





#### **ECOBOT - In Focus**

ECOBOT is a product conceptualized, designed and manufactured by ISOKLIN Fine Chem a leading expert in Waste Management. The ISOKLIN group has been in the field of Waste and Water Treatment technology for over 8 years with investments in the field of Non-Recyclable Plastic Waste Management, Waste Water Treatment Solutions, Oil Recycling Products, Sewage Treatment Energy Saving Equipments, Solar Projects and Municipal Waste Management and others.

Headquartered in Mumbai and with branch offices in Bengaluru and NCR, ISOKLIN has spread its presence across the nation with the help of our Service Centered Philosophy. Our ISO 9001 Certified Manufacturing facility, spread over an area of 6000 sq. ft in Navi Mumbai, is fully equipped with state of the art welding equipment, Testing Equipment, in house design, quality and electrical engineers. We have in-house facilities and technical staff to develop result oriented quality products based on their

solutions. Backed with a strong R&D team, we continuously strive to develop technically Superior & High Quality product. All our Products are manufactured as per Global Standards of Quality. We ensure that our products are in compliance with global parameters of quality standards. The quality control program is supervised by experienced quality controllers who test our products on various parameters Moreover, ISOKLIN is equipped with a skilled team of engineers for maintenance and immediate breakdown assistance, enabling minimum machine downtime.

extensive knowledge and practice for breeding

Further expansion of our manufacturing infrastructure is planned in NCR region to cater to the growing demand.

The Success & Reputation of ISOKLIN Fine Chem, which started as a dream of two men is now extended to the dream of many.

#### The Wet Waste Problem

An average household generates approximately 1 kg of wet waste daily. Under the current scenario, this waste is directly dumped into huge landfills that are already overflowing with mountains of unsegregated, untreated, hazardous waste. Most landfills lack proper on-site waste management thereby contributing to additional threats to the environment. In the long term, landfills leak and pollute ground water and other neighboring environmental habitats making waste management very difficult. They also give off hazardous gases.

Owing to this problem, a number of Municipal Corporations across India have stopped collection of Wet Waste from bulk Waste Generators. ECOBOT is a compact solution to this hazardous problem.



### Why ECOBOT?

With ECOBOT, we help you manage your waste efficiently, and economically, through an environmentally conscious process. ECOBOT is an end to end Waste Management solution, capable of converting wet waste into Soil Supplement in 24 hrs. ECOBOT'S Feed & Forget System doesn't require any skilled labor and uses minimum energy.

We manufacture Fully Automatic and The Semi-Automatic Organic Waste Converter.

## What can be processed?



Vegetables & Fruit Peels



Meat, Poultry, Fish



Leftover Food



Bakery Items



Egg shells



Leaves & Gardening Waste



Fast Food

#### What cannot be processed?



Plastic Products



Glass Products



Metals & Hard Substances



Electronics



Medical & Chemical Waste



Large Bones



Coconut shells & Branches

## **Applications**



Residential Building



Hotels, Restaurants, Resorts, Clubs



Malls



Temples



APMC Markets



Municipal



Commercial Complex's



Farms & Farm Houses



Hospitals



## **ECOBOT- EB Fully Automatic Waste Converter Systems**

With ECOBOT, The Fully Automatic Composting Machine waste can be converted into Compost with 24-36 hrs. Its Feed and Forget system makes it very convenient to use. It does not require any skilled labor and expertise. The Unique Fully Automatic Mechanism of ECOBOT makes it the most advance solution for wet waste management.

#### **PROCESS**

**Segregation:** Waste Segregation means dividing waste into dry and wet. Dry waste includes products like Glass, Metals, Wood, Electronics, Plastic Products etc. Wet waste typically refers to organic waste like left over food, Fruit Peels, Meat, Poultry, Fish, Bakery Items, Garden waste etc.

**Feeding:** After Segregation of Wet & Dry Waste, wet waste is fed in the machine through an openable door on the top.

**Inbuilt Shredding:** is the first process that the Wet Waste goes through in ECOBOT. Shredding helps in Volume Reduction & easy processing of Wet Waste and also helps in accelerating the conversion process.

**Conversion:** After the Wet Waste is Shredded it enters the tank where the actual conversion takes place through our unique mixing, air circulation and heating mechanism The heating system maintains a temperature range in which the bacteria thrive, thus accelerating the conversion process.

Soil Supplement Removal: can be done every 24 hours through an easily operable removal outlet

#### The Fully Automatic Machine has 2 Variants

- Full Stainless Steel (FSS) In FSS model all the Wet contact points & Outer body are manufactured using high grade Stainless Steel SS304. The Fully Stainless Steel model is suggested to be installed in the areas which are closer to the sea because of the rusting issue. The FSS model being manufactured in SS304 makes it more durable enabling a design life of upto 20 Years.
- Partial Stainless Steel (PSS) In PSS model only the Wet Contact Points are manufactured using SS304 while the outer body and the structure is Colour Coated MS. The PSS model is slightly economical than FSS model ideal for places away from the sea or where there is a budget constraint. Multiple colour options are available in PSS.

# **Highlights**

- Feed & Forget System
- Waste to Soil Enhancer with 85 90% Volume reduction
- Low Odor and Emission free process
- Inbuilt Shredder enabling significant Power Saving & better Soil Quality. No separate Shredder required
- PLC based Touch Screen Interface for better usage experience
- Auto Power Saving mode: Once optimum moisture level is reached
- Dual Feed inlet: Primary through shredder as well as Secondary direct inlet
- The Insulted Jacket Heater used in ECOBOT avoids burning of the material in the Conversion Chamber
  - thus enabling continuous and even heat transfer
- Emergency STOP Button for operator safety
- Only 304 Grade Stainless Steel used leading to machine life of over 20 years
- Only branded make of gearboxes are used in ECOBOT
- Shaft breakage protection system
- Negligible Manpower required
- Low Maintenance and Operational Cost
- Project Specific Customizations done

#### **VARIANTS**

MODEL	CAPACITY (Kg)	SIZE (LxWxH ft.) APROX  POWER CONSUMPTION in UNITS		
EB-25	25	6 x 2.5 x 5	4-6	
EB-50	50	6.5 x 2.5 x 5	7-10	
EB-100	100	7 x 2.75 x 5	15-20	
EB-150	150	8.5 x 3 x 5	22-27	
EB-250	250	10 x 3.5 x 5.5	35-40	
EB-500	500	11.5 x 4 x 6	65-80	
EB-750	750	Customized	120-140	
EB-1000	1000	Customized	As per design	
EB-2000	2000	Customized	As per design	

<sup>\*</sup> All sizes are approximate. They may vary due to regular machine upgrades and modifications.

Project Specific Customizations also done.

Capacities upto 5MT available on customized basis.





## **ECOBOT - EBS Semi Automatic Organic Waste Composting Systems**

With ECOBOT – EBS Semi Automatic Composting Machines convert wet waste into high quality Compost within 10 days. The Semi - Automatic Waste Management Solution uses Bio-Mechanical way of composting and is the most economic way of managing wet waste. It requires minimal Power Supply. The Semi- Automatic Solution is Cost effective and can be installed very easily. Its Unique Mechanism produces high quality compost that can be used for various purposes.

#### **Highlights**

- Inbuilt Chopper. No separate shredding/crushing required
- Complete SS304 Enclosure and Wet Contact Parts
- Also ideal for Locations with unstable Power supply
- Complete End to End Solutions include EBS Machine, Material Handling Trolley and Curing Racks with inbuilt fogging systems
- Waste to High Quality Fertilizer Compost in 10 days
- Manufactured using high grade components
- Hassle free performance
- Easy Maintenance
- Easy to operate
- Highly Durable
- Low Power Consumption
- Cost effective

#### The Process

- SEGREGATION: Segregation is an essential part of the composting process. The Wet waste and the dry waste needs to be separated before processing. Only the Wet Waste is compostable.
- FEEDING: After Segregation the Wet Waste is fed in the machine through an easily operable door on the top. At this time Saw dust is added along with the wet waste.
- The Waste is processed in fixed batches in the machine.
- After 15 mins pre-compost can be removed from the machine through an easily operable outlet.
- Place the pre-compost in the curing racks system for 10 days along with bio culture.
- After 10 days compost is ready to be used for Gardening purposes.

## **VARIANTS**

MODEL	MAX BATCH SIZE (KG)	CAPACITY PER DAY (KG)		
EBS 100	10	100		
EBS 200	20	200		
EBS 500	50	500		
EBS 1000	100	1000		
EBS 1500	160	1500		





## **COMPARISON**

	ECOBOT Automatic	ECOBOT Semi Auto	OTHER AUTOMATIC OWC	SEMI- AUTOMATIC OWC	VERMI COMPOSTING
SIZE/AREA	Compact	Medium Area	Medium	Large Area for Curing	Very Large Area for pits
IN- BUILT SHREDDER	Yes, with Jam Detection	Yes, Inbuilt Chopper	X	X	X
MANPOWER REQUIRED	One Unskilled Worker required part time	Depends on Capacity	Negligible	Multiple Skilled Workers required	Multiple Skilled Workers required
POWER CONSUMPTION	Medium	Low	Very High	Low	Very Low
ODOUR	Mild Earthly odour	Minimal Odour	Odour if separate shredder installed	Highly Odourous	Highly Odourous
INVESTMENT	Medium	Low	High	Medium	Low
CONVERSION TIME	24-36 Hrs	10-12 days	48 - 72 Hrs	15 - 30 Days	60 - 90 Days
BIOCULTURE	Not Required	Essential	Maybe Required	Essential	Essential

## **Compost Uses**

The compost generated by ECOBOT EBS is a nutrient rich soil supplement with high water retention capacity. It is ideal for use when mixed with soil in 1: 5 compost to soil ratio. The soil amendment from the EB Automatic model can be used in 1:10 ratioThe various uses include:



In-house Gardening Purposes



Sold to Local Nurseries & Gardens



Sold to Fertilizer Companies



Supplied to Neighboring Farms

#### ISOKLIN FINECHEM

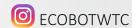
#### **OTHER PRODUCTS**

- Bingo ATB All Terrain Bin
- Industrial Shredders
- Organic Waste Shredders
- Sorting Table
- Feeding Platform

- Conveyors
- Energy Saving & Solar Solutions
- Glass to Sand Recycling Machine
- Thermocol Recycling Machines
- Plastic Recycling Machines







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