

H20/H40 Hydrobotic Autonomous Cleaner

- Superior water and brush cleaning removes 99.5% of dirt & dust
- Inexpensive water-powered propulsion
- Directly mounted on the solar panels without costly tracks or rails
- Engineered to clean PV panels for 10 years in harsh environments
- Costs much less than other solutions





The Challenge

The success of solar power as a source of renewable energy is driven by economics. Studies have conclusively shown that dirt, dust, and bird droppings can reduce PV electricity production by up to 40% or more. Without regular cleaning at an affordable cost, solar panels will not produce their promised quantities of electricity, nor will they be able to deliver a reasonable return on investment for their owners.

The Solution

Solaris Hydrobotic[™] Autonomous Cleaners use patented water-powered technology to propel the cleaner, rotate the nylon cleaning brush, and wash away the loose dirt. Without the need for electrical motors or metal parts, the lightweight Solaris Hydrobotic Cleaners can be installed directly on the PV panels without expensive supports or rails. As a result, they cost significantly less than other autonomous solutions, enabling affordable daily cleaning that maximizes your solar energy output—even on rooftop systems.

Output

Solaris cleaners are designed to clean PV panels for up to 10 years. They are engineered with plastic materials highly resistant to harsh environmental conditions, including Polyamide reinforced with glass fibers and treated for UV and hydrolytic stability. Also, intelligent operations such as analytics for proactive maintenance and optimized cleaning schedules maximize product longevity, cleaning effectiveness, and ROI.

How It Works

- 1. The patented water-powered motor propels the robotic cleaner across the PV panels
- 2. The motor also rotates the cleaning brush, and sprays water on the panels.
- 3. The cleaning brush loosens the dirt, which is washed away by the water.
- 4. The robot is parked on the side and passes in the opposite direction on the next cleaning.



Efficiency reduction

(frequent cleaning)

Time

Productivity loss

(infrequent cleaning)

Specifications

	H20	H40
Cleaning area	12 m ² /min	20 m ² /min
Dirt removal	99.5%	99.5%
Brush module length	2 m (adjustable)	4 m (adjustable)
Brush type	0.3/6mm PE/PBT Plastic follicles	0.3/6mm PE/PBT Plastic follicles
Water pressure	3-10 bar	3-10 bar
Water consumption	1.0 lit/panel	0.5 lit/panel
Motor type	5-piston water motor	5-piston water motor
Incline range	10-60°	10-60°
Operating temperature	2-50°C (32-122°F)	2-50°C (32-122°F)
Control type	Control system / mobile app	Control system / mobile app
Warranty	1 year	1 year
Size (L x H x W)	2070 x 325 x 435 mm	4100 x 325 x 435 mm
Weight	23.5 kg	39 kg
Emissions	Water only	Water only
Noise	<50 dB	<50 dB



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