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**ENGLISH** 

## **IGLOO SATELLITE CABIN**

The Igloo Satellite Cabin is manufactured by:

# **Penguin Composites Pty Ltd**

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#### **IGLOO SATELLITE CABIN**

The Igloo Satellite Cabin is designed for scientific research programmes, inaccessible construction and maintenance, and other projects requiring safe, reliable accommodation against all weather conditions. It has been thoroughly used by field workers for more than twenty years in areas ranging from the tropics to polar icecaps.

The Igloo Satellite Cabin provides a new concept in field accommodation, where several units may be sited by helicopter in a short time to form outstations in any terrain or climatic condition. Their strength and reliability make them ideal for long-term temporary bases, and where specific needs may change throughout the duration of the base, the adaptability of the interior and expandable shell make them unique in field accommodation.

### **FEATURES**

The Igloo Satellite Cabin is a 3-4 person field but where safety and comfort come first. It can be erected by two people to provide a weatherproof shelter in less than one hour.

The fibreglass cabin is a strong, flexible structure light enough to be carried by helicopter to remote areas in a short time, ensuring immediate re-use at a new site with minimum delay.

Large bunks and adaptable shelving can be fitted to suit individual needs, providing personal comfort and a professional configuration to suit each project.

Transfer to a new site by helicopter is simple. Attach four lifting strops to four of the aluminium lugs secured to the walls. These lugs have been certified to carry 150kg each. Join the four strops to a single line to the helicopter. The disassembled Igloo will also pack on to a truck for overland transport.

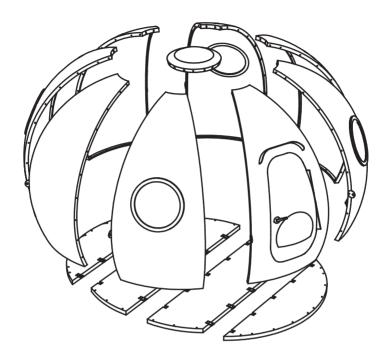
The Igloo Satellite Cabin can be stabilised on any surface by the eight tie-down lines to suitable anchoring devices. The lines enable the Igloo to withstand winds of 300km/hr.

The basic Igloo Satellite Cabin consists of eight fibreglass panels with internal flanges which bolt together. All panels are numbered for assembly and are supplied with fitted tie-down lugs, pre-drilled boltholes, and all assembly bolts and nuts. The dome panels are bolted on to a self-supporting floor consisting of four sections, which are easily bolted together.

The windows are double-glazed with polycarbonate panes to increase the Igloo Satellite Cabin's insulation properties, and the walls are insulated with PET sheet for temperature control. Each Cabin has two dome-covered ventilators, one in the top-knot and another in the flush-fitting door.

Included with each Cabin is a toolbox containing all assembly nuts and bolts, basic assembly tools, sealant, tie-down lines and assembly instructions.

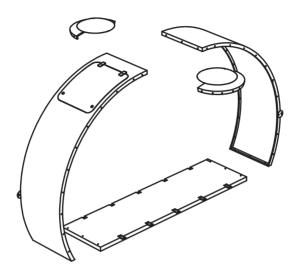
#### WALL PANELS



The basic Igloo Satellite Cabin consists of three plain panels, four window panels, one door panel with rain hood, one top-knot and four floor panels. Wall panels may be purchased separately to create the configuration best suited to your needs e.g. seven window panels and one door panel for all round observation, or seven plain panels and one door panel for a photographic darkroom.

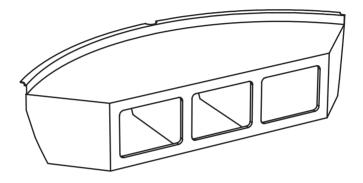
All panels are insulated with PET sheet and are lined internally with fibreglass.

# **EXTENSION PANELS**



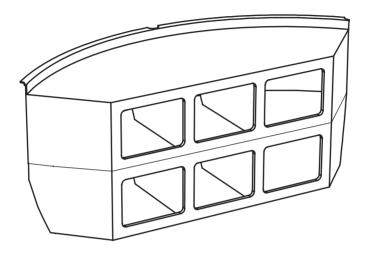
Each set of extensions add 765mm to the length of a Cabin and includes one wall panel with an escape hatch, one plain panel, two half top-knots with an air vent in each, and a floor panel. Added sets of plain wall panels and floor panels make up the required length.

## **BUNKS**



Each bunk 500mm high, 770mm wide and fits within the curved width of two wall panels, enabling three bunks to fit within the basic Cabin. Two bunks can be fitted one on top of the other to provide extra storage space with a large shelf area.

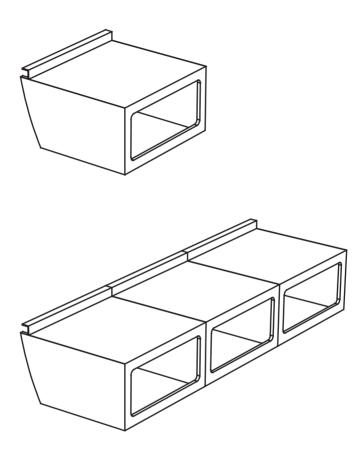
## **DOUBLE WORK BENCH**



This double workbench spans two panels of a basic Igloo Satellite Cabin and provides a large surface for all bench work. There are 6 divided storage areas. The back of the bench top has a lip to stop small items rolling off it.

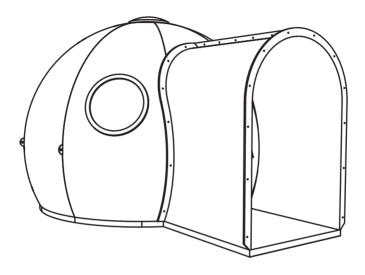
The double workbench can be used free-standing or screwed to the wall and floor for greater stability. All boltholes are pre-drilled for easy assembly.

# **SEATS AND BUNKS FOR EXTENSION PANELS**



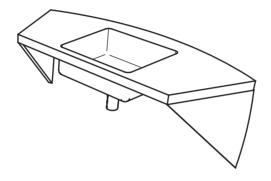
Each seat fits within the width of an extension panel. These seats can be bolted together to form a straight bunk with a total length of 2300mm and width of 700mm.

## **ENTRANCE TUNNEL**



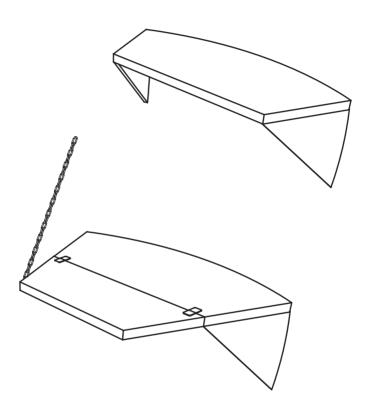
Each entrance tunnel is 1200mm long and is wide enough to allow the door to open fully. Coat hooks can be installed on the inner sides of the tunnel to allow wet clothing to dry, or to shelter stores. Tunnels can be attached by bolts to Cabins and attached to each other to interlink Cabins.

## **SHELF WITH BUILT-IN SINK**



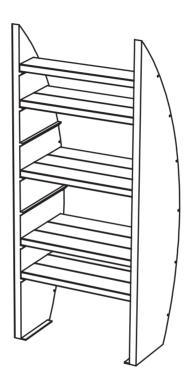
This is a standard shelf unit with a sink moulded into it. The sink is suitable for kitchen or laboratory use and can be fitted with a straight hose to bucket or with an "S" trap to empty through the side wall of the Cabin. An outlet plug is included with the unit.

## **SHELF AND DESK UNITS**



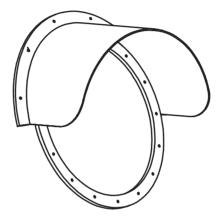
Each shelf fits the curved width of a wall panel and is 450mm deep. The desk is a shelf with a 308mm hinged flap, supported by a chain. Up to seven shelves or desks can be fitted within a basic Cabin.

## **SHELF UNIT FOR EXTENSION PANELS**



The shelves of this unit fit within the width of an extension panel and can be set on to seven different levels to accept a large range of items. Each shelf unit can be assembled side by side along one side of an extended Cabin, or set opposite each other to provide a partial divider inside a Cabin.

## **WINDOW SHADE HOODS**



Windows are 570mm diameter, double-glazed polycarbonate and can be provided clear or tinted. Window shade hoods provide protection from glare and channel water away from the window during wet weather. Interior window covers are also available.

#### OTHER OPTIONAL EXTRAS

- 1. The Cabin may be coloured to contrast with its surroundings for easy recognition, or camouflaged i.e. desert sand may be incorporated on the surface to match the real desert, or fern patterns employed for jungle conditions.
- 2. Interior window shades are available and a cabin can be converted into a temporary darkroom.
- 3. The Cabin can be supplied with two doors so that an enclosed passage can lead from one Cabin to another, whilst still allowing access from outside.
- 4. All variations of the Cabin can be produced in totally non-magnetic materials in situations where a positive magnetic field would affect instrumentation. The basic Cabin will accept a standard radio telecommunications satellite unit.
- 5. Cabins can be supplied with a totally sealed, waterproof floor for use in flood plains, lakes or swamps. An enlarged floating floor or pontoon will allow all-round access on the outside of the Cabin for mooring boats or tenders.
- 6. The Cabin can be supplied with a floor containing a hatch for use by divers under ice, or for use as an ice-fishing shelter.
- 7. An extended Cabin with a door at each end may be divided with a central wall, providing separated accommodation.
- 8. For transport, the Cabin can be dismantled and packed on to a sledge or small truck, or it may be flown erected by helicopter at up to 70 knots. If flying the extended Cabin over long distances, the extension panels should be removed and packed inside the basic Cabin for greatest speed and safety.



### **SPECIFICATIONS**

Maximum Diameter	3100mm
Floor Diameter	2850mm
Internal Height	2150mm
Window Diameter	570mm
Double-glazed 4.5mm polycarbonate window panes	

Door Height Clearance 1250mm Door Maximum Width Clearance 620mm Escape Hatch Clearance (diameter) 600mm

Main Panel Sizes L 2400mm x W 1200mm

Packed Dimensions 2450mm x 1250mm x 1250mm

Total Weight with Floor 250kg

Insulation – 20mm thick PET sheet between inner and outer fiberglass laminates.

Ventilation – 2 x 100mm diameter mushroom type air vents Door Furniture – adjustable wedge type twin lever Seals – silicone or rubber strip

Bunk Size	L 2060mm x H 400mm x W 770mm
Bunk Weight	13.5kg

Shelf Size L 1100mm x W 450mm

Desk Flap Width 305mm Shelf Weight 4.2kg

Maximum Safe Flight Speed Assembled 70 knots

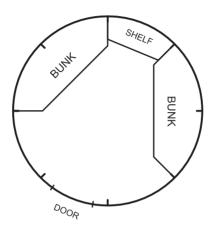
Non-magnetic Fittings and Fixings available on request.

### **FLOOR PLANS**

The following drawings show some of the variations that can be achieved using different bunk, shelf, sink and bench layouts in both the basic round Cabin and various extended units.

A refrigerator, small cooking stove and portable toilet may be installed in any of these Cabins to make them fully self-contained. The choice of internal equipment will depend upon the availability of electricity, gas or kerosene supplies.

### **BASIC CABIN FOR 2 PEOPLE**

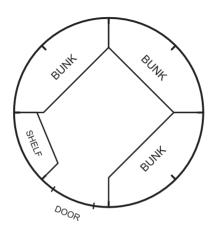


This basic Cabin contains only two bunks and one shelf, leaving space to add an extra bunk at a later date if required. For transport, the complete Cabin and contents can be lifted by helicopter and flown at up to 70 knots.

These layouts are only an example of the range of options available and any of the floor plans in this catalogue may be combined or changed to suit your needs.

Additional purpose-built fittings can also be made, such as the fume cupboard shown in the floor plan of the five interlinked Cabins.

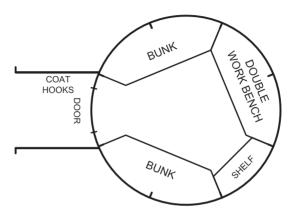
### **BASIC CABIN FOR THREE PEOPLE**



Using a basic Cabin with three bunks and one shelf allows maximum accommodation in this unextended unit. A portable camp bed may be set up in the middle of the floor for a fourth person to sleep, and be removed when not in use.

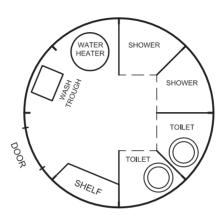
In addition to the shelf, there is storage space underneath each bunk and hanging space can be utilised around the walls of the Cabin for clothes.

### **BASIC CABIN WITH ENTRANCE TUNNEL**



Where wet conditions prevail, the entrance tunnel will protect the inside of the Cabin from driving rain. There is enough space within the entrance for hanging wet clothes and storing boots. In addition to two bunks and a shelf, a double workbench can be added to provide extra storage as well as a large working surface. The double workbench can be used as a bunk if necessary.

#### **BASIC SANITARY UNIT**

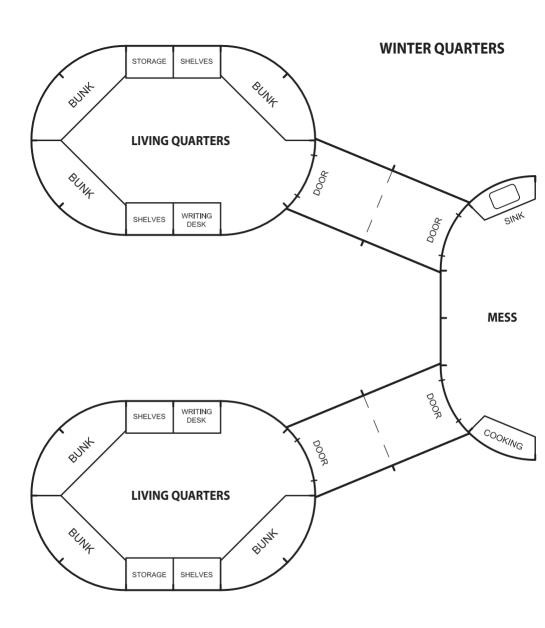


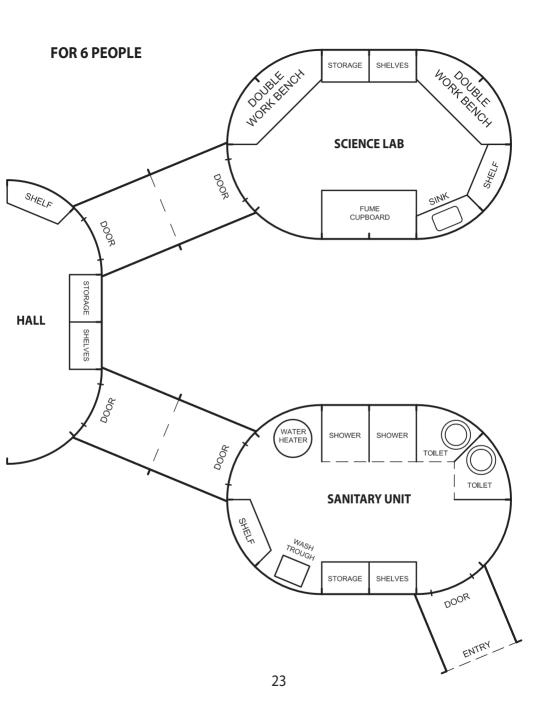
The above drawing shows one type of layout for the Igloo Satellite Cabin as a sanitary unit.

The types of toilets and water heater will depend upon the facilities available where the Cabin is sited, and upon the electricity and water supply available.

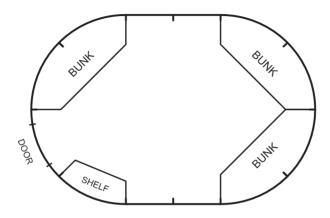
The toilet and shower doors are folding. The inside walls of the Cabin are sealed and the showers have sealed bases.

Space for drying clothes can be provided around the water heater.





#### **EXTENDED CABIN FOR 3 PEOPLE**

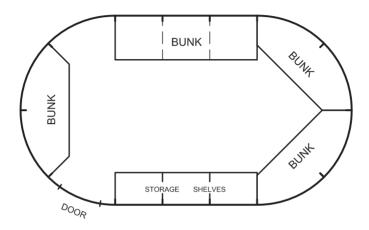


By extending the basic Cabin with two sets of extension panels, 1500mm additional space is provided for work space and storage. Total length is 4500mm.

The three bunks provide sleeping space away from the central work area. The shelf may be used for cooking or writing.

Adjustable storage shelves may be added to the straight extension panels for storage and for setting up electrical equipment.

#### **EXTENDED CABIN FOR 4 PEOPLE**

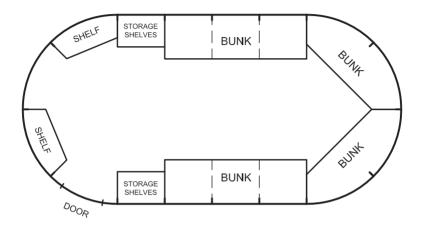


Adding three sets of extension panels to the basic Cabin provides enough room to add a three-section straight bunk. A second bunk may be added on the opposite wall.

The three adjustable storage shelves bolt to the Cabin's wall flanges and lock together to provide a continuous wall of shelves.

The remaining floor space is large enough to add a table and chairs or other furniture as required. Total length is 5250mm.

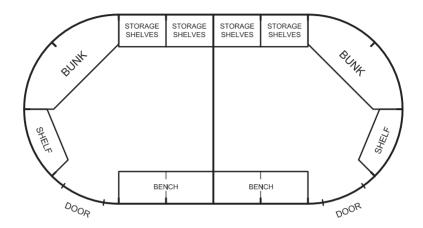
### LARGE EXTENDED CABIN FOR 4 PEOPLE



This Cabin with four sets of extension panels is 6000mm long and is shown with bunks for four people. However, an extra bunk may be added at the door end to enable the Cabin to sleep five.

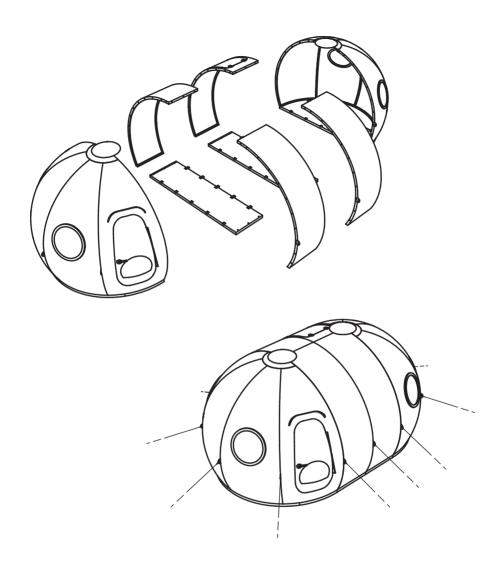
The large floor area allows tables and chairs to be added without overcrowding and the long walls leave plenty of hanging space for clothes. The curved shelves shown in this booklet may be ordered with a hinged flap, which extends the depth of the shelf but hinges back out of the way when not in use.

#### **DIVIDED CABIN FOR 2 PEOPLE**



This four section extended Cabin has two doors, which allow the Cabin to be divided by a partition. Though the Cabin is shown with only one bunk at each end, a two section straight bunk can be set up each side of the partition to double the number of occupants.

The partition may have an access door if required, for instance, if one half is to be used as a photographic dark room. A shelf with a sink moulded into it can be provided for laboratory use as shown in floor plan of the five interlinked Cabins.



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