

Range _____
Pump technology

 **KESSEL**

Lifting station *Aqualift F XL* 400 V / 60 Hz

From 120 to 900 liter tanks



 Made in Germany

www.kessel.com

Lifting station *Aqualift F XL*

The powerful version for commercial, industrial and communal applications.

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

The *Aqualift F XL* can be combined with three different tanks with a capacity of 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.





Power and control unit

The *Aqualift F XL* has powerful pumps in the version S3 with a wide range of applications from an input power of 1,600 W to 5,800 W, a sensor control and a Comfort control unit with self-diagnosis system SDS.

Variable

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

Lifting station *Aqualift F Duo* 120 liter tank volume 400 V / 60 Hz

for free-standing installation in frost-free rooms



EN 12050-1

Tank volume: 120 liters

Pump volume: 50 liters

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



Duo version with two pumps

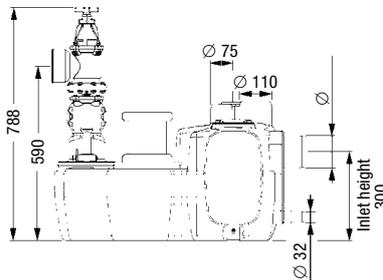
SPF pump	Voltage	Art. no.
Without closure valve		
1500	400 V	28 764-60Hz
3000	400 V	28 765-60Hz

Pumps

SPF pumps for wastewater with or without feces, 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 \varnothing 110 with hose section.

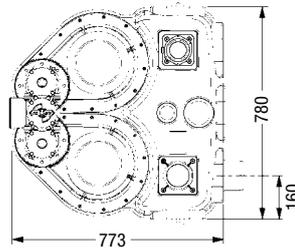
Pressure outlet:

vertical \varnothing 110 without closure valve or horizontal \varnothing 110 with closure valve



Comfort control unit

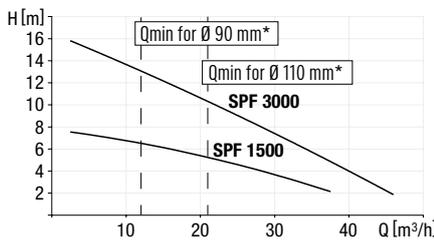
with mains power ON / OFF switch and multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook; control unit is splash proof (IP 54), wall mounted, voltage 400 V 50/60 Hz. With potential-free contact.



Accessories: page 10

Illustration shows lifting station with closure valve

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 1500	1.6 kW	1.1 kW	400 V	60 Hz	2.9 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	3.5 kW	2.8 kW	400 V	60 Hz	5.7 A	3 × 16 A	7 × 1.5 mm ²	40°C	24 kg	IP 68	2.845	47 m ³ /h	16 m

Lifting station *Aqualift F XL Duo* 200 liter tank volume 400 V / 60 Hz



for free-standing installation in frost-free rooms

EN 12050-1

Tank volume: 200 liters

Pump volume: 120 liters

Polyethylene storage chamber

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

Pumps

Pressure sensor controlled single or twin wastewater *SPF* pumps with multi-vane impeller to pump wastewater with or without feces (open channel passage 40 mm). Pump is rated submersible (IP 68), pump cable length 5 m. With sound-absorbing underlay mat (10 mm thick).

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

Pressure outlet:

vertical \varnothing 110 without closure valve, horizontal \varnothing 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 50/60 Hz. With potential-free/BMS contact (optional 230 V).

Accessories: page 10



Duo version with two pumps

SPF pump	Voltage	Art. no.
Without closure valve		
1500	400 V	11 019-60Hz
3000	400 V	11 037-60Hz
4500	400 V	11 060-60Hz
5400	400 V	11 073-60Hz

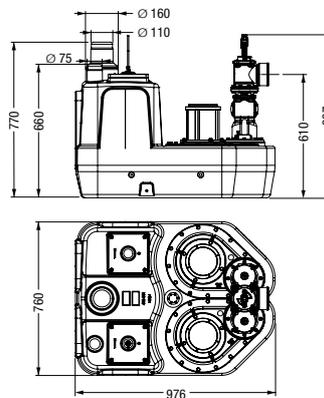
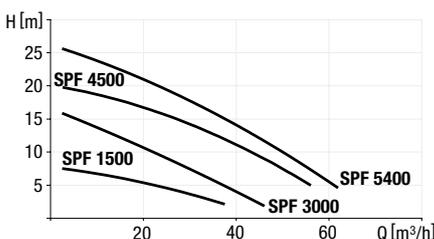


Illustration shows lifting station with closure valve

Pumping capacity



Pump type	Input Power (P1)	Power (P2)	Voltage	Amperage	Weight	Pumping capacity	Pumping height
SPF 1500	1.6 kW	1.1 kW	400 V	2.9 A	98 kg	40 m³/h	8 m
SPF 3000	3.5 kW	2.8 kW	400 V	5.7 A	188 kg	47 m³/h	16 m
SPF 4500	4.7 kW	3.7 kW	400 V	7.8 A	189 kg	55 m³/h	20 m
SPF 5400	5.8 kW	4.9 kW	400 V	9.6 A	211 kg	60 m³/h	27 m

Lifting station *Aqualift F XL Duo* 300 liter tank volume 400 V / 60 Hz

for free-standing installation in frost-free rooms



EN 12050-1

Tank volume: 300 liters

Pump volume: 175 liters

Polyethylene storage chamber

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

Pumps

Pressure sensor controlled twin wastewater *SPF* pumps with multi-vane impeller to pump wastewater with or without feces (open channel passage 40 mm). Pump is rated submersible (IP 68), pump cable length 5 m. With sound-absorbing underlay mat (10 mm thick).

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

Pressure outlet:

vertical Ø 110 without closure valve, horizontal Ø 110 with plastic closure valve or vertical DN 80 with cast iron closure valve

Comfort control unit

with mains power ON / OFF switch and multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook; control unit is splash proof (IP 54), wall mounted, voltage 400 V 50/60 Hz. With potential-free/BMS contact (optional 230 V).

Accessories: page 10



Duo version with two pumps

SPF pump	Voltage	Art. no.
Without closure valve		
1500	400 V	11 100-60Hz
3000	400 V	11 110-60Hz
4500	400 V	11 123-60Hz
5400	400 V	11 078-60Hz

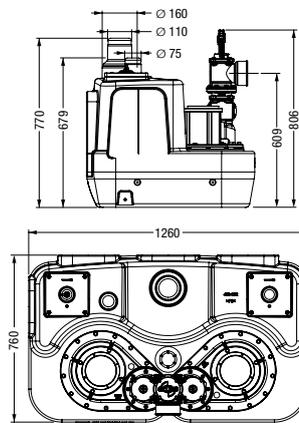
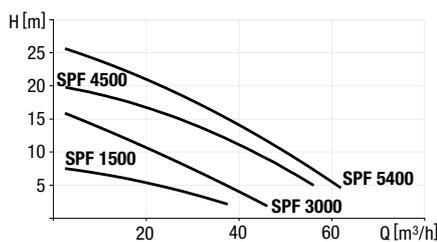


Illustration shows lifting station with closure valve

Pumping capacity



Pump type	Input Power (P1)	Power (P2)	Voltage	Amperage	Weight	Pumping capacity	Pumping height
SPF 1500	1.6 kW	1.1 kW	400 V	2.9 A	98 kg	40 m³/h	8 m
SPF 3000	3.5 kW	2.8 kW	400 V	5.7 A	188 kg	47 m³/h	16 m
SPF 4500	4.7 kW	3.7 kW	400 V	7.8 A	189 kg	55 m³/h	20 m
SPF 5400	5.8 kW	4.9 kW	400 V	9.6 A	211 kg	60 m³/h	27 m

Lifting station *Aqualift F XL Duo* 450 liter tank volume 400 V / 60 Hz



for free-standing installation in frost-free rooms

EN 12050-1

Tank volume: 450 liters

Pump volume: 250 liters

Polyethylene storage chamber

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

Pumps

Pressure sensor controlled twin wastewater SPF pumps with multi-vane impeller to pump wastewater with or without feces (open channel passage 40 mm). Pump is rated submersible (IP 68), pump cable length 5 m. With sound-absorbing underlay mat (10 mm thick).

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

Pressure outlet:

vertical Ø 110 without closure valve, horizontal Ø 110 with plastic closure valve or vertical DN 80 with cast iron closure valve

Comfort control unit

with mains power ON / OFF switch and multilingual digital display (EN, DE, FR, IT, PL, NL) showing current operational status, settings and logbook; control unit is splash proof (IP 54), wall mounted, voltage 400 V 50/60 Hz. With potential-free/BMS contact (optional 230 V).

➤ **Accessories:** page 10



Duo version with two pumps

SPF pump	Voltage	Art. no.
Without closure valve		
3000	400 V	11 054-60Hz
4500	400 V	11 069-60Hz
5400	400 V	11 082-60Hz

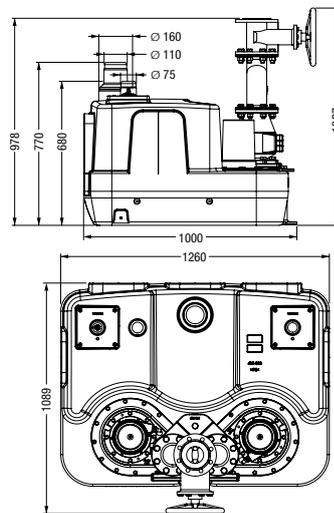
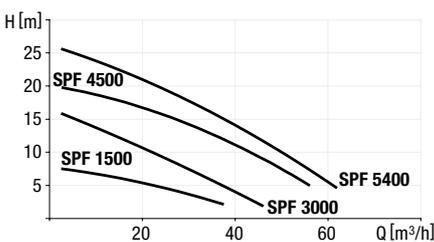


Illustration shows lifting station with closure valve

Pumping capacity



Pump type	Input Power (P1)	Power (P2)	Voltage	Amperage	Weight	Pumping capacity	Pumping height
SPF 3000	3.5 kW	2.8 kW	400 V	5.7 A	188 kg	47 m³/h	16 m
SPF 4500	4.7 kW	3.7 kW	400 V	7.8 A	189 kg	55 m³/h	20 m
SPF 5400	5.8 kW	4.9 kW	400 V	9.6 A	211 kg	60 m³/h	27 m

Lifting station *Aqualift F XL Duo* 900 liter tank volume 400 V / 60 Hz

for free-standing installation in frost-free rooms



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 \varnothing 110 mm/160 mm, ventilation \varnothing 75 mm and for manual diaphragm pump \varnothing 32 mm.

Horizontal inlet \varnothing 50 mm to \varnothing 200 mm by sawing.

Pumps

Pressure sensor controlled twin wastewater *SPF* pumps with multi-vane impeller to pump wastewater with or without feces (open channel passage 40 mm). Pump is rated submersible (IP 68), pump cable length 5 m. With sound-absorbing underlay mat (10 mm thick).

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

Pressure outlet:

vertical \varnothing 110 without closure valve, horizontal \varnothing 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 50/60 Hz. With potential-free/BMS contact (optional 230 V).

Accessories: page 10



Duo version with two pumps

SPF pump	Voltage	Art. no.
Without closure valve		
3000	400 V	11 054-900I-60Hz
4500	400 V	11 069-900I-60Hz
5400	400 V	11 082-900I-60Hz

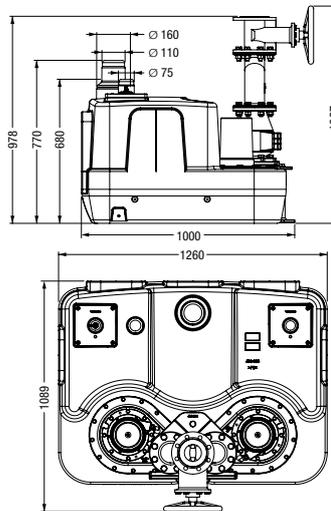
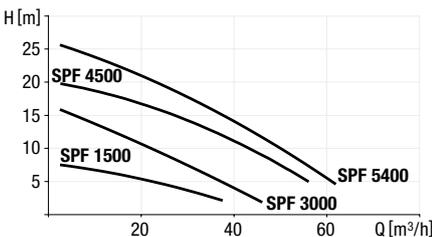


Illustration shows lifting station with closure valve

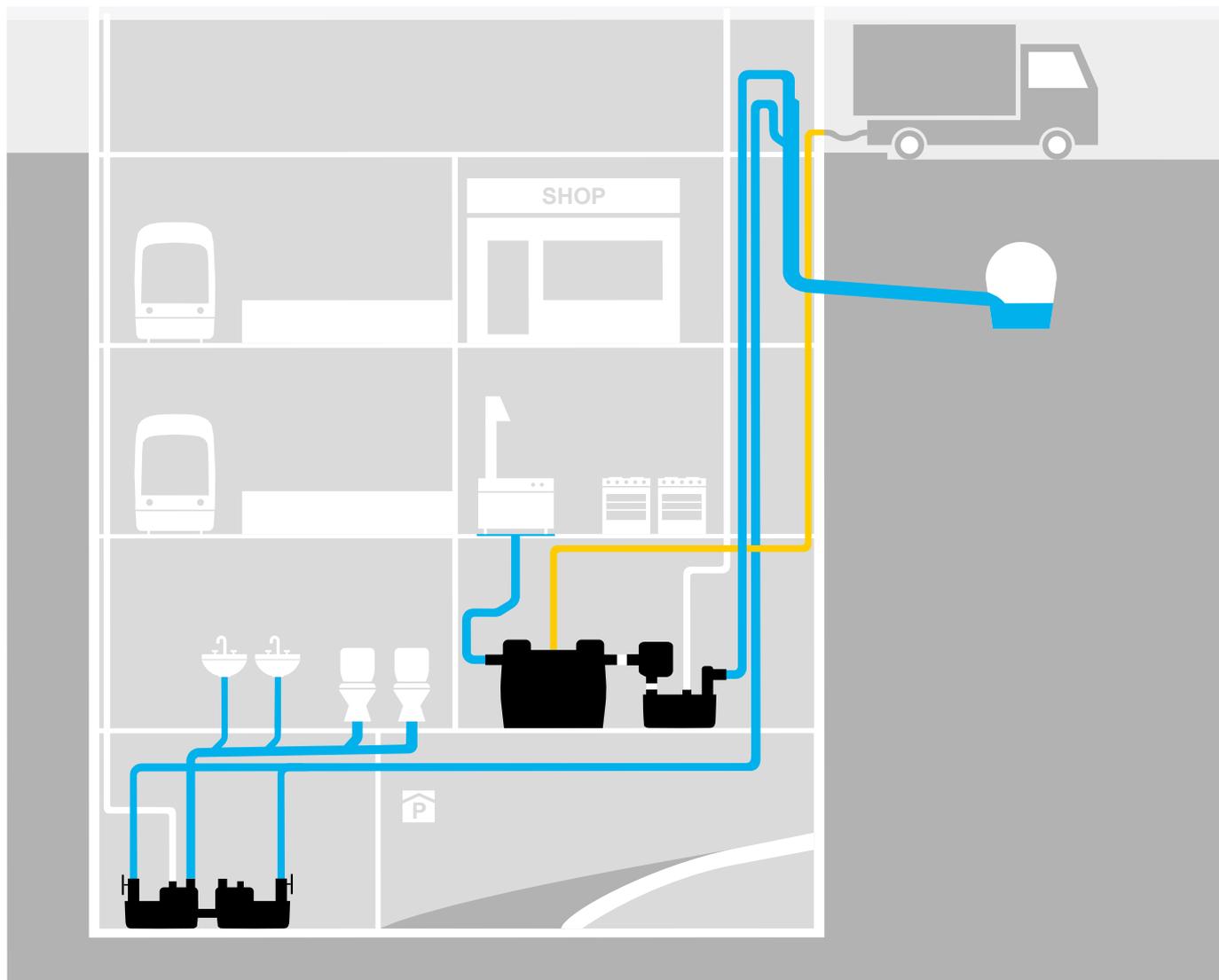
Pumping capacity



Pump type	Input Power (P1)	Power (P2)	Voltage	Amperage	Weight	Pumping capacity	Pumping height
SPF 3000	3.5 kW	2.8 kW	400 V	5.7 A	188 kg	47 m³/h	16 m
SPF 4500	4.7 kW	3.7 kW	400 V	7.8 A	189 kg	55 m³/h	20 m
SPF 5400	5.8 kW	4.9 kW	400 V	9.6 A	211 kg	60 m³/h	27 m

Technical information

The *Aqualift F XL Duo* is designed for drainage of wastewater collected below the backwater level (ground level) according to EN 12050-1. The larger tank storage capacities and powerful pump makes the *Aqualift F Duo XXL* series perfect for use in large private, commercial or public buildings, for example apartment buildings, office buildings, shopping centers, hospitals, governmental building and schools. The systems were designed with space saving tanks allowing them to easily be retrofitted into existing buildings. Horizontal positioning of the pumps provide the pumped wastewater a direct path out of the system without the requirement of power robbing bends or fittings. A gate closure valve can be installed between the storage tank and the pumps, which allows the pumps to be removed without emptying the tank, so that a twin pump system can fully operate on a single pump without interruption.



Professional advantages

- High performance pumps for large volumes at high pumping heads
- Compact design easy placement in existing buildings
- Horizontal pump positioning pump ejects wastewater vertically – no power loss in fittings
- Free 40 mm channel passage for blockage free pumping of wastewater with solids

Comfort control unit

- User friendly navigation in multi-line display
- With self-diagnosis system SDS and memory function for the next service
- Displays current operational status
- Simple setting of operational parameters
- Operating hours counter
- Optional forwarding of alarm and general fault signals via a GSM interface
- Multilingual display (EN, DE, FR, IT, PL, NL)

Accessories

Upgrade set

Compatibility see product description

Art. no.

Alarm float switch

Compatibility: For use with 230 V and 400 V Comfort control units
Inclusive: Float switch, support plate, cover
Cable length: 5 m



28 014

Closure valve

Compatibility see product description

Outer diameter
 Ø (mm)

Art. no.

Closure valve, vertical

Function: For the pressure pipe of KESSEL lifting stations with plastic fitting; for connection to pressure pipe, a KESSEL flange connector or adaptor is required.
Inclusive: Gasket, screw



Ø 90

28 715

Closure valve with flange adaptor, vertical

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

Manual diaphragm pump 1 1/2 inch

for manually pumping wastewater

Outer diameter
 Ø (mm)

Art. no.

Manual diaphragm pump in cast iron

Inclusive: With a ball valve on inlet and outlet side



1 1/2 inch

28 680

Flange adaptor

Compatibility see product description

Outer diameter
 Ø (mm)

Art. no.

in PE

Compatibility: From KESSEL fitting to standard flange



DN 80

28 714

in cast iron

Function: Adaptor from DN 80 to DN 100
Compatibility: For use with cast iron pressure pipes
Inclusive: Flange according to DIN 2501



-

28 068

Connection flange

Compatibility see product description

Outer diameter
 Ø (mm)

Art. no.

in PE

Compatibility: For KESSEL plastic fittings



Ø 90

28 713



Ø 110

28 712

Accessories

Backflow preventer

Compatibility see product description

in cast iron

Inclusive: DN 80 flange according to DIN 2501, backflow preventer with flap and flap opening lever



Outer diameter
Ø (mm)

DN 80

Art. no.

28 021

Connection adaptor

Compatibility see product description

in cast iron

Compatibility: For connection from lifting station *Aqualift F XL* 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



Outer diameter
Ø (mm)

Ø 90

Art. no.

28 067



Ø 110

Art. no.

28 020

Compatibility: For connection from lifting station *Aqualift F XL* to on-site pressure pipe. Fits cast iron pressure pipes

Inclusive: Flange according to DIN 2501

Outer diameter:
DN 80: OD 98 mm
DN 100: OD 118 mm



Ø 98

Art. no.

28 069



Ø 118

Art. no.

28 072

Gate closure valve

for lifting stations *Aqualift F XL*

in cast iron

Inclusive: DN 80 flange according to DIN 2501, gate closure valve including closure wheel



Outer diameter
Ø (mm)

DN 80

Art. no.

28 041

Y-Coupling

for lifting stations *Aqualift F XL*

in cast iron

Inclusive: DN 80 (OD 80 mm) flange according to DIN 2501



Outer diameter
Ø (mm)

Ø 80

Art. no.

28 042

Sealing gasket

Compatibility see product description

Sealing gasket
(rubber)

Compatibility: Flange according to DIN 2501, for pressure pipe connections



Outer diameter
Ø (mm)

DN 80
DN 100

Art. no.

28 043

28 044

Specification pump drives 60 Hz

SPF 1500 and SPF 3000

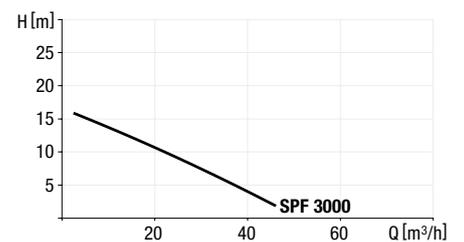
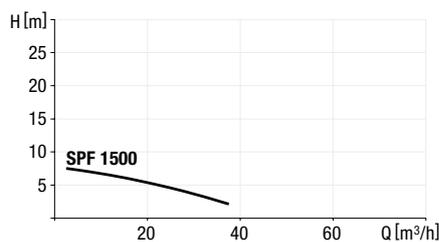


Pump type	Pump drive SPF 1500	Pump drive SPF 3000
Weight	24 kg	24 kg
Voltage	400 V	400 V
Frequency	60 Hz	60 Hz
Electric power P1	1,6 kW	3,5 kW
Mechanical power P2	1,1 kW	2,8 kW
Nominal current	2,9 A	5,7 A
Speed of rotation	1700 rpm	3400 rpm
Operating mode	S3 - 50%	S3 - 50%
Protection class	I (protective earth)	I (protective earth)
Protection type	IP68 (5mWS / 72h)	IP68 (5mWS / 72h)
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	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-S3 5m

Pump drive SPF 3000-S3 5m



Specification pump drives 60 Hz

SPF 4500 and SPF 5400

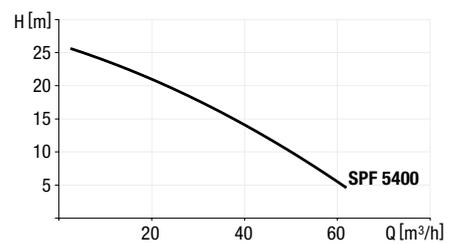
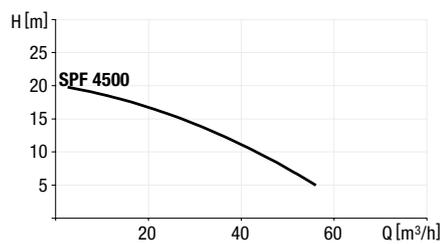


Pump type	Pump drive SPF 4500	Pump drive SPF 5400
Weight	26 kg	38 kg
Voltage	400 V	400 V
Frequency	60 Hz	60 Hz
Electric power P1	4,7 kW	5,8 kW
Mechanical power P2	3,7 kW	4,9 kW
Nominal current	7,8 A	9,6 A
Speed of rotation	3400 rpm	3400 rpm
Operating mode	S3 - 50%	S3 - 30%
Protection class	I (protective earth)	I (protective earth)
Protection type	IP68 (5mWS / 72h)	IP68 (5mWS / 72h)
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	26 m
Maximum flow rate	55 m³/h	56 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

Pumping capacity

Pump drive SPF 4500-S3 5m

Pump drive SPF 5400-S3 5m



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

Pump technology

Separator technology

Drainage technology



For further information
visit

www.kessel.com

BIM

files available at
www.kessel.com



Rights reserved for technical changes.

KESSEL AG

Bahnhofstraße 31 • 85101 Lenting • Germany

www.kessel.com