

QLEEN

PURE WATER CLEANING SYSTEMS

General user and safety information

Version 10 / 2016



General user and safety information

We are delighted that you have decided for a Lehmann cleaning system. Before you start your cleaning works, we would like to provide you with some important user and safety information. We kindly ask you to read them carefully and to essentially comply with. As owner and operator of a Lehmann cleaning system make sure that your staff has read this **user and safety information**, too, and observes the safety and warning information.

The document on hand is the original user information. It was written in German language. Versions in other languages are translations of this original user information.

Manufacturer / Editor

Karlhans Lehmann KG · Kranichstraße 2a · D-17235 Neustrelitz
Telephone **(+49) 3981 48 850** · Fax **(+49) 3981 44 06 20**
Email **info@lewi.de** · Internet **www.qleen.de**

Copyright

The document on hand is protected by copyright.

Copying, reproduction, translation, or conversion to any type of electronic media or machine readable form in entirety or in parts is not allowed without the consent of Lehmann KG.

Subject to modifications.

© **Lehmann KG, Neustrelitz, 2016**

Trademarks

The names QLEEN, PURAQLEEN, ROTAQLEEN, CARBONPOLE, TITANPOLE are registered trademarks of the Lehmann KG, Neustrelitz.

Country of origin

Federal Republic of Germany

1. General representation conventions for Lehmann User Information

Highlighted passages

Highlighted passages serve for facilitating the reading and understanding of the instructions. Thus, certain highlights are used in the user information on hand and have the following meaning:

1. marks „Step 1“ in a sequence of several action steps

▷ provides instruction how to implement a single activity as a part of an action step

All areas marked in grey contain information, explanations and background information.

 The hand calls for your special attention and indicates a particularly important fact.

✓ Describes an intermediate result of a correctly implemented action step

✓ **Describes the result of a correctly implemented sequence of several action steps**

Warning and safety information

The warning and safety remarks used in the user information on hand are uniformly structured so that you can recognize immediately what hazards may occur and what you can do to protect yourself.

They are all structured according to the following scheme:

CAUTION

Type and source of Danger

Description of damages you may suffer if you do not abide the safety remarks.

 Concrete risk prevention measures

 You have to implement this measure to protect yourself against the danger!

The following signal words indicate the severity of the hazard you might be exposed to:

- **DANGER** – Danger with high risk
- **WARNING** – Danger with medium risk
- **CAUTION** – Danger with low risk

Symbols

The following symbols are used in warning and safety information to signalize the “type of danger” fast and precisely:



▷ warns of hazards that may result into property damages or minor bodily injuries



▷ warns of electrical shock hazard



▷ warns of the risk of tripping

2. Safety information

2.1 Obligations of the operator

The operator of a Lehmann cleaning system is responsible for ensuring that

- only trained and instructed staff works with the device and its accessories.
- its staff has read the user information.
- the statutory and trade association's industrial safety and accident prevention requirements are observed and complied with.
- the device and its accessories are only used in accordance with the intended purpose.
- the device and its accessories are only used in perfect technical condition.
- the permissible maintenance works are implemented in regular intervals and in accordance with the provisions of the user information on hand.
- no conversion/modification are made at the device and its accessories.
- only original accessories and spare parts are used.
- repair and maintenance works are exclusively implemented by authorized dealers or the Lehmann KG.

2.2 Personnel requirements

Lehmann cleaning systems must only be handled by persons who

- got personal instructions how to handle the device safely.
- have verifiably read and understood the user information and committed to observe the safety and warning remarks.
- are familiar with the trade association's industrial safety and accident prevention requirements.
- put on their personal safety equipment (PSE) when working with the device.

Persons with physical, sensory or mental difficulties are not allowed to handle the system.

The system and accessories must be checked for technically flawless status prior to every operation.

The specified connection and setting values have unconditionally to be kept.

The safety facilities must be in perfect working order at any time.

During the cleaning works, attention must be paid to the technically faultless status of the system and its accessories. The technically faultless status must be permanently monitored.

In case of occurring malfunction or damage, the device must immediately be switched off from the power supply -> remove the 230 V main plug. The system must not be used anymore. Malfunctions and damages of the system and its accessories must be immediately reported to the operator in charge. Recommissioning only after successful fault elimination and/or repair.

2.3 Proper Use

Lehmann cleaning systems must only be used properly and in technically faultless status.

Properly refers to the use of the system and its accessories

- during cleaning works on surfaces (e.g. glass, metal, ceramic, stone), as far as the manufacturer of these surfaces declared these cleaning works to be admissible.
- in outdoor areas.
- up to a maximum pole length of 20 m.
- up to a system water pressure of 5 bar maximum.

From paved areas and scaffolds, work cage, riser, if

- a minimum safety distance of 40 m minimum from above-ground power pylons/line is kept.
- the system is safely parked on a paved area.
- the working and movement areas are fenced.
- no unauthorized parties are present on these areas.
- tripping hazards and other obstacles have been removed or clearly marked.
- the „PSE against falling“ was put on.

With climbing gear if

- a minimum safety distance of 40 m minimum from above-ground power pylons/line is kept.
- the system is safely parked on a paved area.
- the working and movement areas are fenced.
- no unauthorized parties are present on these areas.

Properly means the use in outdoor and indoor areas if the rules and instructions are observed and if water emerging in the indoor area is immediately absorbed by a wet vacuum cleaner to avoid any water damages.

2.4 Improper use

Improper use is any other use than those described above as proper use. The system user/operator is solely responsible for any damages resulting from improper use.

Improper are all modifications/conversions of the system or its components. The maintenance works described in the user information on hand are excluded from this.

Referred to as improper are

- the use of other liquids than those admitted (tap water and demineralized water) and chemicals (detergents, additives).
- applying an electrical voltage different from the certified one (230V ~, 50-60 Hz).
- laterally tilting the pole set.
- mounting the pole set in a not vertical position.

Improper are particularly cleaning works

- working below head without put on „PSE against falling“.
- from ladders.
- without keeping minimum safety distance of 40 m minimum from above-ground power pylons/line
- in case of approaching thunderstorms.
- at environmental temperatures below +3 °C.
- at wind speeds exceeding 3.4 m/sec (= wind strength 2).
- where the temperature of the surfaces to be cleaned exceeds 50 °C.

2.5 Hazard Prevention Measures

Current

A minimum safety distance of 40 m must be kept from current pylons/lines. Works must be interrupted in case of approaching thunderstorms. Live systems and accessories must not be touched with wet hands. The power supply cables must be inspected for damages (pinches, cracks, material fatigue) after every use. Disconnect the system from current supply! Repair only by authorized service technician!

Detergent

Only detergents approved by the Lehmann KG must be used. They must only be used in aqueous solutions (= diluted). The use, disposal and warning information of the detergent manufacturer must be observed. Detergents must be stored out of the reach of children. Eyes must be immediately rinsed when getting in contact with the detergents; afterwards an ophthalmologist must be consulted. Waste water contaminated with detergent and detergent residues must be disposed in accordance with the detergent manufacturer regulations.

Tripping hazard

All obstacles that can be removed from the working and movement areas. All others must be marked clearly or fenced. Warning signs must be used. No unauthorized persons must access the working and movement areas.

2.6 Working safety remarks

Personal Safety Equipment (PSE)

For cleaning works, particularly if detergents are used, safety glasses, protective gloves, protective clothing and safety shoes must be worn. Working at heights is only allowed with put on "PSE against falling". The working protection regulations and the trade association regulations must be observed.

Working height

Do not work overhead for more than 4 hours when working at heights exceeding 7 m, because overexertions of neck and shoulder musculature and head and neck musculature may occur! For working heights exceeding 15 m, short working breaks of at least 3 minutes should be taken every 15 to 20 minutes to relax the musculature.

Protection against environmental impacts

Frost: Pure water (= demineralized water) freezes – different from tap water – already at +1°C. Thus, the system must not be used at outside air temperatures below +3 °C! The system must be protected against temperatures below +3 °C and frost, because frost may damage the water-conducting parts of the system.

Wind: The longer the pole set, the more sensitive it reacts to wind, particularly to gusts. Thus, cleaning works must only be implemented at wind speeds lower than 3.4 m/sec (= wind strength 2).

Temperature of the surfaces to be cleaned: Working is not allowed if the temperature of the surfaces to be cleaned exceed 50 °C. Higher temperatures result into cracks or spalling on the surfaces.

2.7 Working place requirements

During the cleaning works and work interruptions

- the own security and security of third parties must be constantly checked.
- the ground below the working and movement areas must be even, slip-resistant and sufficiently load-bearing.
- the environmental temperature must amount to +3 °C minimum.
- the system must never be left unattended when being in operation.
- the system must only be left alone when the engine is shut-off and the system and the accessories are protected against unintended movements
- the pole set must be protected against lateral tilting, slipping or tipping over.

2.8 Materials that should not be cleaned with Lehmann cleaning systems

Material and construction characteristics:

Surfaces	Problems
Air grids	Do not clean with water, because they often accommodate "century dirt". Clean with brush instead.
Windows with air grids or neoprene seal	In case of dilapidated seals, waste water might get inside and might cause stains and streaks there.
Windows with unpainted wooden frames	The wood absorbs the rinse water and emits it together with the dirt again when drying. This causes stains and streaks on the wooden frame.
Stacked mirror glass, sliding doors or windows	When cleaning walls out of stacked mirror glass, these have to be rinsed with plenty of pure water afterwards. Sliding doors or windows often have dilapidated seals. The rinse water might get insight and emit again later, causing stains and streaks when drying.
Old wooden windows	Crumbly putty, lime deposits and/or glass damaged by nitric acid and sulphuric acid cannot be cleaned with Lehmann cleaning systems.

QLEEN

PURE WATER CLEANING SYSTEMS

General user and safety information

Version 10 / 2016

