



Technical Standard Order

**Subject: TSO-C103, CONTINUOUS FLOW OXYGEN MASK ASSEMBLY
(FOR NON-TRANSPORT CATEGORY AIRCRAFT)**

a. Applicability.

(1) Minimum Performance Standard. This Technical Standard Order (TSO) prescribes the minimum performance standard that continuous flow aviation oxygen masks must meet in order to be identified with the applicable TSO marking. This TSO has been prepared in accordance with the procedural rules set forth in Subpart O of the Federal Aviation Regulations Part 21. Continuous flow aviation oxygen masks that are to be so identified and that are manufactured on or after the date of this TSO must meet the standard set forth in Society of Automotive Engineers, Inc. (SAE), Aerospace Standard (AS) 1224A, "Continuous Flow Aviation Oxygen Masks," dated September 15, 1971, revised January 15, 1978, as amended and supplemented by this TSO.

(2) Exception. Masks defined as open-port or restrictive-dilution masks without rebreathing or reservoir bag, as defined by Aerospace Standard AS 1224A, paragraph 1.4 (d) are not eligible for approval under this TSO.

(3) Environmental Standard. AS 1224A references NAS 1179 for vibration testing and performance tests.

(4) Addition. If the equipment design implementation includes a digital computer, an acceptable means of compliance for validation and verification of the computer software package is contained in Radio Technical Commission for Aeronautics (RTCA) DO-178, "Software Considerations in Airborne Systems and Equipment Certification" November 18, 1981.

b. Marking. In addition to the marking specified in Federal Aviation Regulation (FAR) § 21.607(d), the altitude limitation shall be legibly and permanently marked on the equipment:

c. Data Requirements. In addition to FAR § 21.605, the manufacturer must furnish the Manager, Aircraft Certification Office (ACO), Federal Aviation Administration (FAA), having purview of the manufacturer's facilities, one copy each of the following technical data:

DISTRIBUTION: ZVS-326; A-W(W S)-3; A-X(FS)-3; A-FFS-1, 2, 7, 8(LTD); A-X-(CD)-4;
A-FAC-0(MAX); AVN-1(2 cys)

- (1) Operating instructions.
- (2) Equipment limitations.
- (3) Inspection and test procedures applicable to this product.
- (4) Installation procedures and limitations. These limitations shall include the regulators which are capable of providing an oxygen partial pressure.
- (5) Manufacturer's cleaning and sterilizing procedures.
- (6) Specifications.
- (7) Manufacturer's TSO qualification test report.
- (8) The functional test specification to be used to test each production article to ensure compliance with this TSO.

d. Data to be furnished with manufactured units. One copy of the data and information specified in paragraphs c.(1), c.(2), c.(4) and c.(5) of this TSO must go to each person receiving for use one or more articles manufactured under this TSO.

e. Availability of Reference Documents.

(1) Copies of SAE AS 1224A may be purchased from the Society of Automotive Engineers, Inc., Department 331, 400 Commonwealth Drive, Warrendale, Pennsylvania 15096.

(2) Copies of NAS 1179 may be obtained from the National Standards Association, 5161 River Road, Bethesda, MD 20816.

(3) Copies of RTCA Document No. DO-178 may be purchased from the Radio Technical Commission for Aeronautics Secretariat, One McPherson Square, 1425 K Street, N.W., Suite 500, Washington, D.C. 20005.

(4) Federal Aviation Regulations 21, Subpart O, and Advisory Circular 20-110, "Index of Aviation Technical Standard Orders," may be reviewed at the FAA Headquarters in the Airworthiness, Aircraft Engineering Division (AWS-110), and at all regional ACO's.

/S/ M. C. BEARD
Director of Airworthiness