



Buildings & Housings



Buildings



4-9

Beacon™

Larger Prestige Buildings



10-13

Warrior™

Contemporary Modular Buildings

Housings



28-33

Fortress™

Industrial & Environmental Housings



34-39

Garrison™

GRP Modular Housings



14-17

Heritage

Traditionally Styled
Buildings



18-23

Boxer™

Budget-Beating
Buildings



24-27

Olympic™

Classic GRP Kiosks



40-43

Trooper™

Budget-Beating Equipment
Housings



44-49

Cadet™

Instrument & Equipment
Cabinets



50-55

Hermit™

Superior Steel Shelters

Beacon™ Larger Prestige Buildings



For prestigious projects which require an impressive focal point then look no further than the Beacon system.

It is considered by many of our customers to provide the ultimate in user-comfort and their first choice when superior accommodation is needed for security, transport, sales, office and specialised applications.



Scan to see the Beacon walkthrough video.



Scan to see how Beacon was the ideal choice for Heathrow Airport.

Typical applications include:

- Gatehouses
- Security Control Centres
- Visitor Reception Buildings
- Toll Booths
- Vehicle Check-In Kiosks
- Staff Office Accommodation





Our LABC registration for the Beacon system helps customers save time and money on any UK project that requires Building Regulation Approval.

Key Features

Beacon offers a vast array of impressive features including:

- Exceptionally good insulation, which helps to prevent heat-loss during the winter months and heat-gain during the warmer months.
- A thermal break extrusion to help prevent internal condensation.
- A concealed rainwater management system that guides water to ground level corner outlets and prevents indiscriminate run-off from the roof during stormy conditions.
- A perimeter roof fascia system, which provides convenient fixing grounds for signage.
- Full width panel glazing to improve site security surveillance.
- An attractive internal wall lining and suspended ceiling create an extremely pleasant working environment.
- An extensive choice of colours for the walls and framework, which provides the opportunity to create exciting colour schemes for co-ordination with corporate themes.
- An extensive range of panels and optional features to meet the most demanding specifications.

Materials & Construction

The composite roof and wall panels of Beacon are manufactured with a smooth semi-gloss GRP (glassfibre reinforced polyester) external finish and held within a robust aluminium framework. By using modern building materials, future maintenance costs are kept down to a minimum.

Sizes & Layouts

Although offered in standard panel increments of 1.22m, Beacon buildings can be manufactured to meet any specific size within the maximum length for each standard width of 1.22m up to 4.27m. As well as conventional quadrilateral layouts they are also available in many other shapes, e.g. octagonal.

Delivery & Installation

To keep installation time to a minimum and avoid major site disturbance, Beacon buildings are normally transported in fully assembled form and off-loaded by crane. The facility to relocate a building at a future date, if site circumstances change, is a major benefit.

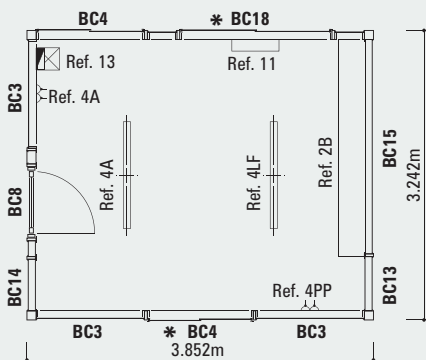


SPECIFYING

Please contact our Sales Office who will be happy to assist with specifying your building.

Beacon buildings are normally ordered in sketch plan form with panel and optional feature references marked as appropriate, e.g.

Nominal internal building size of 3.66 x 3.05m



*Ref. 20 Heavy-duty horizontal sliding window.

STANDARD BUILDING SIZES

Nominal Internal Sizes (Length x Width)

1.22m Widths	3.05m Widths
1.22 x 1.22m	3.66 x 3.05m
2.44 x 1.22m	4.88 x 3.05m
2.44m Widths	6.10 x 3.05m
2.44 x 2.44m	7.32 x 3.05m
3.66 x 2.44m	8.54 x 3.05m
4.88 x 2.44m	9.76 x 3.05m
6.10 x 2.44m	3.66m Widths
7.32 x 2.44m	3.66 x 3.66m
8.54 x 2.44m	4.88 x 3.66m
9.76 x 2.44m	6.10 x 3.66m
	7.32 x 3.66m
4.27m Widths (only available to the external roof system)	
4.88 x 4.27m	
6.10 x 4.27m	

Please note that Beacon buildings can be manufactured to meet any specific size requirements within the maximum length shown for each standard width of 1.22m, 2.44m, 3.05m, 3.66m and 4.27m.

OPTIONAL FEATURES

Glazing

- Ref. 8 Antisun solar control glass (Grey)
- Ref. 9 Double glazing
Hermetically-sealed toughened glass units.
- Ref. 10 Obscure glazing
Textured toughened glass.
- Ref. 20 *Heavy-duty horizontal sliding window
Available as alternative in BC4 and BC18 panels.

Exterior fittings

- Ref. 12 External security shutters
High-quality security roller shutters with powder-coated finish and fitted externally.
- Ref. 18 External GRP shelf (420mm projection)
- Ref. 19 External GRP canopy (620mm projection)

Interior fittings

- Ref. 2A Worktop 1220mm long
- Ref. 2B Worktop 2440mm long
- Ref. 2C Worktop 3050mm long
All worktops are 32mm white laminate-faced chipboard 300mm wide.
- Ref. 13 Removable floor panel for services access
- Ref. 15 Internal partitioning
Composite panels with foam core, plywood skins and decorative vinyl finish.

Electrics

- Ref. 4A Standard electrical installation
Consisting of fluorescent light fitting with diffuser, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.
- Ref. 4LF Additional 1200mm fluorescent light fitting with diffuser
- Ref. 4PP Additional double 13A switched plug point
- Ref. 11 Electric fan convactor heater
Three speed, 3kW, thermostatically-controlled, wall-mounted, wired integrally to fused switch.

Ventilation

- Ref. 5 Hit and Miss ventilator
Outer stainless steel louvre with internal register (230 x 150mm). For fitting to panels and doors.
- Ref. 6 Electrically-operated ventilator
Wall or roof mounted extractor fan. Extractor rate 260m³/hr.

Miscellaneous

- Ref. 16 Laminate internal surface
Light grey laminate to internal surfaces of walls to provide hard-wearing easily-cleaned finish.
Alternative colours available on request.

PANELS Nominally 0.61m, 1.22m and 2.44m wide



*Please see 'Optional features - Glazing' section

DIMENSIONS

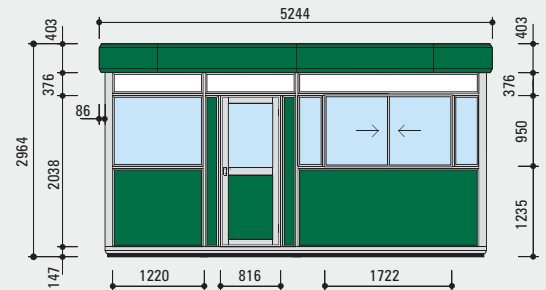
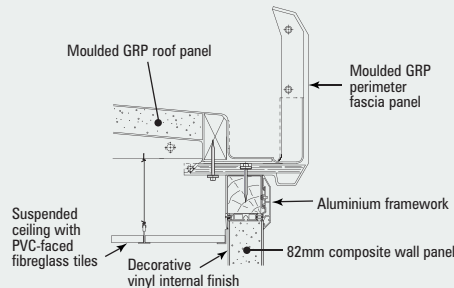
The overall external framework size of a Beacon building is 192mm greater than the nominal internal size, e.g. a 3.66 x 2.44m building is 3.852 x 2.632m.

Beacon buildings are supplied in two alternative roof systems: the GRP pitched roof system is for external locations and the flat roof system for internal/undercover locations.

Pitched Roof

The external roof system comprises:

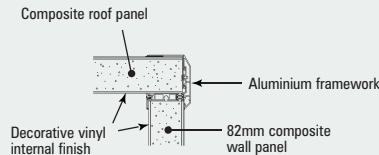
- Fully insulated GRP pitched roof with perimeter fascia
- Integral rainwater gutter and down-spout arrangement
- Decorative suspended ceiling



Flat Roof

The internal/undercover roof system comprises:

- Fully insulated composite panel
- Flexible-sheet roof covering
- Decorative vinyl internal finish



COLOURS

Standard Range

The standard external colour scheme is Light Grey, BS 4800 (00.A.05), to the walls and pitched roof perimeter fascia with a natural anodised aluminium framework.

Non-Standard Range

Harmonisation with existing architecture and corporate themes can be achieved by choosing any other colour/s from the BS 4800 or RAL colour ranges for the walls and perimeter fascia and/or a contrasting or similar powder-coated framework at additional cost.

AVAILABILITY

Beacon buildings are normally delivered in approximately 8 weeks depending on specification.

TECHNICAL INFORMATION

Construction

Patented system with 82mm thick fully insulated composite panels held in natural anodised aluminium framework.

Walls

Panel comprising of GRP external face/plywood/foam/plywood and decorative vinyl internal finish.

Roofs

External Version:

Fully insulated GRP pitched roof and perimeter fascia with integral rainwater gutter and down-spout arrangement and decorative suspended ceiling.

Internal Version:

Panel comprising of flexible sheet roof covering/plywood/foam/plywood and decorative vinyl internal finish.

Floors

Panel comprising of 2mm heavy-duty vinyl floor covering/plywood/foam/plywood with vapour barrier to underside, supported by treated softwood plinth and bearers.

Glazing

Generally all 4mm toughened glass, except 6mm toughened glass to BC6, BC8, BC17, BC23 and 10mm toughened glass to BC21. All opening windows secured in natural anodised aluminium frames.

Doors

Doors can be supplied either inward or outward opening, right or left hand hung, and are fitted with anodised aluminium door furniture, mortice lock and closer.

Roller shutter

White extruded aluminium. Option of powder-coated aluminium to preferred colour at additional cost.

External security shutters

Security roller shutters fitted externally. Powder-coated finish as standard with the option of natural anodised aluminium at additional cost.

Thermal insulation 'U' value

Blank wall panel	0.35 W/m ² °C.
Flat roof panel	0.35 W/m ² °C.
Pitched roof	0.35 W/m ² °C.

Sound reduction

A 'typical' building will have sound reduction up to 15dB depending on source, sound level and frequency of prevailing noise.

Fire rating

The GRP external skin conforms to BS 476 Part 7 Class 2.

Colours

Externally: natural anodised framework and Light Grey, BS 4800 (00.A.05), wall panels and pitched roof perimeter fascia as standard. Any other BS colour and/or colour-coated framework can be provided at additional cost. Internally: off-white ceiling, grey/white textured vinyl walls and grey floor.

Weights (approx.)

	c/w Pitched Roof	c/w Flat Roof
1.22 x 1.22m	- 425kg	295kg
2.44 x 1.22m	- 630kg	460kg
2.44 x 2.44m	- 940kg	680kg
4.88 x 2.44m	- 1550kg	1100kg
4.88 x 3.05m	- 1850kg	1250kg
6.10 x 4.27m	- 2890kg	N/A
7.32 x 3.66m	- 2900kg	1990kg
9.76 x 3.05m	- 3270kg	2220kg

Delivery

Beacon buildings are normally delivered as complete units ready for the customer to base fix, seal and connect to services.

Base Requirements

The overall size of a Beacon building is 192mm greater than the nominal internal size, e.g. a 3.66 x 2.44m building is 3.852 x 2.632m.

The minimum base size required is equal to the overall building size. Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hardcore. The concrete should be of minimum C20/25 grade in accordance with BS8500 Concrete: The Complementary British Standard to BS EN 206-1. The base should be flat, level and square, and preferably be raised slightly above the surrounding ground level.

Base Fixing

Base fixing (by the customer) is accomplished using the expanding anchor bolts supplied. Refer to the base fixing instructions supplied with the fixings for correct installation in accordance with the manufacturer's recommendations. Finally, apply an external mastic seal to the perimeter of the building.

Warrior™ Contemporary Modular Buildings



The Warrior system is aesthetically very similar to the Beacon system and is basically a scaled-down version in terms of size and level of insulation.

Colour choice, rainwater management, perimeter roof fascias and attractive interiors are also key features of Warrior buildings, which fit comfortably into any surroundings and consistently satisfy the demand for cost-effective accommodation in security, travel, office and sales applications.



Scan to see a successful installation of Warrior at Pinewood Studios.

Some typical examples are:

- Security Buildings
- Factory Offices
- Toll Booths
- Information Kiosks
- Passport Control Offices
- Ticket Sales Kiosks



Size & Specification

Warrior buildings can be specified from an extensive range of panels to meet your particular specification in sizes ranging from 1.22 x 1.22m up to a maximum of 7.32 x 2.44m. As well as conventional quadrilateral layouts they are also available in other shapes, e.g. octagonal. A wide choice of optional features is available for lighting, heating, glazing and ventilation.

Internal Applications

The versatility of the Warrior system means that the standard pitched roof can be substituted with a flat roof for internal applications.

Materials & Construction

With minimal future maintenance and long-term durability being key design criteria, the wall panels are manufactured with a tough plastic-coated steel exterior and held within a robust aluminium framework.

Delivery & Installation

To keep installation time to a minimum and avoid major site disturbance, Warrior buildings are normally transported in fully assembled form and off-loaded by crane. They have the added benefit of being relocatable should your site circumstances change in the future.

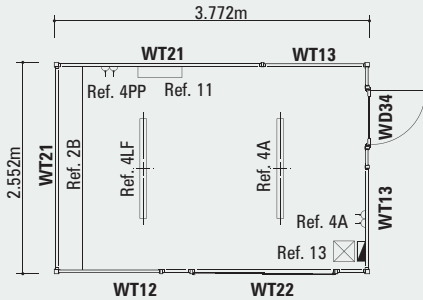


SPECIFYING

Please contact our Sales Office who will be happy to assist with specifying your building.

Warrior buildings are normally ordered in sketch plan form with panel and optional feature references marked as appropriate, e.g.

**Nominal internal building size of
3.66 x 2.44m**



STANDARD BUILDING SIZES

**Nominal Internal Sizes
(Length x Width)**

1.22m Widths	2.44m Widths
1.22 x 1.22m	2.44 x 2.44m
2.44 x 1.22m	3.66 x 2.44m
	4.88 x 2.44m
	6.10 x 2.44m
	7.32 x 2.44m

Please note that Warrior buildings can be manufactured to meet any specific size requirements within the maximum dimensions of 7.32m (length) and 2.44m (width).

AVAILABILITY

Warrior buildings are normally delivered in approximately 6 - 8 weeks depending on specification.

OPTIONAL FEATURES

Glazing

- Ref. 8 Antisun solar control glass (Grey)**
- Ref. 9 Double glazing**
Hermetically-sealed toughened glass units.
- Ref. 10 Obscure glazing**
Textured toughened glass.
- Ref. 20 *Heavy-duty horizontal sliding window**
Available as alternative in WT14 and WT22 panels.

Exterior fittings

- Ref. 12 External security shutters**
High-quality security roller shutters with powder-coated finish and fitted externally.
- Ref. 18 External GRP shelf (420mm projection)**
- Ref. 19 External GRP canopy (620mm projection)**

Interior fittings

- Ref. 2A Worktop 1220mm long**
- Ref. 2B Worktop 2440mm long**
All worktops are 32mm white laminate-faced chipboard 300mm wide.
- Ref. 13 Removable floor panel for services access**
- Ref. 15 Internal partitioning**
Composite panels with foam core, plywood skins and decorative vinyl finish.

Electrics

- Ref. 4A Standard electrical installation**
Consisting of fluorescent light fitting with diffuser, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.
- Ref. 4LF Additional 1200mm fluorescent light fitting with diffuser**
- Ref. 4PP Additional double 13A switched plug point**
- Ref. 11 Electric fan convactor heater**
Three speed, 3kW, thermostatically-controlled, wall-mounted, wired integrally to fused switch.

Ventilation

- Ref. 5 Hit and Miss ventilator**
Outer stainless steel louvre with internal register (230 x 150mm). For fitting to panels and doors.
- Ref. 6 Electrically-operated ventilator**
Wall or roof mounted extractor fan. Extractor rate 260m³/hr.

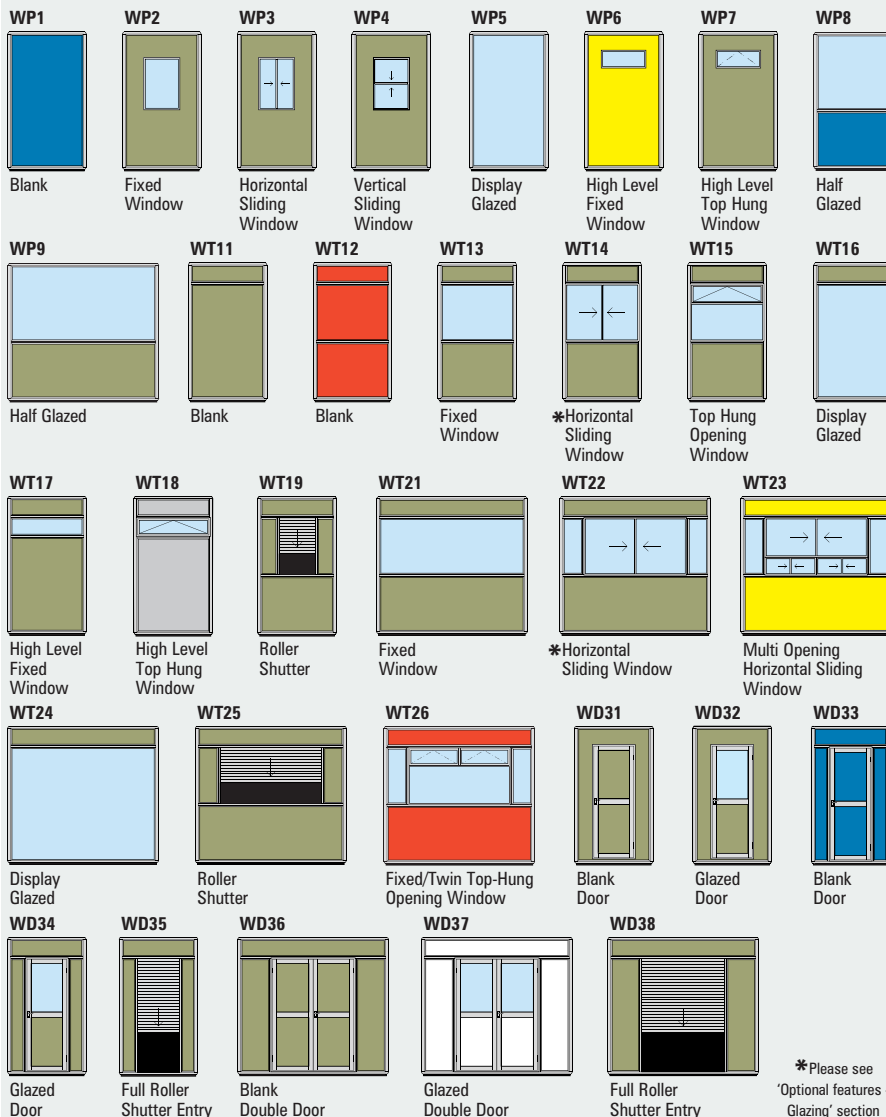
Miscellaneous

- Ref. 16 Laminate internal surface**
Light Grey laminate to internal surfaces of walls to provide hard-wearing easily-cleaned finish. Alternative colours available on request.

Doors

- Ref. 21 Heavy-duty doors**
For high-usage, the standard aluminum-framed doors can be upgraded to a heavy-duty version c/w door closers.

PANELS Nominally 1.22m and 2.44m wide



DIMENSIONS

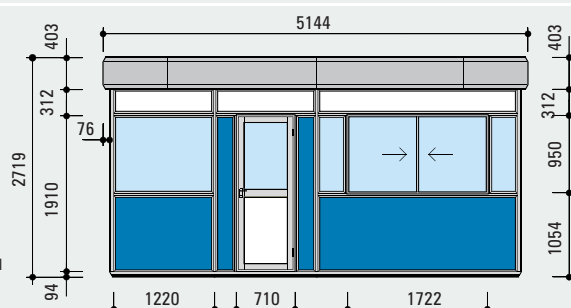
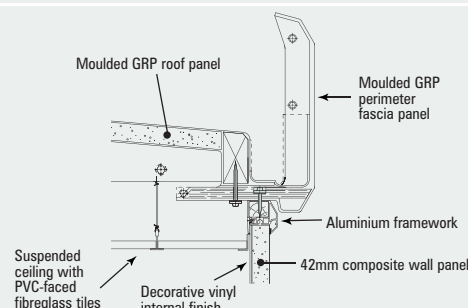
The overall frame size of a Warrior building is 112mm greater than the nominal internal size, e.g. a 3.66 x 2.44m building is 3.772 x 2.552m.

Warrior buildings are supplied in two alternative roof systems: the GRP pitched roof system is for external locations and the flat roof system for internal/undercover locations.

Pitched Roof

The external roof system comprises:

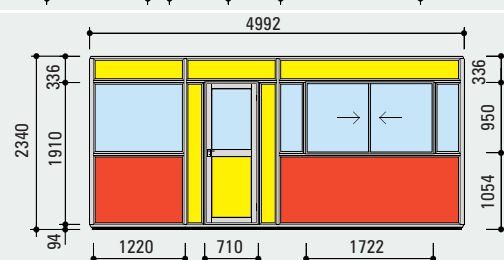
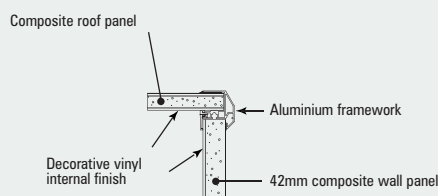
- Fully insulated GRP pitched roof with perimeter fascia
- Integral rainwater gutter and down-spout arrangement
- Decorative suspended ceiling



Flat Roof

The internal/undercover roof system comprises:

- Fully insulated composite panel
- Flexible-sheet roof covering
- Decorative vinyl internal finish



COLOURS

Standard Range

The standard external colour scheme is Moorland Green, nearest equivalent BS 4800 (12.B.21), to the walls with light grey, BS 4800 (00.A.05), to the pitched roof perimeter fascia and a natural anodised framework.

Non-Standard Range

Harmonisation with existing architecture and corporate themes can be achieved by choosing any other wall panel colour/s (at additional cost) from:

Nearest Equivalent

Aztec Yellow BS 4800 (10.E.55)
Goosewing Grey BS 4800 (10.A.05)

Poppy Red BS 4800 (04.E.53)
Solent Blue BS 4800 (18.E.53)
White BS 4800 (00.E.55)

A contrasting or similar colour for the perimeter fascia and/or powder coated framework can also be chosen at extra cost.

TECHNICAL INFORMATION

Construction

Patented system with 42mm thick fully insulated composite panels held in natural anodised aluminium framework.

Walls

Panel comprising of plastic-coated steel external face/foam/plywood and decorative vinyl internal finish.

Roofs

External Version:

Fully insulated GRP pitched roof and perimeter fascia with integral rainwater gutter and down-spout arrangement and decorative suspended ceiling.

Internal Version:

Panel comprising of flexible sheet roof covering/plywood/foam/plywood and decorative vinyl internal finish.

Floors

Panel comprising of 2mm heavy-duty vinyl floor covering on to exterior grade plywood with vapour barrier and insulation to underside, supported by treated softwood plinth and bearers.

Glazing

Generally all 4mm toughened glass. Door panels have 6mm high-impact thermoplastic glazing. All fixed and display glazed windows have a 6mm toughened glass except WP2 (4mm) and WT24 (10mm). All opening windows secured in natural anodised aluminium frames.

Doors

Doors can be supplied either inward or outward opening, right or left hand hung, and are fitted with anodised aluminium door furniture, mortice lock and closer.

Roller shutter

White extruded aluminium. Option of powder-coated aluminium to preferred colour at additional cost.

External security shutters

Security roller shutters fitted externally. Powder-coated finish as standard with the option of natural anodised aluminium at additional cost.

Thermal insulation 'U' value

Blank wall panel	0.85 W/m ² °C.
Flat roof panel	0.98 W/m ² °C.
Pitched roof	0.65 W/m ² °C.

Sound reduction

A 'typical' building will have sound reduction up to 15db depending on source, sound level and frequency of prevailing noise.

Fire rating

The steel external skin conforms to BS 476 Part 7 Class 1.

Colours

Externally: natural anodised framework with panels in Moorland Green [nearest equivalent BS 4800(12.B.21)] and pitched roof perimeter fascia in grey as standard. Other colours and/or colour coated framework can be provided on request. Internally: off-white ceiling, grey/white textured vinyl walls and grey floor.

Weights (approx.)

	External	Internal
1.22 x 1.22m	315kg	185kg
2.44 x 1.22m	485kg	310kg
2.44 x 2.44m	760kg	520kg
4.88 x 2.44m	1305kg	865kg
7.32 x 2.44m	1870kg	1220kg

Delivery

Warrior buildings are normally delivered in fully assembled form ready for the customer to base fix, seal and connect to services.

Base Requirements

The overall size of a Warrior building is 112mm greater than the nominal internal size, e.g. a 3.66 x 2.44m building is 3.772 x 2.552m. The minimum base size required is equal to the overall building size. Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hardcore. The concrete should be of minimum C20/25 grade in accordance with BS8500 Concrete: The Complementary British Standard to BS EN 206-1. The base should be flat, level and square, and preferably be raised slightly above the surrounding ground level.

Base Fixing

Base fixing (by the customer) is accomplished using the expanding anchor bolts supplied. Refer to the base fixing instructions supplied with the fixings for correct installation in accordance with the manufacturer's recommendations. Finally, apply an external mastic seal to the perimeter of the building.

Heritage Traditionally Styled Buildings



Our Heritage range of small buildings offers a return to the aesthetic quality of a bygone era, but provides all of the benefits gained by using modern and low-maintenance construction materials.

For architectural and historical locations where conservation and enhancement are the priority, our Heritage buildings preserve the ethos and offer a new-for-old solution without compromising on tradition.





Key Features

- An elegant roof fascia system, which is based on a period design.
- An attractive internal wall and ceiling lining, which provides a light and airy working environment.
- A choice of colours for the walls, roof fascia and framework to allow co-ordination with the surrounding architecture.
- A concealed rainwater management system, which guides water to ground level corner outlets and prevents indiscriminate run-off from the roof during stormy conditions.
- The option of full width panel glazing to improve site security surveillance.

Materials & Construction

The roof fascia and insulated wall panels of Heritage are manufactured with a smooth semi-gloss GRP (glassfibre reinforced polyester) external finish. The wall panels are held within a robust aluminium framework and are manufactured with a decorative moulded relief, which further enhances the traditional effect.

Sizes & Specification

Available in standard panel increments of 1.22m, Heritage buildings can be tailored to meet your individual layout in sizes from 1.22 x 1.22m up to 4.88 x 2.44m. A wide choice of optional features is available for lighting, heating, glazing and ventilation.

Delivery & Installation

To keep installation time to a minimum and avoid major site disturbance, Heritage buildings are always transported to site in fully assembled form and off-loaded by crane. They have the facility to be relocated at a future date if site circumstances change.

If you would like to discuss your requirements for a particular Heritage project, please contact our Sales Office.

Heritage *Traditionally Styled Buildings*

Some typical examples are:

- Security Buildings
- Ticket Sales Kiosks
- Gatehouses
- Guard Posts
- Vending Booths
- Offices



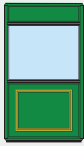
PANELS Nominally 1.22m and 2.44m wide

HS1



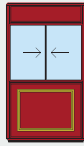
Blank

HS2



Fixed Window

HS3



Horizontal Sliding Window

HS4



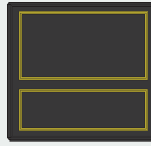
Top Hung Opening Window

HS5



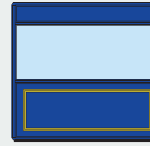
Glazed Door

HD9



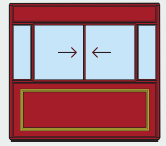
Blank

HD10



Fixed Window

HD11



Horizontal Sliding Window

AVAILABILITY

Heritage buildings are normally delivered in approximately 8-10 weeks depending on specification.

OPTIONAL FEATURES

Glazing

- Ref. 8 Antisun solar control glass (Grey)**
Ref. 9 Double glazing
 Hermetically-sealed toughened glass units.
Ref. 20 *Heavy-duty horizontal sliding window
 Available as alternative in HS3 and HD11 panels.

Exterior fittings

- Ref. 12 External security shutters**
 High-quality security roller shutters with powder-coated finish and fitted externally.

Interior fittings

- Ref. 2A Worktop 1220mm long**
Ref. 2B Worktop 2440mm long
 All worktops are 32mm white laminate-faced chipboard 300mm wide.
Ref. 13 Removable floor panel for services access

Electrics

- Ref. 4A Standard electrical installation**
 Consisting of fluorescent light fitting with diffuser, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.
Ref. 4LF Additional 1200mm fluorescent light fitting with diffuser
Ref. 4PP Additional double 13A switched plug point
Ref. 11 Electric fan convactor heater
 Three speed, 3kW, thermostatically-controlled, wall-mounted, wired integrally to fused switch.

Ventilation

- Ref. 5 Hit and Miss ventilator**
 Outer stainless steel louvre with internal register (230 x 150mm). For fitting to panels and doors.
Ref. 6 Electrically-operated ventilator
 Wall or roof mounted extractor fan. Extractor rate 260m³/hr.

BUILDING SIZES

Nominal Internal Sizes (Length x Width)

- 1.22m Widths**
 1.22 x 1.22m
 2.44 x 1.22m
2.44m Widths
 2.44 x 2.44m
 3.66 x 2.44m
 4.88 x 2.44m

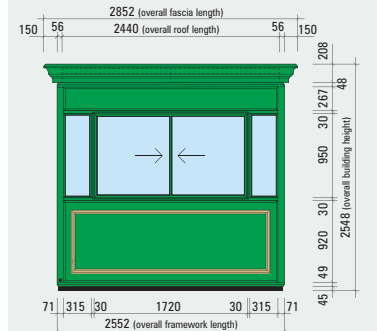
COLOURS

Standard Range

The external colour choice for the framework, moulded roof fascia & external face of the panel is Maroon RAL 3003, Dark Green RAL 6005, Black RAL 9005 and Dark Blue RAL 5003.

The decorative panel relief is normally highlighted in Gold, but can be identical to the panel colour.

DIMENSIONS



TECHNICAL INFORMATION

Construction

Patented system with 42mm thick fully insulated composite panels held in powder-coated aluminium framework.

Walls

Fully insulated composite panel comprising of decorative vinyl internal face with smooth semi-gloss GRP external face and decorative relief.

Roofs

Fully insulated GRP pitched roof comprising of moulded perimeter fascia with integral rainwater gutter and down-spout arrangement and decorative suspended ceiling.

Floors

Panel comprising of 2mm heavy-duty vinyl floor covering on to exterior grade plywood with vapour barrier and insulation to underside, supported by treated softwood plinth and bearers.

Glazing

4mm toughened glass generally, but 6mm for HS2 and HD10. All opening windows secured in natural anodised aluminium frames. Door glazing is 6mm high-impact thermoplastic.

Doors

Doors can be supplied either inward or outward opening, right or left hand hung, and are fitted with anodised aluminium door furniture, mortice lock and closer.

External security shutters

Security roller shutters externally. Powder-coated finish as standard with the option of natural anodised aluminium at additional cost.

Thermal insulation 'U' value

Blank wall panel 0.85 W/m²°C.

Sound reduction

A 'typical' building will have sound reduction up to 15db depending on source, sound level and frequency of prevailing noise.

Fire rating

The GRP external skin conforms to BS 476 Part 7 Class 2.

Colours

The moulded perimeter roof fascia is normally identical to the panel colour. Internally: off-white ceiling tiles, grey/white textured vinyl walls and grey floor.

Weights (approx.)

1.22 x 1.22m	-	425kg
2.44 x 1.22m	-	605kg
2.44 x 2.44m	-	950kg

Delivery

Heritage buildings are delivered in fully assembled form ready for our customers to base fix, seal and connect to services.

Base Requirements

The overall size of a Heritage building is 112mm greater than the nominal internal size, e.g. a 3.66 x 2.44m building is 3.772 x 2.552m.

The minimum base size required is equal to the overall building size. Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hardcore. The concrete should be of minimum C20/25 grade in accordance with BS8500 Concrete: The Complementary British Standard to BS EN 206-1. The base should be flat, level and square, and preferably be raised slightly above the surrounding ground level.

Base Fixing

Base fixing (by the customer) is accomplished using the expanding anchor bolts supplied. Refer to the base fixing instructions supplied with the fixings for correct installation in accordance with the manufacturer's recommendations. Finally, apply an external mastic seal to the perimeter of the building.

Boxer™ Budget-Beating Buildings



Our 'budget-beating' Boxer range is designed to satisfy the demand for high quality yet economical small buildings.

Popular applications include:

- Cash Ticket Kiosks
- Security Checkpoints
- Car Park Kiosks
- Sentry Posts
- Goods Inward Offices
- Garage Forecourt Kiosks







Size & Specification

Boxer buildings can be specified in sizes ranging from 1.2 x 1.2m up to a maximum of 4.0 x 2.6m and are offered with a wide choice of optional features for lighting, heating, glazing and ventilation.

Standard Models

For urgent projects we normally stock a range of six standard buildings made using popular layouts, which offer a significant cost saving in comparison to our bespoke buildings.

Materials & Construction

The use of tough and durable plastic-coated steel panels helps to prevent corrosion and to retain the smart external appearance of Boxer over many years without the need for costly maintenance.

The system offers flush internal walls with an attractive vinyl finish and good insulation, which all help to create a very comfortable working environment.

Delivery & Installation

Boxer buildings are always delivered to site in pre-assembled form and normally offloaded directly on to your pre-cast concrete base. You can have your building up and running within a few hours of delivery by simply base fixing and connecting to the mains power supply.

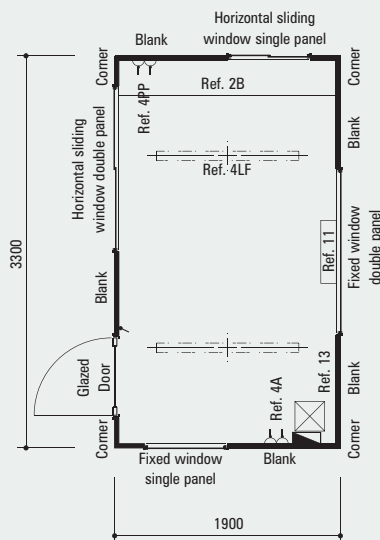


SPECIFYING

Please contact our Sales Office who will be happy to assist with specifying your building.

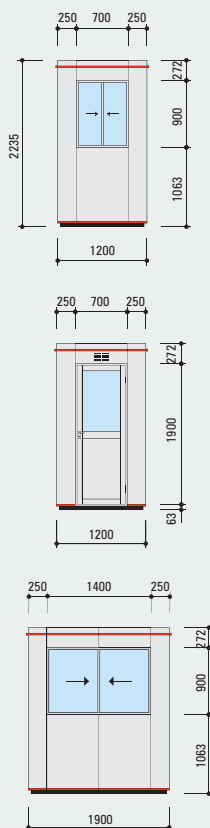
Boxer buildings are normally ordered in sketch plan form with panel and optional feature references marked as appropriate, e.g.

**Nominal internal building size of
3.21 x 1.81m**



DIMENSIONS

Typical Panel Dimensions



BUILDING SIZES

1.2m Widths	1.9m Widths	2.6m Widths
1.2 x 1.2m	1.9 x 1.9m	2.6 x 2.6m
1.9 x 1.2m	2.6 x 1.9m	3.3 x 2.6m
2.6 x 1.2m	3.3 x 1.9m	4.0 x 2.6m
3.3 x 1.2m	4.0 x 1.9m	

AVAILABILITY

Boxer buildings are normally delivered in approximately 6 - 8 weeks depending on specification.

Boxer Standards are always delivered in fully assembled form, normally within 4 weeks, ready for the customer to base fix, seal and connect to services.

OPTIONAL FEATURES

Glazing

- Ref. 8 Antisun solar control glass (Grey)**
- Ref. 9 Double glazing**
Hermetically-sealed toughened glass units.
- Ref. 10 Obscure glazing**
Textured toughened glass.

Exterior fittings

- Ref. 12 External security shutters**
High-quality security roller shutters with powder-coated finish and fitted externally.

Interior fittings

- Ref. 2A Worktop 1200mm long**
- Ref. 2B Worktop 1900mm long**
- Ref. 2C Worktop 2600mm long**
All worktops are 32mm white laminate-faced chipboard 300mm wide.
- Ref. 13 Removable floor panel for services access**
- Ref. 15 Internal partitioning**
Composite panels with foam core, plywood skins and decorative vinyl finish.

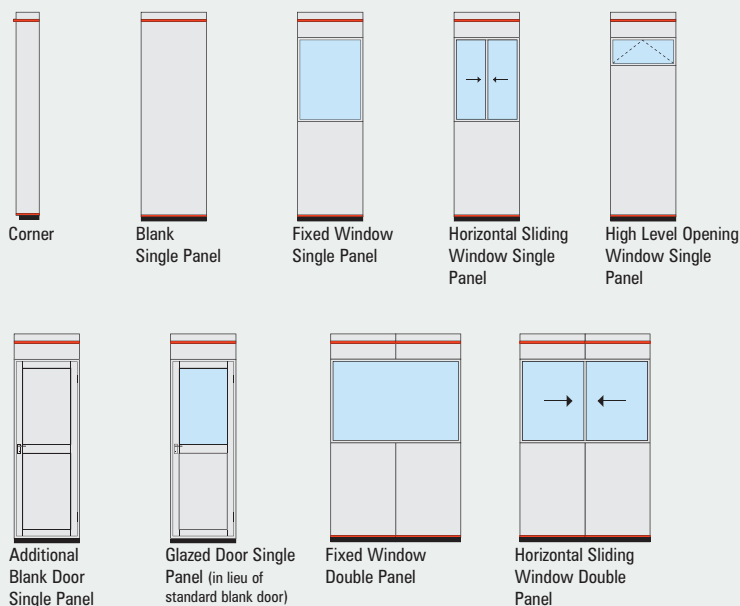
Electrics

- Ref. 4A Standard electrical installation**
Consisting of fluorescent light fitting with diffuser, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.
- Ref. 4LF Additional fluorescent light fitting with diffuser**
- Ref. 4PP Additional double 13A switched plug point**
- Ref. 11 Electric fan convector heater**
Three speed, 3kW, thermostatically-controlled, wall-mounted, wired integrally to fused switch.

Ventilation

- Ref. 5 Adjustable ventilator**
Comprising of external louvre (integral to panel) and register. Always positioned on door and window panels only and at high level.
- Ref. 6 Electrically-operated ventilator**
Wall or roof mounted extractor fan. Extractor rate 260m³/hr.

PANELS Nominally 0.25 x 0.25m corner, 0.7m and 1.4m wide

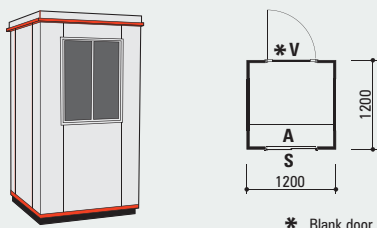


Note: Panels with a window or door cannot be positioned adjacent to each other on the same elevation i.e. they must have a blank panel or corner on each adjacent side to provide fixing grounds for window and door frames.

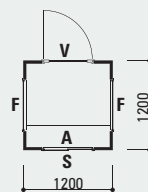
STANDARD BUILDINGS

- A range of six small buildings built to a fixed specification
- The same high quality but offered at a reduced cost
- Normally available from stock to satisfy urgent requirements

1.2 x 1.2m Model BX240



1.2 x 1.2m Model BX242



Key

V = Adjustable vent

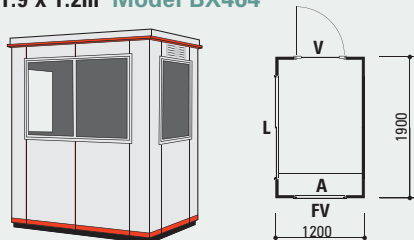
S = Horizontal Sliding Window Single Panel

L = Horizontal Sliding Window Double Panel

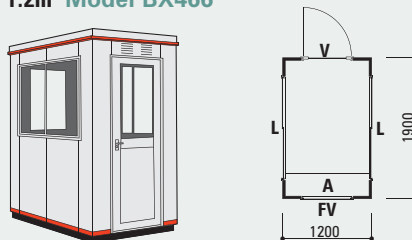
A = Worktop

F = Fixed Window Single Panel

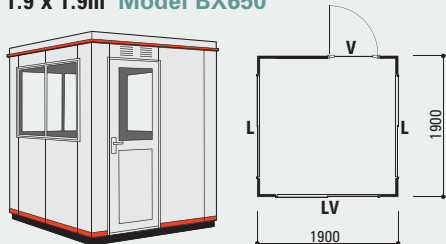
1.9 x 1.2m Model BX464



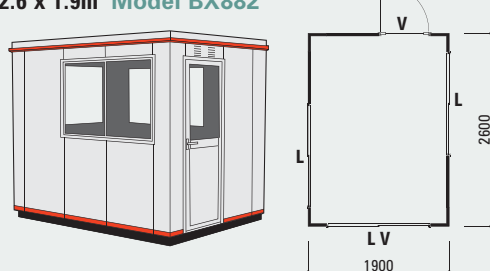
1.9 x 1.2m Model BX466



1.9 x 1.9m Model BX650



2.6 x 1.9m Model BX882



TECHNICAL INFORMATION

Walls

Comprising of 0.9mm plastic-coated steel panel with 25mm foam insulation and a 12mm laminate-faced chipboard lining panel.

Roofs

Panel comprising of flexible sheet roof covering/plywood/foam/plywood and decorative vinyl internal finish.

Floors

Panel comprising of 2mm heavy-duty vinyl floor covering on to exterior grade plywood with vapour barrier and insulation to underside supported by treated softwood plinth and bearers.

External security shutters

Security roller shutters fitted externally. Powder-coated finish as standard with the option of natural anodised aluminium at additional cost.

Glazing

Generally all 4mm toughened glass except 6mm high-impact thermoplastic glazing to doors. Glass secured in anodised aluminium framework.

Doors

700 x 1900mm high, right or left hand hung, inward or outward opening, fitted with anodised aluminium furniture and mortice lock.

Ventilation

Adjustable ventilator comprising louvre (integral to panel) and internal register, in fixed layout position as appropriate.

Worktops

32mm white laminate-faced chipboard.

Thermal insulation

A standard blank panel has a 'U' value of 0.98 W/m²°C.

Colours

External panel:
Grey [approx. BS 4800 (10.A.05)]
Fascia trim:
Red [approx. BS 4800 (04.E.53)]
A small range of alternative colours is available at additional cost.
Internally: grey ceiling, grey decorative laminate walls and grey floor.

Weights (approx.)

1.2 x 1.2m - 220kg	2.6 x 1.9m - 375kg
1.2 x 1.9m - 300kg	3.3 x 2.6m - 600kg
1.9 x 1.9m - 330kg	4.0 x 2.6m - 630kg

Delivery

Boxer buildings are always delivered in fully assembled form ready for the customer to base fix, seal and connect to services.

Base Requirements

The minimum base size required is equal to the overall building size. Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hardcore. The concrete should be of minimum C20/25 grade in accordance with BS8500 Concrete: The Complementary British Standard to BS EN 206-1. The base should be flat, level and square, and preferably be raised slightly above the surrounding ground level.

Base Fixing

Base fixing (by the customer) is accomplished using the expanding anchor bolts supplied. Refer to the base fixing instructions supplied with the fixings for correct installation in accordance with the manufacturer's recommendations. Finally, apply an external mastic seal to the perimeter of the building.

Olympic™ Classic GRP Kiosks



The Olympic system has been at the forefront of modular building technology for over 40 years and has earned a worldwide reputation for reliability and superior design. Its classic contoured design has a timeless appeal and it remains a firm favourite with customers both old and new.



Typical applications include

- Ticket Kiosks
- Security Posts
- Toll Booths
- Car Park Kiosks
- Check-in Booths



Materials & Construction

The panels are constructed from tough and durable GRP (glassfibre reinforced polyester) with a smooth semi-gloss external surface. The use of modern building materials, combined with high quality fittings, helps to maintain a smart appearance over many years and to keep future maintenance costs to a minimum.

Sizes & Specification

Olympic kiosks are available in sizes of 1 x 1.5m and 2 x 1.5m. A vast selection of optional features includes lighting, heating, ventilation, glazing, worktops and doors.

The walls and roof can be manufactured in any colour to harmonise with existing surroundings or co-ordinate with a corporate identity.

Standard Buildings

Designed using popular layouts, four standard small buildings are usually available from stock for urgent projects.

Delivery & Installation

Olympic kiosks are normally transported in fully assembled form and off-loaded by vehicle crane on to your pre-cast concrete base, which keeps installation time to a minimum and avoids major site disturbance.

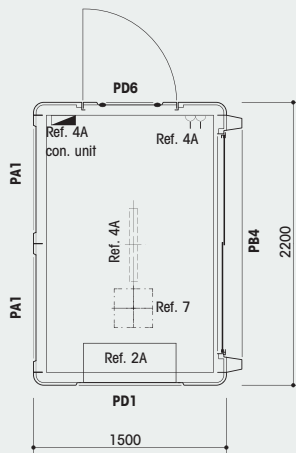


SPECIFYING

Please contact our Sales Office who will be happy to assist with specifying your building.

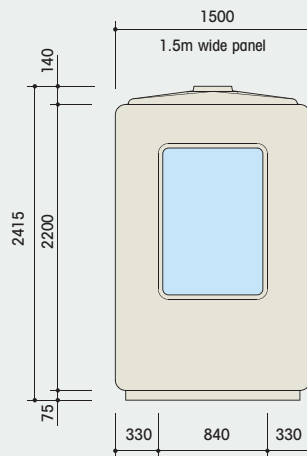
Olympic buildings are normally ordered in sketch plan form with panel and optional feature references marked as appropriate, e.g.

Nominal internal building size of 2.0 x 1.3m



DIMENSIONS

Typical Panel Dimensions

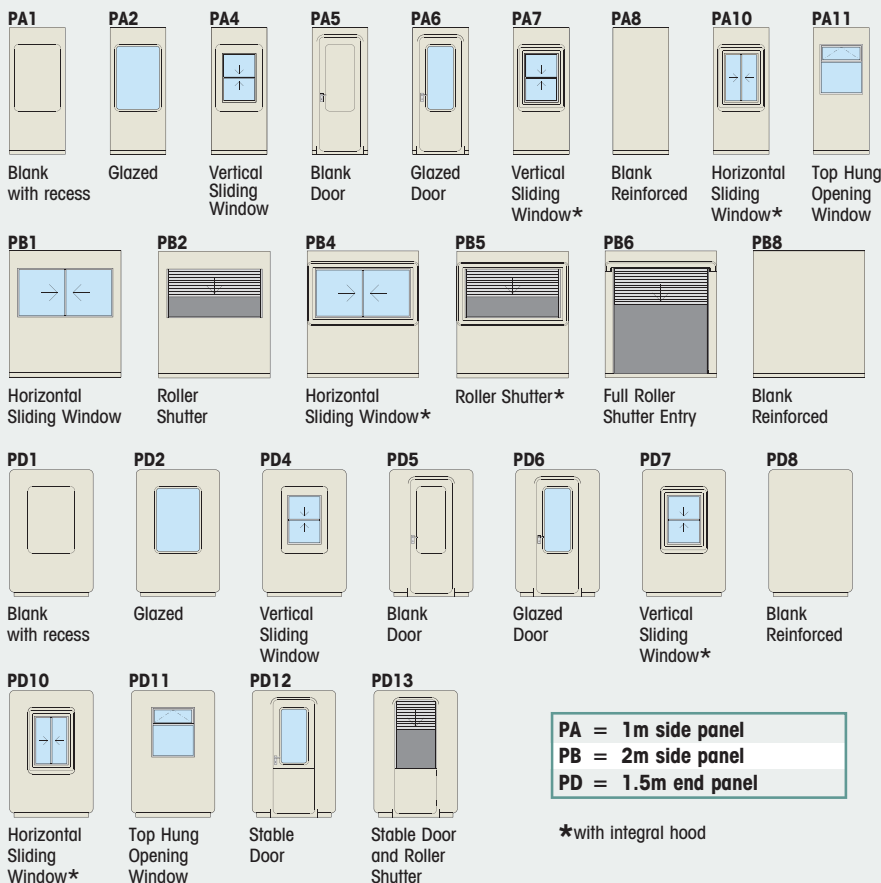


The length of an Olympic building is always 200mm longer than the side panels used, e.g. a building having 2 no. 1m panels in each side and 1 no. 1.5m panel at each end has the dimensions 2200mm x 1500mm.

AVAILABILITY

Olympic buildings are normally delivered in approximately 6 - 8 weeks depending on specification. Olympic Standard buildings are normally delivered within 4 weeks.

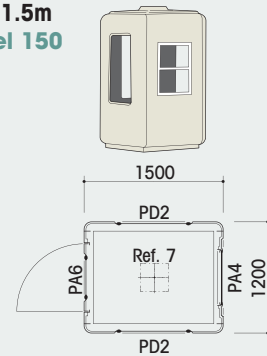
PANELS



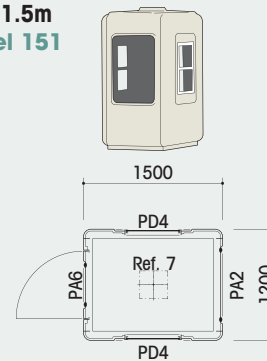
STANDARD BUILDINGS

- A range of four small buildings built to a fixed specification
- The same high quality but offered at a reduced cost
- Normally available from stock to satisfy urgent requirements

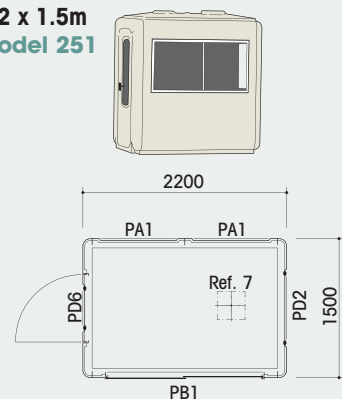
1.2 x 1.5m Model 150



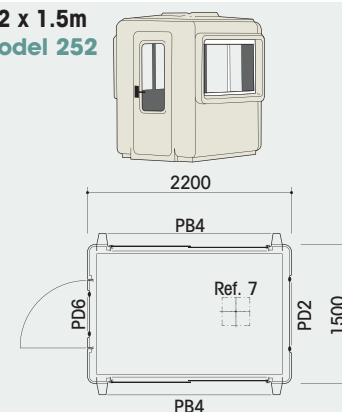
1.2 x 1.5m Model 151



2.2 x 1.5m Model 251



2.2 x 1.5m Model 252



OPTIONAL FEATURES

Glazing

- Ref. 8 Antisun solar control glass (Grey)**
Ref. 9 Double glazing
 Hermetically-sealed toughened glass units.
Ref. 10 Obscure glazing
 Textured toughened glass.

Large windows

Heavy-duty horizontally sliding
 This has an increased frame width to incorporate roller bearings and double glazing (Ref. 9) when required. Recommended for heavy-duty use.
Fixed window
Multi-opening horizontally sliding
Fixed/twin top-hung opening
 Above 3 options are available as an alternative in PB1 and PB4 panels

Small windows

High level top-hung opening
 Available to PA8, PB8, PC8 and PD8 panels.
Fixed top-hung opening
 Available to PB8 panel.
Fixed window
 Available as an alternative to PA11 top-hung opening window.

Exterior fittings

- Ref. 12 External security shutters**
 High-quality security roller shutters with powder-coated finish and fitted externally.

- Ref. 18a External GRP shelves** 1m wide (400mm projection)
Ref. 18b External GRP shelves 2m wide (400mm projection)
Ref. 19a External GRP canopy 1m wide (700mm projection)
Ref. 19b External GRP canopy 2m wide (700mm projection)

Interior fittings

- Ref. 2A Worktop 900mm long**
Ref. 2B Worktop 1900mm long
 All worktops are 32mm white laminate-faced chipboard 300mm wide.
Ref. 13 Removable floor panel for services access
Ref. 15 Internal partitioning
 Twin 12mm chipboard panels on 50mm x 38mm timber studding. Solid, glazed and door panels.

Electrics

- Ref. 4A Standard electrical installation**
 Consisting of fluorescent light fitting with diffuser, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.
Ref. 4LF Additional 1200mm fluorescent light fitting with diffuser
Ref. 4PP Additional double 13A switched plug point
Ref. 11 Electric fan convactor heater
 Three speed, 3kW, thermostatically-controlled, wall-mounted, wired integrally to fused switch.

Ventilation

- Ref. 5 Hit and Miss ventilator**
 Outer stainless steel louvre with internal register (230 x 150mm). For fitting to panels and doors.
Ref. 6 Electrically-operated ventilator
 Suitable for roof 'hump' or wall mounting. Extractor rate 260m³/hr.
Ref. 7 Manually-operated roof ventilator
 Clear acrylic, double skin roof ventilator fitted to roof 'hump' (360mm x 360mm).

Doors

Heavy-duty doors
 Natural anodised aluminium (in lieu of GRP) doors with glazed or blank panels to suit. Doors can be supplied either inward or outward opening, right or left hung. These doors are recommended for heavy-duty situations.

Miscellaneous

- Ref. 14 Additional timber reinforcement**
 18mm ply, within double skin GRP, over entire area of blank recessed panels.
Ref. 16 Laminate internal surface
 Smooth white semi-gloss resin to internal surfaces of walls and ceiling to provide hard-wearing easily cleaned finish. Alternative colours available on request.

TECHNICAL INFORMATION

Panel Composition

External pigmented gelcoat backed with GRP laminate (resin and glass reinforcement) to either side of internal 18mm core materials of timber, plywood, insulation foam and steel inserts as relevant to each panel. Internally finished with washable, abrasion-resistant, flecked paint.

Fixing Grounds

Lightweight fixing can be carried out on any area of panel. Fixing to timber core can be achieved to the flat areas of blank reinforced panels (PA8, PB8, PC8, PD8) or below and between recessed areas (e.g. PA1/2 etc.). Ref. 14 provides a timber core to internal flat area of recessed panels allowing the continuation of recessed panel aesthetics externally. Core area is full height x 1200mm wide maximum as appropriate.

Roofs

Fully insulated as standard and manufactured in one piece.

Floors

Fully insulated panel comprising 2mm heavy-duty vinyl covering on to plywood/foam/plywood panel with vapour barrier underside, supported by treated softwood battens between floor and base.

Glazing

4mm toughened glass is supplied as standard. Glass secured in rubber gasket to recessed window and door panels, otherwise secured in anodised aluminium framework.

Doors (GRP)

The standard single door is 750mm wide, right or left hand hung, outward opening only and is fitted with stainless steel door furniture, Europrofile cylinder mortice lock, door closer and checkstrap. The extra wide door is identical to above but 1075mm wide.

Doors (aluminium)

When aluminium doors are required these are built into 1m or 2m wide panels and incorporated into the elevation as appropriate.

Roller shutter

White extruded PVC metal reinforced as standard. Option of powder-coated aluminium at additional cost.

External security shutters

Security roller shutters fitted externally. Powder-coated finish as standard with the option of natural anodised aluminium at additional cost.

Thermal insulation

Panels have 'U' values of:
 1.54 W/m²°C - blank panel
 1.12 W/m²°C - roof panel
 0.59 W/m²°C - floor panel

Sound reduction

A 'typical' building will have sound reduction up to 15dB depending upon source, sound level and frequency of prevailing noise.

Fire rating

Externally, BS 476 Part 7 Class 2 surface spread of flame. Internally, BS 476 Part 7 Class 1 surface spread of flame which together with results from BS 476 Part 6 allow the material to be defined as Class '0'. An improved system providing an external Class 1/0 is available.

Colours

Externally the standard production colour is Beige [nearest reference BS 4800 (10.B.19)]. Any other BS colour can be provided. Internally, as standard, white proprietary flecked paint finish and grey floor.

Weights (approx.)

1.2 x 1.5m - 215kg 2.2 x 1.5m - 450kg

Delivery

Olympic buildings are normally delivered in fully assembled form ready for the customer to base fix, seal and connect to services. Where access is restricted, buildings can be delivered in panel form for on-site assembly.

Base Requirements

The length of an Olympic building is always 200mm longer than the side panels used, e.g. a building having 2 no. 1m panels in each side and 1 no. 1.5m panel at each end has the dimensions 2200mm x 1500mm. The minimum base size required is equal to the overall building size. Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hardcore. The concrete should be of minimum C20/25 grade in accordance with BS8500 Concrete: The Complementary British Standard to BS EN 206-1. The base should be flat, level and square, and preferably be raised slightly above the surrounding ground level.

Base Fixing

Base fixing (by the customer) is accomplished using the expanding anchor bolts supplied. Refer to the base fixing instructions supplied with the fixings for correct installation in accordance with the manufacturer's recommendations. Finally, apply an external mastic seal to the perimeter of the building.

Fortress™ Industrial & Environmental Housings



Fortress is regularly specified as the superior solution throughout industry and particularly the communications sector for a host of equipment and instrument housing applications.



Scan to see
the Fortress
walkthrough video.



Typical applications include:

- Transformer & Generator Enclosures
- Mobile & Broadband Network Cabins
- Vehicle Battery Charger Housings
- Rail Power Supply Rooms
- Water Analyser Stations
- Electricity Supply Substations
- Fire Sprinkler Control Rooms





Key Features

- A durable, plastic-coated steel finish, which helps to keep future maintenance costs to a minimum.
- Superior insulation levels to protect sensitive equipment from variations in temperature.
- A flush internal finish and integral fixing grounds to allow large equipment to be easily mounted across the internal walls.
- The option of a 1-hour fire-resistance rating system to meet the stringent requirements of BS476: Part 22, 1978.
- A roof system that can be supplied to meet the gas explosion relief standards of Transco.

Sizes & Specification

Available in heights of 1.5m, 2m, 2.5m and 3m, Fortress housings can be specified in sizes from 1 x 1.5m up to 20 x 6m. A comprehensive range of panels and optional features provides the flexibility to meet your specific requirements.

Delivery & Installation

Fortress housings are normally delivered in pre-assembled form and offloaded by crane ready for immediate use. The option of a panel form delivery can easily overcome site access restrictions.

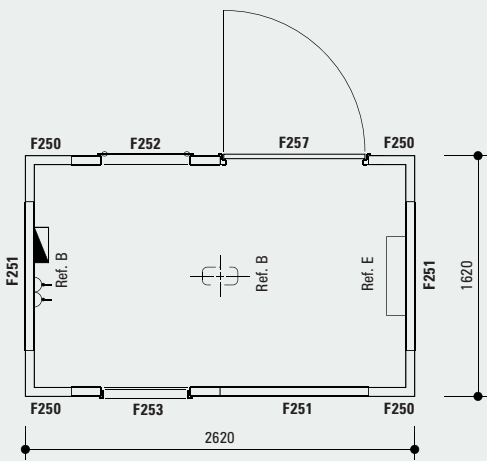


SPECIFYING

Please contact our Sales Office who will be happy to assist with specifying your housing.

Fortress housings are normally ordered in sketch plan form with panel and optional feature references marked as appropriate, e.g.

Nominal internal housing size
of 2.5 x 1.5 x 2.5m



ROOFS

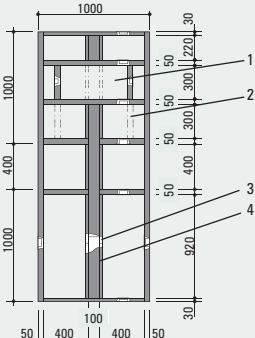
Fully insulated as standard.

1.5m, 2m and 2.5m widths
All roofs are generally supplied in one piece for lengths of 1m, 2m and 3m. Roofs for other housing widths are supplied in sections, e.g. the roof for a 2.5 x 1.5m housing is supplied in one 1.5m section and one 1m section.

3m, 3.5m, 4m, 5m and 6m widths
Roofs are supplied in 1m sections spanning the width, e.g. a 6 x 4m roof is supplied in six 1m sections.

STIFFENING FRAME

e.g. Internal Stiffening frame of a 2.5m High Panel Section



- 1 = Gland plate/vent position.
 - 2 = Window position.
 - 3 = Cross-sectional profile.
 - 4 = For a blank panel this component is repeated in the top half of the panel (as illustrated by the dotted line)
- Note: for low level vent/gland plate option the internal frame is turned through 180°.**

AVAILABILITY

Fortress housings are normally delivered in 6-8 weeks depending on specification.

PANELS

	0.25m x 0.25m Corner Panel	1m wide Blank Panel	0.5m wide Blank Panel	1m wide Inspection Window Panel	1m wide Low Level Adjustable Ventilator Panel	1m wide High Level Adjustable Ventilator Panel	1m wide Low Level Gland Plate Panel	1m wide High Level Gland Plate Panel	1m wide Single Door Panel	1m wide Offset Single Door Panel	2m wide Double Door Panel	2m wide Roller Shutter Panel
1.5m high	F150	F151	F151/5	F152	F153	F154	F155	F156	F157	F158	F159	
2m high	F200	F201	F201/5	F202	F203	F204	F205	F206	F207	F208	F209	
2.5m high	F250	F251	F251/5	F252	F253	F254	F255	F256	F257	F258	F259	F25RS
3m high	F300	F301	F301/5	F302	F303	F304	F305	F306	F307	F308	F309	F30RS

OPTIONAL FEATURES

Colours

Choice of two standard colours.

Ref. 1 Dark Grey

Ref. 2 Dark Green

Flooring

Ref. A Subfloors

18mm thick pre-finished slip-resistant plywood supported on treated softwood bearers. Housings can be mounted on subframes with a variety of flooring materials.

Electrics

Ref. B Standard electrical installation

Consisting of bulkhead light fitting, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.

Ref. C Additional bulkhead light fitting.

Note: Bulkhead light fitting can be changed for 1200mm fluorescent light fitting upon request.

Ref. D Additional double 13A switched plug point.

Ref. E Heater

Wall-mounted 1kW air warmer with guard. Controlled by a remote thermostat.

Glazing

Ref. M Rooflight

Clear acrylic double skin rooflight. Positioned along ridge line at 1m centres. Size 810mm x 525mm.

Ventilation

Ref. F Electrically-operated ventilator

Wall-mounted extractor fan (extractor rate 260m³/hr).

Ref. K Eaves ventilation

Concealed fixed ventilation provided by raising roof to create an air gap all round the housing perimeter, between roof and wall. Bird proof. **Note:** Eaves ventilation adds 40mm to the overall height of the housing.

Ref. L Roof ventilation

Clear acrylic double skin rooflight fixed in raised position to provide permanent ventilation. Positioned along ridge line at 1m centres. Bird proof. Size 810mm x 525mm. Ventilation 0.07m².

Miscellaneous

Ref. Q Panic bolts

Standard centre push bar with latch or bolt arrangement.

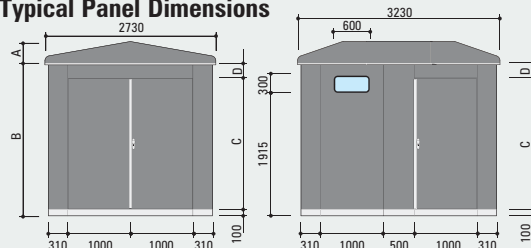
Ref. X Explosion relief facility

Fortress housings can comply fully with British Gas requirements - please see Technical Information.

DIMENSIONS

The overall housing size (over walls) is 120mm greater than the number of nominal 1m panels (clear internal size), e.g. a nominal internal 4 x 2.5m housing has an overall size of 4120 x 2620mm.

Typical Panel Dimensions



Housing height (CIH)	A	B	C	D
1.5m		1412	1250	62
2m	See below	1912	1750	62
2.5m		2412	2100	212
3m		2912	2100	712

Housing width (span)	Dimensions (mm) A	Housing width (span)	Dimensions (mm) A
1.5m	285	3.5m	461
2m	328	4m	505
2.5m	373	5m	594
3m	417	6m	682

Note: dimensions may vary depending upon the specification of the housing. We shall be pleased to advise accurate dimensions on request.

To calculate the minimum clear door aperture please deduct 50mm from the door width and height dimensions shown. It would be necessary to detach the door stay/s and open the door/s beyond 90° to achieve these figures.

TECHNICAL INFORMATION

Wall panel composition

Plastic-coated steel outer and inner lining panels with internal stiffening frame and inert insulation. The panels are connected using a patented internal clip.

Roof panel composition

External pigmented gelcoat backed with GRP laminate (resin & glass reinforcement) to either side of insulation foam and other core materials. Internally finished with washable, abrasion-resistant flecked paint.

Fixing grounds

Lightweight fixing can be carried out anywhere on panel surface.

Heavier fixing should utilise additional strength from internal stiffening frame (see panel section details above).

Roofs

Fully insulated as standard. Roofs are supplied in one piece where possible, otherwise in a minimum number of sections.

Floors

An 18mm thick slip-resistant phenolic-faced plywood, supported by treated softwood bearers, can be supplied as a subfloor.

Alternatively, subframes and other flooring material can be supplied to individual requirements. Our Technical Staff will be pleased to discuss your particular application.

Glazing

4mm toughened glass is supplied as standard and secured in rubber gasket.

Doors

Single door panels are 1000mm wide and right or left hand hung.

Double door panels are 2000mm wide.

Offset single door panels are 600mm wide and left or right hand hung.

The 400mm wide panel to the side will open to provide greater access when required. Doors are outward opening only and are fitted with stainless steel door furniture, continuous hinges, full-height anti-jemmy plate, stays and Euro-profile cylinder mortice lock.

Roller shutter

Anodised aluminium as standard. 2m wide roller shutters are always installed with a 0.5m (or greater) wide blank panel positioned on each adjacent side i.e. the minimum wall length is 3.5m.

Thermal insulation

Walls: 0.59 W/m²°C Floors: 1.88 W/m²°C
Roofs: 0.57 W/m²°C

Sound reduction

A 'typical' housing will have sound reduction up to 15dB depending upon source, sound level and frequency of prevailing noise.

Fire rating

Externally BS 476 Part 7 Class 2 to roof.
Externally BS 476 Part 7 Class 1 to wall.
Internally BS 476 Part 7 Class 1 which together with results from BS 476 Part 6 allow the material to be defined as Class '0'.
An improved system providing an external Class 1/0 roof is available.

A modified version of the Fortress system is available to meet 60 minutes fire resistance in accordance with BS 476: Part 22 1978.

Explosion relief

Fortress housings can comply with applications requiring explosion relief for a maximum pressure of 35 mbar by a lifting roof option.

Colours

Externally, choice of two standard wall colours:

Dark Grey, approx. BS 4800 (18.B.25)

Dark Green, approx. BS 4800 (12.B.27)

Roof in matching colour.

Internally, light grey wall approx. BS 4800 (10.A.05) and white-based proprietary flecked paint finish to roof.

Weights (approx.)

1x1.5x1.5m	-	365kg	4x2.5x2.5m	-	1185kg
2x1.5x2m	-	575kg	6x3x3m	-	1640kg
3x2x2.5m	-	910kg			

Delivery

Fortress housings are normally delivered in fully assembled form ready for the customer to base fix, seal and connect to services. Where access is restricted, housings can be delivered in panel form for on site assembly.

Base Requirements

The minimum base size required is 250mm greater than the nominal internal housing size. Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hardcore. The concrete should be of minimum C20/25 grade in accordance with BS8500 Concrete: The Complementary British Standard to BS EN 206-1. The base should be flat, level and square and preferably be raised slightly above the surrounding ground level.

Base Fixing

Ensure that the panels are accurately aligned and the housing is completely square, i.e. the corners are at 90° and the diagonal dimensions are exactly the same. Base fixing (by the customer) is accomplished using the expanding anchor bolts supplied. Refer to the base fixing instructions supplied with the fixings for correct installation in accordance with the manufacturer's recommendations. Finally, apply an external mastic seal to the perimeter of the housing.

Garrison™ GRP Modular Housings



For over 30 years Garrison has proved to be one of our most popular housing systems. It has gained a world-wide reputation for reliability and been used for demanding applications in some of the most remote and hostile environments in the world.



Typical uses within the industrial, energy, communications, rail transport and public sectors include:

- Electrical & Switchgear Enclosures
- Communications Network Housings
- Valve & Transformer Housings
- Chlorination Plant Housings
- Monitoring & Control Rooms
- Generator & Compressor Housings
- Power Supply Rooms



Materials & Construction

The roofs and panels are constructed from tough and durable GRP (glassfibre reinforced polyester) with a smooth semi-gloss external surface, which provides a maintenance-free finish and makes Garrison ideally suited for use in hostile environments and isolated locations.

Sizes & Specification

Available in standard heights of 1m up to 3m, Garrison can be made with layouts from 1 x 0.5m up to 20 x 6m. A vast selection of optional features includes lighting, heating, ventilation, glazing and explosion relief roofs.

Delivery & Installation

Garrison housings are normally transported in fully assembled form and off-loaded by crane to help keep installation time to a minimum. The option of panel form delivery means that size and access restrictions can be easily overcome, whilst the modular construction allows for modification and relocation in the future.

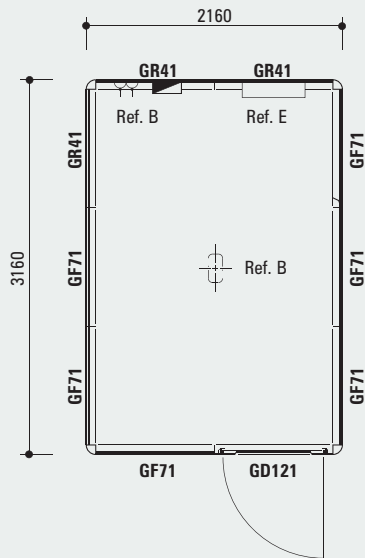


SPECIFYING

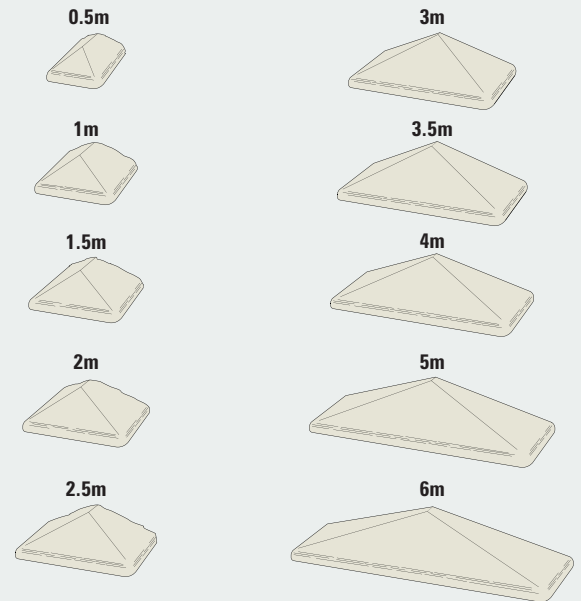
Please contact our Sales Office who will be happy to assist with specifying your housing.

Garrison housings are normally ordered in sketch plan form with panel and optional feature references marked as appropriate, e.g.

Nominal internal housing size of 3 x 2 x 2m



ROOFS Fully insulated as standard



0.5m, 1m, 1.5m, 2m and 2.5m widths

All roofs are generally supplied in one piece for lengths of 1m, 2m and 3m. Roofs for other housings lengths are supplied in sections, e.g. the roof for a 2.5 x 1.5m housing is supplied in one 1.5m section and one 1m section.

3m, 3.5m, 4m, 5m and 6m widths

Roofs are supplied in 1m sections spanning the width, e.g. a 6 x 4m roof is supplied in six 1m sections.

PANELS

	18mm Plywood Core				18mm Foam Core				GRP Doors		
	0.5m Wide	1m Wide	1.5m Wide	2m Wide	0.5m Wide	1m Wide	1.5m Wide	2m Wide	1m Wide	1.5m Wide	2m Wide
1m High	GR31	GR32			GF61	GF62			GD101		GD103
1.5m High	GR35	GR36	GR37	GR38	GF65	GF66	GF67	GF68	GD111	GD112	GD113
2m High	GR40	GR41	GR42	GR43	GF70	GF71	GF72	GF73	GD121	GD122	GD123
2.5m High	GR45	GR46	GR47	GR48	GF75	GF76	GF77	GF78	GD131	GD132	GD133
3m High	GR50	GR51	GR52		GF80	GF81	GF82		GD141	GD142	GD143

OPTIONAL FEATURES

Colour

- Choice of four standard colours.
- Ref. 1** Beige
Ref. 2 Light Ggrey
Ref. 3 Dark Green
Ref. 4 Dark Brown
Ref. NSC Any other BS 4800 colour

Flooring

- Ref. A** **Subfloors**
 18mm thick pre-finished slip-resistant plywood supported on treated softwood bearers. Housings can be mounted on subframes with a variety of flooring materials.

Electrics

- Ref. B** **Standard electrical installation**
 Consisting of bulkhead light fitting, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.
- Ref. C** **Additional bulkhead light fitting**
Note: bulkhead light fitting can be changed for 1200mm fluorescent light fitting upon request.
- Ref. D** **Additional double 13A switched plug point.**
- Ref. E** **Heater**
 Wall-mounted 1kW air warmer with guard. Controlled by a remote thermostat.

Ventilation

- Ref. F** **Electrically-operated ventilator**
 Wall-mounted extractor fan. Extractor rate 260m³/hr.
- Ref. H** **Fixed ventilator**
 Wall-mounted fixed ventilator to provide permanent airflow. Bird proof. Nominal size 600mm x 150mm. Ventilation area 0.04m².
- Ref. J** **Adjustable ventilator**
 Wall-mounted ventilator with opposed blade damper to provide variable airflow. Bird proof. Nominal size 600mm x 600mm. Maximum ventilation area 0.16m².
- Ref. K** **Eaves ventilation**
 Concealed fixed ventilation provided by raising roof to create an air gap all round the housing perimeter between roof and wall. Bird proof. Ventilation area 0.02m² per 1m panel.
- Note: eaves ventilation adds 40mm to the overall height of the housing.**
- Ref. L** **Roof ventilation**
 Clear acrylic double skin rooflight fixed in raised position to provide permanent ventilation. Positioned along ridge line at 1m centres. Bird proof. Size 810mm x 525mm. Ventilation area 0.07m².

Glazing

- Ref. M** **Rooflight**
 Clear acrylic double skin rooflight. Positioned along ridge line at 1m centres. Size 810mm x 525mm.
- Ref. NS** **Inspection window**
 600mm x 300mm toughened glass window mounted at high level to admit light or positioned as required for other purposes.
- Ref. NL** **Observation window**
 600mm x 945mm toughened glass window mounted at standard height for observation application. (550mm x 760mm window fitted to GRP doors).

Miscellaneous

- Ref. P** **Removable panels**
 Infrequent access for the installation or removal of large items of equipment can be provided by various means. Our Technical Staff will be pleased to advise the best method for your particular application.
- Ref. Q** **Panic bolts**
 Standard centre push bar with latch or bolt arrangement. External lock facility available at additional cost.
- Ref. R** **Resin-coated internal finish**
 Smooth white semi-gloss washable surface finish suitable for aggressive environments. Alternative colours available on request.
- Ref. T** **Removable threshold**
 Manufactured as a removable component on double door panel to facilitate equipment access.
- Ref. X** **Explosion relief facility**
 Garrison housings can comply fully with British Gas requirements - please see Technical Information.

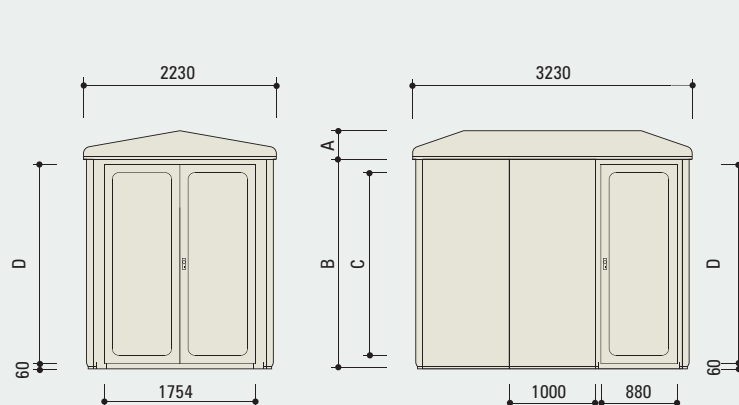
EXTERNAL FINISH

Smooth gloss moulded surface to wall and roof panels as standard. Alternative finishes are available to wall panels upon request.

AVAILABILITY

Garrison housings are normally delivered in 6 - 8 weeks depending on specification.

TYPICAL PANEL DIMENSIONS



For housing heights up to 3m, the overall housing size (over walls) is 160mm greater than the number of nominal 1m panels (clear internal size), e.g. a nominal internal 4 x 2.5m housing has an overall size of 4160 x 2660mm.

To calculate the minimum clear door aperture please deduct 60mm from the door width and height dimensions shown. It would be necessary to detach the door stay/s and open the door/s beyond 90° to achieve these figures.

Housing height (CIH)

1m
1.5m
2m
2.5m
3m

Dimensions (mm)

A	B	C	D
See below	925	605	805
	1425	1105	1305
	1925	1605	1805
	2425	2105	2305
	2925	2605	2305

Housing width (span)

0.5m
1m
1.5m
2m
2.5m
3m
3.5m
4m
5m
6m

Dimensions (mm)

A
200
240
285
328
373
417
461
506
594
682

Note: dimensions may vary depending upon the specification of the housing. We shall be pleased to advise accurate dimensions on request.

TECHNICAL INFORMATION

Panel Composition

External pigmented gelcoat backed with GRP laminate (resin and glass reinforcement) to either side of internal 18mm core materials of timber, plywood, insulating foam and steel inserts as relevant to each panel. Internally finished with washable, abrasion-resistant, flecked paint.

Fixing grounds

Lightweight fixing can be carried out on any area of foam core panel. Heavier fixing should utilise timber core panels.

Roofs

Fully insulated as standard. Roofs up to 2.5m span in lengths of 1m, 2m and 3m are usually supplied in one piece, otherwise they are supplied in a minimum number of sections. Roof spans 3m and above are always supplied in 1m long sections.

Floors

An 18mm thick slip-resistant phenolic-faced plywood, supported by treated softwood bearers, can be supplied as a subfloor. Alternatively, subframes and other flooring material can be supplied to individual requirements. Our Technical Staff will be pleased to discuss your particular application.

Corner posts

Colour-matched GRP-coated aluminium posts.

Glazing

4mm toughened glass is supplied as standard and secured in a rubber gasket.

Doors

The standard single door is 880mm wide, right or left hand hung, outward opening only.

The standard double doors are either 1250mm or 1754mm wide, outward opening only.

All doors are fitted with s.s. furniture and door stays.

1m and 1.5m high doors have a Euro-profile cylinder mortice deadlock/escutcheon plate. All other doors have a Euro-profile cylinder mortice lock.

Thermal insulation

Panels have 'U' values of:

Plywood core	2.96 W/m ² °C
Foam core	1.02 W/m ² °C
Roof	1.06 W/m ² °C

Sound reduction

A 'typical' housing will have sound reduction up to 20dB depending upon source, sound level and frequency of prevailing noise.

Fire rating

Externally, BS 476 Part 7 Class 2 surface spread of flame. Internally, BS 476 Part 7 Class 1 surface spread of flame which, together with results from BS 476 Part 6 allow the material to be defined as Class '0'.

An improved system providing an external Class 1/0 is available.

Explosion relief

Garrison housings can comply with applications requiring explosion relief for a maximum pressure of 35 mbar by a lifting roof option.

Impact testing

Impact testing in accordance with the recommendations of BS 4618 Part 1 Section 1:2 1972 has been undertaken.

All plywood core wall panel samples resisted impact and through-penetration did not occur.

All foam core wall and roof panel samples, when tested to 66% of the total impact energy available, resisted impact and through-penetration did not occur.

Colour

Externally, choice of standard production colours is:

Beige [nearest reference BS 4800 (10.B.19)]	
Light Grey	BS 4800 (00.A.05)
Dark Green	BS 4800 (14.C.39)
Dark Brown	BS 4800 (08.B.29)

Any other BS colour can be provided at additional cost.

Internally, as standard, white-based proprietary flecked paint finish.

Weights (approx.)

Examples:

1 x 1 x 1m high	-	127kg
2 x 1 x 1.5m high	-	255kg
2 x 2 x 2m high	-	399kg
3 x 2 x 2.5m high	-	638kg
4 x 3 x 3m high	-	1201kg

Delivery

Garrison housings are normally delivered in fully assembled form ready for the customer to base fix, seal and connect to services.

Where access is restricted, housings can be delivered in panel form for on-site assembly.

Base requirements

The minimum base size required is 250mm greater than the nominal internal housing size.

Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hardcore. The concrete should be of minimum C20/25 grade in accordance with BS8500 Concrete: The Complementary British Standard to BS EN 206-1.

The base should preferably be raised slightly above the surrounding ground level.

Base fixing

Ensure that the panels are accurately aligned and the housing is completely square, i.e. the corners are at 90° and the diagonal dimensions are exactly the same.

Base fixing (by the customer) is accomplished using the expanding anchor bolts supplied. Refer to the base fixing instructions supplied with the fixings for correct installation in accordance with the manufacturer's recommendations.

Finally, apply an external mastic seal to the perimeter of the housing.



Trooper™ Budget-Beating Equipment Housings



Designed to satisfy the demand for high-quality yet economical small housings, Trooper is regularly selected to accommodate a wide variety of equipment and instrumentation.



Typical applications include:

- Wind Farm Power Inverters
- Contractor's Site Tools
- Switchgear & Valves
- Monitoring Equipment
- Battery Chargers
- Landfill Gas Controls
- Vehicle Wash Plant Equipment



Key Features

- A design that has been practically tested and proven itself over many years.
- A durable, plastic-coated steel finish, which helps to keep future maintenance costs to a minimum.
- Fully insulated walls and roof that help to prevent condensation and aid temperature control for sensitive equipment.
- Flush internal wall surfaces, which allow for the convenient wall-mounting of lightweight equipment.

Sizes & Specification

Available with a standard clear internal height of 2.2m, Trooper housings can be specified in sizes from 1.2 x 1.2m up to 4 x 2.6m. Standard optional features include sub-floors, lighting, heating and ventilation.

Delivery & Installation

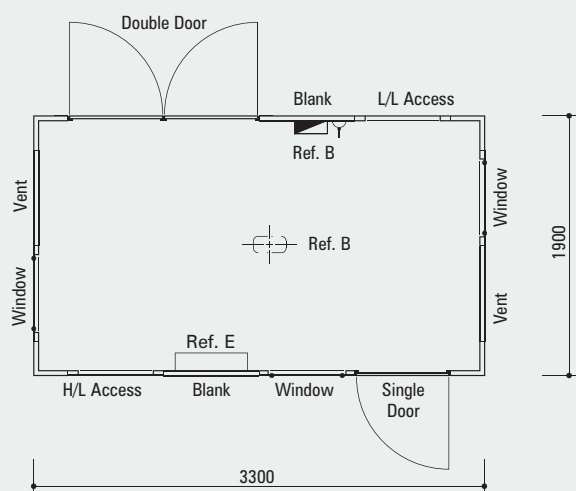
Trooper housings are conveniently delivered in pre-assembled form and normally offloaded directly on to your pre-cast concrete base. This keeps site disruption to a minimum and allows a housing to be fully operational within a few hours of delivery.



SPECIFYING

Please use the following sequence to specify your Trooper housing or, alternatively, call our Sales Office who will be happy to assist.

- 1) Select the size of the housing required from the Housing Sizes table.
As standard, each housing includes corners, blank panels, single door and roof only.
- 2) Consider if any other panel options are required.
- 3) Illustrate by either sketch plan and/or elevations the positions of the doors and any panel options relative to the housing size. Indicate the relative panel joints.
Note: doors cannot be specified in adjacent positions on the same elevation.
- 4) Choose any optional features required and indicate the positions as relevant, e.g.



HOUSING SIZES

1.2 x 1.2m	1.9 x 1.9m	2.6 x 2.6m
1.9 x 1.2m	2.6 x 1.9m	3.3 x 2.6m
2.6 x 1.2m	3.3 x 1.9m	4.0 x 2.6m
	4.0 x 1.9m	

OPTIONAL FEATURES

Flooring

Ref. A Subfloors

18mm thick pre-finished slip-resistant plywood supported on treated softwood bearers.

Ref. D Additional double 13A switched plug point

Ref. E Heater

Wall-mounted 1kW air warmer with guard. Controlled by a remote thermostat.

Electrics

Ref. B Standard electrical installation

Consisting of bulkhead light fitting, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.

Ref. C Additional bulkhead light fitting

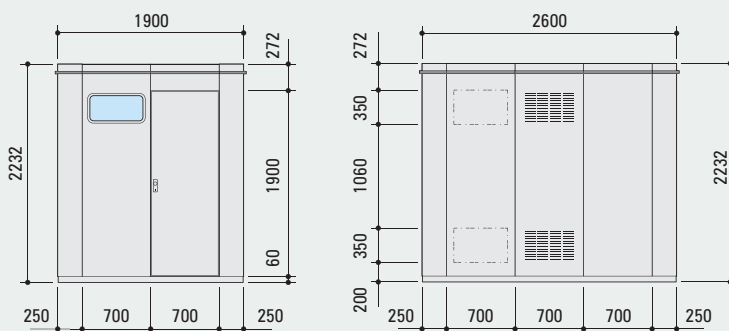
Note: bulkhead light fitting can be changed for 1200mm fluorescent light upon request.

Ventilation

Ref. F Electrically-operated ventilator

Wall-mounted extractor fan (extractor rate 260m³/hr)

TYPICAL PANEL DIMENSIONS



AVAILABILITY

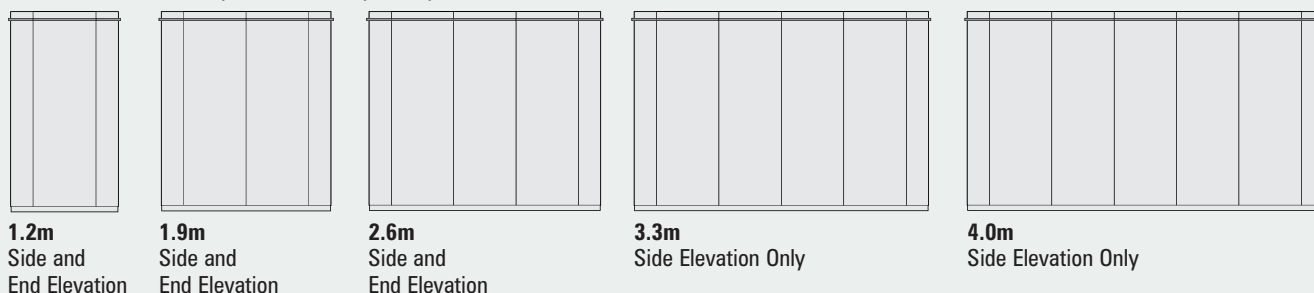
Trooper housings are normally delivered in 4 - 6 weeks depending on specification.

PANELS 2.2m high. Nominally 0.25 x 0.25m corner, 0.7m and 1.4m wide panels.



Side/End Elevation Options

These elevations are composed from the panel options shown above



Note: Doors cannot be specified in adjacent positions on the same elevation.

TECHNICAL INFORMATION

Walls

Comprising of 0.9mm plastic-coated steel panel with 25mm foam insulation and a 12mm WBP plywood lining panel.

Roofs

Composite panel comprising of flexible sheet roof covering/plywood/foam/plywood and decorative vinyl internal finish.

Floors

An 18mm thick slip-resistant phenolic-faced plywood, supported by treated softwood bearers can be supplied as a subfloor.

Glazing

500 x 300mm toughened glass window is supplied as standard and secured in rubber gasket.

Doors

Single: 700 x 1900mm high, right hand hung.

Double: 1400 x 1900mm high.

Doors are outward opening only and are fitted with stainless steel door furniture, continuous hinges, full-height anti-jemmy plate, stays and Euro-profile cylinder mortice lock.

Ventilation

High and low level ventilation provided in fixed positions with internal hit and miss register.

Access panel

Fixed position high or low level single skin area incorporated within panel to allow access for services.

Thermal insulation

Walls: 0.98 W/m²°C.

Roofs: 1.14 W/m²°C.

Colours

External panel: Grey
[approx. BS 4800 (10.A.05)]

Fascia trim: Dark Grey
[approx. BS 4800 (18.B.25)]

Internally: Grey ceiling and natural plywood walls.

Weight (approx.)

1.2 x 1.2m - 205kg

1.9 x 1.9m - 336kg

3.3 x 1.9m - 470kg

2.6 x 2.6m - 474kg

4.0 x 2.6m - 616kg

Base requirements

The minimum base size required is 100mm greater than the nominal internal housing size. Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hardcore. The concrete should be of minimum C20/25 grade in accordance with BS8500 Concrete: The Complementary British Standard to BS EN 206-1. The base should be flat, level and square and preferably be raised slightly above the surrounding ground level.

Base fixing

Ensure that the panels are accurately aligned and the housing is completely square, i.e. the corners are at 90° and the diagonal dimensions are exactly the same. Base fixing (by the customer) is accomplished using the expanding anchor bolts supplied. Refer to the base fixing instructions supplied with the fixings for correct installation in accordance with the manufacturer's recommendations.

Finally, apply an external mastic seal to the perimeter of the housing.



Cadet™ Instrument & Equipment Cabinets



Cadet Cabinets offer the very best value for the most demanding of small equipment and instrumentation applications.

With their unique double-skinned and insulated construction, they have become the popular choice where minimal temperature variation and low condensation levels are vital for sensitive equipment to operate successfully.



Typical applications include:

- Metering Cabinets
- Electrical Panel Enclosures
- Valve & Compressor Cabinets
- CCTV & PA System Enclosures
- Roadside Monitoring Cabinets
- Distribution Board Housings
- Emergency Equipment Cabinets





Materials & Construction

Cadet Cabinets are IP-rated and have a robust, double-skinned construction with foam insulation and timber reinforcement as appropriate.

The choice of a tough and durable plastic-coated steel finish helps to prevent corrosion and to retain the smart appearance of each cabinet over many years. Our marine grade stainless steel option offers optimum performance even in the most extreme marine and coastal environments.

Sizes & Specification

Single door cabinets vary in size from 450 x 250 x 400mm (height) up to 1000 x 1000 x 2000mm (height) and double door cabinets are available in sizes from 1200 x 400 x 600mm (height) to 2000 x 1000 x 2000mm (height). The versatile design of the system also allows customised sizes to be manufactured.

Optional features include gland plates, cable entries, inspection windows, ventilation and internal mounting rails.



Cadet™ Economy Range

In response to the increasing demand for our popular and unique Cadet Cabinets, which are double-skinned and fully insulated, we have launched an economy single-skin version that is suitable for applications where temperature variation is unimportant.

- Cadet Economy Range Cabinets offer a significant cost saving compared to standard Cadet prices.
- Manufactured in single-skin 1.4mm plastic-coated steel.
- Ideal for all internal and external locations where temperature variation is unimportant.
- A long term solution for protecting instrumentation & equipment.
- Minimal maintenance without the need for coating or painting.
- Doors are type-tested to IP56 for dust and water ingress.
- Extensive choice of single door cabinets in sizes from 450 x 250 x 400mm up to 800 x 600 x 1000mm.
- Many optional features including backboards, floors, inspection windows and internal mounting rails.



CABINET SIZES

Plastic-Coated Steel Cabinets & Stainless Steel Cabinets

Stainless Steel Cabinets are manufactured using 316 grade which is suitable for marine environments.

Widths (External)	Depths (External)	Heights (Clear internal)						
		400mm	600mm	800mm	1000mm	1500mm	1800mm	2000mm
SINGLE DOOR CABINETS								
450mm	250mm	✓◆	✓◆	✓◆	✓◆			
	400mm							
600mm	400mm	✓◆	✓◆	✓◆	✓◆			
	600mm							
800mm	400mm	✓◆	✓◆	✓◆	✓◆	✓	✓	✓
	600mm							
	800mm							
	1000mm	✓	✓	✓	✓	✓	✓	✓
1000mm	400mm	✓	✓	✓	✓	✓	✓	✓
	600mm							
	800mm							
	1000mm							
DOUBLE DOOR CABINETS								
1200mm	400mm		✓	✓	✓	✓	✓	✓
	600mm							
	800mm							
	1000mm							
1500mm	600mm	✓	✓	✓	✓	✓	✓	✓
	800mm							
	1000mm							
2000mm	600mm	✓	✓	✓	✓	✓	✓	✓
	800mm							
	1000mm							

Economy Range Cabinet Sizes

Economy Range Cabinets are available in sizes marked with ◆

AVAILABILITY

Average manufacturing time required for Cadet Cabinets is 3-4 weeks.

OPTIONAL FEATURES

COLOURS

Plastic-coated cabinets

Choice of four standard colours:

- Ref. CC1 Beige
- Ref. CC2 Light Grey
- Ref. CC3 Dark Green
- Ref. CC4 Mid Blue
- Ref. NSC For other colour options please contact our Sales Office.

Stainless steel cabinets

Natural brushed satin finish.

Economy range cabinets

Standard external colour is Dark Grey.

INSPECTION WINDOW

- Ref. CC5 All sizes are supplied in 6mm thermoplastic.

FLOOR

- Ref. CC8 2mm stainless steel floor panel.

BASE FIXING BOLTS

- Ref. CC9 Base fixing accomplished by means of 4 no. M10 x 90mm expanding anchor bolts with stainless steel nut and washer and electroplated body.

WALL MOUNTING FACILITY

- Ref. CC10 Provision for wall mounting. Available to 450mm wide cabinets only.

POST MOUNTING FACILITY

- Ref. CC11 Provided by a stainless steel strap and bracket arrangement with internal fixings. Available to 450mm wide cabinets only.

VENTILATION

- Ref. CC12 Fixed louvred grille size of 170 x 115mm with internal shroud and insect mesh.

INTERNAL MOUNTING RAILS

- Ref. CC14 Mounting rails to the rear wall to facilitate the installation of equipment.

GLAND PLATES

- Ref. CC15 To ease the installation of in-going cables and pipes.

CABLE ENTRIES

- Ref. CC16 Up to 25mm dia. cable and 25-50mm dia. cable.

PADLOCKING FACILITY

- Ref. CC17 Provided by means of 2 no. stainless steel fittings.

LIFTING EYES

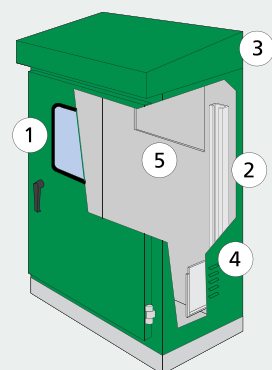
- Ref. CC18 4 no. lifting eyes fitted to cabinet.

TIMBER BACKBOARD

- Ref. CC19 Pre-finished plywood backboard to provide fixing grounds for equipment and instrumentation.

Key to Illustration

- 1 Inspection Window
- 2 Internal Mounting Rails
- 3 Mono-pitched roof extended over door
- 4 Ventilation
- 5 Gland Plates



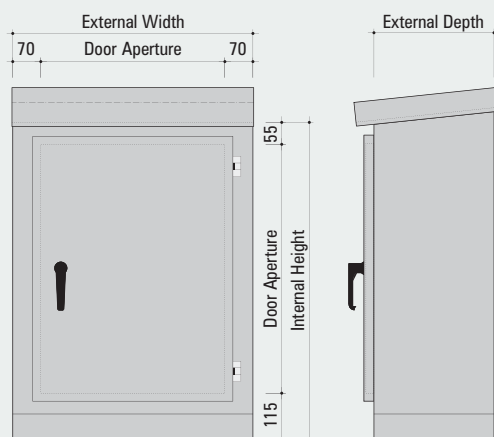
TYPICAL DIMENSIONS

Door aperture size is equal to the external width and internal height dimensions less the door frame measurements shown.

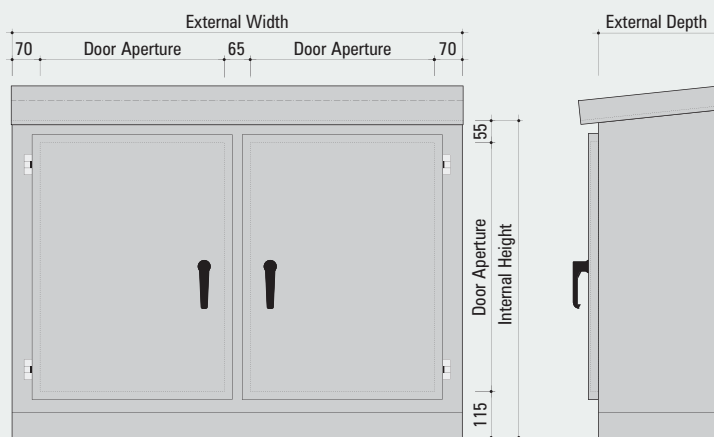
Example: A 600mm wide x 1000mm high single door cabinet has an aperture size of 460mm x 830mm.

To calculate the aperture size of a cabinet please refer to the Sizes and Prices Table.

Single Door Cabinets



Double Door Cabinets



TECHNICAL INFORMATION

WALL COMPOSITION

Plastic-coated cabinets

0.7mm plastic-coated steel outer and inner panels with 25mm foam insulation.

Stainless steel cabinets (316 grade)

0.9mm stainless steel outer and inner panels with 25mm foam insulation.

Economy range cabinets

1.4mm plastic-coated steel panels c/w Armortec-coated steel plinth.

ROOF COMPOSITION

Plastic-coated cabinets

0.7mm plastic-coated steel outer and inner panels with 50mm foam insulation.

Mono-pitched and extended over the door to provide additional weather protection.

Stainless steel cabinets (316 grade)

0.9mm stainless steel outer and inner panels with 50mm foam insulation.

Mono-pitched and extended over the door to provide additional weather protection.

Economy range cabinets

1.4mm plastic-coated steel outer and inner panels with 25mm foam insulation.

Mono-pitched and extended over the door for additional weather protection.

DOOR COMPOSITION

Plastic-coated cabinets

Composite panel with 0.7mm plastic-coated steel outer and inner panel with 25mm foam core.

Stainless steel cabinets

Composite panel with 0.9mm stainless steel (316 grade) outer and inner panel with 25mm foam core.

Economy range cabinets

1.4mm plastic-coated steel outer panel and Armortec-coated steel inner panel. Doors have a single locking handle. 800mm and 1000mm high cabinets are fitted as standard with a doorstay and three-point locking arrangement.

All doors are outward opening and single doors are right hand hung as standard but can be left hand hung if required.

Door furniture includes black polyamide locking handle and stainless steel cam action locking plate, stainless steel hinges and door restraint.

All cabinets with a height below 1500mm have one door locking handle and a three-point locking arrangement. Cabinets with a 1500mm height and above have two door locking handles which provide a four-point locking arrangement.

FLOOR COMPOSITION

Plastic-coated and stainless steel (316 grade) cabinets

2mm stainless steel panel. Options of 25mm plywood reinforcement or 25mm foam insulation with 1mm stainless steel inner panel.

INSULATION

Plastic-coated and stainless steel cabinets

'U' value = 0.78 W/m²°C.

VENTILATION

Economy range cabinets

Two fixed louvred grille vents are fitted as standard to each cabinet. These are positioned at high level and low level on opposite side walls (with both at low level on 400mm high cabinets).

FIRE RATING

Plastic-coated and stainless steel cabinets

BS476 Part 7 Class 1 to external panel.

COLOURS

Plastic-coated cabinets

The standard external production colours and their nearest BS4800 references are:

Beige 10.B.19
Light Grey 10.A.05
Dark Green 12.B.27
Mid Blue 18.E.53

Stainless steel cabinets

Natural brushed satin finish.

Economy range cabinets

The standard external production colour is dark grey (nearest BS4800 reference 18.B.25).

For other colour options please contact our Sales Office.

WEIGHTS (approx.)

Plastic-coated and stainless steel cabinets

450(w) x 250(d) x 600mm(h)	- 30kg
1000(w) x 600(d) x 1000mm(h)	- 120kg
1500(w) x 1000(d) x 1800mm(h)	- 300kg
2000(w) x 1000(d) x 1800mm(h)	- 400kg

Economy range cabinets

450(w) x 250(d) x 400mm(h)	- 15kg
600(w) x 400(d) x 800mm(h)	- 45kg
800(w) x 600(d) x 1000mm(h)	- 70kg

IP RATING

Plastic-coated single door cabinets have been type tested in accordance with EN 60529:2000 "Specification for Classification of Degrees of Protection provided by Enclosures" and attained a rating of IP56, dust-proof, jet-proof.

For further details of IP ratings please contact our Sales Office.

DELIVERY

Cadet cabinets are delivered in fully assembled form ready for site installation by others.

BASE REQUIREMENTS

The minimum base size required is 100mm greater than the overall size of the Cadet Cabinet. Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hardcore.

The concrete should be of minimum C20/25 grade in accordance with BS8500 Concrete: The Complementary British Standard to BS EN 206-1. The base should preferably be raised slightly above the surrounding ground level.

BASE FIXING

Ensure that the panels are accurately aligned and the cabinet is completely square, i.e. the corners are at 90° and the diagonal dimensions are exactly the same. Base fixing (by the customer) is accomplished using the expanding anchor bolts supplied. Refer to the base fixing instructions supplied with the fixings for correct installation in accordance with the manufacturer's recommendations.

Finally, apply an external mastic seal to the perimeter of the cabinet.

Hermit™ Superior Steel Shelters



With the emphasis on design, construction material standards, economy and service life criteria, Hermit Shelters provide utility accommodation for a wide variety of requirements.



Typical applications include:

- Workshops
- School Sports Equipment Stores
- Road Interchange Signage Stores
- Garages & Forklift Truck Housings
- Rail Trackside Tool Stores
- Hazardous Materials Stores
- Park Keepers' Sheds
- Builders' Yard Stores



Sizes & Specification

The Hermit Range consists of sixty standard steel shelters ranging in size from 2 x 2m up to 5 x 3m. A wide choice of different models is available with various single door, double door and glazed panel layouts.

Materials & Construction

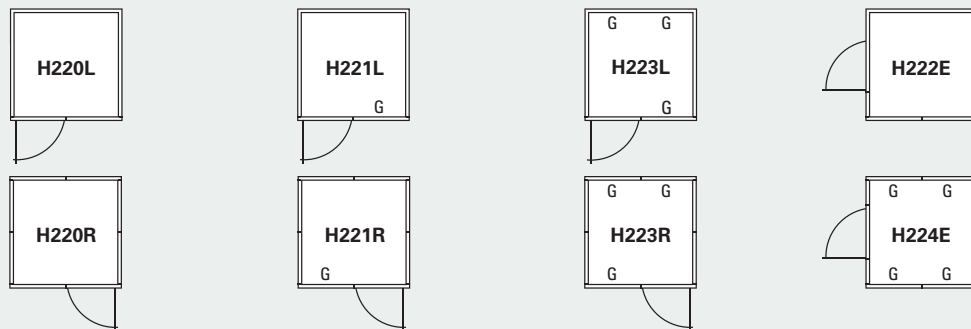
The use of plastic-coated steel panels helps to prevent corrosion and to retain the smart external appearance of Hermit shelters over many years. The roof and wall panels are a single skin construction, making Hermit the ideal choice for applications where temperature variation is unimportant.

Delivery & Installation

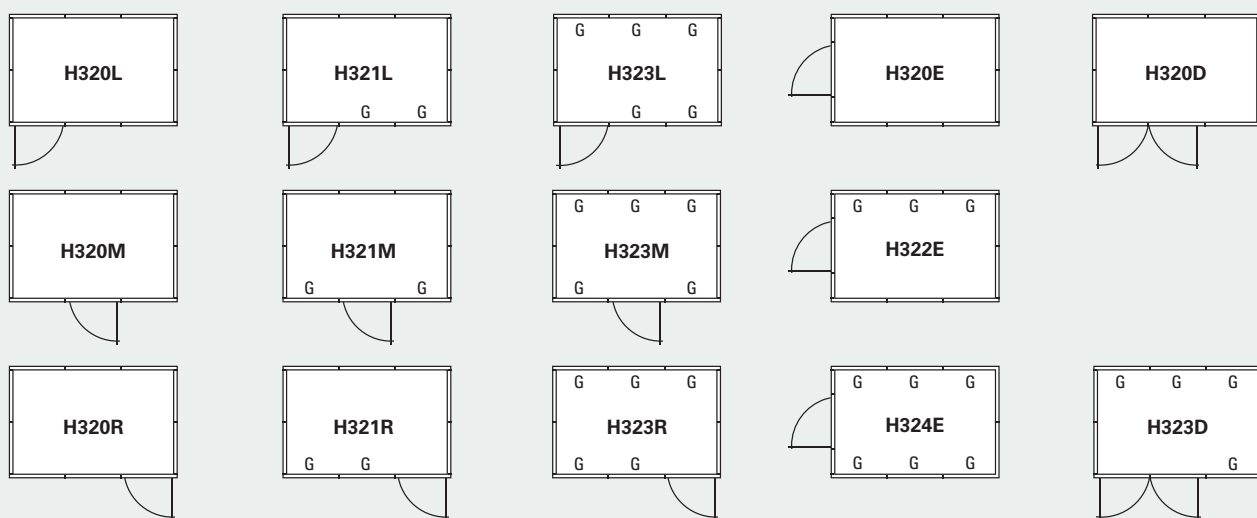
Hermit shelters are designed for simple self-assembly by our customers using the instruction manual and tool kit provided. It is appreciated that some of our customers will not have facilities for site assembly and we can therefore provide this optional service if required.



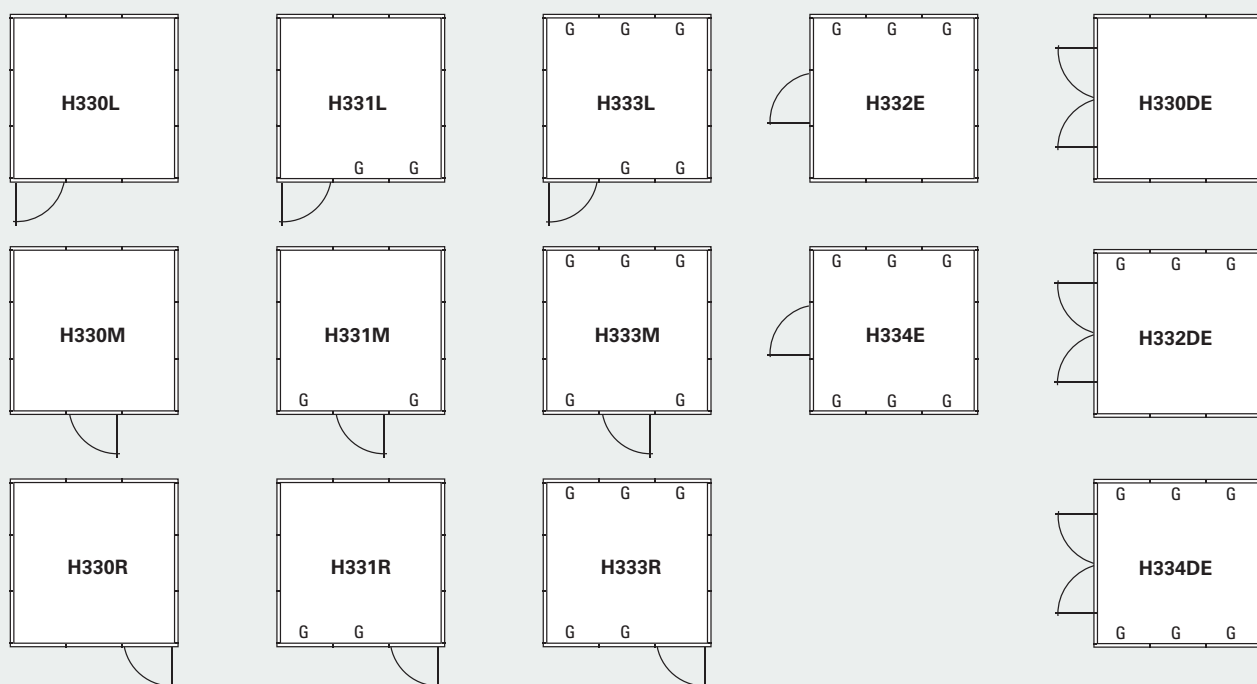
H220 RANGE (size 2x2m)



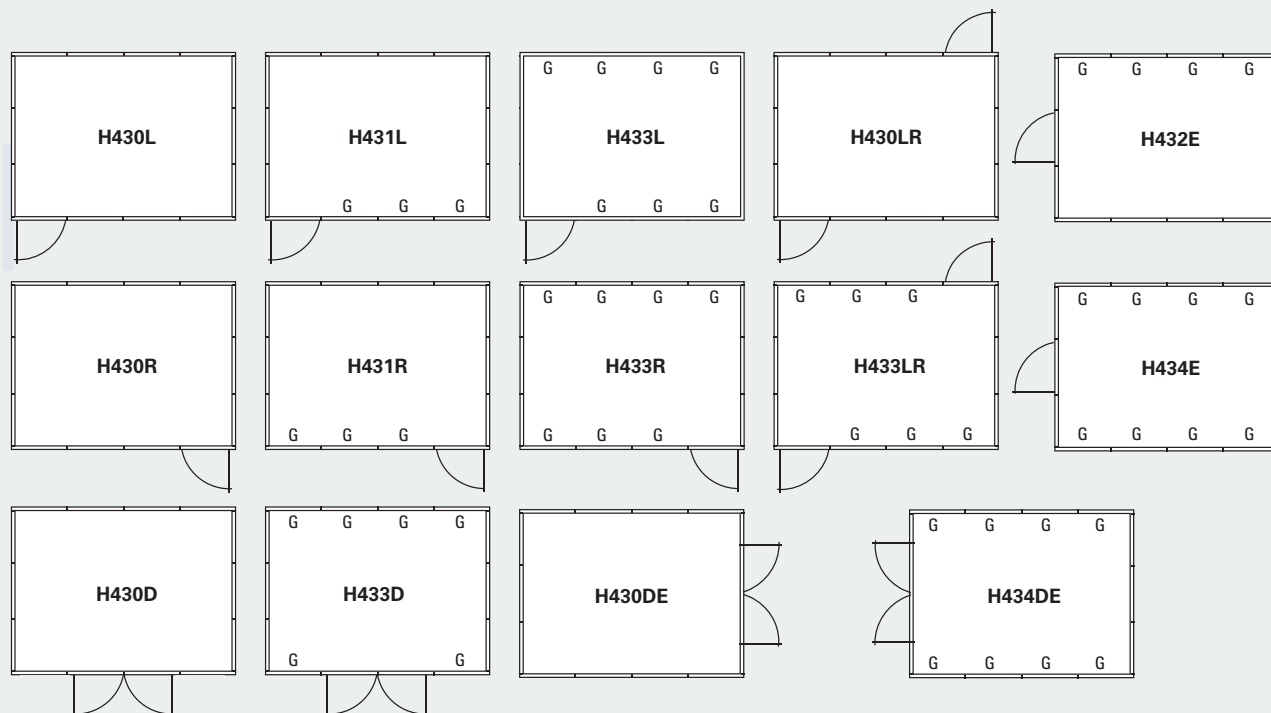
H320 RANGE (size 3x2m)



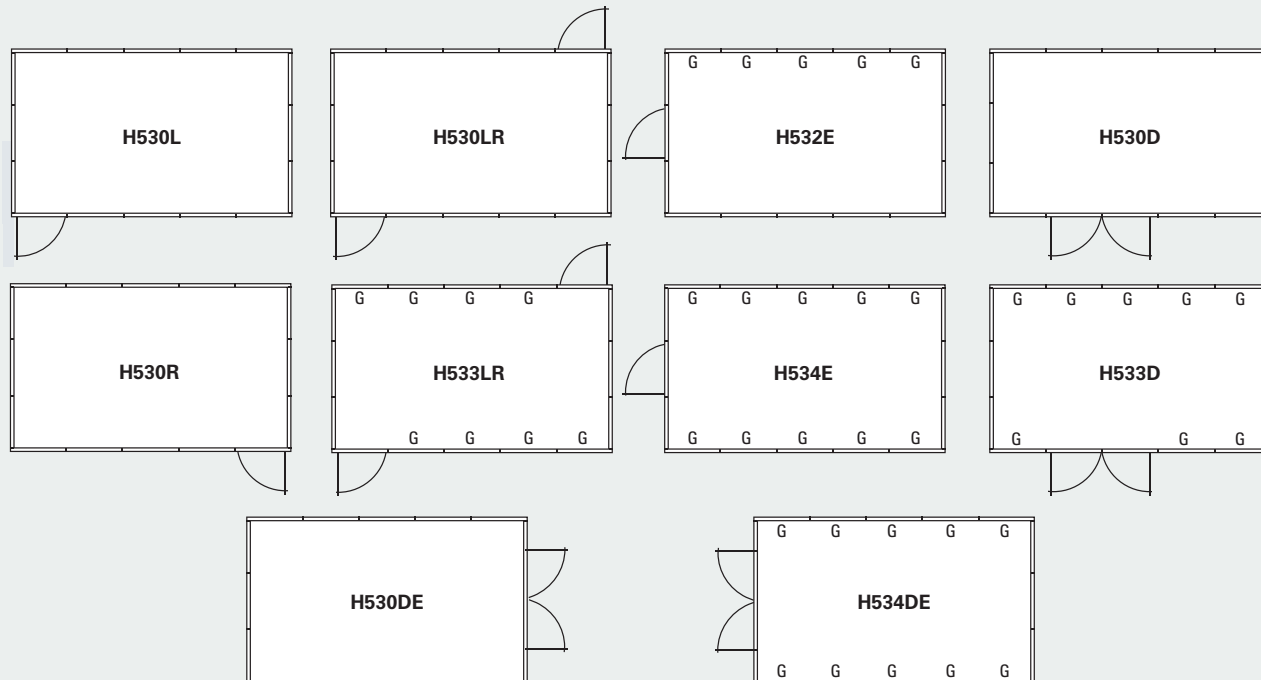
H330 RANGE (size 3x3m)



H430 RANGE (size 4x3m)



H530 RANGE (size 5x3m)



MODEL REFERENCE KEY All panels including doors are blank except where 'G' denotes a fixed glazed panel.

First Digits

22 - 2 x 2m
32 - 3 x 2m
33 - 3 x 3m
43 - 4 x 3m
53 - 5 x 3m

Third Digit

0 - Blank all round.
1 - Glazed alongside the door.
2 - Glazed along one side.
3 - Glazed alongside and opposite the door.
4 - Glazed along both sides.

Suffix

L - Door positioned left side.
M - Door positioned centrally.
R - Door positioned right side.
LR - Two single doors diagonally opposite.

D - One double door.
DE - One double door in gable end.
E - One single door in gable end.

TECHNICAL INFORMATION

Construction

0.7mm profiled hot-dipped galvanised steel panels with an embossed plastic exterior coating and a protective paint interior finish.

Glazing

4mm toughened glass fixed window in polyester powder-coated aluminium frame.

Doors

Single: 1000mm wide double skin steel door with foam core. Fitted with continuous stainless steel hinge, flush deadlocking night latch and stay. Outward opening only. Clear aperture size 935mm x 1985mm.

Double: 2000mm wide double skin steel door with foam core. Fitted with continuous stainless steel hinges, flush deadlocking night latch, shoot bolts and stays. Outward opening only. Clear aperture size 1935mm x 1985mm.

Fire rating

BS 476, Part 7, Class 1.

Colours

External: Light Green wall panels, approximately BS 4800 (12.B.21).
Dark Green roof panels and windows, approximately BS 4800 (12.B.27).
Internal: Pale Grey.

Weights (approx.)

2 x 2m - 255kg	4 x 3m - 527kg
3 x 2m - 357kg	5 x 3m - 650kg
3 x 3m - 415kg	

Ventilation

Base ventilation naturally provided by the panel profile.

Delivery

Hermit shelters are delivered in one or two non-returnable crates dependent upon model size. Each crate is approximately 2.8 x 1 x 1m.

Base requirements

Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hardcore. The concrete should be of minimum C20/25 grade in accordance with BS8500 Concrete: The Complementary British Standard to BS EN 206-1.

The base should preferably be raised slightly above the surrounding ground level.

Base fixing

Ensure that the panels are accurately aligned and the housing is completely square, i.e. the corners are at 90° and the diagonal dimensions are exactly the same.

Base fixing (by the customer) is accomplished using the expanding anchor bolts supplied. Refer to the base fixing instructions supplied with the fixings for correct installation in accordance with the manufacturer's recommendations.

Finally, apply an external mastic seal to the perimeter of the housing.

ON SITE ASSEMBLY SERVICE

The Hermit range is designed as a kit-form shelter for self assembly by the customer.

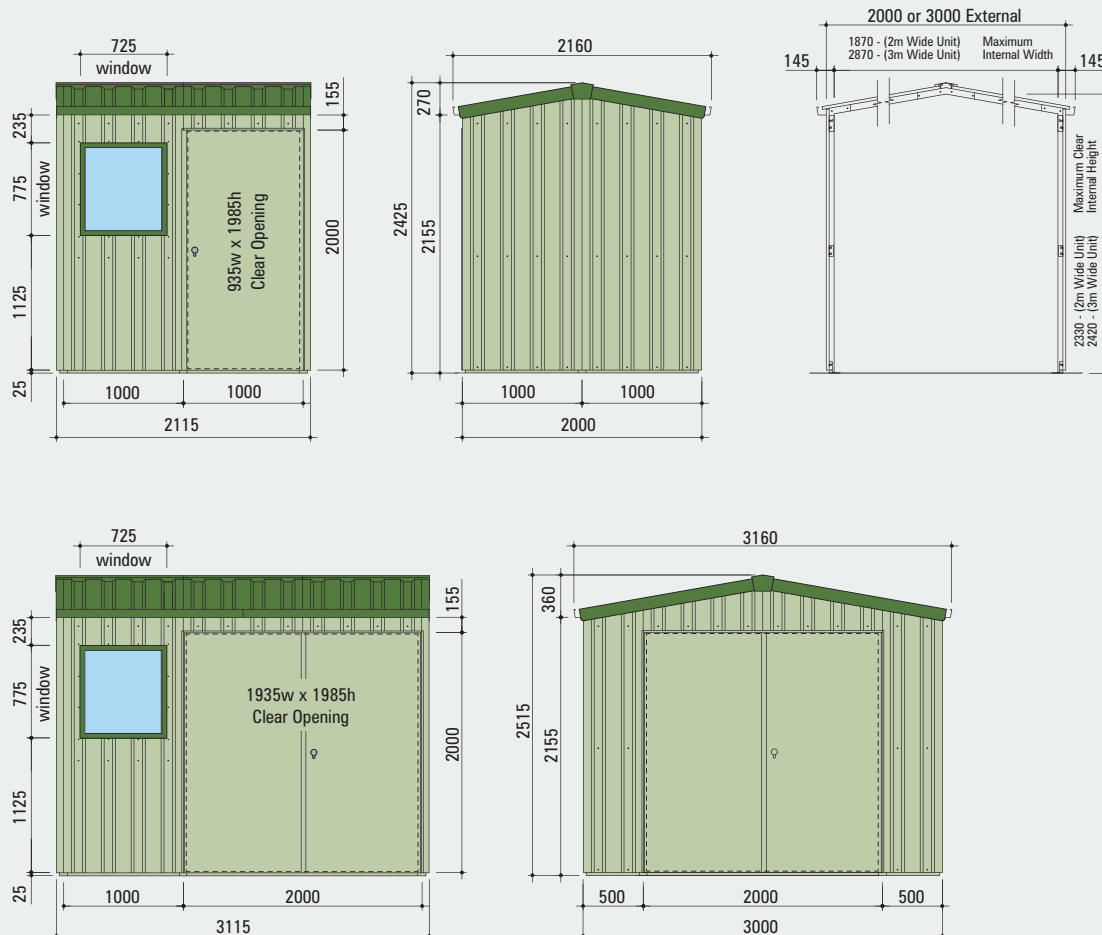
It is appreciated that some of our customers may not have facilities for site assembly and we will be pleased to quote for our site team to provide this service if required.

Please contact our Sales Office on 1800 656 606 for details and prices.

AVAILABILITY

Hermit shelters are normally delivered in 3 - 4 weeks.

TYPICAL DIMENSIONS





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Downloadable versions of other product literature, video clips, case studies and product instruction leaflets are also available.

Let's get social...



More detailed literature is available for many of our products. Please contact our Sales Office on **1800 656 606** with your enquiry.



Glasdon®

Glasdon International Limited

Preston New Road
BLACKPOOL
Lancashire
FY4 4UY
United Kingdom

Freephone: 1800 656 606
Freefax: 1800 656 607
e-mail: sales@glasdon.ie
web: www.glasdon.com



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