

Series description: Wilo-DrainLift M



Design

Sewage lifting unit with 1 or 2 integrated pumps

Application

Sewage lifting unit for drainage of residential housing and commercial buildings (e.g. restaurants, department stores, etc.). Raw sewage that cannot be piped to the sewer system through the use of natural inclines and sewage from toilet systems below the backflow level are to be piped to the public sewer system by means of an automatic lifting unit in accordance with DIN EN 12056/ DIN 1986100. Sewage containing mineral oils or explosive admixtures must be guided through oil precipitators and/or petrol precipitators; those containing fatty substances must go through grease traps and those with sand through grit chambers. In cases where the flow to the lifting unit must not be interrupted during normal operation, one lifting unit must be equipped with a second pumping unit that has the same performance capacity and switches on automatically when needed (DIN EN 120501 A1).

Type key

Example:	Wilo-DrainLift M1/8 (1~) RV
M1	M1 = single-pump system M2 = double-pump system
/8	Max. delivery head [m]
(1~)	1~: Single-phase version, 3~: Three-phase version
RV	Version with non-return valve without details: Version without non-return valve

Special features/product advantages

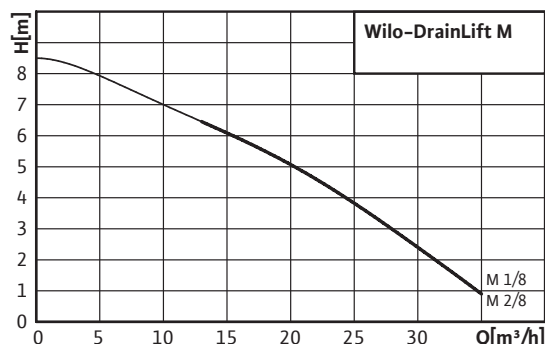
- Easy to install due to:
 - Compact dimensions
 - Low weight
 - Large scope of delivery
- Flexible due to:
 - Freely selectable inlets
- Safe due to:
 - Integrated mains-independent alarm function
 - Integrated thermal motor protection
 - Additional potential-free contact
 - Maintenance interval display for M2
 - Early fault detection for M2

Materials

- Motor housing: Stainless steel 1.4301
- Hydraulic housing: Cast iron EN-GJL-250
- Impeller: PUR plastic
- Tank: PE plastic

Technical data

- Mains connection 1~230 V, 50 Hz or 3~400 V, 50 Hz
- Power consumption $P_1 = 1.3$ kW
- Cable length from system to switchgear 4 m / plug cable 1.5 m
- Operating mode S3-15%, 80 sec
- Fluid temperature max. 40 °C, for short periods (3 min.) 60 °C



Equipment/function

- Ready-to-plug
- Thermal motor monitoring
- Level control with float switch
- Mains-independent alarm
- Potential-free contact
- Pump cable detachable
- Non-return valve (RV version)
- Inlet seal
- Hole saw for inlet borehole
- Hose connection for ventilation
- Seal for suction pipe connection for diaphragm hand pump
- Kit for pressure pipe connection
- Fixation material
- Soundproofing material
- Switchgear

Description/design

Fully submersible sewage lifting unit, ready for connection (flooding height: 2 mWS, overflow time: 7 days) with a gas and watertight collection tank equipped with buoyancy safeguards. Centrifugal pump with vortex impeller.

DrainLift M1/8:

Single-pump system with single-phase or three-phase AC motor for automatic operation. Switchgear with shock-proof or CEE plug, potential-free contact, integrated alarm (mains-independent, due to built-in rechargeable battery*) and adjustable follow-up time.

RV version with non-return valve included in the scope of delivery.

DrainLift M2/8:

Double-pump system for automatic operation (with automatic duty cycling, standby and peak-load operation). Due to the integrated double non-return valve, only one pressure pipe connection is required. Switchgear with shock-proof or CEE plug, potential-free contact, maintenance interval display, early fault detection and integrated alarm (mains-independent, due to built-in rechargeable battery*) adjustable follow-up time.

Attention: The switchgear is not submersible and must therefore be arranged in such a way that it is overflow-proof.

* The battery is not included in the scope of delivery and can be ordered as an accessory.

Scope of delivery

Connection-ready sewage lifting unit, including:

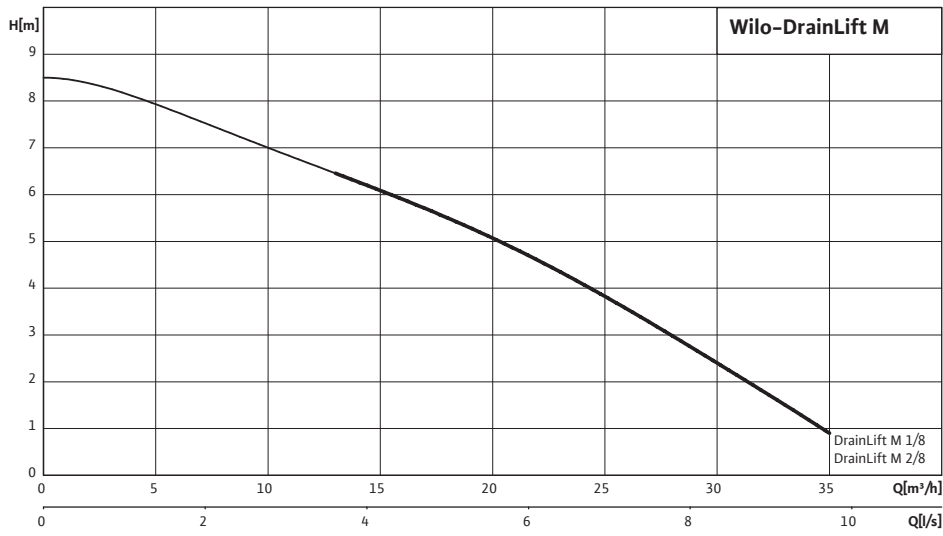
- Switchgear (mains-independent alarm)
- Inlet seal, DN 100 (for pipe \varnothing 110 mm)
- Keyhole saw \varnothing 124 for inlet, DN 100
- PVC hose section \varnothing 50 mm with clamps for inlet connection, DN 50
- Special lip seal for pipe connection, diaphragm hand pump DN 50
- Collar for ventilation connection, DN 70
- Fixation material
- Sound absorption strip for insulation of structure-borne noise
- DN 80/100 flange piece with flat gasket, flexible hose section, hose clips, screws and nuts for connecting the pressure pipeline, DN 100
- Non-return valve (RV version)
- Installation and operating instructions

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- Max. ambient temperature of 40 °C
- Free ball passage 45 mm
- Pressure port DN 80
- Inlet connection DN 40 / DN 100 / DN 150
- Ventilation connection DN 70
- Min. suction head (installation level to middle of inlet) 180 mm
- Protection class (without switchgear) IP 67
- Gross tank volume 62 l to 115 l, depending on type
- Switching volume 24 l to 40 l, depending on type

Duty chart: Wilo-DrainLift M

Pump curves Wilo-DrainLift M



Equipment/function: Wilo-DrainLift M

Design	
Submersible	•
Single-pump system	•
Double-pump system	•
Single-phase AC motor	•
Three-phase motor	•
Pump position: motor components outside the tank	•
Pump position: outside the tank	–
Pump position: in tank	–
Sealing chamber	•
Sealing for mechanical seal on fluid side	•
Sealing for rotary shaft seal on fluid side	–
Integrated non-return valve	•
Sheath current cooling	–
Single-channel impeller	–
Multi-channel impeller	–
Vortex impeller	•
Macerator	–
Equipment/function	
Inlet position freely selectable	•
Active carbon filter	–
Level control: with float switch	•
Level control: with level sensor	–
Level control: with pneumatic pressure transducer	–
Motor leakage monitoring	–
Mains-independent alarm	•
Alarm for potential-free contact	•
Ready-to-plug	•
Connecting cable detachable	•
Switchgear	•
Hose connection for diaphragm hand pump	–
Seal for suction pipe connection for diaphragm hand pump	•
Hose connection for ventilation	•
Installation sundries	
Kit for pressure pipe connection	•
Curve cutter for inlet borehole	–
Keyhole saw for inlet borehole	•
Inlet seal	•
Soundproofing material	•

• = available, – = not available; = optional

Installation drawings: Wilo-DrainLift M

Installation drawing Wilo-DrainLift M

