

Instrumentation Shelters

Kontemo, a specialized subsidiary of ECM ECO Monitoring is the manufacturer of Universal thermal isolated shelters under license of the American company EKTO, one of the world's leaders in this field. The construction of Universal thermal isolated shelters was developed for large military and civil applications in all climatic conditions.

Shelters are manufactured from aluminium plates and aluminium profiles. Sandwich design is giving a rigid and lightweight construction with high insulation factor. It can be produced of any user defined size, internal and external design.

The shelters can be produced as stationary units or mobile version mounted on transporters, vans, or trucks. KONTEMO also manufactures thermal isolated shelters for use as individual mobile offices in various size.



Shelters can be also supplied complete with wiring, lighting, air conditions, heating, racks, tubing, masts, antenna systems, furniture, battery box, batteries and other equipment according to client needs. For shelter building are used no corrosive materials. Shelters have almost unlimited lifetime with no need maintenance.

The experience gained, serving the industry over these years, has been incorporated in the design to obtain the latest state of the art in shelter construction. The stationary or mobile shelters are designed to be deployed for many applications.

Applications include but is not limited to:

- Ambient air monitoring
- Continuous emission monitoring
- Communication ground station
- Command control
- Rapid response
- Test laboratories
- Water quality laboratories
- Electrical generator enclosures
- Off shore drilling
- Earthquake monitoring

Shelters have been proven in world wide climatic exposures ranging from arctic to desert, tropical islands to off shore platforms and aboard ships. The design of lightweight, highly insulated enclosure was developed for the military for worldwide deployment many years ago. The basic construction consists of vacuum epoxy laminated shelter panels, using aluminum or fiberglass

ECM ECO Monitoring

Environmental & Process Monitoring instrumentation & systems

face skins separated by structural foam. This configuration along with structural members embedded with the core provides a highly efficient panel structure for light weight, insulation and stiffness properties. Panels are fastened together by corner angles and corner weldments. Openings are framed either pre-cut or easily cut out after assembly. Due to the high insulation factor of the structure, air conditioning and heating loads are minimized.

Large spans of dissimilar metal contacts within the shelter panels are avoided to eliminate thermal expansion differentials, causing stresses and failures of structure, as obtained by steel frame/aluminum skins designs. Epoxy adhesive is used in lieu of inexpensive contact glue to obtain a far superior lamination.

Shelter materials are selected for its intended use and exposure. Aluminum alloys are chosen for many application. For severe caustic climate conditions, fiberglass panel skins with stainless steel trim and fasteners are provided.



Doors are made of the same construction as the shelter, fully gasketed to obtain an air and rain tight enclosure. The supplied skids and lift/tie down rings facilitate handling by forklift, crane, and rotary or winged aircrafts. Shelters are designed and structurally analyzed by structural engineers to meet the applicable requirements of numerous codes, such as UBC, SBCC, etc. Electrical installation conforms to the latest issue of the NEC, CSA, IEC or other applicable foreign codes.

Options and accessories

The most common size of shelter according ISO:

	5,5 feet shelters	10 feet shelters	20 feet shelters
Length:	1 700 mm	2 991 mm	6 058 mm
Breadth:	1 400 mm	2 438 mm	2 438 mm
Height:	2 438 mm	2 438 mm	2 438 mm
Internal opening of door:	700 x 1900 mm	900 x 1900 mm	900 x 1900 mm

Basic shelter options include:

- Structural materials and insulation
- Tie down configuration
- Door hardware
- Sun shields
- Floor finishes
- Openings and feed thrus
- Lifting jacks

Mobile units are integrated with the following:

- Separate single, twin or triple axle transporter
- RV chassis
- Truck chassis
- Fifth wheel trailers