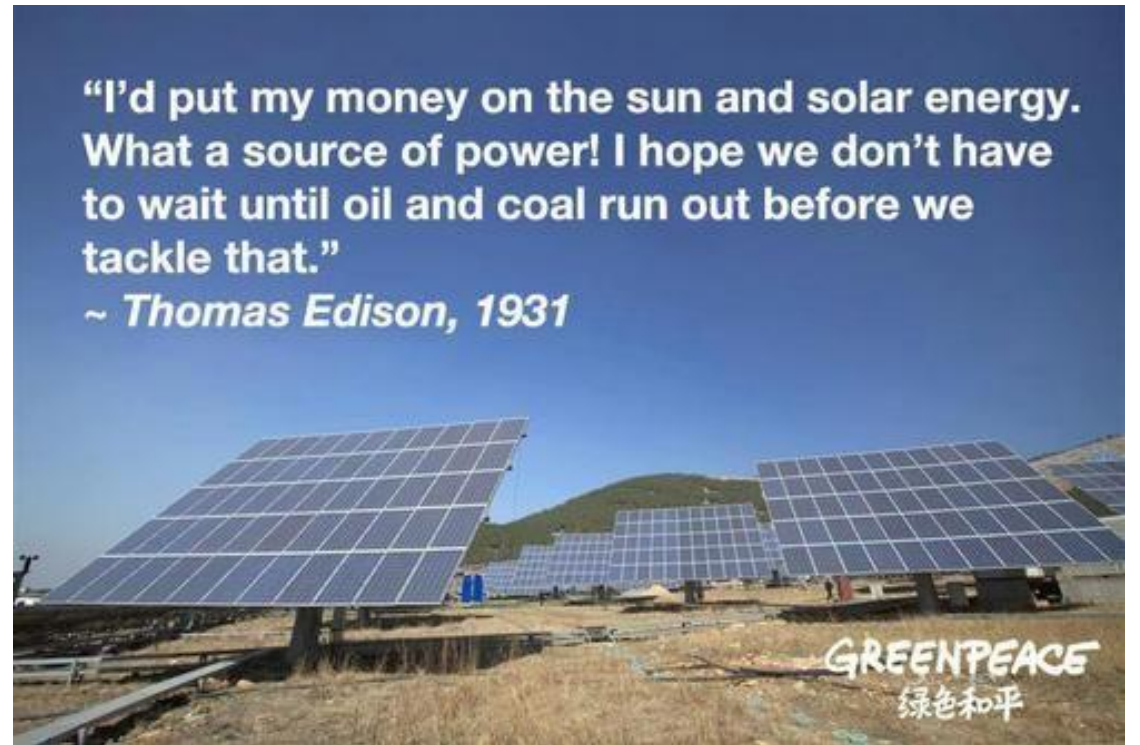


Money from the sun the SPARK way



**"I'd put my money on the sun and solar energy.
What a source of power! I hope we don't have
to wait until oil and coal run out before we
tackle that."**

~ Thomas Edison, 1931







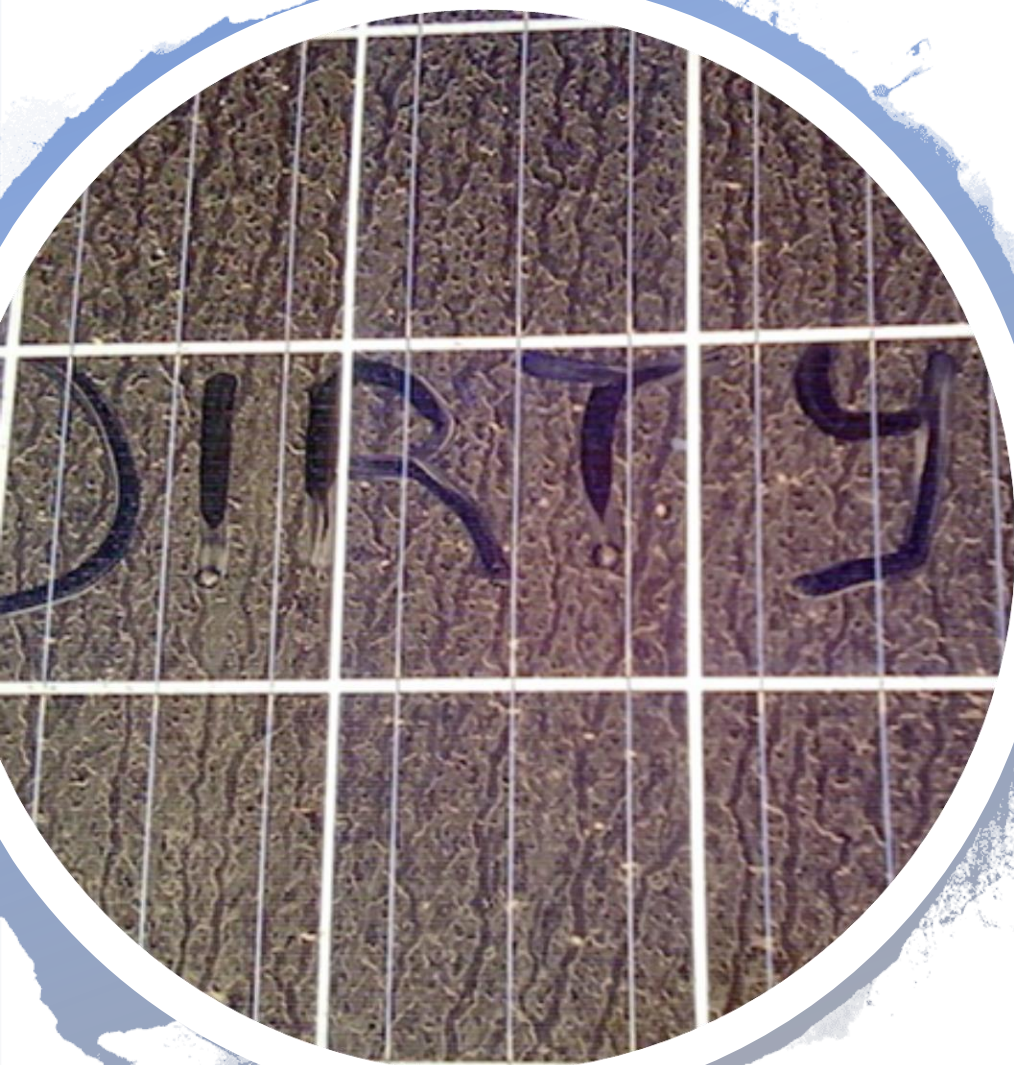


WASH
ME
MAYBE?



Many of the projects are based in industrial or agricultural environments that are constantly enveloped in dirt, soot and dust from vehicles and the surrounding area





calculated as the integral between the efficiency of this clean panel and the actual observed efficiency. Fig.5 demonstrates the 30 day moving average efficiency in blue and in red the ideal efficiency that could be observed with an automated daily cleaning system.

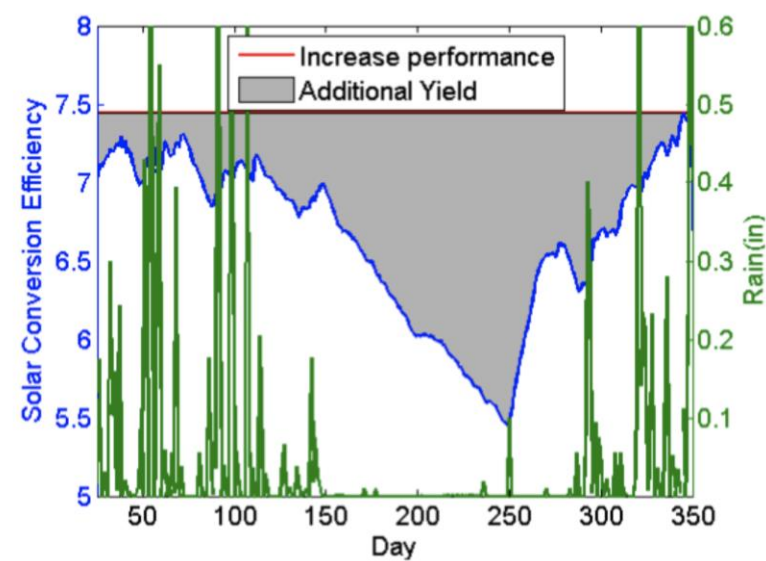
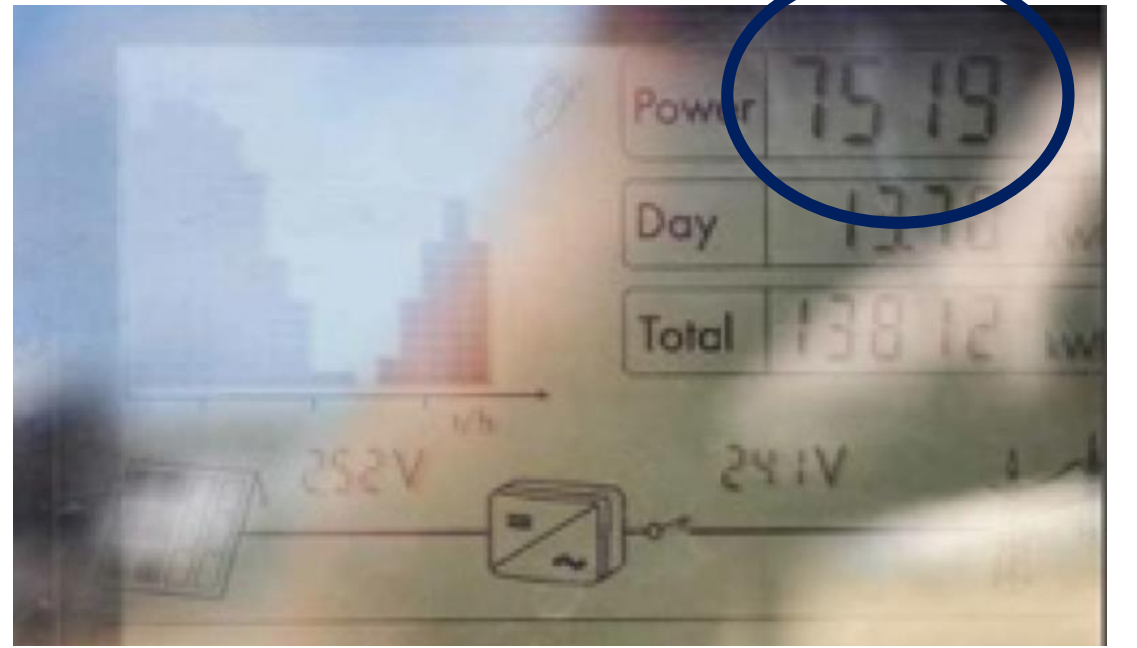
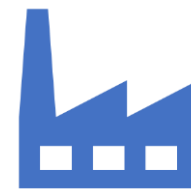


Fig 5. Additional yield if panel is always clean. Red line is expected performance with a panel that is always clean. Gray area is additional yield caused by always having a clean panel.





Panel cleaning



Most of the world cleans manually






THIS WAY

THAT WAY

ANOTHER WAY

The Spark way



A large-scale solar panel cleaning system is shown in operation. The system consists of a long, narrow track with a series of black, curved cleaning arms. These arms are positioned over a vast array of solar panels. Water is being sprayed from the arms onto the panels, creating a misty atmosphere. The scene is set during sunset, with the warm orange and yellow light of the sun reflecting off the wet surfaces of the solar panels. The background shows the structural framework of the solar farm, including metal beams and supports.

**Spark is NaanDanJain's
innovative concept for the
optimal cleaning of solar panels.**

Choosing Spark means choosing a new path



Choosing Spark means choosing a new path

- Fully automatic with no cleaning cycles
- Spark does away with the need for human labor
- Spark keeps your solar panels forever clean







NAANDANJAIN
JAIN IRRIGATION COMPANY



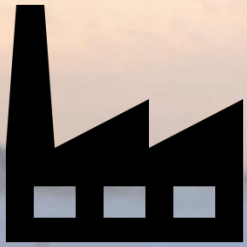
The Spark way

- saves manpower
- safe
- electricity-free
- the solid, non-rotating parts ensure a long life span
- allows you to reduce the distance between rows of panels

The Spark way




- easy to assemble and operate
- provides immediate solutions in the event of unexpected dirt accumulation



The best solution for roof projects



NAANDANJAIN
A JAIN IRRIGATION COMPANY

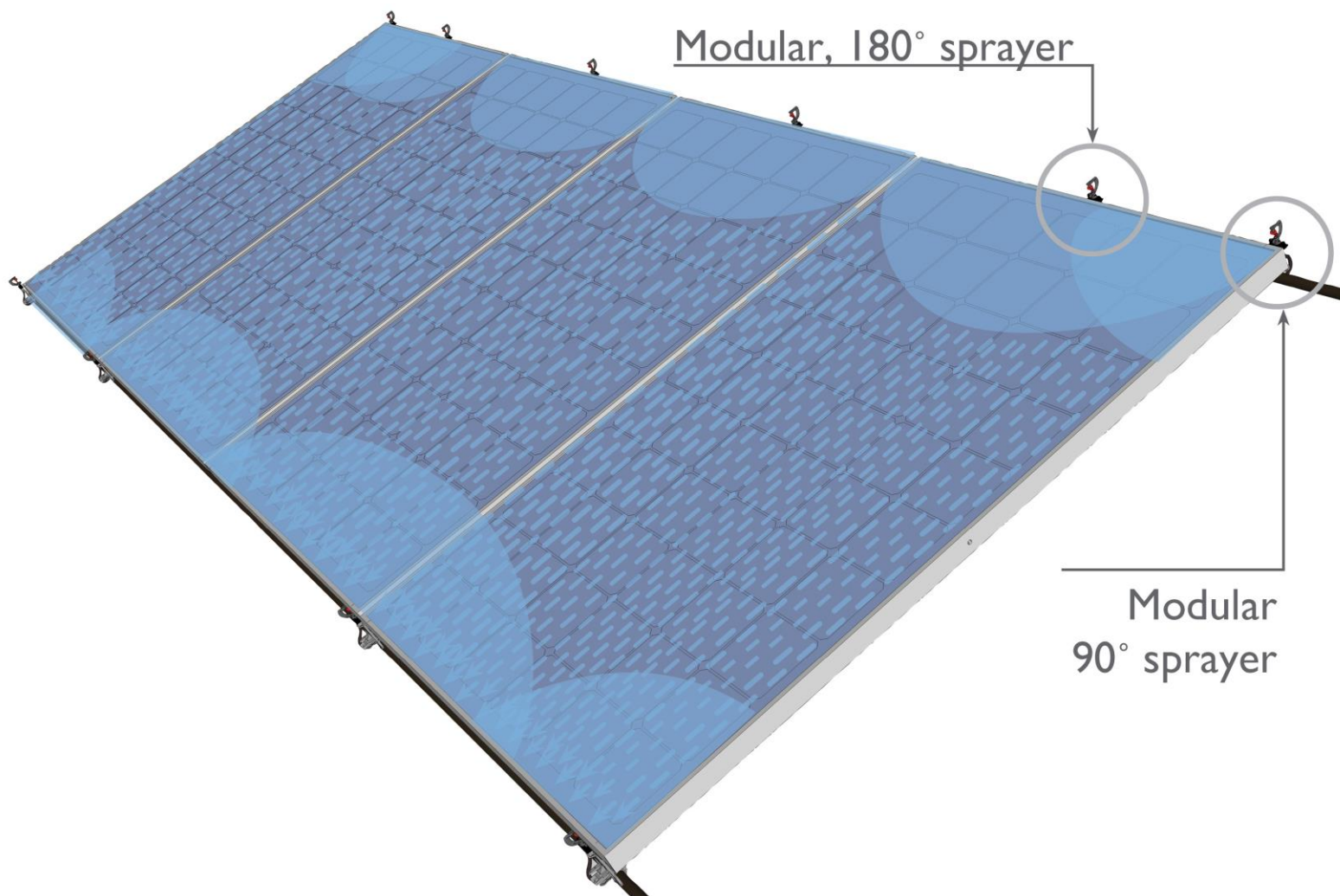


**Spark ensures
constant optimal
energy production,
thus maximizing
your income per
panel**

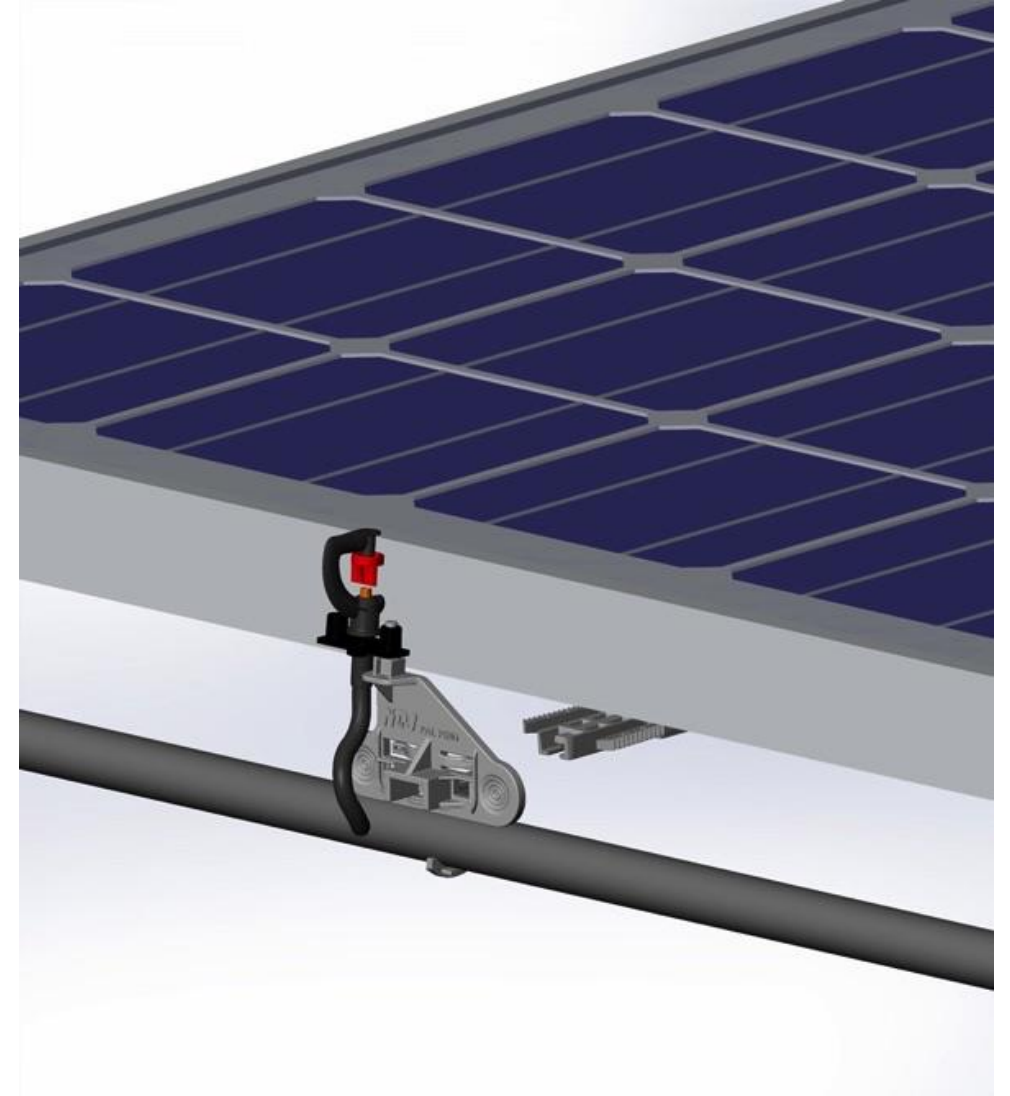
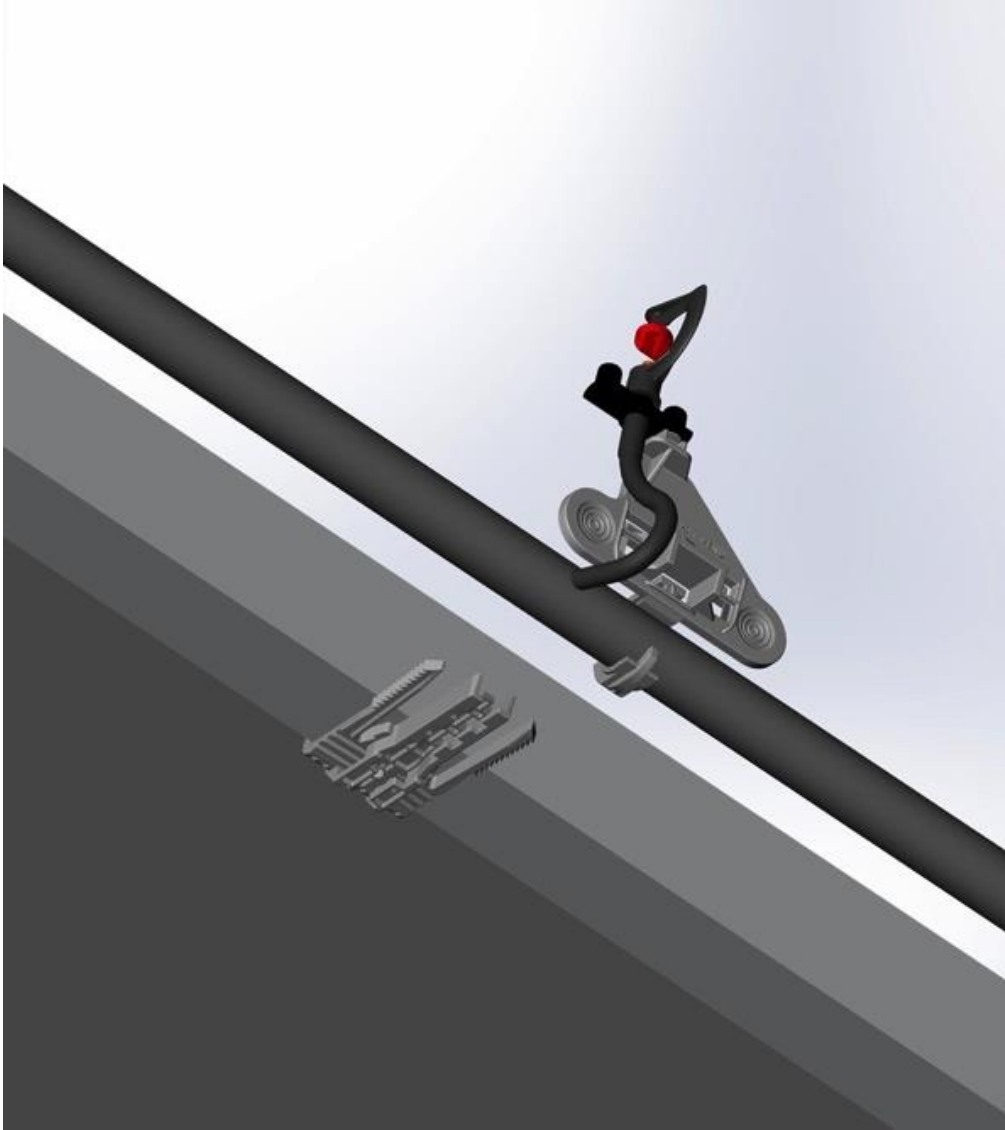
Installation & Maintenance



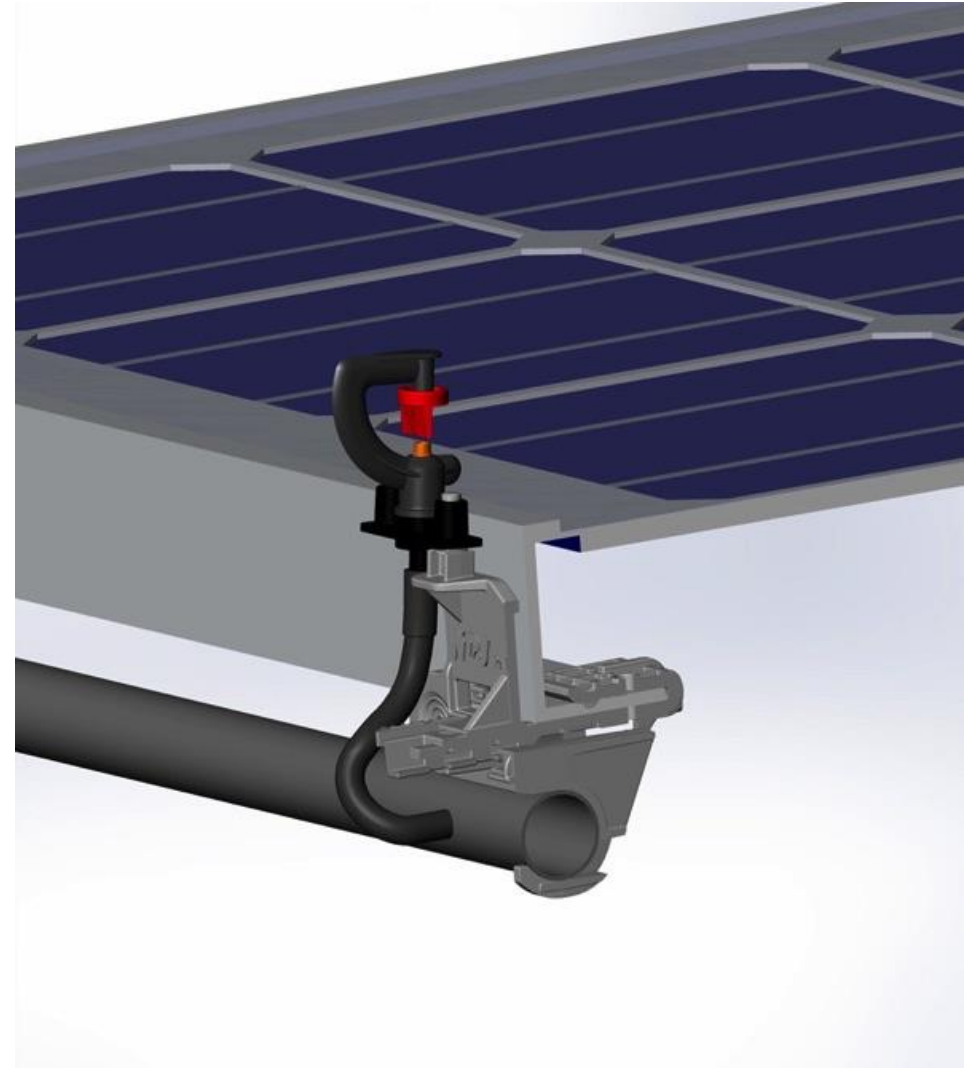
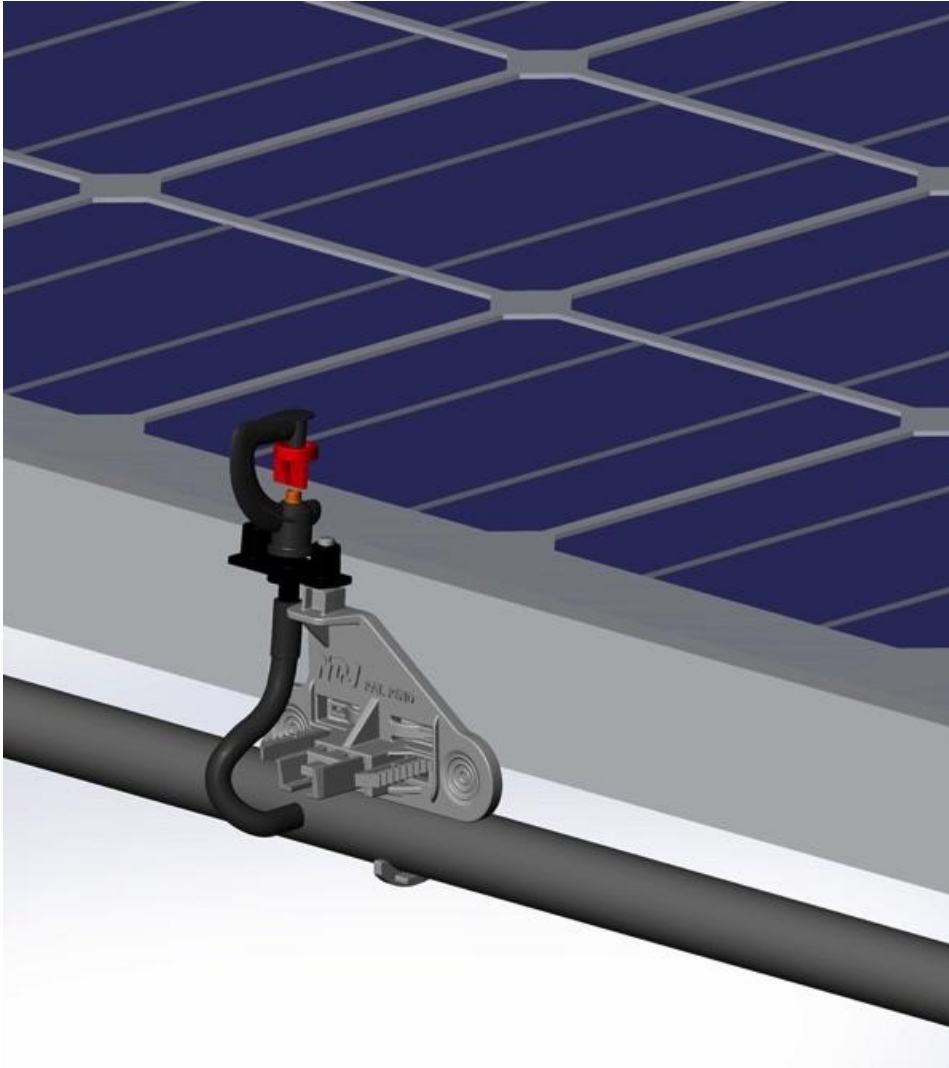
- ❖ Easy to install
- ❖ Easy to operate
- ❖ Easy to maintain
- ❖ Suitable for various types of solar panels



SPARK^{PAT. PEND} SOLAR PANEL CLEANING



SPARK PAT. PEND SOLAR PANEL CLEANING







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Before and after













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Spark in action

- Turn Key project
- Full solution from A - Z
- We provide water analysis, filtration
- Hydraulic design
- Installation or supervision of Installation
- Adjustment of the control and monitoring system to suit the specific site

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Plans for the re-use of water after the panel-cleaning process







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**Spark
covers the
entire
panel**



Spark - a simple and innovative concept for cleaning and maintaining your solar panels sparkling clean



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The Spark way

