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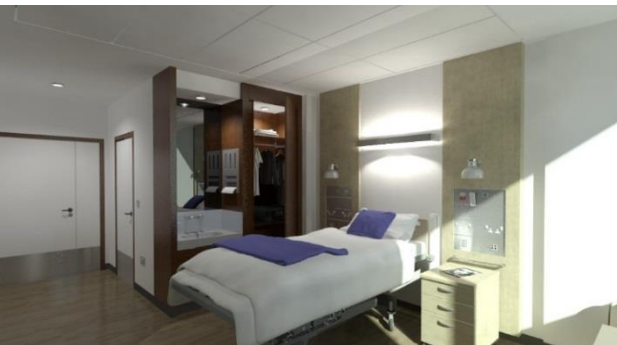
*The **HALO**TM bedhead services containment enclosures*



CABL  **FLOW**TM
H E A L T H C A R E

applications

CABLEFLOW™





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Innovation is at the heart of an evolutionary healthcare infrastructure. Challenging boundaries whilst being respectful of clinical skills are two valued philosophies which ensure knowledge led developments in bedroom architecture.

At **CABLEFLOW** we recognise the need to be different, to ensure product development offers practical and sustainable progression whilst always ensuring full compliance with Patient Safety Standards and improving the clinical environment for clinicians and patients alike.

We are proud of our British healthcare heritage which offers universal application around the world. Having been conferred both a prestigious **Queens Award for Enterprise: Innovation** and a **Kings Award for Enterprise: Innovation** users of our products and systems take confidence in this unique recognition of Cableflow as a market leader.



Recognised as Britain's foremost medical supply unit manufacturer our range of products whether standard or bespoke offer solutions to satisfy many in-patient design concepts across all clinical environments whether primary or tertiary care areas, and every speciality in-between.

In 2005 our **integra** product became the first and only linear bedhead trunking system to achieve Royal recognition with a **Queens Award for Enterprise: Innovation** from Her Majesty Queen Elizabeth II. This achievement was further endorsed in 2023 with a **Kings Award for Enterprise: Innovation** for our (POAG) equipotential earth bonding socket.

Improving the clinical architecture, patient and clinician experience whilst ensuring flexibility and adaptation in later use are hallmarks of our innovative bedhead solutions. Whether in an acute hospital setting or more domestic environments such as Hospice's and the like our systems can be tailored to your requirements.





BEDHEAD SERVICES

Whether used in general in-patient acute bedroom accommodation, higher dependency or elderly care/hospice settings **HALO** provides mains power, nurse call, data, patient monitoring, lighting control and medical gases all within an unobtrusive multi-functional enclosure, and all meeting the stringent and necessary patient safety requirements of BS EN ISO 11197:2019

HALO can also integrate renal services media panels, drains and ancillary equipment from all major RO system providers.

The **HALO**, a simple yet understated reference to this extremely adaptable and attractive Medical Supply Unit which embodies our experience and innovative approach to bedhead services, attained over many years and across thousands of installations worldwide.

HALO presents sleek yet tender lines clearly delineating the patients' personal space in a way which ensures the medical components remain unobtrusive whilst creating a more domestic residential feel than a clinical one.

Creating a relationship between the medical space and the patient, the uncluttered feel to the bedhead area improves and enhances the patient experience. By presenting a less stressful and ergonomically designed environment **HALO** allows an ease of nursing care in a simplistic, yet functional manner.

Design schemes for healthcare environments are increasingly reflecting a 'patient hotel' approach, needing a relaxed feel and focus, albeit centred around the patient experience.

Laminate finishes applied to the product facia ensures the designer a diverse array of design options.

DESIGN INNOVATION

Providing a shallow overall depth of less than 70mm **HALO**'s sleek and slim appearance ensures that valuable clinical floor area is not compromised by unnecessary protrusion. Utilising high grade laminates amalgamated with carefully engineered service pods supported on a 'floating' anodised aluminium frame which is concealed by the decorative facias, **HALO** exudes an appearance of finesse applied to an otherwise purely clinical environment.

VARIABLE WIDTH APPLICATIONS

Recognising that an existing estate will have substantially variable bed spaces, **HALO** is available in a wide varieties of widths. Supplied as single or multi-leaf, **HALO** can be simply tailored to the application.

Meeting the cleaning and environmental requirements of HBN 00-09 has been paramount in the design of this product, ensuring minimal surfaces are exposed which can either collect dust or harbour bacteria. All surfaces can be easily wipe-cleaned whilst facias can be simply removed or replaced with the use of a bespoke tool to facilitate deep bacterial cleaning when required. Tight fitting butt joints reduce bacteria growth or entrapment and provides a smooth protrusion free finish.

HALO is adaptable in its overall height, generally installed as 'floating' bedhead with rear fed supplies or, installed tight to the finished ceiling which allows the simple access of supply services from high level. Both installation concepts substantially speed up general wall construction whilst reducing the cost of basic installation and adopts a 'plug-and-play' concept to installation.

Where the interior design adopts the bedhead wall as a feature then a shortened height **HALO** gives the effect of 'floating' on the bedhead wall. Low level bed sockets are provided where required.

EMC CERTIFICATION AND COMPLIANCE

Protecting electronic components and implantable Devices in the patient environment from Electro-Magnetic Interference (EMI) and Radio Frequency Interference (RFI) is of paramount importance. **HALO** has been designed specifically to ensure full regulatory compliance.

By specifying **HALO** as a co-ordinated solution you can be satisfied that the EMC and the constructional elements of BS ISO 11197 have been complied with.





HALO LED

HALO derives its name from the quintessentially designed perimeter LED halo that provides both functional and ambient illumination at the bedhead.

A partial or complete perimeter illumination effect can be applied to soften the room ambience at night or simply as general daytime illumination to offer a more holistic environment towards recovery and well-being.

Specified as standard utilising fully insulated and self-contained LED strips providing 1200 lm with a colour temperature of 4000^ok the HALO exudes a calmness around the bed.

INTEGRAL READING LIGHT

To supplement this effect or as a standalone over bed light HALO also offers a sleek linear reading light (downlight) carefully housed within a feature profile anodised extruded aluminium case.

Switched locally at the bedhead and interfaced with the nurse call relay and its control handset this linear LED luminaire illuminates the reading plane at the bedheads in excess of the required 300 lux on defined within CIBSE LG2:1989.

Its sleek aluminium housing projects minimally from the fascia board and exudes the quality of this bedhead offering at the slightest of touches.

Switched locally at the bedhead and interfaced with the nurse call relay and its control handset this linear LED luminaire illuminates the reading plane at the bedheads in excess of the required 300 lux on defined within CIBSE LG2:1989.

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MAINS POWER

Electrical sockets from the UK, continental Europe, the US and other geographical regions can be accommodated, including switched socket outlets for standard supplies, or unswitched for Medical IT / IPS or UPS supplied circuits. These can be colour coordinated subject the mandated Wiring Regulations in force within the territory of supply.

The design of **HALO** ensures no screw fixings are visible, thus complying fully with the requirements of HTM 08-03.

Carefully manufactured services cover plates butt tightly together to provide a simplistic yet clean line appearance, without the need for unsightly joint cover strips. This proven design and assembly concept limits significantly the risk of bacteria growth and allows for simple cleaning of the patient environment as defined within HBN 00 -99.



NURSE CALL SYSTEMS

Each hospital will vary in its individual requirement from the next, none more so than the nurse call system.

HALO has been designed specifically to accommodate all commercially available nurse call products. As an independent trunking manufacturer with no allegiance to any specific nurse call supplier, we leave the choice of nurse call manufacturer up to you, the user and specifier.

MEDICAL GAS TERMINAL OUTLETS

As with other patient care services provision, **HALO** is able to accommodate any type of medical gas terminal outlets, each hospital or installer having a preference for a particular type. Terminal outlets are located onto a terminal (type) specific mounting grid, which allows vertical and horizontal adjustment for precise alignment.

Gas pipes are fully segregated from cabled services accessible by their own lid section meaning gas terminal outlets can be positioned anywhere in the module and pipeline maintained in total safety. The number of gas specific outlets which can be fitted varies depending on the exact product configuration selected. Any variation of terminal outlets for a comprehensive range of medicinal gases as defined HTM 02-01 can be accommodated in our larger profiles, fed from varying AVSU circuits.

Factory fitment of certified medical gas terminal units and internal pipework also ensures a speedy connection for mechanical services onsite.

In all cases the options are endless as the modular configuration of the **HALO** lends itself to purpose designed bedheads and bespoke customisation.

A bespoke extruded aluminium frame anodised AA25 ensures a crisp easy to clean appearance is achieved to all visible wall interfaces.

CLINICAL MONITOR INTEGRATION

An ancillary patient/clinical/vital signs monitor mounting channel allows the fitment and connection of an LCD flat screen monitor and adjustable arm with tilt capability, along with associated power and data inter-connectivity.

These channels are available in a variety of lengths with concealed structural support allowing fitment during manufacture or where called for, retrofitted after installation.

POTENTIAL EQUALISATION

The **CABLEFLOW POAG-PES** potential equalisation socket (equipotential earth bonding) is installed on all bedheads to meet the requirement of BS7671 Section 710 and in an appropriate number.

FACIA PANELS

Facia panels are manufactured from 18mm thick fire retardant mdf, finished in a variety of laminates to suit the décor scheme selected.

Please contact our sales department for the choice of finishes from the worlds leading laminate manufacturers

A low-level power socket is incorporated as standard for supplying power to electric patient beds or chairs and compliments the anodised framework with a flush fitting silver anodised 2mm thick cover plate.

LAMINATE OR CORIAN™

HALO is available in a variety of finish options. This includes laminate finished mdf or CORIAN faced MDF.

CORIAN faced boards can also be designed with backlit patterns that double up as night lighting and observation lighting at the bedhead.

YOUR CHOICE

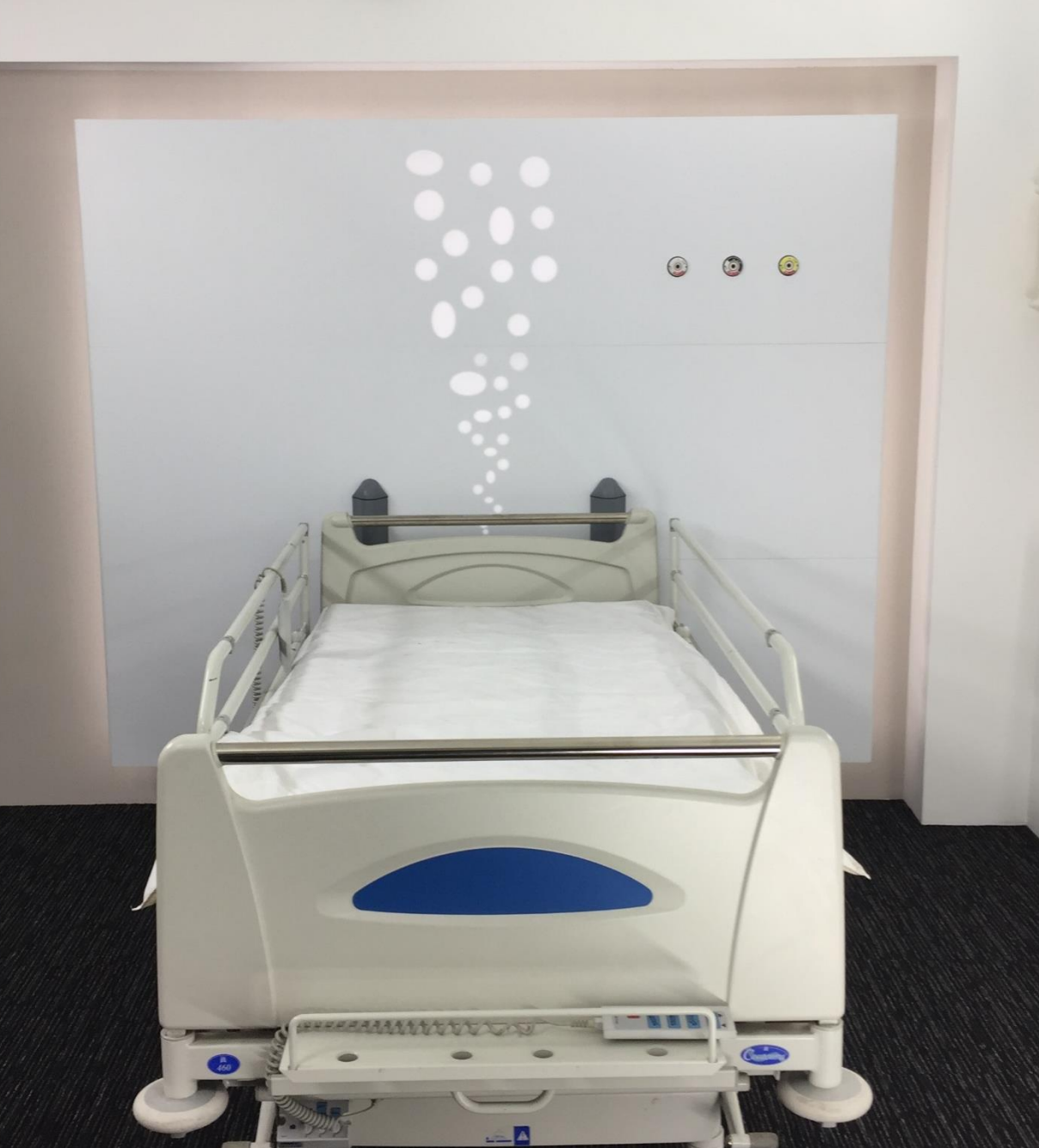
Often, when a client states a particular preference for bedhead services, this invariably refers to the nurse call system to ensure compatibility with existing site configurations. Our bedhead containment systems are universally used with all major nurse call systems and do not affect the choice of nurse call equipment which can still remain as the hospital norm and its simply the containment that's different.

FACTORY PRE-FABRICATION

All mains power and lighting circuits can be pre-wired so that simple modular wiring or conventional hard-wired connections can be made at high or low level subject to project specific design requirements.







BEDHEAD BUFFERS

Ensuring that the bedhead wall is robust and can still take the impact of everyday bed movement, the integration of vertical bedhead buffers ensures the functionality of **HALO** is maintained. These can be third party supplied or fitted by our own technicians as part of our offering.

Buffers are mounted through the **HALO** using bespoke fixings but where the wall takes the impact as with conventional bedhead buffers and not the **HALO** itself.

MEDICAL EQUIPMENT RAIL

The inclusion of medical equipment rail is easily accommodated and can be fitted to meet any or all of the recommended mounting heights for Rail defined in HTM 08-03.

Our **CABLEFLOW** Medical Equipment Rail (see separate brochure) is designed and manufactured to meet the requirements of BS EN ISO 19054 and is also available as a standard wall mount version for other clinical areas.

This ensures that a consistent product type can be used across an entire installation irrespective of whether medical supply units are installed or not. Rail is anodised AA25 with a blue cover insert to conceal the fixing mechanism and ensure a bacteria resilient finish.

INSTALLATION

The system does not use proprietary first fix mounting plates and therefore can be installed by any competent tradesman. However, we have recognised the desire of some clients to procure a total supply and installation package from a specialist manufacturer and our experienced Contracts Department specialises in the installation of our trunking systems..

All Cableflow installation technicians are trained to the highest standards, and equipped with the most up to date machinery to achieve the best possible result when our products and their skills are combined. Further information about this service can be obtained by contacting our Sales Team who will be pleased to provide you with a costing on your specific application.







Document Reference	Document Description	Document Reference	Document Description
BS 476-10: 2009	Fire tests on building materials and structures. Guide to the principles, selection, role and application of fire testing and their outputs	BS EN ISO 9170-2:2008	Terminal units for medical gas pipeline systems. Terminal units for anaesthetic gas scavenging systems
BS 1363-1:2016 + A1:2018	13 A plugs, socket-outlets, adaptors and connection units. Specification for rewirable and non-rewirable 13 A fused plugs	BS EN ISO 7599:2010	Anodizing of aluminium and its alloys. General specifications for anodic oxidation coatings on aluminium
BS 1363-2:2016 + A1: 2018	13 A plugs, socket-outlets, adaptors and connection units. Specification for 13 A switched and unswitched socket-outlets	BS EN ISO 11197:2019	Medical supply units
BS 1363-4:2016 + A1 2018	13 A plugs, socket-outlets, adaptors and connection units. Specification for 13 A fused connection units switched and unswitched	ISO 19054:2006 + A1:2016	Rail Systems for supporting medical equipment
BS 5266-1:2011	Emergency lighting. Code of practice for the emergency escape lighting of premises	HBN 00-03	Designing generic clinical and clinical support spaces
BS 5733:2010+A1:2014	General requirements for electrical accessories. Specification	HBN 00-04	Circulation and communication Spaces
BS 6701: 2016	Telecommunications equipment and telecommunications cabling. Specification for installation, operation and maintenance	HBN 00-09	Infection control in the built environment
BS 6972: 1988	Specification for general requirements for luminaire supporting couplers for domestic, light industrial and commercial use	HBN 04-01	Adult in-patient facilities: planning and design
BS 7671:2018 + A2 2022	Requirements for Electrical Installations 18th Edition IET Wiring Regulations (incorporating Section 710 (Special Locations Medical Locations))	HBN 04-02	Critical care units
BS 8300-1:2018	Design of buildings and their approaches to meet the needs of disabled people. Code of practice	HBN 4, Supplement 1	Isolation facilities for infectious patients in acute settings
BS EN 12206-1:2021	Paints and varnishes. Coating of aluminium and aluminium alloys for architectural purposes. Coatings prepared from coating powder	HBN 6	Facilities for Diagnostic imaging and interventional radiology:
BS EN 12464-1: 2021	Light and lighting. Lighting of work places. Indoor work places	HBN 07-01	Satellite Dialysis Unit
BS EN 13032-2: 2017	Light and lighting. Measurement and presentation of photometric data of lamps and luminaires. Presentation of data for indoor and outdoor work places	HBN 07-02	Main Renal Unit
BS EN 50083-2:2012	Cable networks for television signals, sound signals and interactive services. Electromagnetic compatibility for equipment	HBN 09-02	Maternity Care Facilities
BS EN 50085-1:2005+A1:2013	Cable trunking systems and cable ducting systems for electrical installations. General requirements	HBN 09-03	Neonatal Units
BS EN 50085-2-1:2006	Cable trunking systems and cable ducting systems for electrical installations. Cable trunking systems and cable ducting systems intended for mounting on walls and ceilings	HBN 57: 2003	Facilities for critical care
BS EN 60439-5: 2006	Low-voltage switchgear and control gear assemblies. Particular requirements for assemblies for power distribution in public networks	HTM 00	Building Engineering in the Health Sector
BS EN 60529:1992+A2:2013	Degrees of protection provided by enclosures (IP code)	HTM 02-01	Medical gas pipeline systems
BS EN 60598-1:2021	Luminaires. General requirements and tests	HTM 06-01	Electrical services: supply and distribution
BS EN 60598-2-22:2014 +A1: 2020	Luminaires. Particular requirements. Luminaires for emergency lighting	HTM 06-02	Electrical safety guidance for low voltage systems
BS EN 60601-1-6:2010+A1:2013 +A2:2020	Medical electrical equipment. General requirements for basic safety and essential performance. Collateral standard. Usability	HTM 08-03	Management of bedhead services in the health sector
BS EN 60601-1-2: 2015 + A1:2021	Medical electrical equipment. General requirements for basic safety and essential performance. Collateral standard. Electromagnetic compatibility. Requirements and tests	HTM 17	Health Building Engineering Installations
BS EN 60669-1:2018	Switches for household and similar fixed-electrical installations. General requirements	HTM 2014	Abatement of electrical interference
BS EN 61000-6-3:2021	Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light-industrial environments (formally BS EN 50081-1)	HTM 2020	Electrical safety code for low voltage systems
BS EN 61000-6-4:2019	Electromagnetic compatibility (EMC). Generic standards. Emission standard for industrial environments	CIBSE LG 02: 2019	Lighting guide - Hospitals and health care buildings
BS EN 61000-6-1:2019	Electromagnetic compatibility (EMC). Generic standards. Immunity for residential, commercial and light-industrial environments (formally BS EN 50082-1)	CIBSE LG 3: 2001	Lighting guide - The visual environment for Display Screen Use
BS EN ISO 7396-1:2016 +A1:2019	Medical gas pipeline systems. Pipeline systems for compressed medical gases and vacuum	CIE	European Lighting Guide
BS EN ISO 7396-2: 2007	Medical gas pipeline systems. Anaesthetic gas scavenging disposal systems	NHS SPEC C49: 1997	Nurse Call Systems. Revision 3
BS EN ISO 9170-1:2017	Terminal units for medical gas pipeline systems. Terminal units for use with compressed medical gases and vacuum	EU MDR 2107/745	EU Medical Device Regulation
		UK MDR 2002	UK Medical Device Regulations (SI 2002 (no. 618, as amended))







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