

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 | | | | Pipe diameter |
|-----------------|----------|---------|-------|---------|---------------|
| | 0.25 l/s | 0.5 l/s | 1 l/s | 1.5 l/s | |
| 4 m | | | | | Ø28.4 mm |
| 3 m | 6 | 24 | | | Ø20 mm |
| 2 m | 22 | 0.1 | | | Ø20 mm |
| 1 m | | 47 | 3 | | Ø28.4 mm |
| | 37 | 4.5 | | | Ø20 mm |
| | 52 | 71 | 10 | | Ø28.4 mm |
| | | 9.5 | | | Ø20 mm |

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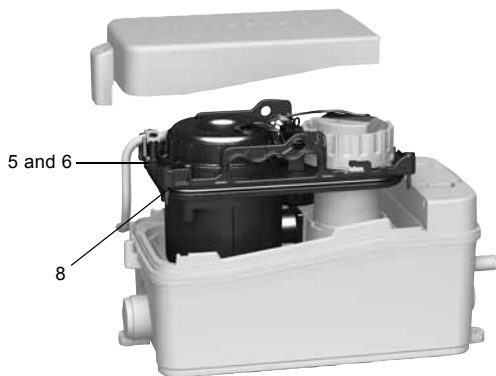
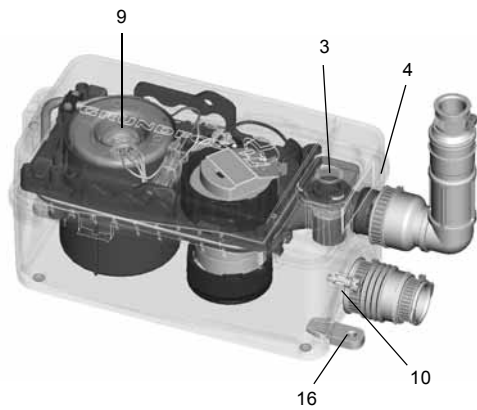
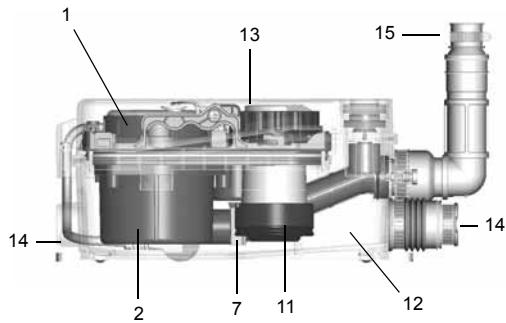
Fig. 40 Pipe length and height in relation to inner pipe diameter and required discharge capacity

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



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TM05 0493 1111

Pos. Operational reliability

- | | |
|---|--|
| 1 | Motor Powerful motor that enables pumping of grey wastewater. Motor protection by thermal switch with automatic restart. Three shaft seals ensure long operational life. |
| 2 | Free passage Pump with a free passage of 10 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. |

Pos. Easy maintenance and service

- | | |
|----|--|
| 5 | Access to components Design with dry motor for easy and clean service. |
| 6 | Compact block unit 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. No need to disconnect the Sololift2 tank and connected pipes when service is required. |
| 7 | Auto coupling Self-adjusting auto coupling eases assembly. |
| 8 | Screws All important screws are captive screws, which facilitates service work. |
| 9 | Anti-blocking Manual anti-blocking function for deblocking of the motor. No dismantling required. |
| 10 | Drain connection Separate tank drain function is available by connecting a drain hose. |
| 11 | Level switch 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 | Bottom Bottom design with strong chamfer to prevent sedimentation in corners. |

Pos. Easy installation and replacement

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

Visit the animation of Sololift2 features on 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.

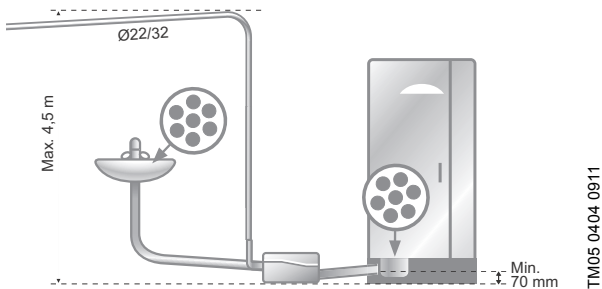


Fig. 41 Example of installation

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.

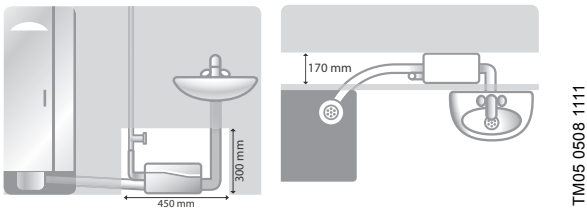


Fig. 42 Measurements to be observed

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 ¹⁾ | Ø40 | Ø50 |
| Discharge | • | - | - | • | - | - | - |
| Inlet from side | - | - | - | - | (•) | • | - |

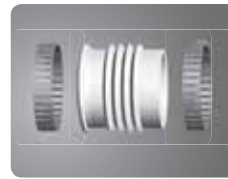
¹⁾ Adapter included for UK version. Also available as an accessory.

Product numbers

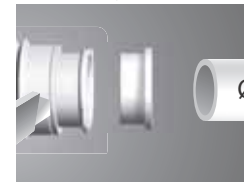
| Product | Plug | Sales region | Prod. no. |
|---------------|---------|--------------|-----------|
| Sololift2 D-2 | Schuko | Europe | 97775318 |
| | Schuko | Russia | 97775323 |
| | AUS | Australia | 97775328 |
| | No plug | UK | 97775333 |

Accessories

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



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



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 ⁻¹ |
| Enclosure class | IP44 |
| Insulation class | F |
| Connecting cable | 1.2 m, 0.75 mm ² (H05VV-F-3G) |

Dimensions

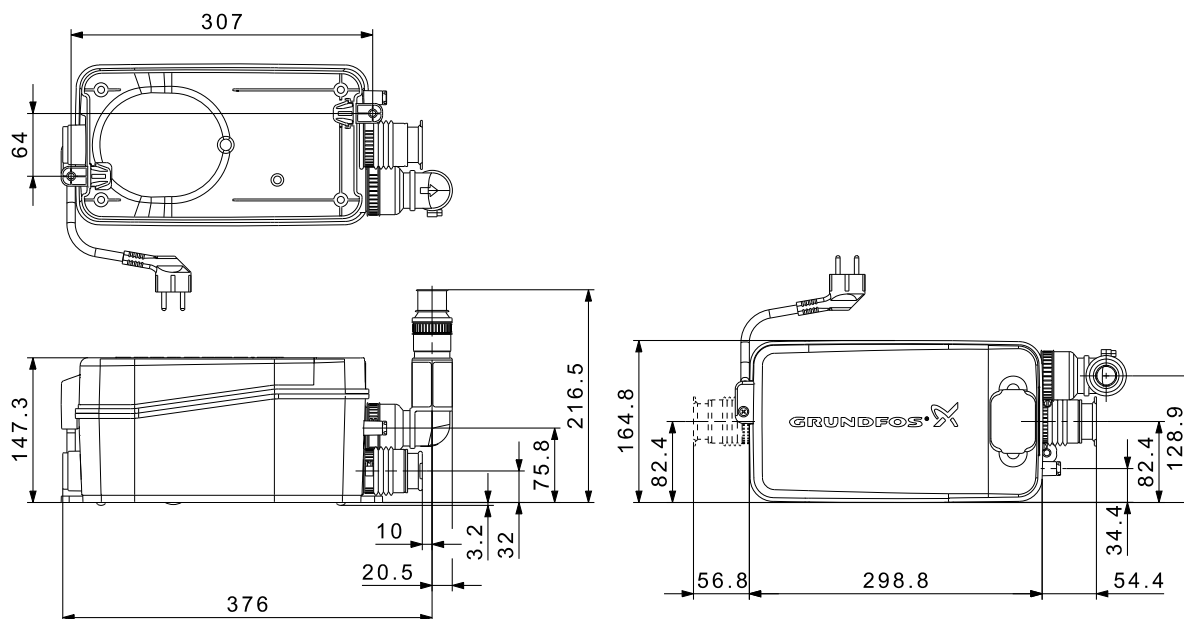


Fig. 44 Dimensional drawings, Sololift2 D-2

Performance

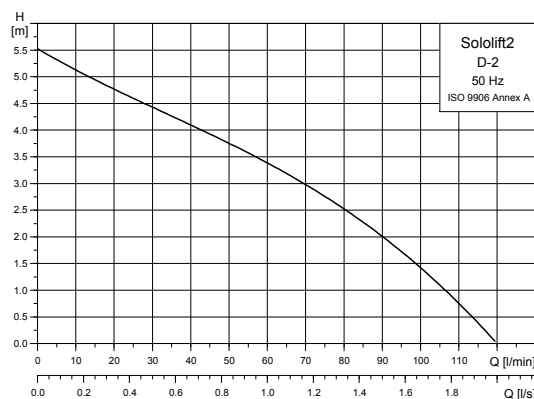


Fig. 43 Performance curves, Sololift2 D-2

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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.