





MOBILE HOSPITAL & VENTILATOR SYSTEM

Medical Oxygen and Air Generation On-site Anywhere, Anytime



ABOUT THE MASSVENTIL® SYSTEM

The MASSVENTIL® system allows intensive care of several patients at once, according to their specific needs in a crisis situation, such as a disaster, pandemic, or war. Due to its modular structure and CE marked subsystems, it can also be used to supplement existing hospital infrastructure in case of capacity or medical gas shortage.



COMPROMISE-FREE ICU PATIENT WARDS

Using mobile bed carts with medical gas connections (2x AIR, O2 and scavenging) and electrical connections (10x sockets, 2x RJ45 for Data Collector and EPH) all in one place. In order to protect the staff, all exhaled air is scavenged and filtered, while the ICU rooms have a 10x air change to reduce cross contamination.



MODULARITY

Multi-purpose use with CEmarked subsystems! Any of the key components can operate on their own or along with existing infrastructure.

MEDICAL OXYGEN AND AIR ON-SITE

Supply a hospital with medical grade air and oxygen (93%) directly produced from ambient air! The redundant in-built ventilation system allows safe, hospital grade gas supply, according to ISO 7396-1.

MEDICOR DATA COLLECTOR

The MASSVENTIL[®] system comes with integrated, advanced digital solutions:

- ✓ Central monitoring system, connect any medical device!
- ✓ Easier overview and automated documentation!
- ✓ Data structure in HL7 format for standard HIS



make transport and То storage of the mobile hospital more efficient, we are using revolutionary foldable shipping containers as the building blocks for the structure. This allows fast deployment anywhere, anytime.









SYSTEM SPECIFICATION

GENERAL	12 BEDS	24 BEDS
Required net floor area	ca. 40 x 30 m	ca. 40 x 50 m
Total floor area of hospital	ca. 300 m ²	ca. 600 m ²
Total mass (ward + gas supply + generators)	ca. 100 t	ca. 150 t
Set up time	2-3 days (with qualified staff)	
Number of trucks needed for transport	10 (3 gas, 7 ward)	15 (3 gas, 12 ward)

PATIENT WARD	12 BEDS	24 BEDS	
Containers	28 pcs	49 pcs	
Dimensions	6 x 2.4 x 2.8 m/container		
Mass	1.85 t/container		
Materials	steel, PIR foam, aluminium coating, PVC floor		
Waterproofing	yes		
Flame retardancy / fire resistance	Class B / El 30		
Snow load	max. 100 kg/m ²		
Wind load	max. 200 km/h (55 m/s)		
Electrical power consumption	max. 380 kVA		
Illumination	500 lux in ICU, at least 200 lux elsewhere		
Air change	10x in ICU wards and air locks, 4-6x in other rooms		
Operating temperature range	-25 - +50 °C		
Water supply	10,000 l clean water tank & 10,000 l wastewater tank		

GAS SUPPLY UNIT SPECIFICATION

Medical compressed air output	Pressure	7 bar	
	Volumetric flow	59 m³/h (983 l/min)	
	Purity	Class 2.2.1 according to ISO 8573-1	
	Dew point	-55°C (at atmospheric pressure)	
	Buffer tank volume	1 m ³	
Medical oxygen output	Pressure	4.5 bar	
	Volumetric flow	43 m³/h (717 l/min)	
	Purity	Up to 95% (min. 90%)	
	Dew point	-60°C (at atmospheric pressure)	
	Buffer tank volume	1 m ³	
Required voltage and current consumption		3 x 400 V / 200 A (160 kW)	
Operating temperature range		-5 – +43 °C (extra cooling / heating on request)	
Dimensions (L x W x H)		12 x 2.5 x 5 m	
Mass		18 t	



MEDICOR ELEKTRONIKA ZRT.

