

Large Service Shelter

LSS – Custom structures



The Defence Large Service Shelter is a custom structure designed to meet the requirements of the end user. Providing a highly portable, rapid to assemble, large span structure for a wide range of uses including mess halls, storage or infield maintenance of vehicles, helicopters, equipment and specialised vapour control structures.

Structures are available in spans up to 12m and can be designed as a singular unit or in modular sections.

Award Winning:

In 2003 the LSS received the prestigious Defence Industry Committee of New Zealand “Award Of Excellence” for the supply and support of this product to the Royal NZ Air Force for use in the Gulf during operation Enduring Freedom.

Single Structure:

The LSS can be supplied as one single structure complete with roof, end walls & floor sealed into one unit to the customers required dimensions and use. The only limitation for these structures is the overall weight and packaged size that can be transported and handled in the field by the end user.

Modular Structures:

The modular connection system developed for these structures enables any number of sections to be connected end to end providing the customer with a choice of overall structure length.

Each section can be supplied in a length that meets both the transportation and field handled requirements enabling a large structure to be assembled by a small team.

The design includes separate end wall pieces and utilises the common zip detail between structure sections making a pair of ends suitable for one individual section to any number of joined sections.

Environment Control / Positive pressure:

The shelter is a one piece sealed structure with roof, end walls and floor edge welded into one homogeneous unit. This enables a very high degree of control of both water & dust for protecting sensitive electronics etc.

Each shelter is fitted with entry/exit chutes to accept ducting for both air-conditioning or heating, in addition the shelters can be operated with either static or positive pressure systems.

Flooring:

The shelter is available as a sealed unit complete with floor or an open floor with perimeter base edging and a flooring inlay section. Optional flooring materials are available to suit application including hard wearing non slip PVC to heavy duty fuel and oil resistant Evaloy.

End Doorways:

The Shelters can be provided with both large access doorways and smaller personnel doors available with either zip or Velcro closure options.



Ground securing & storm guy details:

Shelters are provided with a perimeter ground securing flap which can be pegged through 40mm eyelets provided or weighted with soil/sand etc. In addition the webbing storm guy shackles to the shelters attachment points to provide additional stability to the shelter in extreme wind conditions. Consisting of a webbing guy, metal tension buckle & 900mm steel stake, the storm guy can be selected during supply or retro fitted to the shelter at a later date.

Fabrics:

The Defence AirShelters are manufactured from hardwearing, military spec fire rated PVC materials providing durability for short to long term deployments in even the most adverse climates.

The inner surfaces of the shelter are smooth to enable hygienic cleaning and finished in a pale grey colour to assist the internal reflection of light. The exterior coating is available in military olive green or desert tan.

Floor fabric is available in hard wearing PVC or heavy duty oil/fuel resistance.

Components:

The Shelters are made up of the following components;

- Outer structure;
For Single Structures; the roof, end walls & floor are welded into one sealed unit.
For Modular Units; the roof & floor are welded into one unit with end walls as separate pieces.
- Inflatable arch chambers; each arch chamber is an independent cell complete with inflation & pressure relief valves and is removable for servicing or replacement.
- Spacer poles; fitted internally with quick connections the spacer poles tension the roof between the arch chambers and provide for the suspension of lighting etc.
- Inflation system; Available in 110 or 230 volt the two stage side channel inflator complete with multiple inflation hoses enables inflation to full pressure.
- Equipment kit; Includes ground pegs, manual pump, repair kit & instructions.

Through Life Servicing:

All fabrics have been selected to enable full service life of the product; in addition Defence AirShelter design has been specific in ensuring the commonality of parts across the range and the component make up of the shelter enables the inflatable chambers and where selected floor and end wall sections to be removable for servicing, maintenance or replacement. This through life service product design focus coupled with support from Covertex factory, approved service providers or customer based servicing will enable full service life of the product.

Optional features & accessories

Window Vents:

Fitted with insect mesh screen and a weatherproof cover flap the window vent allows in natural light and assists airflow in hot climates. Dual zip closures fitted on each side the window/vents ensure black out closures and redundancy against a zip failure. Window vents are selected at time of order and supplied as 1.0m x 0.7m (LxH) or as specified.



Personnel doors:

As required personnel doorways c/w with dual zip black out closure details can be fitted to the side or end walls of the structure for personnel access.



Side Entrance Joiner:

The optional "Side Entrance Joiner" feature provides a dedicated side entrance c/w 3 door way opening and the ability to connect to the Defence AirShelter Modular Series or other LSS units fitted with the same feature.



Internal liners:

Manufactured from specially developed, highly efficient material the removable inner liner panels are designed to create an insulating air-gap between the liner and the shelter outer skin to assist either cooling or heating.

The liner panels are fire rated and finished with a white cleanable inner side, zip details fitted to enable access through side doorways or window vents access should air conditioning not be utilized.



A/C Units & External Ducting:

Covertex can provide full air-conditioning solutions in single or 3 phase options complete with insulated external ducting.

The Air-conditioning units operate with up to date technology and latest internationally approved refrigerant.

(Further information available).



Internal Ducting & Diffuser Socks:

Developed in conjunction with air-conditioning systems the modular 400mm diameter internal fabric ducting and diffuser socks are designed to distribute cool air or warm air evenly along the length of each AirShelter. The diffuser sock system also allows for diffuser socks to be inter linked between a network of shelters.



LED Lighting:

Developed in conjunction with a world leading LED lamp manufacturer the Covertex modular Led lighting system provides a highly robust, compact and extremely energy efficient low voltage lighting system. Available in all white or tactical white/red options the system with two power outlets per lamp making for easy and highly flexible installation into shelters or existing structures while providing a safe 24 V, high light output with ultra long life performance at low power consumption.



Inflation System:

110/230 volt high volume two stage side channel inflator c/w robust frame and rain cover is supplied with a heavy duty multiple inflation hose set. This compact two stage inflator provides both rapid inflation through to relief pressure for high winds or extreme conditions.



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