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**Aerospace — Fluid systems —  
Hydraulic system tubing**

*Série aérospatiale — Systèmes de fluides — Tubes pour systèmes  
hydrauliques*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

The committee responsible for this document is ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 10, *Aerospace fluid systems and components*.

This second edition cancels and replaces the first edition (ISO 8575:1990), which has been technically revised.

## Introduction

The purpose of this document is to provide information relating to the sizes and materials of tubing for use in aerospace hydraulic pressure and return and suction lines.

International Standards use the International System of units (SI); however, large segments of the aerospace industry make use of other measurement systems as a matter of common working practice. Although tube sizes were originally defined (and are frequently cited) using non-SI units, all dimensions used in this document are given in SI units, with inch units also indicated for the convenience of the user.

The decimal sign used in International Standards is the comma (","); however, the comma is not used in common working practice for inch dimensions. Therefore, in common with many other aerospace standards, the decimal point is used in this document when providing dimensions in inches.

**NOTE** The use of non-SI units and the decimal point in this document does not constitute general acceptance of measurement systems other than SI within International Standards.



# Aerospace — Fluid systems — Hydraulic system tubing

## 1 Scope

This document provides information relating to the sizes and materials of tubing for use in aerospace hydraulic pressure and return and suction lines. For pressure lines, the requirements apply to the pressure and temperature ranges covered by pressure class D, E and J and temperature type 13 and type 20 as specified in ISO 6771.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 8574, *Aerospace — Hydraulic system tubing — Qualification tests for bent tubes*

ISO 6771, *Aerospace — Fluid systems and components — Pressure and temperature classifications*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp/>

### 3.1

#### **inch — tubing**

tubing diameters and wall thickness in fractional inch increments and based on industry standards

### 3.2

#### **metric tubing**

tubing diameters and wall thickness in SI-metric units

Note 1 to entry: Metric tubing is in compliance with ISO 2964.

## 4 Requirements

### 4.1 General

The pipe dimensions quoted are in common use for the stated materials in the different pressure and temperature classes. Inclusion of a dimension under a pressure and temperature class in this document does not constitute a guarantee of fitness for purpose in all circumstance. Aircraft Systems designers should verify each tube assembly application with the appropriate stress authority.