GMP Technical Solutions

Cleanroom Technology

Modular Cleanrooms

Partition Wall & Ceiling System

Company Profile

What is Cleanroom?

GMP Technical Solutions (GMP) is an ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 Certified Company and was founded in 2005. It is the largest manufacturers of Modular Cleanroom partitions and doors in India.

Its three state of the art world class facilities are having 2,60,000 sq. ft. of manufacturing area with an overall supportive infrastructure of 5,25,000 Sq. ft. in Baddi (H.P.) and Mumbai. These facilities are fully equipped with latest CAD CAM systems and CNC machines. It houses its own PUF, PIR machines and Robotic powder coating plants, which can process panels up to 6 mtrs. in length. GMP can manufacture 86,00,000 sq. ft. of panels and 72,000 doors per annum.

The strategic location of the facilities at foot hills of The Himalayas, at Baddi in Himachal Pradesh offers a zero Excise Duty which benefits its clients and enables GMP to offer a competitive pricing structure. Another strategic facility in Mumbai, enables GMP to Quickly Supply and support Projects in western and southern India along with overseas market. We have a team of 1100+ employees; of which 250 are engineers and 350 constitute our installation team who ensure a high level of installation quality and timely project completion.

Our Vision
To be the finest skill-based solution Provider Company for cleanroom projects to fulfill customer requirements.

Our Mission
To focus on delivering great value to customers through highly skilled professionals delivering world class Projects and Products.

A cleanroom is an environment, typically used in manufacturing, including of pharmaceutical products and scientific research as well as aerospace, semiconductor, engineering applications with a low level of environmental pollutants such as dust, airborne (microbes, aerosol) particles and chemical vapors.

More accurately, a cleanroom has a controlled level of contamination that is specified by the number of particles per cubic meter at a specified particle size. In addition, the temperature and humidity is also controlled.

Purity Classes for Sterile Zones

Classification Numbers (N)	Maximum concentration limits (particles/m³ of air) for particles equal to and larger than the considered sizes shown below					
	0.1 µm	0.2 µm	0.3 µm	0.5 µm	1 µm	5.0 µm
ISO Class 1	10	2				
ISO Class 2	100	24	10	4		
ISO Class 3	1000	237	102	35	8	
ISO Class 4	10 000	2370	1020	352	83	
ISO Class 5	100 000	23 700	10 200	3520	832	29
ISO Class 6	1 000 000	237 000	102 000	35 200	8320	293
ISO Class 7				352 000	83 200	2930
ISO Class 8				3 520 000	832 000	29 300
ISO Class 9				35 200 000	8 320 000	293 000

Laminar Airflow

Conventional Airflow
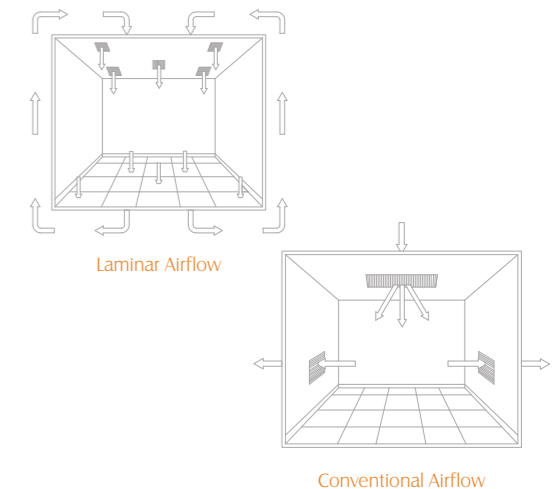
Industries we serve

- Sterile
- Oncology
- OSD
- LVP/ SVP
- Injectable
- API
- Biotechnology
- R & D Lab

- Veterinary
- Healthcare
- Medical devices
- Food and beverages
- Semiconductor
- Solar panels
- Electronics
- Glass manufacturing

GMP Modular Cleanroom partitioning system is designed for ease in installation and practical functionality, while maintaining a modular flexibility. Simplified construction methods and progressive & non-progressive systems help our client's to minimize overall construction time.

Our product line

- Pre-engineered powder-coated modular panels
- Pre-painted modular panels
- GRP (Glass Reinforced Polymer) modular panels
- HPL (High Pressure Laminate) modular panels
- Cleanroom Metal Doors
- Fire Rated Metal Doors

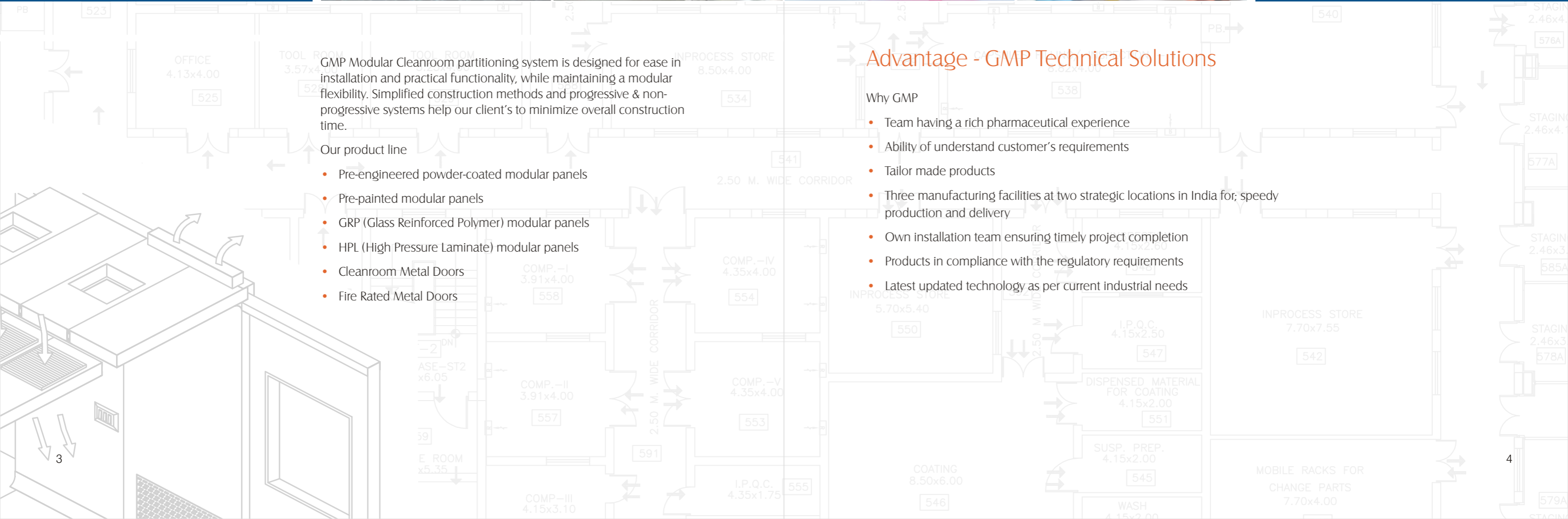## Advantage - GMP Technical Solutions

Why GMP

- Team having a rich pharmaceutical experience
- Ability of understand customer's requirements
- Tailor made products
- Three manufacturing facilities at two strategic locations in India for; speedy production and delivery
- Own installation team ensuring timely project completion
- Products in compliance with the regulatory requirements
- Latest updated technology as per current industrial needs

GI Powder Coated Cleanrooms

GMP modular panels are made up of GPSP GI sheet having lock formed quality (LFQ), minimal spangle with a zinc coating of 80-120 gsm. The panels are filled with an infill of polyurethane foam (PUF/ PIR), honeycomb paper core or high density mineral wool.

Panel Width: 1154 mm, 1120 mm & 800 mm as standard

Panel Thickness: 44, 60, 80, 100, 160 mm as standard

Panel Height: Upto 6000 mm with provision of stacked panels for higher applications

Panel connection: Friction type interlocking key for speedy erection and dismantling

GMP modular panels are pure polyester powder coated to 60-80 microns and 15-25% gloss level with below properties

- Inert and non particle shedding
- Resistance to abrasion and chemicals
- Thermal and sound insulation
- Corrosion protection
- Smooth bump free surface
- Easy cleaning and maintenance
- Better UV protection
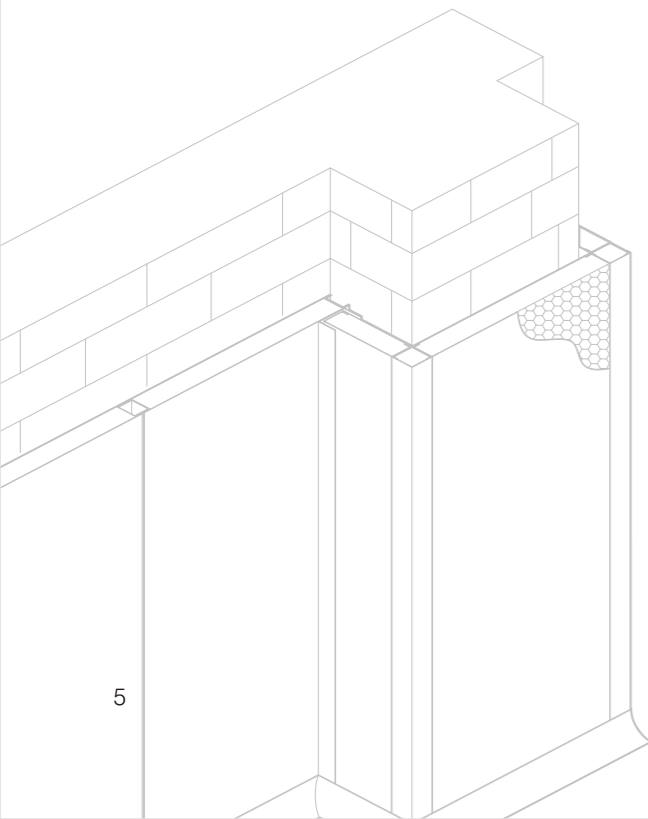
|	
Base Detail	: Raised type base to allow flush coved finish and C-type base
View panel	: Viewing glass is an integral part of wall panel thus called view panel. It is made up of 5mm thick toughened glass duly flushed on both sides of wall panel
Door	: Lock formed construction. Optional double and single glazed view with cleanroom compatible accessories
Coving	: Powdered coated aluminum coving. Press fit fixing arrangement with aluminum backing
Return air -risers	: Return air riser is an integral part of wall panel. It is made by fabricating a duct of maximum 900mm width in between panel and given 150mm above ceiling projection. Perforated grill in powder coated GI or in SS 304 is also provided.
Ceiling panel	: Walk able and non walk able ceiling panels are made up of same method as wall panel but with stiffeners for additional strength
Cutouts	: Factory made cutouts are provided as per required sizes and location with GI conduit for running cables. Ceiling cutouts could be with lip or without lip as per required design
Sealant	: Food grade silicone sealant for minimizing air leakages

Glass Reinforced Polymer (GRP)

Properties

- Monolithic, non-shredded
- Chemical & Scratch resistance
- Does not require insulation thus reduces contamination in case of physical damage
- Smooth, seamless and easy to clean
- Built in color with antibacterial protection
- Water resistant, will not warp, swell, rust or rot

Specifications

- Thickness of sheets - 3.5 to 4.0 mm
- Standard Panel Thickness- Wall-150mm, Cladding-75mm, Ceiling -54mm and door-54mm
- Standard width of wall panels: 961mm
- Standard width of ceiling panels: 1200mm
- Standard width of service panels: 231mm
- Standard height of wall panels: 3000mm
- Width and height of panels will be changed as per the site/ layout requirements.
- Gloss Level of Partitions: 30% maximum
- Self coved wall and cladding panels
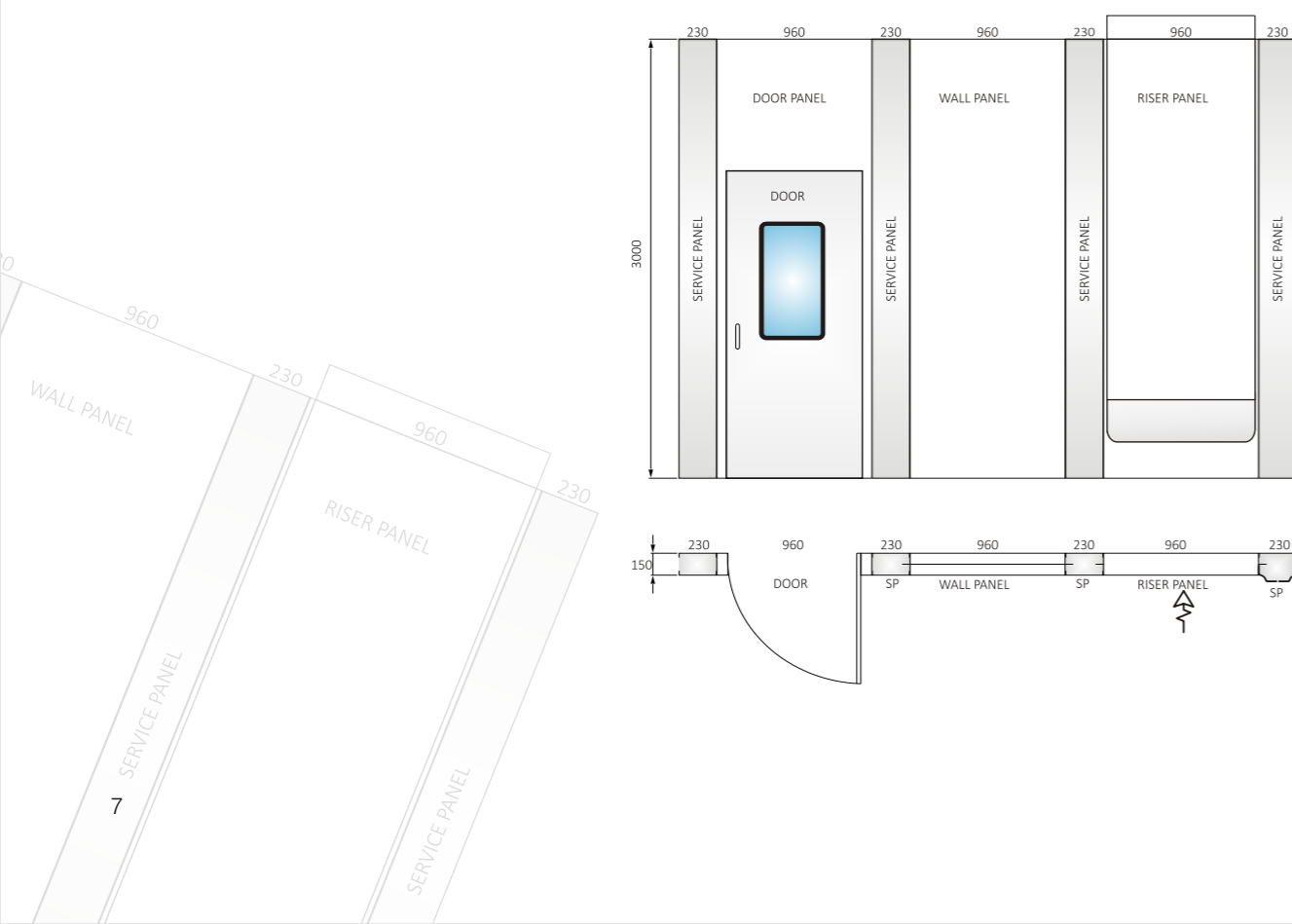
GRP cleanroom system is used in high purity classes of high degree cleanroom requirement based on ISO and cGMP standard. GRP material is molded composite of strong chopped glass fiber mats and is fire retardant "Unsaturated isopthalic polyester resin" complying to IS 6746: 1994.

The result is as light durable and astonishingly tough construction material. Polyester resin made up of Carbon, Hydrogen and Oxygen atoms are polymerized to form long chain of "giant molecules". Polyester resin are thermosetting (they cannot be turned back into the liquid form).

Glass reinforced polyester with gel coat external and flow coated to inside of extract panels. All joints flush sealed with silicone rubber sealant.

Full details of complementary range of ceiling system are available on request.

Pre-Painted GI Cleanrooms (PPGI)

Standard thickness: 50 mm and 80mm

Standard width: 1000mm

Standard height: 3000mm

Base Detail: C-Type base

Panel connection: Friction type interlocking key for speedy erection and dismantling
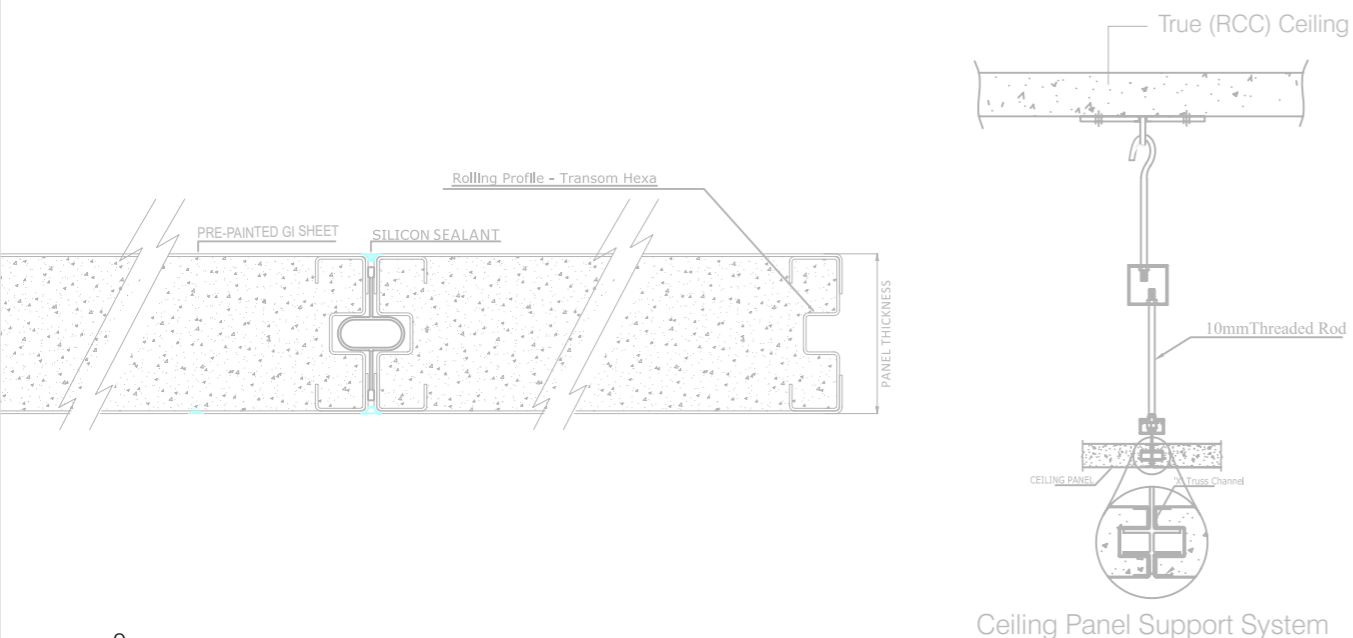
Cutouts: At site cutouts of required sizes

Pre-painted wall and ceiling panels are fabricated by using pre-painted GI sheets of 0.60mm thickness. These are bonded on GI frame with an in-fill of polyurethane foam (PUF/ PIR) forming a rigid panel.

Rolling Profile - Transom Hexa

True (RCC) Ceiling

PRE-PAINTED GI SHEET   SILICON SEALANT

PANEL THICKNESS

10mmThreaded Rod

CEILING PANEL   Truss Channel

Ceiling Panel Support System

HPL Modular Cleanrooms

Features

- Resistance to all major cleaning agents
- High resistance to scratches
- Class A fire certification
- Good mechanical stability

Specifications

HPL panels are fabricated by using 4.00mm thick HPL sheets. They are bonded on extruded Aluminum frames forming a rigid panel.

Standard thickness : 44mm, 66mm and 80mm

Standard width   : 1200mm

Standard height   : up to 4500mm

Base Detail   : Raised type base to allow flush coved finish and C-type base

Panel connection   : Friction type interlocking key for speedy erection and dismantling

Insulation   : Polyurethane foam (PUF/ PIR), paper core honeycomb and mineral wool

Surface Finish   : Glossy finish available in various colors

Coving   : Powdered coated aluminum coving. Press fit fixing arrangement with aluminum backing

Sealant   : Food grade silicone sealant for minimizing air leakages

Cutouts   : Factory made cutouts are provided as per required sizes and location with GI conduit for running cables. Ceiling cutouts could be with lip or without lip as per required design

GMP Metal Doorsets

- FIRE RATED DOOR
- CLEAN ROOM DOOR
- INDUSTRIAL DOOR
- ACOUSTIC DOOR

Doorsets are specifically tailored to critical requirements of the market with special attention to the use of galvanized/ stainless steel. GMP metal doorsets are available in different configurations to achieve varying requirements of our clients. In addition to single leaf and double leaf frames with removable over panels, borrowed light and glazing can be introduced.

FIRE RATED DOOR

Fire Rated Door with fire resistance rating used as part of a passive fire protection system to reduce the spread of fire between compartments and to enable safe egress from a building or structure. GMP offers fire rated doors with fire resistant levels from 30 minutes to 2 hours all tested to BS 476 Part 22, UL10B & UL 10C.

CLEAN ROOM DOOR

Cleanroom Door is manufactured from galvanized steel/stainless steel sheets with lock formed edges. Insulated and bonded with honeycomb paper, mineral wool or polyurethane foam forming a rigid flush fittings with innovative flush double glazed finished in pure polyester coating of 60-80 microns forming smooth surface finish.

INDUSTRIAL DOOR

Heavy duty industrial metal doorsets are available in size up to 3000 mm wide and 3500 mm in high. Doors are capable of accepting glazing in many configurations with air vents, louvers and a wide range of hardware. Doors are pure polyester powder coated to 60-80 microns forming a smooth surface finished.
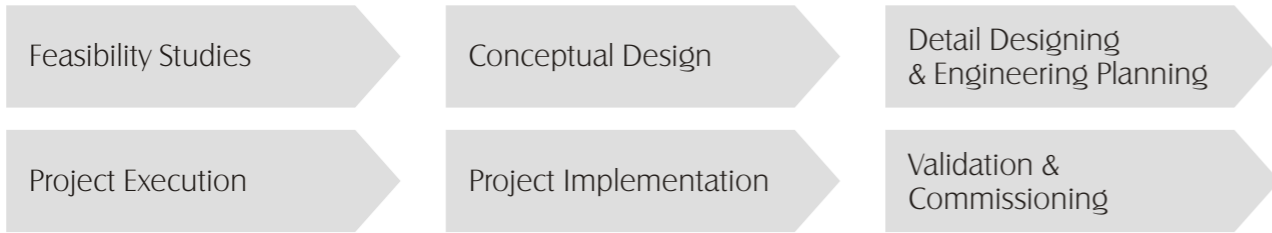
ACOUSTIC DOOR

Acoustic Door is designed to reduced sound transmission between rooms and to provide sound privacy if any architectural environment. GMP offers acoustic door with special linings, seals and structurally bonded cores to achieve high level of sound reduction.

Load Bearing Ceiling

The unique design of the ceiling allows the additional incorporating flush light fittings, air-conditioning filters, grills, diffusers and other ceiling mounted equipment, all fitted within accurately CNC punched apertures. Its unique design enables the structure to stand free of any support (box within a box) from the existing building/ structure.

Technical Specification

Technical Specification	PCGI (Powder Coated)	SS	HPL	GRP	PPGI (Pre-Painted)
Skin	0.6/ 0.8/ 1.0 mm	0.8/ 1.0 mm	3.0/ 4.0 mm	4.0 mm	0.6 mm
Structural Frame Work	GI	GI	Aluminum	GRP in wall Aluminium in celing	GI
Insulation	PUF/ PIR/ Rockwool/ Papercore	PUF/ PIR/ Rockwool/ Papercore	PUF/ PIR/ Rockwool/ Papercore	Nil	PUF/ PIR
Connecting Profile	AL/ GI	AL/ GI	AL	GI	AL
Base Profile	GI Raised Floor Track U Type	SS/ GI Raised Floor Track U Type	GI Raised Floor Track U Type	GRP	GI (U Type)
Sealant	Silicon Sealant	Silicon Sealant	Silicon Sealant	Silicon Sealant	Silicon Sealant
Panel Width	1120 mm	1120 mm	1200 mm	961 mm	1000 mm
Panel Height (Maximum)	6000 mm	6000 mm	4500 mm	4500 mm	3000 mm
Panel Thickness	44/ 60/ 80/ 100/ 160 mm	44/ 60/ 80/ 100/ 160 mm	44/ 66/ 86 mm	75/ 150/ 54	50/ 80 mm
Power Coating Thickness	60-80 Micron	NA	NA	NA	25-30 Micron
Finish	Matt Finish	SS Finish (Matt/ Mirror Finish)	Laminated	Matt finish	Gloss finish (40% Gloss level)
Color	As Per GMP Ral Chart	NA	As Per Shade Card	Various	9002
Coving (AL Power Coated)	R50	R50	R50	Inbuilt in Panel	R50

Service at a Glance

Feasibility Studies → Conceptual Design → Detail Designing & Engineering Planning

Project Execution → Project Implementation → Validation & Commissioning

Cleanroom Equipment
- Static / Ventilated / Dynamic Pass boxes
- Horizontal / Vertical / Reverse/ LaminarFlow
- Air Shower

Wall, Ceiling and Floor Systems
Cleanroom in GI / PPGI / HPL / GRP / SS construction with integrated light fixtures & HEPA Boxes

Integrated Building Management Systems
- BMS with open architecture and Lonworks / Bacnet compatible DDCs
- Pharma Suite : 21 CFR Part 11 compliant validation software

Biosafety cabinets / Stability Chambers
- Microbiological safety cabinets of Classes I, II & III
- Walk-in Stability Chambers

Utilities & Fire-Fighting
- Purified, WFI, Ultra pure Water systems
- Compressed air system
- Steam Generations & Distribution
- Fire Hydrant & Sprinkler System

HVAC + AHU's / Filter Fan Modules
HVAC System upto ISO Class 5 with Low-Side, High-Side & Validation

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

Isolators/ RABS
- Sterility Testing Isolators
- Powder Containment Solutions
- Aseptic / Sterile Isolators

Our Clients

Meeting to the growing demand of our prestigious clients

Alembic · Cadila Healthcare Limited · Biocon · Johnson-Johnson · Panacea Biotec · Biodeal · Zydus dedicated to life · RIYADH PHARMA

Al Andalous · SPIMACO ADDWAEIH · ALRAI · Bahrain Pharma · Colorcon · NUTRICIA DANONE · ALKEM · Cipla

JMI · Pfizer · Healthcare · RANBAXY LABORATORIES LIMITED · UNICHEM LABORATORIES LTD. · incepta · joriver · ABDI IBRAHIM

Akums · Emad Darman Pars Co. · INDOSOLAR · Lonza · Dabur · DR.REDDY'S · INTAS · LUPIN PHARMACEUTICALS, INC.

sanofi aventis · PHARCO CORPORATION · SEDICO · ARMA · Flamingo Pharmaceuticals Limited · Abbott A Promise for Life

BETA HEALTHCARE · gsk GlaxoSmithKline · glenmark · HLL Lifecare Limited · MERCK · torrent · WOCKHARDT · SANDOZ

SANOFI · Julphar Gulf Pharmaceutical Industries · AMRIYA PHARM. IND. · Reckitt Benckiser · Meril More to Life · & many more...

Our certifications and approvals

C.B.R.I INDIA · Underwriters Laboratories · warringtonfire global safety

In process for
FM APPROVED

Our Global Presence

Map labels: United Kingdom, Moldava, Russia, Hungary, Ukraine, Kazakhstan, Turkey, Uzbekistan, Palestine, Syria, Iran, Baddi, Tunisia, Jordan, Bahrain, Kuwait, Nepal, Bhutan, Morocco, Egypt, Qatar, UAE, Myanmar, Algeria, Oman, Mumbai, Bangladesh, Saudi Arabia, Yemen, Vietnam, Republic of Guatemala, Senegal, Sudan, Sri Lanka, Nigeria, Ethiopia, Malaysia, Ghana, Uganda, Kenya, Congo Brazzaville, Rwanda, Indonesia, Brazil, Peru, Malawi, Namibia, Botswana, Australia, South Africa

● Head Office
● International Project Executed
● Manufacturing Facility
● International Representation

GMP Technical Solutions

Head Office:

GMP Technical Solutions Private Limited,

309-316, 3rd Floor, Swastik Disa Business Park,
Behind Wadhani Industrial Estate, L.B.S. Marg,
Ghatkopar (W), Mumbai - 400 086, Maharashtra, India.
Tel: +91- 22-66083700, Fax: +91- 22-66083737
E-mail: enquiry@gmptech.net
Website: www.gmpcleanrooms.com; www.gmptech.net

Works: Unit-1 & Unit-2
Village Kuranwala, Gunia Road,
P. O. Mandhala, Tehsil Baddi, Solan,
H.P. – 174 103.
Tel:+91-17922253304/ 05,
+91-9218400196/ 97
E-mail: mkt@gmptech.net
Web: www.gmppartitions.com

Unit-3
Factory III, Bldg No. F-5,
Angle Logistic Park,
Thane-Nasik Highway,
Village - Pimplas,
Tal - Bhiwandi, Pincode- 421 302

Ahmedabad
708, Abhishree Avenue,
Opp. Hanumanji Temple,
Nr. Nehru Nagar Cross Roads,
Ambavadi, Ahmedabad – 380015,
Gujarat, India

Delhi/ NCR:
UGSR-1C, Ansal Plaza, Vaishali,
Sector 1, Ghaziabad NCR - 2010101

Indore:
Navlakha Square, Highway Tower,
UG 7 & 8, Indore (M.P.)

Bangalore
1st Floor, 365, 38th Cross,
26th Main, 9th Block, Jayanagar,
Bangalore - 560069.
Karnataka, India.

Toll Free No.:
1800 3070 5588