

Australian Standard[®]

**Tube fittings with dryseal American
standard taper pipe and unified
threads for automotive and
industrial use (imperial units)**

The following scientific, industrial and governmental organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Department of Defence (Defence Standardisation Committee)

Department of Shipping and Transport

National Association of Australian State Road Authorities

Federal Chamber of Automotive Industries

Federation of Automotive Products Manufacturers

Society of Automotive Engineers—Australasia

Institute of Road Transport Engineers

Australian Automobile Association

Tube Fitting Manufacturers

This standard, prepared by Committee AU/6, Fuel Line Fittings, was approved on behalf of the Council of the Standards Association of Australia on 29 May 1972.

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STANDARDS AUSTRALIA

RECONFIRMATION

OF

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automotive and industrial use (imperial units)**

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Major stakeholders of this publication have reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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NOTES

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PREFACE

This standard was prepared by the Association's Committee on Fuel Line Fittings.

Preparation of the standard arose from a request submitted by the National Association of Australian State Road Authorities. Shortly before the committee commenced work, the Society of Automotive Engineers—Australasia, having noted the diversity of tube fittings and flares in use within the automotive industry, decided that a standard was required, and constituted its own committee to draft recommendations. These recommendations became available to the SAA committee, and were adopted as the basis for this standard.

The standard is similar to SAE J512e, Automotive Tube Fittings, but excludes the thread sleeve compression type fitting, and the convex and 37-degree flares. The threaded sleeve compression type fitting and the convex flare have limited use within the automotive industry in Australia, and the 37-degree flare applies to high-pressure hydraulic installations. Other changes from J512e have been made to suit local requirements.

The drawings and tables are presented in the standard in readily usable form.

This standard makes reference to the following standards:

AS B131	Centre-line-average Height Method (M-System) for the Assessment of Surface Texture
AS B133	Unified Screw Threads
AS G17	Bright Carbon Steel and Carbon-manganese Steel Bars
AS H3	Naval Brass Rods, Sections, Forging Stock and Forgings
AS H4	Naval Brass (Special Mixture) Rods and Sections (other than Forging Stock)
AS H8	Leaded Brass (58 per cent Copper, 3 percent Lead) Rods and Sections (Other than Forging Stock)
AS K132	Electroplated Coatings on Threaded Components: Part 1—Cadmium on Steel Components: Part 2—Zinc on Steel Components
BS 1400	Schedule of Copper Alloy Ingots and Copper and Copper Alloy Castings
ANSI B2.2	Dryseal Pipe Threads

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
TUBE FITTINGS WITH DRYSEAL AMERICAN STANDARD TAPER PIPE
AND UNIFIED THREADS FOR AUTOMOTIVE AND INDUSTRIAL USE

SECTION 1. SCOPE AND SIZE DESIGNATION

1.1 SCOPE. This standard relates to tube fittings of the following types:

- 45-degree flared ($\frac{1}{8}$ — 1 in)
- Inverted flared ($\frac{1}{8}$ — $\frac{3}{4}$ in)
- Ball sleeve ($\frac{1}{8}$ — $\frac{3}{4}$ in).

The fittings are intended primarily for automotive use, and are screwed Dryseal American Standard Taper Pipe thread (NPTF) and Unified threads.

NOTE: Other fittings in common use are screwed with British Standard Pipe taper threads and Unified threads. The BSP thread is similar to the NPTF thread, having the same t.p.i. in the $\frac{1}{2}$ in and $\frac{3}{4}$ in sizes, and differing by not more than one t.p.i. in the other sizes. BSP and NPTF threads are, however, not compatible, having different thread forms and methods of sealing, and the fittings are not interchangeable in any sizes.

The standard specifies the dimensions, materials, working pressures, test pressures and general manufacturing requirements of the fittings.

1.2 SIZE DESIGNATION. Fitting sizes shall be designated by the outside diameter of the tube for tube ends, and by the nominal pipe size for pipe thread ends. See Appendix B for identification code.

1.3 DEVIATION FROM STANDARD. Where there is a requirement for deviation from the fittings listed in this standard, e.g. for safe assembly of a dual brake-line assembly, a standard fitting of larger thread and hexagon size should be selected from those listed, and modified to the smaller tube diameter.