

FUTURETECH

Kärcher Group



PORTABLE SHELTER SYSTEM

Modular equipment for fast and mobile operations

Regenerate and recover during operations – Various modules create comfort

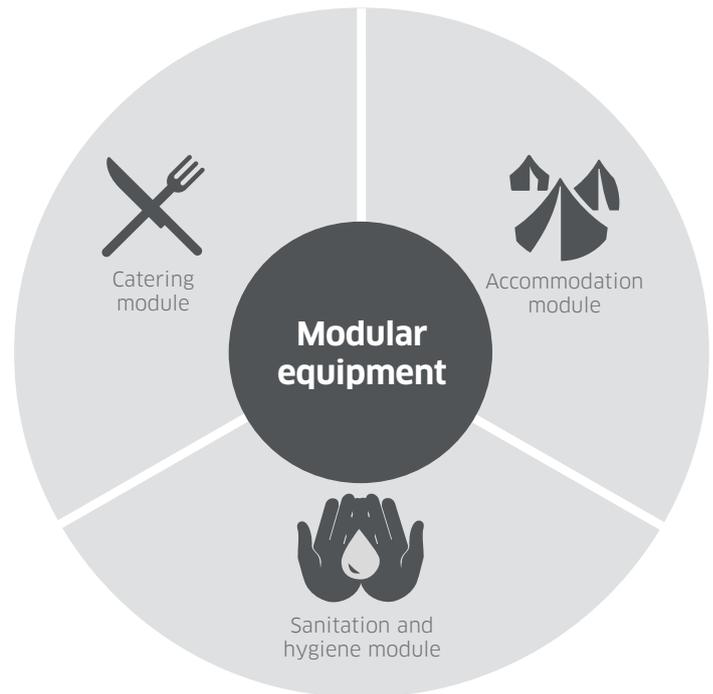
During operations or exercises, the troops are often required to be flexible and fast. These requirements should also apply for their accommodation.

Our aim is to provide the best possible accommodation for the troops so that they can benefit from relaxing rest phases and thus concentrate fully, both physically and mentally, on their missions.

The portable shelter system consists of different modules that cover the areas of accommodation, catering, sanitation and hygiene.

Due to the simple and intuitive manageability of the individual modules, the portable shelter system meets the above-mentioned requirements. The set up and dismantling as well as the operation, transport and maintenance of all modules can be carried out without any problems or special tools.

All items of equipment function without the use of electricity and can therefore be used completely self-sufficient. They are optimized in terms of weight and volume so that they can be carried in the 110-litre backpacks of the soldiers together with their personal equipment (except for the supplementary accommodation module).



More than just a tent, a fully integrated equipment concept

- Weight and volume optimized
- Unique packaging concept
- Simple and intuitive handling
- Extremely quick to lay and set up
- High quality of equipment guaranteed by various tests such as wind tunnel test, climate test, load test

Relaxing rest phases – Accommodation module

The accommodation module is designed for four people and includes four 1-person tents and four headlamps.

Compositions of the 1-person tents:

- Frame is made of high-strength, extremely resilient aluminium
- Outer tent is made of high-strength nylon fabric with protected ventilation openings as well as waterproof and windproof covered zippers
- Air-permeable inner tent with an attached waterproof floor and integrated mosquito nets at the head and foot end

The high-quality tents meet the demanding specifications of the German Armed Forces Procurement Office. Among other things, they have been tested in the wind tunnel of the FKFS (Research Institute for Automotive Engineering and Vehicle Engines) in Stuttgart and can withstand wind speeds of up to 110 km/h.

The tent can easily be set up and dismantled in less than 20 minutes by a maximum of two people. The sleeping area offers enough space for a camp bed measuring 200 x 75 cm and a 110 litre backpack. The inner and outer tents can also be set up independently from each other if required.



Link up - If you like

Another advantage of the 1-person tents is that they can be easily linked together. There are two connection tunnels on each tent, which can be unfolded if necessary and connected to each other thanks to all-round zippers. The connecting tunnels are also waterproof and windproof when connected.



For longer tours – Supplement to the accommodation module

For longer operations, the portable shelter system can be extended. With a supplementary module, the four 1-person tents can be connected to a communal tent in order to provide more comfort on the long run.

Equipment of the supplementary accommodation module:

- 1 communal tent with hanging lamp
- 1 table
- 4 seats
- 4 field beds

Two separate packages of optimized volume are used to store the communal tent with hanging lamp on the one hand and the additional furniture on the other hand. The supplementary module is not designed to be carried by the troops, but to be added later.

The communal tent can be entered in an upright position and, due to the existing connection tunnels, can be connected to all four 1-person tents in a star shape and with a perfect fit. It can withstand wind speeds of up to 83 km/h and is water-repellent. It can be set up within

20 minutes by a maximum of two people and provides enough room to set up the furniture inside.

Inside the tent, the hanging lamp can be attached to the tent roof. Moreover, there is the possibility to store clothes or other personal equipment elevated from the ground by means of four mesh pockets. With the help of connection sleeves, an external heater or air conditioner can be connected to the tent, which also supplies the 1-person tents with hot or cold air.

The entire furniture can be set up and dismantled by one person without any tools within 10 minutes. Above all, the field bed with its very compact pack size and weight of 2.3 kg is optimally suited for a mobile application.

The high quality of the furniture is ensured by various completed tests. The field bed underwent a wide variety of stress tests in a certified test laboratory, while the hanging lamp withstood hot and humid air for over 72 hours at -32 °C as well as at +52 °C. The furniture was set up and dismantled 120 times and remained usable without any problems.



No food, no battle – Catering module

The catering module contains the most important components necessary for the preparation of full meals. Like the accommodation module, one set is designed for four people. It consists of several components and is stowed in a transport bag.

Equipment of the catering module:

- 1 cooking pot with lid
- 1 multifuel stove
- 1 fuel pump
- 1 fuel bottle
- 1 wind shield
- 4 vacuum-insulated bottles
- 4 sporks
- Packaging concept consisting of three bags

Above all the special feature is the space-saving and highly efficient storage of the many components. The main components are stacked inside each other. The multifuel stove can even be stored in a fireproof bag in the cooking pot immediately after cooking when still hot.

The insulated bottles are ideally suited for transporting cold drinks or hot beverages and ensure slow heat loss.



Advantages of the catering module

- Compact, space-saving and heat-resistant packaging
- High-performance, high-quality and robust materials
- Multifuel stove can be operated with a wide range of fuels
- Tested and proven in applications under extreme climatic conditions

The all-rounder - Catering module

The catering module includes a high-quality and robust multifuel stove that offers a high degree of flexibility. It can be operated with petrol oil, diesel, kerosene, gasolene or gas cartridges. In addition to a preheating function, the stove has a continuously adjustable flame that simplifies the cooking of a wide variety of food. The fuel pump and fuel bottle ensure leak-proof handling of the fuel.

In order for the stove to always achieve a maximum performance a wind shield can be used. It ensures that the flame is protected even during storms, thus shortening cooking time and optimizing fuel consumption.

The cooking pot, compatible with the stove, is made of hard anodized aluminium with non-stick coating and has a base with heat exchanger to reduce cooking time. The net volume of the cooking pot is 1.75 litres. The handles are foldable for compact storage and are placed around the cooking pot. The lid made of transparent dark hard plastic offers a sieve function through integrated holes and also speeds up the cooking time.

The complete cooking equipment and other accessories are stored in a separate protective bag measuring 20 x 20 x 25 cm to ensure safe transport.



More comfort on the road – Sanitation and hygiene module

The sanitation and hygiene module includes a dry toilet with consumables, as well as a tent.

The following consumables are available:

- 170 wet wipes for cleaning
- 1 bar of soap
- 72 collection bags for excrement
- 70 sachets of thickener each to bind up to 1 litre of liquid

The foldable dry toilet with oval hard plastic seat ensures maximum comfort. With a load capacity of more than 120 kg, it is super robust. Even after seven days of storage at -45 °C, it is immediately fully operational. The toilet and the tent can be set up by two people within 10 minutes.

An 25-litre bag is inserted into the toilet and placed over the toilet rim. After use, the thickener is added into the used bag, which is then disposed of hygienically.

The tent offers the necessary privacy and weather protection and is equipped with a ventilation opening with fly screen and has an inner pocket intended for the stowage of consumables.

Just like the other modules, the sanitation and hygiene module is also optimized in terms of weight and volume. All the components listed are efficiently stored in a bag measuring approximately 35 x 40 x 15 cm. By using light-weight consumables, the entire set does not exceed a weight of approximately 6.3 kg.



A clean affair – Waste collection module

Five different types of waste bags are included in the waste collection module to ensure easy waste separation. According to the waste standards, LDPE bags are available for the disposal of excrements. For the rest of the waste, robust fabric bags are used, which are extra strong and tear-resistant and can carry up to 30 kg. This allows the staging area to be kept clean and tidy.

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