



SURFACE VEHICLE STANDARD

J3275™

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Low-Pressure Quick Connect Hose Fittings

RATIONALE

Creation of standard drop lengths and termination configurations for the hose end of SAE J2044 fittings.

1. SCOPE

This SAE Standard provides general and dimensional specifications for low-pressure quick connect hose fittings used in conjunction with hoses specified in SAE J20, SAE J30, and SAE J517 and utilized in fluid systems on mobile and stationary equipment.

The fittings in this standard are compatible with SAE J2044.

This document specifies hose fitting geometry. It does not specify fluid compatibility.

This document shall be utilized as a procurement document only to the extent agreed upon by the manufacturer and user.

Refer to SAE J517 for information on hose assemblies. SAE J1273 contains information on application factors affecting hose fittings, hose, and hose assemblies.

The rated working pressure of a hose assembly comprising SAE J3275 fittings and SAE J20, SAE J30, and SAE J517 hoses shall not exceed the lower of the two working pressure rated values.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

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.

SAE J20 Coolant System Hoses

SAE J30 Fuel and Oil Hoses

SAE J517 Hydraulic Hose

SAE J846 Coding Systems for Identification of Fluid Conductors and Connectors

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SAE WEB ADDRESS:

Full document details: SAE J3275_202511

For more information on this standard, visit
https://www.sae.org/standards/content/J3275_202511/

Documents

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SAE J1273 Recommended Practices for Hydraulic Hose Assemblies

SAE J2044 Quick Connect Coupling Specification for Liquid Fuel and Vapor/Emissions Systems

3. SIZE DESIGNATIONS

The hose fitting size is generally designated by the SAE dash sizes in accordance with SAE J846. However, SAE J2044 contains fitting sizes based on metric tube sizes. Because of this, a unique size designator series was created. Refer to SAE J846 for specific size details.

4. HOSE FITTING (CONNECTOR) IDENTIFICATION

All hose fittings shall be legibly and permanently marked with the manufacturer's name or logo to allow for positive identification. Additional permanent marking is also recommended to provide a means to identify the proper hose to be used with the hose fitting. Other markings, such as the customer's assembly number, date code, etc., are permissible as agreed upon by the supplier and user.

5. DIMENSIONS AND TOLERANCES

Tabulated dimensions shall apply to the finished parts as specified by the purchaser. Details of internal construction of the attaching portion of fittings are not specified and shall be optional with the manufacturer, provided the fittings, properly assembled onto the appropriate hose, meet the qualification requirements when the assemblies are subjected to the various tests specified in SAE J2044.

Angular tolerance on the bend of elbow hose fittings shall be ± 3 degrees.

6. PASSAGES

The tabulated d_3 dimensions reflect the minimum bore at any point through the fitting prior to assembly to the hose. The after-assembly bore reduction will be a maximum of 10%. The reduction must be in the general shape of a venturi. Where passages in straight fittings are machined from opposite ends, the offset at the meeting point shall not exceed 0.40 mm. On angle fittings, the cross-sectional area at the junction of fluid passages shall not be less than that of the smallest passage. This assembly passage definition does not apply to bent tubes.

7. CONTOUR

Details of contour shall be optional with the manufacturer, provided the tabulated dimensions are maintained and serviceability of fittings is not impaired.

8. MATERIAL

Fittings shall be made from materials of good quality, capable of withstanding the stresses resulting from fluid pressures equal to the minimum burst pressure of the applicable hose size and type to which they are assembled without failure.

9. WORKMANSHIP

Workmanship shall conform to the best commercial practice to produce high-quality fittings. Fittings shall be free from all hanging burrs, loose scales, slivers that might become dislodged in usage, sharp edges, and all other defects that might affect their serviceability. All sealing surfaces must be smooth, except that annular tool marks up to 2.5 μm maximum, unless specified otherwise, shall be permissible.

10. PRESSURE RATINGS

Some hose pressure ratings in SAE J20, SAE J30, and SAE J517 exceed the pressure ratings for the connection of hose fittings shown in SAE J3275. The pressure rating of a hose assembly comprising SAE J3275 fittings and SAE J20, SAE J30, and SAE J517 hoses shall not exceed the lower of the two pressure rating values.

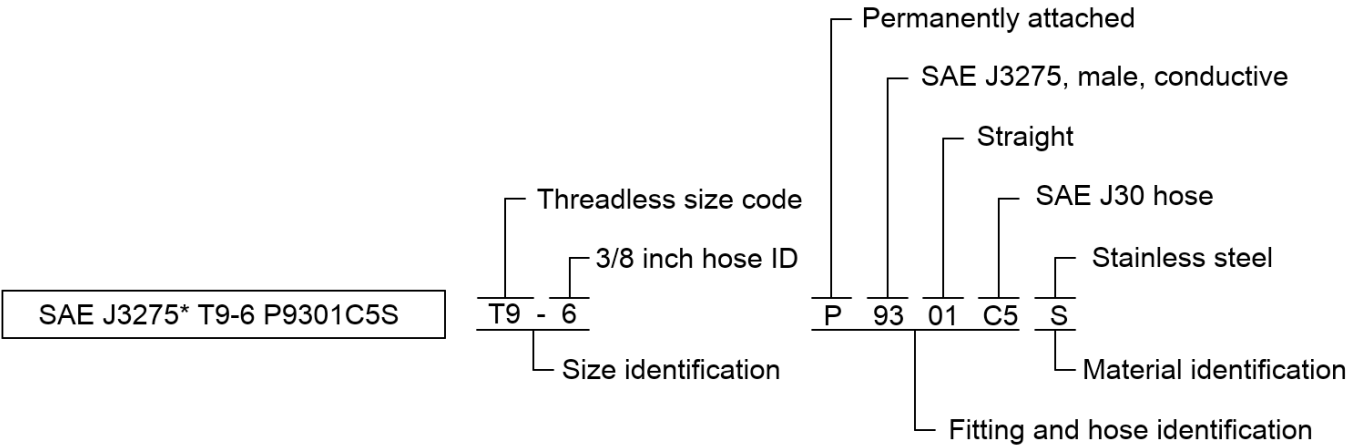
Consult SAE J2044 and the manufacturer for specific pressure capabilities of the fittings.

11. ORDERING INFORMATION

Hydraulic hose fittings that meet the requirements of this standard can be ordered in accordance with the Part Identification Number (PIN) described in SAE J846.

11.1 Examples of Code Applied to Hose Fittings

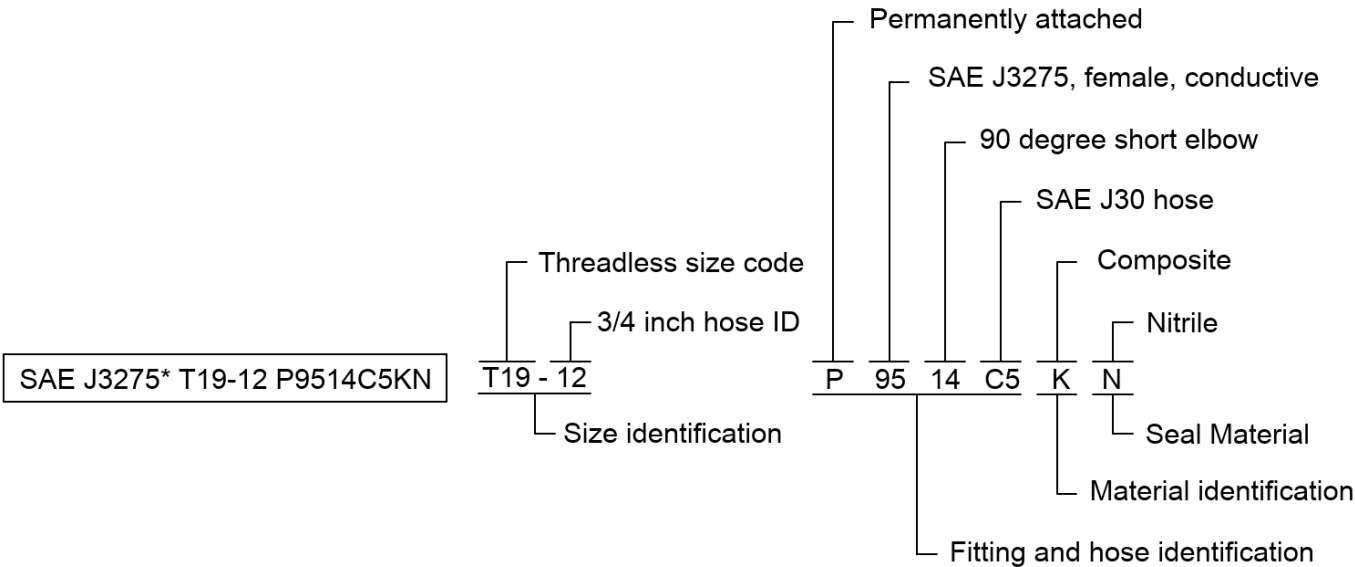
A permanently attached male SAE J2044 straight hose fitting, made from stainless steel material, for size T9 threadless connector and 3/8-inch ID SAE J30 hydraulic hose (shown in Figure 4 and Table 2), would be coded as shown in Figure 1.



* Include SAE "J" number in the Part Identification Number (PIN), when specified.

Figure 1 - Example of code applied to male SAE J2044 hose fitting

A permanently attached female SAE J2044 90-degree elbow hose fitting, made from composite material, for size T19 threadless connector and 3/4-inch ID SAE J30 hydraulic hose (shown in Figure 7 and Table 5), would be coded as shown in Figure 2.



* Include SAE "J" number in the Part Identification Number (PIN), when specified.

Figure 2 - Example of code applied to female SAE J2044 hose fitting