



International
Standard

ISO 7661

**Aerospace fluid systems —
Clamp blocks for tube lines
having axial alignment — Design
requirements and qualification
testing (metric series)**

*Systèmes de fluides pour l'aéronautique et l'espace — Peignes
supports de tuyauteries à alignement axial — Exigences de
conception et essais de qualification (série métrique)*

**Second edition
2024-10**

Reference number
ISO 7661:2024(en)

Full document details: [ISO 7661-2024](#)

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Published in Switzerland

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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 document 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).

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This document was prepared by Technical Committee 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 7661:1984), which has been technically revised.

The main changes are as follows:

- the reference to ISO/TR 2685 has been updated in [7.4](#) and in the bibliography because ISO/TR 2685 has been replaced by ISO 2685;
- [Clause 2](#), normative references, has been updated;
- [Clause 3](#), terms and definitions, has been updated;
- the upper limit of the tube outside diameters range has been increased from 32 mm to 36 mm.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Aerospace fluid systems — Clamp blocks for tube lines having axial alignment — Design requirements and qualification testing (metric series)

1 Scope

This document describes clamp blocks for tube lines having axial alignment, with or without electrical grounding, designed for a range of tube outside diameters from 4 mm to 36 mm selected from ISO 2964. This document specifies the dimensions of clamp blocks and the test methods for qualification testing.

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

ISO 7137, *Aircraft — Environmental conditions and test procedures for airborne equipment*

3 Terms and definitions

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

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

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

3.1 axial alignment

axes of supported tubings located in the same plane

3.2 clamp block for tubing

device used on aerospace vehicles for fixing tubings, the dimensions of which may be different and which are constituted from different materials.

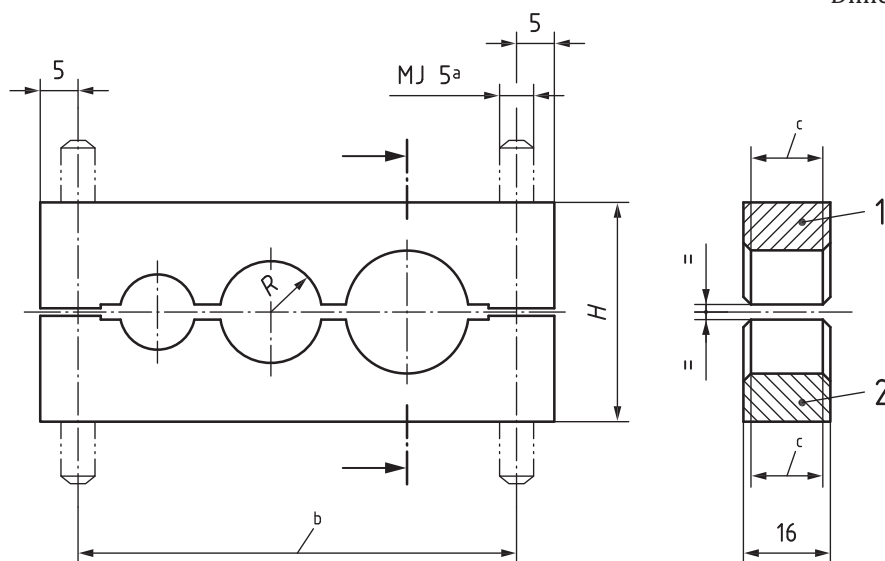
Note 1 to entry: These clamp blocks permit the fastening of tubes, used for different purposes in fluid systems.

3.2.1 monobloc clamp block

clamp block for tubing ([3.2](#)) consisting of two monobloc parts

EXAMPLE See [Figure 1](#).

Dimensions in millimetres



Key

- | | |
|----------|----------------------------|
| 1 | upper part |
| 2 | lower part |
| <i>R</i> | radius of tube support |
| <i>H</i> | height of clamp block |
| a | See ISO 5855-2. |
| b | Bolt spacing $\pm 0,125$. |
| c | Width of tube support. |

Figure 1 — Monobloc clamp block

3.2.2

modular clamp block

clamp block for tubing (3.2) consisting of removable parts (3.3), with or without insert(s) (3.4)

EXAMPLE See [Figure 2](#).