



# LEED

Lakshmi Energy and Environment Designs Private Limited



## Understanding Demands, Delivering Value.

**Lakshmi Energy and Environment Designs Private Limited (LEED)** is a part of the Lakshmi Ring Travellers (Coimbatore) Private Limited (**LRT**) group of companies in Coimbatore.

**LEED** is an end to end sustainable solution provider for challenges faced with water treatment as well as solid waste management. Our customized solutions aim to use advanced technology to provide an energy efficient and financially attractive solution to ensure environmental standards are met.

**LEED** has a diverse customer portfolio and has successfully executed numerous complex projects in a variety of sectors. **LEED** has extensive experience with delivering solutions for clients not only in India but also around the world. Some of **LEED's** customers from the following sectors:

- ▶ Textile
- ▶ Engineering
- ▶ Sugar Refining
- ▶ Cement
- ▶ Hospitality
- ▶ Homes, Hostels and Housing Developments
- ▶ Metal Plating
- ▶ Oil and Gas
- ▶ Power
- ▶ Steel
- ▶ Food and Beverage
- ▶ Pharma
- ▶ Tanneries

**A Business Partner for Developing Greener Solutions**

**TRUST WORTHY  
SUSTAINABLE  
ECONOMICAL SOLUTION  
PROVIDER.**



**Over 170  
Installations**



**Presence in over  
30 Countries**



**Over 35000 KLD of  
Water Treated**

## *Innovative and Sustainable Solutions*

### **Water Treatment Plant (WTP)**

Water treatment refers to processes used to make water more acceptable for a desired end-use. The goal of all water treatment is to remove existing contaminants in the water or reduce the concentration of such contaminants. One such use is returning water that has been used back into the natural environment without adverse ecological impact.

As water scarcity becomes an ever-prevalent global problem, there is a need to maximise the use of all available water sources. This paradigm shift has resulted in the maturation of desalination technologies. Desalination is the process by which the salt content in sea water is reduced to a useable extent.

- ▶ Lamella Plate Separators/ Clarifiers / Clariflocculator / HRSCC
- ▶ Pressure / Rapid Gravity Filters/ Activated Carbon Filters
- ▶ Ultraviolet / Ozone Disinfection
- ▶ Reverse Osmosis Plant (R.O)
- ▶ Nano / Ultra-Filtration (NF/UF) Systems
- ▶ Ion Exchange Plants for Demineralisation, Dealkalisation and Softening
- ▶ Iron Removal Systems by Pressure filters(MnO<sub>2</sub>) / Cascade Aerators
- ▶ Demineralization / Deionization (DM) Plants
- ▶ Sea water / Brackish water Desalination Plant



*Skid Mounted Water Treatment Plant / RO Plant 500 LPH - 150 KLPH*



*Water Treatment Plant / Filters 3000 LPH - 100 KLPH*

## *Innovative and Sustainable Solutions*

### **Sewage Treatment Plant (STP)**

Sewage treatment is the process of removing contaminants from sewage in both, domestic and commercial establishments. It includes physical, chemical and biological processes. Its objective is to produce an environmentally safe effluent that can be discharged and a solid waste suitable for disposal or reuse.

- ▶ Moving Bed Bio-film Reactor (MBBR)
- ▶ Activated Sludge Process (ASP)
- ▶ Membrane Bio Reactor (MBR)
- ▶ Sequential Batch Reactor (SBR)
- ▶ Up-flow Anaerobic Sludge Blanket Reactor (UASBR)



*Skid Mounted Sewage Treatment Plant 10 KLD – 200 KLD*



*Conventional Sewage Treatment Plant 10 KLD – 2 MLD*

## *Innovative and Sustainable Solutions*

### **Effluent Treatment Plants (ETP)**

Several industrial processes result in the formation of a variety of effluents. These effluents are toxic and cannot be discharged due to the negative impact on the environment. Therefore, effluent treatment plants are installed to ensure that the contaminants in process fluids are isolated so that the non-toxic components can be safely discharged. ETP's can involve either biological or chemical processes and in some instances as combination of both. A more recent generation of ETP's are the Zero Liquid Discharge Plants. As the name suggests, these plants only produce a solid waste to be disposed. LEED has experience in treating complex and corrosive effluents rich in chrome and nickel.

- ▶ Biological Treatment
- ▶ Physicochemical Treatment
- ▶ Zero Liquid Discharge (ZLD) plants
- ▶ Chrome, Nickel Recovery plants
- ▶ Acid Pickling, Spent caustic treatment Plants
- ▶ Electro Coagulation
- ▶ Mechanical Evaporators
- ▶ Agitated Thin Film Dryers (ATFD)



*Skid Mounted Effluent Treatment Plant 10 KLD - 200 KLD*



*Conventional Effluent Treatment Plant 20 KLD - 10 MLD*



*Zero Liquid Discharge System*

## *Innovative and Sustainable Solutions*

### **Organic Waste Converter (OWC)**

The OWC converts the organic waste into odourless, pre-compost manure in 15-20 days. The shredder reduces the organic waste to optimum particle size for composting. Then it is mixed and blended for a homogeneous mixture and is converted into pre-compost manure



*Bio-bin & Heating Composter from 100 KGD – 2000 KGD*

### **Bio-gas Plant**

Bio-gas is produced when organic waste is treated in an anaerobic environment. The environment causes bacteria to decompose organic material. Anaerobic digestion effectively treats the organic fraction of waste producing an energy source like methane.

Bio-gas contains contaminants that can have a negative impact on the environment. The proposed plants will strip the contaminants from the bio-gas stream and ensure that a clean and environmental friendly gas will be produced for usage at the customer site



*Skid Mounted Bio-gas Plant 1 TPD – 15 TPD*



*Conventional Bio-gas Plant 1 TPD – 100 TPD*

## Long Term Business Partner and Solution Providers



### End to End Solution Provider

In order to enhance the plant performance or technical evaluation of existing set-up, LEED can assess the conditions and provide solution that ensures compliance with environment regulations. On acceptance, we will depute the team to revamp, here in India. For customers located away from India, we can do the supervision of erection; commissioning and handing over will be scope of LEED. Detailed manual and training will be provided for users for smooth operation of the plant.



### Operation and Maintenance

For hassle free working of any system, trained team of operators are required. LEED can take-up the operation and maintenance of WTP/ETP & STP at any customer location and provide monthly reports and keep abreast of all activities in the plant to customer.



### Spares and Chemical

Critical spares that impact the plant operations will be technically evaluated and supplied by LEED to ensure the smooth operation of the plant.

Chemicals which are essential for routine operations can be supplied by LEED on regular standing order; also, the chemical usage can be periodically evaluated and our expert team can suggest optimal solutions for this.



### Products

LEED can supply individual stand-alone products or equipment that can be incorporated in the larger existing process plant or system like – clarifiers, agitators, Filters, dosing systems, RO plants, pumps, blowers, ATFD, mechanical evaporators, Organic waste convertors (OWC) etc.,



### Consulting Services

LEED can provide consulting services to the existing LEED customers or other plant integrators. Thereby understand the requirements, study the plant set-up and operations and provide detailed reports. If any assistance is required for revamping LEED can do the same as required by the customer.



## *Across 40 countries, quality is linked by one name : LRT*

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To be competitive in today's market you need a partner who understands your needs and the market environment.

LRT was incorporated in 1974 and its operations are organised into three independent business clusters. They are: (1) Ring Traveller Division, (2) Engineering Division comprising of a foundry, a machine shop and a plating factory and (3) Sustainable Engineering Solutions Division also known as **LEED**.

LRT offers a distinct advantage by offering consistent quality at competitive prices. LRT is the global leader in ring traveller manufacturing. LRT's products command a dominant presence in the Indian textile industry with over 73% of the market share. Internationally, as well LRT is renowned with a presence in over 40 different countries.

LRT is also a one stop solution provider for all your engineering needs. It has a steel foundry with an integrated machine shop and plating factory. This makes LRT a unique player in the market as it is a complete solution provider.

The engineering divisions of LRT service a variety of sectors. LRT's engineering products currently have a strong presence in Oil & Gas, Mining, Textiles, Automotive and Food & Beverage manufacturing sectors.

LRT has a vision to be a preferred solution provider across diverse industries. LRT's values are to meet highest level of quality, honesty and integrity in all our transactions.

It is these core values that form the foundation stones of LEED. We believe that our values set us apart in this competitive industry.

## Global Presence



 INSTALLATION

 LEED HEAD OFFICE, COIMBATORE, INDIA

## Our Prestigious Clients





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