

QLEEN

PURE WATER CLEANING SYSTEMS

User information



DISY E

70054 & 70040

Version 01/2023

Introduction to the user information QLEEN DISY E

Thank you for choosing a QLEEN DISY E cleaning system from Lehmann.

Before you start with the cleaning work, here is some important user information.

Please read these carefully and be sure to observe them.

As the owner of a QLEEN DISY E cleaning system, please also make absolutely sure that your employees have also read the „DISY E User Information“ and follow the safety and warning instructions.

Please also observe and comply with the „General User and Safety Instructions“ (separate publication of Lehmann KG).

This document is the original user information. It is written in German. Copies in other languages are translations of this original user information.

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Country of origin

Federal Republic of Germany

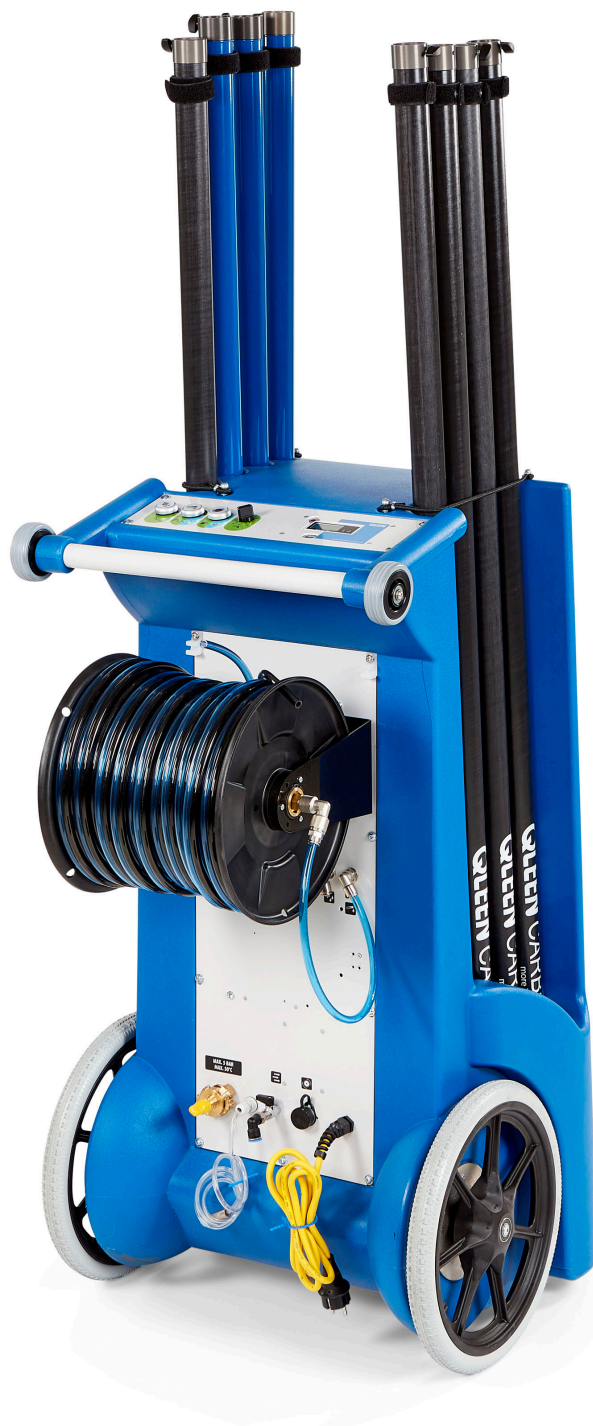
We are pleased that you have chosen our QLEEN DISY E product.

Item number — **70052**
 — **70040**

Type designation — **QLEEN DISY E DUO Hose**
 — **QLEEN DISY E Complete set**

Serial number _____

Year of manufacture _____



* Picture shows the QLEEN DISY E complete set (70040)

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2 General notes and safety instructions

2.1 Instruction structure

This manual will give you an overview of the functions, operation and proper use of our QLEEN DISY E machine.

Certain symbols in these instructions indicate various information:



The information sign indicates useful tips and information.



The exclamation mark warns of potential dangers and risks

2.2 Safety instructions



Warning: Fire and explosion hazard:

- Never use flammable liquids or operate the machine near flammable liquids/vapors or combustible dust.
This machine is not equipped with an explosion-proof motor. The electric motor emits sparks during startup and operation that can cause ignition of flammable materials.
- Do not aspirate flammable materials with the machine.



Warning: Risk of electric shock:

- Before each start-up, check the power cable and the power plug for damage. If any damage is detected, the machine must be shut down immediately and repaired by a specialist!
- When plugging in the machine, make sure that the power plug and your hands are not wet!



Caution: Danger of accident:

- The operating personnel must be adequately trained in the use of the machine.
- The machine must be in perfect condition.
- Only set up the machine on solid, even surfaces.
- Wear sturdy, non-slip footwear with protective caps to protect yourself from being crushed by the machine.
- Work on roofs only with appropriate safety equipment.
- Take care not to get mixed bed resin in your eyes. For further safety instructions and handling of the mixed bed resin, read the "**Mixed bed resin systems user information**".
- When using cleaning solution, observe the respective manufacturer's specifications.



Warning: Risk of accidents and damage to the machine and equipment

- Use the machine only from +5 °C and higher, frost damage to the machine and equipment may occur.
- Do not work with the pole system in wind forces above 2 (>3.3 m/s), the rod system may buckle and fall off

3 Description of the QLEEN DISY E

3.1 The PUREWATER principle - cleaning with pure water

The high chemical-free cleaning power of PUREWATER is the basis on which the PURAQLEEN principle for cleaning glass, solar and facade surfaces.

In this process, tap water is passed through a granulate bottle. The minerals contained in the tap water accumulate in the mixed bed resin and all salts are removed from the water. The tap water is demineralized by pre-pressurization in the granulate bottle and reaches the cleaning head as PUREWATER.

PUREWATER not only has a very good wetting capacity, but also dries without stains or streaks, even in strong sunlight. This means that in many cases the use of cleaning solutions can be dispensed with. (exception: greasy, oily or very heavy soiling).

3.2 Sustainability

Our system contributes to the careful and sustainable use of resources for cleaning in times of dwindling resources.

In contrast to the reverse osmosis process, our devices operate in the energy-saving low-pressure range; the pressure of the domestic water supply is sufficient to operate our devices. In addition, our systems convert 100% of the supplied water into PUREWATER, which can be used for cleaning.

3.3 Water hardness and yield of the mixed bed resin

The water hardness at the place of use can be obtained from the local water supplier. This allows you to estimate the yield of the granulate bottle.

Depending on the measured value, the following values result for the maximum PUREWATER quantity and cleaning time with a granulate bottle (at a maximum initial value of 50 μS , **approximate data**):

German hardness level	Corresponds approximately to conductance	Estimated total quantity	Estimated total cleaning time*
2,8 °dH	100 μS	10200 l	51,0 h
5,6 °dH	200 μS	5100 l	25,5 h
8,4 °dH	300 μS	3400 l	17,0 h
11,2 °dH	400 μS	2500 l	12,5 h
14,0 °dH	500 μS	2000 l	10,0 h
16,8 °dH	600 μS	1700 l	8,5 h
19,7 °dH	700 μS	1650 l	8,25 h
22,5 °dH	800 μS	1200 l	6,0 h
25,3 °dH	900 μS	1100 l	5,5 h
28,0 °dH	1000 μS	1000 l	5,0 h

* Based on a flow rate of 200 l/h with the brush bow Vario

3.4 How the QLEEN DISY E works

After plugging in the power plug, the control buttons light up blue and the system is ready for operation.

The operating modes are selected via the control buttons or the remote control.
PUREWATER blue hose, Cleaning solution/tap water black hose, direction change ROTAQLEEN

Tap water is required for cleaning with PUREWATER.

For this purpose, tap water is passed through the mixed bed resin system in the granulate bottle and demineralized in the process.

See also „**User information mixed bed resin system**“ (Publication of Lehmann KG).

Tap water is required for cleaning with cleaning solution (for particularly heavy soiling). The cleaning solution is sucked in by the dosing pump from a cleaning solution container and added to the tap water in the dosage to be set.

After working with cleaning solutions, the system should always be rinsed with tap water.

A pump conveys the clean and/or Cleaning solution/tap water via a DUO hose attached to the rod set* to the cleaning head* at the top end of the pole set*.

There it is distributed evenly and sparingly over the surfaces to be cleaned via fine nozzles*.

The pole set* consists of individual, mountable rods.

This results in variable working lengths between approx. 2 m (min.) and 21 m (max.).

With the DUO hose, PUREWATER is conveyed in the blue hose and tap water or cleaning solution in the black hose.

The integrated water quality measuring device provides information on the quality of the incoming tap water and the outgoing PUREWATER.

3.5 Areas of application

Typical applications for the QLEEN DISY E are:

- To restore and increase the energy yield of solar and photovoltaic systems.
- Glass-clear and streak-free view for windows, window frames, conservatories, glass and greenhouses
- Often difficult to access outdoor advertising spaces and lighting boxes
- Against the intensive pollution by insects on vehicles (train, ship, plane, truck, car).

3.6 Scope of delivery

QLEEN DISY E (70052)

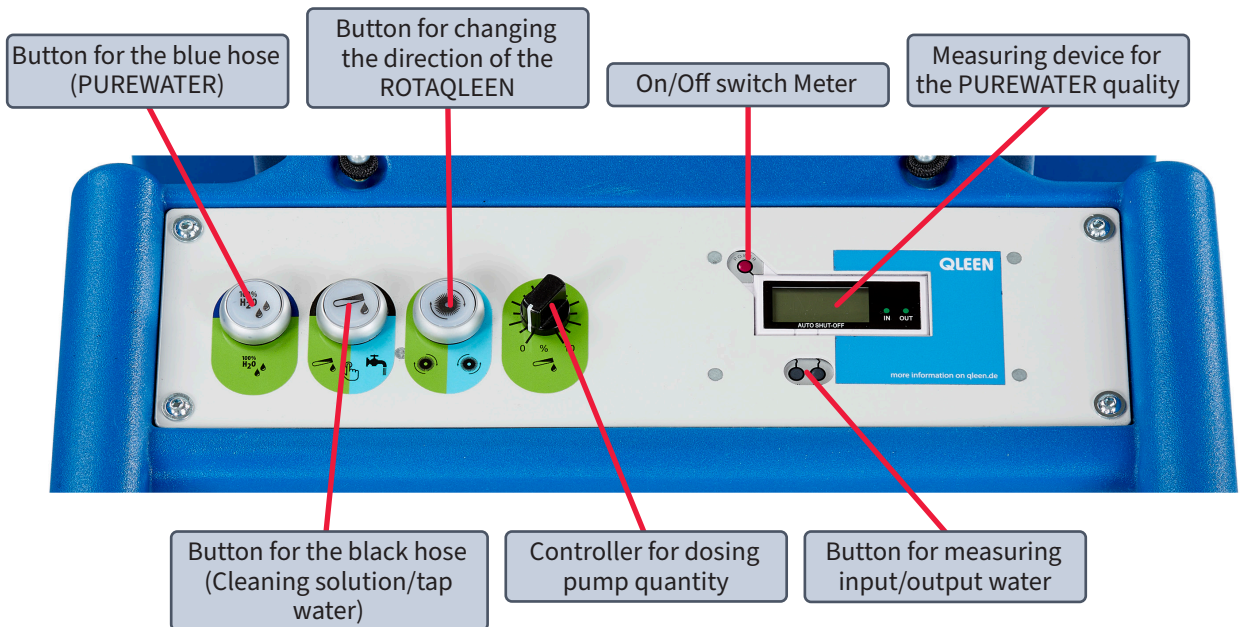
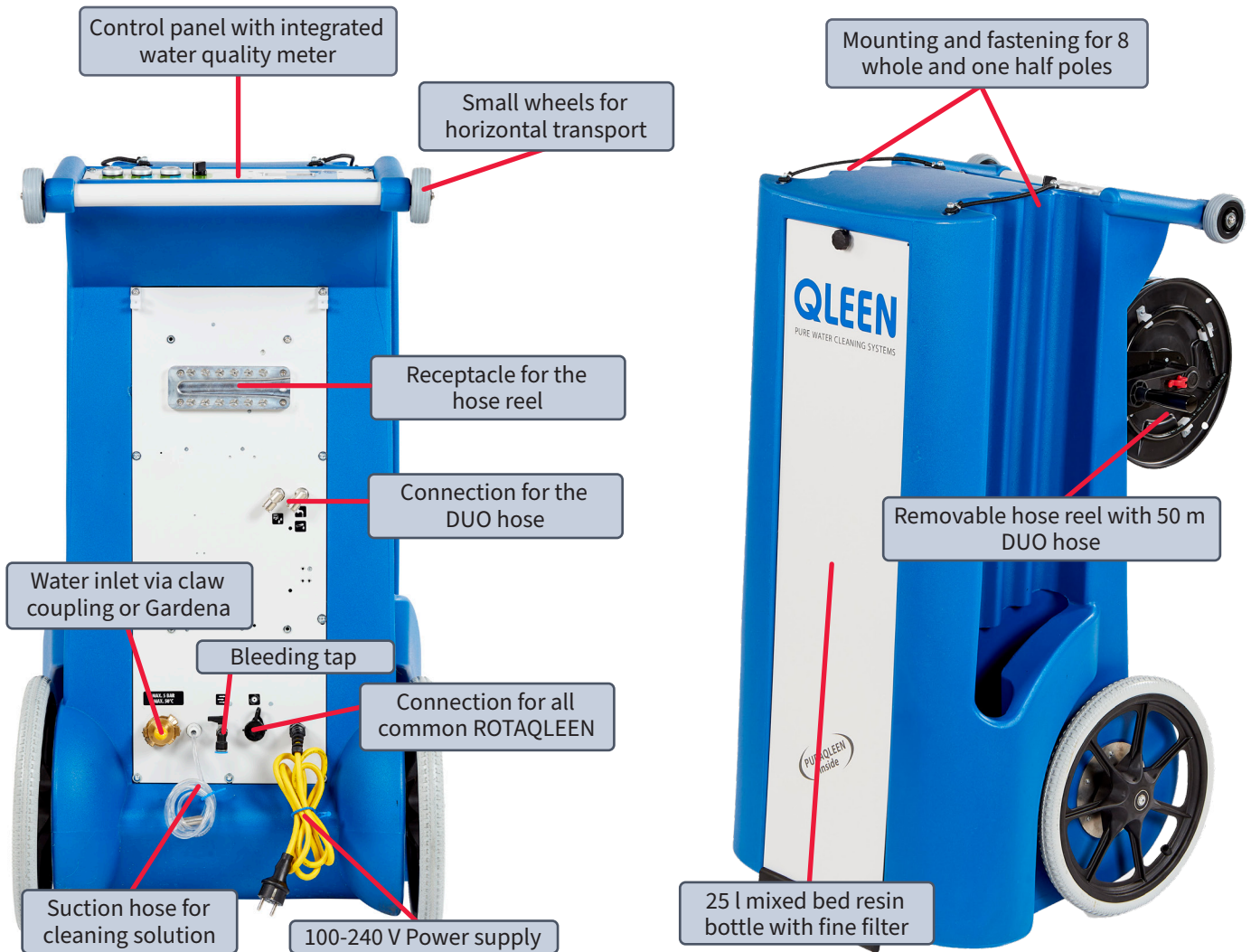
- QLEEN DISY E base station with 25 l granulate bottle filled up with mixed bed resin, pump, dosing pump and integrated measuring device for water quality
- 50 m DUO hose on removable hose reel
- Remote control
- Suction hose
- Gardena to quick coupling adapter
- Quick Start Guide, Instruction

QLEEN DISY E complete set (70040)

- QLEEN DISY E base station with 25 l granulate bottle filled up with mixed bed resin, pump, dosing pump and integrated measuring device for water quality
- 50 m DUO hose on removable hose reel
- Remote control
- Suction hose
- Gardena to quick coupling adapter
- Rod set with 5 CARBON POLES, 3 TITANIUM POLES, 1/2 TITANIUM POLES and brush adapter up to 14 m working height
- Brush bow with 180° adjustable Vario joint with 5 integrated fan nozzles
- 40 cm window washing brush
- Quick Start Guide, Instruction

* Only included in the QLEEN DISY E complete set variant (70040)

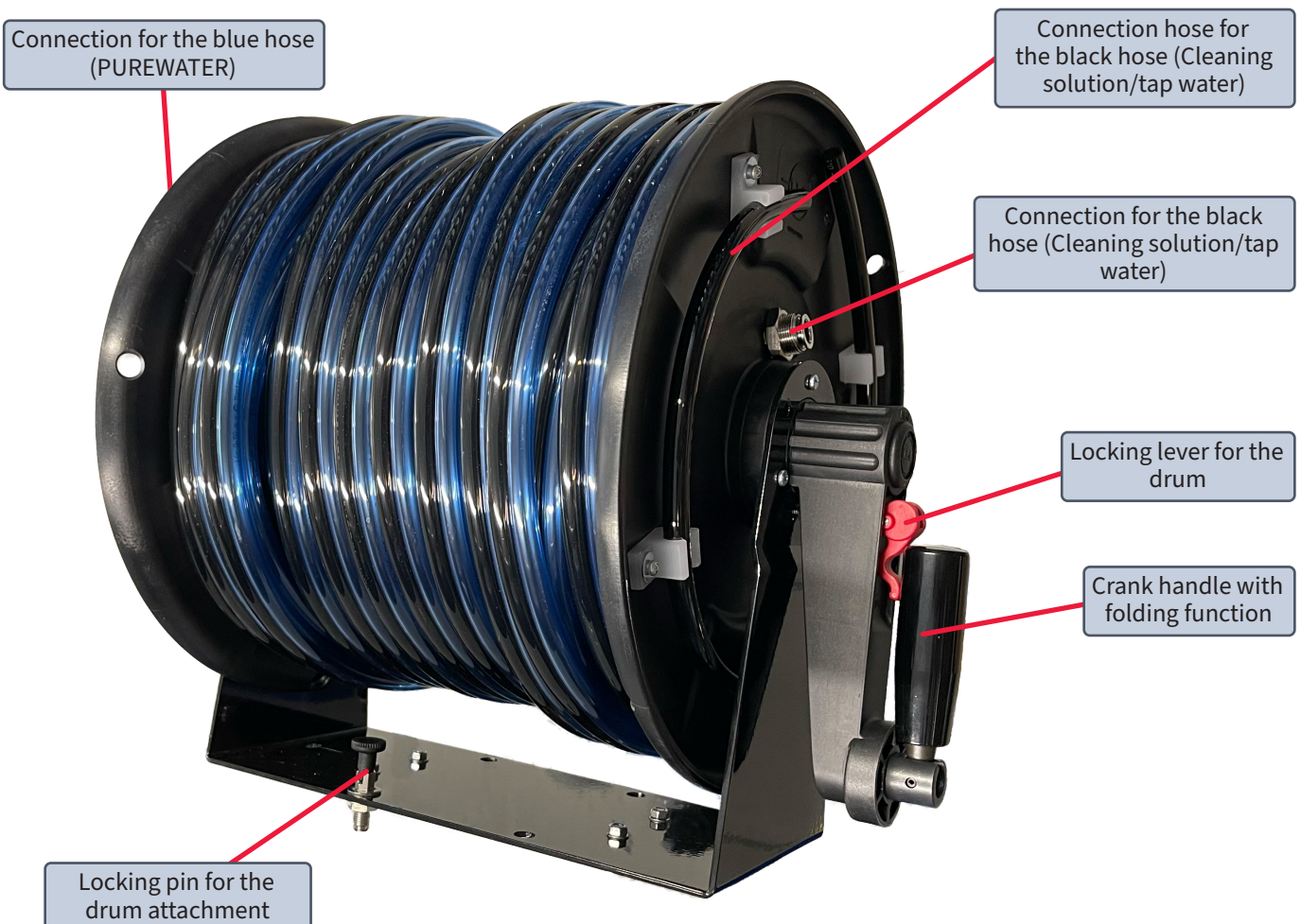
3.7 Connections and controls



3.8 Remote control



3.9 Hose reel



4 Starting up

4.1 Transport and parking

The QLEEN DISY E can be transported with the trolley.
Only park the trolley on a straight, level and non-slip surface.

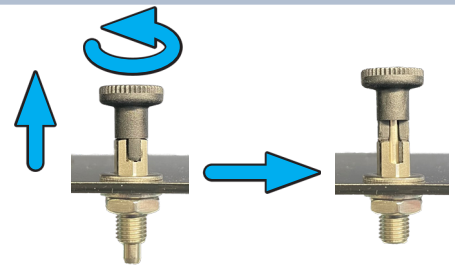


Caution Risk of injury

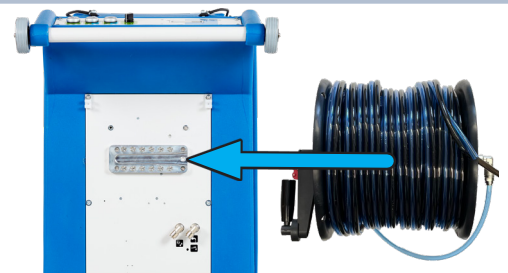
- Wear sturdy shoes with steel toe caps when transporting the unit, as this can cause bruising to the foot when the unit is set down!
- Do not place on inclined, sloping and uneven surfaces, the QLEEN DISY E may fall over and this may result in injury and damage!
- If there are obvious defects on the QLEEN DISY E or the pole system, do not put it into operation!

4.2 Mount hose reel and unroll hose

1. Pull out the locking pin and turn it 90 degrees to fix it in place



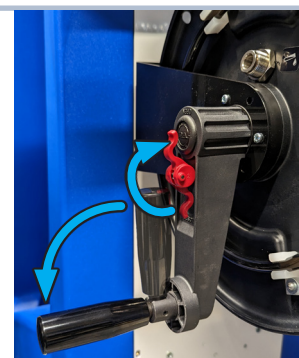
2. Place the hose reel in the holder from the right and push it to the left as far as it will go
3. Turn the locking pin by 90 degrees and let it snap into the specified locking hole



Attention risk of accident:

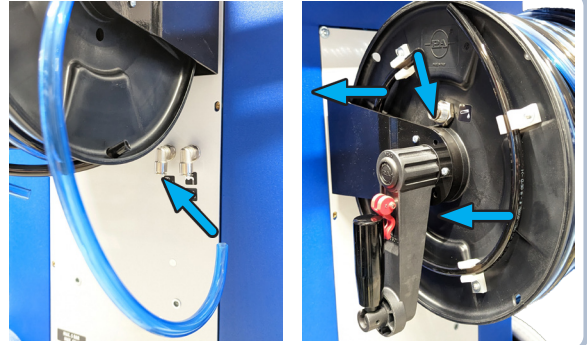
Always make sure that the hose reel is firmly seated and fixed with the locking pin!

4. Unfold the hand crank
5. Fold the red safety lever upwards
6. Extend the DUO hose to the required length



7. Connect the blue hose on the right side with the H₂O connection (left) on the machine
8. Take the black connection hose on the left side of the reel and connect it to the reel outlet for the black hose the black hose and connect it on the machine connect with the connection for **cleaning solution** (on the right)

⇒ The hose reel is mounted and the DUO hose is ready for use



4.3 Connection of the water supply

Water can be supplied directly to the house water connection via a Gardena hose or from a tank using the suction hose.



Caution the device may be damaged:

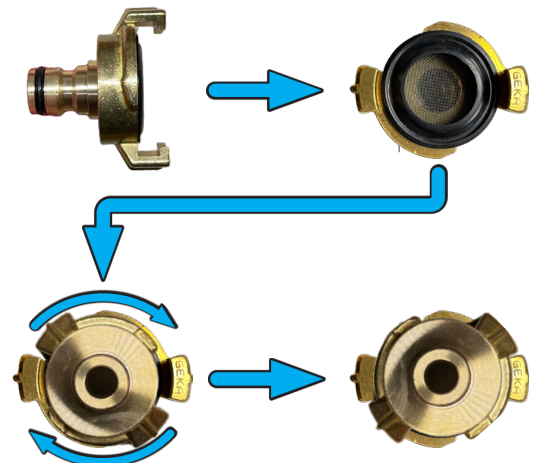
Only use clean tap water with a maximum inlet pressure of 5 bar for the water supply! Otherwise, the unit or the mixed bed resin may be damaged.



Before assembly, check the strainer and the seals in the quick coupling for contamination. These can reduce the flow rate and lead to a pressure drop at the nozzles.

4.4 Water supply through the house water connection

1. Attach the Gardena adapter to the water inlet and lock it in place by turning it clockwise



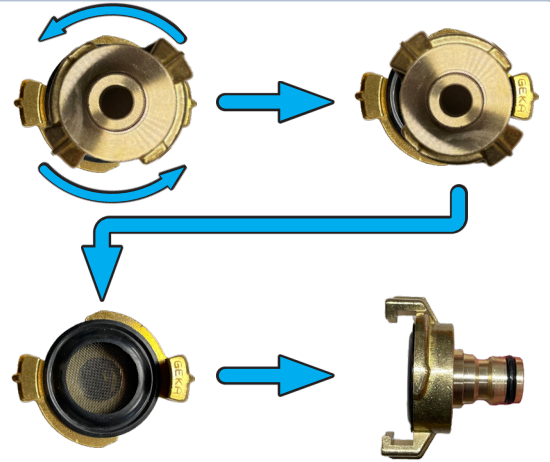
2. Connect the house water connection by means of Gardena hose to the input of the QLEEN DISY E
3. Open the tap of the house water connection

⇒ The water supply via the house water connection is established

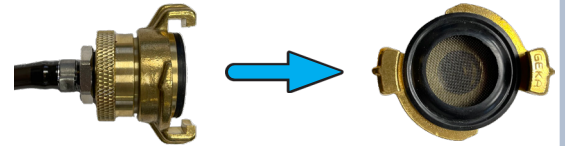


4.5 Water supply through a water tank

1. Remove the Gardena adapter from the water inlet by turning it counterclockwise



2. Attach the suction hose to the machine with the quick coupling and screw it tight



3. Sink the side with the filter in the tank to the bottom
⇒ The water supply via the water tank is established



4.6 Power supply

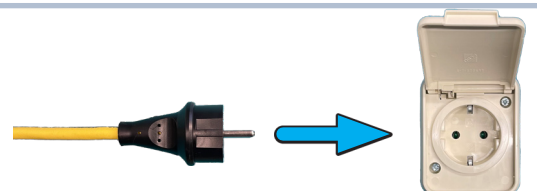


Warning: Risk of electric shock:

- Before each start-up, check the power cable and the power plug for damage. If any damage is found, the machine must be shut down immediately and repaired by a specialist!
- When plugging in the machine, make sure that the power plug and your hands are not wet!

- Insert the mains plug into the socket, the control buttons light up **blue**

⇒ The power supply is established



4.7 Switching on the remote control

The control keys on the machine are mirrored on the remote control. It can be switched on with the control keys and switched off again with the remote control and vice versa. The speaker key has no function.

- To switch on the remote control, set the power switch to »I«



4.8 Bleeding

In order to ensure a uniform water flow and pressure, the pump must be bled before each use. If a cleaning solution is to be used, the dosing pump must also be bled.

4.9 Bleeding the pump

- Open the bleeding tap



- Switch on the machine with the »PUREWATER« key, the key lights up **green**
- Run for 1 - 2 minutes until the water flows evenly from the bleeding tap

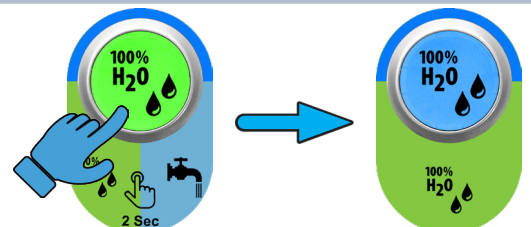


- Close the bleeding tap



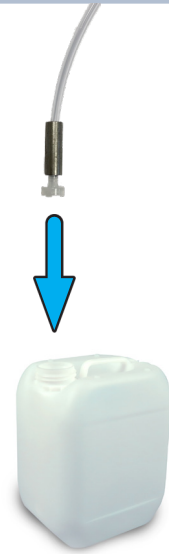
- Switch off the machine with the »PUREWATER« key, all keys light up **blue**

⇒ The pump is bled

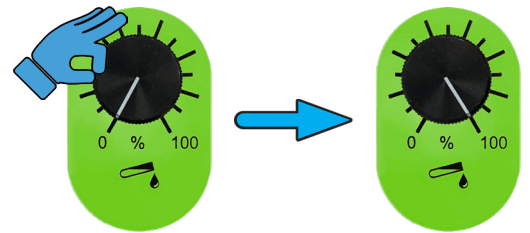


4.10 Bleeding the dosing pump

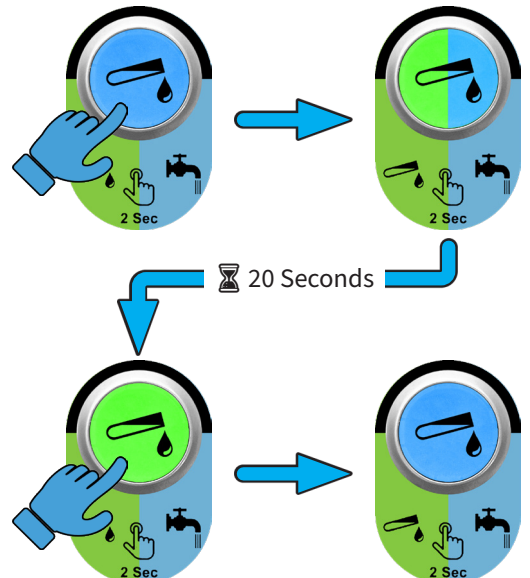
1. Place the cleaning solution suction hose in the cleaning solution tank and let it sink to the bottom



2. Turn the dosing pump controller to 100%.



3. Start bleeding with the »Cleaning solution/tap water« key, the key flashes **green/turquoise** for approx. for 20 seconds during bleeding



4. When bleeding is complete, the »Cleaning solution/tap water« key lights up **green** continuously
5. Switch off the machine with the »Cleaning solution/tap water« key, all keys light up **blue**

⇒ The dosing pump is bled

4.11 Mounting the poles and brush*

The pole system supplied is for a height of up to 15 m and can be extended to a height of 21 m.

The carbon poles should always be at the top and the titanium poles below them because of weight and stability.

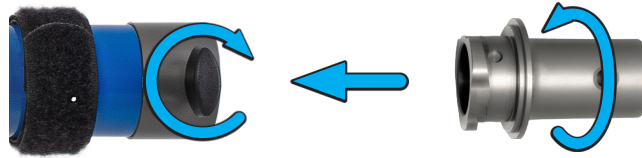
To protect against damage to edges and protrusions, the half titanium poles must always be mounted in the uppermost position.



Caution: Danger of falling:

- Always secure the poles and brush adapter with the wing screws.
- Always use half the titanium pole as the top pole to protect the carbon poles from damage
- Do not use rod set above wind force 2 (>3,3 m/s)

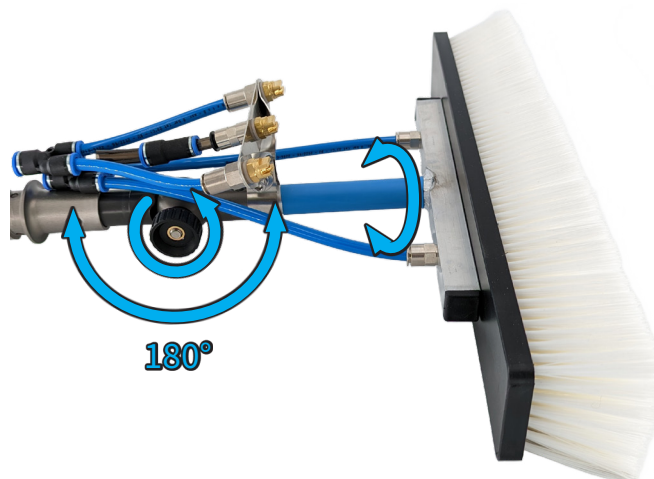
1. Place the brush adapter on the half titanium pole and fasten it with a clockwise rotation
2. Secure with the wing screw



3. Insert the brush bow into the brush adapter until the snap button engages

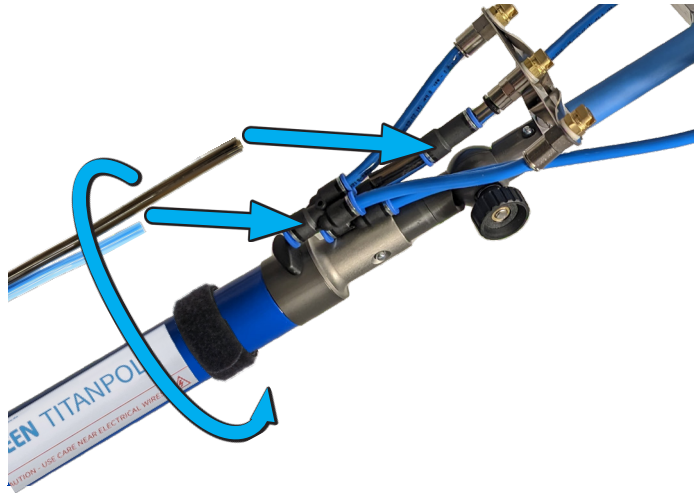


4. Loosen the knurled screw on the joint and set the desired working angle of the brush
5. To set the brush vertically, press the snap button and rotate the brush holder 90 degrees



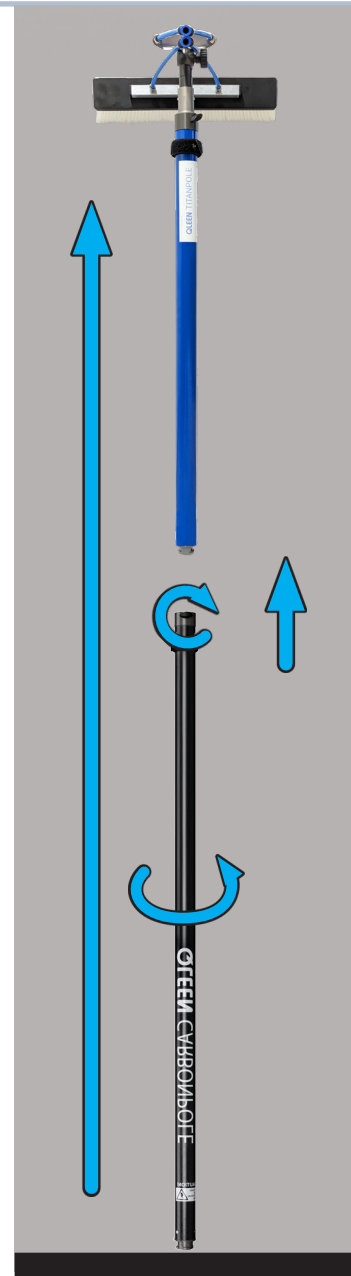
* Only in the variant QLEEN DISY E complete set (70040)

6. Connect the blue hose with the 2 nozzles through or over the brush
7. Connect the black hose to the single chemistry nozzle or the 2 free nozzles
8. Fix the DUO hose with the Velcro tape



9. Place the brush against the wall and push it upwards
10. Click in the next poles from below and fix them with a half clockwise rotation of the pole
11. Secure with the wing screw
12. Secure the tube to the pole with the Velcro strap
13. Add more poles up to the required height, by repeating steps 9 - 12
14. At the end of the poles, attach the handle and secure it with the wing screw, so that the pole system can be put down

⇒ **The device is now ready for operation**

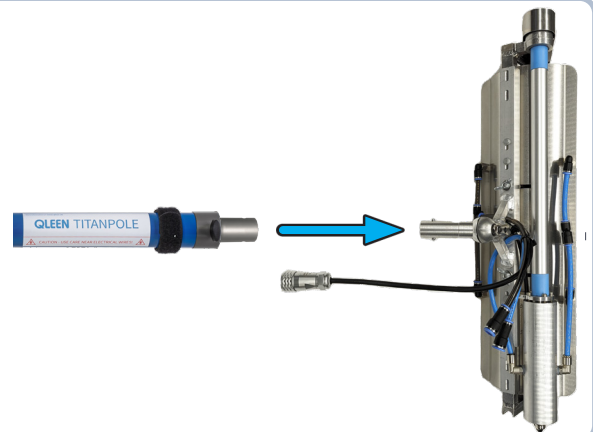


4.12 Connecting a ROTAQLEEN*

The ROTAQLEEN are electric rotating brushes for use with heavy soiling and/or large areas. The QLEEN DISY E is equipped with a connection and control for supply and return for all current ROTAQLEEN

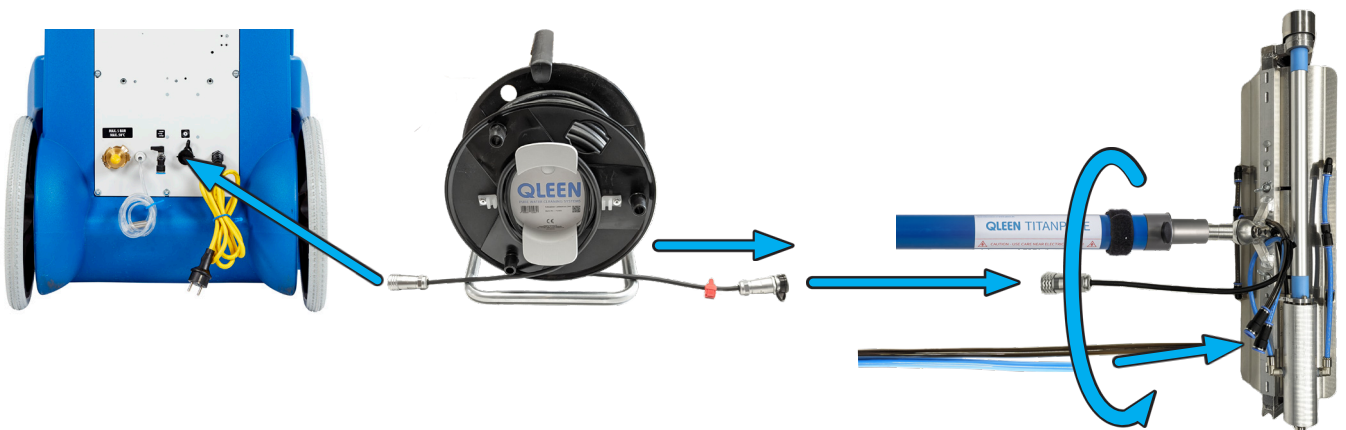
For more information, read the „User information ROTAQLEEN“.

1. Mount the pole set and brush adapter, see Page 16 (4.11 **Mounting the rods and brush**)
2. Insert the ROTAQLEEN into the brush adapter until the snap button clicks into place



1. Roll out the cable to the required length
2. Connect the socket of the cable drum with the plug of the ROTAQLEEN
3. Connect the plug of the cable drum with the ROTAQLEEN socket on the machine
4. Connect the hose with the nozzles on the ROTAQLEEN
5. Fasten the hose and the cable to the poles with the Velcro straps

⇒ **The ROTAQLEEN is ready for operation**



Beware of damage to the ROTAQLEEN:

- Always connect the blue input to the ROTAQLEEN and run water through it during operation, this serves to cool the motor.
- Do not use a cleaning solution with the ROTAQLEEN.

5 Cleaning

For most soiling, the PUREWATER is completely sufficient.

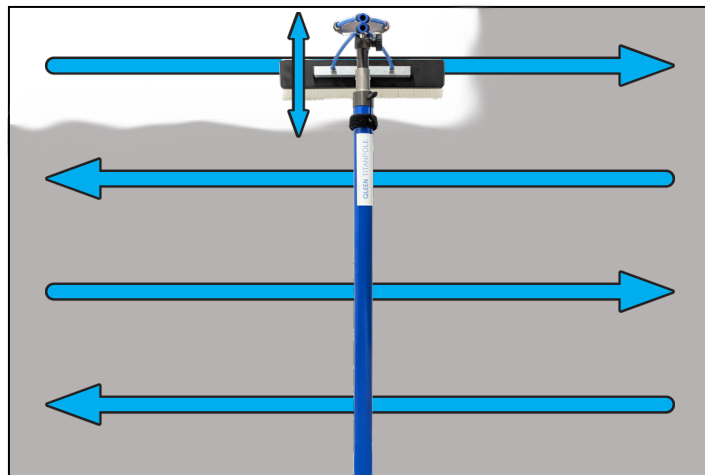
Only heavily soiled and oily or greasy surfaces must be pre-treated with a cleaning solution.

Dirt that can only be removed by intensive mechanical cleaning (e.g. glass plane) should also be pre-treated accordingly.

The higher the level at which work is carried out, the greater the dirt load at the lower levels, because the "foreign dirt" from the higher level is added to the "inherent dirt".

This should be taken into account when calculating the work and the order.

1. Mount the pole system to the maximum height of the cleaning area, see **Page 16 (4.11 Mounting the rods and brush)**
2. Position the brush in the upper area and activate the desired cleaning mode with the remote control
3. Move the brush from one side to the other with even up and down movements over the surface to be cleaned
4. To increase the mechanical cleaning power, press the pole system lightly against the surface to be cleaned with the help of the guide hand
5. Proceed in the same way for the surfaces below until the entire surface has been cleaned
6. Adjust the pole system according to the working height to ensure fatigue-free work



Caution Risk of injury

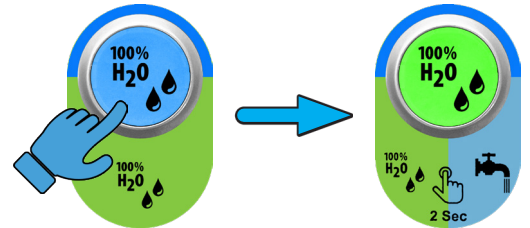
- **Tripping hazard:** Pay attention to the hose when working!
- **Crash hazard:** Place the poles on the floor during work interruptions! Do not lean against vertical walls, this may cause them to fall over and result in injury or damage to the equipment!
- **Crash hazard:** Do not work with the pole system above wind force 2 (>3,3 m/s)
- **Risk of electric shock:** Do not work with the pole system under high-voltage lines!

5.1 Cleaning with PUREWATER

Cleaning with PUREWATER is the most chemical-free and sustainable way of cleaning. Surfaces dry streak-free and without wiping due to the good salt absorption capacity of the PUREWATER. The PUREWATER is pumped through the blue hose.

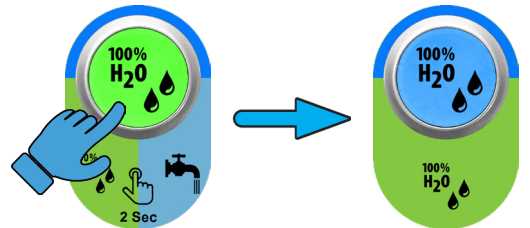
Switching on the PUREWATER

- Briefly press the »PUREWATER« button on the machine or remote control, the button lights up **green**
- ⇒ After a short time, the PUREWATER comes out of the nozzles via the blue hose and the ROTAQLEEN starts up



Switching off the PUREWATER

- Briefly press the »PUREWATER« button on the machine or on the remote control, all buttons light up **blue**
- ⇒ Stop the PUREWATER and the ROTAQLEEN



5.2 Cleaning with tap water and cleaning solution

In the case of heavy soiling, it is cheaper and more effective to pre-clean with tap water first.

The dosing pump mixes the aspirated cleaning solution with the tap water.

The dosing pump has an adjustable flow rate of 1 to 6 liters per hour.

In the case of the Vario brush bow, approximately 200 liters per hour flow through the nozzles, which corresponds to an adjustable mixing ratio of 1:200 to 1:33.

It is possible to change the cleaning mode at any time using the control buttons and the remote control. For example, after cleaning with cleaning solution, the hose can be rinsed or the area to be cleaned can be rinsed with tap water.

The tap water or the cleaning solution is pumped through the black hose.

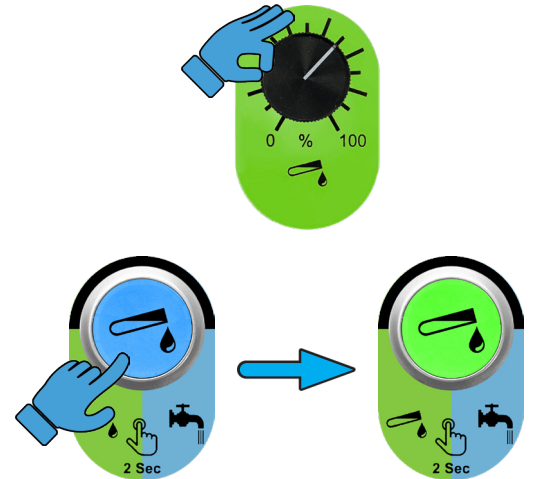
i For cleaning solution operation, the dosing pump must first be bled, see **Page 15 (4.10 Bleeding the dosing pump)**.

! When using cleaning solution, observe the respective specifications and safety instructions of the manufacturer.

i After plugging in the power supply, the machine is in the cleaning solution mode, except the dosing pump regulator is set to 0 % then the machine is always in the tap water mode

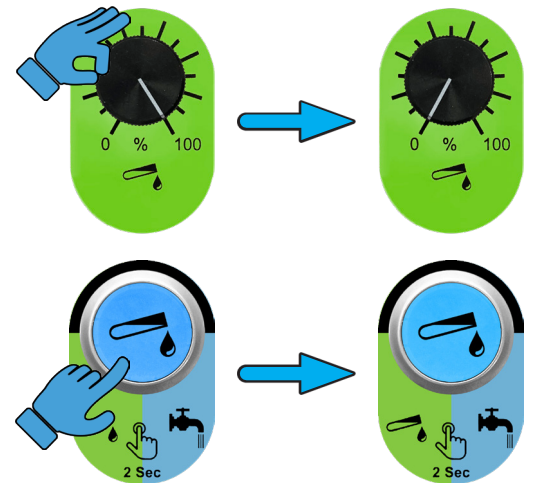
Switching on the cleaning solution

1. Use the dosing pump regulator to set the mixing ratio of tap water and cleaning solution
 2. Briefly press the »Cleaning solution/tap water« button on the machine or remote control, the button lights up **green**
- ⇒ After a short time the cleaning solution comes out of the nozzles via the black hose and the ROTAQLEEN starts



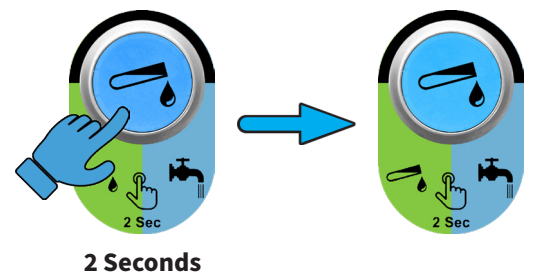
Turning on the tap water

1. Set the dosing pump controller to 0 %
 2. Briefly press the »Cleaning solution/tap water« button on the machine or remote control, the button lights up **turquoise**
- ⇒ After a short time, the tap water comes out of the nozzles via the black hose and the ROTAQLEEN starts up



Or

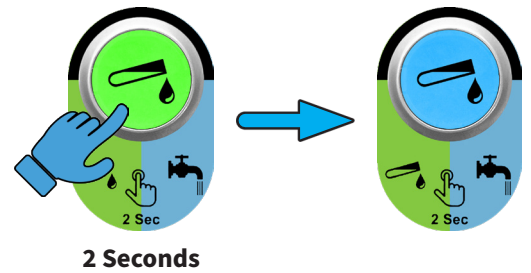
1. Press the »Cleaning solution/tap water« button on the machine or remote control for 2 seconds until the button lights up **turquoise**
- ⇒ After a short time, the tap water comes out of the nozzles via the black hose and the ROTAQLEEN starts up



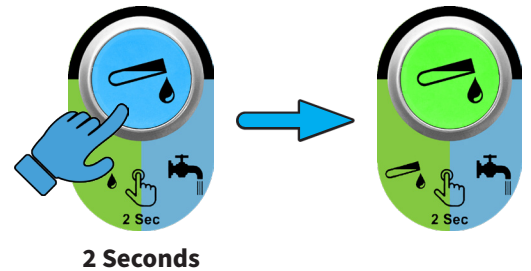
i The machine remains in the last cleaning mode after switching off and on with a short keystroke.

Switching the cleaning mode

- If the »Cleaning solution/tap water« button lights up **green**, the machine is in cleaning solution mode.
- Press the »Cleaning solution/tap water« button on the machine or remote control for 2 seconds, the button lights up **turquoise**



- If the »Cleaning solution/tap water« button lights up **turquoise**, the machine is in tap water mode.
- Press the »Cleaning solution/tap water« button on the machine or remote control for 2 seconds, the button lights up **green**



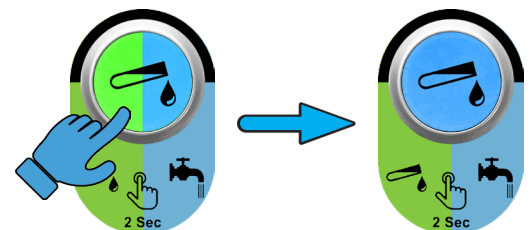
⇒ The machine switches to the respective other mode

i If the machine does not switch to the cleaning solution mode, the dosing pump regulator is set to 0%. Turn the regulator up and switch the cleaning mode again.

Switching off the cleaning solution/tap water

- Briefly press the »Cleaning solution/tap water« button on the machine or on the remote control, all buttons light up **blue**

⇒ Stop the PUREWATER and the ROTAQLEEN

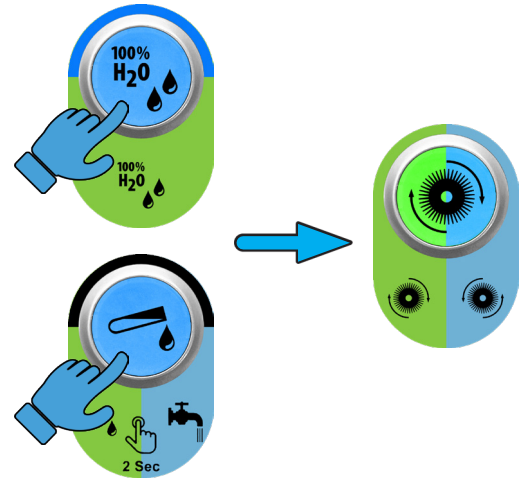


i The machine remains in the last cleaning mode after switching off and on with a short keystroke.

5.3 Cleaning with ROTAQLEEN

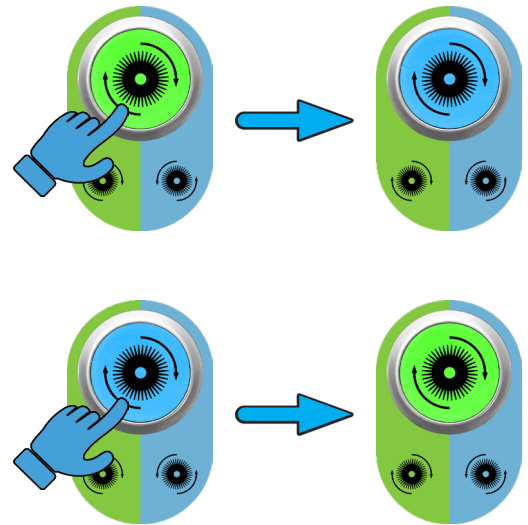
Switching on the ROTAQLEEN

- Press the »Cleaning solution/tap water« and/or »PUREWATER« key briefly, the »ROTAQLEEN« key lights up **green** or **turquoise**
- ⇒ The ROTAQLEEN starts in the last selected running direction



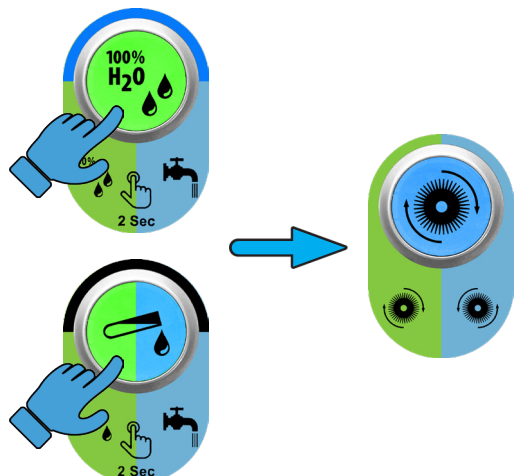
Switching the running direction

- If the »ROTAQLEEN« button lights up **green**, the ROTAQLEEN runs forward
- Briefly press the »ROTAQLEEN« button on the machine or remote control, the button lights up **turquoise**
- If the »ROTAQLEEN« button lights up **turquoise**, the ROTAQLEEN runs backwards
- Press the »ROTAQLEEN« button on the machine or remote control briefly, the button lights up **green**
- ⇒ The ROTAQLEEN changes to the running direction



Switching off the ROTAQLEEN

- Briefly press the »Cleaning solution/tap water« and/or »PUREWATER« key, all keys light up blue **blue**
- ⇒ The ROTAQLEEN stops



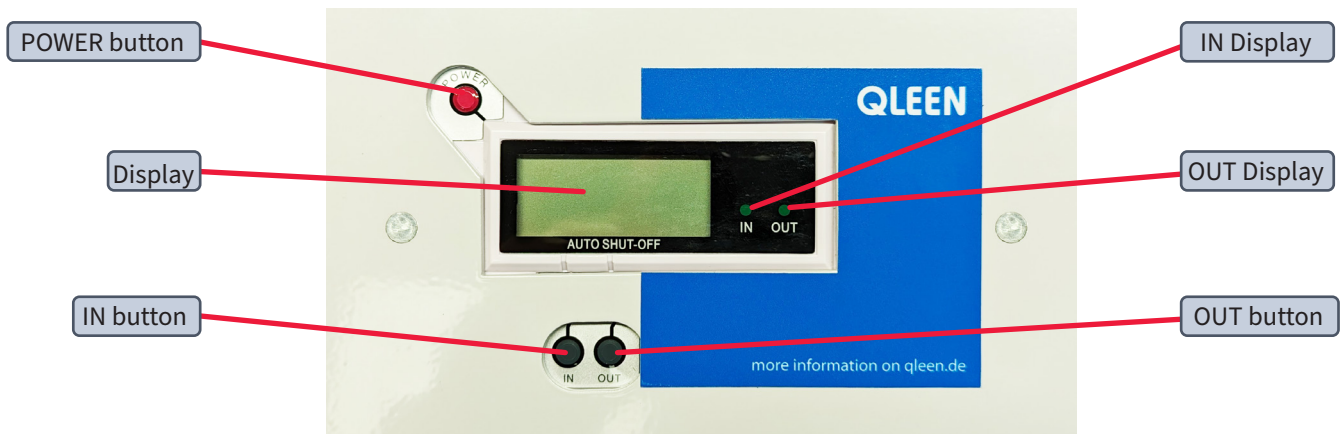
6 Water quality meter

With the integrated measuring device you can monitor the quality of the incoming tap water and the PUREWATER at any time.

We recommend to replace the mixed bed resin for glass and solar systems from a value of 50 μS . If the values are above 50 μS it cannot be guaranteed that the surface dries streak and stain free.

6.1. Operation

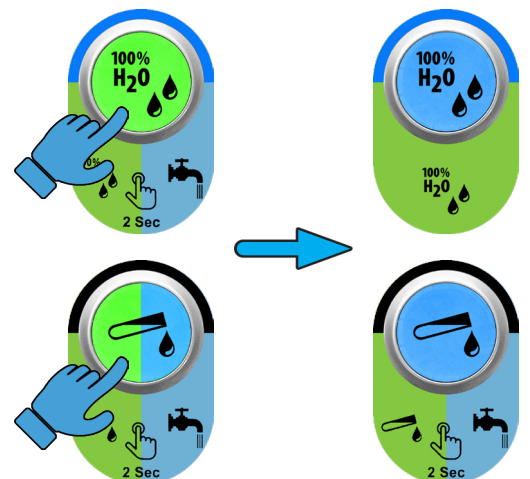
- Switch on the meter with the »POWER« key, after 3 minutes the meter switches off automatically
- Press the »IN« key to measure the incoming tap water, the »IN« indicator lights up
- Press the »OUT« key to measure the outgoing PUREWATER, the »OUT« indicator lights up
- The display shows the salt concentration in μS
- From values above 50 μS we recommend replacing the mixed bed resin



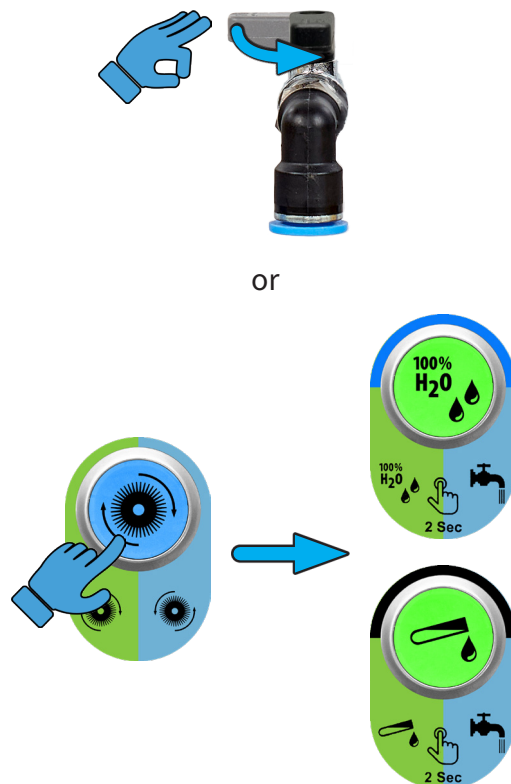
7 After cleaning

7.1 Dismantling

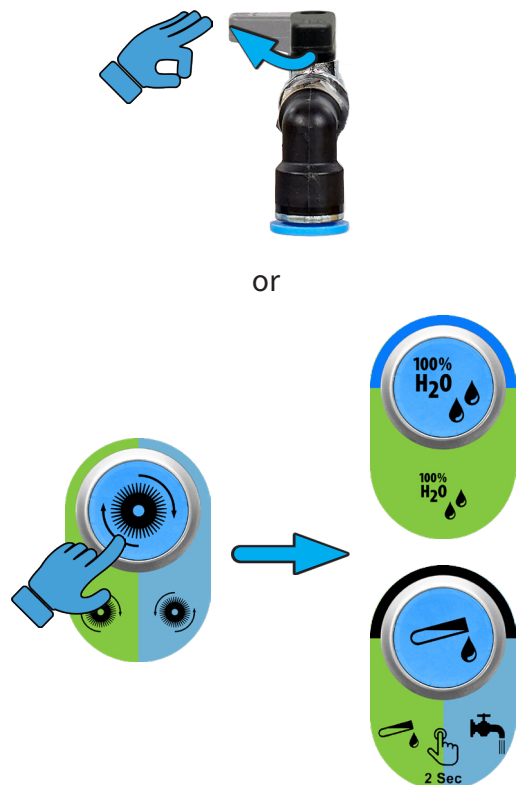
1. Switch off the machine with the »PUREWATER« and/or »Cleaning solution/tap water« keys, all keys light up **blue**



2. Close the water tap of the house water connection
3. Disconnect the hose from the domestic water connection and the QLEEN DISY or pull the suction hose out of the tank and remove it from the QLEEN DISY
4. Open the bleeding tap or press the »ROTAQLEEN« key briefly, the »PUREWATER« and »Cleaning solution/tap water« keys light up **green**



5. Drain the water until the system is depressurized
6. Close the bleeding tap or press the »ROTAQLEEN« key briefly, all keys light up **blue**



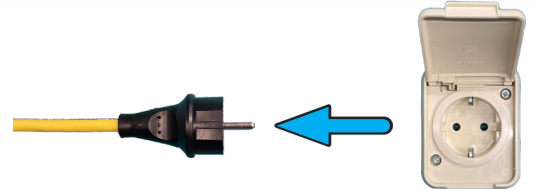
7. To turn off the remote control, set the power switch to »O«



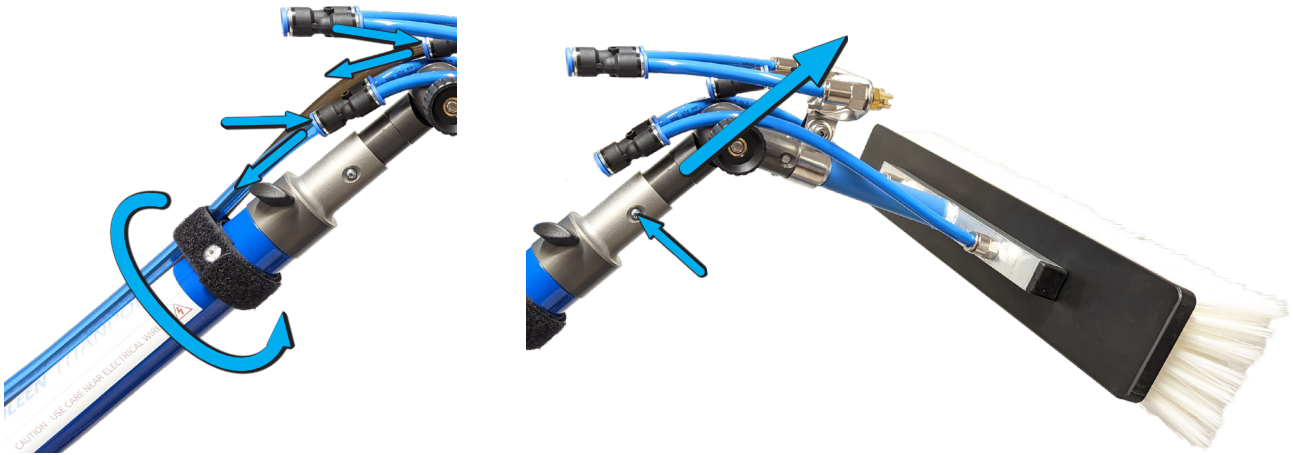

Warning: Risk of electric shock:

- When unplugging the machine, make sure that the power plug and your hands are not wet!

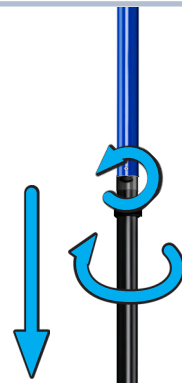
8. Pull out the power plug



9. Open the Velcro and remove the hose
 10. Pull the hose tight, press the blue rings on the hose connector in and pull the hose out
 11. Press the snap button on both sides and pull the brush bow out of the brush adapter



12. Loosen the wing screw
 13. Turn the lower pole counterclockwise and pull it out of the lock
 14. Stow the poles in the transport bag



15. Disconnect the black connection hose from the reel and the machine and attach it to the reel
 16. Roll up the hose

⇒ **The machine is ready for transport**

8 Additional information

8.1 Maintenance and cleaning of the device and accessories

Cleaning hoses

- Carefully wash or wipe off any soiling
- Dry with a clean cloth
- Check for damage and leaks
- Roll up the hose onto the hose holders

⇒ **The hose is cleaned, checked and ready for storage and transport**

Cleaning poles

- Rinse poles as well as all closures and contact surfaces with water
- Clean exterior and interior surfaces with a soft, clean cloth
- If necessary, lubricate with commercially available silicone spray

⇒ **The poles are cleaned, checked and ready for storage and transport**

Cleaning washing brush

- Rinse brushes
- Allow to air dry

⇒ **The washing brush is cleaned, checked and ready for storage and transport**

8.2 Replacing of the mixed bed resin

If the water quality measuring device indicates more than 50 μS , we recommend changing the mixed bed resin.

For the exchange of the mixed bed resin please observe the instructions of the „User Information Mixed Bed Resin Systems“ (separate publication of Lehmann KG).



Caution: Pressure on the granulate bottle:

- Always depressurize the system before replacing the cylinder, see **Page 24 (7.1 Dismantling)**!

8.3 Clean/replace strainer at water inlet

If the water flow is poor in suction operation, the strainer at the water inlet may be clogged and must be cleaned or replaced.

1. Remove the rubber seal in the claw coupling



2. Remove the sieve with a small screwdriver

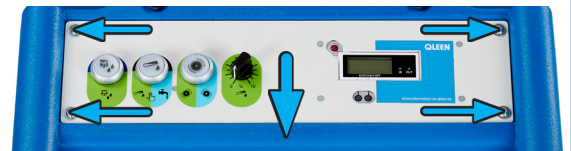


3. If the sieve has holes, it must be replaced
4. If the sieve is dirty, clean it thoroughly under running water
5. Press the cleaned or new sieve and the seal back into the claw coupling

8.4 Battery change meter

If the display is barely legible or no longer legible, the batteries must be replaced. 2 round cells of the type AA (LR6) are installed.

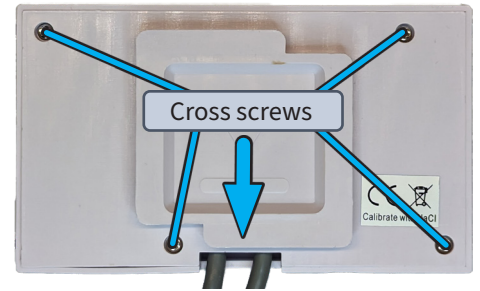
1. Remove all screws from the control panel with a 4 mm hexagon socket and lift up the panel



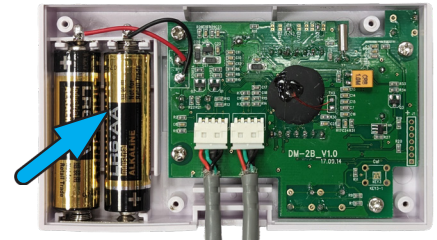
2. Remove the 2 knurled screws on the meter and take out the meter



3. Remove the 4 screws on the bottom of the housing with a Phillips screwdriver and remove the cover



4. Remove the old AA batteries and replace them with new ones, making sure to observe the polarity of the batteries
5. Screw the housing back together and screw it to the panel

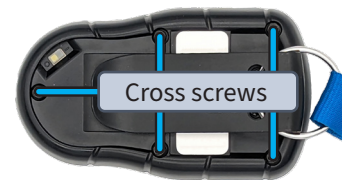


8.5 Battery change remote control

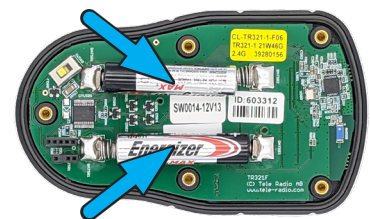
If the remote control does not respond after switching on or the range is reduced, the batteries must be replaced.

There are 2 round cells of the type AAA (LR3) installed.

1. Remove the 5 screws on the bottom of the housing with a Phillips screwdriver and remove the cover



2. Remove the old AAA batteries and replace them with new ones, making sure to observe the polarity of the batteries
3. Close and screw the housing again



8.6 Troubleshooting

Malfunctions	Causes	Solutions
No water comes out of the nozzles	<p>The tap of the house water connection is closed</p> <p>The hose is kinked</p>	<p>Open the water tap</p> <p>Remove the kink from the hose</p>
Little water or an uneven spray pattern from the nozzles	<p>The strainer in the claw coupling water inlet is dirty</p> <p>The nozzles are clogged with dirt or mixed bed resin residues</p> <p>The claw coupling is not properly screwed to the water inlet</p>	<p>Take out the strainer and clean it, see Page 28 (8.3 Clean/replace strainer at water inlet)</p> <p>Remove the hose at the nozzles and blow through with compressed air from the nozzle side</p> <p>Tighten the claw coupling</p>
The surface does not dry streak free	The granules have a conductance of over 50 μS	The mixed bed resin must be replaced, see Page 27 (8.2 Replacing the mixed bed resin)
The meter shows nothing Little	The batteries are empty	Replacing the batteries in the meter, see Page 28 (8.4 Battery change meter)
The remote control does not respond	<p>Remote control not switched on</p> <p>Batteries in remote control empty</p>	<p>Switch on the remote control, see Page 14 (4.7 Switching on the remote control)</p> <p>Replace the batteries , see Page 29 (8.5 Battery change remote control)</p>
Poor remote control range	<p>Batteries in the remote control are empty</p> <p>Buildings or other interfering transmitters are nearby</p>	<p>Replace the batteries , see Page 29 (8.5 Battery change remote control)</p> <p>If possible, always place the machine in line of sight, reduce the distance to the machine or eliminate sources of interference.</p>

8.7 Storage

The QLEEN DISY E should be stored dry and at a temperature above 5 °C.

The mixed bed resin in the bottle can be stored up to 6 months, in case of longer storage it becomes unusable due to algae and germ formation.

8.8 Repair and maintenance

System users and operators must not carry out any repair and maintenance work of their own on Lehmann cleaning systems.

Such work is not permitted and will result in direct loss of warranty and guarantee.

loss of warranty and guarantee.

Repair and maintenance work may only be carried out by the technical customer service of Lehmann authorized dealers or by the manufacturer, Lehmann KG.

For all repair and maintenance work, please contact your Lehmann authorized dealer from whom you purchased the cleaning system.

All repairs are carried out by trained technicians who are equipped with original spare parts for Lehmann systems.

Before contacting the authorized dealer's technical service department, please have the following information ready:

- Type, customer number, telephone number, date of purchase and the most accurate description of the problem possible

8.9 Recycling and disposal

system, accessories and packaging - must not be disposed of with household waste.

Instead, they must be handed over to a suitable collection point for recycling or disposal.

Return shipment to Lehmann KG is also possible.

The sender bears the costs of the return shipment.

Saturated mixed bed resin can be recycled or disposed of in household waste.

Please observe the instructions of the „**User Information Mixed Bed Resin Systems**“ (separate publication of Lehmann KG)

8.10 Warranty and guarantee

Lehmann KG trusts in the quality of its products.

That is why we offer our customers in the member states of the European Union an exceptional 24-month warranty, which is understood to be without prejudice to statutory warranty claims and does not restrict them.

8.11 Manufacturer information

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D - 17235 Neustrelitz

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Youtube www.youtube.com/@qleen
Facebook www.facebook.com/lehmannkg/

9 Technical information

9.1 Supply connections

- Water supply via Gardena tap piece (only tap water with max. 5 bar) or suction via claw coupling with suction hose
- PUREWATER output via 50 m blue PU hose
- Cleaning solution/tap water via 50 m black PU hose
- 100-240V Power supply with type F plug

9.2 Climatic operating conditions

- Permissible temperature range for system use: +5 °C to +50°C
- Maximum permissible wind speed: < 3.4 m/s (wind force 2) for work with pole set
- Maximum permissible surface temperature of surfaces to be cleaned: < 50 °C

9.3 Technical data

Component	Measured variables	Notes	Values
QLEEN DISY E	Dimensions	Length / Width / Height	66 x 66 x 110 cm
	Weight	With mixed bed resin	73 KG
	Required filling quantity		25 l
	Productivity	Depending on the water quality	1000 - 10200 l PUREWATER
	Power supply	Type F connector	100-240V, max. 6 A
	Pump		24V, max. 10 bar, max. 360 l/h
Remote control	Range	Without obstacles, on line of sight	up to 50 m
	Frequency band		2405-2480 MHz
	Approval for		EU, USA, Canada
	Batteries		2 x AAA (LR3)
EC meter	Measuring range		0- 9999 µS ±2 %
	Batteries		2 x AA (LR6)
Pole system	Working height	Maximum	21 m
Workplace	Work and movement area	Minimum length / width	2 x 2 m
	Ground inertia	At least	250 Kg/m2
	Safety distance to power poles and lines	At least	40 m

9.4 CE Declaration of Conformity

This product has been extensively tested prior to market launch and complies with the legal requirements. Please see next page: **CE Declaration of Conformity**.



EC declaration of conformity



Directive 2006/95/EG (low voltage)
Directive 2006/42/E (machine)
Directive 97/23/E (pressure equipment)
Directive 1999/5/EG (telecommunications)

The documents authorized person is:

Mr. Dustin Schnabel, Lehmann KG, Kranichstraße 2a, D 17235 Neustrelitz, Germany

Manufacturer:

Lehmann KG, Kranichstraße 2a, D 17235 Neustrelitz, Germany

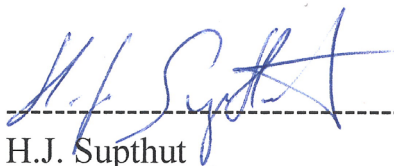
hereby declares that the following products / devices match the regulations of the above mentioned directives including their amendments in force at the time of declaration.

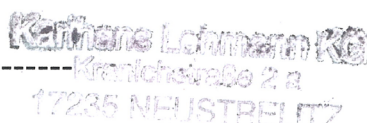
- **QLEEN DISY Elektro in different versions**

The following harmonized standards have been applied:

EN 55014-1, EN 55014-2, EN 55022, EN 50081-1, EN 50082-2, EN 61000-3-2,
EN 61000-3-3, EN 13923, EN 60950-1:2006-A11+A1+A12, EN 301489-1:V1.9.2, EN
301489-3, EN 300220-2:V2.4.1, EN 61204-3:2000

Neustrelitz, 01.05.2014


H.J. Supthut


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