



Serving Over 100 Countries Worldwide

**TODAY,
WE BUILD
THE
FUTURE**



SUPPORT IS NOW AVAILABLE ON WHATSAPP



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**NAFFCO
MODULAR**

NAFFCO MODULAR

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In line with NAFFCO policy for continuous product development, NAFFCO has the right to change specifications without prior notice

www.naffcomodular.com

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FIRE, SAFETY & SECURITY

About NAFFCO

NAFFCO was founded in Dubai, UAE to become the world's leading producer and supplier of life safety solutions. By recognizing the importance and convenience of having easy access to multiple safety services, we became specialized by offering complete solutions under one roof for all types of high quality firefighting equipment, fire protection systems, fire alarms, addressable emergency systems, security systems, custom-made vehicles such as fire trucks, ambulances, mobile hospitals and airport rescue fire-fighting vehicles (ARFF).

With the most talented and dedicated employees from around the world, NAFFCO has over 15,000 team members including 2,000 passionate engineers and over 6 million square feet of manufacturing facilities. We are currently exporting to over 100 countries worldwide.

Specified products manufactured in our facility has been certified by UL, BSI, LPCB & Global mark in consistent with International Standards. Our Quality Management System, ISO 9001 has been certified by BSI & UL_DQS. Our Environmental (ISO 45001) Management System requirement for Aviation, Space & Defence organisation (AS 9100) by UL-DQS.

Our success is driven by our "Passion to Protect", our vision is to become the world's number one provider of innovative solutions in protecting life, environment and property.



NAFFCO BUILDING SOLUTIONS

- 1 Coating Cable & Duct
- 2 Ducts Solutions
- 3 Gas & Clean Agent Extinguishing
- 4 Building Management System
- 5 Smoke Management System
- 6 Fire Fighting System
- 7 Fire Detection & Notification System
- 8 Sealant & Valves
- 9 Facade, Wall, Floor & Ceiling
- 10 Modular MEP
- 11 Pipe System (HDPE, PE, Steel)
- 12 GRP
- 13 CCTV, Voice Evacuation & Emergency Light
- 14 MGO Boards
- 15 Dampers & Louvers
- 16 Safety Control System
- 17 Fire Doors

About NAFFCO MODULAR

NAFFCO MODULAR manufactures volumetric 3D structural modules for the construction industry to be used in sectors such as housing, healthcare, education, office, hospitality, cinemas, commercial, etc.

NAFFCO MODULAR embraces modern methods of construction by manufacturing turnkey modules which results in superior standards in quality, sustainability, regulatory, compliance, health and safety.

The automated production lines transfers the modules through the manufacturing process where all internal finishes, MEP installations, windows, external insulation and external finishes are applied.





1

>> PREDICTABILITY & SPEED

By building within a factory environment, NAFFCO MODULAR ensure that each building is delivered to an agreed timescale and that clients avoid costly disruptions due to adverse weather or trade shortages for instance.



2

>> QUALITY CONTROL

As each building is manufactured in a controlled factory environment, NAFFCO MODULAR are able to ensure that consistent high standards are delivered throughout the construction process.

3

>> ENVIRONMENTAL

NAFFCO MODULAR is committed to reducing the impact on the environment by improving our building performance, reducing and recycling waste, reducing noise and pollution.



>> FULL & COMPLETE SERVICES

We are committed to providing you with a high quality, practical and cost effective modular building solution & offer a wide range of different services to help meet your every need.



4

Advantages of Modular Building

Modular buildings have a huge range of design options meaning we can create the architectural style you desire. Each of our buildings are designed from the ground up unlike some other companies, who uses a series of standard modules.

1 DESIGN

Prefabrication speeds up the production of your building meaning it can be up to 50% faster than a traditional building. This saves not only your time but also your money.

2 SHORTER BUILD TIMES

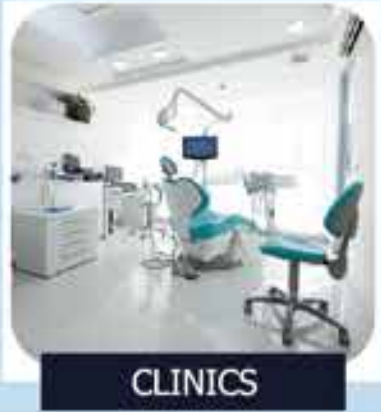
In house design and production means we can identify problems before they can happen. Our team of skilled craftsmen are highly trained and our proprietary construction methods means the build quality is of the highest standard.

3 QUALITY CONTROL

Modular buildings are significantly cheaper than traditional buildings based on the construction methods, which is time and cost effective. Clients can save upto 30% compared to a traditional building whilst achieving a better build quality.

4 COST EFFECTIVE

SECTORS WE SERVE



CLINICS



HOSPITALS



PHARMACIES



CINEMAS



RESTAURANTS



RETAIL SHOPS



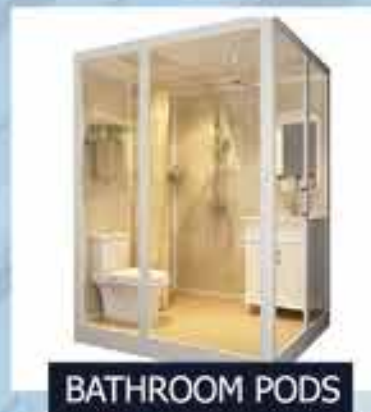
LABORATORIES



EMERGENCY RESPONSE
CENTERS



SCHOOLS



BATHROOM PODS



SECURITY CABINS



FITNESS CENTERS



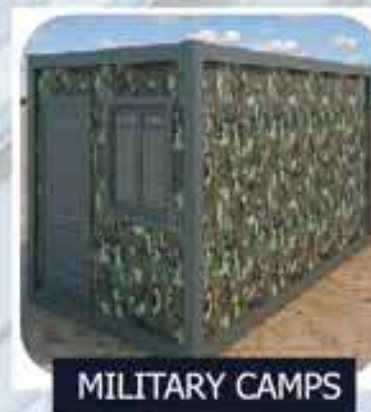
UNIVERSITIES



HOTELS



APARTMENTS



MILITARY CAMPS



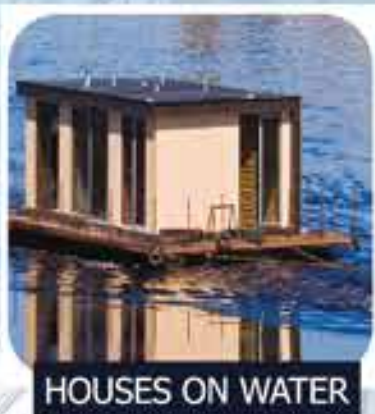
FIRE STATIONS



POLICE STATIONS



VILLAS



HOUSES ON WATER



OFFICES



GAS STATIONS



WARE HOUSES



SERVICE & MAINTAINANCE
BUILDINGS

NAFFCO Modular specializes in modular healthcare, which includes the design and construction of modular operation theatres. Our vast experience in modular construction services includes planning, designing and execution of prefabricated hospitals.

- CLINICS
- HOSPITALS
- NURSING HOMES
- PHARMACIES
- LABORATORIES
- EMERGENCY RESPONSE CENTERS
- EXISTING HOSPITAL EXPANSIONS
- MEDICAL WASTE TREATMENT UNITS
- MOBILE CLINICS

SMALL CLINICS



MEDIUM CLINICS



LARGE CLINICS



CLINICS

 30m² - 900m²

 1 - 3 months

NAFFCO MODULAR clinics are equipped with Doctor Consultation room, Advance emergency care, Reception & Toilet facilities. Patients maybe brought for examination and treatment of their injuries or illnesses in case of emergency, where the medical staff can handle or treat cases of injuries or illness needing short term confinement, or may refer such cases to hospitals.

CLINIC SIZES

 30m² Small

 450m² Medium

 900m² Large

- Building automation system
- Air disinfection system
- Fire-rated walls, floors & ceiling

HOSPITALS

🏠 30 - upto 350 Beds 📅 1 - 3 Months

NAFFCO Modular is the perfect place for any kind of healthcare construction services. We offer help in planning, designing and construction of all types of healthcare institutions.

Our experience on health care construction includes the design and construction of in and out patient wards, diagnostic centers, treatment rooms and administration offices, operation theatres, cardiology units and oncology facilities.

- Fire rated interior & exterior systems
- Air disinfection system
- Building automation system
- Fire rated doors & windows
- NAFFCO UL Fire suppression system

HOSPITAL





NURSING HOMES

 150 Beds

 3 Months



Our nursing home construction strategy allows us to build efficiently multi-unit nursing homes with parking, atrium, open space environments and well-appointed living areas. Using modular construction technology, it is possible for developers to complete construction twice as fast than conventional construction with minimal cost, while meeting customer specifications.

- Fire rated interior & exterior systems
- Air disinfection system
- Building automation system
- Fire rated doors & windows
- NAFFCO UL Fire suppression system

PHARMACIES

20m² - 120m² 4 weeks

Naffco Modular offers a comprehensive range of clean room facilities for sterile and hazardous drug storage.

Configurations are available for free-standing pharmacies, integration within or adjacent to existing buildings. This single-source solution provides a complete pharmaceutical solutions with all standard equipments. All aspects for your new facility can be delivered and made operational in a truncated timeline.



LABORATORIES

20m² - 120m² 4 weeks

Modular laboratory buildings are designed in concept to provide the perfect environment for team-based research work. Prefab labs are ideal for a variety of scientific and medical requirements.

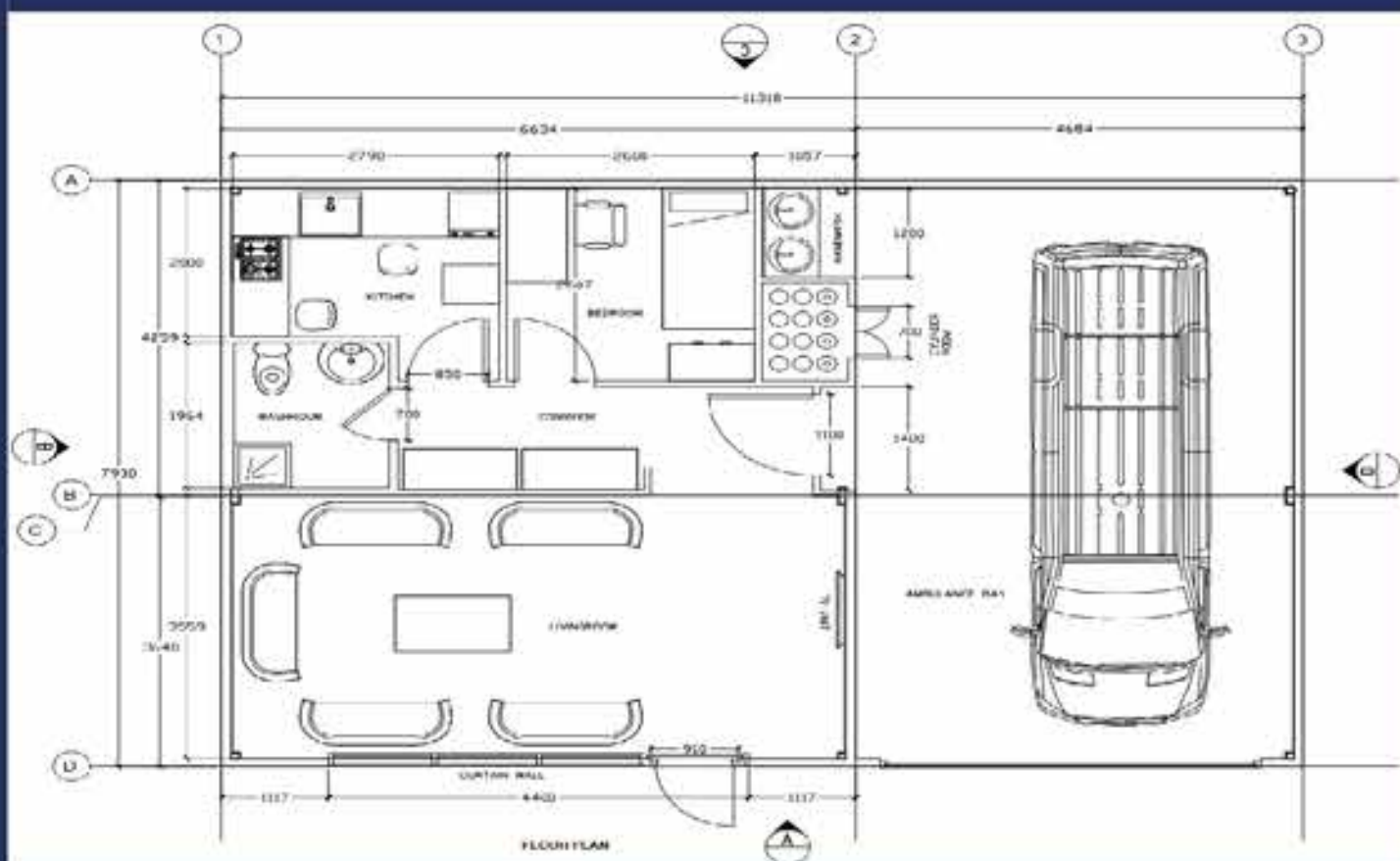
Modular constructed laboratories provide a clean and safe atmosphere to meet your organization's requirements. Wet labs used for biology and chemistry needs flexible systems such as ventilation, plumbing, electrical, and technological connectivity. Our modular labs can be designed to meet strict requirements within the provided space.



EMERGENCY RESPONSE CENTER

90m² 1.5 Months

The response points provide ambulance crews and other emergency crews with kitchen, mess facilities, toilets and space to relax during breaks or when idle. They can be located in areas of peak demand and remote areas so crew's remain within the community and are able to respond quickly to emergency calls and patient needs.



MEDICAL WASTE TREATMENT UNITS

Starting from 15m² 1 Month

NAFFCO MODULAR waste treatment units are designed with the latest technology for waste treatment; including medical waste, animal and pet cremation, industrial and solid waste, hotel waste, slaughter house, fields waste, general waste, in disaster relief operations, remote areas, etc.

NAFFCO MODULAR waste treatment solutions provide high quality structure for all kinds of sites like hospitals, factories, environmental departments, animal cremation agencies, etc. The treatment unit contains a dual combustion chamber, mix-combustion chamber with refractory lines and an effective high combustion chamber with temperature upto 1200 degrees celsius which is considered as a high and effective burn rate.



MOBILE CLINICS



All measurements can be customized according to client requirements

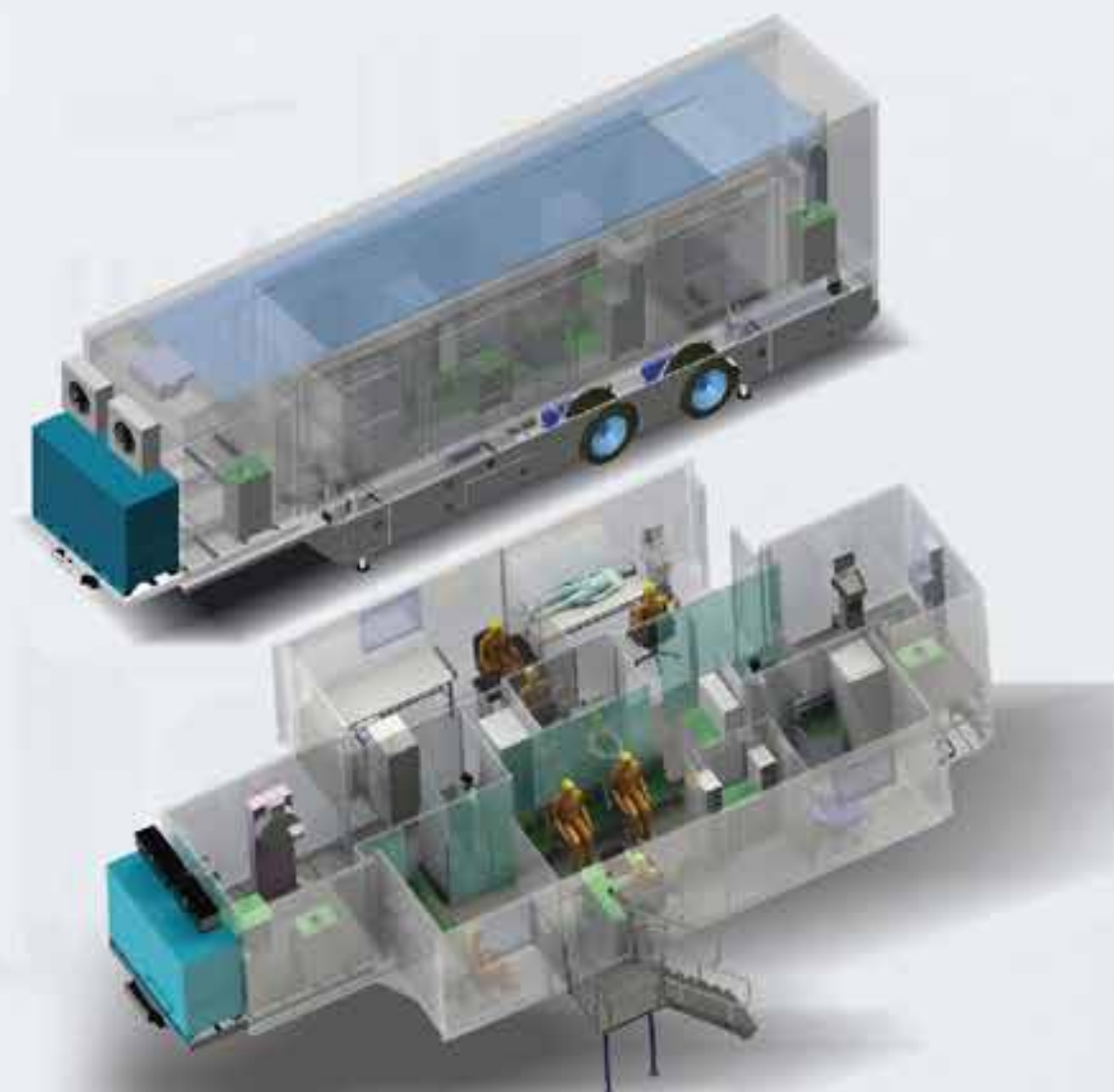
Naffco Mobile Medical Hospitals/Units come in all shapes and sizes, from small to large self-propelled vans and chassis and from small to large towed trailers, containers, and semi-trailer configurations.

Naffco understands that each customer has unique requirements therefore providing "a standard design" will not be appropriate. We pride ourselves in finding out what our customers want thus customizing our mobile units to meet their needs.

- Extendable Mobile Hospitals
- Mobile Laboratory Units
- Mobile Pharmacies
- Mobile MRI / CT / (PET/CT) Units
- Mobile Digital Mammography
- Mobile X-ray Units
- Mobile Dental Clinics
- Mobile ICU Solutions
- Mobile Surgery Trailers



Our unit provides a mobile field hospital that cover large areas, for example on nomadic tribe migration routes or expanding community outreach programs. Mobile Clinics can easily be moved when demand is (geographically) shifting, this creates optimal use of health care investments.



EDUCATIONAL SECTOR

Our experienced design, pre-construction and execution teams resolves the issues involved in developing educational sites and understands the importance of reducing disruption to teaching. Our fast-track building solutions help meet the rising demand for educational facilities and can create inspiring environments for primary, secondary, further and higher education. We collaborate with education providers and local authorities from inception to handover. Additionally, all our offsite solutions minimize impact on the environment at every stage of the building life cycle.

- SCHOOLS
- UNIVERSITIES
- KINDERGARTENS
- DORMITORIES
- GYMNASICS CENTER

SCHOOLS

Starting from 1000m² From 6 months

We have a strong focus on developing Customised modular building solutions for schools. With early engagement, our team can advise on design and engineering strategies to minimise impact on the environment.



KINDERGARTENS

Starting from 500m²

From 3 months

A NAFFCO MODULAR kindergarten design includes an architecturally designed building, outdoor learning areas and a carpark.

We have a strong focus on developing Customised modular building solutions providing a quick turnaround by adding space quickly and giving children faster access to a high-quality learning environment. With early engagement, our team can advise on design and engineering strategies to minimise impact on the environment.



UNIVERSITIES

Starting from 1000m² From 6 months

We have a strong focus on developing Customised modular building solutions for universities providing a quick turnaround by adding education space quickly. With early engagement, our team can advise on design and engineering strategies to minimise impact on the environment.



Starting from 500m² From 3 months

DORMITORIES

Modular dormitories are student housing made of prefabricated buildings, providing a quick turnaround by adding space quickly that allows universities to build student housing that is :

- Fast
- Customisable
- Green
- Portable



GYMNASIICS CENTER

NAFFCO MODULAR fitness center are constructed with high floor loads to handle free weights and large machines. They meet all HVAC ventilation codes. Specialities include high-quality design-to-meet occupancy, HVAC standards and other construction specifications.



Naffco Modular offers high rise buildings for different type of facilities based on a durable, reliable and life lasting steel frame. Modular solutions are highly efficient for the residential sector, where modular construction's time saving and labour efficiency, can provide additional cost savings. The modular construction ensures spectacular acoustic parameters, guaranteeing a comfortable stay.

- HOTELS
- APARTMENTS
- VILLAS
- HOUSES ON WATER

HOTELS

Starting from 500m²


From 3 months

NAFFCO MODULAR offers high rise buildings for different type of facilities based on a durable, reliable and life lasting steel frame and ensures the spectacular acoustic parameters inside the room and guaranteeing comfort. We focus on a ready-made, fully furnished and completed concept, that allows us to finish the project faster and efficiently with minimal impact on the environment.

- Designed by modular experts
- Strict quality inspection in all process
- Factory completed
- Quick-off-site assembly
- Excellent quality output



APARTMENTS

From 20 Flats  From 6 months

A ready-made, completed and furnished concept, that allows building faster communities efficiently with minimal impact on the environment.

BENEFITS

- Profitable - Fast Return, Wastage minimised
- Fixed budget - Fixed cost with minimum risk
- Efficient - Reduced labor & site expenses
- Less Noise - Minimal disturbance to the surrounding
- Sustainable - Minimal carbon emission



NAFFCO MODULAR CONSTRUCTION SOLUTION

- Designed by modular experts
- Strict quality inspection in all process
- Factory completed
- Quick-off-site assembly
- Excellent quality output



CONCEPT LAYOUT



40m²



60m²



70m²



80m²



100m²



120m²

VILLAS

 Starting from 100m²  From 2 months

NAFFCO Modular highly sustainable and fast-track villas suits built-to-rent and community development projects very well. We can supply and install fixed and loose furniture and fittings for a full turnkey project, reducing the procurement time.



HOUSES ON WATER

NAFFCO Modular prefabricated light-weight, eco-friendly and comfortable buildings are designed to satisfy business requirements while being respectful to the environment.

Every single detail conceived from years of expertise, dedication to innovation and the unmistakable 'Italian style': an exclusive mix of values which makes us a one-of-a-kind business.

- Design and construction of eco-resorts for a more responsible tourism, Premium class infrastructure considering all the wishes of customers.
- Off-site prefabrication: arranging the production in our premises and minimizing activities according to circular economy principles.



Our offsite solutions and temporary modular buildings have been widely used to provide commercial offices and ancillary facilities for both temporary and permanent applications. We can help businesses and manufacturers achieve a faster return on investment and earliest occupancy of the facilities with the use of highly efficient, rapid-build offsite construction which also minimises disruption to existing operations during the building process. Buildings can also complement existing facilities or have a more functional appearance to suit industrial sites. We can extend existing, offices, or construct fully self-contained buildings with all the associated project management, design, landscaping, fitting out, testing and commissioning services that are required.

- OFFICES
- CINEMAS
- RESTAURANTS
- RETAIL SHOPS
- BATHROOM PODS
- SECURITY CABINS
- FITNESS CENTERS

OFFICES

Starting from 1000m² From 6 months

Office Modules are designed to optimize workspace efficiency and house your specialist equipment and resources in a safe and comfortable environment. Naffco Modular established the industry standard for modular office structures and we continue to set the bar higher every year with new innovations and improvements in quality. We design and manufacture our offices with the highest quality materials and according to your exact specifications while feeling the quality just by opening the door. With solid, well-constructed components, a Naffco modular office is exactly the solution to your facility and your employees' needs. Modular machine enclosures based on our modular building solutions ensure safe and clean surroundings for your employees and equipment, minimizing downtime due to environmental fluctuations.



CINEMAS

From 8 seats till 30 seats 1- 3 months



A brand new concept from NAFFCO MODULAR smart home cinema in prefabricated serviceable modules with bespoke interiors and top-notch acoustics. All the elements of cinema prefabricated into modules with final finishes, MEP services, and A/V integration. NAFFCO MODULAR Cinema makes for easy on-site installation. Accompanied by our specialized team capable of putting together a fully functional cinema in 24 hours, NAFFCO MODULAR delivers premium audio-visual solutions of quality within no time tailored to meet your requirements.



RESTAURANTS

Starting from 150m² From 2 months

We have a strong focus on developing Customised modular restaurants providing a turnkey solution for the desired space quickly. With early engagement, our team can advise on design and engineering strategies to minimise impact on the environment.

- Fast
- Customisable
- Green
- Portable



RETAIL SHOPS

Starting from 150m² From 2 months

Modular is the smartest choice for retailers not only because it's more affordable, but also because it allows them to get creative and build the shops in the the space they see fit for their retail business. Here are just some of the many reasons modular is the best choice for retail stores. Customisable design, flexible layouts, affordable, quick construction turnaround, portable and green.



SECURITY CABINS

Meeting the demands of convenient usage, Naffco Modular offers Modular Security Cabins that provide for environmentally friendly usage and are easy to assemble and disassemble. Moreover, The Luxury Security Cabins we provide have features including the safe and weather-resistant finish with a 360 degree view.

Our company brings you Security kiosks that can provide the desired interior support as demanded by the customers. Our company features a wide array of security cabins that comes with features like appealing aesthetics, portability, ergonomics, energy efficiency, etc. Ergonomics and productive workspace have been duly considered while developing and designing these cabins.

The modular system and demountable structures of our Modular Security Cabins and Executive Security Cabins make them preferable accommodation solutions worldwide. Furthermore, our company assures energy-efficiency, economic prices, and flexible layouts. Naffco Modular provides ACP Security Cabin and Luxury Security Cabins that are used everywhere like houses, construction site facilities, offices, social housing, and more offering superior resistance to corrosion as well as high durability.

Naffco Modular presents, our exclusive collection of cabins includes Security Cabins that are fabricated in compliance with international quality standards.



BATHROOM PODS

From 15 units per week

NAFFCO MODULAR designs and manufactures prefabricated bathroom units and Pods for the hotels, apartments, commercial and healthcare facilities, nursing homes and more.

NAFFCO MODULAR bathroom PODs are designed and built under strict controlled conditions and shipped as a complete volumetric unit from factories. The bathroom PODs is constructed from steel profiles, with interior panels or any other finishes according to the customer request providing excellent fire and acoustic rating possibilities and are completed with all accessories and fixtures as per client specifications.



As many public sector organisations are returning to a new 'normal' after the pandemic, it's leaving many workplaces with the need for refurbishment or a little extra space. Consequently, we are seeing an increase in the popularity of modular buildings.

Cheaper, quicker and less disruptive than a traditional build, modular buildings are constructed off-site before being transported to your chosen location, meaning they also have a lower environmental impact.

- FIRE STATION BUILDINGS
- POLICE STATION BUILDINGS
- MOSQUES

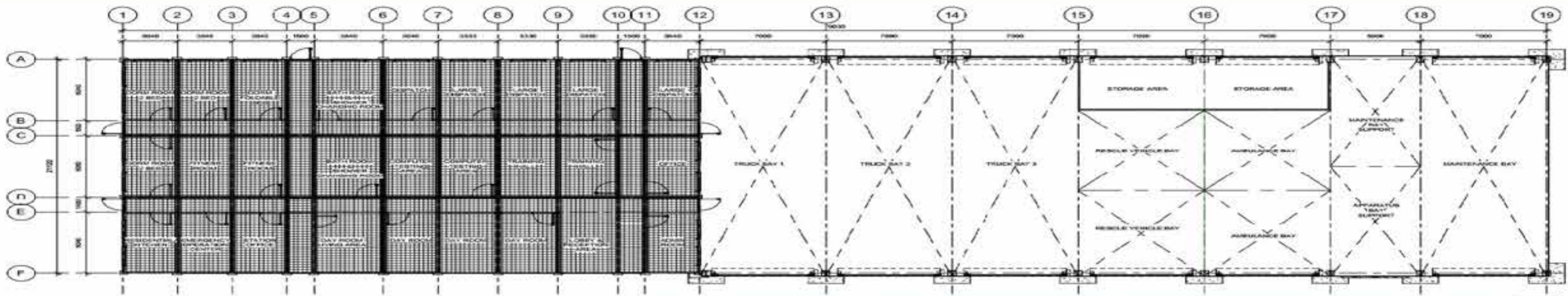


FIRE STATION BUILDINGS

Starting from 500m² From 3 months

Modular fire station buildings is a smart, fast way to expand, offering limitless possibilities, floor plan and design options for everything, from single engine storage garages to community fire stations with multiple apparatus bays, maintenance facilities, sleeping quarters, kitchen and dining areas, showers, restrooms and office space. Our modular fire station buildings can be bolted to a concrete slab or can come pre-assembled with roof completed and walls that are hinged into place.

The standard floor plan below have a single and multi-room option with or without restrooms. If you do not see what you need, we encourage you to adopt to a custom floor plan designed by our architects.



POLICE STATION BUILDINGS

 Starting from 100m²  From 2 weeks

Naffco Modular supplies modular police station buildings that will meet the needs of the community police and sheriff departments, drug enforcement agencies, the Bureau of Alcohol, Tobacco and Firearms, command centres, and more.

We specialize in high-quality design-to-occupancy modular buildings and have the knowledge and skills to meet your small and large-scale space requirements, deadlines and budget challenges.

Our modular police station buildings feature durable holding cells, gun safes, interrogation rooms and office space, and can include a roll call area, booking station and reception space. They are ideal for both mobile and permanent facilities.

We manufacture modular police station buildings in one of our manufacturing facilities closest to your site to avoid the extra time and cost of transporting modules long distance and to help you meet strict deadlines.



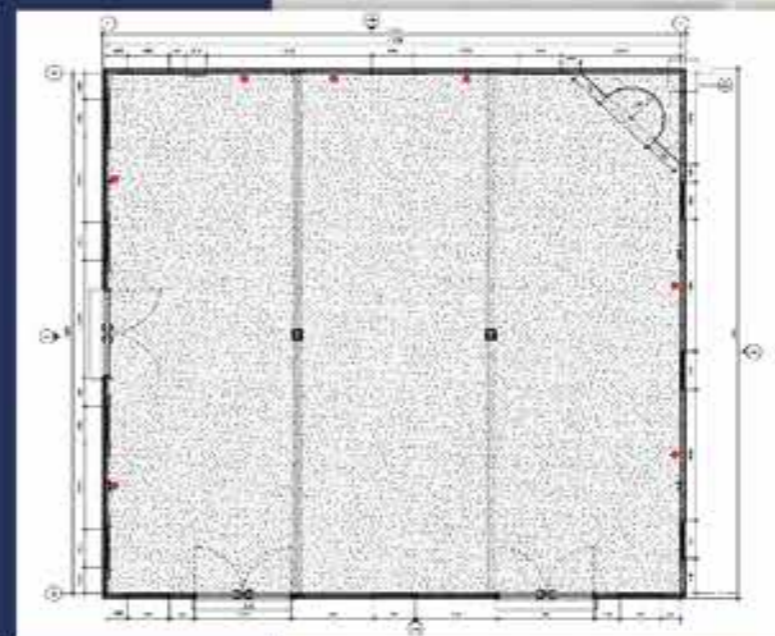
MOSQUES

 Starting from 100m²  From 2 months

Naffco Modular designs, manufactures, supplies and install prefab mosques in UAE. Our modular mosques are well equipped with prayer area, ablution area and toilets. It has all the physical features of a prefab mosque, such as a towering minaret and ceiling with modern architecture.

The community developers are supposed to provide all the residents' and visitors' general facilities in the mosque. Most of them don't have a mosque, and they make some arrangements, which is hardly sufficient, especially on Fridays and during the time of Ramadan. The lack of mosques is a primary concern for many residents in the country. And we have a solution for that.

Prefab mosques are prefabricated volumetric modules converted into mosques. The prefabricated modules versatility will make it one of the excellent products to use for space-related issues. They are durable, flexible, long-lasting, and can withstand the Middle East region's harsh weather. Different sizes of prefabricated mosques are available, the small one can cater to 20 people, the medium size one for 30-40 people and the large mosque for 90-100 people.



Naffco Modular certified offshore temporary Utility Modules come as standard size of ISO 20ft. However, we pride ourselves in our flexibility to provide other size solutions when required. Our Utility Modules range includes A60 offshore ablution units, gallery, kitchen modules, laundry modules, medic rooms, freezer modules and sewage treatment plants. Internal fit outs can be designed to meet client and project specific requirements.

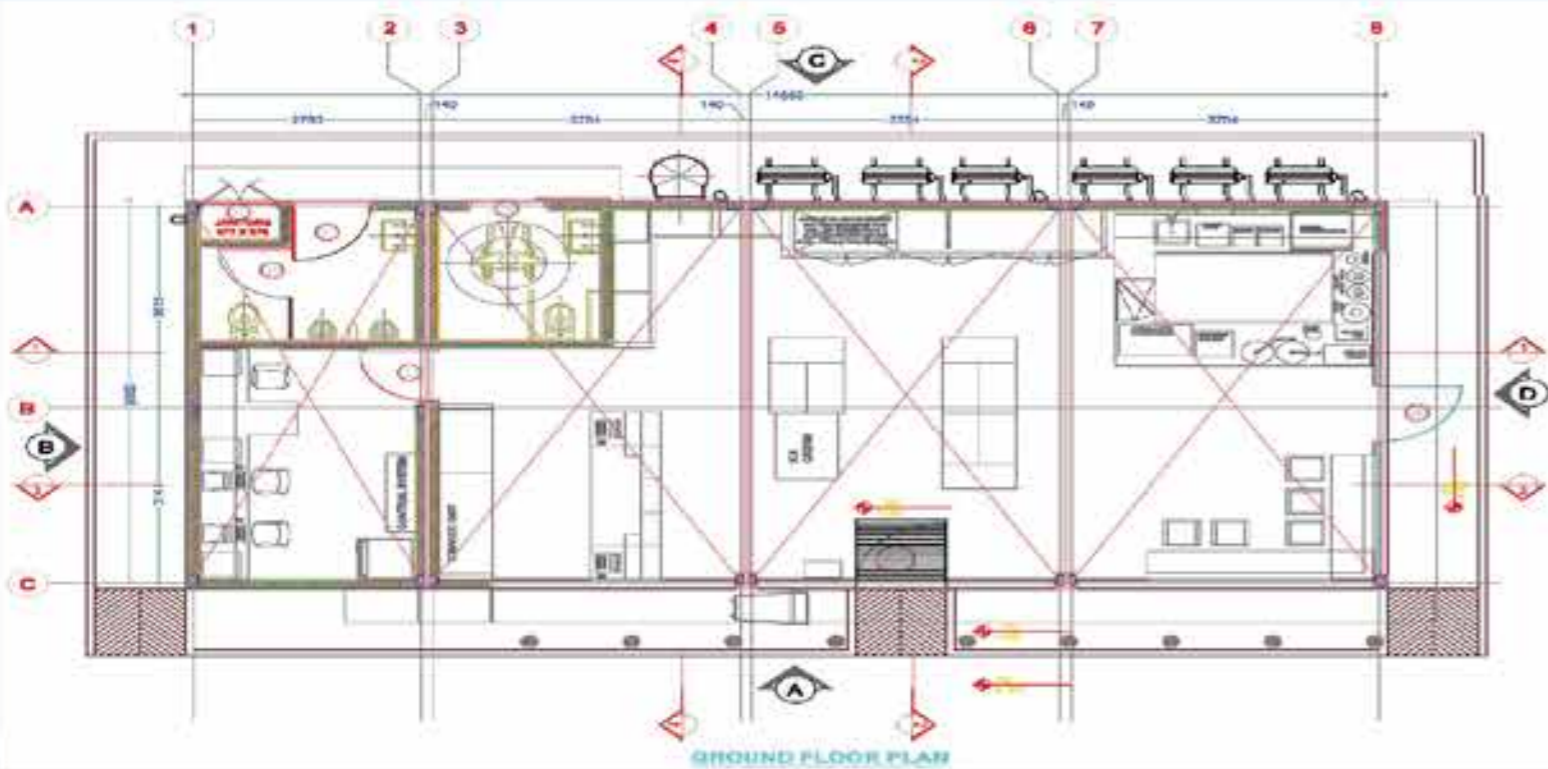
- GAS STATION BUILDINGS
- PUMP HOUSES
- GENERATOR ROOMS
- CONTROL ROOMS
- WARE HOUSES



GAS STATION BUILDINGS

Starting from 80m² From 1 month

Naffco Modular Quick-Build System is designed and launched in order to meet the needs of gas station buildings worldwide. The Modular construction is a specific prefabricated system of constructing a building with modules in a factory that meets all safety and quality standards. The building will be completed in modules in a factory, shipped to site and assembled in a matter of hours.



PUMP HOUSES

Starting from 500m² From 3 months

Our modular pump house, the Modular MPH, is a factory engineered and manufactured, stand-alone, UL-Listed mechanical room for use in any commercial, industrial, or municipal fluid handling application.

It includes your choice of pumps, valves, fittings, and can include hydronic accessories such as expansion tanks and air separators as well as electrical components such as VFDs, control panel and power distribution. Our modular pump houses are designed for either new construction or retrofit. We build our standard naffco modular MPH with 2" thick wall and roof panels with an R-value of 13 and a flat exterior profile with a heavy embossed texture, if requested, we also offer a variety of colours and architectural panels. Each pump house contains lights, receptacles, and standard access doors and panels for equipment servicing as needed.



GENERATOR ROOMS

Starting from 15m² From 1 month

Improved efficiency, faster installation, commissioning and redundancy - the advantages are many with the Modular Power System (MPS). The Modular Power System combines smaller genset nodes in a parallel arrangement, using integrated controls and switching in a factory tested solution. When demand grows scaling up output is easy and at a significantly lower cost than using traditional non-integrated switchgear. The individual nodes in the MPS system can vary in kW rating, which allows the system design to more closely match load demand or growth. The nodes can also use different fuels allowing even greater redundancy levels if needed.

BENEFITS :

- Redundancy
- Reduced Space Requirements
- Serviceability
- Flexibility
- Fuel Redundancy
- Fully Tested



CONTROL ROOMS

Starting from 15m² From 1 month

A modular control rooms provides your facility with a quiet, regulated area away from the busy, sometimes chaotic activity occurring outside. The control rooms equipped with high temperature resistant, weather resistant and sound dampening wall panels's reduces and maintain the required room temperature inside the facilities that can come through from the exterior noise.

FEATURES :

- Delivered pre-assemble and ready for installation, incorporated forklift slots or roof-mounted crane-lifting sling's for transportation.
- Made for interior and exterior environment Fully customizable design, layouts, and dimensions
- Solid construction suitable for manufacturing, telecommunications and military environment's
- Prewired electric with load center

OPTIONS :

- Fabricated from fully welded steel or our panelized wall system design
- All levels of UL, NIJ & STANAG ballistic protection available
- Additional security features (exterior flood lights, force entry rated windows/doors, access scanners, keyfobs, etc.) Increased sound dampening & R-value panels.



WARE HOUSES

 Starting from 1000m²  From 6 months

When you work with Naffco modular, there is almost no limit to the types of warehouse and facilities you can create. With a selection of modular building systems and components that is virtually unmatched in the industry, we can help you completely build your warehouses and office building according to your requirements.

- Numerous wall panels including durable steel options.
- Multiple standard colors, plus custom options.
- Seamless integration of doors, electrical, HVAC and more.

The warehouse facilities is designed as PEB and the office area can be prefabricated fully finished modular units which will reduce the installation time of the project. They're also tough, with heavy-duty construction and impact resistance. Employees can work with a sense of security and comfort, no matter the conditions outside the facility. All of our modular warehouse design's feature the following:

- Easy assembly
- Thermal Resistant & Fire-Rated wall panels
- Flexible design incorporating PEB and Modular Construction



STANDARDS & CODES

Equipped with steel forming machineries and cranes that enable Hot Rolled Steel Modules and Cold Formed Modules, Our company is in position to meet a vast range of modular building requirements of clients modular homes, single, storey, multistory, high end and low end modular buildings to suit different designs and most importantly budgets.

The following Global standards are followed :

- European Standards
- American Standards
- British Standard Institute (BSI),
- Health Building Notes
- Health Technical Memorandums
- GCC Standards
- American Concrete Institute (ACI)
- American Society of Civil Engineers (ASCE)
- American Society of Mechanical Engineers (ASME)
- ASTM International, and International Code Council (ICC),
- National Electrical Manufacturers Association (NEMA),
- National Fire Protection Association (NFPA) and others



HRS
HOT ROLLED STEEL

Strong and sturdy, allowing to build high rise buildings



CFS
COLD FORMED STEEL

Light Gauge Steel, strong and light, is perfect to build low rise buildings

WARRANTY



Our 5-year warranty cover the **external fabric** of the building, which includes the steel structure it-self, the floors, walls and roof panels, as well as the external windows and doors. In short, it covers any part of the external fabric that contributes to the buildings function as a structurally sound, insulated unit.



Our Comprehensive 20-year structural warranty assures you that your building will remains structurally sound, giving you complete reassurance in the strength of your Building. This warranty covers the **structural and load-bearing elements of the building**. These are the external walls, floor roofs & columns in the unlikely event of any structural failure, we will repair or replace the element at fault.

MODULAR STRUCTURE WITH HRS & CFS

PREFABRICATED PREFINISHED VOLUMETRIC CONSTRUCTION (PPVC)

1 RESEARCH & CONCEPT DESIGN

Using the clients Conceptual Design, Our company will develop working drawings for the purpose of final approval and manufacturing using our in house design teams with minimum design change as per the requirements of the client. We design and build the project according to requirements understanding the central role of digital technologies in the fabrication of modular components, including Building Information Modeling, clash detection, Computer Aided Design (CAD) technology and Incorporating Computer Aided Manufacturing (CAM).

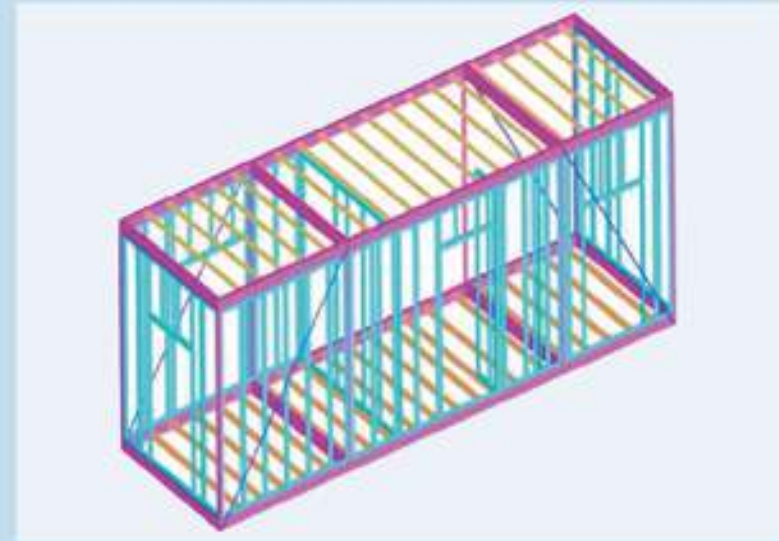
2 HOT ROLLED STEEL FRAME (HRS)

The Module structure shall be made of a steel base frame, columns and floor frame designed for the gravity, lateral loads i.e. dead load, imposed loads, wind load, earthquake loads, lifting, erection, etc. as per relevant standard codes.

3 FLOOR FRAME

The floor frame is made up of CFS or HRS sections and joists shall be placed on some spacing as per design. Floor joist is fixed on the same base frame connector.

CORE MODULE :
Modular construction system based on Hot Rolled Structure (HRS) with Cold Formed Steel(CFS) walls.



4 SANDWICH WALLS

The wall panel frame is made up of rockwool and GI sheet of different thickness. Wall panel is fixed between base and roof frame by connector.

5 CEILING JOIST

The ceiling frame is made up of CFS or HRS sections and joists shall be placed on some spacing as per design, wall panel is fixed between base and roof frame by connector.

6 COMBINED MODULE OF CFS PANELS WITH HRS FRAME

When all the elements are complete, we install Straps required for lateral force as well as for lifting. When the core module is complete depending on the logistics or design methodology, it can continue on assembly line for MEP and finishing's or be shipped to site.

WALLS, CEILING, FLOORING & LIFTING DETAILS

PREFABRICATED PREFINISHED VOLUMETRIC CONSTRUCTION (PPVC)



1

INTERNAL WALLS

Internal walls are a normal dry wall partition with light gauge steel track and stud framing or sandwich panel and Gypsum Board Sheathing (normal / Moisture resistance / Fire Rated) as per wall requirement. As per wall requirement fire rated board are used to achieve a desired fire rating, for the wall in a wet area's it is done with moisture resistance board.

2

EXTERNAL WALLS

External walls mostly uses a dry wall system that is treated and manufactured as per external Façade requirements. Our standard system is to use cement board as external sheathing with EIFS (external insulated façade system) treatment to make facade weatherproof, long-lasting and have better thermal performance.

3

FLOOR

Based on load and use of category concrete with Deck slab or Cement board with Sandwich panel floor system are used over joist of floor panel. Over both the system Vinyl, Tile or other floor finish are applied as per the requirements.

4

CEILING

Ceiling of a desired type can be suspended from the joist of a module roof frame. Generally, used ceiling are 600mm x 600mm Grid Acoustic ceiling, 600mm x 600mm Metal clip in ceiling and Plaster board ceilings with cove's.

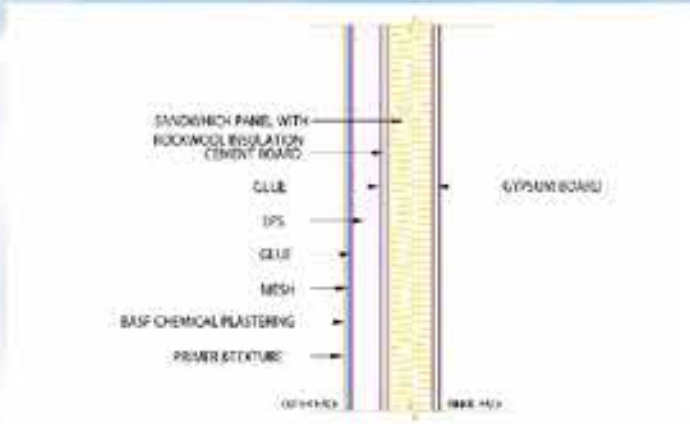
5

MODULE CONNECTION

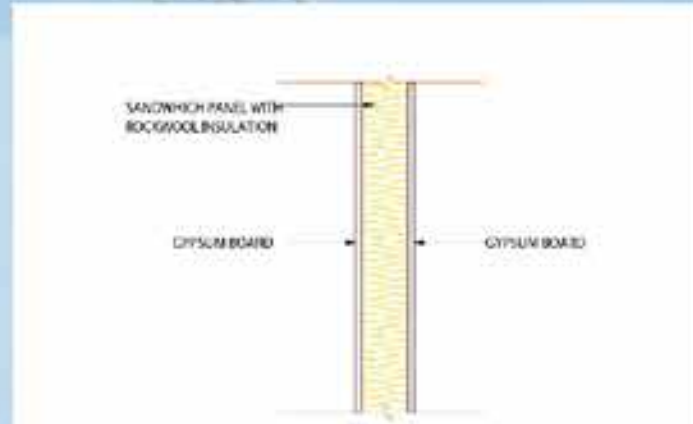
Module Column top are fixed with fabricated hooks which results in maintaining perfect alignment & helps in the lifting process. Upper floor Columns perfectly fit in the hooks at the top of lower modules. Wherever two or more modules are connecting a single shear plate is inserted in between hooks before placing upper modules to make joint act as one & proper transfer of vertical loads.

TYPICAL DETAILS WITH FIRE-RATED SANDWICH PANELS

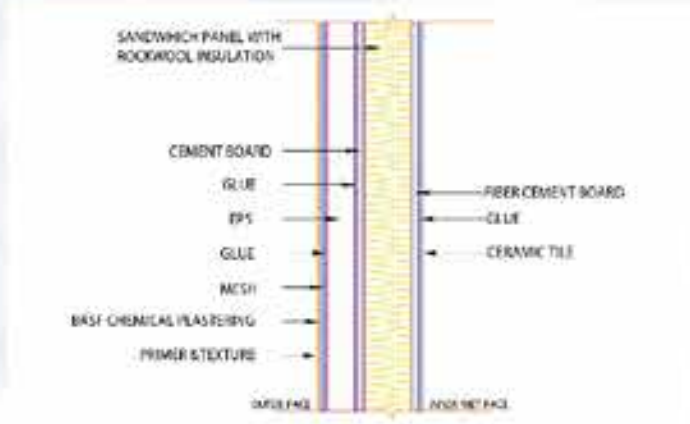
WALLS



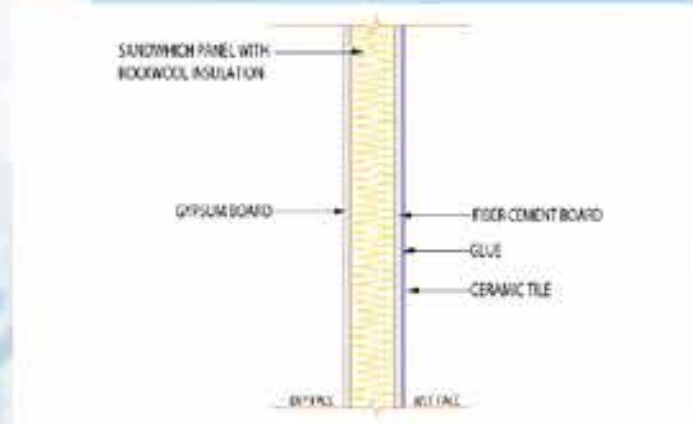
External wall



Internal wall

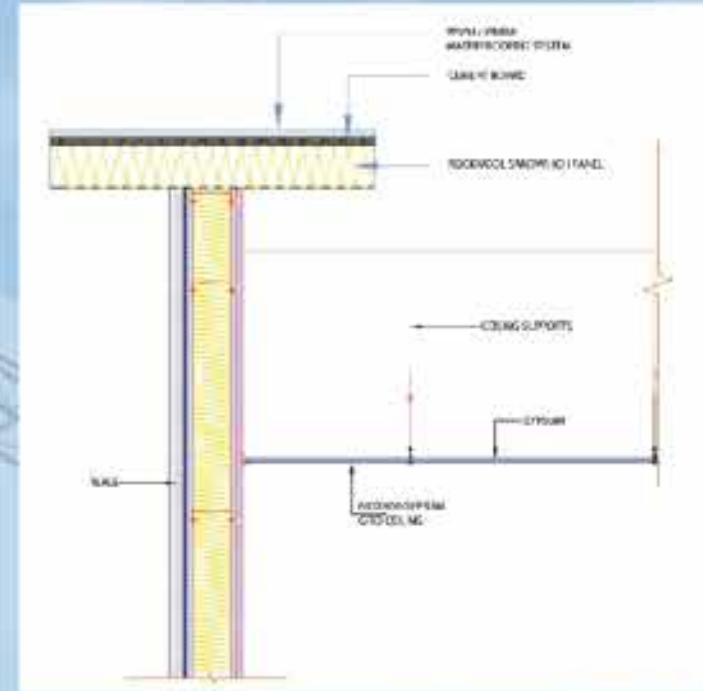


External wall (wet area)

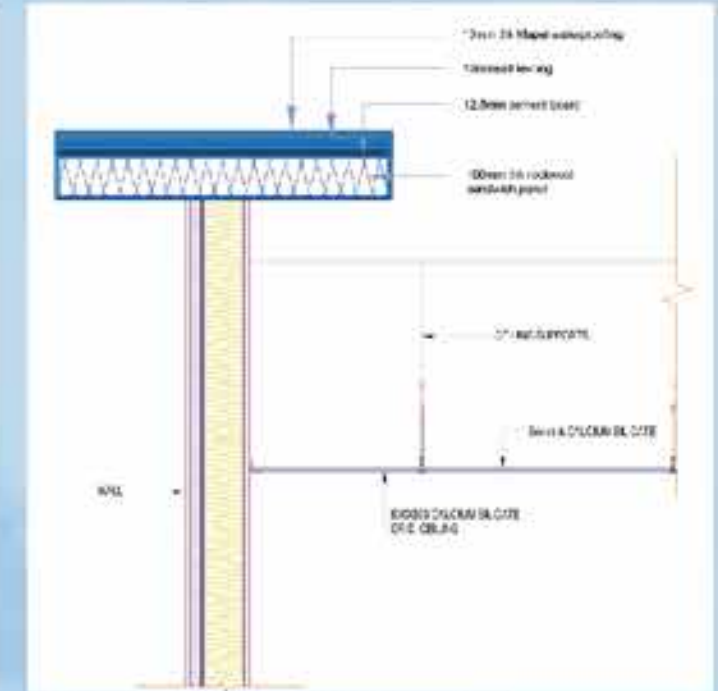


Internal wall (wet area)

CEILING

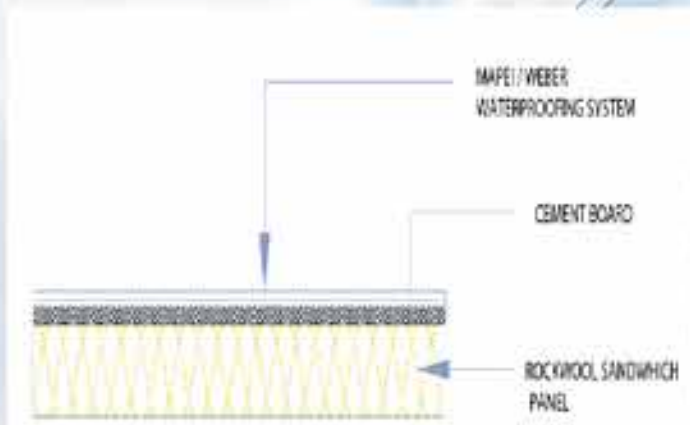


Gypsum Ceiling System (Dry Area)

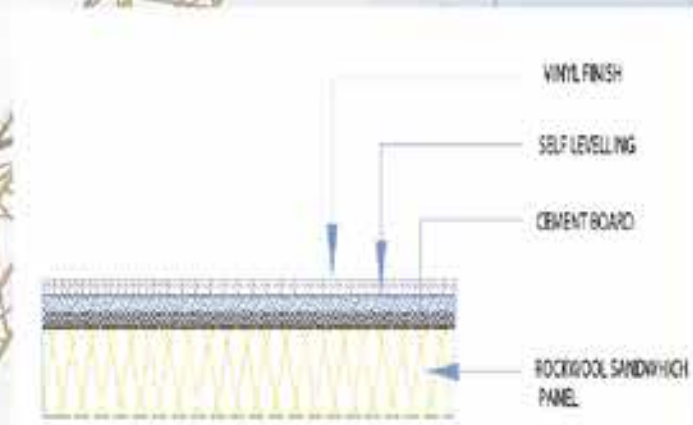


Metal Grid System (Wet Area)

ROOF AND FLOOR

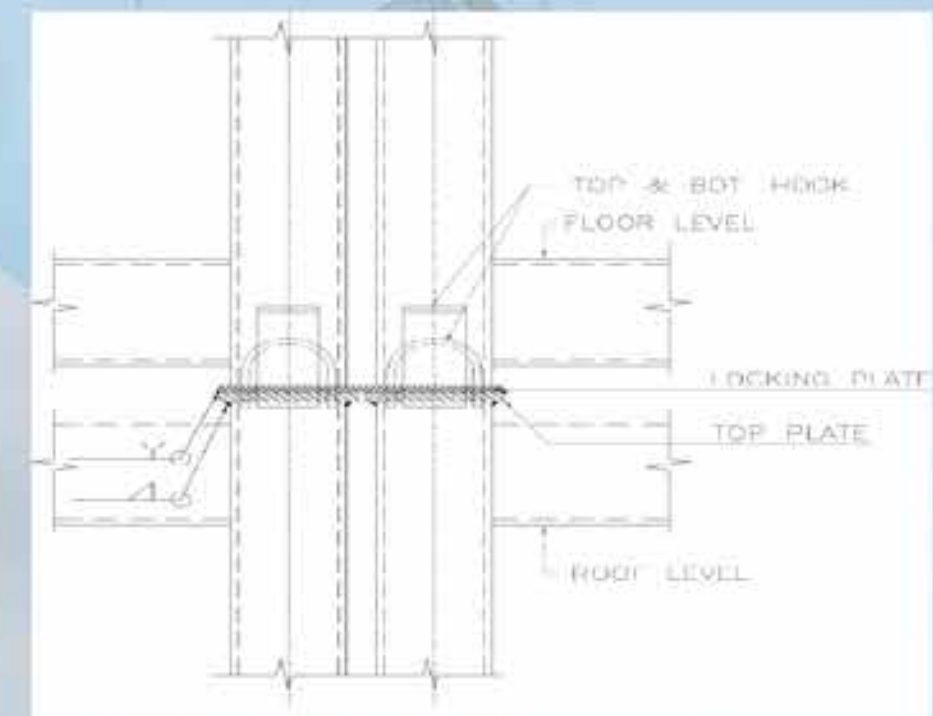


Roof



Floor

MODULAR CONNECTION

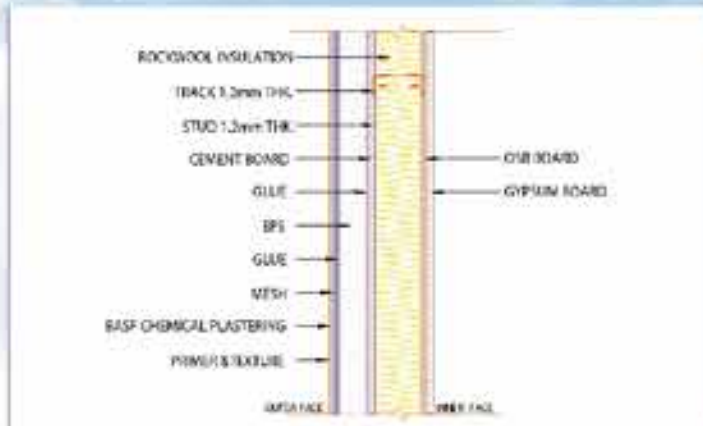


Modular Connection

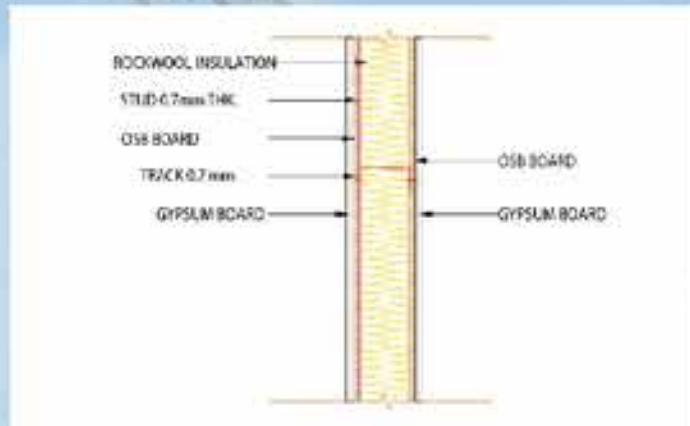
TYPICAL DETAILS WITH STUDS AND TRACKS

WALLS

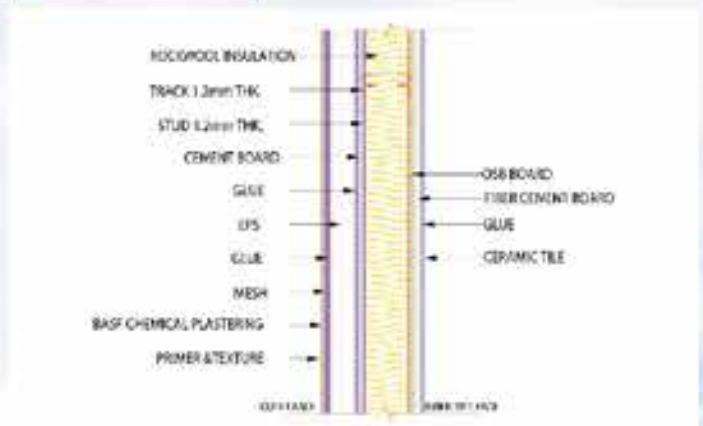
CEILING



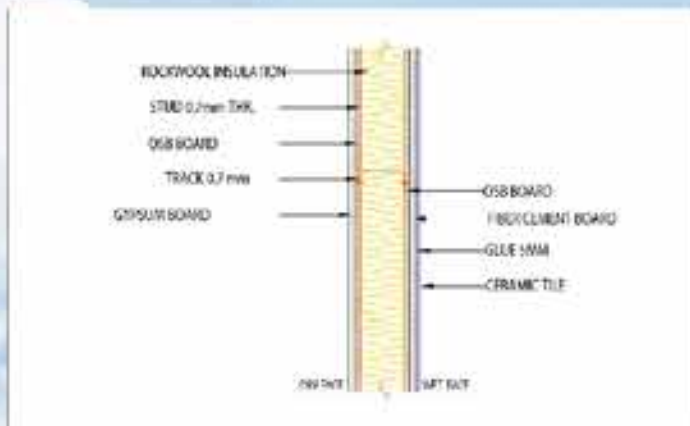
External wall



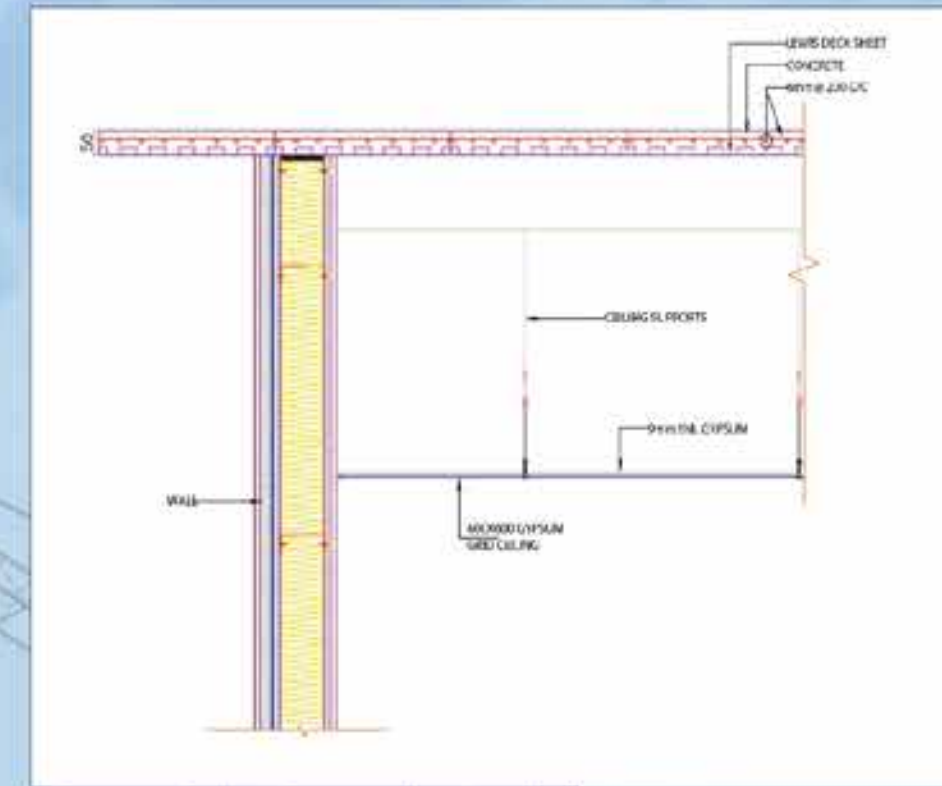
Internal wall



External wall (wet area)



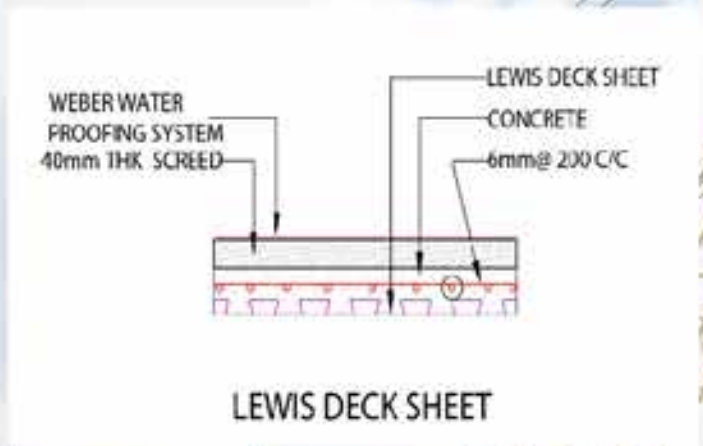
Internal wall (wet area)



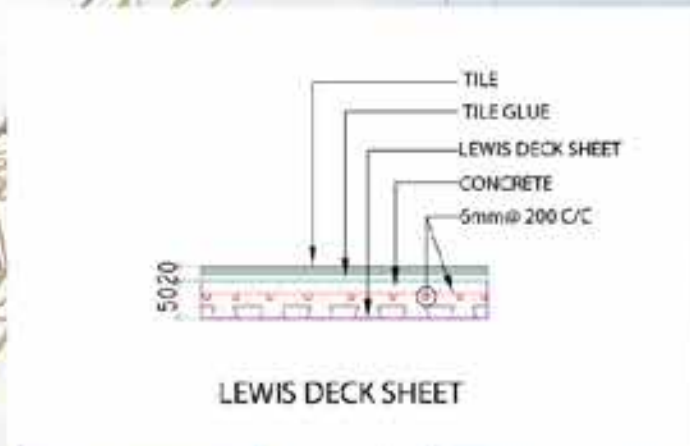
Gypsum Ceiling System (Dry Area)

ROOF AND FLOOR

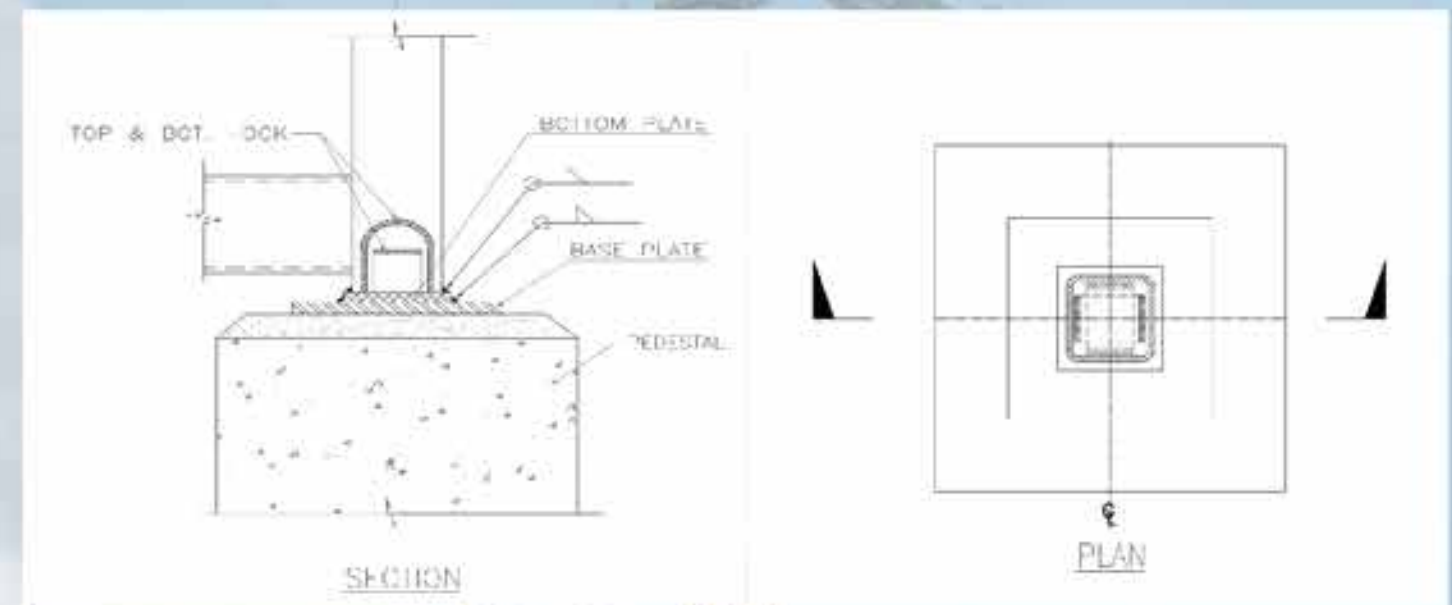
MODULAR CONNECTION



Roof



Floor



Modular Connection

Pre-fabricated MEP Modular Systems are pre-assembled and ready to install with same materials as traditional method of installing single items one by one.

The operational and output performance are exactly as per the design intent. The delivery methodology is fast and quick with improved system in material handling, quality, safety, timing and logistics.

We have developed in-house MEP prefabrication capability to improve efficiency and proper control into project operations by using BIM Technology.

Quick installation

- Construction is faster as the production of prefabricated MEP Modules/systems in the factory is done concurrently with other activities on site/modular factory.
- Installation of prefabricated MEP modules/ systems on site is easier and quicker and leads to significant manpower and time savings of up to 30-40%, depending on the complexity of projects. Reduces noise and vibration.

Improved workplace safety

- Construction sites are safer and more conducive as most work is done off-site, and less time is spent working at height.

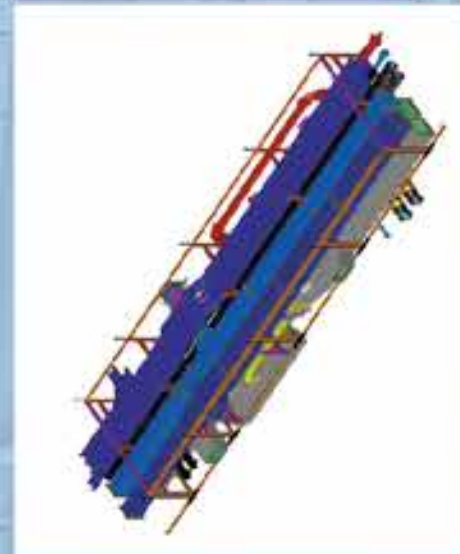
Improved environmental performance

- Less dust and noise pollution are minimized due to more off-site activities.
- Less construction waste is generated, as there is less rectification work.

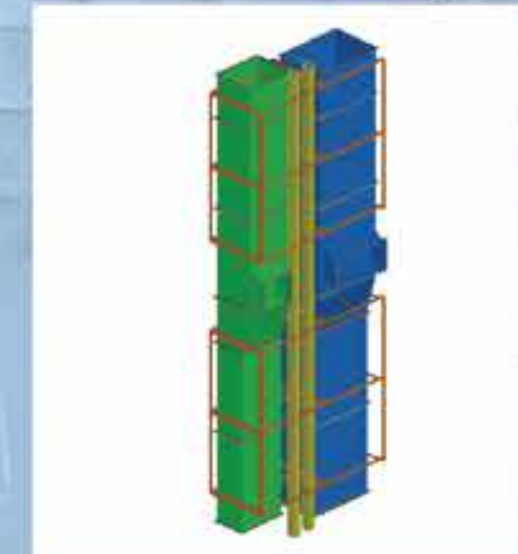
Higher quality control and quality assurance

- Higher quality control is achieved as most work is done in a controlled factory environment.
- Sequence of work can be planned more efficiently with better logistics co-ordination.

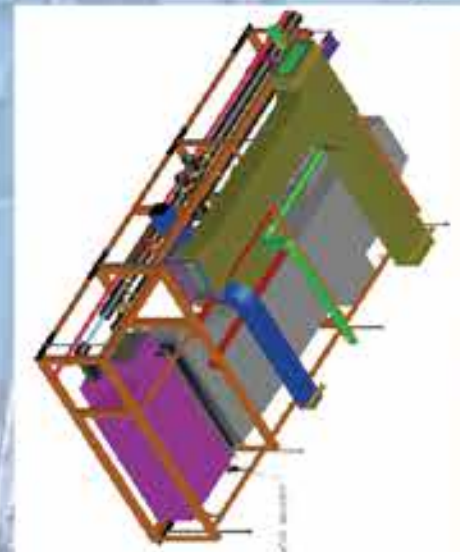
HORIZONTAL MODULE



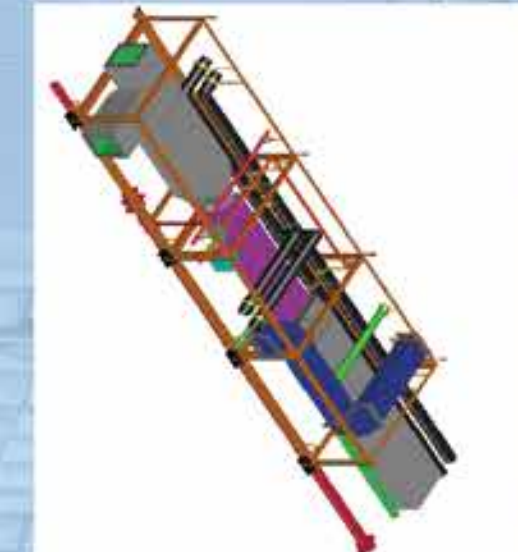
RISER MODULES



BATHROOM RACK

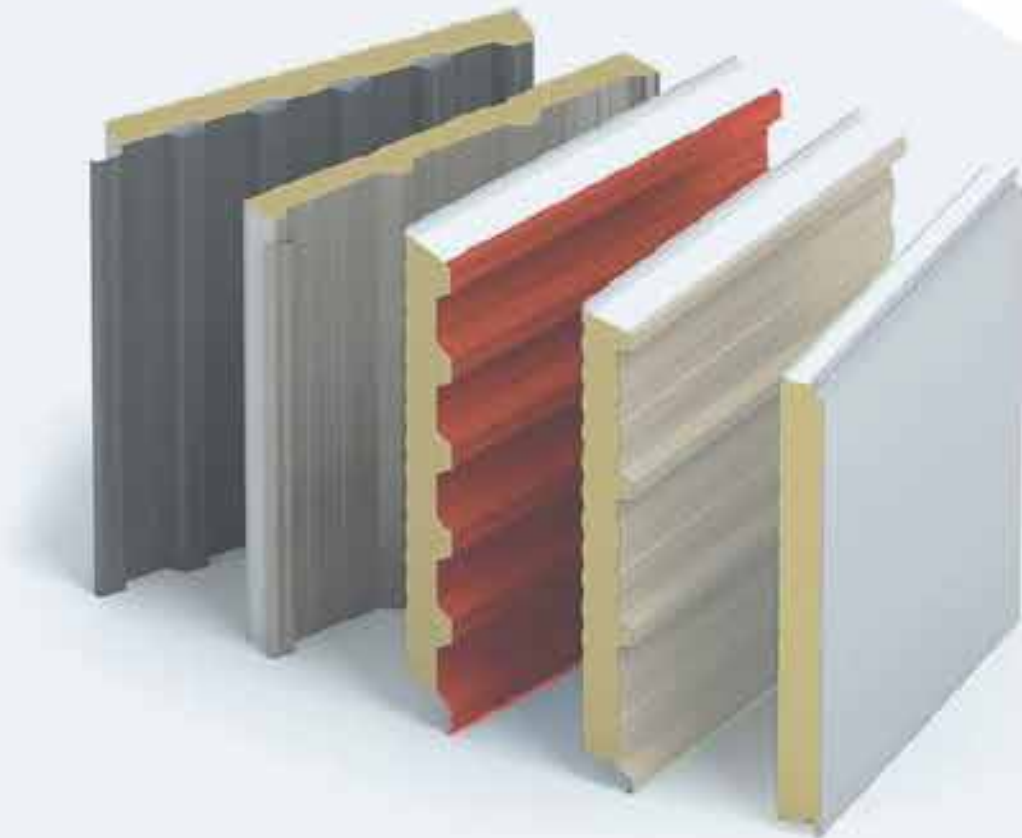


ROOM RACK



TECHNICAL DATASHEET

ROCKWOOL PANEL
COATINGS & COLOURS



S. No.	Type	Description
1	Material & Material Grades	Aluzinc, Galvanized Iron, Stainless Steel
2	Top & Bot Skin thickness	0.5mm to 0.8mm
3	Profile details	Roof Panel Specification
		Wall Panel Specification
3	Profile details	Fixed Width: 1000mm Crown Dept: 37mm Max. Production Length: up to 10m Profile Pitch: 250mm
4	Usage	External & Internal Walls , Roof & Ceilings
5	Roof Panel thickness (mm)	50, 80, 100, 120, 150, 200
5	Wall Panel thickness (mm)	50, 80, 100, 120, 150, 200, 240
6	Core classification	Non-Combustible, Class A1
7	Core	Rockwool
8	Core Density (kg/m ³)	90 - 125
9	Coating	Polyester, (Sil) Polyester, HDPE, PVDF, PUR(PA)
10	Adhesive	2 component PUR based adhesive

STANDARD COLOUR PALETTE

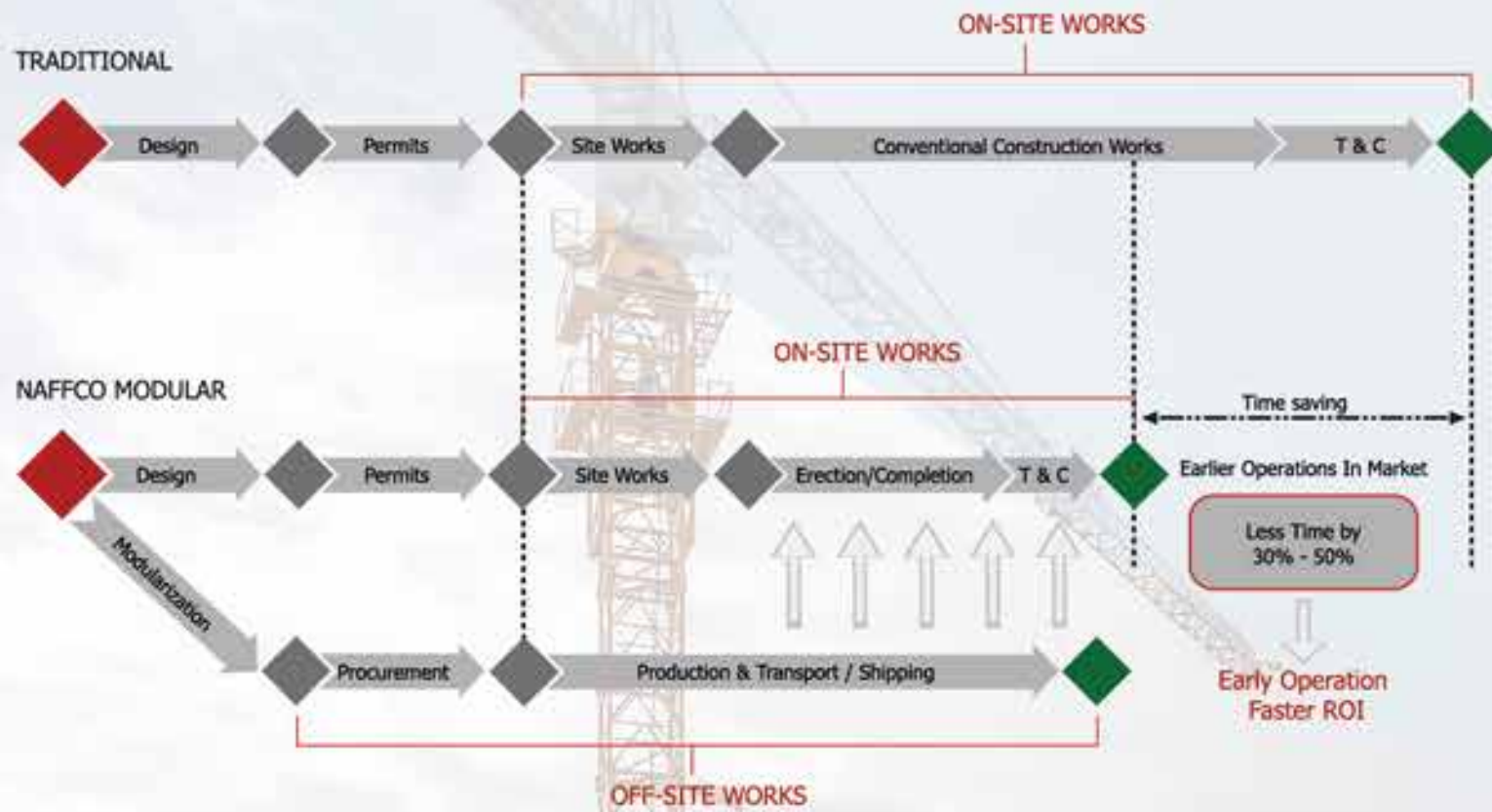


- Other color options will be given upon request.
- The colors shown above are just for a visual representation and may vary due to different medium as compared to the original colors.
- Physical color samples will be provided at the time of the project approval.
- Coating options - Polyester, (Sil) Polyester, HDPE, PVDF, PUR(PA)



TRADITIONAL VS MODULAR CONSTRUCTION

PROCESS :



In Traditional Construction technique and Modular construction method the time taken for Design, Permits and Onsite Works are similar. The advantage of NAFFCO Modular construction is that while the site preparation works and foundation works are ongoing, Modules are meanwhile manufactured and prepared ready to transport to the project site at our state-of-the-art Manufacturing Facility. Our Ready to install modules reduces the build time from 30% to 50% and gives you faster Return on Investment.

MODULAR CONSTRUCTION METHODOLOGY

OFF-SITE MANUFACTURING

1

The fabrication of the module begins with a welded steel frame loaded onto the assembly line. The base floors, walls and ceilings are then fabricated on the frame & the electrical and plumbing services are added. The module is then insulated with the main floors & walls. Then the interior finishing, including painting and flooring, is completed while the windows and doors are attached. The module is then prepared for transportation after the exterior finish is completed. (this work is done simultaneously with on-site construction).

ON-SITE CONSTRUCTION

2

While the modules for the building are fabricated in the offsite factory, the site is developed for the installation of modules. Firstly, the site is surveyed for contours of the land. Secondly, the land is excavated and graded to a level for the foundation. Then the drainage for the site is laid down & finally the foundation on which the modules are to be installed is constructed.

TRANSPORTATION

3

After finishing the module fabrication, the modules are wrapped in a weather proofing cover and transported to the site for installation. The modules are transported by road on trailers or tow trucks to the site location or to a sea port where it will be loaded on ships by crane. The transportation depends on the design or purpose of the modules, the location of the factory and the site location. Due to the fact that many buildings are factored in one country and installed in another. Logistic analyzation is essential, i.e. the transportation process.

ASSEMBLY

4

Once the modular units are complete they're delivered to the jobsite and assembled onto a building Final installation is fairly simple, & speedy, as most of the construction work has already been conducted inside the facility or on site while the modules were being fabricated. The individual units are hoisted onto the foundation by crane and secured in place. As units are added to the rising structure, the teams connect them together permanently.

TEST, COMMISSIONING & HANDOVER

5

Assuring the quality and conformity during the construction, installation and commissioning phase is critical to the success of our projects. Commissioning and functional testing is performed to ensure there are no leaks in the system and everything is in working order. Control valves are cycled, instruments and the control system are checked, and pump operation is verified, just to name a few of the activities performed. We supply a complete checklist of commissioning activities in the installation and operating manual.