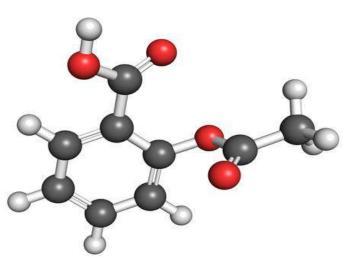
ANGELS PHARMA INDIA PRIVATE LIMITED



Rao S Kolluri 9573181234 (India) 6514725806 (USA) srk@angelspharma.com

Rajakumari Muppavarapu 9419162313 (USA) rajak@angelspharma.com



PLANT LOCATION

Ramky Pharma City, Vizag, the First establishment in India with following amenities:

- Good Connectivity Well connected to NH 5, Airport, Rail etc.
- Easy approvals CFE, CFO, DL, CE, SE etc.
- CETP (Central Effluent Treatment Plant)
- Potable water supply (24 x 7)
- Away from residential area
- Stable Power supply through AP Transco

PLANT DETAILS

- API facility consists of two modules with ability to manufacture multiple products.
- South wing and North Wing modules are designed with uni-flow system for men & material and HVAC systems with 0.3μm HEPA (class 100,100)/ISO-8.
- Total Plant: 9.54 Acres
- Built Up Area: 14590 Sq.Mtrs (1,50,000 sqft)
- Roads (Cement): 4951 Sq.Mtrs
- Un Covered Area: 26300 Sq.Mtrs
 (Future expansion as a green field project-Can accommodate 3 additional Production Blocks)
- Discharge permitted per day:
 - •HTDS 47.5 KL
 - •LTDS 192.5 KL

APIPL STRENGTHS

- WHO GMP, EuGMP, cGMP and ISO certified unit.
- Highly skilled and experienced Technical Team
- Hands on experience for many API's at P&D and ready for scale-up.
- Multi Product facility with 2 bays in Intermediate and Clean Room areas.
- AHU system (100000 classification) in the final crystallization and powder processing area in Clean rooms for API's.
- Fully Equipped QC and QA facility for in-house quality check.

PROMOTER DIRECTORS

Rao S Kolluri (NRI) - MD

Rao S Kolluri, aged 47 years had taken up his career in Software in early 90's and moved to U.S.A. He started working as an Independent consultant for various Fortune 500 companies like Honeywell, Carlson's, Fisher Rosemont, Donaldson's, Imation(3M), Ingersoll Rand, TRANE, Ceridian, Stratasys, etc.. Successfully worked with various Global IT partners like IBM, Accenture, Cognizant, etc., as a PMO member managing multi million dollar budgets. He holds **U.S and Indian Citizenship** as well.

PROMOTER DIRECTORS

M Rajakumari(NRI) – CEO

M. Rajakumari aged 58 years is a successful Entrepreneur in USA and runs Murdock Ambulatory Surgery Centre, a flourishing surgery centre with 30-35 doctors, two large commercial developments, real estate businesses and also the administrator of large anaesthesia group in which she works with numerous physician and manages Multimillion dollar budget at Bayfront Hospital, Murdock Surgery Centre, Charlotte Surgery Centre & Charlotte Heart & Vascular. She holds <u>U.S and Indian Citizenship</u> as well.

PRODUCTION BLOCK

Size of the Block: 60 X 27Mts.

No of Reactors:

For Intermediates : 18 Nos.

For Pharma : 8 Nos.

Reaction Volume :

For Intermediates : 85 KL.

• For Pharma : 50 KL.

Maximum Capacity of Reactors :

For Intermediates: 10 KL

• For Pharma : 10 KL

Less RCC Columns with 13.5 M long spans

Having two modules of Class 100,000 with 0.3 micron HEPA.

- Filtration, drying, milling, blending, sifting, packing & labeling facilities
- Men and Material movements are aligned according to GMP



WAREHOUSE

- Ventilation systems (AHU – Single Pass)
- Separate WH facilities for Solids and Liquids.



- Sampling and dispensing rooms in FG and RM areas.
- Racking system in both FG and RM
- Separate rooms for Quarantine, RM/FG Reject, Approved, Primary and Secondary Packing materials, returned goods, Office and Documentation.
- Liquid Drum Storage Area for solvents drums etc.
- Engineering materials storage area
- Storage capacity of 150 tons for first phase.

UTILITIES

- 5 Ton coal fired boiler at 10kg / cm2
- WTP, RO and Purified water system(EDI): 16 m3/hour 800 KL storage
- SRS Column with Two Reactors
- Standby DG's (CAT-650kva, Cummins-75kva, 200Kva)
- Electrical transformer 750 KVA
- Chilling plants
 - 63 TR Chilling water supply
 - 63 TR Brine supply (aqueous methanol)
- UG storage tanks for explosive solvents 125 KL (8 Tanks)
- AG storage tanks for non-explosive solvents 140KL
- Cooling towers 200TR 1 No & 170TR 3 No's
- Compressed air systems 150 CFM
- Pure Nitrogen gas generation plant 3m3 per hour
- Fire Hydrant System covering the entire facility

PURIFIED WATER SYSTEM

- Generation 16m3/hours
- Phase 1 purification:
 - MGF Separation of suspended solids
 - Softener Removal of hardness
 - UF To generate potable water
 - RO To generate purified water
- Phase 2 purification (3.33 m3/hour)
 - RO2 To generate purified water
 - EDI Polishing of purified water
 - Collection of purified water 5KL jacketed 316L storage tank
 - Provision for hot water sanitation

Distribution systems

- Water velocity 1.2m/sec under UV (330 W/mm2)(not required for hot Circulation)
- Hot water sanitation frequency once in 15 days
- Hydrogen peroxide sanitation when failed to microbial purity.
- Total capacity of water storage 750 KL at various stages.

QC & QA

- GC, HPLC with Empower Software. Equipped with all instruments required for testing of product in-house.
- Provision for establishment of microbial laboratory.
- Wet lab
- Stability Lab
- Control samples storage
- Record Room with file Cabinets
- Process R&D facility consists of two general chemistry labs with complete modules (reaction, filtrations, pressure reactions, fume cup boards, walk in cup boards, powder processing areas, packing & labeling etc.)
- Other facilities include: Data acquisition systems for pressure, temperature and vacuum. Alarm systems for low pressure and high temperatures

SRS

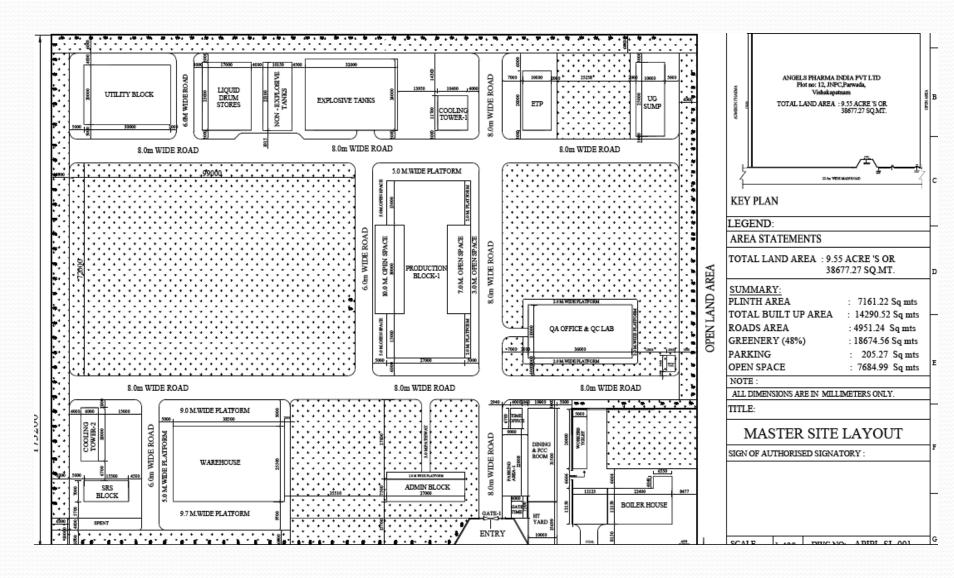
- Building Size: 12 X 7Mts 6 stairs
- Provision for 6 distillation columns and 4 Nos of flash distillation reactors.
- RCC structures without centre span column.
- Cantilever beams at all floors around the block.
- Separate cooling towers
- Large storage area for 18 tanks storage. 360KL with dyke walls.

PRODUCT LIST

Approved Drug License for the following products are in place

Metformin	Telmisartan	Imatinib	Lapatanib	Levotricetim
Clopidogrel	Levo Cetrizine	Fexofinidin	Vildagliptin	Sitagliptin
Rivaroxaban	Gabapentin	Pregablin	Ambroxil	Pantaprazole
Terbinafine	Lamotrigin	Etodolac	Lacosamide	Gliclizide

MASTER SITE PLAN



MAIN ENTRANCE



PRODUCTION BLOCK SOUTH VIEW

SOUTH EAST VIEW

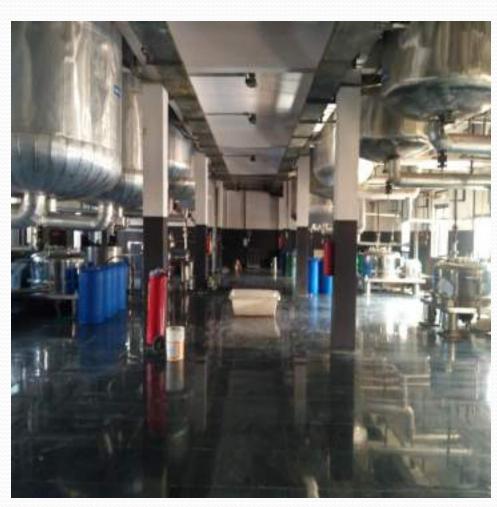




INTERMEDIATE BLOCK-1st FLOOR



INTERMEDIATE BLOCK-GROUND FLOOR





INTERMEDIATE AREA-96TRAYS TD(3 No's)



CLASSIFIED ZONE – NORTH & SOUTH (0.3 MICRON AIR SUPPLY)





>CENTRIFUGATION AREA



> RCVD





➤ POWDER PROCESSING AREA



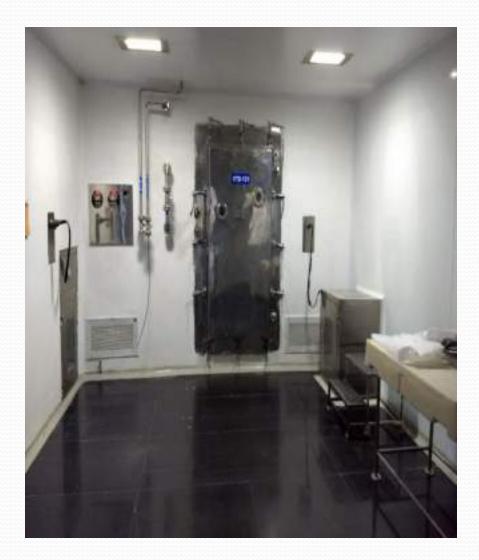
CRYSTALLIZATION AREA – NORTH





>VTD

≻BLENDER





> PURIFIED WATER SYSTEM



>RO SYSTEM



WATER TREATMENT PLANT AND UG SUMP



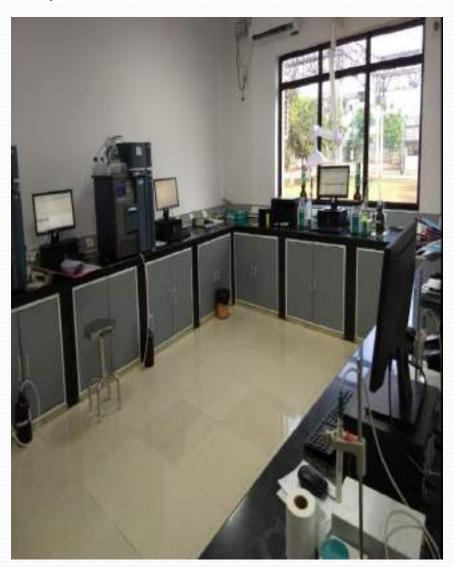
QC & QA BLOCK



QC - WET LAB

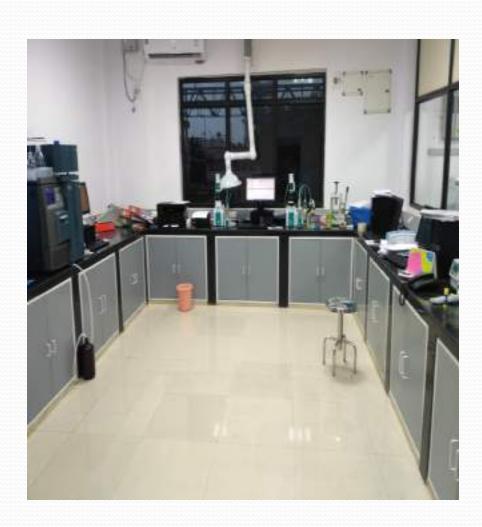


QC – HPLC AREA



QC-HPLC AREA

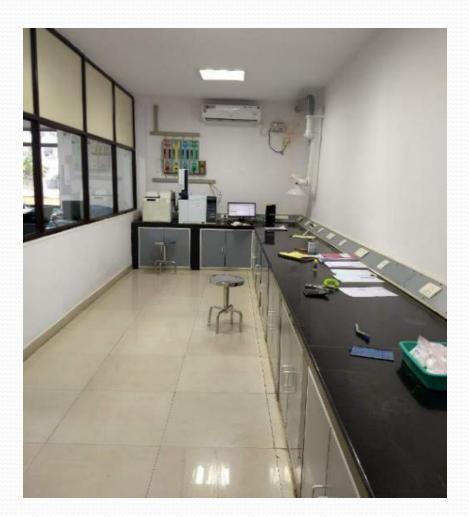
QC-HPLC AREA





QC-GC WITH HEAD SPACE AREA

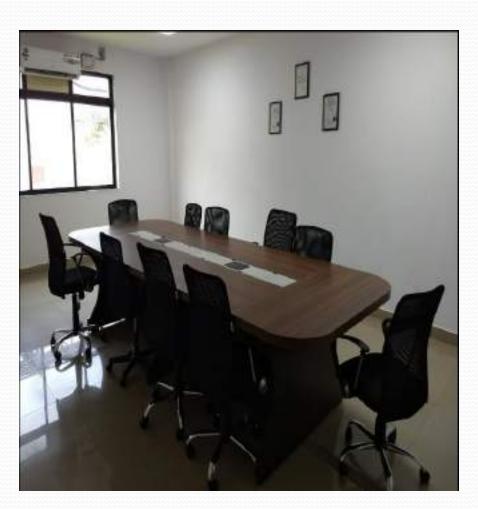
≻R&D

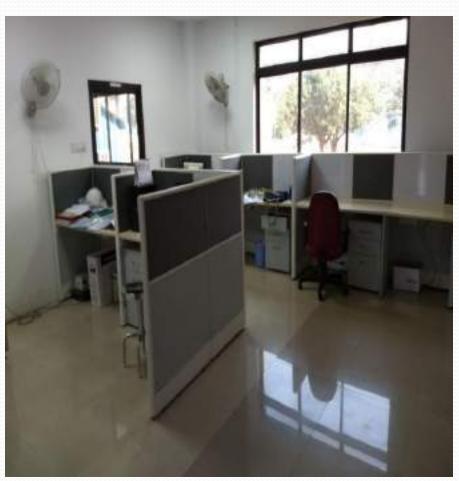




➤ QA - CONFERENCE ROOM







WAREHOUSE



RM AREA

FG AREA



RM-SAMPLING & DISPENSING



FG AREA

FG-SAMPLING & DISPENSING



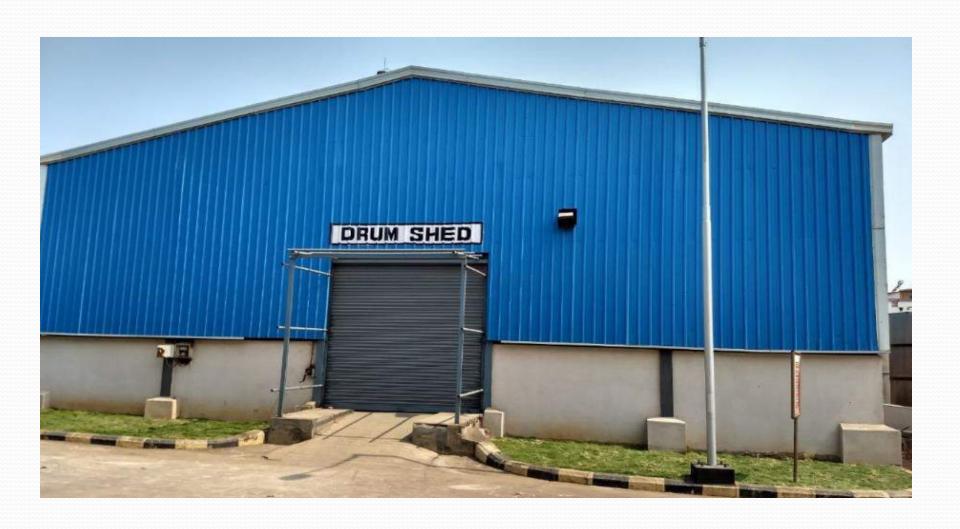


>PRIMARY PACKING AREA

➤ LIQUID DRUM STORAGE AREA



LIQUID DRUM STORAGE AREA



UNDER GROUND & ABOVE GROUND SOLVENT YARD



➤ Effluent Treatment Plant ➤ Solvent Recovery System





DG SETS & ELECTRICAL PANELS



CAFETERIA



>BOILER SHED

BOILER





>TIME OFFICE

> SECURITY OFFICE





ADMIN BLOCK



Thank You

