

Product category \_\_\_\_\_

Hybrid lifting station

 **KESSEL**

# The direct route to sustainable building.



The new *Ecolift L*  
hybrid lifting station for free  
gradients.



Logical.



More logical.

 Made in Germany

**HYBRID**  
Drainage Systems

Hybrid lifting stations  
instead of  
classic lifting stations

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

Overview

# Economical and safe? Of course!

A lifting station drains the basement and protects against backwater. A hybrid lifting station combines the safety of a lifting station with the efficiency of a natural gradient.



## Classic lifting station

Water must be constantly pumped over the backwater level.



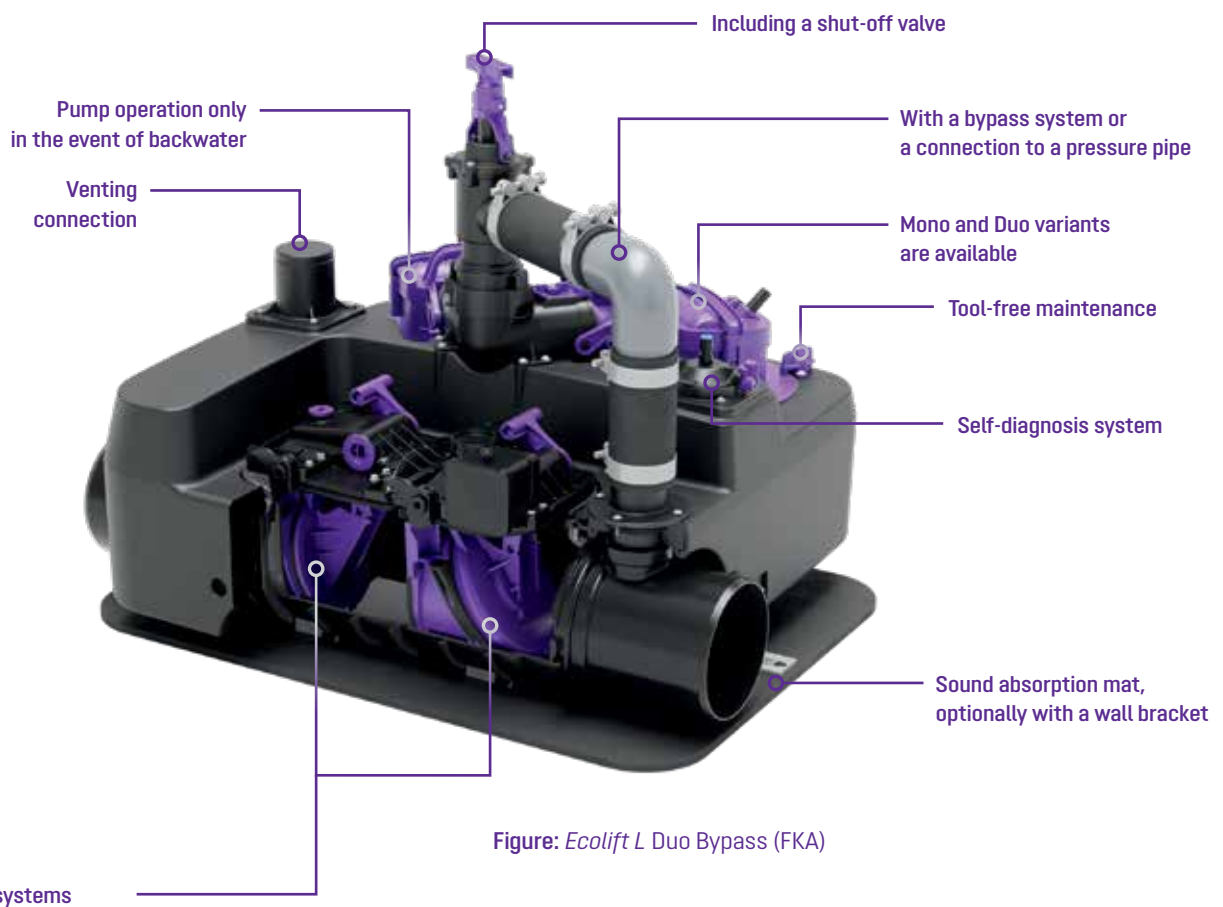
## *Ecolift L* hybrid lifting station

Lifting station and backwater valve in one: cost-saving, quiet and safe.

## At a glance

# *Ecolift L*

The sustainable hybrid lifting station for new buildings and renovations in the private and commercial sector.



### Learn more about the *Ecolift L*:

#### Overview

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#### *Ecolift* advantages

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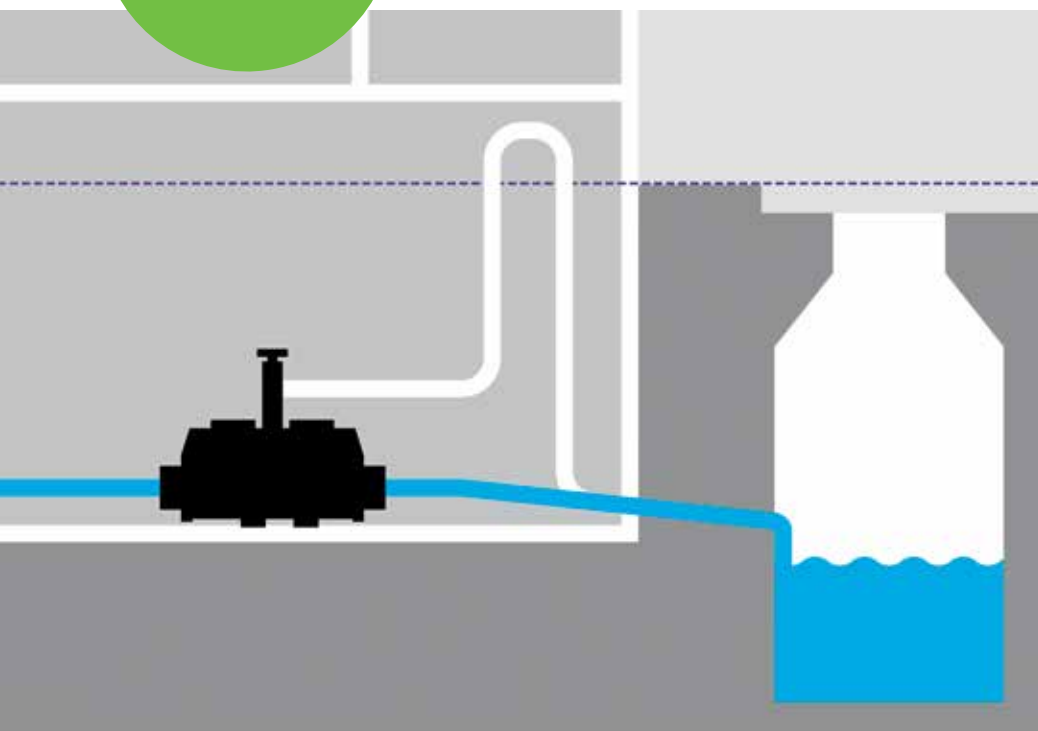
[www.ecolift.kessel.com](http://www.ecolift.kessel.com)

The *Ecolift* principle

## Pumps only when it needs to!

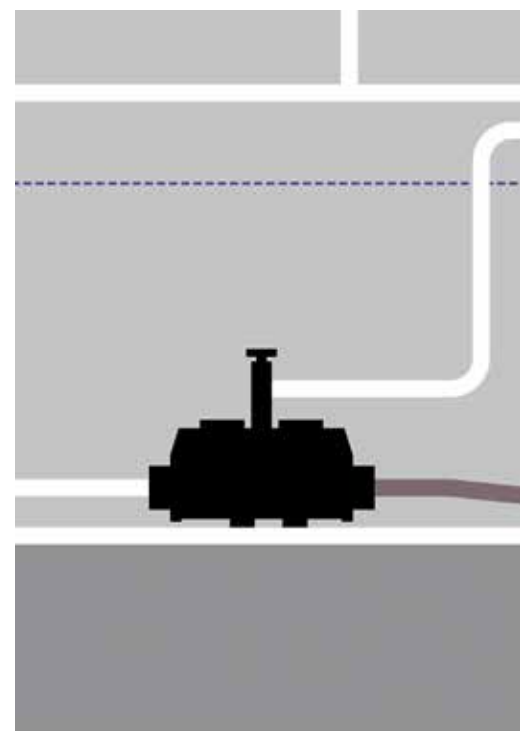
In many installation situations – in both commercial and residential buildings – there is a natural gradient to the sewer. Here too, a lifting station is usually installed as a result of the standard, although the drainage could take place without the use of expensive energy. We have rethought wastewater disposal in the case of natural gradients – and combined the lifting station with the advantages of a backwater valve.

The *Ecolift* principle uses gravity to drain water without any power consumption. Only in the event of backwater does the hybrid lifting station begin to dispose of the wastewater with the use of a pump so that the connected drainage elements can continue to be used. At the same time, the integrated closure device prevents the ingress of water from the sewer into the building.



### Normal operation

Drainage through a natural gradient



### Backwater protection

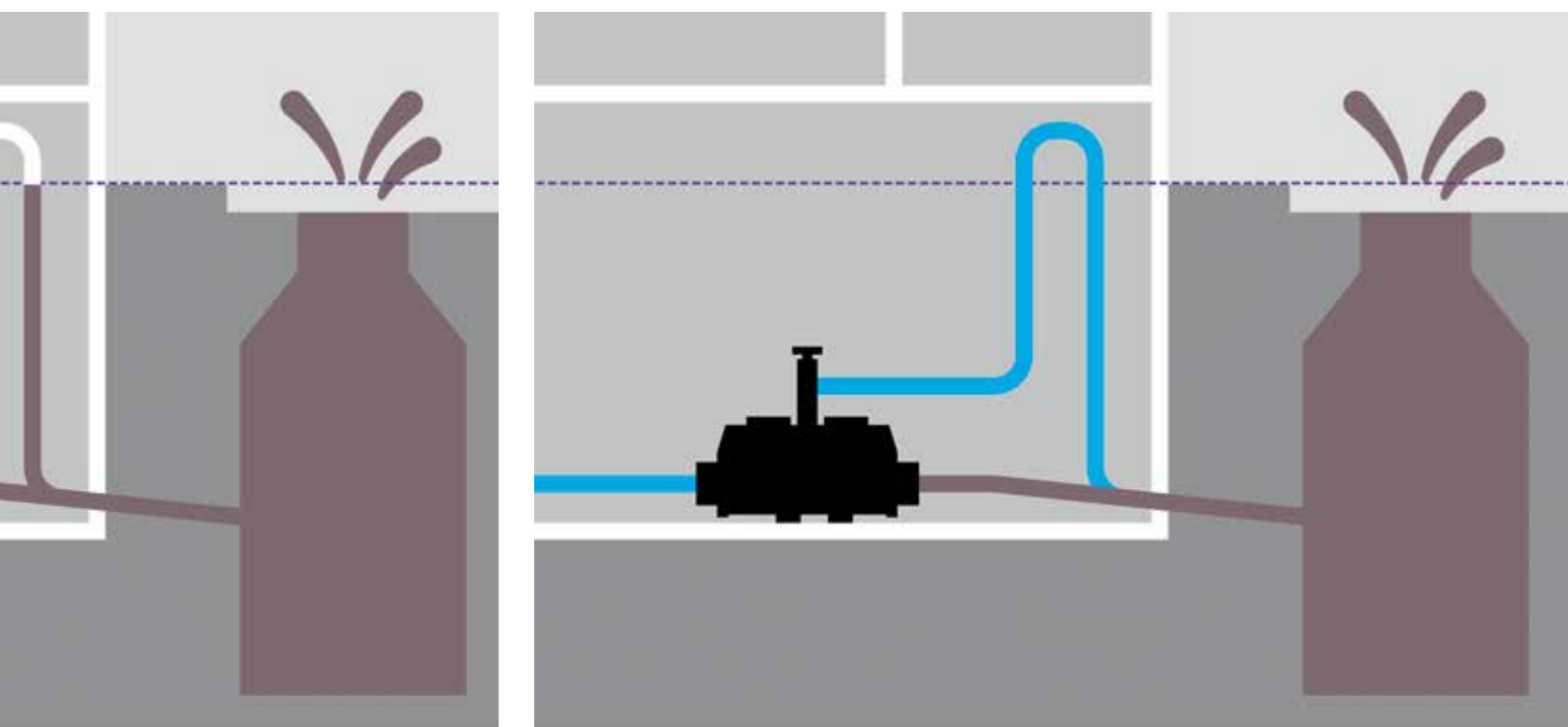
Backwater valve prevents the ingress of water



### The more logical decision: the direct route

*Ecolift* models are inexpensive, save energy and offer the highest level of comfort as pump noise is not heard during normal operation.

This makes the *Ecolift* principle the ideal solution for the entire basement drainage system in the case of natural gradients to the sewer system – for new buildings as well as for renovations.



### Drainage in the event of backwater

With a pump via the backwater loop or via the bypass (variants)

*Ecolift* advantages

## Direct route – direct advantages

In contrast to conventional lifting stations, hybrid lifting stations impress with major advantages.

### **Sustainable in new buildings**

Compared to conventional lifting stations, the 90 percent lower power consumption combined with higher operational safety at the same time makes hybrid lifting stations an environmentally friendly alternative. Regardless of whether it is a private or commercial property, our *Ecolift* models make a valuable contribution to a more sustainable approach to our environment.

### **Flexible for modernisations**

Reducing the energy consumption is an important factor in the modernisation of existing buildings.

Whether as a Mono or Duo system, with a bypass system or the connection of a pressure pipe over the backwater level: *Ecolift* L is the flexible drainage solution for energy-related renovations. Its small installation dimensions and the option to choose between one or two pumps makes it an adaptable all-rounder.



### Sustainable

Since hybrid lifting stations pump only in exceptional cases, they are more environmentally friendly compared to conventional lifting stations.



### Reliable

Safe drainage and protection against backwater, even in the event of a power failure. The self-cleaning effect prevents blockages.



### Cost-saving

The power consumption during operation is low. As the pump does not always run, wear and maintenance are kept to a minimum.



### Compact

A low installation height, narrow width and reduced installation depth: The *Ecolift L* is designed to be extraordinarily space-saving.



### Comfortable

From the installation to the dry set-up of the pumps to tool-free maintenance: the KESSEL hybrid lifting station requires minimal efforts over the many years of its service life.



### Flexible

One pump or two? For private or commercial use? The *Ecolift L* easily adapts to the respective installation situation.



### Quiet

A hybrid lifting station produces no noise during normal operation – ideal for rooms that are often used by people.



### Efficient

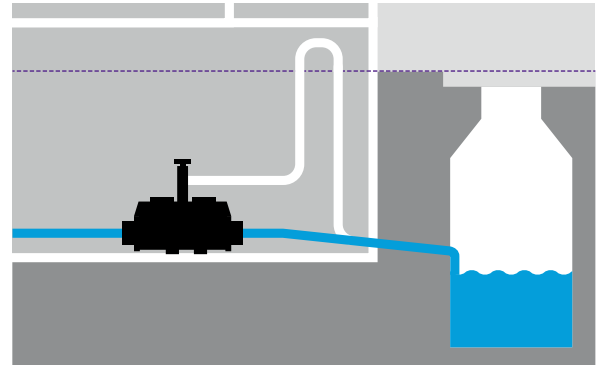
Reduced costs, less power consumption, less wear: The savings potential of an *Ecolift L* is impressive on many levels.

## A pressure loop or bypass system You have the choice

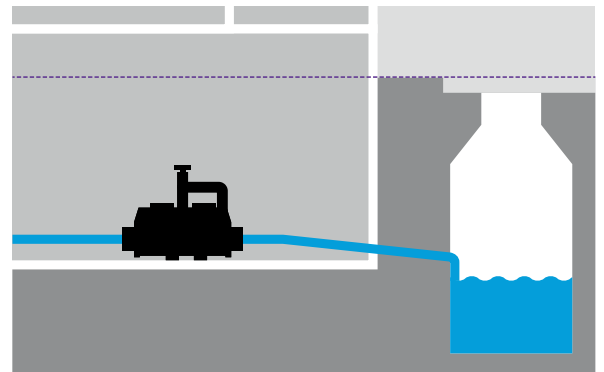
Classic lifting stations dispose of the wastewater with a pressure loop over the backwater level. From there it reaches the sewer with a free gradient.

The *Ecolift L* hybrid lifting station also has the option of a conventional connection to a pressure loop.

Alternatively, you can also get the *Ecolift L* with an integrated bypass system - an exclusive KESSEL technology that has been proven for decades. Here the wastewater is pumped via the backwater protection into the main drainage pipe. The advantage: The elimination of the pressure loop not only makes the installation easier and saves space, but also makes it significantly cheaper.



Functional diagram of the *Ecolift L* with a backwater loop



Functional diagram of the *Ecolift L Bypass*

### Installation suggestion



*Ecolift L Bypass* (FKA) on the ground floor of an apartment building below the backwater level

### Installation suggestion



*Ecolift L* (FKA) on the ground floor of an apartment building below the backwater level



## Installation suggestion



*Ecolift L Bypass (SWA) in a commercial building below the backwater level after a grease separator*

## Renovations made simple

If a lifting station needs to be replaced, it is worth considering switching to hybrid drainage – e.g. with an *Ecolift L*. In addition to the cost advantages in operation, the *Ecolift L Bypass* allows a significant space gain due to the minimal space requirement and the elimination of the pressure loop. With the optional wall bracket, the *Ecolift L* can be raised and a gradient to the sewer can be realised.

## Installation suggestion



Before the renovation: a conventional *Aqualift F* lifting station

## Installation suggestion



After the renovation: An *Ecolift L Bypass (FKA)* hybrid lifting station

Sustainable

# Pump operation only in the event of backwater

The *Ecolift L* takes advantage of gravity: Due to the natural gradient, it diverts wastewater without consuming electricity. It uses the pumps for wastewater disposal only in the event of backwater. This saves energy and at the same time protects the environment. Perfect for energy-related renovations!

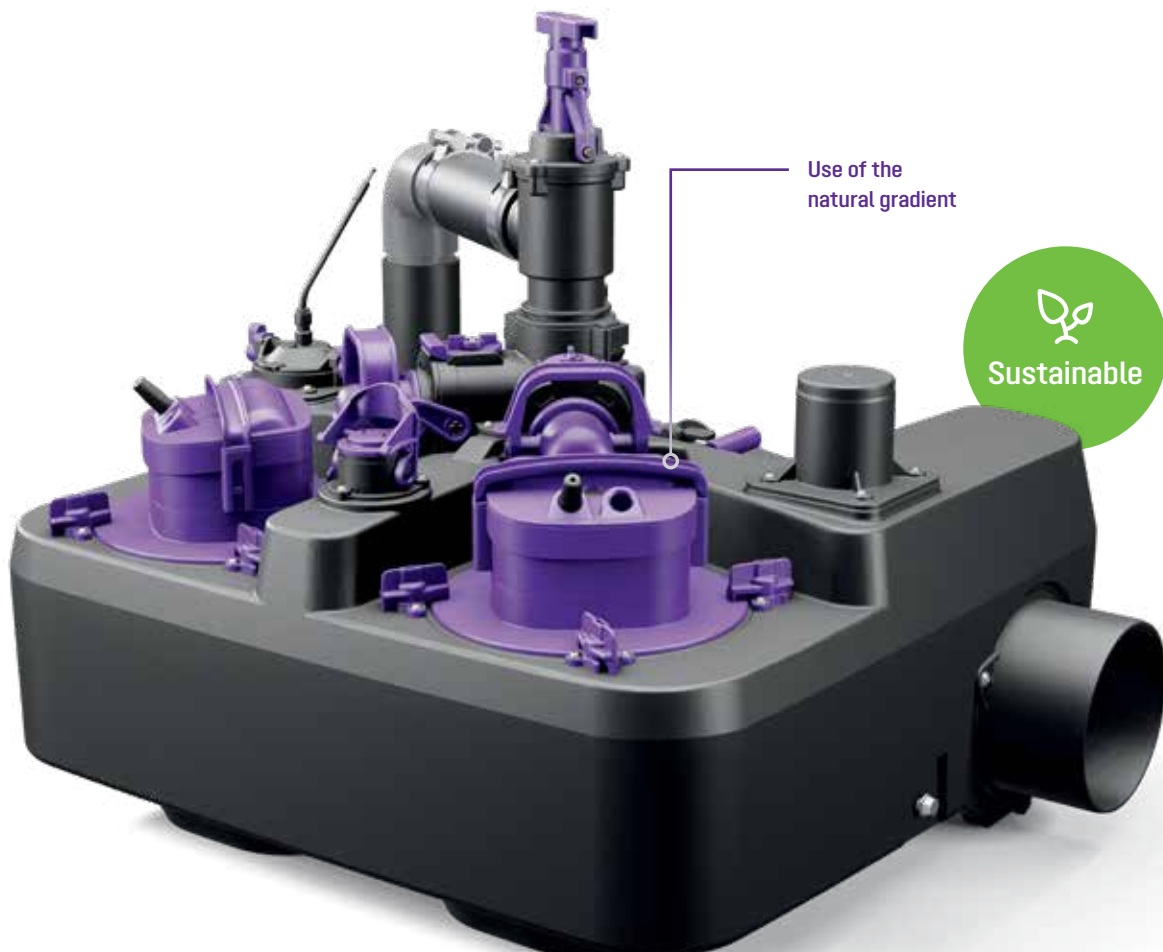
## Hybrid check

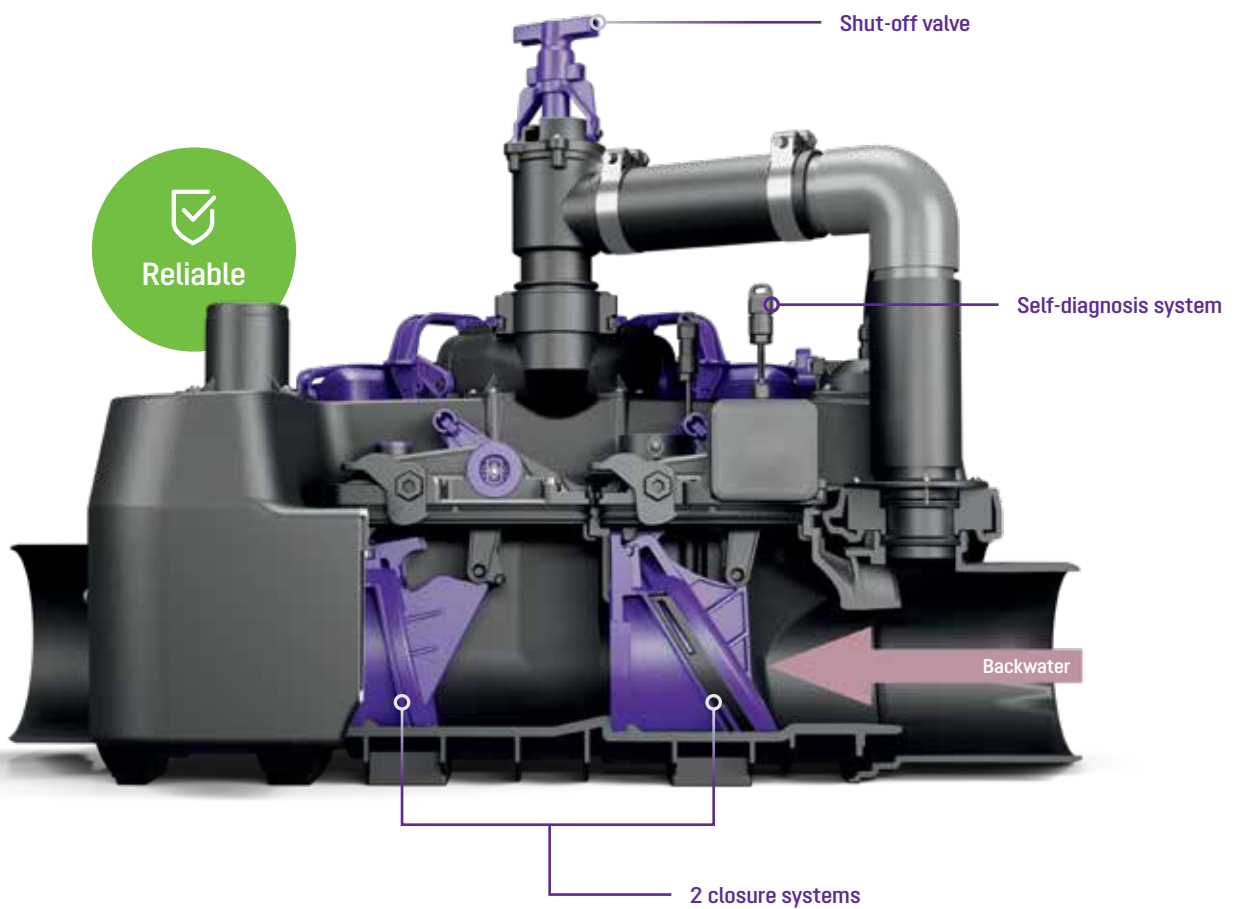


Constant pump operation.



Pump runs only in the event of backwater.





Safe

## Reliable protection in the event of backwater

The *Ecolift L* combines the best of both worlds as a lifting station and backwater protection.

Good to know: The integrated backwater valve remains functional even in the event of a power failure thanks to the battery backup.

This guarantees continuous operation at all times. A self-cleaning effect ensures the permanent removal of dirt. And the integrated self-diagnosis system (SDS) provides information about the current operating state of the system.

### Hybrid check



Operation requires power.



Works even in the event of a power failure.

Cost-saving

# Economical to operate

The system is assembled plug-in ready so the installation is simple and quick and no specialist is required for the connection. The ongoing operating costs are low because the pump only runs in the event of backwater. In contrast to a conventional lifting station, maintenance on a hybrid lifting station only needs to be carried out half as often in a commercial operation. And the reduced wear significantly increases its longevity. All this makes the *Ecolift L* an economical alternative for new buildings and renovations.

## Hybrid check



Higher wear due to constant operation.



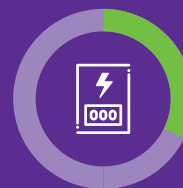
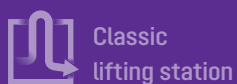
Long service life due to use of the free gradient.



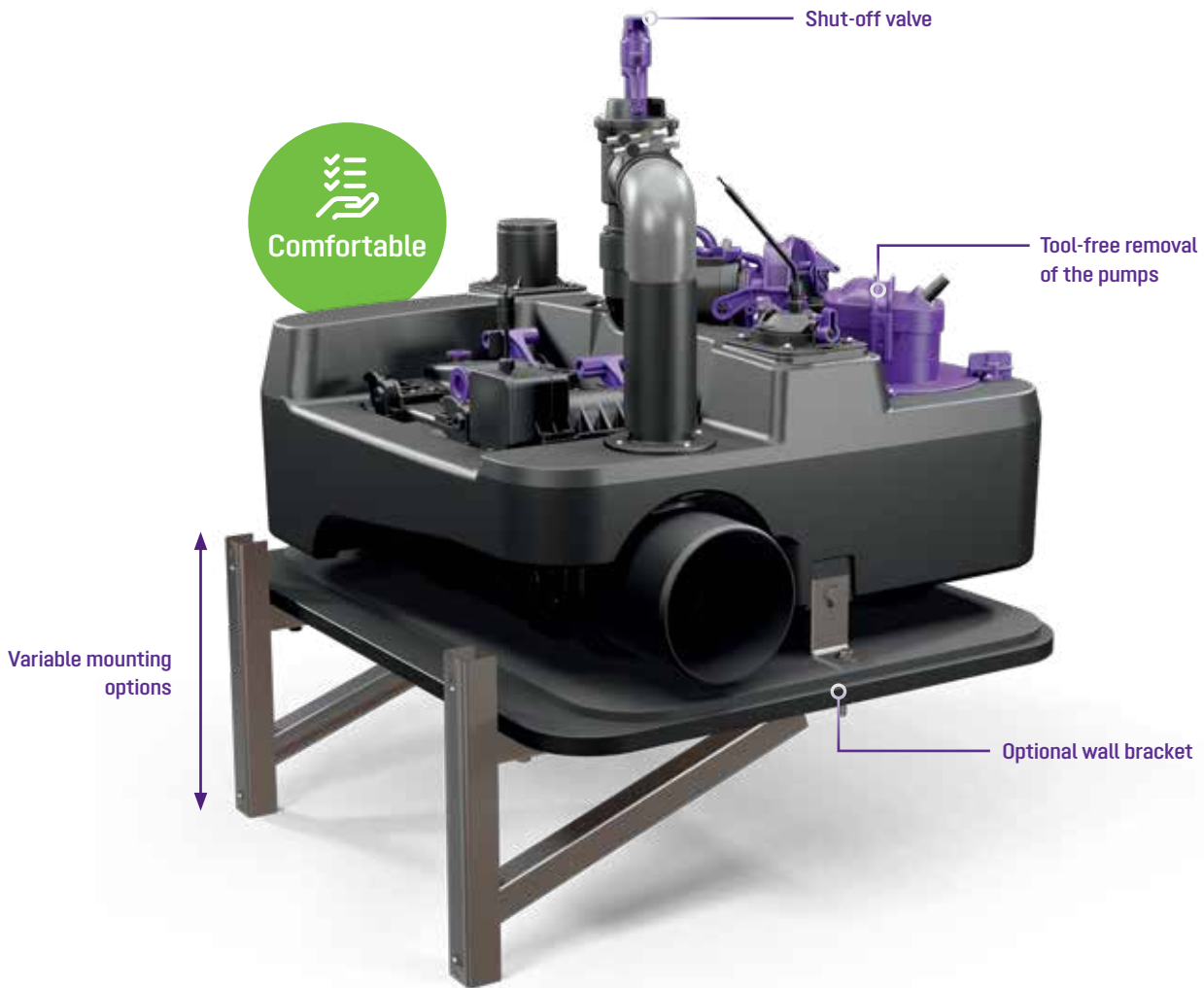
## Discover the savings potential!

We are pleased to show you, using a concrete example, how high the savings potential is with an *Ecolift L* compared to a classic lifting station.

The comparison is based on the total wastewater from the toilet facilities of a railway station with 20 toilets, 6 urinals, 4 showers and 6 washbasins (underground installation, maintenance costs incl. travel, average values).



\* Estimated value



## Comfortable Easy to use

Assembled plug-in ready, quick to install. Practical shut-off valve. Optional wall bracket for easy access to the hybrid lifting station: The *Ecolift L* provides extra comfort with its features. However, this applies not only for its installation, but also for its operation. Since the pump only works in the event of backwater, the hybrid lifting station is ultra-quiet when it is running. And the dry set-up of the pumps makes maintenance a clean affair.

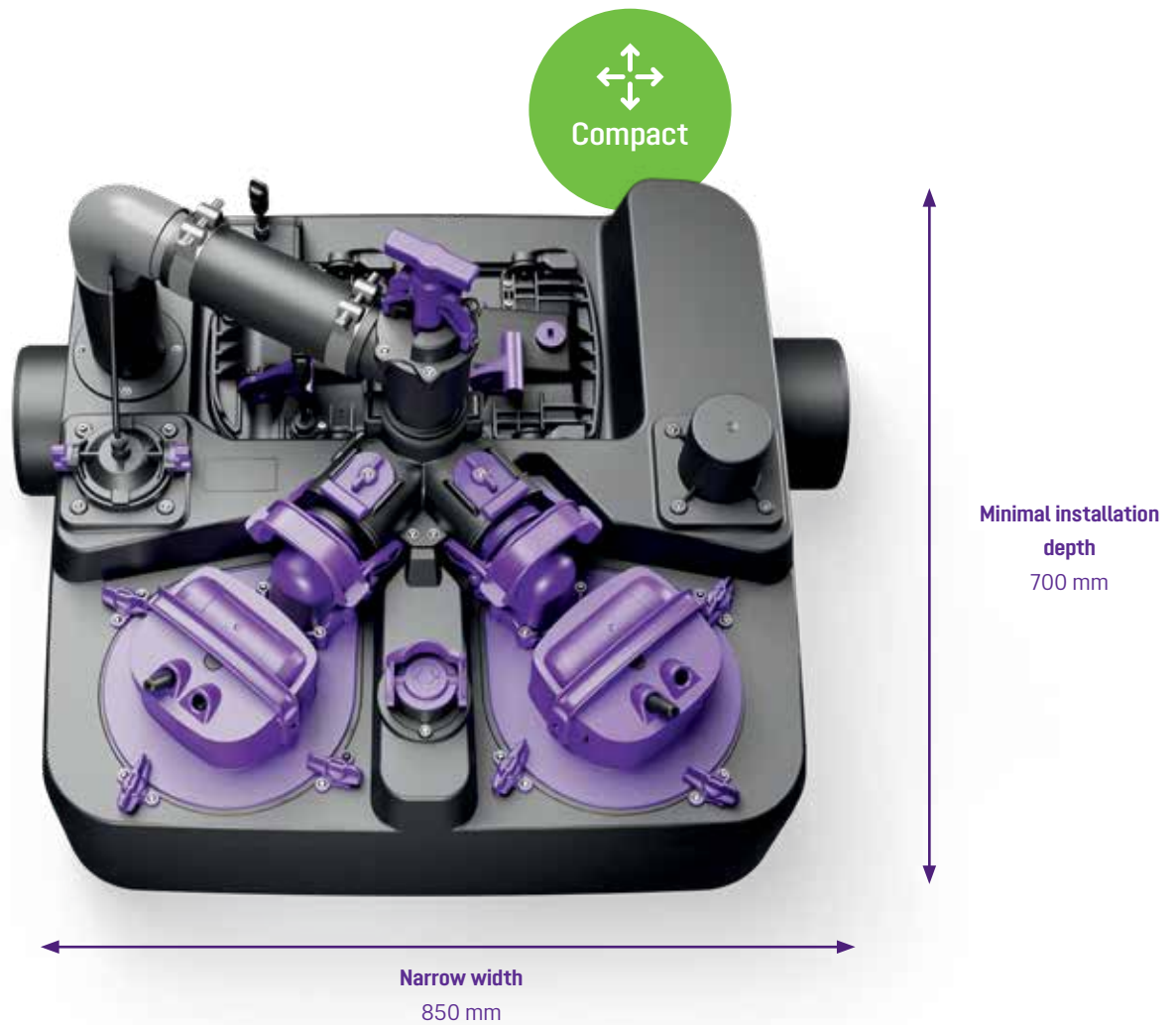
### Hybrid check



Continuous  
pump operation.



Minimal  
noise emissions.



Compact

## Space-saving installation

Particular attention must be paid to the existing structural conditions, especially in the case of energy-related renovations. The *Ecolift L* for free-standing set-up impresses not only with its compact size, but also with its flexibility.

### Hybrid check



Large installation dimensions.



Flexible installation.

Flexible

# One or two pumps

A Mono version with a single pump is usually sufficient for private use. However, if it is a commercial property or an apartment building, then uninterrupted operation must be guaranteed at all times. In this case, the *Ecolift L* is available as a Duo system with two pumps. The highlight of this hybrid lifting station: a second pump can also be retrofitted.

## Hybrid check



Extensive range of models.



Can be retrofitted individually.



# Ecolift L Mono / Duo Bypass hybrid lifting station

for wastewater with or without sewage



**Version:** with a bypass system

**Material:** PE tank

**Pump:** with a multi-vane vortex impeller

**Installation:** in an exposed drainage pipe in frost-protected rooms

**Version:**

- One pump/two pumps SPF 1350-S3
- Inlet/outlet DN 150 / OD 160
- Pressure pipe connection DN 50 / OD 60
- Automatic closure system with a manually lockable emergency closure (FKA motor-driven)
- Comfort control unit with a self-diagnosis system (SDS) and display of the operating states
- Backflow preventer
- Shut-off valve for the pressure pipe
- Plug-in ready

**Mains frequency:** 50 Hz

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

**Pump protection rating:** IP 68 (3 m/48 h)

**Operating mode:** S3 - 50%

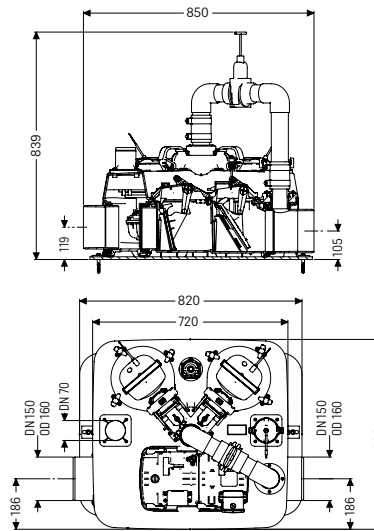
**Motor protection rating:** IP 68

**Control unit:** Comfort

**Operating voltage / mains frequency:** 230 V AC / 50 Hz



Figure: Ecolift L Duo Bypass (FKA)



Technical drawing: Ecolift L Duo Bypass (FKA)



Figure: Ecolift L Duo Bypass (SWA)

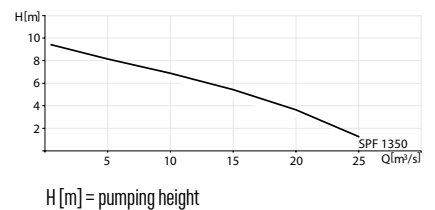
## For wastewater with sewage - FKA

System	L x H in mm	Art. no.
Mono	850x700	22 006
Duo	850x700	22 007

## For wastewater without sewage- SWA

System	L x H in mm	Art. no.
Mono	850x700	22 004
Duo	850x700	22 005

## Pump capacity



Pump	Operating voltage	Rated current	Power P1	Power P2	Pumping capacity	Pumping height
SPF 1350-S3/50%	230 V	6 A	1.35 kW	0.86 kW	max. 26 m <sup>3</sup> /h	max. 10 m



# Ecolift L Mono / Duo hybrid lifting station

for wastewater with or without sewage



**Version:** for connection to a pressure pipe

**Material:** PE tank

**Pump:** with a multi-vane vortex impeller

**Installation:** in an exposed drainage pipe in frost-protected rooms

**Version:**

- One pump/two pumps SPF 1350-S3
- Inlet/outlet DN 150 / OD 160
- Pressure pipe connection DN 50 / OD 60
- Automatic closure system with a manually lockable emergency closure (FKA motor-driven)
- Comfort control unit with a self-diagnosis system (SDS) and display of the operating states
- Backflow preventer
- Shut-off valve for the pressure pipe
- Plug-in ready

**Mains frequency:** 50 Hz

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

**Pump protection rating:** IP 68 (3 m/48 h)

**Operating mode:** S3 - 50%

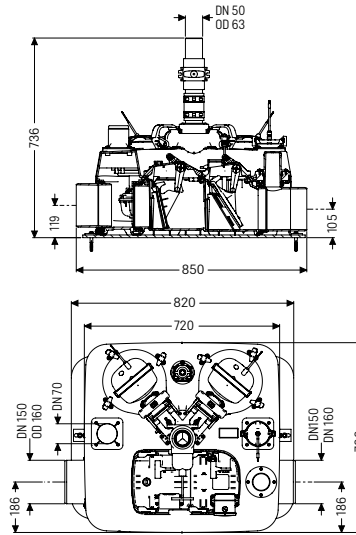
**Motor protection rating:** IP 68

**Control unit:** Comfort

**Operating voltage / mains frequency:** 230 V AC / 50 Hz



Figure: Ecolift L Duo (FKA)



Technical drawing: Ecolift L Duo (FKA)



Figure: Ecolift L Duo (SWA)

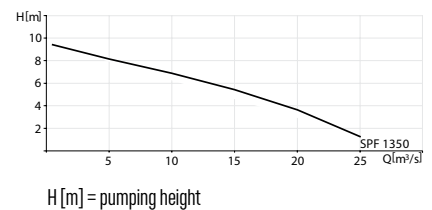
## For wastewater with sewage - FKA

System	L×H in mm	Art. no.
Mono	850×700	22 002
Duo	850×700	22 003

## For wastewater without sewage- SWA

System	L×H in mm	Art. no.
Mono	850×700	22 000
Duo	850×700	22 001

## Pump capacity



Pump	Operating voltage	Rated current	Power P1	Power P2	Pumping capacity	Pumping height
SPF 1350-S3/50%	230 V	6 A	1.35 kW	0.86 kW	max. 26 m³/h	max. 10 m

## Accessories

*Ecolift L*

### Wall bracket for the *Ecolift L*

Art. no.

For setting up the system in a higher position to make it easier to realise a "free gradient" to the sewer. With mounting brackets for the wall.



22 200

### Conversion kit for a second pump

Art. no.

Conversion kit for changing from a Mono to a Duo system. Including cable and connection to the pressure pipe connection. The Duo control unit is supplied.



22 201

### Pipe aerator DN 70

Art. no.

with integrated activated carbon filter.



22 202

### Level sensor

Art. no.

Level sensor conversion kit (5 m). Conversion kit consisting of a level sensor. It is required for cable lengths upwards of 10 m and if no gradient to the control unit is required.



22 203

### Conversion kit for the *Ecolift L Bypass*

Art. no.

For converting from an *Ecolift L* to an *Ecolift L Bypass* system. Bypass pipework with a shut-off valve.



22 204

### Optical alarm for the *Ecolift L*

Art. no.

Optical sensor, including the adapter and protective tube.

**Sensor protection rating:** IP 68 (3 m/48 h)

**Control cable:** 5.00 m



22 205

Ecolift product family

# One principle – many variants

Whenever there is a gradient from the drainage points to the sewer, a hybrid lifting station can be used as a backwater protection system. Whether large or small, installed in the ground or free-standing: you are always in the best position with the *Ecolift* family!



## *Ecolift*

The clever version for the private sector:

The *Ecolift* is the ideal and cost-effective drainage solution for natural gradients.



## *Ecolift L*

The high-performance version for new buildings and energy-related renovations:

The *Ecolift L* is the sustainable alternative where more performance is required.



## *Ecolift XL*

The powerful version for the commercial sector, apartment buildings and rainwater:

The *Ecolift XL* delivers concentrated power with a power rating of up to 4.5 kW.



**Ecolift product family**

<https://www.kessel.com/products/hybrid-lifting-stations>

**HYBRID**  
Drainage Systems

Hybrid lifting stations  
instead of  
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Subject to technical modifications.

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