

O.M.A.R. TECHNOLOGY S.R.L.



Progettazione e Costruzione attrezzature speciali
Planning and construction special equipments



FIRST AID /OPERATOR EXPANDABLE CONTAINER

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TECHNICAL DESCRIPTION

Please allow us to present our First Aid Expandable container with extensible walls designed on the basis of the experience gained over 20 years in the construction of EXPANDABLE SURGICAL UNITS as: OPERATING THEATRE INTENSIVE CARE UNIT, PHARMACIES, ANALYSIS LABORATORIES etc and EXPANDABLE SERVICE UNIT as KITCHEN, WORKSHOP, COMMAND STATION etc , all of which have undergone, and successfully passed, tests at the appointed Military Technical Centres, including the Climatic Chamber test, and are used by the Health Departments of the Italian Armed Forces in the various military and humanitarian missions in several country.

1. FIRST AID CONTAINER



**EXTERNAL
VIEW**



**INTERNAL
VIEW**

2. DIMENSIONS

During Transport: Length 6050 mm. Width 2450 mm. Height 2450 mm.



During operation: :Length 6050 mm. Width 4000 mm. Height 2450 mm.

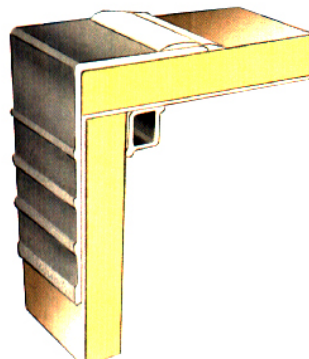


3. STRUCTUR

The base and perimeter structure is made from anticorodal extruded aluminium sections; tubular steel pieces are fitted at the lower and upper ends of the structure to allow the lower and upper corner blocks and the containment C of lifting jacks to be welded onto the structure.



- The walls and roof are made from steel/polyurethane/steel bearing type panels with a thickness of between 38 mm. and 45 mm. and feature:



- water hammering resistance
- shock proof characteristics
- resistance to fire and flame (class B1)
- vapour sealing
- protection against magnetic and electrical fields
- sound-proofing
- resistance to corrosion
- resistance to chemical and biological aggression
- heat dispersion coefficient of 0.42 K

4. FLOOR

The floor is made from special aluminium strips with a thickness of mm. 40, inserted and electro-welded to the base structure.



5. INTERNAL LININGS

All the containers used for hospital purposes are internally lined with PVC suitable for each single use. The walls and ceiling are made from anti-static material and the pavement from conductive material. All the joints of the PVC on the walls, ceiling and floor are electro-welded as required by current law provisions.



6. ENTRANCE DOOR

The access doors (2) are located in the centre of the end sides. They are built from anticorodal extruded aluminium pipes sealed with closed cell polyurethane and lined with aluminium sheets.



7. SEALS

All seals are silicone.

Sealing against heavy rain or dust is guaranteed by double seals fixed perimetally on the extensible walls and access doors.

8. INTERNAL GAS SYSTEM

Inside the container there are 3 medical gas connections (medical air – oxygen – nitous oxide) for the different equipment.

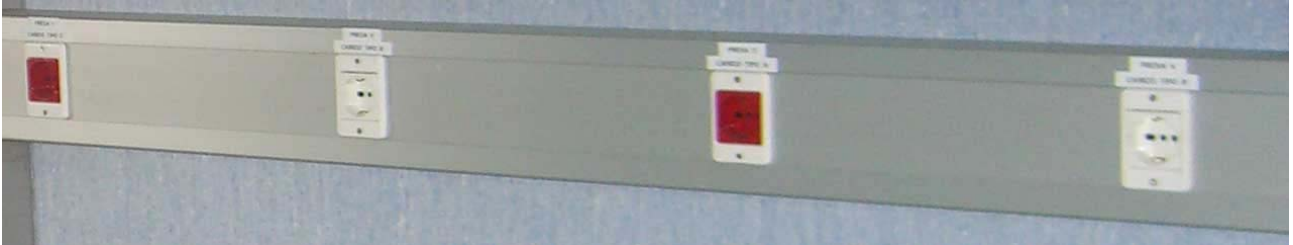


The system is composed by a general gas plan with pressure reductions and gas alarm complied with the medical regulations.

If the first air will be use for a long term and the internal tanks will be not sufficient for the daily operations, it will be possible connect to the same gas system other gas tanks using the external connections.

9. ELECTRICAL SYSTEM

The electrical circuit complies with EEC standards and current law provisions as regards the category and final use of the container. The electrical circuit is installed in special raceways fitted inside the containers.



10. HYDRAULIC SYSTEM

The wall closing, opening operations and extension of the hydraulic jacks are performed by a **single operator** using a push button panel.



The system comprises an electro-hydraulic control panel supplied by 24 Volt batteries in DC or alternatively at 220V 50 Hz.

The hydraulic system with stainless steel pipes has sequential valves, flow dividers and hydro-piloted valves.

The extensibility and closure of the walls operations are performed using the hydraulic jacks fitted onto the base structure. These jacks support the walls when the container is in use and make the use of special supports below the container unnecessary.

In the even of a fault in the system, the walls can be opened and closed using a manual hydraulic pump which is provided.

The container is lifted by 4 hydraulic jacks arranged in special housing at the end of the container, these make it possible for a single operator to load and unload the vehicles without needing external equipment such as cranes, bridge cranes, lift trucks etc..

The operator uses the push button panel to operate the single hydraulic jacks, to move them together, two at a time or individually, allowing for loading and unloading operations of the vehicles and levelling of the container in any morphology of terrain



11. AIR CONDITIONING SYSTEM

Unless expressly requested otherwise, the containers are conditioned using single-block air conditioners.

The conditioners are suitably resistant to heating systems.

It guarantee an comfortable internal temperature with an external one from -25 C° to +55 C°

12. MOVEMENT SYSTEM

The heavy structure of our containers allow to move them in different way and with every loading systems.

We tested our containers with: cranes, fork lift with spreader and inside the C 130

BY TRUCK



BY TRUCK WITH HOOK SYSTEM



BY C 130 AIRPLANE



BY CH 47 HELICOPTER



BY FORK LIFT WITH SPREEDER



13. MEDICAL EQUIPMENT

1	Internal Gas system	
2	Oxygen tank and medical air tank (internal)	
3	Operating table 5 sectors	
4	Operating lamp 140.000 lux led technology	
5	Stainless steel drawers with wash basin	
6	Vertical drawers	
7	Electrical scalpel	
8	Defibrillator with monitor	
9	Portable ventilator	
10	Medical vacuum system	
11	Infusion pump	
12	Injection pump	
13	Emergency surgical set	