

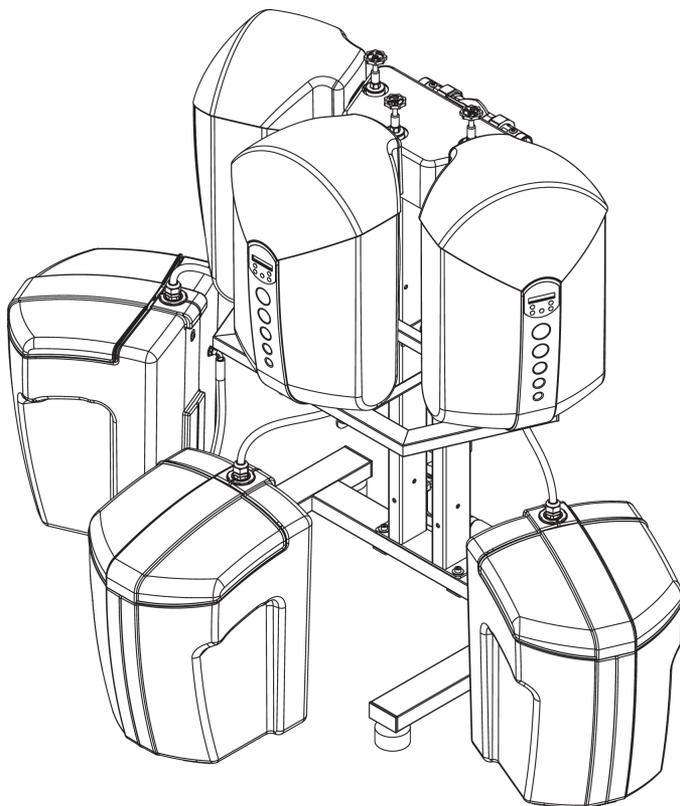
Installation manual

JUDO QUICKSOFT MEGA 6

Water softening unit

Valid for: EU countries and Switzerland

Language: English



Read before use and store!

CE

Judo®

Queries, orders, customer service

JUDO Wasseraufbereitung GmbH
Postfach 380
D-71351 Winnenden

Email: info@judo.eu • 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 7).

Trademarks:

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

These installation instructions are intended for installers, who are in charge of installing, maintaining or repairing the system.

© JUDO Wasseraufbereitung GmbH
D-71364 Winnenden

All rights reserved.

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

Contents

1	Safety instructions.....	4
1.1	Electrical danger.....	4
1.2	Warning of property damage.....	4
1.3	Symbols used.....	5
2	Product information.....	5
2.1	Scope of supply.....	5
3	Installation.....	6
3.1	Conditions.....	6
3.2	Installing the rotary flange fitting on the three-way manifold.....	6
3.3	Pipe up system and flush pipe....	7
3.4	Connecting the device to pre- installed bypass valve.....	8
3.5	Connecting the softening unit to the salt reservoir.....	10
3.6	Waste water connection and safety overflow.....	11
3.7	Installation example.....	13
4	Commissioning.....	14
5	Technical data.....	15
5.1	Installation dimensions.....	16
5.2	General error message connec- tion plan.....	17
5.3	Accessories.....	17
5.4	Spare parts.....	18
6	Disposal.....	19
7	Customer service.....	20

1 Safety instructions

1.1 Electrical danger



Risk of electric shock

No electrical wiring or equipment that is not splash-proof may be routed or stored below or in the immediate vicinity of 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.

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 status or fault indication via the potential-free output!

Switching voltage: maximum 24 V
Amperage: maximum 0.1 A

The power supply unit must be disconnected for performance of the electrical installation.

1.2 Warning of property damage



WARNING

Risk of water or property damage

The devices may only be installed by technical service providers.

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 must be provided in compliance with DIN 1986.

In order to ensure safe drinking water hygiene, a free discharge of the wastewater acc. to DIN EN 1717 and DIN 1988-100 must be ensured.

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

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 profiled side of the profile flange seal must point towards the rotary flange fitting (see chapter 3.2).

Route the waste water hose for the regeneration waste water and the safety overflow hose without kinks to the water trap or to the sewer connection (which must ensure a free discharge).

Do not kink or twist the connection hoses.

If a continuous incline to the water trap or sewer connection (ensuring a clear discharge) cannot be achieved at the location of installation, then a saltwater-resistant pumping system must be installed to convey the regeneration wastewater.

Prior to plugging in the devices, ensure that the waste water connection is functional.

Only operate the devices in a technically fault-free state:

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

The mains voltage must not be interrupted (e.g. via a light switch). If the device is not permanently supplied with power, regeneration or a warning in case of faults will not be possible. If the power supply is interrupted during a regeneration, then, dependent on the regeneration phase, high water consumption may result, which, if there is an incorrect waste water connection, may result in water damage.

1.3 Symbols used

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

	Indication of existing dangers
	Warning of electric voltage
	Torques specified by the manufacturer
	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.

2 Product information

2.1 Scope of supply

- 3 single softeners QUICKSOFT MEGA with 3 salt reservoirs
- Frame with preassembled three-way manifold and 3 JQX bypass valves
- Cover, three-way manifold
- Rotary flange fitting JQE 1½" with connector and compression fitting
- Water trap with dewatering attachment 8-way
- Installation manual
- Hardness measuring instrument

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 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.

The water pressure must not exceed 7 bar input pressure. With a water pressure greater than 7 bar, a pressure reducer must be installed upstream of the device!

An adequately sized wastewater connection in must be provided in compliance with DIN 1986.

As per DIN 1988-200, "Water treatment systems [...] must only be installed in frost-free areas, in which ambient temperatures of 25 °C are not exceeded."

Water pressure:

Rated pressure	PN 10
Operating pressure	2 bar - 7 bar

The device works most efficiently at an operating pressure between 3 bar and 5 bar.

Above water pressures of 5 bar, installation of a pressure reducer upstream of the device is recommended.

The water pressure must not fall below 2 bar during operation as otherwise device functioning may be impaired!

Draining of the waste water:

If a continuous slope to the water trap or sewer connection (ensuring a free discharge) cannot be achieved at the location of installation, then a saltwater-resistant pumping system must be installed to convey the regeneration waste water

Electrical connection:

Three splash water protected sockets, that fulfil the legal requirements for wet areas must be provided on site. The power connection (230 V, 50 Hz) must be continually live.

Necessary distances:

Rotary flange fitting installation height (floor to pipe centre):	114.5 cm
Minimum clearance above the installed softening unit:	30 cm

3.2 Installing the rotary flange fitting on the three-way manifold

The built-in rotary flange serves as a connecting element between the domestic water station 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.



The device will not operated if it is incorrectly installed.

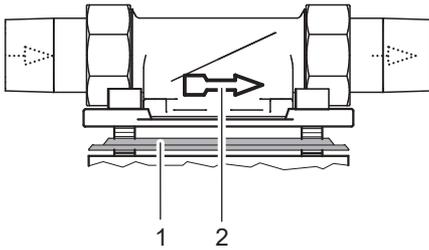


Fig. 1: Rotary flange fitting

- 1 Profile flange seal
- 2 Flow direction arrow

Initial state:

- The three-way manifold and the three bypass valves are pre-installed on the frame and hygienically sealed with a film.
- The four hexagon socket head screws and the profile flange seal are enclosed loose in a bag.
- The rotary flange fitting is enclosed in a cardboard box forming part of the packaging.

Installing the rotary flange fitting on the three-way manifold (see Figure 2):

1. Remove the black mounting cover on the rotary flange fitting.
2. Remove the protective film on the inlet side of the three-way manifold without leaving any residues.
3. Fit the four hexagon socket head screws and the profile flange seal on the three-way manifold.
4. Push the rotary flange fitting onto the hexagon socket head screws and engage the bayonet.

i The profiled side of the profile flange seal must point towards the rotary flange fitting (see Figure 2).

5. Tighten the four hexagon socket head screws.

Nm Select the tightening torque (about 10 Nm) so that the profile

flange seal seals effectively.

→ The rotary flange fitting is now connected to the three-way manifold.

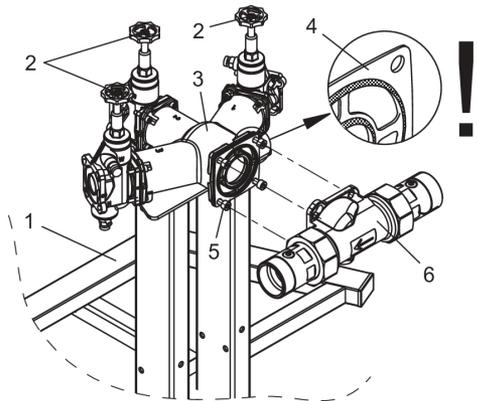


Fig. 2: Installing the rotary flange fitting on the three-way manifold

- 1 Frame
- 2 Bypass valves JQX
- 3 Three-way manifold
- 4 Profile flange seal
- 5 Hexagon socket head screws
- 6 Rotary flange fitting JQE

3.3 Pipe up system and flush pipe

Initial condition:

- The rotary flange fitting is installed on the three-way manifold.

CAUTION
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.

Creation of the system piping:

1. Push the frame up to the wall.
2. Align the frame so it is horizontal by adjusting the four rubber feet.
3. Pipe up the system correctly.

i The installation height of the rotary flange fitting from the floor to the pipe centre is 114.5 cm.

i A shut-off option must be available directly upstream and downstream of the rotary flange fitting. In this way the water softening system can be decoupled from the drinking water installation during hygiene flushing.

ATTENTION: When screwed in place, neither frame nor pipe should be strained. To balance out any stain, the adjustable feet of the frame can be easily adjusted to vary their height.

→ The frame with the three-way manifold has now been connected to the pipe.

Flush the pipe:

1. Switch all bypass valves to bypass by turning the three handwheels fully clockwise.
2. Open the shut-off valves upstream and downstream of the rotary flange fitting to flush the pipe.
3. Reclose the shut-off valves upstream and downstream of the rotary flange fitting.

3.4 Connecting the device to pre-installed bypass valve

Initial condition:

- The frame is connected to the now piped-up rotary flange fitting via the three-way manifold.
- All three bypass valves have been switched to bypass and then the pipe flushed.

i **ATTENTION!**

Connect the water softening systems sequentially from left to right (markings 1, 2 and 3 on the three-way manifold) to the corresponding bypass valves.

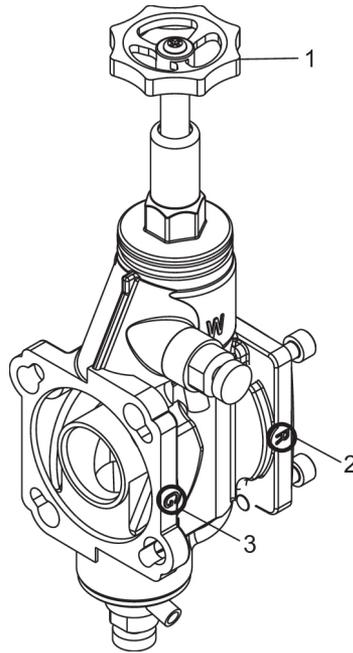


Fig. 3: Bypass valve (JQX)

- 1 Handwheel
- 2 Pipe-side flange "R"
- 3 Device-side flange "G"

Procedure:

1. Slightly unscrew the screws on the connection flange of the device, however, do not screw out completely, and remove the white protective cap.



DANGER

Risk of crushing: No not reach into the open device connection!

2. Check the seating of the profile flange seal on the connection flange of the device: The profiled side of the profile flange seal must point towards the bypass valve.

**WARNING**

If the profile flange seal is incorrectly seated, water can escape causing water damage to dwelling and furnishings.

3. Remove the protective film from the bypass valve without leaving any residues.
4. Raise the device vertically and turn slightly **counter**-clockwise.
5. Place the device on the device-side flange ("G") of the installed bypass valve and guide the screw heads through the bayonet holes of the bypass valve.
6. Turn the device attached to the bypass valve slightly **in the** clockwise direction to engage the screws in the holes of the bypass valve.
7. Tighten the four screws.



Select the tightening torque (approx. 4 Nm) so that the profile flange seal seals effectively and the device is not damaged or strained.

→ Installation of the device is completed.

Repeat this procedure for each individual water softening system.

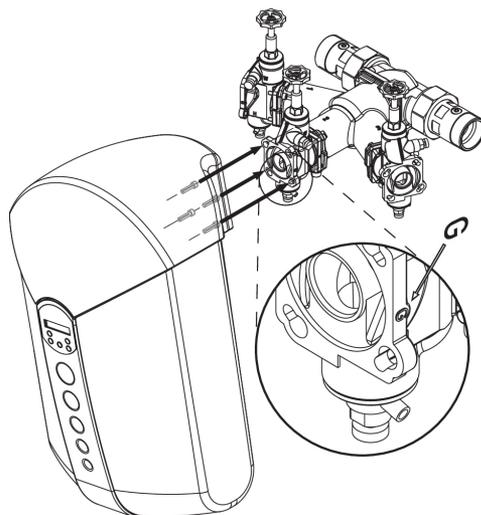


Fig. 4: Position the device on JQX (example shows softener 2)

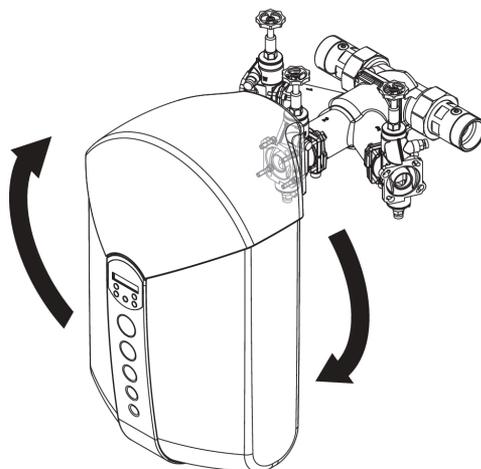


Fig. 5: Lock bayonet connection (example shows softener 2)

3.5 Connecting the softening unit to the salt reservoir

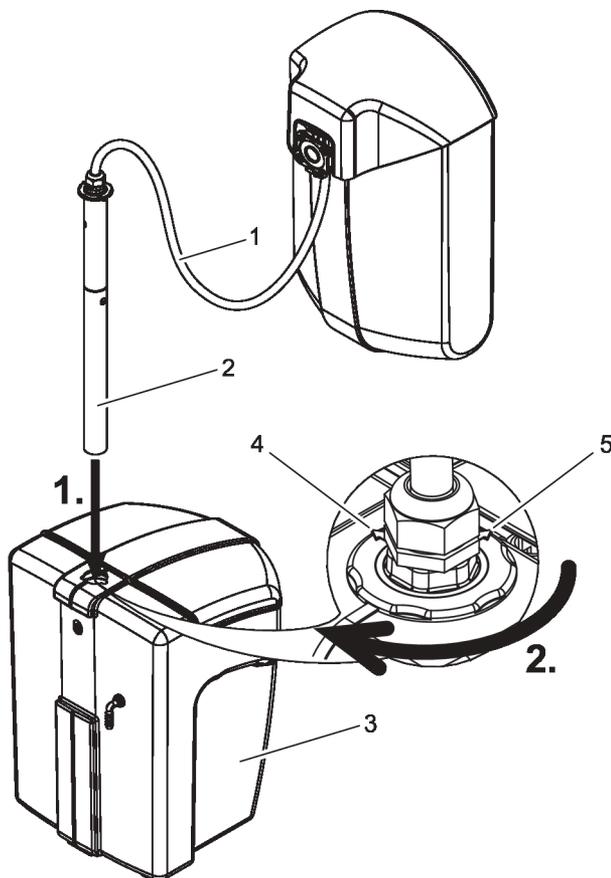


Fig. 6: Connecting the softening unit to the salt reservoir

- 1 Jacket hose
- 2 Lance
- 3 Salt reservoir
- 4 Marking arrow, **unlocked** position
- 5 Marking arrow, **locked** position

Position the salt reservoir either below or next to the softening unit on the floor.

ATTENTION: Ensure that the jacket hose is run with a constant slope from the softening unit to the salt reservoir!

Procedure:

1. Push the lance in as far as it will go into the salt reservoir.
Attention! Note the marking arrow - the arrow must point to the side (unlocked position).

2. To lock, turn the lance through 90° in the clockwise direction (as far as it will go).
Attention! Note the marking arrow - the arrow must now point to the front side of the salt reservoir (*locked* position).

3.6 Waste water connection and safety overflow



CAUTION

In order to ensure safe drinking water hygiene, a free discharge of the wastewater acc. to DIN EN 1717 and DIN 1988-100 must be ensured.

Route the waste water hose for the regeneration waste water and the safety overflow hose without kinks to the water trap or to the sewer connection (which must ensure a free discharge).

If a continuous incline to the water trap or sewer connection (ensuring a clear discharge) cannot be achieved at the location of installation, then a saltwater-resistant pumping system must be installed to convey the regeneration wastewater.

An adequately sized wastewater connection in must be provided in compliance with DIN 1986.

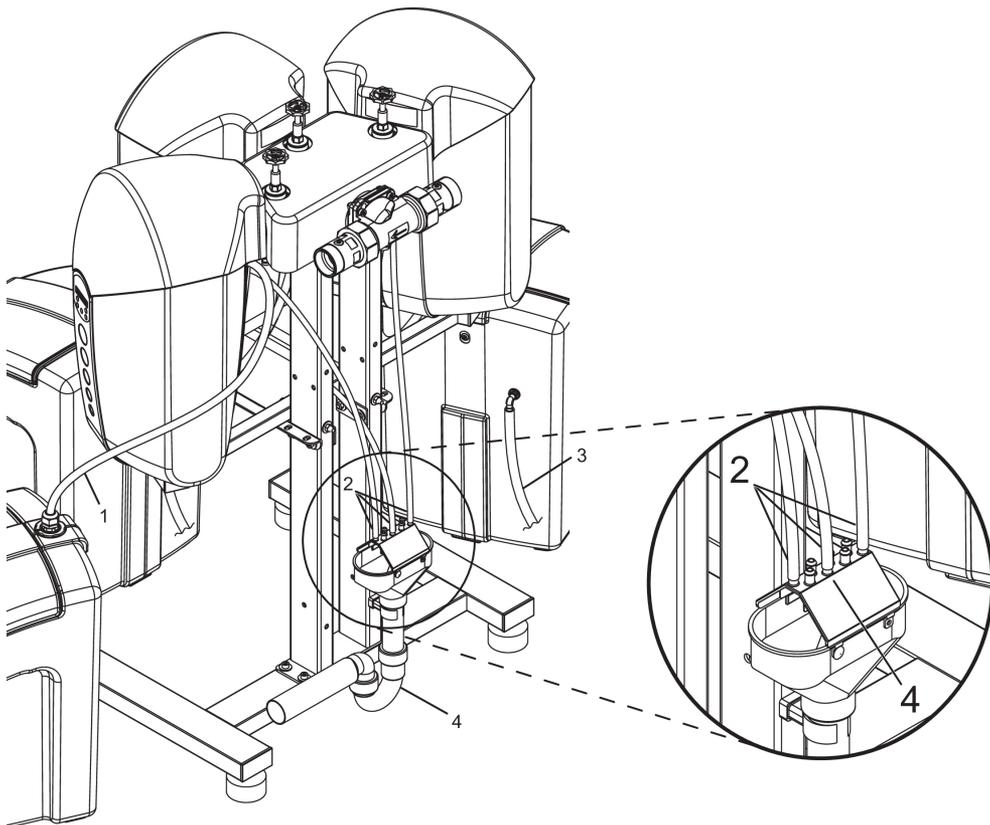


Fig. 7: Connection to the water trap

- 1 Jacket hose (with a steady downward slope!)
- 2 Waste water hose (regeneration waste water)
- 3 Safety overflow hose
- 4 Water trap with dewatering attachment

i Use of the supplied water trap ensures a free discharge in accordance with DIN EN 1717 and DIN 1988-100.

- Install the safety overflow hoses without kinks and with a steady slope to the sewer.
- For this purpose, use the siphon included with the salt storage container.

Connecting the waste water hoses

- Shorten the wastewater hoses and lay them without kinks and with a steady slope to the siphon.
- Plug the free ends of the hoses onto the dewatering attachment of the siphon on the frame.

Connecting the safety overflow hoses

3.7 Installation example

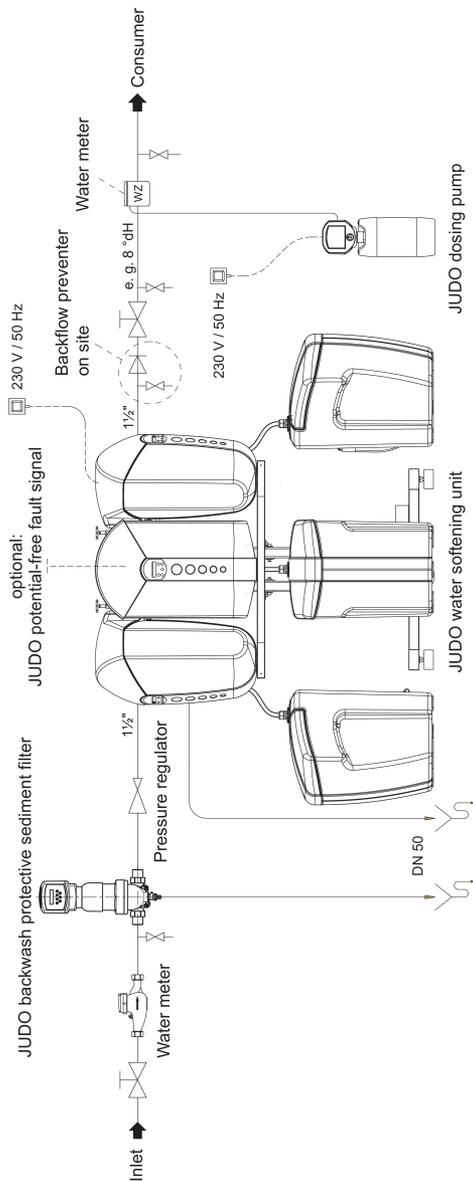


Fig. 8: Installation example QUICKSOFT MEGA 6

4 Commissioning

Detailed information on the commissioning and operation of the water softening system can be found in the operating instructions for the single softener QUICKSOFT MEGA (order no. 1703519).

5 Technical data

QUICKSOFT MEGA 6

Water softening unit

Information about:	QUICKSOFT MEGA 6
Order no.	8203525
Max. ambient temperature	30 °C
Max. water temperature	30 °C
Air humidity	non condensing
Pipe connection	1½"
Number of single softeners	3
Recommended number of dwelling units	12
Operating weight with full salt charge	approx. 265 kg
Shipping weight	approx. 125 kg
Rated pressure ¹⁾	PN 10
Operating pressure ²⁾	2 - 7 bar
Rated flow as per DIN EN 14743 at 1 bar pressure loss	4 m³/h
Rated flow with a hardness reduction from 360 ppm (CaCO ₃) to 140 ppm (CaCO ₃)	6 m³/h
Rated capacity	2,7 mol
Total content of all salt reservoirs	150 kg
Total volume of the exchanger resin	15 L
Water consumption per regeneration	75 L
Salt consumption per m³ when softening from 360 ppm (CaCO ₃) to 140 ppm (CaCO ₃)	0,4 kg
Electrical connection	230 V / 50 Hz
Power consumption Operation	3 W
Power consumption Regeneration	45 W

1) Rated pressure = pressure range, that the device fulfils

2) The maximum operating pressure is lower to ensure optimum functioning of the device.

5.1 Installation dimensions

CAUTION
Do not kink or twist the connection hoses.

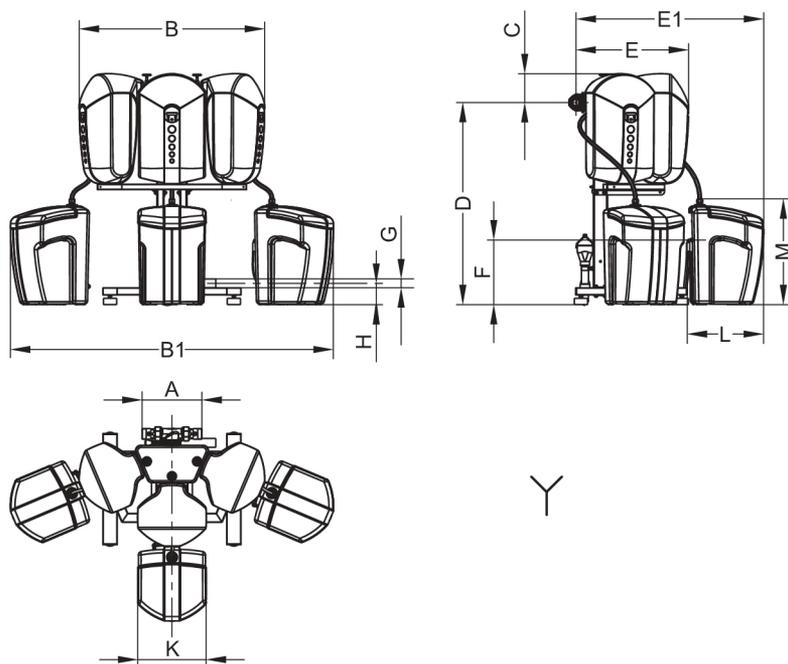


Fig. 9: Installation dimensions QUICKSOFT MEGA 6

Dependent on wishes and space, the salt reservoirs can be positioned in front of the frame or also below or directly right and left of the system.

A	306	Installation length (rotary flange)
B	1050	Device width
B1	ca. 1800	Device width with salt reservoirs ¹⁾
C	162	Height above the pipe centre
D	1145	Height below the pipe centre
E	629	Installation depth up to the pipe centre

Table 1: All dimensions in mm

E1	ca. 1000	Installation depth to pipe centre width salt reservoirs ¹⁾
F	366	Distance from the connection for the safety overflow hose to the ground
G	50	Waste water connection nominal diameter
H	121	Distance from the waste water connection to the ground (smallest dimension)
K	390	Width of the salt reservoir

Table 1: All dimensions in mm

L	435	Depth of the salt reservoir with overflow
M	600	Height of the salt reservoir

Table 1: All dimensions in mm

Y	Sewer connection necessary
---	----------------------------

Table 1: All dimensions in mm

- 1) Dimensions B1 and E1 are variable, because the salt reservoirs can be pushed closer or further apart or under the frame.

5.2 General error message connection plan

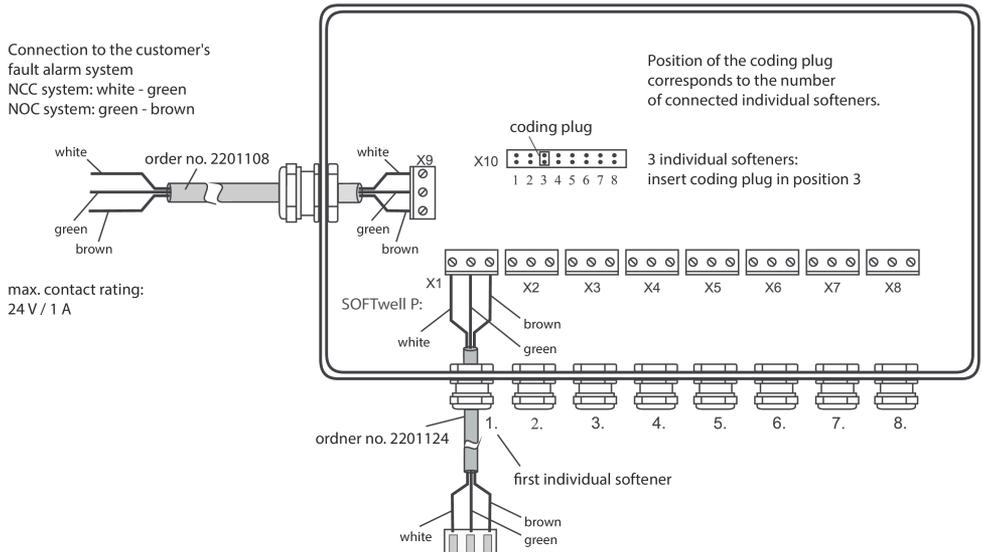


Fig. 10: General error message connection plan

5.3 Accessories

- Connectivity module (LAN, for QUICKSOFT MEGA 6 three modules recommended, order no. 8235010)
- Fault signalling cable (order no. 2200717)

5.4 Spare parts

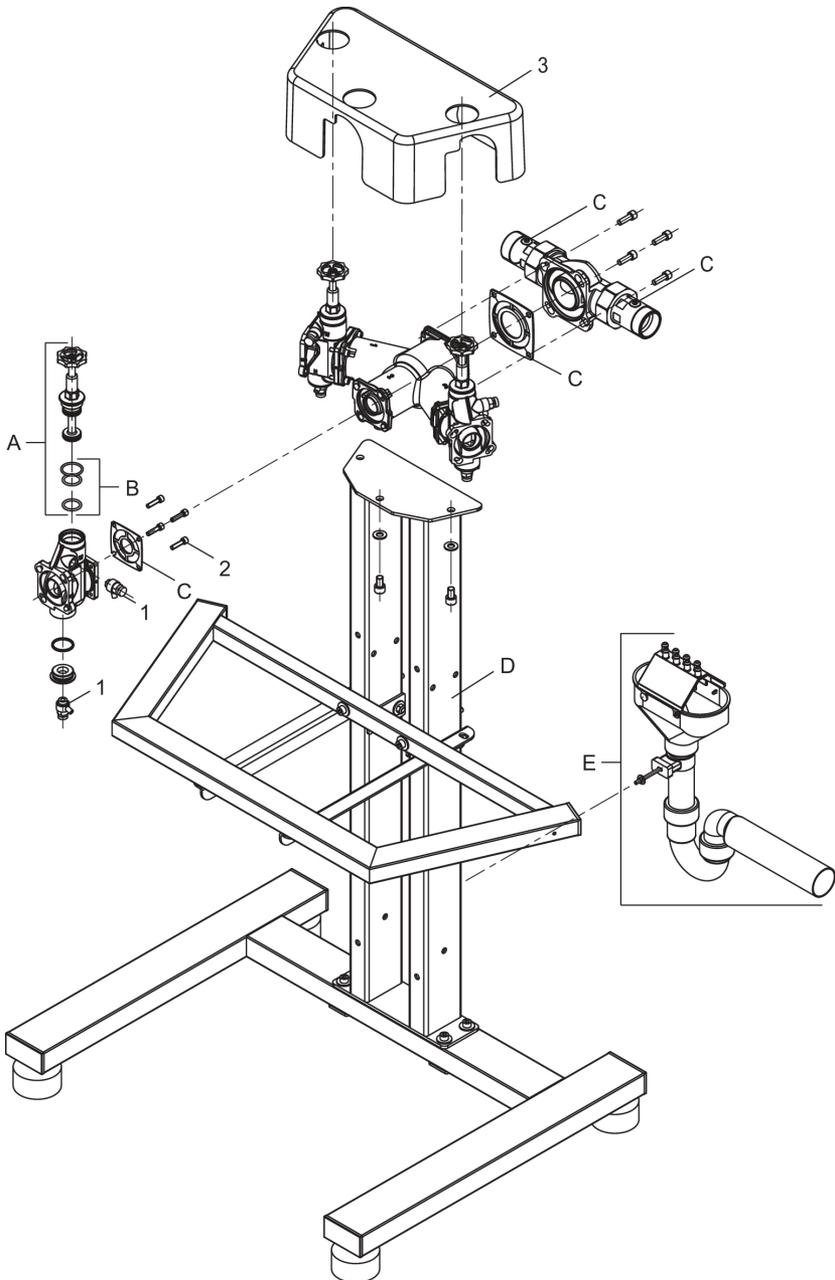


Fig. 11: Spare parts QUICKSOFT MEGA 6

Spare parts list

Item	Designation	Pcs	Order no.	AU ¹⁾ / Pcs
A	Spare part set valve spindle top part	1	2250164	69
B	Spare part set O-rings **	1	2250218	11
C	Spare part set seals	1	2202235	AU ²⁾
D	Spare part set frame	1	2202234	AU ²⁾
E	Spare part set free discharge 8-way	1	2201799	87
1	Sampling valve	1	2060329	19
2	Hexagon socket head screws M6x25 (set of 4 pieces)	1	2060333	5
3	Cover, thee-way manifold	1	2202233	AU ²⁾

1) AU = Accounting unit

2) AU not yet specified at the time of going to press

Replacement interval: ** = 2 years

6 Disposal

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

To protect environment, old appliances 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.



7 Customer service

DE	JUDO Wasseraufbereitung GmbH Postfach 380 • D-71351 Winnenden Phone +49 (0)7195 / 692-0 E-mail: info@judo.eu • judo.eu
AT	JUDO Wasseraufbereitung GmbH • Niederlassung Österreich 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
CH	JUDO Wasseraufbereitung AG 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
BENELUX	JUDO Wasseraufbereitung GmbH • Filiaal - Filiale Benelux 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
FR	JUDO France SARL 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.