tidal volume of 700 cc. with a constant
time interval between respirations.

(2) At cabin pressure altitudes above
18,500 feet up to and including 40,000
feet, a mean tracheal oxygen partial
pressure of 83.8 mm. Hg, when breath-
ing 30 liters per minute, BTPS, and
with a tidal volume of 1,100 cc. with a
constant time interval between res-
pirations.

(d) If first-aid oxygen equipment is
installed, the minimum mass flow of
oxygen to each user may not be less
than four liters per minute, STPD. How-
ever, there may be a means to de-
crease this flow to not less than two li-
ters per minute, STPD, at any cabin al-
titude. The quantity of oxygen re-
quired is based upon an average flow
rate of three liters per minute per per-
son for whom first-aid oxygen is re-
quired.

(e) If portable oxygen equipment is
installed for use by crewmembers, the
minimum mass flow of supplemental
oxygen is the same as specified in para-
graph (a) or (b) of this section, which-
ever is applicable.

§ 25.1445 Equipment standards for the
oxygen distributing system.

(a) When oxygen is supplied to both
crew and passengers, the distribution
system must be designed for either—
(1) A source of supply for the flight
crew on duty and a separate source for
the passengers and other crewmembers;
or
(2) A common source of supply with
means to separately reserve the min-
imum supply required by the flight
crew on duty.

(b) Portable walk-around oxygen
units of the continuous flow, diluter-
demand, and straight demand kinds
may be used to meet the crew or pas-
senger breathing requirements.

§ 25.1447 Equipment standards for ox-
ycen dispensing units.

If oxygen dispensing units are in-
stalled, the following apply:
(a) There must be an individual dis-
pensing unit for each occupant for
whom supplemental oxygen is to be
supplied. Units must be designed to
cover the nose and mouth and must be
equipped with a suitable means to re-
tain the unit in position on the face.

Flight crew masks for supplemental
oxygen must have provisions for the
use of communication equipment.

(b) If certification for operation up to
and including 25,000 feet is requested,
an oxygen supply terminal and unit of
oxygen dispensing equipment for the
immediate use of oxygen by each crew-
member must be within easy reach of
that crewmember. For any other occu-
pants, the supply terminals and dis-
ensing equipment must be located to
allow the use of oxygen as required by
the operating rules in this chapter.

(c) If certification for operation
above 25,000 feet is requested, there
must be oxygen dispensing equipment
meeting the following requirements:
(1) There must be an oxygen dis-
pensing unit connected to oxygen sup-
ply terminals immediately available to
each occupant, wherever seated, and at
least two oxygen dispensing units con-
ected to oxygen terminals in each lav-
atory. The total number of dispensing
units and outlets in the cabin must ex-
ceed the number of seats by at least 10
percent. The extra units must be as
uniformly distributed throughout the
cabin as practicable. If certification for
operation above 30,000 feet is requested,
the dispensing units providing the re-
quired oxygen flow must be automati-
cally presented to the occupants before
the cabin pressure altitude exceeds
15,000 feet. The crew must be provided
with a manual means of making the
dispensing units immediately available
in the event of failure of the automatic
system.

(2) Each flight crewmember on flight
deck duty must be provided with a
quick-donning type oxygen dispensing
unit connected to an oxygen supply
terminal. This dispensing unit must be
immediately available to the flight
crewmember when seated at his sta-
tion, and installed so that it:
(i) Can be placed on the face from its
ready position, properly secured,
sealed, and supplying oxygen upon de-
mand, with one hand, within five sec-
onds and without disturbing eyeglasses
or causing delay in proceeding with
emergency duties; and
(ii) Allows, while in place, the per-
formance of normal communication
functions.