

# INTERNATIONAL STANDARD

# ISO 10898

Second edition  
2016-09-15

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## Spot drills

*Forets à pointer*

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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.

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 29, *Small tools*, Subcommittee SC 9, *Tools with defined cutting edges, cutting items*.

This second edition cancels and replaces the first edition (ISO 10898:1992), of which it constitutes a minor revision with the following changes:

- [Annex A](#) has been added;
- a Bibliography has been added.

# Spot drills

## 1 Scope

This International Standard specifies the dimensions and technical specifications of spot drills of high-speed steel and hardmetal with a point angle of 90° or 120°.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 286-2, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 2: Tables of standard tolerance classes and limit deviations for holes and shafts*

## 3 Dimensions

See [Figure 1](#) and [Table 1](#).

## 4 Technical specifications

### 4.1 Conception

Spot drills in accordance with this International Standard shall be made without lands and back taper.

### 4.2 Permissible division deviation on flutes

See [Table 2](#).

### 4.3 Maximum runout of the fluted part with respect to the shank

See [Table 2](#).

## 5 Designation

Spot drills in accordance with this International Standard shall be designated by the following:

- a) “Spot drill”;
- b) a reference to this International Standard;
- c) its point angle;
- d) its diameter,  $d$ , in millimetres.

EXAMPLE A spot drill of diameter  $d = 10$  mm and point angle 90° is designated as follows:

**Spot drill ISO 10898 - 90° - 10**

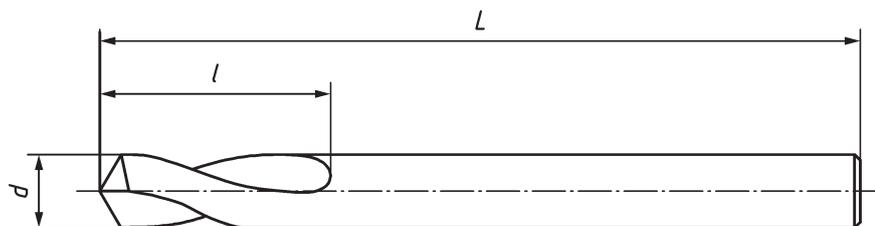


Figure 1

Table 1

Dimensions in millimetres

|          |                 |    |    |    |    |     |     |     |
|----------|-----------------|----|----|----|----|-----|-----|-----|
| <i>d</i> | h8 <sup>a</sup> | 4  | 6  | 8  | 10 | 12  | 16  | 20  |
| <i>L</i> |                 | 52 | 66 | 79 | 89 | 102 | 115 | 131 |
| <i>l</i> |                 | 12 | 20 | 25 | 25 | 30  | 35  | 40  |

<sup>a</sup> See ISO 286-2.

Table 2

Dimensions in millimetres

| <i>d</i>   | Permissible division deviation on flutes | Maximum runout of the fluted part with respect to the shank |
|------------|--|---|
| 4; 6       | 0,03                                     | 0,03  |
| 8; 10      | 0,04                                     | 0,04  |
| 12; 16; 20 | 0,05                                     | 0,05  |

## Annex A (informative)

### Relationship between designations of this International Standard and ISO 13399

For the relationship between the designations of this International Standard and preferred symbols according to ISO 13399, see [Table A.1](#).

**Table A.1 — Relationship between designations of this International Standard and ISO 13399**

| Symbol in this International Standard | Reference in this International Standard | Property name in the ISO 13399 series | Symbol in the ISO 13399 series | Reference in the ISO 13399 series |
|---------------------------------------|--|---------------------------------------|--------------------------------|-----------------------------------|
| <i>d</i>                              | <a href="#">Figure 1 Table 1</a>         | Cutting diameter                      | DC                             | 71D084653E57F                     |
| <i>L</i>                              | <a href="#">Figure 1 Table 1</a>         | Overall length                        | OAL                            | 71D078EB7C086                     |
| <i>l</i>                              | <a href="#">Figure 1 Table 1</a>         | Length chip flute                     | LCF                            | 71DCCC27DEF53                     |
| —                                     | <a href="#">Clause 5</a>                 | Point angle                           | SIG                            | 71DCCC4FEF366                     |
| —                                     | —  | Connection diameter machine side      | DCONMS <sup>a</sup>            | 71EBDBF5060E6                     |

<sup>a</sup> DCONMS has the same size as *d* (DC) in [Figure 1](#).

## Bibliography

- [1] ISO 13399 (all parts), *Cutting tool data representation and exchange*

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