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CABLEFLOW Medical Equipment Rail – BS ISO 19054

THE KING'S AWARDS FOR ENTERPRISE
2023
INNOVATION

CABLEFLOW™
HEALTHCARE

applications

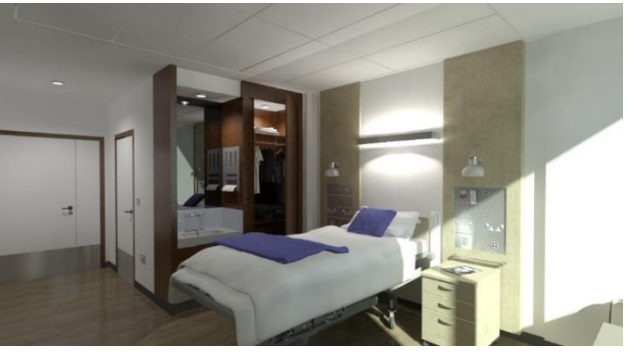
CABLEFLOW

2023











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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.

The **CABLEFLOW MEDICAL EQUIPMENT RAIL** provides the ideal universal rail mount system for the temporary mounting and support of any patientcare equipment required at different locations within a healthcare environment.

Our extruded aluminium medical equipment rail, has been specifically designed to provide a simple, functional and economic solution to the variable needs within the patient care environment.

Designed to comply with, and in many cases exceed the essential requirements of the International Standard BS EN ISO 19054 – *Rail systems for supporting medical equipment*, this product design offers both a general and heavy-duty rail from one solution.

WALL MOUNTED

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 ISO standards for trunking systems intended to support them.

In addition, trunking systems invariably have to be mounted higher than the maximum safe height for a medical rail (see HTM 08-03) and there if mounted thereon could present a residual risk to patient safety.

Medical equipment rail should not generally be mounted higher than 1000mm above floor level as recommended in HTM 08-03, and not lower the 400mm.

Where rail is mounted onto medical supply unit then appropriate support and securing fixings should be ensured that are satisfactory to support the intended rail load as declared by the rail manufacturer or, the medical supply unit manufacturer, whichever is the greater.

END CAPS

Proprietary end caps that neatly secure into the ends of the extrusion detail and which form an hermetic seal at each end of an installed rail are provided.

RAIL ACCESSORIES

The rail system is compatible with majority of commercially available rail mounting clamps can be attached to the **MEDICAL EQUIPMENT RAIL** without the use of tools. Please contact our sales team for further product information.

SAFETY

Our rail design also incorporates a position for the system to be earth-bonded in accordance with national wiring regulations, used where it is likely to be carrying mains operated equipment. Therefore, in the event of an electrical fault condition this rail system provides further safety bonding protection.

DESIGN

The **CABLEFLOW RAIL** is manufactured in an anodised silver (medium grey) finish and allows for simple cleaning whilst offering a neutral and aesthetically pleasing profile within the patient environment. This universally accepted finish is durable to the rigours of both general ward and intensive area usage alike and is corrosion resistant.

Fixings are concealed from view by a RAL 5012 polymer infill strip in RAL 5012 blue which push fits neatly into the body extrusion once fitted to provide a clean facia finish.

EASE OF INSTALLATION

Rail can be supplied direct from our factory in bespoke lengths with pre-determined fixing centres, or alternatively is supplied as a complete kit which is ready for site drilling to suit unknown fixing positions and may be simply fitted by any competent technician.

The installer should carefully select the appropriate fixing to suit the surface onto which the rail is being mounted. Whilst the rail with satisfactorily withstand a direct load of 25kg, the fixing and support structure should be considered as the weaker point.

Any continuous length from 300mm up to 4000mm can be supplied although standard 'stock' lengths are supplied in 2000mm bars. A 'joining kit' is available to allow multiple lengths to be connected across longer expanses of wall.

By following our detailed Installation Instructions for this system, where required the rail can be easily cut on site with no detrimental effect to the surface finish, overall appearance or function of the product.

The design of the **CABLEFLOW RAIL**, ensures it can be fitted either horizontally or vertically dependent upon the clinical layout requirements. Fitted directly to the wall surface without the need for stand-off brackets or additional fixing components means cleaning the system is simple.

CE MARKING & STANDARDS COMPLIANCE

By specifying **CABLEFLOW RAIL™** you can be satisfied that the performance requirements of ISO 19054 (latest edition) have been satisfied in the design of this product.

The product is CE marked in accordance with the CE Marking Directive 93/68/EEC and is supplied with a Declaration of Conformity to the EU Medical Devices Regulations 2017/745 (as amended).

Technical Specifications	
Product name:	**CABLEFLOW MEDICAL EQUIPMENT RAIL**
International Standards:	ISO 19054
Material:	Extruded aluminium (AL MgS:0.5)
Surface Finish:	Electrolytically Anodised to AA25 BS EN 12373
Standard Length:	2000mm (variable lengths cut to order from 600mm – 4000mm)
Non-standard lengths:	These are available factory pre-cut to order up to a maximum length of 4000mm. It is also possible to pre-drill the rails for fixing holes within our factory to site dimensions if these are known. Please contact our sales office for further assistance.
Fixings:	Fixings are supplied by the installer to suit the surface into which the Rail is being installed.
End Caps:	Polymer injection moulded and supplied in pairs. End caps are universal and push-fit onto the ends of the rail, left or right hand and are secured by a single self tapping screw underneath the blue cover strip. Coloured in Pale Blue.
Installation Orientation	Universal orientation
Installation Instructions:	A comprehensive set of installation instructions are supplied with each order and this covers all aspects of installation including recommended fixing distances, cleaning agents, part numbers and fixing heights.
Clamps:	A range of medical equipment rail clamps is available to complement this system, with additional function specific accessories also on offer.

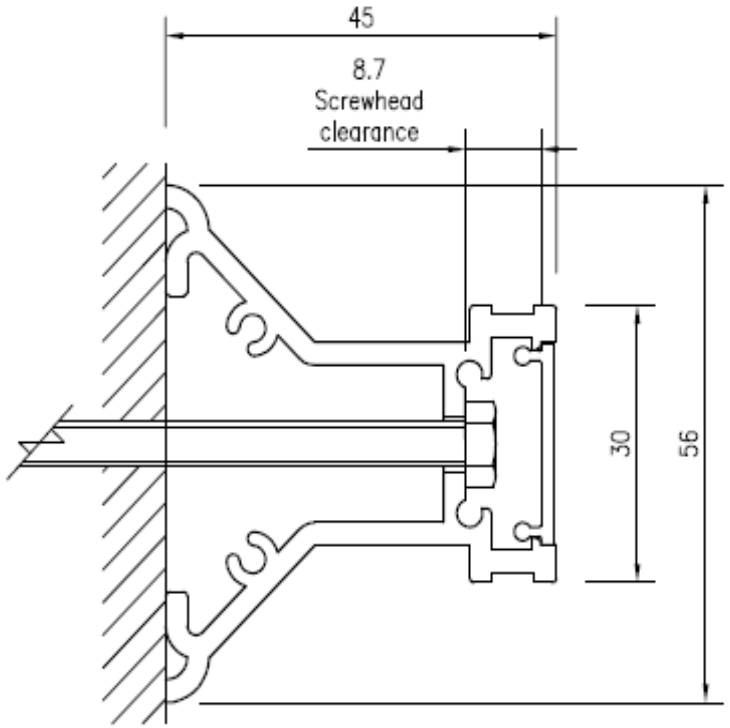

Fig. 4

Medical Supply Units applicable standards compliance declaration

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 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 1363-2:2016 + A1: 2018	13 A plugs, socket-outlets, adaptors and connection units. Specification for 13 A switched and unswitched socket-outlets
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
BS 5266-1:2011	Emergency lighting. Code of practice for the emergency escape lighting of premises
BS 5733:2010+A1:2014	General requirements for electrical accessories. Specification
BS 6701: 2016	Telecommunications equipment and telecommunications cabling. Specification for installation, operation and maintenance
BS 6972: 1988	Specification for general requirements for luminaire supporting couplers for domestic, light industrial and commercial use
BS 7671:2018 + A2 2022	Requirements for Electrical Installations 18th Edition IET Wiring Regulations (incorporating Section 710 (Special Locations Medical Locations)
BS 8300-1:2018	Design of buildings and their approaches to meet the needs of disabled people. Code of practice
BS EN 12206-1:2021	Paints and varnishes. Coating of aluminium and aluminium alloys for architectural purposes. Coatings prepared from coating powder
BS EN 12464-1: 2021	Light and lighting. Lighting of work places. Indoor work places
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
BS EN 50083-2:2012	Cable networks for television signals, sound signals and interactive services. Electromagnetic compatibility for equipment
BS EN 50085-1:2005+A1:2013	Cable trunking systems and cable ducting systems for electrical installations. General requirements
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
BS EN 60439-5: 2006	Low-voltage switchgear and control gear assemblies. Particular requirements for assemblies for power distribution in public networks
BS EN 60529:1992+A2:2013	Degrees of protection provided by enclosures (IP code)
BS EN 60598-1:2021	Luminaires. General requirements and tests
BS EN 60598-2-22:2014 +A1: 2020	Luminaires. Particular requirements. Luminaires for emergency lighting
BS EN 60601-1-6:2010+A1:2013 +A2:2020	Medical electrical equipment. General requirements for basic safety and essential performance. Collateral standard. Usability
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
BS EN 60669-1:2018	Switches for household and similar fixed-electrical installations. General requirements
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)
BS EN 61000-6-4:2019	Electromagnetic compatibility (EMC). Generic standards. Emission standard for industrial environments
BS EN 61000-6-1:2019	Electromagnetic compatibility (EMC). Generic standards. Immunity for residential, commercial and light-industrial environments (formally BS EN 50082-1)
BS EN ISO 7396-1:2016 +A1:2019	Medical gas pipeline systems. Pipeline systems for compressed medical gases and vacuum
BS EN ISO 7396-2: 2007	Medical gas pipeline systems. Anaesthetic gas scavenging disposal systems
BS EN ISO 9170-1:2017	Terminal units for medical gas pipeline systems. Terminal units for use with compressed medical gases and vacuum

Document Reference	Document Description
BS EN ISO 9170-2:2008	Terminal units for medical gas pipeline systems. Terminal units for anaesthetic gas scavenging systems
BS EN ISO 7599:2010	Anodizing of aluminium and its alloys. General specifications for anodic oxidation coatings on aluminium
BS EN ISO 11197:2019	Medical supply units
ISO 19054:2006 + A1:2016	Rail Systems for supporting medical equipment
HBN 00-03	Designing generic clinical and clinical support spaces
HBN 00-04	Circulation and communication Spaces
HBN 00-09	Infection control in the built environment
HBN 04-01	Adult in-patient facilities: planning and design
HBN 04-02	Critical care units
HBN 4, Supplement 1	Isolation facilities for infectious patients in acute settings
HBN 6	Facilities for Diagnostic imaging and interventional radiology:
HBN 07–01	Satellite Dialysis Unit
HBN 07-02	Main Renal Unit
HBN 09-02	Maternity Care Facilities
HBN 09-03	Neonatal Units
HBN 57: 2003	Facilities for critical care
HTM 00	Building Engineering in the Health Sector
HTM 02-01	Medical gas pipeline systems
HTM 06-01	Electrical services: supply and distribution
HTM 06-02	Electrical safety guidance for low voltage systems
HTM 08-03	Management of bedhead services in the health sector
HTM 17	Health Building Engineering Installations
HTM 2014	Abatement of electrical interference
HTM 2020	Electrical safety code for low voltage systems
CIBSE LG 02: 2019	Lighting guide - Hospitals and health care buildings
CIBSE LG 3: 2001	Lighting guide - The visual environment for Display Screen Use
CIE	European Lighting Guide
NHS SPEC C49: 1997	Nurse Call Systems. Revision 3
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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For full product data sheets go to our website or contact us directly

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