DAN-Spark for solar panels

More and more of the earth's surface is being covered with solar panels to generate sustainable energy.
For solar panels to absorb sunlight properly, they should be as clean as possible. Dirt, sand, dust and even bird droppings cause them to lose efficiency, and as a result generate less electricity. Some studies show that dirt can cause electricity generation drop by 30%.
Fortunately, there is an innovative solution: DAN-Spark, the cleaning unit for solar panels.

The DAN-Spark unit comprises stable, neatly aligned micro sprinklers on each solar panel. It is an ideal and economical solution for cleaning and rinsing solar panels and it is very fast and easy to install.

APPLICATION

Cleaning panels, in solar parks or on the roofs of commercial or private premises

CHARACTERISTICS

- Uniform cleaning of solar panels by 105 and 120 l/h micro sprinklers. Unique adjustable Spark unit that fits most commercial panels
- Enables the PV system to continue generating efficiently
- Saves expenditure on cleaning services and manual cleaning
- Causes no vibrations when cleaning solar panels, unlike some other solutions
- Simple, user-friendly installation and removal of the unit on and off the panel
- In addition to the 180° sprinkler for all central panels, a 90° deflection surface is available for the edges
- Long service life, no rotating parts

TECHNICAL DATA

Flow rate	: 105 l/h (green) and 120 l/h (orange)
Working pressure	: 1.5 to 3.0 bar
Filtration	: 200 microns
Material	: acetal (sprinkler)
	: (stand/clip)
Line diameter	: 20 mm (not included)
Recommended line length	: 20 cm
Connection	: 4/7-mm PE barb

Number of Spark units for various line diameters

Line diameter (mm) (4 bar)	Flow rate (l/h) at 2 bar	
	105 l/h	120 l/h
16	12	11
20	20	17
25	30	20
32	30	45

INSTALLATION & MAINTENANCE

- All components are modular and easy to assemble without special tools.
- It is recommended to use the Spark units daily, preferably early in the morning. At sunrise, the surface of the panels is wet and covered with dew, so the Spark units need less water to clean the panels.
- The ideal run time of the Spark units is 15 to 25 seconds, depending on the amount of dirt.
- It is essential to use soft (or softened) water from the right source because high concentrations of bicarbonate, calcium, magnesium and salts can leave sediments.