

The complete range of pump technology

Lifting stations
Pumping stations
Submersible pumps
Hybrid lifting stations
Control units



Made in Germany

Leading in drainage

Overview of Range of lifting stations and pumps

Type of wastewater



Wastewater with sewage



Wastewater without
sewage

Installation situation



Outdoor, underground
installation



Indoor, on-the-floor
installation



Floor slab installation

Lifting stations



Lifting station
Aqualift F XL

➤ Page 12



Lifting station
Aqualift S 100 / 200

➤ Page 25



New



Lifting station
Aqualift F

➤ Page 16



Lifting station
Aqualift S Compact

➤ Page 29



Lifting station
Aqualift F Basic

➤ Page 19



Lifting station
Minilift S

➤ Page 31



Lifting station
Aqualift F Compact

➤ Page 21

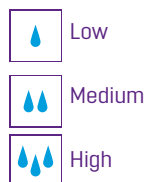


Compact lifting station
Minilift F

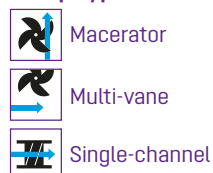
➤ Page 23



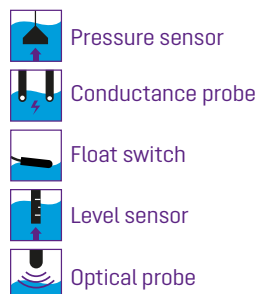
Wastewater quantity



Pump types



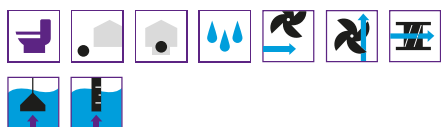
Level sensors



Pumping stations



Pumping station
Aqualift F XL
➤ Page 42



Pumping station
Aqualift F
➤ Page 49



Pumping station
Aqualift F Basic
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Pumping station
Aqualift S XL
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Pumping station
Aqualift S
➤ Page 55



Pumping station
Aqualift S Basic
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Hybrid lifting station



Hybrid lifting station
Ecolift XL

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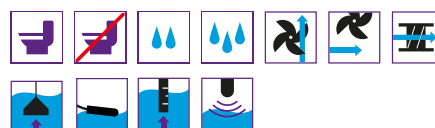


Submersible pumps, conversions and control units



Conversion kits
for collecting tanks

➤ Page 66



Submersible pump
GTF

➤ Page 68



Submersible pump
STZ

➤ Page 68



Submersible pump
KTP

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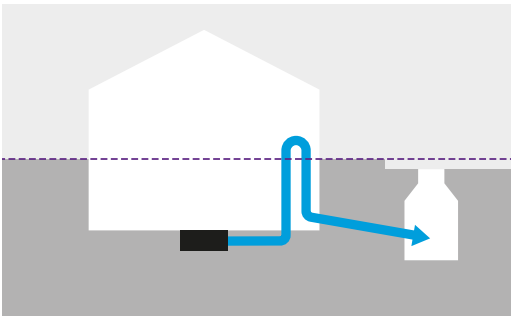
Warning and control units

➤ Page 70

Everything specialists need to know

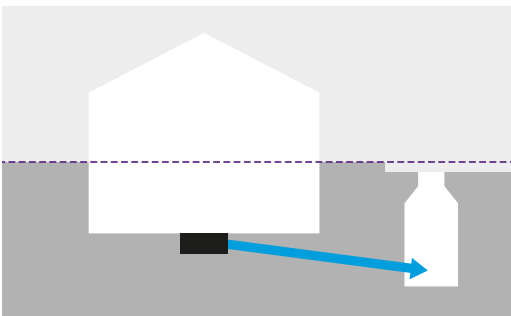
Location of sewer

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



No slope to the sewer

↗ Lifting stations: page 12

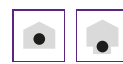
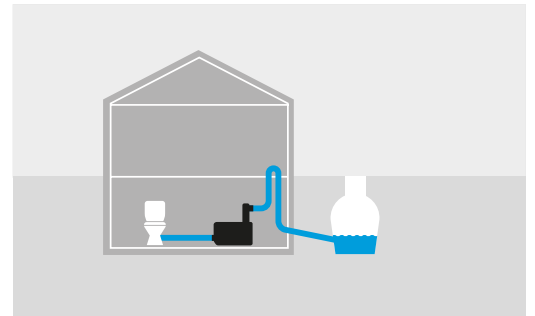


Slope to the sewer

↗ Hybrid lifting stations: page 76

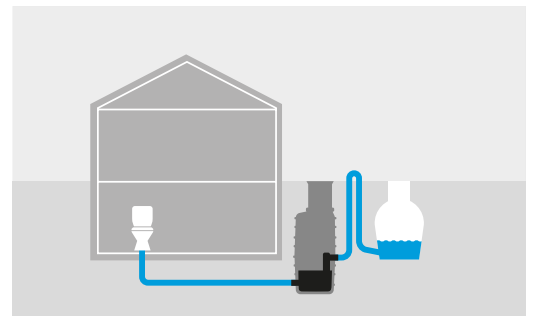
Installation locations

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



Inside the building

↗ Lifting stations: page 12



Outside the building

↗ Pumping stations: page 42

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.

Types of wastewater

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



Lifting stations for water with sewage

EN 12050-1

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

Maximum particle size: 40 mm



Lifting stations for water without sewage

EN 12050-2

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

Maximum particle size: 10 mm

Explosion protection



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

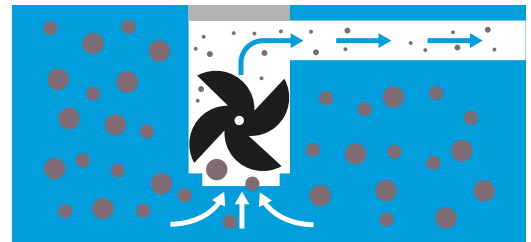
Pump operation classification

KESSEL pumps are classified as S1 or S3 operating duty.

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

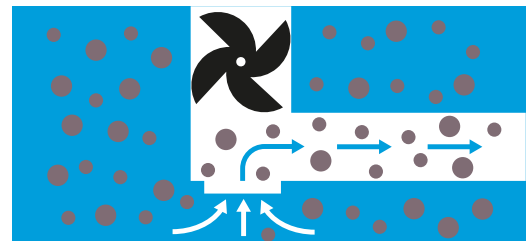
S3 operating duty pumps are intermittent duty and require periodic breaks to stop and cool down. An S3 50% classified pump, for example, should not run more than 50% of the time and are perfect for standard wastewater from homes, apartments or commercial buildings.

Pump types



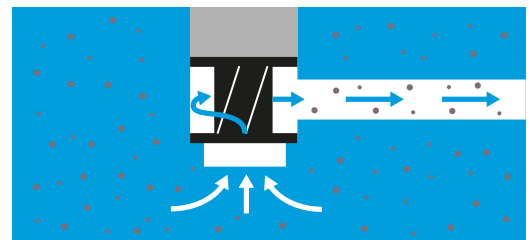
Macerator pumps are especially designed for wastewater containing raw sewage.

These systems cut the wastewater into small particles which allows connection to small diameter pressure pipes.



Multi-vane impeller pumps are designed for wastewater with or without raw sewage.

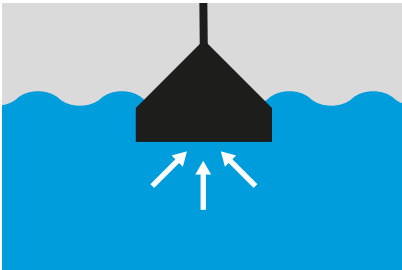
A large area inside the pump allows any solids to freely pass into the properly sized pressure pipe without contacting the impeller.



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

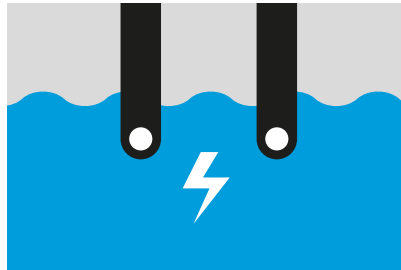
Level sensors / probes and alarm probes

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



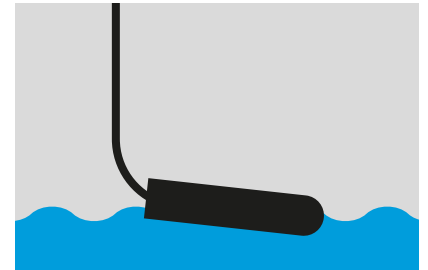
Pressure sensor

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



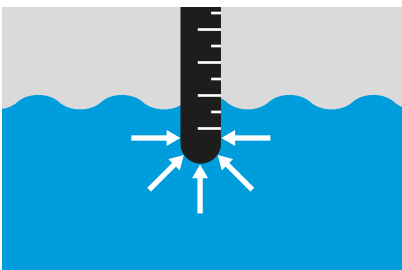
Conductance probe

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



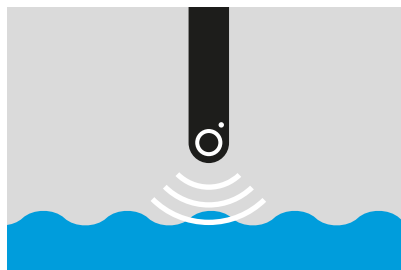
Float switch

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



Hydrostatic sensor

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



Optical probe

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

Telemetric system – *TeleControl*

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



Illustration shows Art. no. 28 792



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.

Specification pump drives

SPF 1500 and SPF 3000

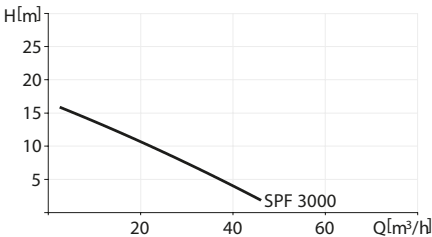
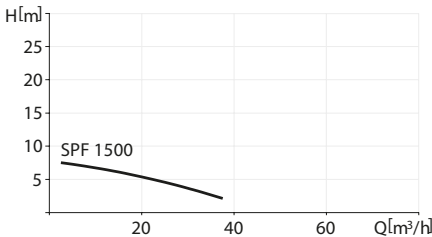


Pump type	Pump drive SPF 1500	Pump drive SPF 3000
Weight	24 kg	24 kg
Voltage	400 V	400 V
Frequency	50 Hz	50 Hz
Electric power P1	1,4 kW	3,2 kW
Mechanical power P2	1,1 kW	2,7 kW
Nominal current	2,7 A	5,4 A
Speed of rotation	1700 rpm	3400 rpm
Operating mode	S1 - 100% / S3 - 50%	S1 - 100% / S3 - 50%
Protection class	I (protective earth)	I (protective earth)
Protection type	IP68 (5 mWS / 72 h)	IP68 (5 mWS / 72 h)
Type of cable	H07RN-F7G1,5	H07RN-F7G1,5
Length of cable	5 m	5 m
Medium temperature	40 °C	40 °C
Maximun head of delivery	8 m	16 m
Maximum flow rate	40 m³/h	47 m³/h
Impeller type	Multi-vane impeller	Multi-vane impeller
Material impeller	Cast iron (GG20)	Cast iron (GG20)
Material housing	Cast iron and aluminium	Cast iron and aluminium
Shaft sealing	2x Rotary shaft seal	Mechanical seal SiC/SiC
Insulation material class	F (155 °C)	F (155 °C)
Thermal engine protection	Yes	yes
Starting frequency	20 starts/hour	20 starts/hour

Pumping capacity

Pump drive SPF 1500

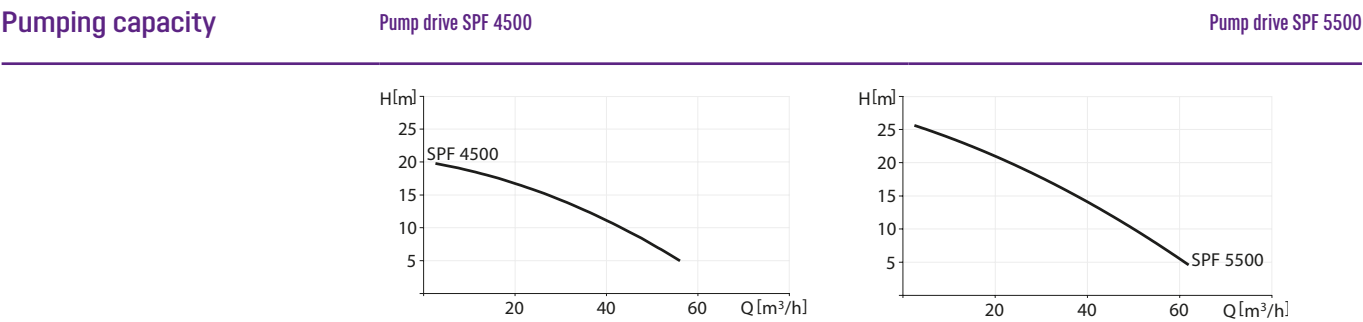
Pump drive SPF 3000



Specification pump drives
SPF 4500 and SPF 5500



Pump type	Pump drive SPF 4500	Pump drive SPF 5500
Weight	26 kg	38 kg
Voltage	400 V	400 V
Frequency	50 Hz	50 Hz
Electric power P1	4,5 kW	5,7 kW
Mechanical power P2	3,7 kW	4,7 kW
Nominal current	7,5 A	9,1 A
Speed of rotation	3400 rpm	3400 rpm
Operating mode	S1 - 100% / S3 - 50%	S3 - 30%
Protection class	I (protective earth)	I (protective earth)
Protection type	IP68 (5 mWS / 72 h)	IP68 (5 mWS / 72 h)
Type of cable	H07RN-F7G1,5	H07RN-F7G1,5
Length of cable	5 m	5 m
Medium temperature	40 °C	40 °C
Maximum head of delivery	20 m	27 m
Maximum flow rate	55 m³/h	60 m³/h
Impeller type	Multi-vane impeller	Multi-vane impeller
Material impeller	Cast iron (GG20)	Cast iron (GG20)
Material housing	Cast iron and aluminium	Cast iron and aluminium
Shaft sealing	Mechanical seal SiC/SiC	Mechanical seal SiC/SiC
Insulation material class	F (155 °C)	F (155 °C)
Thermal engine protection	Yes	Yes
Starting frequency	20 starts/hour	20 starts/hour



Lifting station *Aqualift F / F XL*

The powerful choice for commercial, industrial and communal applications.

The *Aqualift F / F XL* are powerful lifting stations for domestic, commercial, industrial and communal applications. They are ideal for lifting rainwater that occurs below the backwater level or for use after a separator. However, they 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 / F XL* can be combined with six different tanks with a capacity of 50, 120, 200, 300, 450 or 900 liters. It is also available with pumps in different capacity classes and as a Mono or Duo system for different requirements.

The *Aqualift F* systems with 50 and 120 liter tanks are perfect for domestic use and the larger *Aqualift F XL* series with tank volumes up to 900 liters and more powerful pump are designed for use in commercials, industrial and communal applications.

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



1 Lifting station 2 Grease separator *EasyClean*

Pressure sensor

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

Powerful pumps and control unit

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

Multiple inlet connections

The *Aqualift F / 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.

Lifting stations 60 Hz/400 V

Now also available in 60 Hz for more information contact us at info@kessel.com



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

➤ Pumping station *Aqualift F / F XL*: page 42

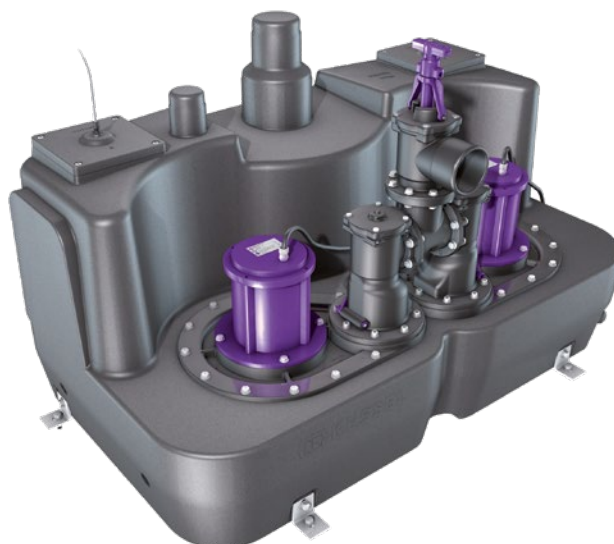
Maximum reliability

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.



Aqualift F

for domestic or light commercial use



Aqualift F XL

for commercial, industrial or communal use

Lifting station *Aqualift F XL Duo* 900 liter tank volume

for free-standing installation in frost-free rooms



TÜV Rheinland Germany type tested and monitored

CE EN 12050-1

Tank volume: 900 liters

Pump volume: 500 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 elastic 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 400 V 50 Hz. With potential-free/BMS contact (optional 230 V).

➤ **Accessories:** page 33 – 39

➤ **Note:** Also available in 60 Hz / 400 V
page 10



Illustration shows Art. no. 11 054-900I

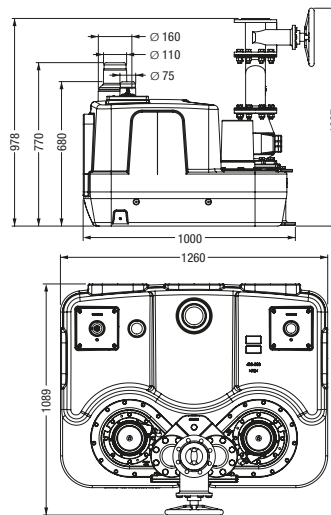
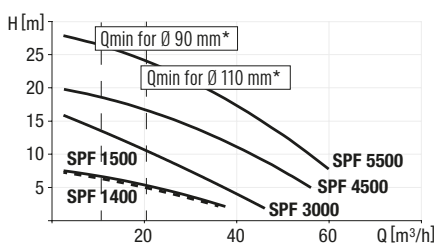


Illustration shows
lifting station with closure valve

Duo version with two pumps

SPF pump	Voltage	Art. no.
Without closure valve		
3000-S3	400 V	11 054-900I
4500-S3	400 V	11 069-900I
5400-S3	400 V	11 082-900I

Pumping capacity



Pump type	Input Power (P1)	Power (P2)	Voltage	Amperage	Weight	Pumping capacity	Pumping height
SPF 3000-S3-50%*	3.5 kW	2.8 kW	400 V	5.7 A	188 kg	47 m³/h	16 m
SPF 4500-S3-50%*	4.7 kW	3.7 kW	400 V	7.8 A	189 kg	55 m³/h	20 m
SPF 5500-S3-30%*	5.8 kW	4.9 kW	400 V	9.6 A	211 kg	60 m³/h	27 m

*Definition of S3-pump see page 97

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

for free-standing installation in frost-free rooms



TÜV Rheinland Germany type tested and monitored



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 elastic 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

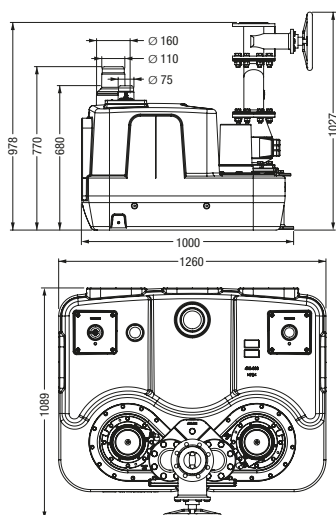
with mains power ON / OFF switch and multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook; control unit is splash proof (IP 54), wall mounted, voltage 230 V or 400 V at 50 Hz. With potential-free/BMS contact (optional 230 V).

➤ **Accessories:** page 33 – 39

➤ **Note:** Also available in 60 Hz / 400 V
page 10



Illustration shows Duo version with cast iron closure valve



Duo version with two pumps

SPF pump	Voltage	Art. no.
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Without closure valve

3000-S3	400 V	11 054
3000-S1	400 V	11 115
4500-S3	400 V	11 069
4500-S1	400 V	11 126
5500-S3	400 V	11 082

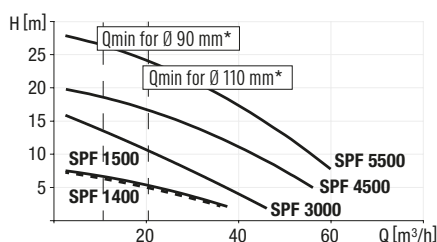
With plastic closure valve

1400-S3	400 V	11 055
1400-S1	400 V	11 116

With cast iron closure valve

1400-S3	400 V	11 057
1400-S1	400 V	11 118
1500-S3	400 V	11 070
1500-S1	400 V	11 127
3000-S3	400 V	11 083

Pumping capacity



Pump type

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

*Definition of S1 and S3-pumps see page 97

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

for free-standing installation in frost-free rooms



TÜV Rheinland Germany type tested and monitored

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 elastic 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

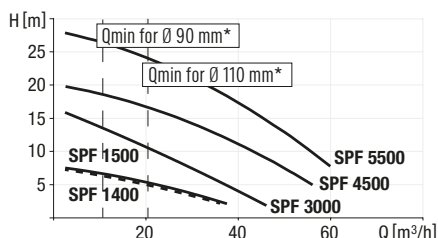
Comfort control unit

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 33 – 39

➤ **Note:** Also available in 60 Hz / 400 V
page 10

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 97



Illustration shows Duo version with plastic closure valve

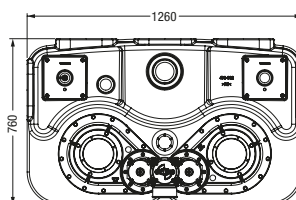
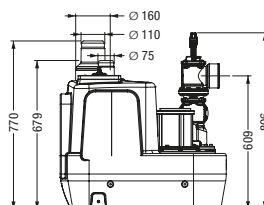
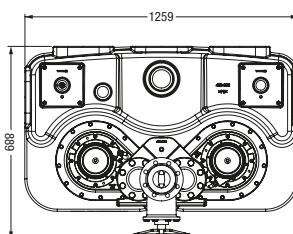
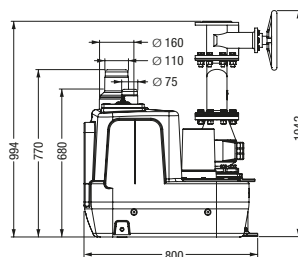


Illustration shows Duo version with cast iron closure valve



Mono version with one pump

SPF pump	Voltage	Art. no.
Without closure valve		
1400-S3	230 V	11 009
1500-S3	400 V	11 027
3000-S3	400 V	11 045
4500-S3	400 V	11 064
5500-S3	400 V	11 077

With plastic closure valve

1400-S3	230 V	11 011
1500-S3	400 V	11 029
3000-S3	400 V	11 047

With cast iron closure valve

1400-S3	230 V	11 015
1500-S3	400 V	11 033
3000-S3	400 V	11 051
4500-S3	400 V	11 066
5500-S3	400 V	11 079

Duo version with two pumps

SPF pump	Voltage	Art. no.
Without closure valve		
1400-S3	230 V	11 010
1400-S1	230 V	11 090
1500-S3	400 V	11 028
1500-S1	400 V	11 100
3000-S3	400 V	11 046
3000-S1	400 V	11 110
4500-S3	400 V	11 065
4500-S1	400 V	11 123
5500-S3	400 V	11 078

With plastic closure valve

1400-S3	230 V	11 012
1400-S1	230 V	11 091
1500-S3	400 V	11 030
1500-S1	400 V	11 101
3000-S3	400 V	11 048
3000-S1	400 V	11 111

With cast iron closure valve

1400-S3	230 V	11 016
1400-S1	230 V	11 092
1500-S3	400 V	11 034
1500-S1	400 V	11 103
3000-S3	400 V	11 052
3000-S1	400 V	11 113
4500-S3	400 V	11 067
4500-S1	400 V	11 124
5500-S3	400 V	11 080

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

for free-standing installation in frost-free rooms



TÜV Rheinland Germany type tested and monitored

CE 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 elastic 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

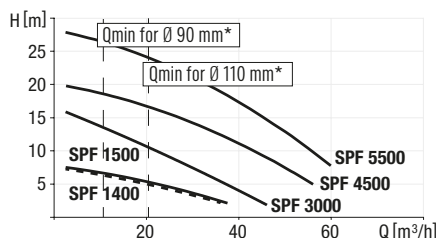
Comfort control unit

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 33 – 39

➤ **Note:** Also available in 60 Hz / 400 V
page 10

Pumping capacity



Pump type

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

*Definition of S1 and S3-pumps see page 97



Illustration shows Duo version with plastic closure valve

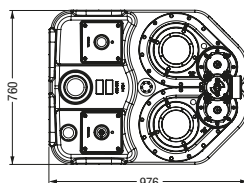
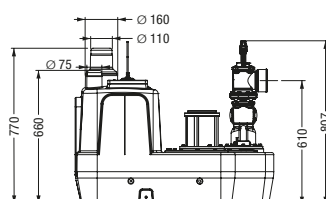
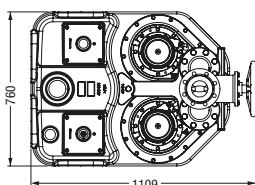
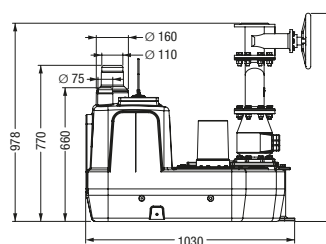


Illustration shows Duo version with cast iron closure valve



Mono version with one pump

SPF pump	Voltage	Art. no.
Without closure valve		
1400-S3	230 V	11 000
1500-S3	400 V	11 018
3000-S3	400 V	11 036
4500-S3	400 V	11 059
5500-S3	400 V	11 072

With plastic closure valve

1400-S3	230 V	11 002
1500-S3	400 V	11 020
3000-S3	400 V	11 038

With cast iron closure valve

1400-S3	230 V	11 006
1500-S3	400 V	11 024
3000-S3	400 V	11 042
4500-S3	400 V	11 061
5500-S3	400 V	11 074

Duo version with two pumps

SPF pump	Voltage	Art. no.
Without closure valve		
1400-S3	230 V	11 001
1400-S1	230 V	11 085
1500-S3	400 V	11 019
1500-S1	400 V	11 095
3000-S3	400 V	11 037
3000-S1	400 V	11 105
4500-S3	400 V	11 060
4500-S1	400 V	11 120
5500-S3	400 V	11 073

With plastic closure valve

1400-S3	230 V	11 003
1400-S1	230 V	11 086
1500-S3	400 V	11 021
1500-S1	400 V	11 096
3000-S3	400 V	11 039
3000-S1	400 V	11 106

With cast iron closure valve

1400-S3	230 V	11 007
1400-S1	400 V	11 088
1500-S3	230 V	11 025
1500-S1	400 V	11 098
3000-S3	400 V	11 043
3000-S1	400 V	11 108
4500-S3	400 V	11 062
4500-S1	400 V	11 121
5500-S3	400 V	11 075

Lifting station *Aqualift F Duo* 120 liter tank volume

for free-standing installation in frost-free rooms



TÜV Rheinland Germany type tested and monitored

CE 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 elastic 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 33 – 39

➤ **Note:** Also available in 60 Hz / 400 V page 10



Illustration shows Art. no. 28 628-C

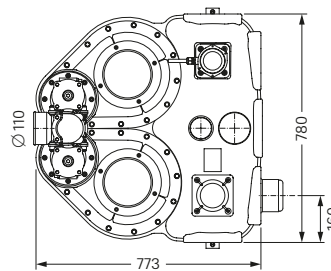
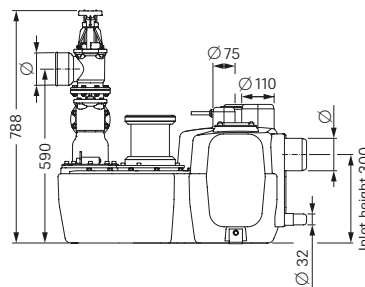
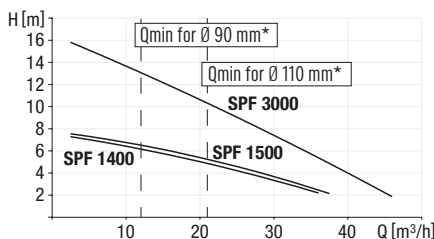


Illustration shows Art. no. 28 629-C

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 mm ²	40°C	23 kg	IP 68	1.370	38 m ³ /h	7 m
SPF 1500-S1/S3-100/50%*	1.4 kW	1.1 kW	400 V	50 Hz	2.7 A	3 × 16 A	7 × 1.5 mm ²	40°C	24 kg	IP 68	1.415	40 m ³ /h	8 m
SPF 3000-S1/S3-100/50%*	3.2 kW	2.7 kW	400 V	50 Hz	5.4 A	3 × 16 A	7 × 1.5 mm ²	40°C	24 kg	IP 68	2.845	47 m ³ /h	16 m

*Definition of S1 and S3-pumps see page 97

Lifting station *Aqualift F Mono* 50 liter tank volume

for free-standing installation in frost-free rooms



TÜV Rheinland Germany type tested and monitored



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 elastic 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 33 – 39

➤ **Note:** Also available in 60 Hz / 400 V
page 10



Illustration shows Art. no. 28 646-C

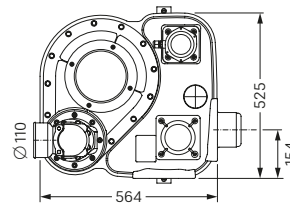
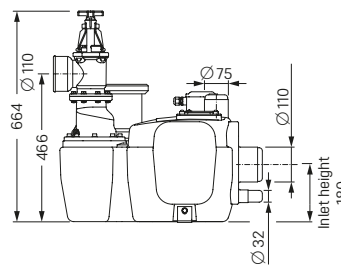
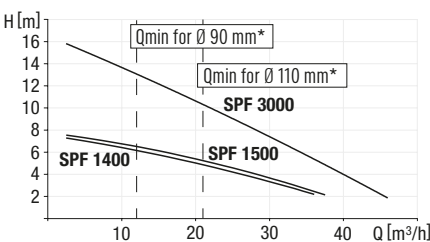


Illustration shows Art. no. 28 648-C

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 97

Lifting station *Aqualift F Basic*

The economic version for domestic wastewater.

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



1 Lifting station 2 Pressure pipe

Pump

The pump SPF 1300 with blockage-proof multi-vane vortex impeller pumps wastewater quantities of up to 32 m³ over a maximum height of 9.2 m. Thanks to the wedge-shaped tank base, wastewater and solids drain directly into the pump intake.

Control unit with float switch

The control unit *Aqualift F 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 51

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



CE EN 12050-1

Tank volume: 50 liters
Pump volume: 20 liters

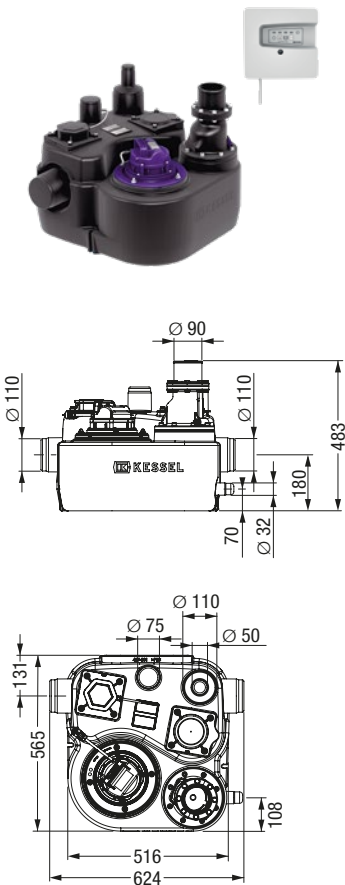
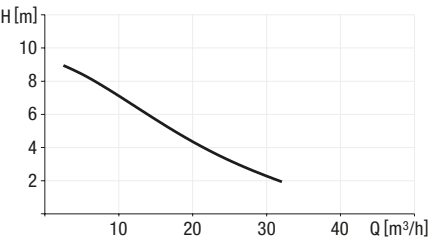
Polyethylene storage chamber with screwed access opening. Inlet connection from above Ø 50/110 mm. Two additional Ø 110 mm inlet connections at both sides. With Ø 75 mm vent connection. Connection coupling for emergency diaphragm pump Ø 32 mm.

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

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

➤ **Accessories:** page 33 – 39

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 97

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, 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 freestanding 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

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 *Aqualift F Compact* continually pumps away the wastewater, keeping the basement 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.



- 1 Lifting station 2 Control unit 3 Pressure pipe

Lifting station *Aqualift F Compact Mono / Duo*

for installation in a concrete slab / floor



Z-53.2-484 Max 2 WC connections

Tank volume: 40 liters

Pump volume: 20 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) with macerator, 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 33 – 39



Illustration shows Mono version 28 701X

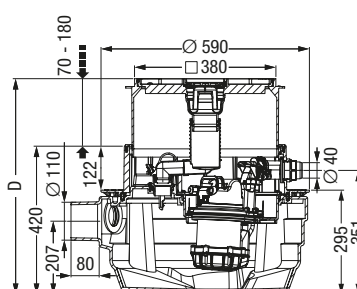
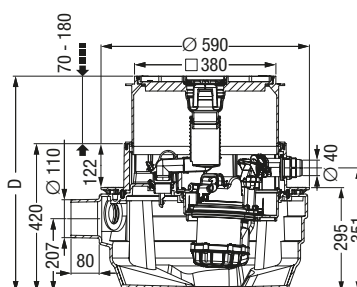


Illustration shows Duo version 28 704X



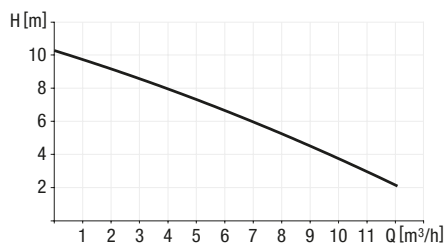
Mono version with one pump

SPZ pump	Voltage	Art. no.
With recessed cover for on-site tiling		
1000-S3	230 V	28 701X
1000-S3 resistant	230 V	28 701XC
With black cover		
1000-S3	230 V	28 701S
1000-S3 resistant	230 V	28 701SC

Duo version with two pumps

SPZ pump	Voltage	Art. no.
With recessed cover for on-site tiling		
1000-S3	230 V	28 704X
1000-S3 resistant	230 V	28 704XC
With black cover		
1000-S3	230 V	28 704S
1000-S3 resistant	230 V	28 704SC

Pumping capacity



Pump type

Pump type	Current type	Voltage	Current	Power P1/P2	RPM	Motor protection	Pumping height	Pumping capacity
SPZ 1000-S3-30%*	Alternating current	230 V	5.2 A	1.2 kW / 0.69 kW	2800 min ⁻¹	integrated	10 m	11.5 m³/h
SPZ 1000-S3-30% resistant*	Alternating current	230 V	5.2 A	1.2 kW / 0.69 kW	2800 min ⁻¹	integrated	10 m	11.5 m³/h

*Definition of S3-pumps see page 97

Lifting station *Aqualift F Compact Mono / Duo*

for free-standing installation



Z-53.2-484 Max 2 WC connections

Tank volume: 40 liters

Pump volume: 20 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) with macerator, 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 33 – 39



Illustration shows Mono version 28 717

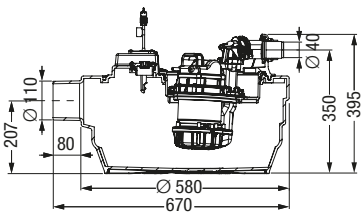
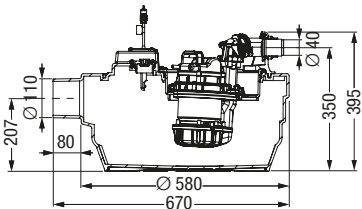


Illustration shows Duo version 28 718



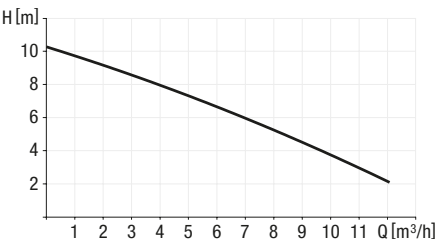
Mono version with one pump

SPZ pump	Voltage	Art. no.
1000-S3	230 V	28 717
1000-S3 resistant	230 V	28 717C

Duo version with two pumps

SPZ pump	Voltage	Art. no.
1000-S3	230 V	28 718
1000-S3 resistant	230 V	28 718C

Pumping capacity



Pump type	Current type	Voltage	Current	Power P1/P2	RPM	Motor protection	Pumping height	Pumping capacity
SPZ 1000-S3-30%*	Alternating current	230 V	5.2 A	1.2 kW / 0.69 kW	2800 min ⁻¹	integrated	10 m	11.5 m³/h
SPZ 1000-S3-30% resistant*	Alternating current	230 V	5.2 A	1.2 kW / 0.69 kW	2800 min ⁻¹	integrated	10 m	11.5 m³/h

*Definition of S3-pumps see page 97

Lifting station

Minilift F

The small version with the powerful macerator SharkTwister.

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

Powerful macerator SharkTwister

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

Intelligent control technology

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

Straightforward maintenance

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

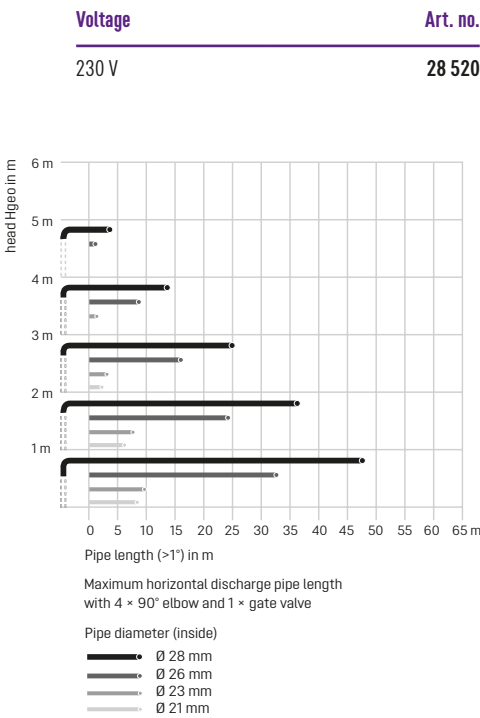
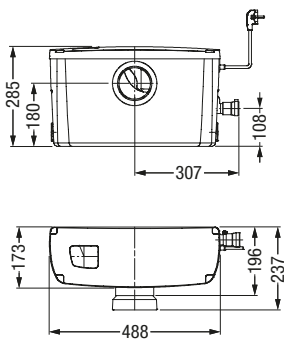
Compact lifting station *Minilift F*

for free-standing installation in frost protected rooms

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



Lifting station *Aqualift S 100 / S 200*

The flexible option for free-standing set-up.

Flexible and powerful: The *Aqualift S 100 / S 200* lifting station is the perfect choice for renovation or other installation situations that require free-standing set-up. Due to its small installation area, it can also be easily integrated in small rooms by retrofitting. And thanks to the one-handed closure that can be operated without tools, maintenance is quick and easy.



① Lifting station ② Grease separator ③ Pressure pipe

Wastewater tank

Tanks with 100 and 200 l capacity are available to choose from. Both tanks fit through standard size doors with 80 cm wide passage. They can therefore be retrofitted into most rooms without any issue.

Pumps

The *Aqualift S 100 / S 200* is equipped with one or two pumps. There are two models to choose from: a 650 watt pump with S1 mode (continuous operation) with float switch or control unit and a 1.3 kilowatt pump with S3 mode (non-continuous operation) with control unit. Both pump types handle faecal-free wastewater by means of a multi-vane impeller.

Ideal for connecting to grease separators

The *Aqualift S 100 / S 200 Duo* with two pumps is ideally suited for drainage systems which cannot afford to go off-line – for example directly after a grease separator.

The large easy-access maintenance cover, which can be opened in seconds using the tool free one-handed closure, also contributes to the system's ease of use. An additional advantage is the norm approved integrated sampling chamber located inside the *Aqualift S*. With the new *Aqualift S 100 / S 200*, an extra sampling chambers is no longer required.

Lifting station *Aqualift S 200 Duo Tronic* for free-standing installation and wastewater without sewage



EN 12050-2

Lifting station for faecal-free wastewater, free-standing set-up, preassembled for final installation on site.

- With odour-tight cover and quick-release closure for easy maintenance
- Tank made of PE, resistant to aggressive wastewater
- Including backflow preventer for the pressure pipe
- Including socket Ø 110 mm for inlet and sampling
- Pumps with multi-vane impeller for maximum operating reliability

Version:

Type of system: Twin station / Pump control:

Control unit / Backflow preventer: integrated /

Installation situation: free-standing set-up /

Type of wastewater: wastewater without sewage

General characteristics:

Colour: black / Standard: EN 12050-2

Dimensions:

Length: 670 mm / Width: 655 mm / Height: 815 mm

Tank:

Inlet nominal size (Ø): 110 mm / Tank volume: 220 l

Pressure pipe connection (Ø): 63 mm

Pumping volume: 100 l

Coverage features:

Cover material: Polymer / Colour of cover: violet /

Tightness: odour-tight / Locking: Quick-release closure

Free passage: 30 mm

Pump:

Type of fuse required (electrical protection): C 16 A /

Max. temperature (permanent) of conveyed

material: 40 °C / Connection type: coded plug /

Length of mains cable for pump: 5 m /

Protection class (pump): IP 68 (3 m) /

Type of pump connection cable: H07RN-F 3G 1.0 mm²

Comfort control unit:

Including: Self-diagnosis system (SDS), battery

buffering, multi-line digital display, log book function,

USB interface, GSM interface / Potential-free contact:

optional / Protection class control unit: IP 54 / Length

of mains cable for control unit: 1.4 m / Type of level

measurement: pneumatic / Alarm sensor: Immersion

pipe

Note: Pumps available as resistant versions on request:
individual@kessel.de

➤ **Accessories:** page 33 – 39



Illustration shows Art. no. 28 518

Duo version with two pumps

GTF pump	Voltage	Art. no.
600-S1	230 V	28 517
1250-S3	230 V	28 518

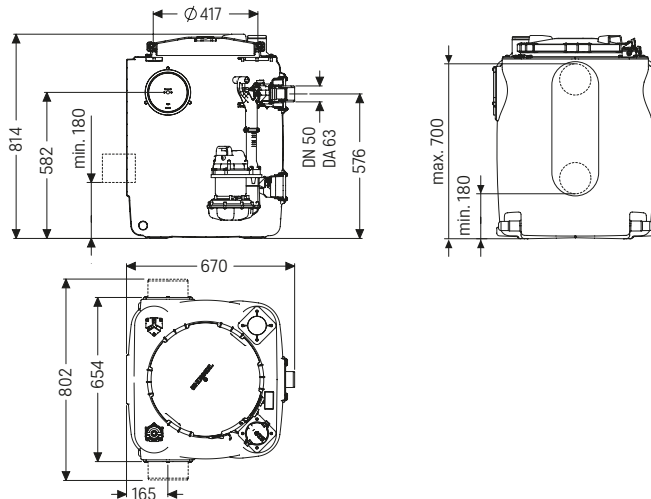
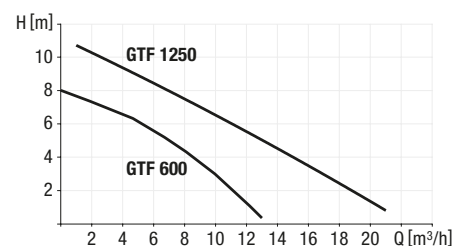


Illustration shows.: Art. no. 28 518

Pumping capacity



Pump type	Voltage	Current	Power (P1/P2)	RPM	Pumping height	Pumping capacity
GTF 600-S1*	230 V ~ 50 Hz	2.9 A	0.65 kW / 0.4 kW	2750 min ⁻¹	8 m	12 m³/h
GTF 1250-S3*	230 V ~ 50 Hz	5.4 A	1.3 kW / 0.8 kW	2700 min ⁻¹	11 m	20 m³/h

*Definition of S1 and S3-pumps see page 97

Lifting station *Aqualift S 100 Mono / Duo Tronic*

for free-standing installation and wastewater without sewage



EN 12050-2

Lifting station for faecal-free wastewater, free-standing set-up, preassembled for final installation on site.

- With odour-tight cover and quick-release closure for easy maintenance
- Tank made of PE, resistant to aggressive wastewater
- Including backflow preventer for the pressure pipe
- Including socket Ø 110 mm for inlet and sampling
- Pump/s with multi-vane impeller for maximum operating reliability

Version:

Type of system: Single or twin station / Pump control:

Control unit / Backflow preventer: integrated /

Installation situation: free-standing set-up /

Type of wastewater: wastewater without sewage

General characteristics:

Colour: black / Standard: EN 12050-2

Dimensions:

Length: 670 mm / Width: 530 mm / Height: 650 mm

Tank:

Inlet nominal size (Ø): 110 mm / Tank volume: 120 l

Pressure pipe connection (Ø): 63 mm

Pumping volume: 50 l

Coverage features:

Cover material: Polymer / Colour of cover: violet /

Tightness: odour-tight / Locking: Quick-release closure

Free passage: 10 mm

Pump:

Type of fuse required (electrical protection): C 16 A /

Max. temperature (permanent) of conveyed

material: 40 °C / Connection type: coded plug /

Length of mains cable for pump: 5 m /

Protection class (pump): IP 68 (3 m) /

Type of pump connection cable: H07RN-F 3G 1.0 mm²

Comfort control unit:

Including: Self-diagnosis system (SDS), battery

buffering, multi-line digital display, log book function,

USB interface, GSM interface / Potential-free contact:

optional / Protection class control unit: IP 54 /

Length of mains cable for control unit: 1.4 m /

Type of level measurement: pneumatic / Alarm sensor:

Immersion pipe

Note: Pumps available as resistant versions on request:
individual@kessel.de

➤ **Accessories:** page 33 – 39



Illustration shows Art. no. 28 515

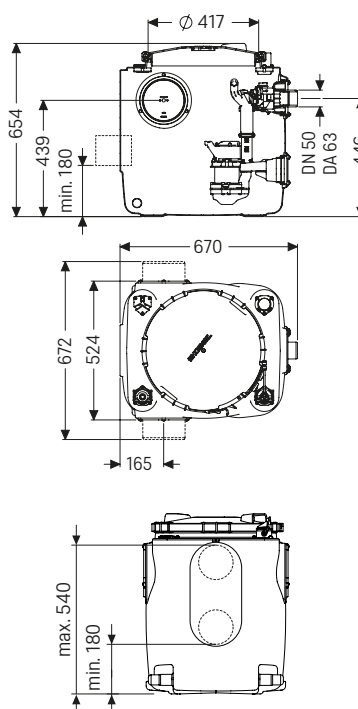
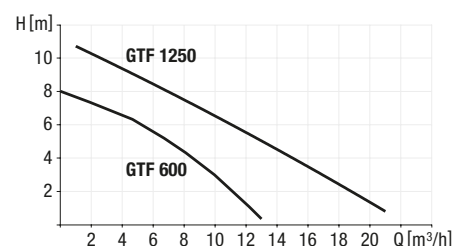


Illustration shows: Art. no. 28 513

Pumping capacity



Pump type

Pump type	Voltage	Current	Power (P1/P2)	RPM	Pumping height	Pumping capacity
GTF 600-S1*	230 V ~ 50 Hz	2.9 A	0.65 kW / 0.4 kW	2750 min ⁻¹	8 m	12 m³/h
GTF 1250-S3*	230 V ~ 50 Hz	5.4 A	1.3 kW / 0.8 kW	2700 min ⁻¹	11 m	20 m³/h

*Definition of S1 and S3-pumps see page 97

Lifting station *Aqualift S 100 Mono*

for free-standing installation and wastewater without sewage



EN 12050-2

Lifting station for faecal-free wastewater, free-standing set-up, preassembled for final installation on site.

- With odour-tight cover and quick-release closure for easy maintenance
- Tank made of PE, resistant to aggressive wastewater
- Including backflow preventer for the pressure pipe
- Including socket Ø 110 mm for inlet and sampling
- Pump/s with multi-vane impeller for maximum operating reliability

Version:

Type of system: Single station / Pump control: Float

switch / Backflow preventer: integrated /

Installation situation: free-standing set-up /

Type of wastewater: wastewater without sewage

General characteristics:

Colour: black / Standard: EN 12050-2

Dimensions:

Length: 670 mm / Width: 530 mm / Height: 650 mm

Tank:

Inlet nominal size (Ø): 110 mm / Tank volume: 120 l /

Pressure pipe connection (Ø): 63 mm

Pumping volume: 25 l

Coverage features:

Cover material: Polymer / Colour of cover: violet /

Tightness: odour-tight / Locking: Quick-release closure

Free passage: 10 mm

Pump:

Type of fuse required (electrical protection): C 16 A /

Max. temperature (permanent) of conveyed material:

40 °C / Connection type: Schuko (earthed contact)

2-pin / Length of mains cable for pump: 5 m /

Protection class (pump): IP 68 (3 m) /

Type of pump connection cable: H07RN-F 3G 1.0 mm²

Note: Pumps available as resistant versions on request:

individual@kessel.de

➤ **Accessories:** page 33 – 39

New



Illustration shows Art. no. 28 511

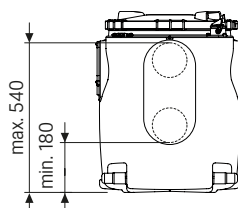
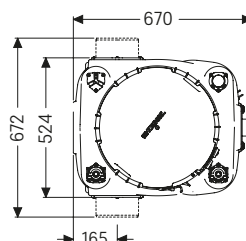
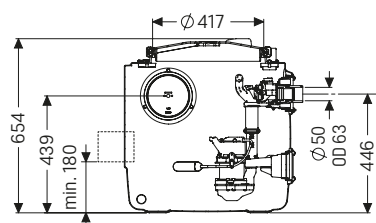
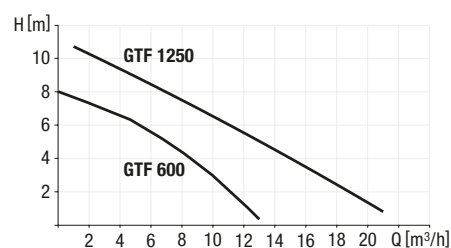


Illustration shows: Art. no. 28 511

Mono version with one pump

GTF pump	Voltage	Art. no.
600-S1	230 V	28 511
1250-S3	230 V	28 512

Pumping capacity



Pump type	Voltage	Current	Power (P1/P2)	RPM	Pumping height	Pumping capacity
GTF 600-S1*	230 V ~ 50 Hz	2.9 A	0.65 kW / 0.4 kW	2750 min ⁻¹	8 m	12 m³/h
GTF 1250-S3*	230 V ~ 50 Hz	5.4 A	1.3 kW / 0.8 kW	2700 min ⁻¹	11 m	20 m³/h

*Definition of S1 and S3-pumps see page 97

Lifting station

Aqualift S Compact

The flexible version for wastewater without sewage.

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

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



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

Maximum safety

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

Floor slab installation

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

for installation in a concrete slab / floor

TÜV Rheinland Germany type tested and monitored

CE EN 12050-2

Tank volume: 65 liters

Pump volume: 20 liters

Polyethylene storage chamber

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

Upper section and cover

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

Pump

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

Control unit

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

Power cable length: 5 m

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

➤ **Accessories:** page 33 – 39



Mono version with one pump

GTF pump	Voltage	Art. no.
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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
1200-S3 resistant	230 V	281 250XC

With black cover

500-S1	230 V	280 550S
500-S1 resistant	230 V	280 550SC
1200-S3	230 V	281 250S
1200-S3 resistant	230 V	281 250SC

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
1200-S3 resistant	230 V	281 230XC

With black cover

500-S1	230 V	280 530S
500-S1 resistant	230 V	280 530SC
1200-S3	230 V	281 230S
1200-S3 resistant	230 V	281 230SC



Illustration shows Art. no. 280 550X

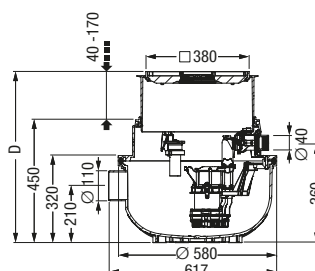
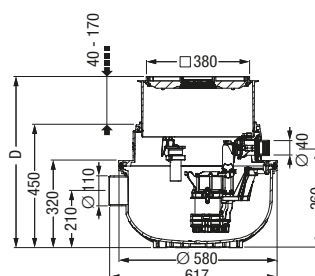
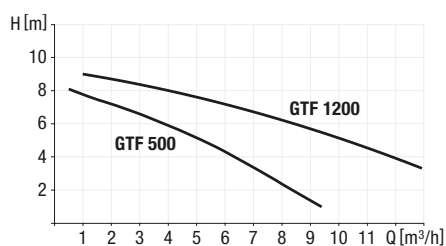


Illustration shows Art. no. 280 550XC



Pumping capacity



Pump type

Pump type	Voltage	Amperage	Power P1/P2	RPM	Pumping height	Pumping capacity
GTF 500-S1*	230 V ~ 50 Hz	2.7 A	0.6 kW / 0.36 kW	2800 min ⁻¹	8 m	10 m³/h
GTF 500-S1 resistant*	230 V ~ 50 Hz	2.7 A	0.6 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
GTF 1200-S3 resistant*	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 97

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

Lifting station *Aqualift S Compact Mono*

for installation in a concrete slab / floor



TÜV Rheinland Germany type tested and monitored

CE EN 12050-2

Tank volume: 65 liters

Pump volume: 16 liters

Polyethylene storage chamber

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

Upper section and cover

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

Pump

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

Control unit

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

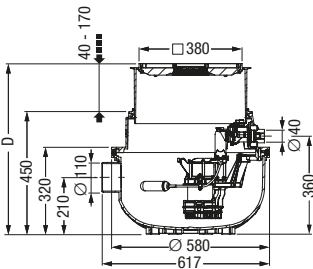
Power cable length: 5 m

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

➤ Accessories: page 33 – 39

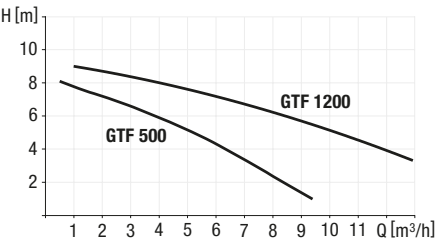


Illustration shows Art. no. 280 500X



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
1200-S3 resistant	230 V	281 200XC
With black cover		
500-S1	230 V	280 500S
500-S1 resistant	230 V	280 500SC
1200-S3	230 V	281 200S
1200-S3 resistant	230 V	281 200SC

Pumping capacity



Pump type	Voltage	Amperage	Power P1/P2	RPM	Pumping height	Pumping capacity
GTF 500-S1*	230 V ~ 50 Hz	2.7 A	0.6 kW / 0.36 kW	2800 min ⁻¹	8 m	10 m³/h
GTF 500-S1 resistant*	230 V ~ 50 Hz	2.7 A	0.6 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
GTF 1200-S3 resistant*	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 97

Lifting station

Minilift S

The space-saving version for wastewater without sewage.

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

Floor slab installation

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

Straightforward maintenance

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

Convenient installation

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

Lifting station *Minilift S*

for free-standing installation

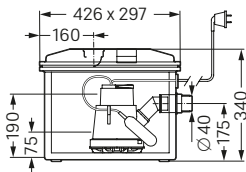
TÜV Rheinland Germany type tested and monitored



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

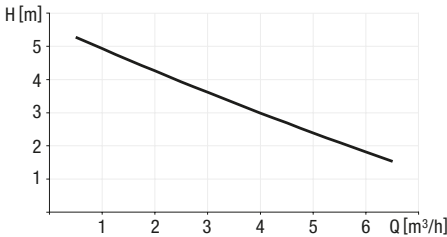
Power cable length: 5 m

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



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

Pumping capacity



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

*Definition of S1-pumps see page 97

Lifting station *Minilift S*

For installation in a concrete floor / slab

TÜV Rheinland Germany type tested and monitored

Tank volume: 26 liters

Pump volume: 7 liters

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

Upper section and cover

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

Pump

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

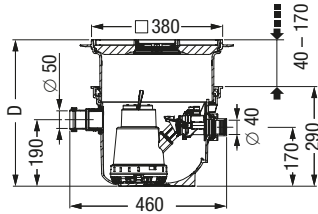
CE EN 12050-2



Illustration shows Art. no. 280 570X

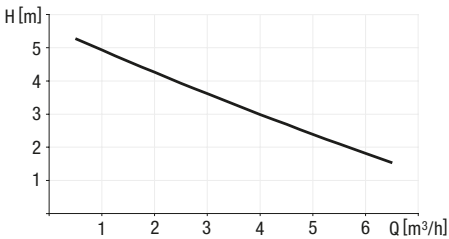


Illustration shows Art. no. 280 570S



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

Pumping capacity


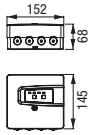

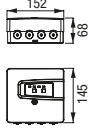



Pump type	Power P1 / P2	Voltage	Amperage	RPM	Plug	Cable length	Pumping height	Pumping capacity
KTP 300-S1*	0.34 kW / 0.21 kW	230 V ~ 50 Hz	1.6 A	2800 min ⁻¹	Schuko	5 m	6 m	8 m³/h
KTP 300-S1 resistant*	0.34 kW / 0.21 kW	230 V ~ 50 Hz	1.6 A	2800 min ⁻¹	Schuko	5 m	6 m	8 m³/h


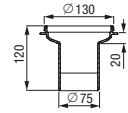

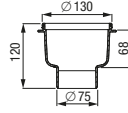







*Definition of S1-pumps see page 97

Accessories

Alarm unit

			Art. no.
with electrode probe	Compatibility: For lifting station <i>Aqualift F Basic</i> , <i>Aqualift F Compact</i> , <i>Aqualift S Compact</i> and <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC) Function: High water / flood alarm system; for conductive liquids Cable length: 5 m (extendable up to 30 m)	 	20 222
with optical probe	Compatibility: For lifting station <i>Aqualift F Basic</i> , <i>Aqualift F Compact</i> , <i>Aqualift S Compact</i> and <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC) Function: High water / flood alarm system; for conductive / non-conductive liquids Cable length: 5 m (extendable up to 30 m)	 	20 223
	Cable length: 10 m (extendable up to 30 m)		20 224
Potential-free contact	Compatibility: For warning devices Art. no. 20 222 and 20 223		80 074

Hygiene and odour stop

			Cover	Art. no.
Drain body	Compatibility: For lowest installation; for installation in a concrete floor <i>Aqualift F Compact</i> , <i>Aqualift S Compact</i> and <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC)	 	black grey	680 796 680 798
Drain body	Compatibility: Seal water height 50 mm; for installation in a concrete floor <i>Aqualift F Compact</i> , <i>Aqualift S Compact</i> and <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC)	 	black grey	680 795 680 797
additionally Multistop	Compatibility: For installation in a concrete floor <i>Aqualift F Compact</i> , <i>Aqualift S Compact</i> and <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC) Function: Odour, foam, rodent and insect stop	  		48 500
additionally Megastop	Compatibility: For installation in a concrete floor <i>Aqualift F Compact</i> , <i>Aqualift S Compact</i> and <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC) Function: Mechanical odour trap inclusive hair filter for KESSEL upper sections	  		48 550
additionally odour trap	Compatibility: For installation in a concrete floor <i>Aqualift F Compact</i> , <i>Aqualift S Compact</i> and <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC) Seal water height: 50 mm (Ventilation always required when in use!)			680 696

Hygiene

			Art. no.
Hair filter	Compatibility: Art. no. 48 500; for lifting station <i>Aqualift F Compact</i> , <i>Aqualift S Compact</i> and <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC)	 	48 700

Accessories

Installation set		Outer diameter Ø (mm)	Art. no.
Installation set	Compatibility: For installation in a concrete floor <i>Aqualift F Compact</i> and <i>Aqualift S Compact</i> ; for installation in waterproof concrete Inclusive: 1 Extension section with central flange 2 Pressure pipe set Ø 32 / Ø 40 3 Adapter (Ø 75/Ø 110 socket) 4 Seal insert 5 Casing 6 Puddle flange (2)	Ø 32	83 077
		Ø 40	83 079
			
Extension sections			Art. no.
with centre flange	Compatibility: For installation in a concrete floor <i>Aqualift F Compact</i> and <i>Aqualift S Compact</i> 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	Compatibility: For installation in a concrete floor <i>Aqualift F Compact</i> and <i>Aqualift S Compact</i> Additional function: For connection to an on-site sealing sheet Inclusive: Screws Extension: Max. 140 mm (In case of deeper installation ensure maintenance capability!)		83 073
with gasket	Compatibility: For installation in a concrete floor <i>Aqualift F Compact</i> and <i>Aqualift S Compact</i> Extension: Max. 180 mm (In case of deeper installation ensure maintenance capability!)		83 070
for deeper installation with flange	Compatibility: For installation in a concrete floor <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC) Inclusive: Gasket Extension: Max. 147 mm (In case of deeper installation ensure maintenance capability!)		830 070
Pressure pipe set		Outer diameter Ø (mm)	Art. no.
Pressure pipe set	Compatibility: Ø 40 / Ø 50: <i>Aqualift F Compact</i> , <i>Aqualift S Compact</i> Ø 40: <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC) Inclusive: 5 m pressure pipe hose Ø 40 (DN 32 mm) Ø 50 (DN 40 mm)	Ø 40	28 040
		Ø 50	28 062
			
Click adapter		Outer diameter Ø (mm)	Art. no.
Click adapter	Compatibility: For changeover to PE connection; for lifting station <i>Aqualift F Compact</i> , <i>Aqualift S Compact</i> and <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC)	Ø 32	28 086
			

Accessories

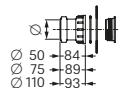
Inlet adaptor

with gasket and threaded ring

Compatibility:

Ø 50 / Ø 75 / Ø 110: *Aqualift S Compact*
 Ø 50 / Ø 75: *Minilift S* (280 570X, 280 570S,
 280 570XC and 280 570SC)

Inclusive: Flat seal



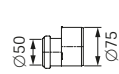
Outer diameter Ø (mm)	Drill size in mm	Art. no.
Ø 50	60	39 005
Ø 75	92	39 007
Ø 110	121	39 100

Transition sections

Transition section

Compatibility: For installation in a concrete floor
Aqualift F Compact, *Aqualift S Compact* and
Minilift S (280 570X, 280 570S, 280 570XC
 and 280 570SC)

Inclusive: Sealing ring Ø 50

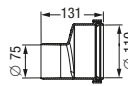


Outer diameter Ø (mm)	Art. no.
--------------------------	----------

Ø 50/75 27 126

Compatibility: For installation in a concrete floor
Aqualift F Compact, *Aqualift S Compact* and
Minilift S (280 570X, 280 570S, 280 570XC
 and 280 570SC)

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



Ø 75/110 27 602

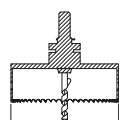
Hole saw

Hole saw set

Compatibility:

Ø 50 – Ø 200: *Aqualift F Mono / Duo*, *Aqualift F XL*
 Ø 50 – Ø 160: *Aqualift S 100 / Aqualift S 200*
 Ø 50 – Ø 110: *Aqualift F Basic*,
Aqualift F Compact, *Aqualift S Compact*
 Ø 50 / Ø 75: *Minilift S* (280 570X, 280 570S,
 280 570XC and 280 570SC)

Inclusive: Saw blade holder



Outer pipe diameter in mm	Drill size in mm	Art. no.
Ø 50	60	500 101
Ø 75	92	
Ø 110	121	
Ø 110	121	500 100
Ø 125	133	
Ø 160	168	
Ø 200 ¹⁾	200	500 102

¹⁾ use a power drill with at least 1000 watts

Sealing

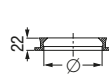
Pipe sealing gasket

Compatibility:

DN 50 – DN 200: *Aqualift F Mono / Duo*, *Aqualift F XL*
 DN 50 – DN 150: *Aqualift S 100 / Aqualift S 200*
 DN 50 – DN 100: *Aqualift F Basic*,
Aqualift F Compact, *Aqualift S Compact*
 DN 50 / DN 70: *Minilift S* (280 570X, 280 570S,
 280 570XC and 280 570SC)

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






Nominal pipe diameter in mm	Outer pipe diameter in mm	Art. no.
DN 50	Ø 50	850 114
DN 70	Ø 75	850 116
DN 100	Ø 110	850 117
DN 125	Ø 125	850 118
DN 150	Ø 160	850 119
DN 200	Ø 200	850 123

Accessories

Control unit accessories

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




Safety

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

Cover plates

Surface water tight	Compatibility: For installation in a concrete floor <i>Aqualift F Compact</i> , <i>Aqualift S Compact</i> and <i>Minilift S</i> (280 570X, 280 570S, 280 570XC and 280 570SC) Inclusive: Gasket			tileable	830 052
	Version recessed for on-site tiling, grey: For tile thicknesses of 18 mm (Ventilation always required when in use!)			black	830 050

Hydrostatic level sensor

			Art. no.
Level sensor with immersion pipe 433 mm	Compatibility: For <i>Aqualift F XL</i> Cable length: 10 m		681 040
	Cable length: 30 m		681 041
Level sensor with immersion pipe 288 mm	Compatibility: For <i>Aqualift F Duo</i> Cable length: 10 m		681 042
	Cable length: 30 m		681 043
Level sensor with immersion pipe 181 mm	Compatibility: For <i>Aqualift F Mono</i> Cable length: 10 m		681 046
	Cable length: 30 m		681 047


Accessories

Upgrade set

			Art. no.
Alarm float switch	Compatibility: Can be combined with 230 V Comfort control units; for lifting station <i>Aqualift F Compact</i> Inclusive: Float switch, float switch bracket Cable length: 5 m		28 016
	Compatibility: For use with 230 V and 400 V Comfort control units; for lifting station <i>Aqualift F Mono/Duo</i> Inclusive: Float switch, support plate, cover Cable length: 5 m		28 015
	Compatibility: For use with 230 V and 400 V Comfort control units Inclusive: Float switch, support plate, cover Cable length: 5 m		28 014

Cable extensions

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










	Lifting station <i>Aqualift F Compact Mono</i> <i>Aqualift S Compact Mono</i> <i>Aqualift S 100 Mono</i> <i>Aqualift S 100 Mono Tronic</i>	Lifting station <i>Aqualift F Compact Duo</i> <i>Aqualift S Compact Duo</i> <i>Aqualift S 100 Duo Tronic</i> <i>Aqualift S 200 Duo Tronic</i>		Art. no.
Cable extension for probe (10 m)	Extension to 15 m: 1×80 889 Extension to 25 m: 2×80 889	Extension to 15 m: 1×80 889 Extension to 25 m: 2×80 889		80 889
Cable extension for pump (10 m)	Extension to 15 m: 1×80 891 Extension to 25 m: 2×80 891	Extension to 15 m: 2×80 891 Extension to 25 m: 4×80 891		80 891

Flexible pressure pipe connection

		Outer diameter Ø (mm)	Art. no.
for manual diaphragm pump	Compatibility: For PE pipe connections; for lifting station <i>Aqualift F Basic</i> , <i>Aqualift F Mono / Duo</i> and <i>Aqualift F XL</i> Inclusive: Two hose clamps Length: 200 mm	Ø 32	28 660
for ventilation	Compatibility: For PE pipe connections; for <i>Aqualift F Basic</i> , <i>Aqualift F Mono / Duo</i> and <i>Aqualift F XL</i> Inclusive: Two hose clamps Length: 200 mm	Ø 70	28 661
for connection adapter and pressure pipes	Compatibility: For PE pipe connections; for <i>Aqualift F Mono / Duo</i> and <i>Aqualift F XL</i> ; Art. no. 28 663: <i>Aqualift F Basic</i> Inclusive: Two hose clamps Length: 200 mm	Ø 90 Ø 110	28 662 28 663



Accessories

Closure valves			Outer diameter Ø (mm)	Art. no.
Closure valve, vertical	Compatibility: For lifting station <i>Aqualift F Basic</i> , <i>Aqualift F Mono / Duo</i> and <i>Aqualift F XL</i> Function: For the pressure pipe of KESSEL lifting stations with plastic fitting; for connection to pressure pipe, a KESSEL flange connector or adapter is required. Inclusive: Gasket, screw		Ø 90	28 715
	Compatibility: For lifting station <i>Aqualift F Basic</i> , <i>Aqualift F Mono / Duo</i> and <i>Aqualift F XL</i> Function: For the pressure pipe of KESSEL lifting stations with plastic fitting Inclusive: With screwed flange adaptor, for connection to a standard flange DN 80 according to DIN 2501 (without sealing gasket and screw)		Ø 90	28 716
Closure valve	Compatibility: With lateral pressure pipe for lifting stations <i>Aqualift F</i>		Ø 90 Ø 110	28 682 28 683
			Ø 110 Ø 160	28 698 28 699
	Compatibility: For installation on the inlet side (no pressure) for lifting stations <i>Aqualift F</i>			
Connection flange			Outer diameter Ø (mm)	Art. no.
in PE	Compatibility: For KESSEL plastic fittings; for lifting station <i>Aqualift F XL</i>		Ø 90	28 713
	Compatibility: For KESSEL plastic fittings; for <i>Aqualift F Basic</i> and <i>Aqualift F XL</i> ; also in combination with closure valve Art. no. 28 715 Function: Spigot end for DN 100 pressure pipe connection		Ø 110	28 712
Manual diaphragm pump 1 1/2 inch				Art. no.
Manual diaphragm pump in cast iron	Compatibility: For manually pumping wastewater; for lifting station <i>Aqualift F Mono / Duo</i> and <i>Aqualift F XL</i> Inclusive: With a ball valve on inlet and outlet side			28 680
Flange adaptor			Outer diameter Ø (mm)	Art. no.
in PE	Compatibility: From KESSEL fitting to standard flange; for lifting station <i>Aqualift F XL</i>		DN 80	28 714
in cast iron	Compatibility: For use with cast iron pressure pipes; for lifting station <i>Aqualift F XL</i> Function: Adaptor from DN 80 to DN 100 Inclusive: Flange according to DIN 2501		-	28 068

Accessories

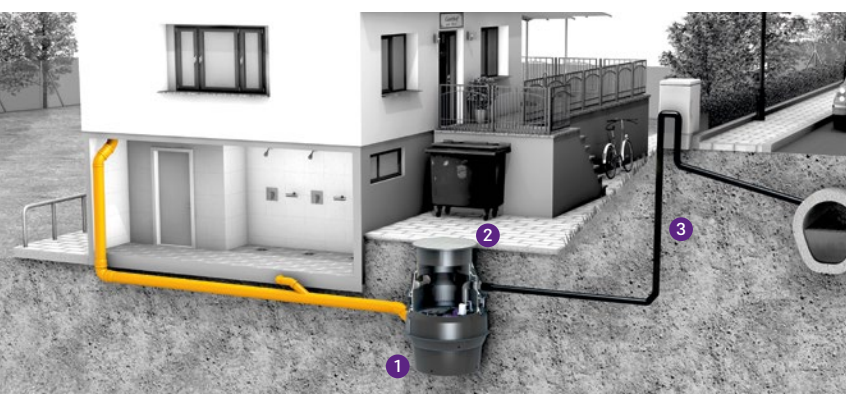
Backflow preventer		Outer diameter Ø (mm)	Art. no.
in cast iron	Compatibility: For lifting station <i>Aqualift F XL</i> Inclusive: DN 80 flange according to DIN 2501, backflow preventer with flap and flap opening lever	 DN 80	28 021
Connection adaptor		Outer diameter Ø (mm)	Art. no.
in cast iron	Compatibility: For connection from lifting station <i>Aqualift F XL</i> to on-site pressure pipe. Fits PE pressure pipes Inclusive: Flange according to DIN 2501, single gasket Outer diameter: DN 80: OD 90 mm DN 100: OD 110 mm	 Ø 90	28 067
		 Ø 110	28 020
Gate closure valve		Outer diameter Ø (mm)	Art. no.
in cast iron	Compatibility: For lifting station <i>Aqualift F XL</i> Inclusive: DN 80 flange according to DIN 2501, gate closure valve including closure wheel	 DN 80	28 041
Y-Coupling		Outer diameter Ø (mm)	Art. no.
in cast iron	Compatibility: For lifting station <i>Aqualift F XL</i> Inclusive: DN 80 (OD 80 mm) flange according to DIN 2501	 Ø 80	28 042
Sealing gasket		Outer diameter Ø (mm)	Art. no.
Sealing gasket (rubber)	Compatibility: Flange according to DIN 2501, for pressure pipe connections; for lifting station <i>Aqualift F XL</i>	 DN 80 DN 100	28 043 28 044
Bolt set M16	Compatibility: For Art. no. 28 043 and 28 044 Inclusive: 4 bolts, 4 nuts, 8 washers		28 078

Pumping station *Aqualift F XL*

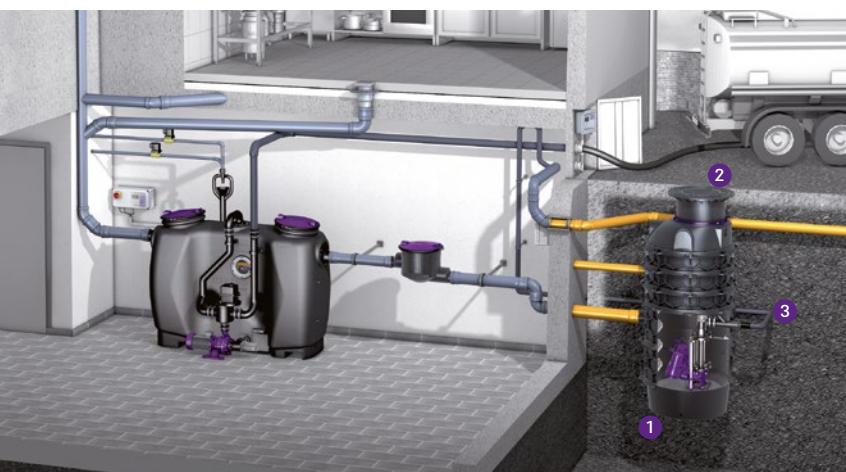
The powerful version for commercial, industrial and communal applications.

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

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 systems are groundwater-resistant to a depth of 3.000 mm.

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

➤ Lifting station *Aqualift F XL*: page 12



Pumping stations 60 Hz/400 V, dry installation

Now also available in 60 Hz for more information
contact us at info@kessel.com

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, these dry installation systems do not require ATEX pumps.



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



TÜV Rheinland Germany type tested and monitored

CE 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 3.000 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.

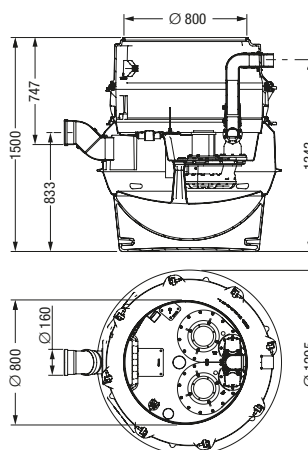
Control unit

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 43

➤ **Accessories:** page 60 – 63

➤ **Note:** page 41 (60 Hz/400 V)



Mono version with one pump

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

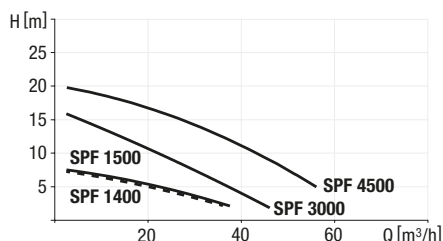
Duo version with two pumps

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

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



Pumping capacity



Pump type

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

*Definition of S1 and S3-pumps see page 97

Upper section Ø 800

Made of polymer / stainless steel

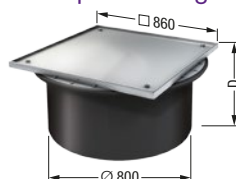
Compatibility:

For use as upper section for the engineering system base *Aqualift F XL Mono / Duo* for the version with minimum installation depth page 140

Version:

with / without waterproof flange

**square, tileable,
without waterproof flange**



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

65 - 314

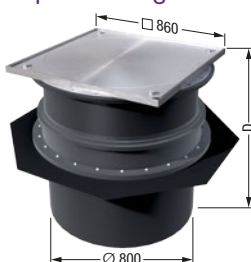
Covers

Class A/L 15

Art. no.

874 01 75

**square, tileable,
with waterproof flange**



282 - 531

Class A/L 15

874 01 76

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

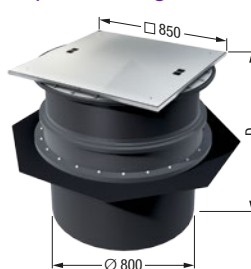


50 - 299

Class A/L 15

874 01 77

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

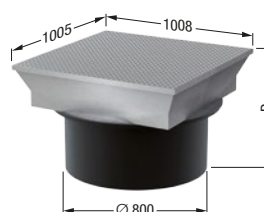


267 - 516

Class A/L 15

874 01 78

**square, without waterproof
flange**



274 - 523

Class B

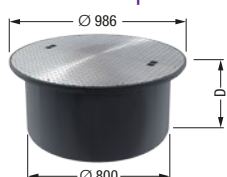
874 01 79

274 - 523

Class D

874 01 80

**round, without waterproof
flange**



65 - 314

Class K 3

874 01 81

Engineering systems base *Aqualift F XL Mono / Duo*

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



TÜV Rheinland Germany type tested and monitored

CE 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 3.000 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.

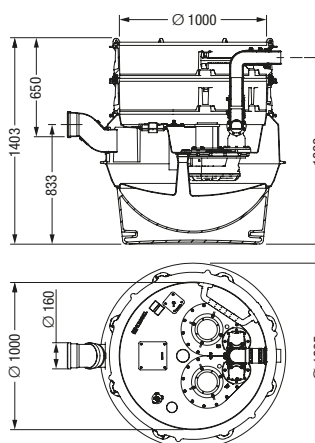
Control unit

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 58 – 59

➤ **Accessories:** pages 60 – 63

➤ **Note:** page 41 (60 Hz/400 V)



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

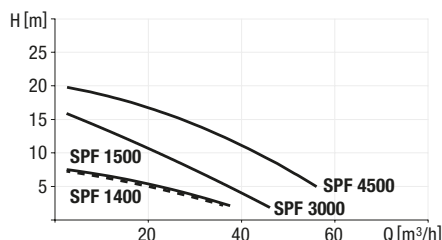
Engineering systems base *Aqualift F XL* in combination with system chamber Ø 1000

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 97

Engineering systems base *Aqualift F XL Mono / Duo*

Wet installation, with macerator / cutting pumps

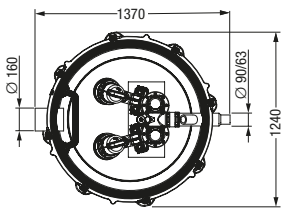
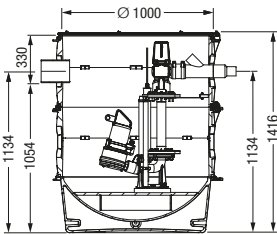
EN 12050-1  ATEX version

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

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

- **Installation:** in combination with system chambers page 58 – 59
- **Accessories:** pages 60 – 63



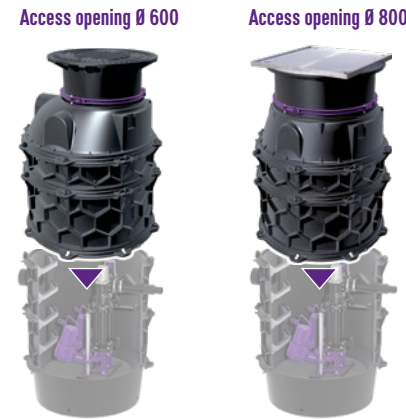
Mono version with one macerator pump

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

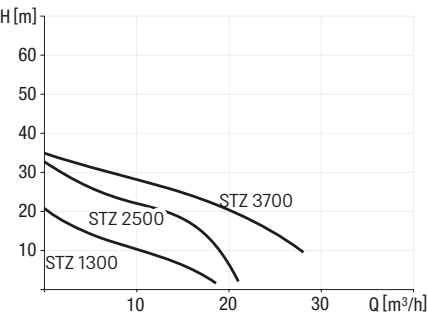
Duo version with two macerator pumps

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



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 97

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 3.000 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.

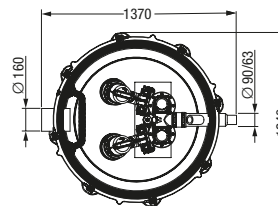
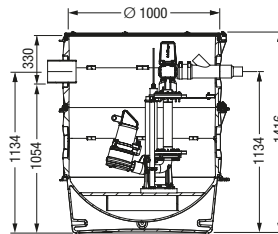
Power cable length: 10 m (30 m on request).

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 58 – 59

➤ **Accessories:** pages 60 – 63



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
1400-S1	340	400 V	874 30 47
1600-S1	350	400 V	874 30 20
2600-S1	350	400 V	874 30 21
4000-S1	350	400 V	874 30 22

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

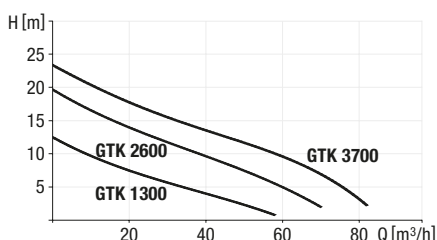
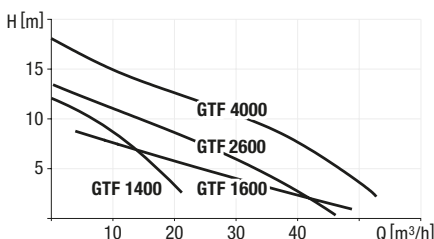
Duo version with two pumps

GTF pump	Pumping volume in liters	Voltage	Art. no.
1400-S1	340	230 V	874 30 34
1400-S1	340	400 V	874 30 48
1600-S1	340	400 V	874 30 23
2600-S1	340	400 V	874 30 24
4000-S1	340	400 V	874 30 25

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

** Version with float switch

Pumping capacity



Pump type

	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 97

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 97

Engineering systems base *Aqualift F XL Mono / Duo*

Wet installation, for outdoor underground installation



CE EN 12050-1

Tank volume: 1800 liters

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 3.000 mm.

With **single or twin removable wastewater pump(s)**

- with macerator (STZ)
- with multi-vane impeller (GTF)
- single-channel impeller (GTK)

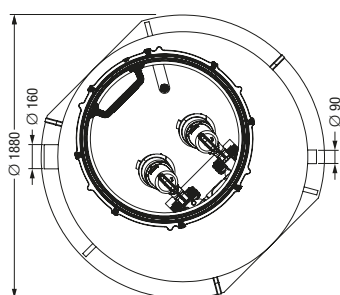
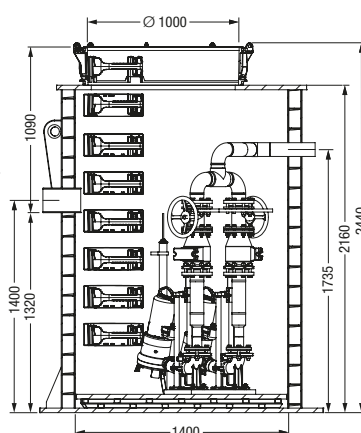
for wastewater with or without sewage (without ATEX requirements). With hydrostatic sensor for level measurement. Pressure pipe Ø 90 mm outside diameter (welded PE pipe is to be used for the pressure pipe), including backflow preventer and closure valve on pressure pipe side. Power cable length: 10 m (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 58 – 59

➤ **Accessories:** pages 60 – 63



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

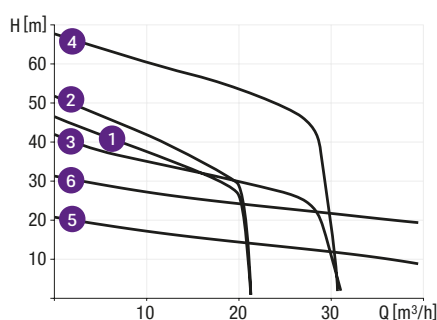
Duo version with two pumps

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

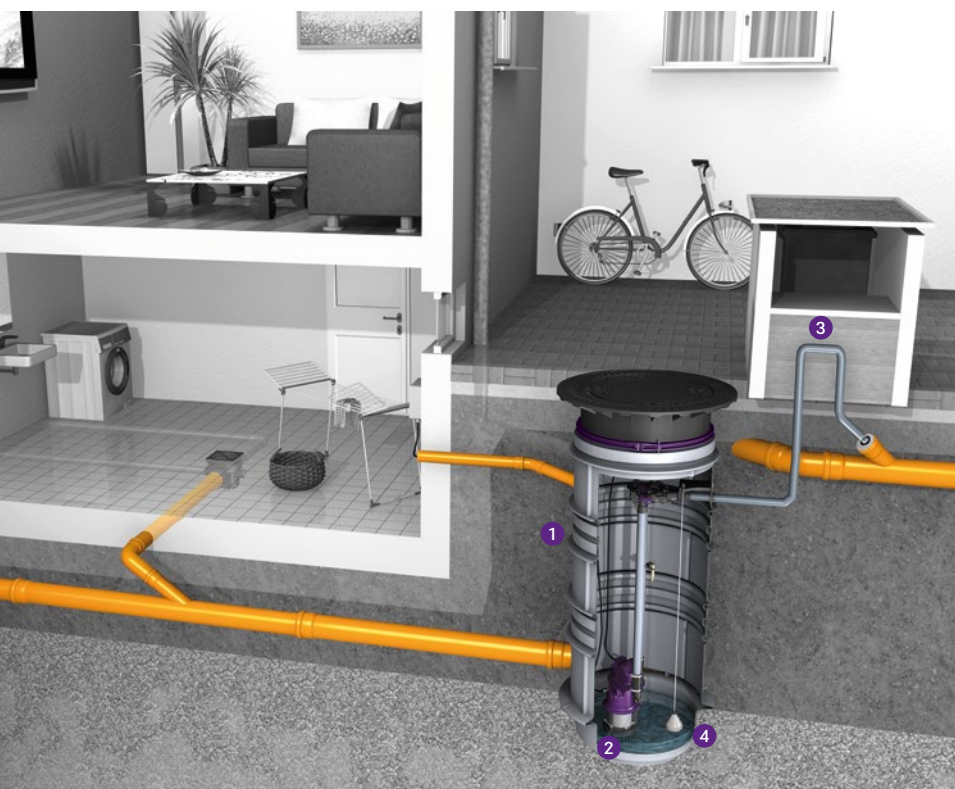
	Voltage	Amperage	Input Power (P1)	Power (P2)	Pumping capacity	Pumping height
1 STZ 4400-S1*	400 V	7.5 A	4.4 kW	3.7 kW	21.3 m³/h	46.7 m
2 STZ 5200-S1*	400 V	8.7 A	5.2 kW	4.4 kW	21.3 m³/h	52 m
3 STZ 7500-S1*	400 V	13 A	7.5 kW	6.4 kW	30.7 m³/h	42 m
4 STZ 11000-S1*	400 V	18.8 A	11 kW	9.5 kW	30.6 m³/h	68 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 97

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 2.000 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 2.500 mm

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

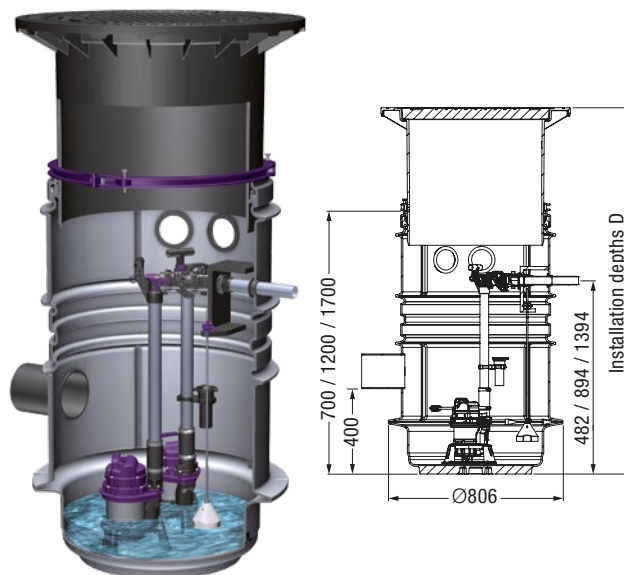
Pressure pipe Ø 40 mm (version B/D) or Ø 40/63 mm (version A) outside diameter for PVC glue connection, with integrated non-return flap. Power cable length: 10 m (Schuko)

Control unit

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

Note:

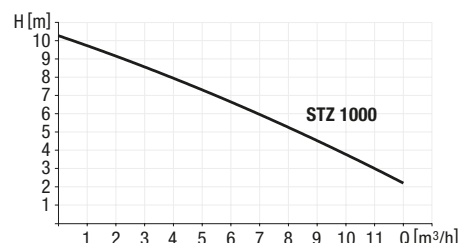
- Consider frost free depth of pressure pipe.
- For installations without explosion proof requirements.



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

*Definition of S3-pumps see page 97

Pumping capacity



Single station with one pump and float switch

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

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

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

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

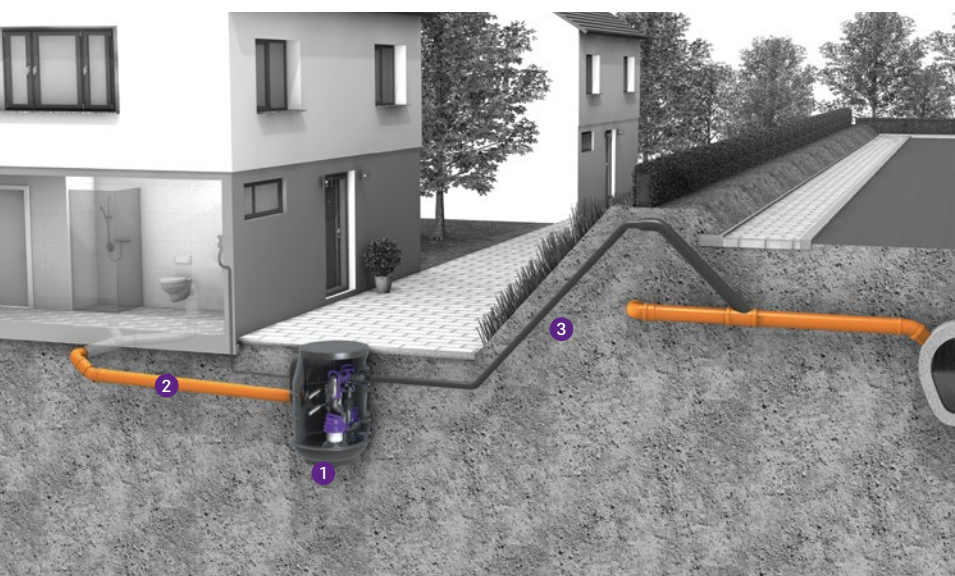
STZ pump	Installation depths D in mm	Art. no.
Cover class A		
1000	800 - 1250	826 711A
1000	1300 - 1750	826 721A
1000	1800 - 2250	826 731A
Cover class B		
1000	800 - 1250	826 711B
1000	1300 - 1750	826 721B
1000	1800 - 2250	826 731B
Cover class D		
1000	800 - 1250	826 711D
1000	1300 - 1750	826 721D
1000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

Pumping station *Aqualift 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 Pumping 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 19

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, 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 60 – 63

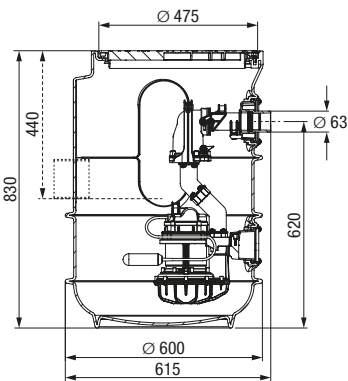


Illustration shows Mono version Art. no. 829 710

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 m³/h	max. 10 m

*Definition of S3-pumps see page 97



Illustration shows Mono version Art. no. 829 710



Illustration shows Duo version Art. no. 828 711

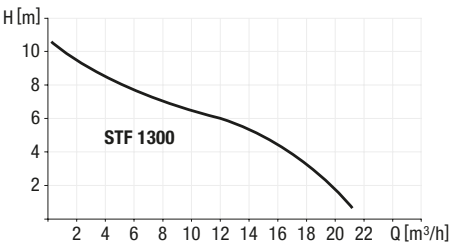
Mono version with one pump

STF pump	Level measurement	Art. no.
Without control unit		
1300-S3	float switch	829 710
With control unit		
1300-S3	float switch	829 711

Duo version with two pumps

STF pump	Level measurement	Art. no.
With control unit		
1300-S3	float switch	828 711

Pumping capacity



Pumping station *Aqualift S XL*

The flexible version for large quantities of wastewater without sewage.

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



1 Gutter drain 2 Pumping station 3 Pump 4 Pressure sensor

Flexible installation

Thanks to the modular design with a large selection of chamber modules and upper sections, the pumping station can be installed both in the ground and in a floor slab. The chambers are groundwater-resistant down to a depth of 3.000 mm.

Maximum safety

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

Engineering systems base *Aqualift S XL Mono / Duo*

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



CE 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
- with multi-vane impeller
- inlet Ø 160 mm
- pressure pipe connection Ø 40 mm
- backflow preventer
- closure valve on pressure pipe side
- pressure sensor

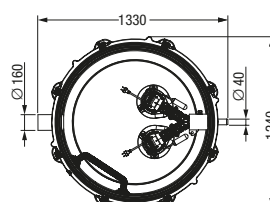
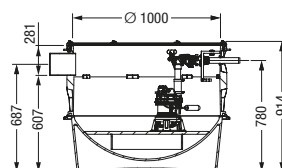
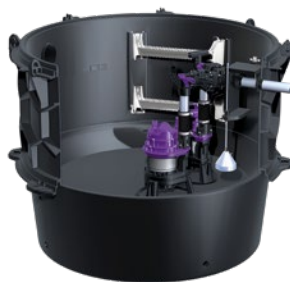
Cable length: 10 m (30 m on request)

Installation:

Handles groundwater depths up to 3.000 mm

➤ **Installation:** in combination with system chambers page 58 – 59

➤ **Accessories:** pages 60 – 63



Mono version with one pump

GTF pump	Pumping volume in liters	Voltage	Art. no.
With float switch			
600-S1	90	230 V	874 30 04
1200-S3	100	230 V	874 30 09

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

600-S1	90	230 V	874 30 05
1200-S3	100	230 V	874 30 10

Duo version with two pumps

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

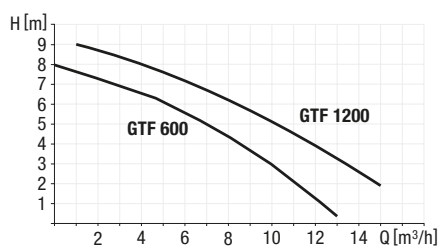
Engineering systems base *Aqualift S XL* in combination with system chamber Ø 1000

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
GTF 600-S1*	Alternating current	230 V	2.9 A	650 W / 400 W	2.800 min ⁻¹	integrated	IP 68	12 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

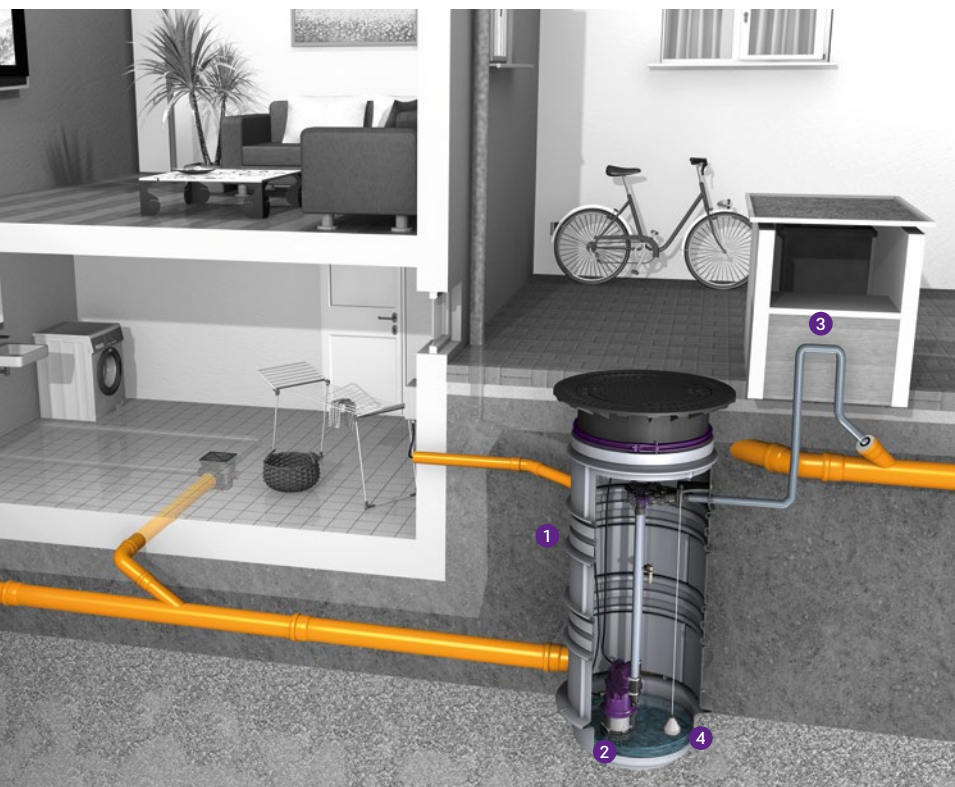
*Definition of S1 and S3-pumps see page 97

Pumping station *Aqualift S*

The compact version for wastewater without sewage and rainwater.

The *Aqualift S* is the first choice when it comes to the disposal of wastewater without sewage below the backwater level. The pumping station comprises a compact chamber with an inner diameter of 600 mm and integrated pumps for wastewater and rainwater. The *Aqualift S* is groundwater resistant down to a depth of 2.500 mm.

The pumping station is available with pumps of different capacity classes. In addition, you can choose between level detection with a float switch or innovative pressure sensor. Two versions are available for installation depths of between 800 and 2.250 mm.



① Pumping station ② Pump ③ Pressure pipe ④ Pressure sensor

Convenient installation

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

Maximum safety

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

Straightforward maintenance

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

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

➤ Lifting station *Aqualift S*: page 25

Pumping station *Aqualift S*

For underground installation for wastewater without sewage and rainwater

CE 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 (*GTF 600*) 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.

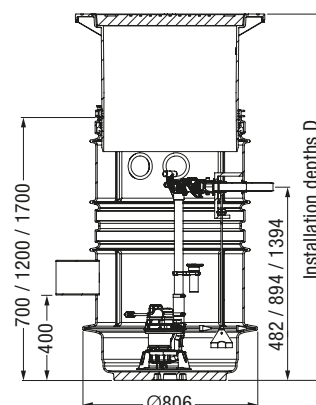
Installation: Handles groundwater depths up to 2.500 mm

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)

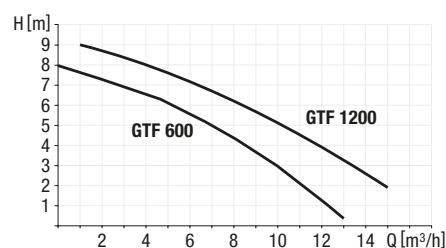
Control unit

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
GTF 600-S1*	Alternating current	230 V	2.9 A	650 W / 400 W	2.800 min ⁻¹	integrated	IP 68	12 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 97

Single station with one pump and float switch

Pump	Installation depths D in mm	Art. no.
Cover class A/B		
GTF 600	800 - 1250	825 810B
GTF 600	1300 - 1750	825 820B
GTF 600	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		
GTF 600	800 - 1250	825 810D
GTF 600	1300 - 1750	825 820D
GTF 600	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		
GTF 600	800 - 1250	825 811B
GTF 600	1300 - 1750	825 821B
GTF 600	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		
GTF 600	800 - 1250	825 811D
GTF 600	1300 - 1750	825 821D
GTF 600	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

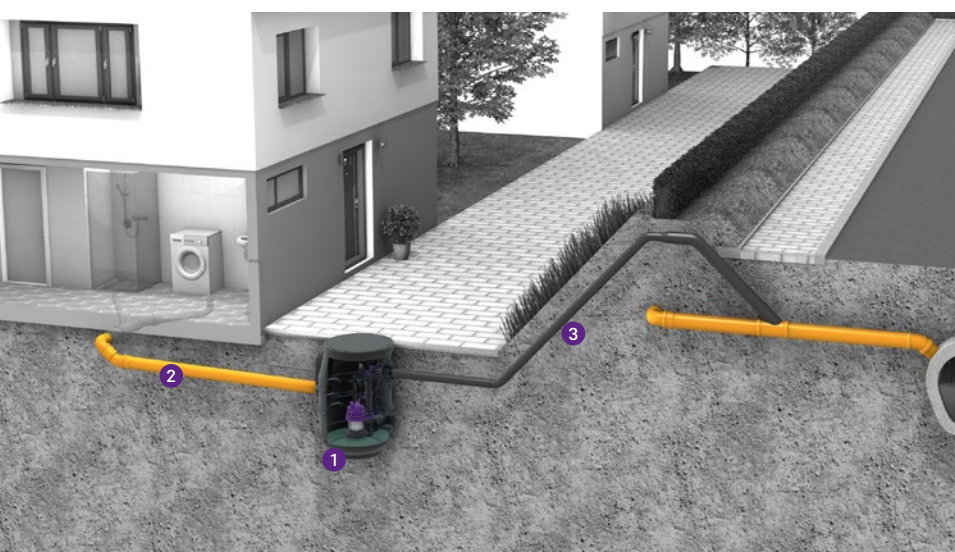
Pump	Installation depths D in mm	Art. no.
Cover class A/B		
GTF 600	800 - 1250	824 811B
GTF 600	1300 - 1750	824 821B
GTF 600	1800 - 2250	824 831B
GTF 1200	800 - 1250	826 811B
GTF 1200	1300 - 1750	826 821B
GTF 1200	1800 - 2250	826 831B
Cover class D		
GTF 600	800 - 1250	824 811D
GTF 600	1300 - 1750	824 821D
GTF 600	1800 - 2250	824 831D
GTF 1200	800 - 1250	826 811D
GTF 1200	1300 - 1750	826 821D
GTF 1200	1800 - 2250	826 831D

Pumping station *Aqualift S Basic*

The economic version for wastewater without sewage.

The pumping station *Aqualift S Basic* makes looking for an economic alternative child's play as far as the disposal of wastewater without sewage outside buildings is concerned. It provides cutting-edge technology at an unbeatable price, housed in a sturdy installation chamber.

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



1 Pumping station 2 Inlet connection 3 Pressure pipe

100% waterproof and odour-tight

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

Flexible pump(s)

The pumping station has either one or two freely suspended pumps of the type GTF 600 or GTF 1250. 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.

Pumping station *Aqualift S Basic*

For underground installation

EN 12050-1

Pump volume:

20 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 without sewage (open channel passage 30 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, 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 60 – 63

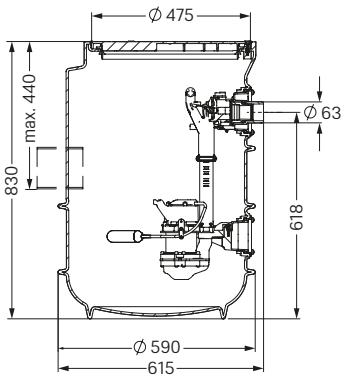


Illustration shows Mono version Art. no. 829 810

Pump type	Voltage	Amperage	Power (P1/P2)	RPM	Pumping capacity	Pumping height
GTF 600-S1*	230 V ~ 50 Hz	2.9 A	0.65 kW / 0.4 kW	2.750 min ⁻¹	12 m ³ /h	max. 8 m
GTF 1250-S1*	230 V ~ 50 Hz	5.4 A	1.3 kW / 0.8 kW	2.700 min ⁻¹	20 m ³ /h	max. 11 m

*Definition of S1-pumps see page 97



Illustration shows Mono version Art. no. 829 810



Illustration shows Duo version Art. no. 828 851



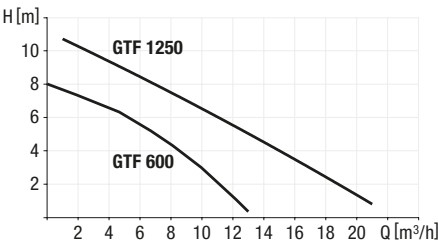
Mono version with one pump

GTF pump	Level measurement	Art. no.
Without control unit		
600-S1	float switch	829 810
1250-S3	float switch	829 850
With control unit		
600-S1	float switch	829 811
1250-S3	float switch	829 851

Duo version with two pumps

GTF pump	Level measurement	Art. no.
With control unit		
600-S1	float switch	828 811
1250-S3	float switch	828 851

Pumping capacity



Engineering system chamber Ø 1000 with access opening Ø 600

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

EN 13598 Part 2 Z-42.1-527

Made of polyethylene PE-HD

Installation: For underground installation; handles groundwater depths up to 3.000 mm

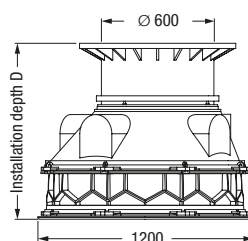
Modular design comprising:

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

Delivery: As individual elements

Remark: Covers surface water tight

Note: Additional installation depths (on request)



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

*Installation depth D 1 - D 3

only in combination with pumping station
Wet installation

** Installation depth D 12 -15

pay attention to maximum installation depth
5000 mm in combination with engineering
system base

Engineering system chamber Ø 1000 with access opening Ø 800

for combination with engineering system base *Aqualift F XL* and *Aqualift S 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 3.000 mm

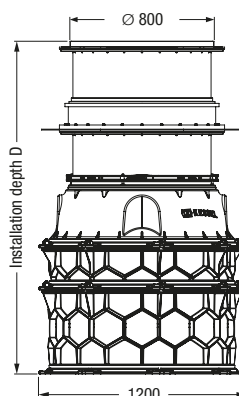
Modular design comprising:

- for waterproof concrete with flange and counter flange
- chamber rings with access steps fitted
- with telescopic height adjustable upper section
- square cover made of stainless steel, class A/L 15 or round cover in class K 3
- includes all sealing gaskets and wedge connectors required for installation

Delivery: As individual elements

Remark: Covers surface water tight

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



Cover tileable, square

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

Cover not tileable, square, anti-slip

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

Cover not tileable, round

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

Engineering system chamber Ø 1000 with access opening Ø 800

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

EN 13598 Part 2 Z-42.1-527

Made of polyethylene PE-HD

Installation: For underground installation; handles groundwater depths up to 3.000 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)

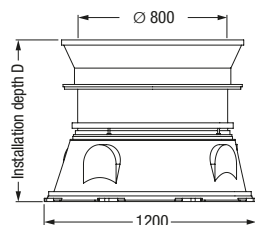


Illustration shows Art. no. 874 01 58

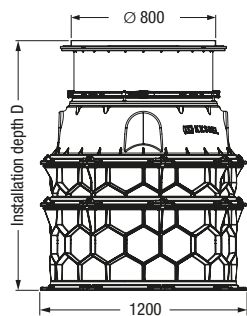


Illustration shows Art. no. 874 00 02



Illustration shows Art. no. 874 01 43



Illustration shows Art. no. 874 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

Upper section		Art. no.
Upper section	<p>Compatibility: For pumping station <i>Aqualift F Basic</i> and <i>Aqualift S Basic</i></p> <p>Extension: From 140 - 440 mm, height adjustable; two can also be installed on top of each other</p>	829 100
		
Closure valves		Art. no.
Closure valve	<p>Compatibility: For pumping station <i>Aqualift F Basic Mono</i> version</p>	829 200
		
Closure valve	<p>Compatibility: For pumping station <i>Aqualift F Basic Duo</i> version</p>	829 250
		
Alarm unit		Art. no.
with electrode probe	<p>Compatibility: For pumping station <i>Aqualift F Basic</i>, engineering system base <i>Aqualift F XL</i> and <i>Aqualift S XL</i></p> <p>Function: High water / flood alarm system; for conductive liquids</p> <p>Inclusive: Visual and audible alarm warning, battery back up, with Logbook, connection for remote alarm speaks (Art. no. 20 162) or upgradable with potential free contact.</p> <p>Voltage: 230 V ~ 50 Hz (IP 54)</p> <p>Plug: 2 pin grounded</p> <p>Cable length: 5 m (extendable up to 30 m)</p>	20 222
 		
with optical probe	<p>Compatibility: For pumping station <i>Aqualift F Basic</i>, engineering system base <i>Aqualift F XL</i> and <i>Aqualift S XL</i></p> <p>Function: High water / flood alarm system; for conductive / non-conductive liquids</p> <p>Inclusive: Visual and audible alarm warning, battery back up, with Logbook, connection for remote alarm speaks (Art. no. 20 162) or upgradable with potential free contact.</p> <p>Voltage: 230 V ~ 50 Hz (IP 54)</p> <p>Plug: 2 pin grounded</p> <p>Cable length: 5 m (extendable up to 30 m)</p>	20 223
 		
<p>Cable length: 10 m (extendable up to 30 m)</p>		20 224
Potential-free contact	<p>Compatibility: For warning devices Art. no. 20 222 and 20 223</p>	80 074
		

Accessories

Extension section

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



Gasket/Connection and attachment sets

		Outer diameter Ø (mm)	Art. no.
Cable piping gasket set	Compatibility: Control unit 230 V Inclusive: <ol style="list-style-type: none"> 1 Pipe sealing gasket 2 PVC-collar plug 3 Twin flange Ø 110 4 HT-collar plug 5 Cable connections (6 pieces) 6 Retaining clip with screws 	Ø 110	85 410
Set of connecting wedges	Compatibility: Art. no. 680 371 and 680 370 Quantity: 10 pieces		680 373
Profiled gasket	Compatibility: Art. no. 680 371 and 680 370		680 125
Clamp connection	Function: for on-site connection of pressure pipes	 DN 80 - 80 28 090 DN 50 - 50 28 091 DN 50 - 80 28 092	
Cable attachment set	Compatibility: Engineering systems base Set-content: 3 pieces of clamps		28 076

Cable extensions

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

	Mono version Pumping station <i>Aqualift F XL</i> dry installation, lifting station <i>Aqualift F</i> with SPF 1400, pumping station <i>Aqualift S</i> Ø 600/1000	Duo version Pumping station <i>Aqualift F XL</i> dry installation, lifting station <i>Aqualift F</i> with SPF 1400, pumping station <i>Aqualift S</i> Ø 600/1000	Art. no.
Cable extension for probe (10 m)	Extension to 20 m: 1×80 889 Extension to 30 m: 2×80 889	Extension to 20 m: 1×80 889 Extension to 30 m: 2×80 889	80 889
Cable extension for pump (10 m)	Extension to 20 m: 1×80 891 Extension to 30 m: 2×80 891	Extension to 20 m: 2×80 891 Extension to 30 m: 4×80 891	80 891









Hydrostatic level sensor

		Art. no.
Level sensor with immersion pipe 288 mm	Compatibility: For <i>Aqualift F XL</i> Cable length: 10 m	681 042
	Cable length: 30 m	681 043
Level sensor	Compatibility: For <i>Aqualift S XL</i> Cable length: 10 m	681 044
	Cable length: 30 m	681 045



Accessories

Safety

			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
Equipotential bonding rail	Compatibility: For ATEX pumping stations Mono		28 088
	Compatibility: For ATEX pumping stations Duo		28 089
Antenna booster with magnetic base	Compatibility: For TeleControl telemetric system to improve the reception Cable length: 2.5 m		28 793
Extension cable	Compatibility: For antenna booster Cable length: 2.5 m		28 794
Warning beacon	Function: For the additional visual display of faults, for installation on the outdoor control cabinet, with switching unit for connection to the control unit		97 715
Installation set Thermostat / Hygrostat	Function: As an additional module for installation in the outdoor kiosk to reduce condensation		97 713
Air compressor set	Function: For use in combination with lifting station and pumping stations with pressure control: prevents soiling, avoids the formation of condensate in the pressure hose, makes operation of systems possible with pressure hose lengths > 10 m Inclusive: T-piece connection, 20 m pressure hose		28 048
PE-pressure hose extension (per meter)	Compatibility: For Art. no. 28 048		680 071

Optical probe

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

Pump removal chain

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



Junction box

			Art. no.
Junction box	Compatibility: For extension of level probe		28 799

Accessories

Outdoor control cabinet

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

for control unit,
heating, warning
beacon

Height over ground level: 870 mm

for heating and
pressure pipe

Height over ground level: 870 mm

for control unit,
modem, heating,
warning beacon

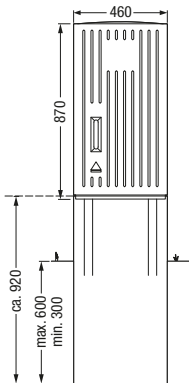
Height over ground level: 870 mm

for control unit,
modem, heating,
warning beacon
and pressure pipe

Height over ground level: 870 mm



ground level



Height over all in mm	Width / depth in mm	Art. no.
1740	460/320	97 716
1740	590/320	97 714
1740	785/320	97 723
1790	1115/320	97 724

Note: Preassembled version on request

Outdoor control cabinet

preassembled version; with factory-mounted system components; outdoor pillar cabinet

Material: Glass-fibre reinforced polyester

Version includes:

- standard cabinet with profiled surface
- open floor
- three-point locking with swivel handle
- with Euro lock cylinder
- door opening angle 180°

Protection rating: IP44

Colour: RAL 7035

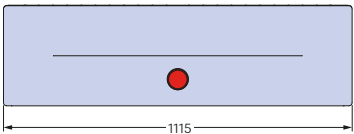
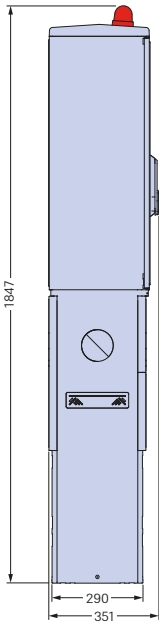
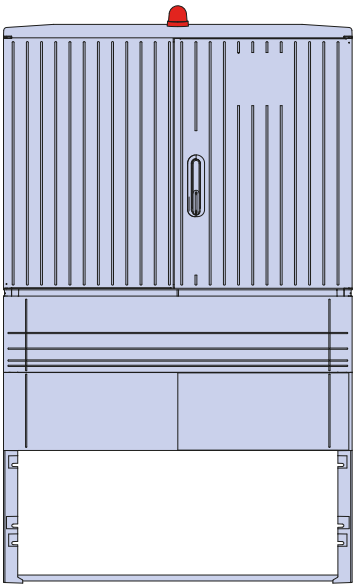
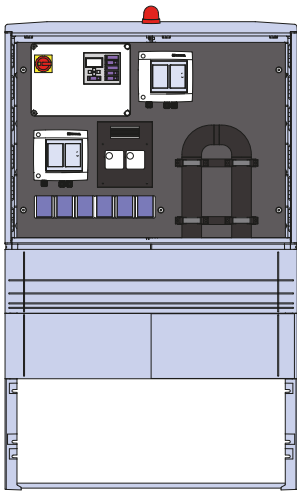
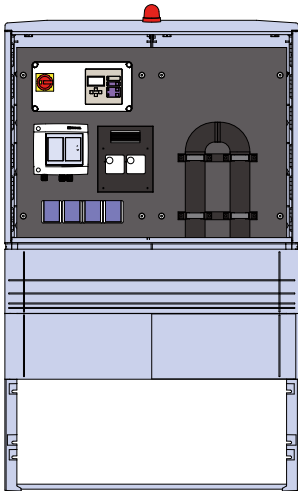


Illustration shows Example for Aqualift S/F

Illustration shows Example for Ecolift XL

Submersible pumps *GTK, KTP, GTF and STZ*

Pump - whenever and wherever you want.

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



Powerful

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

Flexible use

Our absolutely corrosion-free submersible pump has a pressure pipe connection R1 1/4, either vertical or lateral. The vertical connection is used for deep and narrow containers, while the lateral outlet can be used in wider chambers / pits.



Pumping systems

for installation in on-site collection tank



Submersible pumps

for mobile or stationary use

Submersible pumps
Now also available in resistant version

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 63 mm (DN 50) and Ø 90 mm (DN 80)

Pumping capacity: max. ... m³/h

Voltage: 400 V ~ 50 Hz

Cable length: 10 m

Note: *Aqualift F XL* should be installed in a chamber with a minimum diameter of 1.000 mm



Mono version with one pump

Pump	Art. no.
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*

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

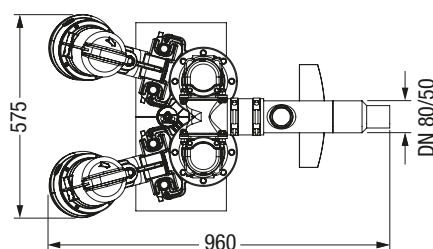
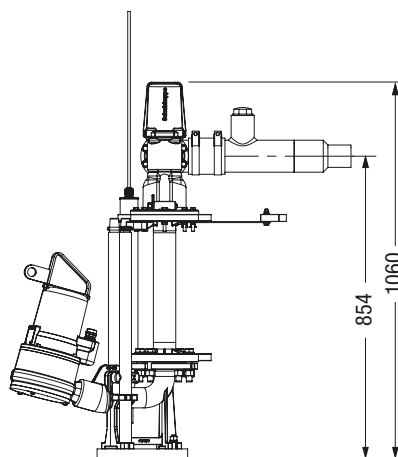
Pumping system *Aqualift F XL*:

- with pumps GTK
- for wastewater with or without sewage (check your local ATEX regulations)
- single-channel impeller 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

➤ **Accessories:** Pump removal chain see page 73

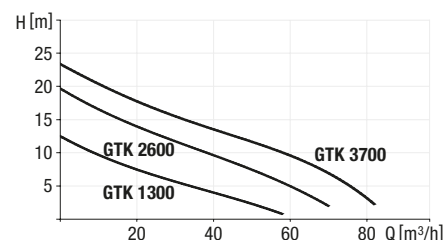
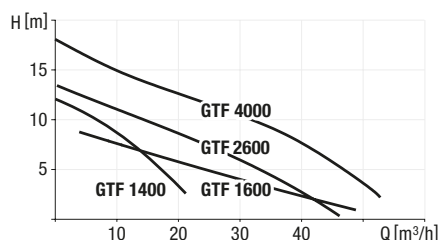
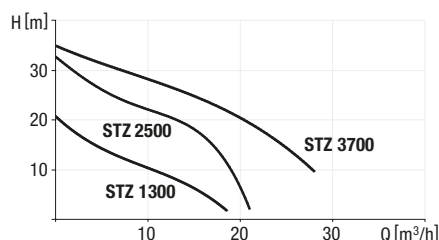


Duo version with two pumps

Pump	Art. no.
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



Pumping system *Aqualift S Duo*

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



Product: KESSEL 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), 20 mWS / 48 h

Operating mode: S3 (50 %)

Alternatively: AQUALI1200DS

Float switch controlled pumps

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)

Alternatively: AQUALI1000DS

Float switch controlled pumps

AQUALI600D: Pump GTF 600

Pumping capacity: max. 12 m³/h

Pumping height: max. 8 m

Power consumption: 2 × 650 W

Current: 230 V ~ 50 Hz

Fuses: 2.9 A

Motor protection: integrated

Protection: IP 68 (pumps), IP 54 (control unit)

Alternatively: AQUALI600DS

Float switch controlled pumps



Illustration shows AQUALI1000D

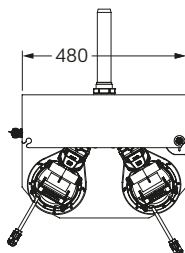
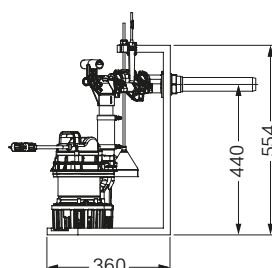
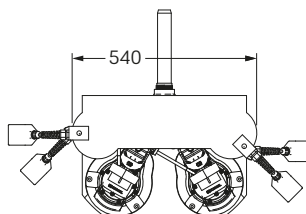
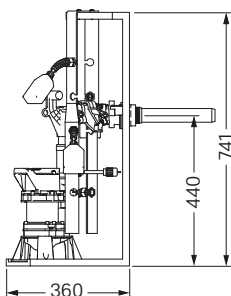


Illustration shows AQUALI600D



Duo version with two pumps

GTF pump	Art. no.
With pressure sensor	
1200-S3	AQUALI1200D*
1000-S3	AQUALI1000D*
600	AQUALI600D*

With float switch

1200-S3	AQUALI1200DS*
1000-S3	AQUALI1000DS*
600	AQUALI600DS*

*Custom made product (delivery time on request)

Mono Tronic version with one pump

STZ pump	Art. no.
With pressure sensor	
1000	AQUALI1000F_T

With float switch

1000	AQUALI1000F_TS
------	----------------

Duo Tronic version with two pumps

STZ pump	Art. no.
With pressure sensor	
1000	AQUALI1000F_D
With float switch	
1000	AQUALI1000F_DS

Pumping capacity



Submersible pump *GTF 1000 / GTF 1000 resistant*

for wastewater without sewage



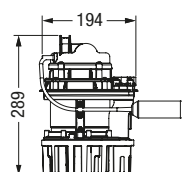
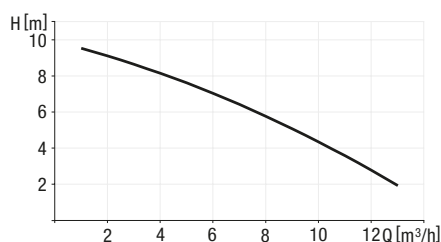
TÜV Rheinland Germany type tested and monitored



With/without float switch, without macerator,
connection to pressure pipe 1 1/4 inch side / vertical

Cable length: 10 m

Pumping capacity



GTF 1000

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

GTF 1000 resistant

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

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	5.6 A	1270 W / 730 W	1000 W	2.800 min ⁻¹	max. 10 m	integrated	max. 10 mm	14.5 m³/h	10 m
GTF 1000-S3-30% resistant*	Alternating current	230 V	5.6 A	1270 W / 730 W	1000 W	2.800 min ⁻¹	max. 10 m	integrated	max. 10 mm	14.5 m³/h	10 m

*Definition of S3-pumps see page 97

Submersible pump *STZ 1000*

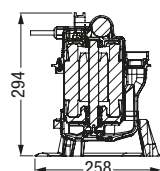
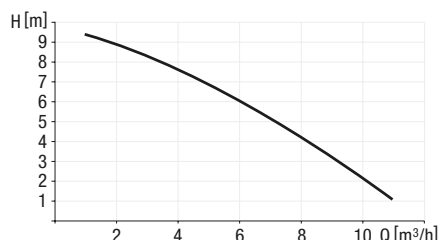
for wastewater containing raw sewage



With / without float switch, with macerator,
connection to pressure pipe 1 1/4 inch side / vertical

Cable length: 10 m

Pumping capacity



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

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

*Definition of S3-pumps see page 97

Submersible pump *GTF 500* / *GTF 500 resistant*

for wastewater without sewage



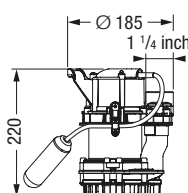
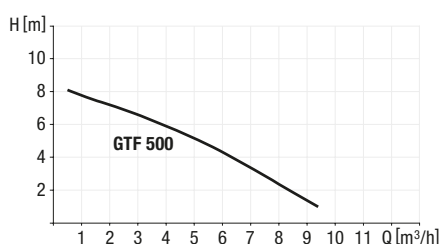
With/without float switch, with integrated low-intake, removable suction basket and convenient transport handle, connection to pressure pipe 1 1/4 inch vertical

Cable length: 10 m

GTF 500 resistant:

Resistant against aggressive wastewater containing salts, condensates and effluent from water softening systems.

Pumping capacity



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

Pump type	Current type	Voltage	Current	Power (P1/P2)	RPM	Motor protection	Plug	Pumping capacity	Pumping height
GTF 500-S1*	Alternating current	230 V	2.7 A	600 W / 360 W	2.800 min ⁻¹	integrated	coded plug	10 m³/h	8 m
GTF 500-S1 resistant*	Alternating current	230 V	2.7 A	600 W / 360 W	2.800 min ⁻¹	integrated	Schuko	10 m³/h	8 m

*Definition of S1-pumps see page 97

Submersible pump *KTP 300* / *KTP 300 resistant*

for wastewater without sewage



TÜV Rheinland Germany type tested and monitored

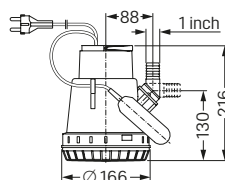
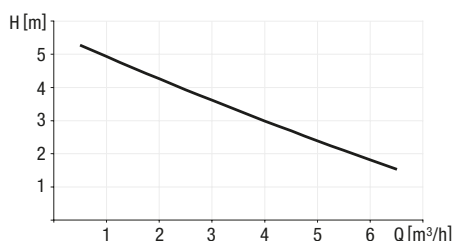


With/without float switch, with backwater flap, pivotable connection to pressure pipe 1 inch side / vertical

Cable length: 10 m

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

Pumping capacity



KTP 300

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

KTP 300 resistant

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

Pump type	Current type	Voltage	Current	Power (P1/P2)	RPM	Submersible depth	Motor protection	Plug	Pumping capacity	Pumping height
KTP 300-S1*	Alternating current	230 V	1.6 A	360 W / 210 W	2.800 min ⁻¹	max. 10 m	integrated	Schuko	8 m³/h	6 m
KTP 300-S1 resistant*	Alternating current	230 V	1.6 A	360 W / 210 W	2.800 min ⁻¹	max. 10 m	integrated	Schuko	8 m³/h	6 m

*Definition of S1-pumps see page 97

Warning and control units

User-friendly solutions for all types of control tasks.

You can only get the best performance out of your device with the right settings. Whether 230 V or 400 V, all parameters can be set easily with a suitable *Comfort* control unit. Our control units are delivered plug-in ready and can be connected without the help of an electrician (230 V units). The menu guidance is also very user-friendly – with a multi-line display in six languages. A remote signal generator or even a GSM modem, which sends messages in full text, can be connected for relaying messages.

Maximum reliability

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

Adjustable function parameters

The control units *230 V Comfort* and *400 V Comfort* offer convenient menu guidance on the display. This allows the function-relevant parameters and the operating hour counter to be set very easily.

Countless customising possibilities

KESSEL offers a variety of probes for different requirements – also for products from other manufacturers – such as an ATEX version for potentially explosive areas. It also offers connection options for float switches, building management systems and conductance probes (only 230 V), submersible pressure switches, optical probes (only 230 V), level probes (on a terminal strip) or GSM interfaces for relaying full-text messages.

230 V Comfort control unit

Mono-/Duo control unit with hydrostatic level sensor

Mono-/Duo control unit

Extremely versatile sensor system for measuring the level of wastewater with and without sewage. Including level probe for pneumatic level measurement and failure detection of the level probe via the control unit. The 10 m level probe cable can be extended to 30 m.

Note:

For greasy or hot wastewater, the use of a small compressor is **not** necessary.

Versions:

- with hydrostatic level sensor / without extra alarm probe
- with hydrostatic level sensor / float switch: with float switch for alarm level measurement, 10 m float switch cable (can be extended to 30 m)



Illustration shows Art. no. 28 731 P



Illustration shows Art. no. 28 731 PS

For Mono versions

Art. no.

With hydrostatic level sensor / without extra alarm probe

28 731 P

With hydrostatic level sensor / float switch

28 731 PS

For Duo versions

Art. no.

With hydrostatic level sensor / without extra alarm probe

28 746 P

With hydrostatic level sensor / float switch

28 746 PS

230 V Comfort control unit

Mono-/Duo control unit with pressure sensor

Mono-/Duo control unit

Extremely versatile sensor system for measuring the level of wastewater with and without sewage. Including plunger for pneumatic level measurement. The 10 m pressure hose can be extended to 15 m (up to 30 m on request).

Note:

For greasy or hot wastewater use only in connection with the air compressor set (Article 28 048).

Versions:

- with pressure sensor / without extra alarm probe
- with pressure sensor/conductance probe: with separate conductance probe for alarm level measurement, 5 m cable (cannot be extended)
- with pressure sensor / float switch: with separate float switch for alarm level measurement, 10 m float switch cable (can be extended to 30 m)
- with pressure sensor / optical probe: with separate optical probe for alarm level measurement and failure detection of the optical probe via the control unit, 5 m cable for optical probe (can be extended to 30 m)



Illustration shows Art. no. 28 731 D



Illustration shows Art. no. 28 731 DL



Illustration shows Art. no. 28 731 DS



Illustration shows Art. no. 28 731 DO

For Mono versions

Art. no.

With pressure sensor* / without extra alarm probe

28 731 D

With pressure sensor* / conductance probe

28 731 DL

With pressure sensor* / float switch

28 731 DS

With pressure sensor* / optical probe

28 731 DO

For Duo versions

Art. no.

With pressure sensor* / without extra alarm probe

28 746 D

With pressure sensor* / conductance probe

28 746 DL

With pressure sensor* / float switch

28 746 DS

With pressure sensor* / optical probe

28 746 DO

*air compressor available for pressure switches with over 10 m cable

230 V Comfort control unit

Mono-/Duo control unit with float switch

Mono-/Duo control unit

Sensor system for level measurement for wastewater without sewage. With float switch- es to measure ON 1, ON 2 (only 28 746-S) and OFF levels. The 10 m float switch cable can be extended to 30 m.

Versions:

- with float switch / without extra alarm probe
- with float switch / float switch: with separate float switch for alarm level measurement



For Mono versions

Art. no.

With float switch / without extra alarm probe

28 731 S

With float switch / float switch

28 731 SX

For Duo versions

Art. no.

With float switch / without extra alarm probe

28 746 S

With float switch / float switch

28 746 SX

230 V Comfort control unit

Mono-/Duo control unit with conductance probe

Mono-/Duo control unit

Sensor system for level measurement for wastewater without sewage. Including alarm level measurement. Not suitable for rainwater or non-diluted condensate. Including conductance probes for the measuring of ON 1, ON 2 (28 746-LLF / 28746-LLV only), OFF and ALARM level. Switching points cannot be adjusted freely. 5 m cable for conductance probe.

Versions:

- with conductance probe/conductance probe: Level ON / OFF fixed, alarm level can be adjusted
- with conductance probe/conductance probe: ON 1 fixed / ON 2 variable / ALARM with fixed distance to ON 2
- with conductance probe/conductance probe: ON 1 variable / ON 2 fixed / ALARM with fixed distance to ON 2



Illustration shows
Art. no. 28 746 LLF



Illustration shows
Art. no. 28 731 LL

For Mono versions

Art. no.

With conductance probe / conductance probe

28 731 LL

For Duo versions

Art. no.

With conductance probe / conductance probe,
ON 1 fixed/ON 2 variable

28 746 LLF

With conductance probe / conductance probe,
ON 1 variable / ON 2 fixed

28 746 LLV

400 V Comfort control unit

Mono-/Duo control units

Versions:

- Mono-/Duo control unit



Illustration shows
Art. no. 28 755

For Mono versions

Art. no. max. switching current (A) from - to

Without ATEX version

28 755	2.5 - 4.0
28 756	4.0 - 6.3
28 781	6.3 - 10.0

With ATEX version

28 759	2.5 - 4.0
28 761	4.0 - 6.3

For Duo versions

Art. no. max. switching current (A) from - to

Without ATEX version






28 757	2×2.5 - 4.0
28 758	2×4.0 - 6.3
28 783	2×6.3 - 10.0

With ATEX version


28 762	2×2.5 - 4.0
28 763	2×4.0 - 6.3

Accessories



Hydrostatic level sensor

			Art. no.
Level sensor	Compatibility: For <i>Aqualift F</i> lifting stations and pump stations; for use with Comfort 230 V and 400 V control units Cable length: 10 m		28 082
Level sensor with immersion pipe 433 mm	Compatibility: For lifting stations <i>Aqualift F XL</i> Cable length: 10 m		681 040
	Cable length: 30 m		681 041
Level sensor with immersion pipe 288 mm	Compatibility: For lifting stations <i>Aqualift F Duo</i> and pump stations <i>Aqualift F XL</i> Cable length: 10 m		681 042
	Cable length: 30 m		681 043
Level sensor with immersion pipe 181 mm	Compatibility: For lifting stations <i>Aqualift F Mono</i> Cable length: 10 m		681 046
	Cable length: 30 m		681 047
Level sensor with fixing	Compatibility: For pump stations <i>Aqualift S XL</i> Cable length: 10 m		681 044
	Cable length: 30 m		681 045

Float switch

			Art. no.
Float switch	Compatibility: For use with Comfort 230 V and 400 V control units Cable length: 10 m		185-043
	Compatibility: For use with Comfort 230 V and 400 V control units Cable length: 20 m		185-045

Safety

			Art. no.
TeleControl telemetric system	Compatibility: For connection to KESSEL Comfort control units 230 Volt and 400 Volt Function: Relaying of full text messages to up to three mobile phones Inclusive: With internal antenna (without SIM card)		28 792
Antenna booster with magnetic base	Compatibility: For <i>TeleControl</i> telemetric system to improve the reception Cable length: 2.5 m		28 793
Extension cable	Compatibility: For antenna booster Cable length: 2.5 m		28 794

Accessories

Control unit accessories

		Art. no.
Audible alarm	Compatibility: For all warning- and control units Cable length: 20 m	20 162
Potential-free contact	Compatibility: For all control units 230 V; not for warning devices Art. no. 20 222 and 20 223	80 072
	Compatibility: For warning devices Art. no. 20 222 and 20 223	80 074

Alarm unit

		Art. no.
with electrode probe	Function: For monitoring and reporting of flooding; for conductive liquids Inclusive: Visual and audible alarm warning, battery back up, with Logbook, connection for remote alarm speaks (Art. no. 20 162) or upgradable with potential free contact. Voltage: 230 V ~ 50 Hz (IP 54) Plug: 2 pin grounded Cable length: 5 m (extendable up to 30 m)	20 222
with optical probe	Function: For monitoring and reporting of flooding; for conductive / non-conductive liquids Inclusive: Visual and audible alarm warning, battery back up, with Logbook, connection for remote alarm speaks (Art. no. 20 162) or upgradable with potential free contact. Voltage: 230 V ~ 50 Hz (IP 54) Plug: 2 pin grounded Cable length: 5 m (extendable up to 30 m)	20 223
	Cable length: 10 m (extendable up to 30 m)	20 224

Connector set


		Art. no.
Connector set	Compatibility: For connection to pump/probe cables for connection to the coded connectors from Art. no. 28 731 / 28 746	80 893

USB housing socket

		Art. no.
USB housing socket	Compatibility: For routing the USB connection to the outside of the housing. For 230 Volt Comfort control units Mono/Duo	28 785

Accessories

Safety Art. no.

Air compressor set	Function: For use in combination with lifting station and pumping stations with pressure control: prevents soiling, avoids the formation of condensate in the pressure hose, makes operation of systems possible with pressure hose lengths > 10 m Inclusive: T-piece connection, 20 m pressure hose		28 048
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PE-pressure hose extension (per meter)	Compatibility: For Art. no. 28 048	680 071
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Cable extensions Art. no.

for probe	Compatibility: For warning and control units Cable length: 10 m		80 889
for pump	Compatibility: For warning and control units Cable length: 10 m		80 891

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. 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 V 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.



**DGNB
SUSTAINABILITY
CHALLENGE
2020
INNOVATION
FINALIST**



Hybrid lifting stations

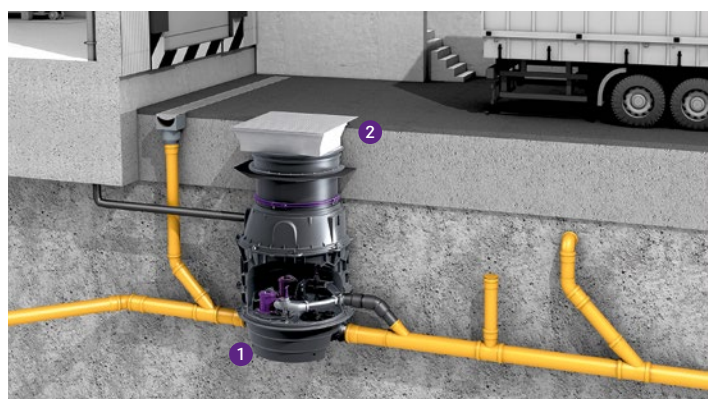
For further information about our hybrid lifting stations have a look in our catalogue chapter 2.2.



1 Hybrid lifting station 2 Pressure pipe



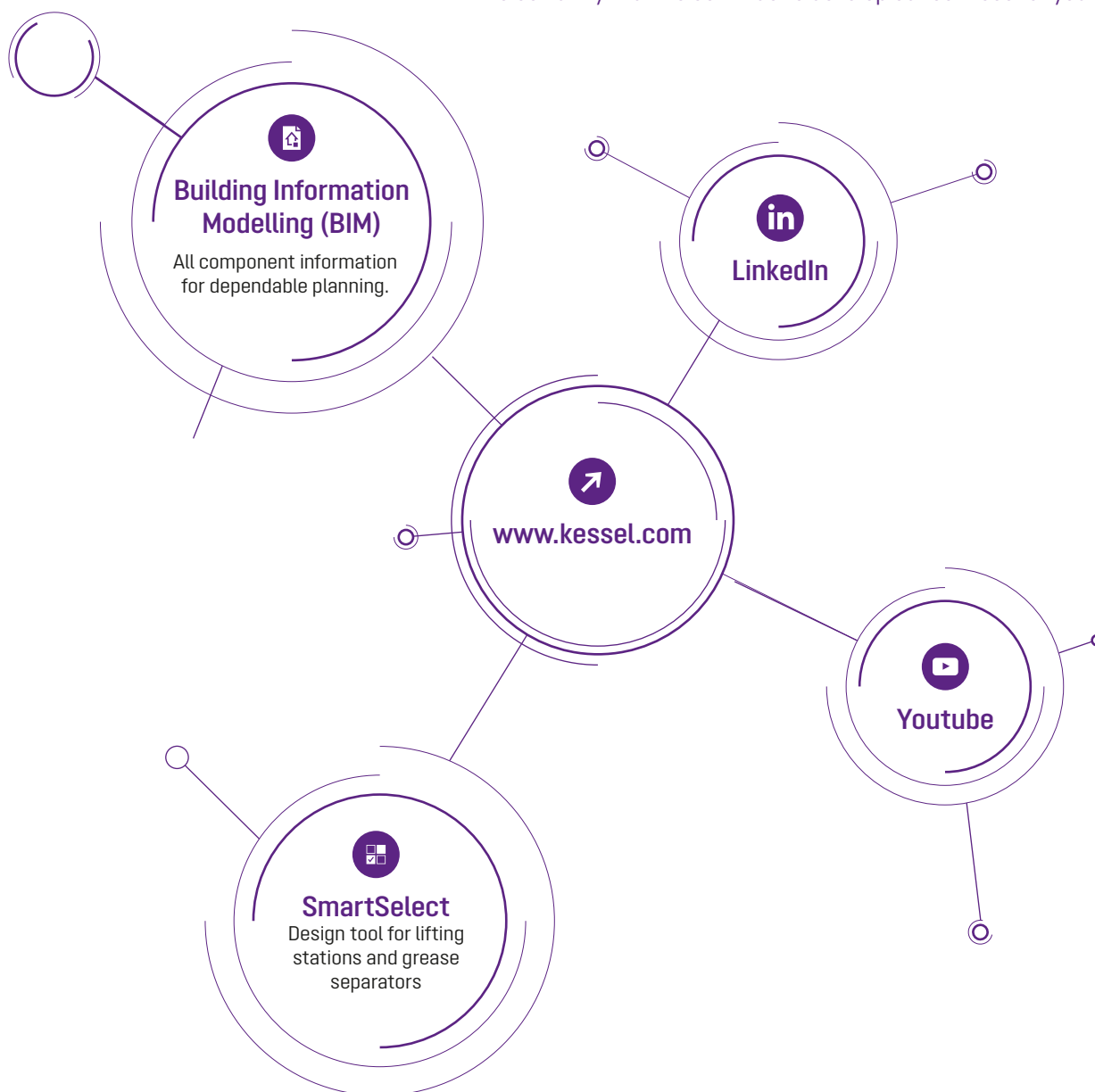
1 Hybrid lifting station 2 Pressure pipe



1 Hybrid lifting station 2 Upper section for concrete floor slab

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.



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get always the newest information
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This is KESSEL.

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



Competent partner
since 1963



International player
**60+
countries**



Innovative premium supplier
**3.000+
products**



Safe employer
**550+
employees**



Sustainable company
**100+ mio. €
in sales**

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

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

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

KESSEL – Leading in drainage



Made in Germany





KESSEL Headquarters Lenting, Germany

Leading in drainage.

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



Backwater protection

Backwater valves
Backwater chambers



Pump technology

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



Drains & channels

Bathroom drains
Floor drains
Basement drains
Outdoor drains



Separators

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



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