



AEROSPACE STANDARD	AS598™	REV. A
	Issued 2012-01 Revised 2018-07 Reaffirmed 2024-01 Superseding AS598	
(R) Aerospace Microscopic Sizing and Counting of Particulate Contamination for Fluid Power Systems		

RATIONALE

This document has been revised to include additional calculation examples along with new and revised figures to clarify the instructions. Some editorial improvements have also been included.

AS598A has been reaffirmed to comply with the SAE Five-Year Review policy.

TABLE OF CONTENTS

1.	SCOPE.....	3
2.	REFERENCES.....	3
2.1	APPLICABLE DOCUMENTS.....	3
2.2	Definitions.....	3
3.	PRINCIPLE OF METHOD.....	4
4.	MATERIALS.....	4
5.	APPARATUS.....	4
5.1	Filtration Apparatus.....	4
5.2	Particle Count Apparatus.....	5
6.	REAGENTS.....	6
6.1	Aqueous.....	6
6.2	Alcohols.....	6
6.3	Rinse Solvent.....	6
6.4	Cleanliness.....	6
7.	PREPARATION OF APPARATUS.....	6
7.1	General.....	6
7.2	Sample Bottle Preparation.....	6
8.	LIQUID SAMPLES.....	6
8.1	Sample Volume.....	6
8.2	Samples Representatively.....	7

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9.	FILTRATION PROCEDURE	7
9.1	Blank Analysis Filtration	7
9.2	Sample Filtration Procedure	7
10.	MICROSCOPE CALIBRATION	8
11.	PARTICLE COUNTING PROCEDURE	9
11.1	General.....	9
11.2	Procedure for Sizing and Counting Particles 5 µm and Greater.....	10
12.	PARTICLE COUNT CALCULATION AND RESULTS REPORTING.....	11
13.	COUNTING PROFICIENCY	11
13.1	Check Samples	11
13.2	Competence	11
14.	DISPUTE CLAUSE	12
15.	NOTES	12
15.1	Revision Indicator.....	12
	APPENDIX A - CALIBRATION OF MICROSCOPE OCULAR SCALE.....	13
	APPENDIX B - AS598 FLUID CLEANLINESS DATA SHEET	15
	FIGURE 1 - DIAGRAM OF MEMBRANE FILTRATION SETUP	4
	FIGURE 2 - VIEW OF GRID SQUARE, UNIT AREAS AND MICROSCOPE FIELD	8
	FIGURE 3 - MAGNIFICATION SELECTION AND PARTICLE SIZING.....	10

1. SCOPE

This SAE Aerospace Standard (AS) defines the materials, apparatus and procedure for microscopic sizing and counting of particulate contamination of fluid power systems by membrane filtration using microscopic counting.

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 +1 724-776-4970 (outside USA), www.sae.org.

ARP4285 Aerospace - Evaluation of Particulate Contamination in Hydraulic Fluid - Membrane Procedure

AS1241 Fire Resistant Phosphate Ester Hydraulic Fluid for Aircraft

AS4059 Aerospace Fluid Power - Contamination Classification for Hydraulic Fluids

2.1.2 US Government Publications

Available from the Document Automation and Production Service (DAPS), Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Tel: 215-697-9495, <https://assist.daps.dla.mil/quicksearch/>.

MIL-PRF-83282 Hydraulic Fluid, Fire Resistant, Synthetic Hydrocarbon Base, Aircraft, Metric, NATO Code Number H-537

MIL-PRF-87257 Hydraulic Fluid, Fire Resistant; Low Temperature, Synthetic Hydrocarbon Base, Aircraft and Missile

MIL-PRF-5606 Hydraulic Fluid, Petroleum Base, Aircraft, Missile and Ordnance (Inactive for new design)

2.2 Definitions

CRITICAL CLEANLINESS APPLICATION: An application in which the background contamination encountered during the cleanliness evaluation process would significantly affect the measured cleanliness level.

CALIBRATION FACTOR: A multiplier used to determine the statistical quantity of all particulate contaminant on an analysis membrane and is defined as the effective filter area of the analysis membrane divided by the area used in the evaluation of particle counts.