

# TEMPORARY



#### **EDITORIAL**

MODULAR Hallensysteme GmbH is a full-range supplier with its own with own planning, production as well as assembly and thus creates and together with our customers we create economical and individual construction projects. Modular attaches particular importance to quality and innovative and economical solutions. These are ensured by accompanying project management and planning up to realization as well as in-house production and development.

Over the last 20 years, MODULAR Hallensysteme GmbH has been constantly GmbH has developed steadily and employs more than 100 people employees at different locations. In 2023 the MODULAR Group was expanded by a sales office in Gronau NRW.



MODULAR BUILDING SOLUTIONS, FOR REALLY BIG IDEAS

## COMPANY

Cost-effectively spanning large areas - there are countless hall systems on the market that meet this requirement with all their advantages and disadvantages. Modular has set itself the goal of providing a specific hall solution with high costeffectiveness.

The aesthetics and lightness of the MODULAR hall systems make membrane constructions versatile and enable enormous spans in an economical and ecological manner. From industry and commerce to logistics and storage, recycling and bulk materials, agriculture, sports, and events - there are practically





Mag. Uwe Szekely CFO

Ing, Stefan Berger, MBA **Reinhold Kammerer, MBA** CFO Planning & Concept

Cooperations and partnerships are an essential part of the company group. Modular has been promoting and living not only with partner companies and suppliers, but also strategic partnerships in production, marketing, and development projects for decades.

In the area of product management and new application areas, there has been a long-standing partnership between Modular and the planning office of Stefan Berger in Upper Austria, with impressive reference projects at national and international levels. This cooperation was intensified in the summer of 2022 with various focuses, and already brings first results for 2023 with different series products and new applications in the Modular product range. All projects and products can be found on the website under their respective product areas and fields of application.

Our first joint results have already been placed on the international level and received tremendously positive feedback. I am very optimistic about our further common future, so Stefan Berger.

no limits to the fields of application. Modular Halls is a complete provider with its own planning, production, and assembly and thus creates economic and individual construction projects together with our customers.

The in-house production combines many years of experience with quality. Innovative materials and efficient support structures are a hallmark of MODULAR hall systems.

## **PRODUCT SERIES**

In addition to the main product series such as the B and G series, Modular has been able to realize a variety of national and international projects, especially in custom construction, over the past years. In custom construction, Modular aims to provide solutions not only in the fields of industry, recycling, commerce, agriculture, and leisure but also in other areas. In addition, in this category, series products for the entire market are developed in-house, in addition to project-specific requests.

## TEMPORARY LIVING

A modular project for the construction of a temporary building without extended foundation measures for use as a living unit.

The aim was to create an autonomous building with **TEMPORARY LIVING,** which functions as a building without major requirements and meets the respective humanitarian requirements.

Whether as a residential area, work zone, team unit, or refugee shelter - TEMPORARY LIVING enables maximum use with a well-thought-out overall concept.

## 2023

#### **TEMPORARY LIVING**

A temporary structure for accommodating 100-116 people, depending on the design.

#### **OUTDOOR SPACE**

A temporary structure for exhibitions, volleyball, and beach soccer.

Planning, production, and assembly are carried out by a European company based in Austria. All materials for the building envelope are sourced within the EU and produced according to EN 1090-1&2 in EXC 2 as well as EN ISO 3834-2.

The respective requirements should be easily and systematically achievable from a modular kit. Thus, a complete installation can be carried out in-house in combination with trained personnel.



#### CONCEPT/ USE





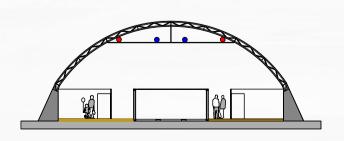
## "TEMPORARY"

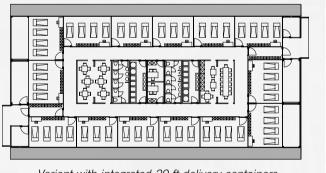
The concept for TEMPORARY LIVING is based on an arched hall, which is anchored on a bulkhead. The supply is provided through the central block of infrastructure made of 20 ft containers. All sleeping areas are spatially separated in different sizes within the overall structure.

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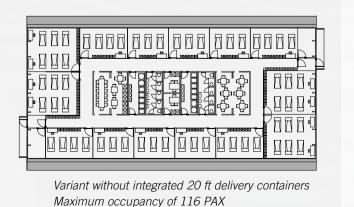
The dimensions of an object have been standardized to approximately 880 m2 on a flat surface. The net usable area inside is approximately 880 m2 and measures 40.5m x 21.5m. The individual object modules can be lined up and continuously added. The metal bulkheads are filled with sand, water or bulk material depending on the possibilities on site after installation.

In the core of the object, separate wet rooms are created for men and women, as well as common areas with cooking facilities and seating. In the interior block of the infrastructure, there is also a central administration area and a medical zone for examinations. Surrounding areas are divided into living units of 6-89 people, which are separated by lockable internal doors. The room dividers of the respective areas are made at a height of 3.0 m. This separation creates a delimited area and prevents unwanted entry. The living areas are furnished with bunk beds, one locker per user and a table area.





Variant with integrated 20 ft delivery containers Maximum occupancy of 100 PAX



SIMPLE FOUNDATION WITHOUT ADDITIONAL MEASURES

ACCOMMODATION FOR 100 OR 116 PER-SONS, DEPENDING ON THE VARIATION

ECONOMIC OVERALL CONCEPT

*TUNED ROOM DIVISION FOR 6-8 AND 12 PERSONS PER SLEEPING AREA* 

HIGH UTILITY COMFORT TAILORED TO INTERNATIONAL REQUIREMENTS

TEMPORARY OR PERMANENT USE

SELF-ASSEMBLY BY TRAINED PERSONNEL

ALL COMPONENTS AREREUSABLE

OPTIONAL EXECUTION WITH AND WITHOUT

INTEGRATION OF DELIVERY CONTAINERS.

SHORT ASSEMBLY TIMES

ALL COMPONENTS ARE MADE IN THEEU

#### **COMPONENTS & ASSEMBLY**

#### THE SUPPORT STRUCTURE

The roof shape is created by a galvanized steel truss construction with a membrane covering. The truss beams are continuously mounted in the same grid. The foundation of the truss beams is on the fill wall. This closed system allows for direct load transfer.

#### **MEMBRAN**

The building envelope in the roof area is made of a homogeneous continuous PVC membrane. Due to the requirement of a thermal envelope, another membrane layer is positioned on the inside of the structural framework. The controlled heating and cooling of this air pocket significantly reduces operating costs.



## **ASSEMBLY &** TIME

The assembly time for the basic package is approximately 14 assembly days. The delivery containers can be optionally integrated into the building and reused for dismantling without intermediate storage. These containers are clad with sandwich panels from the edge of the terrain to the roof skin on the end faces.

This, in combination with the air cushions of the roof skin, allows for controlled movement of the air masses for ventilation, heating, or cooling of the building. In the event of dismantling, these units can be fully reused, eliminating the need for further planning or manipulations.

#### **BUILDING SERVICES**

In the overall concept, the building can function as an autonomous structure. The infrastructure and wet areas are designed through the central container area. The indoor climate is controlled through heating or cooling units depending on the execution and application. Optionally, photovoltaics can be integrated into the requirements of the overall project on the longitudinal sides of the outer shell. The additional membrane on the inside of the steel frame provides indirect object lighting, making the project independent of the respective sleeping areas.

#### THE FOUNDATION

The foundation concept was designed with a variety of innovative approaches in response to the requirements of the building. Through the use of the metal bulkheads in combination with the steel framework, the building can be constructed on a variety of substrates without any additional foundation requirements. The walls can be filled with water, sand or other bulk materials depending on the requirements.





### CONSTRUCTION & FACTS

**1.** Definition of the level assembly area with approximately 21.5m x 40.5m.



Installation of the heavy-duty floor as well as the establishment of the supply and disposal lines of 4. the central container units.



2. Installation of the fill walls.



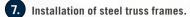
**3.** Filling of the walls with sand, water, or bulk material.





6. Installation of furniture and building services.









8. Installation of building services connections.



9. Exterior cladding and interior membrane.



- » Arc hall 21.5m x 40.5m

- **OPTIONAL:**
- ZIELGRUPPE:

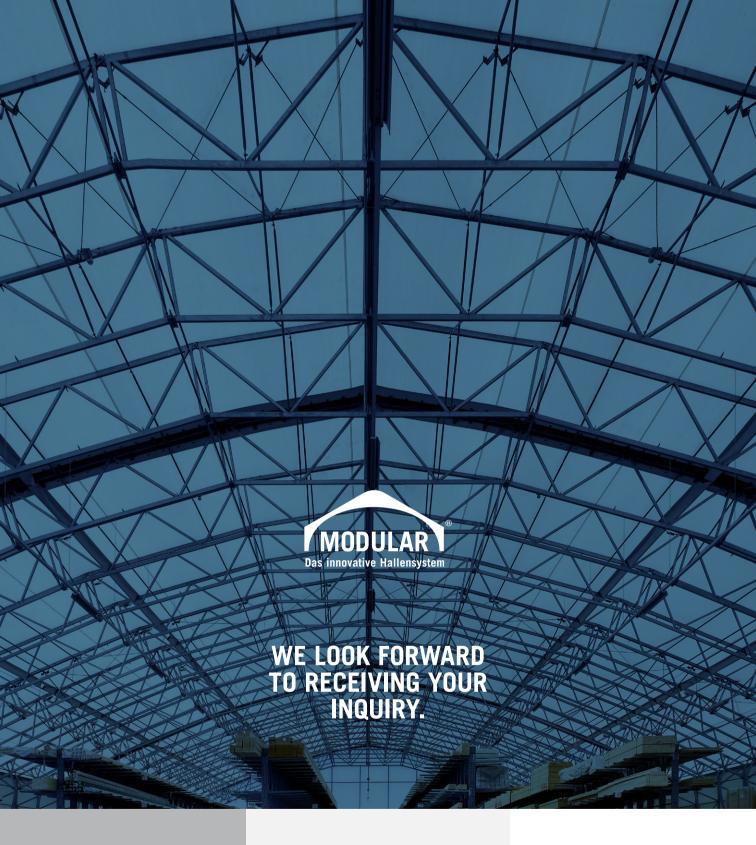
- » Military
- » Temporary places for accommodation of personnel

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# FACT BOX

#### **BASIC PACKAGE:**

» Anchorage on fill walls » Capacity depending on execution: 100-116 people » Foundation on existing surfaces » Heavy-duty floor in the interior » 2-layer roof construction » End walls with sandwich panels » Central building services » Covered entrance area » Optional integration of delivery containers » Room divider system with interior doors » Various levels of finish according to price list » Municipalities » Federal and state governments



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