MICRO FAB ENGINEERS

PROJECT

ACTIVATED CARBON PLANT

https://microfabengineer.com

ABOUT US



stablished in the year 2014 at Coimbatore, (Tamil Nadu, India), we Micro Fab Engineers are a Proprietorship Firm, indulged in manufacturing and exporting a comprehensive range of **Activated Carbon Rotary Kiln Plant,**
Virgin Coconut Oil machinery plant,
Coconut oil Machineries and
Coconut desiccated powder machinery plant.

Our main motto is to make the world pollution free and to give organic foods to mankind. So we make all the machinery to reduce the pollution of our world and make the food in the organic manner under the guidance of our mentor Mr. K. S. Pandian (Proprietor)

ACTIVATED CARBON PLANT PRODUCTION AND APPLICATIONS

01 An activated carbon plant is a facility that produces activated carbon from raw material coconut shells charcoal. The process involves three main stages: pre-paration of raw materials, activation (Steam Activation) and post-Activation(cooling, and packaging). The final product is used in applications such as water and air purification, gold recovery, and chemical processing.



02 Activated carbon is used in water/air purification, gold recovery, pharmaceutical industry and industrial processes



03 The plant ensures high adsorption capacity, low ash content, and optimal pore structure for various applications.

ACTIVATED CARBON PLANT

Pre - Activation

The pre-activation stage involves conditioning the coconut shell charcoal by optimizing particle size and eliminating impurities to ensure uniform .

- Raw Material Selection
- Crushing & Sizing
- Impurity Removal
- Charcoal packing

Activation

In this we can convert the charcoal in to activated carbon by using rotary kiln. The steam generated in an external boiler.

- Coconut shell charcoal is heated to 600–1500°C in an inert atmosphere (N_2)

Type:

- Steam activation
- Cooling

Post - Activation

After activation, the activated carbon to be sizing and sorting before goes in to packing by using post activation machine.

- Stone Remover
- Screening
- crushing
- Quality Testing
- Packaging





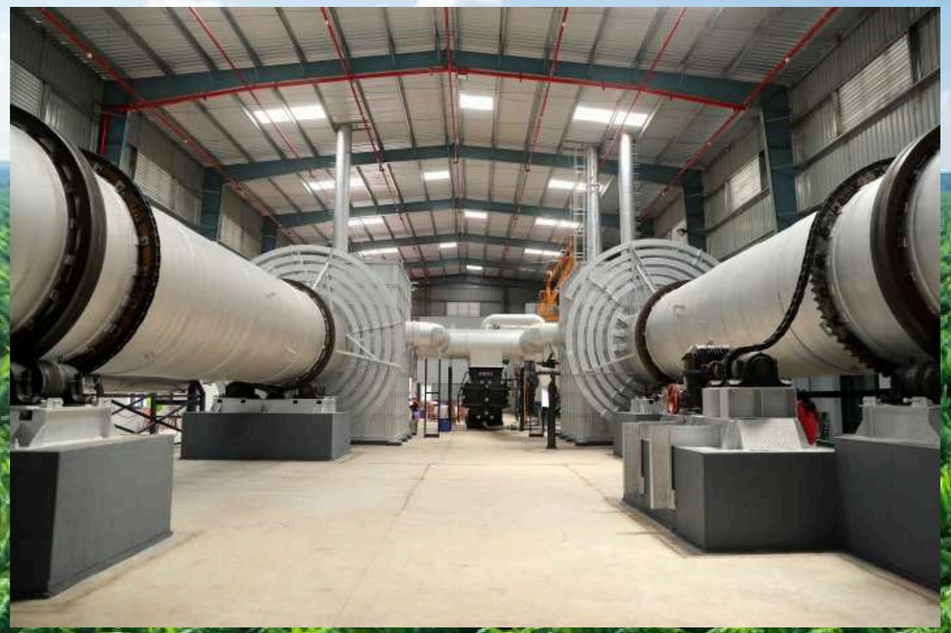
Pre - Activation

In this pre-activation process, the charcoal to be sizing and sorting before goes in to rotary kiln by machine



MACHINE LIST

- HOPPER
- BELT CONVEYOR
- ROTARY SCREENER
- SAW TOOTH CRUSHER
- FEEDING ELEVATOR
- ROTARY SCREENER





Activation

In this process, charcoal is converted into activated carbon using a rotary kiln. Steam required for activation is generated separately in an external boiler and introduced into the kiln to facilitate the activation process



MACHINE LIST

- FEEDING ELEVATOR
- STORAGE BIN
- VIBRO FEEDER CONTROLLER
- KILN FEEDING PLATFORM (THREE STAGE)
- KILN
- CHAMBER
- ROTO COOLER





Post - Activation

After the activation process, the activated carbon undergoes sizing and sorting using a post-activation machine. This step ensures uniform particle size and quality consistency before the material proceeds to the final packaging stage.



MACHINE LIST

- DE STONER
- ID FAN
- ROLL MILL CRUSHER
- MULTI SCREENER
- FEEDING ELEVATOR
- RIBBON BLENDER
- PLATFORM (TWO STAGE)

WORK COMPLETED WITHIN 150 WORKING DAYS

CAPCITY

3 TON CAPCITY/DAY

6 TON CAPCITY/DAY

12 TON CAPCITY/DAY



- Power required for the plant: 200 HP
- Total Area required : 2 Acre (minimum)
- BuildingArea required : 25,000 Sq.ft
- Labour : 25 to 45
- Water required : 30,000 Liter/day

Applications of Activated Carbon

- Drinking water purification
- Wastewater treatment (industrial or municipal)
- Air purification / VOC removal
- Gold recovery (CIP/CIL process)
- Solvent recovery / chemical purification
- Food & beverage decolorization (e.g. sugar, wine, vinegar)
- Medical/pharma use (e.g., poisoning treatment)
- Aquarium or pool filtration
- Soil remediation (contaminated land)

Contact us



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THANK YOU