

PREPARED FOR THE **FUTURE?**



hyCLEANER[®]

THE hyCLEANER[®] MODULAR SYSTEM

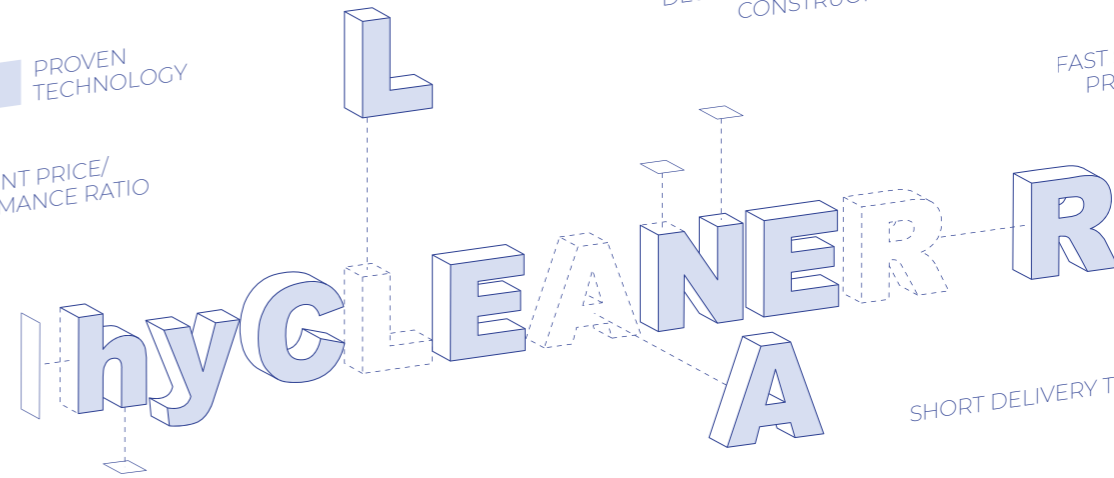
MODULAR SYSTEM
LIGHTWEIGHT CONSTRUCTION
EASY HANDLING
HIGH CLEANING PERFORMANCE
ECONOMICAL
FLEXIBLE

PROVEN
TECHNOLOGY

EXCELLENT PRICE/
PERFORMANCE RATIO

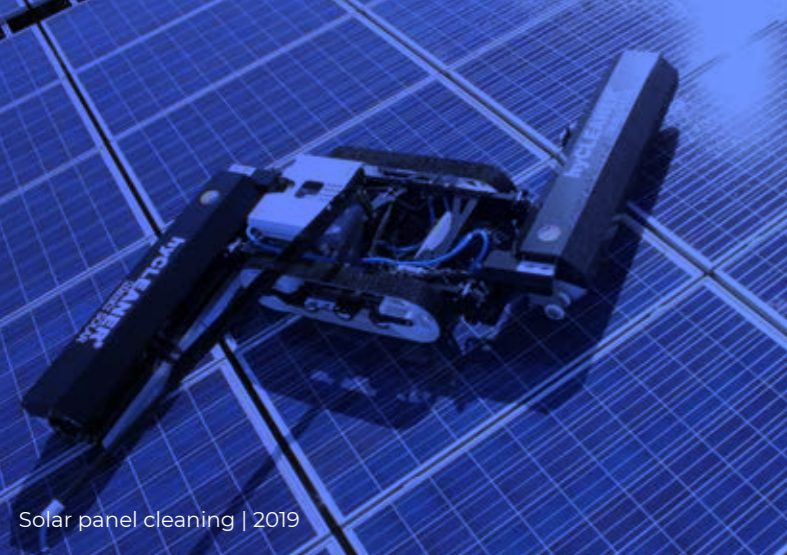
HIGH QUALITY BY SOPHISTICATED
DESIGN OF THE MODULES AND
CONSTRUCTIONAL SIZES

FAST SPARE PARTS
PROCUREMENT



FUTURE EXTENSIONS WITHIN
THE RANGE OF VARIANTS
ARE POSSIBLE

SHORT DELIVERY TIME



Solar panel cleaning | 2019



Glass façade cleaning | 2015



Solar ground-mounted installation | 2017



Glass façade cleaning | 2018



Wind turbine cleaning | 2014



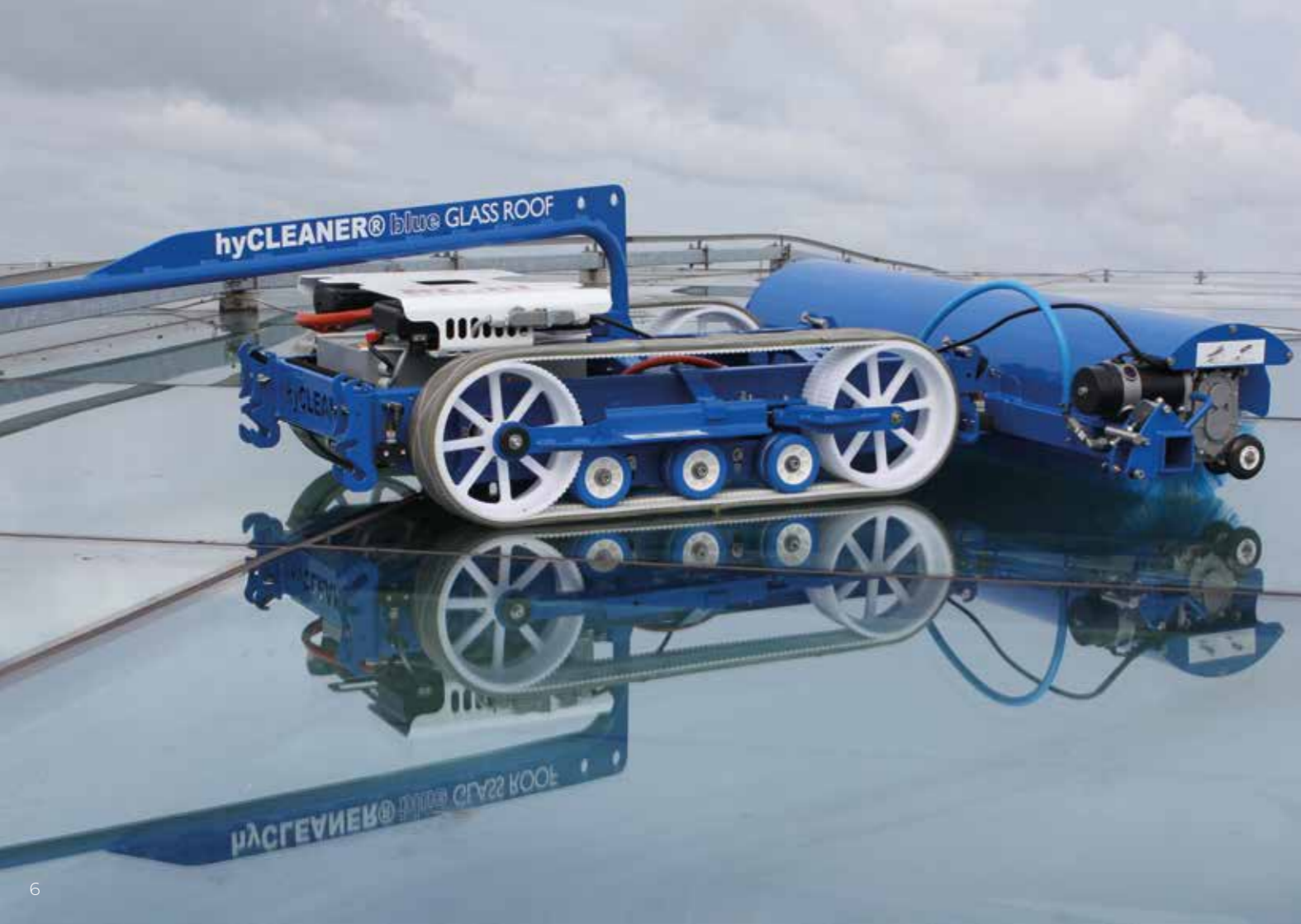
Glass roof cleaning | 2019



Complete solution | 2018



Industrial façade cleaning | 2013



hyCLEANER® blue GLASS ROOF

hyCLEANER® blue GLASS ROOF is an innovative cleaning system for different roof forms, specifically developed for organic forms and structures. Safe, efficient, economic and easy to operate. Moving on tracks with excellent grip on glass surfaces. The machine is designed for one-man operation and has proven to work successfully in challenging applications.

Machine		Chassis	
Length	± 1,30 m	Gradeability depending on surface condition	max. 25°
Width	± 1,00 m	Width of driving pad	± 0,10 m
Width (chassis)	± 0,80 m	Driving speed 4 adjustable speed levels	± 1,5 km/h
Height	± 0,45 m	Power supply	
Total weight of the hyCLEANER®	± 80 kg	Ion battery	max. 42 Volt
Brush width	± 0,90 m		
Brush diameter	± 0,30 m		

Alterations in construction reserved.



hyCLEANER® black SOLAR facelift

hyCLEANER® black SOLAR facelift – clean solar and photovoltaic panels ensure optimum performance! Solar and photovoltaic plants are symbols of clean energy generation. In order to achieve the optimum efficiency as well as the calculated service life of the plant, the solar panels have to be clean. Permanent soiling caused by environmental influences, dust, flower pollen, mosses etc. reduces the solar performance and efficiency. In the case of agricultural farms and livestock farming, ammonia gases lead to an additionally increased degree of soiling (heavy soiling may reduce profits by 20 – 30 %). Even smallest contaminations caused by bird droppings, mosses, lichens etc. may – due to the series connection of modules – reduce the performance and efficiency of the complete plant, as the weakest module determines the total output. However, it is not only the financial loss, which gives reason to concern! Soiling can attack panels' coatings and seals. Incoming water then causes damages to the complete system. The solar and photovoltaic plants become susceptible to faults and failure.

Machine		Chassis	
Length	± 1,30 m	Gradeability depending on surface condition	max. 25°
Width	± 1,00 m	Width of driving pad	± 0,10 m
Width (chassis)	± 0,80 m	Driving speed 4 adjustable speed levels	± 1,5 km/h
Height	± 0,45 m	Power supply	
Total weight of the hyCLEANER®	± 80 kg	Ion battery	max. 42 Volt
Brush width	± 0,90 m		
Brush diameter	± 0,30 m		

Alterations in construction reserved.



hyCLEANER® greenfield 2500

The **hyCLEANER® greenfield 2500** allows simple, fast and economic cleaning of ground-mounted solar and photovoltaic installations. Mounted onto a flexible and compact rubber tracked chassis for areas that are tough to access. hyCLEANER® - gentle cleaning can be so easy.

Brush & chassis		Motor brush	
Brush width	± 2500 mm	Water pressure	min. 120 bar (1740 psi) max. 160 bar (2300 psi)
Brush diameter	± 550 mm	Water quantity	min. 9 l/min. max. 12 l/min.
Traffic load on the surface to be cleaned	max. 63 kp/m ² max. 618 N/m ²	Revolutions regulated via water quantity	yes
Running wheels (8 pcs.)	ø 260 mm	Cleaning speed (km/h)	max. 1,7 km/h
Lateral outreach (Edge track – Edge brush)	max. 4000 mm	Performance	depending on degree of soiling
Length in transport position	± 3000 mm		
Width in transport position	min. 1200 mm, max. 1800 mm		
Height in transport position	± 2350 mm	Optional accessories	
Total weight without water	± 1780 kg	Driving seat	
Filling capacity water tank	big: ± 600 l, small: ± 60 l	Sun shading	

Alterations in construction reserved.



hyCLEANER® red EVO I

The **hyCLEANER® red EVO I** cleans different forms of façades, surfaces and materials: very gentle, effective, fast and above all, economic. The machine works with high-pressure water and does not need any electrical connection. Both, the glass and the frames are cleaned simultaneously. All water leading elements are made out of stainless steel. Purified-water can be used and the glass surfaces dry up, leaving no streaks behind.

A further advantage of **hyCLEANER® red EVO I** is the running wheels. They do not leave any marks on the surface of the façade - gentle cleaning can be so easy!

Machine		Motor	
Brush width	± 1550 mm	Water pressure	min. 120 bar (1740 psi) max. 160 bar (2300 psi)
Brush diameter	± 550 mm	Water quantity	min. 9 l/min. max. 12 l/min.
Balance of movement	max. 1000 mm	Revolutions regulated via water quantity	yes
Running wheel ø big	500 mm	Lowering speed	max. 24 m/min.
Running wheel ø small	260 mm	Performance*	max. 18 m ² /min. <small>*depending on degree of soiling</small>
Total weight	min. 120 kg		
Traffic load on the surface to be cleaned	min. 20 kp/m ² max. 82 kp/m ² min. 197 N/m ² max. 807 N/m ²		

Alterations in construction reserved.



hyCLEANER® red EVO II

The **hyCLEANER® red EVO II** cleans façades and surfaces made out of different materials: gentle, effective, fast and above all, economic. The machine works with high-pressure water and does not need any electrical connection. Both, the glass and the frames are cleaned simultaneously. Versatile mounting options: **hyCLEANER® red EVO II** supports different BMU and gondola systems. **hyCLEANER®**: gentle, fast and economical.

Machine		Motor	
Brush width	± 1550 mm	Water pressure	min. 120 bar (1740 psi) max. 160 bar (2300 psi)
Brush diameter	± 550 mm	Water quantity	min. 9 l/min. max. 12 l/min.
Weight brush system	± 80 kg	Revolutions regulated via water quantity	yes
Weight support frame	± 35 kg	Lowering speed*	max. 24 m/min. *depending on degree of soiling
Total weight	min. 115 kg	Performance*	max. 18 m ² /min. *depending on degree of soiling
Running wheel ø big	500 mm		
Running wheel ø small	260 mm		

Alterations in construction reserved.



hyCLEANER® red EVO III

The **hyCLEANER® red EVO III** cleans different forms of façades, surfaces and materials - especially horizontal profiled metal cladding - very gently, effective, fast and above all, economic. The machine works with high-pressure water and does not need any electrical connection. Both, the glass and the frames are cleaned simultaneously. All water leading elements are made out of stainless steel. Purified-water can be used and the glass surfaces dry up, leaving no streaks behind. A further advantage of **hyCLEANER® red EVO III** is the running wheels. They do not leave any marks on the surface of the façade - gentle cleaning can be so easy!

Machine		Motor	
Brush width	± 800 mm	Water pressure	min. 120 bar (1740 psi) max. 160 bar (2300 psi)
Brush diameter	± 400 mm	Water quantity	min. 9 l/min. max. 12 l/min.
Balance of movement	max. 500 mm	Revolutions regulated via water quantity	yes
Running wheel ø big	500 mm	Performance* * depending on degree of soiling	max. 9 m ² /min.
Total weight	≤ 65 kg		
Traffic load on the surface to be cleaned	min. 20 kp/m ² max. 82 kp/m ² min. 197 N/m ² max. 807 N/m ²		

Alterations in construction reserved.



hyCLEANER® power station VAN

The **hyCLEANER® power station VAN** is a complete system for cleaning of outdoor plants and buildings and is used for cleaning of solar and photovoltaic installations but also glass roofs. Apart from the high-quality cleaning technology, a water purification system/ osmosis plant with tank and heating system for up to 60-degree warm water, are part of this system. The complete equipment is transported by means of a TDCi Ford Transit van, which is suitable for two persons. Thanks to the **hyCLEANER® power station VAN**, they are optimally prepared for new cleaning challenges every day. Everything from a single source: **hyCLEANER® power station VAN** gentle, fast & economical.

Cleaning system		Water purification system/ osmosis plant 650	
		Liter/ hour*	± 450 l/h
		*depending on hardness of water	
hyCLEANER® black SOLAR			
Brush width	± 1300 mm	Water tank	± 575 l
Spray nozzles	right and left	Stainless steel pump	± 1000 l/h
Hose reel	± 25 m	Hose	± 75m, ± 50m
Edge detection system	ultrasound	Heating system for purified/ osmosis water	
Pump	6 – 10 bar (87 - 145 psi), ± 8,5 l	Water temperature	max. 60°C
		Heating system	via Diesel ± 40 liter
Telescopic pole		Ford Van 2,0 TDCi, 3,5 t	
Length	± 13,5 m	Payload	± 1,3 t
Pump	± 10,34 bar (150 psi), ± 5,7 l	Trailer coupling	± 1,6 t
Battery drive for pump	12 V, 110 A, with charging station	Weight increase possible	± 3,5t

Alterations in construction reserved.



hyCLEANER® black WINDKRAFT

The **hyCLEANER® black WINDKRAFT** is a semi-automatic system for cleaning of wind turbines. The system can be operated regardless of weather conditions. It convinces through simple handling as well as good and fast cleaning results, which avoid long downtimes of the installation.

Machine		Motor	
Brush width	± 1550 mm	Water pressure	min. 120 bar (1740 psi) max. 160 bar (2300 psi)
Brush diameter	± 550 mm	Water quantity	min. 9 l/min. max. 12 l/min.
Balance of movement	max. 1000 mm	Revolutions regulated via water quantity	yes
Running wheel ø big	± 500 mm	Lowering speed	max. 24m/min.
Running wheel ø small	± 260 mm	Performance* <small>*depending on degree of soiling</small>	max. 18m ² /min.
Total weight	± 90 kg		
Traffic load on the surface to be cleaned	min. 20 kp/m ² max. 82 kp/m ² min. 197 N/m ² max. 807 N/m ²		

Alterations in construction reserved.



The seal of quality "Made in Germany" stands for high-quality and reliable products all over the world. The success recipe behind this is a solid, perfectly coordinated value chain, which is characterised by consistency and transparency. The **hyCLEANER**® team is convinced that a product can only be good if you know exactly the manufacturing and delivery processes and you are also directly involved. This is why our machines are manufactured in Germany – from development, production and assembly to quality assurance and first-class customer service. With us, you get German engineering skills from a single source – something you can rely on.



Based on our product tests and CE-sign, we confirm to our customers both the quality and safety of the **hyCLEANER**®. In this way, we document the conformity with current EU-provisions and reduce your risk of liability by applying documented safety standards. This offers you a decisive competition edge and opens access to the European market.



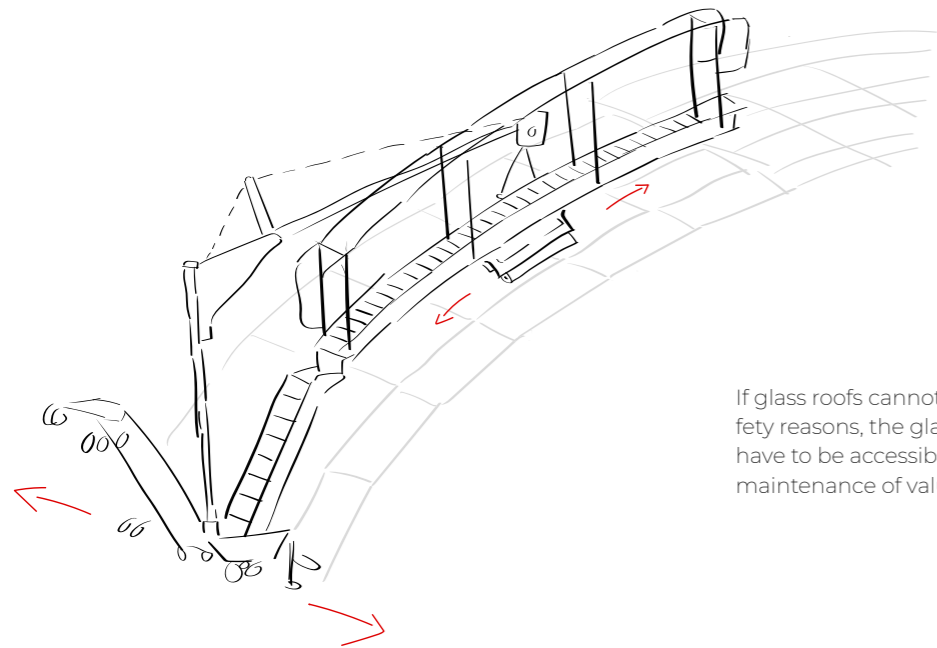
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In the frame of the development of the Saudi Arabian product safety program SALEEM, SASO introduced an electronic conformity evaluation platform named SABER. SASO requests every dealer utilizing this platform in order to apply for both the product certificates and certification of shipment for goods that are subject to the technical rules of SASO.



ADVANCED & PROGRESSIVE

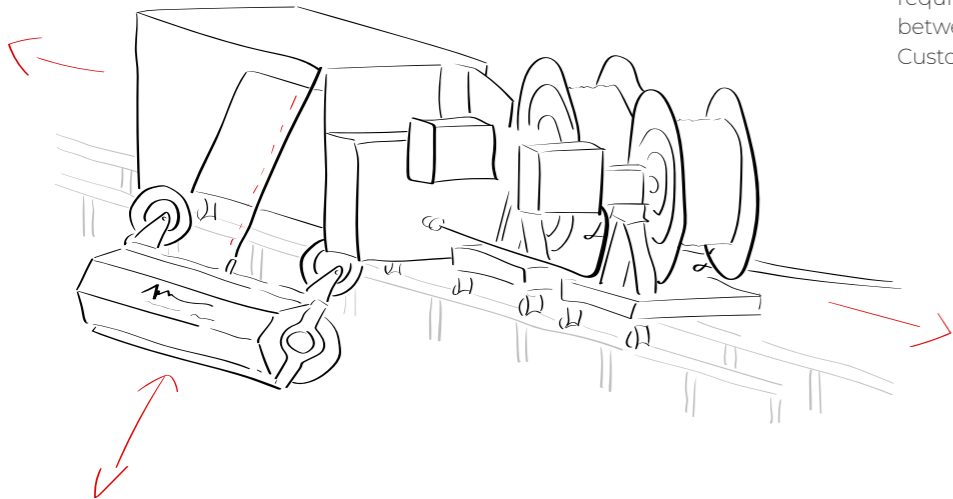


If glass roofs cannot be walked on due to safety reasons, the glass surface areas, however, have to be accessible. Cleaning also means maintenance of value of the glass surfaces.



BERLIN
TRAIN STATION
PLANING: 2016 | DESIGN: 2017

AN IDEA TRANSFORMS INTO REALITY



As constructional pre-condition, **hyCLEANER**[®] requires little space only, such as the space between the glass façade and sunshade. Customized and efficient.



GENEVA
AIRPORT
PLANING: 2019 | DESIGN: 2020

EXPERIENCE THE FUTURE **NOW!**

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All pictures shown may vary from the machine's
standard scope of delivery.

hyCLEANER®

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