MODULAR INTENSIVE CARE UNIT
MULTI-FUNCTIONAL HOSPITAL MODULE
THE WORK TEAM

THE COMPANIES

MANNI GROUP

ISOPLAN*

MANNI GREEN TECH®

MANNI SIPRE®

STYL.CASA

IDROTHERMICA

A Forlì-based company that, for 38 years, has been operating in the Healthcare construction sector, with consolidated experience in dry building systems.

Leading company in plant engineering, with over 40 years of experience in the hospital sector.

THE PROFESSIONALS

Arch. Andrea Ragazzini – General Project and coordination of specialised designs

Ing. Massimiliano Finotti
Mechanical System Project

STELG Ing. Cenni P.I. Berardi
Electrical and Special System Project
THE CONCEPT

This project contains a detailed study for multi-functional hospital modules, with focus on intensive care, specifically for the COVID-19 crisis.

The solution can be installed very quickly, without this detracting from the fact that it meets all regulatory requirements and is of high quality and durability.

In fact, the hospital modules are not an adaptation of typical worksite containers for temporary installations, but are the result of an actual process of design and industrialised prefabrication for hospital structures.
THE PROJECT’S FIGURES

43 SQM PER BED

125 UTILITY ROOMS SQM

2 ISOLATION BEDS

16 ICU BEDS

770 SURFACE AREA SQM

69 DAYS from ORDER CONFIRMATION to FULL OPERATION
THE ADVANTAGES OF THE MODULAR SYSTEM

- Quick Installation
- Seriality
- Flexibility Adaptability
- Modularity
- Reliability Durability
- Systems Apparatus
- Compliance with the Regulatory Framework
- Ergonomical Study Operational Efficiency
THE 5 POINTS OF THE SYSTEM

MODULARITY AND SERIALITY
1. The space allocation and functional plan is conceived based on a single, easily transportable structural module; the number of beds per functional unit may range from 8 to 20.

FLEXIBILITY AND SPEED
2. The base module and its annexes can adapt to multiple functional and healthcare-related requirements. The modules are pre-assembled at 90%, complete with primary and secondary system distribution.

RELIABILITY AND DURABILITY
3. The materials used guarantee durability and long-term efficiency, also beyond the response times related to the current emergency. A true process of industrialised prefabrication for hospital facilities.

SYSTEMS AND EQUIPMENT
4. The functional unit comes with all its components, with standard features for each bed, to be implemented with equipment such as (suspended) bed head units with resuscitation devices.

COMPLIANCE WITH THE REGULATORY FRAMEWORK
5. The functional unit is designed with the aim of complying with the national standards and guidelines and with the specific requirements for Healthcare Unit Accreditation, fire safety, and health and hygiene rules.
THE CONSTRUCTION TECHNOLOGY
The system has been conceived with a steel bearing structure that requires no foundations. This structure adapts perfectly to dry lining systems: insulating sandwich panels on the outside and walls with slab cladding on the inside. The whole guaranteeing quality, durability and quick installation.

It is known, in fact, that the materials that make up dry systems are light and thus easily transportable, minimise worksite waste, and are reusable and recyclable.

**STEEL**

- **100% RECYCLABLE**
- **EARTHQUAKE-PROOF**
- **PRECISE ESTIMATE OF TIME AND COSTS**
The metal insulating panels are a customisable solution that guarantees high performance in terms of thermal insulation, soundproofing, air tightness, and reaction to fire, to meet the most varied needs. They are light, versatile and easy to assemble.

SANDWICH PANELS

- EASY TO ASSEMBLE
- THERMAL AND ACOUSTIC PERFORMANCE
- REDUCED THICKNESS
SYSTEMS CONSIDERED

- ELECTRICAL SYSTEM; TELEPHONY; DATA; FIRE DETECTION; HOSPITAL CALL SYSTEM
- MEDICAL GAS SYSTEM
- PLUMBING AND SANITATION SYSTEM
- FIRE EXTINGUISHING SYSTEM
- AIR CONDITIONING AND AIR MANAGEMENT SYSTEM
The systems are designed to only require connection to the electricity mains, the sewer and the water pipelines.

Two central units, located at the two sides of each module, guarantee the best distribution of space, containing the bulk of the systems of the functional modules.

1. The central units guarantee the management of heating and cooling, the production of domestic hot water, and the air handling systems.

2. Each structural module is conceived to be independent in terms of systems and is conditioned with an electronically monitored air system, that can also manage the pressurisation and depressurisation of each bed cubicle, helping to contain contagion.

3. Each structural module is also equipped with a three-gas MEDICAL GAS system (oxygen, compressed air and vacuum); each bed is equipped with sockets and stand, if required.

4. All systems have been studied in accordance with the applicable rules on hospitals, from the electrical systems to fire extinguishing and plumbing/sanitation systems.