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Superseding ARP1176	

Oxygen System and Component Cleaning

RATIONALE

This document has been revised to reflect current industry recommended practices regarding component and oxygen system cleaning and to establish a cleanliness coding scheme and marking requirement stating the cleanliness level of oxygen cleaned parts or components contained within the sealed package. The SAE A-10 committee has removed the packaging practices from ARP1176 and created AIR5742, which provides information regarding recommended practices for packaging and transit of aircraft oxygen equipment.

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## 1. SCOPE

This SAE Aerospace Recommended Practice (ARP) provides recommended practices for cleaning aircraft oxygen equipment such as tubing, pieces, parts (including regulator and valve parts), cylinders and ground-based equipment that may be used to support aircraft oxygen systems. This revision introduces a cleanliness coding scheme that can be referenced as a requirement, and/or referenced to identify compliance to meeting such a requirement. These methods may apply to gaseous and liquid oxygen equipment. This document specifies work area details, methods to select suitable cleaning agents, cleaning methods, test methods to verify cleanliness level, and methods of packaging the components and parts after cleaning. Technicians designated to clean oxygen equipment must be qualified and trained to clean oxygen equipment. This ARP is applicable to metallic and non-metallic parts.

### 1.1 Purpose

The purpose of this document is to provide recommended methods to clean aircraft oxygen equipment and ground-based equipment to support aircraft oxygen systems. This document outlines minimum accepted practices to clean oxygen parts. It is intended that oxygen equipment cleaning operations perform to a minimum level that will be suitable to preclude toxic and fire hazards for the application and conditions the equipment will be exposed to.

## 2. REFERENCES

### 2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

#### 2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), [www.sae.org](http://www.sae.org).

ARP598 Aerospace Microscopic Sizing and Counting of Particulate Contamination for Fluid Power Systems

AIR5742 Packaging and Transportation of Oxygen Equipment

#### 2.1.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, [www.astm.org](http://www.astm.org).

ASTM G93 Standard Practice for Cleaning Methods for Materials and Equipment Used in Oxygen-Enriched Environments

ASTM G120 Standard Practice for Determination of Soluble Residual Contamination in Materials and Components by Soxhlet Extraction

ASTM G121 Practice for Preparation of Contaminated Test Coupons for the Evaluation of Cleaning Agents for Use in Oxygen-Enriched Systems and Components

ASTM G122 Standard Test Method for Evaluating the Cleaning Effectiveness of Cleaning Agents

ASTM G127 Standard Guide for the Selection of Cleaning Agents for Oxygen Systems

ASTM G128 Standard Guide for the Control of Hazards and Risks in Oxygen Systems