

WE HAVE BEST SOLUTION FOR YOUR BUSINESS





Ascent Total Solution Pvt. Ltd. (ATSPL) is a fast growing company serving end to end engineering solution to industries as consultant and EPC vendor.

Within a short Span of 6 years, ATSPL has emerged into market because of its strong existence in the field of Process & core engineering like Architectural, Civil & structural, Mechanical, Electrical, Process Engineering, Automation and Waste management etc.

We among very few engineering consultancy companies providing total solution in all discipline and in all verticals and hence our customer finds complete answer meeting their requirements under one roof.

We together actualize that our experience can be applied to process industry and we together looked for serving design & engineering services to process plant.

#### **Vision**

"Total solution provider" to set standards in quality & best practice in the industry in all the fields we work with, with constant desire to improve not only industry benchmark but also challenge & surpass our own.

#### Mission

To offer what we can & to deliver what we offer *On time*To meet & exceed customer expectations *Always*To strive for quality *Consistently* 



## **Quality Policy**

# "To get it right first time, every time and strive to exceed customer expectations whenever possible"

We at Ascent Total Solution aim to be at an innovative center of excellence in understanding & exceeding client's expectation of quality, price, Delivery, service, solution and technical Support. Our objective is to design fabricate construct & delivers best in class quality products and services consistently and on time. Our policy is to comply with all applicable statutory and regulatory requirements to provide a safe and healthy working environment by doing it right the first time, every time.

## **ENGINEERING DESIGN CONSULTANT**

We offer "full range of key engineering services"

- Feasibility and Conceptual Studies
- Project Planning and scheduling
- Basic engineering
- Detail engineering
- Procurement assistance
- Project management & Construction
- Validation and Qualification
- Technical Due Diligence
- Turnkey Solutions









# **SERVICES PROVIDER TO SECTORS**

We provide "one stop solution"

- Pharmaceuticals & Biopharmaceuticals API & Formulation
- Chemicals Heavy & Fine
- Nuetraceuticals
- Food & beverages
- FMCG
- Forging
- Automotive
- Paint Industry
- Cold chain & warehousing
- Cement industry
- Interior design & construction (commercial & Industrial)











### MASTER PLAN, CONCEPTUAL, BASIC & DETAIL ENGINEERING PHASES:

The master plan shall be for all the proposed buildings for the site including future spaces. The site, relative locations of the buildings, roadways and site preparation etc. shall be first based on the program. Site logistics shall be developed.

The concept is probably the most important phase of the project. During this phase, a number of key decisions shall be made that defines the success of the project.

## CIVIL / STRUCTURAL / ARCHITECHTURAL / CIVIL INTERIORS:

We have experience in designing and execution of civil activities related to Pharmaceuticals and also other sectors. We have carried out industrial construction project. We have delivered good workmanship and timely construction as desired by the client meeting their timelines.

#### **SERVICES**

We offer services under Architectural / Civil & structure:

- Civil Engineering Design
- Structural Engineering Design
- Structural Analysis
- On-Site Surveys
- Construction Observations
- Conceptual Design Services
- Detail Design
- Cost Estimating
- Permit Drawings for Governmental Agency Reviews
- Code Review/Compliance Review
- Construction Specifications
- Interior design
- Service Integration
- Quantification & Construction.









# **MECHANICAL / PIPING**

## **CONCEPT DESIGNS: UTILITIES & INFRASTRUCTURE**

- Review plant requirement as provided by Client.
- Establish capacity and preliminary equipment sizing for utilities.
- Prepare Man and material flow diagrams for manufacturing facility.
- Prepare preliminary AHU Zoning / Area classification drawings and AHU layouts
- Prepare preliminary Pipe rack routing for Major piperack.
- ❖ Prepare Budget estimate Plan and submit cost estimate.
- Prepare basis of design for process area equipments, Utility equipments, piping, etc.
- ❖ We follow latest amended ASMI & ANSI norms for complete design.

#### **BASIC & DETAIL ENGINEERING**

We hold a very strong experienced team in process and utility system, Piping, Plumbing and HVAC. We provide complete solution i.e. from Basic engineering o commissioning of plant.

## **Piping**

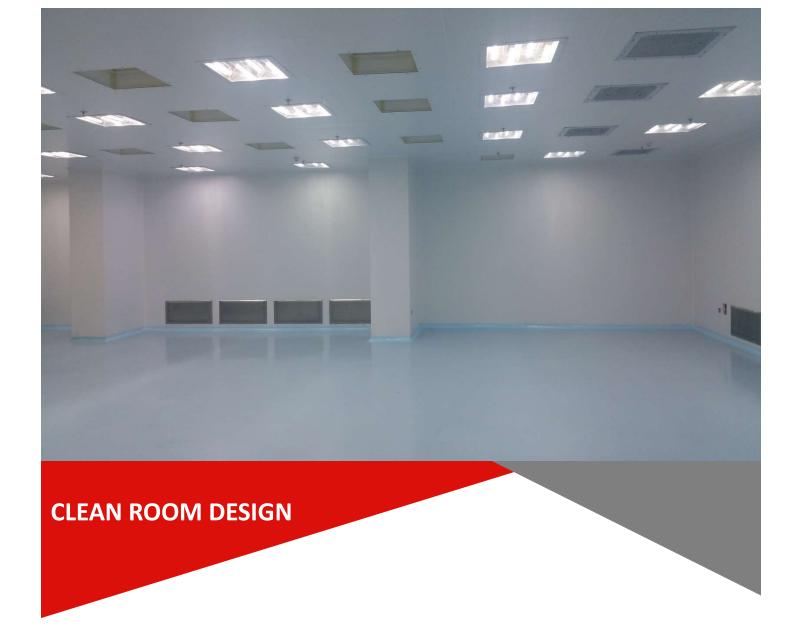
- Prepare equipment layout drawings (P&ID) for Utility and Process equipments
- Prepare Piping GA for Clean and Black Utilities.
- Prepare specifications along with MTO.
- Prepare pipe support drawings indicating various types of supports.
- ❖ Prepare Mechanical & Piping erection tender and specifications.
- Verify and approve data / layout, prepared & submitted by contractor.
- Coordination with inter discipline to generate Detail / Construction drawings.
- Prepare specifications & BOQ for Insulation, Painting and issue as part of mechanical & piping erection tender.





We hold a very strong experienced team for HVAC system for varied industrial projects:

- AHU grouping based on the final architectural layout
- Room classification & Pressure zoning
- Temperature & humidity level
- Prepare schematic air flow diagrams
- Prepare single line ducting layout drawings with proposed location of HVAC equipment.
- ❖ AHU / Ventilation / Chillier layouts.
- ❖ Reflected ceiling layouts Co-ordinated with other services.
- Prepare chilled water and Hot water schematic layouts.
- ❖ Prepare tender specifications for chiller & low side HVAC system including cooling tower, pumps, & BMS, EMS, workout BOQ, carry out technical evaluation of quotation and recommend suitable vendors / Suppliers for the various system / equipments.
- Prepare enquiry specification, Technical Bid analysis for cold room, prepare older indent for high and low side tender and cold room.
- Verification and approval of data / layout / shop drawings prepared and submitted by contractor.



ATSPL's extensive technical knowledge and experience in clean room design service provided to our clients with reliable, accurate and thoroughly documented clean room results.

- Review Client Requirements
- Analyze Potential Locations
- Estimate Preliminary Heat loads and Process exhaust
- Understand Client Space Utilization Requirements
- Create an Air Flow Schematic
- Design Architectural, Mechanical, Structural, Electrical and Plumbing drawings
- Develop Equipment Specifications
- \* Review/approve shop drawings and equipment submittals
- Obtain Final inspection and Engineering sign-off



**FIRE PROTECTION SYSTEM** 

ATSPL advances safety and security by finding smarter ways to save and protect industry with integrated, customized Fire protection solutions.

- The system shall be designed complying with latest Indian / international standards like FM / NFPA / local regulatory norms.
- ❖ Prepare tender specifications and BOQ for supply & installation
- Layouts of all types of fire extinguisher & safety showers, Plant & piping layouts
- Verify & approve data / layout prepared & submitted by contractor.

### Services:

- Fire hydrant & sprinkler System
- Fire Suppression system
- Fire detection & Alarm System
- Gas detection System
- Emergency evacuation System



## **ELECTRICAL**

Company is engaged in engineering design, procurement & construction of industrial projects.

Electrical services range from initial conceptual design and preliminary estimating to construction supervision, project control and estimating.

- Preparing Load list and Load flow study and evaluating plant demand along with Preliminary Basic power distribution scheme.
- Estimating electrical equipment capacity such as for transformer, DG set based on Load list.
- Calculating & sizing of electrical power distribution scheme.
- Prepare tender specification & MTO for electrical HT & LT installation works including supply items.
- Preparing all types of layouts like lighting, power point, cable tray routing, Earthing etc.
- Preparing substation, transformer yard layouts.
- Preparing co-ordinated layouts like Reflected ceiling plan.
- Floating enquiries and Bid evaluation with vendor recommendation to client.
- Review and approve vendor drawings for all major power equipments
- Verify & approve data / layout prepared & submitted by contractor.
- Complying to all latest standards such as IS / IEEE/ IEC/CEA guild lines etc.

#### **ENGINEERING DESIGN FOR HAZARDOUS & EXPLOSIVE UNITS**

The need for and use of potentially harmful fuels and vapours in a range of industries has led to increased development of electrical equipment for hazardous areas. Our team capable of doing engineering design for Hazardous area and explosive units using norms specified by agency such as PESO,CCOE, ATEX, CMRI, etc. and with the latest technologies and can select equipment that will protect your facility if it's classed as having explosive hazard risks.

We can tailor an electrical system specific to your needs, conducting a thorough analysis of your hazardous area equipment requirements. This analysis can include, among many other elements, explosion-proof lighting, hazardous area junction boxes and explosion-proof air conditioners.





## **EXTRA LOW VOLTAGE SYSTEM**

Company is engaged in engineering design, procurement & construction of industrial projects using all latest standards and technologies. We are using such our innovative ideas for best economical & more reliable solutions to our clients.

- Surveillance System
- Security System
- Access control system
- Door Interlock system
- Fire Detection & alarm System
- Telephone System
- Public address system
- IT Infrastructure
- Visitor Management System
- Web based Solutions





## **INSTRUMENTATION**

ATSPL provides full complement of control system and instrumentation design. Experienced in field bus technologies and application, complying to latest Indian & International standards.

- Detailed Engineering Design
- ❖Instrument Specification
- Control System Architecture
- Control System Hardware Specification
- Control System Software Specification
- Logic/Functional Description
- **❖** Software Programming
- Field Commissioning

## **Instrumentation Design**

Aided by in-house instrument database which allows generation of Instrument Index reports, ISA type specification sheets, IO assignment lists, cable schedules, procurement reports, etc. Designed to comply with both hazardous and non-hazardous classifications. Use of intrinsically safe IO and wiring practices in hazardous areas can achieve major cost reduction.



## **AUTOMATION**

We have vast experience in the field of process automation. We are expert in the field of selection of process automation, selection of field devices, communication system, PLCs and DCS systems. We have successfully commissioned these kinds of projects.

- Process automation (for safe & hazardous area) Basic & detail engineering scope for automation includes:
- Preparation of design basis documents
- Preparation of concept note / Automation Philosophy
- Preparation of instrument list
- Preparation of Input / output list
- ❖ Issue final P&IDs after incorporating instruments loops.
- Preparation of specification document for DCS / PLC / SCADA control system.
- Preparation of specification & datasheet for all key field instruments
- Preparation of specification & datasheet for safety related instruments.
- Technical Bid analysis
- Preparation of GA & Hook up drawings, wiring & loop drawings for instruments & control system.
- Preparation of URS based on end user inputs on own templates, unless other specified.



**PROCESS ENGINEERING** 

ATSPL provide process design, engineering, and safety services to any and all of the processing industries. PROCESS offers not only chemical process engineering services, but we apply our process engineering capabilities over a wide range of industries - chemicals, Pharmaceuticals, waste treatment, power generation, and more. We also provide services to many traditional full service engineering firms.

Engineering Services, including the following items.

- Process Selection
- Perform scale-up from a pilot plant to a semi-works, or commercial level
- Batch or Continuous operation type
- Conceptual process evaluated for economic and operational feasibility

## **Front-End/FEED Packages**

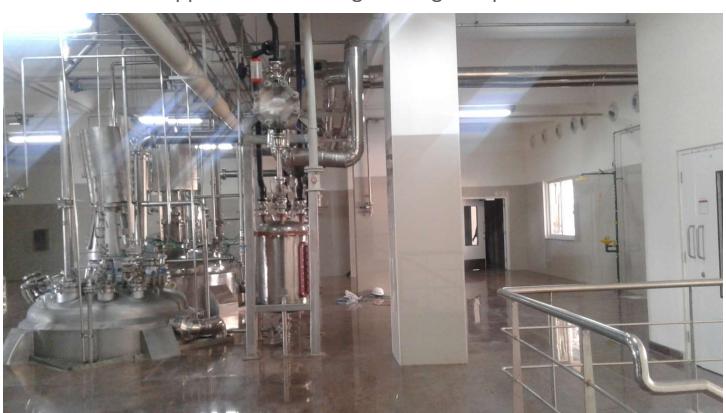
Focuses on technical specifications and requirements for bidding the Execution Phase Contracts such as:

- Heat and material balances
- Piping and instrumentation diagrams
- Equipment specifications
- Control philosophies
- Equipment layout requirements
- Process Hazards Analyses

## **Detailed Engineering Design**

Further develops or completes documents originated during front-end engineering phase, such as:

- Sizing of instrument devices
- Detailed calculations
- Purchased equipment review
- General support for other engineering disciplines





# ENVIRONMENTAL ENGINEERING

ATSPL provides consulting services in environmental control involving air sampling, water quality, dust and fume control, hazardous waste containment and disposal of solid wastes.

#### Services we offer:

- Generation of basic data on liquid, solid & gaseous that will be generated within the plant
- Preparation of Scheme to handle the waste effectively as a part of zero discharge facility or as per government norms prior to discharge from premise.
- Selection of vendors or contractors on the basis of expertise, track record to be evaluated & finalized. They further carry out the detailing related to ETP.
- Working on requirement of scrubbing systems & categorizing for effective handling.
- Selection of scrubbing systems includes preparation of specifications & data sheets, reviewing of GA drawings
- Procurement assistance like Bid analysis, Vendor selection & recommendation.

The design should broadly include the following:

- **❖** Layout of ETP.
- Hydraulic diagram
- Material & energy balance
- Outlet parameters at each unit operation
- ❖ Technical specification, Bill of quantities & tender documents for the said ETP / STP.

Same procedure will be followed for Environmental control







We assign / appoint a project manager (PM), who shall be responsible for the entire project scope. PM shall be assisted by a team of lead engineers from various disciplines during design and by project controls in planning, Scheduling functions.

Consultant proven project management tools which are documented in SOPs and being used globally to ensure project execution. ATSPL project management tools shall be followed for project delivery.

All of our project activities shall follow a result oriented, value adding methodology as per consultant's guild lines. With guild lines the team is guided in a sequence of actions and decisions through formal approval 'gates'. This discipline assures our team shall deliver predictable outcomes.

Project reporting is an important part of project management function.

Project Manager shall be responsible for:

- Preparing Project Procedures.
- Single point of contact for all correspondence
- Scheduling meetings for technical, design safety, Quality
- ❖ Issue of 30 days Look ahead schedule
- Update schedule
- Monthly progress reports
- Weekly action required.

#### **PROJECT CONTROLS:**

Consultant shall develop a Level 3 project schedule for the defined scope. Schedule shall be generated and shall be updated on monthly basis. Schedule shall be analyzed to identify area requiring close monitoring and mitigation plan shall be prepared for items requiring attention.

Consultation best practice developed to reach consensus among the key project team members on the project phasing, Milestones, tasks, execution logic and assignment of responsibility. The process focuses on simultaneous development of a good workable plan and buy-inform all the team members for design engineering scope.

Important objective of interactive planning are:

- To clearly define project drivers, goals and objectives.
- To provide an explanation of why things are done.
- To understand client objectives for the project
- ❖ To faster teamwork and consensus.
- To totally integrate the team understanding of how their actions affect other team members.
- ❖ To provide an explanation of each team member's role on the project.
- ❖ To establish commitment to the plan from all team members.

## **MEMBERS**



Rajesh Hedaoo, Chemical Engineer having 32 years of hands on experience in pharmaceutical operations, project management, manufacture of API & Formulations, R&D –API, Quality, HSE & Regulatory audits by EMEA, TGA & USFDA and has worked with reputed pharmaceuticals companies like Cipla, Wockhardt, Reliance, FDC etc. in top management level for about 12+ years. Leads the project team & business development.



Vijay Kolhekar, Mechanical Engineer having 23 years of vast experience in procurement, installation, testing & commissioning and validation of utility and process equipments of in chemical, pharmaceutical and Biotech industries and was associated with companies like Biocon, Cipla, Reliance, Zydus Chemicals etc.

Leading mechanical, HVAC, Utility for design consultancy & constructions; supports
Instrumentation & automation with Business development.



Suraj Patil, possessing a plenteous experience of about 17 years in the field of electrical and automation projects of chemical and pharmaceutical plants right from electrical system design into transmission and distribution to industrial control networks till process automation. Prior to join hand in hand with Vijay Kolhekar to establish an organization, he was working in organization like Wockhardt, Watson, Reliance, Cipla, etc. Leads the Electrical & Instrumentation along with business development.

### **MEMBERS**



Nandkishore Shinde owning a skilled and variable experience of 27 years in area of civil interior design and Project management into process industry and commercial & corporate sector and was associated with many reputed designers like Suhas Bandhekar & associates, Shandar Interiors, Archdeep Interior and has handled large scale civil interior projects for client such as Watson Pharma, Capegemini, Accenture, Haliburton technologies, etc.

Leads the Civil Interior and Turnkey projects



Paresh Padgaonkar, Graduated from Sir J.J.College of Architecture, University of Bombay. He was also the recipient of AOTS scholarship funded by the Japanese government for training in Architecture.

He has vast experience in Institutional, Corporate, Industrial, Health care & Residential Architecture. He is also serving as a visiting faculty in Sir J.J.College of Architecture. Each creation in Architecture is designed in a unique way which is evidently seen from the different characters that are seen in the buildings designed by him.



Kalyani Savardekar, Educational qualifications: B.E. (civil) VJTI, University of Mumbai and M. Phil. University of Cambridge, U.K.

Experience: 20 years hands-on experience in design on industrial structures, in RCC and structural steel work.

Handled several projects of above 1 Lakh sq. ft. Membership and Licenses:

Member of Institution of Engineers (India)
Member of Indian society of Structural Engineers:
Grade 'A' Holder of structural license of Bombay
Municipal & Pimpri corporation.

#### **MEMBERS**

Vasan Thatai, Pharmacist with MS in Biochemistry & MBA & has about 25 years of vast Experience in Quality Control, Quality Assurance and Regulatory Affairs. He draws experience from reputed pharmaceutical / biopharmaceutical companies.

He has adequate experience of establishing QC/QA infrastructure right from the project stage. He has extensive experience in the development and deployment of quality systems for biotech & pharmaceutical companies and has comprehensive experience of establishing the QC / QA infrastructure from inception.

He has served in companies who meet international quality standards like FDA, EMEA, TGA, South African MCC, ANVISA and WHO.

As head of Quality Assurance, he has established quality system not only for manufacturing units but for entire organization as well through the product development lifecycle.

He is also held Subject Matter Expert portfolio in areas pertaining Process Characterization, QbD, FDA/MHRA Principal Remediation Coordinator.

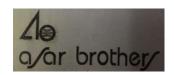
Nilesh Shinde carries over 15 years of experience with Pharmaceutical Industry at various management positions at various locations and in different areas of Quality Control and Development. Associated with California based consultant and training company as Senior Microbiology consultant, India Operations.

Highly experienced Auditor and faced several audits as an Auditee.

















































































## **INNOVATIVE APPROACHES....PRACTICLE SOLUTION**



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