nidhi®
ENGINEERS

NIDHI ENGINEERS PVT. LTD.

ISO 9001:2015 Certified Company

GREEN ZLD SYSTEM

INTRODUCTION

- Incorporated in 2014 after 19 Years of Experience.
- An ISO 9001:2015 Certified Company
- Core business areas include STP, ETP, UF, RO, Zero Liquid Discharge (ZLD), Evaporation, Crystallization, Distillation, and Product Recovery Systems.
- Technical Teams of 30+ employees and 100+ associates across India.
- Well Equipped Manufacturing Facility in 25000 Square Feet Area Located at Bakrol Industrial Area, and Corporate Office at Vastral, Ahmedabad, Gujarat, India having all basic in-house facilities like Design, Engineering, Manufacturing, Assembling, FAT and R&D.
- Experience of 200+ Installation Across India within our Product Portfolio.
- Expertise in boiler less, zero pollution, Compact and sustainable solutions.
- Expertise in compact packaged system.

VISION

To be the global expert in ZLD solutions, offering compact, economical, and eco friendly systems with zero carbon footprint and no compromise on performance.

MISSION

To provide customized solutions with a sustainable and economical approach without compromising on quality or service.

QUALITY POLICY

Nidhi Engineers Pvt. Ltd. is committed to serve products best in quality and services and having ISO 9001:2015 Certification for Quality Management System. We continuously improve our system based on the self-inspection and daily basis experience.

PRODUCT PORTFOLIO

PRIMARY

- ❑ EFFLUENT TREATMENT PLANT (ETP)
- ❑ SEWAGE TREATMENT PLANT (STP)
- ❑ WATER TREATMENT PLANT (WTP)
- ❑ REVERSE OSMOSIS PLANT (RO)
- ❑ WATER SOFTENER PLANT
- ❑ DEMINERALIZATION PLANT (DM PLANT)
- ❑ ULTRAFILTRATION PLANT (UF)

SERVICES

- ❑ PLANT REVAMPING SERVICES
- ❑ CAPACITY EXPANSION
- ❑ OPERATION AND MAINTENANCE CONTRACT
- ❑ ERECTION AND COMMISSIONING SERVICES
- ❑ DESIGN VALIDATION
- ❑ SYSTEM PERFORMANCE CALIBRATION

TERTIARY PLANT

- ❑ MULTI EFFECT EVAPORATOR (MEE)
- ❑ STRIPPER PLANT
- ❑ ATFD PLANT
- ❑ SLUDGE DRYER
- ❑ MECHANICAL VAPOR RECOMPRESSION EVAPORATOR (MVRE)
- ❑ HYBRID SYSTEM
- ❑ ELECTRICAL EVAPORATOR WITH VACUUM SYSTEM (EEVS)
- ❑ ELECTRICAL EVAPORATOR (EE)
- ❑ ZERO LIQUID DISCHARGE (ZLD)

EFFLUENT TREATMENT PLANT (ETP)

Effluent Treatment Plant is designed to treat industrial wastewater efficiently, ensuring compliance with environmental norms and promoting sustainable operations. Our ETP solutions help industries minimize water pollution, reduce operational costs, and enable water reuse, supporting a cleaner and greener tomorrow.

❖ Specifications

- **Flow Range:** 5 KLD To 5 MLD.
- **Materials:** FRP/SS/MSRL/MSEP and Civil Construction.
- **Operation:** Semi -automatic /Fully automatic Plants
- **Service:** Support Available
- **Maintenance:** Complimentary AMC for the initial Year
- **Installation & Commissioning:** Included as part of the projects free of charge.

❖ Applications

- Textile & Dyeing
- Chemical & Pharmaceutical
- Food & Beverage
- Pulp & Paper
- Leather & Tanneries
- Automotive & Metal Finishing

SEWAGE TREATMENT PLANT (STP)

Sewage Treatment Plant (STP) is designed to treat domestic and municipal wastewater efficiently, ensuring clean water discharge and compliance with environmental standards. Our STPs help communities, residential complexes, and industries achieve sustainable water management solutions by enabling water reuse and protecting natural water bodies.

❖ Specifications

- **Flow Range:** 5 KLD To 5 MLD.
- **Materials:** FRP/SS/MSRL/MSEP and Civil Construction.
- **Operation:** Semi -automatic /Fully automatic Plants
- **Service:** Support Available
- **Maintenance:** Complimentary AMC for the initial Year
- **Installation & Commissioning:** Included as part of the projects free of charge.

❖ Applications

- Residential Complexes & Housing Societies
- Hotels & Resorts
- Hospitals & Healthcare Facilities
- Educational Institutions
- Municipal Corporations
- Industrial Facilities & IT Parks
- Public Transport System

WATER TREATMENT PLANT (WTP)

Water Treatment Plant (WTP) is designed to treat raw water from natural sources such as rivers, lakes, wells, or industrial supply lines, converting it into safe, high-quality water for domestic, commercial, and industrial use. Our advanced WTP systems ensure efficient removal of impurities, meeting stringent quality standards while promoting sustainable water management.

❖ Specifications

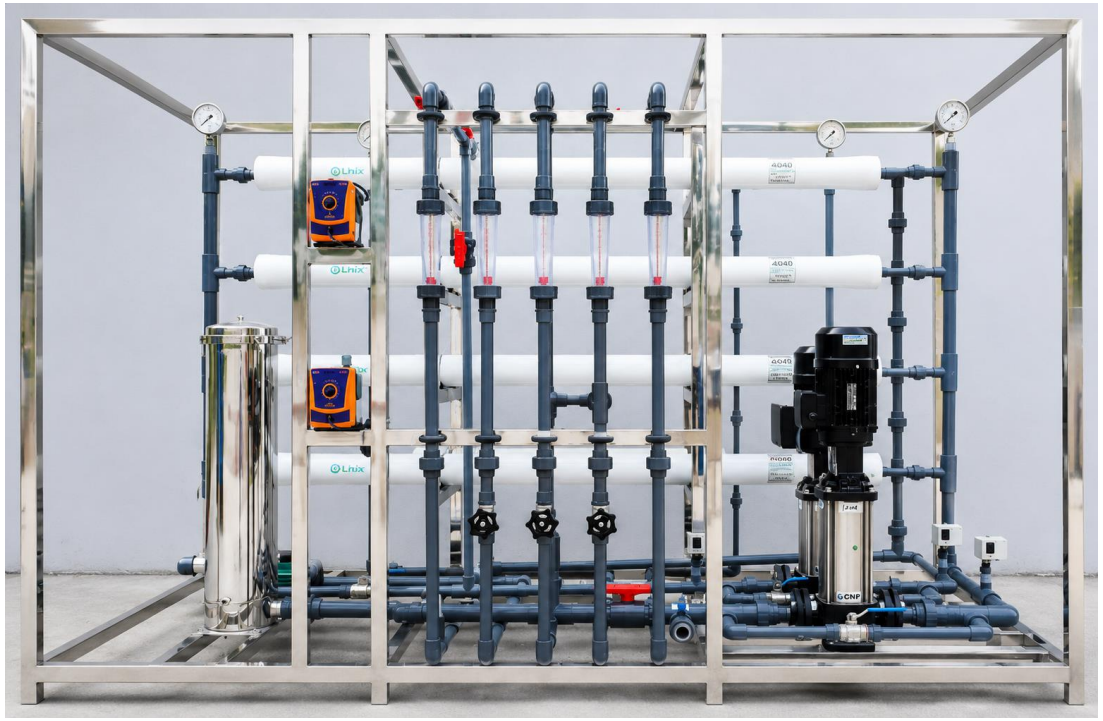
- **Flow Range:** 5 KLD To 5 MLD.
- **Materials:** FRP/SS/MSRL/MSEP and Civil Construction.
- **Operation:** Semi -automatic /Fully automatic Plants
- **Service:** Support Available
- **Maintenance:** Complimentary AMC for the initial Year
- **Installation & Commissioning:** Included as part of the projects free of charge.

❖ Applications

- Municipal & Community Drinking Water Supply
- Housing Societies & Residential Complexes
- Industrial Process Water
- Hotels, Resorts, and Commercial Buildings
- Educational Institutions & Hospitals
- Power Plants & Manufacturing Units

REVERSE OSMOSIS PLANT (RO PLANT)

Industrial Reverse Osmosis (RO) Plant is a high-performance water purification system designed to produce clean, mineral-free, and high-quality water for various industrial applications. Designed with advanced RO technology, our plants ensure reliable and cost-effective water treatment, meeting stringent quality standards while supporting sustainable operations.



❖ Specifications

- **Flow Range:** 500LPH To 100m3/hr.
- **Materials:** FRP/SS/MSRL/MSEP and Civil Construction.
- **Operation:** Semi -automatic /Fully automatic Plants
- **Service:** Support Available
- **Maintenance:** Complimentary AMC for the initial Year
- **Installation & Commissioning:** Included as part of the projects free of charge.

❖ Applications

- Municipal & Community Drinking Water Supply
- Housing Societies & Residential Complexes
- Industrial Process Water
- Hotels, Resorts, and Commercial Buildings
- Educational Institutions & Hospitals
- Power Plants & Manufacturing Units

WATER SOFTENING PLANT

Water Softener Plant is an advanced solution designed to remove hardness causing minerals like calcium and magnesium from water. By delivering soft, high-quality water, our plants help protect equipment, reduce scaling, and improve operational efficiency across a wide range of industrial and commercial applications.

❖ Specifications

- **Flow Range:** 500LPH To 1000m3/hr.
- **Materials:** FRP/SS/MSRL/MSEP and Civil Construction.
- **Operation:** Semi -automatic /Fully automatic Plants
- **Service:** Support Available
- **Maintenance:** Complimentary AMC for the initial Year
- **Installation & Commissioning:** Included as part of the projects free of charge.

❖ Applications

- Boilers & Cooling Towers
- Textile & Dyeing Units
- Food & Beverage Industry
- Hotels & Hospitals
- Pharmaceuticals
- Commercial & Residential Buildings

DEMINERALIZATION PLANT (DM PLANT)

Demineralization (DM) Plant is a high-performance water purification system designed to remove dissolved salts, minerals, and impurities, producing ultra-pure water for industrial and commercial applications. Using advanced ion-exchange technology, our DM plants ensure consistent water quality, safeguarding processes and equipment that demand the highest purity standards.

❖ Specifications

- **Flow Range:** 250LPH To 100m3/hr.
- **Materials:** FRP/SS/MSRL/MSEP and Civil Construction.
- **Operation:** Semi -automatic /Fully automatic Plants
- **Service:** Support Available
- **Maintenance:** Complimentary AMC for the initial Year
- **Installation & Commissioning:** Included as part of the projects free of charge.

❖ Applications

- Hospitality Industry
- Pharmaceuticals & Healthcare
- Electronics & Semiconductor
- Food & Beverage Production
- Chemical & Petrochemical Industries
- Laboratories & Research Facilities
- Automobile Industry
- Commercial Washing Units Industry

ULTRAFILTRATION PLANT (UF)

Ultrafiltration Plants are used in both pre-treatment and post-treatment stages of water purification. We design, supply, and install custom-made Ultrafiltration (UF) Systems with capacities of up to 100 m^3/hr. Our units can be semi- or fully-programmable and are equipped with advanced PLC control systems for efficient and automated operation.

❖ Specifications

- **Flow Range:** 250LPH To 1000m3/hr.
- **Materials:** FRP/SS/MSRL/MSEP and Civil Construction.
- **Operation:** Semi -automatic /Fully automatic Plants
- **Service:** Support Available
- **Maintenance:** Complimentary AMC for the initial Year
- **Installation & Commissioning:** Included as part of the projects free of charge.

❖ Applications

- Output of STP
- Output of ETP
- Inlet of RO
- Output of WTP

MULTIPLE EFFECT EVAPORATOR (MEE)

Nidhi Engineers offers high-efficiency MEE Plants for evaporation, concentration, and volume reduction of industrial process streams. Designed for optimum steam economy and low energy consumption, these systems help industries improve operational efficiency and meet environmental compliance standards. Widely used in Pharmaceutical, Chemical, Textile, Food & Beverage, and Effluent Treatment applications, our MEE plants provide reliable performance, easy operation, and cost-effective solutions for ZLD and product concentration requirements.

❖ Key Features:-

- High Steam Economy & Energy Efficiency
- Reduced Operating & Utility Costs
- Suitable for ZLD and Wastewater Management
- Customized Design as per Process Requirement
- Robust SS/MS Construction
- Automated & User-Friendly Operation
- Low Maintenance Requirement
- High Product Recovery & Concentration Efficiency
- Compact and Space-Saving Design
- Complete Design, Manufacturing & Commissioning Support

❖ Targeted Industries:

- Pharmaceutical Industry
- API & Bulk Drug Industry
- Chemical Industry
- Dyes & Intermediate Industry
- Castor Oil Industries
- Bromine Recovery Industry
- Textile Industry
- Food & Beverage Industry
- Electroplating Industries
- Automobile Industry
- Dairy Industry

STRIPPER SYSTEM

We are specialized in a stripper system which is used to remove low boiling solvents from pre-treated effluent. We offer both packed bed and trap type stripping columns specially designed to support zero liquid discharge (ZLD). This system efficiently removes IPA, methanol and other low-boiling compounds from effluent water using steam as heating media.

❖ Key Features :

- Efficient Solvent Removal
- Compact Design
- High-performance Packing
- Steam-Based Operation
- Custom Design
- Comply Government Norms for ZLD

❖ Targeted Industries:

- Pharmaceuticals Industries
- API & Intermediate Industries
- Dyes & Intermediate Industries
- Chemical Industries
- Textiles Industries
- Food & Beverage Industries

ATFD SYSTEM

Agitated Thin Film Dryer is used for the continuous operation to dry the concentrated slurry coming from the evaporation to achieve less than 5% moisture. ATFD needs steam / thermic fluid as heating media. It can be used for single salt / multi salt production and is also widely used for ZLD applications.

❖ Key Features :

- Continuous operation for single or multi-salt production
- Produces salts with less than 5% moisture
- Eliminates centrifuge-mother liquor issues
- Low residence time, minimal fouling
- Suitable for steam or thermic fluid heating
- MOC available in SS304, SS316L, Duplex Blades

❖ Targeted Industries:

- Pharmaceuticals Industries
- API & Intermediate Industries
- Dyes & Intermediate Industries
- Chemical Industries
- Textiles Industries
- Food & Beverage Industries

MECHANICAL VAPOUR RECOMPRESSION EVAPORATOR(MVRE)

Energy Recovery System (ERS) is newly, first time Designed and upgraded version of MVRE Technology which has the unique features of zero maintenance and consistence performance having the lowest operating cost ever. The Patent Application has been filed for this product. ERS is specially designed for those clients who do not have steam as heating media and want to achieve minimum of operating cost with Zero Carbon Foot Print. Key features of ERS System is as above.

❖ Key Features :-

- Patent (Applied) Technology
- Zero Carbon Foot Print
- Run on Electrical, Steam and Thermic Oil Energy
- Hybrid Model Also Available
- Easy to Transport
- Lowest in Operating Cost
- No Maintenance due to Static Designs
- Consistence Performance
- Pre-Assembled & Pre-Tested System
- Save Project Duration

❖ Targeted Industries:

- Pharmaceuticals Industries
- API & Intermediates Industries
- Chemical Industries
- Dyes & Intermediate Industries
- Castors Oil Industries
- Electroplating Industries
- Automobile Industries
- Bromine Recovery Industries
- Textiles Industries
- Food & Beverage Industries
- Dairy Industries

HYBRID MEE PLANT

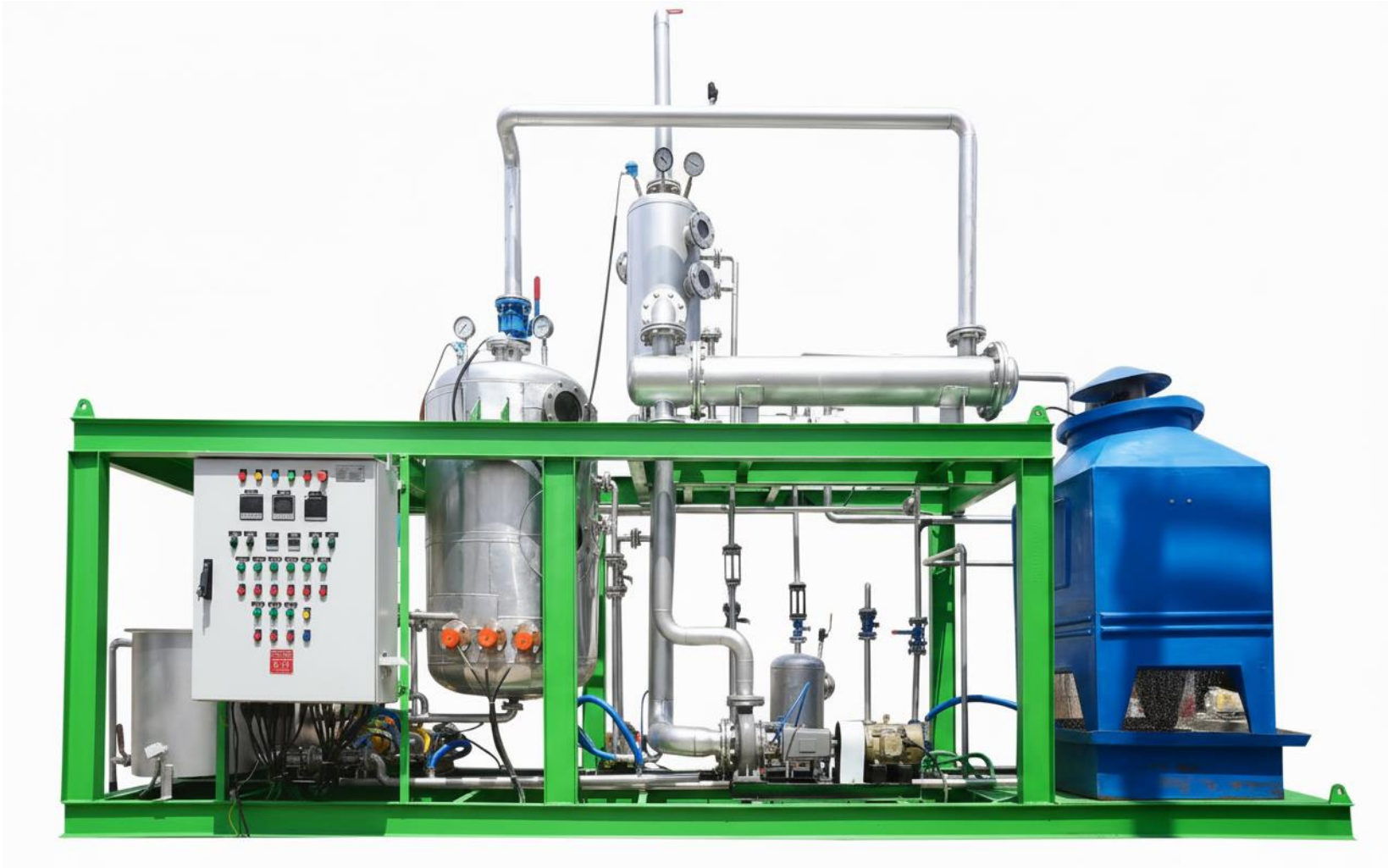
Nidhi Engineers Pvt. Ltd. introduces India's first Hybrid MEE Plant, combining an Electrical Evaporator with a Thermal MEE system. It achieves Zero Liquid Discharge with zero carbon footprint and reduced operating costs by reusing vapor energy. Fully complying with Pollution Control Board norms.

❖ Key Features :

- Patent Applied Technology
- Zero Carbon Foot Print
- No Boiler (IBR) Requirement
- Lower in operating cost Compare to Traditional
- Lowest in Capex
- Portable, Pre-Assembled, Pre-Tested System
- Compact Design With Lowest Foot Print
- Easy to Transport
- No Site Cost (Except Utilities)
- Plug & Play
- Energy Source : Electricity only (No Steam-No Thermic)
- Reduce Project Duration

❖ Targeted Industries:

- Pharmaceuticals Industries
- API & Intermediates Industries
- Chemical Industries
- Dyes & Intermediate Industries
- Electroplating Industries
- Automobile Industries
- Bromine Recovery Industries
- Textiles Industries
- Food & Beverage Industries



ELECTRICAL EVAPORATOR WITH VACUUM SYSTEM (EEVS)

EEVS model has been designed for the those client who are not having steam or thermic as utility and want to recover condensate water to achieve ZLD. This plant is available for batch type operation as well as Continuous operation.

❖ Key Features :

- Lowest In Capex
- Portable, Pre-Assembled, Pre Tested System
- Compact Design
- Lowest Foot Print
- Zero Carbon Foot Print
- No Site Cost (Except Utilities)
- Plug and Play

❖ Targeted Industries:

- Mechanical Industry
- Electroplating Industry
- Automobile Industry
- Pharmaceuticals Industry
- Chemical Industry
- Textile Industry
- Food and Beverages Industry
- Dairy Industry

ELECTRICAL EVAPORATOR

Electrical Evaporator is specially designed for those clients who do not have steam or thermic as heating media for the small amount of effluent water. It is also known as open pan Evaporator as it discharge water vapor in the Atmosphere.

❖ Key Features :

- Lowest in Capex
- Portable system / Pre-Assembled
- Compact Design
- Lowest Foot Print
- No Site cost (Except Utilities)
- Plug & Play
- Only Electricity Required

❖ Targeted Industries:

- Pharmaceuticals Industries
- API & Intermediates Industries
- Chemical Industries
- Dyes & Intermediate Industries
- Electroplating Industries
- Automobile Industries
- Bromine Recovery Industries
- Textiles Industries
- Food & Beverage Industries

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SLUDGE DRYER

Sludge Dryer is designed to remove moisture from sludge generated in upstream processes and reduce the final moisture content to below 5%, producing a dry and manageable product continuously.

The system can operate using steam or thermic fluid as the heating medium, ensuring efficient heat transfer and reliable drying performance. Its robust and economical design minimizes maintenance requirements while delivering consistent product quality and operational efficiency.

❖ Key Features :-

- Continuous Drying Operation
- Final Moisture Below 5%
- Steam or Thermic Fluid Heating
- High Thermal Efficiency
- Uniform Product Quality
- Low Maintenance Design
- No Back Mixing
- Compliance with Environmental Norms

❖ Targeted Industries:

- Pharmaceuticals Industries
- API & Intermediates Industries
- Chemical Industries
- Dyes & Intermediate Industries
- Textiles Industries
- Food & Beverage Industries

S. No.	Description	250 Kgs/Hr	500 Kgs/Hr	600 Kgs/Hr	700 Kgs/Hr	800 Kgs/Hr	900 Kgs/Hr	1000 Kgs/Hr
1	Sludge Quantity	250 Kgs/Hr	10,000 Kgs/Day	12,000 Kgs/Day	14,000 Kgs/Day	16,000 Kgs/Day	18,000 Kgs/Day	20,000 Kgs/Day
2	Operating Hours	20 Hrs	20 Hrs	20 Hrs	20 Hrs	20 Hrs	20 Hrs	20 Hrs
3	Feed Temperature	Ambient	Ambient	Ambient	Ambient	Ambient	Ambient	Ambient
4	Feed Moisture	75–85%	75–85%	75–85%	75–85%	75–85%	75–85%	75–85%
5	Steam Pressure	4–5 Kgs/cm²	4–5 Kgs/cm²	4–5 Kgs/cm²	4–5 Kgs/cm²	4–5 Kgs/cm²	4–5 Kgs/cm²	4–5 Kgs/cm²
6	Steam Temperature	Dry, Saturated	Dry, Saturated	Dry, Saturated	Dry, Saturated	Dry, Saturated	Dry, Saturated	Dry, Saturated
7	Product Outlet	37.5–62.5 Kgs/Hr	75–125 Kgs/Hr	90–150 Kgs/Hr	105–175 Kgs/Hr	120–200 Kgs/Hr	135–225 Kgs/Hr	150–250 Kgs/Hr
8	Distribution of Particle Size	5 mm – Mar (Approx.)	5 mm – Mar (Approx.)	5 mm – Mar (Approx.)	5 mm – Mar (Approx.)	5 mm – Mar (Approx.)	5 mm – Mar (Approx.)	5 mm – Mar (Approx.)
9	Output Product Moisture	< 5%	< 5%	< 5%	< 5%	< 5%	< 5%	< 5%

INDUSTRIES WE SERVE

Pharmaceutical Industry

API & Bulk Drug Industry

Chemical Industry

Dyes & Intermediate Industry

Castor Oil Industries

Bromine Recovery Industry

Textile Industry

Food & Beverage Industry

Electroplating Industries

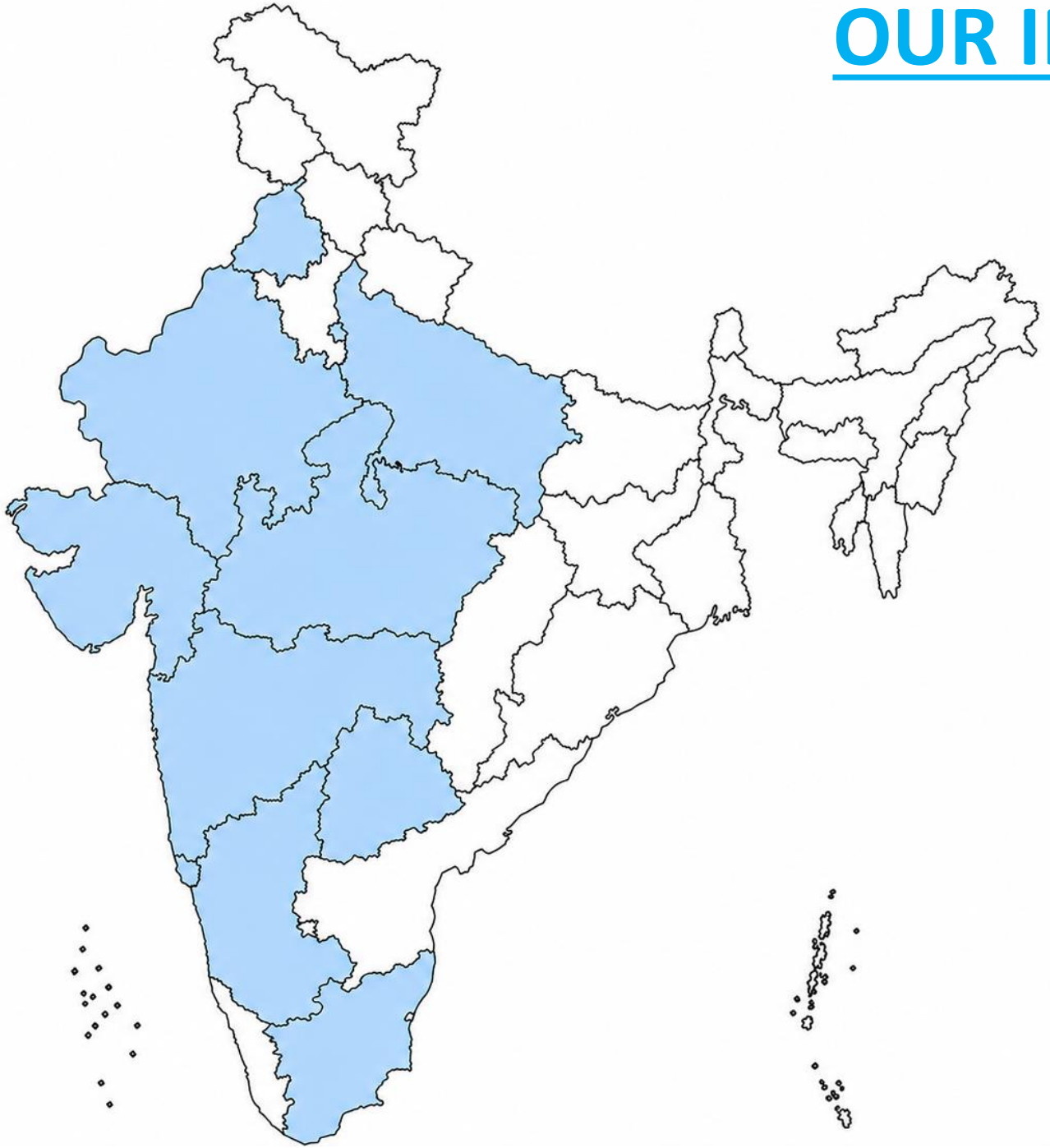
Automobile Industry

Dairy Industry

Engineering Industries

OUR VALUABLE CLIENTS

OUR INSTALLATIONS



- Gujarat
- Maharashtra
- Madhya Pradesh
- Uttar Pradesh
- Delhi
- Rajasthan
- Tamil Nadu
- Karnataka
- Daman
- Punjab
- Telangana
- Goa

nidhi® ENGINEERS

THANK YOU

FOR YOUR TIME AND ATTENTION

Cell : +91 98983 18938 | **Email :** info@nidhiengineers.com | **Website :** www.nidhiengineers.com

Corporate Office :
108/109 : Satva Icon, Metro junction, Vastral Cross Road, S.P. Ring Road, Vastral, Ahmedabad - 382418, Gujarat, India.

Works :
Plot No.18, 19, 20, 21, 22, 25, 26 Shiv Sagar Arcade & Industrial Park, Nr. Shanti Chemical, Bakrol-Dhamatvan Road, Dhamatvan, Taluka : Daskroi, Ahmedabad - 382435, Gujarat, India.