

JIS

JAPANESE INDUSTRIAL STANDARD

Hyperbaric oxygen chambers

JIS T 7321-1989

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Translated

by

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Hyperbaric Oxygen Chambers

T 7321-1989

1. Scope

This Japanese Industrial Standard specifies the hyperbaric oxygen chambers (hereafter referred to as the "chamber") to be used for medical treatment of anoxia etc.

Remarks: The units and numerical values shown in { } in this standard are in accordance with the traditional system of units and are the standard values.

2. Definitions

For the purpose of this standard, the following definitions apply.

- (1) hyperbaric oxygen treatment The treatment intending to improve the morbid state by receiving the patient in an environment of atmospheric pressure higher than the atmosphere to apply oxygen of high concentration to the patient.
- (2) air space Inner volume of chamber.
- (3) maximum working pressure Maximum pressure of chamber able to be used as Class 2 pressure vessel according to the specifications of pressure vessels defined by the state (1).
- (4) maximum treating pressure Maximum pressure in the case where the chamber is used for medical treatment.

Applicable Standard:

JIS B 7505-Bourdon Tube Pressure Gauges

Reference Standards:

JIS B 8243-Construction of Pressure Vessels

JIS Z 8203-SI Units and the Use of Their Multiples and of Certain Other Units

Reference Laws: Law of industrial safety and health

Enforcement order for the law of industrial safety and health

Ordinance of the ministry of labor rules of safety of boilers and pressure vessels

Law of fire service

Enforcement regulation for law of fire service

Note ⁽¹⁾ In accordance with the safety rule etc. relating to Class 2 pressure vessels of the Law of industrial safety and health.

3. Classification

The classification shall be as follows according to the definite number of patients to be received.

- (1) Class 1 chamber The chamber to receive one patient
- (2) Class 2 chamber The chamber to receive simultaneously 2 patients or more or members of the medical staff engaging in medical treatment together with the patient.

4. Maximum working pressure

The maximum working pressure of the chamber shall not exceed the gauge pressure 0.54 MPa {5.5 kgf/cm²}.

5. Dimensions

5.1 Air space of Class 1 chamber The air space of Class 1 chamber shall be 2 m³ or under.

5.2 Air space of Class 2 chamber The air space of Class 2 chamber shall be 4 m³ or more per person to be received inside.

6. Structure and performance

6.1 Structure of main body The structure of the main body shall be as follows.

- (1) The form of the main body of the chamber's pressurizing part shall be, in general, cylindrical or elliptic cylindrical.
- (2) Class 1 chamber shall be, in general, of single room structure.
- (3) Class 2 chamber shall be, at least, of two room structure, consisting of main room and vice room. It shall be so structured that the main room may be pressurized singly at least, further the main and vice rooms may be pressurized simultaneously and the vice room may be pressurized and reduced in the pressurized state of main room.

6.2 Structure of door The door of the chamber shall be able to be shut completely and be opened by simple operation.

Further, in the case where the pressure inside the chamber is higher than the atmospheric pressure, the safety device not permitting opening shall be installed.

6.3 Windows for observation The windows for observation of the chamber shall be as follows.

- (1) Class 1 chamber shall be mounted with 2 or more windows for observation of the inside with a diameter of the visible part 100 mm or over or 1 or more parts for observation of the inside able to obtain the visual field equivalent to these.