

### SLOVENSKI STANDARD SIST ISO 4162:1996

01-april-1996

### Vijaki s šestrobo glavo s poševnim krajcem - Lahka izvedba

Hexagon flange bolts -- Small series

Vis à tête hexagonale à embase cylindro-tronconique -- Série étroite

Ta slovenski standard je istoveten z: ISO 4162:1990

SIST ISO 4162:1996

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ICS:

21.060.10 Sorniki, vijaki, stebelni vijaki Bolts, screws, studs

SIST ISO 4162:1996 en

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# INTERNATIONAL STANDARD

**ISO** 4162

First edition 1990-05-15

### Hexagon flange bolts - Small series

Vis à tête hexagonale à embase cylindro-tronconique - Série étroite

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ISO 4162: 1990 (E)

#### **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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as international Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

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International Standard ISO 4162 was prepared by Technical Committee ISO/TC 2, Fasteners. SIST ISO 4162:1996

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Annex A forms an integral part of this International Standard Annex B-is for linformation only.

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International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Printed in Switzerland

ISO 4162 : 1990 (E)

### Introduction

This International Standard is part of the complete ISO product standard series on hexagon drive fasteners. The series comprises:

- a) hexagon head bolts (ISO 4014, ISO 4015, ISO 4016 and ISO 8765);
- b) hexagon head screws (ISO 4017, ISO 4018 and ISO 8676);
- c) hexagon nuts (ISO 4032, ISO 4033, ISO 4034, ISO 4035, ISO 4036, ISO 8673, ISO 8674 and ISO 8675);
- d) hexagon flange bolts (ISO 4162 and ISO 8102);
- e) hexagon flange screws; 1) hexagon flange nuts (ISO 4161, ISO 7043 and ISO 7044);

Statutal boiling ISO 4775, ISO 7411, ISO 7412, ISO 7413, ISO 7414 and ISO 7417).

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<sup>1)</sup> These will form the subjects of future International Standards.

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#### ISO 4162 : 1990 (E)

## Hexagon flange bolts — Small series

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were valid. All standards are subject to revision, and parties to

### 1 Scope

This International Standard gives specifications for hexagon flange bolts, small series, with threads from M5 up to and including M16 and property classes 8.8 to 10.9 and A2-70.4 sist-iso-

If, in special cases, specifications other than those listed in this International Standard are required, they should be selected from existing International Standards, for example ISO 261, ISO 888, ISO 898-1, ISO 965-2, ISO 3506.

#### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 225 : 1983, Fasteners — Bolts, screws, studs and nuts — Symbols and designations of dimensions.

ISO 261: 1973, ISO general purpose metric screw threads — General plan.

ISO 888: 1976, Bolts, screw and studs — Nominal lengths, and thread lengths for general purpose bolts.

ISO 898-1: 1988, Mechanical properties of fasteners — Part 1: Bolts, screws and studs.

ISO 4162: 1990 (E)

ISO 965-2: 1980, ISO general purpose metric screw threads — Tolerances — Part 2: Limits of sizes for general purpose bolt and nut threads — Medium quality.

ISO 3269: 1988, Fasteners — Acceptance inspection.

ISO 3506 : 1979, Corrosion-resistant stainless steel fasteners — Specifications.

ISO 4042: 1989, Threaded components — Electroplated coatings.

ISO 4753 : 1983, Fasteners — Ends of parts with external metric ISO thread.

ISO 4759-1 : 1978, Tolerances for fasteners — Part 1: Bolts, screws and nuts with thread diameters > 1,6 and < 150 mm and product grades A, B and C.

ISO 6157-1: 1988, Fasteners — Surface discontinuities — Part 1: Bolts, screws and studs for general requirements.

ISO 6157-3: 1988, Fasteners — Surface discontinuities — Part 3: Bolts, screws and studs for special requirements.

ISO 8992: 1986, Fasteners — General requirements for bolts, screws, studs and nuts.

#### 3 Dimensions

See figure 1 and table 1.

 $\ensuremath{\mathsf{NOTE}}\xspace - \ensuremath{\mathsf{Symbols}}\xspace$  and designations of dimensions are specified in ISO 225.

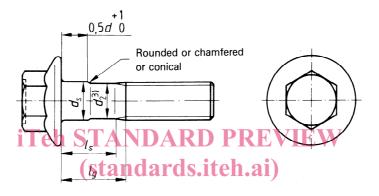
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Tolerances in millimetres

Optional indentation 1)

A Full shank (standard type)



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Junction of fillet with bearing surface to be a smooth blend

Maximum and minimum underhead fillet

V min.

Type F flat bearing surface (standard type)

Type U with undercut (upon request or optional)

## c) Underhead configurations (bearing area)

- 1) The top of the head shall be either full form or indented at the manufacturer's option and shall be either chamfered or rounded. The minimum diameter of the chamfer circle or start of rounding shall be the maximum width across flats minus 15 %. If the top of the head is indented, the periphery may be rounded.
- 2) Incomplete thread  $u \leq 2 P$ .
- 3)  $d_2$  is approximately equal to the pitch diameter (rolling diameter).
- 4) k' is the minimum wrenching height; see the note to table 1.
- 5) c is measured at  $d_{w \, \text{min}}$ .

Figure 1