



Different approach

MTX says its new buildings can incorporate concrete floors, and can be designed with a design life 'of up to 60 years'.

Alongside providing new-build, 'bespoke' operating theatres, MTX has extensively remodelled and refurbished existing theatre environments directly for the NHS. It said: "Currently, however, we have little involvement in ProCure21+ theatre projects, and believe there are significant client benefits if PSCPs appoint a theatre specialist, rather than opting for traditional self-delivery.

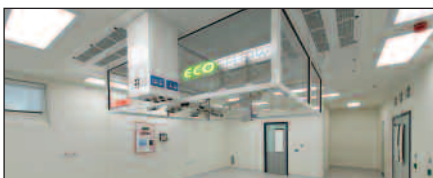
"We can quickly mobilise, and, given a suitable pre-construction design period, approach projects from an alternative 'angle', following a 'design for manufacture' process that reduces programme, cost, and end-user disruption, via pre-construction of mechanical and electrical service modules, and modular M&E sub-distribution systems. Other elements, such as walls, doors, and ironmongery, can be pre-constructed and delivered 'flat pack', ready for assembly."

'Ground-breaking' energy efficiency

Current projects utilising Medical Air Technology (MAT)'s recently launched 'revolutionary' Eco-flow range of energy-efficient, ultra-clean ventilation canopies include complete theatre renovations and upgrade programmes.

The HTM 03-01 part A & B-compliant canopy system is designed 'to meet ever-increasing theatre demand', while maximising the 'ultraclean zone', and considerably reducing energy consumption, with potential savings 'of approximately £7,000 per unit per year'.

'Ground-breaking' energy efficiency levels are achieved through 'extremely speed-variable and highly efficient' fans, while 'resourceful' centrifugal fans reduce significant heat gains.

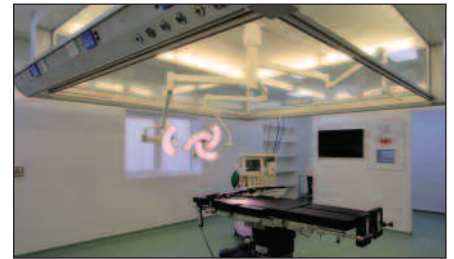


'Totally integrated' turnkey service

Refurbishment and upgrading of operating theatres in both NHS and private hospitals is proving a significant growth area for Bender UK, which offers 'a totally integrated turnkey service'.

Bender combines 'proven project management capability and experience', with supply and installation of advanced laminar clean air flow canopies, service pendants, and hygienic touchscreen control panels. It is also the sole UK distributor for Steris high performance LED surgical lighting and pendants.

For a recent installation at the Pall Mall Medical surgical centre at Newton le Willows on Merseyside, Bender UK worked with clean air specialist, Admeco, 'to overcome a significant restricted space challenge', installing an Admeco



'advanced performance canopy'.

Bender UK is also 'expert' in supplying, installing, and commissioning, isolated power supplies and uninterruptible power supplies. It says its ATICs switching devices, for changeover between two independent power supplies, offer 'the market's most reliable automatic change-over technology'.

'Ideal choice' for modern theatres

As part of an 'ongoing, flourishing relationship' with Spire Healthcare, Howorth Air Technology recently refurbished and upgraded three operating theatres at the Spire Manchester Hospital, as part of a larger project by construction, facilities management, and engineering services company, CFES.



Howorth Exflow that had served the hospital well for several years – with a new Howorth Exflow Evolution screenless canopy. It also fitted all three theatres with new touchscreen theatre panels, LED operating lights, new medical gas pendants, and IPS/UPS systems, plus new ceilings and vinyl flooring.

Howorth had to work within an operational theatre department, with the hospital's three other theatres in constant use. The company was brought in to upgrade general theatres 2 and 3, and replace the existing ultraclean ventilation canopy in theatre 1 – a traditional

Designed to cater for increasingly limited theatre space, the Exflow Evolution retains the basic construction of Howorth's existing models but, via 'innovative engineering' at the air discharge, obviates the need for 'traditional' partial walls, remote fans, or cooling coils.

Impressed by dedication and quality

Karl Storz recently completed work at a new operating theatre complex at Leighton Hospital in Crewe (see also pages 34-36).

The company was selected after Trust representatives visited the Paterson Wing at St Mary's Hospital, Paddington, and 'saw the quality of equipment, support, and dedication, that Karl Storz is able to provide'.

Leighton Hospital's new theatres specialise in planned day surgery and diagnostic investigations for conditions including gynaecology, ENT, and urology. Two theatres feature OR1 Neo, the latest version of Karl Storz's integrated operating theatre and, the company says,



'by far the most advanced, packed full of innovation, and integrated services for endoscopic surgery'.

With surgical tuition in mind, Karl Storz has also equipped both theatres with videoconferencing facilities for internal streaming of live procedures, and a direct audio-visual link to the centre's multidisciplinary team room.

Fire damper tests essential



Operating theatres incorporate a host of expensive equipment that could be damaged or destroyed in the event of fire anywhere within the hospital.

An 'integral part' of the fire protection system is the network of fire dampers – designed to close when the temperature within ductwork reaches a certain level. So says ductwork cleaning and air handling unit maintenance specialist, Ductbusters, which adds that, to ensure that these dampers operate when they should, as per BS9999, an annual 'Drop Test' should be performed, with the results recorded, and any necessary remedial action undertaken.

Ductbusters has developed a programme to enable hospitals to comply with BS9999 and B&ESA SFG 20, and can offer advice, whether fire dampers can be identified from drawings, or by site inspection. The company said: "This has already proved of great help to a number of hospitals that have recognised the need to comply with regard to this essential fire protection measure."

'Revolutionising' device integration

Trumpf Medical Systems' new TruConnect control and training system enables mobile and stationary control of Trumpf operating theatre components, 'offering convenient, handheld, touchscreen control of integrated devices'.

Users can move from one theatre to another, using a handheld unit to control the devices. TruConnect recognises which devices a particular room has, and how they are configured. 'Simple, safe control is underpinned by graphical representation'. TruConnect also supports use of multiple portable TruConnect Control devices simultaneously in one theatre. One operative can thus adjust the operating table, and another the surgical lighting, camera, and image documentation.

Depending on the device, a 3D visualisation of integrated devices can be displayed on the touchscreen, and adjusted 'with simple swipe gestures'.

Single, 'manageable' transfer trolleys

Starkstrom has added to its product portfolio the ED/ICU (Emergency Department and Intensive Care Unit) patient equipment transfer trolley.

It 'eliminates the need for time-consuming and potentially risky movement of equipment between different beds and trolleys, via a single manageable unit that can accommodate all the equipment needed for intra-department patient transfers between emergency department, inpatient wards, trauma assessment, and theatre areas'. With an adjustable docking system, the trolley 'docks quickly and easily with the patient



trolley, and saves doctors, nurses, and anaesthetists, from having to equip each patient individually on every transfer'.

The company added: "The space-saving trolley reduces the number of people and pieces of equipment a patient needs to come into

contact with, significantly enhancing infection control, since there are fewer items to harbour dirt and bacteria."

All critical equipment can be mounted on a range of horizontal and vertical rails, providing a safe, secure storage facility for essential, and often fragile, equipment.

Turnkey hybrid theatre project

Fulbourn Medical has provided its turnkey project expertise by converting and remodelling an existing operating theatre and staff rest area at Sunderland Royal Hospital to a new hybrid vascular theatre.



This 14-week project involved a comprehensive upgrade. The turnkey solution incorporated consultation, design, M&E, and installation, including lead protection and commissioning. A dedicated on-site project manager provided a single point-of-contact. The architects were Newcastle-based Dunwoodie Architects.

The new theatre incorporates the UK's first GE Discovery IGS730 laser-guided angiography system, and will provide cardiac, endovascular, and hybrid imaging. The facility includes an adjoining dedicated teaching room with viewing facilities, equipment control room, and UPS plant room.

The theatre features Maquet's Variop modular wall system, including graphics. Variop is available in various colours, and comes with an antibacterial powder coating. Maquet says pre-fabricated components 'ensure the shortest possible installation times'.

3D integrated operating theatre

In what it says is the UK's first 3D integrated operating facility, Olympus has installed two new Endoalpha integrated operating theatres at Aberdeen Royal Infirmary (ARI), both featuring the latest Olympus Evis Exera III surgical endoscopy systems.

One theatre can produce HD 3D laparoscopic clinical images, which are displayed on 3D monitors suspended from ceiling-mounted spring arms.

All the equipment within an Endoalpha operating theatre can be controlled via an Olympus sterile touchscreen, with 'a new, improved and simplified' graphical user interface. The Endoalpha system uses Olympus's Endobase software for capturing HD digital still images and



video recordings. Following procedures, Endobase allows doctors to create electronic reports for each patient, for storing on a central database server; these can then be recalled and reviewed from any networked computer.

The Evis Exera III is 'a universal platform that allows use of a wide range of camera heads and video scopes for both 2D & 3D procedures for all surgical endoscopy applications'.