



AEROSPACE STANDARD

AS4510™/2**REV. A**

Issued 1996-05
Reaffirmed 2013-01
Revised 2019-03

Superseding AS4510/2

(R) Fittings, Weld to Beam, Seal, Fluid Connection

RATIONALE

Qualification specifics for weld-to-beam seal reduced-wall/reduced-pressure fittings are not included in AS85421, AS85720, AS4510, or AS4510/2. This revision will clarify qualification requirements those fitting versions.

1. SCOPE

1.1 Scope

This SAE Aerospace Standard (AS) establishes the requirements for fluid fittings that combine both weld fitting end and beam seal fitting end connections for use in all types of fluid systems.

1.2 Classification

Fittings shall be furnished in the types and styles designated by the applicable AS and other engineering standard drawings.

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.

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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.

ARP1185	Flexure Testing of Hydraulic Tubing Joints and Fittings
AS603	Impulse Testing of Hydraulic Hose, Tubing, and Fitting Assemblies
AS4510	Fittings, Weld, Fluid Connection, 5000 psi
AS85421	Fittings, Tube, Fluid Systems, Separable, Beam Seal, 3000/4000 psi, General Specification for
AS85720	Fittings, Tube, Fluid Systems, Separable, High Pressure Beam Seal, 5000/8000 psi, General Specification for

3. TECHNICAL REQUIREMENTS

3.1 Material

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

Table 1 - Materials

Material	Type of Part	Form	Specification	Alloy & Temper	Material Code
Corrosion resistant steel	Straight and shape fittings	Bars	AMS5643	Type 17-4ph	P
			AMS5659	Type 15-5ph	V
Titanium alloy	Shape fittings	Forgings	AMS5643	Type 17-4ph	P
			AMS5659	Type 15-5ph	V
	Straight and shape fittings	Bars	AMS4965	6Al-4V	T
			AMS4965	6Al-4V	T

3.2 Design and Fabrication

The design and fabrication of the fittings shall be in accordance with the applicable drawings. The weld ends shall meet the requirements of AS4510. The beam seal fitting ends shall meet the requirements of AS85421 or AS85720.

3.3 Finish

Refer to AS4510.

3.4 Identification of Product

Refer to AS4510.

3.5 Performance

The weld fitting ends and center body section of the fittings shall meet the performance requirements of AS4510. The beam seal fitting ends shall meet the performance requirements of AS85421 or AS85720.