





**RESIDENTIAL TECHNOLOGY** 

Program | Accessories | Tips | Multimedia

**JUNG-PUMPEN.COM** 

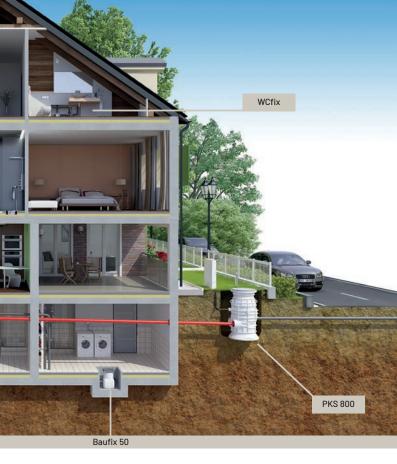


K2 Plus Compli 400 Hebefix Pro

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# JUNG PUMPEN OUALITY STANDARDS

#### 1. SEALED CABLE INLET

The cable inlet is encapsulated with casting resin – a protection measure that meets the highest quality standards and ensures long-term reliability of the product. This effectively prevents water and moisture from entering the motor compartment via the capillary effect – even if the cable is mechanically damaged.

#### 2. EIP-TECHNOLOGY

Due to the very small gap between impeller and wear plate in cellar drainage pumps, EIP technology offers a decisive improvement in hydraulic performance. The Enlarged Internal Passage, used in pumps such as the U3K(S) and U5K(S), ensures reliable operation and consistently high performance. The free passage of the U5K(S) and the U6K(S) is variable. It can be enlarged from 10 mm to 20 mm.

## 3. REMOVABLE STRAINER BASE - LOW LEVEL PUMPING

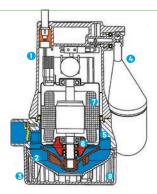
This product is defined by its wide range of applications Cellar drainage pumps and submersible drainage pumps, for example, are designed for both stationary and portable use. In the U3K(S), U5K(S) and the U6K(S), the strainer base can be removed to allow low level pumping down to a height of 5 mm (such as for draining floodwater) in portable use.

## 4. FLOAT ASSEMBLY

Automatic level control of a stationary submersible pump is generally carried out with a float switch. We use fixed float switches that operate in a clearly defined switching height range and are designed to prevent over-winding.

#### 5. MOTOR COOLING JACKET

The cooling jacket around the motor allows cellar drainage pumps and drainage pumps to be used in continuous operation even if the pump is not submerged. In this case, the motor is cooled by the pumped media.



## 6. INTEGRATED OIL CHAMBER / SEALS

Our pumps are designed for dry-running operation. The integrated oil chamber ensures continuous lubrication and cooling of the seals, protecting them during dry running. Starting with the US series, the oil chamber is accessible for inspection, enabling regular oil checks as part of standard maintenance. The oil chamber is protected with high-quality seals on both, the media side and the motor side. Starting with the U3K (S) spezial, bi-directional SiC mechanical seals are used on the media side, ensuring that the shaft is fully encapsulated against the pumped media. This makes the pump also suitable for handling aggressive and abrasive media.

## 7. WINDING THERMOSTAT

The thermostat incorporated in the motor winding of the pump works on the principle of a bi-metal and protects the motor from overheating.

#### 8. INTEGRATED FLUSHING DEVICE

A flushing device is built into all our cellar drainage and submersible pumps. This can be activated to clean the sump around a stationary pump. The reduction of deposits decreases maintenance requirements and minimizes odor formation.

## U3 K + U5 K

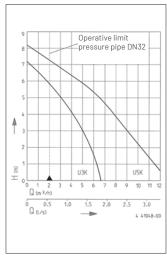
## CELLAR DRAINAGE PUMPS

## **APPLICATIONS**

- > Lightly polluted water with solids 10 mm
- > Grey water
- Aggressive media with the U3 K(S) spezial (e.g. condensates, saline media)

- Continuous operation in emerged state
- > Integrated flushing device
- Moisture sealed cable inlet
- Maintenance-friendly especially with guide rail system (U3/U5)
- Hydraulic system with EIP technology
- > U5 with 10/20 mm variable free passage





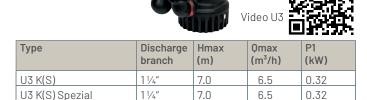
U5 K(S)

- Reduce deposits in the sump by activating the pump's integrated flushing device
- Vent the pump by providing a drill hole in the spiral housing. The sump can now remain dry intermittently.
- Use the included swing-type check valve only for portable use! Swing-type check valves for stationary use are available in our range of accessories.
  - Accessory:
    Easy installation in a tank
    with the Easyfix 32 Single
    and Easyfix 32 Duo installation sets. The sets are ready
    to plug in. All necessary
    components are already preassembled on a base plate.

Place the set in the tank, connect it to the pressure pipe and attach the selected pump(s).

Easyfix 32 Duo incl. control unit, which controls the alternating operation of the two pumps.

Accessory: Connection
Kit DN 32 which enables a
quick installation to existing
pressure pipes. It can be adjusted to any length between
30 and 90 cm.



8.5

11.0

11/4"

0.52

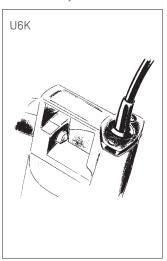
## U6K

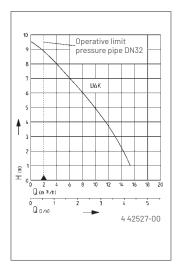
## DRAINAGE PUMPS

## **APPLICATIONS**

- Grey water from washbasins, washing machines etc.
- Wastewater and groundwater
- Rainwater, drainage water and seepage water
- Media with abrasive particles
- > Silage liquor, liquid fertiliser
- Condensat from gas condensing boilers
- > For saline solutions up to 15% salinity

- Replaceable moisture sealed cable inlet
- > 10/20 mm free passage
- > Variable discharge branch
- > Bi-directional SiC mechanical seal
- Maintenance-friendly through guide rail system
- Available in three-phase and single-phase current versions





If installing a **duplex unit**, please note:

- > Each pump must be capable of discharging the full volume of drainage water on its own.
- The pumps are controlled by a common alarm unit. This is the only way to ensure that each of the pumps has an equal workload.
- > Ensure that the submersible ball contact switches are positioned correctly:

## Base load > alarm > peak load

- This is essential in order to ensure that the alarm is triggered in good time in the event of a fault.
- Accessory: Easy installation in a tank with the Easyfix 32 Single and Easyfix 32 Duo installation sets. The sets are ready to plug in. All necessary components are already preassembled on a base plate.



- Place the set in the tank, connect it to the pressure pipe and attach the selected pump(s).
- > Easyfix 32 Duo incl. control unit, which controls the alternating operation of the two pumps.

Туре	Discharge	Hmax	Qmax	P1
	branch	(m)	(m³/h)	(kW)
U6K E(S)/D(S)	11/4"	9.5	15.5	0.75

## **EASYFIX**

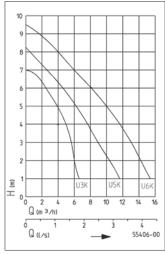
## INSTALL ATION SETS FOR DRAINAGE PUMPS

## **APPLICATIONS**

- Pump tanks inside and outside buildings
- Wastewater and rainwater shafts in basements

- Quick and easy installation high time savings
- > Easyfix 32 Duo incl. control unit and alarm
- > Ready to plug in
- Guide rail system pro-assembled on the base plate
- Compact design for use in small tanks: Single unit 400x300 mm Duplex unit 500x500 mm
- > Suitable for: U3 KS, U3 KS Spezial, U5 KS and U6 K ES





U6 KES

- Always use 2 x identical pumps for duplex systems
- Activate the flushing device on the pump to reduce deposits in the tank (e.g. for washing machine wastewater)
- Additional alarm forwarding possible via potential-free contact (Easyfix 32 Duo)
- > Low switch-on points in the shaft can be realised using special floats for low switching heights (accessory)
- Different alarm devices available as accessory for the Easyfix 32 Single





15.5



Datasheet Easyfix 32

11/4"

Туре	Discharge branch	Hmax (m)	Qmax (m3/h)	P1 (kW)
U3 KS	11/4"	7.0	6.5	0.32
U3 KS Spezial	11/4"	7.0	6.5	0.32
U5 KS	11/4"	8.5	11.0	0.52

9.5

0.75

## **SIMER**

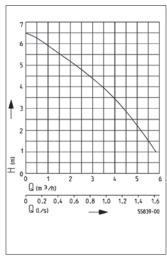
## SUBMERSIBLE UTILITY PUMP

## **APPLICATIONS**

- > Drains flat roofs and patios
- > Extracts wastewater from core-hole drilling and concrete cutting
- > Pumps out water from flooded cellars
- > Drains puddles
- > Simer 6S: Thanks to the integrated electronic water level sensor, the pump switches on and off automatically

- > Removes water down to a level of 2 mm
- > Switch-on point starts at a water level of just 5 mm
- > Variable 1"/3/4"/1/2" hose connectors for quick connection
- > Integrated anti-airlock valve for reliable pump start-up
- > Sturdy aluminium housing
- > Integrated overload protection





- > If used frequently, we would recommend replacing the hose connection provided with a 11/4" quick-connect coupling to save time during commissioning.
- **>** A damaged cable can be replaced easily.
- The swing-type check valve and a stepped hose connector are included in the scope of supply.





Video Simer



Simer 6S version with level control for automatic switching on and off



Easy switching between manual and automatic operation with a switch



Easy release of the strainer foot

Туре	Discharge	Hmax	Qmax	P1
	branch	(m)	(m³/h)	(W)
SIMER 6/6S	11/4"	6.5	6	240

# **FLUTBOX**

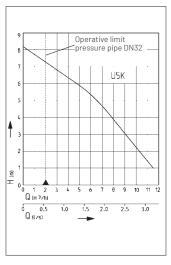
# FIRST AID KIT

## **APPLICATIONS**

> Cellar drainage in the event of flooding

- > Quick and easy hose connection with C-coupling
- > Motor jacket cooling and thermal protection ensure continuous operation in non-immersed state
- **>** A fixation locks the float switch so that it reaches extremely low residual water levels





- The U5KS can also be used without its carrying cage. To do so, undo the fastening on the pump handle and lift the pump out.
- The foot strainer on the pump can be removed. This makes it possible to pump water down to an extremely low level.
- To make use of the full 20 mm free passage, remove the foot strainer and insert the extensions provided onto the base feet.













٦	Гуре	Discharge branch	Hmax (m)	Qmax (m³/h)	P1 (kW)
Į	J5KS	11/4"	8.0	11.5	0.52

# FLUTBOX PRO 300

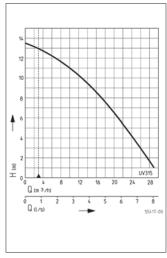
# THE PROFESSIONAL SET

## **APPLICATION**

- > Powerful wastewater pump Multidrain UV 315-1 S, which eliably pumps up to 28 m<sup>3</sup>/h
- > For use in flood areas and for emergency management

- > Quick and easy hose connection with C-coupling
- > Motor jacket cooling and thermal protection ensure continuous operation in emerged mode
- > A duplex thermal motor protection switches the pump off when a critical motor temperature is reached
- > Tension belt for securing the pump during transport





- > The Multidrain UV 315-1 S can also be used without a transport box.
- The intermediate space around the pump's cooling jacket can be easily cleaned from above via the discharge branch to remove any deposits.
- > Replaceable, moisture sealed cable inlet.
- With fixed submersible ball contact switch and without transport box, it pumps the rest water down to a residual water level of 20 mm.



Туре	Discharge	Hmax	Qmax	P1
	branch	(m)	(m3/h)	(kW)
Multidrain UV 315-1 S	11/2"	13.5	28.0	1.83

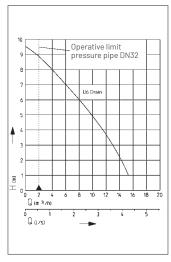
## **DRAINAGE SET**

## **APPLICATIONS**

- A special-purpose float switch enables the pump to be fitted in all commercial drainage sumps with a sand trap with a minimum internal diameter of 280 mm and above.
- Media with abrasive particles
- Wastewater and groundwater
- Rainwater, drainage water and seepage water

- > Ready to plug in
- > Extensive supply package
- > Powerful drainage pump
- High-quality SiC mechanical seal
- Manual and automatic operation possible





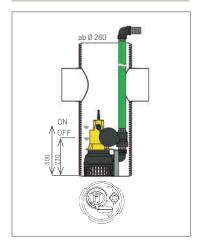
## Clean in regular intervals:

> Clean the drainage set regularly if the drainage water has a high iron content. Regular maintenance allows deposits (such as iron ochre sedimentation) to be removed and keeps the pump in good working order.



Animation Drainage set





Туре	Discharge branch	Hmax (m)	Qmax (m³/h)	P1 (kW)
Drainage set	11/4"	9.5	15.5	0.75

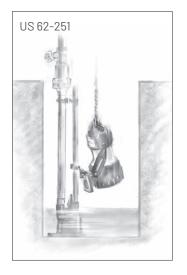
## US 62-251

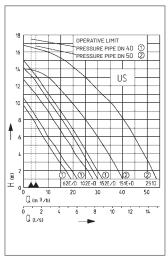
# SUBMERSIBLE DRAINAGE PUMPS

## **APPLICATIONS**

- > Grey water from washbasins, washing machines etc.
- > Media with abrasive particles
- > Wastewater and groundwater
- > Rainwater, drainage water and seepage water

- > Controllable oil chamber (fully automatic with DKG)
- > Bi-directional SiC carbide mechanical seal
- > Strainer base with 10 mm free passage
- > Maintenance-friendly through guide rail system
- > Replaceable moisture sealed cable inlet





- Save time and money on maintenance. Install pumps together with a guide rail system.
- > Check the direction of rotation of the pump. If the rotational direction is correct, the start-up jolt should be in the opposite direction to the arrow on the motor housing.
- When wastewater has a high abrasive content, regular inspection of the oil chamber is recommended to allow early detection of damage to the seal on the media side.



Туре	Discharge branch	Hmax (m)	Qmax (m³/h)	P1 (kW)
US 62 E/ES	11/2"	9.5	19	0.83
US 62 D/DS	11/2"	10.5	22	0.85
US 102 E/ES	11/2"	12.5	28	1.37
US 102 D/DS	11/2"	12.5	28	1.36
US 152 E/ES	11/2"	14.0	30	1.60
US 152 D/DS	11/2"	15.0	32	1.70
US 151 E/ES	2"	14.0	40	1.68
US 151 D/DS	2"	14.0	40	1.60
US 251 D/DS	2"	16.5	54	2.60

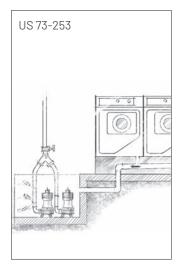
## US 73-253

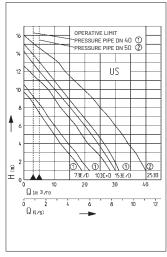
# SUBMERSIBLE DRAINAGE PUMPS

## **APPLICATIONS**

- > Water with impurities up to a particle size of 30/40 mm
- Water from laundries
- > Media with abrasive particles
- > Wastewater and groundwater
- > Rainwater, drainage water and seepage water

- > Controllable oil chamber
- > Bi-directional SiC mechanical seal
- > Maintenance-friendly through guide rail system
- > Replaceable moisture sealed cable inlet





- Fit an alarm system! This will allow the operator to react quickly if the need arises and prevent any further consequences.
- > When wastewater has a high abrasive content, regular inspection of the oil chamber is recommended to allow early detection of damage to the seal on the media side.
- Seal wear on the media side is automatically reported if a seal leak detector is fitted. This allows maintenance to be carried out early, which can extend the lifetime of the pump.



Туре	Discharge branch	Hmax (m)	Qmax (m³/h)	P1 (kW)
US 73 E/ES	11/2"	9.5	19	0.83
US 73 D/DS	11/2"	10.5	22	0.85
US 103 E/ES	11/2"	12.5	28	1.37
US 103 D/DS	11/2"	12.5	28	1.36
US 153 E/ES	11/2"	14.0	30	1.60
US 153 D/DS	11/2"	15.0	31	1.70
US 253 D/DS	2"	16.0	40	2.60

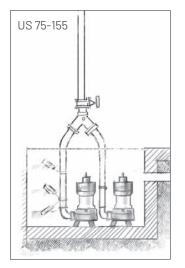
# US 75-155

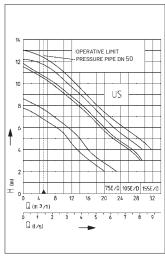
## SUBMERSIBLE DRAINAGE PUMPS

## **APPLICATIONS**

- > Water with impurities up to a particle size of 50 mm
- > Media with abrasive particles
- > Wastewater and groundwater
- > Rainwater, drainage water and seepage water

- > High operating reliability through large free passage
- Controllable oil chamber
- > Bi-directional SiC carbide mechanical seal
- > Maintenance-friendly through guide rail system
- > Replaceable moisture sealed cable inlet





- In stationary applications of US pumps, the sump can be kept cleaner by drilling a hole at the marked spot underneath the pump.
- Removing the **vent screw** in the pump housing will allow the pump to operate trouble-free in sumps that could intermittently run dry. Any air trapped inside the pump will escape automatically when the pump starts up.



Туре	Discharge branch	Hmax (m)	Qmax (m³/h)	P1 (kW)
US 75 E/ES	2"	7.5	20	0.83
US 75 D/DS	2"	8.5	23	0.85
US 105 E/ES	2"	11.5	28	1.37
US 105 D/DS	2"	11.5	29	1.36
US 155 E/ES	2"	12.0	29	1.60
US 155 D/DS	2"	13.0	31	1.70

# US 73-103 HE/HES + EX

## SPECIAL PUMPS

## **APPLICATIONS**

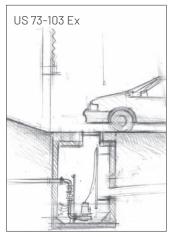
## Hot water pumps US 73-103 HE/HES

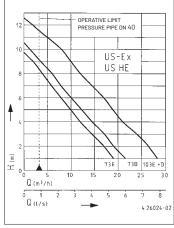
- $\rightarrow$  Water up to 194°F (90°C)
- > Hot water from commercial uses
- Yes the state of the state o washing installations

## Ex explosion protected pumps US 73-103 Ex

- > Wastewater from areas with parked vehicles
- > Wastewater from sumps connected to the public sewer system

- > Controllable oil chamber
- > Bi-directional SiC mechanical seal
- > Large free passage
- > Replaceable moisture sealed cable inlet





## HE pumps (hot water):

Fitting a guide rail significantly reduces the risk of injury through the inflow of hot water!

## Ex pumps:

> When selecting the level controls, note that the control circuits (e.g. for submersible ball contact switches) must also be intrinsically safe in compliance with explosion-protection regulations.



Туре	Discharge branch	Hmax (m)	Qmax (m³/h)	P1 (kW)
US 73 HE/HES	11/2"	9.5	19	0.83
US 103 HE/HES	11/2"	12.5	28	1.37
US 73 E Ex	11/2"	10.0	18	0.83
US 73 ExD	11/2"	10.5	21	0.85
US 103 ExE	11/2"	12.5	28	1.37
US 103 ExD	11/2"	12.5	28	1.36

## **MULTIDRAIN UV 3**

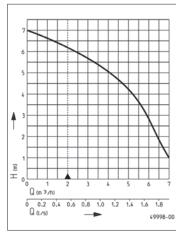
## SUBMERSIBLE DRAINAGE PUMPS IN STAINLESS STEEL

## **APPLICATIONS**

- > Wastewater and groundwater with solids up to a particle size of 10 mm
- > Particularly suitable for mobile use
- > With close-fitting float (SF version) for narrow tanks from Ø 22 cm
- > Flat suction to 5 mm residual water level by removing the strainer foot

- > Discharge branch: 11/4" vertical
- > Motor jacket cooling avoids overheating of the motor during surfaced operation (S1)
- > Replaceable, moisture sealed cable inlet
- > Media temperature 35 °C, short term 70 °C (10 min.)





- Keep the tank clean! Unscrew the red plugs on the underside of the pump to activate the automatic flushing device (remove the strainer foot first).
- > The enclosed swing-type check valve is placed between the discharge branch and the hose connection and prevents water from flowing back through the hose after the pumping process. Please note that this type of swing-type check valve is only approved for transportable use! Swing-type check valves for stationary use can be found in the accessories programme.
- > Perfect accessories for installation in the tank: DN32 connection set with telescopic pressure pipe for stepless connection to an existing pressure pipe.



Video Multidrain IIV 3



Туре	Discharge	Hmax	Qmax	P1
	branch	(m)	(m³/h)	(kW)
Multidrain UV3, UV3 S, UV3 SF	11/4"	6.0	7.0	0.34

# **MULTIDRAIN UV 300**

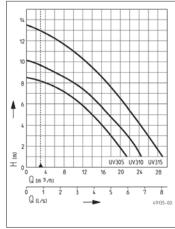
# SUBMERSIBLE DRAINAGE PUMPS

## **APPLICATIONS**

- > Sewage and ground water with solids up to 10 mm free passage
- > Elimination of flooding in buildings
- > Mobile use in narrow chambers min. 40 x 50 cm

- **>** Discharge: 11/2" vertical
- > Emerged operation due to motor cooling (S1)
- > Replaceable moisture sealed cable inlet





- In combination with a C-hose (coupling and hose in accessories) the Multidrain pumps are excellent helpers in case of floods.
- > The intermediate space around the cooling jacket can easily be cleaned or freed form sediments through the discharge from above.



Туре	Discharge branch	Hmax (m)	Qmax (m³/h)	P1 (kW)
Multidrain UV 305-1	11/2"	8.5	21.0	1.15
Multidrain UV 305-3	11/2"	9.0	22.0	1.15
Multidrain UV 305-1 S	11/2"	8.5	21.0	1.15
Multidrain UV 305-3 S	11/2"	9.0	22.0	1.15
Multidrain UV 310-1	11/2"	10.0	24.5	1.30
Multidrain UV 310-3	11/2"	10.0	24.5	1.35
Multidrain UV 310-1 S	11/2"	10.0	24.5	1.30
Multidrain UV 310-3 S	11/2"	10.0	24.5	1.35
Multidrain UV 315-1	11/2"	13.5	28.0	1.83
Multidrain UV 315-3	11/2"	13.5	29.0	1.85
Multidrain UV 315-1 S	11/2"	13.5	28.0	1.83
Multidrain UV 315-3 S	11/2"	13.5	29.0	1.85

S with built-in level control

# **MULTIDRAIN UV 600**

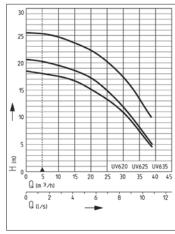
# SUBMERSIBLE DRAINAGE PUMPS

## **APPLICATIONS**

- > Sewage and ground water with solids up to 10 mm free passage
- > Elimination of flooding in buildings
- > Useable in skyscapers, shopping centers or underground car parks
- > Fixed installation with an guide rail system GR50

- > High delivery head
- > Discharge: 2" vertical or horizontal
- > Automatic self venting
- > Emerged operation due to motor cooling (S1)
- > Replaceable moisture sealed cable inlet





- In combination with a C-hose (coupling and hose in accessories) the Multidrain pumps are excellent helpers in case of floods.
- > The intermediate space around the cooling jacket can easily be cleaned or freed form sediments through the discharge from above.
- When permanently installed with the guide rail system GR 50, the pumps can be easily removed for maintenance at any time.

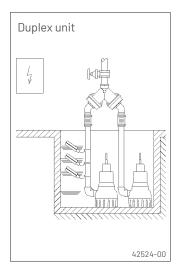


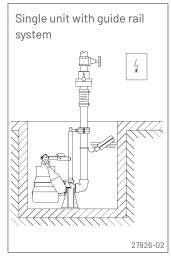
Туре	Discharge branch	Hmax (m)	Qmax (m³/h)	P1 (kW)
MULTIDRAIN UV 620-1	2"	18.5	36	2.40
MULTIDRAIN UV 620-1 S	2	18.5	36	2.40
MULTIDRAIN UV 620-3	2	18.5	37	2.38
MULTIDRAIN UV 620-3 S	2	18.5	37	2.38
MULTIDRAIN UV 625-3	2	20.5	38	2.88
MULTIDRAIN UV 625-3 S	2	20.5	38	2.88
MULTIDRAIN UV 635-3	2	25.5	39	3.70
MULTIDRAIN UV 635-3 S	2	25.5	39	3.70

## INSTALLATION AND ACCESSORIES

## 1. GUIDE RAIL SYSTEM

- This simplifies any future maintenance work, regardless of the depth of the sump.
- > No loosening of existing connections necessary, no need for extensive resealing of screw connections during recommissioning.
- In the event of a malfunction or failure, there is no need for timeconsuming emptying of the chamber using external pumps. The faulty pump can simply be removed from the chamber.
- > This saves both time and money on maintenance.





## 2. ALARM SYSTEM

- The use of an alarm system is particularly recommended in small pump sumps which offer very little storage volume in the event of an emergency.
- If a washing machine is connected, the integrated alarm and shut-off function prevents flooding by stopping the water supply in case of a pump fault.
- A potential-free contact allows flexible forwarding of the alarm signal - and with an optional backup battery, the system stays operational even during power failures.

#### 3. SWING-TYPE CHECK VAI VE

- Without a check valve, the contents of the discharge line drain back into the sump after each pumping cycle – down to the backflow level. This leads to unnecessary pump cycling and reduces service life
- The swing-type check valve reduces the residual water volume in the tank.
- > The supplied swing-type check valve for integration into the discharge outlet of the U3 K/U5 K is only suitable for portable use. If it is used in stationary applications, the pressure pipe empties when the pump is dismantled. In this case, the use of a fixed swing-type check valve is strongly recommended.

## 4. SPECIAL FLOAT SYSTEM

- The special float switch for low water levels is used to reduce the residual volume of wastewater collecting in the pump sump, where it tends to develop odours.
- The special float switch for narrow sumps makes installation possible in small sump sizes of 30 x 30 cm (U3, U5, U6) and above.

# PLANCOFIX I PLANCOFIX PLUS

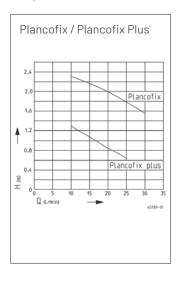
## FINNR DRAINAGE PLIMPS

## **APPLICATIONS**

- > Drainage of floor level or low entry showers where gravity drainage is not possible
- > Installation either as a floor drain in the shower or adjacent to the shower with a side inlet
- > Installation depth: Plancofix 10.5 cm Plancofix Plus 9 cm
- > The Plancofix can not be used for backflow prevention; it is not a lifting plant as defined by EN 12050-2.

# Plancofix

- VDE approved
- > Seal collar for creating a thin bed seal integrated in the top of the tank
- > Easy cleaning and maintenance
- Drain with either tiled or stainless steel finish
- Plancofix Plus: < 25 dB(A)</p> fulfils the increased soundprotection according DIN 4109
- > Secondary drain as an option



- The finish of the floor drain can also be changed after it has been installed. Simply turn the tiled reversible cover over and exchange the tiled finish for the stainless steel finish.
- > The electronic connection must be carried out in compliance with the relevant standards and regulations of the country of installation (e.g. VDE 0100 in Germany).









Video Plancofix

Video Plancofix Plus

Dimensions (H x B x T	Installation depth	Perfor- mance	Cable
124 x 340 x 340 mm	10.5 cm	65 Watt	5 m with open cable
103 x 352 x 352 mm	9 cm with in- sulation tray	30 Watt	5 m with open cable

# PLANCOFIX LINE

# FLOOR DRAINAGE PUMP

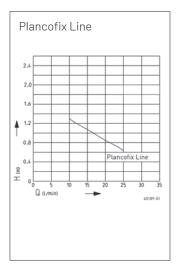
#### **APPLICATIONS**

- > Drainage of floor level or low entry showers where gravity drainage is not possible
- > With integrated linear shower drain
- > The tiles only have to be laid in one direction directly to the shower channel with the usual gradient.

#### **ADVANTAGES**

- Modern bathroom design with line drainage
- > Installation depth 9 cm
- Sealing fleece according DIN 18534: leak tightness class W3-I tear strength class R3-I
- > Shower channel can be shortened individually
- > Quiet operation: < 25 dB(A) fulfils the increased soundprotection according DIN 4109
- > VDE approved

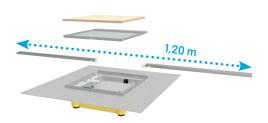




- > During the installation, the secondary drainage can be activated by drilling holes (Ø 5 mm) in the markings on the edge above the sealing membrane. This allows a drainage in case of leaking joints.
- > In a horizontal pressure pipeline, a bank elbow of min. 25 cm must be installed before the downpipe connection. To avoid the siphon effect, it must be extended at the high point to the following larger pipe dimension.

The cleaning is easy and does not require any chemicals. Let water run into the tank and clean the bottom with a brush or similar. Important: Do not bend the float upwards





Dimensions (H x W x D)	Installation depth	Performanc	Cable
	9 cm with insulation tray		5 m with open cable end

# **HFRFFIX**

# ABOVE FLOOR TANK

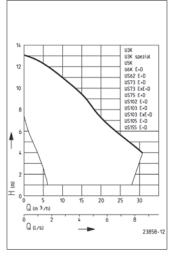
#### **APPLICATIONS**

- > Single and duplex units for domestic or commercial wastewater (non-faecal)
- For later addition of drainage objects
- > Use above or below the backpressure level
- > Hebefix Pro, specially for aggressive media, such as water from water softening plants or condensing boilers

#### **ADVANTAGES**

- > No damage to the floor plate of the building
- > Combination with pre-wall installation system possible (Hebefix Pro)
- ) I ow installation level when connecting a shower tray
- > Integrated alarm unit for high-water alarms (Hebefix Pro)
- Hot water version Hebefix 100 H up to 80 °C





- > For modern bathroom design, the use of Hebefix Mini/Hebefix Pro is recommended. This is concealed within a pre-wall system. Important: An inspection opening must be provided. The Hebefix can also be fitted directly under a washbasin.
- The plug on the pump must NOT be cut off! The cable gland on the tank has a split seal.
- > If single unit select a pump with built-in level control.



Video Hebefix Pro

Change the activated carbon filter according to your individual needs, but at least once a year.

Туре	Single units		ts	Single/duplex unit	Single units	
	Hebe- fix	Hebe- fix 100	Hebe- fix 100 H	Hebefix 200	Hebefix Mini	Hebe- fix Pro
U3	Χ	Χ		Χ		
U3 spezial	Χ	Χ		Χ		
U5	X	Χ		Χ		
U6		Χ		Χ		
US 62		Χ		Χ		
US 73		Χ		Χ	in Pun	-
US 102		Χ		Χ	i ui	libe
US 103		Χ		Χ		
US 73+103 Ex				Χ		
US 73+103 H			Χ			
US 75-155				Χ		

# **BAUFIX**

# UNDERFLOOR SUMP

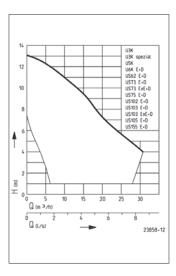
#### **APPLICATIONS**

- > Single and duplex units for domestic or commercial wastewater (non-faecal)
- > Baufix 200 duplex unit also for use in public amenities
- > For use below the backpressure level
- > Installation in areas with high groundwater levels is possible thanks to a groundwater seal (accessory - for Baufix 100/200)
- > Guide rail systems possible (for Baufix 100 200)

# Baufix 100

#### **ADVANTAGES**

- Odour-free floor drain
- > "Invisible" if tileable cover plate is used (Baufix 100/Baufix 200-32)
- > Space-saving since underfloor
- > Smooth sump material reduces deposits
- Suitable pumps can be chosen for the performance you require
- > Alarm system possible (with washing machine stop mechanism)



- > A wire in the **vent pipe** of the sump makes it easier to insert the pump cable later.
- In groundwater endangered areas only for use in conjunction with groundwater seal (Baufix 100/200).
- A further level adjustment can be achieved with Baufix 100/200-32 using DN 300 PVC pipes. Attention: Pumps must remain accessible for maintenance purposes!
- If single unit select a pump with built-in level control



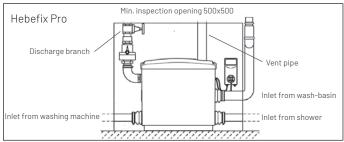
Animation Baufix

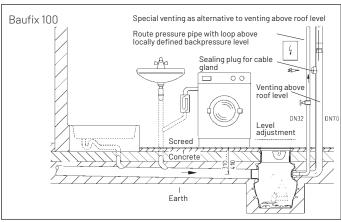
Туре	Sir ur	Single/duplex units	
	Baufix 50 Baufix 100		Baufix 200
U3	Χ	Χ	Χ
U3 spezial	X	Χ	Χ
U5		Χ	Χ
U6		Χ	Χ
US 62		X	Χ
US 73		Χ	Χ
US 102		Χ	Χ
US 103		X	Χ
US 73+103 Ex		Χ	X
US 75-155			Χ

# INSTALL ATION AND ACCESSORIES

#### 1. VENTING IN SPECIAL SITUATIONS

> Venting above the roof level can be a considerable problem, particularly when a wastewater lifting station is added to an existing site. An easy solution to this is the use of an activated carbon filter from Jung Pumpen. This is because venting of wastewater lifting station is also permitted into the room in which they are located, provided that the vented air is odour-free. The activated carbon filter is included in the scope of delivery of the Hebefix tanks. For Baufix products, a special ventilation insert can be supplied on request.





#### 2. SPECIAL FLOAT SWITCH

- > When connecting a shower to the Hebefix, the special float switch for low switching levels should be used to reduce the activation height. This effectively prevents backflow into the shower tray (minimum installation height: 130 mm). The Hebefix Pro is supplied as standard with a special float switch system which allows the minimum installation height of the shower tray to be reduced to 110 mm.
- In applications involving other tanks, such as for wastewater that tends to develop odours, it is recommended that the switching heights, and so also the residual water volume in the tank, are reduced.
- With the Baufix 50, the special float switch is included in the supply package.

#### 3. TILEABLE COVER PLATE

Beyond their practical benefits, underfloor sumps improve especially the visual appearance. In combination with the tileable cover plate, the tank, piping, and pump components are concealed beneath the floor, while the cover integrates perfectly into the existing tile layout.

# 4. INSTALLATION FRAME (ON SITE) FOR HEBEFIX PRO FOR INSPECTION OPENING

An installation frame (provided on site) for creating a maintenance opening makes subsequent maintenance work on the Hebefix Pro considerably easier. Make sure to include it directly after installing the unit in the pre-wall system. In some cases, the access frame was accidentally covered during other trades' work, leaving the Hebefix Pro inaccessible for maintenance

#### **WCFIX**

#### SEWAGE LIFTING STATIONS

#### **APPLICATIONS**

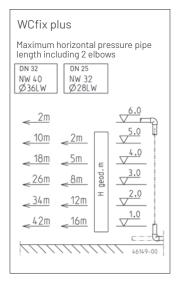
#### For restricted use:

- Small circle of users
- Above and below the backpressure level
- > For connecting: 1WC, 1bidet, 1 washbasin, 1 shower
- > Appliance and drainage objects can be used in the same room
- Additional WC must be positioned above backpressure level

#### **ADVANTAGES**

- > Inexpensive solution for new builds and renovation projects
- > From a flush volume of 6l
- > Safe pumping
- > Easy maintenance and elimination of unsuitable disposal matter
- > Runtime monitoring with acoustic alarm and potential-free contact (WCfix Plus)
- Additional low level inlets

# WCfix Plus Pre-wall installation Direct connection



- If installed above the backpressure level, a stagnation loop must be installed, because the switching point of the pumping station could not otherwise be attained.
- Use the maximum flush volume in conjunction with a WCfix. This creates ideal conditions for reliable operation and reduces deposits in the tank.
- > Unsuitable disposal matter is easy to remove after the unit has been installed, without the need to reach into the collection chamber: With the mains cable unplugged, rotate the slotted motor shaft in the opposite direction to the running direction.







In many cases, this is sufficient to remove the obstruction. In addition, it is possible to remove the obstruction with a drill or a drain hose in any emergency.

Туре	Hmax (m)	Qmax (I/min)	P1 (kW)
WCfix Plus	8.0	208	0.720
WCfix 260	4.0	133	0.40

# **COMPLI**

# SEWAGE LIFTING STATIONS

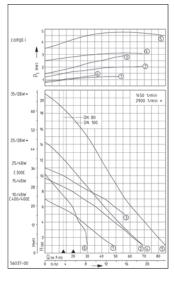
#### **APPLICATIONS**

- > Basement flats (Compli 300 E single unit)
- > Private dwellings (Compli 400/500 single unit)

#### **ADVANTAGES**

- > Supplied ready to plug in
- > Completely submersible due to moisture sealed cable inlet
- > Compact dimensions
- > Inlet optimised tank floor
- > Alarm system supplied as standard
- > The inlet height of the Compli 400 is variable (180/250 mm)





- > First of all, assemble the swing-type check valve and then the sluice valve on the discharge branch of the lifting station, before you arrange the ready assembled DN 80/100 transition piece with the elastic connection upstream of the pressure pipe that follows.
- > In three-phase systems, check the direction of rotation of the pumps. If the direction of rotation is wrong, this will be displayed by a control diode on the control unit circuit board.







Video Compli

	Туре	Hmax (m)	Qmax (m³/h)	P1 (kW)
	Compli 300 E	10.5	29	1.25
<u>.</u>	Compli 400 / 400 E	7.0	48	1.25 /1.55
unit	Compli 510/4 BW	7.0	52	1.30
Single u	Compli 515/4 BW	9.5	69	2.20
Sin	Compli 525/4 BW	11.0	56	3.00
	Compli 525/2 BW	13.5	69	3.20
	Compli 535/2 BW	20.0	85	4.00

#### COMPLI

# SEWAGE LIFTING STATIONS

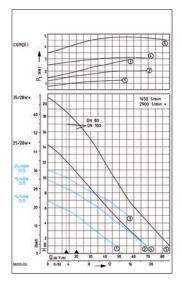
#### **APPLICATIONS**

- Blocks of flats
- > Commercial/municipal uses
- > The S1 models for public indoor swimming pools, hotel facilities with swimming pools or in the event of incalculable wastewater quantities
- > For further applications that require more storage volume and delivery rate, we recommend Compli 1200, Compli 1500/2500 or the stainless steel systems

#### **ADVANTAGES**

- > Supplied ready to plug in
- > Completely submersible due to moisture sealed cable inlet
- > Compact dimensions
- > Inlet optimised tank floor
- > Alarm system supplied as standard
- > The inlet height of the Compli 400 is variable (180/250 mm)





- > First of all, assemble the swing-type check valve and then the sluice valve on the discharge branch of the lifting station, before you arrange the ready assembled DN 80/100 transition piece with the elastic connection upstream of the pressure pipe that follows.
- > In three-phase systems, check the direction of rotation of the pumps. If the direction of rotation is wrong, this will be displayed by a control diode on the control unit circuit board.



S1 operation: Max. Media and surrounding temperature 30 °C.

	Туре	Hmax (m)	Qmax (m³/h)	P1 (kW)
	Compli 1010/4 E (HL)	7.0	52	1.55
ij	Compli 1010/4 (HL)	7.0	52	1.30
n xe	Compli 1015/4 (HL)	9.5	69	2.20
Duplex unit	Compli 1025/4 (HL)	11.0	56	3.00
	Compli 1025/2 (HL)	13.5	69	3.20
	Compli 1035/2 (HL)	20.0	85	4.00
. 0	Compli 1010/4 S1 HL	7.0	52	1.30
S1- model	Compli 1015/4 S1 HL	9.5	69	2.20
	Compli 1025/4 S1 HL	11.0	56	3.00

Compi 1000 are also available with microprocessor control unit (HL).

# COMPLI

# SEWAGE LIFTING STATION WITH CUTTING SYSTEM

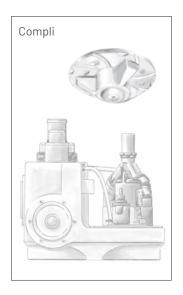
#### **APPLICATIONS**

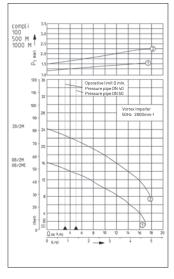
### Wastewater disposal of special facilities, such as

- Mobile sanitary facilities
- Weekend and holiday homes
- Houseboats
- Circus trucks
- > Commercial/municipal uses, such as toilets in production halls (Compli 1000 duplex units)

#### **ADVANTAGES**

- Ready to plug in
- > Floodproof
- Inlet clamping flange
- Versatile connection options
- > Small sized pressure pipe
- > High delivery head
- > PF tank
- MultiCut cutting system





The MultiCut cutting system allows the wastewater to be pumped through long and small diameter pressure pipes to the nearest sewer. The pressure pipe can be routed to follow the gradient of the site. This form of wastewater disposal is frequently more economical than discharging it through gravity pipes. The exterior MultiCut cutting system quarantees maximum operational reliability combined with excellent drainage characteristics.





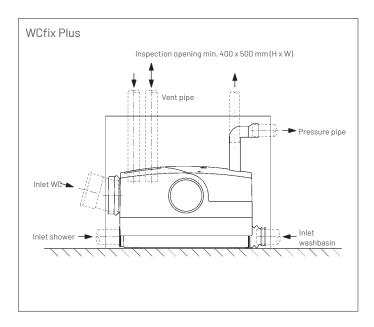


	Туре	Hmax (m)	Qmax (m³/h)	P1 (kW)
	Compli 108/2 M	16	17	1.65
nit	Compli 108/2 ME	16	17	1.70
n e	Compli 120/2 M	24	18	2.30
Single unit	Compli 508/2 M	16	17	1.65
S	Compli 508/2 ME	16	17	1.70
	Compli 520/2 M	24	18	2.30
t ex	Compli 1008/2 M	16	17	1.65
uplex unit	Compli 1008/2 ME	16	17	1.70
	Compli 1020/2 M	24	18	2.60

# INSTALL ATION AND ACCESSORIES

#### INSTALLATION KIT FOR INSPECTION OPENING

An installation frame (provided on site) for creating a maintenance opening makes subsequent maintenance work on the WCfix Plus considerably easier. Make sure to include it directly after installing the unit in the pre-wall system. In some cases, the access frame was accidentally covered during other trades' work, leaving the WCfix Plus inaccessible for maintenance



#### 1. INLET SLUICE VALVE

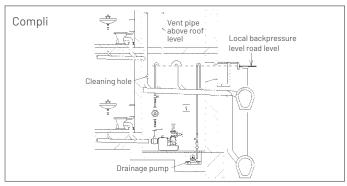
> The sluice valve in the inlet of a lifting station protects you while carrying out any work. In apartment buildings, in particular, it may not be possible to contact all users who are connected to the drainage system early enough, and this could result in problems if the unit has not been properly disconnected from the system. Our lightweight and ready to fit PVC inlet sluice valve can be fitted in the inlet even if space is restricted.

#### 2. HAND DIAPHRAGM PUMP

In the event of a power failure or pump malfunction, the emergency storage volume of a lifting station's tank is quickly filled. The pump must be operated manually at regular intervals to maintain function and a long service life. A hand diaphragm pump can be a useful aid for your customers until the service engineer arrives. Be sure to fit a hand diaphragm pump. The pump needs to be activated regularly to ensure that the pump has a long service life.

#### 3. RECHARGEABLE BATTERY FOR MAINS-INDEPENDENT ALARM

Lifting stations in the compli range are supplied with an alarm system as a standard feature. Enhance the safety of the system. With a rechargeable battery, the alarm also works without mains power. The charging circuit is already integrated in the control unit.



# K2 PLUS | HEBEFIX + U3K SPEZIAL | HEBEFIX PRO SPECIAL PUMPS

#### **APPLICATIONS K2 PLUS**

- > In condensing boiler technology, up to 100 kW boiler capacity
- > In refrigeration and airconditioning technology

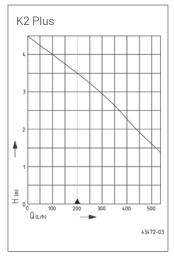
#### APPLICATIONS HERFFIX + U3KS SPEZIAL, HEBEFIX PRO INCL. PUMP

- > For large boiler capacities
- > To cope with additional grey water sources
- > Also suitable for aggressive media (e.g. condensate, saline media)

# K2 Plus

#### **ADVANTAGES**

- > Very quiet running
- > For wall and floor mounting
- Installation materials included in supply package
- > Runtime monitoring with acoustic alarm and potential-free contact (K2 Plus)
- > Test run button (K2 Plus)
- > Indicator light display for operating or fault (K2 Plus)
- > With integrated backflow prevention valve (K2 Plus)
- Alarm unit for level-dependent alarm (Hebefix Pro)



- The K2 Plus is resistant to a pH value ≥ 2.7. The pH value of condensate from oil or gas boilers can be below this operating limit (ATV-DVWK-A 251, table B1). Failure to maintain or inspect neutralising systems or wrongly adjusted burners can result in the pH value being below 2.7. Instruct your customers about these points! Regular maintenance and inspections are essential in this case.
- > If the maximum inlet temperature of 40 °C is exceeded, cooling can be achieved by laying the inlet pipe in coils.
- **>** Always use an alarm system!





Туре	(m)	Qmax (m³/h)	Qmax (I/h)	P1 (kW)
K2 Plus	4.5	0.53	520	0.065
U3KS Spezial	7.0	6.5	6500	0.32
Hebefix Pro	7.0	6.5	6500	0.32

# SAFETY THROUGH ALARM SYSTEMS

Alarm unit	Code no.	Usable with battery Code no. JP44850	pot. contact	Hebefix Mini	Hebefix
Alarm unit AG3 with submersible ball contact switch and potential-free contact (mains-dependent) and 3 m cable	JP44891	•	•		
Alarm unit AG10, ditto but with 9.5 m cable	JP44892	•	•		
Alarm unit AGR with reed switch with 3 m cable	JP44893	•	•	•	•
Alarm unit washing machine stop AW 3 including submersible ball contact switch KT with 3 m cable	JP44895	•			
Alarm unit washing machine stop AWR 3 including reed switch and 3 m cable	J44897	•			•
Alarm unit washing machine stop AWO	JP44899	•		el connecti nces conne	
Alarm unit AGE with special electrode, 1.5 m cable	JP044894	•		tem with sp e, indepen	
Alarmunit					

Hebefix 100	Hebefix 100 H	Hebefix 200 (Single unit)	Baufix 50	Baufix 100	Baufix 200 (Single unit)	on-site sump (Single unit)
		•		•	•	•
•						
		_		_	_	_
				•	•	•
•						

alarm unit AW (R) when several washing machines or dishwashers are connected. will be switched off when the alarm is triggered.

electrode circuit for automatically reporting water levels of approx. 1 mm above floor level of the installation of a pump, such as on the ground floor or on the top floor.

Alarm unit washing maschine stop







#### **BACKPRESSURE PREVENTION TO EN 12056**

#### HOW DOES BACKPRESSURE OCCUR?

The discharge pipes from drainage units in buildings form a connected piping system through their connection to the sewer. If wastewater backs up in the sewer, it also forces its way into the connected building drainage pipes and can rise there up to the level of the street level. If the water level continues to rise, it will discharge through the street drain If the water continues to rise, it then escapes into the street. The upper edge of the road is generally regarded as the backpressure level. Deviating regulations may be found in local bye-laws.

#### TYPICAL REASONS FOR BACKPRESSURE

- **>** Heavy or torrential rainfall may cause backpressure in the sewer.
- **>** Backpressure may also be caused by broken pipes or damaged sewer lines.
- **>** Backpressure due to pump failure in systems with intermediate pumping stations
- > Sewer backup caused by unplanned discharges such as firefighting operations, sewer flushing, or unauthorized connections
- **>** Backpressure caused by blocking or diverting the sewer for repair work.
- **>** Backpressure due to obstructions or pipe constrictions.

#### INFORMATION ABOUT BACKPRESSURE PREVENTION

- Protecting drainage points located below the backflow level is not optional but is mandatory.
- **>** Backpressure protection must be provided by an automatic sewage lifting station. In exceptional cases, backpressure valves may be permitted.
- > Only the use of a lifting station with a backpressure loop above the backpressure level provides security against backpressure.
- > Anti-flooding valves are permitted only in exceptional circumstances.

#### APPLICATIONS FOR A LIFTING STATION

- **>** For example, in basement rooms used for storing valuable goods.
- If the cellar is used as living space (basement flat).
- If drainage points of any kind must remain in use during a backflow situation in the sewer.
- In the event of overflows of rainwater storage tanks that are discharged into a combined wastewater sewer (DIN 1989).



Without backpressure prevention (see page 75 for animations in the PumpSizer app)



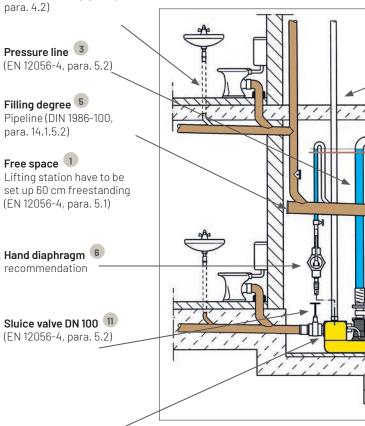
With backpressure prevention (lifting station)

The microsite on this topic www.backpressure.net

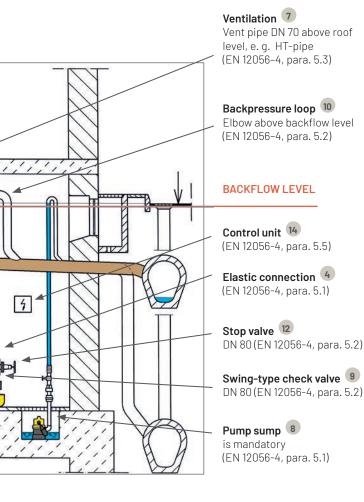
# STANDARDS CONCERNING LIFTING STATIONS



Drainage object above the backpressure level by gravity (EN 12056-1,



Mounting / Buoyancy protection 2 (EN 12056-4, Abs. 5.1 / 12050-1, para. 4.6)



# STANDARDS CONCERNING LIFTING STATIONS

# WORKSPACE 1



> Provide a clearance of 60 cm next to and above all serviceable components to allow for maintenance work.

# MOUNTING/BUOYANCY PROTECTION 2



The collecting tank for faecal wastewater must not be connected to the building structure - this includes any fixed installation such as embedding it into the concrete floor. The tank must be installed as a free-standing unit and secured against buoyancy by appropriate anchoring. The required fastening material is usually included in the scope of delivery

# PRESSURE LINE 3



- > The pressure pipe must withstand 1.5 times the system's maximum pump pressure.
- > Recommendation: Use only piping materials and fasteners approved by the manufacturers for this purpose. The pipe connections must be secured against thrust!

#### FLASTIC CONNECTION 4



> All connections on the lifting station must be flexible connections. In compli lifting stations, this is achieved in the inlet pipe with an inlet clamping flange and, in the pressure pipe, with the flexible connection supplied, which is installed above the swingtype check valve and the sluice valve.

# FILLING DEGREE 5



- > Usually with partially filled pipelines rated at 50%.
- After connection of the lifting station, a filling level up to 70% is possible.

# ΗΔΝΠ ΠΙΔΡΗΡΑΘΜ ΡΙΙΜΡ 6



- In the event of a power cut or pump fault, the storage volume of a lifting station tank fills up rapidly in an emergency. To cover the time until a service engineer arrives, the hand diaphragm pump can provide valuable assistance.
- > Please note that the hand diaphragm needs to be activated from time to time, for example during maintenance work, to ensure that the pump will give many years of service.
- > Not an essential accessory in terms of the standard.

# VENTIL ATION 7



- > For volume replacement (aerating and venting the tank).
- > Lifting stations for wastewater containing faecal matter according to EN 12050-1 must always be vented above the roof level. Route the vent pipe separately, or take it above the roof and attach it at an angle of 45° to a ventilated downpipe that is higher than the highest connecting pipe.
- Lifting stations for faecal-free wastewater according to EN 12050-2 / Lifting stations for limited application according to EN 12050-3 can be vented into the installation room. Odour reduction: with activated carbon filters (accessory).
- > Vent valves are not permitted for lifting stations for wastewater containing faecal matter.

# PLIMP SLIMP 8



- This is used to drain rooms and prevent flooding such as can occur when piping is damaged.
- **>** A permanently installed pump is not required.

# SWING-TYPE CHECK VALVE 9



**>** This is essential when installing a lifting station.

### STANDARDS CONCERNING LIFTING STATIONS

#### BACKELOW LOOP 10



- > Physical protection against backflow from the public sewer system.
- In the event of backflow, water tends more like to escape through the manhole cover rather than to flow into the cellar.
- > The combination of a lifting station and a backflow loop allows unrestricted use of drainage objects located below the backflow level (usually street level) and ensures wastewater disposal even during backflow conditions.

# SLUICE VALVE IN THE INLET 11



- > Services to protect maintenance personnel while working.
- In blocks of flats, in particular, it may not be possible to contact all users who are connected to the drainage system early enough, and this could result in problems if the unit has not been properly disconnected from the system.
- If space is restricted, the new lightweight PVC sluice gate from Jung Pumpen is ready to install and can be fitted in the inlet pipe.

# STOP VALVE IN THE DISCHARGE BRANCH 12



- Mandatory accessory in lifting stations for wastewater containing faecal matter according to EN 12050-1.
- > Enables the lifting stations to be disconnected from the system during maintenance work.
- > Fitting a sluice valve in the pressure pipe can only be dispensed with in lifting stations complying with EN 12050-2/12050-3 if the diameter of the pressure pipe is < DN 80 and this has an extractor device or alternative drainage option. The useable volume of the lifting station must be large enough to take up all the wastewater from the pressure pipe.

# **GRAVITY DRAINAGE** 13



- **>** Do not create dependence on machinery unless it is absolutely essential.
- > Exceptions to this are only permitted in absolutely necessary cases.

# CONTROL LINIT 14



- > Installation in dry, well ventilated rooms.
- > Flood-proof installation.
- > Install fault signaling device so that it is signaled in each connected residential unit.

#### **MAINTENANCE ACCORDING EN 12056-4**

# ! TIPS

- According to EN 12056-4, lifting station must be maintained at regular intervals. Recommend therefore that your customers conclude a maintenance contract! In certain circumstances, proof that maintenance has been carried out may be required by the relevant building insurance in the event of a claim.
- Depending upon the characteristics of the wastewater, it may be necessary to shorten the maintenance intervals specified.
- Xeep a record of commissioning and maintenance work. Draw attention in writing to any repair work necessary, in the event that this work is postponed till later at the customer's request.

#### MAINTENANCE WORK

- > Check the connections and joints
- > Activate the sluice valves
- > Open and close the backflow preventer
- > Clean and check the pumping equipment and the attached piping
- > Check the oil level if an oil chamber is available
- > Internal cleaning of the tank
- > Inspect the electrical section of the lifting station
- > Inspect the collecting tank
- > Flush the system through with water once every 2 years

#### MAINTENANCE INTERVALS

- > Every 3 months for units on commercial premises
- > Every 6 months for units in blocks of flats
- > Once a year for units in individual private dwellings

#### RECOMMISSIONING

- > Trial run with water with two switching cycles
- Check the electric fuses
- **>** Check the direction of rotation of the motor
- > Check the sluice valve (open position/activation/leaktightness)
- > Check the leaktightness of the unit, fittings and piping
- > Check the operating voltage and frequency
- > Inspect backflow preventer
- > Check the fault indicating device
- > Check that the pressure pipe is securely attached
- > Check the motor protection switch
- > Check the oil level (if oil chamber available)
- **>** Check the indicator lamps, gauges and meters
- > Functional check of hand diaphragm pump

# **ELECTRICITY COSTS**

# SAMPLE CALCULATIONS FOR VARIOUS TYPES OF UNITS

Type of pump or unit	
Drainage capacity (typical valves)	
Delivery head [m]	
Flow rate [m³/h]	
Motor rating [kW] P1	
Motor rating [kW] P2	
Quantity per year/resident [m³/a]	
Running time per year/resident[h]	
Energy requirements per year [kWh]	
Assumed price of electricity [€/kWh]*	
Electricity costs per year and resident [€]	
Pumping costs per m³ [ € ]	
Operation of control unit [kW]	
Electricity costs for control unit per year (fixed)	
Total electricity costs per year and resident [€]	

<sup>\*</sup> assumed values

Compli 400	WCfix 260	U3KS
100 I* (E x d)	30 I* (E x d)	20 l* (E x d)
complete residential	additional bathroom	e.g. washing maschine/ sink
2.5	2.5	2.5
35	6.4	5
1.25	0.4	0.32
0.85	0.25	0.20
36.5	10.95	7.3
1.04	1.71	1.46
1.3	0.684	0.4672
0.38	0.38	0.38
0.49	0.26	0.18
0.01	0.02	0.02
8.4	8.42	none
3.19	3.20	none
3.69€	3.46 €	0.18 €

#### CONCISE GLOSSARY OF TERMS

Abrasion: Abrasion or grinding down of materials through solids contained in the effluent or water, such as in piping, pumps or

centrifuges

Wastewater: Water that has been contaminated, and whose natural proper-

ties have therefore been altered, by domestic, commercial, industrial, agricultural and other uses This also includes precipitation water runoff from built-up areas. A distinction is made, for example, between effluent, rainwater, infiltration water, mixed water, cooling water and municipal wastewater

Activated The usual means used to absorb odorants and flavourings carbon: and organic substances in drinking water treatment. It can

and organic substances in drinking water treatment. It can be used as powdered activated carbon before a filter, or as granular activated carbon on or inside filters. Spent granular

carbon can be regenerated and reused

> Brackish water: Mixture of saline and freshwater

Raw water: Water with different quality characteristics, which may

include drinking water quality, serving commercial, industrial,

agricultural or similar purposes

> Free passage: The free passage of the pump is the diameter up to which

solid particles in the wastewater can be pumped

> Grev water: Faecal-free wastewater

> Groundwater: Underground (stagnant or running) water that fills cavities in

the ground or rock contiguously. Since this forms through the seepage of rainwater runoff and flows towards surface water or occurs as spring water, it forms part of the water cycle.

Normally, groundwater is free from pollutants and pathogenic

bacteria, and is therefore ideal for use as drinking water

> Sewer system Drain system for collecting and discharging wastewater (EN

16323). Effluent and rainwater runoff are discharged either separately (separate system) or together (combined system)

Condensate: Water that occurs through condensation during a vapour

phase at a temperature below the dew point of the water

> Particle size: Maximum diameter of the solids contained in the wastewater

Minimum flow The minimum flow velocity in pressure piping is 0.7 m/s and velocity: among other things prevents deposits from forming in pres-

sure pipes

> Nominal diam-A dimension (characteristic) for pipes and fittings which apeter (DN): proximately corresponds to the internal diameter. DN is the international abbreviation for this (diameter nominal)

Useable volume: The volume pumped during a cycle of operation

pH value: Measure of the concentration of hydrogen ions in aqueous solutions, and so the measure of the acidity, neutrality or alkalinity of a solution. The pH scale extends from 0 to 14. Acids have a pH value of less than 7 and alkalis have a pH value greater than 7. Water in its original form has a pH value of 7 (neutral). According to the German drinking water ordinance, drinking water should not have a pH value of less than 6.5 or

higher than 9.5

Potential-free Zero-potential contact for alarm transmission contact:

Pump/ Pump for handling water; a small-diameter centrifugal pump, submersible using centrifugal force, with impellers and a vertically arpump: ranged shaft which is directly immersed in the pumped media

Water from natural rainwater that has not been contaminated Rainwater

through use

Raw efluent: The wastewater that runs into a wastewater treatment system

Backpressure/ see page 60/61 backpressure prevention:

Wastewater: Water that has been contaminated through use. A distinc-

> tion is made between domestic (from kitchens, laundries, bathrooms, toilets and rooms with a similar use), commercial. industrial, agricultural and municipal (domestic and com-

mercial) wastewater

Blackwater: Wastewater containing sewage

Refers to groundwater-forming water (rainwater, water-Seepage water:

courses and bodies of water) which drains into the ground The rock zones around the seepage water are responsible for the

properties (water quality) of the groundwater

### APPS AS PLANNING AIDS

#### ΙΝΕΟΡΜΑΤΙΟΝ ΔΤ Δ GL ΔΝCΕ

The free **Media App** provides the sanitary and HVAC trade with a wealth of technical information about submersible drainage pumps and wastewater pumps right around the clock wherever it is needed. Besides the classic product literature like data sheets and brochures, the app also provides direct access to technical information such as op-

erating instruction manuals and spare parts lists



IOS





ANDROID

#### WHAT CAN IT DO?

- Online and offline access to all data
- All data can also be loaded. into the app as well
- Documents can be forwarded by email
- > Push message about new features
- > Integrated multimedia section and much more

#### **PUMP SELECTION AID**

With the **PumpSizer App**, it is possible to identify a selection of suitable submersible drainage pumps after defining the hydraulic data, the media to be pumped and the intended installation location.

Data is entered intuitively and the results are displayed while the slider is moved.



IOS





ANDROID

#### WHAT CAN IT DO?

- Extensive range of property types, water types and installation locations to choose from
- Choice of objects to be drained
- > Calculation of the required flow rates
- > Operating point calculations
- > Recommendations for pumps and much more

#### SOCIAL MEDIA CHANNELS

#### JUNGTUBE ONLINE FORUM

Visit our JungTube wastewater portal and take advantage of the practical hints and experience given by our pump professionals.

The online forum has established itself in recent years to become a platform that is used by both planners and installers as well as the customers themselves.

- Tips from pump professionals
- > Building and wastewater technology
- > Picture gallery with unusual and informative views of installation situations
- > Frequently asked questions are answered directly as FAQs
- > Presented by Jung Pumpen
- > Contributions and images can be shared on Facebook, X and Google plus





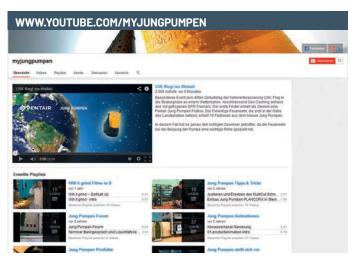
#### VIDEOS ON YOUTUBE

On YouTube, we also offer informative video clips on products and their installation in buildings and municipal drainage systems. Sanitary professionals as well as homeowners will find a range of video clips and 3D animations there.

In addition to product videos, there are also interesting videos on our company and videos of a variety of workshops and trade fairs.

- > Product videos
- Assembly and installation videos
- 3D animations
- Videos with maintenance tips
- > Videos about the company
- Videos about workshops and trade fairs





# **BRIEF GUIDE**

Four questions up front

#### WHAT TO CHECK?

What media are to be discharged?

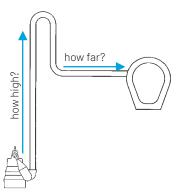
- Rainwater (temperature)
- Groundwater (chemical constituents)
- > Wastewater(particle size)
- Sewage (proportion contained)

#### HOW MUCH?

Indicates the quantity to be discharged

- > Toilets
- Sinks
- Square metres of paved area
- **>** Bathtub
- **>** Dishwasher
- Washing machine
- > Floor drain
- > etc.

# WHERE TO?



#### WHAT WITH?

- > What pump(s)?
- Which components? (control unit, tank, accessories)

# PLEASE GET IN CONTACT WITH US:

#### **ADVICE + QUOTATIONS**

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