

# ORGANIC WASTE COMPOSTER: ABT - 100 – FA (WITH SHREDDER: OWS - 100)



## OPERATORS MANUAL



## TABLE OF CONTENTS

<b>TABLE OF CONTENTS</b>	<b>1</b>
<b>INTRODUCTION</b>	<b>2</b>
<b>INTENDED USE</b>	<b>2</b>
<b>SAFETY GUIDELINES</b>	<b>3</b>
GENERAL DRIVELINES	3
PERSONAL SAFETY	4
WORK AREA	4
<b>TECHNICAL SPECIFICATIONS</b>	<b>5</b>
i. OVERALL DIMENSIONS–OPERATING STATE - OWC	6
ii. OVERALL DIMENSIONS–OPERATING STATE - OWS	7
iii. EXPLODED ASSEMBLY VIEW	8
<b>ASSEMBLY</b>	<b>9</b>
i. MAINTENANCE TOOLS REQUIRED	9
<b>OPERATION</b>	<b>10</b>
1. PRE-START UP CHECKLIST	10
2. STANDARD OPERATING PROCEDURE	11
3. HMI DISPLAYS	12
<b>ELECTRICAL PANEL DRAWINGS</b>	<b>14</b>
i. GENERAL ARRANGEMENT	14
ii. POWER WIRING	15
iii. PLC DRAWING	16
iv. CONTROL SUPPLY DRAWING	17
<b>WARRANTY CERTIFICATE</b>	<b>18</b>

## INTRODUCTION

Congratulations on your purchase and welcome to Alleppey Family! This manual gives you the necessary information about your machine so you will be able to use it properly. The entire manual must be read and understood before you start using the machine. If any questions should arise that are not covered by this manual, please contact Alleppey Support team (Phone: 7025583577)

### OWNER'S RECORD

Please take a moment to record the following information about your Organic Waste Composter. If you need to call for assistance, please be ready to provide your model and serial numbers. This information will allow us to help you more quickly when you call.

#### MODEL NUMBER

**ABT - 100 - FA**

#### CLIENT NAME

#### DATE OF PURCHASE

#### WARRANTY UPTO

This machine is designed for certain applications only. We strongly recommend that this machine is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted us to determine if it can or should be performed on the product.

## INTENDED USE

Alleppey composting machines are designed to aid in converting organic wastes into usable manure. Materials that are processed in the machine must only be kitchen / food wastes, garden wastes and any plastics or hard substances may spoil the machine and create safety concerns.

## SAFETY GUIDELINES

### GENERAL DRIVELINES

- Do not operate this machine until this manual has been read and fully understood; serious injury or severe machine damage could occur if these safety warnings are ignored.
- Never allow more than one person to operate this machine at one time. If two people are working together it will increase the chance of your workmate engaging the machine or causing you to fall into the machine.
- If your hand is ever near the chipping or feeding area, serious injury could occur.
- Never place your hands or feet on or near the machine while it is engaged.
- Never place your hands or feet on or near the material while it is feeding.
- DO NOT wear loose clothing, jewelry, or anything that can catch a branch that is feeding into the wood chipper.
- DO NOT stand directly in front of the in feed chute of shredder when loading material into the hopper; always load from the side of the hopper. This will help prevent any part of your body from injury.
- Always wear safety hearing protection, eye wear, gloves, and long pants when operating the shredder.
- Never place your hands inside the opening of the hopper while the shredder is running.
- Never allow children, disabled, or untrained persons to operate the machinery.
- Do not operate the machinery near bystanders, public roads, or anywhere that debris may travel far enough to injure another person.
- Never move the composter and shredder while it is running.
- Shut off the machine and allow the shredder to come to a complete stop before removing any debris.
- Never perform any maintenance or repair while the composter and shredder are running.



### **WARNING!**

The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product but must be supplied by the operator.

## PERSONAL SAFETY

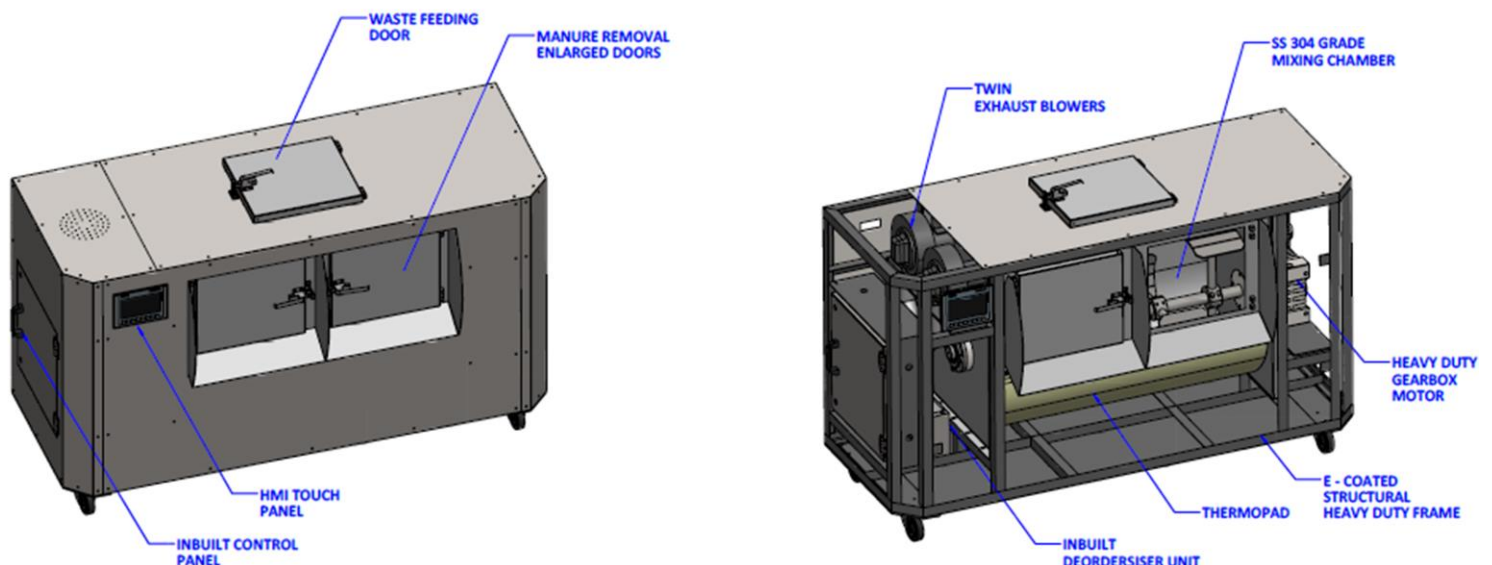
- **Stay alert**, watch what you are doing and use common sense when operating a power tool. Do not use a power tool when you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- **Dress properly**. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts. Air vents often cover moving parts and should be avoided.
- **Use safety apparel and equipment**. Use safety goggles or safety glasses with side shields that comply with current national standards, or when needed, a face shield. Use a dust mask in dusty work conditions. This applies to all persons in the work area. Also use non-skid safety shoes, a hardhat, gloves, dust collection systems, and hearing protection when appropriate.
- **Do not over reach**. Keep proper footing and balance at all times.
- **Remove adjusting keys or wrenches** before connecting to the power supply or turning on the tool. A wrench or key that is left attached to a rotating part of the tool may result in personal injury.
- **Never remove or install blades, conduct any maintenance, or make any other adjustments while the shredder is running.**

## WORK AREA

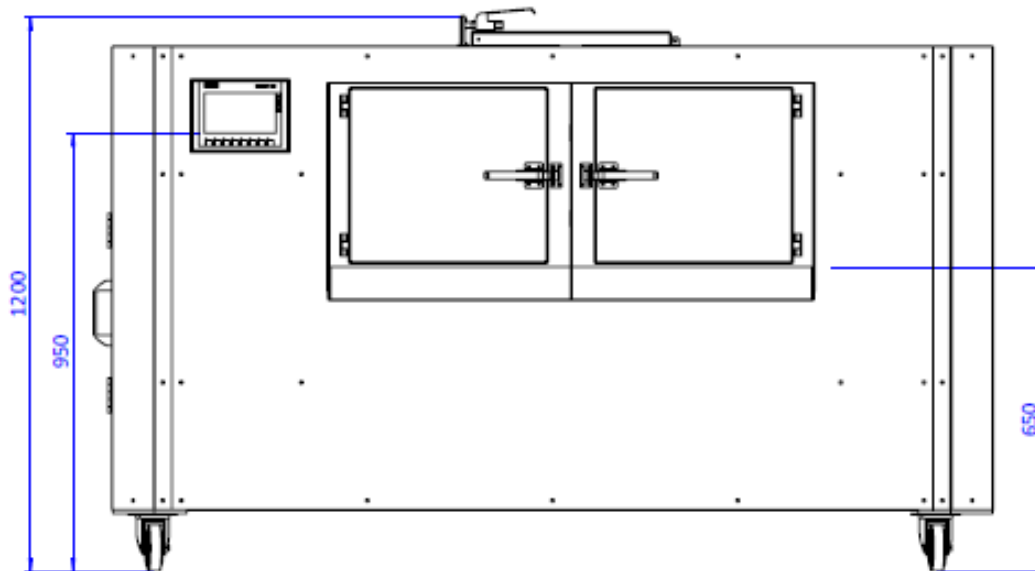
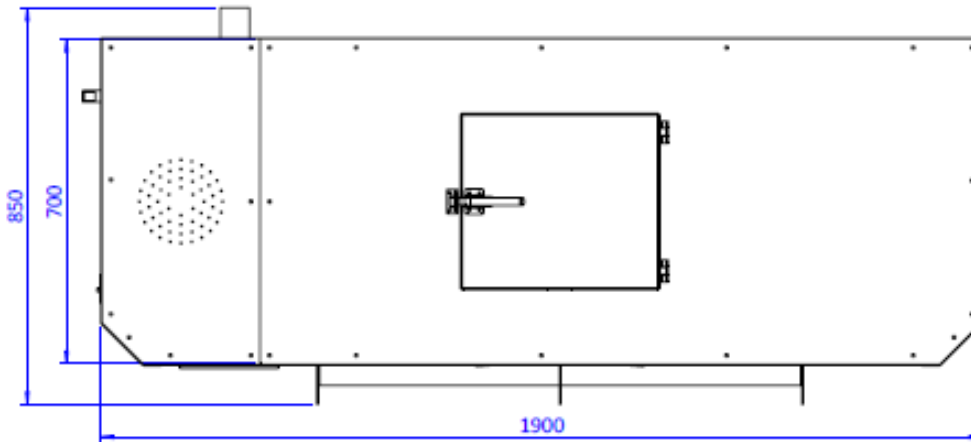
- **Keep work area clean**, free of clutter and well lit. Cluttered and slippery areas can cause accidents.
- **Do not use your shredder where there is a risk of causing a fire or an explosion;** e.g. in the presence of flammable liquids, gasses, or dust. Power tools create sparks which may ignite the dust or fumes.
- **Keep children and bystanders** away while operating a power tool. Distractions can cause you to lose control; therefore, visitors should remain a safe distance from the work area.
- **Be aware of all power lines, electrical circuits**, water pipes and other mechanical hazards in your work area, particularly those hazards below the work surface hidden from the operator's view that may be unintentionally contacted and cause personal harm or property damage.
- **Be aware of your surroundings**. Using power tools in confined work areas may put you dangerously close to cutting tools and rotating parts.

## TECHNICAL SPECIFICATIONS COMPOSTING MACHINE

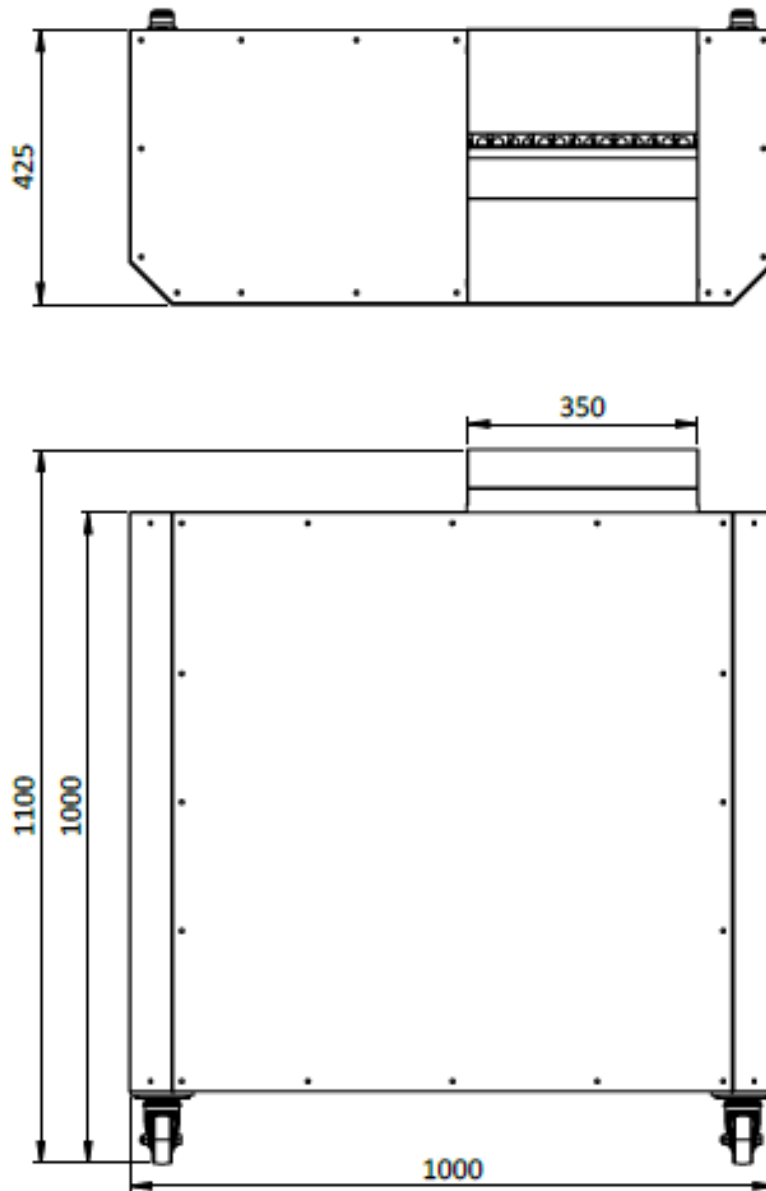
Description	IMB-100-FA Specification
Capacity Purchased	100kg Feeding Capacity
Vessel and mixer material	SS 304
Running RPM	12 – 14 RPM
Heating	Insulated heating jacket – 1500W
Heating temperature	75 to 90 °C with controller & moisture sensor
Aeration	Centrifugal Blower with 300 cfm capacity – 2 NOS.
Overall Dimensions of OWC Machine	1900mm L x 1200H x 850W
Overall Dimensions of OWS Machine	1025mm L x 1000H x 475W
Voltage	440V – 3 PHASE
Power rating	24 amps
Power Consumption	25KW/Day
Control System	PLC Module with HMI Touch display
Volume reduction	75% to 80%
Product Weight (OWC + OWS)	565kg + 205kg
Product Shipping Weight	1T



**i. OVERALL DIMENSIONS ; OPERATING STATE – OWC**

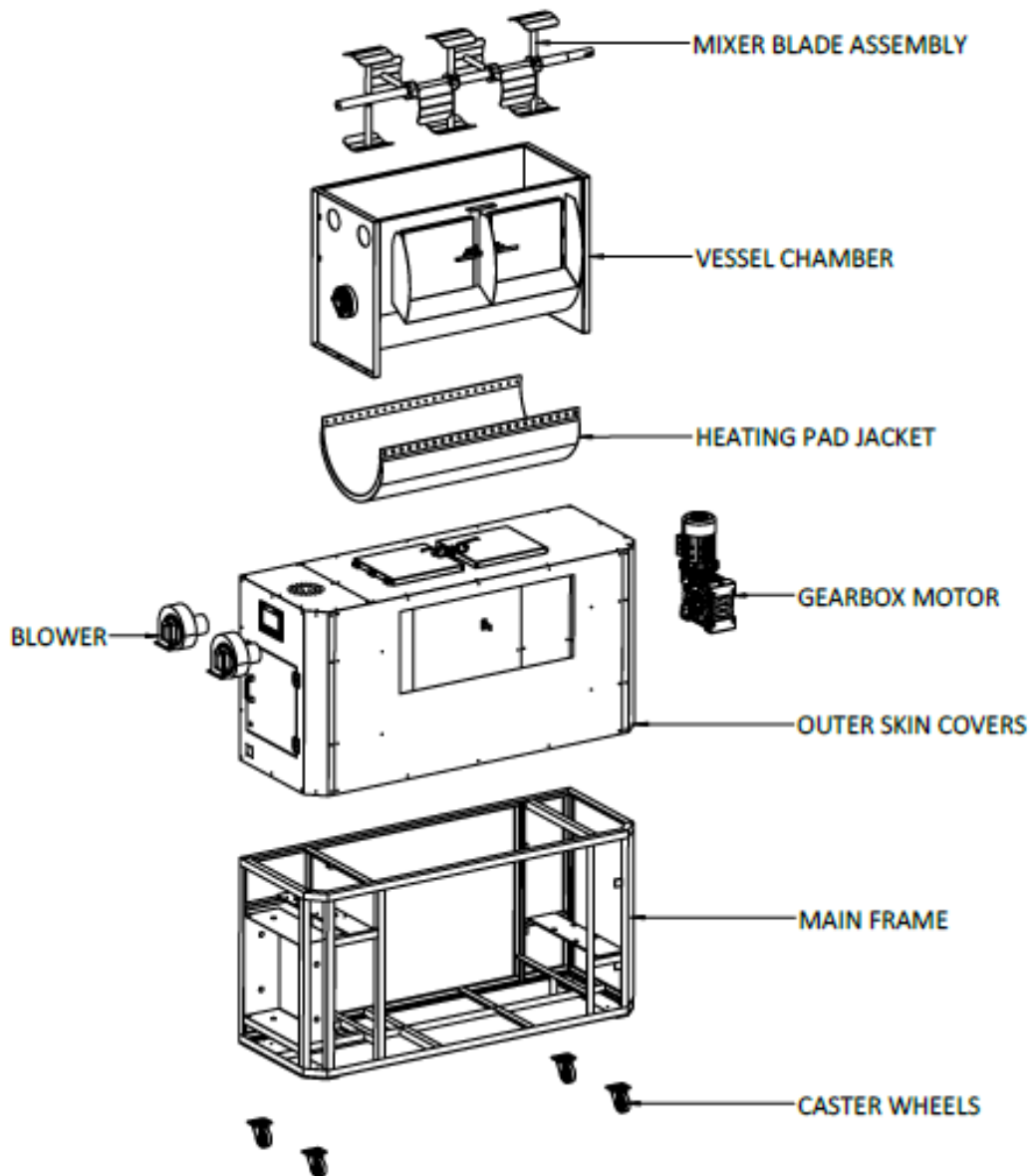


ii. OVERALL DIMENSIONS ; OPERATING STATE – OWS





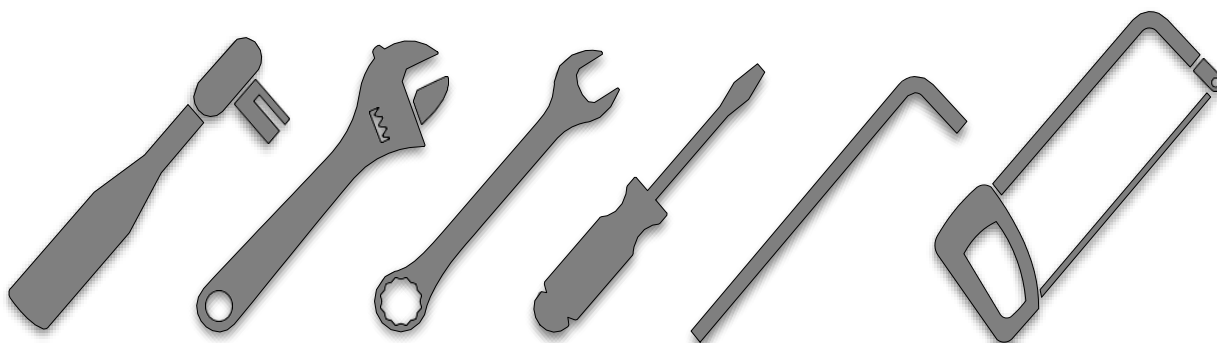
### iii. EXPLODED ASSEMBLY VIEW



# ASSEMBLY

## 1. MAINTENANCE TOOLS REQUIRED

Tool	Specification
Half Hand / Socket Spanner	10mm , 13mm , 17mm, 20mm
Screw Driver	Star - 1ft Length
Tester	Flat end
Wire Cutter	Miniature model
Wrench	Adjustable Wrench
Allen Keys	Set of Metric Hex Keys (2mm -10 mm)
Triangular Key	Panel opening key
Printer Cable	For Programming changes
Brush	Blower Mesh Cleaning Fiber Brush



## OPERATION

### 1. PRE-START UP CHECKLIST

- I. Clean the composting vessel for dust and oil spillage if any before starting the machine and repeat for every batch.
- II. Plug the female socket connector to the composter and make sure it is tightly gripped and of recommended amps to prevent electrical power failure.
- III. Check whether the blower mesh is free of dust and clean it before start with the brush tool provided.
- IV. Ensure all doors are in locked position before starting.
- V. Ensure rotor of the Shredder is running in the correct direction as instructed.
- VI. Make sure the waste fed into the composter does not cross the feeding level to avoid excess spillage through front door.
- VII. Use the wheel locks for both shredder and composter to ensure rigid positioning.
- VIII. Leave some 8kg of manure inside the vessel every time to enhance the next batch for quick composting.
- IX. Clean the shredder with water every day before starting the next batch to avoid excess smell.

## 2. STANDARD OPERATING PROCEDURE

The following steps in the sub-section below (a. through i.) are a summarization of the steps necessary to safely and properly operate the wood chipper. Please follow the references to other sections that provide further detail into the step being performed.

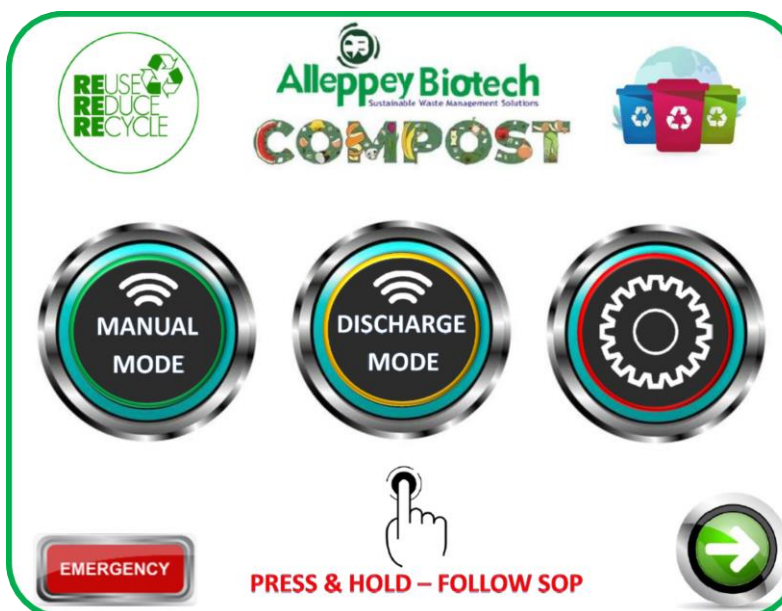
1. Switch on the main MCB and wait for 10 seconds for the HMI display to switch on and show the introduction page.
2. Click on next icon to get into the intro page.
3. Select the modes based on the operation of the machine after feeding the shredded waste through the top door.
4. Press on Automatic mode icon to start the machine cycle.
5. Press on the next button at the right bottom corner to check the machine's individual components functionality.
6. Make sure all the component indicators are showing in green.
7. Press on home page at the right bottom corner.
8. Press on Settings icon to set the correct temperature and moisture values. (These are already set and no changes required unless and until instructed. )
9. Check the current consumption values after each cycle.
10. Press on home page at the right bottom corner.
11. The machine will run for a maximum of 17 hours/day and may stop or start based on the moisture value set for proper compost formation.
12. Press on manual mode icon once the entire auto cycle is complete and this will push out the compost through the front doors.
13. Repeat the procedure for all cycles.

### 3. HMI DISPLAYS

#### i. INTRODUCTION PAGE



#### ii. OPERATIONS PAGE



## iii. SETTINGS PAGE

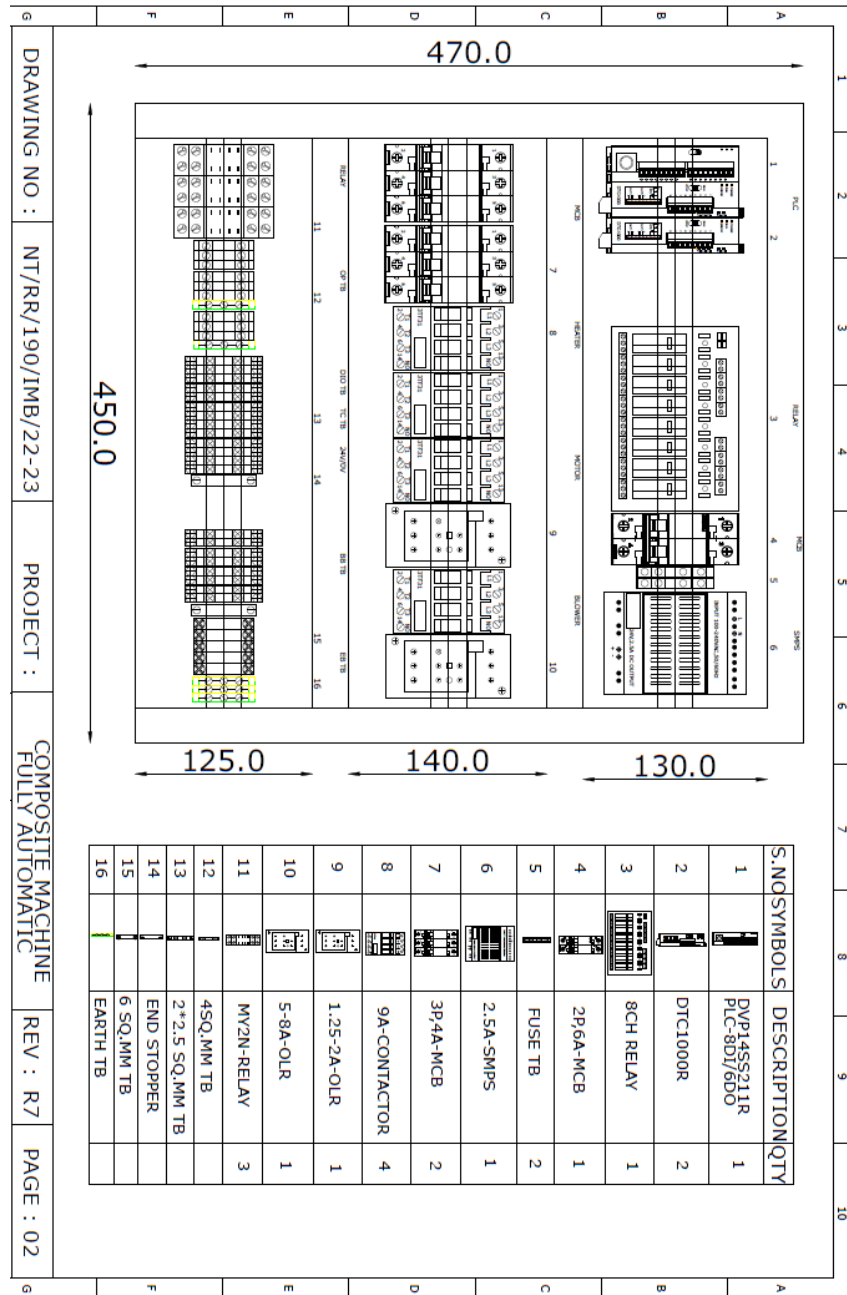
	SET VALUE	PRESENT VALUE
CHAMBER TEMPERATURE (°C)	00	00
RELATIVE HUMIDITY (% Rh)	00	00
RELATIVE HUMIDITY (% Rh)	00	00
MAIN MOTOR SPEED (Hz)	00	00
ENERGY CONSUMPTION (KWh)	00	

PRESS (1234) SET VALUE BOX TO CHANGE VALUE & GIVE ENTER

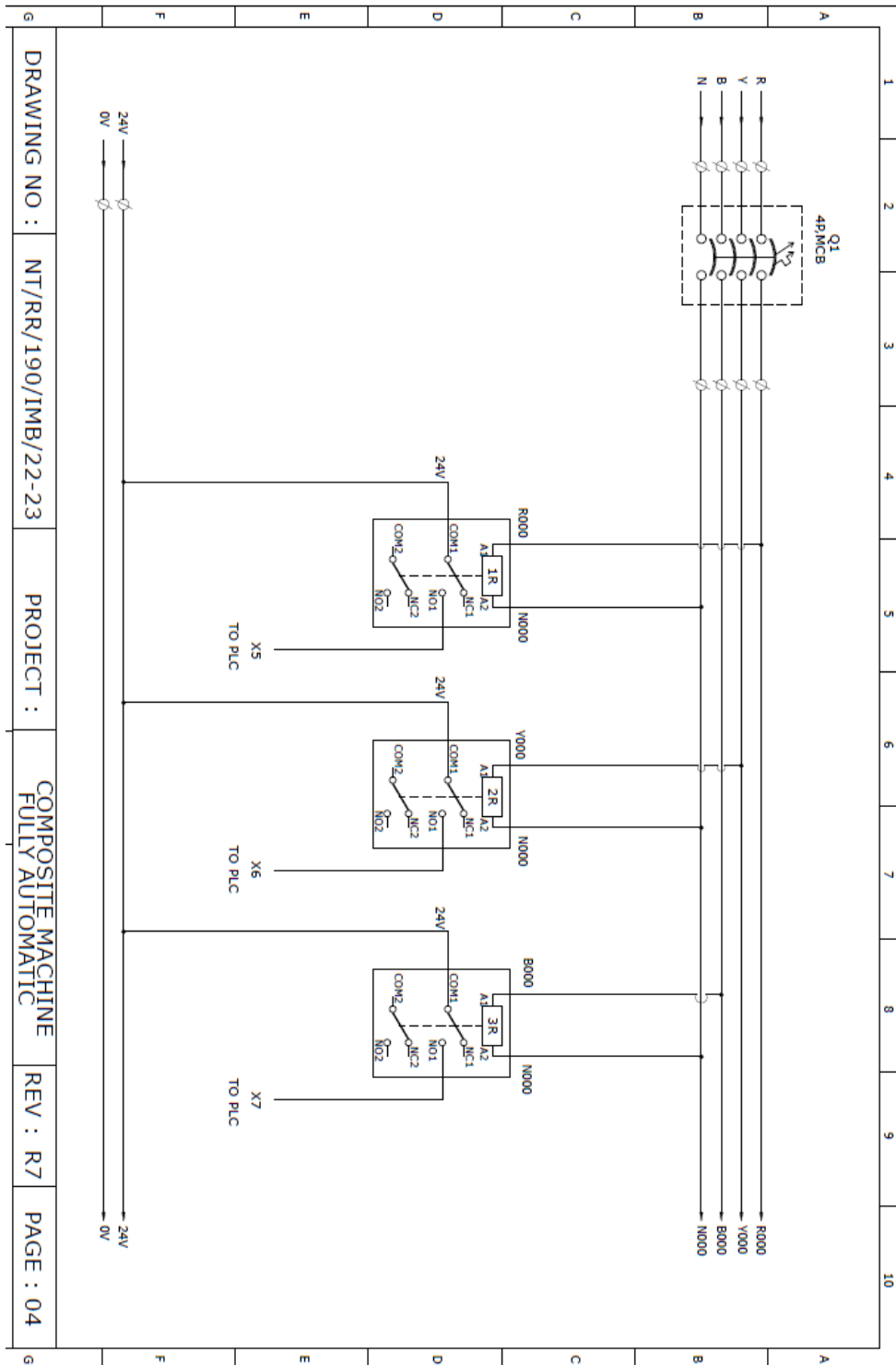
## iv. FUNCTIONALITY PAGE

# ELECTRICAL PANEL DRAWINGS

## i. GENERAL ARRANGEMENT VIEW

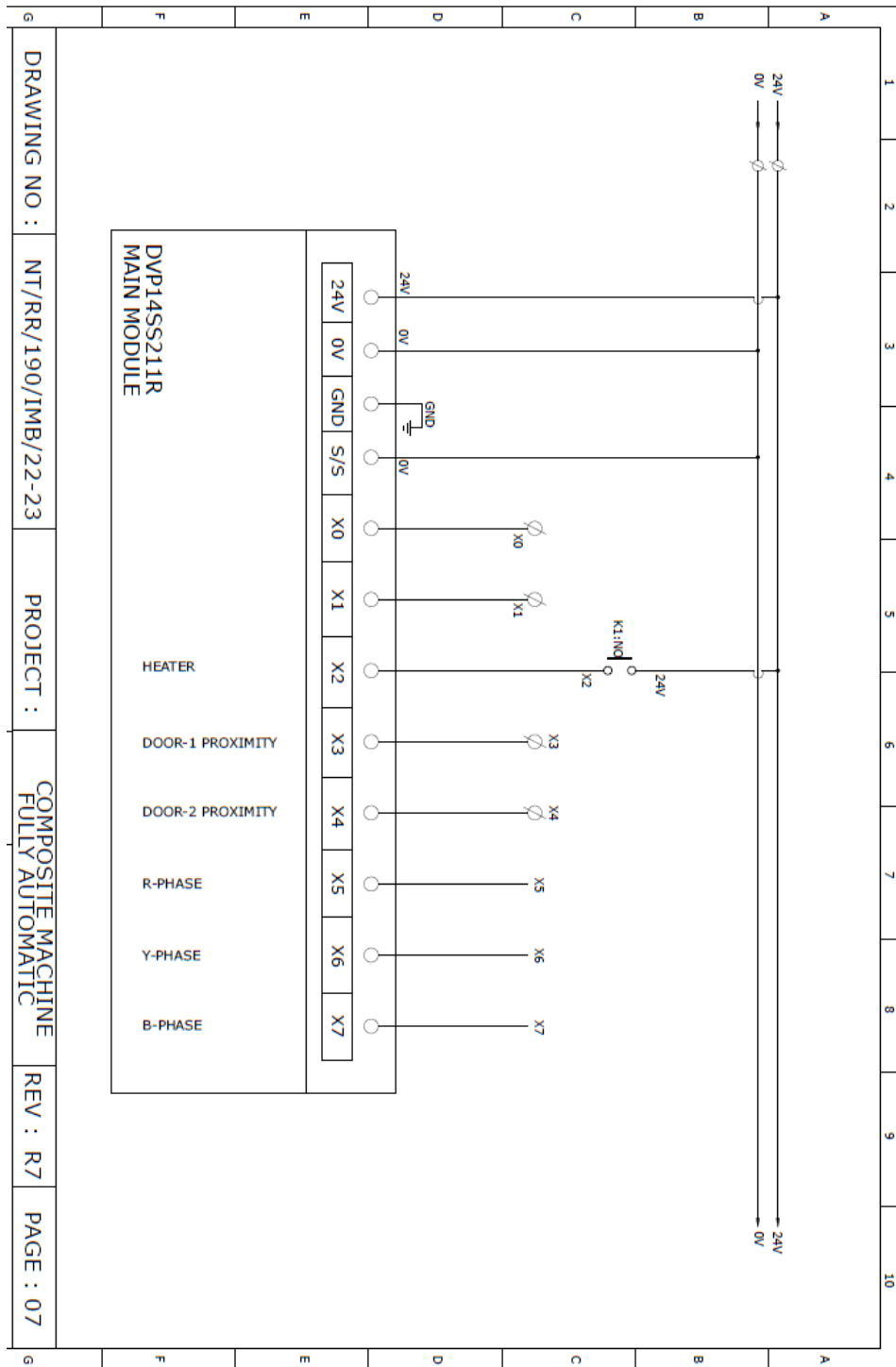


ii. POWER SUPPLY DRAWING

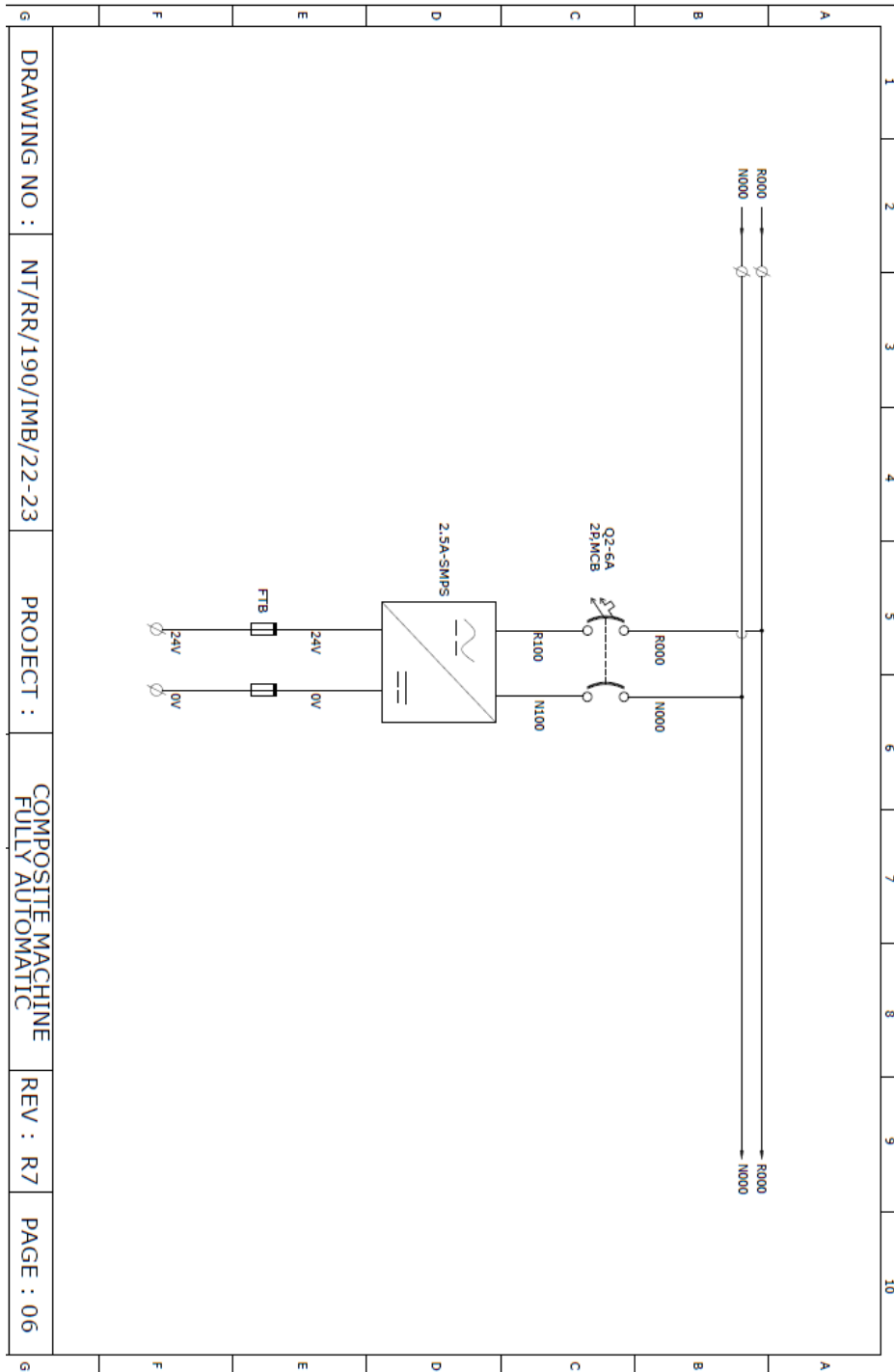




iii. PLC DRAWING



### iv. CONTROL SUPPLY DRAWING



  
**WARRANTY**  
*Certificate*

Customer Name: \_\_\_\_\_

Address: \_\_\_\_\_

Model No. ABT:100:FA      Serial No. ABT:OWC:

Purchase Date: \_\_\_\_\_ Invoice No. \_\_\_\_\_

This certificate extends the warranty of the composting machinery model described for a period of 24 months from the date of purchase. This warranty covers the repair and replacement of all parts and componetns with least downtime. This certificate does not provide coverage for improper usage of machinery or mis-feeding of wastes other than organic and specified wastes.

Incharge Name: Mr. KRISHNA KUMAR      Contact No. 7025583577

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



