

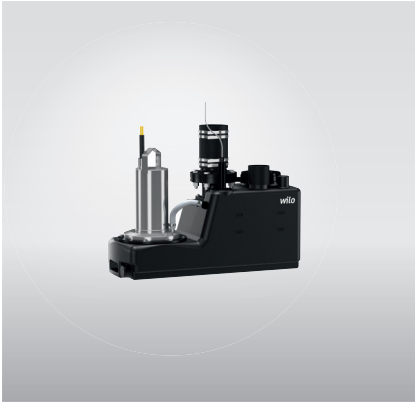
Pioneering for You

wilo

Range leaflet – Edition 03/2016 – 50 Hz

Wilo-DrainLift S





Series extension

Wilo-DrainLift S



Design

Compact sewage lifting unit as single pump system

Type key

Example: **DrainLift S 1/6T-RV**

ple:

- S** Size
- 1** Number of integrated pumps
- 6** Max. delivery head in m
- T** Mains connection version:
M = 1~230 V
T = 3~400 V
- RV** Pressure connection version
without = no non-return valve
RV = with non-return valve

Application

Pumping of sewage containing faeces (according to DIN EN 12050-1) that cannot be returned to the sewer system using natural falls, and backflow resistant drainage of discharge points below the backflow level (according to DIN EN 12056-1).

Technical data

- Mains connection: 1~230 V, 50 Hz or 3~400 V, 50 Hz
- Operating mode: S3-15%, 120 sec
- Fluid temperature: 3...40 °C, short-term 60 °C
- Max. ambient temperature: 40 °C
- Max. switching volume: 21 l
- Flooding height: 2 mWs for max. 7 days
- Pressure connection: DN 80
- Inlet connections: 1x DN 40 / 1x DN 100 (freely selectable)

Special features/product advantages

- Space-saving installation
- Easy to install thanks to an integrated non-return valve (type "RV")
- Flexible due to free selection of inlets
- Reduced residual water volume

- Ventilation connection: DN 70
- Lifting unit protection class: IP68
- Switchgear protection class: IP54

Equipment/function

- Ready-to-plug
- Thermal motor monitoring
- Level control with float switch
- Switchgear with potential-free output for collective fault signal
- Non-return valve integrated ("RV" version)

Materials

- Tank: PE plastic
- Motor housing: stainless steel 1.4404 (AISI 316L)
- Hydraulic housing: PE/PUR plastic
- Impeller: PUR plastic

Description/design

Ready for connection, fully submersible sewage lifting unit as single-pump system, with gastight and watertight collection reservoir with diagonally running collection chamber for deposit-free and safe operation, freely selectable inlets, level control with float switch and single-phase or three-phase motor with thermal motor monitoring.

Preinstalled switchgear for automatic operation, with a potential-free contact for the collective fault signal, integrated and mains-independent alarm, adjustable follow-up time and attached plug.

Scope of delivery

- Sewage lifting unit ready for connection with connected switchgear and plug
- 1x inlet seal DN 100
- 1x hole saw for inlet connection DN 100
- 1x non-return valve DN 80 (version "RV")
- 1x collar for connection of diaphragm hand pump or inlet connection $\varnothing 50$ mm
- 1x collar for ventilation connection DN 70

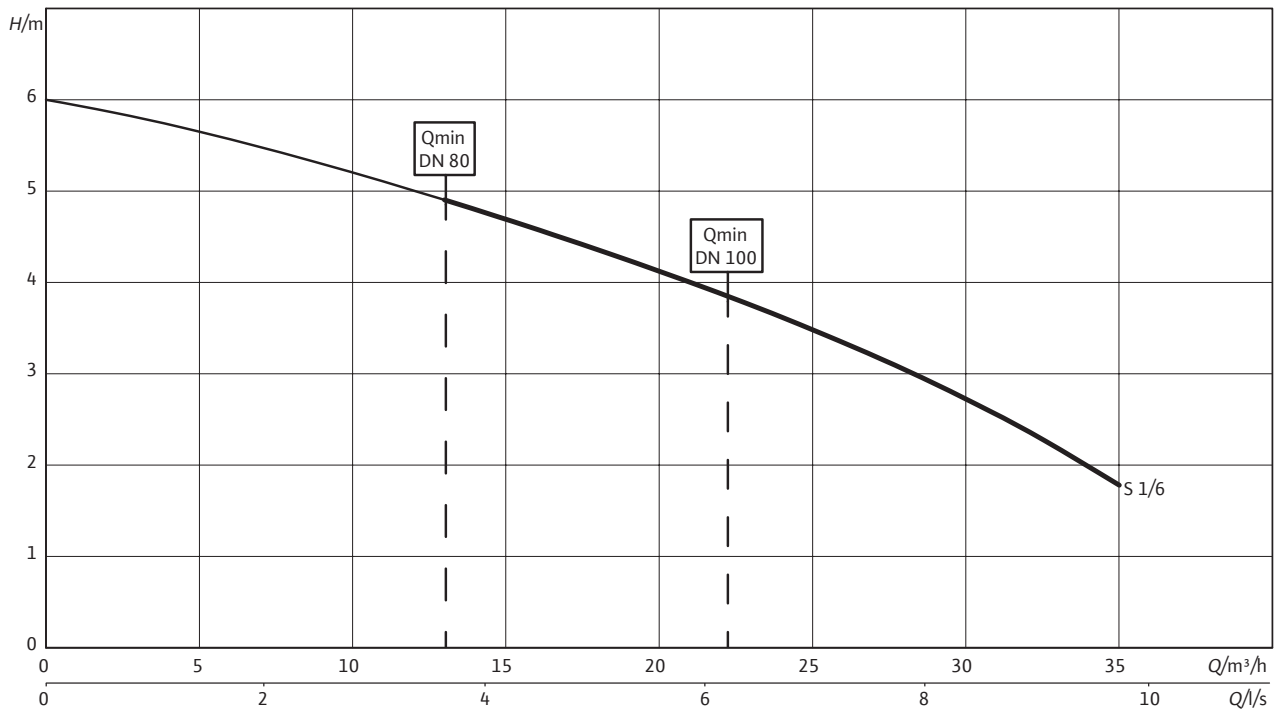
- 3x sound absorption strips for sound insulation installation
- Fixation material
- Installation and operating instructions

Configuration

- For pumping of sewage containing mineral oils or explosive admixtures, the supply line must be passed through an oil or petrol precipitator, sewage containing fat must be passed through grease traps and sewage containing sand through grit chambers.
- In cases where the flow to the lifting unit must not be interrupted during normal operation, a second lifting unit with the same performance capacity must be equipped that switches on automatically when needed (DIN EN 12050-1 A1).

Pump curves Wilo-DrainLift S – 50 Hz – No. of poles: 4

Pump curves Wilo-DrainLift S



According to EN 12056-4, 6.1, flow velocity (in the pressure pipe) must be kept between 0.7 and 2.3 m/s. The stated Q_{min} values apply to the inside diameter of single-walled steel pipes.

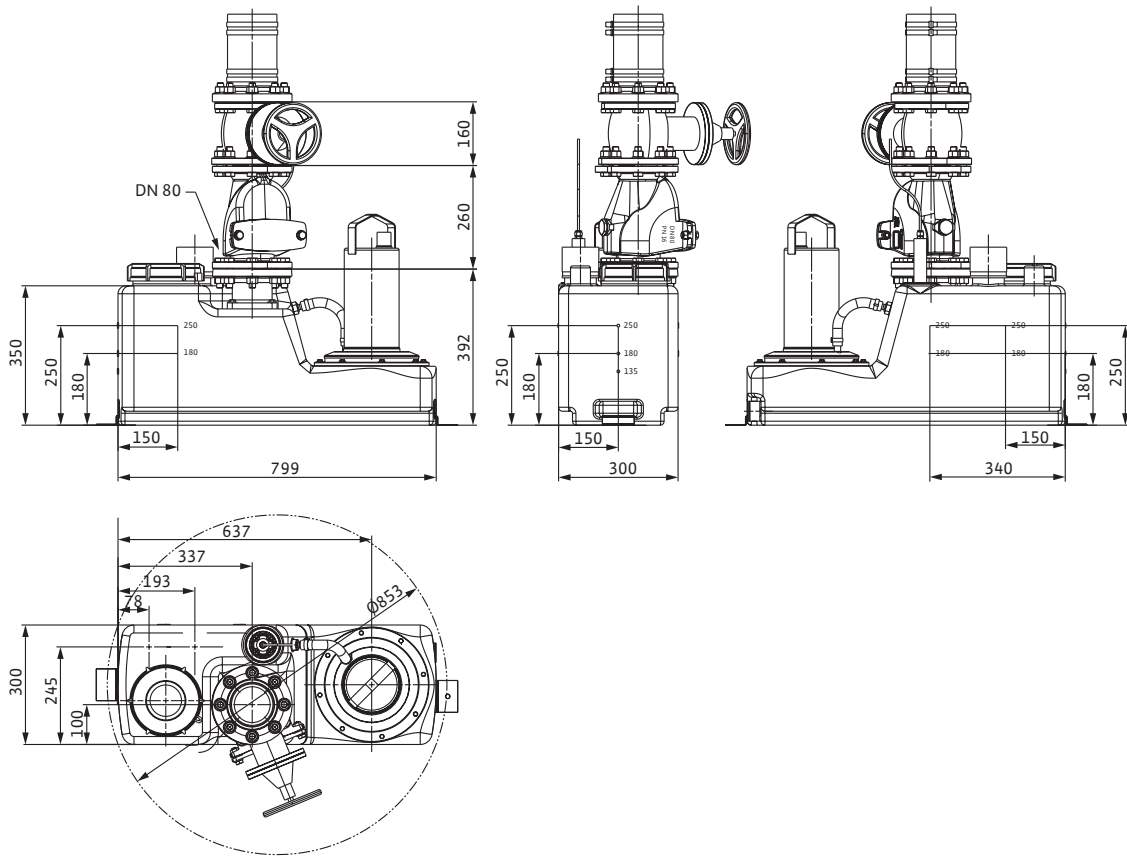
Information for order placements

Wilo-DrainLift ...	Mains connection	Art No.
S 1/6M	1~230 V, 50 Hz	L 2544860
S 1/6T	3~400 V, 50 Hz	L 2544861
S 1/6M RV	1~230 V, 50 Hz	L 2544876
S 1/6T RV	3~400 V, 50 Hz	L 2544877

Technical data				
Pump type	S 1/6M	S 1/6T	S 1/6M RV	S 1/6T RV
Mains connection	1~230 V, 50 Hz	3~400 V, 50 Hz	1~230 V, 50 Hz	3~400 V, 50 Hz
Motor data				
Power consumption P_1	1.5 kW	1.5 kW	1.5 kW	1.5 kW
Rated current I_N	7.5 A	3 A	7.5 A	3 A
Rated speed n	1450 rpm	1450 rpm	1450 rpm	1450 rpm
Activation type	Direct	Direct	Direct	Direct
Insulation class	H	H	H	H
Protection class	IP 68	IP 68	IP 68	IP 68
Max. switching frequency per pump	30 1/h	30 1/h	30 1/h	30 1/h
Cable				
Cable length from system to switch-gear/plug	4/1.5 m	4/1.5 m	4/1.5 m	4/1.5 m
Mains plug	Shock-proof	CEE	Shock-proof	CEE
Type of connecting cable	Detachable	Detachable	Detachable	Detachable
Permitted field of application				
Operating mode per pump	S3-15%, 120 sec	S3-15%, 120 sec	S3-15%, 120 sec	S3-15%, 120 sec
Max. permissible pressure in the pressure pipe p	1.5 bar	1.5 bar	1.5 bar	1.5 bar
Fluid temperature T	+3 ... +40 °C	+3 ... +40 °C	+3 ... +40 °C	+3 ... +40 °C
Max. fluid temperature, for short periods up to 3 min T	60 °C	60 °C	60 °C	60 °C
Max. ambient temperature T	40 °C	40 °C	40 °C	40 °C
Connections				
Pressure connection	DN 80	DN 80	DN 80	DN 80
Inlet connection	DN 100/DN 40	DN 100/DN 40	DN 100/DN 40	DN 100/DN 40
Venting	DN 70	DN 70	DN 70	DN 70
Dimensions/weights				
Gross volume V	45 l	45 l	45 l	45 l
Switching volume V	21 l	21 l	21 l	21 l
Dimensions <i>Width x height x depth</i>	799 x 500 x 300	799 x 500 x 300	799 x 500 x 300	799 x 500 x 300
Diagonal dimension	830 mm	830 mm	830 mm	830 mm
Weight approx. m	35 kg	35 kg	52 kg	52 kg
Materials				
Motor housing	1.4301	1.4301	1.4301	1.4301
Pump shaft	1.4401 [AISI316]	1.4401 [AISI316]	1.4401 [AISI316]	1.4401 [AISI316]
Mechanical seal	SiC/SiC	SiC/SiC	SiC/SiC	SiC/SiC
Pump housing	PE/PUR	PE/PUR	PE/PUR	PE/PUR
Impeller	PUR	PUR	PUR	PUR
Tank material	PE	PE	PE	PE

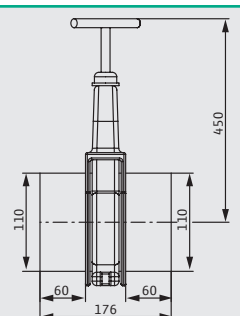
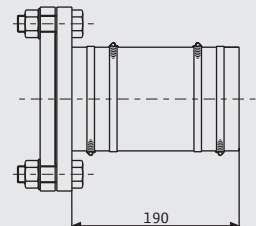
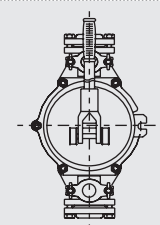
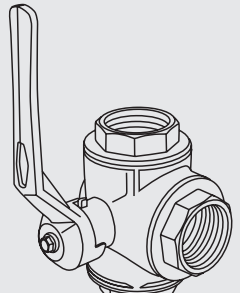
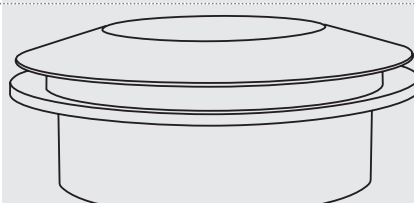

P_1 refers to the maximum power consumption. All of the data apply to 1~230 V or 3~400 V, 50 Hz and a density of 1 kg/dm³.

Dimension drawing Wilo-DrainLift S



Mechanical accessories

Type	Description	Art no.
Gate valve DN 80	Made of EN-GJL-250, incl. 1 set of installation accessories, PN 10/16 flanges in accordance with DIN 2501, DN 80	2017162
Flange connectors DN 80	Made of PUR, with hose DN 90 x 180 mm, hose clips and mounting accessories for DN 80 connection	2511595
Gate valve DN 100	Made of EN-GJL-250, incl. 1 set of installation accessories, PN 10/16 flanges in accordance with DIN 2501, DN 100	2017163

Mechanical accessories			
Type		Description	Art no.
Plastic gate valve DN 100		made out of PVC with solid pipe ends DN 100, fluid temperature up to max. 60 °C, pressure-tight up to 0.5 bar, for commercially available inlet pipes with HT/KG pipe connections.	2529808
Flange connectors DN 100		Made of PUR, with hose DN 112 x 180 mm, hose clips and mounting accessories for DN 100 connection	2511597
Diaphragm hand pump		For draining a system tank or a pump sump, connection on both sides female thread Rp 1½ for DN 40 connection	2060166
3-way shut-off ball cock Rp 1½		Made of brass, chrome-plated with 3x Rp 1½ female threads for DN 40 connection	2511607
Inlet seal DN 100		Made of NBR, gasket for pipe Ø 110 mm for another freely selectable inlet on the sump/tank	2522672
Mounting accessories DN 80/100, PN 10		for a flange connection. With 8 screws, 8 nuts, 16 washers and 2 flat gaskets.	6077521

Drainage and sewage

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