

Kärcher Group









# **OUR PRODUCTS IN OVERVIEW**

Decontamination and Supply Systems for Armed Forces and Military Organizations

## **Armed Forces and Military Organizations**

## Helping You Restore Safety

#### Kärcher Futuretech GmbH - made in Germany

Armed forces and military organizations all over the world place their trust in Kärcher Futuretech solutions for CBRN decontamination, water supply, field camp technology, catering logistics and hygiene. These products have been developed in cooperation with leading nations' defence ministries for worldwide deployment in the toughest conditions and under the most extreme stress.

Kärcher Futuretech is a subsidiary of the complete familyowned company Kärcher and stands up for its corporate social responsibility for peace and humanity as well as environmental protection.



### **Extract from Our References**



- 1 USA Water filling systems
- **Peru -** Water purification systems
- **Brazil -** Container kitchen
- **4 Chile** Decontamination, water purification and mobile catering systems
- **Netherlands** Decontamination systems and trailer kitchen
- Germany Decontamination systems and components and mobile catering systems
- Spain Decontamination systems and water purification systems

- **8** Burkina Faso Mobile catering systems
- 9 Oman Decontamination systems
- **Kenya -** Water purification systems
- **Tanzania -** Water purification systems
- **Singapore** Decontamination, water purification, mobile catering and field camp systems
- **Taiwan -** Trailer kitchen
- **Indonesia -** Decontamination systems
- **New Zealand -** Decontamination and water purification systems

### Kärcher Futuretech's Solutions for the Field

### Best Supplied wherever Needed



#### Safe drinking water for everyone - produced where needed

Drinking water is one of the basic elements every person needs to survive. We offer effective and efficient mobile water purification systems. Depending on the scenario, we are able to deliver adequate solutions based on field proven state-of-the-art technologies which do not require any chemicals for the purification process itself.



Page /1 - 7

#### Water distribution - available to the task forces

To increase hygiene and avoid unnecessary transportation costs, the transportation required should be reduced to a minimum. We produce suitable mobile water filling systems that help the task forces greatly simplify the distribution of safe drinking water in the field through bottling and packaging on site.



#### Mobile Catering - providing the best nutrition under adverse conditions

In order to carry out extraordinary tasks, the required task forces must maintain an optimum energy level to enable them to provide emergency aid support under the harshest conditions. Our product range includes mobile field catering systems, enabling you to prepare fresh, wholesome meals during these challenging situations and high volumes of complete meals for a large number of persons.



Page 8 - 9

Depending on the field environment and support requirements, we can deliver the most ideal field kitchen solutions for rapid or long-term operations.



#### **CBRN Protection Systems - thorough treatment under hazardous conditions**

CBRN threats may occur anytime in many different environments with limited or no early detection possibilities. The known developments in the international military political situation have not only led to a change in the tasks of the armed forces but also modified the spectrum of the present and expected CBRN threats. In addition, there are biological epidemics or terrorist attacks. Such unexpected, sudden situations require an immediate, well-planned response.



Page 10 - 13

We offer a full range of equipment and systems for the safe decontamination of affected persons, material, large equipment, vehicles and infrastructure.



#### Field Camp Systems - complete customized system solutions

Task forces work under the harshest conditions that challenge their physical capabilities. Therefore, an adequate living environment is crucial for recuperation and to maintaince of their overall well-being.



Page 14 - 15

We provide tailored high quality field camp solutions to support the task forces in focusing their energy on performing their professional work. The main field camp components include e.g. laundry, sanitation, catering and water supply.

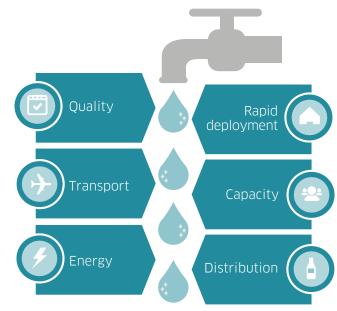
## **Save Drinking Water**

# The challenge of water supply in a mission



Water is available almost everywhere in the world, however water which is directly suitable for drinking is very often scarce. It is necessary to ensure the drinking water supply of task forces under the harshest conditions: extreme temperatures, in high dusty environments or under strong mechanical stress

To solve these problems above, there are mobile systems for water purification and distribution which are prepared for these challenges.



Your ideal water supply system

### **Our Solutions**

#### Know-how and experience

To produce clean and safe drinking water, Kärcher Futuretech engineers always base new product development on field-proven experiences. As a result, all of our systems are user friendly, and reliable for water purification around the globe in almost any climate zones even under the harshest conditions.

This has been proven by many years of experience gained together with our customers in the planning and carrying out of varied missions all around the globe in nearly all climate zones.

#### Mobile technology

Military missions have to be carried out very quickly with little advanced planning, which means that an immediate drinking water supply can often only be ensured by purification directly on site. Our system solutions allow you to master the technical challenge of mobile drinking water supply worldwide.

#### Quality

Although used under the harshest conditions, our systems produce drinking water that comply with the highest standards, such as STANAG 2136 from NATO, WHO (World Health Organization) and the German Drinking Water Regulation (TrinkwV2001).

The experience gained by our customers in missions worldwide demonstrates that Kärcher Futuretech has met this criteria for many years. Thanks to the process safety of our systems for purification from nearly all natural raw water sources our equipment is fully reliable for global water missions.



Know-how and field experience



Mobile technology



Quality and water safety

### **Water Purification**

### Produced where needed

**Water purification systems** must be able to remove different kinds of contaminants. We offer solutions for the purification of highly contaminated fresh, brackish or even salt water from nearly all natural raw water sources. Our current portfolio has a range from 550 l/h up to 15 000 l/h drinking water output.

#### Membrane technology

A method which does not require any chemicals for the purification process itself is to purify water using membrane technology. Depending on the mission scenario, the most effective and efficient membranes are Ultrafiltration or Reverse Osmosis membranes.

#### Mobility

Our products are designed to fulfill your specific transportation requirements. We provide a full range of modular systems. We provide compact systems that can easily be carried by hand, designed with a "4 person 4 corners" lift principle. We also configure our larger systems for trailer mount or ISO 20' container configuration for optimal transportation.

#### Quality

Soldiers must be sure of the water purity before they accept purified water as safe in all situations. This starts with the water's visual appearance, with all visible particles removed, and no bad taste, odor and color.

Even when the water might appear clean, it could still contain bacteria, viruses and chemicals. Kärcher Futuretech's systems hold back these contaminants which cannot be seen.

#### Quantity

Depending on the mission scenario the amount of drinking water needed can vary from small output rates during short term operations to high output rates and long term consumption. For these different scenarios, we can provide the ideal water supply solution.

#### Hygiene

Thanks to our adapted field-proven cleaning and disinfection concepts for the respective complete system, the highest level of hygiene can always be ensured in the field even during long-term missions. For this reason, drinking water purified by Kärcher Futuretech systems can be considered as excellent.

#### Easy to use

Our products are easy to understand and can be operated intuitively. The complete procedure from transport to start-up and operation can be carried out quickly by personnel after a customized training.

#### Safety

With our equipment the operator can produce drinking water and distribute it by himself on site. Thus he can control the complete hygiene process. Furthermore, the transport risk of water convoys through dangerous zones can be avoided.



WTC 1600 GT on trailer



WTC 500 GT in action



WTC 5000 UF



WTC 8000/15000 RO/UF C on container

## WTC 500 - Reverse Osmosis

## Clean drinking water, a precious commodity





The portable water purification system WTC 500 provides drinking water even in conflict or disaster areas.

With this new system it is possible to supply approx. 4000 people per day with purified water, even from salt water. Only field proven components and high-quality materials are used to ensure it is extremely reliable. Furthermore, the new clearly structured human-machine interface makes it even easier to operate than before.

#### Your benefits

- Retention of particles, microorganisms and viruses
- Retention of salts and chemicals
- Intuitive, easy operating
- Integrated handles for convenient movement by persons
- Available as self-sufficient system with generator and trailer







## **Benefits of our Membrane Filtration**

- High reliability of the drinking water quality
- Compact design
- High output
- Retention of particles, microorganisms and viruses
- High energy efficiency
- Ultrafiltration as pre-treatmeant of reverse osmosis

### **Water Distribution**

### Get it to the task forces

After having purified the water available on site to produce valuable drinking water, it must be temporarily stored and packaged, if required, before distribution to the task forces. There is a high risk of water contamination during distribution and thus endangering the safety of the people to be catered for. Kärcher Futuretech offers solutions for filling and distribution of drinking water in the field. Different systems are available which allow the water to be filled into packages of different sizes (250 ml - 1 l) and bottles (1 l).

#### Logistics

All Kärcher Futuretech mobile water filling systems help you to greatly simplify the distribution of drinking water in the field. The big advantage of our transportable filling systems is that unnecessary transportation costs and transport load volume can be reduced to a minimum by filling the purified water directly into hygienic packages or bottles.

#### Flexible receptacle size

The drinking water can be distributed in various sized containers directly to the consumers. Our systems can produce handy packages or bottles for local transportation and direct consumption.

#### Quality

Pure drinking water is not enough if the quality of the water cannot be assured until it is consumed. Thus, our solutions include filling on site with high quality and hygienic packages or bottles.

#### Hygiene

We offer systems for bottling and packaging of drinking water in the field environment at the highest hygiene level possible. Only by ensuring a very high level of hygiene, is it possible to abstain from chlorine or reduce it to an absolute minimum. Thanks to the chlorine-free drinking water filling process a pure taste can be assured and still guarantees a best before-date of up to several months under field conditions.

#### Easy to use

Our distribution systems are easy to operate with their automated controls and provide an easy way to refill consumables needed throughout the process.



Preforms for mobile water bottling



WBP 1300 - Water bottling

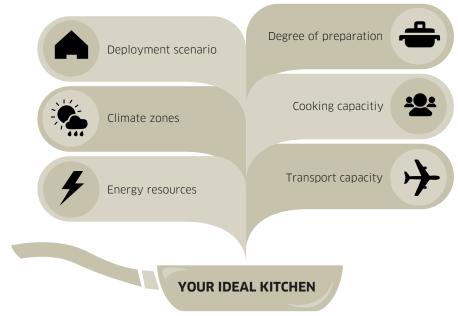


WPS 1600 G - packaging



## The Optimum Supply Chain for Catering in the Field

There is not one ideal kitchen configuration – but our tailored solution options meet your specific mission's deployment and operation scenario.



## **Our Solutions**

#### **Deployment scenario**

Regardless of the duration of a mission, the task forces should be fed with highly nutritious meals. We have designed our highly efficient catering systems to fulfill any environment and mission requirement.

#### **Cooking capacity**

Cooking a basic meal for 20 soldiers is quite different to offering a full menu for several hundred soldiers, which requires an operational logistics supply chain combined with a high performance kitchen system. We have developed a modular based approach for field catering systems to scale up capacity for cooking as needed.

#### Transport capacity

It doesn't matter if you need to transport your field kitchen inside or outside by aircraft or by wheeled vehicle transportation. Our catering systems are optimized in weight and size to meet any transportation requirements and are designed for rapid deployment and assembly.

#### **Energy resources**

Whether you are cooking with diesel, gas or electricity, we offer a solution that fits your standard requirements. Kärcher Futuretech's energy efficient technology ensures the most efficient use of limited energy resources.

#### **Climate zones**

Operations occur in different scenarios where extreme weather ranges and conditions can occur. Our products are robust and designed for rugged use, therefore comply with military standards.

A wide range of accessories complements our catering systems for operation at any location worldwide.

#### Degree of preparation

The available food supply chain affects the means of cooking. You can cook with fresh ingredients or with pre-cooked products. Our modular kitchen set up adapts perfectly to your food flow concept.

## Maximum Flexibility with our Modular Approach

#### MFK 2 - Individually configurable modular field kitchen

The new version of the proven modular field kitchen has four free module slots that can be configured on an off-road single-axle trailer. The customer can choose from a large number of different cooking and frying modules (also with closed combustion chamber) as well as the combi-steamer, "cooling" and "freezing" function modules.

Further benefits of the MFK 2 include a sturdy axle as well as a parallel height-adjustable drawbar, which allow uncomplicated transport using different vehicles.

#### KCC 500 - Mobile kitchen container with optimal space utilization

During large scale deployments several hundred soldiers may need to be catered for day and night. An adequate kitchen system is necessary in order to fulfill the high ongoing demand for varying complete meals.

The KCC 500 is the perfect solution, offering the highest cooking capacity even under extreme climatic field conditions. The configurable system based in two 20' ISO container, has a compact design with maximum interior workspace, allowing for rapid deployment and set up within a few hours and can operate permanently for months. With the highest hygiene standards, interchangable cooking units and a modular container expansion to adapt to your catering requirements, the KCC 500 fits perfectly in your logistical catering strategy. This energy efficient kitchen works with diesel, as a result it can achieve substantial savings compared to operation with generator power: With five cooking modules up to 100000 litres of diesel a year.



Modular Field Kitchen MFK 2



KCC 500 - from the inside

## **Individual Configuration**

Our catering systems are designed and tailored to fit your team size and mission requirements.

#### **Expandability**

Our efficient catering systems allow you to easily add more cooking components to support special requirements. For example, our autonomous cooking modules of the MFK and KCC 500 which can be separated and operated in different locations.

#### Adaptability

Depending on your catering strategy and the various cultural aspects, you can choose between a variety of kitchen set up options e.g. our combi-steamer KCS 15 for baking and steaming. We also offer a wide range of accessories for nearly any field condition and type of food cooking.

#### Exchangeability

Standardized interfaces of cooking modules allow a quick and easy change to the most effective configuration.



Standardized freely configurable components

## **Thorough Treatment under Hazardous Conditions**

Developments in the international military political situation have not only led to a change in the tasks of the armed forces but also changed the spectrum of the present and expected CBRN threats.

In order to be able to react effectively to these new threats, it is not only necessary to draw the required conclusions from the potential threats but also to ensure the preconditions for minimizing the possible effects.

Kärcher Futuretech offers a complete of CBRN decontamination knowledge base, proven field experience, trained staff, fielded decon systems already in service and deployed, and the tested chemicals for nearly any kind of CBRN response. Furthermore we have a wide range of systems for the safe decontamination of affected persons, material, large equipment, vehicles and infrastructure.



Influencing factors for a safe and thorough decontamination

### **Our Solutions**

#### **Certified technology**

Our equipment has been extensively tested under various climate conditions and operational scenarios. The decontamination agents have been checked and approved for a wide range of different contaminants. Kärcher Futuretech's decontamination systems comply with national and international norms, such as the NATO STANAG 4521 and the German Armed Forces AQAP-2110 certification.

With our highly reliable systems, including our patented vacuum chamber technology and decontamination agents, we play a leading role in countering the CBRN contamination threat.

#### Proven field experience & CBRN knowledge

We not only develop our systems jointly with technical experts and operational test organizations, we also have a pool of multiskilled engineers, chemists, and CBRN experts to provide a wide range of know-how and consultation for all kinds of decontamination challenges.

For optimum decontamination success, we offer operator and maintenance personnel trainings for all our systems on-site worldwide. Kärcher Futuretech systems have proven field experience. Our systems are being used successfully in nearly all climate zones, from the artic freeze in Finland to the dry and hot desert in Afghanistan.

#### Quality and environmental management

We are proud of our systems and technology that are developed and manufactured in Germany. As a member of the Kärcher Group, Kärcher Futuretech can select its components from a wide pool of high quality and extensively tested assemblies and parts. With Kärcher's global logistical network and highly skilled staff, Kärcher Futuretech's products can be maintained and repaired on time. We maintain and comply with the high level ISO 9001 standards, the AQAP-2110 certification and current manufacturing quality norms of our industry.

Our standards go beyond technology and include sustainable environmental management. Our decontamination agents are fully biodegradable and our devices are optimized fot a minimum use of water and energy resources. With this, we comply with the ISO 14001 (environmental management system).



State-of-the-art-technologies

## Innovative Solutions for Various Decontamination Missions

#### **Decontamination of persons**

In the case of contaminated persons every minute counts. Thus, Kärcher Futuretech decontamination systems are designed for rapid deployment and set-up regardless of the existing infrastructure. The whole operational concept is optimized for fast and effective treatment in case of a potential mass panic amongst the affected people. Clear signs and an intuitive design ensure easy and quick treatment.

Kärcher Futuretech has developed an optimized decon shower technology based on current studies for safe skin decontamination with careful consideration for non-ambulant persons as well.

#### **Decontamination of material**

During large scale deployments, the availability of personal equipment is limited and cannot always be left behind in the contaminated area. Kärcher Futuretech offers systems for the decontamination of protective clothing and equipment using heat, vapor and wet chemical decontamination technologies.

#### Decontamination of sensitive material

Laptops, communication and detection equipment and other important devices cannot withstand heat or wet chemical decontamination processes. Therefore, Kärcher Futuretech has developed a vacuum decontamination technology based on extensive studies and real tests.

Our agentless (C decon) or agent-enhanced (B decon) vacuum processes to evaporate, sublimate or deactivate contaminants enable a safe ChemBio decontamination of sensitive material with even complex surfaces, small openings and pores.

#### **Decontamination of large equipment and vehicles**

An optimum decontamination of vehicles lies in the details. It is not just about cleaning the vehicle. But many factors must be taken into consideration to ensure process safety. With many years of field experience, Kärcher Futuretech offers the exact the decontamination system you need. Our sophisticated operational concept includes a three-phase approach, full surface treatment down to the vehicle underbody and high performance equipment by Kärcher.

During a self-sufficient operation, time is crucial. All our components are designed to perform in line with our CBRN decontaminant agents for minimum reaction time at maximum operation cycle without refilling, refueling or additional maintenance steps.

#### **Decontamination of infrastructure and interiors**

After a contamination incident, vehicle interiors, buildings and wide areas such as road sections may be affected as well. In order to decontaminate e.g. curved shapes of surfaces and the large areas of buildings, from the ceiling to the cellar or for whole room interiors, we offer spray extraction and fogging devices. For the decontamination of road sections high performance application equipment as spray-bars are attached to the front of the decontamination vehicles.



Decon shower lines for ambulatory and non-ambulatory persons - DSAP



Hot gas chamber - HGSC



Vaccum chamber - VDM 265 (on trailer)



Decontamination of vehicles - MPDS 2



Decontamination of road sections



## **Decontamination Systems**

#### **DSAP - Decontamination System for Ambulatory Persons**

In the case of a CBRN contamination accident with a large number of affected persons, the DSAP system is designed for fast and safe decontamination. Configured in a 20' container (20' x 8' x 8') with pre-installed, ready-to-operate components, the system is operational within 40 minutes. It includes quickly inflatable tents for dressing and undressing with an integrated high-performance automated shower system. The DSAP can be equipped with 2 or 4 inflatable tents and 3 or 4 shower lines for ambulatory personnel. Separate lines are also possible for the treatment of ambulatory and non-ambulatory persons.

Easy to use equipment, clearly marked instructional pictograms and a traffic light system facilitate fast and safe decontamination treatment for up to 180 personnel per hour.



The DSVP 10C is one of our compact solutions for the decontamination of vehicles, soldiers, building interiors and road sections. Mounted in a 10' container with pre-installed equipment, the DSVP 10C system can be set up manually within minutes. No external lifting equipment or tools are required. All integrated lifting devices and components are perfectly matched to enable an easy operation of all decon processes from one intuitive, multi-functional control panel.

The system is fully self-sufficient including water for at least one hour of operation to decontaminate two large vehicles such as a tank, 20 task forces, 150 m² terrain or 200 m² of interior surfaces per hour.

#### TEP 90 - The complete Decontamination System

The TEP 90 represent our high-end decontamination system for the decontamination of vehicles, persons, personal CBRN protective clothing, personal and sensitive equipment, vehicle interiors, road sections and infrastructure.

The container-based TEP 90 consists of four self-sufficient modules that can be deployed with an integrated crane and used independently for parallel operation in different fields of decontamination. With this system it is possible to decontaminate 20 to 40 task forces, four to six large vehicles such as a tank, 20 personal and sensitive equipment as well as 1500 m² terrain simultaneously.

#### Cage Based Modular Decon System

Based on a lightweight but robust cage frame, the new modular system consists of individual, compact and interoperable transport units, which are rapidly mounted, e.g. up to 9 modules on a 20' transportation platform compatible with the ISO twistlock system.

We believe that the "choose the modules you need"-principle allows you to select the specific decontamination functions necessary for your individual decontamination scenario, e.g.: two water transport modules with pumps and heating included, a universal treatment module for high-pressure cleaning and decontaminant application, a personnel decontamination module including a fully equipped shower tent with heating and a generator unit for a full-scale power supply.



DSAP, e.g. Spain



10' Rapid deployment system, e.g. Netherlands



TEP 90, e.g. Germany



Cage Based Modular Decon System



## **MPDS 2 - Universal Decontamination System**





This is a multi-purpose system for the decontamination of material and vehicles. Now the "one-for-all" MPDS 2 can be operated with up to three lances at the same time. Therefore pre-, main- and post-treatment are possible simultaneously, making decontamination much faster.

MPDS 2 truly represents the most efficient and complete decontamination site of its class.

#### Your benefits

- Simultaneous 2-3-lance operation
- Up to 2.5 kW power available, even during hot water applications
- Usable with standard commercially available decon agents
- Independent dosage of aqueous two-component chemicals
- Simultaneous application of non-aqueous agents and high pressure operation
- Smallest complete decontamination system
- No belt drives

## **CBRN Decontanimation Agents**



Kärcher Futuretech is also a worldwide well-known specialist for CBRN decontamination agents. We offer a complete set of decontamination agents that are fast-acting and highly efficient on a wide range of toxic chemicals, bacteria, fungi, viruses, radioactive particles as well as on ChemBio warfare agents. These agents have been extensively tested with live agent contaminants under various climate conditions, operational scenarios and certified by independent laboratories around the world.

Just 1% of remaining contaminants can still be fatal. Several laboratory tests have proven that specialized agents for each kind of CBRN contamination perform significantly more effective than an all-in-one agent which has a broad but individually weaker spectrum of effect.

#### **General Benefits**

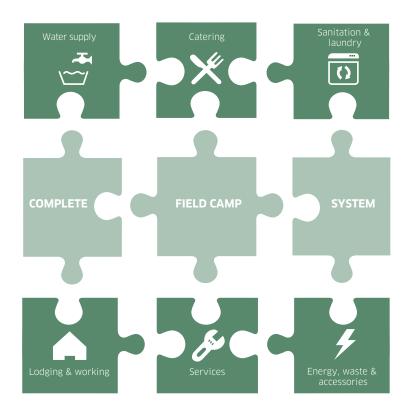
- The optimum agent for each scenario
- Rapid reaction time with maximum effectiveness
- Easy, safe handling and rapid usability
- Biologically degradable and high surface material compatibility
- Long term storage stability and minimum logistical requirements
- All decon agents can be used in NATO-relevant climate zones (-30°C to +49°C / -22°F to +120°F)
- All decon agents comply with the NATO criteria as AEP 7, STANAG 2609; as well as further requirement parameters as short reaction time
- Reduced logistical effort (e.g. no water necessary for GDS 2000)



## **Complete Customized System Solutions**

Before configuring a field camp layout, there are several questions that need to be answered to determine the base camp system that ideally suits your mission scenario. For example, how many persons are going to live in the camp, how mobile must it be, how is the climate and the environment on site, for how long will the system be deployed, how will the system be transported? Kärcher Futuretech deals with all these questions and provides a complete customized system solution.

All system components are designed for optimum interoperability as well as self-sufficient operation. Thus, our system elements can also be perfectly integrated into your existing field camp.



### **Our Solutions**

#### **Know-how**

Kärcher Futuretech is your best advisor and most reliable partner for mobile field camp systems. We offer over 30 years of field experience with experts in the design and set up of field camps and a wide range of system components.

In order to fulfill your requirements and reduce the complexity of designing a complete field camp, we take all relevant parameters in consideration: number of persons, climate conditions, set-up area, energy supply and transport. Our services include consultancy, planning, training of your personnel, field service maintenance and repair.

#### Modularity

Due to the high modularity of all our components, we are able to provide you with the ideal solution for your respective mission scenario. We are able to plan, design and set-up camps for 50 to 3000 task forces, including full living accommodation, catering, water supply, sanitation, laundry and waste management. During operation of the base camp, the capacity may have to be adapted to accommodate changing staff sizes or local constraints may require a different setup layout. Our standardized interfaces, different accessories and interoperable equipment give you the full flexibility to adjust and continue to support new or continuing deployment scenarios.

#### **Transport**

Your transport capacities define the transportation basis. Kärcher Futuretech offers you complete field camp systems on trailers, platforms or containers depending on your individual transport capacities. In conjunction with the deployment concept – highly mobile, mobile or semi-stationary – we offer you the ideal base camp solution to perfectly fit in your overall logistic concept.



Complete field camp systems



## **Efficient Components**

#### Sanitary components - Best hygiene under field conditions

Kärcher Futuretech offers mobile sanitary units which are equipped with showers and washbasins or toilets, urinals and washbasins. The necessary privacy is guaranteed by the division into individual cabins. Due to stainless steel surfaces, the insides of the containers are easy to clean, which reduces the maintenance effort to a minimum. At the same time the well insulated containers are robust and highly durable which allows any mission scenario over a long period of use. Standardised transport dimensions facilitate the entire logistic process.



Our laundry containers are capable of cleaning and drying large quantities of laundry. The 10' or 20' containers offer 3 or 6 washing machines and dryers with a capacity of 6.5 kg each. Various washing programmes can be easily selected in many languages using the stored programme control. All components of the container are made of stainless steel, enabling easy cleaning and ensuring compliance with hygiene standards.

# Heating and air-conditioning components - Ready for any deployment scenario

Missions will be performed in all climatic conditions. Depending on the climate conditions on-site, Kärcher Futuretech offers a variety of high quality heating and air-conditioning devices with standardized hoses. We can provide individual capacity up to 18 kW cooling power and 60 kW heating power. All our equipment is weather-proof and robust for outdoor operation.

#### HWM 100 B - Hot Water Module with buffer tank

In larger field camps a lot of energy is needed, even more when it comes to the cooking and heating of water. The diesel-driven and energy-efficient hot water module HWM 100 B produces hot water for various quantities. It allows a continuous and adjustable flow rate even at fluctuating incoming water temperatures: From very low (e.g. hand wash basins) to very high (e.g. showers) water volume flow rates.



#### "Field deployments should bring assistance"

Kärcher Futuretech field camps are not only developed for maximum comfort and reduced logistical efforts. Self-sufficiency and sustainable usage of local energy and water resources also play a central role in our system layout and component design.



Sanitary facilities



Washing facilities



MAC 18 - Air conditioning unit



HWM 100 B - Hot Water Module



Sustainable field camp systems



# Water supply systems - A selection

















|                              | 1 WTC 500<br>WTC 700 | 2 WTC 1600<br>WTC 3000 | 3 WTC 8000/15000<br>RO/UF C      | WTC 2500 UF<br>WTC 5000 UF |
|------------------------------|----------------------|------------------------|----------------------------------|----------------------------|
| Drinking water yield I/h     | Up to 500   700      | Up to 1600   3000      | Up to 8000 (RO)<br>or 15000 (UF) | Up to 2500   5000          |
| Total weight kg              | 160   175            | 1000                   | 9500                             | 200   245                  |
| Dimensions (L x W x H)<br>mm | 1210 x 790 x 910     | 1900 x 1600 x 1050     | 6058 x 2438 x 2591               | 1200 x 800 x 1330          |

|                           | 5 WPS 1600 GT      | 6 WBP 1300           | 7 Drinking water distribution station | Raw and drinking water tank |
|---------------------------|--------------------|----------------------|---------------------------------------|-----------------------------|
| Filling capacity          | Up to 1600 bags/h  | Up to 1300 bottles/h | 8000 l/h                              | 1000 - 10000 l<br>storage   |
| Total weight kg           | 3500               | 8900                 | 32                                    | Up to 100                   |
| Dimensions (L x W x H) mm | 5460 x 2170 x 2490 | 6058 x 2435 x 2591   | 800 x 600 x 410                       | Up to 5500 x<br>2700 x 800  |

# Mobile catering systems - A selection

















|                           | Modular Field Kitchen MFK 2  | 2 Kitchen Catering<br>Container KCC 500   | Rapid Response<br>Kitchen KRR 50            | Combi-Steamer<br>KCS 15                                |
|---------------------------|--|---|---|--|
| Capacity                  | Up to 250 set meals<br>Up to 600 simple meals<br>(depends on<br>configuration) | Up to 500 set meals<br>Up to 1500 simple<br>meals (depends on<br>configuration) | Up to 50 set meals<br>Up to 75 simple meals | 15 x GN 1/1<br>14 kW heating capacity<br>Diesel burner |
| Total weight kg           | 2000   | 2 x 4000<br>(empty container)   | Between 65 - 120                            | 255  |
| Dimensions (L x W x H) mm | 4405 x 2070 x 2620   | 6058 x 5376 x 2591  | 800 x 600 x 915                             | 1010 x 700 x 1500                                      |

|                           | Cooking module 125 I, closed combustion chamber | Frying module 70 I,<br>6 closed combustion<br>chamber | 7 Frying and baking module 25 I/78 I                | 8 Multi cooking module MKM            |
|---------------------------|---|---|---|---------------------------------------|
| Capacity in litre         | 125   | 70  | 25/78   | 200                                   |
| Total weight kg           | 150   | 150   | 165   | 84                                    |
| Dimensions (L x W x H) mm | 1100 x 700 x 1050                               | 1100 x 700 x 1050                                     | 1100 x 700 x 695                                    | 970 x 690 x 370                       |
| Cooking methods           | Cooking, stewing and steaming                   | Cooking, stewing, steaming and frying                 | Cooking, stewing,<br>steaming, frying and<br>baking | Cooking, stewing, steaming and frying |

# CBRN decontamination systems - A selection

















|                           | 1 MPDS 2                             | 2 Hot Water Module<br>HWM 100     | Vacuum Chamber<br>VDM 265 | 4 Decontamination agents                   |
|---------------------------|--------------------------------------|-----------------------------------|---------------------------|--|
| Special features          | Simultaneous 2-3-<br>lance operation | 700 to 3000 l/h<br>100 kW heating | 265 I chamber volume      | CBRN decontamination<br>(-30 °C to +49 °C) |
| Total weight kg           | 400                                  | 160                               | 600 (main unit)           |  |
| Dimensions (L x W x H) mm | 1200 x 800 x 1100                    | 960 x 600 x 800                   | 800 x 1470 x 1695         | Container from<br>0,125 - 20 l             |

|                              | Cage Based Modular<br>Decon System                  | Decontamination of personnel        | 7 Rapid Response<br>System DSVP 10C                     | 8 Complete Decon System TEP 90  |
|------------------------------|---|-------------------------------------|---|---|
| Special features             | Modulare system –<br>choose the modules<br>you need | Decontamination of<br>up to 180 p/h | Decontamination of persons, vehicles and infrastructure | Decontamination of persons, vehicles, personnel material and infrastructure |
| Dimensions (L x W x H)<br>mm | 2000 x 930 x 1576<br>(per function module)          | 6058 x 2438 x 2591                  | 2991 x 2438 x 2438                                      | 10314 x 2550 x 3727   |

# Field camp systems - A selection









|                           | 10'/20' sanitary container               | 2 Cooling/Heating                          | 3 Laundry container           | Hot Water Module<br>HWM 100 B                      |
|---------------------------|--|--|-------------------------------|--|
| Capacity                  | 3 or 6 toilets<br>3 or 6 showers         | 11 to 18 kW cooling<br>20 to 60 kW heating | 25 kg/h washing<br>and drying | 125 I tank volume<br>105 kW heating<br>performance |
| Total weight kg           | 4500                                     | Depending on device                        | Max. 5200                     | 286  |
| Dimensions (L x W x H) mm | 2990 x 2438 x 2591<br>6058 x 2438 x 2591 | Depending on device                        | 6058 x 2438 x 2591            | 1250 x 820 x 1060                                  |

# Service, Maintanance and Training

# Worldwide when you need it

Regular maintenance, checking and testing is essential for complex products. Kärcher Futuretech offers all the services required for the training, maintenance and repair of our products. These are carried out by our specialists, either at our service center in Schwaikheim, on site at the location of the systems, or by phone directly in the field during operations.



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