Prefabricated bathroom pods
Better by design
RB Farquhar
It doesn’t take a productivity consultant to work out that a traditional building site is probably the worst place in the world to achieve production efficiency and control. Quality management and health and safety issues present really serious challenges when you are at the mercy of weather conditions, restricted site access, labour congestion and minimal site supervision.

Yet there is one segment of the construction industry which is now showing how it can be done.

Companies like RB Farquhar are achieving significant improvements in cost savings, efficiency and quality control – and it’s being done by leaving the building site behind and manufacturing bathrooms off-site in modern, factory-controlled conditions.

These prefabricated bathroom "pods" are volume-manufactured in lightweight steel frames, factory-tested and finished to the highest quality standards prior to being delivered to site ready for easy installation and hook-up.

This method of production significantly reduces the amount of skilled labour required on site.

The benefits of pods

- Faster construction programmes for accelerated occupation
- Cost savings over traditional on-site installation
- Elimination of many on-site health and safety issues
- Enhanced cost control
- Highest standards of quality control
- Superior finish and build quality
- Minimal on-site skilled labour required
- 12-year collateral warranty
The internal finish of the prefabricated pod is visibly superior to that of a traditionally constructed bathroom.

The pod pioneers

With remarkable foresight, RB Farquhar first pioneered the pod concept as long ago as 1984. Since then, the company has gone on to successfully apply the innovative concept in many key sectors of the European bathroom market – hotels, student and key worker accommodation, executive washrooms and residential developments.

By combining advanced design capabilities with high-quality factory assembly, the company has grown to become one of Europe’s leading players in bathroom pod manufacture, with one new pod now coming off the company’s advanced assembly lines in the Czech Republic every fifteen minutes.

An impressive pedigree

RB Farquhar first began the design and manufacture of prefabricated bathroom modules in the early 1980’s, with a series of high-profile executive washroom projects for some of London’s most prestigious commercial developments in recent years, including Canary Wharf.

RB Farquhar’s roots in prefabrication go all the way back to 1947, when Aberdeenshire businessman Bob Farquhar set up in business as a timber merchant supplying pit props to the coal-mining industry.

The pod specialists

In the late 1980’s, the company took the strategic decision to concentrate on one of the fastest-growing segments of the modular building market – bathroom pods.

This was a far-sighted decision which today has yielded rich dividends. Now in its third generation of family management, the company is today a long-term supplier to some of Europe’s market leaders in leisure and residential accommodation, including Travelodge, Holiday Inn, Radisson and Berkeley Group.
RB Farquhar’s new custom-built assembly plant in Chomutov, the Czech Republic, is the most modern of its type in Europe, having started operations in 2003. The plant was set up and run by an experienced Scottish management team, including managing director Michael Shand who relocated with his young family to the Czech Republic.

The plant has over 6500 sq m of indoor production facilities, with the pods being fitted out on moving assembly lines.

In addition, the plant also has extensive facilities for undercover storage for finished pods prior to delivery to site. This means the company can store up to 1000 pods at a time under cover.

All pod operations have been fully accredited to BS EN ISO 9001 for over a decade.

The company’s Czech workforce has a thorough understanding of the responsibilities of working to strict planning programmes and all the other disciplines essential to fast-track assembly.

Professional skills like ceramic tiling have also been perfected, and RB Farquhar pods routinely attract favourable comment for their high quality of finish.

Continuous quality control monitoring is carried out to ensure the workforce maintains the highest standards of fabrication and assembly through every stage of production.

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It is impossible to overstress the importance of the design element in off-site pod manufacture.

Not only is the design of pods a distinctive skill in its own right, but the decision to use prefabricated elements can give the developer significant benefits, including possible cost savings on the overall structure of the building.

The RB Farquhar design team works directly from the client brief to generate detailed designs which, on many projects, are carried through to the production of full prototypes. As well as its aesthetic capabilities, the design team is also strongly grounded in practical issues like understanding design risk and long-term maintenance issues.

Indeed, the multi-disciplined RB Farquhar design team is one of the most experienced in Europe, having worked on pod projects for two decades. Every client is assigned one experienced, dedicated project manager within the team for streamlined contact through initial design brief to manufacture, installation and after-sales service.

The technical sales team is similarly experienced, possessing an unrivalled in-depth knowledge of both factory and site construction techniques.

The RB Farquhar design specifications comply with relevant building standards and CDM regulations.

Specialist knowledge

Through this modern resource, the design team has constantly updated access to the building standards required for specialist applications like healthcare, defence, and lifetime homes, as well as the requirements to comply with local water byelaws.

Recent RB Farquhar pod contracts have called for compliance with the requirements of the Disabilities Discrimination Act, and for enhanced acoustic and fire insulation performance.

RB Farquhar bathroom pod design specifications comply with relevant building standards and CDM regulations.
Pod manufacture

Whenever possible, RB Farquhar always recommends the construction of a prototype pod for each new contract, a process which generally adds between six and eight weeks to the lead-in period from placement of order.

As one of Europe's largest producers of bathroom pods, RB Farquhar has extensive procurement agreements with leading manufacturers of luxury sanitaryware, brassware, ceramic tiling and bathroom accessories.

Pods are assembled in a robust galvanised steel frame made from lightweight steel channel which is cold-rolled on demand in the factory.

Pods are available either ready-floored or floorless according to preference. The weight of a completed pod can vary from 750 kg for student-type shower-rooms through to 1500 kg bathrooms (for information, a similar full concrete pod weighs around three times more).

A superior quality finish

One of the main characteristics of factory-finished bathroom construction is a quality of workmanship which is consistently higher than with traditional site work.

All bathroom assembly is carried out under ISO 9001 conditions, with the wet areas double-waterproofed using a pre-tiling tanking system. The pod frame is lined with 15mm fireline board before being finished internally to the client’s specifications.

Externally, the pod is generally built around by the site contractor, using the steel frame as studding for dividing walls if required.

Plumbing, electrical and ventilation services within the pod are completed in the factory, and are carefully routed to a conveniently-located termination point on the exterior of the pod for quick and easy hook-up on-site.

The surface finish of the pod is invariably visibly superior to a traditionally-constructed bathroom, and the finished pod is subject to rigorous post-assembly testing and certification processes to ensure efficient on-site hook-up.

Finally, the pods receive protective wrapping (doors and roofing may receive additional protection if required), and are now ready for road journey to the final site location.
Pods can be installed in a variety of ways, depending on site conditions – yet another example of the surprising versatility of the concept. They can be single off-loaded by fork-lift, or craned into position for platform landings at a rate of over six pods per hour. Within the building, the pods can be easily wheeled or powered into final position sitting either on the floor slab, on a timber floor, on the floor joists or in a prepared floor recess. Minimal on-site labour is required for this process, and the pods can be left fully-protected for commissioning at a later date.

Service hook-up is equally straightforward. All service connections are checked and then made in accordance with the pod specification. Water connections come with servicing valves with integral strainers. A full Operation and Maintenance Manual is supplied for every project.

RB Farquhar operates a comprehensive after-sales service, including a 12-year insurance-covered collateral warranty.

The pod market

The versatility of modern bathroom pod design can be applied to virtually every type of building – traditional, timber-frame, concrete or steel frame. This opens up a number of discrete market sectors where the different benefits of pod construction can be appreciated:

- Lodge hotels, where the consistency of quality and speed of delivery can greatly accelerate occupancy
- Luxury hotels, where the quality of finish and elimination of theft/ breakages delivers real economies
- Student and key worker accommodation, where the pods combine durability with economy
- Health and other care sectors, where special needs can be accommodated
- Residential, where a surprising degree of design flexibility is possible

RB Farquhar has decades of experience in delivering modular buildings to European construction sites, and the company’s busy transport department uses a fleet of both company-owned and sub-contracted vehicles to ensure safe and prompt site deliveries.

Whenever necessary, RB Farquhar vehicles can carry the necessary handling and lifting equipment for offloading and positioning. To cater for varying site conditions and customer resources, the after-sales installation service ranges in scope from initial induction training to provision of an experienced RB Farquhar on-site installation team, according to preference.

The consistency of quality and speed of delivery of prefabricated bathroom pods can greatly accelerate occupancy

The pod installation
All RB Farquhar prefabricated bathroom pod operations have been fully accredited to BS EN ISO 9001:2000 for over a decade.