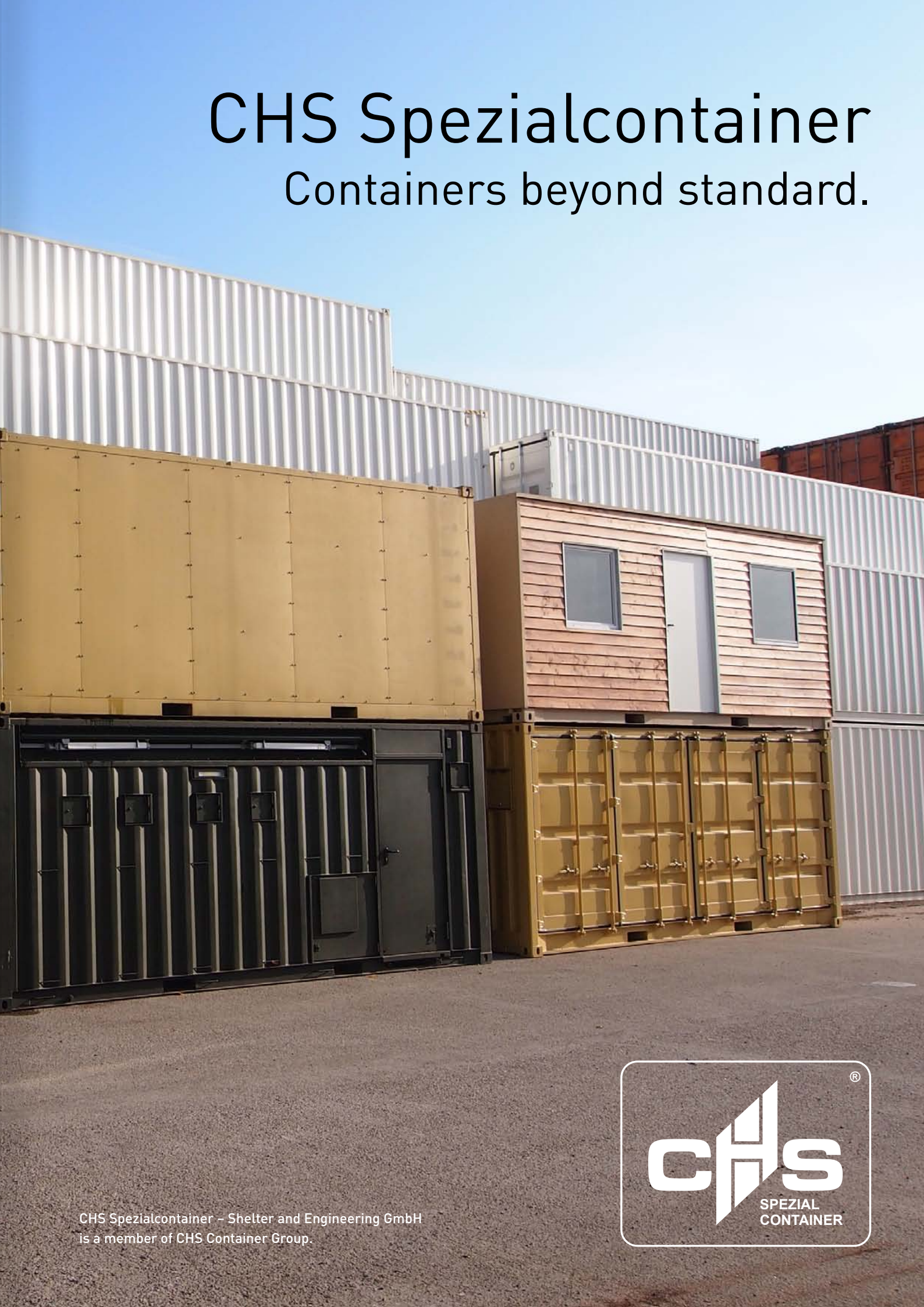
CHS Spezialcontainer

Containers beyond standard.



CHS Spezialcontainer – Shelter and Engineering GmbH
is a member of CHS Container Group.

Mobile solutions

CHS Spezialcontainer's seven areas of expertise

CHS Spezialcontainer

- The CHS 'Container Forge'
- More than practical

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CHS Spezialcontainer has many years of experience in the development, design and construction of individual customised container solutions.

Our seven areas of expertise reflect the diverse requirements of our customers as well as our own know-how.

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Customised for you!

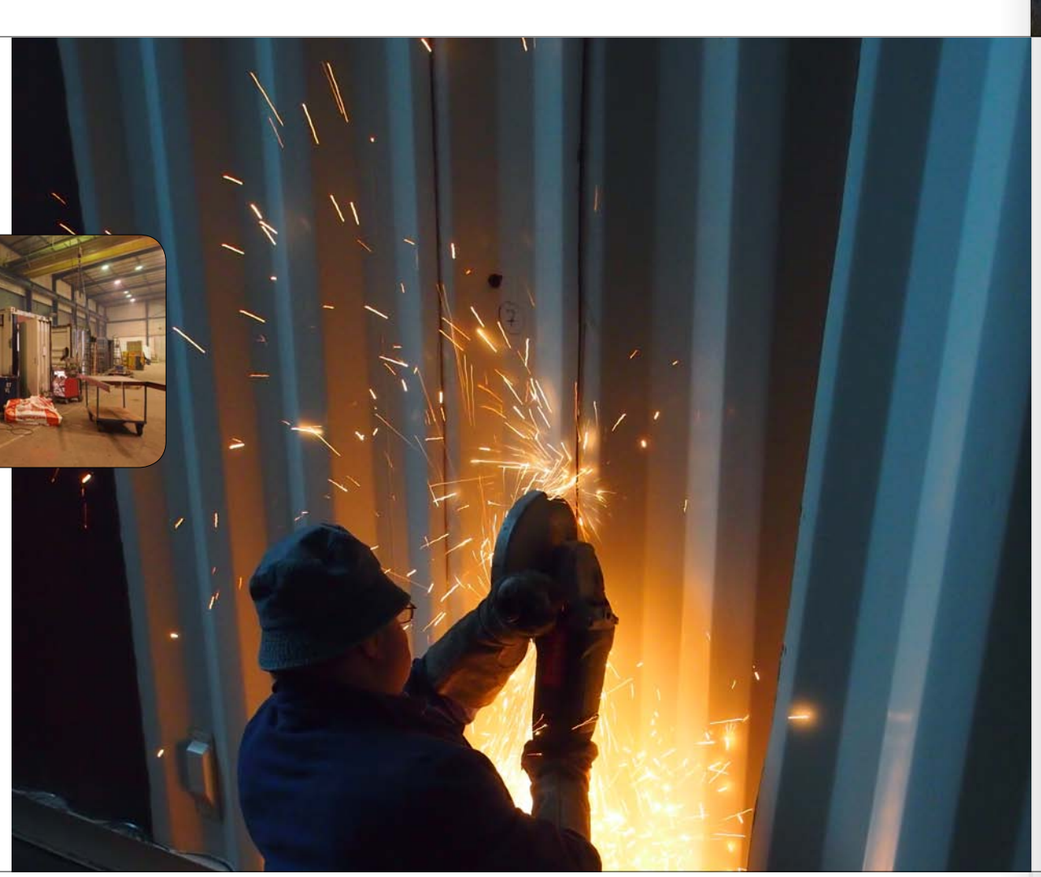
The CHS ‘Container Forge’

CHS Spezialcontainer was founded in 2004 and is a subsidiary of the CHS Container Group. We have been providing highly functional customised container solutions for many years.

We are specialised in the development, engineering and production of special containers, including the integration of system components of all kinds. We focus primarily on innovative solutions that meet the complex needs and requirements of our customers.

The expert advice of our highly qualified project engineers as well as our motivated and well-trained production workers has made us a reliable partner for our customers for many years. We have successfully completed numerous projects for public clients in the areas of research, utilities and defence, for national and international companies as well as for German and European small and medium-sized businesses.

Thanks to an extensive network of interdisciplinary partners, we can meet virtually any conceivable customer requirement.



More than practical

CHS Spezialcontainer is certified by Germanischer Lloyd (GL) and Bureau Veritas (BV) for the development, manufacture and testing of containers. Furthermore, our quality management system is certified according to DIN EN ISO 9001:2008 and our environmental management system is certified according to DIN EN ISO 14001:2009.

Continually developing our technical solutions further is part of our corporate philosophy and our understanding of quality. This is not the only reason we have an on-going programme to train people as construction technicians and specialists for warehouse logistics. We are accredited by the Bremen Chamber of Commerce as a training company.

The continuous work by a team leaded by a project engineer guarantees identification with the job and with every detail of the project. This results in a high level of customer satisfaction upon delivery and handover of components, which can range from individual special containers to complete turnkey systems.

We offer you full service from a single source. In addition to comprehensive consulting, development and production, we also carry out worldwide transportation and the installation of systems on-site. We also provide transnational support for assembly, disassembly, repair and maintenance 24/7.

This is one of the sources of the core of our company philosophy, “Delivering high quality and achieving long-term customer loyalty”, which our employees and interdisciplinary partners have been committed for many years.

Please feel free to contact us, we would be glad to advise you and help you to develop and build the right solution for your requirements.

“It doesn’t fit” is not an option

Individual transport and storage containers

Using our special containers, you can transport high-quality machinery, equipment, spare parts and tools, as well as mobile systems safely to any destination in the world. With our individually designed and manufactured brackets, our patented pull-out frame, ramps or shelves, containers can be easily loaded and unloaded.

Whether you want to transport your goods by sea, road, rail or by air: CHS Spezialcontainer is able to develop an appropriate solution. Our solutions provide the safety you need!

Patented pull-out frame

It is often difficult to reliably store and secure large systems or bulky items for transport when using standard containers. For this purpose, CHS Spezialcontainer has developed an extendable support frame. Goods weighing up to 10 tonnes can be placed and secured on the frame while it is outside of the container. The frame is then pushed back into the container and locked in place for transport. This saves time and makes loading and unloading easier.

The MULTIBOX logistics system

The MULTIBOX system solution for spare parts is based on a 20' Double Door Container, which offers very high space efficiency, due to its telescopic side walls (3-in-1 principle). The basic layout consists of areas for large parts as well as for small parts, in which spare parts, special tools and testing equipment can be stowed safely and intelligently. A high-quality cabinet system is integrated in the container for storing small parts. The area for large parts includes precisely-sized compartments for items such as front and rear axles, motors and gearboxes, wheel sets and much more. The brackets are individually secured using C-rails in the container. A built-in overhead crane enables loading and unloading of large parts.

In addition to these configuration parameters, the MULTIBOX is equipped with heat-insulated side walls, a powerful air conditioner and modern LED lighting. All containers in the MULTIBOX series can be transported using a lift and roll-off system, thanks to their special floor design.

Aluminium air freight box

The multifunctional ULD (Unit Load Device) aluminium container is specifically designed for air freight traffic; it is suitable for transporting goods and can also be equipped to serve as a mobile workshop. Measuring 4,000 x 2,300 x 1,500 mm on the outside, this container has a maximum permissible total weight of 6,000 kg. Despite the lightweight aluminium construction, three fully-loaded identical containers can be stacked on top of each other without any problems. The securing mechanisms for stacking are integrated in the structure of the frame.

Storage concept for equipment

To meet the high functionality and mobility requirements of a contracting authority, we developed two unique 20' transport and storage containers to accommodate recreational equipment for 300 people.

The features include an entertainment package, equipment for gaming, entertainment and sports as well as catering equipment. The transport and storage containers were developed over a period of several months in close and intensive co-operation with the client. Crucial to the design considerations for building the containers was the client's requirement to be able to quickly remove individual items, while ensuring positive-locking fit of the load restraints.

In order to fulfil these requirements, it was necessary to design numerous brackets, doors, openings as well as two pull-out trolleys. Small items such as dishes, glasses, cutlery, etc. were safely stored in numerous boxes.

To prevent damage to thermo-sensitive equipment (for example televisions, electronics and so on), all containers were equipped with heat insulation and corresponding heating and air conditioning. A dehumidifier provides additional protection against mould growth.

Plug ´n play

System containers

You have the machine or technical system; we have the space for it! Just plug it in and you are good to go. Our system containers come already equipped down to the last detail for the inclusion of a wide variety of machinery and equipment, ranging from water treatment to fire-fighting. No matter what our clients need to install, it can be precisely integrated in these mobile room systems. Custom-made and easy to install.

Technical containers for laying plastic pipelines

These containers accommodate a system for laying plastic pipes for pipe rehabilitation. The system consists of two mobile 20' High Cube Double Door containers that can be joined together and are able to be deployed at any location in the world. For this purpose, the containers were equipped with various doors, thermal insulation, a partition wall with an integrated pipe lead-through and a variety of foundations to accommodate the technical components of the system.

The containers have full CSC approval. Handling and transport of the system are greatly simplified by the use of two containers, which provide a 40' equivalent when joined together.

40' system container for biogas plant

We designed this containers to enable the client to install a pump system. As part of a complex biogas plant, the transport of substrates within the system is controlled by a central pump. Using the suction and pressure beam of the pumping station, it is possible to fill and empty all of the containers in the system with a single pump.

Thanks to the embedded C-rails and the floor openings, the customer can quickly install their pre-assembled system and test its functionality. This significantly reduces on-site installation and commissioning times.

20' container for compressed air system

For this Plug and Play solution, we modified a 20' Side Door Container:

Integrated soundproofing significantly reduces the noise levels both inside and outside of the container. Installed automatic ventilation systems allow 15,000 cubic meters of air per hour to pass through the container for cooling. In order for operating personnel to be able to perform the necessary checks on the system multiple times a day, they must be able to access it easily. The Side Door Container that we chose offers the right solution for this requirement.

In addition, extensive environmental regulations had to be complied with. This meant for example that oil collecting pans needed to be installed.

Fire extinguishing system

Containers for fire extinguishing systems are integrated as a component in large fire protection systems in industrial plants. The containers hold all of the extinguishing agents, the highly sensitive fire-fighting equipment as well as an extensive piping system. The biggest challenges with these special designs are the individual brackets and mounts for fire extinguishing agents and equipment, making the necessary openings in the walls for the pipes and ensuring the required corrosion category. We paint the containers to fulfil the requirements of category C5-M according to DIN EN ISO 12944-2. This protection level is used for applications in heavy industry and in the offshore sector.

Mobile workshops

Today, mobility is more important than ever! This is why an increasing number of our customers rely on our mobile workshops. Regardless of whether it is a shop for woodworking, metalworking, painting or even a complete maintenance and repair centre - together with our partners, we provide fully-equipped turnkey mobile workshops for any and all requirements.

Roll up your sleeves

Mobile woodworking shop

This workshop container was equipped for working with wood materials.

Grinding machine, work bench, drill press, milling machine and also a circular saw are integrated. All connections for electricity, water and compressed air as well as adequate air conditioning and heating of the interior were provided for. If required, roof hatches or partition walls can be installed in the workshop. Naturally, we are glad to paint the containers to customer specifications and apply company logos.

Workshop for metalworking

Our workshops can be equipped for working with either plastic or metal. The container for working with metals shown here was fitted according to customer requirements with a work bench, a drill press, welding equipment and a compressor.

A sturdy floor made of aluminium quintet sheet metal was installed in the container. This slip-resistant, easy-care surface is just one of the possible alternatives for the flooring of a workshop container. Depending on the customer's needs, budget and operational requirements, a mobile solution is feasible for almost any application scenario.

Container system for resin processing

The container system for processing liquid resins consists of one 20' and three 10' containers, which were expanded into a mobile workshop system.

The main components of the system are a tool container for small and medium-sized tools, a machine container, a container for working with hazardous material and a container for storing hazardous material.

Partition wall systems, doors, maintenance access openings and windows were installed in the containers. A comprehensive electrical installation, drip pans for liquids and air conditioning systems were also integrated.

Shelf and cabinet systems, work tables and benches as well as complete tool sets round off this workshop system.

Workshop system with integrated tent roof

The system, which consists of four 20' containers and a tent construction, allows processing of materials as well as repair and maintenance of machinery on an area of 9 m x 16 m. A workplace that is protected from the weather is created in the covered space between the containers.

The containers are equipped with a large number of machines. A variable-speed 50-kVA generator enables the container system to operate autonomously. Each container is equipped with an air conditioner, so it can be used in hot climates without any problems.

A storage room stores a variety of metal and wood profiles. Hazardous materials can be stored in a safety cabinet.

Offshore and maritime solutions

Offshore containers are specially designed for use at sea. They are deployed on artificial islands or platforms and are therefore subject to special regulations and legal requirements. Our upper deck containers are maritime solutions for civil and military requirements for use on ship decks. In order to expand the limited space available on ships, we have developed and built upper deck containers for use as mobile operations centres, additional accommodation or as laboratory units on numerous occasions.

Not for landlubbers

Upper deck double container

This upper deck container system is used for monitoring shipping traffic at sea and in ports. To protect the sensitive electronics in the two containers, a portion of the floor is equipped with shock absorbers. Power is supplied by a transformer that is integrated in the floor.

The system has a usable area of approximately 30 square meters and is welded completely watertight. Removable floor panels (system flooring) make laying cables easy. The special exterior paintwork consists of four layers of two-component paint that is made for use at sea. The system was tested and certified by Germanischer Lloyd.

Ship laboratory container

This 20' upper deck container is used on research vessels in the North Sea and Baltic Sea as a laboratory for monitoring marine contamination with organic pollutants.

The container has a utility room and a laboratory room. The utility room has a powerful air conditioner, which is especially suitable for operation at sea, as well as an adequate ventilation system.

The laboratory is equipped with several pieces of special laboratory furniture, a sink and an explosion-proof refrigerator for storing laboratory materials. In the wall area, there are two transfer stations for oxygen and nitrogen.

In addition, the container is equipped with two portholes and a ship door. Fresh water and sea water lines can also be connected.

Upper deck container system

This special container system was built for an offshore wind turbine installation vessel. The container system consists of an office, a social room, a workshop, several storage containers and a dressing room.

Work can begin in these rooms as soon as the installation vessel has planted its steel feet into the seabed and the jack-up platform has been lifted above sea level.

One of the storage containers was equipped with a unique sliding roof, which can be opened from the inside. This allows heavy components to be lifted out of and into the container using a crane.

CHS mO³ve-tainer

The highly versatile CHS mO³ve-tainer (maritime On deck, Offshore, Overseas variable equipped container) was first presented in 2012.

It can be used as an upper deck container, an offshore container or a sea freight container. The 20' High Cube Container shown here has a CSC and offshore approval by Det Norske Veritas (DNV). Offshore containers are always equipped with lifting gear on the container roof, which distinguishes them from all other types of containers.

In order to receive offshore certification from DNV, a container has to successfully pass some tough tests, such as a lift and drop test. These tests were performed in the presence of Germanischer Lloyd (GL). A container can only receive an offshore approval and be handled safely and often at sea if it passes the tests without deformation.

A strong team

Defence technology and security

As a reliable partner for national and international armed forces as well as security and defence companies, we have considerably expanded our capabilities in this area in recent years. In this type of application, use under extreme climate conditions, high protection requirements and fast worldwide availability are particularly important.

The CHS CONTAINER GROUP is a founding member of Industriegruppe Service im Einsatz (IGS E). This association of well-known medium-sized German companies has set itself the goal of ensuring after-sales service for their products in global theatres of operation.

Pack animal transport container

For the German Armed Forces, we developed a 20' container for transporting up to four adult riding and pack animals as well as the corresponding equipment. The pack animals can be transported safely to their destination with this container. Water tanks, troughs and temperature and video monitoring are integrated in the stable area. The ISO container animal transport also has a tack room with a pull-out staircase and its own independent heater. An awning provides protection from the weather.

FlaRakSys Patriot transport container

This 20' standard container was equipped with an integrated transport and cargo securing system for storing and transporting up to four missile containers of the Patriot anti-aircraft missile system.

The system consists of floor rails, which are securely attached to the floor of the container and absorb all of the energy through the frame of the container. This ensures frictional connection and positive-locking fit. A carriage runs on the rails, which can be pulled out of the container and pushed back in for loading and unloading. The missile containers are mounted on the carriage using tension rods, which ensures that the cargo is properly secured.

10' transport and storage container SATCOMBw

This 10' transport and storage container was designed to safely carry and temporarily store up to six sets of the German Armed Forces' satellite communication system, protecting them against environmental influences. For this purpose, individual brackets were made that allow positive-locking stowage of the equipment.

Two 10' containers can be connected using Quick Ties to form the equivalent of a 20' container. The containers have a CSC approval and were successfully tested with respect to their centre of gravity.

Container system for the SeaOtter MkII AUV

The container system consists of two 20' upper deck containers and a 20' frame for the electrically extendable sliding carriage of the SeaOtter MkII Autonomous Underwater Vehicle (AUV). A Mission Information Centre is the control room for controlling and programming the vehicle. The second container is the transport and storage container for the AUV. Both containers are designed for deployment on a ship or on land. An appropriate air conditioning system allows for use in hot climates.

The built-in 30-kVA generator in the Mission Information Centre ensures autonomous operation of the system at the deployment site and during transport. When the system needs to be transported, the 20' frame is secured to the roof of one of the containers using Quick Ties. The CO^2 fire extinguishing system in the transport and storage container makes it possible to immediately initiate fire-fighting measures. Various storage areas for accessories are available in the containers. This technically challenging container solution was developed in co-operation with ATLAS Elektronik GmbH.

System integration

Our interdisciplinary project teams enable us to fully integrate your systems, components and equipment in our special containers. In close co-operation with you, we can develop a solution that exactly meets your requirements and provide you with a turnkey system.

All inclusive

Transformer test facility

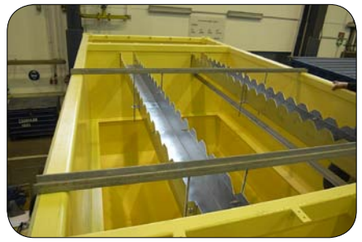
This 40' testing container with a folding impulse generator was built for testing substation transformers for short-circuit safety. High voltage is generated in the extended impulse generator, which is then selectively "fired" into a transformer. The data obtained by this process allows the water content in the oil of the transformer to be determined. The roof of the container, which we built from scratch specifically for this application, can be electrically opened, so that the 8.5 meter high, 8-tonne impulse generator can be hydraulically extended. This container also has a CSC approval.

Mobile water treatment

The production of drinking water and treatment of waste water are becoming increasingly important. We have also developed a mobile solution for this application:

The 20' containers were designed for very diverse requirements, such as desalination and disinfection of drinking water or waste water purification. Among other things, a small sewage treatment plant and a desalination plant were integrated. Sludge treatment is also possible.

The special brackets and the corresponding foundations ensure that the cargo is optimally secured. If required, the system can also be certified in accordance with directives on foodstuffs.



Test stand for wind turbines

The reliability of offshore wind turbines is determined through extensive testing under full load conditions before installation at sea. For this type of testing system, we designed oversized special containers, which consist of three individual containers. Before the testing equipment could be installed in close collaboration with our client, we first needed to install the air conditioning and basic electrical systems.

Furthermore, the containers were fitted with a double floor, cable lines and foundations for the technical equipment. The containers were also equipped with removable side walls to make future maintenance easier.

The integration of all electrical and electronic testing equipment was carried out in close co-operation with our customer in our factory.

Mobile filling station

A fully functional, autonomous filling station was integrated into these 20' High Cube Double Door Container. The container has four fuel tanks with a total capacity of 12,000 litres and an additional machine room. Two petrol pumps are installed here, each with a capacity of up to 200 litres per minute, allowing two vehicles to be refuelled at the same time. A generator is also installed, which allows autonomous operation. Alternatively, an external power supply can be connected.

Environmental protection equipment, a fire extinguishing system and a lighting system for night operation are of course also integrated.

This mobile solution was designed so that it can be transported either fully loaded or partially empty. The container has full CSC approval, enabling it to be deployed anywhere in the world as part of assistance interventions, on company premises or at large construction sites.

Living in a Box

Field camps and functional rooms

Another one of our areas of expertise is the development and manufacture of room systems that are either built from scratch or created from standard containers, which are converted to provide the necessary functionality. Our container solutions are the building blocks of autonomous military or industrial camps. We support our customers with expertise and unique ideas, including solutions such as protected accommodation containers in accordance with NATO STANAG, containers for water treatment and supply and control centres for oil production facilities. The projects we have carried out in this area include impressive trade fair containers, extensive laboratory containers and a mobile radio station.

Protected accommodation containers

Protected containers provide safety from small arms ammunition as well as rocket and mortar fragments in accordance with NATO STANAG 2280. Protection can be achieved by the use of different materials (for example armour steel, ceramics, composites and so on). Structure and strength of the armour depends on the level of protection that needs to be achieved.

Protection elements can either be permanently integrated in the container or modularly attached to the outer container walls.

As roof protection, the use of a half-height container filled with bulk material has proven to be effective and provides protection against high-angle fire.

Trade fair containers – Sound of the Squares

The art and communication project "Sound of the Squares" was developed for Mannheim's city anniversary a few years ago.

Two High Cube Containers, which had been positioned at an angle on top of each other, formed the core of the project. The lower container (exhibition room) was made from a Side Door Container. Toughened savety glass panes were integrated into the open side wall. This allowed sunlight to shine directly into the container, which increased the air conditioning requirements.

The upper container (control room) was additionally fitted with a video screen by our customer. The structure and the loads that occurred within it – particularly in the exhibition room – required considerable engineering expertise.

Sanitary containers

Our sanitary containers have a CSC approval and are therefore suitable for sea transport. These containers can be deployed as part of a mobile hospital system, for example, at any location in the world. In addition to the features typically found in this type of container, several fans, lighting and a sewage lifting unit are also installed. The supply connections are easily accessible from the outside. This enables the sanitary containers to be fully operational within minutes. If needed, two separately air-conditioned areas can be set up, such as a shower and a toilet area.

Power House – Electricity generators

We regularly build what we call 'Power Houses' to supply power for mobile systems or on ships. In the example shown here, two diesel engines that run independently of one another were installed, each of which drives a generator. Due to the limited space available, conventional sound insulation was not installed. In order to still be able to fulfil our customer's sound insulation requirements, a sound-absorbing compound was applied to the container walls.

The 'Power House' shown here can be opened on all four sides. This facilitates maintenance and repair of the generators. The integrated foundations are securely anchored and easily withstand the extreme loads during transport of this highly mobile system.

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