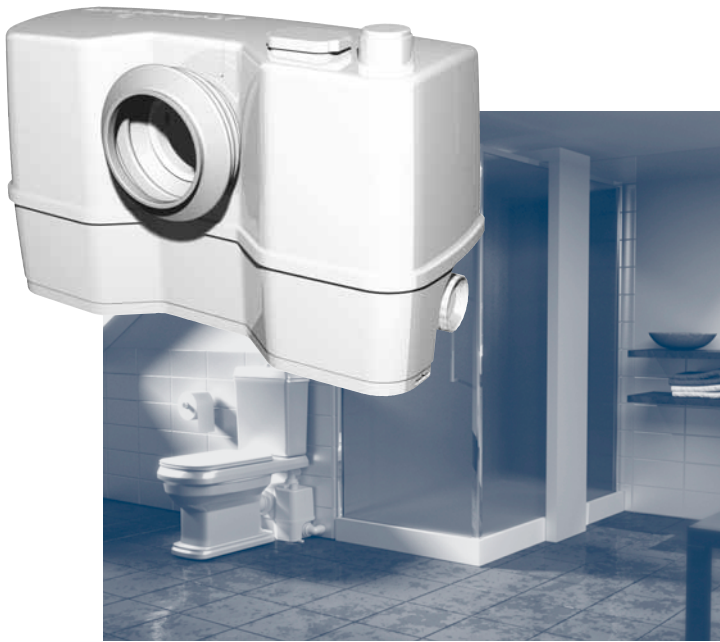


# Sololift2




Small lifting stations  
50 Hz





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# 1. Product overview

## Sololift2 for toilet applications

Sololift2 WC-1	Description	Technical data
 <p>TM05 0866 1711</p>	<p>Suitable for pumping wastewater from a toilet or washbasin.</p> <p>Features:</p> <ul style="list-style-type: none"> <li>robust design for safe and trouble-free operation with high-performance pump and professional cutter</li> <li>ready to install</li> <li>quick and easy installation</li> <li>service-friendly design with dry motor unit</li> <li>easy replacement using flexible connectors and adapters for discharge and inlets.</li> </ul>	<p><math>H_{max.}</math>: 8.5 m.  <math>Q_{max.}</math>: 149 l/min.            Power consumption, P1: Max. 620 W.            Discharge connection:            • <math>\varnothing 22/25/28/32/36/40</math>.            Additional inlet:            • 1 <math>\varnothing 32/36/40</math> at the top.</p>
 <p>TM04 9729 5010</p>	<p>Suitable for pumping wastewater from a toilet, washbasin, cabinet shower and a bidet or urinal.</p> <p>Features:</p> <ul style="list-style-type: none"> <li>robust design for safe and trouble-free operation with high-performance pump and professional cutter</li> <li>ready to install</li> <li>quick and easy installation</li> <li>service-friendly design with dry motor unit</li> <li>easy replacement using flexible connectors and adapters for discharge and inlets.</li> </ul>	<p><math>H_{max.}</math>: 8.5 m.  <math>Q_{max.}</math>: 149 l/min.            Power consumption, P1: Max. 620 W.            Discharge connection:            • <math>\varnothing 22/25/28/32/36/40</math>.            Additional inlet:            • 1 <math>\varnothing 32/36/40</math> at the top.            • 2 <math>\varnothing 36/40/50</math> on the left and right sides of the tank.</p>
 <p>TM04 9730 5010</p>	<p>Suitable for pumping wastewater from a wall-hung toilet, washbasin, cabinet shower and a bidet or urinal.</p> <p>Features:</p> <ul style="list-style-type: none"> <li>slim design for front-wall installation</li> <li>robust design for safe and trouble-free operation with high-performance pump and professional cutter</li> <li>quick and easy installation</li> <li>service-friendly design with dry motor unit</li> <li>easy replacement using flexible connectors and adapters for discharge and inlets.</li> </ul>	<p><math>H_{max.}</math>: 8.5 m.  <math>Q_{max.}</math>: 149 l/min.            Power consumption, P1: Max. 620 W.            Discharge connection:            • <math>\varnothing 22/25/28/32/36/40</math>.            Additional inlet:            • 1 <math>\varnothing 32/36/40</math> at the top.            • 2 <math>\varnothing 36/40/50</math> on the left and right sides of the tank.</p>

## Sololift2 for grey wastewater applications

Sololift2 C-3	Description	Technical data
 <p>TM04 9731 5010</p>	<p>Suitable for pumping grey wastewater from a washing machine, dishwasher, bathtub, cabinet shower, washbasin or kitchen sink.</p> <p>Features:</p> <ul style="list-style-type: none"> <li>slim design for front-wall installation</li> <li>high-performance pump with 20 mm free passage for handling effluents up to 90 °C</li> <li>ready to install</li> <li>quick and easy installation</li> <li>service-friendly design with dry motor unit</li> <li>easy replacement using flexible connectors and adapters for discharge and inlets.</li> </ul>	<p><math>H_{max.}</math>: 8.8 m.  <math>Q_{max.}</math>: 185 l/min.            Power consumption, P1: Max. 640 W.            Discharge connection:            • <math>\varnothing 22/25/28/32/36/40</math>.            Additional inlet:            • 1 <math>\varnothing 32/36/40</math> at the top.            • 2 <math>\varnothing 36/40/50</math> on the left and right sides of the tank.</p>
 <p>TM04 9732 5010</p>	<p>Extremely compact variant for pumping grey wastewater from a washbasin, cabinet shower or bidet.</p> <p>Features:</p> <ul style="list-style-type: none"> <li>design for front-wall installation or installation in a cabinet</li> <li>robust design for safe and trouble-free operation with high-performance pump with 10 mm free passage</li> <li>ready to install</li> <li>built-in non-return flap valve, venting valve with carbon filter and overflow protection</li> <li>quick and easy installation</li> <li>service-friendly design with dry motor unit.</li> </ul>	<p><math>H_{max.}</math>: 5.5 m.  <math>Q_{max.}</math>: 105 l/min.            Power consumption, P1: Max. 280 W.            Discharge connection:            • <math>\varnothing 22/32</math>.            Additional inlet:            • 2 <math>\varnothing 36/40/50</math> on the left and right sides of the tank.</p>

## Applications

For installations above sewer level, it is recommended to lead wastewater directly to the sewer by means of natural slope. In some cases, this is not possible or the cost of doing so bears no proportion to the benefit. Especially when it comes to renovation and modernisation, it may be difficult to establish a downward slope.

Any sanitary unit positioned below sewer level (backflow level) or far away from the main soil pipe can easily be drained by a Sololift2.

The Sololift2 is suitable for pumping wastewater off places in private dwellings where it cannot be led directly to the main sewer by means of natural downward slope. The use of Sololift2 facilitates the installation of toilets, cabinet showers, washbasins or other facilities at basement, ground or loft level as it pumps the wastewater to the main soil pipe.

Sololift2 offers the opportunity of installing facilities such as cabinet showers and toilets at a distance from the main soil pipe without costly pipe installations.

Sololift2 can be used for the following:

- extra bathrooms in basements or attics
- basement installations of sanitary units below sewer level and also as excellent backflow protection from the main sewer
- low-cost bathrooms in holiday cottages
- added facilities in hotels and guest houses
- bathrooms for the elderly or the disabled
- renovation or modernisation of rest rooms in offices and other commercial buildings for a limited number of users according to EN 12050-3 (Sololift2 WC-1, WC-3, CWC-3) and EN 12050-2 (Sololift2 C-3, D-2).

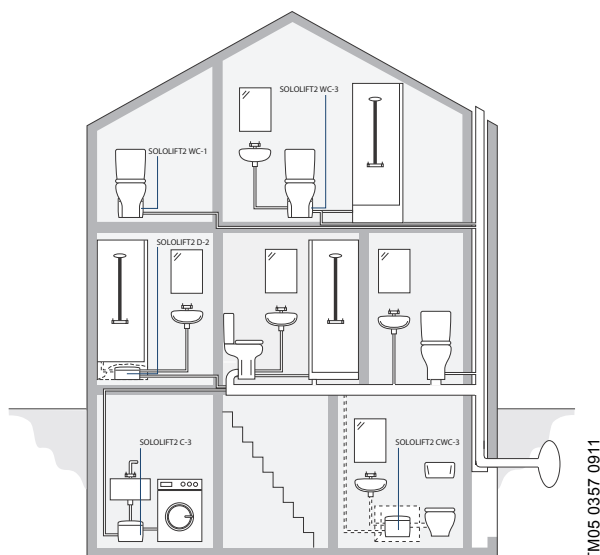


Fig. 1 Examples of application

TM05 0357 0911

## Functions

Wastewater from the units connected is led to the Sololift2 lifting station. The pump starts automatically when the liquid level reaches the start level and stops when the level has fallen to the stop level. The start and stop levels depend on the type of Sololift2. See technical data of the individual types.

The tank of all Grundfos Sololift2 lifting stations is made of composite with an easy-to-clean surface and inside chamfers to minimise sedimentation.

Installed correctly, the Sololift2 works automatically. For higher safety requirements, alarm devices are available. See section Accessories for the individual type.

The design offers unique features and is focused on quick installation as well as easy and clean service. The lifting stations require very little maintenance. We recommend to check the tank regularly, depending on application and how frequently it is used.

Grundfos' high quality requirements ensure high robustness and long and trouble-free operation. The production is inspected by an external institute according to EN 12050-2/-3.

The individual Sololift2 lifting stations are described on these pages:

Sololift2 WC-1, page 5.

Sololift2 WC-3, page 10.

Sololift2 CWC-3, page 16.

Sololift2 C-3, page 21.

Sololift2 D-2, page 28.

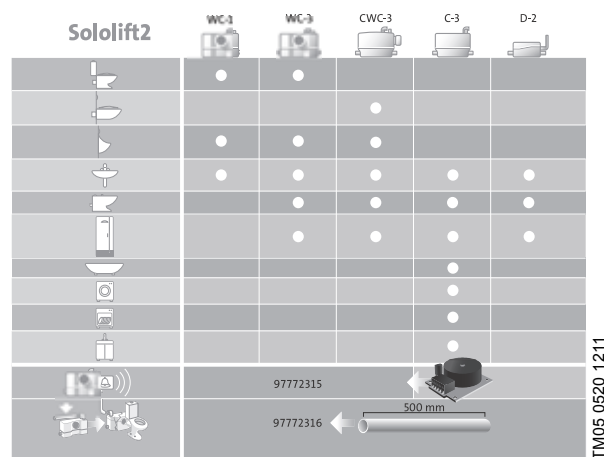


Fig. 2 Overview of Sololift2 lifting stations

TM05 0520 1211

## 2. Sololift2 WC-1

Sololift2 WC-1 is a small, compact, ready-to-install automatic lifting station with integrated professional cutter system. It is suitable for pumping wastewater with faeces off places in private dwellings.

The unit is designed according to EN 12050-3.



Fig. 3 Sololift2 WC-1

TM05 0866 1711

### Applications

Sololift2 WC-1 is suitable for pumping wastewater from a washbasin or a single toilet (with horizontal outlet according to EN 33/37) containing toilet paper and faeces.

Typical applications:

- Basement installations below sewer level.
- In connection with the renovation or modernisation of existing buildings where the location may be remote from the main soil pipe so that a natural slope cannot be established, for example attics.



Fig. 4 Example of application

TM05 0358 0911

### Features and benefits

#### Robustness and operational reliability

- The powerful motor ensures optimum operational reliability, even when for instance feminine hygiene products are occasionally flushed down the toilet.

#### Easy installation and replacement

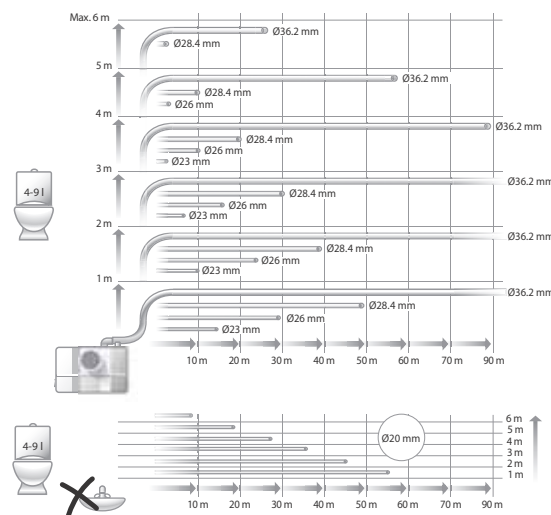
- Adjustable discharge and inlet connections ensure easy installation and replacement.

#### Easy maintenance and service

- The removable, compact pump-motor unit makes any service job a fast and clean matter.
- No need to disconnect discharge and inlet pipes or to remove the unit from behind the toilet.

### Sizing guide

The unit is designed for flush volumes of 4, 6 and 9 litres. A 4-litre flush is recommended only if the amount of solids in the pumped liquid is small.



TM05 0360 0911

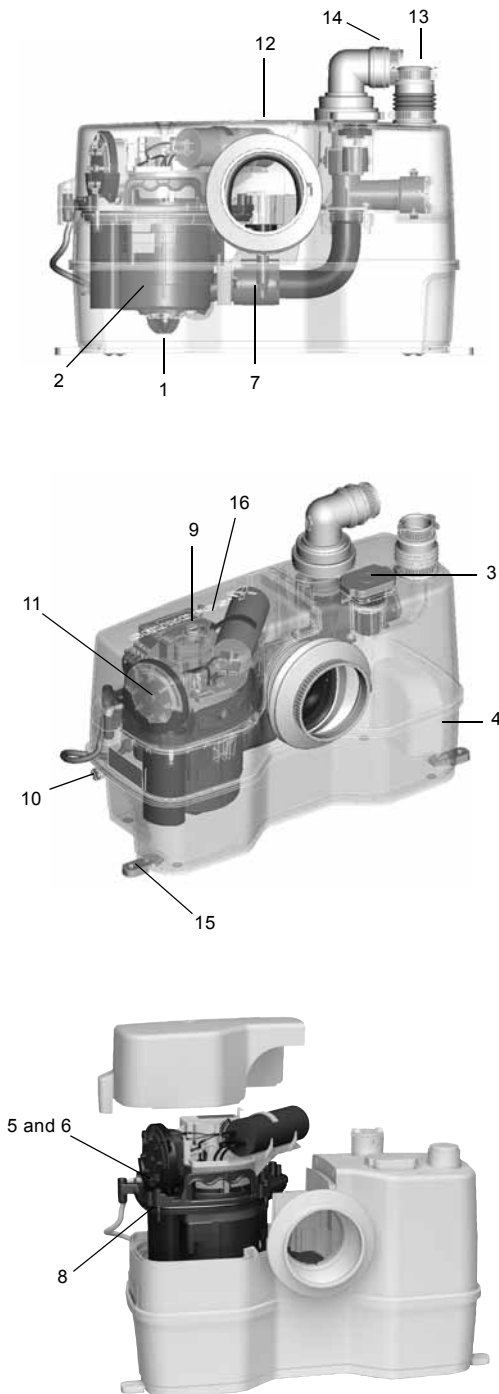
Fig. 5 Maximum lengths of vertical and horizontal discharge pipes

Figure 5 shows the maximum lengths of vertical and horizontal discharge pipes. The pipe length depends on the pipe diameter and is based on a flow velocity of 0.7 m/s. Four bends, a non-return valve and an isolating valve have already been taken into account.

## Construction features

Sololift2 WC-1

### Description



TM05 0371 0911

TM05 0371 0911

TM05 0496 1111

#### Pos. Operational reliability

- |   |   |
|---|---|
| 1 | <b>Cutter</b><br>Professional cutter, which easily handles feminine hygiene products or similar, increases the reliability. Pump with self-venting valve for stable start.                                  |
| 2 | <b>Motor</b><br>Powerful motor with special winding for high torque and motor protection by thermal switch with automatic restart. Three shaft seals and an additional V-ring ensure long operational life. |
| 3 | <b>Venting valve</b><br>Venting valve with carbon filter and overflow protection. Possibility of connecting a vent pipe, for example over roof.   |
| 4 | <b>Tank</b><br>Welded tank design which is pressure-tight up to 2.5 m water column.   |

#### Pos. Easy maintenance and service

- |    |   |
|----|---|
| 5  | <b>Access to components</b><br>Design with dry motor for easy and clean service.  |
| 6  | <b>Compact block unit</b><br>Pump, motor and controller form a compact block unit which is easy to remove for service and replacement. No need to disconnect the Sololift2 tank and connected pipes when service is required. |
| 7  | <b>Auto coupling</b><br>Self-adjusting auto coupling eases assembly.  |
| 8  | <b>Screws</b><br>All important screws are captive screws, which facilitates service work.   |
| 9  | <b>Anti-blocking</b><br>Manual anti-blocking function is accessible from outside with a screwdriver, i.e. no need to remove the cover. Remove a plug on top of the cover, insert the screwdriver, and turn the shaft.         |
| 10 | <b>Drain connection</b><br>Separate tank drain function is available by connecting a drain hose.  |
| 11 | <b>Pressure switch</b><br>Pressure switch control outside the tank, i.e. no moving parts and diaphragm in the wastewater.   |

#### Pos. Easy installation and replacement

- |    |  |
|----|--|
| 12 | <b>Dimensions</b><br>Very compact dimensions. The position of discharge and inlet connections ensures easy replacement of Sololift+ and similar units of other makes. No extra work on pipes required. |
| 13 | <b>Inlet</b><br>Inlet connection at the top.   |
| 14 | <b>Discharge</b><br>A turnable 360° adapter incorporating a non-return valve enables vertical or horizontal discharge direction for easy replacement.  |
| 15 | <b>Feet for floor-mounting</b><br>Feet for floor-mounting are easy to install.   |
| 16 | <b>Alarm</b><br>Slot for an alarm device. Easy retrofitting just by pushing a small printed-circuit board with buzzer into the slot. No additional wires required.                                     |

Visit the animation of Sololift2 features on [www.grundfos.com](http://www.grundfos.com) or local Grundfos homepages.

## Installation requirements

This section shows an installation example and describes the installation requirements. Installation is done quickly and easily by using flexible hose connectors with several adapter options for almost any pipe diameter.

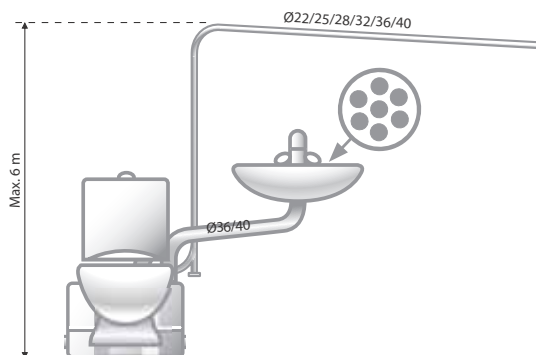


Fig. 6 Example of installation

**Note:** The first part of the discharge pipe should always be vertical. All horizontal pipes must have a fall of minimum 1 % to the main soil pipe.

The measurements in fig. 7 must be observed.

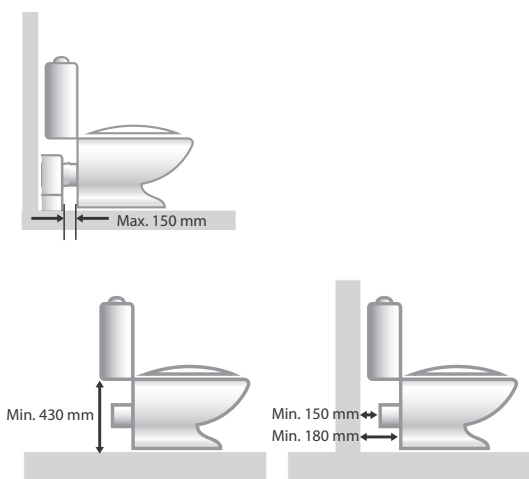


Fig. 7 Measurements to be observed

The Sololift2 WC-1 must be installed directly behind the toilet and in the same room according to EN 12050-3. When a connecting piece is required, the maximum distance to the toilet must not exceed 150 mm.

Observe the minimum height and distances in fig. 7 to ensure that the unit is accessible for service.

## Connections



Fig. 8 Horizontal or vertical discharge

The turnable 360 ° discharge adapter can be fitted horizontally or vertically. The adapter incorporates a non-return valve.

The discharge and inlet connections can be adapted to the following pipe diameters:

Connection	Outer diameter						
	Ø22	Ø25	Ø28	Ø32	Ø36 <sup>1)</sup>	Ø40	Ø50
Discharge	•	•	•	•	(•)	•	-
Inlet at the top	-	-	-	•	(•)	•	-

<sup>1)</sup> Two adapters included for UK version. Also available as accessories.

## Product numbers

Product	Plug	Sales region	Prod. no.
Sololift2 WC-1	Schuko	Europe	97775314
	Schuko	Russia	97775319
	AUS	Australia	97775324
	No plug	UK	97775329

## Accessories

Product	Description	Prod. no.
Alarm device	Acoustic alarm in case of malfunction. Printed-circuit board to be pushed into an internal slot in Sololift2 WC-1.	97772315
Replacement hose	Flexible PVC hose with two clamps and an adapter to the discharge of the Sololift2. Dimensions: • Length: 500 mm. • Inner diameter: Ø32. • Outer diameter: Ø38.	97772316
Drain hose	Flexible PVC hose with two clamps and a plug. Applicable when the tank of the Sololift2 is to be drained for service. Dimensions: • Length: 500 mm. • Inner diameter: Ø12. • Outer diameter: Ø14.4.	97789093
Adapter ring, Ø36	Kit, adapter Ø36 UK Suitable for discharge and inlet connections. <b>Note:</b> The adapter is included in the UK version.	97775336

## Technical data

### Mechanical data

Net weight	7.3 kg
Tank volume	9.0 litres
Flexible discharge elbow	Ø22/25/28/32/36/40
Toilet connection	Toilet with horizontal outlet according to EN 33 or EN 37. The toilet must use at least 4 litres per flush.
Dimensions of possible inlet	1 x Ø32/36/40
Start and stop levels	Start: 72 mm above floor level Stop: 52 mm above floor level
pH value of the pumped liquid	4 to 10
Maximum liquid temperature	50 °C
Ambient temperature	+5 °C to +35 °C
Duty class	S3-50 % - 1 min. (30 sec. on; 30 sec. off)

### Electrical data

Supply voltage	1 x 220-240 V - 10 %/+ 6 %, 50 Hz
Power consumption, P1	Max. 620 W
Rated current	3.0 A
Power factor, cos φ	0.87/0.92
Speed	2800 min <sup>-1</sup>
Enclosure class	IP44
Insulation class	F
Connecting cable	1.2 m, 0.75 mm <sup>2</sup> (H05VV-F-3G)

### Dimensions

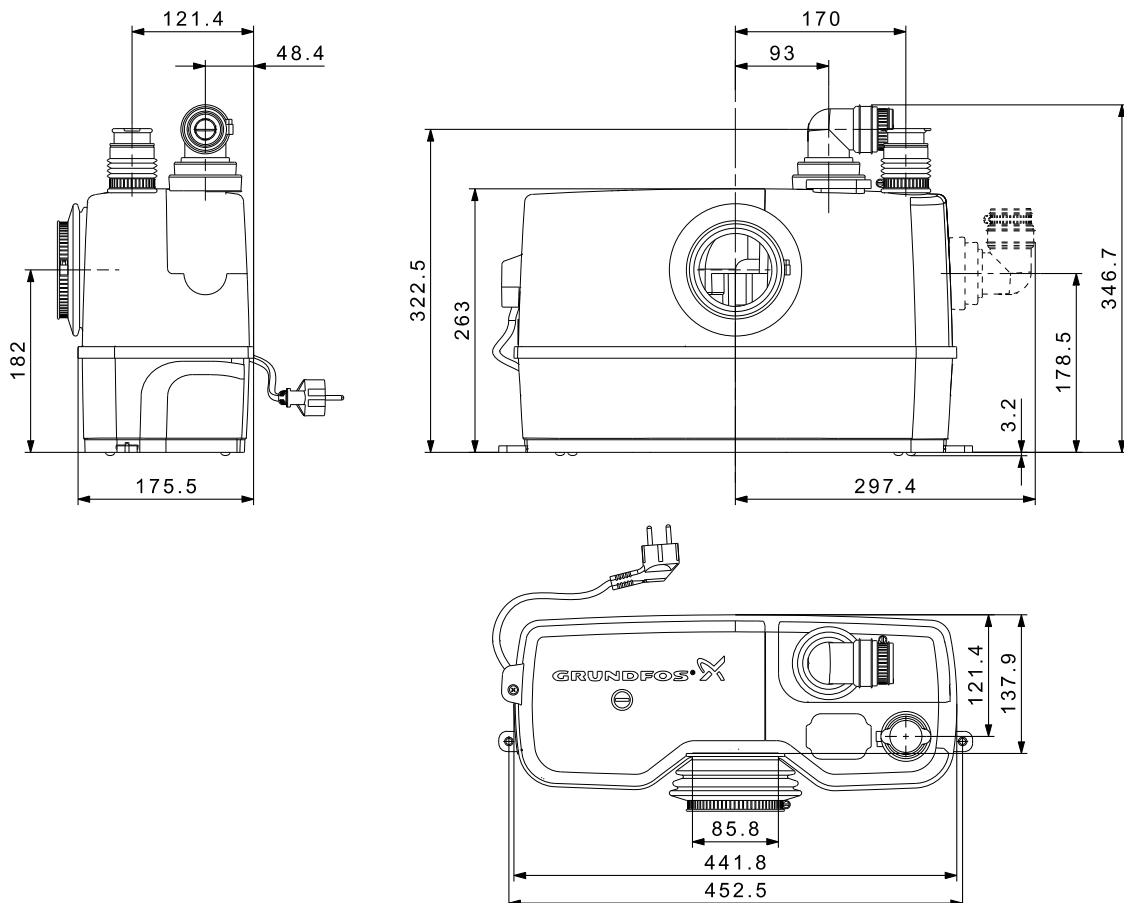


Fig. 10 Dimensional drawings, Sololift2 WC-1

## Performance

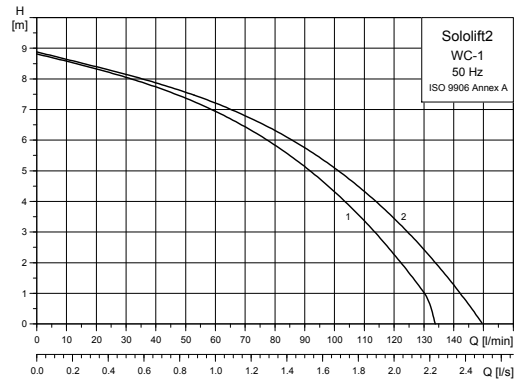


Fig. 9 Performance curves, Sololift2 WC-1

### Legend

Pos.	Description
1	Horizontal outlet
2	Vertical outlet

TM04 9877 0211

TM04 9914 0311



## Marking and approvals

### Description

The Sololift2 units are CE-marked and have obtained the following approvals:

- VDE
- EMV
- TÜV/LGA
- GOST (AR56).

### Marking



### Approvals



## Design and scope of delivery

The Sololift2 WC-1 is supplied with a tank made of wastewater-resistant composite with inspection cover.

Features:

- DN 100 connecting piece with flexible hose to the toilet.
- Additional inlet connecting piece at the top for pipes of  $\varnothing 32$  and  $\varnothing 40$  ( $\varnothing 36$  for UK version).
- Venting valve with carbon filter, overflow protection and integrated adapter for a  $\varnothing 20$  vent pipe.
- Inner pipework with auto coupling to the pump-motor unit.
- One pump-motor unit fixed to the tank with four captive screws. The pump discharge to the inner pipework of the tank is fixed to the auto coupling from the inner pipework of the tank.
- 1.2 m cable and plug. See *Technical data*, page 8.
- Flexible adapter hose for inlet pipes of  $\varnothing 32$  and  $\varnothing 40$  ( $\varnothing 36$  for UK version).
- Feet for floor-mounting including screws and expansion anchors.
- Non-return valve.
- Discharge adapters from  $\varnothing 22$  to  $\varnothing 40$  (plus  $\varnothing 36$  for UK version).

### 3. Sololift2 WC-3

Sololift2 WC-3 is a small, compact, ready-to-install automatic lifting station with integrated professional cutter system. It is suitable for pumping wastewater with faeces off places in private dwellings.

The unit is designed according to EN 12050-3.



TM04 9729 5010

Fig. 11 Sololift2 WC-3

#### Applications

Sololift2 WC-3 is suitable for pumping wastewater from a single toilet (with horizontal outlet according to EN 33/37) containing toilet paper and faeces, a washbasin, cabinet shower and a bidet or urinal.

Typical applications:

- Basement installations below sewer level.
- In connection with the renovation or modernisation of existing buildings where the location may be remote from the main soil pipe so that a natural slope cannot be established, for example attics.



TM05 0372 0911

Fig. 12 Example of application

#### Features and benefits

##### Robustness and operational reliability

- The powerful motor ensures optimum operational reliability, even when for instance feminine hygiene products are occasionally flushed down the toilet.

##### Easy installation and replacement

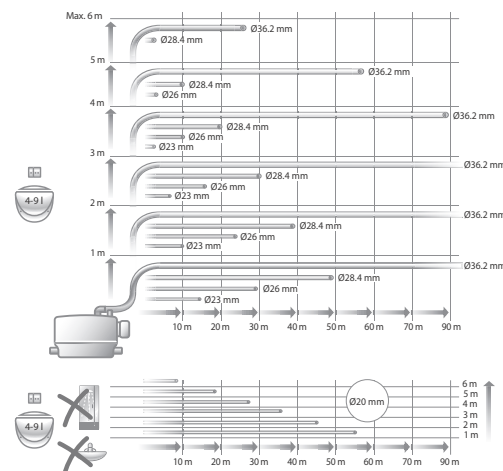
- Adjustable discharge and inlet connections ensure easy installation and replacement.

##### Easy maintenance and service

- The removable, compact pump-motor unit makes any service job a fast and clean matter.
- No need to disconnect discharge and inlet pipes or to remove the unit from behind the toilet.

#### Sizing guide

The unit is designed for flush volumes of 4, 6 and 9 litres. A 4-litre flush is recommended only if the amount of solids in the pumped liquid is small.

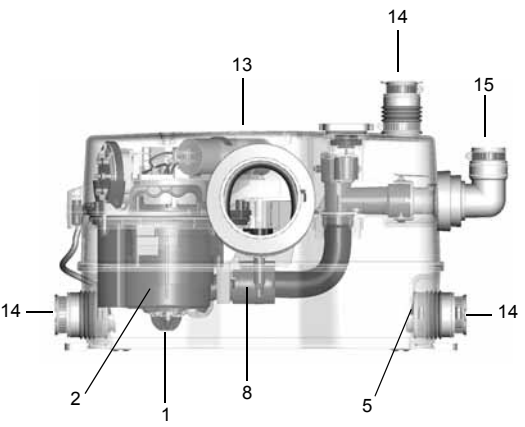
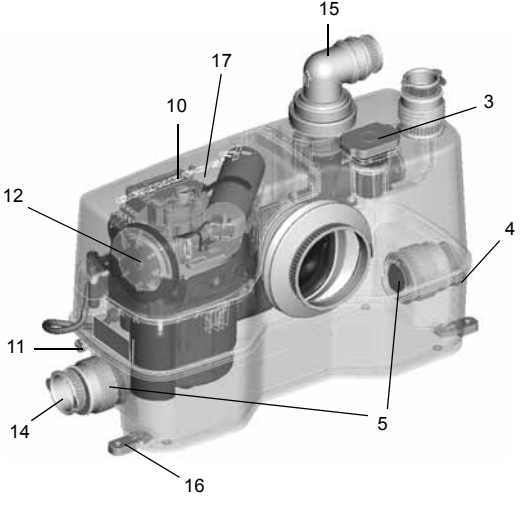



TM05 0374 0911

Fig. 13 Maximum lengths of vertical and horizontal discharge pipes

Figure 13 shows the maximum lengths of vertical and horizontal discharge pipes. The pipe length depends on the pipe diameter and is based on a flow velocity of 0.7 m/s. Four bends, a non-return valve and an isolating valve have already been taken into account.

## Construction features

Sololift2 WC-3	Description	
	<p><b>Pos. Operational reliability</b></p> <p>1 Cutter Professional cutter, which easily handles feminine hygiene products or similar, increases the reliability. Pump with self-venting valve for stable start.</p> <p>2 Motor Powerful motor with special winding for high torque and motor protection by thermal switch with automatic restart. Three shaft seals and an additional V-ring ensure long operational life.</p> <p>3 Venting valve Venting valve with carbon filter and overflow protection. Possibility of connecting a vent pipe, for example over roof.</p> <p>4 Tank Welded tank design which is pressure-tight up to 2.5 m water column.</p> <p>5 Non-return flap valves Non-return flap valves prevent back- and cross-flow to inlet pipes.</p>	
	<p><b>Pos. Easy maintenance and service</b></p> <p>6 Access to components Design with dry motor for easy and clean service.</p> <p>7 Compact block unit Pump, motor and controller form a compact block unit which is easy to remove for service and replacement. No need to disconnect the Sololift2 tank and connected pipes when service is required.</p> <p>8 Auto coupling Self-adjusting auto coupling eases assembly.</p> <p>9 Screws All important screws are captive screws, which facilitates service work.</p> <p>10 Anti-blocking Manual anti-blocking function is accessible from outside with a screwdriver, i.e. no need to remove the cover. Remove a plug on top of the cover, insert the screwdriver, and turn the shaft.</p> <p>11 Drain connection Separate tank drain function is available by connecting a drain hose.</p> <p>12 Pressure switch Pressure switch control outside the tank, i.e. no moving parts and diaphragm in the wastewater.</p>	
	<p><b>Pos. Easy installation and replacement</b></p> <p>13 Dimensions Very compact dimensions. The position of discharge and inlet connections ensures easy replacement of Sololift+ and similar units of other makes. No extra work on pipes required.</p> <p>14 Inlet Eccentric, height-adjustable connectors for side inlets, i.e. in addition to the inlet at the top of the tank.</p> <p>15 Discharge A turnable 360° adapter incorporating a non-return valve enables vertical or horizontal discharge direction for easy replacement.</p> <p>16 Feet for floor-mounting Feet for floor-mounting are easy to install.</p> <p>17 Alarm Slot for an alarm device. Easy retrofitting just by pushing a small printed-circuit board with buzzer into the slot. No additional wires required.</p>	
		
		

Visit the animation of Sololift2 features on [www.grundfos.com](http://www.grundfos.com) or local Grundfos homepages.

## Installation requirements

This section shows an installation example and describes the installation requirements. Installation is done quickly and easily by using flexible hose connectors with several adapter options for almost any pipe diameter.

The start/stop levels are made for the modern flat shower trays.

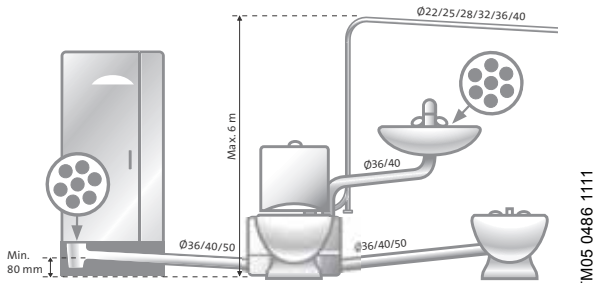


Fig. 14 Example of installation

**Note:** The first part of the discharge pipe should preferably be vertical. All horizontal pipes must have a fall of minimum 1 % to the main soil pipe.

The measurements in fig. 15 must be observed.

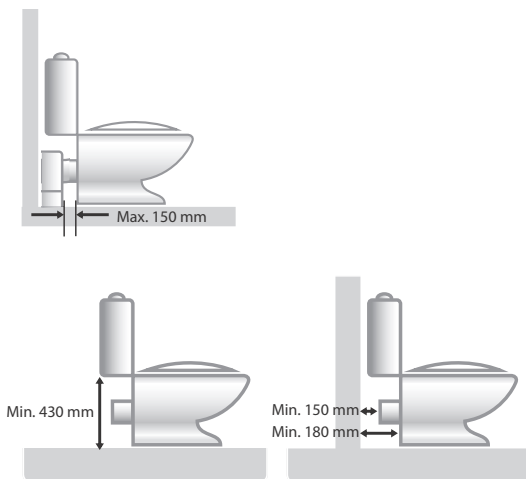


Fig. 15 Measurements to be observed

The Sololift2 WC-3 must be installed directly behind the toilet and in the same room according to EN 12050-3. When a connecting piece is required, the maximum distance to the toilet must not exceed 150 mm.

Observe the minimum height and distances in fig. 15 to ensure that the unit is accessible for service.

## Connections



Fig. 16 Horizontal or vertical discharge

The turnable 360 ° discharge adapter can be fitted horizontally or vertically. The adapter incorporates a non-return valve.

The discharge and inlet connections can be adapted to the following pipe diameters:

Connection	Outer diameter						
	Ø22	Ø25	Ø28	Ø32	Ø36 <sup>1)</sup>	Ø40	Ø50
Discharge	•	•	•	•	(•)	•	-
Inlet at the top	-	-	-	•	(•)	•	-
Inlet from side <sup>2)</sup>	-	-	-	-	(•)	•	•

<sup>1)</sup> Two adapters included for UK version. Also available as accessories.

<sup>2)</sup> One connector is included. Further connectors available as accessories.

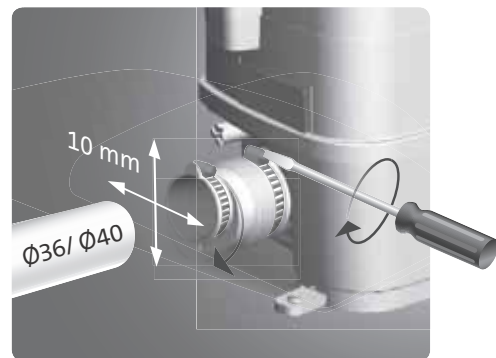
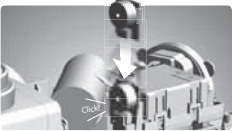

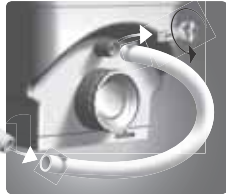
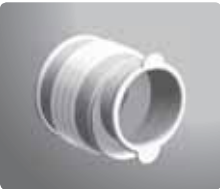



Fig. 17 Height and side alignment possible when using Ø36/40 inlet pipes

## Product numbers

Product	Plug	Sales region	Prod. no.
Sololift2 WC-3	Schuko	Europe	97775315
	Schuko	Russia	97775320
	AUS	Australia	97775325
	No plug	UK	97775330

## Accessories

Product	Description	Prod. no.
Alarm device 	Acoustic alarm in case of malfunction. Printed-circuit board to be pushed into an internal slot in Sololift2 WC-3. <small>TM05 0367 0911</small>	97772315
Replacement hose 	Flexible PVC hose with two clamps and an adapter to the discharge of the Sololift2. Dimensions: • Length: 500 mm. • Inner diameter: Ø32. • Outer diameter: Ø38. <small>TM05 0377 1111</small>	97772316
Drain hose 	Flexible PVC hose with two clamps and a plug. Applicable when the tank of the Sololift2 is to be drained for service. Dimensions: • Length: 500 mm. • Inner diameter: Ø12. • Outer diameter: Ø14.4. <small>TM05 0370 0911</small>	97789093
Adapter kit, inlet 	Kit, second inlet Ø50/50/40 <small>TM05 0378 0911</small>	97775335
Adapter ring, Ø36 	Kit, adapter Ø36 UK Suitable for discharge and inlet connections. <b>Note:</b> The adapter is included in the UK version. <small>TM05 0379 0911</small>	97775336

## Technical data

### Mechanical data

Net weight	7.3 kg
Tank volume	9.0 litres
Flexible discharge elbow	Ø22/25/28/32/36/40
Toilet connection	Toilet with horizontal outlet according to EN 33 or EN 37. The toilet must use at least 4 litres per flush.
Dimensions of possible inlet	1 x Ø32/36/40 2 x Ø36/40/50 in the side
Start and stop levels	Start: 72 mm above floor level Stop: 52 mm above floor level
pH value of the pumped liquid	4 to 10
Maximum liquid temperature	50 °C
Ambient temperature	+5 °C to +35 °C
Duty class	S3-50 % - 1 min. (30 sec. on; 30 sec. off)

### Electrical data

Supply voltage	1 x 220-240 V - 10 %/+ 6 %, 50 Hz
Power consumption, P1	Max. 620 W
Rated current	3.0 A
Power factor, cos φ	0.87/0.92
Speed	2800 min <sup>-1</sup>
Enclosure class	IP44
Insulation class	F
Connecting cable	1.2 m, 0.75 mm <sup>2</sup> (H05VV-F-3G)

### Dimensions

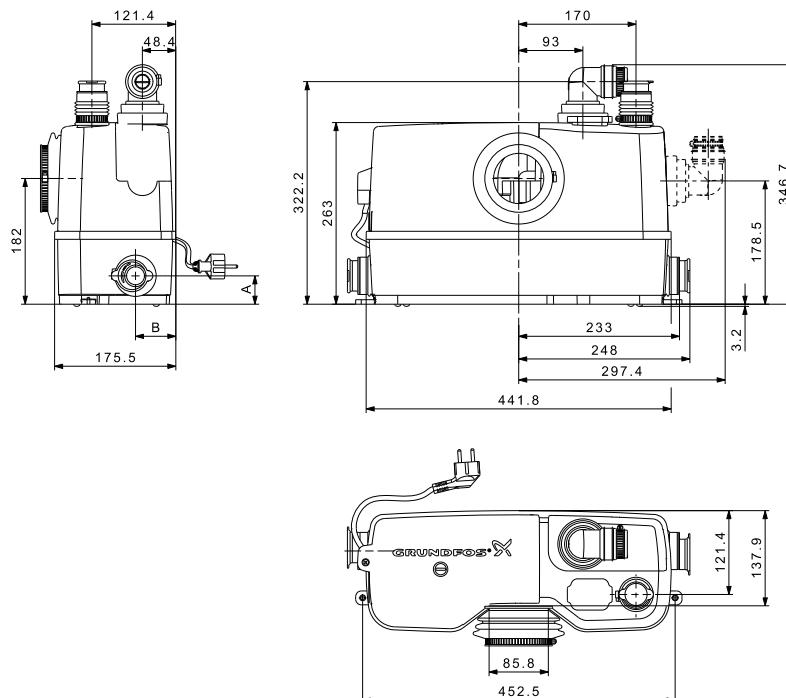


Fig. 19 Dimensional drawings, Sololift2 WC-3

Pipe diameter	Type	A [mm]		B [mm]	
		Min.	Max.	Min.	Max.
Ø36/40	Eccentric	36	46	53	63
Ø50	Centric	41		58	

### Performance

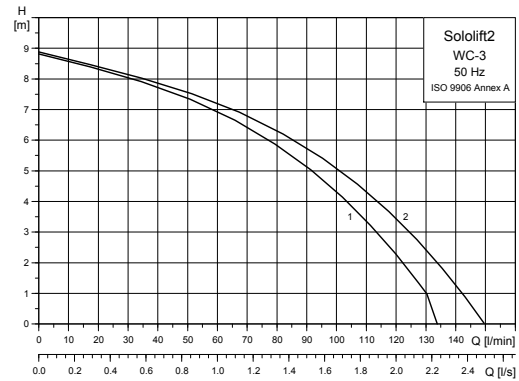


Fig. 18 Performance curves, Sololift2 WC-3

### Legend

Pos.	Description
1	Horizontal outlet
2	Vertical outlet

TM04 9877 0211

TM04 9916 0311

## Marking and approvals

### Description

The Sololift2 units are CE-marked and have obtained the following approvals:

- VDE
- EMV
- TÜV/LGA
- GOST (AR56).

### Marking



### Approvals



## Design and scope of delivery

The Sololift2 WC-3 is supplied with a tank made of wastewater-resistant composite with inspection cover.

Features:

- DN 100 connecting piece with flexible hose to the toilet.
- Additional inlet connecting piece at the top for pipes of  $\varnothing 32$  and  $\varnothing 40$  ( $\varnothing 36$  for UK version).
- Two additional side inlet connections. One connector with clamps is included (2 x  $\varnothing 36$  inserts for discharge and inlet are included in the UK version).
- Two side inlet connections with integrated backflow flap valves.
- Venting valve with carbon filter, overflow protection and integrated adapter for a  $\varnothing 20$  vent pipe.
- Inner pipework with auto coupling to the pump-motor unit.
- One pump-motor unit fixed to the tank with four captive screws. The pump discharge to the inner pipework of the tank is fixed to the auto coupling from the inner pipework of the tank.
- 1.2 m cable and plug. See *Technical data*, page 14.
- Flexible adapter hose for inlet pipes of  $\varnothing 32$  and  $\varnothing 40$  ( $\varnothing 36$  for UK version).
- Feet for floor-mounting including screws and expansion anchors.
- Non-return valve.
- Discharge adapters from  $\varnothing 22$  to  $\varnothing 40$  (plus  $\varnothing 36$  for UK version).

## 4. Sololift2 CWC-3

Sololift2 CWC-3 is a slim, compact, ready-to-install automatic lifting station with integrated professional cutter system. It is suitable for pumping wastewater with faeces off places in private dwellings.

The unit is designed according to EN 12050-3 and is specially designed for front-wall installations.



TM04 9730 5010

Fig. 20 Sololift2 CWC-3

### Applications

Sololift2 CWC-3 is suitable for pumping wastewater from a single wall-hung toilet containing toilet paper and faeces, washbasin, cabinet shower and a bidet or urinal.

Typical applications:

- Basement installations below sewer level.
- In connection with the renovation or modernisation of existing buildings where the location may be remote from the main soil pipe so that a natural slope cannot be established, for example attics.



TM05 0381 0911

Fig. 21 Example of application

### Features and benefits

#### Robustness and operational reliability

- The powerful motor ensures optimum operational reliability, even when for instance feminine hygiene products are occasionally flushed down the toilet.

#### Easy installation and replacement

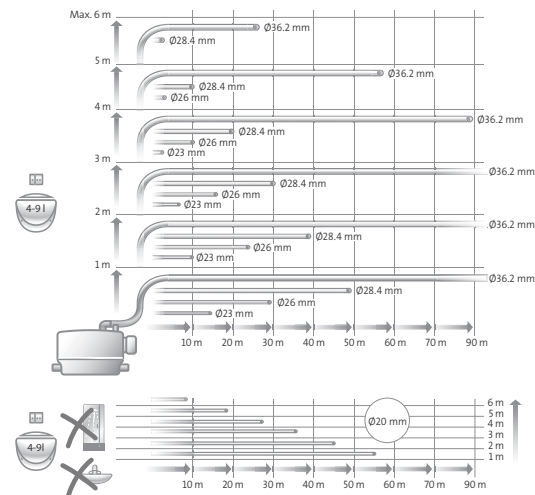
- Adjustable discharge and inlet connections ensure easy installation and replacement.

#### Easy maintenance and service

- The removable, compact pump-motor unit makes any service job a fast and clean matter.
- No need to disconnect discharge and inlet pipes or to remove the unit from behind the toilet.

### Sizing guide

The unit is designed for flush volumes of 4, 6 and 9 litres. A 4-litre flush is recommended only if the amount of solids in the pumped liquid is small.



TM05 0383 0911

Fig. 22 Maximum lengths of vertical and horizontal discharge pipes

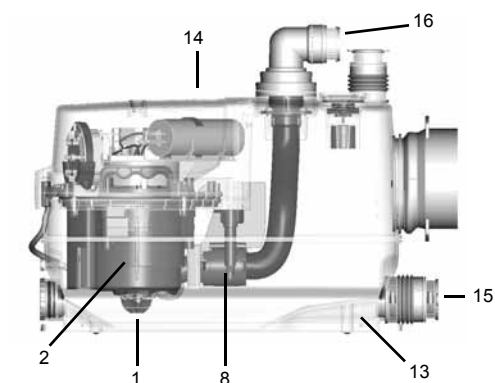
Figure 22 shows the maximum lengths of vertical and horizontal discharge pipes. The pipe length depends on the pipe diameter and is based on a flow velocity of 0.7 m/s. Four bends, a non-return valve and an isolating valve have already been taken into account.



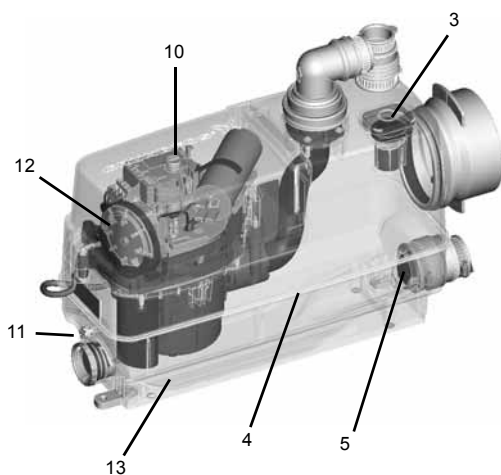
## Construction features

### Sololift2 CWC-3

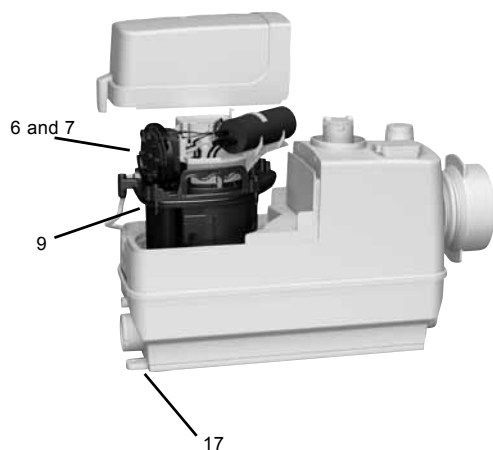
### Description



TM05 0489 1111



TM05 0490 1111



TM05 0855 1711

#### Pos. Operational reliability

- |   |   |
|---|---|
| 1 | <b>Cutter</b><br>Professional cutter, which easily handles feminine hygiene products or similar, increases the reliability. Pump with self-venting valve for stable start.                                  |
| 2 | <b>Motor</b><br>Powerful motor with special winding for high torque and motor protection by thermal switch with automatic restart. Three shaft seals and an additional V-ring ensure long operational life. |
| 3 | <b>Venting valve</b><br>Venting valve with carbon filter and overflow protection. Possibility of connecting a vent pipe, for example over roof.   |
| 4 | <b>Tank</b><br>Welded tank design which is pressure-tight up to 2.5 m water column.   |
| 5 | <b>Non-return flap valves</b><br>Non-return flap valves prevent back- and cross-flow to inlet pipes.  |

#### Pos. Easy maintenance and service

- |    |   |
|----|---|
| 6  | <b>Access to components</b><br>Design with dry motor for easy and clean service.  |
| 7  | <b>Compact block unit</b><br>Pump, motor and controller form a compact block unit which is easy to remove for service and replacement. No need to disconnect the Sololift2 tank and connected pipes when service is required. |
| 8  | <b>Auto coupling</b><br>Self-adjusting auto coupling eases assembly.  |
| 9  | <b>Screws</b><br>All important screws are captive screws, which facilitates service work.   |
| 10 | <b>Anti-blocking</b><br>Manual anti-blocking function is accessible from outside with a screwdriver, i.e. no need to remove the cover. Remove a plug on top of the cover, insert the screwdriver, and turn the shaft.         |
| 11 | <b>Drain connection</b><br>Separate tank drain function is available by connecting a drain hose.  |
| 12 | <b>Pressure switch</b><br>Pressure switch control outside the tank, i.e. no moving parts and diaphragm in the wastewater.   |
| 13 | <b>Bottom</b><br>Bottom design with strong chamfer to prevent sedimentation in corners.   |

#### Pos. Easy installation and replacement

- |    |  |
|----|--|
| 14 | <b>Slim design</b><br>Slim design for front-wall installation with a wall-hung toilet.   |
| 15 | <b>Inlet</b><br>Eccentric, height-adjustable connectors for side inlets, i.e. in addition to the inlet at the top of the tank. |
| 16 | <b>Discharge</b><br>Horizontal 360° turnable discharge incorporating a non-return valve.                                       |
| 17 | <b>Feet for floor-mounting</b><br>Feet for floor-mounting are easy to install.   |

Visit the animation of Sololift2 features on [www.grundfos.com](http://www.grundfos.com) or local Grundfos homepages.

## Installation requirements

This section shows an installation example and describes the installation requirements. Installation is done quickly and easily by using flexible hose connectors with several adapter options for almost any pipe diameter.

The start/stop levels are made for the modern flat shower trays.

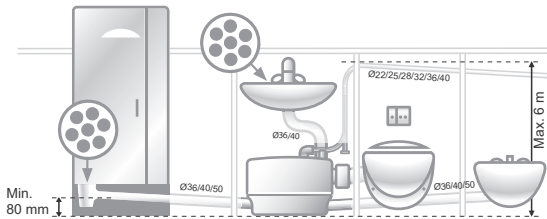


Fig. 23 Example of installation

**Note:** The first part of the discharge pipe should preferably be vertical. All horizontal pipes must have a fall of minimum 1 % to the main soil pipe.

The measurements in fig. 24 must be observed.

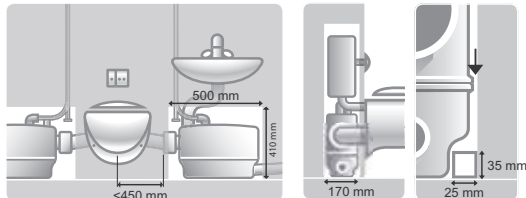


Fig. 24 Measurements to be observed

The Sololift2 CWC-3 must be installed as close as possible ( $< 450\text{ mm}$ ) to the wall-hung toilet in a front-wall installation or similar according to EN 12050-3.

Observe the minimum width of front wall and tile frame sizes in fig. 24 to ensure that the unit is accessible for service.

## Connections

The turnable  $360^\circ$  discharge adapter can be fitted horizontally or vertically. The adapter incorporates a non-return valve.

The discharge and inlet connections can be adapted to the following pipe diameters:

Connection	Outer diameter						
	Ø22	Ø25	Ø28	Ø32	Ø36 <sup>1)</sup>	Ø40	Ø50
Discharge	•	•	•	•	(•)	•	-
Inlet at the top	-	-	-	-	(•)	•	-
Inlet from side <sup>2)</sup>	-	-	-	-	(•)	•	•

<sup>1)</sup> Two adapters included for UK version. Also available as accessories.

<sup>2)</sup> One connector is included. Further connectors available as accessories.

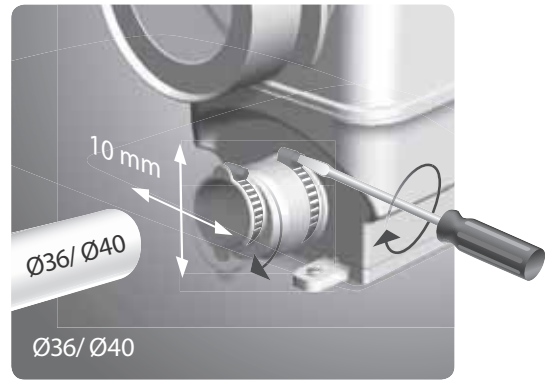


Fig. 25 Height and side alignment possible when using  $\text{Ø}36/40$  inlet pipes

## Product numbers

Product	Plug	Sales region	Prod. no.
Sololift2 CWC-3	Schuko	Europe	97775316
	Schuko	Russia	97775321
	AUS	Australia	97775326
	No plug	UK	97775331

## Accessories

Product	Description	Prod. no.
Alarm device	Acoustic alarm in case of malfunction. Printed-circuit board to be pushed into an internal slot in Sololift2 CWC-3.	97772315
Replacement hose	Flexible PVC hose with two clamps and an adapter to the discharge of the Sololift2. Dimensions: • Length: 500 mm. • Inner diameter: $\text{Ø}32$ . • Outer diameter: $\text{Ø}38$ .	97772316
Adapter kit, inlet	Kit, second inlet $\text{Ø}50/40/40$	97775335
Adapter ring, $\text{Ø}36$	Kit, adapter $\text{Ø}36$ UK	97775336
	Suitable for discharge and inlet connections. <b>Note:</b> The adapter is included in the UK version.	

## Technical data

### Mechanical data

Net weight	7.1 kg
Tank volume	9.0 litres
Flexible discharge elbow	Ø22/25/28/32/36/40
Toilet connection	Toilet with horizontal outlet according to EN 33 or EN 37. The toilet must use at least 4 litres per flush.
Dimensions of possible inlet	1 x Ø32/36/40 from the top 2 x Ø36/40/50 in the side
Start and stop levels	Start: 72 mm above floor level Stop: 52 mm above floor level
pH value of the pumped liquid	4 to 10
Maximum liquid temperature	50 °C
Ambient temperature	+5 °C to +35 °C
Duty class	S3-50 % - 1 min. (30 sec. on; 30 sec. off)

### Electrical data

Supply voltage	1 x 220-240 V - 10 %/+ 6 %, 50 Hz
Power consumption, P1	Max. 620 W
Rated current	3.0 A
Power factor, cos φ	0.87/0.92
Speed	2800 min <sup>-1</sup>
Enclosure class	IP44
Insulation class	F
Connecting cable	1.2 m, 0.75 mm <sup>2</sup> (H05VV-F-3G)

### Dimensions

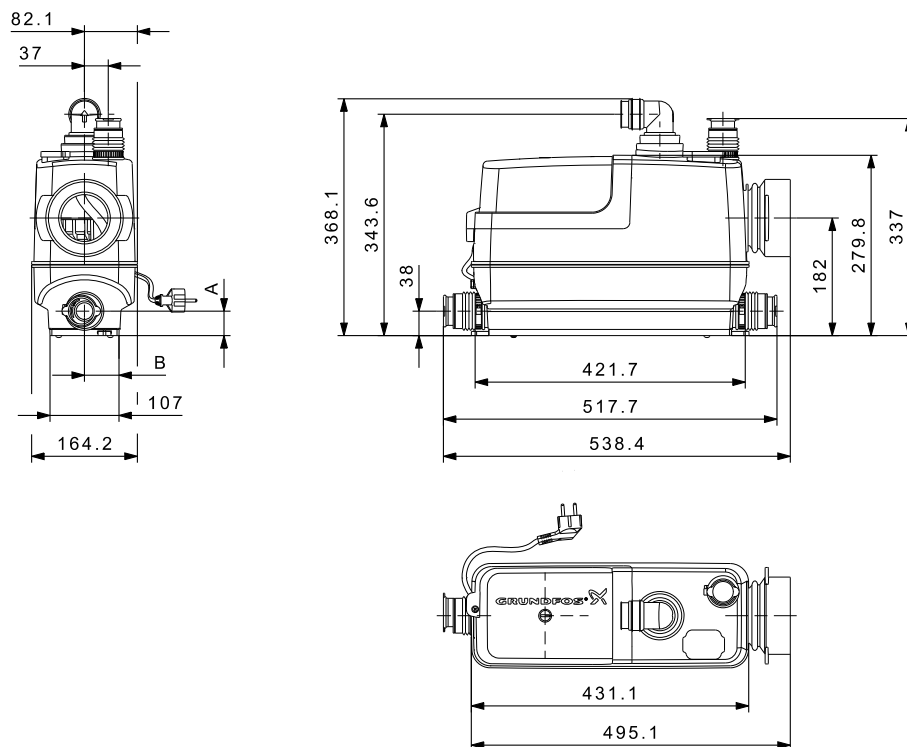


Fig. 27 Dimensional drawings, Sololift2 CWC-3

Pipe diameter	Type	A [mm]		B [mm]	
		Min.	Max.	Min.	Max.
Ø36/40	Eccentric	32	42	49	59
Ø50	Centric	37		54	

### Performance

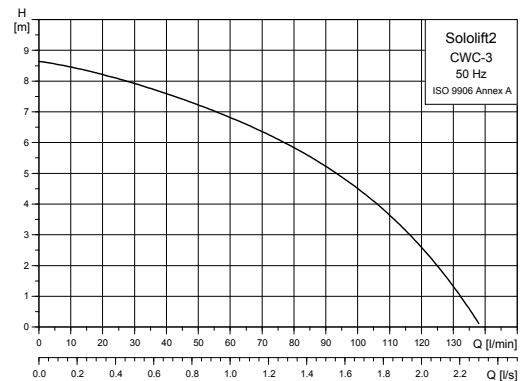


Fig. 26 Performance curves, Sololift2 CWC-3

TM04 9879 0211

TM04 9915 0311

## Marking and approvals

### Description

The Sololift2 units are CE-marked and have obtained the following approvals:

- VDE
- EMV
- TÜV/LGA
- GOST (AR56).

### Marking



### Approvals



## Design and scope of delivery

The Sololift2 CWC-3 is supplied with a tank made of wastewater-resistant composite with inspection cover.

Features:

- DN 100 connecting piece with flexible hose to the toilet.
- Additional inlet connecting piece at the top for pipes of  $\varnothing 32$  and  $\varnothing 40$  ( $\varnothing 36$  for UK version).
- Two additional side inlet connections. One connector with clamps is included (2 x  $\varnothing 36$  inserts for discharge and inlet are included in the UK version).
- Two side inlet connections with integrated backflow flap valves.
- Venting valve with carbon filter, overflow protection and integrated adapter for a  $\varnothing 20$  vent pipe.
- Inner pipework with auto coupling to the pump-motor unit.
- One pump-motor unit fixed to the tank with four captive screws. The pump discharge to the inner pipework of the tank is fixed to the auto coupling from the inner pipework of the tank.
- 1.2 m cable and plug. See *Technical data*, page 19.
- Flexible adapter hose for inlet pipes of  $\varnothing 32$  and  $\varnothing 40$  ( $\varnothing 36$  for UK version).
- Feet for floor-mounting including screws and expansion anchors.
- Non-return valve.
- Discharge adapters from  $\varnothing 22$  to  $\varnothing 40$  (plus  $\varnothing 36$  for UK version).
- Drain hose with clamps and plug.

## 5. Sololift2 C-3

Sololift2 C-3 is a small, compact, ready-to-install automatic lifting station. It is suitable for pumping grey wastewater without faeces off places in any kind of building.

The unit is designed according to EN 12050-2.



TM04 9731 5010

Fig. 28 Sololift2 C-3

### Applications

Sololift2 C-3 is suitable for pumping grey wastewater from a washing machine, dishwasher, bathtub, cabinet shower, washbasin or kitchen sink. The unit is designed for front-wall installations. The professional design enables handling of wastewater at temperatures up to 75 °C during continuous operation and up to 90 °C for up to 30 minutes.

Typical applications:

- Basement installations below sewer level.
- In connection with the renovation or modernisation of existing buildings where the location may be remote from the main soil pipe so that a natural slope cannot be established, for example attics.



TM05 0388 0911

Fig. 29 Example of application

### Features and benefits

#### Robustness and operational reliability

- The powerful motor ensures optimum operational reliability when pumping grey wastewater at temperatures up to 90 °.

#### Easy installation and replacement

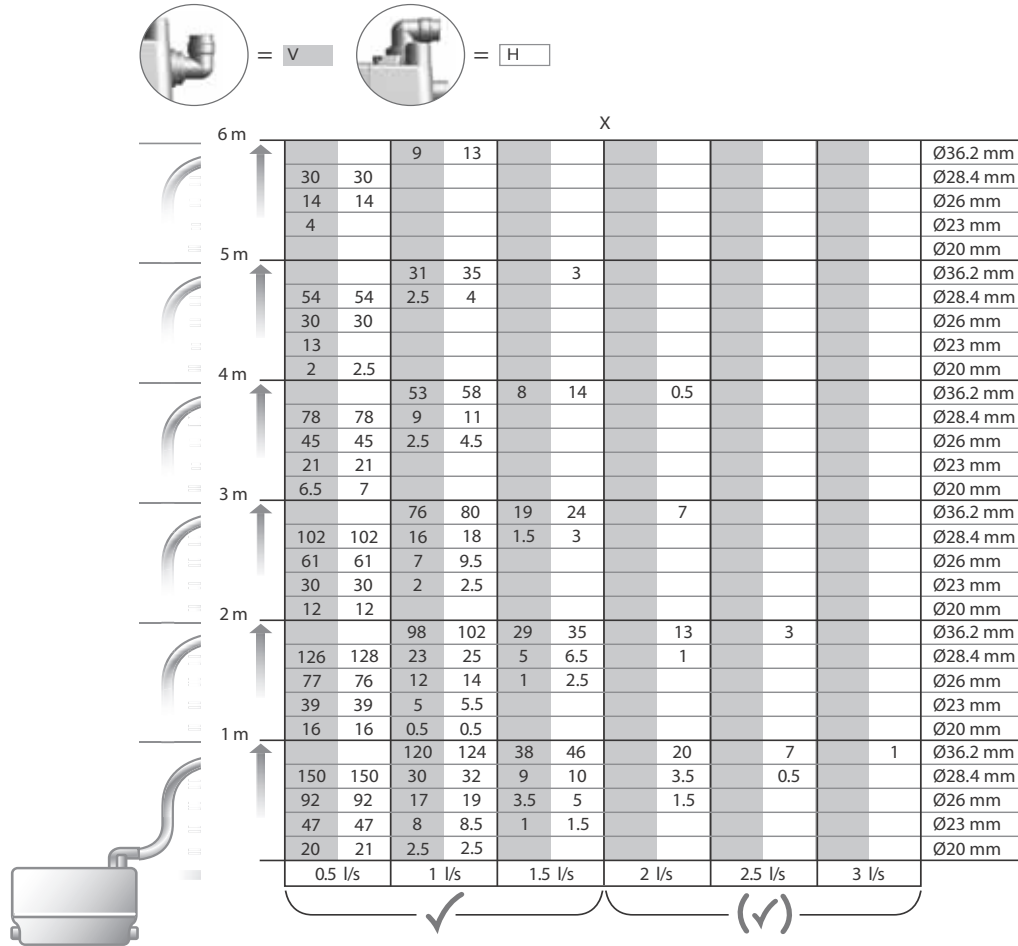
- Height-adjustable discharge and inlet connections ensure easy installation and replacement.
- Two selectable levels fit any application, and the slim design enables installation in confined spaces.

#### Easy maintenance and service

- The removable, compact pump-motor unit makes any service job a fast and clean matter.
- No need to disconnect discharge and inlet pipes or to remove the unit for service.

## Sizing guide

As the Sololift2 C-3 is used with several combinations of units, it is necessary to consider the maximum performance of the unit in relation to different discharge pipe diameters at a minimum self-cleaning velocity of  $v = 0.7$  m/s.



**Fig. 30** Pipe length and height in relation to inner pipe diameter and required discharge capacity

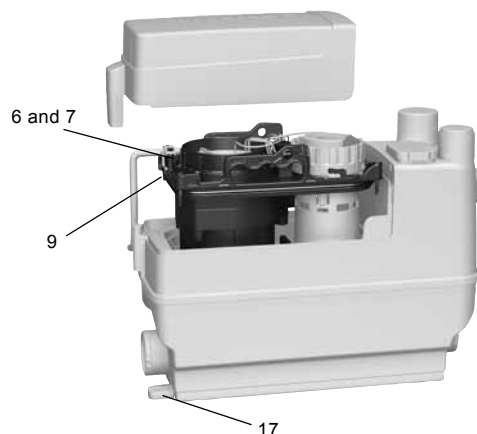
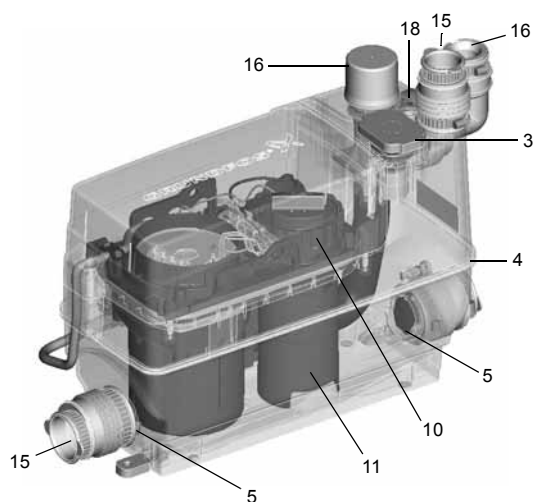
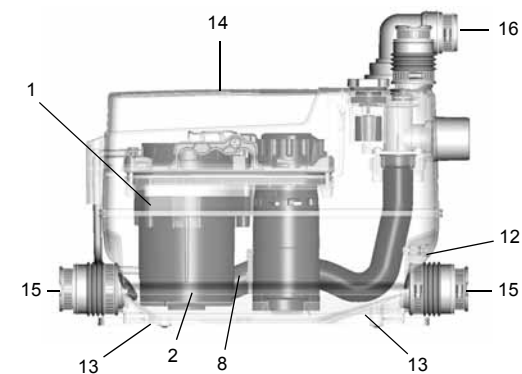
Figure 30 shows the maximum lengths and heights of discharge pipes in metres in relation to inner pipe diameter and discharge capacity of the unit. To ensure optimum operation, the total inflow must not exceed the discharge capacity stated in the table, depending on pipe diameter, height and length. Four bends, a non-return valve and an isolating valve have already been taken into account.

If the discharge capacity exceeds 1.5 l/s, the noise level may increase. We recommend to choose a pipe diameter that ensures a discharge capacity below 1.5 l/s, if possible, when no discharge capacity above 1.5 l/s is required.

## Construction features

### Sololift2 C-3

### Description



TM05 0494 1111

TM05 0487 1111

TM05 0495 1111

#### Pos. Operational reliability

- |   |   |
|---|---|
| 1 | <b>Motor</b><br>Powerful motor that enables pumping of grey wastewater at temperatures up to 90 °C from domestic and commercial washing machines and dishwashers. Motor protection by thermal switch with automatic restart. Three shaft seals and an additional V-ring ensure long operational life. |
| 2 | <b>Free passage</b><br>Vortex pump with a free passage of 20 mm and internal self-venting valve for stable start.   |
| 3 | <b>Venting valve</b><br>Venting valve with carbon filter and overflow protection. Possibility of connecting a vent pipe, for example over roof.   |
| 4 | <b>Tank</b><br>Welded tank design which is pressure-tight up to 2.5 m water column.   |
| 5 | <b>Non-return flap valves</b><br>Non-return flap valves prevent back- and cross-flow to inlet pipes.  |

#### Pos. Easy maintenance and service

- |    |   |
|----|---|
| 6  | <b>Access to components</b><br>Design with dry motor for easy and clean service.  |
| 7  | <b>Compact block unit</b><br>Pump, motor and controller form a compact block unit which is easy to remove for service and replacement. No need to disconnect the Sololift2 tank and connected pipes when service is required. |
| 8  | <b>Auto coupling</b><br>Self-adjusting auto coupling eases assembly.  |
| 9  | <b>Screws</b><br>All important screws are captive screws, which facilitates service work.   |
| 10 | <b>Level switch</b><br>The level switch can be removed without getting into contact with the inside of the tank.  |
| 11 | <b>Two start levels</b><br>Two start levels available, i.e. a low start level which is suitable for modern flat shower trays and a higher start level which is suitable for the inflow from a washing machine or bathtub.     |
| 12 | <b>Drain connection</b><br>Separate tank drain function is available by connecting a drain hose.  |
| 13 | <b>Bottom</b><br>Bottom design with strong chamfer to prevent sedimentation in corners.   |

#### Pos. Easy installation and replacement

- |    |  |
|----|--|
| 14 | <b>Dimensions</b><br>Very compact dimensions. The position of discharge and inlet connections ensures easy replacement of Sololift+ and similar units of other makes. No extra work on pipes required. |
| 15 | <b>Inlet</b><br>Eccentric, height-adjustable connectors for side inlets, i.e. in addition to the inlet at the top of the tank.   |
| 16 | <b>Discharge</b><br>A turnable 360 ° adapter incorporating a non-return valve enables vertical or horizontal discharge direction for easy replacement.   |
| 17 | <b>Feet for floor-mounting</b><br>Feet for floor-mounting are easy to install.   |
| 18 | <b>Pre-fabricated plug for installation of an optional alarm float switch.</b><br>Can also be retrofitted.   |

Visit the animation of Sololift2 features on [www.grundfos.com](http://www.grundfos.com) or local Grundfos homepages.

## Installation requirements

This section shows installation examples and describes the installation requirements. Installation is done quickly and easily by using flexible hose connectors with several adapter options for almost any pipe diameter.

The start/stop levels are made for the modern flat shower trays.

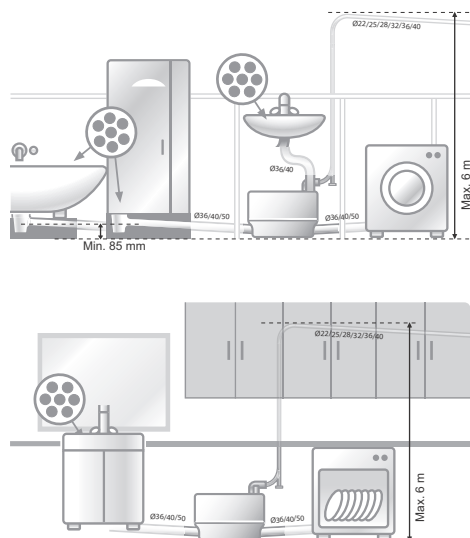


Fig. 31 Examples of installation

**Note:** The first part of the discharge pipe should preferably be vertical. All horizontal pipes must have a fall of minimum 1 % to the main soil pipe.

The measurements in fig. 32 must be observed.

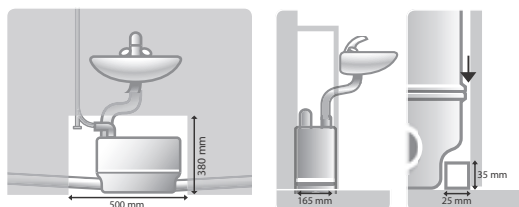


Fig. 32 Measurements to be observed

When the unit is located inside a wall or in a floor unit, observe the minimum measurements to ensure that the unit can be inspected and is accessible for service. The float switch can be removed to adjust a higher start level to increase the pump performance for larger inflow from a washing machine, dishwasher or bathtub. The float switch can also be removed for inspection and cleaning, if necessary. See fig. 33.

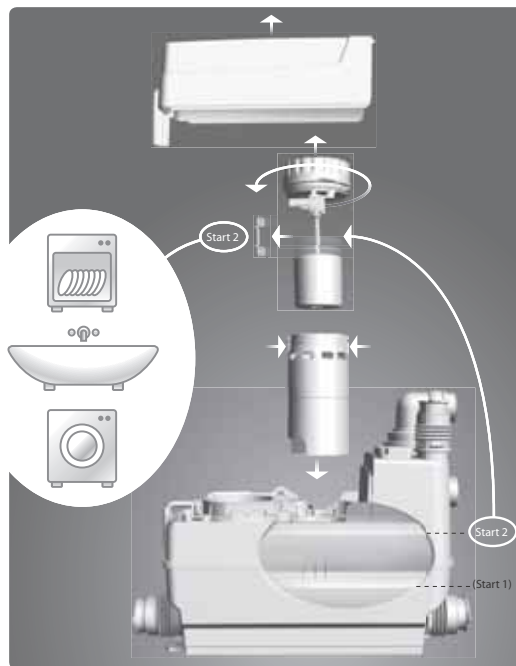


Fig. 33 Adjustment of the float switch

## Connections



Fig. 34 Horizontal or vertical discharge

The turnable 360 ° discharge adapter can be fitted horizontally or vertically. The adapter incorporates a non-return valve.

The discharge and inlet connections can be adapted to the following pipe diameters:

Connection	Outer diameter						
	Ø22	Ø25	Ø28	Ø32	Ø36 <sup>1)</sup>	Ø40	Ø50
Discharge	•	•	•	•	(•)	•	-
Inlet at the top	-	-	-	•	(•)	•	-
Inlet from side <sup>2)</sup>	-	-	-	-	(•)	•	•

<sup>1)</sup> Two adapters included for UK version. Also available as accessories.

<sup>2)</sup> One connector is included. Further connectors available as accessories.

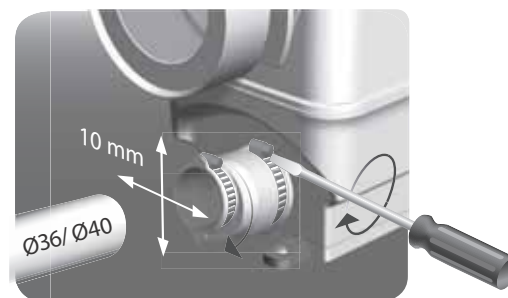


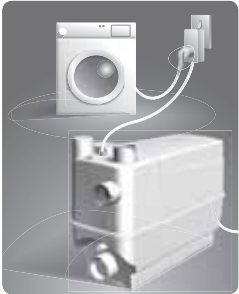




Fig. 35 Height and side alignment possible when using Ø36/40 inlet pipes



## Product numbers

Product	Plug	Sales region	Prod. no.
Sololift2 C-3	Schuko	Europe	97775317
	Schuko	Russia	97775322
	AUS	Australia	97775327
	No plug	UK	97775332

## Accessories

Product	Description	Prod. no.
Alarm device, LC A2 	Alarm device with an integrated Schuko socket and plug to stop a washing machine or dishwasher in case of backflow in the Sololift2 and/or to send an audible alarm.  $I_{max.} = 16 \text{ A}$  Power supply: 230 V, 50 Hz.  Potential-free contact: 3A, 250 VAC or 30 VDC.  Buzzer: 97 dB(A)/1 m.  Dimensions: 140 x 60 x 90 mm.	97775338
Float switch 	Magnetic float switch for the LC A2 alarm device.  Cable length: 10 m.	97775337
Replacement hose 	Flexible PVC hose with two clamps and an adapter to the discharge of the Sololift2.  Dimensions: <ul style="list-style-type: none"> <li>• Length: 500 mm.</li> <li>• Inner diameter: <math>\varnothing 32</math>.</li> <li>• Outer diameter: <math>\varnothing 38</math>.</li> </ul>	97772316
Adapter kit, inlet 	Kit, second inlet $\varnothing 50/50/40$	97775335
Adapter ring, $\varnothing 36$ 	Kit, adapter $\varnothing 36$ UK  Suitable for discharge and inlet connections.  <b>Note:</b> The adapter is included in the UK version.	97775336

## Technical data

### Mechanical data

Net weight	6.6 kg
Tank volume	5.7 litres
Flexible discharge elbow	Ø22/25/28/32/36/40
Dimensions of possible inlet	1 x Ø32/36/40 from the top 2 x Ø36/40/50 in the side
Start and stop levels	Start level 1: 65 mm above floor level Start level 2: 115 mm above floor level Stop level: 35 mm above floor level
pH value of the pumped liquid	4 to 10
Maximum liquid temperature	75 °C continuously 90 °C for 30 minutes
Ambient temperature	+5 °C to +35 °C
Duty class	S3-50 % - 1 min. (30 sec. on; 30 sec. off)

### Electrical data

Supply voltage	1 x 220-240 V - 10 %/+ 6 %, 50 Hz
Power consumption, P1	Max. 640 W
Rated current	3.1 A
Power factor, cos φ	0.66/0.90
Speed	2800 min <sup>-1</sup>
Enclosure class	IP44
Insulation class	F
Connecting cable	1.2 m, 0.75 mm <sup>2</sup> (H05VV-F-3G)

### Dimensions

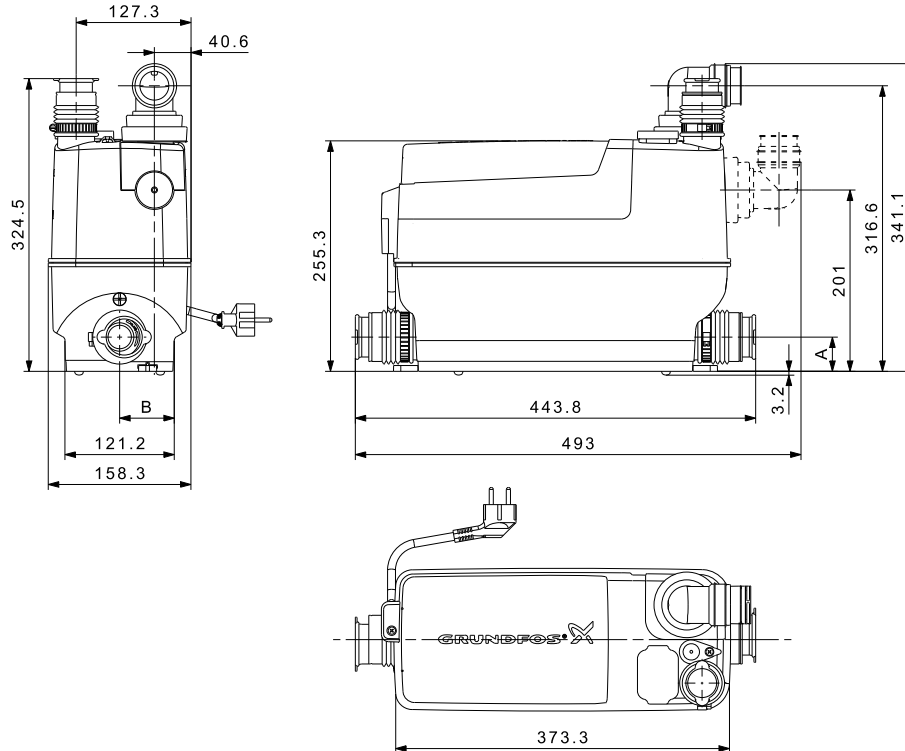


Fig. 37 Dimensional drawings, Sololift2 C-3

Pipe diameter	Type	A [mm]		B [mm]	
		Min.	Max.	Min.	Max.
Ø36/40	Eccentric	33	43	56	66
Ø50	Centric	38		61	

### Performance

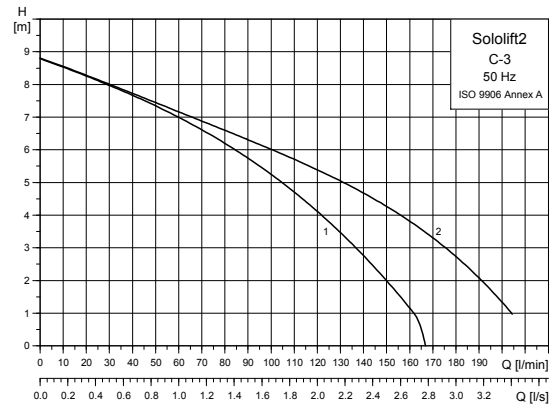


Fig. 36 Performance curves, Sololift2 C-3

### Legend

Pos.	Description
1	Horizontal outlet
2	Vertical outlet

TM04 9880 0211

TM04 9917 0311

## Marking and approvals

### Description

The Sololift2 units are CE-marked and have obtained the following approvals:

- VDE
- EMV
- TÜV/LGA
- GOST (AR56).

### Marking



### Approvals



## Design and scope of delivery

The Sololift2 C-3 is supplied with a tank made of wastewater-resistant composite with inspection cover.

Features:

- Inlet connecting piece at the top for pipes of  $\varnothing 32$  and  $\varnothing 40$  ( $\varnothing 36$  for UK version).
- Two additional side inlet connections. One connector with clamps is included (2 x  $\varnothing 36$  inserts for discharge and inlet are included in the UK version).
- Two side inlet connections with integrated backflow flap valves.
- Adapter with hose nozzle to connect a washing machine or dishwasher.
- Venting valve with carbon filter, overflow protection and integrated adapter for a  $\varnothing 20$  vent pipe.
- Inner pipework with auto coupling to the pump-motor unit.
- One pump-motor unit fixed to the tank with three captive screws. The pump discharge to the inner pipework of the tank is fixed to the auto coupling from the inner pipework of the tank.
- 1.2 m cable and plug. See *Technical data*, page 26.
- Flexible adapter hose for inlet pipes of  $\varnothing 32$  and  $\varnothing 40$  ( $\varnothing 36$  for UK version).
- Feet for floor-mounting including screws and expansion anchors.
- Non-return valve.
- Discharge adapters from  $\varnothing 22$  to  $\varnothing 40$  (plus  $\varnothing 36$  for UK version).
- Drain hose with clamps and plug.

## 6. Sololift2 D-2

Sololift2 D-2 is a small, compact, ready-to-install automatic lifting station. It is suitable for pumping grey wastewater without faeces off places in any kind of building.

The unit is designed according to EN 12050-2.



TM04 9732 5010

Fig. 38 Sololift2 D-2

### Applications

Sololift2 D-2 is suitable for pumping grey wastewater from a washbasin, cabinet shower or bidet. The unit is designed for front-wall installation or installation in a cabinet under a sink.

Typical applications:

- Basement installations below sewer level.
- In connection with the renovation or modernisation of existing buildings where the location may be remote from the main soil pipe so that a natural slope cannot be established, for example attics.



TM05 0400 0911

Fig. 39 Example of application

### Features and benefits

#### Robustness and operational reliability

- The robust motor, crankcase and shaft in contact with wastewater are made of stainless steel.

#### Easy installation and replacement


- Slim design for installation in confined spaces.

#### Easy maintenance and service

- The removable, compact pump-motor unit makes any service job a fast and clean matter.
- No need to disconnect discharge and inlet pipes or to remove the unit for service.

## Sizing guide

As the Sololift2 D-2 is used with several combinations of units, it is necessary to consider the maximum performance of the unit in relation to different discharge pipe diameters at a minimum self-cleaning velocity of  $v = 0.7$  m/s.



Pipe height (m)	X				Inner pipe diameter (mm)
	0.25 l/s	0.5 l/s	1 l/s	1.5 l/s	
4 m					Ø28.4 mm
3 m	6				Ø20 mm
2 m	22	0.1			Ø20 mm
1 m	37	4.5	3		Ø28.4 mm
	52	9.5	10		Ø20 mm

TM05 0527 1211

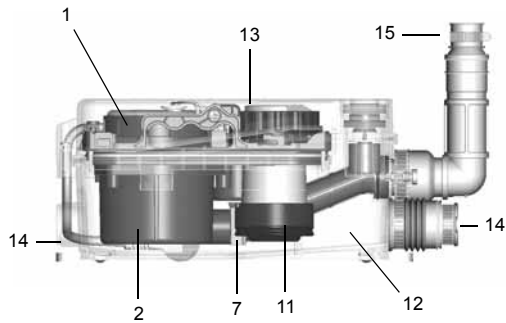
**Fig. 40** Pipe length and height in relation to inner pipe diameter and required discharge capacity

Figure 40 shows the maximum lengths and heights of discharge pipes in metres in relation to inner pipe diameter and discharge capacity of the unit. To ensure optimum operation, the total inflow must not exceed the discharge capacity stated in the table, depending on pipe diameter, height and length. Four bends, a non-return valve and an isolating valve have already been taken into account.

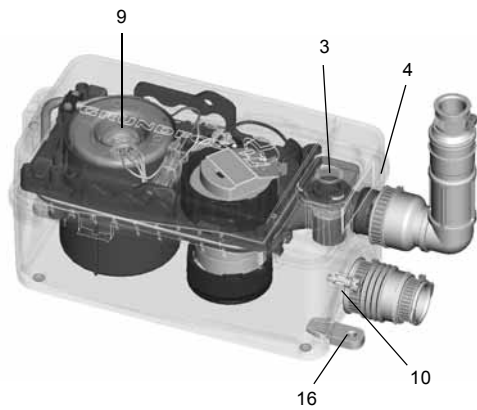
## Construction features

### Sololift2 D-2

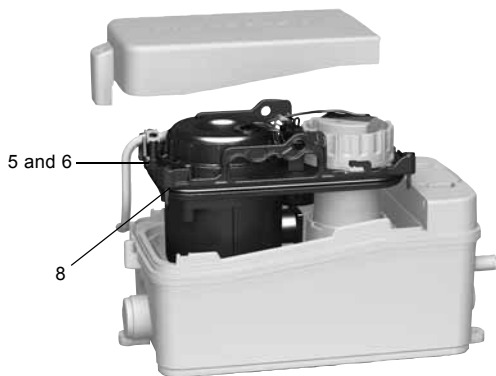
### Description



TM05 0399 1111



TM05 0492 1111



TM05 0493 1111

#### Pos. Operational reliability

- |   |  |
|---|--|
| 1 | <b>Motor</b><br>Powerful motor that enables pumping of grey wastewater. Motor protection by thermal switch with automatic restart. Three shaft seals ensure long operational life. |
| 2 | <b>Free passage</b><br>Pump with a free passage of 10 mm and internal self-venting valve for stable start.   |
| 3 | <b>Venting valve</b><br>Venting valve with carbon filter and overflow protection. Possibility of connecting a vent pipe, for example over roof.                                    |
| 4 | <b>Tank</b><br>Welded tank design which is pressure-tight up to 2.5 m water column.  |

#### Pos. Easy maintenance and service

- |    |  |
|----|--|
| 5  | <b>Access to components</b><br>Design with dry motor for easy and clean service.   |
| 6  | <b>Compact block unit</b><br>Pump, motor and controller form a compact block unit which is easy to remove for service and replacement. Other components can be replaced as single parts.<br>No need to disconnect the Sololift2 tank and connected pipes when service is required. |
| 7  | <b>Auto coupling</b><br>Self-adjusting auto coupling eases assembly.   |
| 8  | <b>Screws</b><br>All important screws are captive screws, which facilitates service work.  |
| 9  | <b>Anti-blocking</b><br>Manual anti-blocking function for deblocking of the motor. No dismantling required.  |
| 10 | <b>Drain connection</b><br>Separate tank drain function is available by connecting a drain hose.   |
| 11 | <b>Level switch</b><br>Level switch with low start level which is suitable for modern flat shower trays. The level switch can be removed without getting into contact with the inside of the tank. All electrical parts are positioned outside the tank.                           |
| 12 | <b>Bottom</b><br>Bottom design with strong chamfer to prevent sedimentation in corners.  |

#### Pos. Easy installation and replacement

- |    |   |
|----|---|
| 13 | <b>Slim design</b><br>Very slim design that fits into the smallest cabinets/cupboards, for example under a washbasin. |
| 14 | <b>Connecting pieces</b><br>Two connecting pieces for side inlets.  |
| 15 | <b>Discharge</b><br>Vertical, turnable discharge incorporating a non-return valve.                                    |
| 16 | <b>Feet for floor-mounting</b><br>Feet for floor-mounting are easy to install.  |

Visit the animation of Sololift2 features on [www.grundfos.com](http://www.grundfos.com) or local Grundfos homepages.

## Installation requirements

This section shows an installation example and describes the installation requirements. Installation is done quickly and easily by using flexible hose connectors with two adapter options to the pipe diameters.

The start/stop levels are made for the modern flat shower trays.

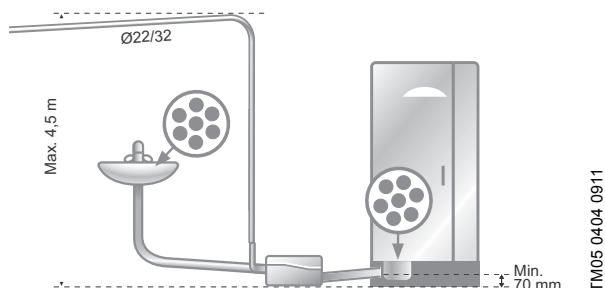


Fig. 41 Example of installation

**Note:** The first part of the discharge pipe should preferably be vertical. All horizontal pipes must have a fall of minimum 1 % to the main soil pipe.

The measurements in figs 41 and 42 must be observed.

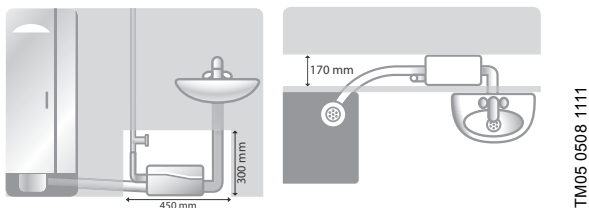


Fig. 42 Measurements to be observed

When the unit is located inside a wall or in a floor unit, observe the minimum measurements to ensure that the unit can be inspected and is accessible for service.

## Connections

The turnable discharge adapter incorporates a non-return valve.

The discharge and inlet connections can be adapted to the following pipe diameters:

Connection	Outer diameter						
	Ø22	Ø25	Ø28	Ø32	Ø36 <sup>1)</sup>	Ø40	Ø50
Discharge	•	-	-	•	-	-	-
Inlet from side	-	-	-	-	(•)	•	-

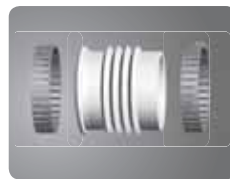
<sup>1)</sup> Adapter included for UK version. Also available as an accessory.

## Product numbers

Product	Plug	Sales region	Prod. no.
Sololift2 D-2	Schuko	Europe	97775318
	Schuko	Russia	97775323
	AUS	Australia	97775328
	No plug	UK	97775333

## Accessories

Product	Description	Prod. no.
Adapter kit, inlet	Kit, second inlet Ø40/40/32	97775334



TM05 0508 0911

Adapter ring, Ø36	Kit, adapter Ø36 UK	97775336
-------------------	---------------------	----------



TM05 0409 0911

Suitable for discharge and inlet connections.

**Note:** The adapter is included in the UK version.

## Technical data

### Mechanical data

Net weight	4.3 kg
Tank volume	2.0 litres
Flexible discharge elbow	Ø22/32
Dimensions of possible inlet	2 x Ø32/36/40 in the side
Start and stop levels	Start level: 58 mm above floor level Stop level: 35 mm above floor level
pH value of the pumped liquid	4 to 10
Maximum liquid temperature	50 °C
Ambient temperature	+5 °C to +35 °C
Duty class	S3-50 % - 1 min. (30 sec. on; 30 sec. off)

### Electrical data

Supply voltage	1 x 220-240 V - 10 %/+ 6 %, 50 Hz
Power consumption, P1	Max. 280 W
Rated current	1.3 A
Power factor, cos φ	0.90/0.95
Speed	2800 min <sup>-1</sup>
Enclosure class	IP44
Insulation class	F
Connecting cable	1.2 m, 0.75 mm <sup>2</sup> (H05VV-F-3G)

### Dimensions

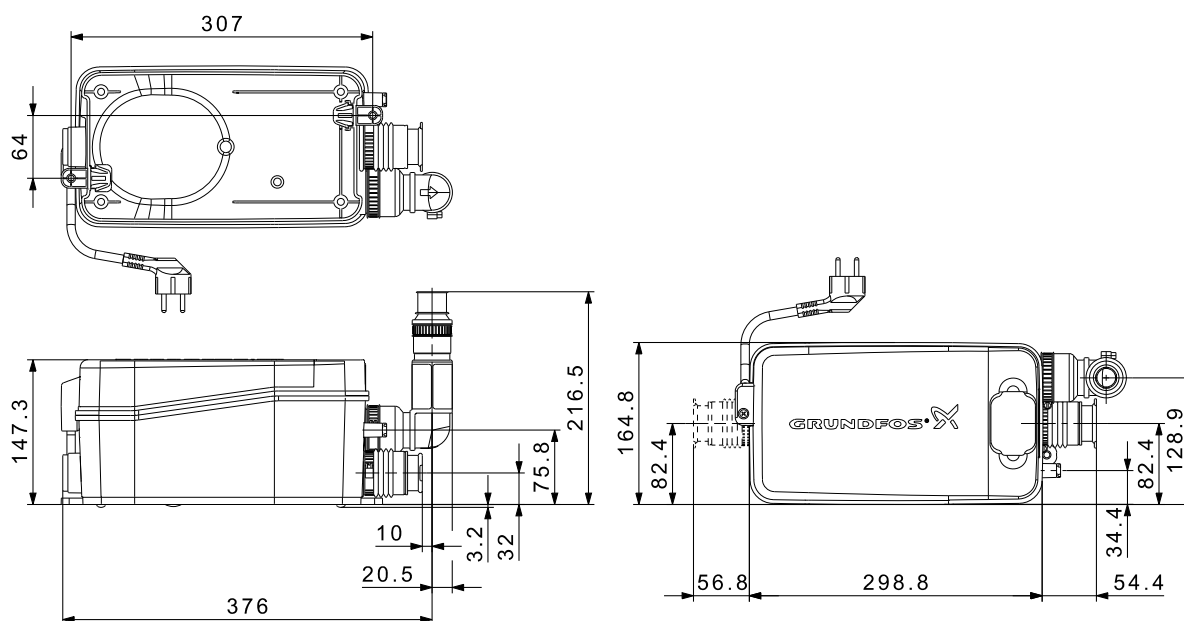


Fig. 44 Dimensional drawings, Sololift2 D-2

### Performance

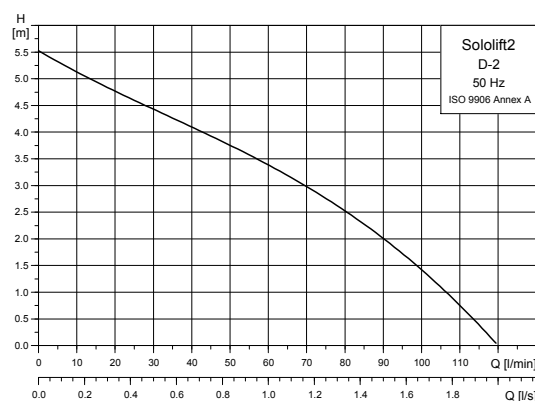


Fig. 43 Performance curves, Sololift2 D-2

TM04 9880 0211

TM04 9917 0311



## Marking and approvals

### Description

The Sololift2 units are CE-marked and have obtained the following approvals:

- VDE
- EMV
- TÜV/LGA
- GOST (AR56).

### Marking



### Approvals



## Design and scope of delivery

The Sololift2 D-2 is supplied with a tank made of wastewater-resistant composite with inspection cover.

Features:

- Two additional side inlet connections of  $\varnothing 32$  and  $\varnothing 40$  ( $\varnothing 36$  for UK version). One flexible connection hose with clamps is included.
- Two side inlet connections with integrated backflow flap valves.
- Venting valve with carbon filter, overflow protection and integrated adapter for a  $\varnothing 20$  vent pipe.
- Inner pipework with auto coupling to the pump-motor unit.
- One pump-motor unit fixed to the tank with four captive screws. The pump discharge to the inner pipework of the tank is fixed to the auto coupling from the inner pipework of the tank.
- 1.2 m cable and plug. See *Technical data*, page 32.
- Flexible adapter hose for inlet pipes of  $\varnothing 32$  and  $\varnothing 40$  ( $\varnothing 36$  for UK version).
- Feet for floor-mounting including screws and expansion anchors.
- Non-return valve and discharge adapters from  $\varnothing 22$  and  $\varnothing 32$ .
- Drain hose with clamps and plug.

## 7. Product range, overview

### Product numbers

Overview of available products:

Product	Mains supply	Plug	Sales region	Discharge port	Cable length	Weights		Shipping volume	Product number	
						Net	Gross			
					[m]	[kg]	[kg]	[m <sup>3</sup> ]		
Sololift2 WC-1		Schuko	Europe	Ø22/25/28/32/36/40		7.3	9	.2	0.052	97775314
		Schuko	Russia							97775319
		AUS	Australia							97775324
		No plug	UK						97775329	
Sololift2 WC-3		Schuko	Europe	Ø22/25/28/32/36/40		7.3	9	.3	0.052	97775315
		Schuko	Russia							97775320
		AUS	Australia							97775325
		No plug	UK						97775330	
Sololift2 CWC-3	1 x 220-240 V - 10 %/+ 6 %, 50 Hz	Schuko	Europe	Ø22/25/28/32/36/40	1.2	7.1	9.0	0.046	97775316	
		Schuko	Russia						97775321	
		AUS	Australia						97775326	
		No plug	UK						97775331	
Sololift2 C-3		Schuko	Europe	Ø22/25/28/32/36/40		6.5	8.1	0.036	97775317	
		Schuko	Russia						97775322	
		AUS	Australia						97775327	
		No plug	UK						97775332	
Sololift2 D-2		Schuko	Europe	Ø22/32/36		4.2	4.8	0.022	97775318	
		Schuko	Russia						97775323	
		AUS	Australia						97775328	
		No plug	UK						97775333	

### Accessories

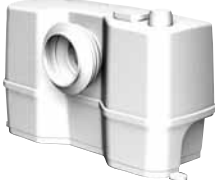




Product	Description	Applicable to	Product number
Alarm device	Acoustic alarm in case of malfunction. Printed-circuit board to be pushed into an internal slot.	Sololift2 WC-1 Sololift2 WC-3 Sololift2 CWC-3	97772315
Replacement hose	Flexible PVC hose with two clamps and an adapter to the discharge of the Sololift2. • Length: 500 mm. • Inner diameter: Ø32. • Outer diameter: Ø38.	Sololift2 WC-1 Sololift2 WC-3 Sololift2 CWC-3 Sololift2 C-3	97772316
LC A2 alarm device	LC A2 alarm device with socket designed for stopping washing machines or dishwashers to prevent flooding in case the Sololift2 is blocked or malfunctions. The socket can be used as power supply for other appliances and for switching on/off appliances in case of fault. The device will give an audible alarm and/or start/stop the appliance connected. I <sub>max.</sub> = 16 A	Sololift2 C-3	97775338
Level switch	Magnetic float switch Cable length: 3 m.	Sololift2 C-3	97775337
Adapter kit, inlet	Kit, second inlet Ø40/40/32	Sololift2 D-2	97775334
Adapter kit, inlet	Kit, second inlet Ø50/50/40	Sololift2 WC-3 Sololift2 CWC-3 Sololift2 C-3	97775335
Adapter ring	Kit, adapter Ø36 UK	Sololift2 WC-1 Sololift2 WC-3 Sololift2 CWC-3 Sololift2 C-3 Sololift2 D-2	97775336
Drain hose	Flexible PVC hose with two clamps and a plug. Applicable when the tank of the Sololift2 is to be drained for service. • Length: 500 mm. • Inner diameter: Ø12. • Outer diameter: Ø14.4.	Sololift2 WC-1 Sololift2 WC-3	97789093

## Technical data

Product	Rated current	Power (P1)	Cos $\varphi$	Enclosure class	Insulation class	Speed	Motor protection	Cable
	[A]	[W]				[min <sup>-1</sup> ]		
Sololift2 WC-1	3.0	620	0.92					
Sololift2 WC-3	3.0	620	0.92					
Sololift2 CWC-3	3.0	620	0.92	IP44	F	2800	Built-in thermal switch	0.75 mm <sup>2</sup> (H05VV-F-3G)
Sololift2 C-3	3.1	640	0.90					
Sololift2 D-2	1.3	280	0.95					

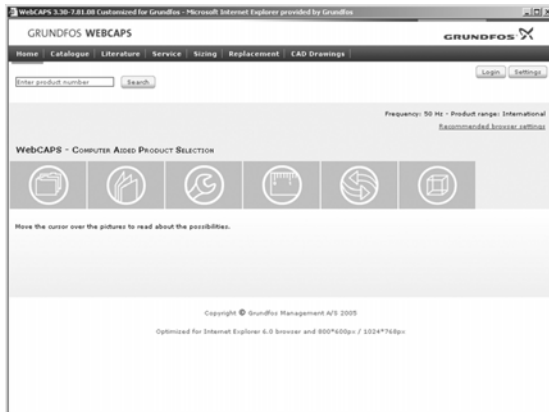
## Scope of delivery

Overview of the included fittings:

Product	Fittings included on delivery
 <p>Sololift2 WC-1</p>	<p>TM05 0866 1711</p> <ul style="list-style-type: none"> <li>• 1 elbow (Ø40 to Ø40-32)</li> <li>• 1 adapter with built-in non-return valve</li> <li>• 1 pipe joint (Ø40 to Ø40-32)</li> <li>• 1 cover valve</li> <li>• 1 adapter (Ø22/32)</li> <li>• 1 adapter (Ø25/32)</li> <li>• 1 adapter (Ø28/32)</li> <li>• 1 adapter (Ø36/40), only UK</li> <li>• Hose clamps (1 x Ø90, 4 x Ø32-50)</li> <li>• 2 feet for floor-mounting</li> <li>• Screws and wall plugs</li> </ul>
 <p>Sololift2 WC-3</p>	<p>TM04 9729 5010</p> <ul style="list-style-type: none"> <li>• 1 elbow (Ø40 to Ø40-32)</li> <li>• 1 adapter with built-in non-return valve</li> <li>• 1 pipe joint (Ø40 to Ø40-32)</li> <li>• 1 pipe joint (Ø50 to Ø50-40)</li> <li>• 1 cover valve</li> <li>• 1 adapter (Ø22/32)</li> <li>• 1 adapter (Ø25/32)</li> <li>• 1 adapter (Ø28/32)</li> <li>• 2 adapters (Ø36/40), only UK</li> <li>• Hose clamps (1 x Ø90, 4 x Ø32-50, 2 x Ø40-60)</li> <li>• 2 feet for floor-mounting</li> <li>• Screws and wall plugs</li> </ul>
 <p>Sololift2 CWC-3</p>	<p>TM04 9730 5010</p> <ul style="list-style-type: none"> <li>• 1 elbow (Ø40 to Ø40-32)</li> <li>• 1 pipe joint (Ø40 to Ø40-32)</li> <li>• 1 pipe joint (Ø50 to Ø50-40)</li> <li>• 1 adapter (Ø22/32)</li> <li>• 1 adapter (Ø25/32)</li> <li>• 1 adapter (Ø28/32)</li> <li>• 2 adapters (Ø36/40), only UK</li> <li>• 1 drain hose</li> <li>• 1 plug for drain hose</li> <li>• Hose clamps (1 x Ø90, 4 x Ø32-50, 2 x Ø40-60, 2 x Ø8-16)</li> <li>• 2 feet for floor-mounting</li> <li>• Screws and wall plugs</li> </ul>
 <p>Sololift2 C-3</p>	<p>TM04 9731 5010</p> <ul style="list-style-type: none"> <li>• 1 elbow (Ø40 to Ø40-32)</li> <li>• 1 pipe joint (Ø40 to Ø40-32)</li> <li>• 1 pipe joint (Ø50 to Ø50-40)</li> <li>• 1 non-return valve</li> <li>• 1 cover valve</li> <li>• 1 adapter (Ø22/32)</li> <li>• 1 adapter (Ø25/32)</li> <li>• 1 adapter (Ø28/32)</li> <li>• 2 adapters (Ø36/40), only UK</li> <li>• 1 drain hose</li> <li>• 1 plug for drain hose</li> <li>• Hose clamps (4 x Ø32-50, 2 x Ø40-60, 2 x Ø8-16)</li> <li>• 2 feet for floor-mounting</li> <li>• Screws and wall plugs</li> </ul>
 <p>Sololift2 D-2</p>	<p>TM04 9732 5011</p> <ul style="list-style-type: none"> <li>• 1 pipe joint (Ø40 to Ø40-32)</li> <li>• 1 outlet fitting (elbow)</li> <li>• 1 adapter (Ø25/32)</li> <li>• 1 adapter (Ø28/32)</li> <li>• 1 adapter (Ø36/40), only UK</li> <li>• 1 drain hose</li> <li>• 1 plug for drain hose</li> <li>• Hose clamps (4 x Ø32-50, 2 x Ø40-60, 2 x Ø8-16)</li> <li>• 2 feet for floor-mounting</li> <li>• Screws and wall plugs</li> </ul>

## 8. Further product documentation

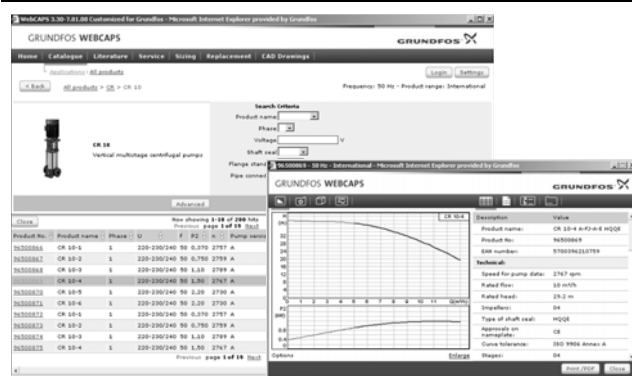
### WebCAPS



WebCAPS is a **Web**-based **Computer Aided Product Selection** program available on [www.grundfos.com](http://www.grundfos.com). WebCAPS contains detailed information on more than 220,000 Grundfos products in more than 30 languages.

Information in WebCAPS is divided into six sections:

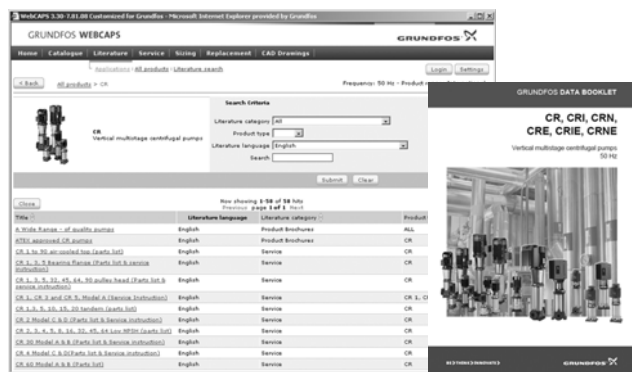
- Catalogue
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.



#### Catalogue

Based on fields of application and pump types, this section contains the following:

- technical data
- curves (QH, Eta, P1, P2, etc.) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.



#### Literature

This section contains all the latest documents of a given pump, such as

- data booklets
- installation and operating instructions
- service documentation, such as Service kit catalogue and Service kit instructions
- quick guides
- product brochures.



#### Service

This section contains an easy-to-use interactive service catalogue. Here you can find and identify service parts of both existing and discontinued Grundfos pumps.

Furthermore, the section contains service videos showing you how to replace service parts.



### Sizing

This section is based on different fields of application and installation examples and gives easy step-by-step instructions in how to size a product:

- Select the most suitable and efficient pump for your installation
- Carry out advanced calculations based on energy consumption, payback periods, load profiles, life cycle costs, etc.
- Analyse your selected pump via the built-in life cycle cost tool
- Determine the flow velocity in wastewater applications, etc.

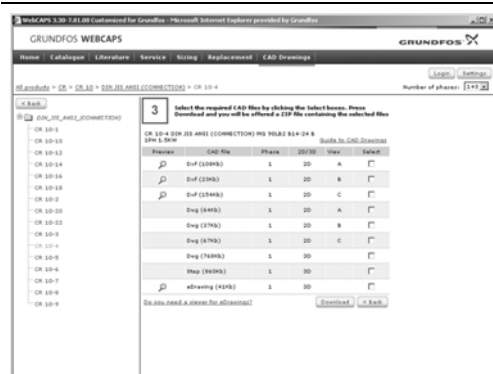


### Replacement

In this section you find a guide to selecting and comparing replacement data of an installed pump in order to replace the pump with a more efficient Grundfos pump.

The section contains replacement data of a wide range of pumps produced by other manufacturers than Grundfos.

Based on an easy step-by-step guide, you can compare Grundfos pumps with the one you have installed on your site. When you have specified the installed pump, the guide will suggest a number of Grundfos pumps which can improve both comfort and efficiency.



### CAD drawings

In this section, it is possible to download 2-dimensional (2D) and 3-dimensional (3D) CAD drawings of most Grundfos pumps.

These formats are available in WebCAPS:

2-dimensional drawings:

- .dxf, wireframe drawings
- .dwg, wireframe drawings.

3-dimensional drawings:

- .dwg, wireframe drawings (without surfaces)
- .stp, solid drawings (with surfaces)
- .eprt, E-drawings.



## WinCAPS



Fig. 45 WinCAPS CD-ROM

WinCAPS is a **Windows-based Computer Aided Product Selection** program containing detailed information on more than 220,000 Grundfos products in more than 30 languages.

The program contains the same features and functions as WebCAPS, but is an ideal solution if no internet connection is available.

WinCAPS is available on CD-ROM and updated once a year.

Subject to alterations.



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