



AEROSPACE INFORMATION REPORT	AIR1244™	REV. B
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Superseding AIR1244A		
(R) Aerospace, Slipper Seals, Selection for Fluid Power Applications		

RATIONALE

This document has been completely revised to reflect the current design practices.

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1. SCOPE

This SAE Aerospace Information Report (AIR) provides basic information on the use of slipper seal sealing devices when used as piston (OD) and rod (ID) seals in aerospace fluid power components such as actuators, valves, and swivel joints, including:

- The definition of a slipper seal and the description of the basic types in use.
- Guidelines for selecting the type of slipper seal for a given design requirement are provided in terms of friction, leakage, service life, installation characteristics, and interchangeability.

2. 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 the other publications shall be the issue in effect on the date of the purchase order. In the event of a 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 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.

AMS3678	Polytetrafluoroethylene (PTFE) Moldings and Extrusions, Unfilled, Pigmented, and Filled Components
AIR1243	Anti-Blow-By Design Practice for Cap Seals
ARP4386	Terminology and Definitions for Aerospace Fluid Power, Actuation and Control Technologies
ARP4727	Gland Design, Computation of Seal Squeeze and Gland Volume
ARP4752	Aerospace - Design and Installation of Commercial Transport Aircraft Hydraulic Systems
ARP4925	Aerospace Design and Installation of Commercial Transport Helicopter Hydraulic Systems
ARP5555	Recommendations for Installation of Seals in Standard Glands
ARP6175	Recommended Practice Regarding Commercial Aircraft Hydraulic System External Leakage
AS568	Aerospace Size Standard for O-Rings
AS4716	Gland Design, O-Ring and Other Seals
AS5440	Hydraulic Systems, Military Aircraft, Design and Installation, Requirements for
AS5781	Retainers (Backup Rings), Hydraulic and Pneumatic, Polytetrafluoroethylene Resin, Single Turn, Scarf-Cut, for Use in AS4716 Glands
AS5782	Retainers (Backup Rings), Hydraulic and Pneumatic, Polytetrafluoroethylene Resin, Solid, Un-Cut, for Use in AS4716 Glands
AS5755	Gland Design, O-Ring and Other Elastomeric Seals, Static Applications

2.2 U.S. Government Publications

Copies of these documents are available online at <https://quicksearch.dla.mil>.

MIL-G-5514	Gland Design; Packings, Hydraulic, General Requirements for (inactive for new design)
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