



Buildings & Housings

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## Design Process

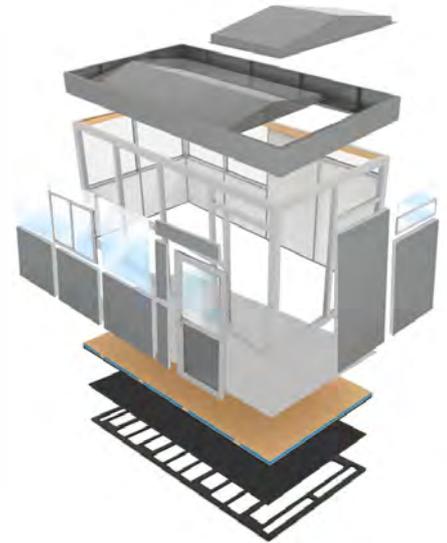
### From ideas ... to real world solutions

New product development has been a defining element throughout our history.

The nature of our products is such that they must be designed to resist the numerous challenges faced within the urban landscape.

We continuously enhance our product range and pave the way in the market by introducing unique products.

Working together with our innovative design team, we want to provide real world solutions, tailored to meeting your needs.



# Buildings

Glasdon has over 40 years specialist experience in the design, manufacturing, delivery and installation of a range of portable GRP Buildings and Steel Buildings including office accommodation, security control, gatehouses and check point cabins. This includes the Consul™ range of pre-assembled modular building systems.



## Consul™ Building

### DESIGN FEATURES

- Insulated wall and roof panels help to reduce heat loss during the winter months and heat gain in the summer months.
- A thermally broken aluminium framework helps to prevent condensation.
- An integral rainwater management system provides effective roof drainage to ground level.
- Insulated composite floor panels complete with a vapour barrier to the underside protect against rising damp and heat loss.
- Half height windows improve site security surveillance.
- A decorative internal wall lining and suspended ceiling system create an extremely pleasant working environment.
- The suspended ceiling system creates a roof void for electrical services and lighting installations.
- Excellent adaptability to suit numerous applications.

### MATERIALS & CONSTRUCTION

Minimal maintenance costs due to corrosion resistant plastic-coated steel wall, aluminium fascia and GRP roof panel external finishes.

### SIZES & LAYOUTS

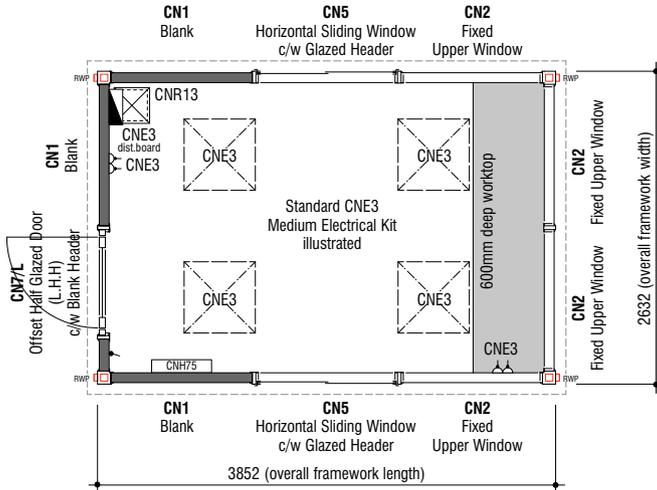
Consul is available in 11 standard sizes with Internal footprints from 1.22 x 2.44m up to 7.32 x 3.66m. 9 panel variations give a choice of layouts to suit specific requirements.

### DELIVERY & INSTALLATION

Delivered pre-assembled for ease and speed of installation. Short lead-time from order to delivery due to the modular construction of the building.

## SPECIFYING

### EXAMPLE SKETCH PLAN OF HOUSING SIZE 3.66 x 2.44m



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

- 1) Select your Consul size, this determines how many panels you need to choose.
- 2) Select your panels from the options below. (Please see the housing sizes list for number of panels required for your building)

Size	Number of Panels	Size	Number of Panels
1.22 x 2.44	6	1.22 x 3.66	8
2.44 x 2.44	8	2.44 x 3.66	10
4.88 x 2.44	12	3.66 x 3.66	12
6.10 x 2.44	14	4.88 x 3.66	14
7.32 x 2.44	16	6.10 x 3.66	16
		7.32 x 3.66	18

- 3) Illustrate your building panels layout by sketch plan, paying attention to positioning of doors, vents, windows and access panels.
- 4) Choose any optional features required.

## DIMENSIONS

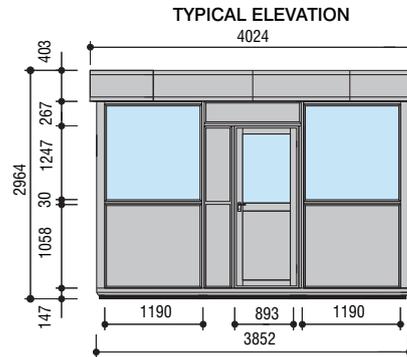
The overall external framework size of a Consul building is 192mm greater than the nominal internal size, e.g. a 3.66 x 2.44m building is 3.852 x 2.632m.

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

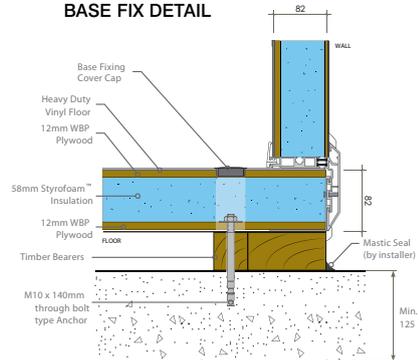
### Pitched Roof

The external roof system comprises:

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



### BASE FIX DETAIL



## PANELS NOMINALLY 1.2m WIDE



Blank  
CN1



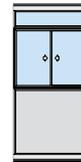
Fixed Upper  
Window  
CN2



Fixed Window  
CN3



High Level Top  
Opening Window  
CN4



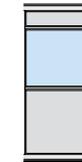
Horizontal  
Sliding Window  
CN5



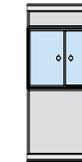
Fixed / Top  
Hung Opening  
Window  
CN6



Glazed Door  
CN7L/R



Fixed Window  
CN8



Horizontal  
Sliding Window  
CN9

**OPTIONAL FEATURES**

**ELECTRICS**

**Standard Electrical Installation**

Standard electrical kits consisting of lighting, light switch, double 13 amp plug points, all wired to consumer unit ready to receive mains supply.

**Additional plug point**

An additional 13 amp switched double plug point.

**Data socket**

An unwired data socket ready for local connection to telecom networks.

**Heater**

An electric convector heater for wall mounting, wired integrally to a fused switch. Heater output will vary subject to building size.

**Lighting**

Standard lighting kits provide a 300-500Lux illuminance in accordance with Lighting Guide 7 (2005) : Office Lighting.

**PARTITIONING**

Internal wall partitioning can be specified in 1.2m standard lengths.

**EXTERNAL GRP CANOPY**

A 1m wide external canopy with a 620mm external projection is available to provide coverage to panels CN7, CN8 and CN9.

**WORKTOPS**

600mm deep worktops can be specified in 1.2m increments of length up to a maximum single length of 3.6m. Alternate depths of 300mm and 900mm are also available.

**CUPBOARD UNITS**

Cupboard door finish is available in Matt White.

Under worktop floor mounted cupboard units with a single dividing shelf:

- Single 600 x 600mm
- Double 1200 x 600mm
- Single four drawer unit 600 x 600mm

Wall mounted cupboard units with a single dividing shelf:

- Single 600 x 290mm
- Double 1000 x 290mm

**TECHNICAL INFORMATION**

**COMPOSITE WALL PANELS**

The 82mm composite wall panels are constructed from 4mm outer and 9mm inner WBP plywood with an external weather-resistant plastic coated steel skin. The panels are insulated with a 68mm Styrofoam core. The internal face of the panel is finished with a high quality flame-retardant decorative vinyl.

**EXTRUDED ALUMINIUM FRAME**

Consul buildings are constructed from an extruded aluminium framework system, which is bolted together to gutter to a robust skeletal structure. The aluminium extrusions feature a Polyamide thermal break, which is 1000 times less conductive than aluminium and minimises heat transfer through the structure. As a result, the building internal temperature is better regulated and the risk of condensation is reduced.

**ALUMINIUM FASCIA, ROOF AND GUTTER SYSTEM**

GRP Roof and aluminium fascia panels are fixed together and sealed using a resin system to provide a waterproof gutter channel for rainwater management. Rainwater from the roof is channelled along the gutter to integral rainwater down pipes located in the corner post extrusions, which allows rainwater to flow down and discharge adjacent ground level. Stainless steel grilles are fitted at gutter level, above the rainwater down pipes, to filter out leaves and other deposits so that the drainage

system remains free flowing. A 'telltale' overflow is provided in the fascia panel above the door to indicate if the gutter grilles have become blocked and need to be cleared. If there is an obstruction within the rainwater management system, then the 'telltale' will drip, indicating that the roof and gutter system need attention.

The fascia is fabricated from aluminium panels with Armortec® coating, which are bolted together with joints appropriately sealed. Roof and fascia panels are insulated to help prevent condensation.

**TIMBER PLINTH BASE**

The floor is constructed on a treated timber plinth, which raises the composite floor panels off the ground. The floor is underlain with a water-resistant membrane to minimise the risk of water permeating from beneath the building.

**DOORS**

Aluminium single doors can be either left or right hand hung. Doors are outward opening and are fitted with aluminium handles and hinges, and multi-point locking systems for increased security.

**GLAZING**

Double glazing as standard.

**COLOURS**

External Wall Panel: Goosewing Grey (10-A-05)  
 External Fascia Panel: Goosewing Grey (10-A-05)  
 Aluminium Frame: Natural Anodised  
 Roof: Dark Grey

**BASE FIXING**

Base fixing by our customers is achieved using M10 anchor bolts through the composite floor panel and timber floor bearers into a concrete base. The number of fixings required varies depending on the dimensions of the building. Base fixing positions are protected by cover caps located in the floor once base fixings have been installed. Refer to the instructions supplied with the fixings for correct installation in accordance with the manufacturer recommendations.

**BASE REQUIREMENTS**

The minimum base size required is equal to the overall building size. The nominal building sizes are based on internal dimensions. External dimensions are 192mm larger and concrete bases should be provided to this size. Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well-consolidated hard core. The concrete should be of minimum C20/25 grade in accordance with BS 8500 Concrete: The complementary British Standard to BS EN 206-1. The base should be flat, level and square preferably raised slightly above the surrounding ground level.

**Armortec®** corrosion resistant coating is specially formulated to extend the life of Glasdon metal products and components used externally.





## Ranger™ Building

### DESIGN FEATURES

- Spacious working environment is created by the clear internal ceiling height of 2.44m.
- The flush internal walls are lined in white vinyl to create a clean and smart finish.
- The modular panel construction allows for 10 size variations.

### MATERIALS & CONSTRUCTION

Minimal maintenance costs due to corrosion-resistant plastic coated steel walls, aluminium fascia panels and stainless steel base plinth.

### SIZES & LAYOUTS

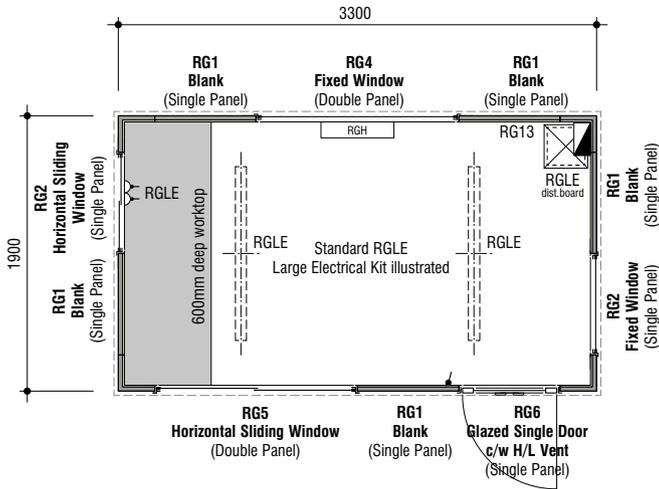
Building sizes from 1.2 x 1.2m up to 4.0 x 2.6m. 8 panel variations give a choice of layouts to suit specific needs. Internal ceiling height of 2.44m providing a large and spacious working environment.

### DELIVERY & INSTALLATION

Delivered pre-assembled for ease and speed of installation. Short lead-time from order to delivery due to the modular construction of the building.

## SPECIFYING

### EXAMPLE SKETCH PLAN OF BUILDING SIZE 3.3 x 1.9m



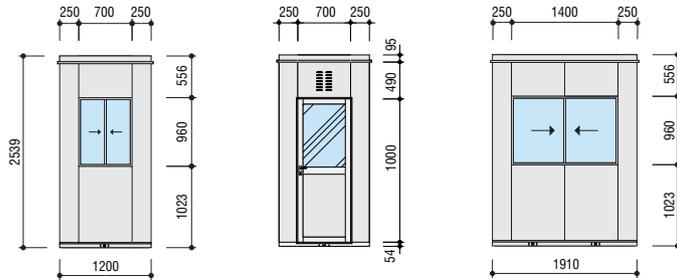
Please use the following sequence to specify your Ranger building or alternatively call our Sales Office who will be happy to assist.

- 1) Select your building size, this determines how many panels you need to choose.
- 2) Select your panels from the options below. (Please see the building sizes list for number of panels required for your housing)

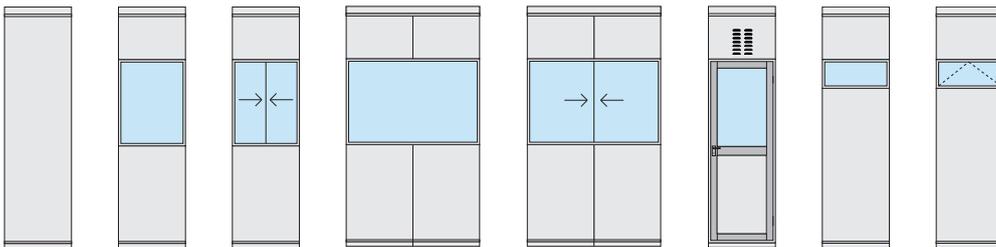
Size	Number of Single Panels
1.2 x 1.2	4
1.9 x 1.2	6
2.6 x 1.2	8
1.9 x 1.9	8
2.6 x 1.9	10
3.3 x 1.9	12
4.0 x 1.9	14
2.6 x 2.6	12
3.3 x 2.6	14
4.0 x 2.6	16

- 3) Illustrate your housing panels layout by sketch plan paying attention to positioning of doors and windows.
- 4) Choose any optional features required.

### DIMENSIONS TYPICAL PANEL DIMENSIONS



### PANELS NOMINALLY 0.25 X 0.25m CORNER, 0.7m AND 1.4m WIDE



Blank\* RG1      Fixed Window\* Single Panel RG2      Single Sliding Window\* RG3      Double Fixed Window\* RG4      Double Sliding Window\* RG5      Single Door RG6      High Level Fixed Window\* RG7      Top Hung Opening Window\* RG8

**Note:** Panels with a window or door cannot be positioned next 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.

\*Available with vents.

## OPTIONAL FEATURES

### ELECTRICS

#### Standard electrical installation

Standard electrical kits consisting of lighting, light switch, double 13 amp plug points, all wired to consumer unit ready to receive mains supply.

#### Additional plug point

An additional double 13 amp switched plug point.

#### Data socket

An unwired data socket ready for local connection to telecoms networks.

#### Heater

A 0.75kw electrical convector heater for wall mounting, wired integrally to a fused switch.

### DOOR

#### Door Hold Open Arm Kit

In addition to the standard door stopper, an optional door hold open arm limiter and closer kit is available.

### SHELF/WORKTOP

Worktops are 30mm grey laminate-faced chipboard, with varied lengths and widths as per building requirements.

### SERVICE ACCESS

Removable floor panel for services access.

## TECHNICAL INFORMATION

### PANEL CONSTRUCTION

Plastic coated steel panels complete with 28mm sheet insulation foam and 12mm white vinyl faced WBP plywood.

### ROOF CONSTRUCTION

SIP (Structurally Insulated Panel) roof system, covered in an EPDM (Ethylene Propylene Diene Terpolymer) Membrane.

### BASE PLINTH CONSTRUCTION

3mm thick Stainless steel plinth sections.

### DOORS

Natural anodised aluminium door and frame system with steel faced composite lower infill panel and glazed upper infill panel. Doors can be either left or right hand hung, and are outward opening with aluminium door handles and hinges. Zinc plated door locks are supplied with euro-profile cylinders for security.

### COLOUR

Base Plinth: Self-coloured stainless steel

External Wall Panel: Goosewing Grey (10-A-05)

External Fascia Panel: Self-coloured aluminium

Roof: Black

### BASE FIXING

Base fixing by our customers is achieved using self tapping masonry bolts. Refer to the instructions supplied with the fixings or watch the base fix video for correct installation in accordance with the manufacturers recommendations.

### BASE REQUIREMENTS

The minimum base size required is 100mm greater than the normal external building size. Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hard core. The concrete should be of minimum C20/25 grade in accordance with BS 8500 Concrete: The complementary British Standard to BS EN 206-1. The base should be flat, level and square preferably raised slightly above the surrounding ground level.

1.2 x 1.2 Building – 1.3 x 1.3 Base

1.9 x 1.2 Building – 2.0 x 1.3 Base

2.6 x 1.2 Building – 2.7 x 1.3 Base

1.9 x 1.9 Building – 2.0 x 2.0 Base

2.6 x 1.9 Building – 2.7 x 2.0 Base

3.3 x 1.9 Building – 3.4 x 2.0 Base

4.0 x 1.9 Building – 4.1 x 2.0 Base

2.6 x 2.6 Building – 2.7 x 2.7 Base

3.3 x 2.6 Building – 3.4 x 2.7 Base

4.0 x 2.6 Building – 4.1 x 2.7 Base







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

## Beacon™ Building

### DESIGN FEATURES

- Exceptionally good insulation, which helps to prevent heat-loss during the winter months and heat-gain during the warmer months.
- A thermally broken aluminium extrusion system to help prevent interstitial condensation.
- A concealed rainwater management system that guides water to ground level via corner outlets and prevents 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 with standard panel increments of 0.61, 1.22 and 2.44m, Beacon buildings can be manufactured to any specific size within the maximum length and width dimension offered. As well as conventional quadrilateral layouts, Beacon buildings are available with an octagonal or 45 degree bull-nosed footprint.

### 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 the crane equipped vehicle or site crane. The facility to relocate a building at a future date, if site circumstances change, is a major benefit.



PANELS NOMINALLY 0.61m, 1.22m AND 2.44m WIDE

**BC1**



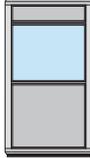
Blank  
Flush

**BC2**



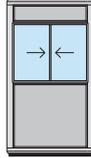
Blank

**BC3**



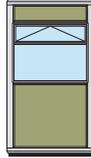
Fixed  
Window

**BC4**



Horizontal  
Sliding  
Window

**BC5**



Top Hung  
Opening  
Window

**BC6**



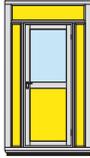
Display  
Window

**BC7**



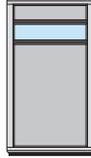
Blank  
Door

**BC8**



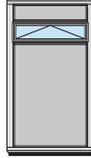
Glazed  
Door

**BC9**



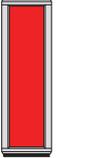
High Level  
Fixed  
Window

**BC10**



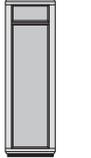
High Level  
Top Hung  
Window

**BC13**



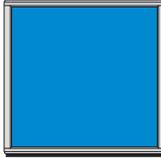
Blank  
Flush

**BC14**



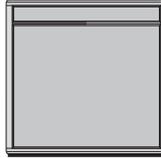
Blank

**BC15**



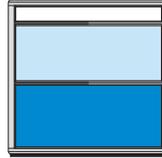
Blank  
Flush

**BC16**



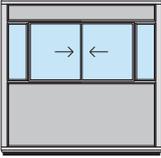
Blank

**BC17**



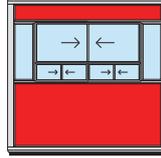
Fixed  
Window

**BC18**



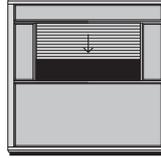
Horizontal  
Sliding  
Window

**BC19**



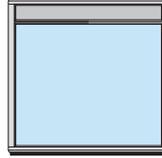
Multi-opening  
Horizontal Sliding  
Window

**BC20**



Roller  
Shutter

**BC21**



Display  
Window

**BC22**



Blank  
Double  
Door

**BC23**



Glazed  
Double  
Door

**BC25**



Sliding Door

## 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.
- 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 40mm thick laminate-faced chipboard 600mm deep.
- 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 light fitting, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.
- Ref. 4LF **Additional light fitting**
- Ref. 4PP **Additional double 13A switched plug point**
- Ref. 11 **Electric heater**  
Panel convactor heater complete with integral thermostat.

### 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 260m<sup>3</sup>/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.

**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 with decorative suspended ceiling to underside.

**INTERNAL VERSION:**

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

**FLOORS**

Composite 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 BC25. 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, multi-point locking system and door closer.

**ROLLER SHUTTER**

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

**EXTERNAL SECURITY SHUTTERS**

Security roller shutters fitted externally.  
Grey powder-coated finish as standard with the option of natural anodised aluminium or powder coated to a preferred colour at additional cost.

**THERMAL INSULATION 'U' VALUE**

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

**DELIVERY**

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

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	3500kg	N/A

**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™ Building

### DESIGN FEATURES

- Available with a pitched roof for outdoor siting or a flat roof for internal applications.
- Plastic-coated steel exterior panels with a robust, corrosion-free aluminium framework.
- Can be configured in sizes from 1.22 x 1.22m to 7.32 x 2.44m.
- Delivered fully assembled and off-loaded by crane.
- Can be manufactured in other shapes, e.g. octagonal.
- The building can be relocated at a future date if required.

### 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.

### SIZES & LAYOUTS

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.

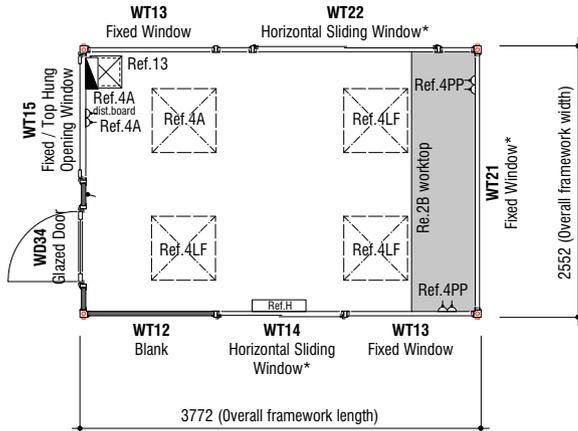
### DELIVERY & INSTALLATION

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.



\* Ref.20 Heavy-duty horizontal sliding window option available

## 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.

## 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:

Anthracite	RAL 7016
Goosewing Grey	RAL 7038
Chilli Red	RAL 3000
Solent Blue	RAL 240 40 40
White	RAL 9003

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

## DIMENSIONS

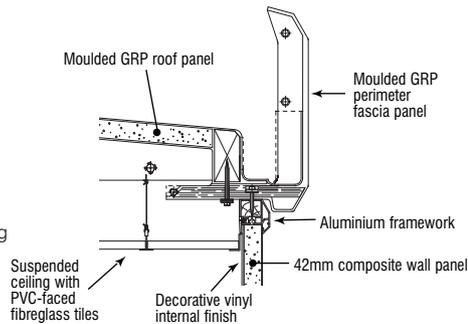
The overall frame size of a Warrior building is 112mm greater than the nominal internal size, e.g. a 3.66 x 2.44m building is 3.772 x 2.552m.

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:

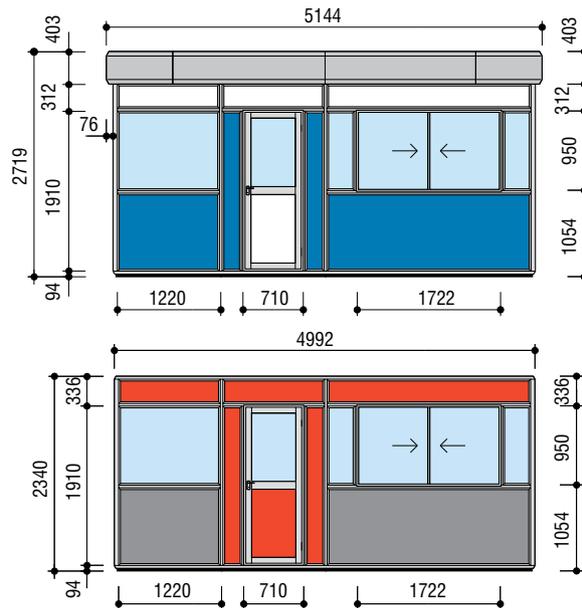
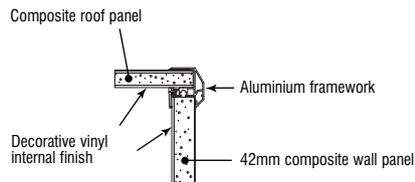
- Fully insulated GRP pitched roof with perimeter fascia
- Integral rainwater gutter and down-spout arrangement
- Decorative suspended ceiling



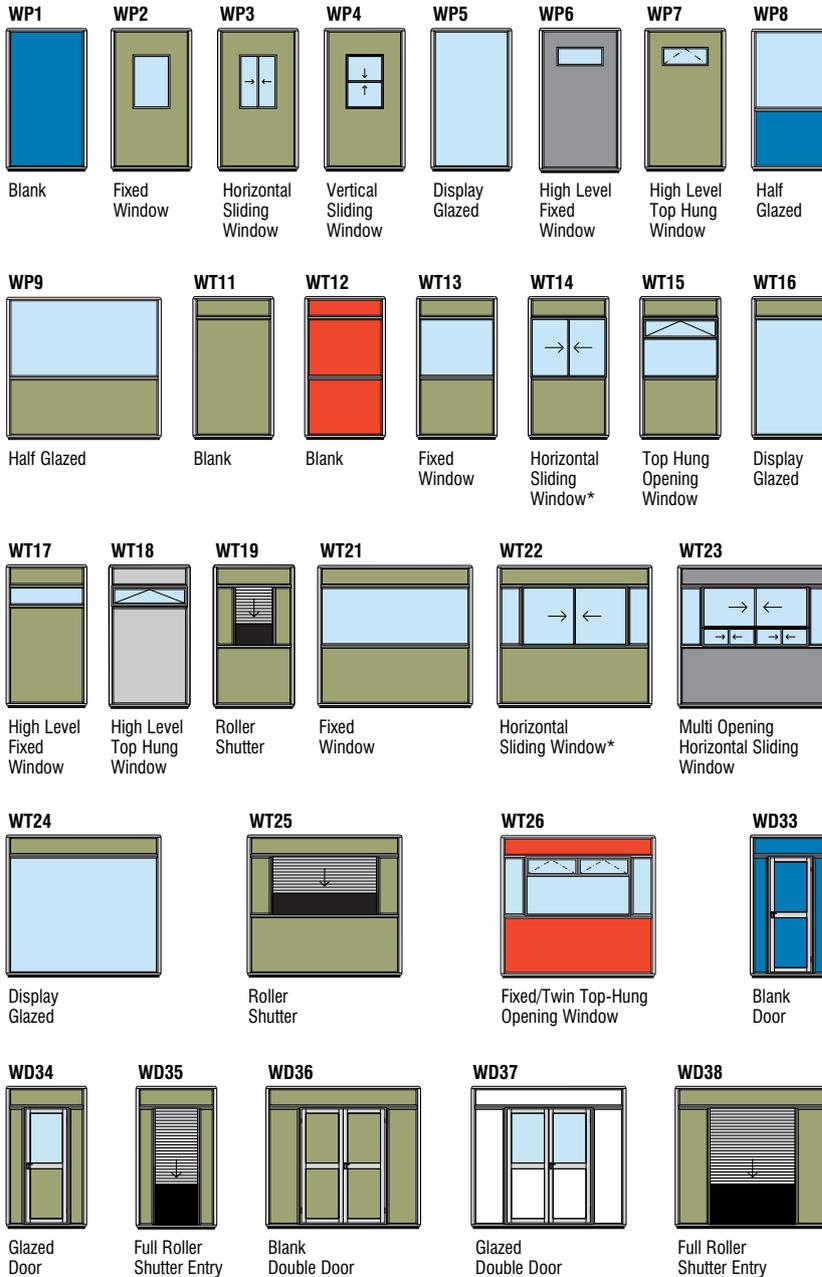
### FLAT ROOF

The internal/undercover roof system comprises:

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



PANELS NOMINALLY 1.22m AND 2.44m WIDE



\*Please see 'Optional features - Glazing' section

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 thick white laminate-faced chipboard 600mm deep.
- 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 light fitting, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.
- Ref. 4LF **Additional light fitting**
- Ref. 4PP **Additional double 13A switched plug point**
- Ref. 11 **Electric heater**  
Panel convactor heater complete with integral thermostat.

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 260m<sup>3</sup>/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.

**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:**

Composite 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 except WP9 and WT21 (6mm glass). Door panels have 6mm high-impact thermoplastic glazing. All display glazed windows have 6mm toughened glass except 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**

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

**EXTERNAL SECURITY SHUTTERS**

Security roller shutters fitted externally. Grey powder-coated finish as standard with the option of natural anodised aluminium or powder coated to a preferred colour at additional cost.

**THERMAL INSULATION 'U' VALUE**

Blank wall panel 0.85 W/m<sup>2</sup>°C.  
 Flat roof panel 0.98 W/m<sup>2</sup>°C.  
 Pitched roof 0.65 W/m<sup>2</sup>°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 (00-A-05) 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.)	C/W PITCHED ROOF	C/W FLAT ROOF
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 Building

### DESIGN 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

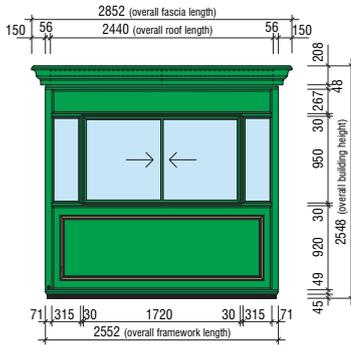
Available in standard panel increments of 1.22m and 2.44m, Heritage buildings can be tailored to meet your individual layout in sizes from 1.22 x 1.22m up to 4.88 x 2.44m. A wide choice of optional features is available for lighting, heating, glazing and ventilation.

### 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 delivery vehicle 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.

## DIMENSIONS



## 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

## COLOURS

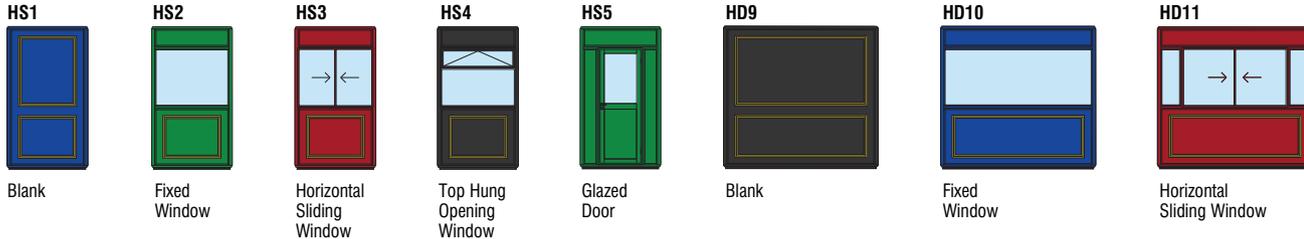
The external colour choice for the framework, moulded roof fascia & external face of the panel is Maroon RAL 3003, Dark Green RAL 6005, Black RAL 9005 and Dark Blue RAL 5003.

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

## AVAILABILITY

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

## PANELS NOMINALLY 1.22m AND 2.44m WIDE



## 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 light fitting, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.
- Ref. 4LF Additional 1200mm light fitting
- Ref. 4PP Additional double 13A switched plug point
- Ref. 11 Electric heater  
Panel convactor heater complete with integral thermostat.

### 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 260m<sup>3</sup>/hr.

**TECHNICAL INFORMATION****CONSTRUCTION**

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

**WALLS**

Fully insulated composite panels 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 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<sup>2</sup>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™ Building

### DESIGN FEATURES

- Wide choice of optional features for lighting, heating, glazing and ventilation.
- Plastic-coated steel panels will retain their smart appearance for many years with minimal maintenance.
- Flush internal walls with attractive vinyl finish and good insulation.
- Available in sizes from 1.2 x 1.2m to 4.0 x 2.6m.
- Wide range of panels to suit your specification.
- Delivered fully assembled and off-loaded by crane.

### 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 comfortable working environment.

### SIZES & 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

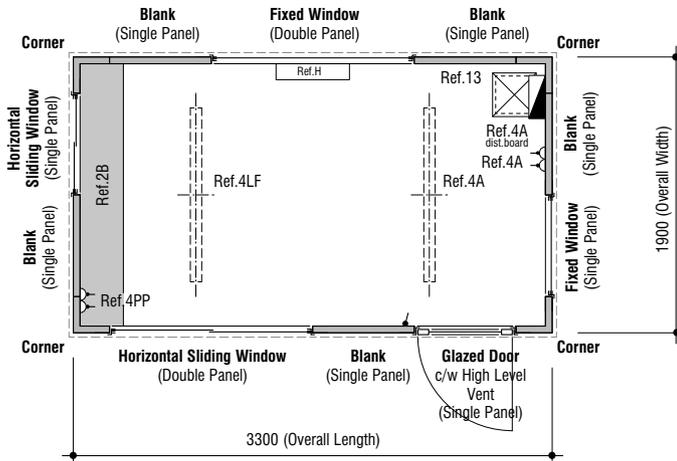
For urgent projects we normally stock a range of six standard buildings made using popular layouts, which offer a significant cost saving in comparison to our bespoke buildings.

### 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

### NOMINAL EXTERNAL BUILDING SIZE OF 3.3 x 1.9m



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.

### STANDARD BUILDING SIZES

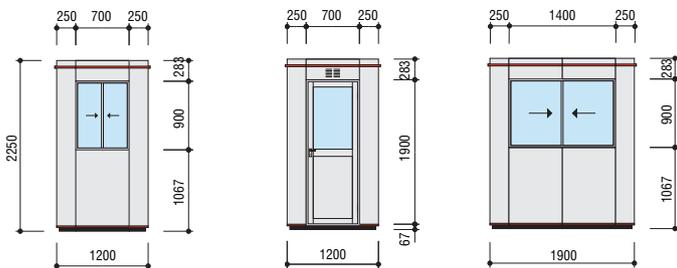
1.2m Widths	1.9m Widths	2.6m Widths
1.2 x 1.2m	1.9 x 1.9m	2.6 x 2.6m
1.9 x 1.2m	2.6 x 1.9m	3.3 x 2.6m
2.6 x 1.2m	3.3 x 1.9m	4.0 x 2.6m
3.3 x 1.2m	4.0 x 1.9m	

### AVAILABILITY

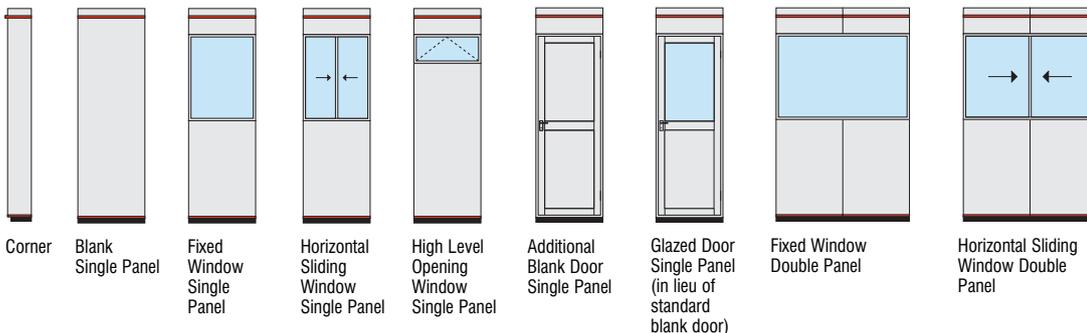
Boxer buildings are normally delivered in approximately 6-8 weeks depending on specification.

## DIMENSIONS

### TYPICAL PANEL DIMENSIONS



### 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

### Key

- V** = Adjustable vent
- S** = Horizontal Sliding Window Single Panel
- L** = Horizontal Sliding Window Double Panel
- A** = Worktop
- F** = Fixed Window Single Panel

### AVAILABILITY

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.

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

#### Ref. 4LF

**Additional light fitting**

### Ref. 4PP

**Additional double 13A switched plug point**

### Ref. 11

**Electric heater**  
Panel convector heater complete with integral thermostat.

### VENTILATION

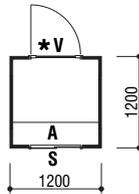
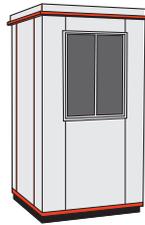
#### Ref. 5

**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

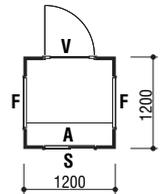
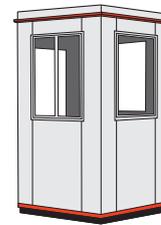
**Electrically-operated ventilator**  
Wall or roof mounted extractor fan. Extractor rate 260m<sup>3</sup>/hr.

**1.2 x 1.2m Model BX240**

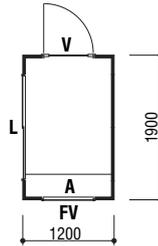


\* Blank door

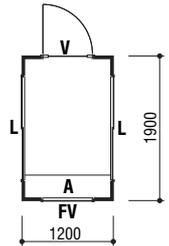
**1.2 x 1.2m Model BX242**



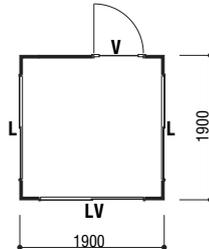
**1.9 x 1.2m Model BX464**



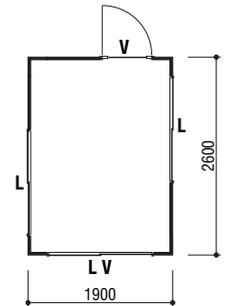
**1.9 x 1.2m Model BX466**



**1.9 x 1.9m Model BX650**



**2.6 x 1.9m Model BX882**



## OPTIONAL FEATURES

## 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/m<sup>2</sup>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.



# Kiosks

Glasdon specialise in the design and build of portable GRP kiosks to suit indoor and outdoor applications and tailored to your requirements.

Popular applications include; security control and gatehouses, toll booths and car parking assistant cabins, ticket sales and vending kiosks, visitor and delivery check-in and as an attractive and focal information point for heritage and leisure sites.



## Genesis™ Kiosk

### DESIGN FEATURES

- Excellent internal finish – aesthetics and maintenance.
- Flame retardant panels.
- Textured grip surface flooring.
- Galvanised frame and ground fixing plates.
- Fork lift points built into the frame for ease of portability.
- Extremely flexible range of external graphic options.

### MATERIALS & CONSTRUCTION

Genesis kiosks feature modern styling and are finished internally and externally with high-quality GRP. The Genesis system also features flame retardant panels.

### SIZES & SPECIFICATION

Genesis is available as four standard models; 1.5 x 1.5m, 2.3 x 1.5m, 2.3 x 1.5m with Double Sliding Windows and 2.7 x 2.2m.

### DELIVERY & INSTALLATION

Genesis kiosks are delivered to site in pre-assembled form ready for off-loading and base fixing by the customer. A galvanised steel subframe is included for ease of offloading and relocation\*.

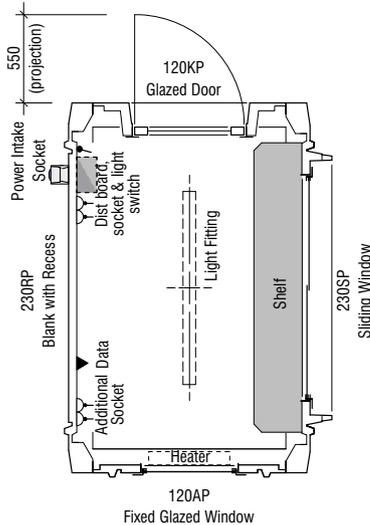
\*NOTE: For 1.5 x 1.5m and 2.3 x 1.5m Models a forklift truck with 1200mm long forks (minimum) is required for customer off-loading. If you do not have access to a forklift truck, then please advise us at your time of order, so that we can arrange delivery using a crane-equipped vehicle for a small nominal charge. The 2.7 x 2.2m Model will always be delivered using a crane-equipped vehicle, again for a small nominal charge, based on a mainland UK delivery location.

## SPECIFYING

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

Genesis kiosks are ordered from the four standard models in sketch plan form with an optional feature reference marked as appropriate, e.g.

### NOMINAL EXTERNAL BUILDING SIZE OF 2.3 x 1.5m



## OPTIONAL EXTRAS

### ELECTRICS

A standard electrical kit consisting of light fitting, light switch and double 13 amp switched plug point, all wired to consumer unit c/w RCD ready to receive mains supply.

Additional Double Socket

An additional double 13 amp switched plug point.

### DATA SOCKET

An unwired data socket ready for local connection to telecoms network.

### EXTERNAL POWER INTAKE SOCKET

A standard 32 amp external power intake socket installed through the wall panel, more suitable for portable applications where cables are not permanent.

### HEATER

A 0.75kw manual panel convector heater for wall mounting, wired integrally to a fused switch.

### WORKTOPS

30mm grey laminate-faced chipboard, 300mm wide, with varied lengths as per kiosk requirements. The shelf is generally located under the sliding window but other options may be available.

### PLINTH TRIM KIT

An optional plinth trim kit is available to cover the subframe. The plinth trim kit will be applied by the customer and is removable to enable the unit to be relocated.

## AVAILABILITY

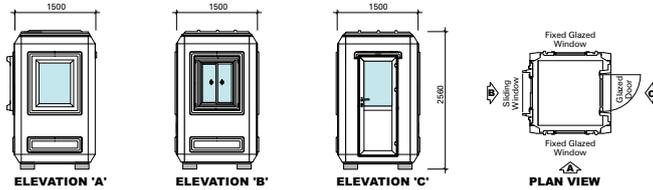
When stock is available Genesis kiosks will normally have a lead time of 7 to 14 days from receipt of order or artwork approval (if personalisation is required). However, if stock is not available a lead time of up to 8 weeks may be required (subject to confirmation at time of order).



## STANDARD BUILDINGS

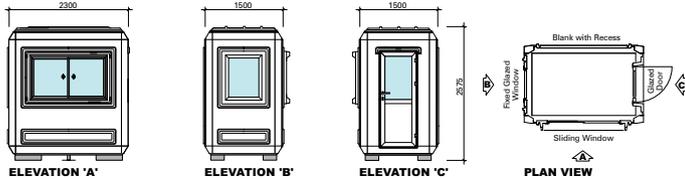
- A range of four small buildings built to a fixed specification.
- High quality materials at a budget-conscious cost.
- Normally available from stock to satisfy urgent requirements.
- Free delivery to mainland UK (subject to conditions).

### 1.5 x 1.5m Model K1515



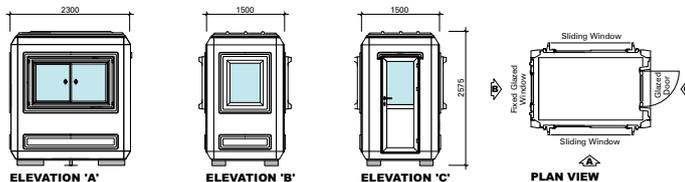
Weight: 290kg

### 2.3 x 1.5m Model K1523



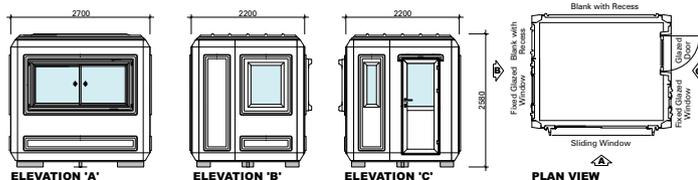
Weight: 400kg

### 2.3 x 1.5m Model K1523A Double Sliding Windows



Weight: 400kg

### 2.7 x 2.2m Model K2227



Weight: 600kg

## TECHNICAL INFORMATION

### PANEL COMPOSITION

External and internal pigmented gelcoat backed with flame-retardant GRP laminate either side of a core of particle board and flame-retardant foam insulation as relevant to each panel.

### ROOFS

Insulated as standard and manufactured in one piece.

### FLOORS

Textured Tulsa mesh grip surface on 18mm Phenolic faced plywood board.

### GLAZING

Toughened safety glass

### DOORS

Right hand hung aluminium door with Europrofile cylinder mortice lock.

### COLOUR

Standard White\*

### DELIVERY

Genesis kiosks are usually delivered in fully assembled form ready for the customer to off load and base fix (unless stated).

### BASE REQUIREMENTS

1.5 x 1.5m kiosk – 1400 x 1400 x 125mm  
 2.3 x 1.5m kiosk – 2200 x 1400 x 125mm  
 2.7 x 2.2m kiosk – 2600 x 2100 x 125mm

### BASE FIXINGS

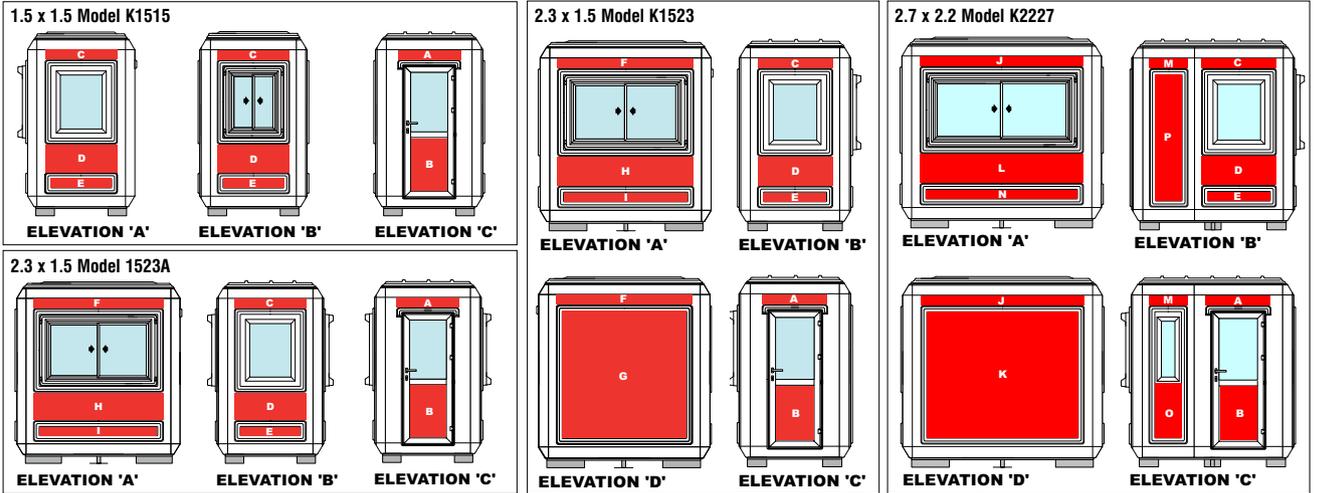
Base fixing by the customer is achieved using anchor bolts and can be carried out through pre-drilled holes in the subframe.

\*Disclaimer: Please note white colour listed is Standard White, variations in shade may be encountered.



**PERSONALISATION**

Genesis kiosk can be personalised in a variety of areas using your own logos, photographs or artwork. Please contact our Sales Office for more information.



# Genesis Kiosk



# Housings

We also specialise in the design and build of GRP Housings and Enclosures, Steel Housings, Enclosures and Shelters and Steel Roadside and Railside Equipment Cabinets for the secure storage of a wide range of equipment including generators, switch gear and valves, monitoring equipment, control panels, substations, meters, mobile and broadband networks and power supply rooms.



## Defender™ Housing

### DESIGN FEATURES

- Defender™ Housing's modular construction offers a wide range of configurations enabling the housing to be tailored to suit many different requirements.
- Excellent thermal insulation helps to regulate internal temperature, ideal for sensitive equipment.
- Flush internal wall surfaces allow for the convenient wall-mounting of lightweight equipment.

### MATERIALS & CONSTRUCTION

Minimal maintenance costs due to corrosion-resistant plastic coated steel walls, aluminium rainwater management system and stainless steel base plinth.

### SIZES & SPECIFICATION

Housing sizes from 1.2 x 1.2m up to 4.0 x 2.6m. 8no. panel variations give a choice of layouts to suit specific needs. Internal ceiling height of 2.5m allows large equipment to be housed.

### DELIVERY & INSTALLATION

Delivered pre-assembled for ease and speed of installation.

## SPECIFYING

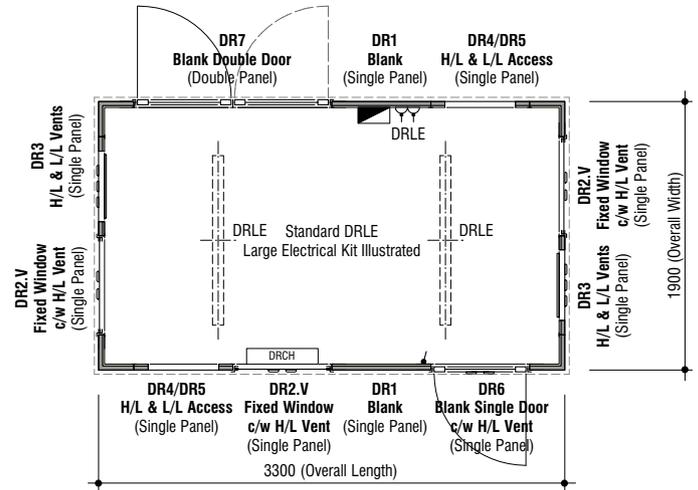
Please use the following sequence to specify your Defender housing or alternatively call our Sales Office who will be happy to assist.

- 1) Select your housing size, this determines how many panels you need to choose.
- 2) Select your panels from the options below. (Please see the housing sizes list for number of panels required for your housing).

Size	Number of Single Panels
1.2 x 1.2	4
1.9 x 1.2	6
2.6 x 1.2	8
1.9 x 1.9	8
2.6 x 1.9	10
3.3 x 1.9	12
4.0 x 1.9	14
2.6 x 2.6	12
3.3 x 2.6	14
4.0 x 2.6	16

- 3) Illustrate your housing panels layout by sketch plan paying attention to positioning of doors, windows, vents and access panels.
- 4) Choose any optional features required.

### EXAMPLE SKETCH PLAN OF HOUSING SIZE 3.3 x 1.9m



PANELS 2.4m high. Nominally 0.25 x 0.25m corner, 0.7m and 1.4m wide panels.



Blank  
DR1



Fixed  
Window  
DR2



Fixed Window  
c/w Vent  
DR2V



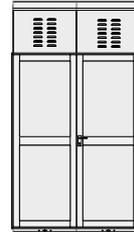
Vent  
DR3



H/L Level  
Access  
DR4/5



Blank Single  
Door  
DR6

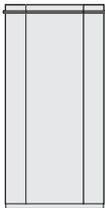


Blank Double  
Door c/w Vent  
DR7

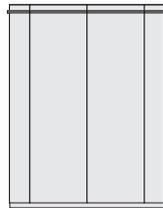
**Note:** Panels with a window or door cannot be positioned next to each other on the same elevation i.e. they must have a blank panel or corner on each adjacent side to provide fixing grounds for window and door frames.

### SIDE/END ELEVATION OPTIONS

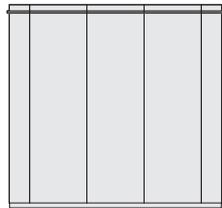
These elevations are composed from the panel options shown above



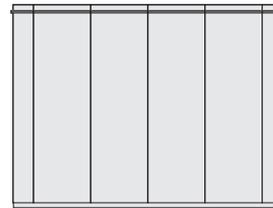
1.2m  
Side and  
End Elevation



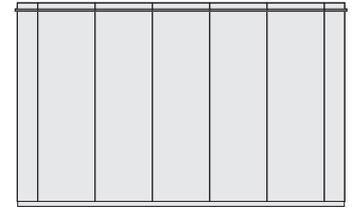
1.9m  
Side and  
End Elevation



2.6m  
Side and  
End Elevation

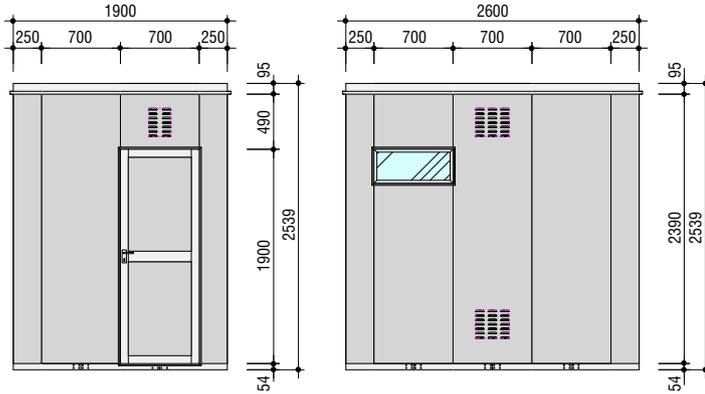


3.3m  
Side Elevation Only



4.0m  
Side Elevation Only

**TYPICAL PANEL DIMENSIONS**



**OPTIONAL FEATURES**

**ELECTRICS**

**Standard electrical kits**

Standard electrical kits consisting of lighting, light switch, double 13 amp plug points, all wired to consumer unit ready to receive mains supply.

**Additional plug point**

An additional double 13 amp switched plug point.

**Data socket**

An unwired data socket ready for local connection to telecoms networks.

**Heater**

A 0.75kw electrical convector heater for wall mounting, wired integrally to a fused switch

**DOOR**

**Door Hold Open Arm Kit**

In addition to the standard door stopper, an optional door hold open arm kit is available. This will fix the door in position allowing hands free entering and exiting.

**TECHNICAL INFORMATION**

**PANEL CONSTRUCTION**

Plastic coated steel panels complete with 28mm sheet insulation foam and 12mm WBP plywood.

**ROOF CONSTRUCTION**

SIP (Structurally Insulated Panel) roof system, covered in an EPDM (Ethylene Propylene Diene Terpolymer) Membrane.

**BASE PLINTH CONSTRUCTION**

3mm thick Stainless steel plinth sections.

**DOORS**

Natural anodised aluminium door and frame system with steel faced composite upper and lower infill panels. Doors can be either left or right hand hung, and are outward opening with aluminium door handles and hinges. Zinc plated door locks are supplied with euro-profile cylinders for security.

**COLOUR**

Base Plinth: Self-coloured stainless steel  
 External Wall Panel: Goosewing Grey (10-A-05)  
 External Fascia Panel: Self-coloured aluminium  
 Roof: Black

**BASE FIXING**

Base fixing by our customers is achieved using self tapping masonry bolts. Refer to the instructions supplied with the fixings or watch the base fix video for correct installation in accordance with the manufacturer's recommendations.

**BASE REQUIREMENTS**

The minimum base size required is 100mm greater than the nominal external housing size. Assuming no suitable existing surface, the base should be a minimum of 125mm concrete on to well consolidated hard core.

The concrete should be of minimum C20/25 grade in accordance with BS 8500 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.

- 1.2 x 1.2 Building – 1.3 x 1.3 Base
- 1.9 x 1.2 Building – 2.0 x 1.3 Base
- 2.6 x 1.2 Building – 2.7 x 1.3 Base
- 1.9 x 1.9 Building – 2.0 x 2.0 Base
- 2.6 x 1.9 Building – 2.7 x 2.0 Base
- 3.3 x 1.9 Building – 3.4 x 2.0 Base
- 4.0 x 1.9 Building – 4.1 x 2.0 Base
- 2.6 x 2.6 Building – 2.7 x 2.7 Base
- 3.3 x 2.6 Building – 3.4 x 2.7 Base
- 4.0 x 2.6 Building – 4.1 x 2.7 Base





## Element™ GRP Housing

### DESIGN FEATURES

- Modular construction allows for modification or relocation in the future.
- Delivered fully assembled for quick and easy installation.
- Corrosion-resistant GRP external panels and stainless steel fixtures and fittings provide long service life with minimal repair and maintenance.
- GRP panels feature an MDF core for structural strength.
- Secure stainless steel hinges.
- Structurally analysed - suitable for use in the majority of UK locations.
- 12mm internal core and 12mm reinforced flanges.
- Steel reinforced ground fixing flange.
- Supplied with self-tapping masonry bolts for base fixing.

### MATERIALS & CONSTRUCTION

Smooth, semi-gloss GRP roof and wall panels in Light Grey semi-gloss BS 4800 (00.A.05).

Anchored into position using self-tapping masonry bolts as standard.

### SIZES & SPECIFICATION

Choice of 10 standard sizes available from 1m x 2m up to 5m x 3m external footprint with a 2.5m clear internal height.

Offered in standard panel increments of 1m due to roof panel span.

3 entryway options: single access 0.8m, double access 1.32m and double access 1.75m.

### DELIVERY & INSTALLATION

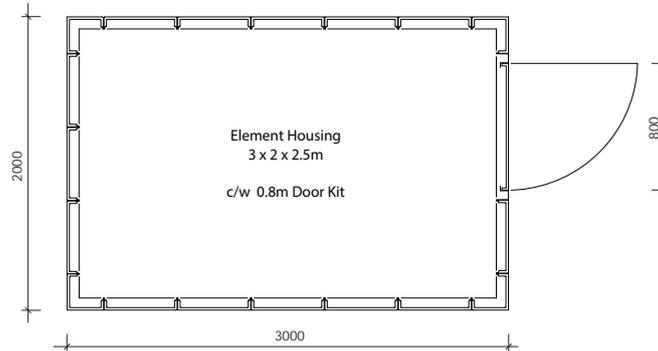
Delivered fully assembled by crane for quick and easy delivery, with facility for relocation if necessary in the future.

## SPECIFYING

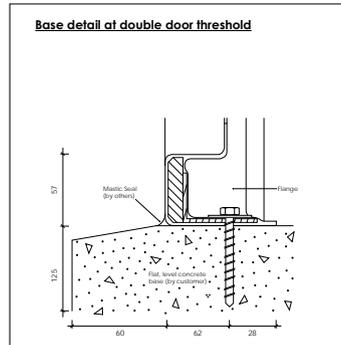
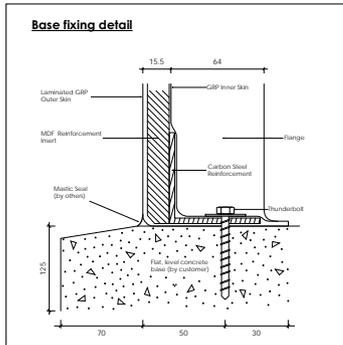
Please choose your Element sizing from the list below, or alternatively contact our sales team for more information.

1m x 2m x 2.5m  
 2m x 2m x 2.5m  
 3m x 2m x 2.5m  
 4m x 2m x 2.5m  
 5m x 2m x 2.5m  
 1m x 3m x 2.5m  
 2m x 3m x 2.5m  
 3m x 3m x 2.5m  
 4m x 3m x 2.5m  
 5m x 3m x 2.5m

### EXAMPLE SKETCH PLAN OF HOUSING SIZE 3 x 2 x 2.5m



## TECHNICAL INFORMATION



### PANEL COMPOSITION (ROOFS, CORNERS AND WALLS)

Externally, smooth semi-gloss GRP laminate finish (resin and glass reinforcement) and 12mm MDF reinforcement core and further reinforcement is applied in the flanges for structural strength. Internally, textured white finish applied.

Roof Construction, externally, smooth semi-gloss finish GRP. Roofs up to 1m span in lengths of 2m and 3m are usually supplied in one piece.

### FIXING GROUNDS

Lightweight screw can be used for fixing methods on to panels, however careful consideration of the fixing length is advised in order to avoid breaking through the external finish. The recommended screw length is a maximum of 12mm and a washer to allow the spread of the load. For heavy duty fixing grounds, we recommend fixing through the reinforced flanges or using the optional unistrut equipment mounting kits.

### DOORS

The standard single door is 800mm wide, right or left hand hung, outward opening only. The standard double doors are either 1320mm or 1750mm wide, outward opening only. The doors are fitted with robust stainless steel hinges (three per door) and a variety of door furniture options are available (see optional extras).

### COLOUR

Externally, standard colour is:

Grey BS4800 (00.A.05)

Internally, as standard, textured white paint finish.

### DELIVERY

Element housings are 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.

### AVAILABILITY

Element Housings are normally delivered in 3-4 weeks depending on specification.

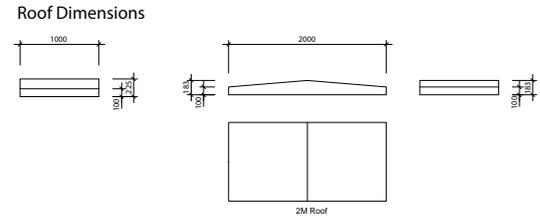
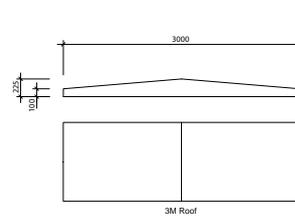
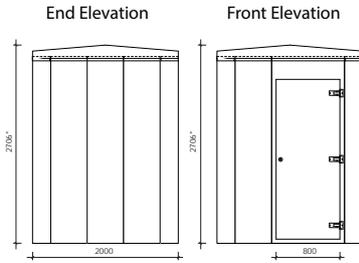
### BASE REQUIREMENTS

The minimum base size required is 100mm greater than the nominal external 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.

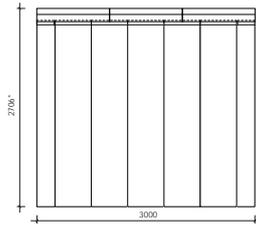
### BASE FIXING

Base fixing by our customers is achieved using self tapping masonry bolts. Refer to the instructions supplied with the fixings or watch the base fix video for correct installation in accordance with the manufacturer's recommendation.

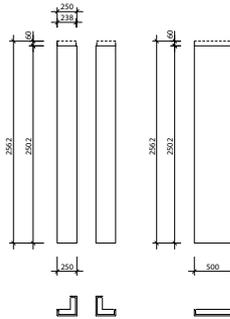
## TYPICAL PANEL DIMENSIONS



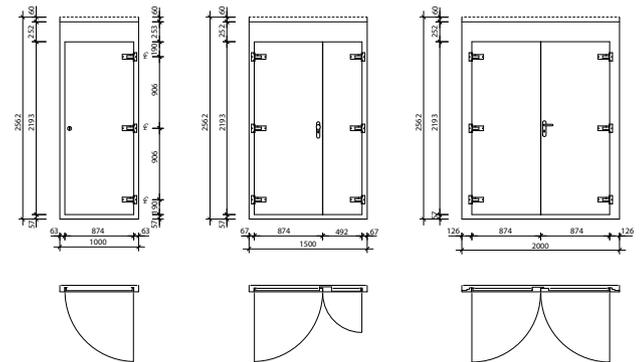
### Side Elevation



### Panel Dimensions



### Door & Door Frame Dimensions



\* NOTE: If specifying a 3 metre roof the overall height to the ridge would be 2747mm.

## OPTIONAL FEATURES

### Door Furniture

Lock option kits include a Euro-profile cylinder mortice deadlock/escutcheon plate. Handles available include a lever or cylindrical knob.

### Door Stay

Stainless Steel Door Stay Options are available for all door sizes. Door stay kits for 1.0m single door and 1.5m - 2.0m double doors.

### Ventilation

As standard, 300 x 300mm anodised aluminium louvered vent to provide air flow.

### Access Panel

Provided as a closed access point, a standard 300 x 300mm GRP aperture frame with a removable GRP plate allows for external services entry.

### Electrics

Standard electrical installation Consisting of lighting, light switch, double 13 amp plug points. All wired to consumer unit ready to receive mains supply.

### Additional Plug Point

An additional 13 amp switched plug point.

### Data Socket

An unwired data socket ready for local connection to telecoms networks.

### Heater

A 0.75kw electrical convector heater for wall mounting, wired integrally to a fused switch.

### Equipment Mounting

Kits include unistrut channels with brackets.



Lever Handle



Cylindrical Knob Handle



Deadlock



300 x 300mm Vent



Access Panel



0.8m Single Access Door



1.32m Double Access Door



1.75m Double Access Door



## Fortress™ Housing

### DESIGN 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-resistant rated 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.

### MATERIALS & CONSTRUCTION

Panels: Plastic-Coated Steel.

### 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

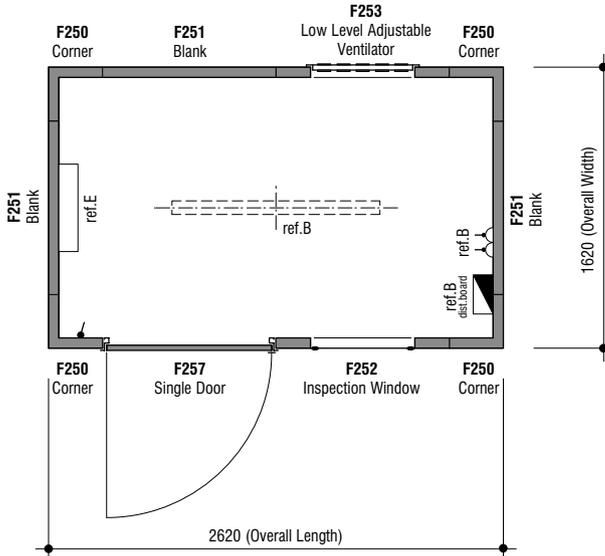
Fortress housings are normally delivered in pre-assembled form and offloaded by crane ready for immediate use. The option of a panel form delivery can easily overcome site access restrictions.

## 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**

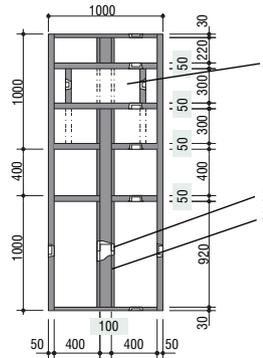
All roofs are generally supplied in one piece for lengths of 1m, 2m and 3m. Roofs for other housing widths are supplied in sections, e.g. the roof for a 2.5 x 1.5m housing is supplied in one 1.5m section and one 1m section.

**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. Integral Stiffening frame of a 2.5m High Panel Section



- 1 = Gland plate/vent/window position.
- 2 = Cross-sectional profile.
- 3 = 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.

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

## Ref. C Additional light fitting.

## Ref. D Additional double 13A switched plug point.

## Ref. E Electric heater

Panel convector heater complete with integral 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 260m<sup>3</sup>/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 0.07m<sup>2</sup>.

## MISCELLANEOUS

## Ref. X Explosion relief facility

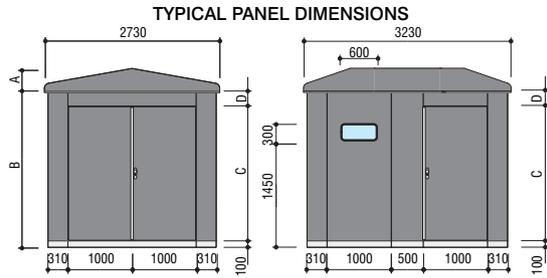
Fortress housings can comply fully with British Gas requirements - please see Technical Information.

## Ref. Q Exit furniture

Emergency Exit and Panic Exit devices can be incorporated to satisfy the requirements of either BS EN 179 or BS EN 1125 subject to the application conditions. Further advice is available from our Sales/Technical Department.

**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.



Housing height (CIH)	Dimensions (mm)			
	A	B	C	D
1.5m	See below	1412	1250	62
2m		1912	1750	62
2.5m		2412	2100	212
3m		2912	2100	712
Housing width (span)	Dimensions (mm)		Dimensions (mm)	
	A	Housing width (span)	A	Housing width (span)
1.5m	285	3.5m	461	505
2m	328	4m	505	594
2.5m	373	5m	594	682
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.

**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

## TECHNICAL INFORMATION

### WALL PANEL COMPOSITION

Plastic-coated steel outer and inner lining panels with integral 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 integral stiffening frame (see panel section details on page 43).

### 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.

### 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.

### 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.

### 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.

### THERMAL INSULATION

Walls: 0.59 W/m<sup>2</sup>C Floors: 1.88 W/m<sup>2</sup>C  
Roofs: 0.57 W/m<sup>2</sup>C

### 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.)

1 x 1.5 x 1.5m - 365kg	4 x 2.5 x 2.5m - 1185kg
2 x 1.5 x 2m - 575kg	6 x 3 x 3m - 1640kg
3 x 2 x 2.5m - 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™ Housing

### DESIGN FEATURES

- Modular construction allows for modification and relocation in the future.
- Tough and durable GRP (glassfibre reinforced polyester) panels with a smooth semi-gloss finish.
- Available in standard heights of 1m up to 3.5m and layouts from 1 x 0.5m to 6 x 20m.
- Wide range of optional features including lighting, heating, ventilation, glazing and explosion relief roofs.
- Delivered fully assembled and off-loaded by crane as standard. Optional panel-form delivery can overcome site restriction issues.

### 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 3.5m, 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

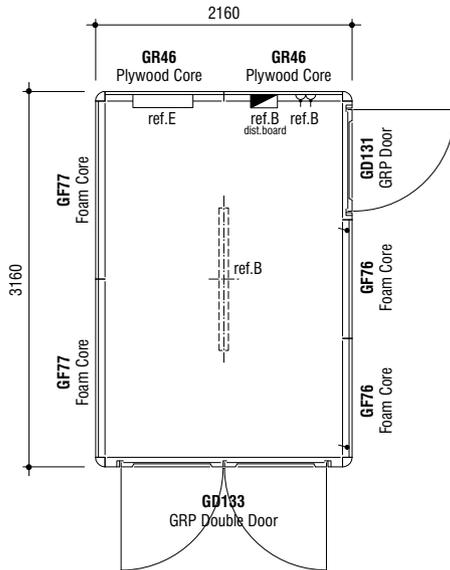
Garrison housings are normally transported in fully assembled form and off-loaded by crane to help keep installation time to a minimum. The option of panel form delivery means that size and access restrictions can be easily overcome, whilst the modular construction allows for modification and relocation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



## TYPICAL PANEL DIMENSIONS

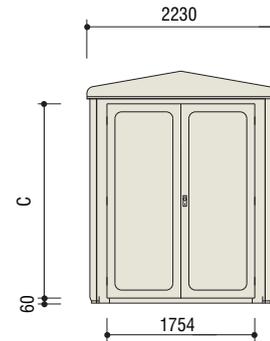
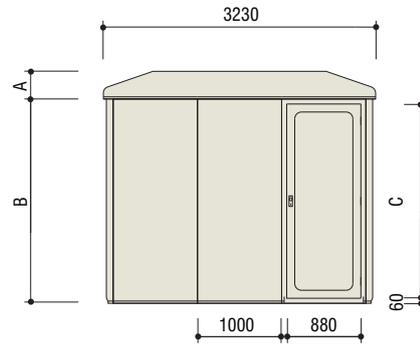
Housing height (CIH)	Dimensions (mm)		
	A	B	C
1m	See below	925	805
1.5m		1425	1305
2m		1925	1805
2.5m		2425	2305
3m		2925	2305

Housing width (span)	Dimensions (mm)	
	A	
0.5m	200	
1m	240	
1.5m	285	
2m	328	
2.5m	373	
3m	417	
3.5m	461	
4m	506	
5m	594	
6m	682	

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

**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.



## 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.



## 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	<b>GR31</b> 	<b>GR32</b> 			<b>GF61</b> 	<b>GF62</b> 			<b>GD101</b> 		<b>GD103</b> 
1.5m High	<b>GR35</b> 	<b>GR36</b> 	<b>GR37</b> 	<b>GR38</b> 	<b>GF65</b> 	<b>GF66</b> 	<b>GF67</b> 	<b>GF68</b> 	<b>GD111</b> 	<b>GD112</b> 	<b>GD113</b> 
2m High	<b>GR40</b> 	<b>GR41</b> 	<b>GR42</b> 	<b>GR43</b> 	<b>GF70</b> 	<b>GF71</b> 	<b>GF72</b> 	<b>GF73</b> 	<b>GD121</b> 	<b>GD122</b> 	<b>GD123</b> 
2.5m High	<b>GR45</b> 	<b>GR46</b> 	<b>GR47</b> 	<b>GR48</b> 	<b>GF75</b> 	<b>GF76</b> 	<b>GF77</b> 	<b>GF78</b> 	<b>GD131</b> 	<b>GD132</b> 	<b>GD133</b> 
3m High	<b>GR50</b> 	<b>GR51</b> 	<b>GR52</b> 		<b>GF80</b> 	<b>GF81</b> 	<b>GF82</b> 		<b>GD141</b> 	<b>GD142</b> 	<b>GD143</b> 

NOTE: an option for 3.5m high panels is available upon request.



## OPTIONAL FEATURES

### COLOUR

Choice of four standard colours.

- Ref. 1 **Beige**
- Ref. 2 **Light Grey**
- 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 light fitting, light switch and double 13A switched plug point. All wired to consumer unit ready to receive mains supply.
- Ref. C **Additional light fitting**
- Ref. D **Additional double 13A switched plug point.**
- Ref. E **Electric heater**  
Panel convector heater complete with integral thermostat.

### VENTILATION

- Ref. F **Electrically-operated ventilator**  
Wall-mounted extractor fan.  
Extractor rate 260m<sup>3</sup>/hr.
- Ref. H **Fixed ventilator**  
Wall-mounted fixed ventilator to provide permanent airflow. Bird proof. Nominal size 600mm x 150mm. Ventilation area 0.04m<sup>2</sup>.

- 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 0.16m<sup>2</sup>.

- 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 0.02m<sup>2</sup> 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 0.07m<sup>2</sup>.

### 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 **Exit Furniture**  
Emergency Exit and Panic Exit devices can be incorporated to satisfy the requirements of either BS EN 179 or BS EN 1125 subject to the application conditions. Further advice is available from our Sales/Technical Department.
- 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.



**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 plywood 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 deadlock/handle set.

**THERMAL INSULATION**

Panels have 'U' values of:  
 Plywood core 2.96 W/m<sup>2</sup>C  
 Foam core 1.02 W/m<sup>2</sup>C  
 Roof 1.06 W/m<sup>2</sup>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 laminate 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.



# Shelters

The Hermit Steel Shelter is ideal for school, garage and builders storage. Its plastic coated steel construction is cost-effective and low-maintenance. Hermit Steel Shelters provide utility accommodation to meet a 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' Stores

Builders' Yard Stores



## Hermit™ Shelter

### DESIGN FEATURES

- Sixty standard steel shelters ranging in size from 2 x 2m to 5 x 3m.
- Single door, double door and glazed panel layouts available.
- Plastic-coated steel construction will retain its smart appearance over many years.
- Delivered in kit form for simple self-assembly - we can provide on-site assembly service if required.

### 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.

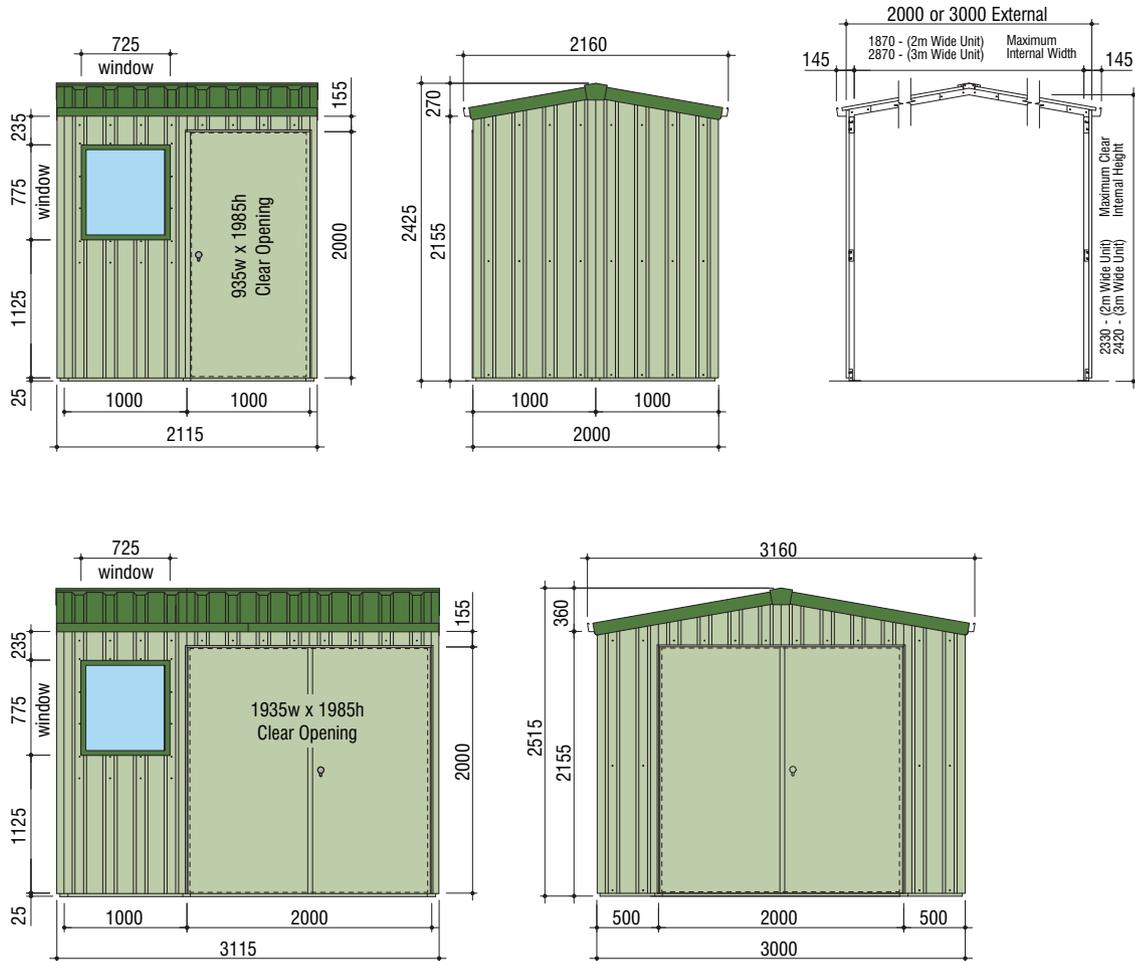
### SIZES & SPECIFICATION

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.

### 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.

## TYPICAL DIMENSIONS



## ON SITE ASSEMBLY SERVICE

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

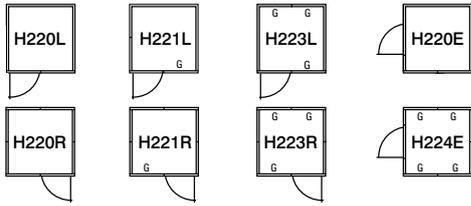
It is appreciated that some of our customers may not have facilities for site assembly and we will be pleased to quote for our site team to provide this service if required.

Please contact our Sales Office on 01253 600418 for details and prices.

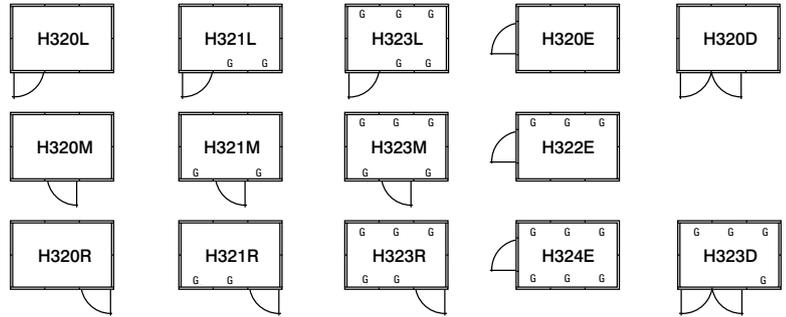
## AVAILABILITY

Hermit shelters are normally delivered in 3-4 weeks.

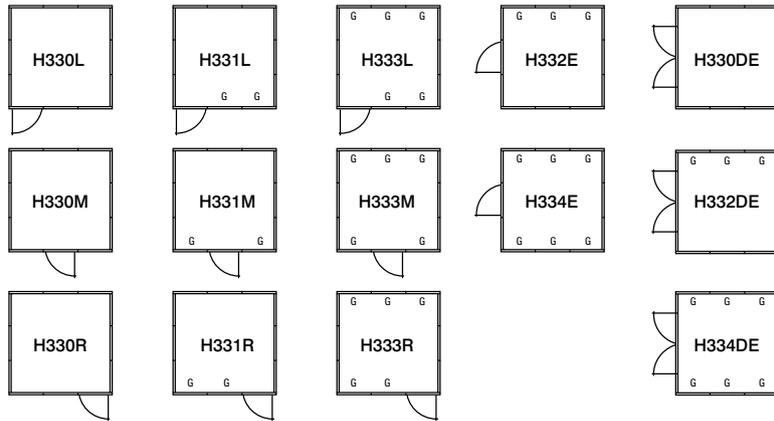
**H220 RANGE (SIZE 2 x 2m)**



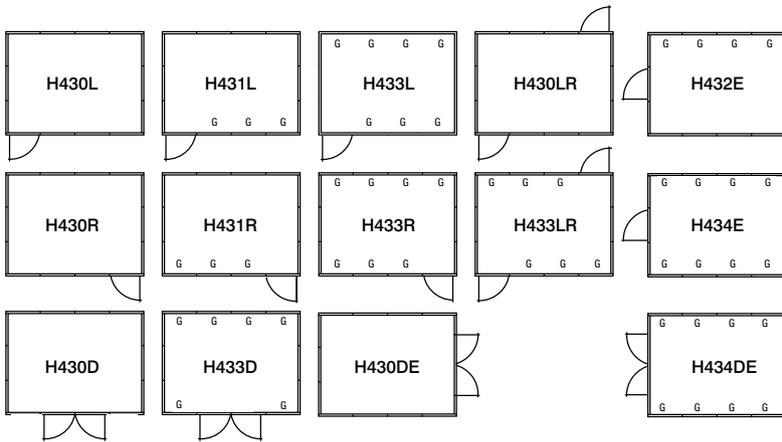
**H320 RANGE (SIZE 3 x 2m)**



**H330 RANGE (SIZE 3 x 3m)**



**H430 RANGE (SIZE 4 x 3m)**



**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

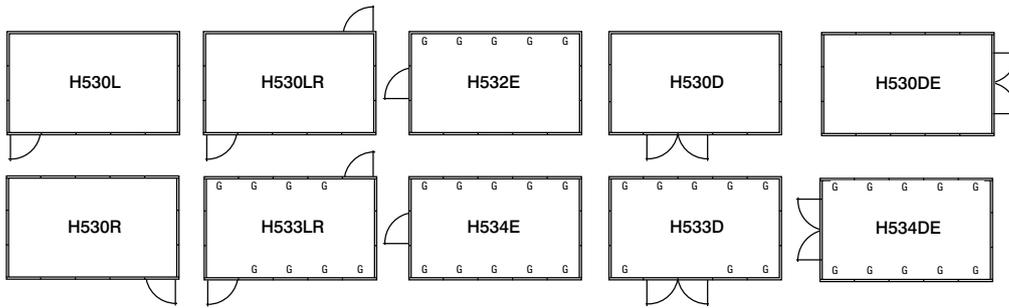
**THIRD DIGIT**

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

**H530 RANGE (SIZE 5 x 3m)**



**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.



# Cabinets



Steel cabinet enclosures offer a long term solution to house and protect instrumentation and electrical equipment, frequently supplied to utility companies, Local Authorities, construction companies and rail sectors. Our thick, double-skinned insulated constructions have become a popular choice for metering and electrical panels, where minimal temperature variation and low condensation levels are vital for sensitive equipment to operate successfully.

The economy single-skinned cabinets are suitable for where temperature is unimportant such as CCTV systems and roadside emergency equipment.



## Cadet™ Cabinet

### DESIGN FEATURES

- IP-rated with foam insulation and timber reinforcement as appropriate.
- Plastic-coated steel construction will retain its smart appearance over many years.
- Marine grade stainless steel option offers optimum performance in even the most extreme marine and coastal environments.
- Optional features include gland plates, cable entries, inspection windows, ventilation and internal mounting rails.

### MATERIALS & CONSTRUCTION

Cadet Cabinets are type tested to IP56. 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 (width x depth x height) up to 1000 x 1000 x 2000mm (w x d x h) and double door cabinets are available in sizes from 1200 x 400 x 600mm (w x d x h) to 2000 x 1000 x 2000mm (w x d x h). 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.

### DESIGN FEATURES

- 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**

WIDTHS (External)	DEPTH (External)	HEIGHTS (Clear internal)						
		400mm	600mm	800mm	1000mm	1500mm	1800mm	2000mm
<b>SINGLE DOOR CABINETS</b>								
450mm	250mm	✓◆	✓◆	✓◆	✓◆			
	400mm	✓◆	✓◆	✓◆	✓◆			
600mm	400mm	✓◆	✓◆	✓◆	✓◆			
	600mm	✓◆	✓◆	✓◆	✓◆			
800mm	400mm	✓◆	✓◆	✓◆	✓◆	✓	✓	✓
	600mm	✓◆	✓◆	✓◆	✓◆	✓	✓	✓
	800mm 1000mm	✓	✓	✓	✓	✓	✓	✓
1000mm	400mm							
	600mm	✓	✓	✓	✓	✓	✓	✓
	800mm	✓	✓	✓	✓	✓	✓	✓
	1000mm	✓	✓	✓	✓	✓	✓	✓
<b>DOUBLE DOOR CABINETS</b>								
1200mm	400mm							
	600mm							
	800mm		✓	✓	✓	✓	✓	✓
	1000mm		✓	✓	✓	✓	✓	✓
1500mm	600mm		✓	✓	✓	✓	✓	✓
	800mm		✓	✓	✓	✓	✓	✓
	1000mm		✓	✓	✓	✓	✓	✓
2000mm	600mm		✓	✓	✓	✓	✓	✓
	800mm		✓	✓	✓	✓	✓	✓
	1000mm		✓	✓	✓	✓	✓	✓

STAINLESS STEEL CABINETS ARE MANUFACTURED USING 316 GRADE WHICH IS SUITABLE FOR MARINE ENVIRONMENTS.

**ECONOMY RANGE CABINET SIZES**

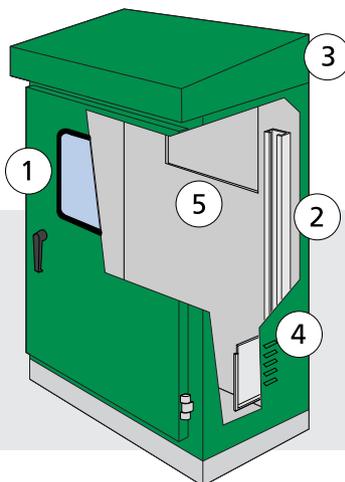
Economy Range Cabinets are available in sizes marked with ◆

**AVAILABILITY**

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

**KEY TO ILLUSTRATION**

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



**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.



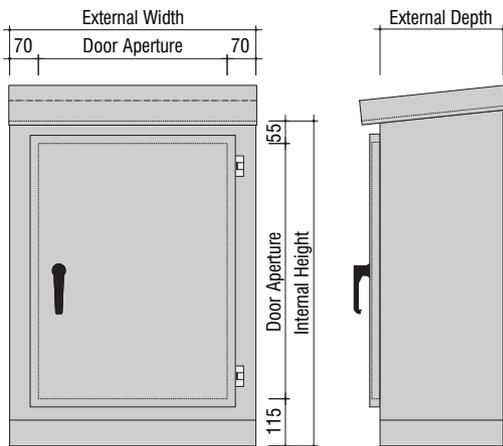
## TYPICAL DIMENSIONS

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

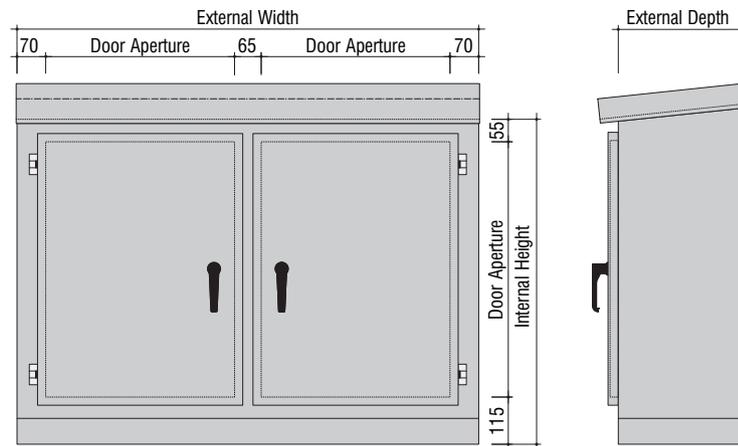
Example: A 600mm wide x 1000mm high single door cabinet has an aperture size of 460mm x 830mm.

To calculate the aperture size of a cabinet please refer to the Sizes 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 steel plinth with Armortec® coating.

### 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

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.

#### 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 steel inner panel with Armortec® coating. Doors have a single locking handle. 800mm and 1000mm high cabinets are fitted as standard with a doorstay and three-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/m2C.

### 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

#### 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.

Armortec® corrosion resistant coating is specially formulated to extend the life of Glasdon metal products and components used externally.



## ■ Citadel™ Cabinet

### DESIGN FEATURES

- Forward Sloping Roof - Prevents rainwater and debris from collecting on top.
- IP56 Rated - Protected against harmful dust and from strong jets of water.
- Plastisol External Finish - Provides resistance against abrasions and vandalism.
- Minimal maintenance without the need for coating or painting.
- Flush Back - Allows for the enclosure to be sited against walls without dirt traps if required.
- 2mm Chassis - Stainless Steel (Grade 304) Minimises corrosion from ground point. Provides a strong robust base with integrated fixing points to secure into the ground.

### MATERIALS & CONSTRUCTION

Manufactured in plastic coated steel with a 2mm stainless steel chassis and featuring all-round double skinned insulation and reinforced door, Citadel cabinets are strong and resilient.

### SIZES & SPECIFICATION

Citadel cabinets are available in five different industry standard sizes.

CABINET SIZES

Citadel  
336



Citadel  
639



Citadel  
659



Citadel  
9312



Citadel  
9512



Model	Width (mm)	Depth (mm)	Height (mm)	STANDARD FEATURES					OPTIONAL FEATURES
				IP56 or with Ventilation	Double Skinned Insulated Walls & Roof	Reinforced Double Skinned Insulated Door	T-Handle Lock or Flush Triangular Lock	Colour*	Pre-finished plywood backboard
Citadel 336	350	300	600	✓	✓	✓	✓	Merlin Grey (18-B-25)	✓
Citadel 639	600	300	900	✓	✓	✓	✓	Merlin Grey (18-B-25)	✓
Citadel 659	600	500	900	✓	✓	✓	✓	Merlin Grey (18-B-25)	✓
Citadel 9312	900	300	1200	✓	✓	✓	✓	Merlin Grey (18-B-25)	✓
Citadel 9512	900	500	1200	✓	✓	✓	✓	Merlin Grey (18-B-25)	✓

OPTIONAL GROUND FIXINGS ALSO AVAILABLE FOR ALL MODELS.

\* Alternative TATA Steel Colourcoat LG Colours available on request subject to minimum quantity order.



# Customer Led Projects & Personalisation

A number of our buildings and housings can be designed bespoke for your individual project or installation requirements, in order to meet your exact needs.

Even our 'off-the-shelf' options can still be selected with a number of order specifications to best suit your use or add a unique touch to your Glasdon order with our Personalisation and Branding Service.

From adding your organisation's logo or crest, right through to full graphic wraparounds, we have the in-house expertise to help you achieve the impact you require. We also offer a free visualisation service.

# Toll Booths for the Humber Bridge

The Humber Bridge was the longest suspension bridge in the world when it opened in 1981 to cut the journey from Hull to Grimsby by 50 miles.

The bridge underwent major refurbishment beginning in the summer of 2013, with lanes resurfaced and a separate project to install an Electronic Toll Collection (ETC) scheme. The Humber Bridge Board selected Spanish systems integrator SICE to renovate the tolling system, which included replacing the entire toll plaza.

SICE contacted Glasdon to supply new toll booths. Working in partnership with our technical buildings team, the client wanted to modify a custom design we had made several years earlier for a similar project on the Tamar Bridge. After securing permission from the Tamar Bridge and Torpoint Ferry Joint Committee to use the design we prepared for them, the booths were modified by our designers to accommodate the systems used for the Humber Bridge project.

SICE purchased six new booths. Installation had to be precisely arranged and managed to minimise disruption to the busy traffic route, which is used by more than 140,000 vehicles a week. Our dedicated team of specialist engineers worked off-peak hours and weekends to ensure the work was completed to schedule.









**New | Buildings & Housings**  
Designed as cost-effective, time saving solutions with all the hallmarks of Glasdon quality.

Ranger™



Consul™



Defender™



**Indoor Litter Bins / Outdoor Litter Bins**



**Indoor Recycling Bins / Outdoor Recycling Bins**



**Free Delivery**  
\*within mainland UK and Northern Ireland

EXCELLENT SERVICE

★★★★★

5.0/5.0 - 38 ratings

Sep. 2017 Verified by LiveChat

[www.glasdon.com](http://www.glasdon.com)



More detailed literature is available for many of our products. Please contact our Sales Office on 01253 600418 with your enquiry.



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