

# UDEP

**Ultra Drytech Engineering Projects Pvt. Ltd.**

Industry Leaders in

Customized Thermal Process Solutions,

Drying and Calcining Systems and

Turnkey Projects

GIVING YOU RIGHT TECHNOLOGY RIGHT AWAY

# UDEP - Giving You Right Technology Right Away

“Looking for fully automated equipment, process solutions or complete turnkey projects, that are :

- Ahead of time
- In step with the most state of art technology
- Customized to suit your specific needs
- Energy efficient, Space efficient and Labour efficient
- Absolutely cost-effective and Environmentally safe.....?

Others might say, ‘that’s asking for too much!’



**At UDEP we believe in giving you all this & more.....**

# Getting to Know Us



**ULTRA DRYTECH ENGINEERING PROJECTS Pvt. Ltd.** is a technically acclaimed organization; engaged in design, manufacture and export of specialized custom-made thermal equipment, automated drying and calcining systems and total process solutions.

We undertake and execute turnkey projects, process solutions for diverse industries such as chemicals, pharmaceuticals, pigments, minerals, agro-based industries; to name just a few.

We believe in the fundamental fact that each customer has his own specific and not so specific needs to be catered to and problems to be solved. We therefore strive to understand your distinctive needs and work relentlessly to transfer them into technologically sound and superior engineering solutions.



# Our Genesis

With rapid advancements in technology and with an ever dynamic technological scenario, there existed a need for an extremely specialized organization; totally focused towards research, design and development of custom-made, technologically superior, cost effective process solutions, state of the art equipment and turnkey projects catering to varied industrial segments.

With a view towards filling this niche **UDEP** was incorporated by Mr. Sanjive Prasad; a technocrat and a thermal science specialist. Having graduated from India's foremost Technical institute – IIT Bombay, he did his masters in 'Thermal Science', from a premier university in USA and started **UDEP** with a vision to bring about state-of-the-art technology and innovation in India.

Under his dynamic leadership, **Ultra Drytech Engineering Projects Pvt. Ltd.** has created a path breaking technological revolution and has continued its impressive growth, by introducing in its technological range the Rotary Kilns, the new Turbo Spin Flash Dryers and Turbo Spin Flash Calciners as also highly advanced **PCC, ACC Plants,  $H_2SO_4$ , SOP, SSP and GSP Plants.**



# The Best Fit Technology Driven Solutions

**Our Products: Ahead of time and technology.... We provide the most cost effective solutions**



## Specialized Drying Systems

- Turbo Spin Flash Drying Systems
- Continuous Fluidized Bed Dryer
- Rotary Dryer
- Hollow Flite Screw Dryers
- Industrial & Municipal Sludge Dryers



## Turnkey Projects

- PCC Plant
- ACC Plant
- Sulphuric Acid Plant
- Di calcium Phosphate Plant
- Sulphate of Potash Plant
- Burnt Lime Plant
- Hydrated Lime Plant
- Single Super Phosphate (SSP) Plant
- Granulated Single Super Phosphate (GSSP) Plant



## Thermal Processing Equipment

- Specialized Calcining Equipment
- Rotary Kilns
- Direct and Indirectly Heated Rotary Calciners
- Turbo Spin Flash Calciners
- Rotary Coolers



## Auxiliary Systems & Equipment

- Conveying Systems
- Batch & Continuous Equipment
- Autoclaves
- Hi-tech Mixers & Blenders
- Ball Mills
- Air Heaters
- Energy Conservation Systems
- Reaction Vessels & Tanks



# Thermal Processing Equipment



UDEP Rotary Kilns/Calciners are designed to take rigours of extremely high temperatures & massive rotating loads.

UDEP Rotary Dryers are custom-designed for your specialized processing needs e.g. low or high temperatures, counter-current or co-current flow, direct or indirect heating etc.

UDEP Rotary Coolers: whether you require chilled or ambient cooling air, short or long residence times, carbon steel or speciality steels, UDEP has it all.

Our Rotary Systems can be used for endo/exo-thermic process flows and operate in parallel or counterflow configurations.



Rotary Kilns/ Calciners, Dryers and Coolers

# Specialized Drying Systems

We design and manufacture a variety of configurations of Turbo Spin Flash Drying concepts, up to a maximum capacity of 5000 kg/hr. water evaporation capacity in a single unit and in all types of materials of construction. The Turbo Spin Flash Drying systems are the most energy efficient drying systems in the world providing instantaneous drying along with complete automation of operation.



## Advantages of Turbo Spin Flash Drying System

- Energy consumption is substantially less, compared to spray dryers, tray dryers, flash dryers etc.
- Space requirement is significantly less
- Completely automatic system with temperature controllers and no manual intervention
- Dry product discharge section of the dryer can be installed in product packing section, away from drying section, eliminating cost of transport of dry product to finished product section
- Pulverizing after drying may not be required. The unit will dry, classify & convey-all in a single operation.
- Wet cake can be directly fed from Filter/Centrifuge to lump breaker bin. All intermediate handling of material can be eliminated.
- The entire system is closed, and there are no chances of dusting, wastage & contamination. So Quality, Safety, Health & Environment issues are addressed.
- It is possible to vary the bulk densities of products by minor adjustments in the classifier.



GMP model - Spin Flash Drying system

# UDEP Turnkey Projects

UDEP offers its clients Turnkey Projects, with comprehensive assistance during all phases, from feasibility study to design & equipment supply and from construction to commissioning of the plant.

Consolidated know-how, innovative and diversified technologies, expertise, experience and proven design make UDEP your chosen associate for setting up a wide array of turnkey projects.

## Advantages of our Technology

- Low Capital investment
- Low Energy consumption
- High mechanical efficiencies
- Superior Process know-how
- Optimum use of locally available raw materials & manpower

## Sulphuric Acid Plant

Engineered to Achieve, Designed to Last!

UDEP has been successfully providing latest Process and Systems technology to the Sulphuric Acid industry. Our Sulphuric Acid plant processes and products; offer you turnkey solutions that are cost effective, efficient and technologically superior; at the same time conforming to all environmental norms.



# UDEP Turnkey Projects

## Lime Technology : PCC/ ACC Plants Hydrated Lime, Burnt Lime Plants

With our hands-on experience in lime technologies we have been able to develop an unmatched configuration and design for our systems; suitable to the diverse processing needs of various grades of limestone, quicklime, hydrated lime, milk of lime, PCC & ACC; making us a single source supplier in lime technology.



## PCC/ACC Plant

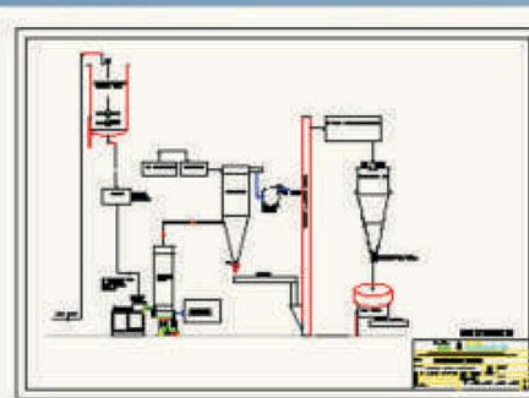
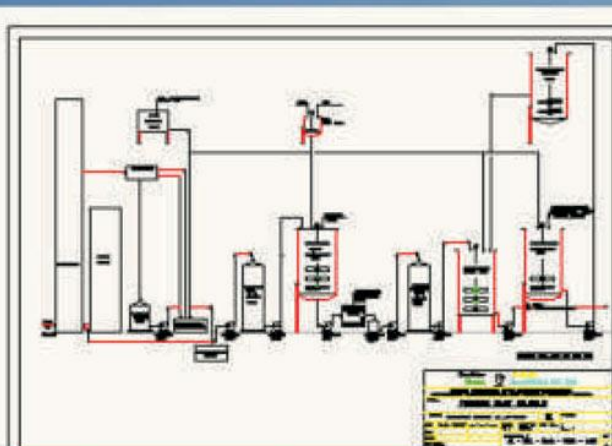
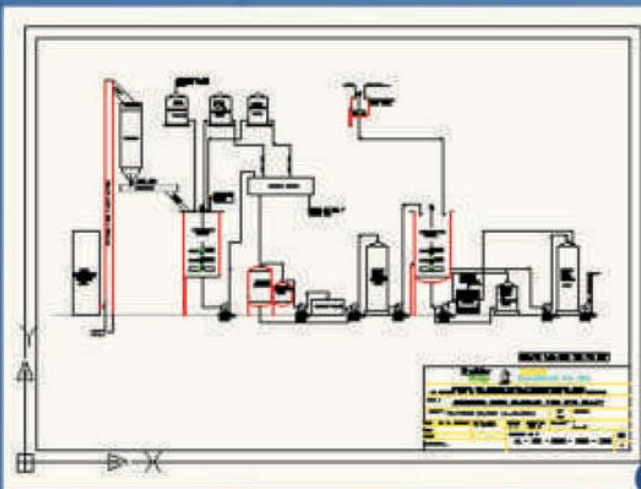
UDEP specializes in the design & supply of Turnkey plants for **Precipitated Calcium Carbonate (PCC)** and **Activated Calcium Carbonate (ACC)**. The first such plant was supplied in the Middle East. Many repeat orders have subsequently been executed, both in India and abroad.



## Sections of Burnt Lime Plant

By utilizing our superior lime process technology, manufacturing costs get considerably reduced over Conventional Production methods.

# UDEP Turnkey Projects



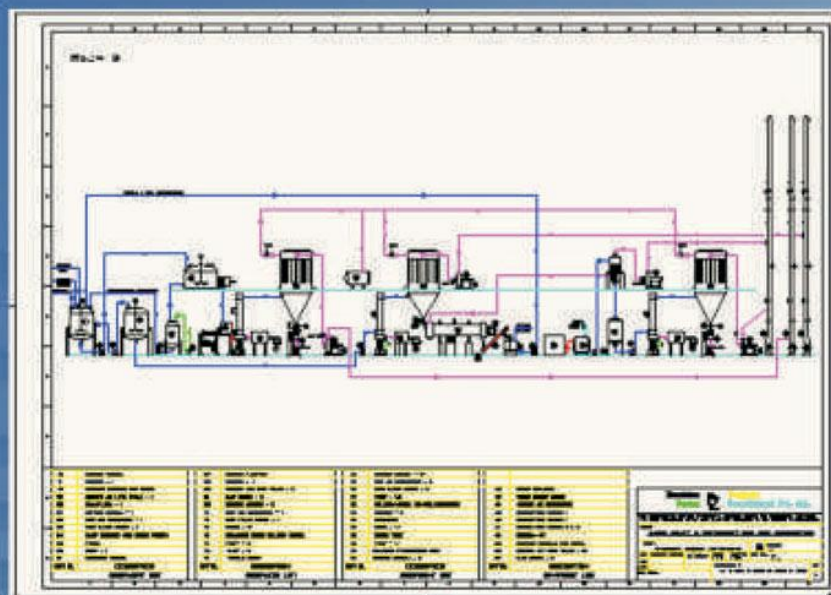
Flow Diagram: Di - Calcium Phosphate Plant

State of the art Technology, Optimal Cost, Low Maintenance & Conforming to all Environmental Norms

## Potassium Sulphate Plant

Potassium Sulphate ( $K_2SO_4$ ) or Sulphate of Potash (SOP) is the world's most popular low-chloride fertilizer. Sulphate of Potash has a very low salinity index making it the preferred potash fertilizer in areas at risk from soil salinity.

UDEP has specialized process know-how and technical expertise for the design and manufacture of various grades of sulphate of Potash, on a turnkey basis.



Flow Diagram: SOP Plant

# Auxillary Systems & Equipment

## Double Helix Ribbon Blender

These blenders provide extremely efficient blending of different materials. Volumes ranging from 100 litres to 30,000 litres have already been designed and supplied.



## Bag Filter

We specialize in design and fabrication of bag filters. The configurations vary as per the characteristics of the material to be separated from the drying air. Our bag filters are completely automatic, with reverse pulse jet cleaning arrangement.



## Conveying Systems

UDEP Conveying Systems include Bucket elevators, screw conveyors, feed hoppers, belt conveyors, pneumatic conveyors, to name just a few.



# UDEP - Pilot Plants & Testing Facilities

Our Service Mantra: One Hundred Percent commitment and pursuit of excellence in all our service endeavours



UDEP has state of the art pilot plants, a full- fledged CAD department and analytical labs, to undertake intensive study of diverse materials and their characteristics. Using these advance R & D facilities & our vast database of materials and testing procedures; we help you make informed process decisions.

Our design group works closely with the R&D department, constantly updating themselves on new product and process technologies, through proactive discussions with user industries, both within the country and globally.

UDEP Systems and equipment process Materials such as:

- Minerals and Ores
- Agrochemicals, herbal extracts
- Pharmaceuticals and bulk drugs
- Paints, pigments, dyes and dye intermediates
- Pesticides, food-stuffs
- Fertilizers
- Sand & Gravel
- Limestone and Lime
- Industrial Waste and Sludges & Municipal Waste
- Agro and Food based products
- Any effluent material to name just a few.



# UDEP - Activities & Scope

Quality control and conformation to industry standards is a norm at UDEP, and is in-built within all our processes and systems.

## All - Encompassing Scope

CONCEPT TO COMMISSIONING AND BEYOND...

**Existing Plants :** We undertake a comprehensive study and analysis of existing plants – including processes and equipment. We then diagnose problem areas and provide the best-fit solution. We also conduct in-depth research and analysis on thermal efficiency and suggest methods of energy conservation and recovery. Technology up gradation and modernization of existing plants is a very integral part of our scope of work.

**New Projects :** Within our database we have a wide array of total turnkey projects for producing/ processing chemicals, fertilizers, mineral extracts and many more. For these projects and plants we provide the entire range of services required, right from concept to commissioning!



Our complete range of activities comprise of:

- Identification and analysis of your requirements and special needs
- Conducting laboratory tests and pilot plant trials of actual materials
- Custom designing of equipment/complete systems to suit specific needs and nature of your material
- Detailed engineering and specification of ducting, piping, electrical, instrumentation & engineering requirements
- Project execution, planning, expediting and co ordinating with client
- Supervision of site erection
- Plant commissioning
- Training of staff and technicians
- Post commissioning services

# UDEP - Achievements & Markets

## Our Achievements

- More than 10 Turnkey Projects executed globally
- Over 200 customized installations world-wide
- Experience on widest range of product applications
- Complete range of customized process solutions
- Customer base ranging from small scale units to global industry leaders and multinational corporations
- Long list of satisfied repeat customer orders
- Dedicated Research & Development facility

**From the inception of the project to commissioning, our people are engaged in the customer satisfaction concept, a challenging but fundamental element of our business philosophy.**

## Export Markets :

- Asia : China, UAE, Saudi Arabia, Thailand, Taiwan
- N. America : Canada, Mexico
- Australia : New Zealand
- Africa : Egypt

## We Relate To You Because

We regard our relationship with our customers as partnerships. These strong alliances have helped us understand diverse customer needs & industry-specific applications for which we constantly strive to provide ideal solutions; most of which have been first-of-a-kind applications.

It will be our privilege to show you how a specialized, technology driven company with tremendous expertise, experience and process know-how can provide you with optimal solutions for your project and process needs.



# Some Esteemed Clients

## Minerals & Ores

- Hindustan Lever Ltd.
- Indian Rare Earths Ltd.
- Hindalco Industries Ltd.
- Karnak Refractories (Egypt)
- Sud-chemie Industries
- Lignol Innovations Ltd.
- The Progressive Center (Saudi)
- Gulf Building Materials Industries Ltd. (U.A.E.)
- ICI India Limited
- Indian Aluminium
- Transpek Silox
- Rubamin Ltd.
- Johnson Mathew Chemicals
- Premier MICA Co.

## Speciality Chemicals

- Cyanides & Chemicals
- Baerlocher India Additives (P) Ltd.
- Vinati Organics
- Brilex Chemicals
- Shri Hap Chemicals

## Agrochemicals & Fertilizers

- Gharda Chemicals Ltd.
- Sterling Tea & Industries Ltd.
- Hindustan Phosphates
- Pfizer Limited
- Rallis India Ltd.
- United Phosphates Ltd.
- Zhejiang Biok LP Chemical Co. Ltd. (China)
- Indofils Chemicals Co.
- Tayseer Al Sheikh Phosphates Products Factory (Saudi)

## Sludges & Effluents

- Herbal Isolates (P) Ltd.
- Punjab Alkalies & Chemicals Ltd.
- Andhra Sugars Ltd.
- ABC Paper Mills (Greencone Environs)
- Sree Rayalaseema Alkalies & Chemicals

## Dyes, Dye Intermediates & Pigments

- Colour Chem Ltd.
- Indian Dyestuff Industries Ltd.
- Vidhi Dyestuff Industries
- Phthalo Colours & Chem. (I) Ltd.
- Heubach Colours Pvt. Ltd.
- The Tata Pigments Ltd.
- Meghmani Organics Ltd.
- Asahi Songwon Colours Ltd.
- Ramdev Chemical Industries
- Mazda Colours Ltd
- Roha Dyechem Pvt. Ltd.

## Pharmaceuticals & Bulk Drugs

- Alfa Remedies Ltd.
- Orchid Chemicals
- Divi's Laboratories Ltd.
- Suven Pharmaceuticals
- Sri Krishna Pharmaceuticals
- Granules India Ltd.
- Dishman Chemicals & Pharmaceuticals
- Alpha Drugs Ltd.



# UDEP



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