

Innovative Solutions from Concept to Commissioning



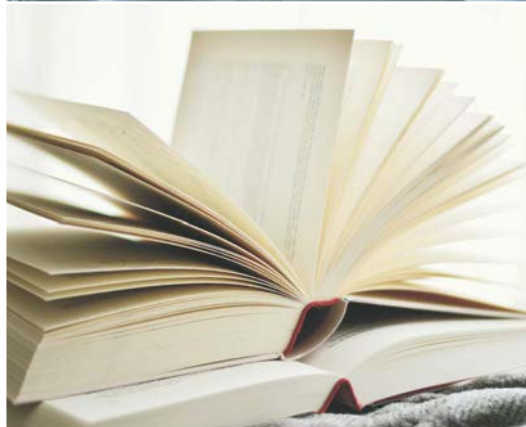
Design Build & Validation
Services for Bio Pharmaceutical
& GMP Compliant Industry

Our world

Modular Cleanrooms



HVAC



Qualification and Validation



Building Management
System

Qualification and Validation



Cleanroom Equipment



Utilities



Hygiene Flooring

GMP Technical Solutions Private Limited is established in 2005 and has continued to maintain a structured growth, which is reflected by our reputation for high quality installations and standards of service. As a modern multi-million dollar turnover company, a high proportion of our work is derived from repeat business; the best possible recommendation. Our in-house expertise covers design, implementation and value engineering.

Comprehensive knowledge about the pharmaceutical industry enables us to work with our clients, understand their requirements and present innovative and cost-

effective solutions allows us to create the overall engineered scheme. All Modular Partitions, Cleanroom Equipments, and Containment Solutions are manufactured at our State of the Art manufacturing facility at Baddi & in Mumbai India.

Progressing towards the future, we are constantly adding up new talents to our expert staff to keep our services and ideas fresh, energetic and innovative. With our focus on the latest developments in the industry, we continuously upgrade our products and solutions we provide.

Services at a glance

Design Engineering
& Planning

Project Execution

Integrated Solutions for Regulatory Environment

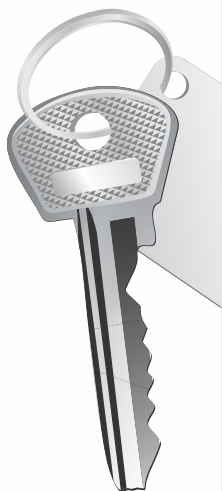
Integrated Building Management Systems

- BMS with open architecture and Lonworks / Bacnet compatible DDCs
- Pharmaceutical: 21 CFR Part 11 & GAMPs compliant validation software



Utilities

- Compressed Air Generation & Distribution
- Industrial Steam Generation
- Potable Water Distribution System
- Chilled Water Generation & Distribution
- Vacuum Generation and Distribution System
- Fire Fighting System



Qualification & Validation

Qualification and Validation Compliance as per USFDA, EU-GMP, WHO, MHRA guidelines and GAMP 5 Compliance



Project Implementation

Commissioning & Validation

Cleanroom Equipment

- Static / Dynamic Pass boxes
- Horizontal / Vertical / Reverse/Laminar Flow
- Air Shower



Wall, Ceiling & Floor Systems

- Cleanroom in GI / HPL / GRP / SS construction with integrated light fixtures & HEPA Boxes



Biosafety Cabinets

- Microbiological safety cabinets of classes I, II & III



HVAC / AHUs + FCU

Dehumidifiers + Humidifiers

- HVAC System upto ISO Class 100 with Duct work and air handling systems

Value Addition



Industries we serve

- STERILE
- ONCO
- OSD
- LVP /SVP
- INJECTABLE
- R & D LABS
- API
- BIOPHARMACEUTICALS
- CONSUMER PRODUCTS



Pharmaceutical Industry requires concentration at every phase of project, from Layout to the validation.

- cGMP Audit of facilities, including Layouts and Utilities
- Feasibility Studies & Master Planning
- Conceptual Design Studies
- Value Engineering, Basic & Detailed Design Engineering
- Cleanroom Installations and Services
- Building management system as per 21CFR Part 11
- Qualification and Validation
- Technology Transfer
- Turnkey project implementation
- Revamping and modernization of existing Pharma plants



Why GMP

- Provides a unique suite of benefits and clear superior performance
- Provides an unparalleled range of sizes and fittings coupled with innovation and high levels of engineering support through design, selection, installation and commissioning
- This level of support and dedication gives secure project delivery with peace of mind
- Successful projects delivered throughout the world are a testimony to GMPTS's attention to all phases of project life.



TURNKEY CLEAN ROOM
TECHNOLOGY –
WORLD-WIDE

QUALIFICATION
AND RE-QUALIFICATION

SYSTEM SOLUTIONS
AND PRODUCTS

INSTALLATION AND
COMMISSIONING

GMP TRAINING

WORLD-WIDE AFTER-
SALES SERVICE

Cleanroom Panels

GMP modular walls have been installed in clean rooms throughout the world in a range of applications from API manufacturing to Sterile manufacturing units. The system is readily adaptable to meet requirements of most clean room classifications as determined by cGMP grades used in pharmaceutical applications.

A complete range of partition walls and ceiling systems are available to meet the technical specifications of controlled environment rooms

GMP Technical Solutions Panels are resistant to abrasion, chemicals and reagents, formaldehyde for fumigation, steam and water and artificial and UV light, non – combustible, non – shedding and fire retardant.

- Panels have good impact resistance
- Panel surface emits no particles
- Panel surface has high resistance, which results in beneficial characteristic of slow discharge
- Panels have an appropriate balance of hardness and flexibility
- GMP Cleanroom panels are inter-connected by inserting connecting profiles within them.

We manufacture;

- Galvanized Iron Panels (GI)
- High Pressure Laminate Panels (HPL)
- Glass Reinforced Panels (GRP)
- Stainless Steel Panels (SS)

Various insulation options available are;

- Poly Urethane Foam (PUF)
- Polyisocyanurate (PIR)
- Mineral Wool
- Paper honeycomb



Cleanroom Doors

Our fire rated doors are approved by Warringtonfire UK & Underwriters Laboratories. The accessories used for these doors are from reputed brands, to make these doors of international standards.

At our Baddi Manufacturing unit we even manufacture all Cleanroom accessories and equipments like Pass Boxes, Laminar Flow Benches, Air Shower, SS furniture etc.

FIRE RATED DOORS

UL CERTIFIED

WARRINGTONFIRE

CE

RUSSIAN CERTIFICATE

GMP Fire doors are certified by:



Heating Ventilation & Air Conditioning - HVAC

OUR SERVICE BASKET

- ARI / EUROVENT / AHRI CERTIFIED CHILLERS
- CTI CERTIFIED COOLING TOWER
- AHU (CUSTOMIZED AIR HANDLING UNITS)
- FACTORY FABRICATED/PRE-INSULATED DUCTS
- BAG IN BAG OUT FILTER ARRANGEMENT (BIBO)
- DEHUMIDIFIERS FOR LOW RH APPLICATIONS
- PACKAGE AIR CONDITIONERS
- FACTORY MADE MANIFOLDS



Customised HVAC systems & solutions are designed & engineered by experts having immense experience in designing the Pharma & Biotech Plants.

Our HVAC design is strictly based on the different guidelines and regulations set by authorities;

- Duct fabrication conforms to SMACNA & OW standards.
- Duct sealing as per Class A of SMACNA.
- Duct leakage tested qualitatively by smoke test and quantitatively as per DW standards.
- Classification of area - ISO 14644 series
- Design confirms to WHO Technical Report Series
- All other requirements set by FDAs, US FDA, UKMHRA, TGA & MCA etc.



High side utility systems offered are another critical design of successful HVAC system. The entire piping conforms to ASTM standards, ASHRAE Standard and ASME etc.

We provide world renowned makes of Air Handling Units and Chillers. Reliable after sales service makes us a preferred HVAC vendor to our clients spanning across the globe.

Our Core Competencies

- Plan, Design, Build, Commission and Validate the Complete HVAC system as per regulatory (cGMP) requirements.
- Un-paralleled range of innovative and high level of engineering support throughout design, selection, installation and validation
- With our integrated Single Source procurement approach we are able to achieve schedule compliant project completion.
- Validate as per international standard with in-house team and NABL Accredited labs for Validation equipments

Electrical Systems



We provide energy efficient electrical systems that provide maximum level of safety and require minimum maintenance.

We design customized electrical systems considering specific project requirements along with compliance to relevant International codes. We take into account fundamental principles of energy conservation and safety that encompass protection against electric shocks, thermal effects, over current, fault current and over voltage.

Dimmers are provided for lighting circuits to reduce the lux level at times when higher lighting level is not required. Also sensors are provided to switch off the lighting when the space is not occupied or where natural light is available to achieve the required lux level.

Electrical equipment intended for outdoor installation are designed to have minimum protection of IP55 (in accordance with IEC).



External Electrical Installation

For external installations we recommend use of astronomical time switches for controlling external lighting. These switches are programmable on the basis of sunrise and sunset, and work without use of light sensors. Programming is done at the project site to switch the external lighting ON and OFF automatically at a preset time and also switch OFF 50% lighting at midnight or another preset time. This saves substantial amount of electricity and increases the life of lamps.

Sub-Station

We recommend setting-up of sub-stations near the load centers to minimize installation cost and voltage drops. Transformers are selected on the basis of 'minimum load loss' and 'no load-loss' and these are type tested. To avoid the possibility of fire, Dry-type transformer and vacuum circuit breakers / SF6 breakers are deployed.

Standby Power Generation System

Generators are provided in compliance with project requirement and to supply power automatically within 12 to 14 seconds on interruption of grid power supply. In projects where more generators are installed, we deploy automatic load management system to ensure that only the required amount of power is produced at any time to avoid fuel wastage. While designing standby power generation facilities, we emphasize upon issues of noise and air pollution.

HIGH TENSION/
LOW TENSION
ELECTRICAL INSTALLATION

SUB-STATION

STANDBY POWER
GENERATION SYSTEM

CLEANROOM FIXTURES

Environmental Monitoring System-BMS

BUILDING MANAGEMENT SYSTEM

- HUMIDITY
- TEMPERATURE
- PRESSURE
- FILTER CHECK
- AIR FLOW

DESIGN AS PER,

- 21 CFR PART 11
- GAMP 5



As an engineering solutions provider, GMP takes responsibility for design, supply, installation, commissioning and maintenance, offering end-to-end solutions, energy management and comfort throughout the life-cycle of the system.

Our BMS design conforms to 21 CFR Part 11 and GAMP 5 requirement. This ensures control of different parameters like Relative Humidity (RH), Temperature, Pressure etc. of a cleanroom in critical areas like production facilities, laboratories and sterile areas etc.



Smart PC touch panels in the production area are used to display critical parameters. These parameters are monitored and recorded to keep a track record of manufacturing areas.

A central monitoring and controlling system installed at a central location provides control and real-time monitoring of critical parameters. This system is password protected at various levels ensuring tamper proof with data.

Our technology partners ensure that our clients get the promise of quality and easy service across the globe.

BMS professionals at GMP are trained and experienced in handling massive and critical projects such as sterile facilities where environmental monitoring is of utmost importance.

Utility Piping & Fire Fighting System

Piping is critical in terms of design and is of utmost importance for any successful Pharmaceutical or Biotech facility. As it employs very high initial set-up cost and routine maintenance, its design has to be ideal and cost effective.

These utilities are Compressed Air, Steam, Cooling water, Chilled water, Different types of Gas piping etc.

At GMP we make sure that all these utilities are designed to perform well at its peak use. We ensure cost-effective solutions by avoiding over design or under design.



Less impact on environment and making optimum use of capacity are focused upon, while we design the insulation materials.

The piping standards like ASTM, ASME, BS standards are followed to assure high quality and a rigid system.

Our in-depth knowledge of piping and utility equipments enables us to build rigid systems with effortless installation along with piping and integration with different equipments, like chillers, cooling towers, Air Compressors and Boilers etc.

COMPRESSED AIR SYSTEMS

CHILLED WATER SYSTEMS

INDUSTRIAL STEAM

GAS PIPING

FIRE FIGHTING

FIRE HYDRANT

NFPA STANDARDS

FM GLOBAL STANDARDS

Cleanroom Equipments

Cleanroom equipments are of utmost importance for their intended use. All these equipments come with factory tested certificates and documentations. All GMP products are manufactured under one roof and subsequently all metal finishes, assembly are completed in-house. As a result, specific requirements of client can be incorporated into a proposed design.

Pass boxes – Dynamic & Static
Laminar Air Flow benches
Sampling & Dispensing Booths
Bio Safety Cabinets
Air Showers
Mist Showers
Mobile Trolley



Commissioning & Validation



Qualification and re-qualification

In accordance with the recommendations from International Standards, GMP establishes a Commissioning and Qualification plan based on Risk analysis that permits the classification of the various systems and its components depending on their impact on final product quality.

Installation and commissioning

We supervise projects all around the world. Together with our partners, we guarantee top-quality installation and supervisory operations.

Specially trained professionals are provided to perform demanding commissioning tasks and particle and classification measurements within the field of clean room technology.



Hygiene Flooring

GMP Technical Solutions develops bonding, sealing, damping and reinforcing solutions for the Pharmaceutical & related industries, for manufacturing, Packing & Stores.

Epoxy flooring is a very critical application in any Pharmaceutical industry. Classification of the Cleanrooms and cleanliness is also based on flooring and cleanliness. GMP Technical provides different types of epoxy flooring for different application, like for Stores, manufacturing areas, Corridors, Packing halls & Quality control.

The skilled technicians and world class material is our strength, we use eco-friendly material for epoxy application and a wide range, from standard coating to self levelers & very high chemical resistant antistatic floor to suit every production pattern

GMP Technical has excellent physical and human infrastructure in place to cater to the diverse need of client in the most efficient way. Together with our best known manufacturers in the industry, we provide the best products in the market. The logistics we adopt are fool proof and can take up every job on priority. Backed by team of excellent engineers, supervisors, experienced quality controllers and workers, we ensure that best quality flooring is delivered in given time frame to the clients.

We also use wide range from Urethane floor, coating, self levelers & screeds with very high chemical resistance and thermal stability for very tough industrial environment, highly sustainable for wet process areas.

For heavy machineries area and electronic areas we do use anti-static epoxy flooring along with copper strips for earthing avoiding any static shocks to machines and operators.



Our Clients

Meeting to the growing demand of our prestigious clients

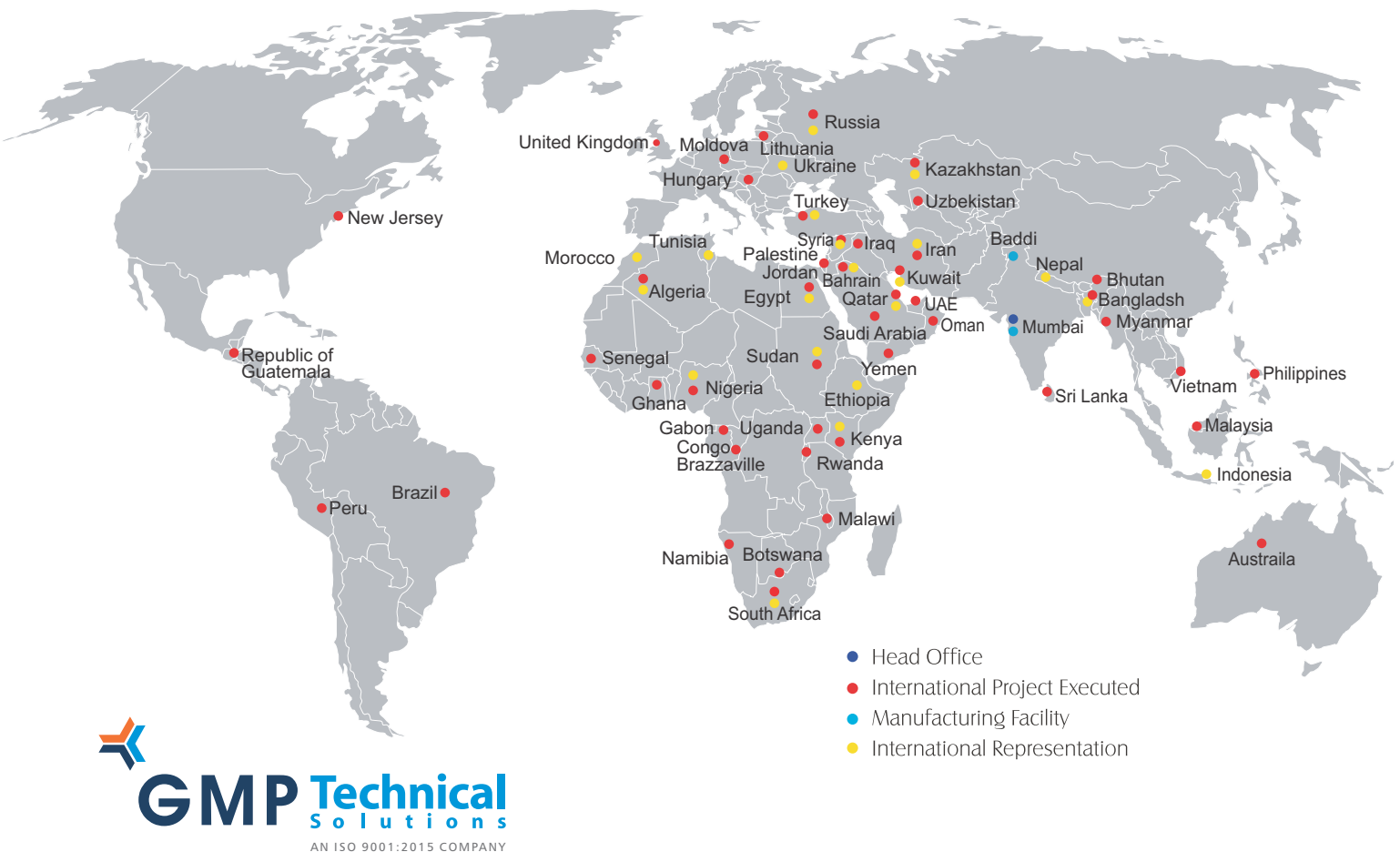


& many more...

Approvals



Our Global Presence



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