

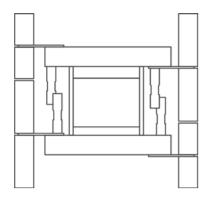
## Mobile Cleaning Technology for Photovoltaic and Solar Systems

The sunbotics ensures thorough cleaning and can be adapted to all specific requirements of any PV system thanks to its absolute modularity. Cleaners can use the sunbotics system - either in its basic form or adapt to the challenge at hand by simply using different conversion kits.





# **/** Modular Allrounder



### Individual and Adaptive

In just a few simple steps, you can retrofit the machine individually, according to your needs. It can be effortlessly extended and / or shortened, brush lengths can be exchanged and what makes it unique, is that the chassis can be adapted in the process. In this way, the sunbotics can cope with even highest inclinations.

### Intelligent Cleaning

The unique mobility of the brushes is made possible thanks to the intelligent carrier arms. Parts of the brushes function independently of one other - meaning they do not move stiffly over the modules, but adapt to the module surface. Regardless of whether the module is bulbous or set lower, our sunbotics cleans without leaving any residue. The form of carrier arms is unique on the market.

### **Highly Impervious**

All our motors as well as the e-box are equipped with membranes. This means that any condensed water can immediately escape.



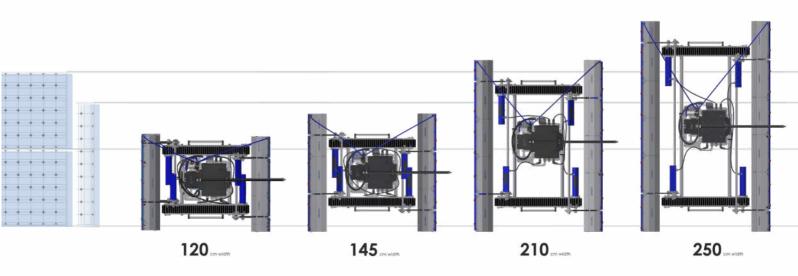


### **Protector Lacquer**

Thanks to the protect lacquer of the e-Box, it has a high resistance to scratches and other sources of impact.

### **Power & Battery Operation**

The e-Box can either be connected to a power connection or used via battery, to ensure stressfree cleaning. The ebox including all connections has a membrane which has been subjected to a leak test.



# **/** Features



#### Gentle to the Module Surface

The running tracks driving on the module surface preserve the modules thanks to the special rubber profiles. Since the tracks are 90 cm long the weight distribution for the maximum load on the modules is 4,000 pa for the base robot.



#### **Remote Control**

Effortlessly control the robot from a distance, ensuring precise cleaning without the need for direct super-vision.



#### Wet Cleaning

The water connection enables wet cleaning, which makes it easier to remove stubborn dirt.



#### Drive over Module Gaps

85 cm

Thanks to the stable running tracks the robot can drive over significant module gaps of up to approx. 85 cm without having to lift the robot from one module table to the next. The adjustable brushes allow it to also easily climb differences in height of up to approx. 15 cm.

15 cm



#### Inclinations of up to 30°

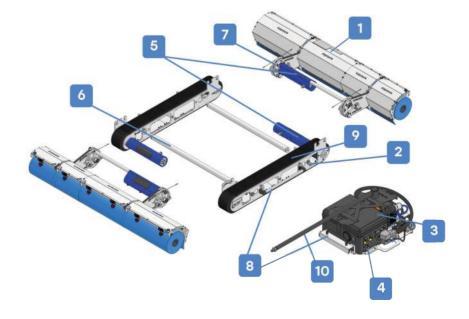
The specially developed rubber profiles of the tracks also provide extra grip when driving on inclinations of up to 30° for the base robot.



#### **Perfect for Transport**

Its mobility offers numerous advantages compared to conventional cleaning systems of facilitates your cleaning project considerably.

- 1 Brushmodule with cover
- 2 Drive unit (large)
- 3 Battery
- 4 e-Box (electronic Box)
- 5 Motor
- 6 Connecting rod drive unit
- 7 Carrier arm with quick coupling system
- 8 Handle bar
- 9 Module glider
- 10 Water connection



# **Technical Data** Metrics

Width	120 cm	145 cm	210 cm	250 cm
Length	155 cm	155 cm	155 cm	155 cm
Height	38 cm	38 cm	38 cm	38 cm
Weight				
Total	84 kg	89 kg	99,5 kg	106,5 kg
Central unit	17 kg	17 kg	17 kg	17 kg
Chassis	31 kg	31 kg	32,5 kg	33,5 kg
Brush unit	2 x 18,5 kg	2 x 20,5 kg	2 x 25 kg	2 x 28 kg
Load calculation	3.820Pa	3.910 Pa	4.160 Pa	4.330 Pa
Operation				

Maximum speed	25 m/ <sub>min</sub>	25 m/ <sub>min</sub>	$25 \text{ m/}_{min}$	25 m/ <sub>min</sub>
Cleaning speed	1.470 <sup>m2</sup> / <sub>h</sub>	1.940 <sup>m2</sup> / <sub>h</sub>	2.790 <sup>m2</sup> / <sub>h</sub>	3.320 <sup>m2</sup> / <sub>h</sub>
Max. inclination of solar modules	30°*	30°*	25°	20°
Water supply	0-600	0-600 <sup>1</sup> / <sub>h</sub> 2-4 bar	0-600 <sup>1</sup> / <sub>h</sub> 2-4 bar	0-600 <sup>1</sup> / <sub>h</sub> 2-4 bar
Brush rotation	200 rpm	200 rpm	200 rpm	200 rpm

 $^{\star}$  30° inclination, with ideal conditions for the system and a trained driver.

#### The machine must be secured.

### Extras

Modular architecture Warning system for low battery Maintenance package for small repairs on site Protection class for motors (imperviousness) IP 65 Splash guards for additional protection of motors Adjustable water flow



#### Contact

sales@suntex.energy +49 (0) 8332 243 43 - 30 www.suntex.energy

#### suntex GmbH

Am Bahnhof 14 87760 Lachen