

Portable accommodation, workshops and technical solutions for the offshore market



Words: Hans Gatzemeier, CEO, ELA Container Offshore

Although being versatile is not a goal on its own, it does pay off to be able to meet the ever-changing requirements of the offshore market. The saying 'the best laid plans of mice and men often go awry' is confirmed in the offshore market on a daily basis. Working around these changes of plan can be difficult and may even push your assets to the limits of their capabilities.



Containers as a starting point

Whether used 'just' to transport items from A to B, or fully customised to meet the exacting requirements of a specific job, offshore certified containers have proven to be a perfect commodity to achieve the set goals. The container modules are designed for multi-modal transport, can be sea-fastened quickly and are stackable over multiple levels. Furthermore, offshore containers are coated to withstand the harsh conditions at sea.

ELA prefers to use standard ISO 10ft. and/or 20ft. modules, as these are easy to handle and have proven to be the most versatile in the market. Offering a perfect balance between footprint and space, the 20ft. high cube is at the core of the rental fleet.

The uses for these modules are literally limitless, but to give you an idea of common areas of use, we would like to highlight a number of applications.

CCUs as a means of transport

If the unit is used to transport items from shore to offshore installations e.g. platforms, so-called Cargo Carrying Units (CCU) are used. These standardised units are certified offshore containers and are available in a wide variety of shapes and sizes.

Each application has a specific type of CCU that caters to the specific needs. The all-round units in the market are the closed containers, or dry van that can be used to carry anything and everything that fits through the doors. More specialised units such as half heights, or baskets, are commonly used for, gravel, sand and/or rocklike materials.

Open top containers are used for bulky items that can only be handled by crane, bottle racks are used to carry gas bottles, and reefers are purpose built to carry perishable goods that require cooling or freezing during storage.

In addition, there is a wide range of tanks available, designed to carry and/or store fluids of all types ranging from potable water to effluent and chemicals. Lastly, the Oil & Gas market uses a number of very specific CCUs, e.g. pipe racks and mud skips, that are designed based on the particular processes involved.

Storage containers

Different materials require different solutions for storage. Containers can be modified to make them suitable storage areas for anything that can be fitted into them. The units can be fitted with shelving systems or lashing systems to cater to general requirements. In case of very specific needs, for example COSHH storage, the units can be fitted with very specific items to make them fit for purpose, such as drip trays, elevated walkways, EX-rated electrical systems, heating/ventilation and fire suppression systems.

This is where ELA Container Offshore is able to alleviate the stress, using their highly versatile fleet of container modules. Whether you need additional storage facilities onboard your offshore assets, or you are looking to add workstations, office areas or even living quarters, ELA is able to assist. The offshore modules are available ex-stock and are suitable for deployment in any offshore environment, on both fixed- and mobile assets.

The challenge

In order to complete projects in the offshore environment, it is critical to ensure availability of all tools, resources and equipment onsite. These projects can involve a wide array of assets, ranging from offshore platforms to wind-turbines and vessels of any shape and size, but also includes monitoring stations, transmission towers and any other installation at, or below sea level.



Filter system and UV lamp in an autonomous container



ELA Offshore Workshop Container with workstation

Portable workshop

The ELA Container Workshop can be fitted with everything any mechanic would require to successfully complete any project. Workbenches, tool racks, pedestal drills, welding equipment and even a small overhead crane, it can all be installed inside a simple container. By adding an electrical system with lighting and sockets (1P/3P) the container can be used in any situation and offers a complete workshop that can be dropped anywhere.

Based on area of deployment, the requirements may vary slightly when it comes to heating or cooling, insulation or ventilation. No matter what the intentions are, no matter where the unit is meant to go, ELA can ensure that it meets the local requirements perfectly.

Autonomous container buildings: off-grid applications

Particularly when there are no accommodations available, and where there is no supply of electricity and potable water and no wastewater treatment system available, container modules offer the ideal solution.

Easy like stacking bricks, modules can be

added to create a bespoke solution for the needs of each and every specific project. Containerised reverse-osmosis plants (RO) and treatment systems can be added to supply potable water and take care of effluent treatment, generators or photovoltaics combined with battery rooms can be used to supply power, allowing a fully autonomous operation of your container modules, wherever they may be located.

Wastewater treatment modules

The treatment and disposal of wastewater is one of the biggest issues in offshore projects. To address this issue successfully, we have designed a containerised treatment plant using membranes for ultrafiltration. The unit complies with IMO Resolution MEPC.227(64) describing the guidelines on implementation of effluent standards and performance tests for sewage treatment plants and the regulations as described by MARPOL 73/78 Annex 4 Reg.9.

Electrical switchboard modules

Particularly from the offshore wind market, we see a strong market for our electrical switchboard containers. These units are deployed onboard HVDC transformer platforms and create a power supply that can

be used by ancillary equipment, such as a containerised accommodation block.

Bespoke units

ELA can also create bespoke modules to suit specific needs perfectly. This can be done by modifying existing CCUs or ELA modules, or by custom-building the units from the ground up to meet the highest standards.

Examples of this range from the addition of doors and windows to the removal of sidewalls to create large accommodation blocks. When the standard ISO sizes do not meet the requirements, custom sized one-offs are also available, with DNV certification to allow offshore lifting.

Rent or buy

ELA offers their standard modules to rent or buy, whichever suits the requirements best. Particularly in a temporary requirement, the rental option is ideal as the customer only pays for what they need. Furthermore, no CapEx is required to realise even the largest projects. Last but not least, the rental option reduces the carbon footprint and offers a more sustainable solution.

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40ft autonomous container



Generator in an autonomous container



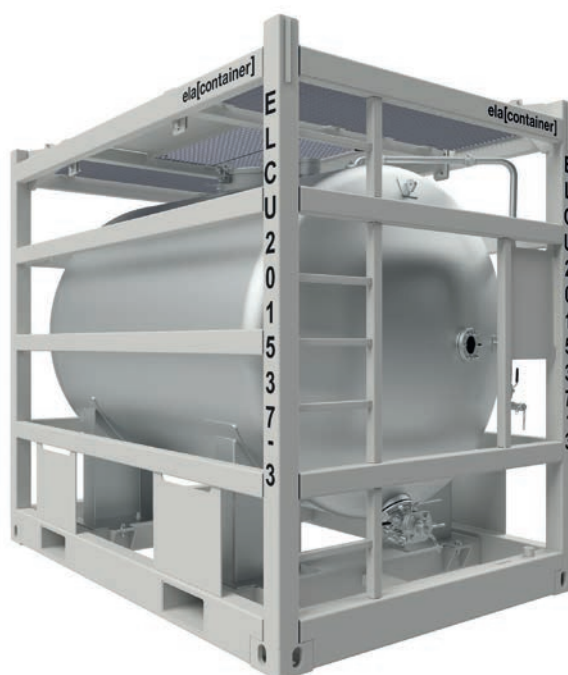
ELA Wastewater Treatment System



ELA Offshore Open Top Container loaded



ELA Offshore Workshop Container with workstation



ELA Offshore Chemical Tank, 4800L