



AEROSPACE STANDARD

AS18280™/1**REV. C**

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Stabilized	2017-10

Superseding AS18280/1B

Sleeve, Bite Type, 24° Cone Flareless Fitting, 3000 psi

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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1. SCOPE

1.1 Scope

This SAE Aerospace Standard (AS) establishes the requirements for bite type sleeves for use with 24° cone flareless fluid connection fittings per AS18280.

1.2 Classification

Sleeves shall be furnished in the types and styles designated by the applicable AS, MS and other engineering standard drawings. It is intended to serve as a procurement specification for the fittings described herein and in Section 6.

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.

AS5148	Assembly, Installation and Torque for Flareless and Straight Thread Fluid Fittings and Tube Assemblies
AS18280	Fittings, 24° Cone Flareless, Fluid Connection, 3000 psi
AS2094	Test Methods for Tube-Fitting Assemblies
AS21922	Sleeve, Coupling, Flareless
AS5235	Fitting, Sleeve, Coupling, Flareless

AMS2700	Passivation of Corrosion Resistant Steels
AMS5643	Steel, Corrosion-Resistant, Bars, Wire, Forgings, Tubing, and Rings, 16Cr - 4.0Ni - 0.30Cb - 4.0Cu, Solution Heat Treated, Precipitation Hardenable
AMS5648	Steel, Corrosion and Heat-Resistant, Bars, Wire, Forgings, Tubing, and Rings, 17Cr - 12Ni - 2.5Mo, Solution Heat Treated
AMS-QQ-P-416	Plating, Cadmium (Electrodeposited)

2.1.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor, P.O. Box C700, West Conshohocken, PA 19428- 2959, Tel: 610-832-9585, www.astm.org.

ASTM A 108 Steel Bars, Carbon, Cold-finished, Standard Quality

ASTM A 576 Steel Bars, Carbon, Hot-wrought, Special Quality

2.1.3 ASQ Publications

Available from American Society for Quality, 600 North Plankinton Avenue, Milwaukee, WI 53203, Tel: 800-248-1946 (United States or Canada) or +1-414-272-8575 (International), www.asq.org.

ASQ Z1.4 Sampling Procedures and Tables for Inspection by Attributes

3. TECHNICAL REQUIREMENTS

3.1 Material

Fittings shall be fabricated of materials listed in Table 1 and in compliance with requirements in this specification or as specified on the applicable part standard drawing.

3.1.1 Heat Treatment

Bite type sleeves shall be heat treated shown in Table 1 to metallurgical properties capable of meeting the performance requirements of 3.5. The acceptability of the heat treatment shall be by functional test only in accordance with 3.6. See 6.3 for historical detail metallurgical requirements.

TABLE 1 - MATERIALS

Material	Form	Specification	Alloy & Temper	Material Code
Carbon Steel	Bars, rods	ASTM A 108	1213, 12L14, or 1215	None
		ASTM A 576	1213 Case-Hardened	None
Corrosion Resistant Steel	Bars, rods	AMS 5643	17-4PH Thru-Hardened	C
		AMS 5648	316 Surface-Nitride	K (1)

(1) Qualification test requirements for this option date back to MIL-F-18280C, they have been deleted from MIL-F-18280 in later revisions.

3.2 Design and Fabrication

The design and fabrication of the fittings shall be in accordance with the applicable drawings. The bite type sleeves when assembled to tubing are intended to mate with the 24° cone flareless fitting end of AS18280.