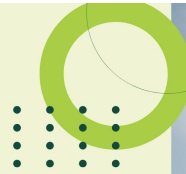




Radox Engineering



# Radox Engineering

(Engineering Div. of Radox Group)

**Radox Engineering Private Limited is manufacturer of Industrial Engineering Equipment & Machineries. We Deliver Projects on turnkey basis for Bioethanol, Biodiesel, Dairy, Liquid Glucose, Malto Dextrin Powder, High Fructose Syrup, DDGS & Gluten Dryer.**

[WWW.RADOXENGINEERING.COM](http://WWW.RADOXENGINEERING.COM)





Radox Engineering

# About Us

Welcome to Radox Engineering, a leading EPCC based organization. We specialize in delivering innovative and sustainable industrial turnkey projects such as Bioethanol, Biodiesel, Liquid Glucose, Malto-dextrin, High Fructose Syrup including DDGS dryers and Zero Liquid Discharge (ZLD) system to meet industrial standards.

With expertise in Designing, Procurement, Construction, Project Management and executing, industrial infrastructure along with eco-friendly systems. We ensure high-quality, turnkey solutions tailored to your needs. At Radox Engineering, innovation meets reliability as we work towards building a sustainable future for industries.

**30+**

Projects Completed

**90+**

Clients Served

**30+**

Awards





# Vision and Mission



## Vision

To be a globally recognized leader in EPC engineering solutions, driving innovation, operational excellence, and sustainability in every project, while empowering industries to build a better, smarter, and greener future.

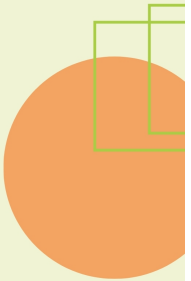
## Mission

To deliver innovative, efficient, and sustainable EPC (Engineering, Procurement, and Construction) solutions that exceed client expectations while fostering long-term relationships, promoting environmental responsibility, and contributing to the success of industries worldwide.



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# Our Project Range



## Bioethanol Plants

At Radox Engineering we design and deliver advanced bioethanol plants that transform renewable resources like sugarcane, corn, and biomass into sustainable fuel. Our turnkey solutions focus on energy efficiency, environmental compliance, and maximizing production output, ensuring a cost-effective and eco-friendly alternative to traditional fuels.

## Liquid Glucose Plant

At Radox Engineering, we specialize in designing and delivering state-of-the-art liquid glucose plants, tailored to meet the specific needs of industries such as food, pharmaceuticals, and chemicals. Our turnkey solutions focus on efficiency, precision, and scalability, ensuring seamless production processes and adherence to the highest industry standards

## Malto-Dextrin Plants

At Radox Engineering, we take pride in developing cutting-edge maltodextrin plants designed to cater to the specific needs of industries such as food processing, pharmaceuticals, and beverages. Our end-to-end solutions emphasize operational efficiency, scalability, and adherence to global quality standards. With a focus on hygienic design, energy conservation, and advanced technology,

## DDGS Dryer

At Radox Engineering, we are leaders in crafting advanced DDGS dryer systems tailored to the needs of industries such as ethanol production, animal feed, and bioenergy. Our comprehensive solutions prioritize energy efficiency, reliability, and adherence to industry-specific standards. With a focus on hygienic design, optimized drying performance, and scalable configurations

## Zero Liquid Discharge(ZLD)

At Radox Engineering, we specialize in delivering innovative Zero Liquid Discharge (ZLD) systems designed to meet the unique requirements of industries such as textiles, chemicals, power plants, and pharmaceuticals. Our comprehensive solutions focus on achieving complete water recovery, environmental compliance, and cost efficiency.





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# Bio Ethanol Plant

A bioethanol plant is a facility that produces bioethanol, a renewable form of ethanol derived from biological sources such as corn, broken rice, sugarcane or cellulosic biomass (like agricultural residues). Bioethanol is used as a fuel or fuel additive to reduce greenhouse gas emissions and promote energy sustainability.

## Process

Feedstock Preparation

Fermentation

Distillation

Dehydration

Storage and Distribution

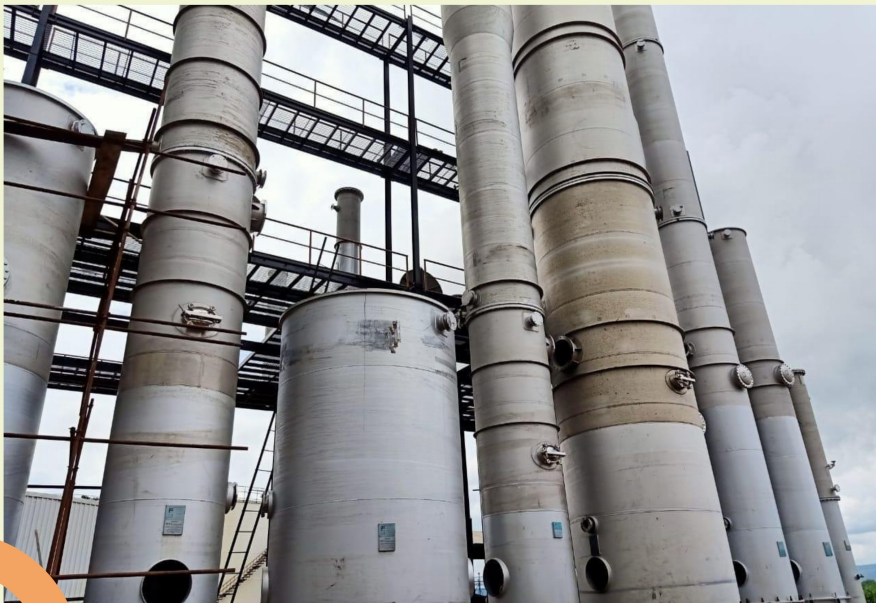




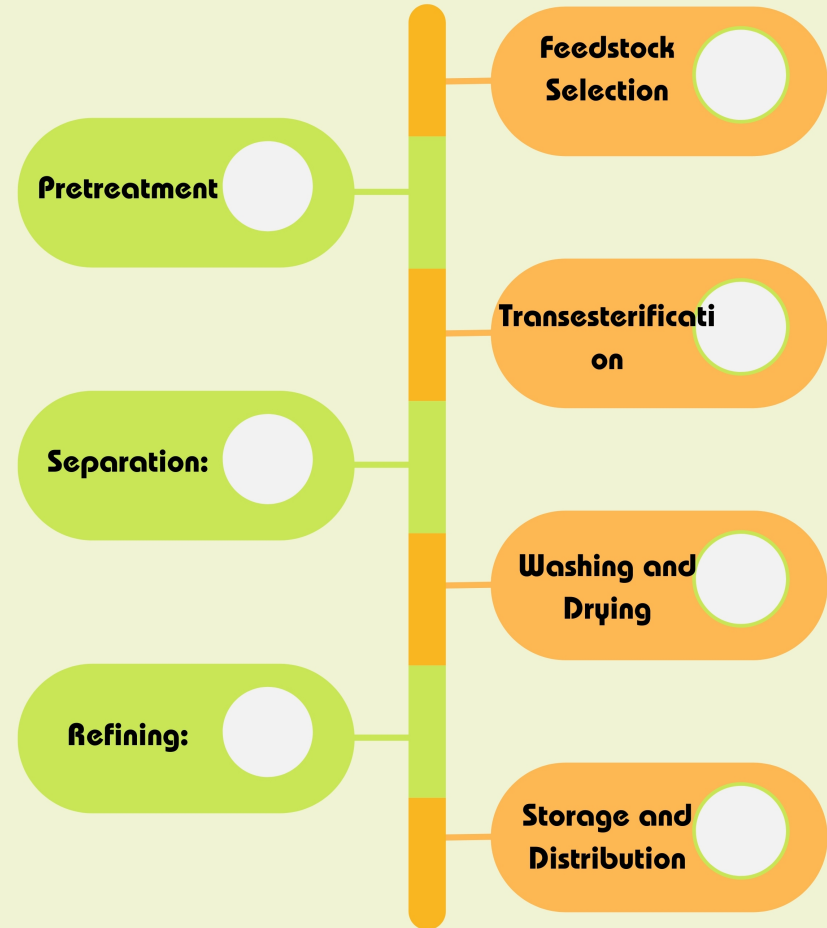
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# Biodiesel Plant

A biodiesel production plant manufactures biodiesel, a renewable fuel produced by chemically converting natural oils and fats into fatty acid methyl esters (FAME). Biodiesel is used as a cleaner alternative to traditional diesel fuel and can be blended with petroleum diesel or used independently in diesel engines



## Process





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# Biofuel Plant

A biofuel plant is a facility that produces biofuels, renewable fuels derived from biological materials like plant matter, agricultural residues, or animal fats. The most common types of biofuels are bioethanol, biodiesel, and biogas, which serve as alternatives to fossil fuels in transportation, power generation, and heating.

## Types of Biofuel Plant

BIOETHANOL  
PRODUCTION  
PLANT

BIODIESEL  
PRODUCTION  
PLANT

BIOGAS  
PRODUCTION  
PLANT





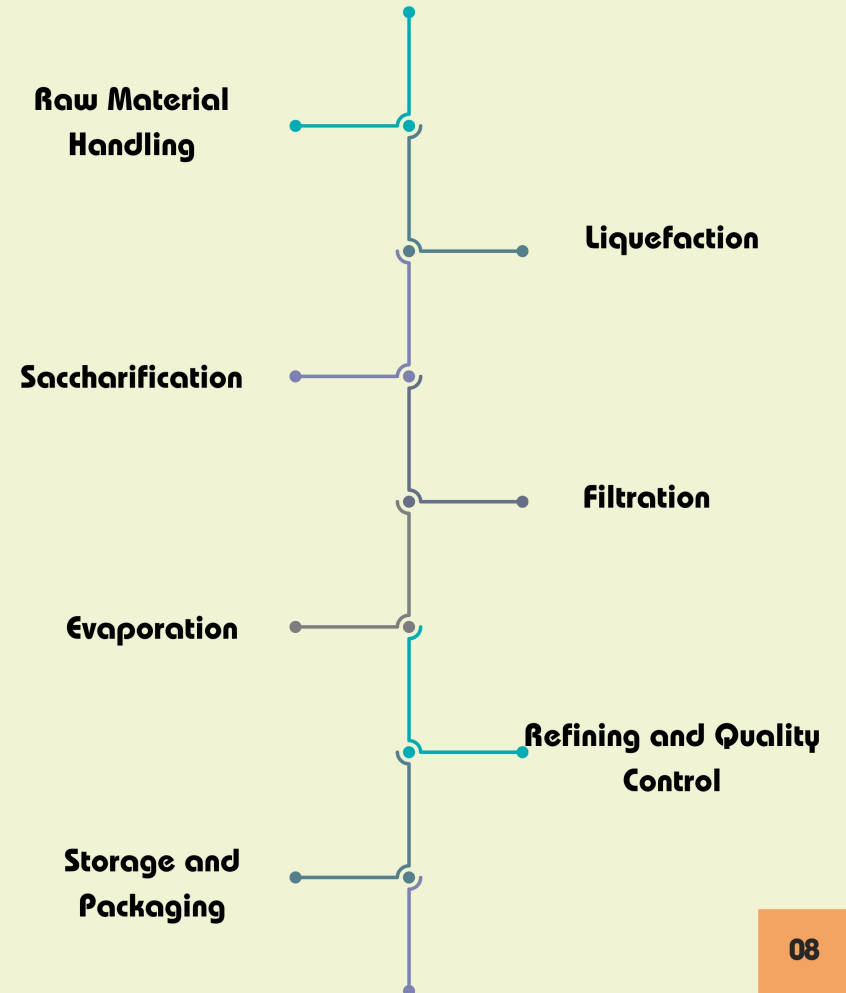
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# Liquid Glucose Plant

A liquid glucose plant is a facility designed for the production of liquid glucose, which is a concentrated syrup of glucose derived from starch. Liquid glucose, has a wide range of applications in industries such as food, beverage, pharmaceutical, and confectionery.



## Process





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# Maltodextrin Powder Plant

A maltodextrin powder plant is a manufacturing facility that produces maltodextrin, a polysaccharide commonly used in the food, beverage, and pharmaceutical industries. It has mild sweetness and is widely used as a bulking agent, stabilizer, and carbohydrate source.



## Process

Raw Material Handling

Liquefaction

Saccharification

Filtration

Spray Drying

Refining and Sieving

Packaging and Storage



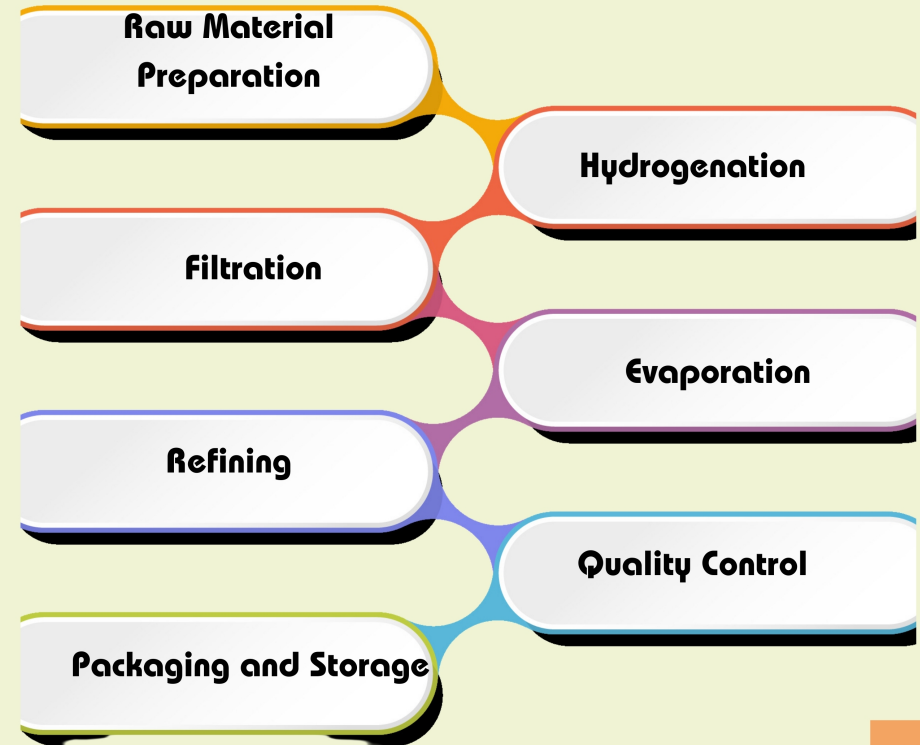
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# Sorbitol Plant

A sorbitol plant is a manufacturing facility designed to produce sorbitol, a sugar alcohol derived from glucose. Sorbitol is widely used in food, pharmaceutical, personal care, and industrial applications due to its sweetness, humectant properties, and stability.



# Process





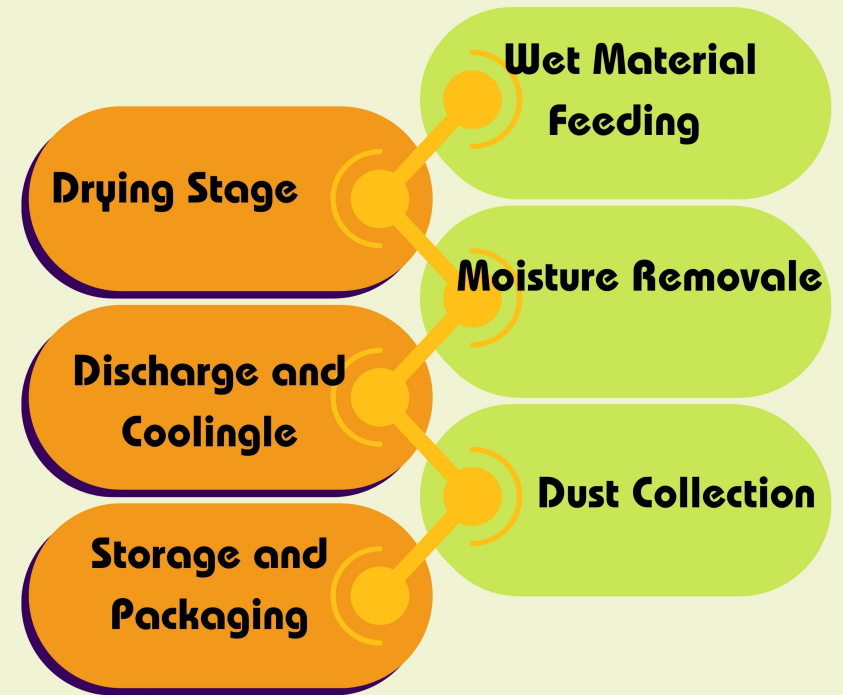
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## DDGS Dryer

A DDGS Dryer is a specialized industrial machine used to Dry Distillers Dried Grains with Solubles (DDGS), a valuable by-product of ethanol production. DDGS is created during the fermentation of grains like corn or wheat and is commonly used as a high-protein feed for livestock.



## Process





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# ETP Plant

An Effluent Treatment Plant (ETP) for industry is designed to treat wastewater generated during the dyeing and finishing processes. The primary goal is to remove contaminants like dyes, chemicals, and suspended solids, ensuring that the water meets environmental standards before being released or reused

## Process:

Pre-Treatment



Primary Treatment



Secondary Treatment



Tertiary Treatment





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# Multi Stage Reverse Osmosis

**Multi-Stage Reverse Osmosis (RO)** is an advanced water purification process that employs multiple RO membranes arranged in stages to remove impurities, salts, and contaminants from water. This system is designed to enhance recovery rates, reduce wastewater generation, and produce high-purity water.



## Process:

**Pre-Treatment Stage**

**First RO Stage**

**Intermediate Concentrate Management**

**Second RO Stage**

**Subsequent RO Stages**

**Post-Treatment Stage**

**Concentrate Management**



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# Zero Liquid Discharge

**Zero Liquid Discharge (ZLD)** is a wastewater treatment process aimed at eliminating all liquid waste, ensuring that no wastewater is released into the environment. In a ZLD system, water is purified through various stages—such as filtration, evaporation, and crystallization—so that the final discharge consists only of solid waste or non-liquid by-products.



## Process

**Pre-Treatment**

**Evaporation**

**Crystallization**

**Recovery**

**Disposal**



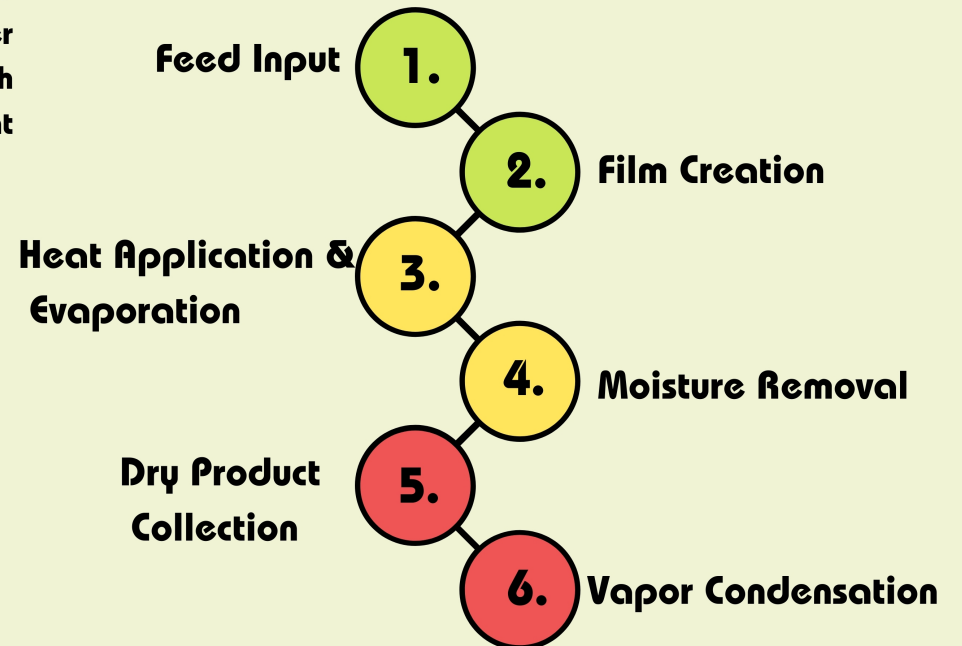
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# Agitated Thin Film Dryer

An Agitated Thin Film Dryer (ATFD) is an advanced thermal drying system used to concentrate and dry highly viscous liquids, slurries, or pastes into dry powder or flakes. It employs an agitated, thin-film evaporation technique under high heat transfer efficiency, often operating under vacuum to lower the boiling point and enhance drying efficiency.



## Process





# Why Choose Us



## Expertise

Our team of experienced engineers and project managers excels in all aspects of engineering, procurement, and construction, ensuring seamless and reliable execution of complex projects.



## Innovative Technologies

By utilizing advanced tools like 3D modeling, BIM (Building Information Modeling), and simulation software, we deliver precise designs, efficient workflows, and reduced project timelines.



## Turnkey Solutions

We offer complete end-to-end services, from conceptual design and planning to procurement, construction, and commissioning, eliminating the need for multiple contractors and ensuring better coordination.



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# Our Special Services



## Turnkey Projects

At Radox Engineering, we deliver turnkey projects from concept to commissioning, specializing in DGS dryers, Zero Liquid Discharge (ZLD) plants, and food processing plants. We handle every stage with precision, ensuring seamless execution, sustainability, and on-time delivery to meet our clients' unique needs.



## Process Technologies

At Radox Engineering, we offer advanced process technologies tailored to industries like ethanol production, food processing, and water treatment. Our expertise includes designing efficient DDGS dryers, Zero Liquid Discharge (ZLD) systems, and customized solutions that enhance productivity.



## Design & Detail Engineering

At Radox Engineering, our design and detail engineering services focus on delivering precise and efficient solutions. Using advanced software and industry best practices, we create optimized designs for DDGS dryers, Zero Liquid Discharge (ZLD) plants, and industrial facilities, ensuring quality and seamless execution.



## Project Management

At Radox Engineering, our project management services ensure the successful execution of every project. From planning to commissioning, we manage timelines, resources, and quality, ensuring seamless coordination and on-time delivery of DDGS dryers, Zero Liquid Discharge (ZLD) plants, and industrial projects.



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# Need More Information?



+91-9636735155



[WWW.RADOXENGINEERING.COM](http://WWW.RADOXENGINEERING.COM)



[RADOXENGINEERING@GMAIL.COM](mailto:RADOXENGINEERING@GMAIL.COM)



FF-15, GREEN PARK, NEAR GYAN VIHAR  
UNIVERSITY, JAGATPURA, JAIPUR,  
RAJASTHAN 302017

