



#### WELCOME TO THE WORLD OF GREEN MACHINES

# **Where Innovation Beats Imitation**

Green Machines is among the oldest manufacturers of sweepers, dating back to 1965 and our first headquarters in Scotland. From the very first walk-behind sweepers with their exceptional maneuverability to state-of-the-art battery and hydrogen technology present in our sweepers, Green Machines has created a market which remains unrivaled to date. We currently operate from our offices in North Macedonia, the Netherlands, United Kingdom, Germany and USA, while we offer clients all around the world full support through our wide global dealership network. With our ambitious Green Machines vision, we plan to stay ahead of the game by bringing new product technologies to the highly demanding outdoor cleaning market.

For many years now, we have aimed to contribute decisively towards cleaner and tidier towns and cities by providing efficient and sophisticated sweeping machines. Our portfolio comprises 7 machine models and each one is unique in its own way. We offer you a wide range of choices by providing cleaning solutions that others have yet to catch up to. All of our machines are compact and swift enough to enable you to clean any urban area around the city with maximum efficiency, without worrying that they will disrupt your citizens. Our machines are purposefully designed in a way that does not impact the normal everyday functioning even of the busiest areas in your city.





## OUR MISSION: **ZERO EMISSIONS**

Green Machines realizes that the earth's environment is under severe stress from uncontrolled human activity, threatening the survival of our society and the performance of Green Machines' mission. We are dedicated to minimizing our own impact and maximizing the effective use of resources

Green Machines strives to develop and produce sustainable sweeping machines combined with excellent performance for a better world. Our vision is often far from the traditional approach but we are proud to take leadership in paving the path to an emissionfree world. Our vision focuses on minimizing global impact through the following auidelines:

- •Help our customers reduce their carbon footprint through the use of our eco-friendly products.
- ·Maximize the "End of Life Environmental Value" of our products.
- Work with suppliers who promote sustainable practices.
- ·Participate in efforts to further improve sustainable protection and understanding among our staff and end-users across the globe.
- •Listen to the voice of the customers

## KEEPS YOUR CITY CLEAN AND GREEN



#### **PORTFOLIO**

We have over 55 years of manufacturing experience and we are constantly improving our products based on direct customer feedback and the ongoing changes and trends on the market. Our current product portfolio comprises some of the world's most technologically advanced sweepers, and each of our machines is so unique that it is basically impossible to compare them to one another. Every machine is designed in a way that meets specific needs and we are confident that we have a machine that will meet your specific needs.



#### GM1ze

Fully electric, versatile, waste Vacuum Cleaner Small manoeuvrable and Compact, ideal for any City Centre.



#### GM200ze

100% electric twowheel tool carrier with a universal attachment adaptor in the front. It can be anything you want; from sweeper to leaf blower, snow plough, etc. The list is endless. Use it all year round, no matter the weather.



#### GM400ze/GM414

One of our latest environmental sweeper innovations, the 400ze is based on the world beating 400-series Sweeper. Compact, manoeuvrable. Operator friendly and now also Flectric



#### GM500ze

This marathon machine is the world's first-ever fully electric sweeper and offers lasting performance with the latest generation of Li-ion batteries. It is small. swift, and eco-friendly with superb ergonomic design. The 500ze is one of the most popular zero emission sweepers in the world.



#### GM500H2

The world's first-ever hvdrogen fuel cell sweeper. It runs 100% on hydrogen with zero emissions, while providing the same comfort and cleaning efficiency the 500ze offers. It comes in two types: with replaceable H2 pods or with a fixed hydrogen tank system.



#### **GM636HS**

Our dependable, hard working front line sweeper will remove debris from all surfaces and efficiently, it has a 1.5 m3 capacity, designed for maximum performance and minimum waste volume. With its sophisticated design details and ability to considerably reduce water consumption. the 636 cuts labor and maintenance costs



#### **GM955**

The 955 is a 6 m3 mechanical sweeper supported by vacuum. The powerful sweeping mechanism is able to collect even the largest debris, the powerful Vacuum will remove the smallest dust particles with the 955 you have the best of two worlds.



The GM 955 is a 6 m<sup>3</sup> mechanical sweeper supported by vacuum that combines the best of both worlds. This combined collection system is based on brushes conveying the dirt towards the cleaning path in the central area of the machine. The central cylindrical brush loads it on a mechanical elevator by rotating it in the opposite direction of the sweeper's movement. The dirt is then unloaded inside the waste container. The total dust suppression is obtained through the combination of the abovementioned system with the depression inside the container, generated by a powerful suction fan. This action ensures maximum cleaning effect on the sweeper's cleaning path. A series of filters located inside the waste container filter the air before releasing it in the atmosphere. This system allows the collection of bulky material at high sweeping speed as well, unlike the vacuum sweepers based on suction system only. The use of water on the brush is minimized or eliminated completely.

## **955 Technical Specifications**

Dimensions	
Length- standard machine	5.397mm
Length- standard machine with third brush	6.912mm
Width- without side brushes	2.070mm
Width - with brushes	2.430mm
Max.height	3.100mm

## **Performance**

Cleaning path width

- with main brush	1.320 mm
- with main brush + right and left side Vfi g\Yg	2.700mm
- with main brush+right and left side Vfi g\Yg +front 3rd Vfi g\Yg	3.600mm

#### Diameter of the brushes

- side brushes	1.000mm
- main brush	650 x 1.320mm
- front brush	1.300mm
Vacuum system	560 mm fan with 8.500m3 air/h
Sweeping speed	0-20 km/h
Transferring speed	0-40 km/h

Mass/ capacity/ weights	
Gross vehicle weight	13.700 kg
Water tank capacity	560 L
Fuel tank capacity	120 L

### Accessories and upgrades:





Flexible suction



Air conditioning with pollen filter

## Operator cabin

Frame	Steel bearing structure
Number of seats	2
Drive	Right side (left upon request)
Air conditioning	Automatic with pressurization

#### **Waste container**

Waste container volumetric capacity	6m3
Material	Stainless steel
Dumping height	1.150 mm

### **Engine**

Brand	Mercedes
Model	OM904LA
Number of cylinders	4
Effective engine capacity	4.294 co
Maximum power	129 Kw (176 Hp) a 2200 RF
Cooling	Water cooling
Туре	Turbocharger diese
Emission acc. to:	EU Stage IIIA complian

## **Brakes/ Suspension/ Steering**

Service and emergency brakes	Independent hydraulic oil-bath disk-brakes
Parking brake	Drum-type mechanical parking brake on the transmission
Front suspension	Parabolic leaf springs and hydraulic shock absorbers
Rear suspension	Hydraulic
Steering	Power assisted hydraulic steering
Steering axle	Independent front and rear axle power steering
Wheels dimensions	295/60 R 22,5 road type tyres



Sound-proofed cabin



Ergonomic and adjustable seats



Large, curved windscreen for full visibility



#### **SWEEPER FEATURES**



## **Dashboard**

New modern dashboard panel with electronic interface based in the lower part of the steering wheel console. The display has an excellent information preview in both day and night working conditions.



## **Control panel**

The sweeper controls are gathered on a single console panel featuring simple and user-friendly buttons for each function.



## **Rear-view camera**

The camera has a 7" LED -display with a digital backlit screen that increases the image's contrast. It has been designed to resist the strongest mechanical shocks and it allows to monitor both the sweeper operations in reverse gear and the side brush movements.



## Normal tipping / High dump

With the high dump option, dumping height ranges from 1150 mm to 2300 mm. It enables unloading into any location or garbage container.



## **Mercedes-Benz engine**

The sweeper is equipped with a Mercedes-Benz 4-cylinder turbo diesel engine. This is a low emission water-cooled engine complying with local regulations and combines fuel efficiency, high power output and low noise. The quality of the engine is backed by its worldwide service network.



### Third brush

The construction and long reach of the optional 3rd brush, both left and right, enable it to reach the areas which are most difficult to sweep.



#### Side brushes

By working in the opposite direction from the sweeper's forward movement, they provide optimal cleaning of difficult surfaces. The operator can adjust the pneumatic pressure from the cabin, as well as set the brushe's rotation speed. thus reducing the maintenance cost.



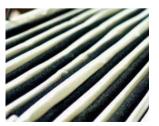
### **New generation CPC4-Ecan Control Unit**

The GM 955 comes with the latest generation of the CPC4-Fcan control unit built in The CPC4 control unit combined with the MCM2 electronic engine control unit constantly monitors the engine and carries out required self-diagnostics.



#### Suction hose

A powerful and easy to use suction hose which collects litter, large amounts of leaves, etc. It is over 5 m long and it has been designed to clean hard-to-reach places and even heavily polluted areas such as culverts and storm drains in which litter tends to build up.

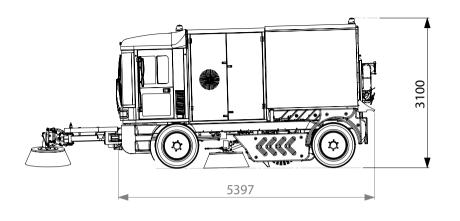


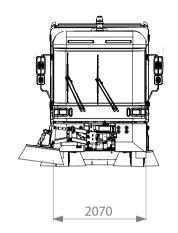
## **Special PM10** antipollution filter

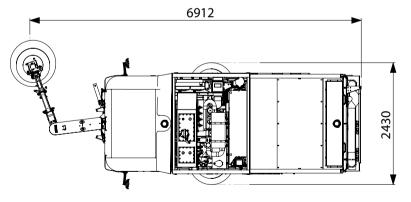
Made of special microstructure fabric that collects the smallest dust particles, while allowing air to pass unobstructed through the filter membrane. This unique feature extends the filter's lifespan considerably and reduces maintenance cost without any efficiency loss.

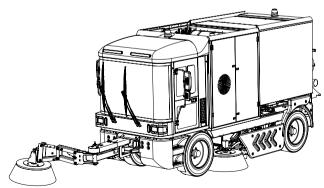


The tilting cabin is suspended by shock absorbers granting swift access to the engine and hydraulic systems so maintenance can be performed with ease and high efficiency, saving time and money.













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