

CLEANING PHOTOVOLTAIC & SOLAR POWER UNITS PAYS OFF. RISE ENERGY OUTPUT UP TO 30%.

Operators of photovoltaic or solar power units wish high yield rates for their investment. There is hardly any other economic field in which profit and loss can be calculated easier and quicker. Just check before and after cleaning.

Throughout the development of the QLEEN system, Lehmann KG attached great importance to a strong cleaning effect as well as to an optimal protection. The QLEEN system is not only characterised by its high performance. It also contributes to a long-term maintainability of value.



QLEEN has proved of value under the most difficult operations. This very large plant with an inclination of only 12 degrees exposed to atmospheric conditions as well as to the chimneys of a mast operation. Tenacious dirt forms quickly and cleaning is often necessary. Despite of much care the yield is OK.

APPLICATION EXAMPLE

Assumption: solar power unit, year of construction 2009: performance 50 kWh (equates to approx. 425.00 m^2), degree of pollution 10% feed-in tariff 42.17 cent / kWh, total output of the solar power unit 45,000 kWh / p.a.

loss resulting from dirt: 1897.50 € / a cleaning costs: 1.75 € / m² = 743.75 €

benefit from cleansing: 1,153.75 € extra yield p.a.

PROFESSIONAL CLEANING OF SOLAR POWER UNITS WITH THE QLEEN SYSTEM.

The high and environmentally safe cleaning power of the original PURAQLEEN technique has brought a development stimulus with regard to cleaning techniques of glass and solar power units and is the core of the QLEEN systems produced by Lehmann. "Pure water" is also called "clean, deionised or demineralised". It's made directly from tap water in the mobile PURAQLEEN station. Tap water runs through a filtering substrate, that absorbs minerals.



The result is pure water which provides an excellent cleaning:

- ▷ very good removal of dirt high cleaning power
- ▶ bonds dirt immediately and washes it away quickly
- ▶ high wetting ability -dries quickly and free of streaks, even under direct sun
- ▶ treated surfaces remain clean much longer, so cleaning is needed less often
- ▶ environmentally safe since no detergents are needed

THE QLEEN SYSTEM: CLEAN, NON-POLLUTING AND MAIN-TAINING VALUES.





MOBILITY AND HIGH OPERATING DISTANCE AT A GLANCE.

Flexible water treatment where it's needed. The mobile stations are radio-controlled. They are available in different sizes - practical for every task. Also suitable for fitting in automobiles, trailers etc. Individual configurations are possible at any time.

Professional working without ladders, often without using roofs. The "long arms" - the QLEEN Poles - allow working distances of up to 20 m, dependant on the eaves hight and the reachable operating distance. They consist of single elements made e.g. from ultra-light carbon. They can be connected and locked with a little turn. Water or current supplies are fastened by Velcro fasteners.

A selection of various "intelligent" tools. Depending on the intensity of staining, various cleaning heads can be fastened to the top of the QLEEN Poles. The newest trend is ROTAQLEEN Vario, an electrically operated brush that provides a very good cleaning power, due to rotation and its dead load. QLEEN Tools are available for easy up to the most difficult working conditions. A system with such a variety of solutions is only available from Lehmann.



