

## **Bewasol**

Brine pumping system

Subject to changes!





Thank you very much for the confidence that you have shown in us by purchasing a BWT device



This manual applies only to the product(s) specified on the title page.

#### **Publication details**

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This manual was created, reviewed and approved in German. If there are any discrepancies between the German edition of the manual and editions in other languages, the information in the German document should be given preference.

In the event of inconsistencies, contact our customer service; see chapter "9.1 Your contact at BWT", page 10.

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#### 1 Safety instructions

#### 1.1 General safety instructions

The product has been manufactured according to the generally recognised rules and standards of technology and complies with the legal regulations in force when it was brought into circulation.

Nevertheless, there is still a risk of damage to persons or property if you do not follow this chapter and the safety instructions in this documentation.

- Read this documentation carefully and in its entirety before working with the product.
- This documentation must be kept accessible to all users at all times.
- Always hand over the product to third parties together with the full documentation.
- Follow all of the instructions in relation to the proper handling of the product.
- If you detect damage to the product or the mains supply, stop its operation and notify a service technician immediately.
- Use only accessories, spare parts, and consumable materials that have been approved by BWT.
- Adhere to the environmental and operating conditions specified in the "Technical data" chapter.
- Use your personal protective equipment. It ensures your safety and protects you from injury.
- Only perform tasks that are described in this manual or if you have been trained to do so by BWT.
- Perform all tasks in compliance with all applicable standards and provisions.
- Instruct the operator in the function and operation of the product.
- Inform the operator about the necessity of product maintenance.
- Inform the operator about potential dangers that may arise while operating the product.

#### 1.2 Scope of the documentation

This documentation applies exclusively to the product whose production number is listed on the title page and in chapter 10, "Technical data".

This documentation is intended for operators, end users, fitters without training from BWT, fitters with training from BWT (e.g. drinking water specialists), and BWT service technicians.

This documentation contains important information for fitting the product safely and properly, starting up, operating, using, maintaining, and disassembling the product, and for correcting simple faults independently.

Read this documentation in full before working with the product. Pay particular attention to the chapter "Safety Instructions".

#### 1.3 Personnel qualifications

The installation work described in this manual requires basic knowledge of mechanics, hydraulics and electrical systems as well as knowledge of the corresponding specialist terms.

To ensure that the device is installed safely, this work must be performed only by a qualified specialist or a trained person under the guidance of a qualified specialist.

A qualified specialist is anyone who can assess the work assigned to him or her, identify potential risks, and take suitable safety measures thanks to his or her specialist training, knowledge, and experience as well as his or her knowledge of the applicable regulations. Specialists must comply with applicable, industry-specific regulations.

#### 1.4 Transport, Installation

Transport the system as a complete unit, if possible. If you must dismantle the system before transport, check that all individual parts are present.

If there is a risk of frost, drain all components that convey water.

Lift or transport the unit or its components only from the intended suspension eyes or attachment points.

The system must be placed on a horizontal surface or mounted to a vertical surface that is sufficiently flat and has a sufficient load-bearing capacity. It must be secured so that it does not fall or tip over.

#### 1.5 Symbols used



General danger to persons, systems or the environment.



Danger caused by the mains voltage.

Risk of death by electric shock!



Information that must be observed for safe operation!



Disconnect the mains plug.



Information that must be observed.



The product must not be disposed of in household waste.



Recycle the product after decommissioning.

## 1.6 How safety instructions are displayed

In this document safety instructions precede any sequence of actions that could cause harm to persons or damage to property. All hazard prevention measures must be followed. Safety instructions are displayed as follows:

#### **⚠** SIGNAL WORD!



Source of hazard (e.g. electric shock) Type of hazard (e.g. risk of fatal injury)!

► Ways to prevent the hazard

Signal word	Colour	Severity of the hazard
DANGER		High-risk hazard. Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
WARNING		Hazard with a moderate degree of risk. Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION		Low-risk hazard. Indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.
NOTE		Warns of material damage to the product and/or the environment.

## 1.7 Product-specific safety instructions

In the following sections, you will find productspecific safety instructions whenever you must perform certain safety-relevant actions on the device.

#### **A** DANGER!



## Mains voltage! Risk of death by electric shock!

► Unplug device before any service and repair work.



► If the mains cable of the product becomes damaged, you must replace it with an original BWT cable.

#### **NOTE**



#### Risk of flooding!

Without mains voltage there is a risk of flooding!

► The product must be permanently connected to the mains voltage.

#### 2 Scope of delivery

BEWASOL is a ready-to-connect brine pumping system with:



_		
	1	Pressure connection
ĺ	2	Inlet connection for rinsing water
ĺ	3	Inlet connection for safety overflow
	4	Plastic container
	5	Sealless immersion pump (pump housing, impeller and cover made of Valox plastic)
	6	2-pole induction motor (motor shaft made of stainless steel AISI 316)
	-	Mains cable with plug, length 3 m.

Inlet and outlet hoses are not included in the scope of delivery of the system.

#### 3 Intended use

#### 3.1 Proper use

The BEWASOL brine pumping system is only suitable for pumping brine that occurs during the backwashing of water softening systems.



The volume of regeneration water from the water softening system must not be higher than the delivery rate of the Bewasol pumping system (see chapter <u>"10.1 Pump curve"</u>, page 11).

#### The system must not be used for:

- domestic sewage
- liquids that tend to foam
- oily wastewater
- · wastewater containing solids
- potentially explosive areas

Any improper use leads to the exclusion of warranty.

#### 3.2 Foreseeable misuse

- Failure to comply with the operating conditions (see chapter <u>"10 Technical data"</u>, page 11).
- Failure to adhere to the maintenance intervals specified in this manual.
- The use of unauthorised consumables and spare parts.

## 3.3 Avoidance of damage in the event of failure

#### NOTE



Risk of flooding!

Without mains voltage there is a risk of flooding!

► The product must be permanently connected to the mains voltage.

If the failure of the product can cause damage (including consequential damage), you must take the following precautions at your discretion:

- Installation of a water level-dependent alarm system (possibly also dependent on the power grid) so that the alarm can be transmitted before damage occurs.
- Check the collecting container for leaks up to the upper edge before putting the product into operation.
- Installation of backflow protection for those drainage objects that may be damaged by the leakage of wastewater following failure of the brine pumping system.
- Installation of another product that can compensate for the failure of the brine pumping system.

#### 3.4 Disclaimer

Deliberate or forceful removal, wilful modification or circumvention of existing protective or safety devices, failure to follow the instructions in this manual or on the product release the manufacturer from any liability.

#### 4 Function

The brine resulting from the backwashing of water softening systems is collected in the collecting tank and, depending on the level, conveyed into the sewer system.

The level is controlled via a back pressure switch.

#### 5 Installation conditions

The installation site of the system must be at ground level, frost-free, well ventilated and freely accessible

A permanent power supply of 230 V / 50 Hz must be available.

The maximum delivery data and the application limits must be observed (see chapter <u>"10 Technical</u> data", page 11).

A comparison with the technical data of the water softening system is necessary.



#### 6 Installation

Installation may only be carried out by qualified personnel (see chapter <u>"1.3 Personnel qualifications"</u>, page 4).

- ► Seal the thread on the pressure port (1.1) of the pump with Teflon tape (do not use hemp).
- ▶ Mount the pressure connection (1) supplied, consisting of a check valve and 19 mm hose nozzle, and tighten by hand on the pressure port of the pump without tools.
- ► Connect the rinsing hose of the water softener to the inlet connection for rinsing water (2) using a quick coupling and secure with a hose clamp.
- ► Connect the overflow hose of the water softener to the inlet connection for the safety overflow (3) using a quick coupling and secure with a hose clamp.
- ▶ On the discharge side, connect a commercially available, brine-resistant 19 mm hose (3/4") to the pressure connection (1) and secure it with a hose clamp.
- ► Lead the pressure hose to the nearest sewer connection above the backflow level and connect it.

#### 7 Commissioning

# Risk of flooding! Without mains voltage there is a risk of flooding! The product must be permanently connected to the mains voltage.

After connecting the mains plug, the brine pumping system is ready for operation.

To check the function and leak tightness, fill the container approx. 3 to 4 times. Check the inlets and outlets when the pump starts automatically.

#### 8 Maintenance

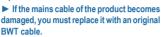
#### **⚠ DANGER!**



#### Mains voltage!

Risk of death by electric shock!

► Unplug device before any service and repair work.



At least twice a year, the container must be checked for possible residues and, if necessary, cleaned and a function and leakage check carried out.

The pump can be removed after loosening the 4 fastening screws. The inside of the container can be checked and cleaned through the pump opening.

To check the function and leak tightness, fill the container approx. 3 to 4 times. Check the inlets and outlets when the pump starts automatically.

#### 9 Warranty

If the product malfunctions during the warranty period, contact your contract partner, the installation company, and quote the unit type and production number (see technical specifications or the type plate on the unit).

#### 9.1 Your contact at BWT

You can reach us at the following number:

 Service acceptance
 +49 6203 7373

 Monday to Thursday:
 6:30 a.m. to 6:00 p.m.

 Friday:
 6:30 a.m. to 4:00 p.m.

#### 9.2 Product returns

Product returns will not be processed without a return number (RMA no.). In Germany, call our after-sales service in Schriesheim to receive a return number

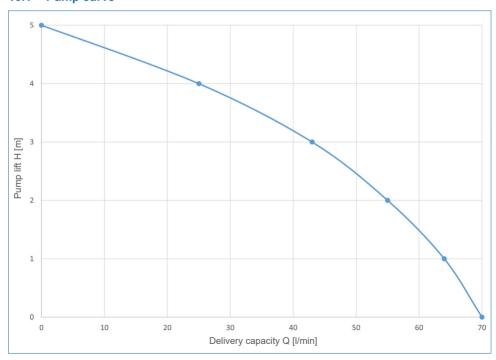
Unauthorised returns of goods will not be accepted by BWT. Please always contact your contract partner first.

#### 10 Technical data

Brine pumping system	Туре	Bewasol
Inlet connections	mm	Ø 8 and Ø 19
Pressure ports	mm	Ø 19
Motor capacity	W	90
Rated current	A	0.7
Operating voltage	V/Hz	230 / 50
Protection class		IP20
Insulation class		F
Max. delivery capacity	l/min	70
Max. pump lift	m	5
Max. grain size of the solids	mm	4
Container capacity	I	13
Brine and cold water, salinity	%	27
Length x depth x height, approx.	mm	493 x 175 x 434
Weight, approx.	kg	5

For the production number, see the label on the title page of this manual and the type plate of the product

#### 10.1 Pump curve



## 11 Decommissioning and disposal

#### 11.1 Shutting down the unit

The product may be shut down and dismantled only by qualified specialists.

Observe all applicable safety regulations when dismantling the system.

#### 11.2 Disposal

#### NOTE



- ► The product must not be disposed of through household waste.
- ► At the end of the product life cycle, ensure that it is properly disposed of or recycled.
- ► Observe the legal disposal guidelines for the country in which the product is used.
- ► The following materials are used in the product: metal, plastic, electronic components.

#### Disposal of the transport packaging

Recycling the packaging materials saves resources and reduces waste. Return the packaging to your specialised dealer.

### Disposal of waste electrical and electronic devices

Do not dispose of the device in household waste. Use the official municipal collection and returns facilities for electrical and electronic waste or return the device to your dealer. By law, you are responsible for deleting any personal data on the device before disposal.

## EU-Konformitäts-Erklärung EU Declaration of Conformity UE Certificat de conformité

im Sinne der Richtlinien Niederspannung 2014/35/EU FMV 2014/30/FU RoHS 2011/65/EU In accordance with the directives Low voltage 2014/35/EU FMC 2014/30/FU RoHS 2011/65/FU en accord avec les directives Basse tension 2014/35/UE CFM 2014/30/UE RoHS 2011/65/UE

Produkt/Product/Produit: Solehebeanlage

#### Typ/Type/Type: Bewasol

ist entwickelt, konstruiert und gefertigt in Übereinstimmung mit den oben genannten Richtlinien, in alleiniger Verantwortung von

has been developed, designed and produced according to the above mentioned Directive at the sole responsibility of

est développé, conçu et fabriqué en accord avec les instructions mentionnées ci-dessus sous l'entière responsabilité de

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(WEEE reg. no. DE 80428986)

Schriesheim, November 2021 Ort, Datum / Place, date / Lieu et date Lutz Hübner

Unterschrift (Geschäftsleitung) Signature (Management) Signature (Direction)

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