

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.

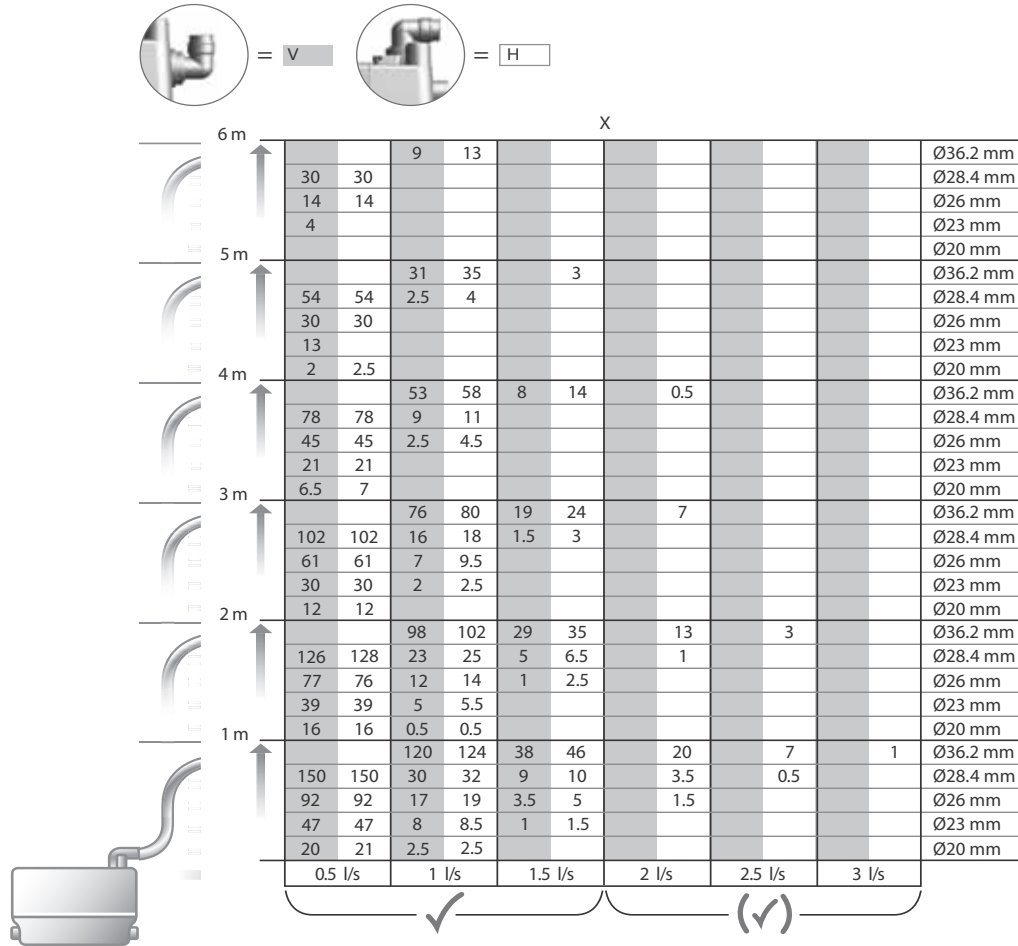


Fig. 30 Pipe length and height in relation to inner pipe diameter and required discharge capacity

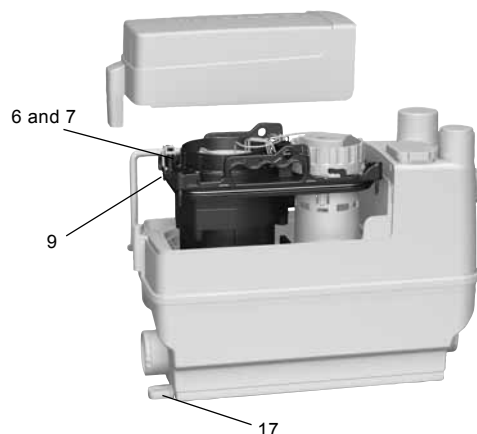
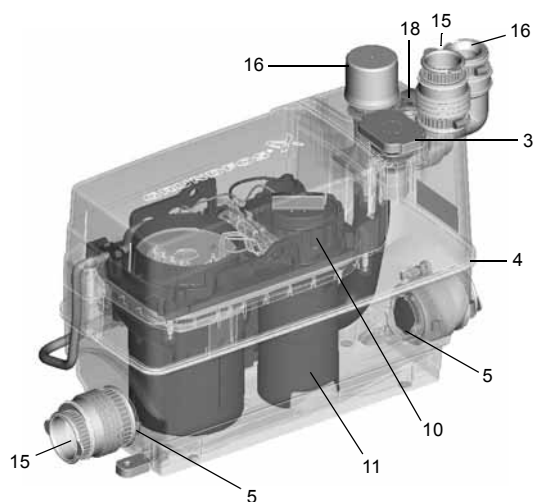
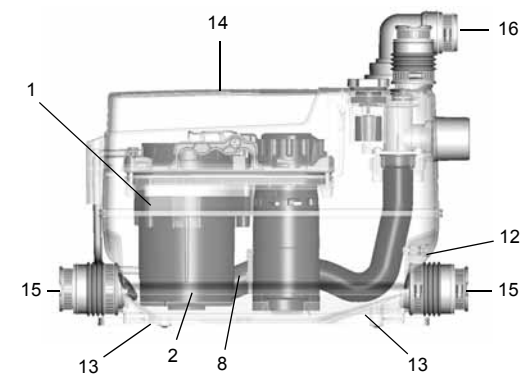
Figure 30 shows the maximum lengths and heights of discharge pipes in metres in relation to inner pipe diameter and discharge capacity of the unit. To ensure optimum operation, the total inflow must not exceed the discharge capacity stated in the table, depending on pipe diameter, height and length. 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



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TM05 0495 1111

Pos. Operational reliability

- | | |
|---|---|
| 1 | Motor
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 | Free passage
Vortex pump with a free passage of 20 mm and internal self-venting valve for stable start. |
| 3 | Venting valve
Venting valve with carbon filter and overflow protection. Possibility of connecting a vent pipe, for example over roof. |
| 4 | Tank
Welded tank design which is pressure-tight up to 2.5 m water column. |
| 5 | Non-return flap valves
Non-return flap valves prevent back- and cross-flow to inlet pipes. |

Pos. Easy maintenance and service

- | | |
|----|---|
| 6 | Access to components
Design with dry motor for easy and clean service. |
| 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. |
| 8 | Auto coupling
Self-adjusting auto coupling eases assembly. |
| 9 | Screws
All important screws are captive screws, which facilitates service work. |
| 10 | Level switch
The level switch can be removed without getting into contact with the inside of the tank. |
| 11 | Two start levels
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 | Drain connection
Separate tank drain function is available by connecting a drain hose. |
| 13 | Bottom
Bottom design with strong chamfer to prevent sedimentation in corners. |

Pos. Easy installation and replacement

- | | |
|----|--|
| 14 | 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. |
| 15 | Inlet
Eccentric, height-adjustable connectors for side inlets, i.e. in addition to the inlet at the top of the tank. |
| 16 | Discharge
A turnable 360 ° adapter incorporating a non-return valve enables vertical or horizontal discharge direction for easy replacement. |
| 17 | Feet for floor-mounting
Feet for floor-mounting are easy to install. |
| 18 | Pre-fabricated plug for installation of an optional alarm float switch.
Can also be retrofitted. |

Visit the animation of Sololift2 features on 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.

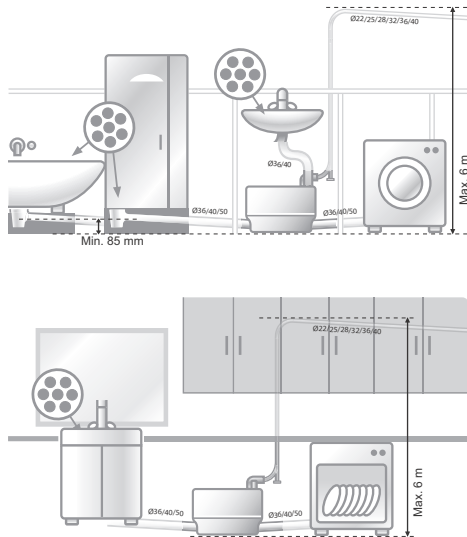


Fig. 31 Examples of installation

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.

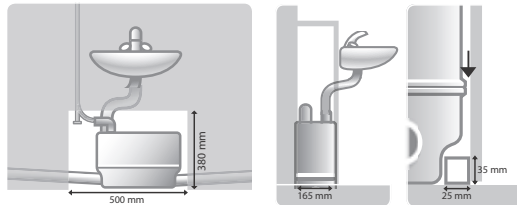


Fig. 32 Measurements to be observed

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.

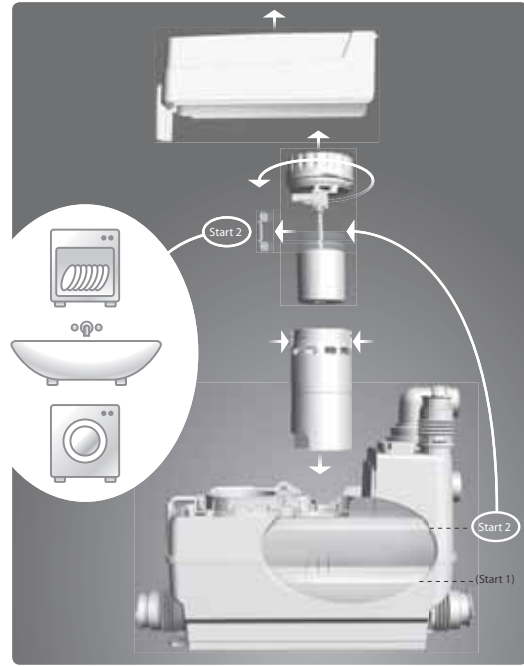


Fig. 33 Adjustment of the float switch

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 ¹⁾	Ø40	Ø50
Discharge	•	•	•	•	(•)	•	-
Inlet at the top	-	-	-	•	(•)	•	-
Inlet from side ²⁾	-	-	-	-	(•)	•	•

¹⁾ Two adapters included for UK version. Also available as accessories.

²⁾ One connector is included. Further connectors available as accessories.

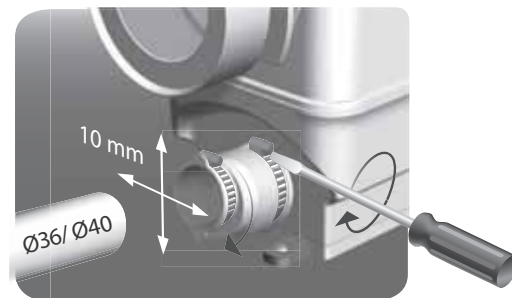
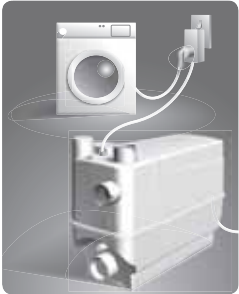


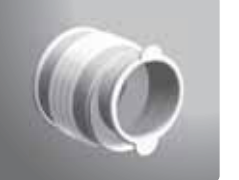
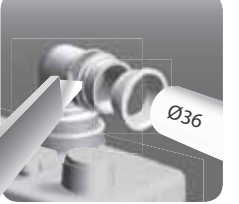


Fig. 35 Height and side alignment possible when using Ø36/40 inlet pipes

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"> Length: 500 mm. Inner diameter: $\varnothing 32$. Outer diameter: $\varnothing 38$. 	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. Note: 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 ⁻¹
Enclosure class	IP44
Insulation class	F
Connecting cable	1.2 m, 0.75 mm ² (H05VV-F-3G)

Dimensions

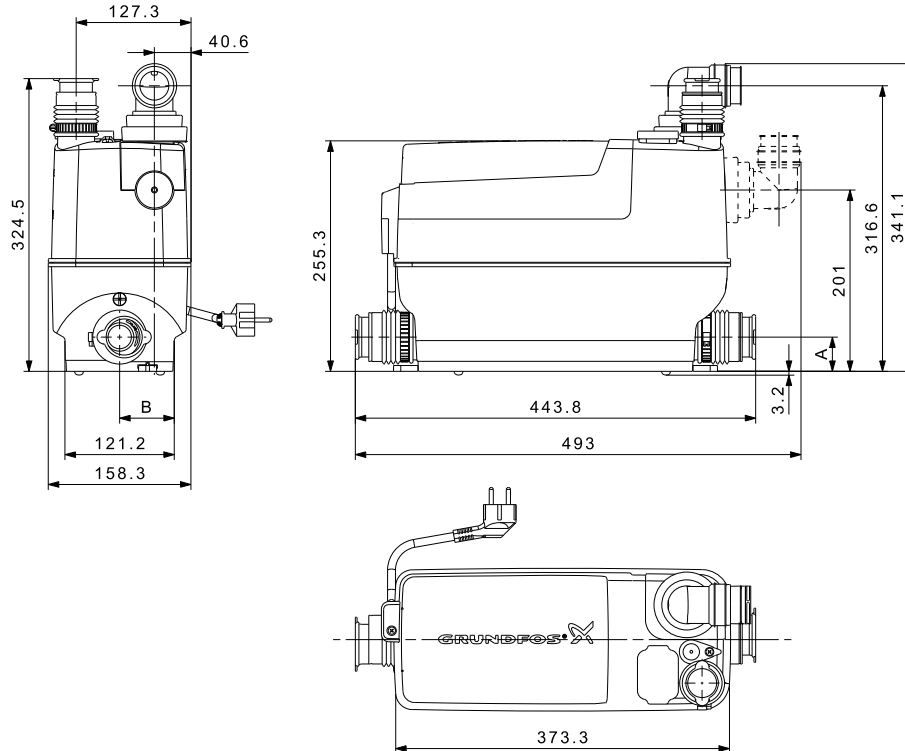


Fig. 37 Dimensional drawings, Sololift2 C-3

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

Performance

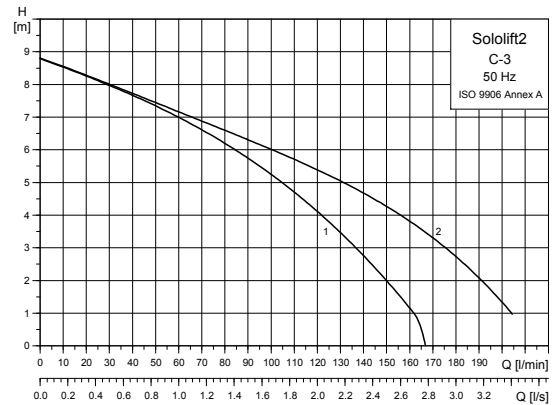


Fig. 36 Performance curves, Sololift2 C-3

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.