



# IBRID SHELTER





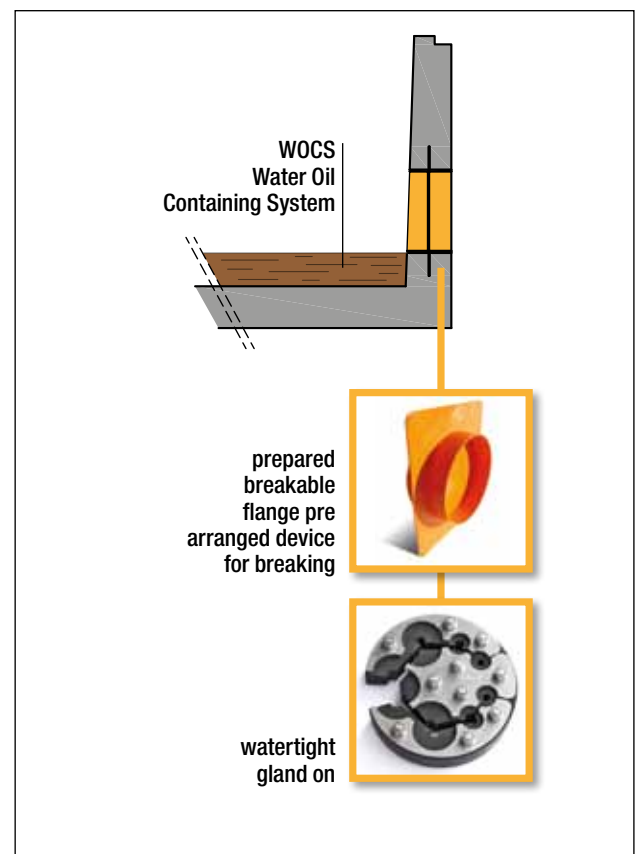
The cabin model “shelter” was developed to fulfil a need for a pre-assembled product. In order to minimize the placing and connection operations in the construction site it is already set and tested in our manufacturing facility. The cabin model “shelter” is formed from a sandwich panel structure on a pre-assembled concrete sump. The result is a sturdy product able to resist weather events as long as the plant’s life, with modest weight and compact at the same time it is transportable in one load complete with foundation sump and inside wired electric system. The construction site operation will be reduced requiring only a simple unload of the product on to a finished ground base.

### STRUCTURAL FEATURES:

The foundation sump is made in concrete C30/37 class reinforced with B450C steel rods, the dimensions matching with the box external one with 200mm (7.87in) working height.

The sump walls are prepared with crossing ways by our WOCS GLAND SYSTEM to let entry and exit the MV and LV cables.

The breakable flange allow the pipes connection to the sump up to a diameter of 200mm (7.87in); its flaps follow the thermal expansions between concrete and PE preventing liquids infiltration into the sump by micro cracks. The flange’s parallel edges are prepared to fit compression watertight gland, easily modifiable to facilitate maintenance and join new cables. The WOCS gland system provides sealing in the sump from external or internal liquids (e.g. water and oil) until 1bar pressure and normally positioned far enough from the bottom to contain in the event of oil spill from the transformer.





The parts supplied are:

- Prepared breakable flange pre arranged device for breaking
- Insulating oil containing system CEI 11.1
- Watertight gland on

This sump model meets the point 7.7 of CEI 11-1 standard, and acts as a container in case of oil spill from the transformer.

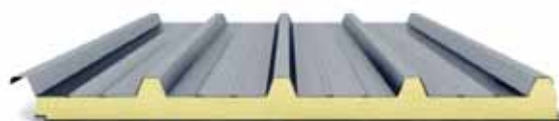
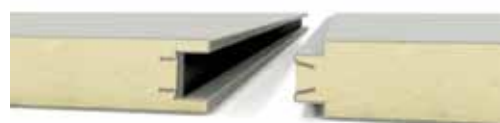
The equipment is placed on galvanized steel profiles attached to the prefabricated concrete sump walls which is why the cabin can support very heavy equipment, the floor is made with shaped galvanized steel sheets to allow easy removal to inspect the sump and connect the plant cables; it is dimensioned to support a 500 Kg/m<sup>2</sup> evenly distributed load.

The walls are made by 80mm (3.15in) sandwich panels, made from double micro ribbed and pre painted 6/10mm metal sheets and rigid self-extinguishing PU resin made insulating core, with 40Kg/m<sup>3</sup> total density the insulating core fire reaction meets the EN 13501-1:2002 standard; the thermal conductivity is 0.24Kcal/m<sup>2</sup>°C. This material has good heat and noise insulation properties. The panels are fastened onto a galvanized steel angular and columns load-bearing frame. The top frame is prepared with particular shape longitudinal members to give rigidity and good water guttering.

The roof is sandwich panels made with the same feature of the wall, corrugated on the top side to ensure self-supporting and meets the snow load at the Ministerial Decree standard.

The door kind you can choose from are galvanized steel sheet panelled single door, insulated with insulating materials with no panic handle on request, or could be installed alloy made or galvanized plate pre-painted simple door, completely closed or finned to have higher air flow.

The ventilation grids are alloy or galvanized steel made with fixed inclined fins guaranteed to give high airflow and the rain-resistant profile give high protection where the wind is stronger. These can be prepared to install many grade of protection filtering cells inside easy to take apart for maintenance.



If higher airflow is required can be equipped with wall motorized extraction fans or expulsion towers on the roof.

If needed the cabin model "Shelter" can be air conditioned system equipped.

The cabin is shipped complete with all the equipment wired (power, auxiliary and service plant) DC and AC sections ready to be connected with the generator plant upstream and utilities downstream. The cabin is equipped with individual protection devices, safety signage, a paperwork folder and a foldable table. The wiring is tested in our manufacturing facility and the report included in the technical documentation.

Our company manufactures certified safety product at high quality standard. This certification have the primary target to supply a reliable over time and quality product.

Using safety and environment sustainability processing, experience, professionalism and organizing.



THE CABIN ARE AT LAW STANDARD MADE:

ENEL approved company

D.M. 14 Gen 2008

CEI 11-1 rules

CEI 11-35 rules

CEI EN 62271-202 rules

CEI 0-16 rules

