



Fully off site packaged modular buildings for the oil and gas industry

Bespoke, fully pre-equipped modular packaged equipment solutions to protect and maintain essential power, service and control systems for every type of oil and gas plant – in even the harshest environments. Portastor offers a complete off-site project-managed, turn-key solution to save you time and money while minimising risk and disruption.





Packaged modular equipment housings for every oil and gas application

When you need robust, blast and fire-resistant equipment buildings to provide controlled environments for your essential power, control and service equipment, Portastor has the solution, resources and expertise to meet every oil and gas industry requirement.

With more than 20 years' experience of designing, building, fitting out and installing fully off-site packaged modular buildings for oil and gas plants worldwide, we know how to meet the most demanding specifications and provide safe, durable, protective buildings for your most sensitive and mission-critical equipment.

Whether your business involves upstream production and exploration, midstream transportation and storage or downstream refining and processing of crude oil, gas or LNG products, Portastor offers a complete project-managed, turn-key solution to save you time and money and minimise risks.

Trusted by the world's leading oil and gas companies

Portastor has been designing and supplying equipment housings for oil and gas plants in the harshest climates in remote parts of the world for more than 20 years. Our packaged equipment buildings solutions have been designed to protect essential equipment in environments ranging from the extreme cold of Siberia to the heat of the Saudi Arabian desert, from the extremes of the Continental interior to the humidity of the tropics.

We understand the intricacies of working in a highly regulated environment, in potentially hazardous locations, and managing the complex project management requirements demanded by the oil and gas industry including document deliverables. Our expertise is trusted by many of the leading names in global exploration, refining and distribution, including:

| End- Users | EPC's | OEM's |
|-----------------|-------------|--------------------|
| Total | Jacobs | Siemens |
| Shell | Petrofac | Schneider Electric |
| Conoco Phillips | MW Kellogg | Yokogawa |
| BP | Costain | ABB |
| Exxon | Weatherford | Blackburn Starling |

Contact the modular equipment housing specialists

Contact the experienced team at Portastor to find out how we can design, build and install fully packaged modular buildings for your plant, anywhere in the world.

TEL: +44 (0) 1904 650 888

Prestigious parent company – for your peace of mind

Portastor is a member of the Shepherd Group, one of the UK's leading family-owned businesses, with a 120-year history of quality craftsmanship in the construction and manufacturing sectors.

The Shepherd Group is a stable and growing business, with a strong ethos of integrity, openness and honesty. Today, the company is a diversified business leader in construction, mechanical and electrical engineering, modular buildings and bulk materials handling, delivered through strong brands including Portakabin, SES and Portasillo.

Such a well-established and reputable parent group gives you the assurance of a financially secure supplier with unrivalled experience in delivering major projects and a dedication to sustainability and corporate responsibility.

Portakabin

Quality - this time - next time - every time

Modular buildings
expertise – from the
market leaders

Shepherd Group company
Portakabin is the pioneer
and acknowledged market
leader in the design and
construction of modular
buildings.

Why choose modular off-site construction?

Choosing a factory-built modular building solution for your equipment offers significant time, safety, cost and quality benefits.



HEALTH & SAFETY

Constructed in a **controlled environment** minimising risk and delivering a significantly improved working environment



50% FASTER

Reducing programme, **removing inefficiencies** by facilitating **parallel construction**



WEATHER PROOF

As all construction is undertaken in our factory, weather conditions on site are eliminated. Allowing for **no loss of time** during production or installation.



PLUG & PLAY

With up to **95%** of the construction completed before arrival at site, installation is easier and with reduced risk.



60 ACRE SITE

Our extensive site means we can install **first and second** fit out stages before we get anywhere near your site, taking your project off the critical path.



REDUCE DISRUPTION

By implement a large number of installation elements whilst in the factory, we **minimise time delays** and keep you on schedule.



ECONOMIES OF SCALE

Repetition of modular buildings **reduces production costs** by improving operational efficiencies.



SUPERIOR QUALITY

Factory **standard quality control** reduces risk and lowers whole life cycle costs.



REDUCES SITE LABOUR

Significantly **improving health and safety** and minimising disruption on site.



ENVIRONMENT

Factory production techniques are **much more efficient**, eliminating a large amount of material waste.



Building solutions for every oil and gas industry application

Portastor offers a full range of both individual packaged equipment modules measuring up to 30m x 6m which can additionally be linked in any configuration to create large open-plan modular buildings of any size and with multiple storeys.

We provide a range of flexible and adaptable, standard and bespoke solutions for any application and have considerable experience in many key disciplines including:

- » Process power substations
- » Process automation and controls
- » Gas pipeline communications and control
- » Local equipment rooms
- » Package E&I and MCC rooms
- » Rotating-equipment housings

Blast-resistant buildings designed to your specifications

Portastor has vast experience of designing buildings with blast ratings to meet the building response criteria for different zones on your site.

The key to effective blast resistance is to prevent a blast wave from entering the building and to prevent excessive distortion of the structure. To resist significant blast pressures with minimal effect on the building structure,

the entire building is specially designed to limit the extent of distortion and protect the equipment within. This protection extends to openings and doorways, all of which are purpose-designed to provide the same level of blast resistance.

Our experience in designing and building robust, blast-resistant structures means we can supply you with details of the blast intensity that your building can withstand, including peak reflected wave pressures and durations.

Fire resistance

Portastor provides designs incorporating varied degrees of fire performance depending on specific project requirements.

These can range from a basic rating based upon the fire integrity performance of the panel structure and insulation materials to fully tested and certified fire resistance of the complete building structural element (wall, roof, floor, door).

We specialise in taking construction projects off the critical path and into a safe and controlled environment by providing complete plug-and-play solutions that are fully fitted out in our factory.

CASE STUDY

“Portastor manufactured 8 packaged substations for the next phase of the Singapore Parallel Train project at Jurong Island, Singapore, in association with FWP (Foster Wheeler-Worley Parsons), Shaw Stone and Webster, and OEM Powell Inc. The modular substations have been fully pre-assembled, equipped and intercabled at our 13 acre York staging area with all M&E and client OEM including all switchboards, E&I, VSD’s, MCC and control systems before being shipped to the end site for installing on client supplied elevated structures to create 2.5m high cable basements”

Singapore Parallel Train Project

Switchgear and associated systems fully installed and tested

Fully integrated switchgear buildings for oil and gas plants can incorporate a vast array of OEM equipment, all can be installed and factory tested at the Portastor manufacturing facility before delivery to your site. The range of equipment installed can include:

- » Switchgear of all voltages up to 36kV
- » UPS systems
- » VSD or VFD equipment
- » Transformers
- » Associated LV control and protection cubicles
- » Fire and gas panels
- » Telecoms systems

Control buildings fitted out to your specifications

Distributed Control System (DCS) buildings housing your essential site control systems can also be fitted out to your specifications by experienced Portastor engineers. These buildings can incorporate any of the following equipment, according to your requirements:

- » Distributed Control System
- » Independent Control and Safety System
- » Foundation Fieldbus
- » Instrumented Protective System
- » Fire and Gas System
- » Emergency Shut Down
- » Telecoms systems
- » UPS and battery systems (AC and DC)
- » Control desks
- » Transformers
- » Mains power panels

Bespoke equipment housings for rotating equipment

When you need robust, environmentally controlled buildings to house rotating equipment, such as generators, pumps and compressors to provide essential site services, Portastor has the expertise to fit out buildings to your exact specifications.





Complete end-to-end services: In-house design expertise for the most complex oil and gas projects

Complete end-to-end services:

- » Design
- » Installation of all types of OEM equipment
- » Interconnections
- » Commissioning and assistance with Factory Acceptance Test
- » Service and maintenance
- » Facilities Management
- » Factory acceptance testing
- » Logistics and transportation planning



“Siemens has a reputation worldwide for delivering a quality product. I must ensure the company we use offers quality and reflects that in our product – which is why we work with Portastor.”

Siemens

Design expertise

Portastor has the in-house design and engineering expertise to help you to devise the most efficient, safe and reliable systems to provide all the control, automation and power services you need for your plant, in the most cost-effective and efficient manner.

Expertise and resources to install and test OEM equipment on our site

The vast manufacturing site at Portastor enables us to store and fit out equipment housings on a large scale for any project. All the OEM equipment you require can be fitted by our experienced in-house teams and fully factory tested prior to despatch.

Alternatively, the size of our site means we can provide facilities to host your own engineers as they fit equipment into your buildings. Fitting out in our facilities keeps this complex engineering work out of your critical path and away from your operational site, while guaranteeing you consistently high standards of precision and accuracy.

Site installation and commissioning

Your fully fitted equipment housings will be delivered to your site, with all OEM equipment pre-installed and factory tested. Portastor then manages the efficient installation and commissioning process on your site, ensuring disruption is minimised and your buildings are installed to meet all your quality, safety and performance criteria.

CASE STUDY

“Portastor designed, engineered, manufactured and fitted out substation and district cooling works for Petrofac at the Laggan Tormore plant in Shetland. The 3 buildings supplied provide the main electrical feed to multiple facilities including substations, local equipment rooms, a control room and processing facility.

A range of building sizes was supplied, up to 850m², designed with a 90mb blast resistance and H60 fire rating. A comprehensive district cooling system was supplied and installed in partnership with Shepherd Group company SES. The complex project was carefully managed by Portastor to meet demanding client requirements.”

Petrofac, Laggan Tormore

Industry knowledge and detailed project management

Portastor offers a complete end-to-end service, managing every stage of your project from initial design and consultation, through manufacturing, fitting out and testing to delivery, installation and final handover. Crucially, we understand the onerous documentation requirements of the oil and gas industry, which can involve well over 2,000 document submissions per project, alongside complex approval procedures. Our long track record in the industry helps to ensure we get this critical process right first time.

Our comprehensive project management capabilities mean you have a single point of contact for your entire project, simplifying the process and providing total traceability and accountability from a single experienced supplier.

Independent accreditations

ISO 9001: Portastor manufacturing processes and management systems are accredited to the internationally recognised quality-management standard.

Electrical system standards: Portastor electrical system installations meet international standards including British Standards (BS), American National Standards Institute (ANSI) and International Electrotechnical Commission (IEC) standards, as well as local, country-specific regulations

Create optimum conditions with advanced HVAC systems

Oil and gas plants are frequently located in harsh environments where maintaining the optimum temperature range for power and control equipment is a significant challenge. In the Middle East, for example, diurnal temperatures can range from 1°C to 55°C, while with Continental interior climates, temperatures over a year can vary as much as from -36°C to 44°C.

In locations where extreme heat, cold or air-borne contaminants pose a major challenge, Portastor can supply and install full packaged HVAC units to create the perfect operational environment for the most sensitive electrical equipment. These advanced systems can be specified to meet individual requirements, combining precision air-conditioning, high-volume air loads and pressurisation systems to achieve the optimum conditions in even the harshest environments including hazardous area zoning and high chemical filtration requirements.

“We chose Portastor because they give us peace of mind. It’s important that we deliver a quality product in no time to our customers, so we need to be confident in our supplier.”

ABB



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Portastor quality assurance conforms to ISO 9001.

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