

# SVENSK STANDARD

## SS-ISO 6462:2011



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### **Plan- och ansatsfräsar med vändskär – Mått (ISO 6462:2011, IDT)**

### **Face and shoulder milling cutters with indexable inserts – Dimensions (ISO 6462:2011, IDT)**

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Den internationella standarden ISO 6462:2011 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av ISO 6462:2011.

Denna standard ersätter SS-ISO 6462, utgåva 1.

The International Standard ISO 6462:2011 has the status of a Swedish Standard. This document contains the official version of ISO 6462:2011.

This standard supersedes the Swedish Standard SS-ISO 6462, edition 1.

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Denna standard är framtagen av kommittén för Skärande verktyg, SIS/TK 273.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på [www.sis.se](http://www.sis.se) - där hittar du mer information.



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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 6462 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 9, *Tools with cutting edges made of hard cutting materials*.

This second edition cancels and replaces the first edition (ISO 6462:1983), which has been technically revised.

# Face and shoulder milling cutters with indexable inserts — Dimensions

## 1 Scope

This International Standard specifies the dimensions of face milling cutters with indexable inserts.

The form and dimensions of the inserts are left to the discretion of the manufacturer.

## 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 240, *Milling cutters — Interchangeability dimensions for cutter arbors or cutter mandrels*

ISO 2780, *Milling cutters with tenon drive — Interchangeability dimensions for cutter arbors — Metric series*

ISO 2940-1, *Milling cutters mounted on centring arbors having a 7/24 taper — Fitting dimensions Centring arbors*

ISO 3365, *Indexable hardmetal (carbide) inserts with wiper edges, without fixing hole — Dimensions*

ISO 11529-2, *Milling cutters — Designation — Part 2: Shank-type and bore-type milling cutters with indexable inserts*

## 3 Style

Milling cutters with indexable inserts shall have cutting edge angles,  $\kappa_r$ , of 45°, 60°, 75° and 90° and the following styles:

- style A with tenon drive and hexagon socket head cap screw;
- style B with tenon drive and cutter retaining screw with interchangeability dimensions in accordance with ISO 2780;
- style C mounted on centring arbor having a 7/24 taper with interchangeability dimensions in accordance with ISO 2940-1.

NOTE 1 Cutting edge angles other than those listed in this clause are optional as long as they fit into the designation system according to ISO 11529-2.

NOTE 2 The abbreviated terms for the dimensions are taken from ISO/TS 13399-3.

## 4 Dimensions

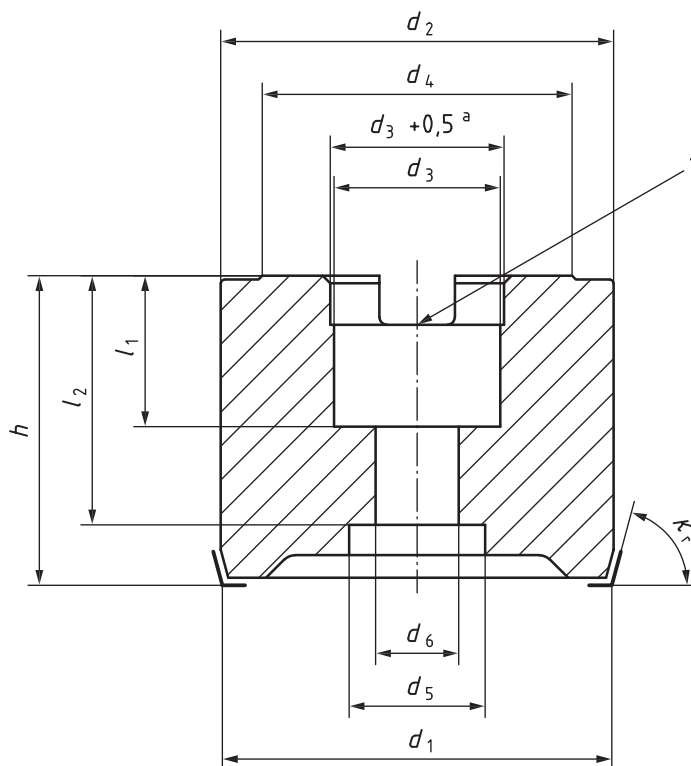
### 4.1 Holes for lifting devices

For milling cutters of diameter,  $d_1$ , equal to or above 250 mm, threaded holes for lifting devices may be provided at the discretion of the manufacturer. The number of holes and their position is at the discretion of the manufacturer, however their minimum dimensions shall be the following:

- for milling cutters where  $d_1 = 250$  mm or 315 mm, threaded holes M12  $\times$  27;
- for milling cutters where  $d_1 = 400$  mm or 500 mm, threaded holes M16  $\times$  34.

NOTE National safety regulations can be applicable.

### 4.2 Style A — Tenon drive — Hexagon socket head cap screw



#### Key

1 slot in accordance with the metric series of ISO 240

<sup>a</sup> A conical shape between  $d_3$  and  $d_3 + 0,5$ , keeping the same depth, is optional.

Figure 1 — Style A



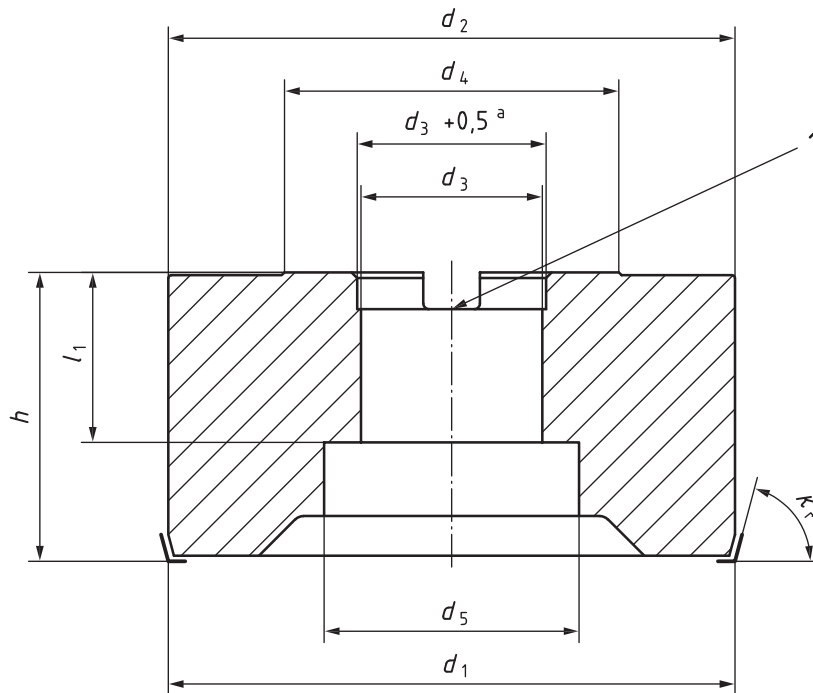
**Table 1 — Dimensions for style A**

Dimensions in millimetres

| Designation<br>in accordance with<br>ISO 11529-2 <sup>a</sup> | $d_1$<br>js16 | $\kappa_r$ | $d_2$       | $d_3$<br>H7 | $d_4$<br>min. | $d_5$<br>min. | $d_6$<br>js13 | $h$<br>$\pm 0,15$ | $l_1$ | $l_2$<br>max. | Retaining<br>screw |
|---|---------------|------------|-------------|-------------|---------------|---------------|---------------|-------------------|-------|---------------|--------------------|
| ..45.040R(L).....P16  | 40            | 45°        | —           | 16          | 33            | 14            | 9             | 40                | 18    | 31            | M8                 |
| ..60.040R(L).....P16  |               | 60°        | —           |             |               |               |               |                   |       |               |                    |
| ..75.040R(L).....P16  |               | 75°        | —           |             |               |               |               |                   |       |               |                    |
| ..90.040R(L).....P16  |               | 90°        | $d_2 < d_1$ |             |               |               |               |                   |       |               |                    |
| ..45.050R(L).....P22  | 50            | 45°        | —           | 22          | 41            | 18            | 11            | 40                | 20    | 33            | M10                |
| ..60.050R(L).....P22  |               | 60°        | —           |             |               |               |               |                   |       |               |                    |
| ..75.050R(L).....P22  |               | 75°        | —           |             |               |               |               |                   |       |               |                    |
| ..90.050R(L).....P22  |               | 90°        | $d_2 < d_1$ |             |               |               |               |                   |       |               |                    |
| ..45.063R(L).....P22  | 63            | 45°        | —           | 22          | 41            | 18            | 11            | 40                | 20    | 33            | M10                |
| ..60.063R(L).....P22  |               | 60°        | —           |             |               |               |               |                   |       |               |                    |
| ..75.063R(L).....P22  |               | 75°        | —           |             |               |               |               |                   |       |               |                    |
| ..90.063R(L).....P22  |               | 90°        | $d_2 < d_1$ |             |               |               |               |                   |       |               |                    |
| ..45.080R(L).....P27  | 80            | 45°        | —           | 27          | 49            | 20            | 14            | 50                | 22    | 37            | M12                |
| ..60.080R(L).....P27  |               | 60°        | —           |             |               |               |               |                   |       |               |                    |
| ..75.080R(L).....P27  |               | 75°        | —           |             |               |               |               |                   |       |               |                    |
| ..90.080R(L).....P27  |               | 90°        | $d_2 < d_1$ |             |               |               |               |                   |       |               |                    |
| ..45.100R(L).....P32  | 100           | 45°        | —           | 32          | 59            | 27            | 18            | 50                | 25    | 33            | M16                |
| ..60.100R(L).....P32  |               | 60°        | —           |             |               |               |               |                   |       |               |                    |
| ..75.100R(L).....P32  |               | 75°        | —           |             |               |               |               |                   |       |               |                    |
| ..90.100R(L).....P32  |               | 90°        | $d_2 < d_1$ |             |               |               |               |                   |       |               |                    |

<sup>a</sup> Instead of the points shown in the designation, the letters and numbers shall be placed in accordance with ISO 11529-2.

### 4.3 Style B — Tenon drive — Cutter retaining screw



#### Key

1 slot in accordance with the metric series of ISO 240

<sup>a</sup> A conical shape between  $d_3$  and  $d_3 + 0,5$ , keeping the same depth, is optional.

Figure 2 — Style B

**Table 2 — Dimensions for style B**

Dimensions in millimetres

| Designation<br>in accordance with<br>ISO 11529-2 <sup>a</sup> | $d_1$ | $\kappa_r$ | $d_2$       | $d_3$ | $d_4$ | $d_5$ | $h$        | $l_1$ |      | Retaining<br>screw |
|---|-------|------------|-------------|-------|-------|-------|------------|-------|------|--------------------|
|   | js16  |            |             | H7    | min.  | min.  | $\pm 0,15$ | min.  | max. |                    |
| ..45.080R(L).....S27  | 80    | 45°        | —           | 27    | 49    | 38    | 50         | 22    | 30   | M12                |
| ..60.080R(L).....S27  |       | 60°        | —           |       |       |       |            |       |      |                    |
| ..75.080R(L).....S27  |       | 75°        | —           |       |       |       |            |       |      |                    |
| ..90.080R(L).....S27  |       | 90°        | $d_2 < d_1$ |       |       |       |            |       |      |                    |
| ..45.100R(L).....S32  | 100   | 45°        | —           | 32    | 59    | 45    | 50         | 25    | 32   | M16                |
| ..60.100R(L).....S32  |       | 60°        | —           |       |       |       |            |       |      |                    |
| ..75.100R(L).....S32  |       | 75°        | —           |       |       |       |            |       |      |                    |
| ..90.100R(L).....S32  |       | 90°        | $d_2 < d_1$ |       |       |       |            |       |      |                    |
| ..45.125R(L).....S40  | 125   | 45°        | —           | 40    | 71    | 56    | 63         | 28    | 35   | M20                |
| ..60.125R(L).....S40  |       | 60°        | —           |       |       |       |            |       |      |                    |
| ..75.125R(L).....S40  |       | 75°        | —           |       |       |       |            |       |      |                    |
| ..90.125R(L).....S40  |       | 90°        | $d_2 < d_1$ |       |       |       |            |       |      |                    |
| ..45.160R(L).....S40  | 160   | 45°        | —           | 40    | 90    | 56    | 63         | 28    | 35   | M20                |
| ..60.160R(L).....S40  |       | 60°        | —           |       |       |       |            |       |      |                    |
| ..75.160R(L).....S40  |       | 75°        | —           |       |       |       |            |       |      |                    |
| ..90.160R(L).....S40  |       | 90°        | $d_2 < d_1$ |       |       |       |            |       |      |                    |

<sup>a</sup> Instead of the points shown in the designation, the letters and numbers shall be placed in accordance with ISO 11529-2.