

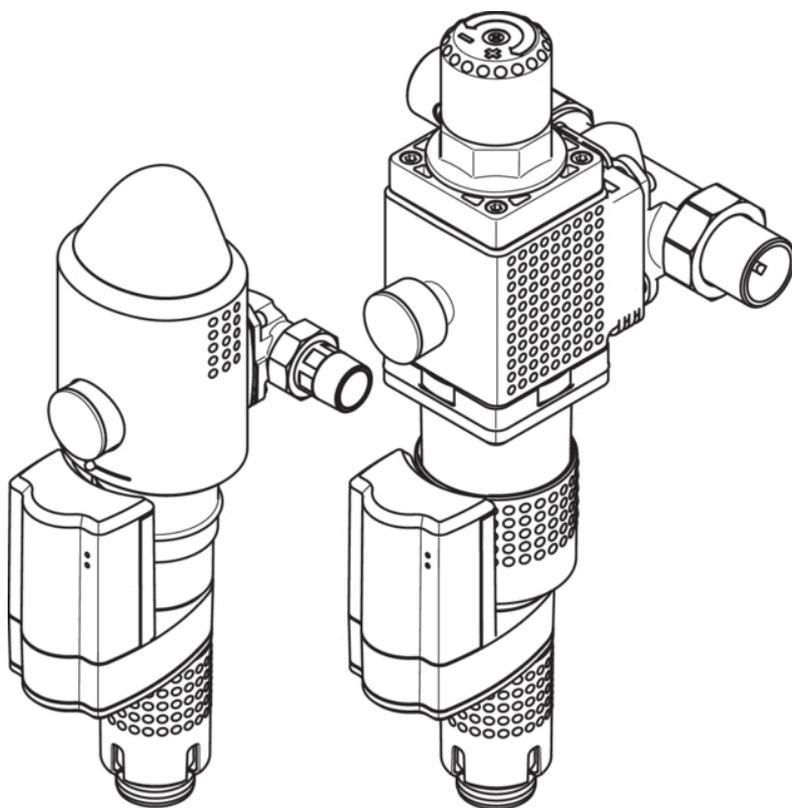
# Installation and operating instructions

## JUDO JUKOMAT-LONGLIFE-AT

Automatic domestic water station  $\frac{3}{4}$ " - 2"

Valid for: EU countries and Switzerland

Language: English



Read before use and store!



---

**Queries, orders, customer service**

JUDO Wasseraufbereitung GmbH  
Postfach 380  
D-71351 Winnenden

Email: [info@judo.eu](mailto:info@judo.eu) • [judo.eu](http://judo.eu)

**Office address:**

JUDO Wasseraufbereitung GmbH  
Hohreuschstraße 39 - 41  
D-71364 Winnenden

**Dear customers,**

**Thank you for the confidence you have shown in us by purchasing this product. You have purchased a state-of-the-art device. It has been carefully checked prior to delivery. Nevertheless, if difficulties occur, please contact the closest customer service (see chapter Customer service).**

**Trademarks:**

Trademarks used in this document are the protected and registered trademarks of the owners.

© JUDO Wasseraufbereitung GmbH  
D-71364 Winnenden

All rights reserved.

Reprinting, even in excerpt form, is only permitted with special approval.

These installation and operating instructions are intended for both installers, who are in charge of installing, maintaining or repairing the device, and for the operators of the device.

# Contents

<b>1</b>	<b>Safety</b> .....	<b>4</b>	8.1	Installation dimensions.....	22
1.1	Intended use.....	4	8.2	Accessories.....	23
1.2	Application limits.....	4	8.3	Spare parts.....	24
1.3	Safety instructions.....	5	<b>9</b>	<b>Disposal</b> .....	<b>29</b>
1.4	Symbols used.....	6	<b>10</b>	<b>EC Conformity Declaration</b> .....	<b>30</b>
1.5	Units used.....	6	<b>11</b>	<b>Maintenance log</b> .....	<b>31</b>
<b>2</b>	<b>Product information</b> .....	<b>7</b>	<b>12</b>	<b>Customer service</b> .....	<b>32</b>
2.1	Scope of supply.....	7			
2.2	Function description.....	7			
2.3	Materials used.....	9			
2.4	Approval marks.....	9			
<b>3</b>	<b>Installation</b> .....	<b>9</b>			
3.1	Conditions.....	9			
3.2	Installation of the rotary flange fitting.....	9			
3.3	Installation of the device.....	10			
3.4	Draining of the backwash water..	11			
3.5	Commissioning.....	13			
<b>4</b>	<b>Operation</b> .....	<b>13</b>			
4.1	Warning lights.....	13			
4.2	Setting the downstream pressure.....	13			
4.3	Cleaning of the sieve insert (backwashing).....	13			
4.4	Conversions, changes.....	16			
4.5	Battery replacement.....	16			
4.6	Maintenance, repair, spare parts	17			
4.7	Integration in building control systems.....	17			
4.8	Temporary removal of the device.....	18			
<b>5</b>	<b>Remote transmission of messages</b> .....	<b>18</b>			
5.1	Potential-free message.....	18			
<b>6</b>	<b>Fault</b> .....	<b>19</b>			
<b>7</b>	<b>Servicing</b> .....	<b>20</b>			
7.1	Cleaning.....	20			
7.2	Warranty and maintenance.....	20			
<b>8</b>	<b>Technical data</b> .....	<b>21</b>			

# 1 Safety

These operating instructions must always be available at the place of use of the device.

## 1.1 Intended use

The device is for the

- Filtration
- Pressure reduction
- Backflow prevention (only JUKOMAT-LF-AT 1½" - 2")

of drinking water in domestic water piping and for residential, commercial and industrial use. It removes coarse and fine-grained particles from the drinking water, which are larger or equal to the mesh size of the filter, in order to prevent

- pipe damage caused by corrosion
- malfunctions of fittings or control and regulating devices caused by foreign bodies.

The built-in pressure reducer allows the water pressure to be regulated to a lower value, which protects the downstream installations and contributes to lower water consumption.

The device can be installed in all commercially available drinking water pipes. Both installation and use of the device are subject to the applicable national regulations.

 Particles that are smaller than the mesh size of the filter supplied and materials causing cloudiness cannot be filtered out of the water.

## 1.2 Application limits

### 1.2.1 Water quality

The water to be filtered must comply with the European Drinking Water Directive (98/83/EC). Before using the device with water that does not comply with this Direc-

ive, it is essential to consult the manufacturer.

### 1.2.2 Water pressure



#### CAUTION

The water pressure must not exceed 16 bar input pressure. The device must not be installed if the water pressure is above 16 bar (even for a short time)!

Nominal pressure	PN 16
Operating pressure	1.5 bar - 16 bar
Downstream pressure	1.5 bar - 6 bar Factory setting: 4 bar

The water pressure must not fall below 1.5 bar as otherwise backwashing can be impaired!



Starting at an operating pressure of 10 bar increased wear can be expected!

### 1.2.3 Water and ambient temperature

The filter is suitable for use in cold drinking water up to a maximum water and ambient temperature of 30 °C.

## 1.3 Safety instructions

### 1.3.1 Electrical danger



#### Risk of electric shock

No electrical wiring or equipment that is not splash-proof may run or be stored below the device. Electrical devices/equipment located in the vicinity of the device must be splash-proof or comply with the legal regulations for wet rooms.

Only the supplied power supply unit may be used to connect the unit to the power supply. This reduces the mains voltage for operating the electronics to a harmless low voltage of 9 V.

A splash-proof socket is required for connection to the electrical grid, in accordance with the legal regulations for wet rooms.

Only low voltages can be used for the remote transmission of the fault indication via the potential-free output!

Switching voltage: maximum 24 V

Amperage: maximum 1 A

### 1.3.2 Warning of property damage



#### WARNING

Risk of water damage or damage to property

The device may only be installed by qualified technical personnel.

The installation room must be dry and free from frost.

The ambient temperature must not exceed 30 °C! In higher temperatures or direct sunlight, material damage may occur up to and including breakage of device parts.

An adequately sized wastewater connection (e.g. floor drain) in compliance with DIN 1986 must be provided.

In order to ensure safe drinking water hygiene, a free discharge of the wastewater acc. to DIN EN 1717 must be ensured.

The pipe must be able to safely support the device (weight: see chapter 8). If necessary, the pipes must be provided with additional fastenings or support.

If no bypass valve is installed, a shut-off valve must be installed upstream and downstream of the unit in order to interrupt the water supply during installation, maintenance, repair or malfunction of the device.

Install the device in a vertical position ( $\pm 5^\circ$ ); the connection for waste water from backwashing must be directed downwards. Otherwise, water may escape and cause water damage.

For the installation of the device in domestic water piping, only use the supplied built-in rotary flange (see chapter 3.2).

The flange surface of the rotary flange fitting must be upright!

The rotary flange fitting must be fitted so that it is free from mechanical stress or strain. Otherwise mechanical damage to the pipe or the rotary flange fitting up to and including breaks can result.

For proper sealing the profile of the profile flange seal must point towards the rotary flange fitting (see Figure 3).

Prior to plugging in the device, ensure that the wastewater connection is functional.

Only operate the device in a technically faultless condition:

- Check for damage prior to installation.
- Immediately have any malfunctions in operation rectified by qualified technical personnel.

Persons who, due to their physical, sensory or mental abilities or their inexperience or lack of knowledge, are unable to operate the device safely may not operate it without supervision or instruction from a responsible person.

Regular backwashing of the device is required to ensure safe drinking water hygiene (see chapter 4.3.1).

The mains voltage must not be interrupted (e.g. via a light switch). If the filter is not permanently supplied with power, backwashing or a warning in case of faults is not possible.

Do not use household cleaning agents to clean the outside of the device, but only use clear water to avoid embrittlement of the plastic.

The device may only be repaired by qualified technical personnel.

Only use original spare parts for repairs.

Before performing work on the device that goes beyond pure operational use, the device must be depressurised! If this is ignored, the result may be uncontrolled escape of water resulting in water damage to the building/home.

If the device is removed due to an interruption of operation:

- Protect the flange surfaces against damage to ensure proper sealing.
- Protect the device from dirt so as not to impair drinking water hygiene.
- Store the device in a frost-free place to prevent damage caused by freezing water and leakage.

Unauthorised conversions and changes are forbidden for safety reasons. These can impair the functioning of the device,

leading to leaks and, in the worse case scenario, to bursting of the device.

## 1.4 Symbols used

The safety instructions contained in these operating instructions are labelled with the following symbols:

	Indication of existing dangers
	Warning of electric voltage
	User tips and other information

Instructions attached directly to the device, e.g.:

- Direction of flow (arrow)
- Type label
- Cleaning information

must be observed and maintained in legible condition.

## 1.5 Units used

Unit	Conversion
bar	1 bar = 10 <sup>5</sup> Pa = 0.1 N/mm <sup>2</sup>
¾"	DN 20
1"	DN 25
1¼"	DN 32
1½"	DN 40
2"	DN 50

## 2 Product information

### 2.1 Scope of supply

- Automatic domestic water station, completely preassembled
- Rotary flange fitting
- Installation and operating instructions

### 2.2 Function description

Unfiltered water flows into the device through the rotary flange. The water flows from the outside to the inside through a cylindrical sieve insert. Dirt particles remain on the sieve fabric of the sieve insert. The adhering residues are visible from outside through the transparent filter bowl.

JUKOMAT-LONGLIFE-AT  $\frac{3}{4}$ " -  $1\frac{1}{4}$ ": The filter bowl is visible through the viewing slot of the UV protection screen. The UV protection screen can be moved downwards to check the contamination.

The filtered water continues to flow into the pressure reducer, which regulates the incoming water pressure to the set downstream pressure. The set downstream pressure can be read at the downstream pressure gauge.

Subsequently the filtered water exits the device again via the rotary flange fitting.

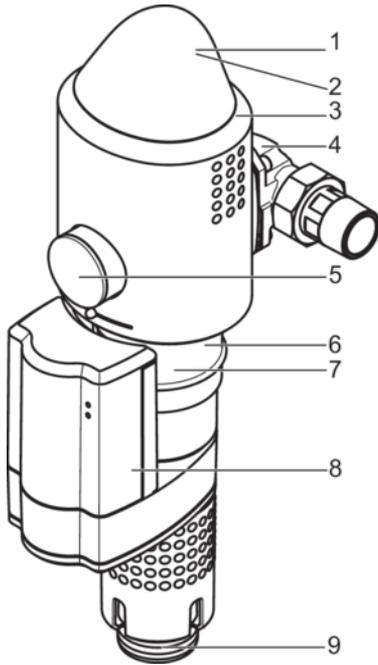


Fig. 1: JUKOMAT-LF-AT 3/4" - 1 1/4"

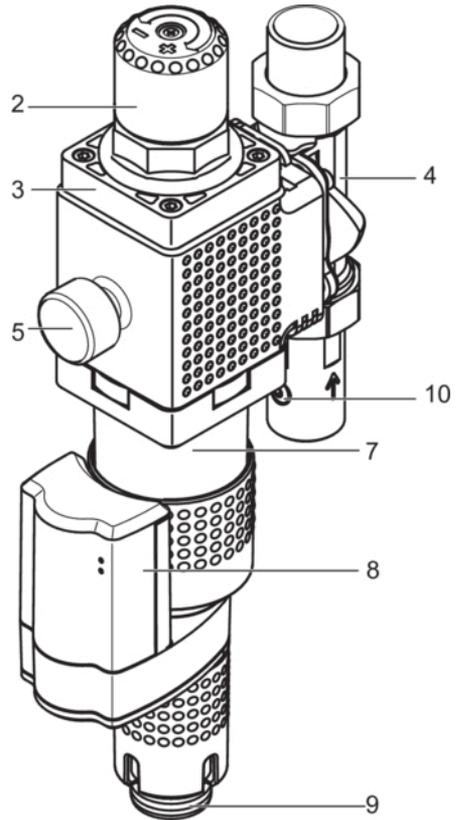


Fig. 2: JUKOMAT-LF-AT 1 1/2" - 2"

- 1 Pressure reducer cover (JUKOMAT-LF-AT 3/4" - 1 1/4")
- 2 Handwheel of the pressure reducer
- 3 Pressure reducer
- 4 Rotary flange fitting
- 5 Downstream pressure gauge
- 6 UV protection screen slideable ( JUKOMAT-LF-AT 3/4" - 1 1/4")
- 7 Filter bowl
- 8 Backwashing automatic component
- 9 Backwashing water connection
- 10 Backflow preventer testing screw (JUKOMAT-LF-AT 1 1/2" - 2")

## 2.3 Materials used

The materials used are resistant to the physical, chemical and corrosive loads expected to be encountered in drinking water. They meet the requirements specified in the following standards:

- DIN EN 13443-1
- DIN 19628
- DIN 50930-6
- DIN EN 1567

All materials of components in contact with drinking water are hygienically and physiologically harmless and fulfill the requirements and directives of the Umweltbundesamt (UBA). Plastics fulfil the requirements of DIN EN 16421.

## 2.4 Approval marks



The device complies with the technical regulations for drinking water installation according to DIN EN 806ff. and the national supplement DIN 1988ff. as well as DIN EN 1717.

It has been tested and certified by the DVGW (Deutsche Vereinigung des Gas- und Wasserfaches e. V. - Technisch-wissenschaftlicher Verein) in accordance with the requirements

- of the DIN EN 13959 for backflow preventers
- of the DIN EN 1567 (pressure range PN 16) for pressure reducers
- of the DIN EN 13443-1 and DIN 19628 for mechanically active filters.

The device bears the DIN-DVGW mark as proof of certification.

## 3 Installation



### CAUTION

**The device may only be installed by qualified technical personnel.**

Installation of the device upstream of the domestic water meter is forbidden.

### 3.1 Conditions



### CAUTION

**Risk of property damage or water damage!**

**The pipe must be able to safely support the device (weight: see chapter 8). If necessary, the pipes must be provided with additional fastenings or support.**

To ensure convenient operation and maintenance of the device, always adhere to the specified clearances in chapter 3.4.1.

### 3.2 Installation of the rotary flange fitting



### CAUTION

**The flange surface of the rotary flange fitting must be upright!**

**The rotary flange fitting must be fitted so that it is free from mechanical stress or strain. Otherwise mechanical damage to the pipe or the rotary flange fitting up to and including breaks can result.**

The built-in rotary flange serves as a connecting element between the domestic water installation and the device. It is suitable both for horizontal and vertical pipes.

**Attention:** Install the built-in rotary flange in the flow direction! This is indicated by an arrow integral with the casting.



If the installation is twisted, a functioning of the device is not possible.

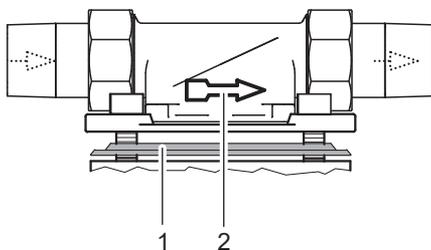


Fig. 3: Rotary flange fitting

- 1 Profile flange seal
- 2 Flow direction arrow

### 3.3 Installation of the device



#### CAUTION

If no bypass valve is installed, a shut-off valve must be installed upstream and downstream of the unit in order to interrupt the water supply during installation, maintenance, repair or malfunction of the device.

Install the device in a vertical position ( $\pm 5^\circ$ ); the connection for waste water from backwashing must be directed downwards. Otherwise, water may escape and cause water damage.

For the installation of the device in domestic water piping, only use the supplied built-in rotary flange fitting (see chapter 3.2).

The flange surface of the rotary flange fitting must be upright!

For proper sealing the profile of the profile flange seal must point towards the rotary flange fitting (see Figure 3: Rotary flange fitting, page 10).

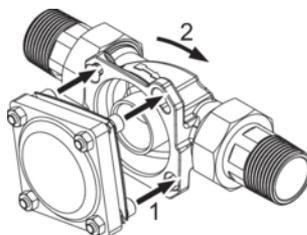


Fig. 4: Attach and engage appliance

- 1 Insert screws
- 2 Turn clockwise to engage screws

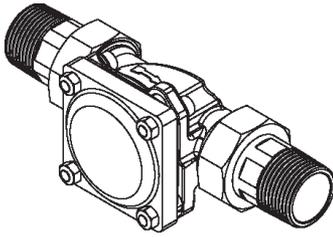


Fig. 5: Connection of appliance engaged

### Do not undo the screws of the device!

1. Insert the heads of the four flange screws through the bayonet holes on the rotary flange fitting (see Figure 4).
2. Turn the device in clockwise direction up to the stop (see Figure 4 and Figure 5).
3. Tighten the four flange screws.

**Nm** Select the tightening torque (about 4 Nm for the pipe connection range  $\frac{3}{4}$ " -  $1\frac{1}{4}$ " / about 10 Nm for the pipe connection range  $1\frac{1}{2}$ " - 2") so that the seal is effective and the device is not damaged or strained!

### 3.4 Draining of the backwash water



**CAUTION**  
An adequately sized waste water connection (e.g. floor drain) in compliance with DIN 1986 must be provided.

In order to ensure safe drinking water hygiene, a free discharge of the waste water acc. to DIN EN 1717 must be ensured.

Prior to plugging in the device, ensure that the wastewater connection is functional.

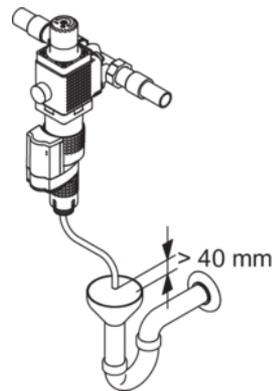
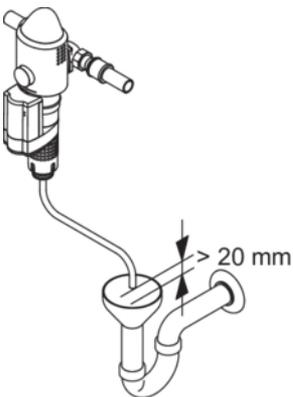
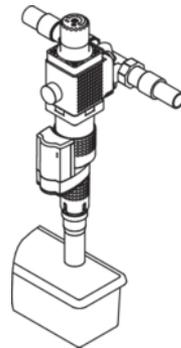
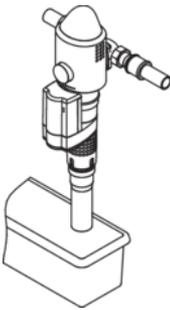
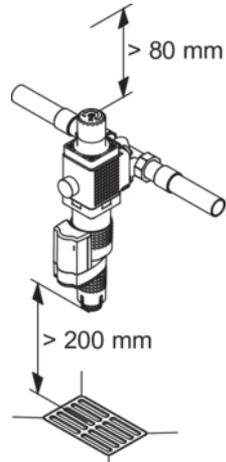
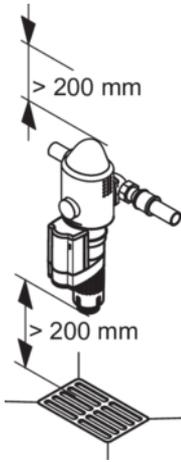
The drain must be large enough so that all of the wastewater can be drained simultaneously.

If a wastewater connection directly beneath the device is not possible, the backwash water can be drained away via a hose or a pipe that is connected from the backwashing water valve over a few meters to the closest wastewater connection. The dimensioning of this pipe must correspond to the backwashing water valve.

#### Attention:

- The hose must run without kinks. The hose or pipe must be laid with a continuous downward slope to the wastewater connection.
- If a continuous slope to the wastewater connection cannot be realized at the installation site, a lifting unit must be installed to convey the backwash water.

### 3.4.1 Drainage options for the backwash water



### 3.5 Commissioning

Prior to initial commissioning (or to commissioning after maintenance work) fill the installed device with water and vent:

1. Open the upstream shut-off valve to fill the device with water. The device is now under mains pressure.
  2. **Attention:** Immediately plug the power supply unit in. This automatically carries out backwashing and the trapped air can escape. This prevents damage to the installation due to pressure surges.
- After backwashing, the device is vented and ready for operation.

## 4 Operation

### 4.1 Warning lights

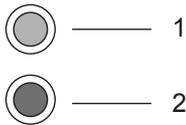


Fig. 6: Warning lights

- 1 Operation (green warning light)  
The device is now ready for operation.
- 2 Fault (red warning light)  
A fault exists (see chapter 6).

### 4.2 Setting the downstream pressure

To compensate for pressure fluctuations and to protect the downstream installation, the downstream pressure can be regulated via the pressure reducer. The factory preset downstream pressure of 4 bar can be changed to a value between 1.5 bar and 6 bar depending on the upstream pressure:

1. Remove the pressure reducer cover (only for device of connection range  $\frac{3}{4}$ " -  $1\frac{1}{4}$ ").
2. Undo the countersunk screw on the handwheel of the pressure reducer.

3. Turn the handwheel clockwise (= pressure increase), or turn counter-clockwise (= pressure reduction).
4. Open a drawing point behind the device for a short time. This results in a pressure relief and the set downstream pressure can be read off from the downstream pressure gauge.
5. When the desired downstream pressure has been reached, retighten the countersunk screw on the pressure reducer handwheel to prevent automatic adjustment of the downstream pressure.
6. Attach the pressure reducer cover again (only for device of connection range  $\frac{3}{4}$ " -  $1\frac{1}{4}$ ").

### 4.3 Cleaning of the sieve insert (backwashing)

A regular cleaning process is necessary to remove the residues from the sieve fabric of the device. This process is called **backwashing**.

Suction pipes are provided for backwashing, which rotate around the sieve fabric of the fine filter. The backwashing valve opens on the bottom side of the device. By reversing the water flow from inside to outside, deposits on the sieve fabric are carried away and rinsed out with the backwash water. The suction pipes also clean the inside of the transparent filter bowl with wiper lips during their movement.

The degree of contamination and cleaning process can be observed from the outside.

**i** The device is backwashed with filtered water. The filtered water supply of the domestic installation remains intact during the backwashing process. No dirty water can reach the pure water side during the backwashing.

If the mains voltage fails during the backwash process, the backwash is completed using the built-in batteries. Prior to every backwashing a battery test is performed. On a missing, empty or defective battery a fault indication appears (see chapter 4.5). Backwashing is then no longer carried out - even if mains voltage is present - until the discharged or defective battery has been replaced.

### 4.3.1 Backwashing interval

If cleaning is not performed soon enough, the result may be damage to the sieve insert. Large quantities of filtered particles can deform the sieve fabric and in extreme

case lead to tearing of the sieve fabric. In addition, larger deposit quantities can impair the backwashing function mechanically.

According to DIN EN 13443-1 backwashing the device is required at the latest every six months.

To keep the functioning of the appliance as smoothly as possible, the longest backwash interval is set by the manufacturer at two months.

#### The manufacturer recommends a backwashing::

- if the water pressure drops
- if the filter is visibly dirty

Applications	Recommended backwashing interval <sup>1)</sup>
GP surgeries, laboratories, photo laboratories	1 day, 1 week
Domestic water technology in the private and commercial sector	1 month, 2 months
Well water	1 day, 1 week
Industrial sector Air conditioning systems	1 day, 1 week

Table 1: Selection of the backwashing intervals

1) Dependent on the dirt formation

Experience has shown that new installations in the early stages of installation lead to increased dirt deposits. In this case, a more frequent backwashing is necessary. Temporarily set a shorter time interval!

### 4.3.2 Setting the backwashing interval

A cleaning interval of 1 month is set ex-works.

Selectable time intervals:	
2	Months
1	Month
1	Week
1	Day

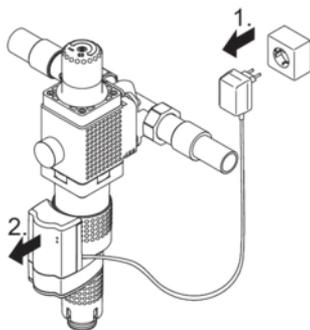


Fig. 7: Unplug and open cover



#### Risk of electric shock!

Disconnect the power supply unit from the socket.

1. Pull the power supply unit out of the socket.
2. Remove the cover of the automatic unit by pressing and pulling on the side.
3. Select the desired time interval for the time-controlled automatic backwashing process on the control electronics of the automatic system. To do this, attach the cable lug of the short cable strand to the pin with the inscription corresponding to the desired time interval (see Figure 8).

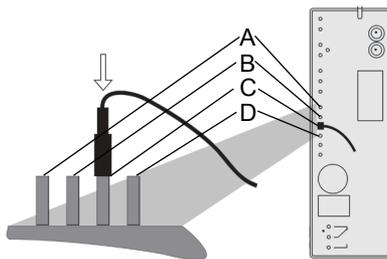


Fig. 8: Time control

- A 2 months
- B 1 month
- C 1 week
- D 1 day

4. Refit the cover of the automatic unit until it audibly engages.



#### CAUTION

#### Escaping water!

Before connecting to the power supply system, make sure that the waste water connection is functional.

5. Plug the power supply unit back into the socket. **Backwashing starts immediately!**  
→ After the backwashing process, the setting of the new backwashing interval is completed.

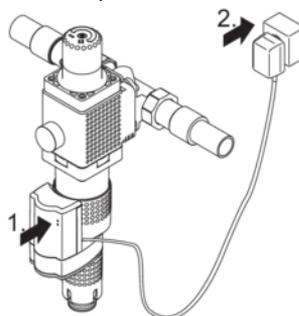


Fig. 9: Close cover and insert plug

### 4.3.3 Start backwashing

Backwashing is triggered in the following manner:

- automatically, after the set backwashing interval has elapsed.
- by unplugging and plugging in the power supply unit (see section Manual backwash start, page 16).

### 4.3.4 Manual backwash start

For manual activation of backwashing

1. Pull the plug of the device.
  2. Wait until all warning lights are off.
  3. Plug in the plug again.
- Backwashing starts automatically.

## 4.4 Conversions, changes



### WARNING

Unauthorised conversions and changes are forbidden for safety reasons. These can impair the functioning of the device, leading to leaks and, in the worse case scenario, to bursting of the device.

Only the supplied power supply unit may be used to connect the unit to the power supply. This reduces the mains voltage for operating the electronics to a harmless low voltage of 24 V.

## 4.5 Battery replacement



### CAUTION

Only use 9 V block batteries of alkaline type 6LR61 (see battery marking).

**The manufacturer recommends the use of the following batteries:**

- Energizer Industrial
- Energizer High Tech
- Energizer Ultra +
- Active Energy
- Conrad Energy

A necessary battery replacement is indicated by a fault indication (see chapter 6).

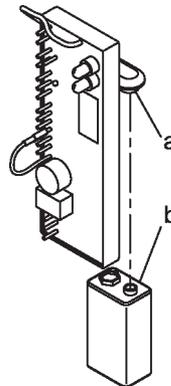


Fig. 10: Battery replacement

- a Connection clip
- b Battery

1. Pull the power supply unit out of the socket.
2. Remove the automatic controls cover by pressing to the side and pulling.
3. Release the battery from the connection clip of the connection cable behind the electrical circuit.
4. Insert new battery into the connection clip (see Figure 10).
5. Clip the cover of the automatic controls back on so that it audibly engages.

6. Plug the power supply unit into the socket.

The electrical circuit immediately performs a battery test. After a successfully performed battery test, backwashing is automatically started.

**Dispose of used batteries according to valid regulations!**

#### 4.6 Maintenance, repair, spare parts



##### **WARNING**

The device may only be repaired by qualified technical personnel.

**Only use original spare parts for repairs.**

**Before performing work on the device that goes beyond pure operational use, the device must be depressurised! If this is ignored, the result may be uncontrolled egress of water resulting in water damage to the building/home.**

#### 4.6.1 Checking the backflow preventer

(only JUKOMAT-LF-AT 1½" - 2")



##### **WARNING**

**A defective backflow preventer must be replaced immediately.**

**The backflow preventer may only be replaced by trained technical personnel.**

**The testing screw at the inlet connection of the built-in rotary flange is used to check the function of the backflow preventer.**

1. Close the stopcock or shut-off valve upstream of the device.
2. Unscrew the testing screw (see chapter 2.2). **After a few seconds, no water may escape from the bore hole.**
3. Screw the testing screw back in.
4. Open the stopcock or shut-off valve upstream of the domestic water station again.

#### 4.7 Integration in building control systems

The device can be integrated into a building control system (e.g. EIB / KNX, LCN or LON) via the floating signal relay.

The potential-free relay is connected to a binary bus coupler.

In this way, fault messages can be forwarded to the building control system.

## 4.8 Temporary removal of the device



### WARNING

If the device is removed due to an interruption of operation:

- Protect the flange surfaces against damage to ensure proper sealing.
- Protect the device from dirt so as not to impair drinking water hygiene.
- Store the device in a frost-free place to prevent damage caused by freezing water and leakage.

When recommissioning the device, proceed as with a new installation.

## 5 Remote transmission of messages



The device may only be installed by qualified technical personnel.

**Switching voltage: maximum 24 V**  
**Amperage: maximum 1 A**

### 5.1 Potential-free message

Devices with potential-free signal relay can transmit fault indication messages.

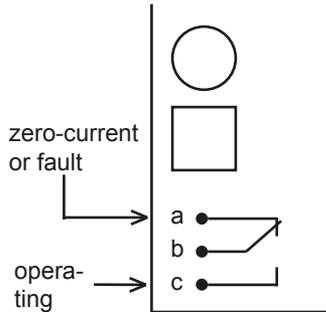


Fig. 11: Relay contact assignments

Connect relay as:	Contacts
NOC	<b>a and b</b>
NCC	<b>b and c</b>

In Figure 11 the contacts of the potential-free relay are marked in the currentless state.

The relay can be connected as normally closed contact or as normally open contact :

When the power supply unit is plugged in, the relay changes its switching state into “operating”.

If there is a fault indication, the relay switches to “zero-current or fault” state.

## 6 Fault

Fault	Possible cause	Remedy
Backwash water continues running.	Backwash valve is not fully closed.	Perform backwashing: <ol style="list-style-type: none"> <li>1. Pull the mains plug out of the socket.</li> <li>2. Wait until all warning lights are off.</li> <li>3. Plug the power supply unit into the socket.</li> </ol> If the fault occurs again: Inform the installer or the closest customer service point.
	Dirt in backwash valve.	
Water flow decreases.	Sieve clogged.	
Red warning light illuminates.	Fault in the automatic controls.	
Red warning light illuminates and signal tone sounds. Backwash water may still be running.	The backwashing valve is not fully closed. Possibly dirt in backwashing valve.	
Simultaneous flashing of the red and green warning lights (no backwashing will be triggered).	Battery is empty or incorrect battery type.	<ol style="list-style-type: none"> <li>1. <b>Pull the mains plug out of the socket.</b></li> <li>2. Insert new 9V Alkaline battery</li> <li>3. Plug in the plug again.</li> </ol>
There are leaks in the filter bowl.		<ul style="list-style-type: none"> <li>• Inform the installer or the closest customer service point.</li> <li>• If water escapes, close shut-off valves. Have the filter bowl replaced immediately.</li> </ul>
Filter bowl becomes clouded.	Filter bowl was exposed to high temperatures or solvents.	
Hairline cracks on the filter bowl.		
The downstream pressure increases slowly at zero flow.	Inadmissible pressure increase due to process water heating.	Check the safety relief valve of the warm water boiler. Inform the installer or the closest customer service point.
	Wear of the pressure reducer cartridge.	

Table 2: Troubleshooting

## 7 Servicing

### 7.1 Cleaning



#### CAUTION

**Do not use household cleaning agents to clean the outside of the device, but only use clear water to avoid embrittlement of the plastic.**



### 7.2 Warranty and maintenance

Prerequisite for obtaining the statutory warranty claim is regular backwashing (see chapter 4.3). The DIN EN 13443-1 prescribes that backwashing must take place every six months. JUDO, however, recommends compliance with the information in chapter 4.3.1 Backwashing interval.

Moreover, the set outlet pressure must be checked yearly on the downstream pressure gauge, in particular, both with zero flow and at peak flow (high water drawing level). If necessary, the outlet pressure setting must be readjusted.

To ensure the process operates successfully as long as possible, regular inspection and routine servicing of the device are essential. Where home automation is concerned, this is governed by DIN EN 806-5.

We recommend the conclusion of a maintenance contract, which is the best way to ensure a good operating function, even beyond the warranty period. The skilled tradesmen or the factory customer service are suitable partners for regular maintenance work and the supply of consumables and wear materials as well as for possible repairs.

The maintenance sticker on the device serves as a reminder of the next maintenance date and should be marked by the installer after installation.

## 8 Technical data

Automatic domestic water station

JUDO JUKOMAT-LONGLIFE-AT

Short name:  
JUKOMAT-LF-AT

The water to be filtered must comply with the European Drinking Water Directive.

<b>Information about:</b>	JUKOMAT-LF-AT ¾"	JUKOMAT-LF-AT 1"	JUKOMAT-LF-AT 1¼"	JUKOMAT-LF-AT 1½"	JUKOMAT-LF-AT 2"
Pipe connection	¾"	1"	1¼"	1½"	2"
Backwashing volume flow <sup>1)</sup>	0,3 L/s	0,3 L/s	0,3 L/s	0,3 L/s	0,3 L/s
Backwashing time	approx. 40 s	approx. 40 s	approx. 40 s	approx. 40 s	approx. 40 s
Rated pressure	PN 16	PN 16	PN 16	PN 16	PN 16
Operating pressure	1,5 - 16 bar	1,5 - 16 bar	1,5 - 16 bar	1,5 - 16 bar	1,5 - 16 bar
Rated flow acc. to DIN EN 1567	2,3 m³/h	3,6 m³/h	5,8 m³/h	9,1 m³/h	14,0 m³/h
Settable downstream pressure	1.5 bar - 6 bar	1.5 bar - 6 bar	1.5 bar - 6 bar	1.5 bar - 6 bar	1.5 bar - 6 bar
Factory setting of downstream pressure	4 bar	4 bar	4 bar	4 bar	4 bar
Mesh size sieve insert	100 µm 0.1 mm	100 µm 0.1 mm	100 µm 0.1 mm	100 µm 0.1 mm	100 µm 0.1 mm
Water temperature and ambient temperature	max. 30 °C	max. 30 °C	max. 30 °C	max. 30 °C	max. 30 °C
Threaded connection according to	DIN EN 10226-1				
Power connection	230 V AC / 50 Hz				
Power consumption Operation	3 W	3 W	3 W	3 W	3 W
Power consumption Backwashing	5 W	5 W	5 W	5 W	5 W
Weight	3,7 kg	3,9 kg	4,2 kg	8,9 kg	9,4 kg
Order no.	8170238	8170239	8170240	8170241	8170242

1) Applies to a fully opened backwash valve and 2 - 3 bar mains pressure.

### 8.1 Installation dimensions

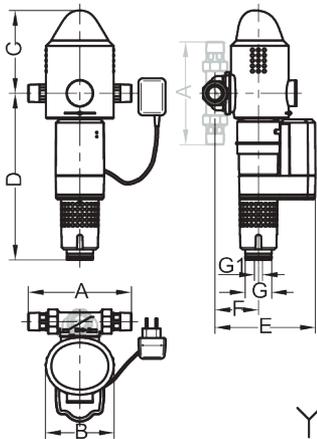


Fig. 12: Installation dimensions  
JUKOMAT-LF-AT 3/4" - 1 1/4"

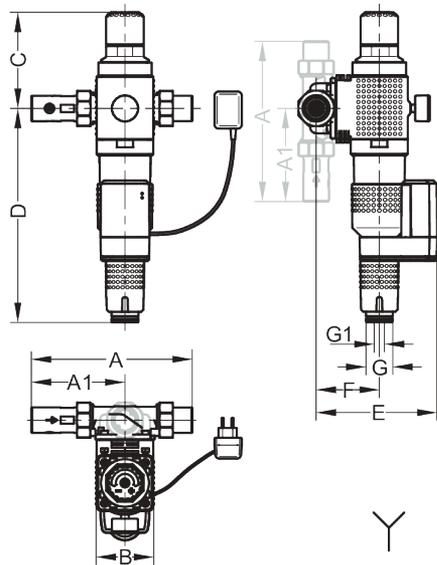


Fig. 13: Installation dimensions  
JUKOMAT-LF-AT 1 1/2" - 2"

	JUKOMAT-LF-AT 3/4"	JUKOMAT-LF-AT 1"	JUKOMAT-LF-AT 1 1/4"	JUKOMAT-LF-AT 1 1/2"	JUKOMAT-LF-AT 2"
A	180	195	230	301	335
A1	--	--	--	175	195
B	130	130	130	108	108
C	158	158	158	181	181
D	317	317	317	402	402
E	190	190	195	226	234
F	82	82	87	118	126
G	50	50	50	50	50
G1	13	13	13	13	13
Y	Sewer connection necessary				

Table 3: All dimensions in [mm]

A Installation length

A1 Length on infeed side

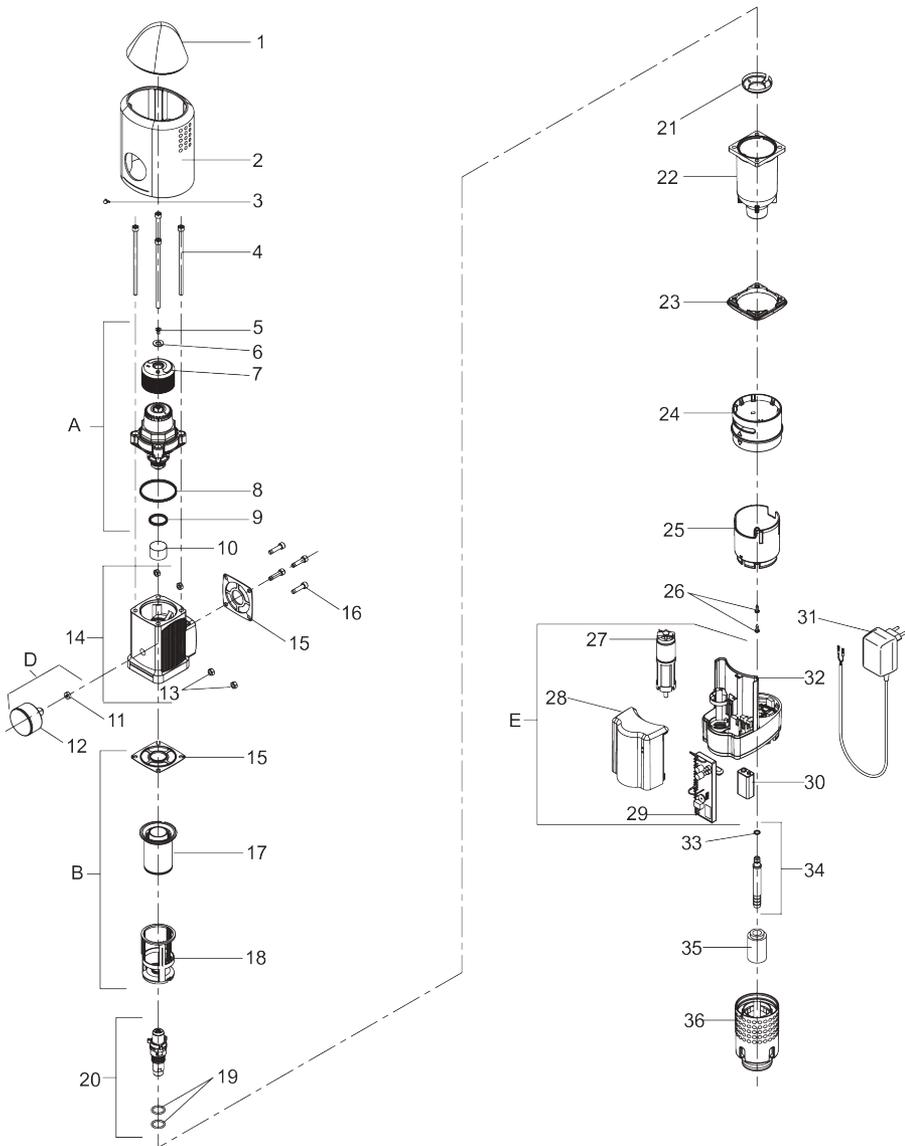
- B Device width
- C Height above the pipe middle
- D Height below the pipe middle
- E Installation depth up to the pipe middle
- F Waste water connector mid. to pipe mid.
- G Waste water connection size
- G1 Waste water connection size (alt.)

## 8.2 Accessories

- Cable for external fault signal (order no. 2170437)
- Expansion QUICKSET JQR (order no. 8250041) for series connection of two devices, e.g. filter and water treatment plant (only for JUKOMAT-LF-AT ¾" - 1¼")

### 8.3 Spare parts

#### JUKOMAT-LF-AT ¼" - 1¼"



**JUKOMAT-LF-AT ¾" - 1¼"**

Pos.	Designation	Pcs	Order No.:	AU <sup>1)</sup> / Pc
A	Wear part set "Pressure reducer cartridge" **** (comprising items 5, 6, 7, 8, 9)	1	2150026	105
B	Wear part set "Sieve insert 0.1 mm, suction pipe and seal" (comprising items 15, 17, 18) ****	1	2990412	111
-	Wear part set "Backwashing valve und seals" *** (comprising items 15, 20, 33)	1	2170561	73
D	Spare parts set "Pressure gauge" (comprising items 11, 12)	1	2150021	20
E	Spare part set "Automatic" (comprising items 27, 28, 29, 30, 31, 32)	1	8170244	589
1	Pressure reducer cover	1		
2	Cover Basic housing JUKO-LF-AT ¾"	1		
2	Cover Basic housing JUKO-LF-AT 1"	1		
2	Cover Basic housing JUKO-LF-AT 1¼"	1		
3	Display button	1		
4	Hexagon socket head screw M6×130 (set with 4 pcs)	1	2060462	11
5	Countersunk screw M5x8	1		
6	Washer A 8.4	1		
7	Handwheel of the pressure reducer	1		
8	O-ring 52×3.5	1		
9	O-ring 25×3.5	1		
10	Noise sieve	1		
11	Pressure gauge seal	1		
12	Pressure gauge 0-10 bar	1		
13	Hexagon nut M6	1		
14	Basic housing pre-installed	1		
15	Profile flange seal	2		
16	Hexagon socket head screw M6x25, coated	4		
17	Sieve insert	1		

Table 4: Spare parts list JUKOMAT-LF-AT ¾" - 1¼"

Pos.	Designation	Pcs	Order No.:	AU <sup>1)</sup> / Pc
18	Suction pipe	1		
19	O-ring 18×2.5	2		
20	Flush valve preassembled	1		
21	Suction pipe bottom	1		
22	Filter bowl + pos. 15, 21, 23	1	2170439	135
23	Flange	1		
24	OT filter bowl cover	1		
25	UT filter bowl cover printed	1		
26	Fillister head self-tapping screw 3.9x13	2		
27	Motor	1		
28	Motor cover	1		
29	Electronic control unit	1		
30	9 V block battery (alkaline)	1		
31	Power supply unit	1		
32	Automatic housing	1		
33	O-ring 6.07×1.3	1		
34	Hose connection piece pre-installed	1		
35	Union nut	1		
36	Handwheel	1		

Table 4: Spare parts list JUKOMAT-LF-AT ¾" - 1¼"

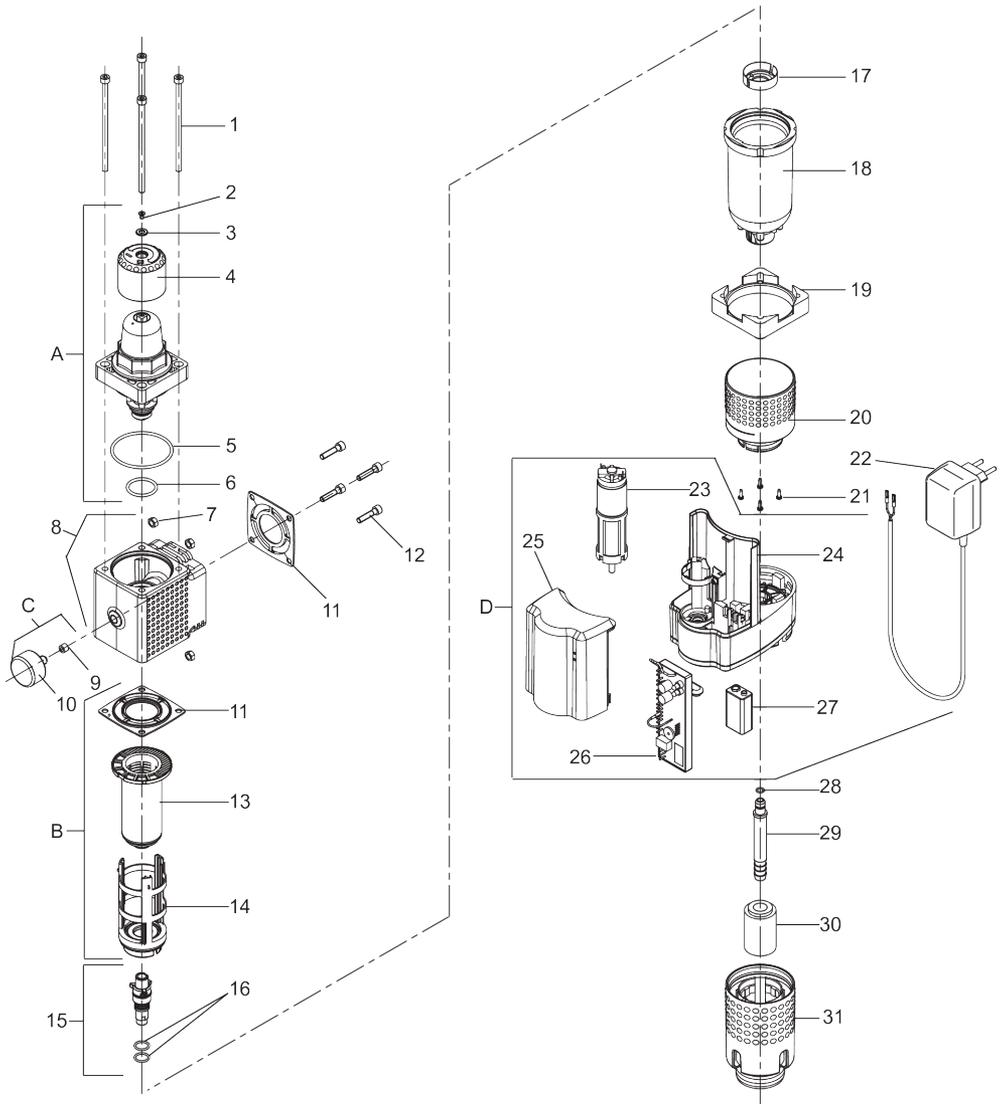
1) AU = Accounting unit (articles without an accounting unit are only available as part of a set)

Replacement interval:

\*\*\* = 3 years

\*\*\*\* = 4 years

JUKOMAT-LF-AT 1½" - 2"



**JUKOMAT-LF-AT 1½" - 2"**

Pos.	Designation	Pcs	Order No.:	AU <sup>1)</sup> / Pc
A	Wear part set "Pressure reducer cartridge" **** (comprising items 2, 3, 4, 5, 6)	1	2170189	220
B	Wear part set "Sieve insert 0.1 mm, suction pipe" **** (comprising items 11, 13, 14)	1	2170565	183
-	Wear part set "Backwashing valve und seals" *** (comprising items 11, 15, 28)	1	2170561	73
C	Spare parts set "Pressure gauge" (comprising items 9, 10)	1	2150021	20
D	Spare part set "Automatic" (comprising items 22, 23, 24, 25, 26, 27)	1	8170244	589
1	Hexagon socket head screw (set with 4 pcs)	1	2170654	29
2	Countersunk screw M5x8	1		
3	Washer A 8.4	1		
4	Handwheel of the pressure reducer	1		
5	O-ring 84x4	2		
6	O-ring 38x4	1		
7	Hexagon nut M8	4		
8	Basic housing pre-installed JUKOMAT-LF-AT 1½"	1		
8	Basic housing pre-installed JUKOMAT-LF-AT 2"	1		
9	Pressure gauge seal	1		
10	Pressure gauge 0 - 10 bar	1		
11	Profile flange seal	2		
12	Hexagon socket head screw M8x35, coated (set with 4 pcs)	1	2170656	15
13	Sieve insert	1		
14	Suction pipe pre-installed	1		
15	Flush valve preassembled	1		
16	O-ring 18x2.5	2		
17	Suction pipe bottom	1		
18	Filter bowl + pos. 11, 17, 19	1	2170575	192

Table 5: Spare parts list JUKOMAT-LF-AT 1½" - 2"

Pos.	Designation	Pcs	Order No.:	AU <sup>1)/</sup> Pc
19	Flange	1		
20	Filter bowl cover	1		
21	Filter bowl	1		
22	Power supply unit	1		
23	Motor	1		
24	Automatic housing	1		
25	Motor cover	1		
26	Electronic control unit	1		
27	9 V block battery (alkaline)	1		
28	O-ring 6.07×1.3	1		
29	Hose connection piece pre-installed	1		
30	Union nut	1		
31	Handwheel	1		

Table 5: Spare parts list JUKOMAT-LF-AT 1½" - 2"

1) AU = Accounting unit (articles without an accounting unit are only available as part of a set.)

Replacement interval:

\*\*\* = 3 years

\*\*\*\* = 4 years

## 9 Disposal

Packaging waste is to be sent to the local recycling system.

To protect environment, old appliances and used batteries must not be disposed of with household waste. Instead, use the local collection and return points, which are committed to free and environmentally sound disposal.



## 10 EC Conformity Declaration

 <b>Wasser- Aufbereitung</b>	<b>EC Conformity Declaration</b>	Document no. 71 / 01.22
---------------------------------------------------------------------------------------------------------------------	----------------------------------	----------------------------

Manufacturer: JUDO Wasseraufbereitung GmbH

Address: Hohreuschstraße 39 - 41  
D-71364 Winnenden

<b>Product description:</b>	JUKOMAT-LONGLIFE-AT ¾" - 2" Automatic domestic water station
-----------------------------	-----------------------------------------------------------------

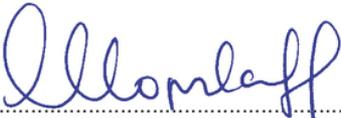
- EC Directive: Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) 2011/65/EU
- EC Directive: Elektromagnetic Compatibility (EMC) 2014/30/EU
- Harmonized Standards: Electromagnetic compatibility, generic standards for radiated interference and interference immunity EN 61000-6-2  
EN 61000-6-3
- Harmonized Standards: Safety of power transformers, power supplies, reactors and similar products EN 61558-1

The observance of the mentioned directives and EMC requirements for the use of the device in household, commercial and industrial areas as well as the application of the indicated standards are hereby confirmed.

Issuer: JUDO Wasseraufbereitung GmbH

Place and date: Winnenden, 05 January 2022

Legally binding signature:

  
.....  
JUDO Wasseraufbereitung GmbH

The sole responsibility for issuing this Declaration of Conformity lies with the manufacturer. This declaration certifies that the product is in accordance with all the stated directives; it is however not an assurance of its characteristics.

## 11 Maintenance log

Product designation:

Automatic domestic water station

Order number:

Serial number:

Date	Work activities performed	Company / Signature

## 12 Customer service

<b>DE</b>	<b>JUDO Wasseraufbereitung GmbH</b> Postfach 380 • D-71351 Winnenden Phone +49 (0)7195 / 692-0 E-mail: info@judo.eu • judo.eu
<b>AT</b>	<b>JUDO Wasseraufbereitung GmbH • Niederlassung Österreich</b> Josef-Sandhofer-Straße 15 • A-2000 Stockerau Phone +43 (0)22 66 / 6 40 78 • Fax +43 (0)22 66 / 6 40 79 E-mail: info@judo-online.at • judo-online.at
<b>CH</b>	<b>JUDO Wasseraufbereitung AG</b> Industriestrasse 15 • CH-4410 Liestal Phone +41 (0)61 906 40 50 • Fax +41 (0)61 906 40 59 E-mail: info@judo-online.ch • judo-online.ch
<b>BENELUX</b>	<b>JUDO Wasseraufbereitung GmbH • Filiaal - Filiale Benelux</b> Laarbeeklaan - Av. du Laerbeek, 72 A1 • B-1090 Brussel-Bruxelles Phone +32 (0)24 60 12 88 • Fax +32 (0)24 61 18 85 E-mail: info.benelux@judo.eu • judo.eu
<b>FR</b>	<b>JUDO France SARL</b> 76 Rue de la Plaine des Bouchers (Technosud) • F-67100 Strasbourg Phone +33 (0)3 88 65 93 94 • Fax +33 (0)3 88 65 98 49 E-mail: info@judo.fr • judo.fr

Installed by / on:

All pictorial, dimensional and implementation information correspond to the date of going to press. We reserve the right to make changes due to technical progress and continuing development. Model and product claims cannot be lodged.