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**Countersinks for countersunk head  
screws with head configuration in  
accordance with ISO 7721**

*Fraises pour vis à tête fraisée avec une configuration de la tête  
conforme à l'ISO 7721*

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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 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 15065 was prepared by Technical Committee ISO/TC 2, *Fasteners*, Subcommittee SC 7, *Reference Standards for fasteners (mainly covering terminology, dimensioning, sizes and tolerancing)*.

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# Countersinks for countersunk head screws with head configuration in accordance with ISO 7721

## 1 Scope

This International Standard specifies the dimensions and designation of countersinks for countersunk head screws with a head configuration in accordance with ISO 7721.

This International Standard is applicable to the following types of screws:

- slotted countersunk flat head screws according to ISO 2009;
- slotted countersunk raised head screws according to ISO 2010;
- slotted countersunk flat head tapping screws according to ISO 1482;
- slotted countersunk raised head tapping screws according to ISO 1483;
- cross-recessed countersunk flat head screws according to ISO 7046-1 and ISO 7046-2;
- cross-recessed countersunk raised head screws according to ISO 7047;
- cross-recessed countersunk flat head tapping screws according to ISO 7050;
- cross-recessed countersunk raised head tapping screws according to ISO 7051;
- cross-recessed countersunk flat head drilling screws according to ISO 15482;
- cross-recessed countersunk raised head drilling screws according to ISO 15483;
- hexalobular socket countersunk raised head screws according to ISO 14584;
- hexalobular socket countersunk flat head tapping screws according to ISO 14586;
- hexalobular socket countersunk raised head tapping screws according to ISO 14587.

## 2 Normative references

The following referenced documents are indispensable for the application 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 273:1979, *Fasteners — Clearance holes for bolts and screws*

ISO 7721:1983, *Countersunk head screws — Head configuration and gauging*

### 3 Dimensions

The dimensions of the countersink shall be as specified in Figure 1 and Table 1.

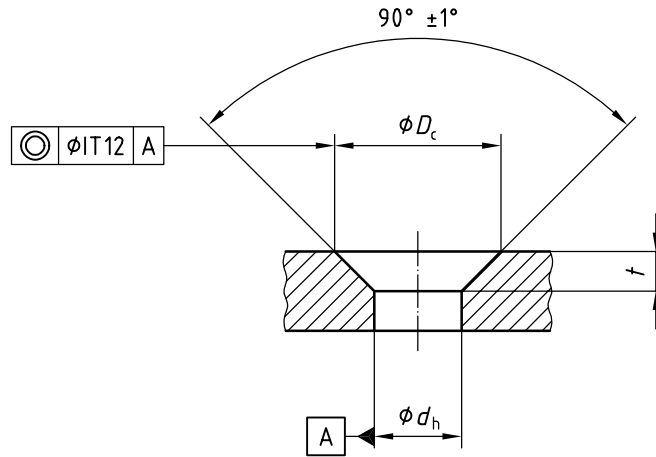


Figure 1 — Dimensions

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Table 1 — Dimensions of countersink

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Dimensions in millimetres

| Nominal size | Thread size |       | min. (nom.)       |       | max.  |       | $t$<br>≈ |
|--------------|-------------|-------|-------------------|-------|-------|-------|----------|
|              |             |       | $d_h$             | $D_c$ | $d_h$ | $D_c$ |          |
| 1,6          | M1,6        |       | 1,80              | 1,94  | 3,6   | 3,7   | 0,95     |
| 2            | M2          | ST2,2 | 2,40              | 2,54  | 4,4   | 4,5   | 1,05     |
| 2,5          | M2,5        |       | 2,90              | 3,04  | 5,5   | 5,6   | 1,35     |
| 3            | M3          | ST2,9 | 3,40              | 3,58  | 6,3   | 6,5   | 1,55     |
| 3,5          | M3,5        | ST3,5 | 3,90              | 4,08  | 8,2   | 8,4   | 2,25     |
| 4            | M4          | ST4,2 | 4,50              | 4,68  | 9,4   | 9,6   | 2,55     |
| 5            | M5          | ST4,8 | 5,50              | 5,68  | 10,40 | 10,65 | 2,58     |
| 5,5          |             | ST5,5 | 6,00 <sup>b</sup> | 6,18  | 11,50 | 11,75 | 2,88     |
| 6            | M6          | ST6,3 | 6,60              | 6,82  | 12,60 | 12,85 | 3,13     |
| 8            | M8          | ST8   | 9,00              | 9,22  | 17,30 | 17,55 | 4,28     |
| 10           | M10         | ST9,5 | 11,00             | 11,27 | 20,0  | 20,3  | 4,65     |

<sup>a</sup> Clearance hole according to ISO 273, medium series, tolerance H13.

<sup>b</sup> Not specified in ISO 273.

## 4 Designation

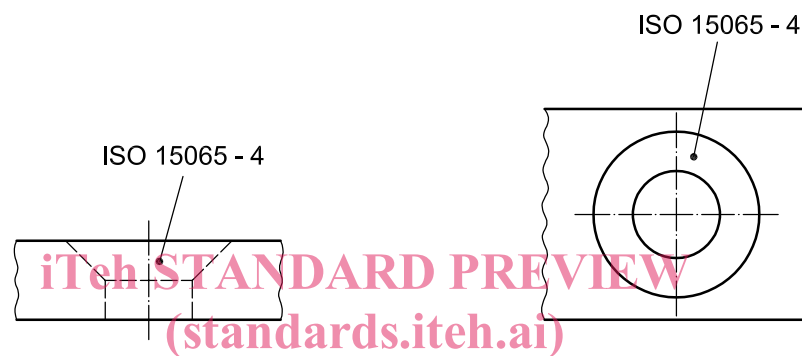
Countersinks for countersunk head screws with head configuration in accordance with ISO 7721 shall be designated by reference to this International Standard and the nominal size.

EXAMPLE A countersink for countersunk head screws with head configuration according to ISO 7721 and with metric screw thread M4 or with tapping screw thread ST4,2 (nominal size 4) is designated as follows:

**Countersink ISO 15065 - 4**

## 5 Representation in drawings

In technical drawings, the representation of countersinks shall be as shown in Figure 2.



**Figure 2 — Representation**

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## Bibliography

- [1] ISO 1482, *Slotted countersunk (flat) head tapping screws (common head style)*
- [2] ISO 1483, *Slotted raised countersunk (oval) head tapping screws (common head style)*
- [3] ISO 2009, *Slotted countersunk flat head screws (common head style) — Product grade A*
- [4] ISO 2010, *Countersunk slotted raised head screws (common head style) — Product grade A*
- [5] ISO 7046-1, *Countersunk flat head screws (common head style) with type H or type Z cross recess — Product grade A — Part 1: Steel of property class 4.8*
- [6] ISO 7046-2, *Cross-recessed countersunk flat head screws (common head style) — Grade A — Part 2: Steel of property class 8.8, stainless steel and non-ferrous metals*
- [7] ISO 7047, *Countersunk raised head screws (common head style) with type H or type Z cross recess — Product grade A*
- [8] ISO 7050, *Cross recessed countersunk (flat) head tapping screws (common head style)*
- [9] ISO 7051, *Cross recessed raised countersunk (oval) head tapping screws*
- [10] ISO 14584, *Hexalobular socket raised countersunk head screws*
- [11] ISO 14586, *Hexalobular socket countersunk head tapping screws*
- [12] ISO 14587, *Hexalobular socket raised countersunk (oval) head tapping screws*  
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- [13] ISO 15482, *Cross recessed countersunk head drilling screws with tapping screw thread*
- [14] ISO 15483, *Cross recessed raised countersunk head drilling screws with tapping screw thread*



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