



**LOW TEMPERATURE EVAPORATION**  
upto 99% clean water recovery

Upto

# 99%

Water Recovery & Recycling



## ADVANTAGES

- No heat generation and rejection units
- No chemical treatment in process
- No use of membrane, reverse osmosis
- No membrane disposal issue resulting elimination of the plastic by in large
- Complete process of evaporation is at "Low Temperature"
- Direct wastewater to clean water in single step
- Condensate is in purest form so no/less extraction of the ground water
- Continuous use of condensate in process ease the process parameters as well keep descale most of time the complete lines and plant & machinery
- Most effective water balance, water management solution
- High life cycle evaporator because of the stainless steel construction
- Compact and minimal footprint area
- Robust and fully automatic
- Lowest electricity demand



## Low Temperature Evaporator Module (LTEM)

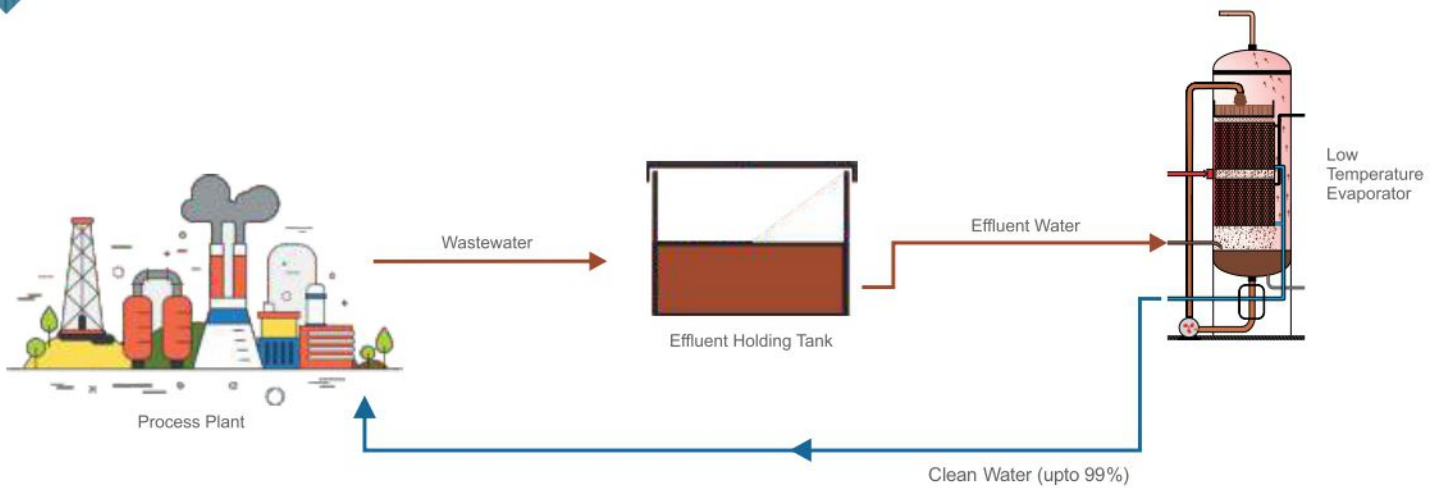
Low Temperature Evaporator is an innovative system to recover clean water along with concentrated solution separately, by processing industrial and domestic wastewater of wide variety. It is used to concentrate various fluids by evaporating excess water upto 99% depending on Boiling Point Elevation (BPE) of fluid. All excess water is recovered as clean water or condensate separately along with concentrated fluid.

Low Temperature Evaporator is an integrated module comprising Plate Heat Exchanger, Vacuum and Mechanical Vapor Compression/Recompression.

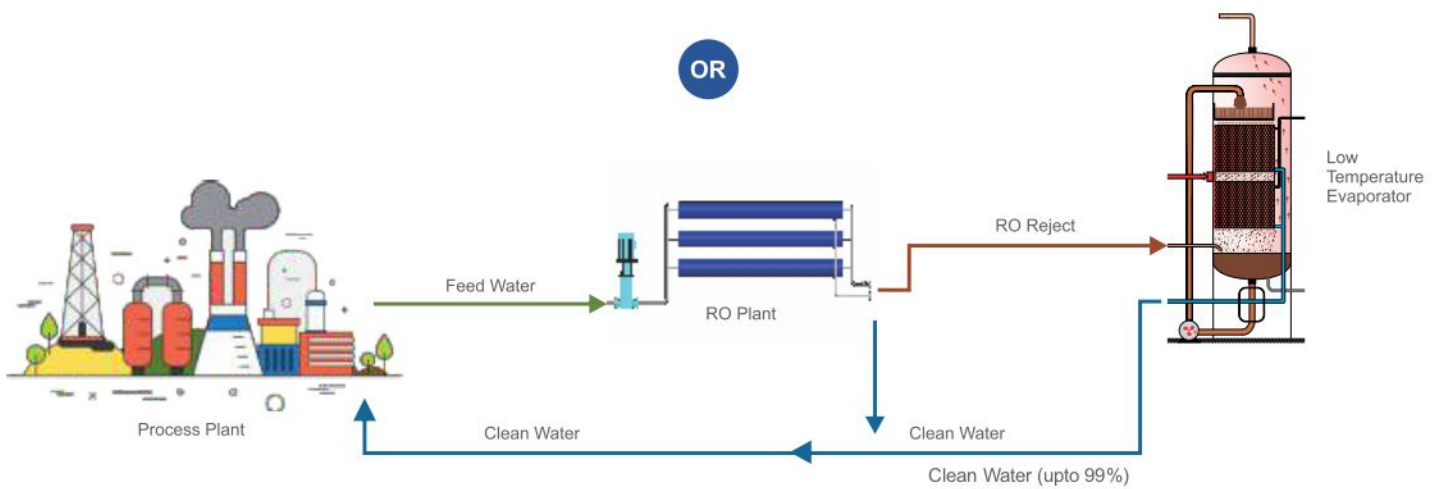
- Mechanical Vapour Compression/ Recompression recycles steam required for evaporation eliminates continuous use of external heating source during operation.
- High pressure compressed vapors enter in the evaporator calandria, which evaporates excess water and generates low pressure vapors.
- Low pressure vapors are then compressed by Mechanical Vapour Compression/ Recompression and recycled in Low Temperature Evaporator resulting in a highly energy efficient process.



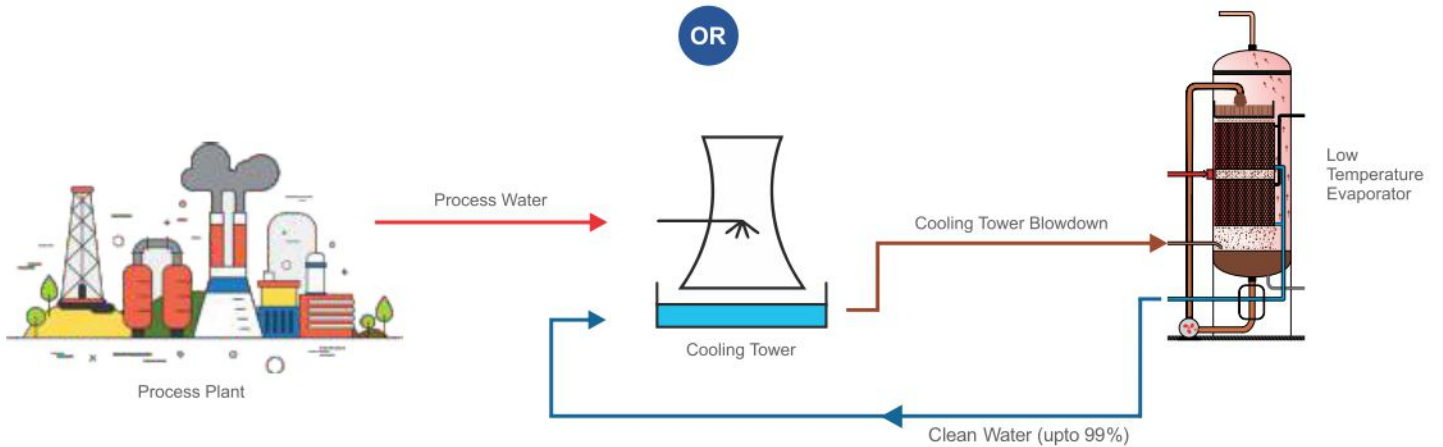
## USAGE



OR



OR



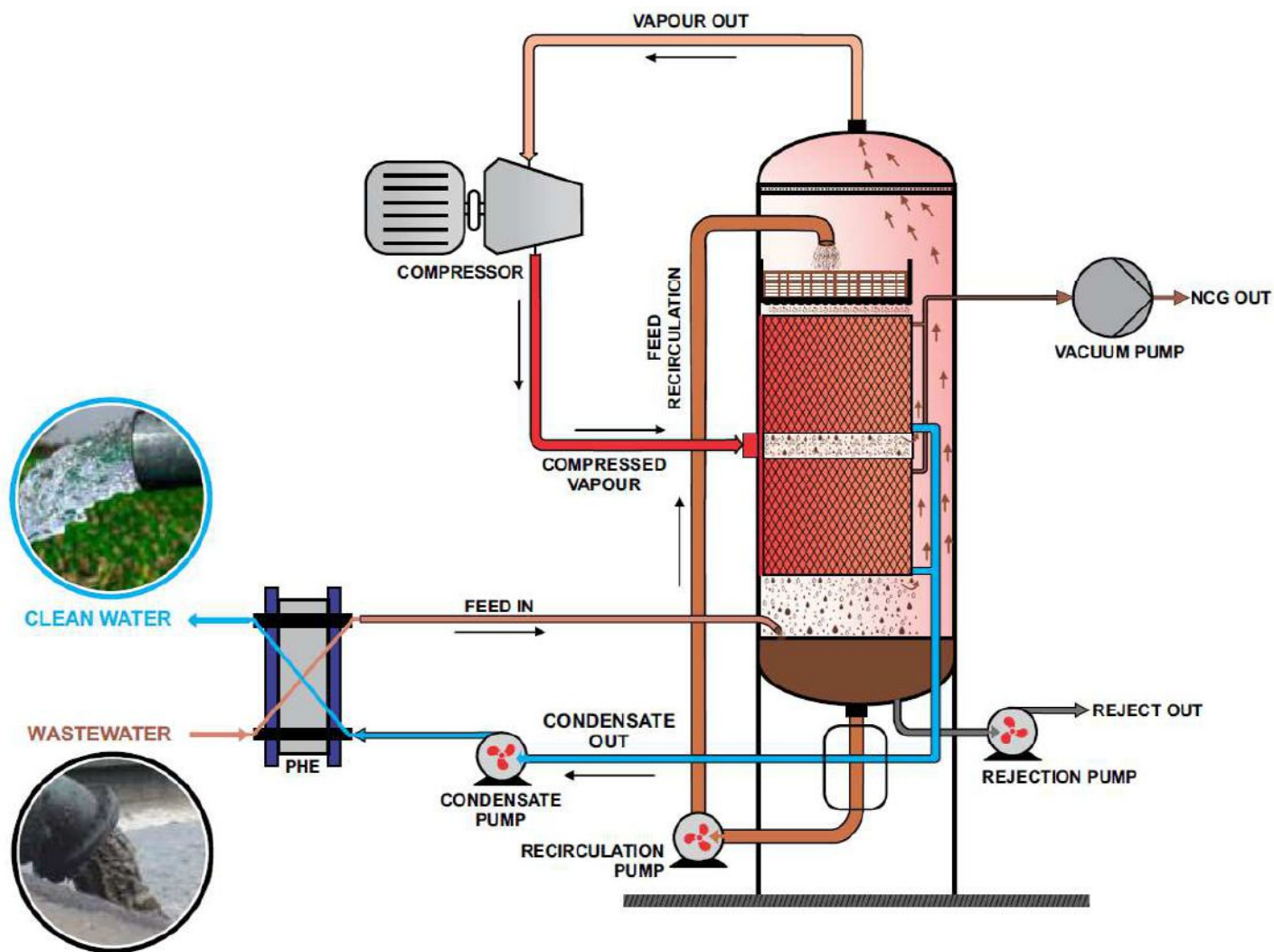
and many more applications...



## MODELS

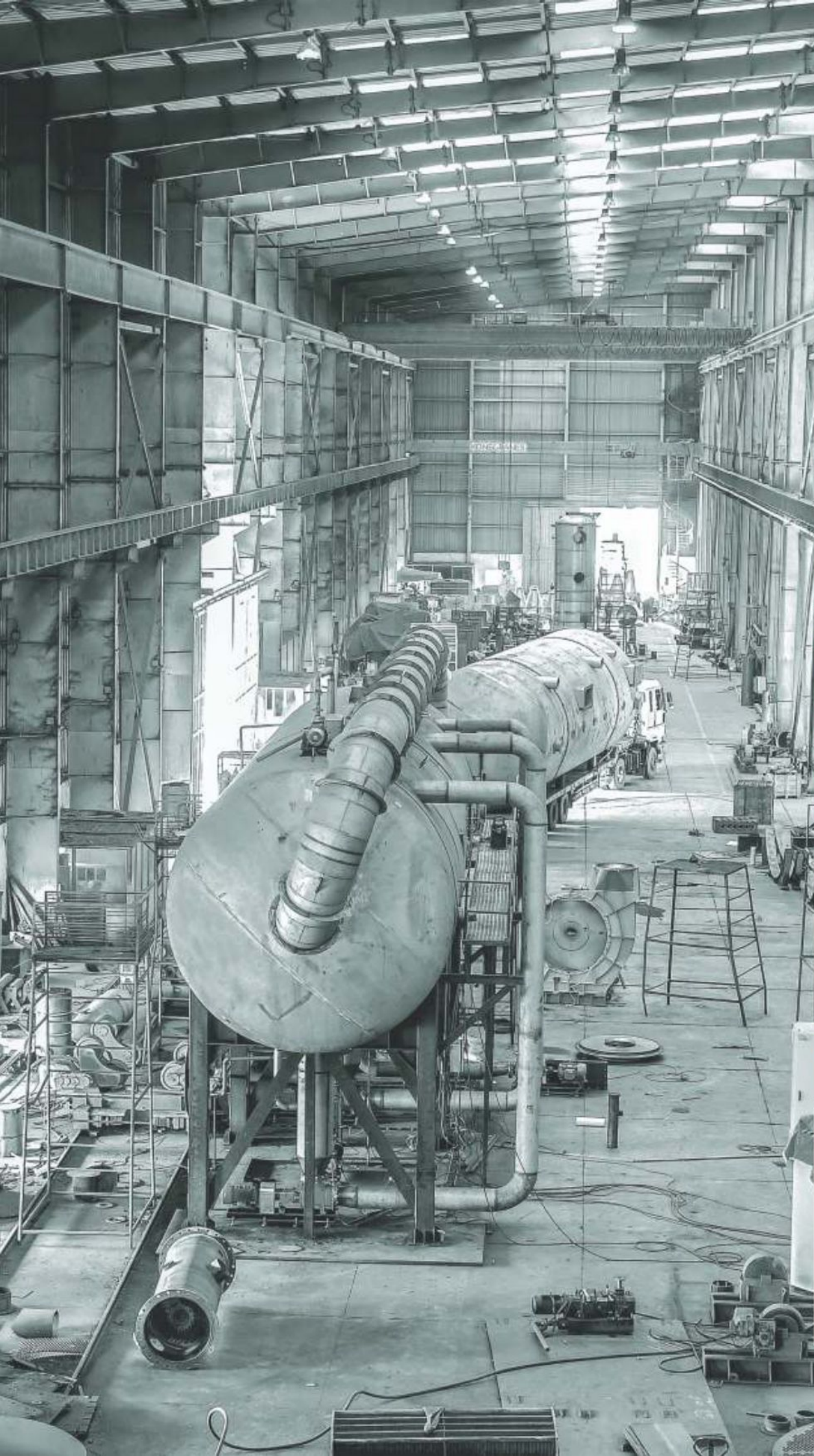


## SCHEMATIC DIAGRAM



**SINGLE STEP SOLUTION**







## APPLICATIONS

Textile and Dyeing Industry



Paper and Pulp Industry



Distilleries



Leather/ Tannery Industry



Food and Beverage Industry



Cooling Tower Blow down/  
RO Rejects



Chemical/Pharma Industry



Refineries and Power Plants



Commercial/ Hotel &  
Restaurant



Sewage



⋮  
and many more...



## SERVICES

**JSC** offers high quality turnkey projects & services. We provide comprehensive solutions to our valued customers with Project Management Systems of international standards and know-how involving the plant data collection, monitoring & controlling of project using cutting edge Softwares, Project Management & Scheduling, Resource Planning, Erection & Commissioning, Preparation of Detailed Start-up and Validation Schedule, Development of Plant Automation and Controlling, Trouble Shooting, Post Analysis of the Project Parameters after Commissioning etc.





## Solutions for Sugar Industry

### MODERN SUGAR PLANT

JSC is pioneered in accomplishing energy efficient products and innovative technologies for substantial reduction in energy consumption in process and allied industries. JSC is focused on (re)designing and engineering of processes, equipment design manufacturing along with their complete automation ensuring highest energy efficiencies and integrated cost-effective solutions. The steam consumption of sugar industry has been achieved up to 30-34% on cane using JSC's innovative technologies, equipment and solutions. The power (40kW/Ton) consumption has been reduced up to 22-24 kW/Ton of cane and factory has been managed to operate with Zero Fresh Water requirement.

Our expertise:

- Turkey plant installation for sugar & sugar refinery
- Boiling house equipment design, engineering, manufacturer and supplier
- Specialized in Evaporation, Crystallization, Sugar Refining, Cooling & Condensing System
- Modern process house layout design with 60-70% less civil work and 40% less foot print area
- Lowest steam consumption and higher power generation & export
- Highest bagasse saving and higher quality & high yield production
- Complete industrial and plant automation
- Project management consultancy services
- Detailed process design and engineering Feasibility Study/Detailed Project Report (DPR)
- Customized solution and technical support





## OTHER AREAS OF SPECIALIZATION

## Solutions for Jaggery Industry

### FEATURES OF MODERN JAGGERY UNIT

- Boiler free jaggery unit
- Zero emissions
- Zero intake water
- 100% bagasse saving
- Improved clarification technique
- Innovative evaporation by MVC technology
- High yield jaggery production
- Energy efficient modernized and cost effective
- Low capital expenditure
- Highly economical in recurring operational cost
- Compact, Portable and Robust
- Offers scope to multiply revenue centres



**INNOVATIVE  
TECHNOLOGIES  
FOCUSED ON  
SUSTAINABILITY**

**JAYADITYA SUGAR CONSULTANCY SERVICES PVT LTD,  
TOWER-5,A 101,GODREJ WOODSMAN ESTATE,  
AIR PORT ROAD,BANGALORE-560024.  
mail id: a.arunaprasad63@gmail.com  
mob:+91 9731399133**