



Effluent Treatment & Zero Liquid Discharge











World-Class

Equipment With Best -In-Class Technology

RAJ Process Equipment & System Pvt. Ltd., established in 2003, is a rapidly growing engineering company specializing in process equipment and systems. We offer design, engineering, manufacturing, and export services, including turnkey projects. Our expertise includes Distillery, Dehydration Technology, Evaporators, Condensate Polishing Units, Spray Dryers, Rotary Dryers, Granulation Plants, Powder Handling Systems, and 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.

ZLD-TechnologyFor A Sustainable Tomorrow

Raj Process is a leading provider of Zero Liquid Discharge (ZLD) plants, specializing in industrial wastewater treatment. With over 20 years of experience, we offer cost-effective and energy-efficient solutions to meet strict discharge regulations and address freshwater scarcity concerns. Our ZLD technology converts liquid waste into disposable dry solids and recycles high-quality water for reuse. We have extensive experience in treating industrial wastewaters from various sectors, including breweries, distilleries, food processing, chemicals, pharmaceuticals, and automotive industries.

The Perfect

Solution For Every Process

The wastewater quantity and quality varies from industry to industry and so do the Zero Liquid Discharge (ZLD) technology requirement differs. The waste water composition, various streams to be treated, site specific operating costs, foot print availability and other factors are determining factors for an optimal design. Raj Process offers Zero Liquid Discharge (ZLD) in various treatment & technology options.



Technologies/Our Product Range

- Vertical tube Falling Film, Force Circulation Evaporators
- Integrated & Hybrid Evaporation Plant for Molasses based Distillery
- ZLD on MVR technology
- Spray Dryer

- ZLD based on MEE ATFD technology
- Stand-alone Evaporation Plant using Steam
- Tube Bundle Dryer
- Paddle Dryer

- ZLD based on MEE Centrifuge technology
- ATFE/ATFD
- Solvent Stripper

Features of RAJ ZLD:

- Higher steam and power economy
- Simple construction that is easy to operate
- Reliable and cost effective solutions
- Carefully selected process scheme and material of construction taking into account the feed properties
- Optimal space requirement

- Skid mounted units up to certain capacities
- Capacity range from 1 KL/day to 10,000 KL/day
- PLC controlled systems
- Pure condensate from the system which can be reused in process
- Customer support for long term reliability

Industries **We Serve**















Pulp & Paper



Chemical and **Allied Industry**



Mineral Processing



Electronics & Hardware



Fish / Meat Processing



Palm Oil



Landfill Leachate



Automotive



Power



Food



Distillery



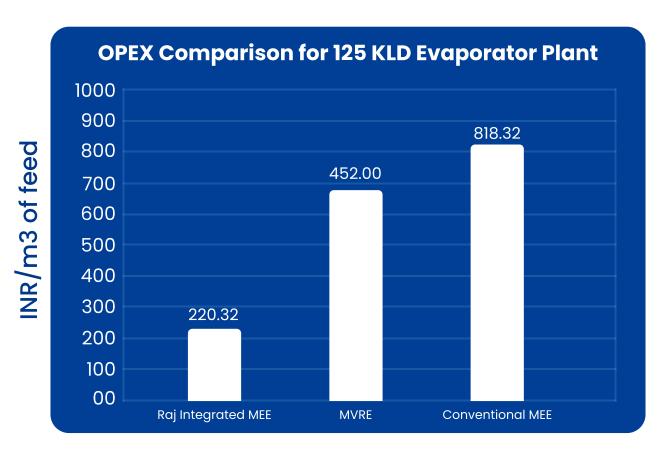
Brewery

CASE STUDY

A Step Towards Sustainability

Zero Liquid Discharge plant with RAJ ATFD/Dryer vapour integrated Evaporator

The customer from chemical industry was looking for a cost-effective technique to replace the conventional steam-based MEE's high operating cost and MVR based evaporators high capital and maintenance cost, the customer selected Raj Process to specially developed, designed, engineer, manufacture and supply the ATFD/Dryer vapour integrated Evaporator to enable customer to achieve ZLD at very low operating cost.



Benefits -

Energy efficient as no additional electrical or thermal energy is required

Simple & Effective Design

Low OPEX

Low maintenance

"FOR THE ENVIRONMENT, FOR THE ECONOMY AND FOR A SUSTAINABLE FUTURE"



Turn- key Plants

- Distillery Plant Molasses & Grain Based
- Guar Gum
- Detergent Powder Plant
- MCCP
- Starch and Glucose
- Zero Liquid Discharge Plant
- Nutraceutical Powder Plant
- Milk Powder Plant
- Herbal Extraction Plant
- Thermal Desorption Unit
- Fruit and Vegetable Processing
- CBG Plant

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

Mixers

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

Process Equipments

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

Boilers

- Multi Fuel Package Boilers with Integral Furnace
- Captive Plant High Capacity Boilers
- Waste Heat Recovery Boilers
- Thermic Fluid Heaters & Hotwater Boiler
- Turnkey Co-Generation Power Plant

Infrastructure

That We Have

We are one of the leading process equipment manufacturer from India. We have supplied our products and Services in India as well as in abroad. Our company is Certified with ISO 9001–2015, ISO14001:2015, BS OHSAS 18001:2007, ASME 'U' Stamp, 'S' Stamp, National Board 'R' Stamp.













Customers We Served

























































































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