INTERNATIONAL STANDARD

**ISO 13599**

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# Aerospace — Inserts, with clearance hole, in metallic material, coated or uncoated — Dimensions

*Aéronautique et espace — Douilles lisses, en matériau métallique, revêtues ou non revêtues — Dimensions*



Reference number
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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 13599 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 4, *Aerospace fastener systems*.

# Aerospace — Inserts, with clearance hole, in metallic material, coated or uncoated — Dimensions



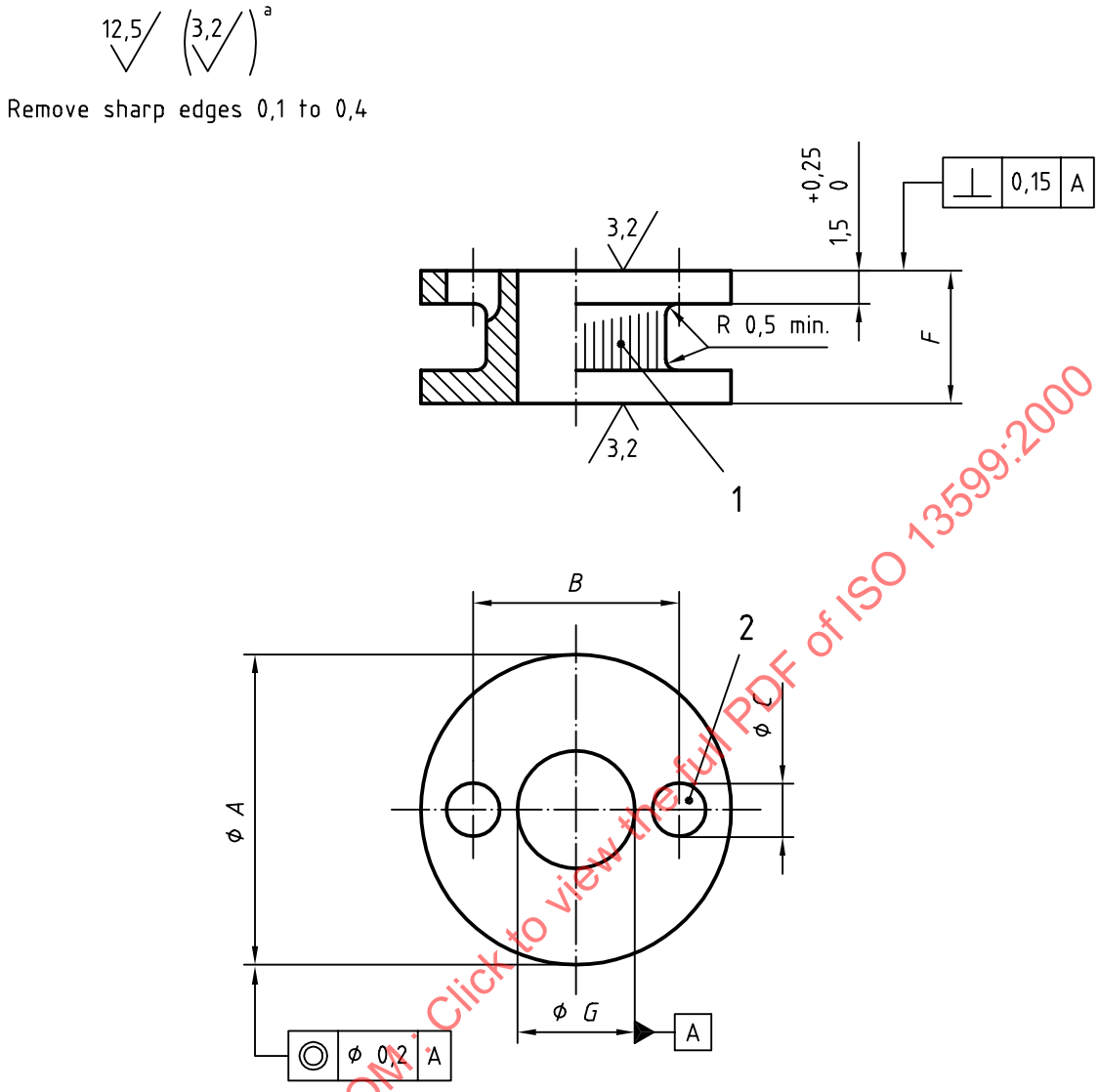
## 1 Scope

This International Standard specifies the dimensions of inserts with clearance hole, in metallic material, coated or uncoated, for honeycomb and composite materials. The classification referring to strength and temperature, depending on the core material and potting compound, is not specified.

This International Standard is only applicable to the compilation of aerospace product standards.

## 2 Configuration and dimensions

See Figures 1 and 2 and Table 1. Dimensions and tolerances are expressed in millimetres. They apply to inserts after any surface coating(s).




Details of form not stated are at the manufacturer's discretion.

**Key**

1 Antirotation knurl

2 Potting and vent hole

a These values, in micrometres, are valid prior to any surface coating(s).

**Figure 1 — Style A without countersink**

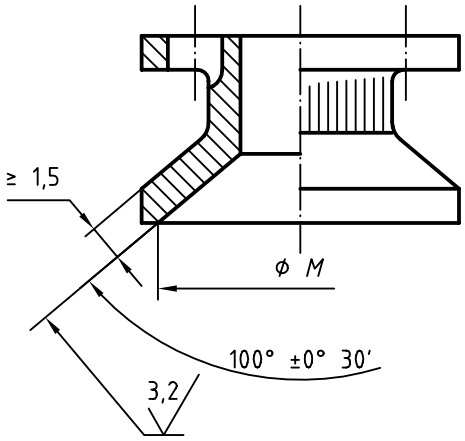



**Figure 2 — Style B with countersink**

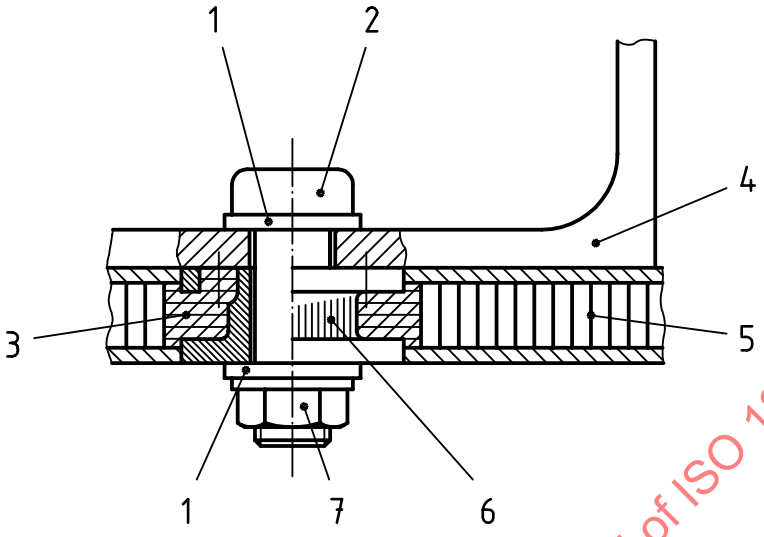
**Table 1**

| Diameter code | *A* | *B* | *C* | *F* [a] | | *G* | *M* |
|---|---|---|---|---|---|---|---|
| | | | | Style A | Style B | | |
| | 0<br>– 0,25 | ± 0,25 | ± 0,25 | + 0,25<br>0 | + 0,25<br>0 | + 0,25<br>0 | + 0,25<br>0 |
| **030** | 14 | 9,3 | 2,4 | 6 to 30 | 8 to 30 | 3,2 | 6 |
| **040** | | | | 6 to 40 | 8 to 40 | 4,2 | 8 |
| **050** | | | | 6 to 50 | 8 to 50 | 5,3 | 10 |
| **060** | 17,5 | 11,9 | | 6 to 60 | 8 to 60 | 6,4 | 12 |

[a] Increments: 1

## 3 Example of application

See Figure 3.




**Key**

1 Washer
2 Bolt
3 Potting compound
4 Attached component
5 Sandwich panel
6 Insert
7 Nut

**Figure 3 — Example of Style A application**