# **Ultra Pure** Pure Water Cleaning System for Solar Panels





## Cleaning and maintenance of solar and photovoltaic panels

#### Why clean solar panels?

Photovoltaic panels are constantly exposed to various types of weather and are thus a target for dirt, dust, industrial residues, atmospheric pollution, algae, moss, bird droppings, etc.

The agents responsible for deterioration of the surfaces also include the chemicals used during cleaning. These form an excellent attraction for dirt and accelerate the deterioration process, with negative repercussions on the appearance and, above all, the function of the structure.

The presence of these elements on the panel's surface prevents the sun's rays from filtering onto the panel's photovoltaic cells completely, reducing the solar performance and therefore efficiency.











Accumulated dirt residues reduces efficiency and may damage the material the panels are made from. Cleaning is therefore an indispensable part of the maintenance of these structures and the frequency of the cleaning depends on the geo-graphic area and climate. Industrial areas may require more thorough maintenance than rural areas.



Research and data on solar panels show that the efficiency of panels not cleaned regularly can rapidly drop. Cleaning has been shown to drastically increase solar output.



Efficency of soiled solar panels dropped 20%-30% compared to cleaned panels. Fremont, CA.



Three seperate panels doubled solar output after cleaning in the San Franscsco area.

### Cleaning and maintenance of solar and photovoltaic panels

#### Current cleaning methods and associated risks

- **Rain**, considered as a means of cleaning, but in fact with low efficiency. It may be aggressive as a result of pollution.
- If not carefully chosen, **chemical products** may be aggressive to the panel materials, reducing transparency.
- Chemical waste products may not be dispersed into the soil or drainage system and must be in compliance with local **environmental regulations**.
- Manual cleaning, on the other hand, represents a risk for operatives who often work at a height of 12-20 feet from the ground, with a risk of falling.





## Ultra Pure Cleaning Systems

### ➢ Practical and versatile

Available with three types of power supply, electric, gas, or battery, and with a range of poles and accessories, the Ultra Pure system adapts perfectly to all needs.

Whether working in rural areas with panels installed on the ground or in towns or cities with roof-mounted panels, Ultra Pure is always the perfect solution for cleaning panels.







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