



RAJ Process Equipment & System Pvt. Ltd., established in 2003, is a rapidly growing engineering company specializing in process equipment & systems. We offer design, engineering, manufacturing, & export services, including turnkey projects. Our expertise includes Distillery, Dehydration Technology, Evaporators, Condensate Polishing Units, Spray Dryers, Rotary Dryers, Granulation Plants, Powder Handling Systems, & more. We have a reputation for delivering optimal solutions to various industries across Asia and beyond. Our focus on Technology, Service, and Customer Satisfaction drives our Success.

# **An Overview**

The renewable energy source has gained popularity in recent years due to its low carbon footprint and its ability to reduce dependence on fossil fuels. Our bio-mission is to reduce carbon footprint by 2035 as well as to develop society towards sustainability. Raj Process has successfully commissioned over 70 distillery plants across globe utilizing a variety of

feedstock including sugarcane, molasses, grain, Cassava, and 2G ethanol feed such as Bamboo, rice and wheat straw, cane trash and EFB. Production of Ethanol is a sustainable and environmentally friendly alternative to traditional fossil fuels. It has the potential to reduce greenhouse gas emissions and promote energy independence.









# **Distillery Plant**

Raj offer complete turnkey distillery plants that utilize sugarcane, grains, cassava and bamboo as a feedstock. These plants are designed to produce high-quality alcohol, spirits, and other beverages. With 25+ years of experience in the industry, Raj has honed their expertise in designing and manufacturing these distillery plants to fit the needs of their clients. In addition to that Raj also offers complete EPC and industry best after sales support. With Raj, you can trust that your distillery plant will be of the highest quality and meet all industry standards.

#### **Process Includes**

#### ■ Molasses, Sugarcane Juice/Syrup:

Molasses Storage, Fermentation, Integrated and Standalone Evaporation for Raw as well as Bio-methanated Spent Wash, Bio-Digester, Patented Dryer, Granulation unit, Compressed Biogas Unit

#### Grain Based:

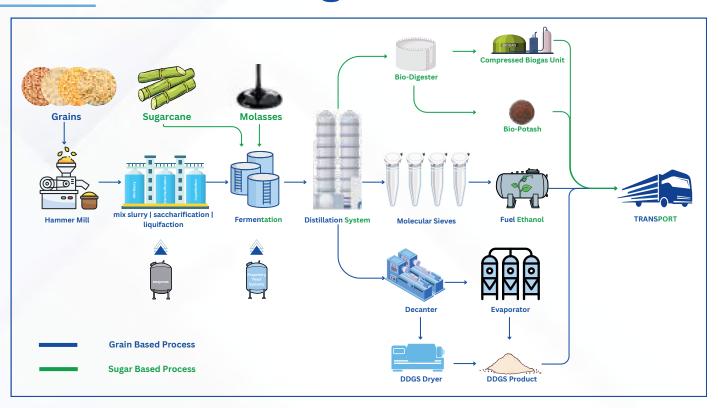
Grain Pre-cleaning, Milling, Liquefaction, Fermentation, Decantation, Integrated Evaporation (with Analyzer Column as well as Dryer), DDGS Dryer

#### Cassava Tuber & Chips based :

Pretreatment of Cassava, Liquefaction, Fermentation Decantation, Integrated Evaporation, Bio-Digester, Dryer, MVR based plant



# **Process Flow Diagram**



# Case Study - India's First & Largest 2G Ethanol Plant



## **About Project**

**Company**: Assam Biorefinery Private Limited (ABRPL)

Project : A Biorefinery based on fractionation technology with

Bamboo as feedstock

**Location :** Numaligarh, Assam

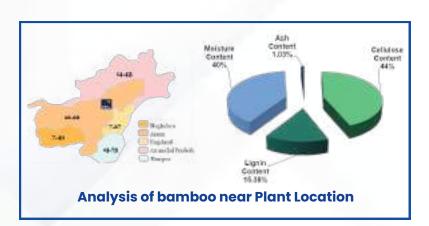
Capacity: 5,00,000 MT of bamboo to be processed annually using

Chempolis' fractionation technology to yield 48,900 MT of Ethanol; 18,600 MT Furfural/Furfural alcohol; 11,600 MT of Acetic Acid, ~31,680 MT of Liquid CO2 and power as well

Availability: More than 55 million tons of bamboo availability in North

East India; 66% of total bamboo resource of India

The 2G bamboo-based ethanol plant is an innovative solution to the growing need for more sustainable and eco-friendly sources of energy. We take pride in being a partner with Engineer India Limited (EIL) and contributor to this project. The Implementation of Ethanol production plant from bamboo-based feedstock is in full swing at the ABRPL facility in Assam.







# **Our Turnkey Distillery Plants**



Khandoba Distilleries Ltd, Maharashtra

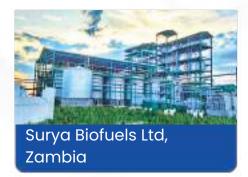


Venkateshkrupa Sugar Mills Ltd, Maharahstra



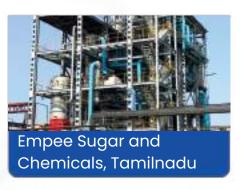
Athani Sugars Ltd, Maharahstra











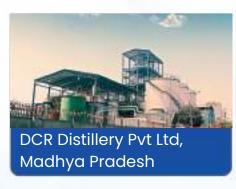














# **Our Other Offerings**

#### **Boilers**

- Multi Fuel Package Boiler with External Furnace
- Multi Fuel Package Boiler with Integral Furnace
- Oil Fired Boilers/ Waste Heat
- Recovery Boilers
- Captive Plant High Capacity Boilers
- Turnkey Co-Generation Power Plant
- Thermic Fluid Heater And Hot Water

## **Evaporators**

- Falling Film Evaporator
- Forced Circulation Evaporator
- Integrated and Hybrid Evaporator
- Standalone Evaporator
- MVR Based Evaporator
- Solvent Stripper
- Agitated Thin Film Evaporator

## **Turn-key Plants**

- Distillery Plant Molasses & Grain Based
- Zero Liquid Discharge Plant
- CBG Plant
- Guar Gum
- Starch and Glucose
- Detergent Powder Plant
- Granulation Plant
- Nutraceutical Powder Plant
- Milk Powder Plant
- Herbal Extraction Plant
- Sulphur WDG plant
- Fruit and Vegetable Processing

#### **Mixers**

- Cone Screw Mixer (Nauta Mixer)
- Ribbon Blender
- Paddle Mixer
- Continuous High Speed Mixer
- Double Cone Blender
- Plough Shear Mixer
- Conical Blender
- Conche Mixer

## **Dryers**

- Spray Dryer
- Rotary Dryer
- Spin Flash Dryer
- Flash Dryer
- Rotary Vacuum Dryer
- Paddle Dryer
- Continuous Fluid Bed Dryer
- Steam Tube Bundle Dryer
- Cone Screw Dryer
- Agitated Thin Film Dryer

## **Process Equipments**

- Heat Exchanger
- Reactors
- Fermenter
- Dust Collection System
- Wet Scrubber
- Bag Filter
- Screw Conveyor
- Pressure Vessel
- Silos
- Crystallizers
- Blowers

## Infrastructure that we have

We have 5 Manufacturing facilities across Maharashtra, India with origin and corporate office in Pune, India. Our Company is Certified with ISO 9001 -2015, ISO14001:2015, BS OHSAS 18001:2007, ASME 'U' Stamp, 'S' Stamp, National Board 'R' Stamp.





Plot No. 166 & 167, Sector No.7. PCNTDA Bhosari, Pune - 411 026 (India)



Sr. No. 373, Village Kharabwadi, Chakan, Tal - Khed, Dist - Pune (India)







# State of art Facility

Our state-of-the-art facility is equipped with advanced machinery, including CNC drillings, CNC Turning, laser cutting machines, VMC machines, Hydraulic press, Laser welding and many other. These cutting-edge machines allow us to produce high-quality products with precision and efficiency.

















# **Customers We Served**



















































































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