

# *Aqualift F XL* Lifting Stations

For industrial / high volume wastewater disposal



Leading in Drainage

## Product Information

### Applications

For use with wastewater from commercial, public and private sources

KESSEL is the market leader in the 'Protection Against Flooding' field and has been delivering drainage solutions to the commercial, public and private sectors for over 30 years. From the drainage of a small private apartment to large scale commercial buildings - KESSEL's complete line of professional drainage systems is always the right choice.



Installation example

### Aqualift F

lifting stations for free standing installation

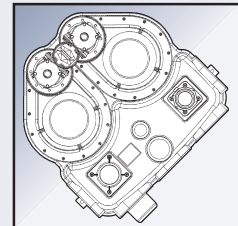


50 liter  
tank volume

120 liter  
tank volume

**Space saving design and quick installation / connection**

Special design allows lifting station chamber to be installed in corners with vertical  $\varnothing$  110 inlet pipe connection and 90 degree (lateral) outlet pressure pipe. Total footprint requirement – approx 80 x 80 cm.



**Easy retrofit of gate closure valves to fit custom requirements.**

**On-site connection of additional inlets up to size  $\varnothing$  160, if required**



### Maximum reliability thanks to *Aqualift Comfort* digital display control unit

- User friendly control unit operation** with multilingual digital display (EN, DE, FR, IT, PL, NL).
- With integrated SDS** (Self-Diagnosis-System) and battery buffering continually monitors all electronic functions.
- Operational parameters can easily be custom set by operator** - Control unit also for use with pumps from other manufacturers.
- Connection for remote audible alarm.**
- Includes internal USB connection port for 230 Volt control units.** For read-out of electrical logbook and down / uploading of operational parameters.
- Connection possibilities** for use with various level monitoring systems such as float switches, conductance sensors, optical probes, level switches and plunger switches.

230 Volt



400 Volt



- Potential Free Contact**  
BMS (Building Management System) connection standard with all 400 Volt systems (optional with 230 Volt systems).
- Electronic log-book function** - past history of pump operation is shown on digital control unit display.
- 230 Volt control unit is plug-in-ready** - no electrician required for connection.

## Aqualift F XL Duo

powerful lifting stations for free standing installation

available April 2013

**NEW**

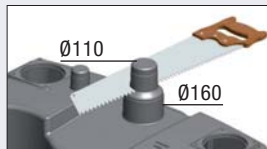


200 liter tank volume

300 liter tank volume

450 liter tank volume

- Single or Twin Pump Lifting Stations**  
Includes digital display control unit and non-return valve
- Polymer gate closure valves and fittings for SPF 1400, 1500, 3000 models.**  
**Cast iron gate closure valves and fittings for SPF 4500 and 5500 models.**  
Cast iron systems also available for other pump models where excessive return pressures are expected
- Compact dimensioned bodies** offer large storage capacities but still allow access through 800mm wide doorways
- Inlet connection**  
Size  $\varnothing$  110 mm or  $\varnothing$  160 mm selected on-site

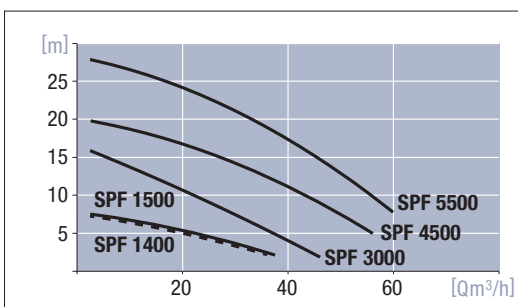


- Wide selection of pumps from 1400 - 5500 Watts cover specification requirements**  
Wastewater pumps equipped with non-choke impellers (40 mm free passage) for pumping of wastewater with or without sewage according to EN 12050-1 and 2
- S1 Continuous Duty Pumps for heavy flow applications (rainwater) with 1400 to 4500 Watts**
- For wastewater containing raw sewage.** Maximum pumping height 27 m, maximum pumping capacity 60 m<sup>3</sup>/h
- Additional inlet connections on-site**  
Inlets from size  $\varnothing$  50mm to  $\varnothing$  200mm inlets can be easily installed



### Lifting Stations with high performance

**Performance diagrams**



Type	SPF 1400	SPF 1500	SPF 3000	SPF 4500	SPF 5500
Input Power (P1)	1.6 kW	1.4 kW	3.2 kW	4.5 kW	5.7 kW
Power (P2)	1.1 kW	1.1 kW	2.7 kW	3.7 kW	4.7 kW
Voltage	230 V AC	400 V DC	400 V DC	400 V DC	400 V DC
Amperage	7.3 A	2.7 A	5.4 A	7.4 A	9.1 A
Operating mode	S1	S1	S1	S1	S3 30% power on duration
Weight	99 kg	98 kg	188 kg	189 kg	211 kg

# Lifting station for wastewater with or without sewage – Aqualift F 50 liters / Aqualift F Duo 120 liters

Illustration and dimensioned drawing

Article description

Power (P1)      Current connection      Pump SPF      Art. #



Illustration shows Art. # 28 646-C

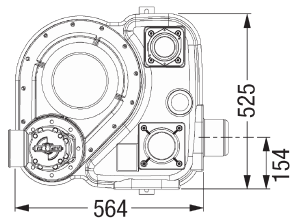
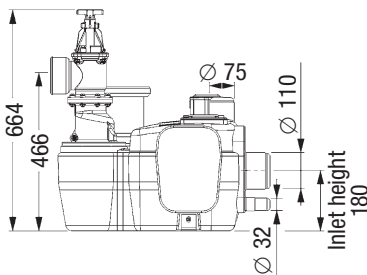


Illustration shows Art. # 28 753

## Lifting station *Aqualift F* for free standing installation in frost-free rooms for wastewater with or without sewage

Tank volume: 50 liters  
Pump volume: 20 liters

Consisting of:  
**Polyethylene storage chamber**, with air pressure level detector, clean-out opening.  
Connection for inlet  $\varnothing$  110 (inlet height 180 mm) and ventilation  $\varnothing$  75, connection coupling for manual diaphragm pump  $\varnothing$  32.

**Wastewater pump** with non-chokable impeller to pump wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68), power cable length 10 m.

**Vertical / horizontal outlet** with integrated non-return valve, connection coupling  $\varnothing$  110 with hose section, **with/without closure valve** (provided loose)

**Komfort 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 65), wall mounted, voltage 400 V DC at 50 Hz. With potential-free contact.



### Without closure valve with vertical pressure outlet:

1.6 kW	230 V	1400-S3	<b>28 646-C</b>
1.4 kW	400 V	1500-S3	<b>28 751</b>
3.2 kW	400 V	3000-S3	<b>28 752</b>

### With closure valve with horizontal pressure outlet:

1.6 kW	230 V	1400-S3	<b>28 648C</b>
1.4 kW	400 V	1500-S3	<b>28 753</b>
3.2 kW	400 V	3000-S3	<b>28 754</b>

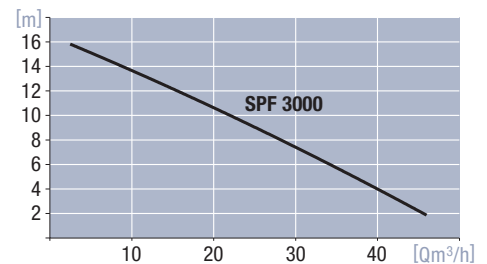
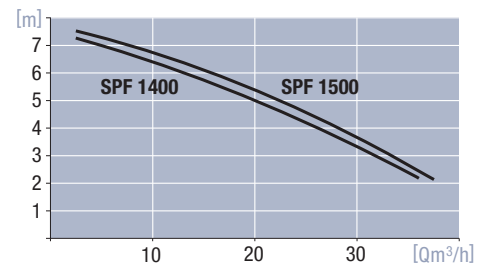


Illustration shows Art. # 28 628

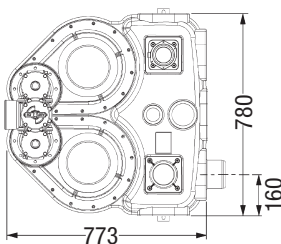
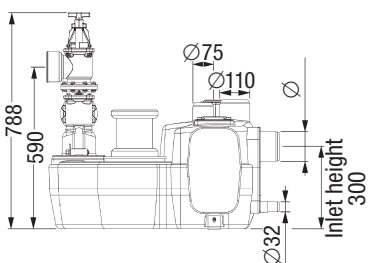


Illustration shows Art. # 28 764

## Lifting station *Aqualift F Duo* for free standing installation in frost-free rooms for wastewater with or without sewage

Tank volume: 120 liters  
Pump volume: 50 liters

Consisting of:  
**Polyethylene storage chamber**, with air pressure level detector, clean-out opening. Connection for inlet  $\varnothing$  110 (inlet height 300 mm) and ventilation  $\varnothing$  75, connection coupling for manual diaphragm pump  $\varnothing$  32.

**Twin wastewater pump** with non-chokable impeller to pump wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68), power cable length 10 m.

**Vertical/ horizontal outlet** with integrated non-return valve, connection coupling  $\varnothing$  110 with hose section, **with/without closure valve** (provided loose)

**Komfort 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 65), wall mounted, voltage 400 V DC at 50 Hz. With potential-free contact.

Total weight approx. 84 kg.

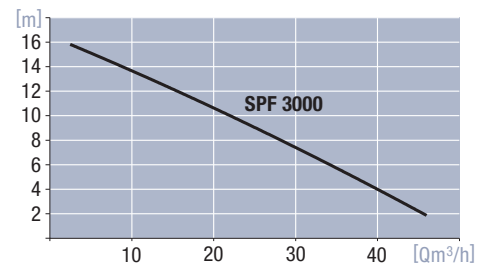
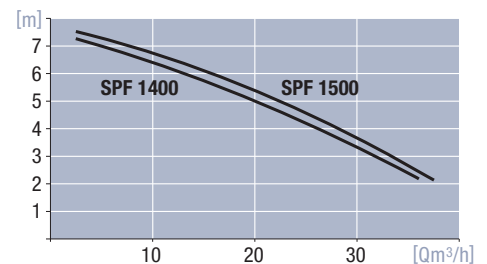


### Without closure valve with vertical pressure outlet:

1.6 kW	230 V	1400-S3	<b>28 628</b>
1.4 kW	400 V	1500-S3	<b>28 764</b>
3.2 kW	400 V	3000-S3	<b>28 765</b>

### With closure valve with horizontal pressure outlet:

1.6 kW	230 V	1400-S3	<b>28 629</b>
1.4 kW	400 V	1500-S3	<b>28 766</b>
3.2 kW	400 V	3000-S3	<b>28 767</b>



# Lifting station for wastewater with or without sewage – Aqualift F XL Duo 200 liters

available April 2013

Illustration and dimensioned drawing

Article description

Power (P1) Current connection Pump SPF Art. #

**NEW**



Illustration shows Art. # 11 096

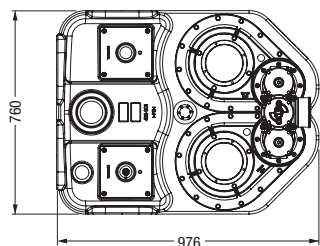
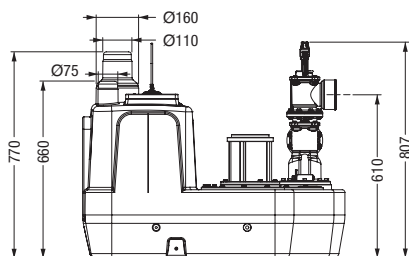
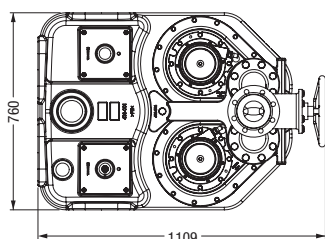
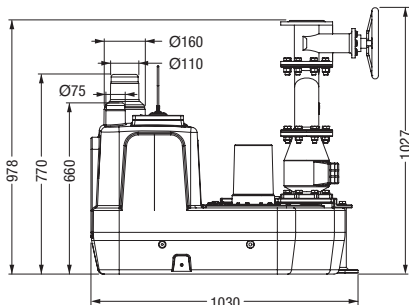


Illustration shows Art. # 11 075



## Lifting station Aqualift F XL Duo for free standing installation

Tank volume: 200 liters  
Pump volume: 120 liters

Twin station with two SPF pumps for wastewater with or without sewage for free-standing installation in frost-free rooms

Consisting of:

**Polyethylene storage chamber**, chamber volume 200 liters, pumping volume 120 liters, with air pressure level detector, clean-out opening. Spigots for vertical inlet Ø 110mm/160mm, ventilation Ø 75mm and for manual diaphragm pump Ø 32mm. Horizontal inlet Ø 50mm to Ø 200mm by sawing.

**Twin wastewater pump** with non-chokable impeller to pump wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68), power cable length 10 m.

Operating mode:

S1: Continuous Duty

S3: 30% power on duration

**Vertical/horizontal outlet** with integrated non-return valve, **with/without closure valve** (provided loose), with hose section or flange.

**Komfort 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 65), wall mounted, voltage 230 V or 400 V DC at 50 Hz. With potential-free/BMS contact (optional at 230 V).

## Without closure valve with vertical pressure outlet:

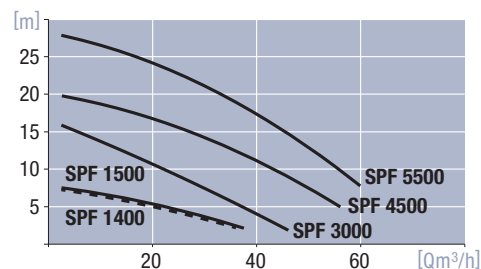
1.6 kW	230 V	1400-S1	<b>11 085</b>
1.4 kW	400 V	1500-S1	<b>11 095</b>
3.2 kW	400 V	3000-S1	<b>11 105</b>

## With plastic closure valve with horizontal pressure outlet (Ø)

1.6 kW	230 V	1400-S1	<b>11 086</b>
1.4 kW	400 V	1500-S1	<b>11 096</b>
3.3 kW	400 V	3000-S1	<b>11 106</b>

## With cast iron closure valve with vertical pressure outlet (Flange DN)

3.2 kW	400 V	3000-S1	<b>11 108</b>
4.5 kW	400 V	4500-S1	<b>11 121</b>
5.7 kW	400 V	5500-S3	<b>11 075</b>



CE EN 12050-1

Type	SPF 1400	SPF 1500	SPF 3000	SPF 4500	SPF 5500
Input Power (P1)	1.6 kW	1.4 kW	3.2 kW	4.5 kW	5.7 kW
Power (P2)	1.1 kW	1.1 kW	2.7 kW	3.7 kW	4.7 kW
Voltage	230 V AC	400 V DC	400 V DC	400 V DC	400 V DC
Amperage	7.3 A	2.7 A	5.4 A	7.4 A	9.1 A
Operating mode	S1	S1	S1	S1	S3 30% power on duration
Weight	99 kg	98 kg	188 kg	189 kg	211 kg

# Lifting station for wastewater with or without sewage – Aqualift F XL Duo 300 liters

available April 2013

## Illustration and dimensioned drawing

## Article description

**NEW**

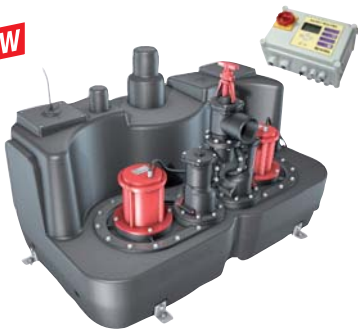


Illustration shows Art. # 11 101

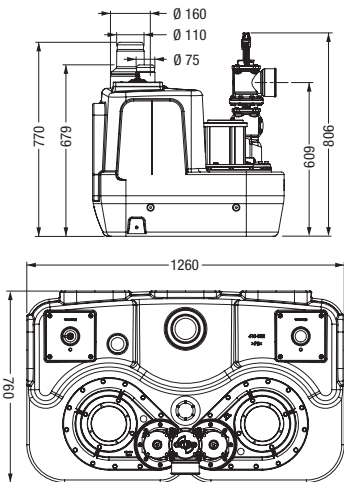
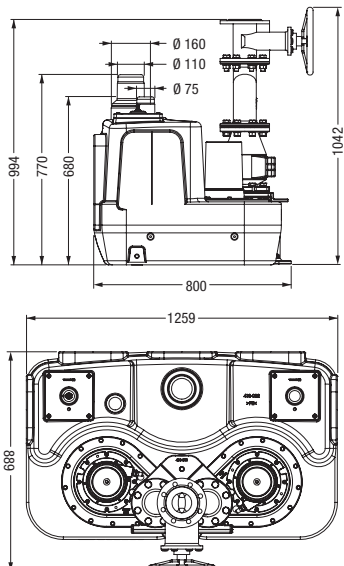


Illustration shows Art. # 11 113



### Lifting station Aqualift F XL Duo for free standing installation

Tank volume: 300 liters  
Pump volume: 175 liters

Twin station with two SPF pumps for wastewater with or without sewage for free-standing installation in frost-free rooms

Consisting of:

**Polyethylene storage chamber**, chamber volume 300 liters, pumping volume 175 liters, with air pressure level detector, clean-out opening.

Spigots for vertical inlet  $\varnothing$  110mm/160mm, ventilation  $\varnothing$  75mm and for manual diaphragm pump  $\varnothing$  32mm. Horizontal inlet  $\varnothing$  50mm to  $\varnothing$  200mm by sawing.

**Twin wastewater pump** with non-chokable impeller to pump wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68), power cable length 10 m.

Operating mode:

S1: Continuous Duty

S3: 30% power on duration

**Vertical/horizontal outlet** with integrated non-return valve, **with/without closure valve** (provided loose), with hose section or flange.

**Komfort 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 65), wall mounted, voltage 230 V or 400 V DC at 50 Hz.

With potential-free/BMS contact (optional at 230 V).

Power (P1)	Current connection	Pump SPF	Art. #
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### Without closure valve with vertical pressure outlet:

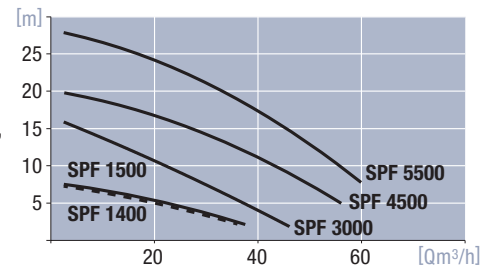
1.6 kW	230 V	1400-S1	11 090
1.4 kW	400 V	1500-S1	11 100
3.2 kW	400 V	3000-S1	11 110

### With plastic closure valve with horizontal pressure outlet ( $\varnothing$ 110mm):

1.6 kW	230 V	1400-S1	11 091
1.4 kW	400 V	1500-S1	11 101
3.2 kW	400 V	3000-S1	11 111

### With cast iron closure valve with vertical pressure outlet (Flange DN 80):

3.2 kW	400 V	3000-S1	11 113
4.5 kW	400 V	4500-S1	11 124
5.7 kW	400 V	5500-S3	11 080



EN 12050-1

Type	SPF 1400	SPF 1500	SPF 3000	SPF 4500	SPF 5500
<b>Input Power (P1)</b>	1.6 kW	1.4 kW	3.2 kW	4.5 kW	5.7 kW
<b>Power (P2)</b>	1.1 kW	1.1 kW	2.7 kW	3.7 kW	4.7 kW
<b>Voltage</b>	230 V AC	400 V DC	400 V DC	400 V DC	400 V DC
<b>Amperage</b>	7.3 A	2.7 A	5.4 A	7.4 A	9.1 A
<b>Operating mode</b>	S1	S1	S1	S1	S3 30% power on duration
<b>Weight</b>	99 kg	98 kg	188 kg	189 kg	211 kg

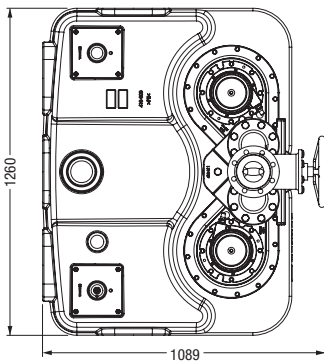
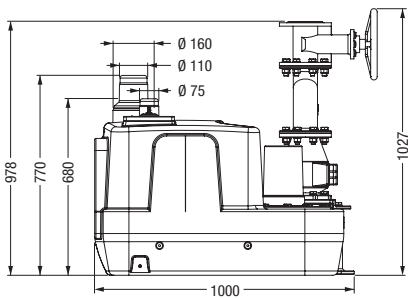
# Lifting station for wastewater with or without sewage – Aqualift F XL Duo 450 liters

available April 2013

## Illustration and dimensioned drawing



Illustration shows Art. # 11 127



## Article description

### Lifting station Aqualift F XL Duo for free standing installation

Tank volume: 450 liters  
Pump volume: 250 liters

Twin station with two SPF pumps for wastewater with or without sewage for free-standing installation in frost-free rooms

Consisting of:

**Polyethylene storage chamber**, chamber volume 450 liters, pumping volume 250 liters, with air pressure level detector, clean-out opening. Spigots for vertical inlet  $\varnothing 110\text{mm}/160\text{mm}$ , ventilation  $\varnothing 75\text{mm}$  and for manual diaphragm pump  $\varnothing 32\text{mm}$ . Horizontal inlet  $\varnothing 50\text{mm}$  to  $\varnothing 200\text{mm}$  by sawing.

**Twin wastewater pump** with non-chokable impeller to pump wastewater with or without sewage (open channel passage 40 mm). Pump is rated submersible (IP 68), power cable length 10 m.

Operating mode:

S1: Continuous Duty

S3: 30% power on duration

**Vertical/ horizontal outlet** with integrated non-return valve, **with/without closure valve** (provided loose), with hose section or flange.

**Komfort 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 65), wall mounted, voltage 230 V or 400 V DC at 50 Hz. With potential-free/BMS contact (optional at 230 V).

CE EN 12050-1

Power (P1)	Current connection	Pump SPF	Art. #
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### Without closure valve with vertical pressure outlet:

3.2 kW	400 V	3000-S1	11 115
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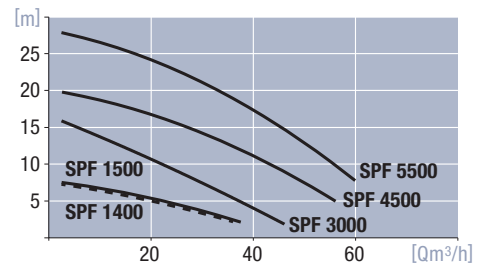
### With plastic closure valve with horizontal pressure outlet ( $\varnothing 110\text{mm}$ ):

3.2 kW	400 V	3000-S1	11 116
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### With cast iron closure valve with vertical pressure outlet (Flange DN 80):

4.5 kW	400 V	4500-S1	11 127
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5.7 kW	400 V	5500-S3	11 083
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Type	SPF 3000	SPF 4500	SPF 5500
Input Power (P1)	3.2 kW	4.5 kW	5.7 kW
Power (P2)	2.7 kW	3.7 kW	4.7 kW
Voltage	400 V DC	400 V DC	400 V DC
Amperage	5.4 A	7.4 A	9.1 A
Operating mode	S1	S1	S3 30% power on duration
Weight	188 kg	189 kg	211 kg

# Accessories



## Backflow preventer

Manufactured from cast iron  
With DN 80 flange according to DIN 2501; Backflow preventer with flap and flap opening lever

Art. # 28 021



## Gate closure valve

Manufactured from cast iron  
With DN 80 flange according to DIN 2501, gate closure valve including closure wheel

Art. # 28 041



## Flange adaptor from DN 80 to DN 100

Manufactured from PE, flanges according to DIN 2501  
For use with PE and SML pressure pipes, includes two gaskets

Art. # 28 018



## Y-Coupling

Manufactured from cast iron  
With DN 80 flange according to DIN 2501, Y-coupling for use with *Aqualift F XL* twin pump lifting stations

Art. # 28 042



## Flange adaptor from DN 80 to DN 100

Manufactured from cast iron  
Flange according to DIN 2501  
For use with cast iron pressure pipes

Art. # 28 068



## Sealing gasket (rubber)

According to DIN 2501  
For pressure pipe connections

DN 80 Art. # 28 043  
DN 100 Art. # 28 044



## Polyethylene connection adaptor

For connection from *Aqualift XL* to on-site pressure pipe  
For use with PE and SML pressure pipes, with DIN 2501 flange, includes single gasket

Ø 90 Art. # 28 019  
Ø 110 Art. # 28 020



## Flexible pressure pipe connection

Length – 200 mm

- For PE and SML pipe connections  
For use with KESSEL *Aqualift F*, *Aqualift F XL* lifting stations  
Art. #: Ø 90: 28 662 Ø 110: 28 663
- For cast iron pipe connections  
For use with KESSEL *Aqualift F XL* lifting stations  
Art. #: Ø 100: 28 664 Ø 120: 28 665



## Cast iron connection adaptor

For connection from *Aqualift XL* to on-site pressure pipe  
For use with cast iron pressure pipes, with DIN 2501 flange PN 16, includes single gasket

Ø 100 Art. # 28 069  
Ø 120 Art. # 28 072



## Alarm float switch upgrade set for *Aqualift F XL* lifting station

For use with *Aqualift Comfort 230* Volt and 400 Volt control units. Consists of float switch, support plate, cover and 5 meter connection cable.

Art. # 28 014

010-566 KA/AM 03/13

Right reserved for technical changes.

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