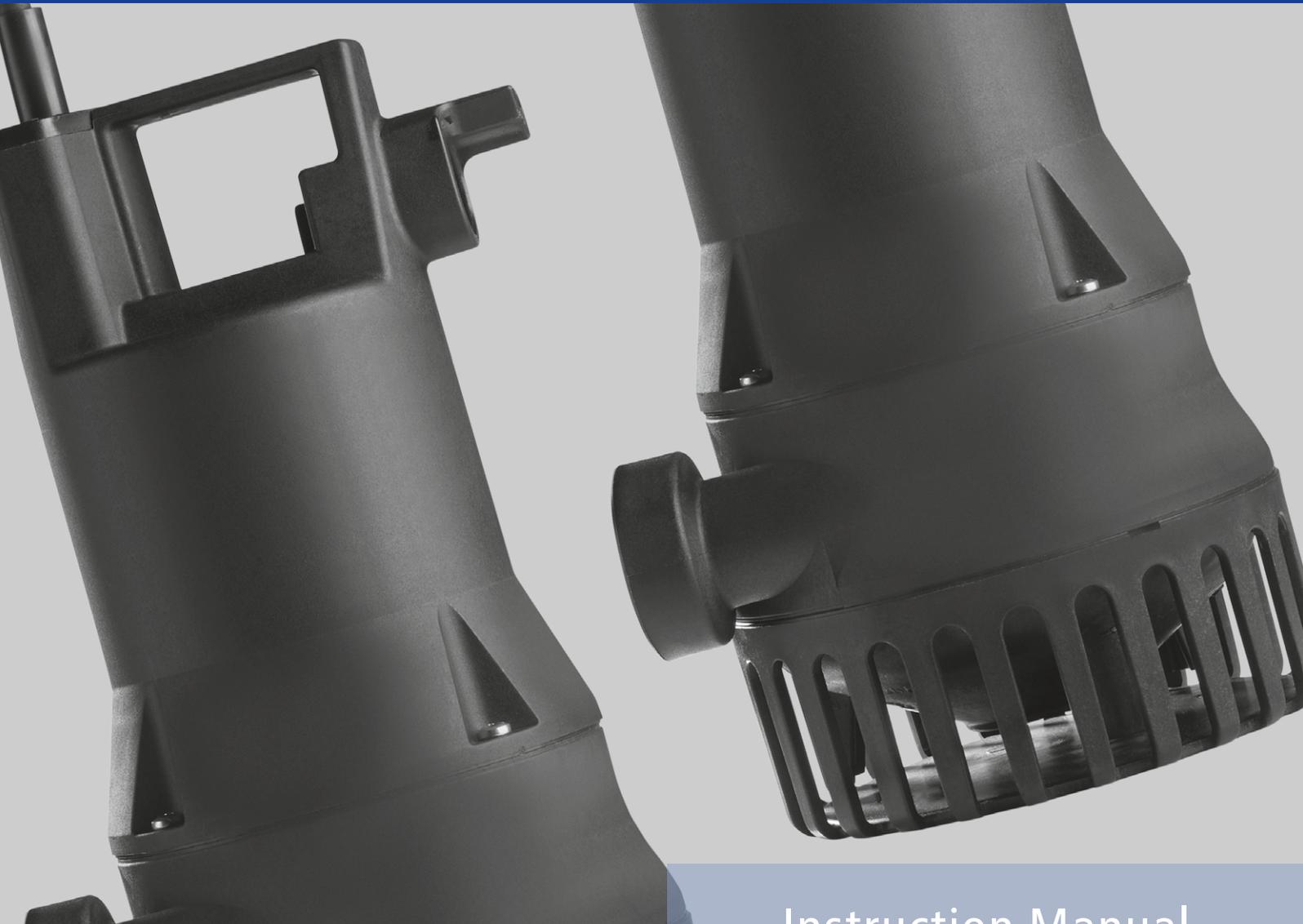


ATBlift



Instruction Manual

ATBlift - submersible pumps

Safety instructions • Areas of application • Electrical connection • Installation • Servicing • Technical data

You have purchased a product made by ATB Umwelttechnologien GmbH and with it, therefore, also excellent quality and service. Secure this service by carrying out the installation works in accordance with the instructions, so that our product can perform its task to your complete satisfaction. Please remember that damage caused by incorrect installation or handling will adversely affect the guarantee.

Therefore please adhere to the instructions in this manual!

As with all electrical devices, this product can also fail to operate due to an interruption in the electricity supply or due to a technical defect. If this could result in damage, a mains-independent alarm system must be installed. Depending on the application, you may also wish to install an emergency power generator, or a second system as a back-up.

Safety instructions

This instruction manual contains essential information that must be observed during installation, operation and servicing. It is therefore important that the installer and the responsible technician/operator read this instruction manual before the equipment is installed and put into operation. The manual must always be available at the location where the pump or the plant is installed.

Failure to observe the safety instructions can lead to the loss of all indemnity.

Labelling of instructions

In this instruction manual, safety information is distinctly labelled with particular symbols. Disregarding this information can be dangerous.



General danger to people



Warning of electrical voltage

ATTENTION! Danger to equipment and operation

Qualification and training of personnel

All personnel involved with the operation, servicing, inspection and installation of the equipment must be suitably qualified for this work and must have studied the instruction manual in depth to ensure that they are sufficiently conversant with its contents. The supervision, competence and areas of responsibility of the personnel must be precisely regulated by the operator. If the personnel do not have the necessary skills, they must be instructed and trained accordingly.

Safety-conscious working

The safety instructions in this instruction manual, the existing national regulations regarding accident prevention, and any internal working, operating and safety regulations must be adhered to.

Safety instructions for the operator/user

All legal regulations, local directives and safety regulations must be adhered to.

The possibility of danger due to electrical energy must be prevented.

Leakages of dangerous (e.g. explosive, toxic, hot) substances must be discharged such that no danger to people or the environment occurs. Legal regulations must be observed.

Safety instructions for installation, inspection and maintenance works

As a basic principle, works may only be carried out to the equipment when it is shut down. Pumps or plant that convey harmful substances must be decontaminated.

All safety and protection components must be re-fitted and/or made operational immediately after the works have been completed. Their effectiveness must be checked before re-starting, taking into account the current regulations and stipulations.

Unauthorised modifications, manufacture of spare parts

The equipment may only be modified or altered in agreement with the manufacturer. The use of original spare parts and accessories approved by the manufacturer is important for safety reasons. The use of other parts can result in liability for consequential damage being rescinded.

Unauthorised operating methods

The operational safety of the supplied equipment is only guaranteed if the equipment is used for its intended purpose. The limiting values given in the „Technical Data“ section may not be exceeded under any circumstances.

Instructions regarding accident prevention

Before commencing servicing or maintenance works, cordon off the working area and check that the lifting gear is in perfect condition.

Never work alone. Always wear a hard hat, safety glasses and safety shoes and, if necessary, a suitable safety belt.

Before carrying out welding works or using electrical devices, check to ensure there is no danger of explosion.

People working in wastewater systems must be vaccinated against the pathogens that may be found there. For the sake of your health, be sure to pay meticulous attention to cleanliness wherever you are working.

Make sure that there are no toxic gases in the working area.

Observe the health and safety at work regulations and make sure that a first-aid kit is to hand.

In some cases, the pump and the pumping medium may be hot and could cause burns.

For installations in areas subject to explosion hazards, special regulations apply!

Application

Submersible pumps of the ATBlift range are suitable for dosing and pumping wastewater in small-scale clarification plants.

Modes of operation

Pumped medium at a temperature of 95°F (35°C): continuous operation S1.

Pumped medium at a temperature of 140°F (60°C):

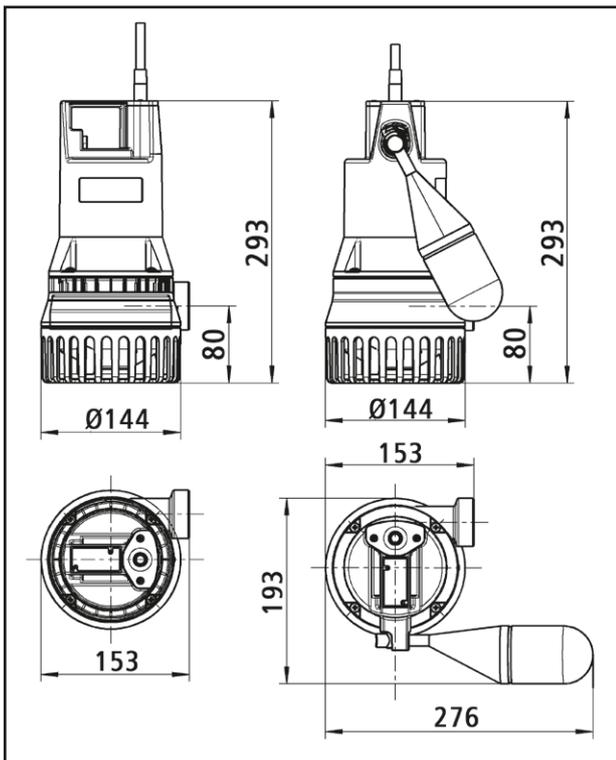
intermittent operation S3, 40%, i.e. 4 min. operation and 6 min. interval.

The submersible pump is frost-resistant down to -4°F (-20°C) when stored in dry conditions. When installed, however, it must not be allowed to freeze in the water..

Transport

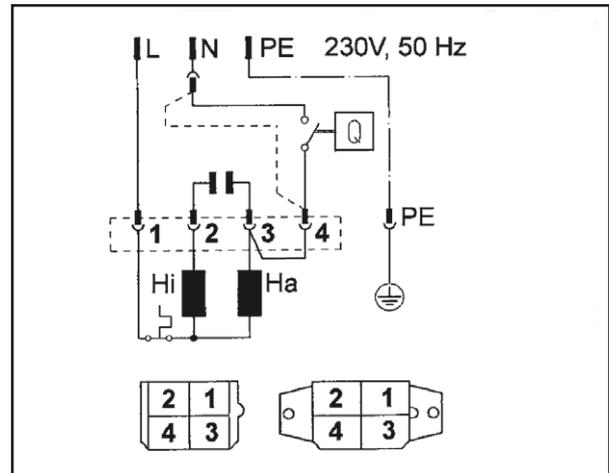
ATTENTION! The pump must always be lifted by the handle and never by the power supply cable or the float of the level control! The pump should only be lowered into deeper chambers or pits using a rope or chain.

Dimensions [mm]

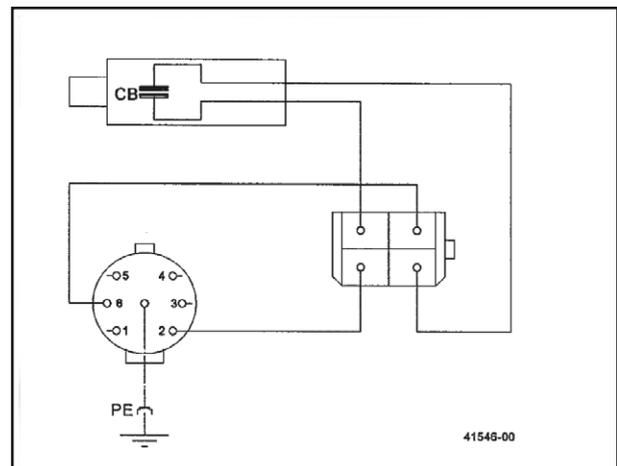


Electrical connection

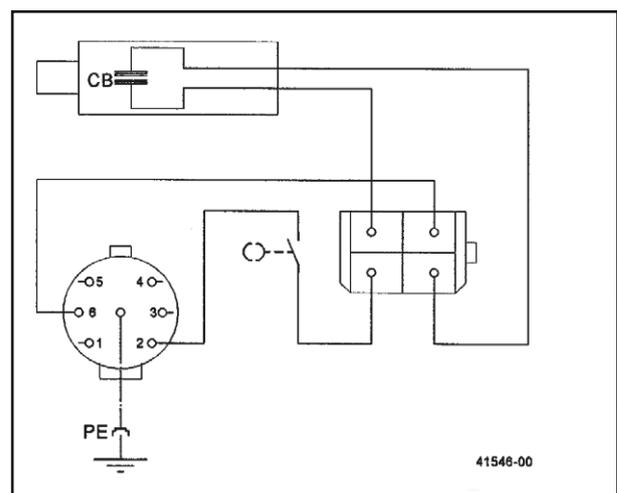
Circuit



ATBlift 1 / ATBlift 2



ATBlift 2 S



Only qualified electricians may carry out electrical works to the pump or the controls.

The relevant standards (such as EN standards), country-specific regulations (such as VDE in Germany), and the regulations of the local power supply companies must be observed.

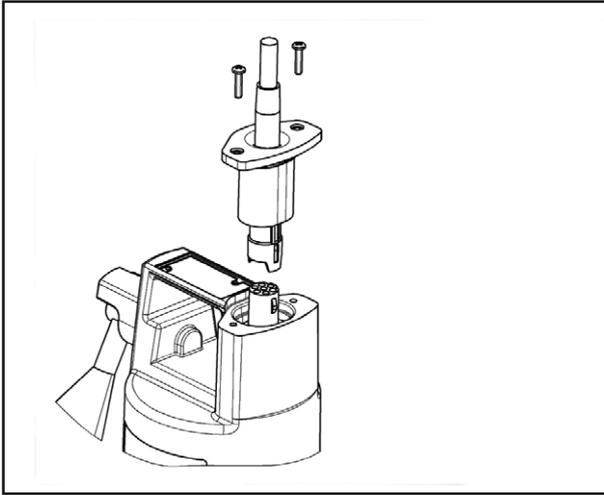
Attention! Never put the free lead end in water! If water gets into the plug, this can cause malfunctions and damage.



Observe the operating voltage (see the type plate)!

The pump must only be connected up to electrical installations with an earth wire in accordance with the regulations. It must be protected with a 10 A fuse. No additional motor protection is required, since the system has an integrated winding thermostat. Inadmissible temperatures and operating times will result in the thermostat switching the system off (please refer to the section entitled Application). After the thermostat has switched off the system, pull out the mains plug before remedying the fault, since the device can switch itself on again automatically after cooling down if the power is still connected!

Replacing the connection cable



Only use original manufacturer's parts. We recommend replacing the seal and the screws each time the connection cable is replaced.

ATTENTION! When the connection cable is loosened, the motor compartment is opened. Please ensure clean and dry conditions when handling the device.

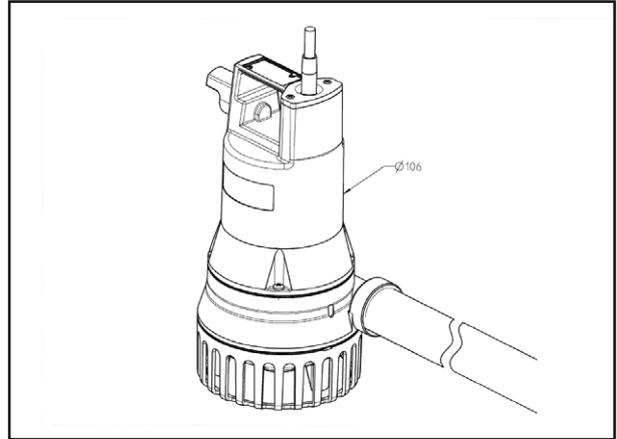
ATTENTION! Do NOT use a power screwdriver. A size 2 PZ screwdriver must be used to unscrew and tighten the connection cable.

Grease the sealing ring with Vaseline before inserting the cartridge.

Then tighten the screws by hand (max 1 Nm).

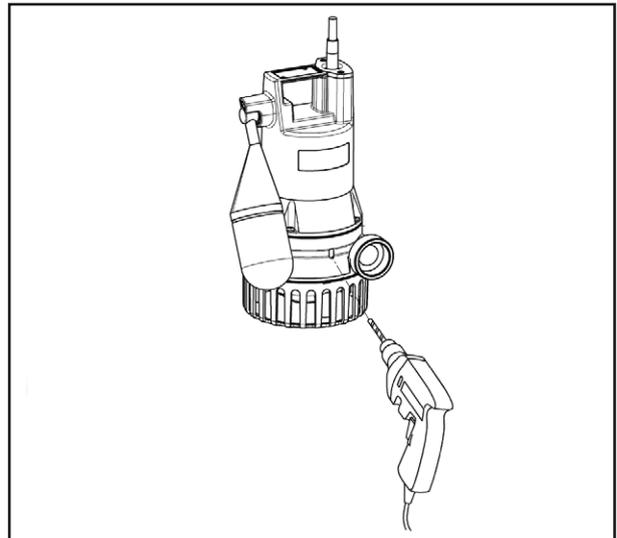
Installation

The pump must be securely fixed to ensure that it does not become detached during operation. The pump should be fixed at the control head and the discharge branch.



Venting the pump housing

The pump can be vented by providing a 6 mm drill-hole in the pump housing. This drill-hole allows the pump housing to be reliably vented even if a non-return valve is used.



ATTENTION! If the pump is malfunctioning, a slight leakage of the contents of the oil reservoir into the pumping medium is possible.

Maintenance

To ensure continued reliability of service, we recommend that you take out a service contract.



Before carrying out any works: disconnect the pump and the controls from the mains and take steps to ensure that no one else can reconnect them to the power supply.



Check the mains cable for mechanical or chemical damage. A damaged or kinked cable must be replaced.



When using a chain to lift the pump, please observe the relevant national regulations regarding accident prevention.

The foot strainer prevents coarse impurities from entering the pump. Regular cleaning of the float and the foot strainer to remove fibres and accumulations ensures optimum performance and operation. To clean the impeller, the foot strainer must first be levered off. The impeller can now be cleaned through the suction opening.

Quick tips for remedying faults

No pump operation

- Check mains current (do not use a pin gauge)
- Fuse faulty = may be too weak (please refer to the section entitled Electrical connection)
- Mains cable damaged = replace cable
- Make sure that the pump is not switched on before the pump is submersed.
- Empty the pressure pipe or hose to allow the air to escape from the spiral housing. The ventilation drilling described can also be used for venting.
- Check any pump controls
- In the case of pumps with an attached control = the water may be too low

Impeller blocked

- Solids and fibrous matter have become lodged in the spiral housing (please refer to the section entitled Maintenance)

Decreased pumping performance

- Foot strainer obstructed (please refer to the section entitled Maintenance)
- Pressure pipe obstructed = clean
- Rotor worn out = repair to be carried out by the manufacturer only

Technical data

	ATBlift1	ATBlift2 / ATBlift2 S
m [kg]	4,2	4,2 / 4,4
⊙	1 ¼ "	1 ¼ "
⊘ [mm]	15	15
P1 [W]	250	300
P2 [W]	160	200
U [V]	1/N/PE ~230	1/N/PE ~230
f [Hz]	50	50
I [A]	1,1	1,3
n [min ⁻¹]	2860	2720

Performance

ATBlift1

H [m]	1	2	3	4	5
Q [m ³ /h]	6,8	5,5	3,7	1,2	-

ATBlift2 / ATBlift2 S

H [m]	1	2	3	4	5
Q [m ³ /h]	8	7	6	4	2

EG-Konformitätserklärung Declaration of EC-Conformity Attestation de Conformité CE

Hiermit erklären wir, dass alle Exemplare unserer Geräte:
Herewith we declare that all our devices:
Nous attestons par la présente, que tous nos produits:

ATBlift 1, mit Leitung
ATBlift 1, ohne Leitung

ATBlift 2, mit Leitung
ATBlift 2, ohne Leitung

ATBlift 2S, mit Leitung
ATBlift 2S, ohne Leitung

AQUA 3, mit Leitung
AQUA 3, ohne Leitung

AQUA 5, mit Leitung
AQUA 5, ohne Leitung

den wesentlichen Schutzanforderungen folgender EG-Richtlinien entsprechen.
comply with the following provisions applying to:
correspondent aux principales directives CE suivantes:

EG-Niederspannungsrichtlinie	in der Fassung	2006/95/EWG
EG-EMV Richtlinie	in der Fassung	89/336/EWG

Angewendete harmonisierte Normen, insbesondere:
Applied harmonized standards in particular:
Principales normes harmonisées:

2006/95/EWG	89/336/EWG
EN 60 335-1	EN 55 014-1
EN 60 335-2-41	EN 55 014-2
	EN 61 000-3-2/3

Angewendete, nicht unter obige EG-Richtlinien fallende technische Normen und Spezifikationen:
Applied national technical standards and specifications in particular:
Normes et spécifications n'entrant pas dans directives ci-dessus:

EN ISO 12100 Teil 1 + 2

Bei einer nicht mit uns abgestimmten Änderung des Gerätes verliert diese Erklärung ihre Gültigkeit.
By altering the device without approval the declaration would invalidate.
Toute modification de la machine, effectuée sans notre accord, annule la validité de la présente déclaration.

Porta Westfalica, 20.05.2009



Markus Baumann
(Geschäftsführer)