



#### 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

Revolutionary fully electric refuse street vacuum cleaner that is small, saves energy and time thanks to the powerful storage battery. It is compact, silent and efficient



#### 200ze

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.



#### 400

Often referred to as the best small sweepers in the world by both our dealers and customers. the 400 series are perfectly suited for cleaning the most exacting outdoor areas and can withstand maximum strain in everyday operation.



#### 500ze

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.



#### 500H2

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.



#### 636

Our fine dust hunter and gatherer is a really special sweeper with real 1.5 m<sup>3</sup> 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



#### 955

This is the biggest sweeper in our portfolio. The 955 is a 6 m<sup>3</sup> mechanical sweeper supported by vacuum that combines the best of both worlds. The mechanical part of the system ensures collection of any waste, as large as car tires, while the vacuum ensures collection of even the smallest dust particles.



The GM400ze is a full electric vacuum sweeper. Equipped with a revolutionary air-recirculation system that not only increases the suction performance but also the dust filtration capacity. That makes that the particle exhaust decreased three times, without sacrificing the 400's incredible suction power. The 400ze almost east everything cans, cigarette buts, leaves, dirt and glass bottles. The new 400ze comes standard with the grinding fan that mulches debris to one third of its original size. The RS version of the 400ze comes with the patented fold-and-stow seat switches from walk behind to ride-on in seconds.

# **400ze Technical Specifications**

# **Dimensions**

| Length                                |   |
|---------------------------------------|---|
| Model GM400ze S2D<br>Model GM400ze RS | 99 inch   2,510 mm<br>118 inch   2,997 mm |
|                                       |   |
| Model GM400ze S2D                     | 460 kg                                    |
| Model GM400ze RS                      | 500 kg                                    |
| Height                                |   |
| Model GM400ze S2D                     | 45 inch   1,143 mm                        |
| Model GM400ze RS                      | 49 inch   1,243 mm                        |
| Width: All versions                   | 45 inch   1,140 mm                        |
| Turning circle - between walls        | 53 inch I 1.350 mm                        |

| Sweeping system                       |  |
|---------------------------------------|--|
| Туре                                  | Air Sweeper                              |
| Cleaning path: Minimum                | 46 inch   1,170 mm                       |
| Sweeping Brush diameter               | 19 inch   470 mm                         |
| Volume capacity (max)                 | 75 Gal   284 L                           |
| Disposable Bag Size                   |  |
| (Standard Trash Bag)                  | 30 - 55 Gal   110 - 200 L                |
| Vacuum Impeller Diameter              | 16.5 inch   420 mm                       |
| Vacuum Impeller                       | 6 Blade Abrasion Resistant Steel         |
| Construction                          | with Hard Faced Edges                    |
| Vacuum Impeller                       | Stainless Steel                          |
| Housing                               | 0.25 inch (6 mm) Replaceable Wear Plates |
| Vacuum Impeller Speed, up to          | 2 700rpm                                 |
| Debris Reduction Pulverizing Impeller |  |
| Vacuum Hose Diameter                  | 7.9 inch   200 mm                        |
| Wander Hose: Length                   | 7.2 ft   2.2 m                           |
| Diameter                              | 3.9 inch   100 mm                        |
| Brush Reach (Beyond Front of Unit)    | 17.3 inch   440 mm                       |

# **Dust control system**

| Air recirculation system Du         | st elimination with self-sustained air recirculation |
|-------------------------------------|--|
| Dust Filtration System              | Two Stage Filtration                                 |
| Stage 1:                            | Nylon Debris Screen Synthetic Dual Material          |
| Stage 2:                            | Washable Filter Bag                                  |
| Dust Suppression System Spray Nozzl | es Each Brush & at Vacuum Inlet                      |
| Side brush water spray dust control | 18.5 Gal   70 L                                      |
| Water Control                       | Variable by Operator                                 |

# **Electrical motor system**

| Traction motor - power     | 3 kW               |
|----------------------------|--------------------|
| Fan motor - power          | 5.5 kW             |
| Brush motor - power        | 2 x 0.2 kW         |
| Li-Ion Battery - capacity  | 10 kWh             |
| Travel speed               | 5.5 mph   8.8 km/h |
| Reverse speed              | 3 mph   4.8 km/h   |
| Sweeping speed             | 5 mph   8 km/h     |
| Drive Tires (2), pneumatic | 6-ply              |
| Tire Pressure              | 46 psi   3.2 bar   |
| Rear Wheels - Construction |                    |

# **Operator ergonomics**

Model GM400ze S2D

Model GM400ze RS

| Quiet Operation                             |
|---|
| Digital control display                     |
| Ergonomic Control Handles                   |
| Easy to Use Wander Hose                     |
| Simple daily maintenance                    |
| Manual Brush Raise/Lowering                 |
| arge Oversized Zipper on Debris Bag         |
| Neather Proof Storage Compartment           |
| Fold and Stow Seat (RS Version)             |
| Center Pivot Steering for Easy Manoeuvering |

# **Accessories and optional equipment**









Solid Rubber

Pneumatic



#### SWEEPER FEATURES



### Touchscreen tablet

A unique touchscreen tablet that allows the user to control and command the machine faster and easier in comparison with the old conventional buttons and switches system.



# **Air-recirculation**

Revolutionary air-recirculation system that improves the suction and dustfiltration and decreases particle exhaust three times. Packed cutting-edge technologies, designed with the operator in mind.



# **Expandable chariot**

Expandable chariot system that allows more comfort and easier maneuverability and usability. The sweeper is perfect for narrow urban centers and alleys that are less accessible.



# **Debris grinder**

Ultra efficient debris grinder that mulches debris to one third of its original size, packing more debris in its easy accessible waste container than any walk-behind system on the market.



The newest 400ze RS model in the 400 series of sweepers is fully electric, noise free and zero emissions. It has an improved suction and dust filtration system that makes the machines twice as powerful compared to the current diesel 400 model. The improvments are all thanks to the revolutionary air-recirculation system that is one of a kind on the market. The diesel engine is replaced with 4 electrical motors. The Li-Ion Battery has 10kWh installed capacity that can last 8 hours, full work-shift autonomy. Because the sweeper is 100% electric the machine is extremely quiet and also maneuverable. Perfect for narrow streets and heavily populated areas which makes it pedestrian friendly.



The plastic cover grant swift access to the debris grinder and trash compacting storage compartment so maintenance and cleaning can be performed with ease and high efficiency, saving a lot of time and energy.









Green Machines International B.V. The Netherlands +389 43 551 100 office@greenmachines.com Green Machines Veles DOO North Macedonia +389 43 551 100 office@greenmachines.com Green Machines Inc. 5644 Kearny Mesa Rd, Unit B 92111 San Diego, CA T: +1 877 817 0342 T: +1 619 780 6772 F: +1 626 884 5164 GM Sweepers UK Ltd. United Kingdom Sales: +44 (0) 1324 611666 Spares: +44(0)1324 578880 sales@greenmachines.com spares@greenmachines. com Green Machines Deutschland GmbH Luisenstr. 16 D-99817 Eisenach Germany T+49 (0) 3691 72 41 566 M+49 (0) 151 175 61 468 office@greenmachines.com