

# ELECTRICAL SHELTER POWER ROOM CONTROL ROOM



**General data sheet**  
**Case Histories**

**🇮🇹 COS'E' UNO SHELTER**

Uno shelter è un ambiente ideato e realizzato con le opportune peculiarità per l'installazione al suo interno di apparecchiature elettriche e/o elettroniche di controllo e/o potenza. Lo shelter è costruito modificando di un container ISO standard o mediante la pannellatura di una struttura in acciaio autoportante opportunamente dimensionata e personalizzata in funzione dell'utilizzo previsto

**PERCHE' USARE UNO SHELTER**

Lo shelter risponde pienamente alle esigenze del mercato moderno fornendo ad apparecchiature sensibili un alloggio sicuro, una soluzione compatta facilmente trasportabile, flessibile, personalizzabile e facilmente installabile a destinazione partendo dal concetto dell'unità plug and play

**PRINCIPALI CARATTERISTICHE COSTRUTTIVE**

Ogni Shelter viene progettato in funzione delle apparecchiature e/o equipaggiamenti installati al suo interno. Progettazione meccanica della struttura portante verificata sia in fase statica (condizione di lavoro) che in fase dinamica, ossia verifiche al sollevamento.

Progettazione elettrica degli impianti ausiliari comprende la verifica termodinamica per garantire un corretto isolamento ed ottenere una temperatura costante all'interno, la verifica illuminotecnica al fine di garantire il livello di lux richiesti, il quadro ausiliario di gestione e alimentazione dei sistemi installati.

Impianto di rilevamento fuoco/fiamma, impianto di spegnimento CO2 e/o FM200

Posizionamento di porte, Infissi e/o griglie d'aerazione in funzione delle specifiche esigenze del client, Pavimento di tipo fisso e/o flottante

Telai di rinforzo per il posizionamento e il montaggio delle apparecchiature installate

Doppia copertura con camera d'aria per limitare l'effetto irradiante dell'esposizione al sole

Verniciatura finale secondo le specifiche condizioni d'utilizzo

**🇫🇷 QU'EST-CE QUE C'EST UN SHELTER**

Un shelter est un abri étudié et réalisé avec les particularités appropriées pour l'installation à l'intérieur d'appareillages électroniques et/ou électriques de contrôle et/ou de puissance. Le shelter est construit en modifiant un container ISO standard ou par le revêtement avec panneaux sandwich d'une structure en acier auto-porteuse convenablement dimensionnée et personnalisée en fonction de l'utilisation prévue.

**POURQUOI UTILISER UN SHELTER**

Le shelter répond complètement aux exigences du marché moderne il fournit aux équipements électriques et/ou électroniques un abri sûr, une solution compacte, facilement transportable, flexible, personnalisable et d'installation facile à destination suivant le concept plug and play.

**PRINCIPALES CARACTÉRISTIQUES CONSTRUCTIVES**

Chaque Shelter est étudié en fonction des équipements installés à l'intérieur. L'étude mécanique de la structure portante est vérifiée soit pour la charge statique (condition de travail) que dynamique (opération de levage). L'étude électrique des installations auxiliaires comprend la vérification de la thermodynamique pour garantir un isolement correct et obtenir une température constante à l'intérieur, la vérification de l'éclairage afin de garantir le niveau de lux demandé, le tableau auxiliaire de gestion et alimentation des systèmes installés.

Installation système de détection feu / fumée et système d'extinction CO2 et/ou FM200

Positionnement des portes, fenêtres, grilles d'aération selon les exigences spécifiques du client, plancher type fixe ou avec dalles flottantes.

Châssis de renforcement pour le positionnement et la fixation des équipements installés

Double toiture avec chambre d'air pour limiter l'effet irradiant de l'exposition au soleil

Peinture finale selon les conditions spécifiques d'installation sur site et la spécification technique du client

**🇬🇧 WHAT'S A SHELTER**

A shelter is an environment engineered and realized with the opportune peculiarities for the installation on his inside of electric power or control equipment's. The shelter are built modifying a standard ISO container or by applying insulated panels to a structure in a welded steel self-supporting type opportunely engineered and personalized according to the final use condition and installation site.

**WHY TO USE A SHELTER**

The shelter fully responds to the need of the modern market in order to furnishing to the electrical sensitive equipment's a sure lodging place, is a compact, flexible and customized solution in its size and accessories following the concept of plug and play unit. In addition the shelter facilitate and reduce loss of time for transportation, loading e/o unloading operation and installation on filed.

**MAIN CONSTRUCTIVE CHARACTERISTIC**

Every Shelter is engineering according to the installed equipment's on its inside. Mechanical engineering foresee the mechanical structure stress verification in static (on site job condition) and dynamic (loading e/o unloading operation)

Electrical engineering of the auxiliary system includes the thermodynamic verification to guarantee a correct isolation and to get a constant and controlled of the inside temperature, the lighting verification with the purpose to guarantee the level of in demand lux, the auxiliary panel for the power supply and the control of the installed systems.

Fire/smoke detection system, fire extinguishers system by CO2 or FM200

Positioning of doors, windows e/o aeration and ventilation grilles according to the customer specification, Floor type fixed by undulated aluminum plate or floating floor

Welded steel chassis for supporting and fixing of the installed equipment's

Doubles roof with air room in order to minimize the effect eating impact of the sun radiation

Final painting according to the specific conditions of use and customer specification

## **NR. 1 UNTI INSTALLATION CHEMICAL SITE** **ASHLAND - FRANCE**



**Total length: 10 mt - Total wide: 2,8 mt - Total height: 3 mt - Max on load weight: 15.000 Kg**

Shelter self-supporting type with double roof protection for loading electrical switchgear and medium voltage transformer engineered for fire resistance 60 minutes (REI 60). Main structure by main and connection beams with opportune size according to the total weights of the installed equipment's, all the shelter side (roof, bottom under floor, and the 4 side) are protected with special sandwich panel with thickness of 50 mm with inside wool of rock. Equipped with double condition system 2x18.000 Btu, lighting, emergency lighting, fire detection system.

## **NR. 4 UNTIS FINAL DESTINATION OIL FILED FOR IRAQ**



**Total length: 9 mt - Total wide: 2,5 mt - Total height: 3 mt - Max on load weight: 12.000 Kg**

Shelter self-supporting type for loading electrical switchgear engineered for fire resistance 30 minutes (REI 30) Main structure by main and connection beams with opportune size according to the total weights of the installed equipment's, all the shelter side (roof, bottom under floor, and the 4 side) are protected with special sandwich panel with thickness of 50 mm with inside wool of rock. Equipped with double condition system 2x24.000 Btu, lighting, emergency lighting, fire detection system.

## **NR. 2 UNITS FINAL DESTINATION EDF INSTALLATION SITE** **IN PARTNERSHIP WITH ABB FRENCH**



**Total length: 6 mt - Total wide: 2,5 mt - Total height: 3,4 mt - Max on load weight: 8.000 Kg**

Shelter self-supporting type for loading electrical switchgear engineered for fire resistance 30 minutes (REI 30) Main structure by main and connection beams with opportune size according to the total weights of the installed equipment's, all the shelter side (roof, bottom under floor, and the 4 side) are protected with special sandwich panel with thickness of 50 mm with wool of rock. Equipped with double condition system 1x12.000 Btu, lighting, emergency lighting.

## **NR. 6 UNITS FINAL DESTINATION MOROC TANGERI SEA PORT**



**Total length: 12 mt - Total wide: 2,3 mt - Total height: 3 mt**

Shelter self-supporting type for loading electrical switchgear, dry type transformer engineered for installation on sea board. Main structure by main beams and connection with opportune size according to the total weights of the installed equipment's, all the shelter side (roof, bottom under floor, and the 4 side) are manufactured with steel undulated flat welded on the main chassis and internally protected with special sandwich panel type with thickness of 50 mm with poliuretanic mousse for thermal insulation. Internally divided in separate rooms for electrical equipment and transformer. Equipped with double condition system 2x24.000 Btu, lighting, emergency lighting, fire detection system.

## **NR. 1 UNIT FINAL DESTINATION SONATRACH ALGERIE** **INSTALLATION SITE ALGERIAN DESERT**



**Total length: 4,3 mt - Total wide: 2,5 mt - Total height: 3 mt - Max on load weight: 10.000 Kg**

Shelter self-supporting type for loading electrical switchgear engineered for fire resistance 30 minutes (REI 30) Main structure by main beams and connection with opportune size according to the total weights of the installed equipment's, all the shelter side (roof, bottom under floor, and the 4 side) are protected with special sandwich panel type with thickness of 50 mm with wool of rock. Equipped with double condition system 2x12.000 Btu, lighting, emergency lighting, fire detection system.

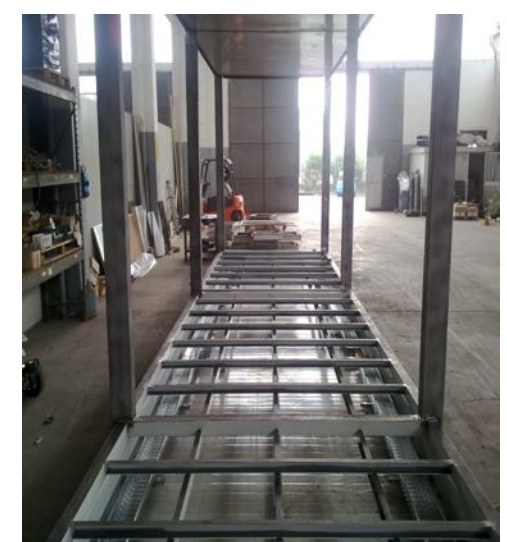
**NR. 2 UNITS 2500 KVA SUBSTATION**  
**FINAL DESTINATION BASCHAR HOSPITAL IRAQ**



Completed electrical substation based on a 20' feet HT first trip container modified with door & fans opening and new C5M painting, inside insulation with sandwich panel and segregation into transformer room, medium voltage and low voltage compartments



## **NR. 1+1 UNITS FINAL DESTINATION AIR LIQUIDE PLANT** **INSTALLATION SITE ULM - GERMANY**



**1x Total length: 16 mt - Total wide: 3 mt - Total height: 3,6 mt - Max on load weight: 22.500 Kg**

**1x Total length: 9 mt - Total wide: 3,2 mt - Total height: 3,6 mt - Max on load weight: 17.500 Kg**

Shelter self-supporting type for loading electrical switchgear engineered for fire resistance 30 minutes (REI 30) Main structure by main and connection beams with opportune size according to the total weights of the installed equipment's, all the shelter side (roof, bottom under floor, and the 4 side) are protected with special sandwich panel type with thickness of 50 mm with wool of rock. Equipped with double condition system, lighting, emergency lighting, fire detection system.

## **NR. 5 UNIT FINAL DESTINATION SONATRACH ALGERIE** **INSTALLATION SITE ALGERIAN DESERT**



**5 x Total length: 6,5 mt - Total wide: 3 mt - Total height: 3 mt - Max on load weight: 8.500 Kg**

Shelter self-supporting type for loading electrical switchgear and distribution transformer engineered for fire resistance 30 minutes. Main structure by main beams and connection with opportune size according to the total weights of the installed equipment's, Equipped with double condition system, lighting, emergency lighting, fire detection system.

**NR. 1 UNIT CIMENT CALCIA-HEILDELBERGH**  
**INSTALLATION SITE LE COUVROT FRANCE**



**1 x Total length: 10,5 mt - Total wide: 3 mt - Total height: 3 mt - Max on load weight: 7.500 Kg**

Shelter self-supporting type for loading electrical low voltage switchgear engineered for fire resistance 60 minutes. Main structure by main and connection beams with opportune size according to the total weights of the installed equipment's, Equipped with double condition and over pressure system, lighting, emergency lighting.

## **SPECIAL SHELTER FOR TMB CONTROL CABINET**



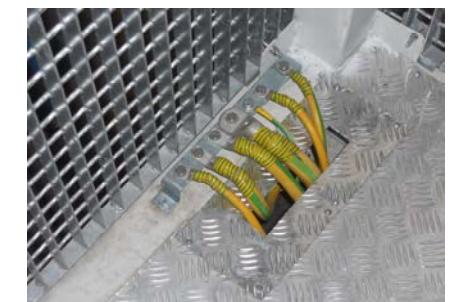
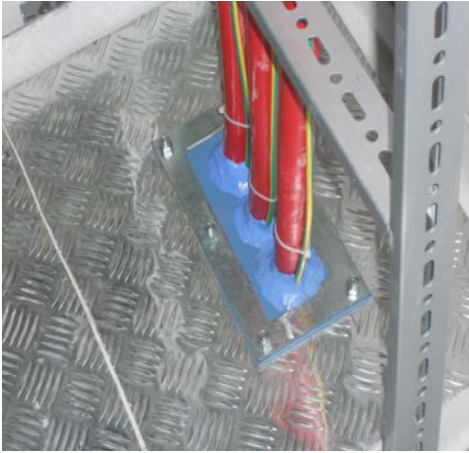
- 1 x Total length: 3,5 mt - Total wide: 2,5 mt - Total height: 2.2 mt - Max on load weight: 2.500 Kg**
- 2 x Total length: 2,3 mt - Total wide: 1 mt - Total height: 2.2 mt - Max on load weight: 1.500 Kg**
- 2 x Total length: 3,3 mt - Total wide: 1 mt - Total height: 2.2 mt - Max on load weight: 1.500 Kg**
- 4 x Total length: 4,3 mt - Total wide: 1,4 mt - Total height: 2.4 mt - Max on load weight: 2.000 Kg**
- 3 x Total length: 4,3 mt - Total wide: 1,4 mt - Total height: 2.4 mt - Max on load weight: 2.000 Kg**
- 1 x Total length: 5,6 mt - Total wide: 2,4 mt - Total height: 2.4 mt - Max on load weight: 2.700 Kg**
- 3 x Total length: 4,6 mt - Total wide: 2,2 mt - Total height: 2.4 mt - Max on load weight: 2.300 Kg**

Shelter self-supporting type for loading electrical low voltage automation control panel engineered according to the available reduced space. Main structure by main and connection beams with opportune size according to the total weights of the installed equipment's, Equipped with condition, lighting, emergency lighting.

## OTHER REALISATION FOR DIFFERENT FIELDS



## MORE DETAILS OF THE INSTALLATIONS





## SOME SHELTER LAY-OUT SAMPLE

