

Installation and operating instructions

JUDO JU-WEL Trio

Jewel water device $\frac{3}{4}$ " – $1\frac{1}{4}$ " with 3 types of jewels

Valid for: Canada

Language: English

Jewel water:

Amethyst crystals fortify your general condition and relieve pain caused by nervousness, tension, stress, restlessness, and insomnia.

Rock crystal jewels energize, conform extra vitality, fortify your general condition.

Rose quartz jewels lend more extra sensitivity, have a stimulating and positive effect on your body, harmonize.

Attention:

Carefully read through the installation and operating instructions and safety information before installing and putting the unit into service.

These must always be issued to the owner/user.

Extended warranty period if service agreement concluded!

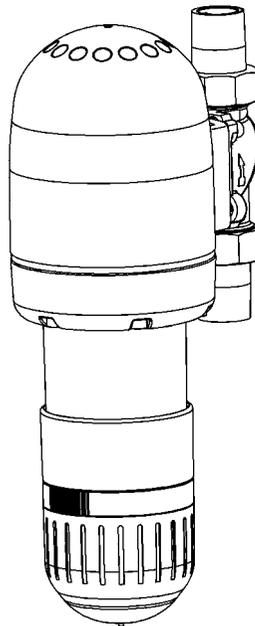


Fig.: JUW-T $\frac{3}{4}$ " – $1\frac{1}{4}$ "

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Dear customer,

your decision to purchase one of our products is much appreciated. The device in question is a jewel water device developed using state of the art technology.

This jewel water device is designed for use with cold drinking water having a maximum water and ambient temperature of 30 °C (86 °F). When water from the mains flows through the jewel water device, the positive qualities of the crystals are transferred to it.

All our jewel water devices are subjected to precise quality control prior to delivery. In the event of any difficulties, do not hesitate to consult the responsible customer support department (see overleaf).

Trademarks:

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1. About this operating instructions



(see chapter on “Safety information and dangers due to non-compliance”)

The operating instructions should always be stored at the operating location of the jewel water device.

These operating instructions are designed to make it easier to become acquainted with the jewel water device and the use of the device in accordance with the manufacturer’s specifications.

The operating instructions contain important information on how to operate the jewel water device in a safe and proper way. The operating instructions contain basic instructions which are to be observed during the installation, operation and maintenance of the device. The observance of the instructions helps to prevent dangers, to reduce repair costs, and to increase the reliability and lifespan of the jewel water device.

The operating instructions should be read and observed by all persons that have to do with the jewel water device, for example:

- **installation**
- **operation**
- **maintenance** (servicing, inspection, putting into operation)

Any installation and maintenance work on the device may only be performed by personnel authorized to do so by the manufacturer, and capable of observing the country-specific instructions and requirements stated in the assembly and operating instructions.

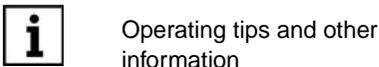
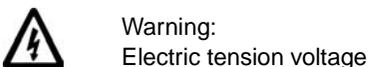
In addition to the operating instructions and the obliging regulations concerning accident prevention that exist in the country of operation and the location of use, established technical regulations concerning safe and professional work, should also be observed.

It is therefore essential that these operating instructions be read by the installer and the responsible technical staff / operator, prior to any installation, commissioning or maintenance work being performed.

In addition to the general safety instructions stated in the chapter on “Intended use”, the specific safety instructions stated in the other chapters should also be observed

1.1 Symbols used

The safety instructions in these operating instructions are emphasized using the following symbols:



Information which is displayed on the jewel water device itself, e.g.:

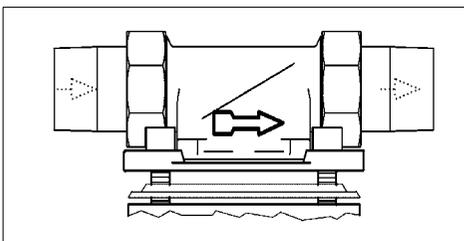


Fig. 1: Fitted rotating flange

- direction of flow (see fig. 1)
- type designation plate
- cleaning instructions

should be clearly visible and legible and observed.

1.2 Safety information and dangers due to non-compliance

The non-observance of the general danger symbols may, for example, result in the following dangers:

- danger to persons caused by electrical or mechanical effects.
- danger to persons or the environment caused by leaks.

Any working methods that might jeopardize safety are to be avoided.

Non-observance of these operating instructions and the safety instructions contained herein may result in dangers for persons, as well as for the environment and the jewel water device itself.

1.3 Units used

The following units which are not part of the international system (SI = System International) are used:

| Unit | Conversion |
|------|--|
| °F | °F = 9/5°C + 32 |
| psi | 14.5 psi = 10 ⁵ Pa = 0,1 N/mm ² |
| ¾" | DN 20 |
| 1" | DN 25 |
| 1¼" | DN 32 |

2. Intended use

The installation and operation of the jewel water device is subject to the following existing national regulations.

In addition to the operating instructions and the obliging regulations concerning accident prevention that exist in the country of operation and the location of use, the established technical regulations concerning safe and professional work should be observed.

The water which is to be treated should fulfil the requirements stipulated by European drinking water directives!

It is absolutely essential that the manufacturer / supplier will be consulted prior to any operation of the device using water of a different quality, or with water containing additives.

This jewel water device is designed for use with cold drinking water with a maximum water and environmental temperature of 30 °C (86 °F).

The jewel water device has been developed and manufactured using state of the art technology and the established safety regulations in Germany.

The jewel water device may only be operated in accordance with the manufacturer's specifications. Any other operation, or operation beyond the specified use, is not in accordance with the manufacturer's specifications.

Additional dangers may result in the event of the device not being operated in accordance with the manufacturer's specifications and non-observance of the danger symbols or safety instructions. The manufacturer / supplier cannot be made liable for any damages caused by these additional dangers. The operator is responsible for these risks.

The use of the device in accordance with the customer's specifications includes the observance of the operating instructions.

The manufacturer / supplier should be consulted prior to any operation of the jewel water device in other than in the operational areas stated in these operating instructions.

The jewel water devices may only be operated in a technically faultless condition, in accordance with the manufacturer's specifications and the stated safety and danger relevant instructions and while observing the operating instructions!

Any functional defects are to be removed immediately!

2.1 Water pressure

The water pressure should be between 22 psi and 145 psi.



ATTENTION

(see chapter on “Safety information and dangers due to non-compliance”)

In the event of **water pressure above 145 psi**, the pressure reducer should be fitted **in front** of the JUW-T water device (see fig. 2). If the operating pressure is above 145 psi, this may result in defects during operation.

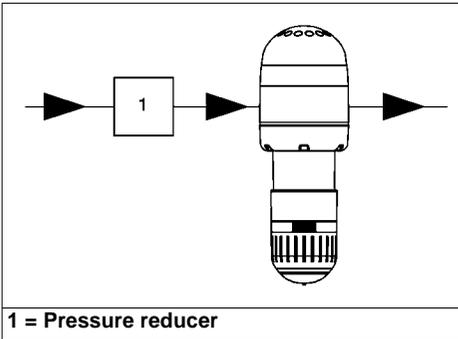


Fig. 2: Pressure reducer fitted in front of the jewel water device



The installation of a pressure reducer is recommended for **water pressures between 72.5 psi and 145 psi**.

2.2 Notes on special dangers

2.2.1 Electrical equipment / installations



Electrical wiring and devices may not be situated under or in the direct vicinity of the jewel water device!

Electrical devices / equipment that are not splash-water proof and are situated in the direct vicinity of the jewel water device may be damaged by water leaking from the jewel water device caused as a result of the device not being operated in accordance with the manufacturer's specifications.

In addition, this may also result short circuits occurring if these electrical devices / equipment being connected to the electrical power supply. In such cases, persons are at risk and may sustain electrical shocks. Therefore, any electrical devices / equipment situated in the direct vicinity should be splash-water proof, or comply with the statutory requirements for wet areas (IP44).

3. Product information

3.1 Intended purpose

The jewel water device is designed for use with cold drinking water with a maximum water temperature of 30 °C (86 °F).



(see chapter on “Safety information and dangers due to non-compliance”)

For restrictions regarding operation please refer to the chapter on “Intended use”.

3.2 Test sign



Fig. 3: Sign of TÜV Nord

The jewel water device has been tested by the TÜV Nord, and it has been marked with the GS sign for tested safety.

3.3 Materials used

The used materials are resistant to the physical, chemical, and corrosive factors in drinking water and have been tested in accordance with DIN EN 13443-1 und DIN 19628 (static and dynamic pressure resistance). All materials are safe in accordance with hygienic and physiological standards. Plastics fulfill the official guidelines of the German Federal Environmental Agency. Metallic materials comply with the requirements of the DIN 50930-6 standard.

4. Installation

4.1 General



(see chapter on “Safety information and dangers due to non-compliance”)

Installation of the device may only be performed by suitably qualified specialist personnel.

It is absolutely essential that the chapter on “Intended use” will be observed!

The jewel water device should be installed behind the filter (DIN EN 13443-1 and DIN 19628) and the pressure reducer or behind the domestic water station, but in front of further water treatment units.

Installation has to be carried out according to DIN 1988 / part 04 or EN 1717.

In flow direction a non-return valve according to DIN 1988 / part 02 has to be installed.

The piping system onto which the jewel water device is mounted should be able to support the weight of the jewel water device without endangering safety. Non-observance may cause mechanical defects to the piping system, including breakages. This may result in damages being caused by the water. In such cases, the health of persons in the direct vicinity of the jewel water device may be endangered as a result of the large water quantities. It is therefore essential that additional support or clamping will be provided for the piping system where necessary.

In order to ensure convenient operation and maintenance, it is essential that the stated clearances are observed.

4.1.1 Requirements for the place of installation

The location where the device is installed should be dry and frost-proof! Unauthorized persons should not be able to access the jewel water device!



(see chapter on “Safety information and dangers due to non-compliance”)

- The environmental temperature may not exceed 30 °C (86 °F)! In the event of excessive temperature or solar radiation, damages to materials may result, including the breaking of the bell.
- An outlet control valve should be fitted in front of the jewel water device! This enables the water supply to be shut off during installation, maintenance and repair work and in the event of a defect in the jewel water device. In addition this preventive measure prevents flooding and damages to furniture or other household equipment.
- The device can be installed in all commercially available drinking water piping systems.
- Installation of the jewel water device in front of the water meter is forbidden!

4.1.2 Installation position



(see chapter on “Safety information and dangers due to non-compliance”)

The jewel water device should always be installed in a vertical position ($\pm 5^\circ$)!

4.1.3 Mounting the built-in rotary flange

Installation should occur using the supplied built-in rotary flange.

The built-in rotary flange is suitable for both horizontal as well as vertical piping systems.

The built-in rotary flange should be installed in the direction of the water flow. This is marked by the arrow (see fig. 4).



(see chapter on “Safety information and dangers due to non-compliance”)

The flange surface of the built-in rotary flange should be in a vertical position. Installation of the built-in rotary flange in this position prevents the occurrence of mechanical tensions! In the event of non-observance mechanical defects may result, including breakages of the piping system or of the built-in rotary flange. This may result in damages being caused by the water.

In such cases, the health of persons in the direct vicinity of the jewel water device may be endangered as a result of the large water quantities.

It is therefore essential to ensure that the piping system, the built-in rotary flange and the jewel water device are not subjected to excessive loads.

4.1.4 Installing the jewel water device

JUW-T ¾" – 1¼"

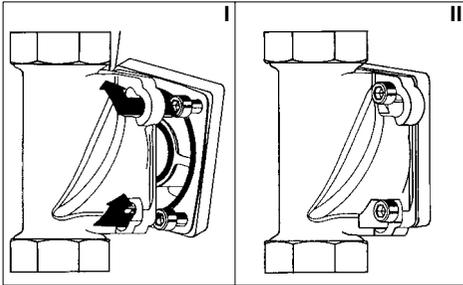


Fig. 4: Built-in rotary flange with bayonet fixture

The built-in rotary flange for the jewel water device is supplied with bayonet drill holes. The necessary seals and screws for this jewel water device have already been mounted.

Do not unscrew the screws!

- Insert the four flange screws M6x25 in the bayonet drill holes on the built-in rotary flange (see fig. 4I).
- Turn the jewel water device in a clockwise direction as far as it will go (see fig. 4II).
- Tighten the four flange screws.



Select the tightening torque (approx. 4 Nm) in such a way that the seal is tight and the jewel water device is not damaged or over tightened!



(see chapter on "Safety information and dangers due to non-compliance")

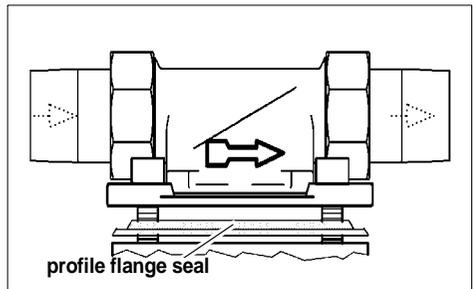


Fig. 5: Built-in rotary flange

The profile of the profile flange seal should point towards the built-in rotary flange. If this is not the case leaks may result and water may escape. This may result in flooding and damages to the house, furniture, or other household equipment (see fig. 5).

5. Operation



(see chapter on “Safety information and dangers due to non-compliance”)

It is essential that the chapter on “Intended Use” be observed!

5.1 Commissioning

Prior to putting the jewel water device into operation (initial commissioning or putting into operation after maintenance work), the device should be **filled** with water and then **aired!**

- The jewel water device is filled with water by opening the connected outlet control valve after it has been installed.
- Open the next tap after the jewel water device to the limit.
- By opening the tap and allowing water to flow through it, the jewel water device is automatically aired.

Revitalization electronics:

The cover in the electronics compartment (3) contains an important revitalization unit. It revitalizes the **crystals** using a red-green-blue alternating light.

Activation

- Lift the cover of the electronics compartment (2) on the bottom side of the jewel water device.
- Place the two supplied batteries in the battery compartment of the electronics compartment. Use 1.5 V microbatteries.
- Insert the harmonizing light source into the light pipe (4).
- Replace the cover of the electronics compartment (2).

By pressing the switch (1) the revitalization is manually activated. The **crystals** are automatically revitalized once a week.

5.2 Functional description

The treated water flows through the fitted rotating flange into the jewel water device. The water in the device flows into a container with the specially pre-treated crystals.

The energy and information is then transferred from the crystals to the water and it becomes jewel water. The water then leaves the device through the fitted rotating flange.

5.3 Impact of the jewels once in process

Amethyst crystals fortify your general condition and relieve pain caused by nervousness, tension, stress, restlessness and insomnia.

Rock crystal jewels energize, confer extra vitality, fortify your general condition.

Rose quartz jewels lend extra sensitivity, have a stimulating and positive effect on your body, harmonize.

The special pre-treatment of the crystals enables them to effectively transfer their characteristic features to the water flowing past, turning the water into jewelized water.

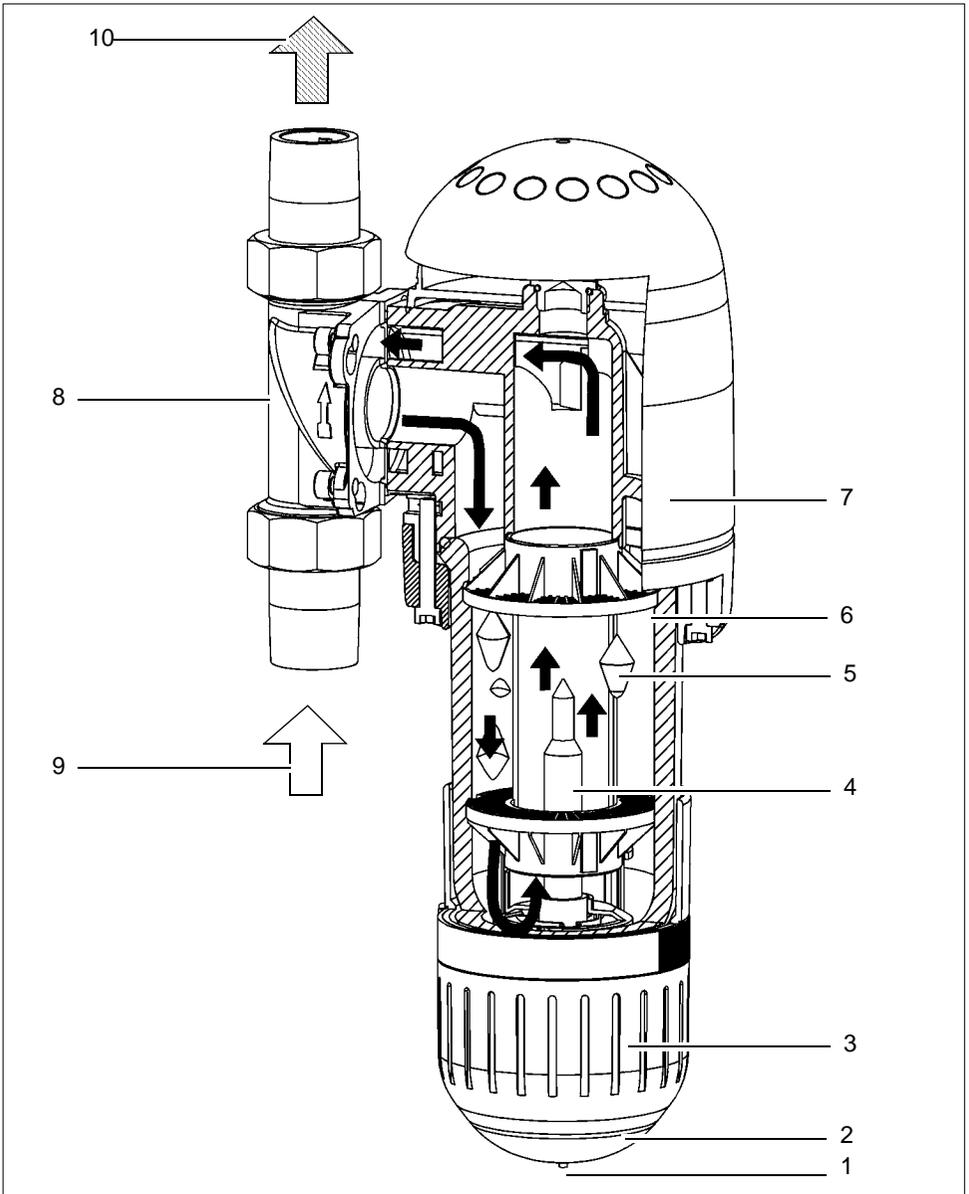


Fig. 6: Description of functions

- | | |
|---|--------------------------|
| 1 Switch | 5 Crystals |
| 2 Cover electronics compartment with revitalization electronics and battery compartment | 6 Transparent hoop |
| 3 Cover electronics compartment | 7 Cover |
| 4 Light pipe | 8 Built-in rotary flange |
| | 9 Water inlet |
| | 10 Jewelized water |

5.4 Revitalization

In order to be able to maintain the effectivity of the crystals over a longer period, they have to be regenerated (= revitalized) at regular intervals. Revitalization of the crystals is performed by means of a light and energy source which harmonizes especially well with the **crystals**. This light and energy source automatically revitalizes the crystals once a week. The light source switches its colour spectrum to red, green or blue. This procedure lasts approximately 10 minutes.

The jewel water device continues to work during the revitalization of the crystals, thus the device is constantly in operation and can be operated without any interruptions.

In addition to the automatic revitalization, revitalization of the crystals may also be performed manually. In order to do so, press the switch (1). In general manual revitalization is not required, however this may be performed for demonstration purposes or in the event of particularly high water consumption.

5.4.1 Revitalization electronics

The revitalization electronics regenerates the **crystals** using a light source that harmonizes with the crystals.

- The **crystals** are automatically revitalized once a week. By pressing the switch (1) this procedure may also occur manually.
- Empty batteries should be replaced in time in order to ensure the continuous revitalization.

5.5 Modifications / changes / spare parts



(see chapter on “Safety information and dangers due to non-compliance”)

Only original spare parts may be used!

For reasons of safety, modifications and amendments are forbidden! These may impair the functionality of the jewel water device or lead to leaks and in extreme cases, even lead to the jewel water device bursting. The imprinted inspection certificates are only valid if the device is operated using the original spare parts.

5.5.1 Servicing / repair

Prior to any work, other than ordinary operation, being performed on the jewel water device, the jewel water device should be pressure free! In the event of non-observance, uncontrolled water leaks may occur causing flooding and damages to the house, furniture, or other household equipment. It is essential that the instructions in the chapters “Installation” and “Maintenance” be observed.

5.6 Stoppages

(see chapter on “Safety information and dangers due to non-compliance”)

In the event of having to disconnect the flanges or unscrew the jewel water device, it is essential that the chapter on “Intended Use” be observed!

- The flange surfaces should be protected against damage! Damaged flange surfaces are no longer a tight seals. Water leaks may result in flooding and damages to the house, furniture, or other household equipment.
- Ensure that the jewel water device is free of dirt! In the event of dirt on the device, the dirt may enter the device or come into contact with the drinking water when the jewel water device is put into operation. The consumption of polluted water may endanger the health of the people drinking the water.
- The jewel water device should be stored in a frost-free area! Frost may cause water which is in the cavities jewel water

device to freeze. This may result in mechanical defects to the jewel water device or leaks, or even cause the device to burst when operating pressure is restored. Water leaks may result in flooding and damages to the house, furniture, or other household equipment. In addition, persons in the direct vicinity of the jewel water device may be injured by parts of the device if it bursts.

- When putting the jewel water device back into operation the same instructions apply as for when a new jewel water device is being put into operation.

6. Faults

In order to ensure the safety of the device and the functionality of the seals, the opening of the device or the replacement of parts subject to water pressure may only be performed by qualified personnel.

Help with faults:

| Faults | Cause | Solution |
|--|---|--|
| The energy source no longer lights when the switch of the revitalization electronics is applied. | The battery is empty. | Replace the batteries. |
| The seals on the jewel water device are no longer tight! | The jewel water device has been exposed to excessive temperatures or come into contact with solvents. | Notify the plumber or the nearest customer support department. |
| The bell is cloudy! | | |
| Cracks in the bell! | | |

7. Maintenance



(see chapter on “Safety information and dangers due to non-compliance”)

It is essential that the chapter on “Intended Use” be observed!

7.1 Cleaning



(see chapter on “Safety information and dangers due to non-compliance”)

Only clear drinking water may be used to clean the housing and the transparent bell.

Conventional household cleaning agents or glass cleaners may contain up to 25% in solvents and/or alcohol (spirit).

These substances may cause chemical reactions with the synthetic materials in the device and lead to embrittlements or even breakages.

It is therefore not allowed to use cleaning agents of this type.

7.2 Checking the revitalization electronics

The revitalization electronics can be checked by applying the switch.

- If the energizing diode lights up, then the revitalization electronics are functioning correctly and the batteries are still powerful enough to operate the revitalization electronics. This battery test does not in any way influence the weekly revitalization procedure.
- If the energizing diode does not light up, then the batteries have to be replaced by new batteries.

Replacing the batteries:

- Open the cover of the electronics compartment.
- Replace the batteries in the battery compartment with identical type batteries (AAA).
- Replace the cover of the electronics compartment.
- Used batteries are to be returned to a distributor or to one of the returning facilities established to this purpose by the public recycling entities.

8. Warranty and services

In order to ensure your statutory warranty claims, it is required that a visual inspection, in accordance with DIN 1988, section 8, be performed every 3 to 6 months, depending on the level of water consumption. The **crystals** should be replaced every 5 years.

9. Data sheet

9.1 Type

JUDO JU-WEL Trio jewel water device

Abbreviated name: JUW-T

9.2 Models

| Model | Order no. |
|-----------|-----------|
| JUW-T ¾" | 8270038 |
| JUW-T 1" | 8270040 |
| JUW-T 1¼" | 8270041 |

9.3 Technical specifications

The following applies for all the models of the device:

- Pressure loss: 5 psi in accordance with the nominal flow rate stated in the table.
- Maximum environmental and water temperature: 30 °C (86 °F).
- The water to be treated has to correspond to the requirements stipulated by European drinking water directives.
- Threaded connection in accordance with DIN EN 10226-1.

Nominal pressure

| Model | Operating pressure | Nominal pressure |
|----------------|--------------------|------------------|
| JUW-T ¾" – 1¼" | 22 - 145 psi | 145 psi |

The nominal pressure refers to the pressure stage according to which the jewel water device water device has to fulfil the requirements of DIN EN 13443-1 and DIN 19628.

Weight

| Model | Weight |
|-----------|--------|
| JUW-T ¾" | 3.2 kg |
| JUW-T 1" | 3.5 kg |
| JUW-T 1¼" | 4.0 kg |

Nominal flow rate

| Model | Nominal flow rate up to | Pressure at nominal flow rate |
|-----------|-------------------------|-------------------------------|
| JUW-T ¾" | 15 gpm | 5 psi |
| JUW-T 1" | 20 gpm | 5 psi |
| JUW-T 1¼" | 24 gpm | 5 psi |

9.4 Installation dimensions

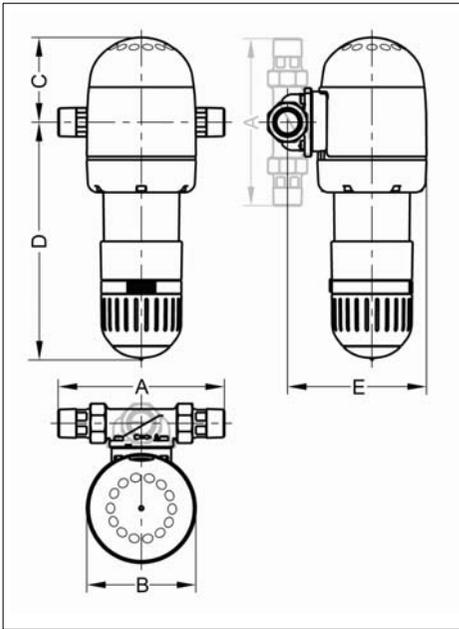


Fig. 7: All dimensions

| Model | A | B | C | D | E |
|-----------|--------------|--------------|--------------|-------------|--------------|
| JUW-T ¾" | 180 (7.1) | 130 (5.1) | 105 (4.1) | 280 (11) | 170 (6.7) |
| JUW-T 1" | 195 (7.7) | 130 (5.1) | 105 (4.1) | 280 (11) | 170 (6.7) |
| JUW-T 1¼" | 230 (9.1) | 130 (5.1) | 105 (4.1) | 280 (11) | 180 (7.1) |

All dimensions in mm (inch) (see fig. 7)

A = installation length

B = device width

C = height above the center of the pipe

D = height below the center of the pipe

E = installation depth to pipe center

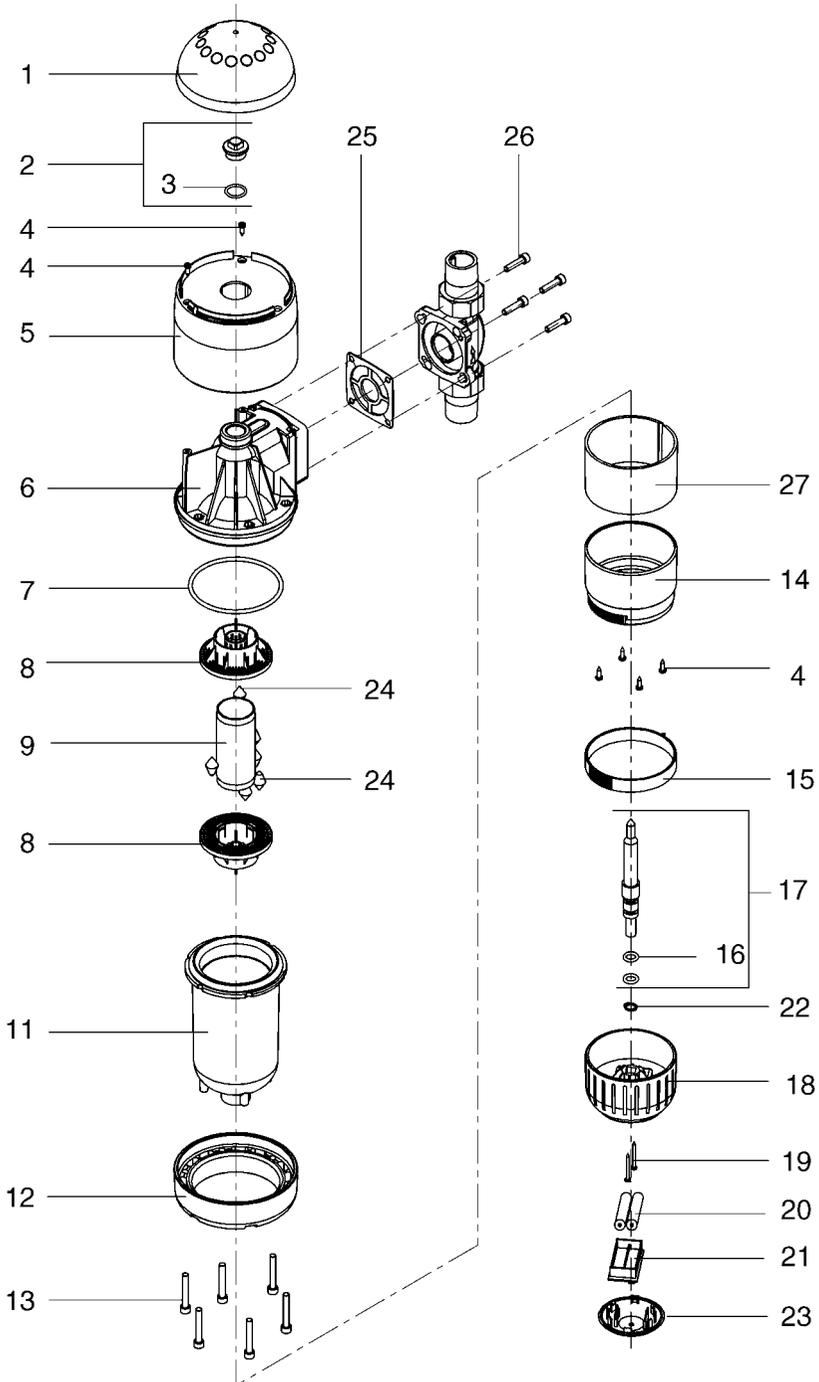
9.5 Scope of supply

- pre-installed jewel water device
- installation and operating instructions
- built-in rotary flange
JQE ¾", 1" or 1¼" with bayonet fixture
and screw connection
- 2 x microbatteries with electronic memory
system (AAA)

9.6 Accessories

- JUDO JQR expansion quickset
(order no. 8250041) for the serial con-
nection of two devices, e. g. filter and
water treatment system

10. Spare parts JUW-T ¾" – 1¼"



List of spare parts JUW-T ¾" – 1¼"

| Item | Designation (Recommended average replacement interval for wearing parts [*) | Piece(s) | Order No. | VE ¹⁾ /Piece |
|------|--|----------|-----------|-------------------------|
| 1 | Cover | 1 | 2010312 | 18 |
| 2 | Complete Plug | 1 | 2010331 | 10 |
| 3 | O-ring 18x2.2 ***** | 1 | 1200195 | 1 |
| 4 | Lens metal screw 3.5x13 | 2 | 1607114 | 1 |
| 5 | Cover | 1 | 2270104 | 45 |
| 6 | Bottom | 1 | 2010308 | 210 |
| 7 | O-ring 90x4 ***** | 1 | 1120333 | 9 |
| 8 | Inserted floor | 2 | 1120595 | 35 |
| 9 | Spacing pipe | 1 | 1440163 | 15 |
| 11 | crystal housing | 1 | 2010324 | 198 |
| 12 | Flange ring | 1 | 2010313 | 103 |
| 13 | Cylinder screw M6x40 | 6 | 1650123 | 3 |
| 14 | Casing top part | 1 | 2010314 | 45 |
| 15 | Adjusting ring | 1 | 2270001 | 8 |
| 16 | O-ring 10x3 ***** | 2 | 1120332 | 2 |
| 17 | Complete light pipe | 1 | 2010319 | 39 |
| 18 | Light charger, complete | 1 | 2010316 | 29 |
| 19 | Lens metal screw 2.9x32 | 2 | 1650350 | 2 |
| 20 | Microbattery 1.5 V * | 2 | 1500202 | 4 |
| 21 | Light charger multi-colour | 1 | 1500332 | 65 |
| 22 | Locking ring ***** | 1 | 1650351 | 1 |
| 23 | Revitalization lamp | 1 | 2010317 | 12 |
| 24 | Stone mixture (amethyst, rock crystal, rose quartz) ***** | | 2270008 | |
| 25 | Profile flange seal | 1 | 1200218 | 5 |
| 26 | Cylinder screw M6x25 | 4 | 2010199 | 2 |
| 27 | Protection device | 1 | 2270004 | 40 |

1) VE = Unit of billing

Replacement interval

* = 1 year

***** = 5 years

Extended warranty period if a maintenance agreement is concluded!

11. Customer support



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