medisys™ *horizontal bedhead services trunking system*

MADE IN **BRITAIN**
DISTRIBUTED WORLDWIDE

THE KING'S AWARDS FOR ENTERPRISE
INNOVATION
2023

CABLEFLOW™
H E A L T H C A R E
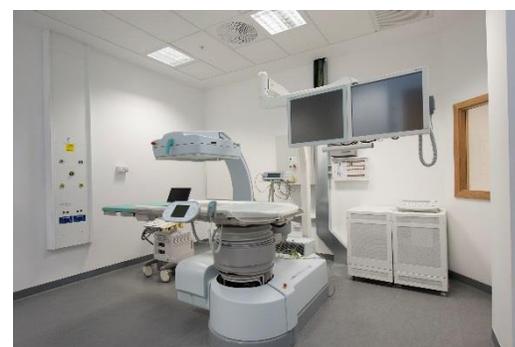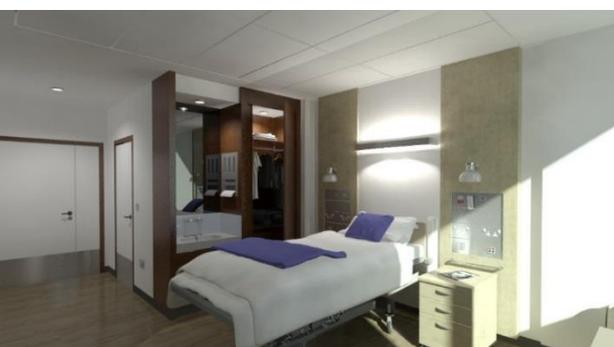
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Innovation is at the heart of an evolutionary healthcare infrastructure. Challenging boundaries whilst being respectful of clinical skills are two valued philosophies which ensure knowledge led developments in bedroom architecture.

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.

SYSTEM OVERVIEW

As our entry-level product, **MEDISYS** offers features above and beyond many other premium bedhead services trunking products.

Easy to install, available as factory built modules or as kit form for site assembly, ease of use and maintenance are the hallmarks of this product and proven across thousands of installed projects globally.

TECHNOTRUNK **MEDISYS** offers a composite solution to bedhead services provision in the clinical environment. Designed to incorporate a full range of bedhead services, each bedhead module is custom designed and manufactured to an uncompromising standard, catering for the individual needs of each bed in each hospital.

Available in a variety of colours and configurations with more than 360 shades or hues available to choose from within our standard range, and to compliment any environment.

DESIGN

Standards compliance is at the forefront of our product design and dictates that all cabled services are kept separate from medical gases in accordance with the latest UK and international standards. CABLEFLOW's range of medical trunking provides this solution in a neat, compact, versatile and cost-effective manner.

Interlocked extrusions can be assembled in a variety of configurations and specifying **MEDISYS** provides you with the ability to resolve almost any design or site constraint likely to be encountered on a single project.

MULTIPLE COMPARTMENTS

Each system can be subdivided into at least four compartments for varying services such as SELV, ELV, PELV Mains and an additional gas services chamber in accordance with the latest ISO standard. A variety of system sizes are available to accommodate the varying quantities of pipework and cabling required in both high and low dependency areas.

Flush fitting lids offer a clean appearance to the trunking facia, enhanced by a screw free approach to all external surfaces to meet HTM 08-03. Carefully manufactured lid sections butt tightly to each other to give a clean line appearance, without the need for unsightly joint cover strips. Offering an IP rating of at least IP2X or IPXXB the system exceeds the protection requirement of the standard.

The uncluttered appearance of the facia ensures that both staff and patients can quickly identify the service they require, resulting in efficient patient care. This approach underpins our belief that trunking should be not only functional but attractive too.

SPECIFYING PEACE OF MIND

Specifying a **CABLEFLOW** medical trunking system throughout your hospital will provide an easy to use and aesthetically pleasing solution while maintaining a uniform look across all departments.

As an Award winning manufacturer, innovation is at the core of our philosophy and product solutions, based upon a proven track record over 25+ years in the UK healthcare industry.

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NURSE CALL SYSTEMS

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

MEDISYS has been designed specifically to accommodate all commercially available nurse call systems including the latest wireless 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 ,and we simply co-ordinate it for you.

Often when a client states a particular preference for a bedhead services manufacturer, this invariably refers to the nurse call system to ensure compatibility with existing arrangements.

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.

SERVICES OUTLETS

Accessories are mounted directly onto trunking lids to allow simple maintenance. By utilising standard BS 4662 knockout boxes on all of our horizontal trunking we ensure a degree of flexibility and if necessary, adaptability on site.

Nurse call back box assemblies are similar in construction but allow for the location and mounting of the nurse call system circuit boards and associated components. These have been developed in conjunction with the various nurse call manufacturers to ensure simplicity, uniformity and compatibility.

MAINS POWER

Electrical socket outlets from the UK, continental Europe, the US and other geographical regions can be accommodated, including switched or unswitched versions for standard, non-standard or Medical IT supplied circuits. Where called for these can be colour co-ordinated subject to the respective manufacturer's product range.

POTENTIAL EQUALISATION

The **CABLEFLOW POAG-PES** potential equalisation socket (equipotential earth bonding) is installed on all bedheads to meet the requirement of BS 7671 Section 710 and in an appropriate number.

MEDICAL GAS TERMINAL OUTLETS

As with other patient care services provision, **MEDISYS** 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 to allow vertical and horizontal adjustment for precise alignment within the system.

Medical gas pipelines are fully segregated from cabled services, accessible by their own lid section meaning terminal outlets can be positioned almost anywhere in the module and the pipeline maintained in total safety.

The number of gas specific outlets which can be fitted varies depending on the exact product configuration selected and we can accommodate any variation of outlets as defined in HTM 02-01. Dual supply gas circuits can easily be accommodated in our larger profiles.

DATA, PATIENT MONITORING & TV SERVICES

TV, data, fibre optic and voice services are easily accommodated within the **MEDISYS** system. Proprietary supplied outlets are surface mounted or flush fitting for a co-ordinated appearance.

CONCEALED LID FIXINGS

In keeping with the screw free fascia, **MEDISYS** uses a bespoke lid retention slug that neatly slides into a channel created by the base-lid assembly preventing it from being opened inadvertently.

A specific lid removal tool accesses the channel and allows the lateral movement of the slug, thus ensuring that no damage is caused to the powder coated finish. The transparent slug has no visual impact on the appearance of the trunking, contributing towards the superb aesthetics of all **CABLEFLOW** medical trunking systems .

ADJUSTABLE ARM LIGHTING

MEDISYS has been designed to provide bedhead reading/observation or examination lighting via one or more 'adjustable arm' type lamps, attached to the front of the trunking by a bespoke bed light bracket. We can supply these lamps from a variety of manufacturers or alternatively they can easily be site-fitted by the installing contractor.

All commercially available healthcare luminaires can be attached to the trunking lid facias using bespoke brackets and power supply fuse assemblies.

Where a complete ward lighting solution is required, our fully integrated **MEDISYS integra™** product can offer all of the benefits of **MEDISYS** plus integrated up and down lighting, providing ward illumination and reading/observation lighting in accordance with CIBSE LG02:2019 (see separate product data sheet).

VERTICAL RISERS

We recognise the need to keep the visual effect of the trunking to a minimum and adopt a slim trunking section to tee into the horizontal bedhead module for the supply of all services.

With an overall size of 180 x 45mm which can be doubled up if a larger volume of services need to be accommodated this riser is a tidy solution for a vertical interface with high level ceiling containment.

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LEGENDS AND LABELLING

The specific nature of individual accessory lids in hospital applications, requires that legends and usage instructions are clearly evident to the user. We adopt a policy of indelibly marking all text and legends on our systems thus ensuring a greater life expectancy for the component and making it easy for the user to identify the relevant service.

CORNERS AND END CAPS

All of our trunking configurations have purpose made metal end caps, powder coated to complement the system whilst ensuring that the overall aesthetics of the product are maintained.

By incorporating metal end caps, EMC compliance is maintained. which cannot be achieved where plastic or polymer end caps are used.

Should corner sections be required on any specific contract please contact our sales office for further information.

OFF SITE PRE-FABRICATION

While **MEDISYS** can be supplied in kit form for site assembly, the efficiencies of factory assembled pre-wired, pre-piped modules, with all outlets pre-configured, aids the simplicity of the product. Prefabricated modules can be fitted as a second or third fix item and later in the conventional construction programme.

EMC CERTIFICATION AND COMPLIANCE

Protecting electronic components in the patent environment from Electro-Magnetic Interference (EMI) and Radio Frequency Interference (RFI) is of paramount importance. **MEDISYS** has been designed specifically to ensure that each chamber, and in turn each individual compartment, controls both the emission and reception of any such Interference.

By specifying **MEDISYS** you can be satisfied that the EMC elements of ISO 11197 have been complied with. All of our system solutions have been independently tested by BSI with all of the commercially available nurse call system in operation.

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. .

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MEDISYS M10

78mm

172mm
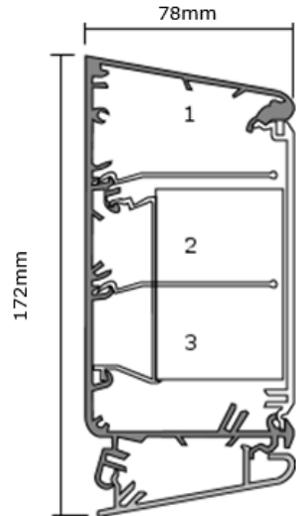
Capacities		
Max. No. of electrical compartments:		3
Max. No. of pipes:		2
Compartment capacity (gross) mm²:	1	2151
	2	617
	3	1588

MEDISYS M20

78mm

206mm

Capacities		
Max. No. of electrical compartments:		4
Max. No. of pipes:		4
Compartment capacity (gross) mm²:	1	3014
	2	617
	3	652
	4	2289

MEDICAL EQUIPMENT RAIL

The inclusion of Medical Equipment Rail onto a linear extruded bedhead trunking should not be encouraged. Loading requirements for rail systems are greater than the trunking systems intended to support them. In addition, trunking systems invariably have to be mounted higher than the maximum safe height for a Rail (see HTM 08-03).

As an alternative and more robust solution we manufacture a separate wall mounted Medical Equipment Rail to BS EN 19054 (separate product data sheet available).
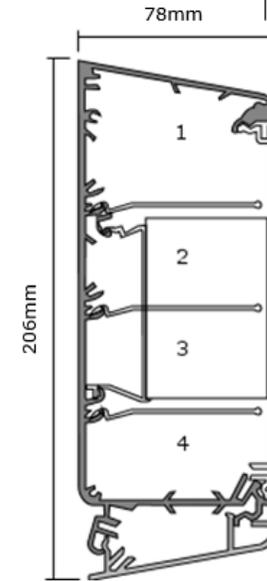
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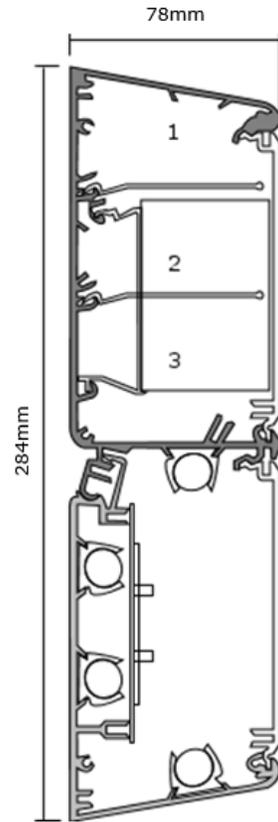
MEDISYS M13

Capacities		
Max. No. of electrical compartments:		3
Max. No. of pipes:		4
Compartment capacity (gross) mm²:	1	2151
	2	617
	3	1588

MEDISYS M14
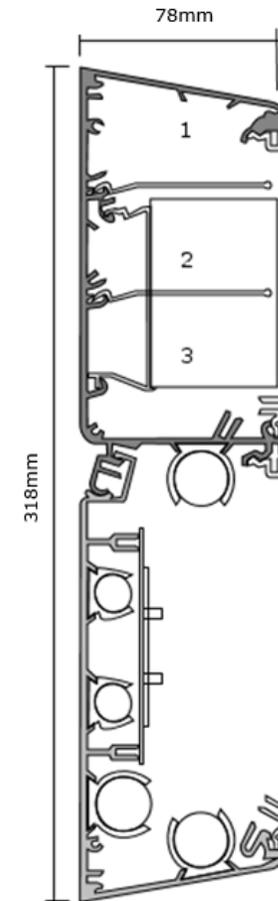
Capacities		
Max. No. of electrical compartments:		3
Max. No. of pipes:		5
Compartment capacity (gross) mm²:	1	2151
	2	617
	3	1588

MEDISYS M23

78mm

318mm

1
2
3
4

Capacities		
Max. No. of electrical compartments:		4
Max. No. of pipes:		4
Compartment capacity (gross) mm²:	1	3014
	2	617
	3	652
	4	2289

MEDISYS M24

78mm

352mm

1
2
3
4

Capacities		
Max. No. of electrical compartments:		4
Max. No. of pipes:		6
Compartment capacity (gross) mm²:	1	3014
	2	617
	3	652
	4	2289

MEDISYS M132

78mm

454mm
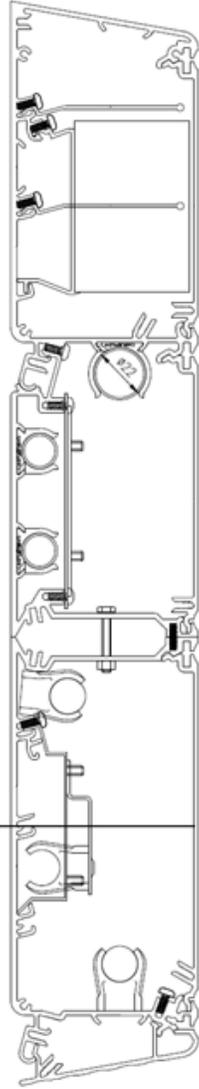
Capacities

Max. No. of electrical compartments:		3
Max. No. of pipes:		7
Compartment capacity (gross) mm²:	1	2151
	2	617
	3	1588

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 rewireable and non-rewireable 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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