Fasteners - Grooved pins with countersunk head - Full-length diamond grooves (ISO 8747:2025)

EESTI STANDARDIMIS- JA AKREDITEERIMISKESKUS
ESTONIAN CENTRE FOR STANDARDISATION AND ACCREDITATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 8747:2025 sisaldab Euroopa standardi EN ISO 8747:2025 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 8747:2025 consists of the English text of the European standard EN ISO 8747:2025.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 05.03.2025.	Date of Availability of the European standard is 05.03.2025.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 8747

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English Version

Fasteners - Grooved pins with countersunk head - Full-length diamond grooves (ISO 8747:2025)

Fixations - Clous cannelés à tête fraisée - Cannelures diamant sur toute la longueur (ISO 8747:2025)

Verbindungselemente - Senkkerbnägel - Durchgehende Rautekerben (ISO 8747:2025)

This European Standard was approved by CEN on 2 March 2025.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN ISO 8747:2025 E

European foreword

This document (EN ISO 8747:2025) has been prepared by Technical Committee ISO/TC 2 "Fasteners" in collaboration with Technical Committee CEN/TC 185 “Fasteners” the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2025, and conflicting national standards shall be withdrawn at the latest by September 2025.

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

This document supersedes EN ISO 8747:1997.

Any feedback and questions on this document should be directed to the users’ national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 8747:2025 has been approved by CEN as EN ISO 8747:2025 without any modification.

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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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 2, *Fasteners*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 185 *Fasteners*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 8747:1997) which has been technically revised.

The main changes are as follows:

— terms and definitions, principles for grooved pins and assembly (including hole dimensions), control of the expanded diameter d_2 and pin straightness, mechanical and physical properties (including shear resistance and hardness) and inspection which are common for all grooved pins (product standards ISO 8739 to ISO 8747, ISO 13670 and ISO 13672) have been specified in the new reference standard ISO 13669 dealing with general requirements;

— nominal sizes 1,4 mm and 1,6 mm have been deleted;

— the symbols for the pilot point (PL instead of B) and optional chamfer point (CH instead of A) have been amended analogously to ISO 4753; the length of the points has been specified as a minimum value;

— the head diameters d_k have been recalculated and rounded to the nearest 0,05 mm for pins with nominal sizes up to 8 mm; $d_{k,max}$ has been recalculated for pins with nominal sizes 16 mm and 20 mm;

— the head height k has been added as a reference dimension;

— the maximum distance between the underhead bearing surface and the beginning of the grooves l_k has been added;

— stainless steel grades A2, A4, C1 and F1 have been added;

— other materials (such as hardened steels, brass, aluminium) are by agreement (see Table 3);

— specifications for labelling have been added as Clause 8.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Fasteners — Grooved pins with countersunk head — Full-length diamond grooves

1 Scope

This document specifies the characteristics of grooved pins with countersunk head and full-length diamond grooves and pilot or chamfer point, in steel and stainless steel, and with nominal diameter 2 mm to 20 mm.

These grooved pins are designed to fulfil the main following function: locking together two or more parts, with the easiest installation (due to the pilot or chamfer point) and a highest level of pull-out resistance (due to the elastic fit behaviour of the pin).

The general requirements (including functional principles for grooved pins and assembly) are specified in ISO 13669.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1891-4, *Fasteners — Vocabulary — Part 4: Control, inspection, delivery, acceptance and quality*

ISO 3269, *Fasteners — Acceptance inspection*

ISO 3506-6, *Fasteners — Mechanical properties of corrosion-resistant stainless steel fasteners — Part 6: General rules for the selection of stainless steels and nickel alloys for fasteners*

ISO 4042, *Fasteners — Electroplated coating systems*

ISO 9717, *Metallic and other inorganic coatings — Phosphate conversion coating of metals*

ISO 10683, *Fasteners — Non-electrolytically applied zinc flake coating systems*

ISO 13669, *Fasteners — Grooved pins — General requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13669 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Principles of grooved pins and assembly

The principles of grooved pins and assembly specified in ISO 13669 shall apply.