



# GM1ze



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**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 emission-free world. Our vision focuses on minimizing global impact through the following guidelines:

- 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 two-wheel 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 Electric.



### 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 hydrogen 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.



# GM1ze

**Fully Electric,  
Vacuum Waste Collector.  
Compact, Manoeuvrable.  
Ideal for any City Centre.**

Revolutionary fully electric waste vacuum sweeper that is small, saves energy and time thanks to the powerful storage battery. It is compact, silent and efficient. GM1ze – the solution to efficient litter removal. SMALL, SMART, CLEAN. Bye bye refuse! Thanks to the GM1ze. The GM1ze makes broom, picker and refuse pushcart a thing of the past. This compact machine saves time thanks to the powerful storage battery, is easy to operate and considerably enhances hygiene and safety.

# GM1ze Technical Specifications

## Explanation

Electric axle	36 V DC / 0.85 kW
Electric motor for suction	36 V DC / 1.5 kW SERVOMOTOR (Brushless)
Running time	8 – 16 h (depending on use)
Suction Pressure	≥ 25 mbar
Speed (slow mode and fast mode)	Slow = 3 km/h, Fast = 6 km/h
Belly Button on Tiller Head	Yes
Rabbit-turtle mode on Tiller Head	Yes
Parking brake	Yes (>180 Nm)
Manual lever on parking brake	Yes
Possibility to move the machine with the drive motor off (with manual lever)	Yes
Ambidextrous handle with automatic dead man position	Yes (automatic stop position)
Max operating weight	420 Kg
Emergency stop switch on the dashboard	Yes
Direct vacuum into a standard 240 liter bin	Yes
Detailed spare parts list showing 100 % of the parts	Yes
Traction power/operating weight	2 Watt/Kg
Body type	Polyester bodywork
Container	Standard 240 L
Batteries	Lead-acid; 8 – 16 hours depending on use and type batteries
Dimensions	W 780 x L 1480 x H 1760
Steering front wheel	Yes
Ambidextrous control arm (for right and left handed operators)	Yes
Puncture proof tires	Yes
Timer and battery charge level gauge	Yes (timer for suction motor and traction motor)
Automatic parking brake facilitates parking, even on steep slopes	Yes
Dust filter	18 m <sup>2</sup>

## Accessories and optional equipment



Additional container



Plastic bag



Holder for shovel and brush



Manual gripper

## Explanation

Anti-clogging grid for plastic bags, leaves etc.	Yes
Lockable storage compartment	Yes
Double soundproofing with an acoustic level approaching absolute silence	Yes

## Suction

Suction Head Mounted on top of debris container with anti-clogging grid to prevent blockage by plastic bags, paper, leaves etc.

Suction Pressure	> 25 mbar
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## Motors and Voltage

Drive motor with 0,85 kW (Electric axle with PMDC motor, and integrated parking brake), and 1,5 kW (brushless DC) fan motor for the suction power; Voltage: 36 V.

## Width

Maximum overall width 780 mm

## Speed of travel

Fast and slow mode on Tiller Head

Fast Mode: 0 – 6 km/h forward speed, and 0 – 3 km/h reverse

Slow Mode: 0 – 3 km/h forward and reverse speed

## Batteries

Type	36 V of traction lead acid batteries (6 pcs x 6 V)
Running time	215 Ah (5 h), 260 Ah (20 h) 8 – 16 hours depending on use
Battery Charger	Input Voltage: 230 V, Output Voltage: 36 V, Capacity: 25 Ah

## Water system

Electric water pump, intermittent water spray nozzle in container, 10 L water tank

Dust Filtration	18 m <sup>2</sup> dust filter. Dual Air filters
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## SWEEPER FEATURES



### Control arm

Control Arm that is equipped with ergonomic handle with automatic deadman position. Extra safety with grips control. The control arm makes the sweeper easy and simple to maneuver.



### Wander hose

Mounted with anti-clogging grid to prevent blockage by plastic bags, paper, leaves etc. The hose is easily manipulated because it has a control arm.  
Suction Pipe:  
125 mm diameter.  
Fiber glass, less than 1,5 kg



### Traction wheels

The sweeper is equipped with traction wheels that are made out of a durable material. They are industrial wheels that are puncture proof and 10 ply. These wheels are made to conquer any surface with ease.



### Motor power

Motors and Voltage:  
Motor with at least 0,85 kW (Electric axle with PMDC motor, and integrated parking brake) to drive the machine, and at least 1,5 kW (brushless DC) suction power,  
Voltage: 36 Volt.



# 100% ELECTRIC



## GM1ze

The new Green Machines model GM1ze, with its electrical drive, has already proved its worth in tough day-to-day work. Without exhaust emissions, of course. And also practically almost without noise emissions. In combination with electricity generated from solar, wind and water power, a cleaning concept has been created which now benefits many towns and cities with lasting effect. The revolutionary GM1ze makes broom, picker and refuse pushcart a thing of the past. This compact machine saves time thanks to the powerful storage battery, is easy to operate and considerably enhances hygiene and safety.

# GM1ze

GREEN MACHINES



Ergonomic control arm  
(for right and left handed operators)

240 L container  
for standard plastic bag

Traction Wheels:  
Durable material, 10 ply.  
Industrial tires that are puncture proof

Flashing light to ensure visibility

Low maintenance, high productivity  
thanks to innovative design and  
ingenious choice of design details.

Control Arm:  
Ambidextrous handle with automatic deadman  
position. Extra safety with grips control.

Water system:  
Electric water pump, intermittent water  
spray nozzle in container, 10 L water tank.

Chassis:  
Machine welded, durable structure,  
Electro-static paint.

The features of GM1ze are obvious: special narrow design and a maximum operating time between 8 and 16 hours (depending on use). The GM1ze is predestined for low noise areas and offers improved motivation and appreciation of work for cleaning staff.



1760 mm



1480 mm



780 mm

**Suction:**  
Mounted with anti-clogging grid to prevent blockage by plastic bags, paper, leaves etc.  
Suction Pipe: 125 mm diameter.  
Fiber glass, less than 1,5 kg

**Motors and Voltage:**  
Motor with at least 0,85 kW (Electric axle with PMDC motor, and integrated parking brake) to drive the machine, and at least 1,5 kW (brushless DC) suction power, Voltage: 36 Volt.



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