



# **ENPRO**

## **ENVIRO TECH AND ENGINEERS PVT LTD**

**An Environment Company Which Provides Solution  
from Concept to Commissioning Under One Roof**

# ENPRO

## ENVIRO TECH AND ENGINEERS PVT LTD



- **Company Was Established in the year 1998 by its promoter Paresh Mevawala.**
- **At present company is a Private Limited Company.**
- **Company has following infrastructure facility**

Registered Office:	306, Royal Park Adajan Road, Surat 395009
Design and Project, Consultancy Division	Plot No D2916, D2917, Road No 17, Hojiwala Industrial Estate, Sachin Palsana Road, Dist Surat
Env Testing Laboratory and Calibration and Validation Lab:	
EPC Division and Equipment Production Division:	

## WORK-PROFILE ENVIRONMENT BUSINESS

### Licensing

EIA and EC  
CTE & CTO  
RAR, EMP

### Environmental Project Consultancy Service

DPR  
Survey & Feasibility  
Basic and Detailed  
Engineering  
Procurement Assistance  
Project Management  
Service  
Supervision  
Commissioning  
Operation and  
Maintenance

**ENPRO**

### Other Environmental Services

Environmental Monitoring  
Compliance Report  
Env Audit (GPCB Recg Sch II EA)  
Cleaner Production Assessment  
Water and Energy Audit  
EMS Adequacy Statement  
Up gradation Study  
Environmental Damage  
Assessment  
Health Risk Assessment

### Project Design and Turn Key Supply

ETP/CETP/STP  
APC System  
Incinerators / Plasma  
Gasification  
Sludge Dryers  
MEE and ATFD  
DAF, Disc Filter  
PSF and ACF  
UF/NF/RO Plant  
Agitator/Clarifiers

### Calibration and Process Validation

Instrument Calibration  
Process Validation

# WORK-PROFILE ENGINEERING BUSINESS

ENPRO

## Basic Engineering Service

Process Block Diagram  
Process Flow Diagram  
Mass and Energy Balance  
Process and Instrumentation  
Diagram (P&ID)  
Equipment List  
Equipment Specifications  
Equipment General Arrangement  
Drawing  
Plant Equipment Layout  
Electrical Drive List  
Schedule of Consumptions  
Utility sizing and Consumption  
HVAC System Design  
Chemical and Material Handling  
Storage Area Design  
Fire Hydrant System Planning

## Detailed Engineering Service

### Electrical

Single line diagram  
Specification of Electrical Panel and  
switch gear for HT/LT  
Transformer sizing  
Approval of BOQ of vendor and  
verification of specification  
Design of plant earthing and plant  
lighting  
DG Set sizing  
Cable sizing and providing cable, cable  
tray and hardware schedule  
Cable route and GA Drawing with cable  
tray support design

## Detailed Engineering Service

### Mechanical

Specification of Piping and Valves  
Piping Route, Supports, Racks, GA Drawing  
Piping Isometric  
Incorporation / approval of vendor engineering for  
bought items  
Review and approval of fabrication dwg of vendors  
Review and approval of QAP of vendor  
Schedule of Piping, fittings and valves  
Insulation Thickness Calculation and Schedule of  
insulation

## Detailed Engineering Service

### Instrumentation

I/O List based on P&ID  
Specification and Architecture for PLC/DCS system  
Specification of field instrument.  
Selection of instruments and approval of vendor engineering  
Instrument hook up diagram  
Control Logic description and providing write up to  
programming agency  
Schedule of Instrument / data cable, JB's and hardware

# **WORK-PROFILE** **PROCESS KNOW HOW**

**ENPRO**

**ENPRO OFFERS PROCESS KNOW HOW WITH ENGINEERING FOR FOLLOWING  
PRODUCTS AND BYPRODUCTS**

**Sulfuric Acid Plant**

**Chloro Sulfonic Acid Plant**

**25%/65% Oleum Plant**

**Liquid SO<sub>3</sub> Plant**

**Liquid SO<sub>2</sub> Plant**

**SSP Plant**

**Alum Plant**

## **By-Product Recovery System**

**Sodium Sulfite/BiSulfite from SO<sub>2</sub> Gas**

**Ammonia Liquor from Ammonia Gas**

**Ammonium Sulfate Solution from Ammonia Gas**

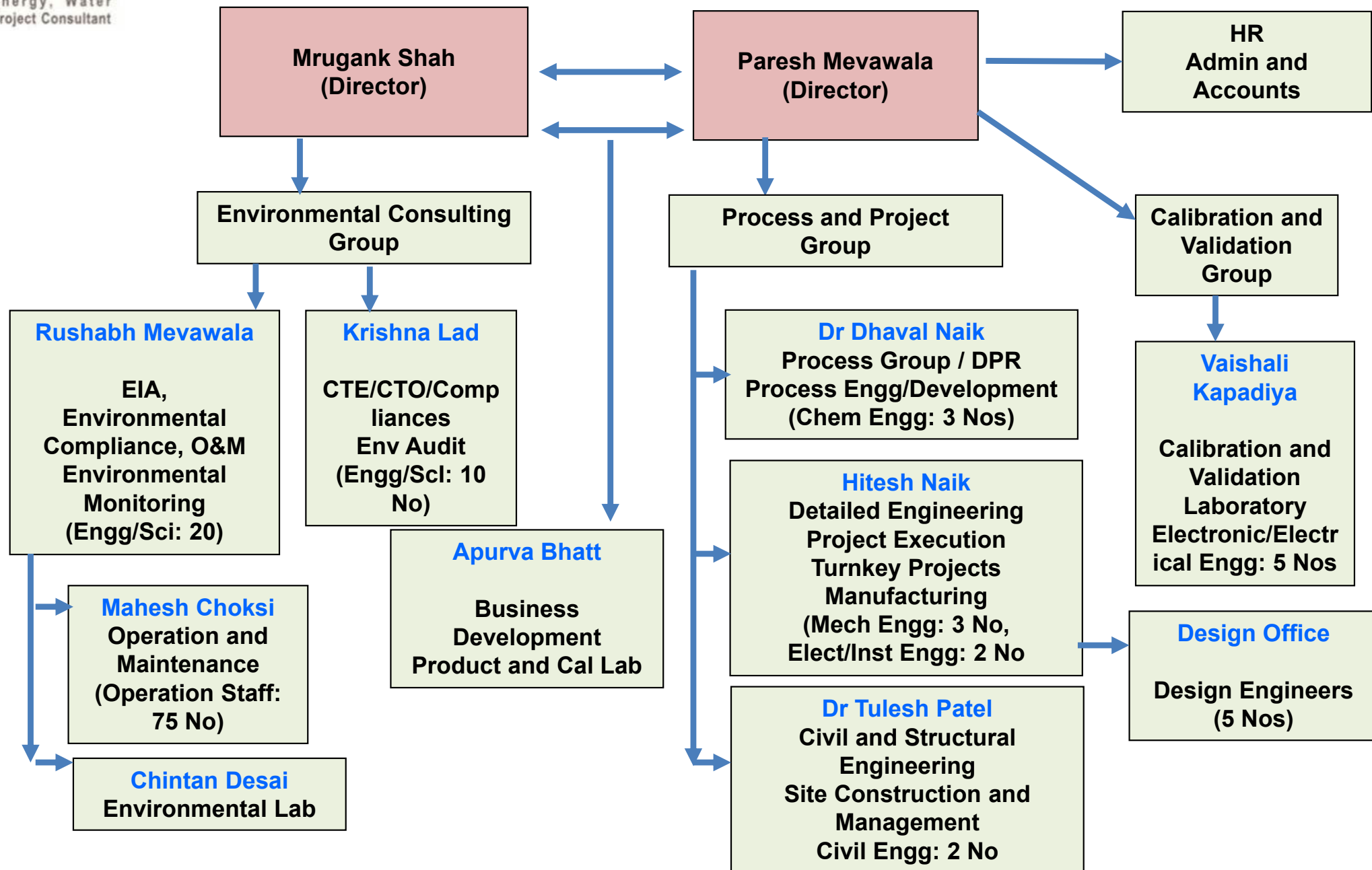
**Na<sub>2</sub>S solution from H<sub>2</sub>S gas**

**30% HCl from HCl gas**

**Ferrous Sulfate from Dilute Sulfuric Acid**

**Sulfuric Acid Concentration and Purification**

# ORGANOGRAM



# **Sectors Covered For Environmental Service**

**CETPs, TSDF, MSW and BMW Facilities**

**Chemicals and Pharmaceuticals / API**

**Textile Dyeing and Printing and Weaving Industries**

**Engineering Sector**

**Fertilizers**

**Chlor Alkali and Heavy Chemicals**

**Power Plant**

**Paper Industries**

# Accreditation

**Integrated Management System (IMS)  
ISO 9001:2015, ISO: 14001:2015, ISO: 45001: 2018**

**NABL (Certificate No T-1961) Accredited Laboratory for Chemical Testing**

**Recognised Under EPA Act By Moef & CC**

**NABET Accredited EIA Consultant**

**NABL For Calibration Laboratory**



# **DETAILS OF SOME OF PROJECTS (ENVIRONMENTAL)**

# Waste Water Treatment Plants

## CETPs

## **CETPS (5 Nos)**

**Client Name: SMS, Nagpur**

**ENPRO Scope:**

**Basic Design, engineering, project**

**Management and Supervision**

**Capacity:**

**MIDC Butibori, Nagpur 5 MLD**

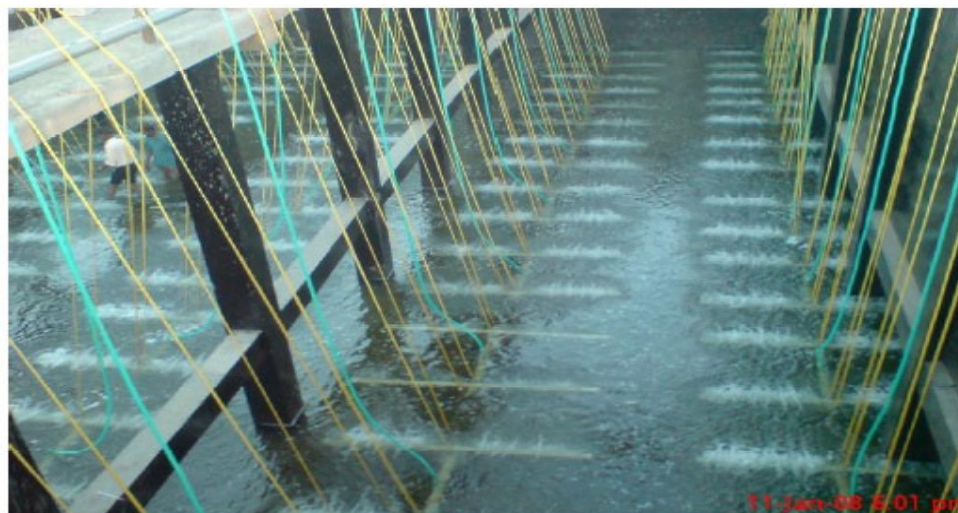
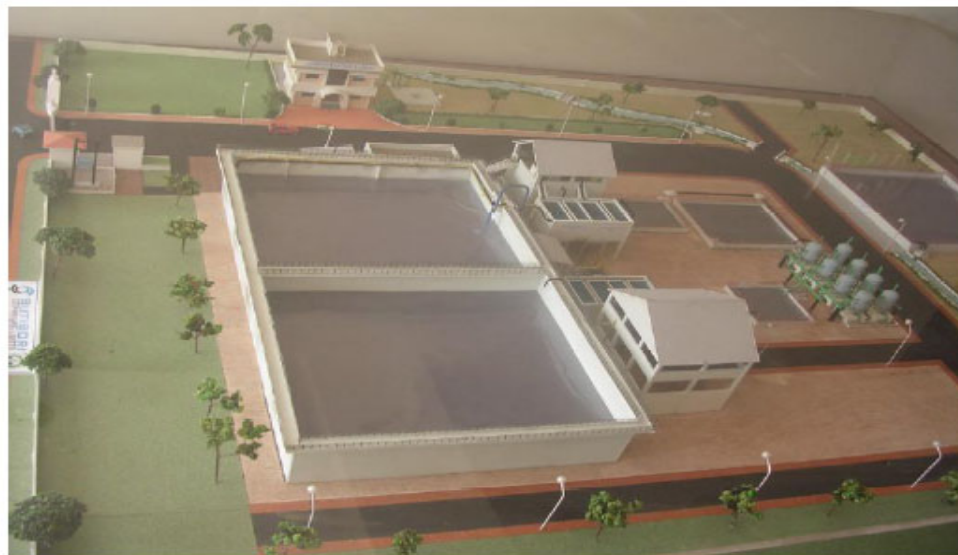
**MIDC Waluj, Aurangabad: 10 MLD**

**MIDC Kagal, Kolhapur: 10 MLD**

**MIDC Amravati: 5 MLD**

**Addnl MIDC Butibori: 5 MLD**

**Status: Operational**



## CETPs (4 Nos)

### Client Name:

PEPL, Kadodara, Surat: 100 MLD and 150 MLD

SIEL, Sachin, Surat: 50 MLD to 80 MLD

PIL, Pandesara, Surat: 100 MLD Brown Field

HIL, Hojiwal Ind Estate, Surat: 20 MLD Green Field

### ENPRO Scope:

Basic Design, engineering, project Management and  
Supervision, and Commissioning





## **CETP/ETP ZLD/Recycle Based**

**Client Name:**

**GECL, Sachin: 0.5 MLD**

**SMS (MIDC, Amravati): 5 MLD (2.5 MLD ZLD)**

**Hojiwala Infrastructure: 20 MLD**

**Palsana Enviro Protection Ltd: 150 MLD (30 MLD)**

**Ami Organics Pvt Ltd, Surat: 70 KLPD**

**Aarti Industries Ltd: Various Units 100-500 KLPD**

**Colorsperce, Surat: 100 KLPD**

**ENPRO Scope: Basic Design, engineering,  
project management and Commissioning**

**Status: Completed and Commissioned**



## DETAILS OF CETPs COMPLETED

### (ZLD BASED-RECENT)

Sr No	Name	Scope of Work	Description
1	CETP at MIDC Amravati (Capacity: 5 MLD) (SMS Infrastructure Ltd)	DPR, Design, Engineering and Project Management	Technology: Primary, ASP Based Biological, RO Plant (3 Stage) and MEE  Mode of Disposal: 2.5 MLD ZLD  Status Operational
2	CETP of Hojiwala Infrastructure Ltd, Surat (Capacity: 20 MLD)	Basic Design, Detailed Engineering, Project Management Service, Commissioning and O&M	Technology: Primary, SBR Based Biological, Tertiary (DAF, Disc Filter and UF Plant)  Mode of disposal: 100% Recycling  Status Operational

## DETAILS OF CETPs COMPLETED

### (ZLD BASED-RECENT)

Sr No	Name	Scope of Work	Description
3	CETP of Palsana Enviro Protection Ltd, Surat (Capacity: 150 MLD)	DPR, Design, Engineering and Project Management Operation Supervision	<p>Technology: Primary, IFAS Based Biological, UF and RO Plant</p> <p>Mode of Disposal: 30 MLD Recycling, Balance Discharge</p> <p>Status: Operational</p>
4	CETP of Globe Envirocare Ltd, Surat (Capacity: 0.5 MLD)	Basic Design, Detailed Engineering, Project Management Service, Commissioning	<p>Technology: Primary, MEE, Biological</p> <p>Mode of disposal: 100% Recycling</p> <p>Status Operational</p>

## DETAILS OF Captive ETPs COMPLETED

### (ZLD BASED-RECENT)

Sr No	Name	Scope of Work	Description
1	Ami Organics Pvt Ltd : 70 KL/Day	Turn Key Contract	ZLD based ETP for pharmaceutical intermediate industry. Neutralization, Filtration, Stripper, MEE, ATFD SBT based biological treatment, RO Plant.
2	Aarti Industries Ltd (Diamond Unit, Dahej)	Basic Design, Detailed Engineering, Project Management Service, Commissioning	250 KL/Day Primary, Biological (SBR) MEE, RO (3 Stage) SBT Based Plant Phenol Recovery Plant



## DETAILS OF CETPs / ETPs COMPLETED

### (ZLD BASED-RECENT)

Sr No	Name	Scope of Work	Description
3	Valiant Organic	Basic Design, Detailed Engineering, Project Management Service, Commissioning	Neutralization, MEE, Ozonation, Biological, RO
4	L & T, Hazira	Basic Design, Detailed Engineering, Project Management Service, Commissioning	Utility and Process Effluent Primary Treatment UF followed by RO
5	MEPL, MIDC, Ranjangaon, Pune	Basic Design, Detailed Engineering, Project Management Service, Commissioning	TSDF 100 KL/Day Primary, Stripprt, MEE, Biological, RO Plant

## DETAILS OF Captive ETPs UNDER EXECUTION

Sr No	Name	Scope of Work	Description
6	Colourtex, Vilayat / Sachin / Pandesara	Basic Design, Detailed Engineering, Project Management Service, Commissioning	20 MLD Primary, Two Stage Secondary Conc Stream Neutralization, Stripper, MEE
7	Chemanol, Jubail, Saudi	Basic Engineering	1 MLD Upgradation of Existing ETP
8	SMS, GIDC, Goa	Basic Design, Detailed Engineering, Project Management Service, Commissioning	TSDF 100 KL/Day Primary, Stripper, MEE, Biological, RO Plant
9	Heubach, Dahej	Basic and Detailed engineering	ETP: 500 KL/Day

## DETAILS OF Captive ETPs UNDER EXECUTION

Sr No	Name	Scope of Work	Description
6	Colourtex, Vilayat / Sachin / Pandesara	Basic Design, Detailed Engineering, Project Management Service, Commissioning	20 MLD Primary, Two Stage Secondary Conc Stream Neutralization, Stripper, MEE
7	Chemanol, Jubail, Saudi	Basic Engineering	1 MLD Upgradation of Existing ETP
8	SMS, GIDC, Goa	Basic Design, Detailed Engineering, Project Management Service, Commissioning	TSDF 100 KL/Day Primary, Stripper, MEE, Biological, RO Plant
9	Heubach, Dahej	Basic and Detailed engineering	ETP: 500 KL/Day

# CETP O & M

## CETP O & M / Operation Supervision

Sr No	Name	Scope of Work
1	<p>Pandesara Infrastructure Ltd, Surat</p> <p>(Under ENPRO's Subsidiary, Mohit Enviro Infra Pvt Ltd)</p>	<p>O &amp; M and Env Management</p> <p>Member Pre Primary Checking and Sampling and Analysis</p> <p>Member Flow Measurement with SCADA system</p> <p>Network Maintenance, cleaning and repairs</p> <p>Pumping Station O &amp; M</p> <p>Raising Mail Maintenance</p> <p>CETP O &amp; M</p> <p>Member's Stack Monitoring and Ambient</p> <p>Air quality Monitoring of Estate</p> <p>Total Staff 70+</p> <p>Tenure 10+ Years</p>

## CETP O & M / Operation Supervision

Sr No	Name	Scope of Work
2	Hojiwala Infrastructure Ltd, Surat	<p>O &amp; M and Env Management</p> <p>Member Pre Primary Checking and Sampling and Analysis</p> <p>Member Flow Measurement with SCADA system</p> <p>Network Maintenance, cleaning and repairs</p> <p>Recycle Network</p> <p>CETP O &amp; M</p> <p>Total Staff 30+</p> <p>Tenure 1+ Years</p>
3	Palsana Enviro Protection Ltd, Surat	<p>Technical Support for Operation of Treatment and Recycling Part</p>

# **Hazardous Waste and Bio Medical Waste Project**

## DETAILS OF TSDF SITE COMPLETED AND UNDER EXECUTION

Sr No	Name	Scope of Work	Description
1	TSDF, MIDC, Ranjangaon, Pune	Basic Design, Detailed Engineering, Project Management Service, Commissioning	Plasma Gasification Project 50 TPD Under Operation
2	TSDF, MIDC, Ranjangaon, Pune	Basic Design, Detailed Engineering, Project Management Service, Commissioning	Liquid Incinerator 20 TPD Under Commissioning
3	TSDF, MIDC Butibori, Nagpur	Turnkey Contract	Rotary Incinerator, 1 TPH Capacity Under Execution



## DETAILS OF TSDF SITE COMPLETED AND UNDER EXECUTION

Sr No	Name	Scope of Work	Description
4	TSDF, GIDC, Goa	Basic Design, Detailed Engineering, Project Management Service, Commissioning	Secured Land Fill, Pre Processing, Incineration, Stabilization (Under execution)
5	TSDF, MIDC, Ranjangaon, Pune	Detailed Project Report	Rotary Incinerator (2 Ton/hr)
6	BMW, Atkargaon, Mumbai	Detailed Project Report	BMW Site planning with Autoclave, Rotary Incinerator, ETP.

## Projects Summary

### **Hazardous Waste Management Facility**

**Client:** SMSIL, Nagpur

**ENPRO Scope:** Design, Engineering and Project  
Management of BOP and Detailed  
engineering of Plasma System

**SLF /Solidification Capacity:** 60000 Tons/Annum

**Plasma Plant Capacity:** 3 Tons/hr, 9 Million Kcal/hr

**Power Generation: 3 MW**

**Project Location:** 1. MIDC, Ranjangaon, Pune

2. MIDC, Butibori, Nagpur

**Status:** Pune Plant Commissioned

**Project Cost** 800 M INR





# MAJOR PROJECTS

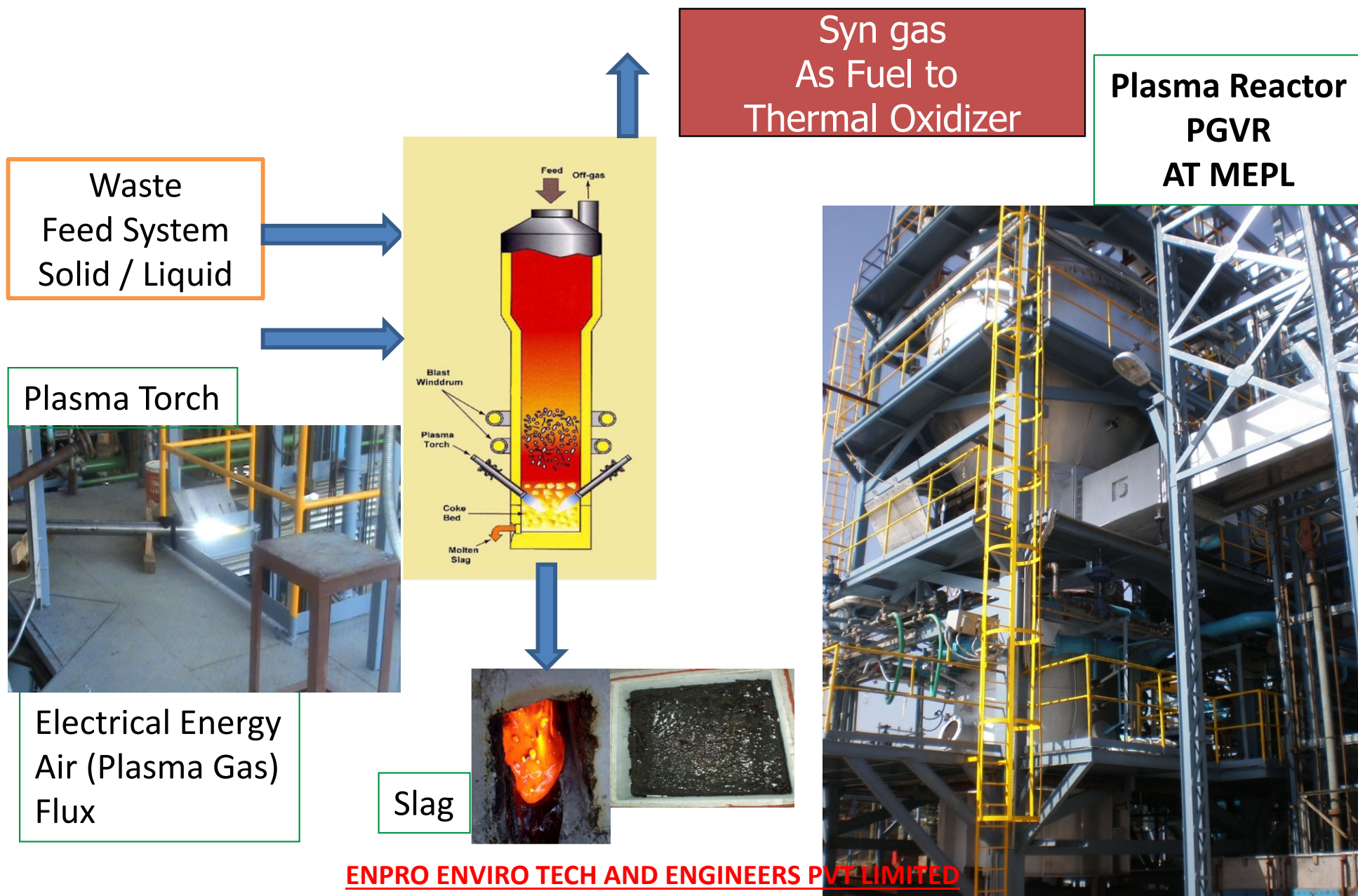
## Haz Waste and Air Pollution Control System





# APPLICATION OF PLASMA TECHNOLOGY

## PLASMA PROCESS OVERVIEW





# APPLICATION OF PLASMA TECHNOLOGY

## Gas Cleaning System: At SMSIL



Stack: 45 M High,  
MSRL

Polishing Sc with Alkali  
Gas Cooling: Outlet  
Gas < 50 deg C

Wet ESP: PM < 30 mg/NM<sup>3</sup>

Venturi Quench: 300 to 73 C  
Direct Contact Sc: SO<sub>2</sub>/HCl removal

## Project Summary

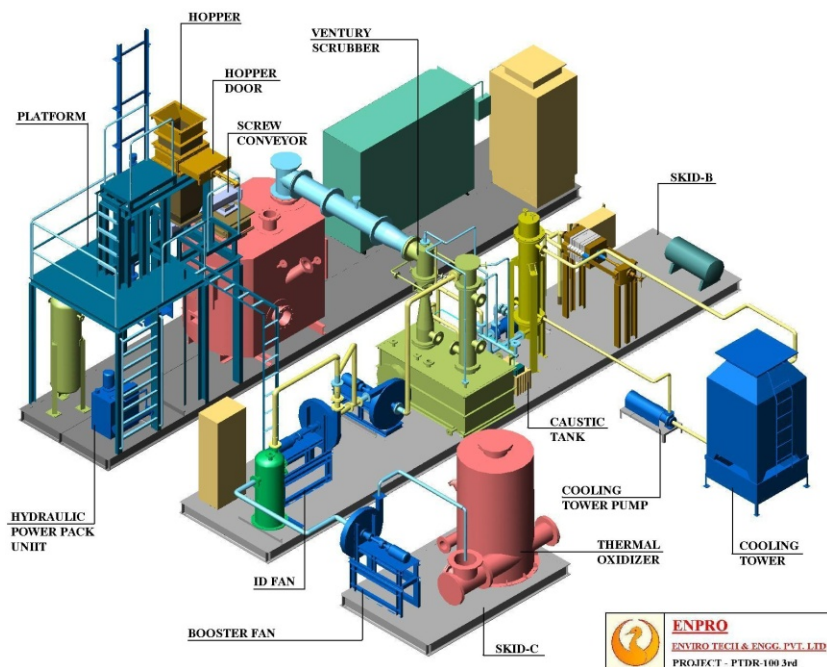
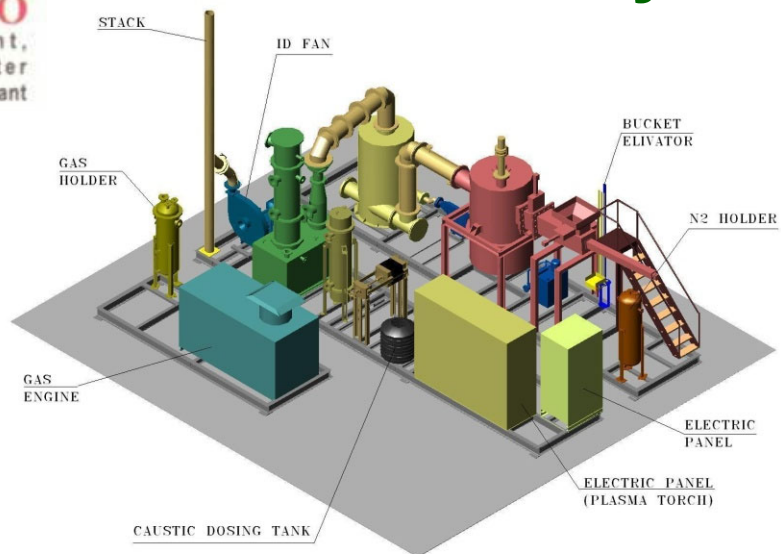
### **Plasma Gasification Based Solid Waste Treatment Plant**

<b>ENPRO Scope:</b>	<b>Development, Design, Engineering and Manufacturing</b>
<b>Technology:</b>	<b>Plasma Pyrolysis</b>
<b>Capacity:</b>	<b>60 kg/hr</b>
<b>Client:</b>	<b>PEAT International, USA.</b>
<b>No of Such Units:</b>	<b>Unit 1: Demonstrated In India now at Taiwan Unit 2: Under operation at USA Unit 3: Under commissioning at China</b>
<b>Project Cost</b>	<b>30 M INR All together</b>



# MAJOR PROJECTS

## Skid Mounted Systems



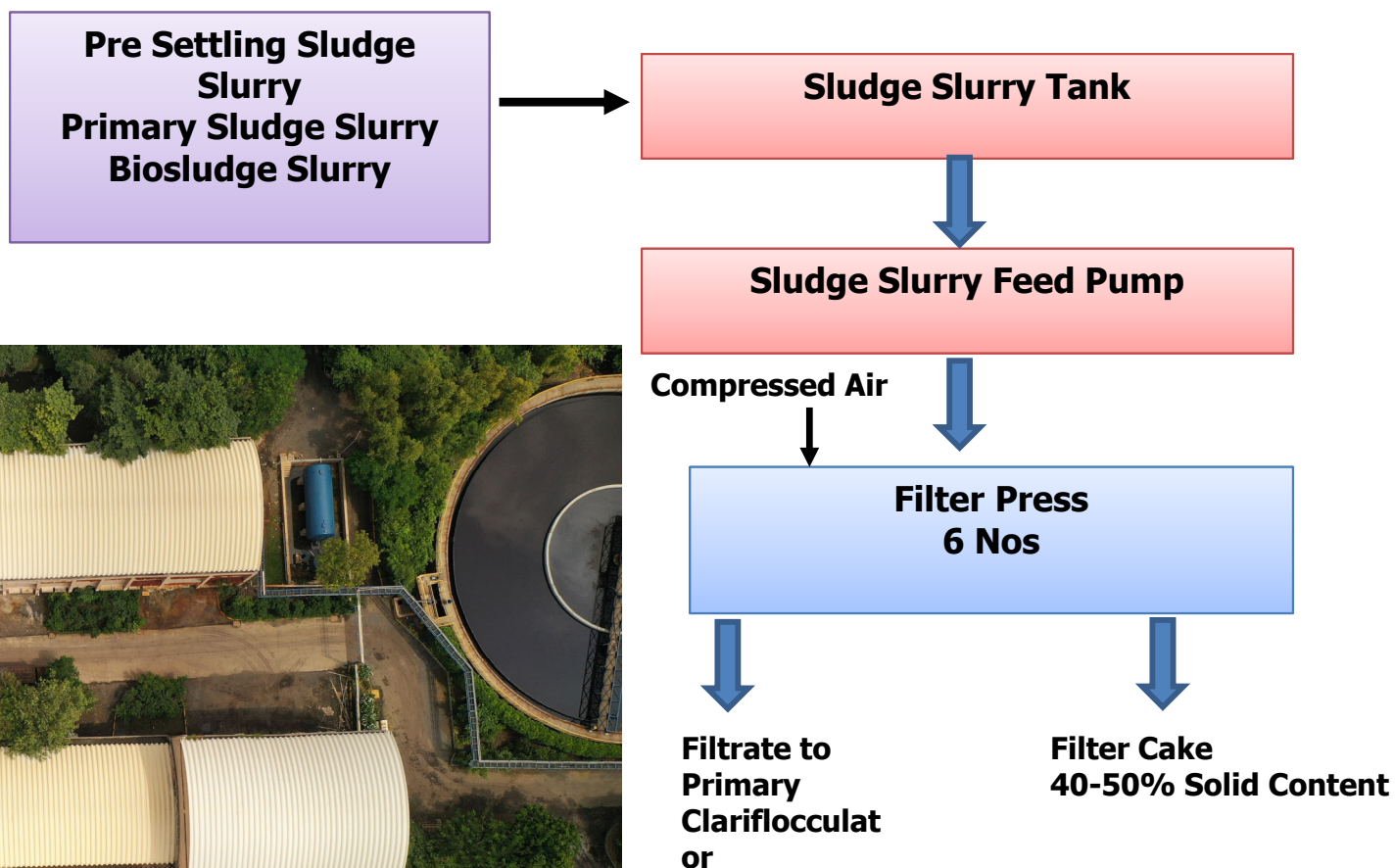
# Sludge Drying Project



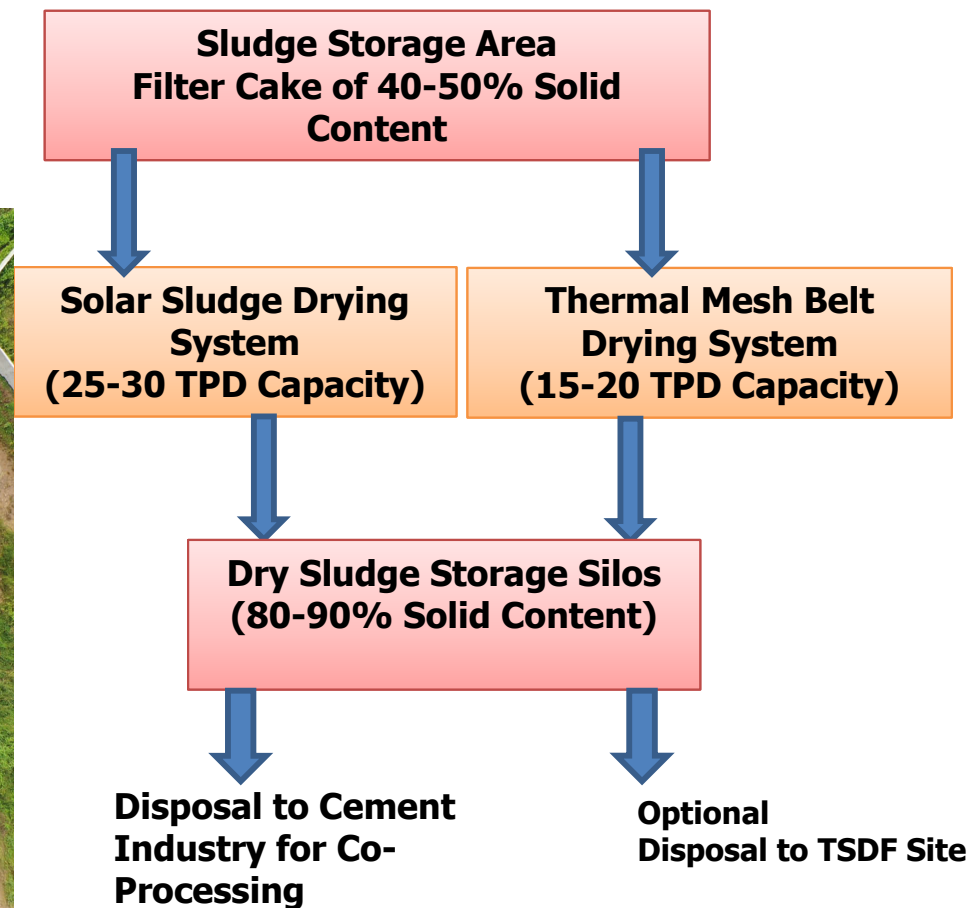
## SLUDGE DRYING PROJECTS

Sr No	Name	Scope of Work	Description
1	Pandesara Infrastructure Limited	Concept Development, Tender Document, Basic engineering, Project Management, Commissioning and Operation and Maintenance	30 TPD Solar Sludge Drying 20 TPD Thermal Sludge Drying from waste heat recovery
2	Sachin Infra Environment Limited	Concept Development, Tender Document, Basic engineering, Project Management, Commissioning	20 TPD Solar Sludge Drying 20 TPD Thermal Sludge Drying from waste heat recovery
3	Nature Tech for Narol CETP	Design, Engineering and Turnkey Supply of Waste Heat Recovery system for Mesh Belt Dryer	30 TPD Sludge Drying

# PANDESARA INFRASTRUCTURE LIMITED COMMON EFFLUENT TREATMENT PLANT SLUDGE DEWATERING AND DRYING PROCESS



# **PANDESARA INFRASTRUCTURE LIMITED COMMON EFFLUENT TREATMENT PLANT SLUDGE DEWATERING AND DRYING PROCESS**





# Chemical Plant Pharmaceutical Industry

## DETAILS OF PROJECTS COMPLETED: CHEMICAL INDUSTRY

Sr No	Name	Scope of Work	Description
1	Ami Organic Pvt Ltd	Basic Design, Detailed Engineering, Project Management Service, Commissioning	API Plant Plot Area: 10000 M2 Project Cost: Rs 110 Cr
2	Aarti Industries Ltd (Sez Dahej)	Basic Design, Detailed Engineering, Project Management Service, Commissioning	Liquid SO2 Plant Project Cost: Rs 35 Cr
3	Transworld Furtichem	Basic Design, Detailed Engineering, Project Management Service, Commissioning	Sulfuric Acid, Oluem, CSA, Liquid SO3 Plant Project Cost: Rs 70 Cr

## Projects Summary

### Pharmaceutical Intermediate

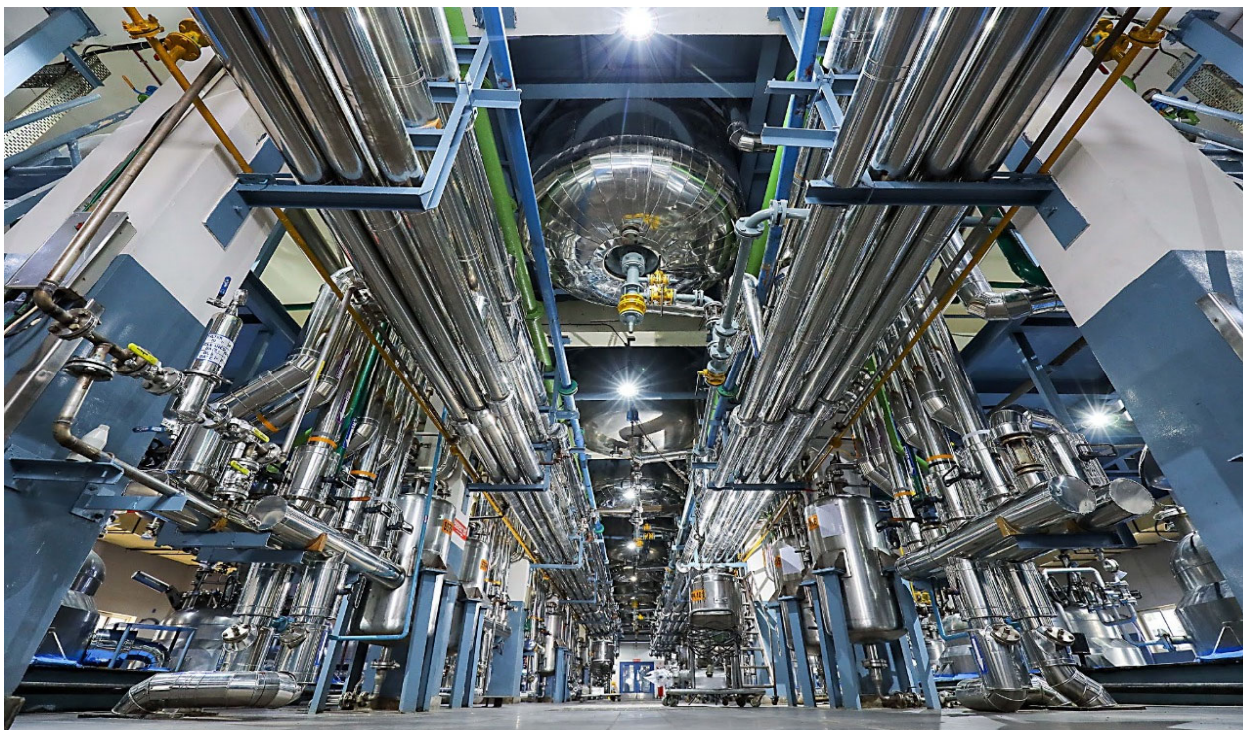
**Client:** Ami Organic Ltd, GIDC, Sachin, Surat

**Scope:** Basic and Detailed Engineering

Planning of Chemical Industry Consisting of  
Reaction Zone, Material Charging Area,  
Filtration Area, Dryers, HVAC System,  
Utility (Cooling Tower, Chiller, Vacuum Pumps,  
Air Compressors), Scrubbers, Solvent Storage,  
PESO Solvent Storages, Boiler, Thermopac,  
HT/LT Panel, Plant Lighting, DGSet, Piping,  
Valves, Electrical Cables and Instrumentation









## Projects Summary

### Pharmaceutical Intermediate

**Client:** Ami Organic Ltd, GIDC, Sachin, Surat

**Scope:** Turnkey Execution: ETP: ZLD Based: 100 KL/Day





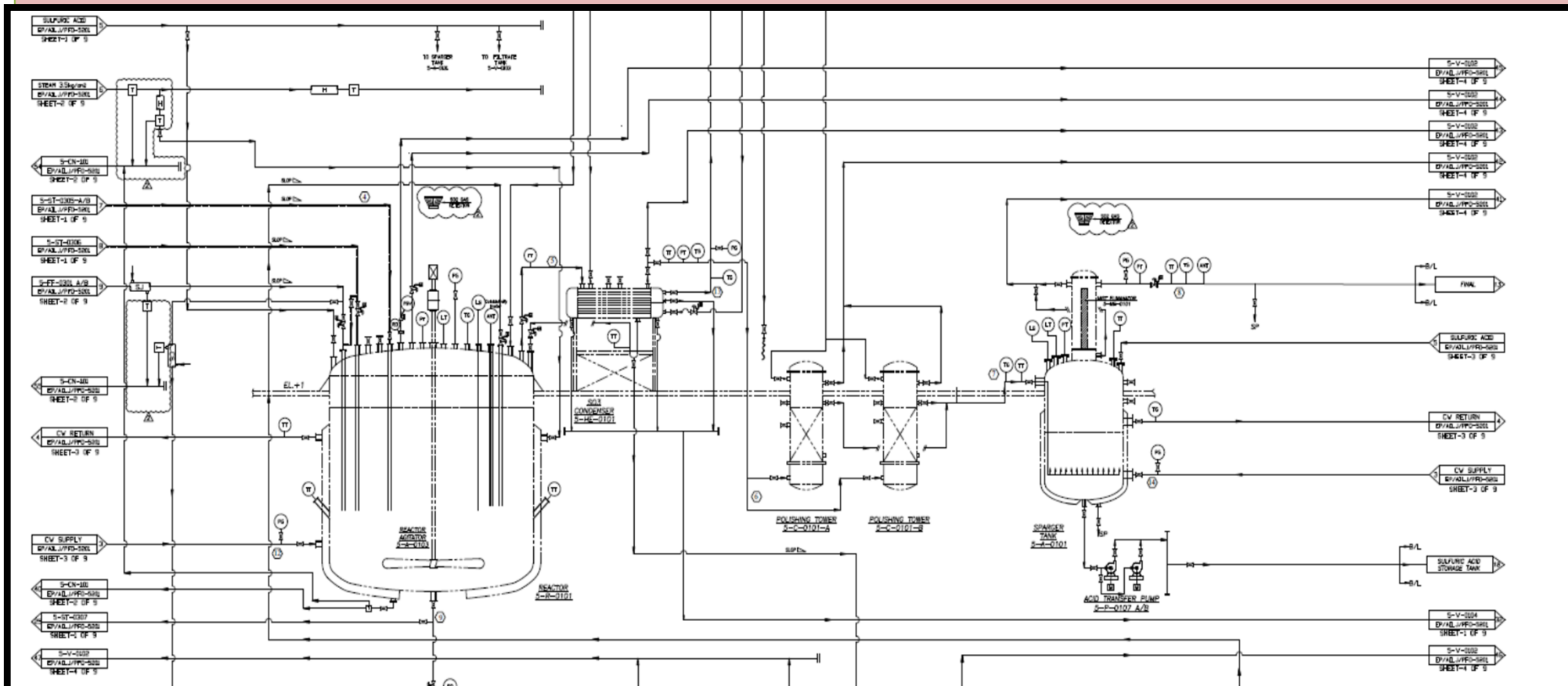
## Projects Summary

### Chemical Industry

**Client:** Aarti Industries Limited

**Scope:** Liquid SO<sub>2</sub> Plant, 1 TPH, Continuous Plant

**Process Know How, Design, Engineering, Supply of Critical Industries**



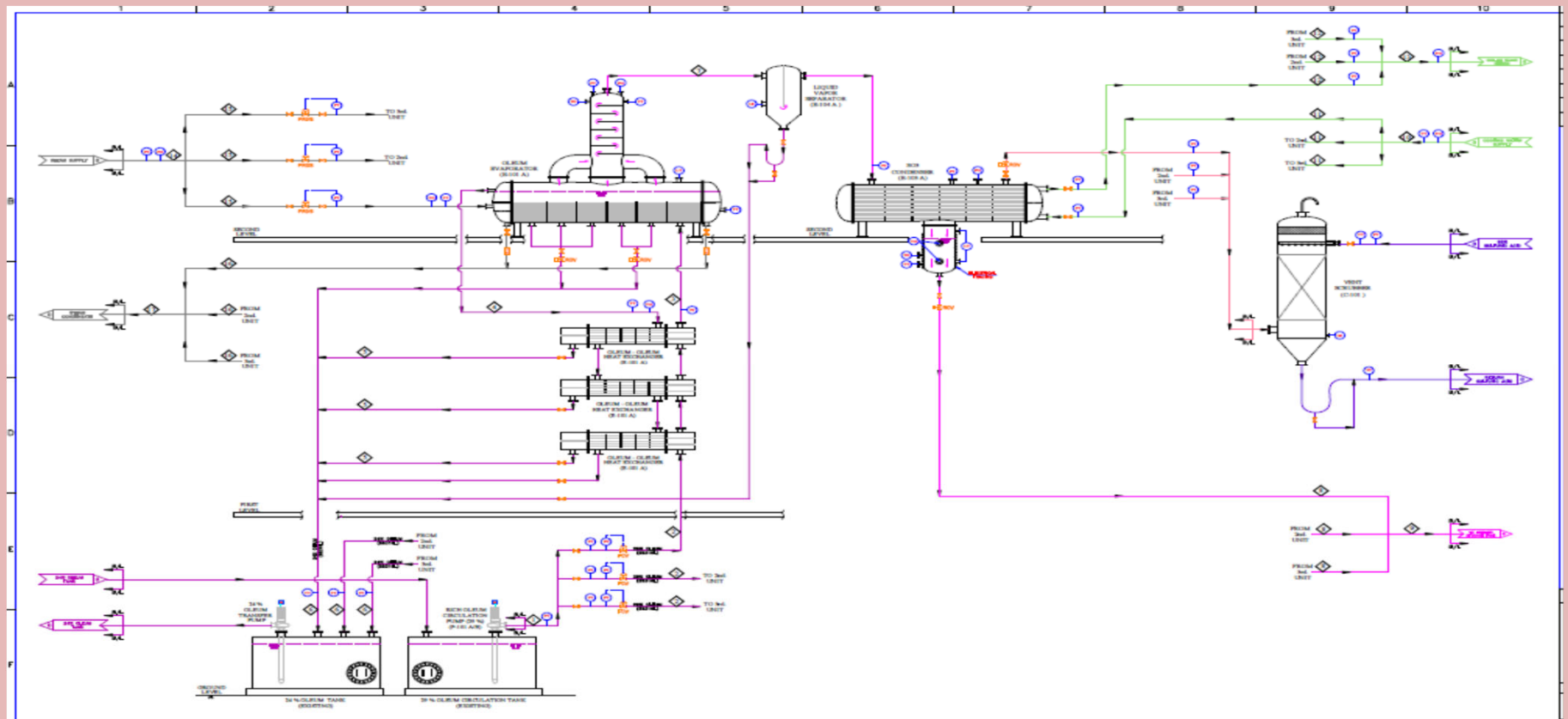
## Projects Summary

### Chemical Industry

Client: Aarti Industries Limited

Scope: Liquid SO<sub>3</sub> Plant

Process Know How, Basic Engineering



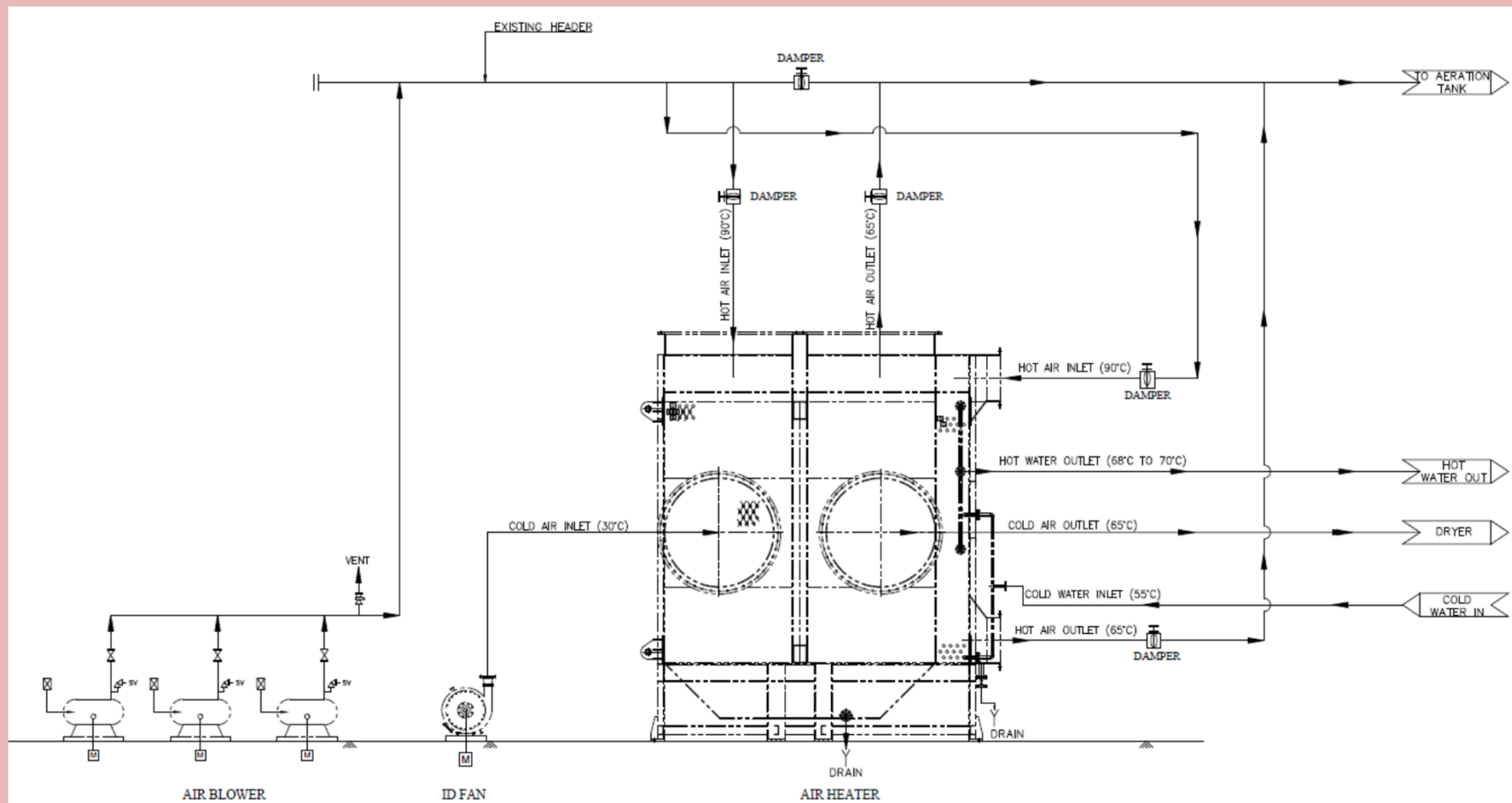
## Projects Summary

### Utility

**Client:** Naturetech

**Scope:** Waste Heat Recovery System for Hot Air Generation for CETP Sludge drying

**Process Know How, Supply and Execution**



# **ENVIRONMENT TESTING LABORATORY CALIBRATION LABORATORY**

## **(NABL ACCREDITED)**

# Laboratory :Water and Waste water Testing Section





# Laboratory :Instrumentation



# Laboratory: Microbiology section





THANK YOU