MICRO FAB ENGINEERS

DESIGNERS, MANUFACTURERS AND EXPORTERS

ISO 9001 : 2015 CERTIFIED COMPANY

PREMIUM MACHINERY
NATURAL PRODUCTS



MANUFACTURERS AND EXPORTERS OF MACHINERY FOR



VIRGIN COCONUT OIL PLANT MACHINERY



ACTIVATED CARBON PLANT MACHINERY



DESICCATED COCONUT POWDER PLANT MACHINERY



COCONUT OIL PLANT MACHINERY

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ABOUT US

MICRO FAB ENGINEERS, Coimbatore, Tamil Nadu, India, has established in the year of 2014 by Mr. K.S. Pandian,. We are one of the largest Manufacturers and Exporters of Activated carbon plant machinery, Virgin coconut oil plant machinery, Desiccated coconut powder plant machinery, Coconut shell charcoal plant machinery and Coconut oil plant machinery in India.

Starting as a small industry then, today, we have spread our wings as a reliable name across India with our team of trusted and dedicated members. By setting the highest standards, we have maintained an excellent report with all of our clients around the world.

OUR PRODUCTS

- **ACTIVATED CARBON PLANT MACHINERY (Capacity: 1 ton – 20 ton/day)**
- **VIRGIN COCONUT OIL PLANT MACHINERY (Capacity: 150 – 2000 liter/day)**
- **COCONUT DESICCATED POWDER PLANT MACHINERY (Capacity: 500 – 2000 Kg/day)**
- **COCONUT OIL PLANT MACHINERY (Capacity: 40 kg/hr – 2 ton/hr)**







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VIRGIN COCONUT OIL PLANT MACHINERY



DE-HUSKING MACHINE

It is used to remove the husk from the coconut by automatic. By using this machine, we can remove the husk with tail and also without tail.

DE-SHELLING MACHINE

Removes the hard outer shell efficiently while preserving the quality of the coconut kernel.



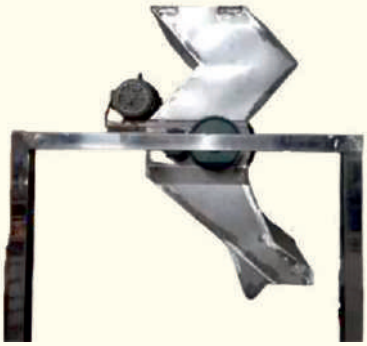


PEELING/TESTA REMOVING MACHINE

The peeled coconuts are transferred to the peeling machine where the brown skin (testa) covering the white coconut kernel is removed. This step helps improve oil quality and color.

SHREDDING MACHINE

It is used to remove the husk from the coconut by automatic. By using this machine, we can remove the husk with tail and also without tail.





WASHING TANK WITH SCREW CONVEYOR

The shredded coconut is thoroughly washed to remove impurities, dust, and contaminants. The screw conveyor transfers the washed coconut material to the pulverizing machine

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PULVERIZER

The washed coconut shreds are converted into fine wet powder or mash form. This process improves milk extraction yield.



MILK EXPELLER

The coconut powder is pressed in the milk expeller to extract coconut milk. This step separates the coconut milk from the solid coconut residue.



MILK CLARIFIER

The extracted coconut milk is passed through a clarifier to remove fine coconut particles, ensuring cleaner milk for further processing.



AGITATOR TANK

The clarified coconut milk is transferred to the agitator tank where continuous mixing is carried out to maintain uniform consistency and preserve liquid properties.

TUBULAR CENTRIFUGE

The coconut milk cream is processed in the tubular centrifuge where virgin coconut oil is separated from water and residual cream through high-speed centrifugal force.





MICROFILTER

The separated virgin coconut oil is filtered through a microfilter to remove micron-level impurities and ensure high purity and clarity of the oil.

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BELT CONVEYOR

The coconut powder is conveyed from Milk Expeller to Bed Dryer in hygienic manner.





BED DRYER

The leftover wet coconut powder is dried using a bed dryer to reduce moisture content and improve shelf life.



HOT AIR GENERATOR

The hot air generator produces controlled hot air, which is indirectly supplied to the bed dryer for efficient drying of coconut powder.



VIBRATORY SCREENING SHIFTER

The dried desiccated coconut powder is graded into different sizes as per requirement using a vibratory screening shifter. This helps in obtaining uniform product quality.

COCONUT OIL PLANT MACHINERY

1. COPRA CUTTER



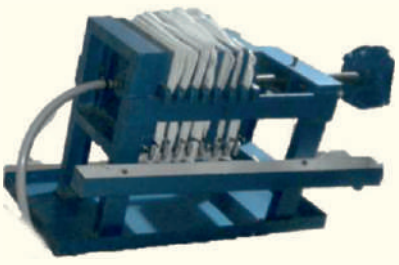
It is used to cut the copra in to small pieces or feeding size before feeding in to expeller.

2. EXPELLER



It is used to squeeze the coconut oil from the sized copra. It will separate the oil and cake from the copra. We can extract 65% oil from the copra.

3. OIL FILTER PRESS



It is used to filtrate the oil that outcome from the expeller. It removes the small size solid particles with the use of filter cloth

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ACTIVATED CARBON PLANT MACHINERY

PRE – ACTIVATION ACTIVATION POST – ACTIVATION

PRE – ACTIVATION

BELT CONVEYOR



It is used to conveying the charcoal to saw tooth crusher. This inclined type conveyor is also used to remove the unwanted items from the charcoal with the help of labor.

ROTARY SCREENER



It is used to screen the charcoal and removes the unwanted things like stones, sand and other impurities by rotary type screening method.

BUCKET ELEVATOR



It is used to lift the crushed charcoal from saw tooth crusher to kiln feeding storage bin by vertical handling method.

CHARCOAL CRUSHER



It is used to crush the charcoal in to feeding / required size before feeding in to rotary kiln.

HIGH EFFICIENCY

Engineered for maximum performance and continuous operation.

DURABLE DESIGN

Robust construction for long service life and low maintenance.

PRECISE OPERATION

Advanced design ensures consistent quality and smooth operation.

CLEAN & RELIABLE

Designed for safe, clean and reliable material handling.

ACTIVATION

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KILN

A rotary kiln is a continuously rotating cylindrical heating chamber designed to convert raw charcoal into high-quality activated carbon through a controlled steam activation process.

The rotating mechanism ensures uniform heat distribution and consistent contact between the charcoal and steam, resulting in superior pore development and activation efficiency.

Operating at precisely controlled temperatures, the kiln facilitates the thermal and chemical reactions necessary to enhance the surface area and adsorption capacity of the carbon.

This robust and efficient system is widely used in industrial-scale activated carbon production, delivering a reliable and high-performance end product.

ROTO COOLER

A Roto Cooler is a rotating cylindrical cooling drum designed to rapidly and uniformly reduce the temperature of activated carbon discharged from the rotary kiln.

Its continuous rotation ensures even cooling, prevents oxidation, and preserves the quality and adsorption properties of the finished activated carbon product.





CHAMBER AND CHIMNEY

The chamber and chimney are integral components of the activation system, specifically designed to control and regulate the exhaust heat discharged from the rotary kiln.

They ensure safe and efficient venting of hot gases and ash, maintaining optimal temperature balance throughout the activation process.

POST – ACTIVATION

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POST - ACTIVATION STRUCTURE

POST - ACTIVATION MACHINEERY

1. **DE-STONER**
2. **ROLL MILL CRUSHER**
3. **MULTI-SCREENER - I**
4. **MULTI-SCREENER - II**
5. **ROPE HOIST**

STAGE 1 – PROCESSING & GRADING

Stage 1 – Sequential Processing Four precision machines process the carbon in a continuous, seamless flow — each machine's output is jumbo-bagged and re-fed into the next via rope hoist

STAGE 2– STORAGE & TRANSFER

Stage 2 – Storage & Transfer Four dedicated storage bins receive activated carbon directly from the kiln, with a rope hoist system ensuring smooth and controlled material transfer into Stage 2.

DE-STONER

A De-Stoner is a separation equipment designed to efficiently remove stones, heavy impurities, and unwanted foreign particles from activated carbon.



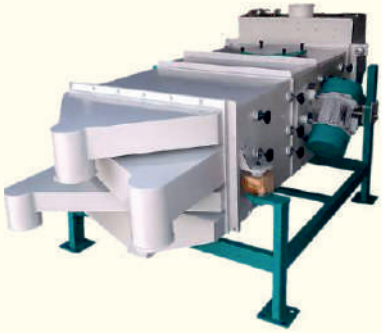
ROLL MILL CRUSHER

A Roll Mill Crusher is a heavy-duty size reduction equipment used in the post-activation stage to crush and grind activated carbon into a uniform particle size.



MULTI-SCREENER

It is used to separate the activated carbon in to different sizes.
By using this machine we can take three different grades at a time.



The finished and graded activated carbon is collected at the bottom of the second stage in jumbo bags, ready for packaging and dispatch.

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