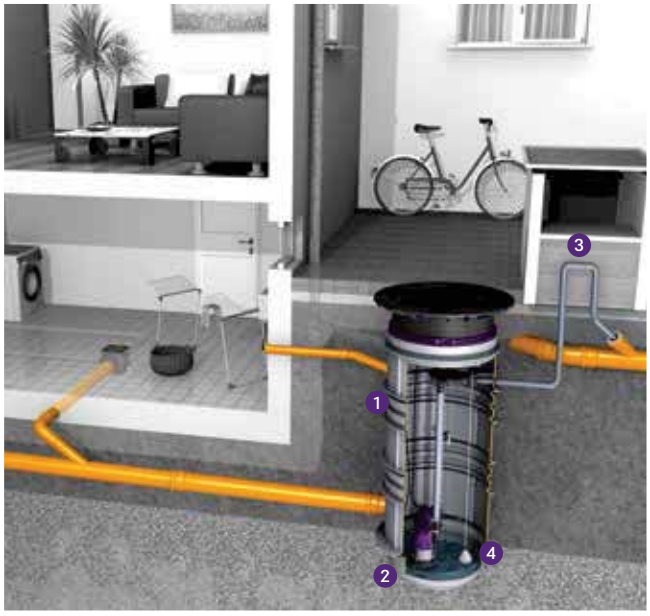
CE EN 12050-1

Pumping station *Aqualift S*

The compact version for wastewater and rainwater.

The *Aqualift S* is the first choice when it comes to the disposal of wastewater without sewage below the backwater level, backwater protection for separator systems and the clearing of drainage lines. The pumping station comprises a compact chamber with an inner diameter of 600 mm and integrated pumps for wastewater and rainwater. The *Aqualift S* is groundwater resistant down to a depth of 2500 mm.

The pumping station is available with pumps of different capacity classes. In addition, you can choose between level detection with a float switch or innovative pressure sensor. Two versions are available for installation depths of between 800 and 2250 mm.



1 Pumping station 2 Pump 3 Pressure pipe 4 Pressure sensor

Convenient installation

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

Maximum safety

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

Straightforward maintenance

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

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

↗ **Lifting station *Aqualift S*:** Page 29

Pumping station *Aqualift S*

For underground installation for non-WC wastewater and rainwater

EN 12050-2

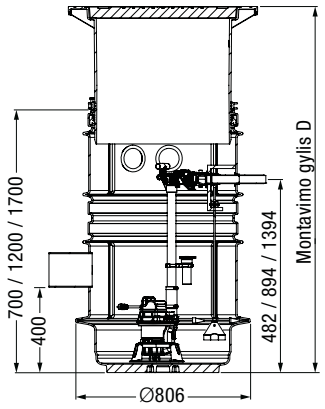
Polyethylene storage chamber Ø 600 for underground installation, resistant to aggressive media. With upper section made of polymer, vertically adjustable, cover class A in polymer load up to 600 kg, class B in cast iron and concrete load up to 12.5 t and cover class D in cast iron load up to 40 t. Groundwater resistant.
Inlet Ø 110 mm (*KTP 500*) or Ø 160 mm (*GTF 1200*), connection for pipe gasket for Ø 110 according to EN 1401 and EN 12666-1 - each for ventilation or conduit pipe.
Installation: Handles groundwater depths up to 2500 mm

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

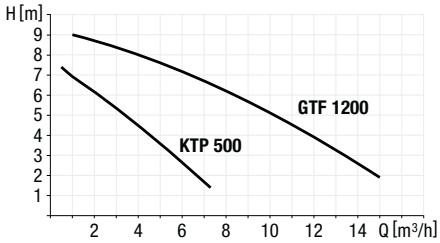
Control unit

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

Note: Consider frost free depth of pressure pipe.



Pumping capacity



Pump type	Current type	Voltage	Amperage	Power (P1/P2)	RPM	Motor protection	Protection	Pumping capacity	Pumping height
KTP 500-S1*	Alternating current	230 V	2.12 A	480 W / 310 W	2.800 min^{-1}	integrated	IP 68	8.5 m^3/h	8 m
GTF 1200-S3-50%*	Alternating current	230 V	4.9 A	1180 W / 720 W	2.800 min^{-1}	integrated	IP 68	15.5 m^3/h	9 m

*Definition of S1 and S3-pumps see page 5

Single station with one pump and float switch

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

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

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

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

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

CE EN 12050-2

Pumping station
Aqualift S XL

The flexible version for large quantities of wastewater without sewage.

The *Aqualift S XL* disposes of even larger quantities of rainwater and wastewater without sewage. It can also be used for wastewater with sewage depending on the pump type and local normative specifications. This makes the pumping station suitable not only for residential buildings but also for commercial use. The *Aqualift S XL* has been designed as a modular system for installation in the ground or in a floor slab and can be combined variably with engineering and chamber modules. The *Aqualift S XL* is available as a *Mono* and *Duo* system.

1 Gutter drain 2 Pumping station 3 Pump 4 Pressure sensor

Flexible installation

Thanks to the modular design with a large selection of chamber modules and upper sections, the pumping station can be installed both in the ground and in a floor slab. The chambers are groundwater-resistant down to a depth of 3000 mm.

Maximum safety

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

Engineering systems base *Aqualift S XL Mono/Duo*

Wet installation, for installation in a concrete slab and for outdoor underground installation

EN 12050-2

Tank volume: 680 liters
Pump volume: approx. 100 liters

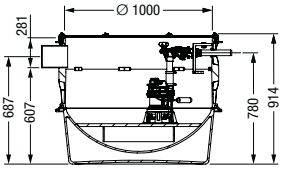
Base and inlet / outlet made of PE

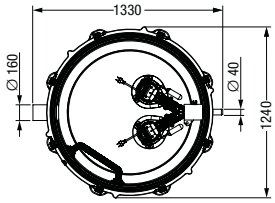
For installation in a concrete slab and for outdoor underground installation in combination with system chamber.

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

Cable length: 10 m (30 m on request)
Installation:
Handles groundwater depths up to 3000 mm

↗ **Installation:** in combination with system chambers page 66 – 67
↗ **Accessories:** pages 68





Mono version with one pump

Pump	Pumping volume in liters	Voltage	Art. no.
With float switch			
KTP 500-S1	90	230 V	**874 30 04**
GTF 1200-S3	100	230 V	**874 30 09**
With SDS control unit and pneumatic level measurement (with pressure sensor)			
KTP 500-S1	90	230 V	**874 30 05**
GTF 1200-S3	100	230 V	**874 30 10**

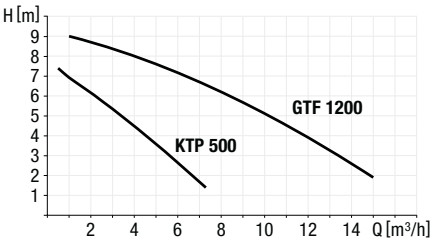
Duo version with two pumps

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

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

Access opening Ø 600 **Access opening Ø 800**

Pumping capacity



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

*Definition of S1 and S3-pumps see page 5

Submersible pumps

For mobile use

Submersible pumps
KTP, *GTF* and *STZ*

Pump - whenever and wherever you want.

Use of a permanently installed pump is not always possible or meaningful. Submersible pumps offer flexible solutions for private and commercial applications.

Powerful

Submersible motor pumps are suitable for pumping larger quantities of clear water, rainwater and waste-water in mobile use. These can be used to pump out chambers, basements or swimming pools.

Flexible use

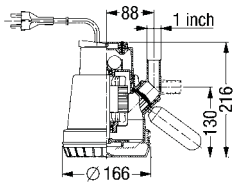
Our absolutely corrosion-free submersible pump has a pressure pipe connection R1 1/4, either vertical or lateral. The vertical connection is used for deep and narrow containers, while the lateral one is used for flat and broad water points.

Submersible pump *KTP 300*

for wastewater without sewage

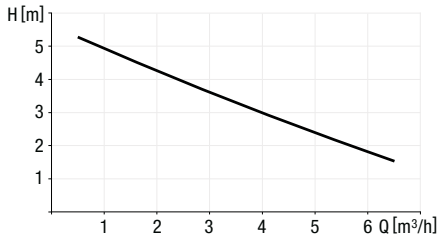
With/without float switch, with backwater flap, pivotable connection to pressure pipe 1 inch side/vertical
Cable length: 10 m

Note: Removable input basket - can pump down to a level of 8 mm.



Pressure connection	Art. no.
Without float switch	
1 inch	**28 740**
With float switch	
1 inch	**28 840**

Pumping capacity



Pump type	Current type	Voltage	Current	Power (P1)	Power (P2)	RPM	Submersible depth	Motor protection	Plug	Pumping capacity	Pumping height
KTP 300-S1*	Alternating current	230 V	1.9 A	0.28 kW	1.14 kW	2.800 min^{-1}	max. 10 m	integrated	Schuko	8 m³/h	6 m

*Definition of S1-pumps see page 5

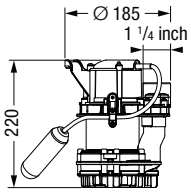
CE

Submersible pump *GTF 500 / GTF 500 resistant*

for wastewater without sewage

With/without float switch, with integrated low-intake, removable suction basket and convenient transport handle, connection to pressure pipe 1 $^1/_4$ inch vertical
Cable length: 10 m

***GTF 500 resistant*:**
Resistant against aggressive wastewater containing salts, condensates and effluent from water softening systems.



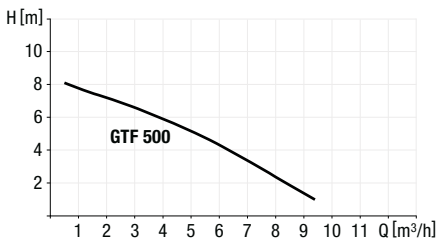
GTF 500

Pressure connection	Art. no.
Without float switch	
1 $^1/_4$ inch	**280 710**
With float switch	
1 $^1/_4$ inch	**280 810**

GTF 500 resistant

Pressure connection	Art. no.
Without float switch	
1 $^1/_4$ inch	**280 750**
With float switch	
1 $^1/_4$ inch	**280 850**

Pumping capacity



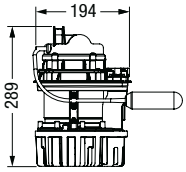
Pump type	Current type	Voltage	Current	Power (P1)	Power (P2)	RPM	Motor protection	Plug	Pumping capacity	Pumping height
GTF 500-S1*	Alternating current	230 V	2.5 A	0.5 kW	0.36 kW	2.800 min^{-1}	integrated	coded plug	10 m³/h	8 m
GTF 500 resistant-S1*	Alternating current	230 V	2.5 A	0.5 kW	0.36 kW	2.800 min^{-1}	integrated	Schuko	10 m³/h	8 m

*Definition of S1-pumps see page 5

Submersible pump *GTF 1000*

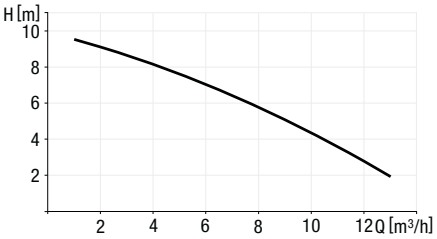
for wastewater without sewage

With/without float switch, without macerator,
connection to pressure pipe 1 ¼ inch side/vertical
Cable length: 10 m



Pressure connection	Art. no.
Without float switch	
1 1/4 inch	**28 760**
With float switch	
1 1/4 inch	**28 860**

Pumping capacity



Pump type	Current type	Voltage	Current	Power (P1/P2)	Power consumption	RPM	Submersible depth	Motor protection	Particle size	Pumping capacity	Pumping height
GTF 1000-S3-30%*	Alternating current	230 V	4.9 A	1080 W / 620 W	1000 W	2.800 min^{-1}	max. 10 m	integrated	max. 10 mm	11.5 m³/h	10 m

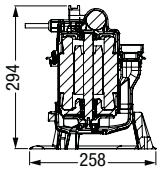
*Definition of S3-pumps see page 5

CE

Submersible pump *STZ 1000*

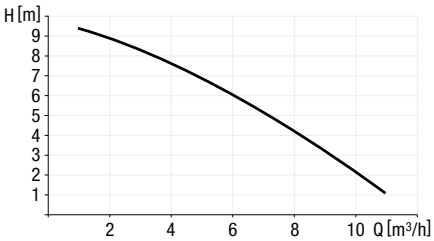
for wastewater containing raw sewage

With/without float switch, with macerator,
connection to pressure pipe 1 ¼ inch side/vertical
Cable length: 10 m



Pressure connection	Art. no.
Without float switch	
1 1/4 inch	**28 779**
With float switch	
1 1/4 inch	**28 778**

Pumping capacity



Pump type	Current type	Voltage	Current	Power (P1/P2)	Power consumption	RPM	Submersible depth	Motor protection	Pumping capacity	Pumping height
STZ 1000-S3-30%*	Alternating current	230 V	4.9 A	1080 W / 620 W	1000 W	2.800 min^{-1}	max. 10 m	integrated	12 m³/h	10 m

*Definition of S3-pumps see page 5

CE

Pumping system *Aqualift S Duo*

for rainwater or non-WC wastewater, for installation in on-site collection tank

EN 12050-2

Version contains:

- two removable pumps
- *Aqualift Comfort* 230 V duo control unit
- pressure sensor level control for conductive and non conductive liquids
- pressure piping with non-return flap and closure lever
- pressure connection: Ø 40 mm pressure pipe for PVC glue connection
- PE-HD fixing mount for installation and mounting of pumping system
- with Comfort control unit for wall mounting in dry, frost protected rooms, splash-proof, fully automated pump level control with optical and audible alarm system, detailed operation and warning status in multiple line digital display. Optional forwarding of alarm and fault message via GSM interface

Cable length: 10 m

AQUALI1200D: Pump *GTF 1200-S3*

Pumping capacity:	max. 15.5 m³/h
Pumping height:	max. 9 m
Power consumption:	2 × 800 W
Voltage:	230 V ~ 50 Hz
Current:	6.4 A
Fuses:	3 × 16 A
Protection:	IP 68 (Pump), 20mWS / 48h
Operating mode:	S3 (50 %)

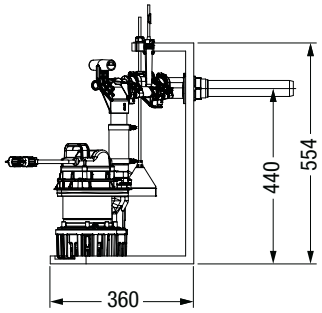
AQUALI1000D: Pump *GTF 1000-S3*

Pumping capacity:	max. 13.5 m³/h
Pumping height:	max. 10 m
Power consumption:	2 × 1000 W
Current:	230 V ~ 50 Hz
Fuses:	4.9 A
Motor protection:	integrated
Protection:	IP 68 (pumps), IP 54 (control unit)

AQUALI500D: Pump *KTP 500*

Pumping capacity:	max. 8.5 m³/h
Pumping height:	max. 8 m
Power consumption:	2 × 480 W
Current:	230 V ~ 50 Hz
Fuses:	2.12 A
Motor protection:	integrated
Protection:	IP 68 (pumps), IP 54 (control unit)

Illustration shows AQUALI1000D



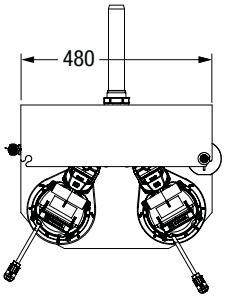
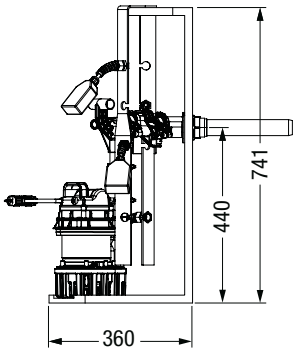


Illustration shows AQUALI500DS

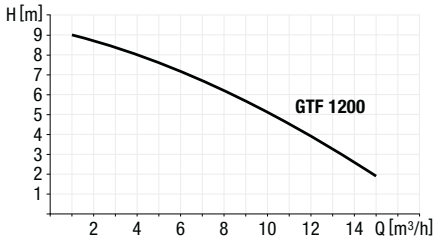


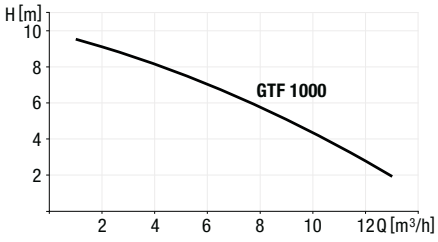
Duo version with two pumps

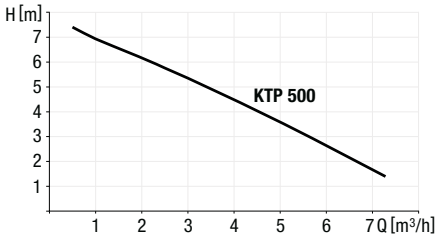
Pump	Art. no.
With pressure sensor	
GTF 1200-S3	**AQUALI1200D***
GTF 1000-S3	**AQUALI1000D***
KTP 500	**AQUALI500D***
with float switch	
GTF 1200-S3	**AQUALI1200DS***
GTF 1000-S3	**AQUALI1000DS***
KTP 500	**AQUALI500DS***

*Custom made product (delivery time on request)

Pumping capacity







Pumping system *Aqualift F XL*

Wet installation, for installation in on-site collection tank

Version contains:
- Pump base, backwater flaps and gate closure valves
- Hydrostatic level sensor
- KESSEL Comfort 400 V control unit
- PE pressure pipe with Ø 63mm (DN 50) and Ø 90 mm (DN 80)

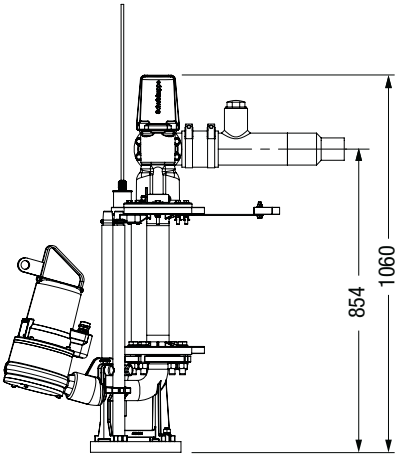
Pumping capacity: max. ... m³/h
Voltage: 400 V ~ 50 Hz
Cable length: 10 m
Note: *Aqualift F XL* should be installed in a chamber with a minimum diameter of 1000 mm

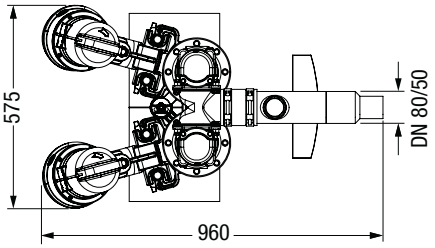
Pumping system *Aqualift F XL*:
- with pumps *STZ*
- for wastewater with or without sewage
- Pump(s) with high performance macerating system for operational reliability
- Mono or Duo version
- ATEX Certification

Pumping system *Aqualift F XL*:
- with pumps *GTF*
- for wastewater with or without sewage (check your local ATEX regulations)
- With multi-vane impeller
- Mono or Duo version

Pumping system *Aqualift F XL*:
- with pumps *GTK*
- for wastewater with or without sewage (check your local ATEX regulations)
- single-channel impellered pumps - high performance, ultra-low energy usage
- Mono or Duo version

On request:
- Vertical pressure outlet
- Variable pressure pipe height / lengths
- Custom pressure pipe sizes





Mono version with one pumps

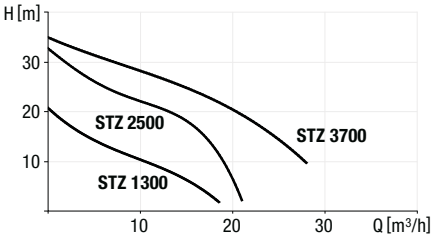
Pump	Art. no.
Aqualift F XL	
STZ 1300	**STZ1300-M***
STZ 2500	**STZ2500-M***
STZ 3700	**STZ3700-M***
GTF 1400	**GTF1400-M***
GTF 1600	**GTF1600-M***
GTF 2600	**GTF2600-M***
GTF 4000	**GTF4000-M***
GTK 1300	**GTK1300-M***
GTK 2600	**GTK2600-M***
GTK 3700	**GTK3700-M***

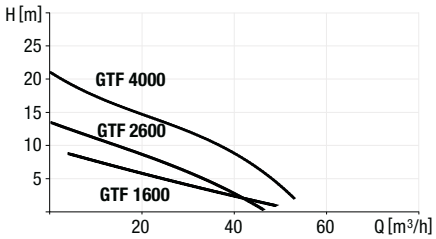
Duo version with two pumps

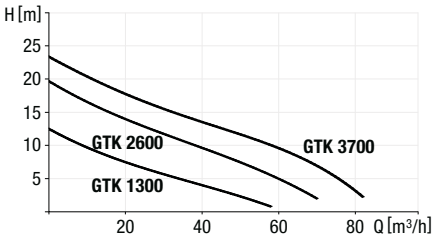
Pump	Art. no.
Aqualift F XL	
STZ 1300	**STZ1300-D***
STZ 2500	**STZ2500-D***
STZ 3700	**STZ3700-D***
GTF 1400	**GTF1400-D***
GTF 1600	**GTF1600-D***
GTF 2600	**GTF2600-D***
GTF 4000	**GTF4000-D***
GTK 1300	**GTK1300-D***
GTK 2600	**GTK2600-D***
GTK 3700	**GTK3700-D***

*Custom made product (delivery time on request)

Pumping capacity







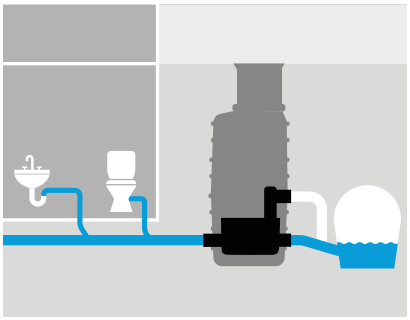
Hybrid lifting stations

The economical alternative
to lifting stations

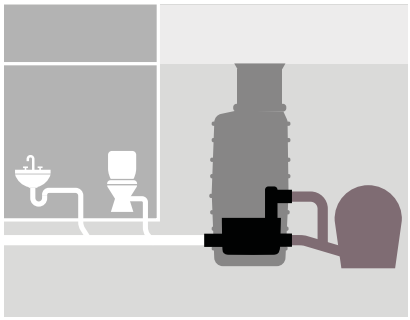
Ecolift functional principle

How does a hybrid lifting station work?

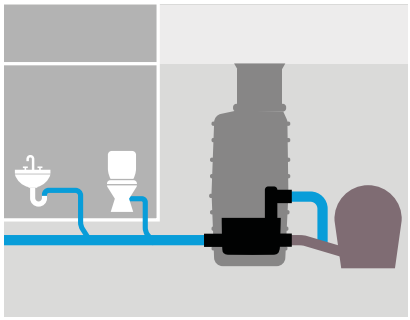
A hybrid lifting station combines the safety of a lifting station with the efficiency of drainage via a natural slope. During normal operation, wastewater flows with gravity through the *Ecolift XL* into the public sewer. When flooding occurs, backwater flap(s) automatically shut to protect the building.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



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



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



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

Direct drainage
is economical.

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

Direct drainage
is quiet.

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

Direct drainage
is safe.

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

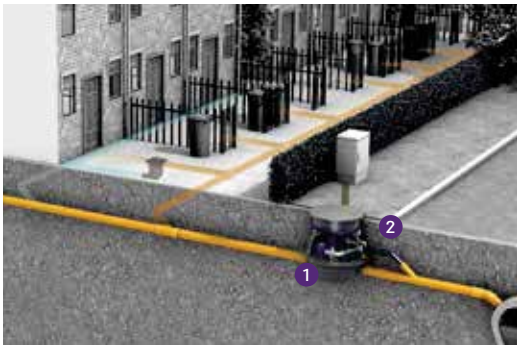
Hybrid lifting station
Ecolift XL

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

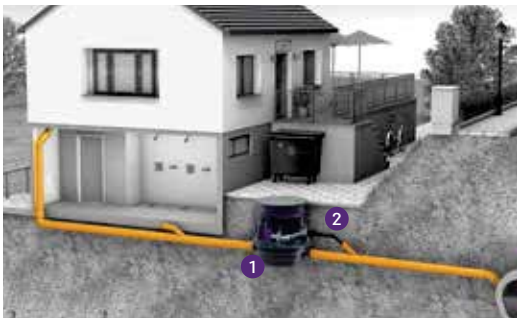
Concentrated power: The *Ecolift XL* is a larger and more powerful version of the *Pumpfix*. This means that the hybrid lifting station is ideally suited to use in commercial buildings and apartment blocks. With a power rating of up to 4.5 kW, the *Ecolift XL* can also reliably pump the wastewater into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

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

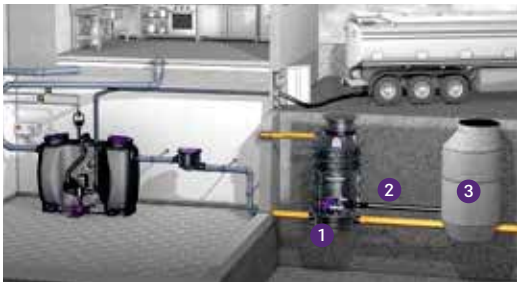
Ultra energy-efficient



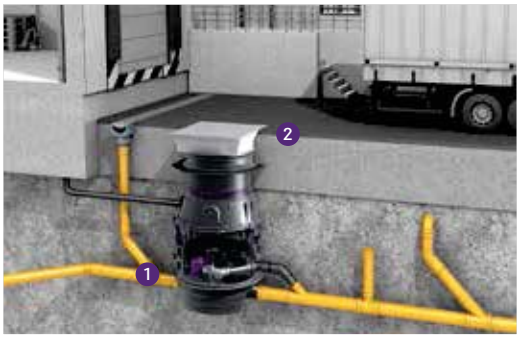
1 Hybrid lifting station 2 Pressure pipe



1 Hybrid lifting station 2 Pressure pipe



1 Hybrid lifting station 2 Pressure pipe
3 Pressure relief chamber



1 Hybrid lifting station
2 Upper section for concrete floor slab

Chamber covers
Available in a stainless steel class A/L15 (tileable or not tileable) or in load classes B and D

Additional inlet connection
Three areas are available for easy on-site connection of conduit or ventilation pipes

Honeycomb chamber design
Provides additional chamber strength and prevents buoyancy. Additional inlets up to size Ø 160 mm can be installed on-site

Vertically adjustable upper section
Available with Ø 600 mm or Ø 800 mm diameter with optional waterproofing connection flange

Connection system
The new chambers allows simple and fully watertight connections of the chamber components

Modular system
Sectional chamber components available in 250 mm and 500 mm heights

Groundwater resistant
For installation in up to 3000 mm of groundwater

Integrated closure valve
With safety lock to prevent accidental closure

Safety / reliability
Pneumatic level sensing and alarm sensor offer twice the reliability

Sound / vibration decoupling
All active components and the outlet pressure pipe are sound decoupled from the chamber

Pressure outlet connection
Quick-release, no tools required

Pressure outlet
Ø 90 mm

Backwater flap closure system
Available with up to two motorized backwater flaps for maximum backwater protection

Hybrid lifting station *Ecolift XL Mono/Duo*

Dry installation, for minimum installation depth

Z-53.2-493

Base section made of PE

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

Version:

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

Cable length: 10 m

Installation:

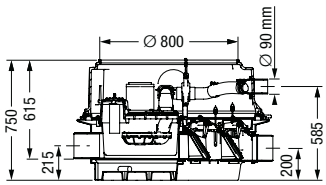
Handles groundwater depths up to 3000 mm

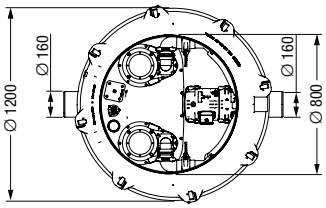
Note:

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

↗ **Installation:** in combination with upper section Ø 800 page 85

↗ **Accessories:** pages 89 – 90





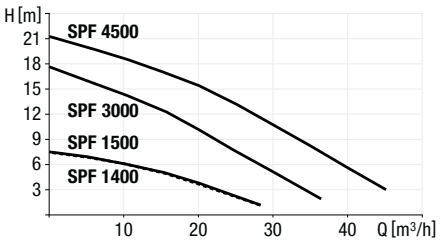
Mono version with one pump

SPF pump	Voltage	Art. no.
With one motor-driven backwater flap for wastewater without sewage		
1400-S3	230 V	**874 10 44**
1500-S3	400 V	**874 10 45**
3000-S3	400 V	**874 10 46**
4500-S3	400 V	**874 10 47**
With two motor-driven backwater flaps for wastewater with sewage		
1400-S3	230 V	**874 10 48**
1500-S3	400 V	**874 10 49**
3000-S3	400 V	**874 10 50**
4500-S3	400 V	**874 10 51**

Duo version with two pumps

SPF pump	Voltage	Art. no.
With one motor-driven backwater flap for wastewater without sewage		
1400-S3	230 V	**874 10 60**
1500-S3	400 V	**874 10 61**
3000-S3	400 V	**874 10 62**
4500-S3	400 V	**874 10 63**
1400-S1	230 V	**874 10 64**
1500-S1	400 V	**874 10 65**
3000-S1	400 V	**874 10 66**
4500-S1	400 V	**874 10 67**
With two motor-driven backwater flaps for wastewater with sewage		
1400-S3	230 V	**874 10 68**
1500-S3	400 V	**874 10 69**
3000-S3	400 V	**874 10 70**
4500-S3	400 V	**874 10 71**
1400-S1	230 V	**874 10 72**
1500-S1	400 V	**874 10 73**
3000-S1	400 V	**874 10 74**
4500-S1	400 V	**874 10 75**

Pumping capacity



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

*Definition of S1 and S3-pumps see page 95

Hybrid lifting station *Ecolift XL Mono/Duo*

Dry installation, free standing or in a concrete slab

Z-53.2-493

Base section made of PE

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

Version:

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

Cable length: 10 m

Installation:

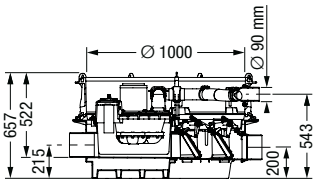
Handles groundwater depths up to 3000 mm

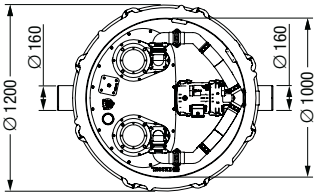
Note:

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

↗ **Installation:** in combination with an engineering system chamber Ø 1000 page 87 – 88

↗ **Accessories:** pages 89 – 90





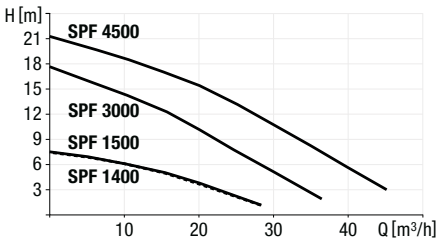
Mono version with one pump

SPF pump	Voltage	Art. no.
With one motor-driven backwater flap for wastewater without sewage		
1400-S3	230 V	**874 10 06**
1500-S3	400 V	**874 10 07**
3000-S3	400 V	**874 10 08**
4500-S3	400 V	**874 10 09**
With two motor-driven backwater flaps for wastewater with sewage		
1400-S3	230 V	**874 10 10**
1500-S3	400 V	**874 10 11**
3000-S3	400 V	**874 10 12**
4500-S3	400 V	**874 10 13**

Duo version with two pumps

SPF pump	Voltage	Art. no.
With one motor-driven backwater flap for wastewater without sewage		
1400-S3	230 V	**874 10 22**
1500-S3	400 V	**874 10 23**
3000-S3	400 V	**874 10 24**
4500-S3	400 V	**874 10 25**
1400-S1	230 V	**874 10 26**
1500-S1	400 V	**874 10 27**
3000-S1	400 V	**874 10 28**
4500-S1	400 V	**874 10 29**
With two motor-driven backwater flaps for wastewater with sewage		
1400-S3	230 V	**874 10 30**
1500-S3	400 V	**874 10 31**
3000-S3	400 V	**874 10 32**
4500-S3	400 V	**874 10 33**
1400-S1	230 V	**874 10 34**
1500-S1	400 V	**874 10 35**
3000-S1	400 V	**874 10 36**
4500-S1	400 V	**874 10 37**

Pumping capacity



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

*Definition of S1 and S3-pumps see page 95

Upper sections and engineering system bases

Upper section Ø 800

Made of polymer/stainless steel

Compatibility:
For use as upper section for the engineering system base *Aqualift F XL Mono/Duo* and *Ecolift XL* Mono/Duo for the version with minimum installation depth

Version:
with/without waterproof flange

	Installation depth D in mm (min./max.)	Covers	Art. no.
square, tileable, without waterproof flange	65 - 314	Class A/L 15	**874 01 75**
square, tileable, with waterproof flange	282 - 531	Class A/L 15	**874 01 76**
square, not tileable, without waterproof flange	50 - 299	Class A/L 15	**874 01 77**
square, not tileable, anti-slip, with waterproof flange	267 - 516	Class A/L 15	**874 01 78**
square, without waterproof flange	274 - 523 274 - 523	Class B Class D	**874 01 79** **874 01 80**
round, without waterproof flange	65 - 314	Class K 3	**874 01 81**

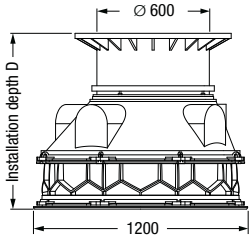
Engineering system chamber Ø 1000 with access opening Ø 600

for combination with engineering system base *Aqualift F XL, Aqualift S XL and Ecolift XL*

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 Art. no.	Class D Art. no.
D1:	380 - 629*	874 00 00	874 00 01
D2:	630 - 879*	874 00 06	874 00 07
D3:	880 - 1129*	874 00 12	874 00 13
D4:	1130 - 1379	874 00 18	874 00 19
D5:	1380 - 1629	874 00 24	874 00 25
D6:	1630 - 1879	874 00 30	874 00 31
D7:	1880 - 2129	874 00 36	874 00 37
D8:	2130 - 2379	874 00 42	874 00 43
D9:	2380 - 2629	874 00 48	874 00 49
D10:	2630 - 2879	874 00 54	874 00 55
D11:	2880 - 3129	874 00 60	874 00 61
D12:	3130 - 3379**	874 00 66	874 00 67
D13:	3380 - 3629**	874 00 72	874 00 73
D14:	3630 - 3879**	874 00 78	874 00 79
D15:	3880 - 4129**	874 00 84	874 00 85

***Installation depth D 1 – D 3**
only in combination with pumping station Wet installation
****Installation depth D 12 –15**
pay attention to maximum installation depth 5000 mm in combination with engineering system base

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

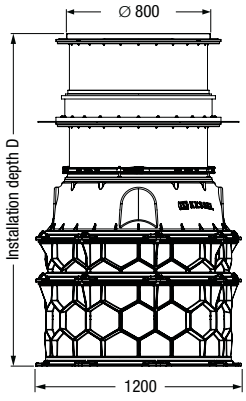
Engineering system chamber Ø 1000 with access opening Ø 800

for combination with engineering system base *Aqualift F XL, Aqualift S XL and Ecolift XL*

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.
D1:	628 - 877	874 00 03
D2:	878 - 1127	874 00 09
D3:	1128 - 1377	874 00 15
D4:	1378 - 1627	874 00 21
D5:	1628 - 1877	874 00 27

Cover not tileable, anti-slip

Installation depth D in mm		Art. no.
D1:	613 - 862	874 00 05
D2:	863 - 1112	874 00 11
D3:	1113 - 1362	874 00 17
D4:	1363 - 1612	874 00 23
D5:	1613 - 1862	874 00 29

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

Engineering system chamber Ø 1000 with access opening Ø 800

for combination with engineering system base *Aqualift F XL*, *Aqualift S XL and Ecolift XL*

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

Made of polyethylene PE-HD

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

Modular design comprising:

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

Delivery: As individual elements

Remark: Covers surface water tight

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

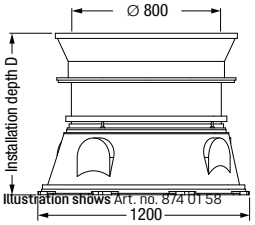


Illustration shows Art. no. 874 01 58

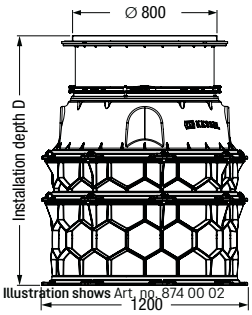


Illustration shows Art. no. 874 00 02

Illustration shows Art. no. 874 01 43

Illustration shows Art. no. 874 01 22

Illustration shows Art. no. 874 00 20

Round cover

Installation depth D in mm		Art. no.
Class K 3		
D1:	375 - 624	**874 01 22**
D2:	625 - 874	**874 01 23**
D3:	875 - 1124	**874 01 24**
D4:	1125 - 1374	**874 01 25**
D5:	1375 - 1624	**874 01 26**
D6:	1625 - 1874	**874 01 27**
D7:	1875 - 2124	**874 01 28**
D8:	2125 - 2374	**874 01 29**
D9:	2375 - 2624	**874 01 30**
D10:	2625 - 2874	**874 01 31**
D11:	2875 - 3124	**874 01 32**
D12:	3125 - 3374**	**874 01 33**
D13:	3375 - 3624**	**874 01 34**
D14:	3625 - 3874**	**874 01 35**
D15:	3875 - 4124**	**874 01 36**

Square cover

Installation depth D in mm		Art. no.
Class B		
D1:	620 - 869	**874 01 41**
D2:	870 - 1119	**874 01 42**
D3:	1120 - 1369	**874 01 43**
Class D		
D1:	620 - 869	**874 01 58**
D2:	870 - 1119	**874 01 59**
D3:	1120 - 1369	**874 01 60**

** **Installation depth D 12 -15**
pay attention to maximum installation depth 5000 mm in combination with engineering system base

Square cover

Installation depth D in mm		Art. no.
Class A/L 15, not tileable, anti-slip		
D1:	396 - 645	**874 00 04**
D2:	646 - 895	**874 00 10**
D3:	896 - 1145	**874 00 16**
D4:	1146 - 1395	**874 00 22**
D5:	1396 - 1645	**874 00 28**
D6:	1646 - 1895	**874 00 34**
D7:	1896 - 2145	**874 00 40**
D8:	2146 - 2395	**874 00 46**
D9:	2396 - 2645	**874 00 52**
D10:	2646 - 2895	**874 00 58**
D11:	2896 - 3145	**874 00 64**
D12:	3146 - 3395**	**874 00 70**
D13:	3396 - 3645**	**874 00 76**
D14:	3646 - 3895**	**874 00 82**
D15:	3896 - 4145**	**874 00 88**
Class A/L 15, tileable		
D1:	411 - 660	**874 00 02**
D2:	661 - 910	**874 00 08**
D3:	911 - 1160	**874 00 14**
D4:	1161 - 1410	**874 00 20**
D5:	1411 - 1660	**874 00 26**
D6:	1661 - 1910	**874 00 32**
D7:	1911 - 2160	**874 00 38**
D8:	2161 - 2410	**874 00 44**
D9:	2411 - 2660	**874 00 50**
D10:	2661 - 2910	**874 00 56**
D11:	2911 - 3160	**874 00 62**
D12:	3161 - 3410**	**874 00 68**
D13:	3411 - 3660**	**874 00 74**
D14:	3661 - 3910**	**874 00 80**
D15:	3911 - 4160**	**874 00 86**

** **Installation depth D 12 -15**
pay attention to maximum installation depth 5000 mm in combination with engineering system base

Accessories

Accessories

Lifting station *Minilift S, Aqualift F Compact*

Alarm unit

for lifting stations

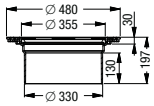
			Art. no.
with electrode probe	**Function:** High water / flood alarm system; for conductive liquids **Cable length:** 5 m (extendable up to 30 m)		**20 222**
with optical probe	**Function:** High water / flood alarm system; for conductive / non-conductive liquids **Cable length:** 5 m (extendable up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

Accessories

Minilift S

Extension section

for installation in a concrete floor

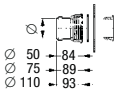
				Art. no.
for deeper installation with flange	**Inclusive:** Gasket **Extension:** Max. 147 mm **(In case of deeper installation ensure maintenance capability!)**			**830 070**

Accessories

Lifting station *Minilift S, Aqualift F Compact, Aqualift S Compact*

Inlet adaptor

for lifting station

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

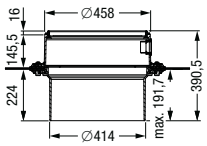
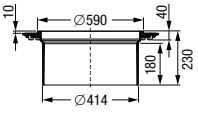
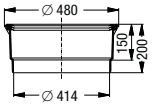
Pressure pipe set

for lifting station

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

Extension sections

for installation in a concrete floor

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

Accessories

Lifting station *Aqualift F Mono/Duo, Aqualift F Compact*

Control unit accessories

Compatibility see product description

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

Accessories

Lifting station *Aqualift F Mono/Duo, Aqualift F Compact* and hybrid lifting station *Ecolift XL*

Safety

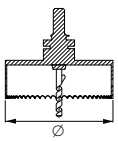
Compatibility see product description

			Art. no.
***TeleControl* telemetric system**	**Compatibility:** For connection to KESSEL Comfort control units 230 Volt and 400 Volt **Function:** Relaying of full text messages to up to three mobile phones **Inclusive:** With internal antenna (without SIM card)		**28 792**
Air compressor set	**Function:** For use in combination with lifting station and pumping stations with pressure control: prevents soiling, avoids the formation of condensate in the pressure hose, makes operation of systems possible with pressure hose lengths > 10 m **Inclusive:** T-piece connection, 20 m pressure hose		**28 048**

Accessories

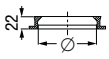
Lifting station *Aqualift F Mono/Duo, Aqualift F Compact, Minilift S*

Hole saw

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

1) use a power drill with at least 1000 watts

Sealing

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

Accessories

Aqualift F Compact

Retrofit kit

for lifting station *Aqualift F Compact*

		Art. no.
Alarm float switch	**Compatibility:** Can be combined with 230 V Comfort control units **Inclusive:** Float switch, float switch bracket **Cable length:** 5 m	**28 016**

Accessories

Pumping station *Aqualift F Basic*

Upper section

		Art. no.
Upper section	**Extension:** From 140 - 440 mm, height adjustable	**829 100**

Closure valves

Compatibility see product description

		Art. no.
Closure valve	**Compatibility:** Mono version	**829 200**
Closure valve	**Compatibility:** Duo version	**829 250**

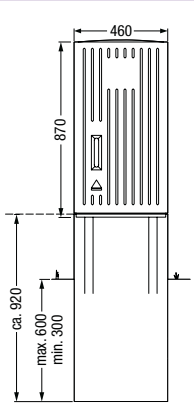
Accessories

Engineering system base *Aqualift F XL*, *Aqualift S XL* and *Ecolift XL*

Kiosk for control unit

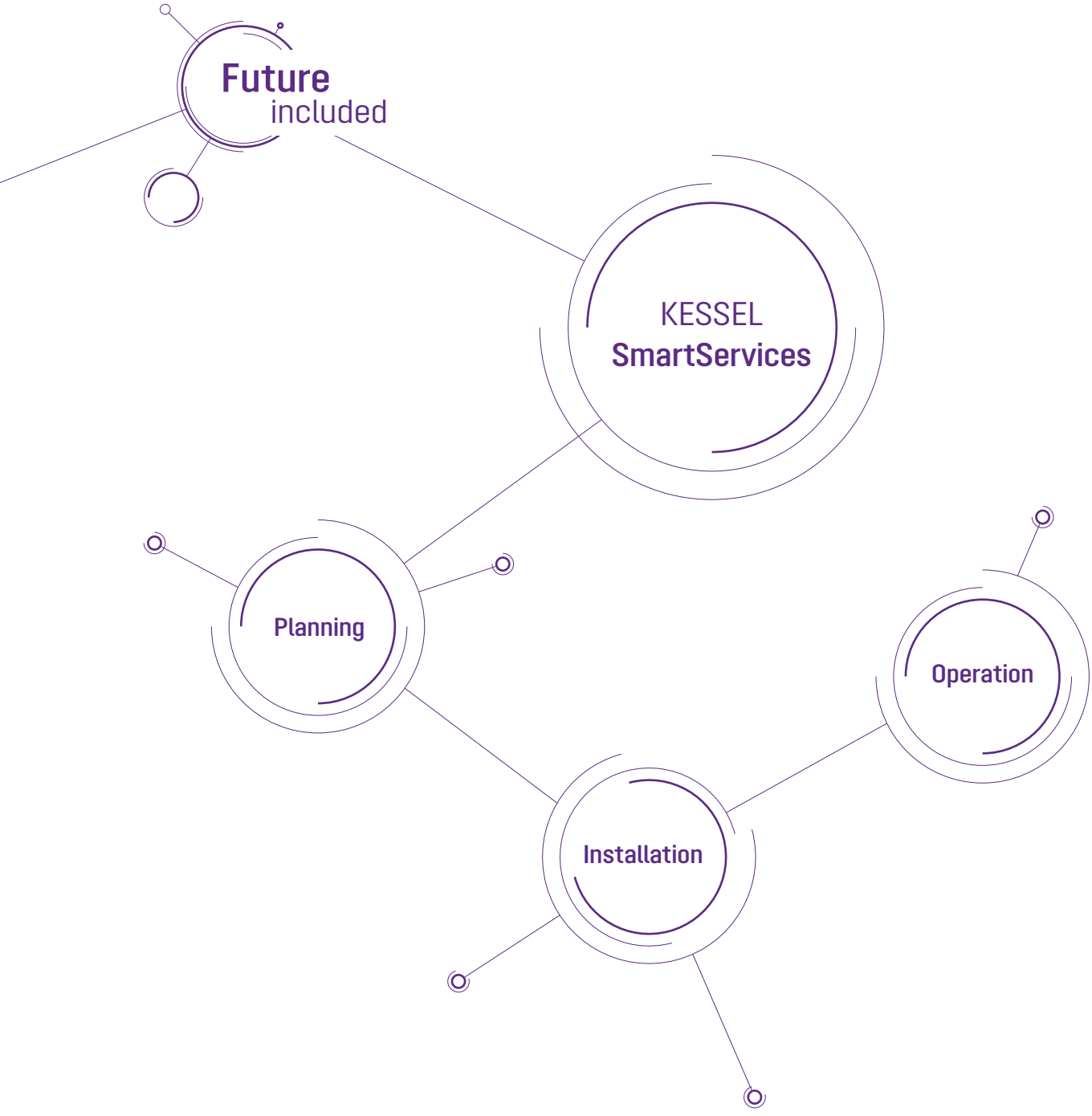
for installation of control units, modems, heating element, warning beacon outside of buildings

		Height over all in mm	Width / depth in mm	Art. no.
for control unit, heating, warning beacon	**Height over ground level:** 870 mm	1740	460/320	**97 716**
for heating and pressure pipe	**Height over ground level:** 870 mm	1740	590/320	**97 714**
for control unit, modem, heating, warning beacon	**Height over ground level:** 870 mm	1740	785/320	**97 723**
for control unit, modem, heating, warning beacon and pressure pipe	**Height over ground level:** 870 mm	1740	1115/320	**97 724**



KESSEL Smart Services

Our digital services offer



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

Planning

Building Information Modelling (BIM)
All component information for dependable planning

CAD data
Drawing with AutoCAD & similar software.

Specification texts
Simple management of article master data.

Design information
Detailed guide.

SmartSelect
Design tool for lifting stations and grease separators.

Installation

Building Information Modelling (BIM)
All important component information for dependable installation.

Assembly/installation videos
Illustrated installation tips.

Installation instructions
Proper installation, step-by-step.

Operation

Building Information Modelling (BIM)
All important component information for dependable operation and maintenance.

Spare parts catalogue
Spare parts for maintenance and repair.

Function videos
Illustrated product explanations.

User manuals
Online library for product manuals.

SonicControl
Automatic layer thickness measurement for separators.

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KESSEL Headquarters Lenting, Germany

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