



# Green Guardian

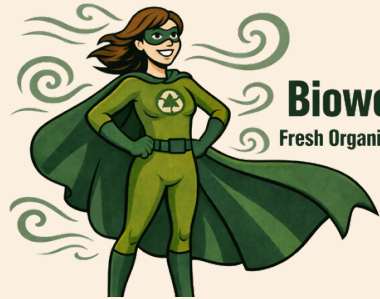
DON'T WASTE IT



# Recycle strong, be a Guardian



**Captain Recycle**  
The smartest outdoor RVM



**Biowoman**  
Fresh Organic Waste Bin



# Green Guardian

We believe waste is not the end of a product's life — it is the beginning of something new. We develop innovative solutions that make recycling simple, accessible, and valuable.

By combining advanced AI and smart recognition technologies, our Guardians ensure that materials are accurately identified, sorted, and redirected into the circular economy. This transforms waste into valuable resources and creates measurable environmental impact.

Our mission is clear: minimize waste, maximize reuse, and contribute to a cleaner, smarter, and more sustainable world.

**Don't Waste It.**

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# Containers & collection systems



Factory Chomutov-One of Elkoplast six production locations



# ELKOPLAST

**Green Guardian** is the innovative division of Elkoplast, dedicated to smart and efficient recycling solutions. With a strong focus on sustainability, and reliability, we provide solutions that help customers optimize their waste streams and reduce their environmental footprint.

**Elkoplast** has been a trusted player in the European recycling market for more than three decades. Through high-quality manufacturing, reliable delivery, and in-depth knowledge of recycling machinery, the company has built a strong reputation. Years of close collaboration with customers have resulted in extensive expertise in both operational processes and customer needs.

This combination of experience, quality, and delivery reliability forms the solid foundation on which **Green Guardian** develops its intelligent recycling solutions.

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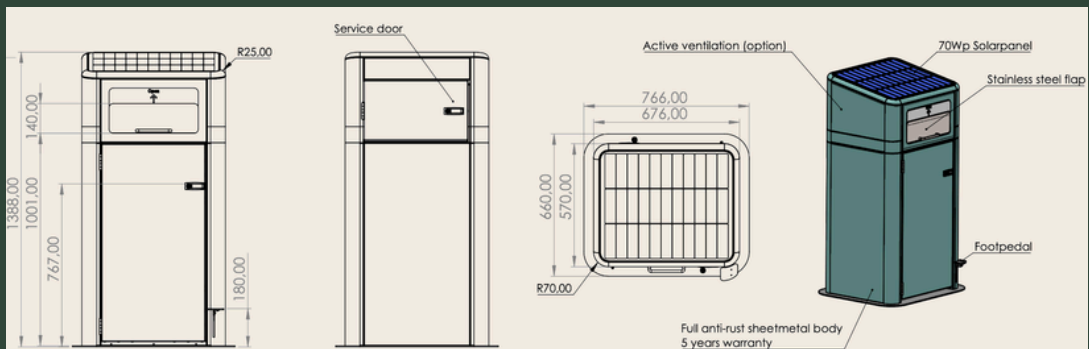
## Biowoman – The Smart Solution for Organic Waste

Biowoman is an innovative organic waste bin, specifically designed for outdoor environments. With its modern, robust design and durable construction, it fits seamlessly into any public or semi-public space.

Engineered with accessibility in mind, Biowoman offers a user-friendly experience for everyone, including people using a wheelchair. Its intuitive design ensures easy and convenient operation.

Biowoman combines smart ventilation technology with high functionality, helping to reduce odors and maintain a hygienic waste collection process.

The bin is available in two practical sizes – 120L and 240L – providing flexibility to suit different locations and capacity needs.





# ORGANIC WASTE BIN

## PRODUCT OVERVIEW

Where design meets performance. Our organic waste bin combines premium quality with a sleek design and a unique active ventilation system—**setting a new standard for freshness.**

## SPECIFICATIONS

Material	2mm Zinc coated
Flap	Stainless steel
Volume	120L & 240L
Active ventilation	184m <sup>3</sup> /h air flow
Bin Size (120L&240L)	1388x570x676mm 1490x660x766mm
Flap size Throw-in height	425x140mm 1001mm (120L) 1130mm (240L)

## ACCESS CONTROL

Ready for any access control

## NO SMELL. JUST SUSTAINABILITY

the fresh way to handle organic waste

## DESIGNED FOR EVERYONE

the perfect drop height, including wheelchair users

## PERFORMANCE



FOOT PEDAL



VENTILATION  
184m<sup>3</sup>/h air flow



SOLAR POWER  
70WP

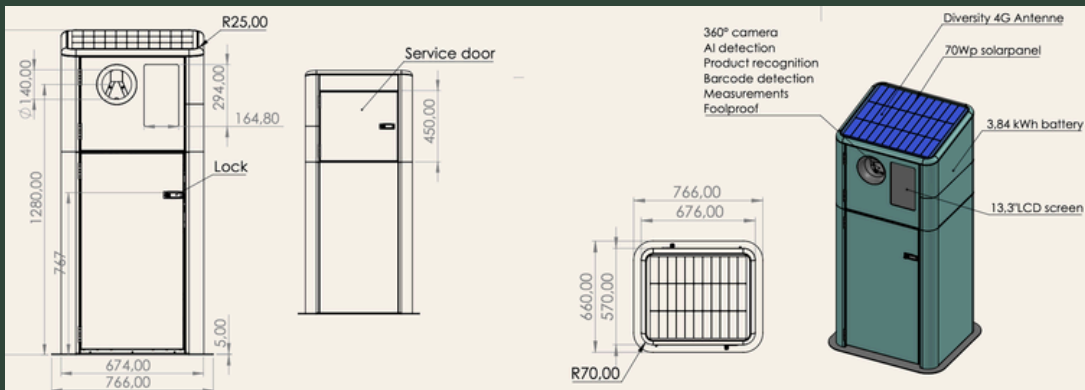


## Captain Recycle is a smart reverse vending machine

designed for maximum flexibility and ease of use. The system can operate on battery power, solar energy, or standard 230V mains power, making it deployable virtually anywhere without the need for fixed infrastructure.

Advanced AI-powered camera with self-learning recognition technology for maximum precision.

Designed to be easily movable, this RVM system can be deployed wherever you need it — from busy indoor environments to demanding outdoor locations



# REVERSE VENDING MACHINE



## PRODUCT OVERVIEW

Step into the future of recycling with our next-generation RVM solution. Powered entirely by solar energy, this machine delivers sustainable performance without compromising efficiency.

## SPECIFICATIONS

RVM size	1538x570x676mm
Display	13,3 inch LCD screen
Camera	48MP RGB camera
Solar	70Wp
Bin Volume	280L 200L (compactor)
Compactor	1:4
Battery	LiFePO4/4096Wh

## FAST PERFORMANCE

AI-powered recognition. Instant results

## SOLAR-POWERED

Powered by the sun. Ready anywhere

## ADVANCED CONNECTIVITY

Diversity 4G antenna

## COMPACTOR

Compact smart. Work clean

## PERFORMANCE



AI-POWERED  
CAMERA 48MP



THROUGHPUT  
30 pcs/min



PATENT  
360° RECOGNITION

# How It Works

## Step 1 : Insert items



## Step 2 : Go to payment



## Step 3 : Scan QR for Refund



# Bulk deposit return point

Take recycling to the next level with Green Guardian's innovative Bulk Deposit Return Point — a smart, scalable solution designed for high-volume collection. This unique system integrates 3 to 6 reverse vending machines into one compact, standalone unit, making it ideal for busy locations.

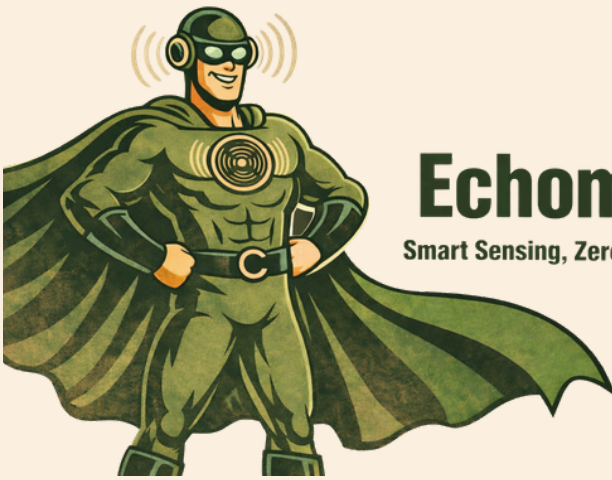
Whether placed in supermarket parking lots, at festivals, or in other high-traffic outdoor areas, the system offers a convenient and efficient way for users to return bottles and cans while keeping surroundings clean and organized.

What truly sets Green Guardian apart is its energy independence. Powered entirely by solar energy, the unit operates without the need for a fixed power connection — giving you maximum flexibility in placement. Prefer a grid connection? That's possible too.

## **Efficient. Flexible. Sustainable.**

Green Guardian is redefining the future of deposit return systems.



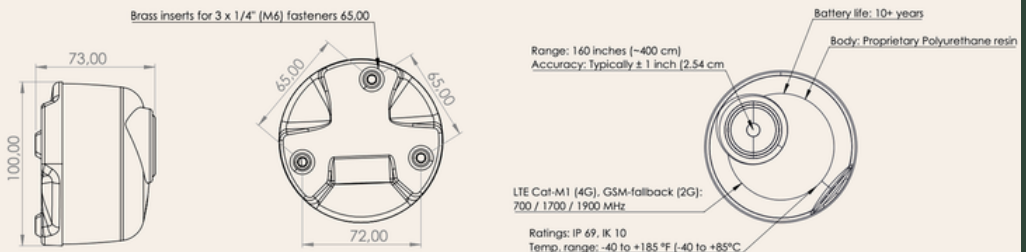


# Echoman

Smart Sensing, Zero Guessing

## Echo Man is an intelligent ultrasonic fill-level

Sensor built for maximum efficiency and total remote insight. The system uses advanced sound-wave technology to measure container contents without contact, delivering accurate real-time data to monitoring platforms. Battery-powered and designed for low-energy operation. Echo Man can be installed in virtually any container without wiring or structural modifications, making smart waste management possible anywhere.





# SMART SENSOR

## PRODUCT OVERVIEW

Always in control, without the hassle. This highly accurate fill-level sensor provides real-time insights into your container capacity and helps optimize collection routes.

## SPECIFICATIONS

Sensor dimensions	71mm(H) x 95mm (W)
battery life time	10+ years
Ratings	IP 69, IK10
Measurement	Range 400 cm
Body	Proprietary Polyurethane Resin
Battery	3.6V Lithium

## MINIMAL MAINTENANCE

Fixing structure designed for durability

## EASY RETROFITTED

For every waste container

## CONNECTIVITY

LTE Cat-M1 (4G),  
GSM fallback 2G

## PERFORMANCE



HIGH QUALITY

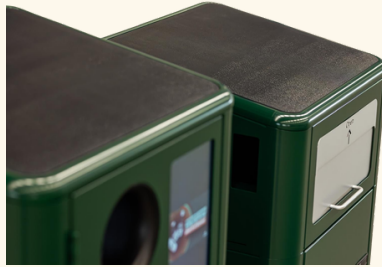


TEMP.RANGE  
-40 to + 85 C



BATTERY LIFE  
10 years

# Precision in Every Detail



70Wp Solar



Inox Flap



Foot pedal

# Recycle strong Be a guardian





DON'T WASTE IT

— powered by —



**ELKOPLAST**

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