

# Hypoxia Generator Device Used To Simulate High-altitude Hypoxic Environments By Reducing Oxygen Content

## **Basic Information**

Place of Origin: CHINA
Brand Name: GASPU
Certification: ccs ce
Model Number: MNG -100



# **Product Specification**

Capacity: 5-3000Nm3/h
Working Pressure: 0.6-0.8 MPa
Automatic Operation: Yes
Warranty: One Year
Control System: PLC

Product Model: MSNG-1000
Production Rate: Customized
Membrane Module: Spiral Wound
Remote Control: Available
Compact Design: Yes
Membrane Material: Polyimide
Installation: Skid-mounted

• Shell: CS

• Type: Membrane Separation Nitrogen Generator

Operation Mode: Fully Automatic



## **Product Description**

A Hypoxia Generator is a device used to simulate high-altitude hypoxic environments. By reducing the oxygen content in the air, it puts the human body in a low oxygen state, thereby achieving the effects of exercising, improving cardiovascular function, and promoting health. It is widely used in fields such as sports training, medical rehabilitation, and scientific research.

### 1, Working principle:

The lean oxygen generator achieves the effect of simulating high-altitude hypoxic environments by controlling the oxygen content in the air. It uses molecular sieve membrane or pressure swing adsorption method to reduce the oxygen content in the air to below 10%, and even to below 5%. When the human body is in such a low oxygen state, the body will regulate and adapt on its own, promoting the enhancement of cardiovascular function and overall health.

#### 2. Workflow:

The working process of the lean oxygen generator mainly includes the following steps:

Air enters the pretreatment system: The air undergoes pretreatment steps such as coarse filtration, activated carbon adsorption, cooling and drying to remove impurities and moisture from the air.

Air enters the lean oxygen generation system: After pre-treatment, the air enters the lean oxygen generator and is reduced to below 10%, or even below 5%, by molecular sieve membrane or pressure swing adsorption method.

Human respiration of oxygen deficient air: Users perform breathing training inside the device to keep their bodies in a low oxygen state, promoting the enhancement of cardiovascular function and physical health.

Restore normoxic environment: After the training is completed, the user leaves the equipment and restores the normoxic environment, and the body will adjust and adapt on its own.

#### 3. Application areas:

Low oxygen generators are widely used in the following fields:

Sports training: used to exercise athletes' cardiovascular function and endurance, and improve their performance during competitions.

Medical rehabilitation: used to alleviate symptoms of chronic obstructive pulmonary disease, bronchial asthma, emphysema and other diseases, and can promote physical recovery.

Scientific research: used to simulate high-altitude hypoxic environments, study the physiological and psychological reactions of the human body in hypoxic environments, as well as the impact of hypoxia on health.

#### summary

A lean oxygen generator is a device that can simulate high-altitude hypoxic environments, promoting physical exercise, improving cardiovascular function, and facilitating rehabilitation. It has broad application prospects and can play an important role in fields such as sports training, medical rehabilitation, and scientific research.







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