

CI/SfB (42) Xi4
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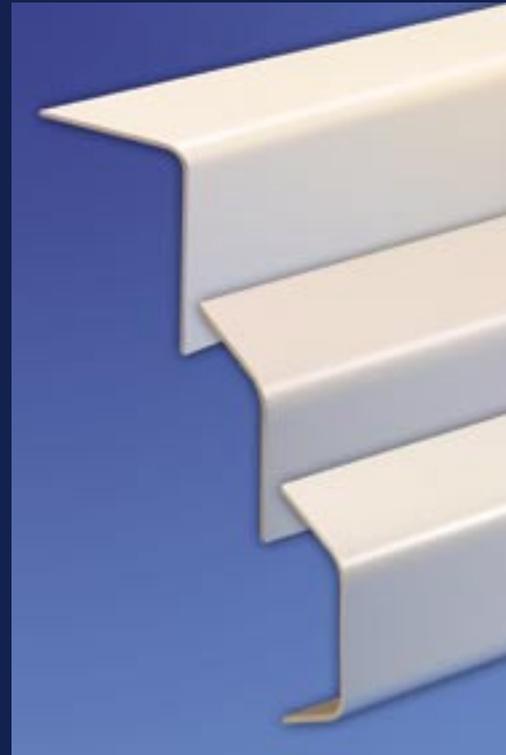
Casings for Services

technical handbook

PENDOCK

CASING & ENCLOSURE SYSTEMS

www.pendock.co.uk



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PIPE BOXING		
TK	7	A range of 5mm preformed plywood casings with a 115° angle. For use at skirting or corner locations for encasing cables or pipes up to 50mm diameter. Available in a range of melamine finishes.
TKD	7	A range of 5mm preformed plywood casings with 115° angled returns. For use at dado or mid-wall level for encasing cables or pipes up to 50mm diameter. Available in a range of melamine finishes.
MX	9	A range of 5 and 8mm preformed plywood casings with a 90° angle. For use at skirting or corner locations for encasing pipework up to 250mm diameter. Available in 5mm in a range of melamine finishes and 8mm in a wide range of finishes to suit all interior requirements.
CH	11	A range of channel casings created using the 8mm MX range. For use at mid-wall vertical or horizontal locations, including bulkheads, for the encasement of pipework or structural elements. Available in a wide range of finishes to suit all interior requirements.
CABLE MANAGEMENT		
MCTK/D	15	Multi compartment trunking system with 115° angle fascia. Using a rigid uPVC cable carrier and faced with a range of 8mm preformed plywood casings. For use at skirting, dado or vertical applications, for carrying and encasing cabling. Available in a wide range of finishes to suit all interior requirements.
MCMX	15	Multi compartment trunking system with 90° angle fascia. Using a rigid uPVC cable carrier and faced with the 8mm MX range of preformed plywood casings. For use at skirting or corner locations for carrying and encasing multi service cabling and pipework. Available in a wide range of finishes to suit all interior requirements, with bespoke sizes also available.
FLUSH FLOOR DUCTING		
FDT	17	Single compartment floor ducting. Preformed galvanised steel tray sections with a plywood lid. For use in dry or screeded floors to encase pipework allowing subsequent access. Available in a range of standard or bespoke sizes.
MCFDT	17	Multi compartment floor ducting. Preformed galvanised steel tray sections with dividers and a plywood lid. For use in dry or screeded floors to encase service cabling allowing subsequent access. Available in a range of standard or bespoke sizes.
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INTRODUCTION TO PENDOCK



KEY FEATURES AND BENEFITS OF PENDOCK PRODUCTS

- Strong and lightweight.
- Pre-finished, maintenance free and ready to install.
- Off-site construction.
- Available with veneer, laminate, melamine or natural finishes.
- Wide variety of standard shapes and sizes.
- Suitable for enclosing cables, pipework or structures both vertically and horizontally.
- Soft curves for practicality, safety and hygiene.
- Bespoke design service available.
- Quick and easy to fit.
- Low life-time costs.

THE COMPANY

Pendock launched a unique range of pre-formed plywood casings and enclosure systems in 1987 and is now recognised as a major international supplier to the building industry.

In responding to the demands of specifiers and contractors Pendock has developed comprehensive solutions to the challenges of enclosing structures and services for building interiors.

Today, Pendock is a member of the Alumasc Group plc and operates as part of the Building Products Division.

INSTALLED COSTS

Impartial studies and comprehensive assessments of the installed cost of Pendock's casing systems have been undertaken against conventional site made casing. Pendock's one piece construction of the casing negates the need for site decoration. The combined effect of these factors results in a dramatic reduction in cost and installation time.

MATERIAL SUMMARY

The Preforming Process

Heat and pressure are applied to bonded layers of wood veneer to produce a strong, lightweight profile which will retain consistent shape and form.

Adhesive used to bond the softwood core is to BS 1204: 1979 classification type MR (moisture resistant and moderately weather resistant).

Moisture Content and Stability

The manufacturing process results in moisture content of between 6% and 8%. This ensures greater stability than normal construction timber, and enables profiles to be positioned in close proximity to heat emitters and pipes.

FIRE SPREAD

When tested in accordance with BS 476 pt 7. Pendock casings achieve a Class 2 surface spread of flame. When applying fire retardant laminates they achieve Class 1 spread of flame (Class 1Y on radiused components).

It should be noted that Class 1 spread of flame rating does not provide structural fire protection in its own right.

FIXING

Profiles are screw fixed through face to soft wood battens available as part of the system, allowing easy removal without damage to existing decor and facilitating future access for maintenance requirements.

All casings are designed to be installed using countersinking screws, available from Pendock in a black, zinc or brass finish.

Mechanical fixings may be obscured by the design the installed systems or discreetly positioned within shadow gaps/feature joints.

Where casings are fixed through the product surface, decorative caps are available to complement the colour of the casing.

Should post-installation access not be required, casings may be fixed with an appropriate adhesive.



Typical installation

FINISHES

Pendock's preformed plywood casings are available in a wide range of finishes.

Melamine and veneer finishes are factory applied to Pendock products during the unique pre-forming process. Other laminates are post-formed onto plywood casings.

Pendock profiles are, and always have been, off-site construction (OSC) products, and are supplied to site ready to install, reducing the level of disruption caused by 'wet trades' in buildings.

MELAMINE

Melamine is the standard finish for much of the Pendock preformed plywood range and is applied to the substrate during the forming process. Standard finishes are white, grey, black, natural, beech, white ash, light oak, cherry, walnut and maple as pictured below. Other colours are available subject to minimum order quantities.

Performance

Melamine is suited to areas of low to medium traffic. If damaged or dirty the finish can be over painted or wiped with a damp cloth.

HIGH PRESSURE LAMINATES

Composition

High pressure laminates are one of the most hard wearing and adaptable finishes available. They are produced from layers of specially prepared papers. Once impregnated with thermosetting synthetic resin, they are fused together under heat and very high pressure.

Range

Pendock generally recommends Formica high pressure laminates that conform to EN 438 and ISO 4586. Many other brands can be factory applied and specifiers simply need to identify the brand and finish reference required. Laminates must be post-forming grade (Pendock technical staff will be pleased to advise).

Examples of Formica laminates can be found at:
www.formica-europe.com



Standard melamine finishes



Performance

Laminate is durable and hygienic. Resistance to impact and abrasion enables use in areas of high traffic and public access. It is virtually maintenance free and will cope with continual cleaning processes in environments where hygiene is essential.

REAL WOOD VENEERS

Pendock preformed plywood casings are available finished in real wood veneers, carefully selected into batches to provide consistency in colour and grain structure.

Standard Ranges

Almost any commercially available veneer is obtainable. We carry stocks of oak, maple, elm, ash, beech, mahogany, walnut, pine, cherry, teak and aniegre.

Performance and Finishing

Veneered products can be coated with a hard wearing lacquer to enhance the natural beauty of the veneer and increase durability. Alternatively, veneered products can be supplied in a natural finish for site varnishing or polishing.

Product Sequencing

Where grain structure is critical ie. horizontal runs, a sequential selection and numbering service is available. Veneers are individually selected and cut to maintain grain continuity on each individual product. Once produced they are numbered for ease of identification on site.

Commitment to Natural Products

Pendock uses veneers from sustainable and managed sources. In the manufacturing process no attempt is made to dye or reconstruct any part of the veneer, thereby allowing the product to retain its natural beauty and unique characteristics.

NATURAL FINISH FOR SITE DECORATION

Some Pendock products are available to order in a plain finish, suitable for onsite decoration such as painting (8mm MX in 3m lengths and 8mm TK in 2.5m lengths only).

Performance and Finishing

Casings can be painted or stained.



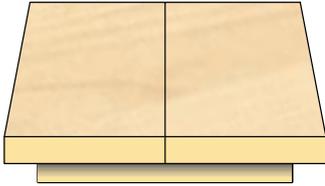
Recommended Installers

Pendock operates a Recommended Installer Scheme and can guide you to the best installer for your requirements. Please call the technical department on 01952 580 590.

ASSEMBLY & FEATURE JOINTING

A number of joint options are available when fixing Pendock profiles together.

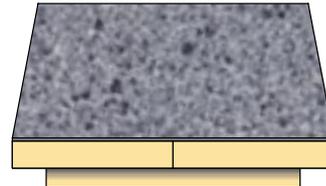
J1 - BUTT JOINT



Use with: melamine, real wood veneer or natural finish.

A J1 feature joint obscures exposed plywood edges where two sections of material meet.

J4 - SEALED JOINT

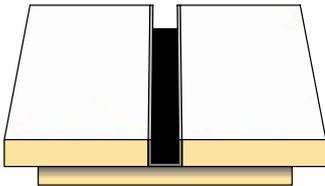


Use with: high pressure laminate (hpl).

Joints can be concealed for an uninterrupted finish.

With larger casings, another joint may also be required for one or more of the joint locations.

J2 - uPVC SHADOW GAP



Finish: black or white uPVC channel.

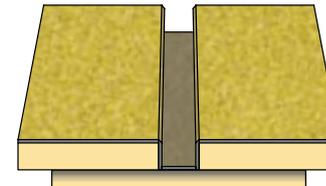
Use with: any casing finish.

Joint width: 10mm.

A J2 feature joint is produced using a rigid black or white uPVC extrusion to provide a relief gap between components and obscure exposed plywood edges.

Widely used across all types of product and finish. The J2 provides a useful fixing point where black and white fixing screws can secure the product discreetly.

J5 - LIPPED JOINT

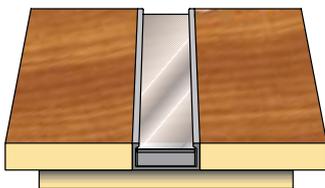


Use with: real wood veneer or laminate only.

Joint width: any width available, nominally 12mm.

A feature relief joint can be produced using complementary or contrasting laminates or veneers bonded to the exposed edges of each component and lining the plywood gusset used in the assembly process.

J3 - ALUMINIUM EXTRUSION & DECORATIVE INSERT



Finish: aluminium extrusion plus insert strip in real wood veneer, laminate or metal (to complement or contrast with casing).

Use with: any finish.

Joint width: 20mm.

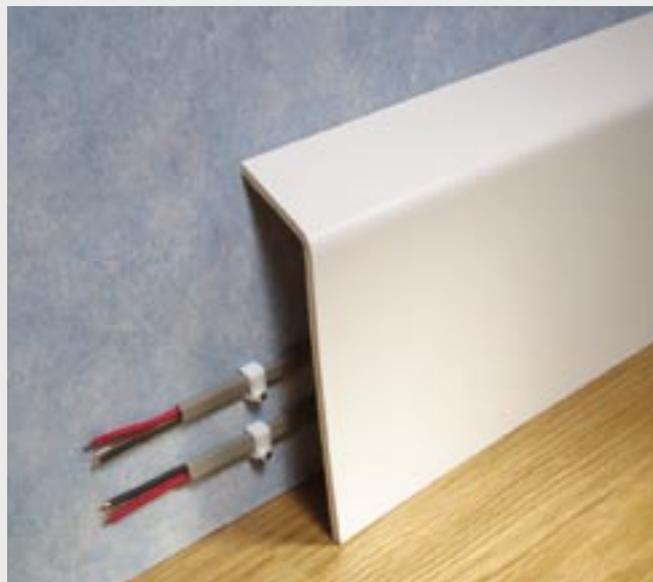
A J3 feature joint uses a two part aluminium extrusion and decorative insert.

Mechanical fixings can be located in the channel during installation. The decorative insert can then be put into position. All fixings are obscured.

TK & TKD CASING SYSTEMS

- Ideal for concealing small bore pipes and/or electrical wiring.
- Rounded corners.
- Suitable for refurbishment or new build.
- De-mountable for post-installation access.
- Quick, easy installation.
- Range of accessories.
- Suitable for vertical and horizontal applications.

For larger casings to enclose services please refer to the **MX casing range** (see page 9).



Example of the TK casing system covering electrical wiring.

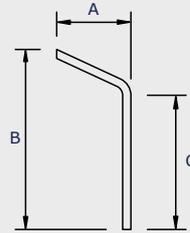


TK & TKD RANGE SPECIFICATION GUIDANCE

PENDOCK TK PLYWOOD CASING SYSTEM



STANDARD EXTERNAL DIMENSIONS FOR TK RANGE



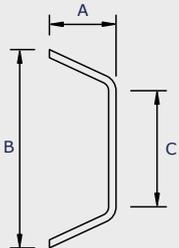
Leg A (mm)	Leg B (mm)	C (mm)
20	85	60
25	125	105
45	110	80
45	150	120
45	190	160
75	145	90
75	180	125
75	220	165

Available in 2.5m lengths

Thickness: 5mm
Internal angle: 115°
Finish: Melamine (see page 4 for details)
Maximum pipework diameter: 50mm

Long runs of sections are joined together using butt joints incorporating 'Easy-fit' joint covers. Profiles can be cut to reduce the standard product size to an intermediate height.

STANDARD EXTERNAL DIMENSIONS FOR TKD RANGE



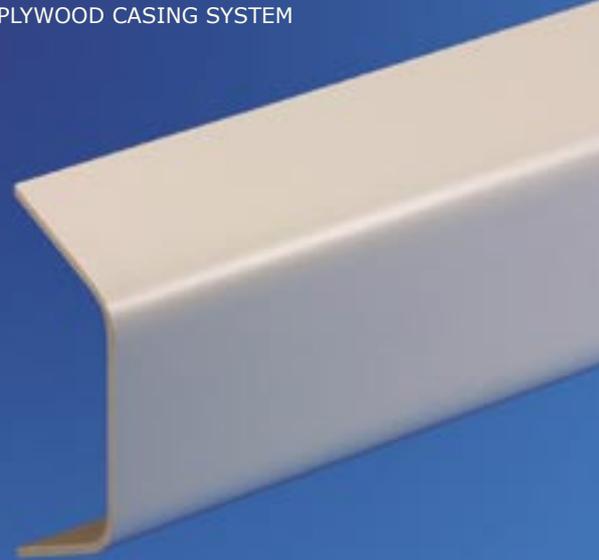
Leg A (mm)	Leg B (mm)	C (mm)
45	135	80
45	220	165
45	300	245
75	200	95
75	370	265

Available in 2.5m lengths

Thickness: 5mm
Internal angle: 115°
Finish: Melamine (see page 4 for details)
Maximum pipework diameter: 50mm

Long runs of sections are joined together using butt joints. Special sizes can not be produced.

PENDOCK TKD PLYWOOD CASING SYSTEM



When determining the profile size it is important to take into account its thickness and the size and positioning of battens.

TK ACCESSORIES

- Minimise installation time.
- Easy-fit.
- Professional finish.
- All melamine colours available.

Internal Corner



External Corner



Butt Joint Cover



Stop Ends (Pair)



TKD accessories include stop ends only. A laminate strip can be supplied to cover butt joints. Corners will require mitring on site.

MX & CH CASING

MX & CH

- Cover and protect larger pipework and heating services, soil, vent and rainwater pipes.
- Rounded corners.
- Wide range of finishes.
- Ideal for new build or refurbishment.
- De-mountable for post-installation access
- Suitable for vertical and horizontal applications.
- Range of accessories

MX types A and B are available in standard sizes up to 3m to cater for pipework up to 250mm diameter. Intermediate sizes are available to suit individual applications.

MX range types C and D cater for larger casings, to enclose exposed pipework offset from the internal structure, or where greater concentrations of services occur. They are available to individual size requirements over 300mm, based on a standard type B casing with an additional flat panel extension to horizontal leg and/or vertical leg. A range of factory assembled joints is available (J1, J2, J3, J4 and J5) and casings can be supplied in two sections to facilitate site assembly of components, which are joined together using a factory-made male and female assembly joint.

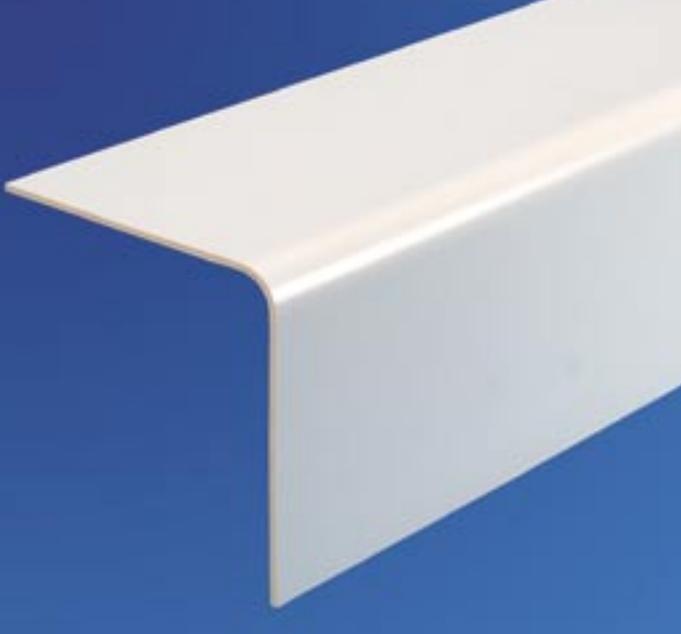
The CH range caters for large diameter pipes or structural elements located in mid wall applications, vertically or horizontally, including bulkheads.

CH enclosures are produced using two 8mm MX type B profiles, with additional joint. Flat panels for larger requirements and standard channel lengths are 2.5m and 3m. Profiles are screw fixed to softwood battens, available as part of the system, allowing easy removal without damage to existing decor and facilitating future access for maintenance requirements.

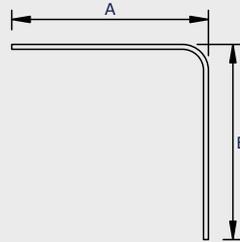


MX TYPE A & B SPECIFICATION GUIDANCE

PENDOCK MX PLYWOOD CASING SYSTEM TYPE A



STANDARD EXTERNAL DIMENSIONS FOR MX TYPE A



Leg A (mm)	Leg B (mm)
75	150
75	200
100	100
100	200

Available in 2.5m lengths

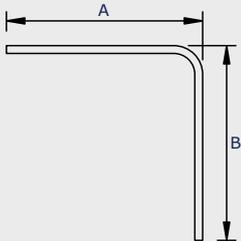
150	150
150	200
200	200

Available in 2.5 and 3m lengths

Thickness: 5mm
Internal radii: 21.5mm
Internal angle: 90°
Finish: melamine (see page 4)

Any leg size from 65 to 200mm can be specified and cut from a standard profile. Long runs of sections are joined together using butt joints incorporating 'Easy-fit' joint covers.

STANDARD EXTERNAL DIMENSIONS FOR MX TYPE B



Leg A (mm)	Leg B (mm)
150	150
150	200
150	300
200	200
200	300
300	300

Available in 2.5m lengths

Thickness: 8mm
Internal radii: 21.5mm
Internal angle: 90°
Finish: melamine, laminate, real wood veneer or natural (see page 4)

Any leg size from 65 to 300mm can be specified and cut from a standard profile. Long runs of sections are joined together using butt joints incorporating 'Easy-fit' joint covers.

PENDOCK MX PLYWOOD CASING SYSTEM TYPE B



When determining the profile size throughout it is important to take into account its thickness and the size and positioning of battens.

MX ACCESSORIES

- Minimise installation time.
- Easy-fit.
- Professional finish.
- Melamine finishes on 5mm thick profiles.
- All finishes available on 8mm thick profiles.

Internal Corner



External Corner



Butt Joint Cover



Stop Ends (Pair)

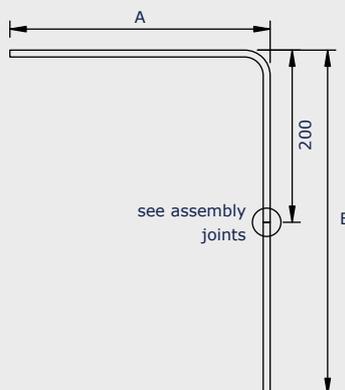


MX TYPE C & D SPECIFICATION GUIDANCE

PENDOCK MX PLYWOOD CASING SYSTEM TYPE C



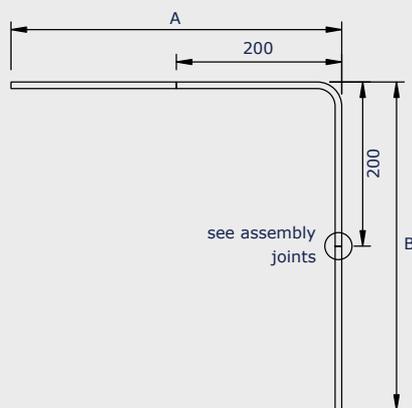
EXTERNAL DIMENSIONS FOR MX TYPE C



Leg A (mm)	Leg B (mm)
65 to 300	Over 300

Available in 2.5 and 3m lengths

EXTERNAL DIMENSIONS FOR MX TYPE D



Leg A (mm)	Leg B (mm)
Over 300	Over 300

Available in 2.5 and 3m lengths

PENDOCK MX PLYWOOD CASING SYSTEM TYPE D



When determining the profile size it is important to take into account the size and positioning of battens, the profile thickness and assembly joint thickness of 11mm or gusset thickness of 5.5mm.

Long runs of sections are joined together with butt joints or shadow gap joints using inner collars.

PENDOCK MX PLYWOOD CASING SYSTEM TYPE C

Thickness: 8mm
Finish: Melamine, laminate, real wood veneer or natural (see page 4)
Assembly joint: J1, J2, J3, J4 or J5 (see page 5)

Type C's are made to order. One leg size between 65 and 300mm can be specified and cut from a standard profile and one leg size over 300mm can be specified and extended from a standard profile.

PENDOCK MX PLYWOOD CASING SYSTEM TYPE D

Thickness: 8mm
Finish: Melamine, laminate, real wood veneer or natural (see page 4)
Assembly joint: J1, J2, J3, J4 or J5 (see page 5)

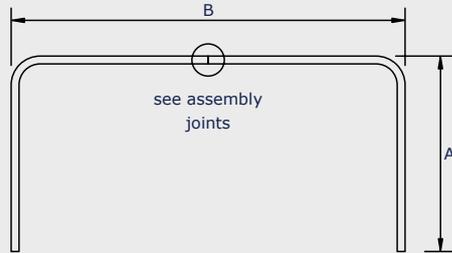
Type D's are made to order. Leg sizes over 300mm can be specified and extended from a standard profile.

CH TYPE B & C SPECIFICATION GUIDANCE

PENDOCK CH PLYWOOD CASING SYSTEM TYPE B



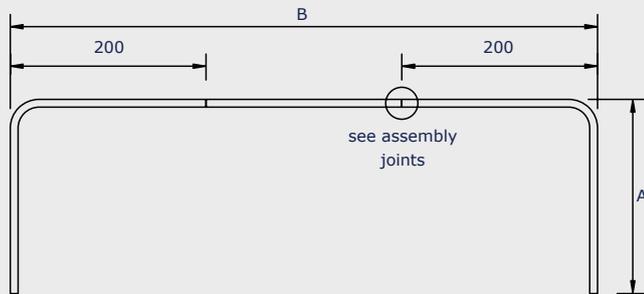
EXTERNAL DIMENSIONS FOR CH TYPE B



Leg A (mm)	Dim B (mm)
65 to 300	150 to 600

Available in 2.5 and 3m lengths

EXTERNAL DIMENSIONS FOR CH TYPE C



Leg A (mm)	Dim B (mm)
65 to 300	Over 600

Available in 2.5 and 3m lengths

PENDOCK CH PLYWOOD CASING SYSTEM TYPE C



When determining the profile size it is important to take into account the size and positioning of battens, the profile thickness and assembly joint thickness of 11mm or gusset thickness of 5.5mm.

Long runs of sections are joined together with butt joints or shadow gap joints using inner collars.

PENDOCK CH PLYWOOD CASING SYSTEM TYPE B

Thickness: 8mm

Finish: Melamine, laminate, real wood veneer or natural (see page 4)

Assembly joint: J1, J2, J3, J4 or J5 (see page 5)

Various standard sizes. Any depth from 65 to 300mm and width from 150 to 600mm can be specified, cut and joined from two standard MX Type B profiles.

PENDOCK CH PLYWOOD CASING SYSTEM TYPE C

Thickness: 8mm

Finish: Melamine, laminate, real wood veneer or natural (see page 4)

Assembly joint: J1, J2, J3, J4 or J5 (see page 5)

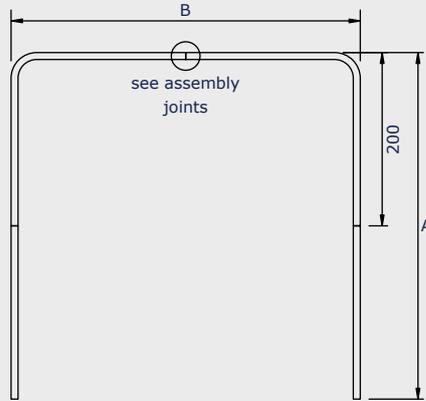
Made to order. Any depth from 65 to 300mm and width over 600mm can be specified and cut from two standard MX Type B profiles with an additional flat panel between.

CH TYPE D & E SPECIFICATION GUIDANCE

PENDOCK CH PLYWOOD CASING SYSTEM TYPE D



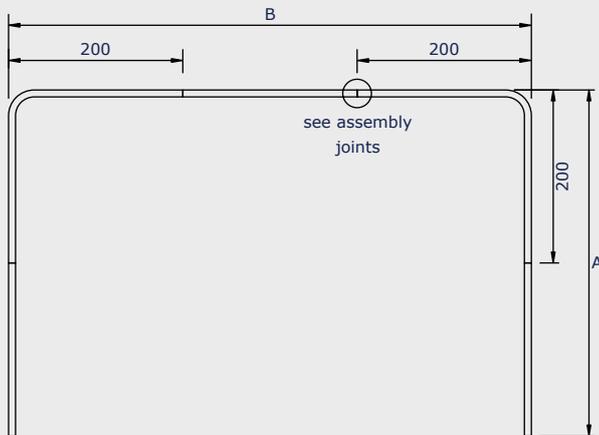
EXTERNAL DIMENSIONS FOR CH TYPE D



Leg A (mm)	Dim B (mm)
Over 300	150 to 600

Available in 2.5 and 3m lengths

EXTERNAL DIMENSIONS FOR CH TYPE E



Leg A (mm)	Dim B (mm)
Over 300	Over 600

Available in 2.5 and 3m lengths

PENDOCK CH PLYWOOD CASING SYSTEM TYPE E



When determining the profile size it is important to take into account the size and positioning of battens, the profile thickness and assembly joint thickness of 11mm or gusset thickness of 5.5mm.

Long runs of sections are joined together with butt joints or shadow gap joints using inner collars.

PENDOCK CH PLYWOOD CASING SYSTEM TYPE D

Thickness: 8mm

Finish: melamine, laminate, real wood veneer or natural (see page 4)

Assembly joint: J1, J2, J3, J4 or J5 (see page 5)

Various standard sizes. Any depth over 300mm and width from 150 to 600mm can be specified cut and joined from two standard MX Type B profiles, with additional flat panels.

PENDOCK CH PLYWOOD CASING SYSTEM TYPE E

Thickness: 8mm

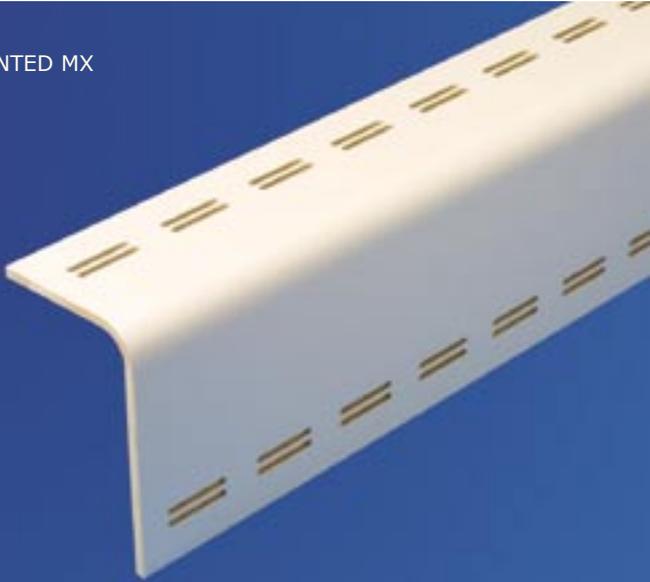
Finish: melamine, laminate, real wood veneer or natural (see page 4)

Assembly joint: J1, J2, J3, J4 or J5 (see page 5)

Various standard sizes. Any depth over 300mm and width over 600mm can be specified cut and joined from two standard MX Type B profiles with additional flat panels.

MX & CH TECHNICAL DETAILS

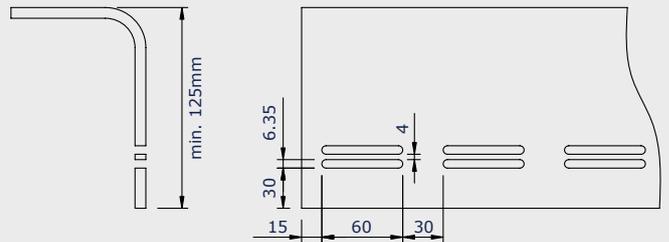
VENTED MX



VENTILATION

- 8mm profiles can be machine-grilled for ventilation.
- Unsightly pipework can remain functional yet concealed.

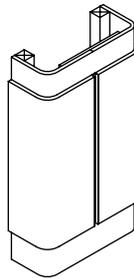
Grille patterns are uniformly spaced to provide a tolerance gap for cross cutting on site. The minimum leg length for casings with grille patterns is 125mm.



ACCESSORIES

INNER COLLARS (CH example)

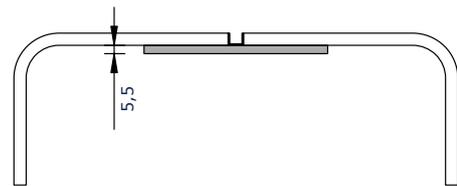
- Use as head and skirting details or as a feature joint between consecutive lengths of casing.
- Supplied in complementary finishes.
- Used to take up site tolerances eliminating the need to trim full sections
- Produced to suit the internal dimensions of the main casing and 200mm high to reveal up to 150mm.



EXTENDED MX PROFILES (TYPES C & D) & CH JOINTING DETAILS

Channel or extended casings are generally despatched factory fixed as complete units. If casings are too large for transportation as a single unit then they will be supplied as components fitted with male and female joints for site assembly.

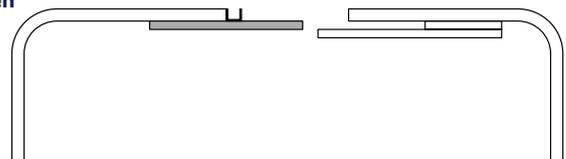
FACTORY FIXED JOINT (CH example using 5.5mm gusset)



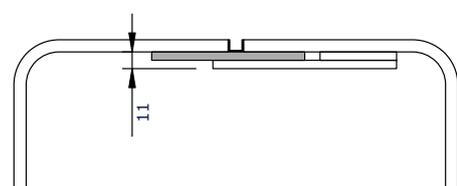
ASSEMBLY JOINT

Factory fitted male and female joints to assist site assembly of components (CH example).

Open

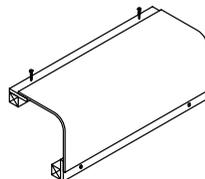


Closed



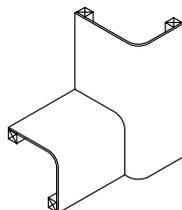
EDGE SHADOW GAPS (MX example)

- Factory fitted to the enclosure to enhance the product design.
- Discreetly locate mechanical fixings as well as providing material for scribing.



INTERSECTIONS

Where MX profiles intersect with another MX or CH profile different sizes should be specified. A minimum leg size difference of 35mm is required so that profiles can simply butt up to one another. Profiles of the same size can be mitred together but this involves accurate shaping around the radiused bend, and is therefore not recommended.



MCTK, MCTKD & MCMX TRUNKING SYSTEMS

The MC range is a proprietary trunking system for multi service cabling in skirting and dado applications. All systems accept integral socket outlets with a limited range of accessories for ease of installation.

- Rigid uPVC cable carrier offering three compartment separation.
- Wide range of finishes.
- Easy 'snap fix' installation.
- Reduced installation time

MCTK systems have an exposed, black base extrusion for skirting applications.

MCTKD systems have a double return fascia for vertical and dado applications.

MCMX assemblies are configurable to individual applications, using standard components enabling non-compatible services to be enclosed within the same trunking. Electrical services are contained within the MC cable carrier and heating pipes are segregated from services by an additional timber divider. All services are then enclosed using Pendock MX Casing Systems (see page 9 for details).

A limited range of accessories is available to minimise installation time.

SOCKET OUTLETS

The MC system is designed to accept standard BS socket outlets for power, telecom and data. Sockets are site-fitted into the fascia sections. Apertures are cut in the desired location with the aid of a reusable template. A cavity socket box is pushed through the fascia from the front and the socket is fixed to this box. The socket box acts as a protective enclosure for operatives when removing the trunking for subsequent maintenance.

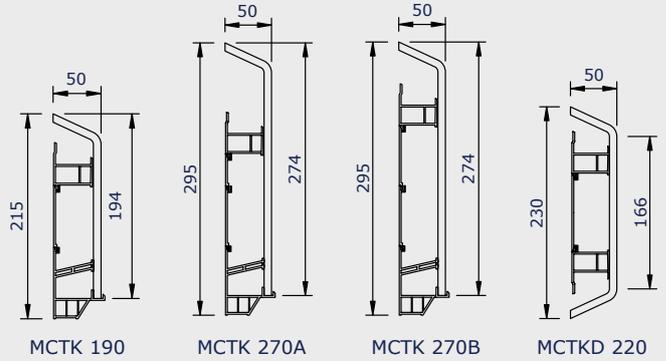


MCTK/D & MCMX RANGE SPECIFICATION GUIDANCE

PENDOCK MCTK WITH CARRIER



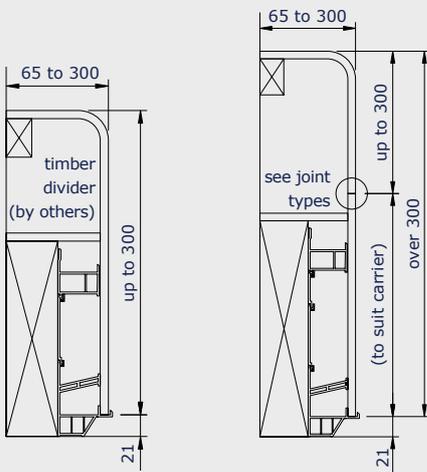
MCTK/D TRUNKING DIMENSIONS



Available in 2.5m lengths

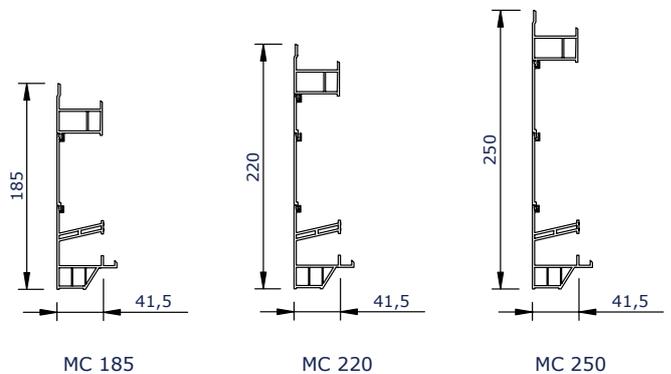
MCMX TRUNKING EXAMPLES

Examples refer to MX range Types B and C (see pages 9 and 10)



Available in 2.5 or 3m lengths

MC CABLE CARRIERS



When determining the profile size it is important to take into account the profile thickness and the cable carrier size. In the case of MCMX please also take into account the timber divider and fixing battens.

Long runs of sections are joined together using butt joints.

PENDOCK MCMX MULTI COMPARTMENT TRUNKING SYSTEM

- Thickness:** 8mm (plywood).
- Carrier thickness:** 2mm.
- Internal angle:** 90°
- Finish:** Melamine, laminate, real wood veneer or natural (see page 4)

Carrier components are assembled and fixed to timber supports, fascias are then fixed to timber battens to the wall.

PENDOCK MCTK/D MULTI COMPARTMENT TRUNKING SYSTEM

- Thickness:** 8mm (plywood).
- Carrier thickness:** 2mm.
- Internal angle:** 115°
- Finish:** Melamine, laminate, real wood veneer or natural (see page 4)

Carrier components are assembled and fixed to the wall, fascias are then fixed to the carrier.

FDT & MCFDT FLOOR DUCTING SYSTEMS

Pendock floor ducting is a two-part system comprising a pre-formed tray, produced from 22 gauge hot dipped galvanised mild steel (to BS 2989: 1982 class Z2) and a 12mm plywood cover (to BS 1203: 1979). Return flanges give recessed support to the pre-cut plywood covers, laid flush with the rest of the finished floor. Pendock floor ducting is designed for fixing to the surface of the sub-floor before screeding, facilitating access for subsequent maintenance to pipes and cables. A comprehensive range of accessories is available.

Floor ducts are available to suit screed depths of 50mm and 70mm (35 and 70mm for MCFDT). Non-standard ducting can be supplied to virtually any size, with no minimum order quantity.

FDT ducts for pipes fully comply with the water bylaws and BRE recommendations relating to the installation of pipes within solid floors. Embedded pipes are prone to leaks which can be difficult and expensive to rectify.

For complementary pipework casings see the Pendock **MX range** (page 9).

MCFDT floor ducting for electrical services has integral three compartment separators for carrying data, power and telecommunication services.

Divides are linked by location to an integral fixing and earthing stud detailed along the tray length.

FDT NOTES

Thermal

Thermal insulation can be achieved by the use of a proprietary slit tube pipe sleeve. Alternatively, where space is limited, the duct can simply be filled with loose-fill insulation.

Sound

Where pipes pass through a sound resisting floor, they should not be in contact with the duct, but should be surrounded by 25mm of insulating material. All gaps should be sealed.

FIRE

A fire resistant barrier will be required where ducts pass through building compartments. An intumescent fire barrier is recommended.

MCFDT NOTES

Studs are provided in each length of duct to secure the divider, and connect the earthing links which should be provided by the installer, and be of adequate cross sectional area (see I.E. Regulations 16th Edition).

Larger earthing studs can be supplied for 3 phase supply. When using a concealed outlet box the base pan of the unit must be fixed to the duct to ensure that a good electrical contact is made for the purpose of earthing continuity. This can be done with a floor fixing passing through the pan and the duct.

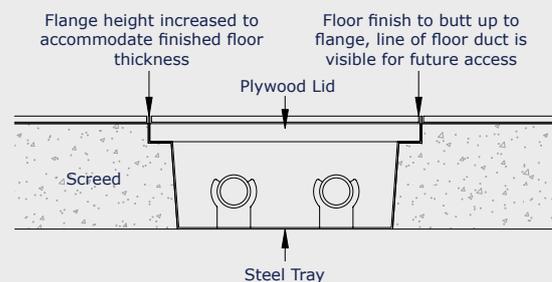
SOCKET OUTLETS (not supplied)

Special width and depth sections can be produced for any make of concealed outlet systems including concealed outlet boxes, pyramid boxes and pedestal units. The plywood lid enables sections to be easily cut out on site to accommodate outlet units in any position.

Continuous separation is facilitated by flyovers and intersections that ensure no wires meet at corners or junctions. Risers within the standard range of accessories manage cable distribution at skirting level when linked to Pendock **MCTK trunking** (page 15).

FLOOR FINISHES

Regulations require access to be made with hand tools only. It is permissible to lay continuous floor finishes, including tiling and carpeting, over the duct coverboard, providing building plans identify the location of the duct. Alternatively steel flanges can be extended so they are level with the finished floor, providing clear and direct access to ducting.



FDT & MCFDT SPECIFICATION NOTES (see page 17)

Level duct where necessary by laying on a ribbon of green screed.

Fix floor duct to sub-floor to prevent lateral movement when screed is laid. Usual fixing methods are screws and plugs, masonry nails or shot-firing at 600mm. If mechanical fixings are not allowable the duct can be secured by sand cement dabs.

Seal all joints with a proprietary waterproof tape across the joints.

Fit stop ends prior to screeding.

Fit coverboards prior to screeding to ensure that the duct is kept rigid.

After power floating or screeding operations where the coverboard has been soiled, reverse the coverboard to present the unsoiled surface.

Ensure duct joints do not coincide with coverboard joints.

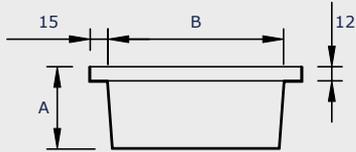
Advise the building owner of the locations and content of ducts.

MCFDT only - Ensure that every separate length, junction piece and flyover is earthed by fixing a length of wire (provided by the installer) to the earthing stud on every compartment.

FDT & MCFDT RANGE SPECIFICATION GUIDANCE

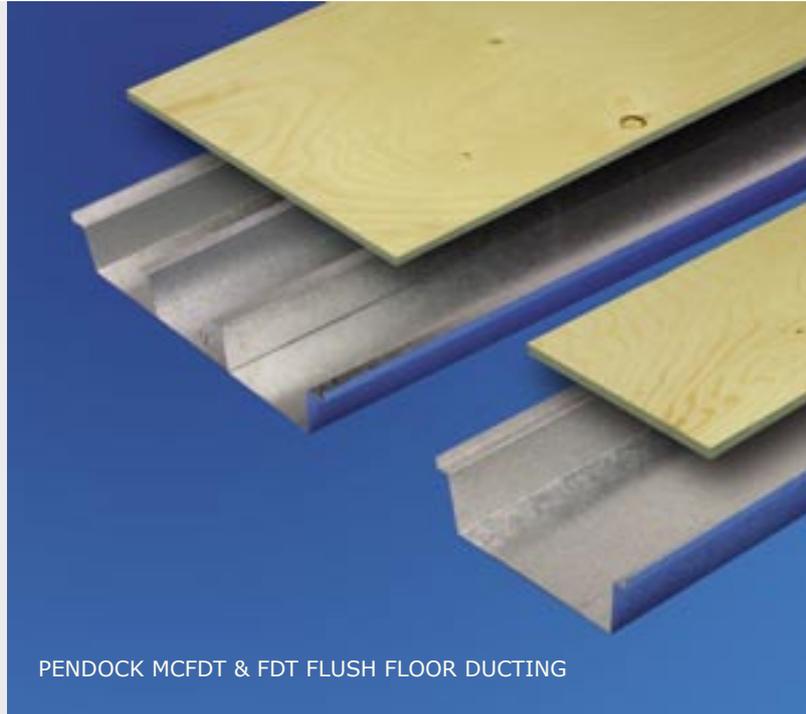
PENDOCK FDT FLUSH FLOOR DUCTING SYSTEM

Thickness: 0.7mm steel tray section. 12mm plywood cover.
Standard length: 2.5m tray. 2.44m cover.



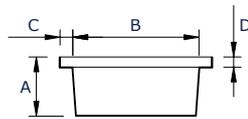
STANDARD EXTERNAL DIMENSIONS

Dim A (mm)	Dim B (mm)	Working Space (mm)
50	100	37 x 90
50	150	37 x 140
50	200	37 x 190
70	100	57 x 90
70	150	57 x 140
70	200	57 x 190



PENDOCK MCFDT & FDT FLUSH FLOOR DUCTING

FDT SPECIFYING NON STANDARD SIZES



- A - Overall depth:** screed depth.
- B - Open size:** not less than depth.
- C - Flange width:** 15, 20, 25 or 30mm.
- D - Upstand/Lid:** 12, 18 or 25mm.
(see table)

Where the open size is over 250mm the lid thickness and flange size usually needs to be increased. Alternatively if the increased lid thickness means that the working space is reduced by too much then support stantions may be used with a 12mm lid.

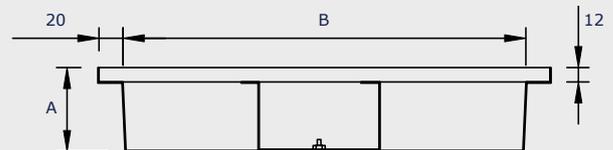
The flange upstand may also be increased to accommodate the finished floor thickness, thus enabling the visible location of ducting and ease of future access. (see diagram over the page).

For wider FDT floor ducting applications, flange dimensions and ply cover thickness change as follows:

Floor Ducting Nominal Width (mm)	Flange Dimension (mm) A	Ply Cover Thickness (mm) B
250	20	12
300	20	18
350	20	18
400	25	25
450	25	25
500	30	25

PENDOCK MCFDT FLUSH FLOOR DUCTING SYSTEM

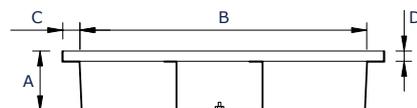
Thickness: 0.7mm steel tray section. 12mm plywood cover.
Standard length: 2.5m tray. 2.44m cover.



STANDARD EXTERNAL DIMENSIONS

Dim A (mm)	Dim B (mm)	Working Space (mm)
35	335	3 compartments approx. 22 x 110
70	335	3 compartments approx. 57 x 110

MCFDT SPECIFYING NON STANDARD SIZES



- A - Overall depth:** screed depth.
- B - Open size:** not less than depth.
- C - Flange width:** generally 20mm.
- D - Upstand/Lid:** generally 12mm.

The flange upstand may be increased to accommodate the finished floor thickness, thus enabling the visible location of ducting and ease of future access (see diagram over the page).

FDT & MCFDT ACCESSORIES

FDT ACCESSORIES

Corners/Tees

Corners/tees are supplied in a perforated 1250mm length to be separated on site. The 625mm legs can be placed together at a 90° angle to form a corner or overlapped at 180° to form a tee junction with a duct length butted to the aperture. Note the overall length of a tee junction will be 1250mm minus the width of the joining duct (not including flanges). This should be taken into consideration when estimating quantities.

Stop Ends

To suit duct size. Ensure stop ends are fitted prior to screeding.

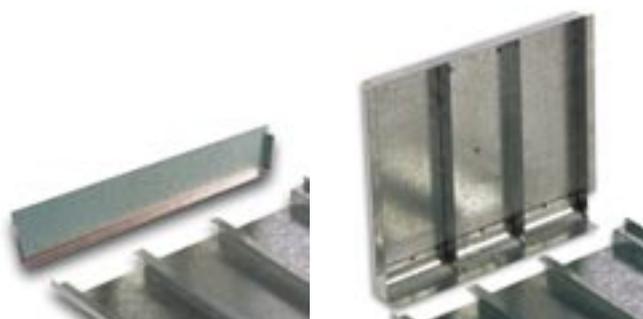
Butt Joint Plates

Optional to suit duct size.

MCFDT ACCESSORIES

Stop Ends

Riser to Skirting Box



Tee



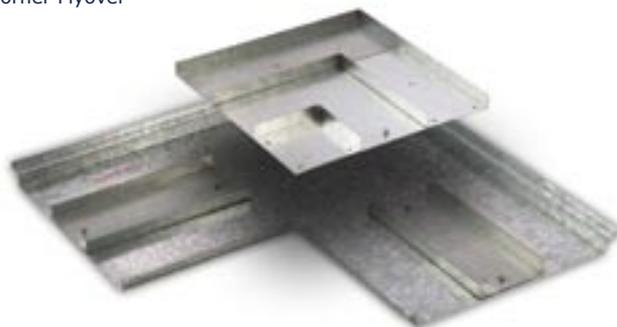
Tee Flyover



Corner Tee



Corner Flyover



Stop Ends



Butt Joint Plates



Four way Flyover



OTHER PENDOCK PRODUCTS / USEFUL LINKS



Grosvenor Casino - Birmingham

COLUMN CASINGS

Acknowledged as the market leaders, Pendock has provided column casing solutions for shops, banks, car showrooms, football stadia and offices throughout the UK and Europe.

The Pendock range offers the perfect solution to covering often complex structural support work imaginatively and practically.

This is a comprehensive range of column casings, utilising an expansive choice of finishes and new materials, including real wood veneers, stainless steel, GRG, GRP along with the more well established preformed plywood casings and laminate finishes.

Complementary products can also be supplied for covering cills, bulkheads and piers.

Constructed off-site, installation times are short and product quality is assured.

RADIATOR GUARDS

Currently in use in hundreds of hospitals, nursing homes, schools, clinics and day care centres, Pendock radiator guards have remained the firm favourite within the health & public sectors for many years

Pendock's range of radiator guards is designed specifically to protect building occupants from dangerously hot surfaces, particularly the young, elderly or disabled.

Pendock's guards are the only BSRIA certified NHS compliant Radiator Guards.

Fabricated from mild steel and powder coated in a hard wearing epoxy resin paint finish, they are both hygienic and hard wearing.

Also available is the Easi-Clean guard, to help combat super bugs such as MRSA. The guard has fully removable front panels to aid thorough cleaning of radiators and their surrounding area. It is quickly becoming the must-have radiator guard for the health and care sectors.

PERIMETER CASINGS

Designed specifically to enclose wall mounted air conditioning units, fan coil heaters and finned pipe systems, Pendock perimeter casings have been installed in prestigious offices, airports, universities and financial centres.

Available in a wide range of sizes, shapes and finishes, Pendock perimeter casings provide the perfect solution for covering heat distribution systems in a creative and aesthetic way.

The Pendock 'Steelfix' system also reduces installation times dramatically.

TECHNICAL LITERATURE

Comprehensive technical literature is available to assist you in the design and selection of Pendock products. To apply for a free copy, please visit our website on:

www.pendock.co.uk/customerservices

or call us on 01952 580 590.

INSTALLATION INSTRUCTIONS

Installation instructions are available to download from our website on:

www.pendock.co.uk/customerservices/install_instructions.asp

or call us on 01952 580 590.

USEFUL LINKS / EMAIL ADDRESSES

sales@pendock.co.uk

Product information, standard prices, lead times, availability, and general enquiries.

technical@pendock.co.uk

Specification and performance information, also support for installations and site visits.

accounts@pendock.co.uk

Queries relating to your account.

www.pendock.co.uk/CAD

CAD details are available to download.

www.pendock.co.uk/nbs

NBS Plus specification clauses are available on our website.

www.alumasc.co.uk

Our parent company, The Alumasc Group plc.

www.formica-europe.com

Formica and Formica PSM (Perstorp) laminate finishes.

PENDOCK

CASING & ENCLOSURE SYSTEMS

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All reasonable care has been taken in the preparation of this manual, all information, recommendations and guidance notes on the use of The Products are made without guarantee since the conditions of use are beyond the control of Alumasc Interior Building Products Limited (The Company). The customer is responsible for ensuring that each product is fit for its intended purpose and that conditions for use are suitable. The information contained in this brochure and advice arising therefrom is free of charge and accordingly on the terms that no liability nor liability for negligence will attach to The Company or its servants in relation to any such service arising out of or in connection with this brochure.

The Company pursues a policy of constant product development and information contained in this publication is therefore subject to change without notice. This manual has been prepared following the guidelines set out in BS 4940 : Parts 1 to 3 : Technical information on construction products and services.