



**SLOVENSKI STANDARD**  
**oSIST prEN ISO 11334-4:2023**  
**01-maj-2023**

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**Pripomočki za hojo, ki se upravljajo z eno roko - Zahteve in preskusne metode - 4.  
del: Sprehajalne palice s tremi ali več nogami (ISO/DIS 11334-4:2023)**

Assistive products for walking, manipulated by one arm - Requirements and test methods - Part4: Walking sticks with three or more legs (ISO/DIS 11334-4:2023)

Technische Hilfen zum Gehen für einarmige Handhabung - Anforderungen und Prüfverfahren - Teil 4: Gehstöcke mit drei oder mehr Beinen (ISO/DIS 11334-4:2023)

Produit d'assistance à la marche manipulés avec un bras - Exigences et méthodes d'essai - Partie 4: Cannes à trois pieds ou plus (ISO/DIS 11334-4:2023)

**Ta slovenski standard je istoveten z: prEN ISO 11334-4**

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**ICS:**

11.180.10	Pripomočki in prilagoditve za gibanje	Aids and adaptation for moving
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**oSIST prEN ISO 11334-4:2023**

**en,fr,de**



# DRAFT INTERNATIONAL STANDARD

## ISO/DIS 11334-4

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### Assistive products for walking, manipulated by one arm — Requirements and test methods —

#### Part 4: Walking sticks with three or more legs

ICS: 11.180.10

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ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

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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 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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee 173, Assistive products, in collaboration with European Committee for Standardization (CEN) Technical Committee CEN/TC923, Assistive products and accessibility, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 11334-4:1999), which has been technically revised.

The main changes compared to the previous edition are as follows:

- The minimum requirements for stability have been removed. The manufacturer shall however declare the stability performance level for the specified direction.
- The static strength test for the legs and separation part was added.
- [Clause 6](#) on general requirements for assistive products for walking was added.

A list of all parts in the ISO 11334 series can be found on the ISO website.

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](http://www.iso.org/members.html).

## Introduction

A walking stick with three or more legs can be used when a person needs assistance for walking. The walking stick with three or more legs can provide more stability when walking and standing compared with other types of sticks and canes manipulated by one arm and can reduce the risk of falling.

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# Assistive products for walking, manipulated by one arm — Requirements and test methods —

## Part 4: Walking sticks with three or more legs

### 1 Scope

This document specifies requirements and test methods of walking sticks with three or more legs being used as assistive products for walking, manipulated by one arm, without accessories, unless specified in the particular test procedure. This document also gives requirements related to safety, ergonomics, performance and information supplied by the manufacturer, including marking and labelling.

The requirements and tests are based on every-day use of walking sticks with three or more legs as assistive products for walking for a maximum user mass as specified by the manufacturer. This document is for walking sticks with three or more legs specified for a user mass of no less than 35 kg.

This document is not applicable to walking sticks with three or more legs with underarm or forearm support or with moving parts such as a universal joint.

### 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 9227, *Corrosion tests in artificial atmospheres — Salt spray tests*

ISO 10993-1, *Biological evaluation of medical devices — Part 1: Evaluation and testing within a risk management process*

ISO 10993-5, *Biological evaluation of medical devices — Part 5: Tests for in vitro cytotoxicity*

ISO 14971, *Medical devices — Application of risk management to medical devices*

ISO 20417, *Medical devices — Information to be supplied by the manufacturer*

ISO 24415-1, *Tips for assistive products for walking — Requirements and test methods — Part 1: Friction of tips*

ISO 7000, *Graphical symbols for use on equipment — Registered symbols*

ISO 15223-1, *Medical devices — Symbols to be used with information to be supplied by the manufacturer — Part 1: General requirements*

ISO 13732-1, *Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

## ISO/DIS 11334-4:2023(E)

ISO and IEC maintain terminological 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/>

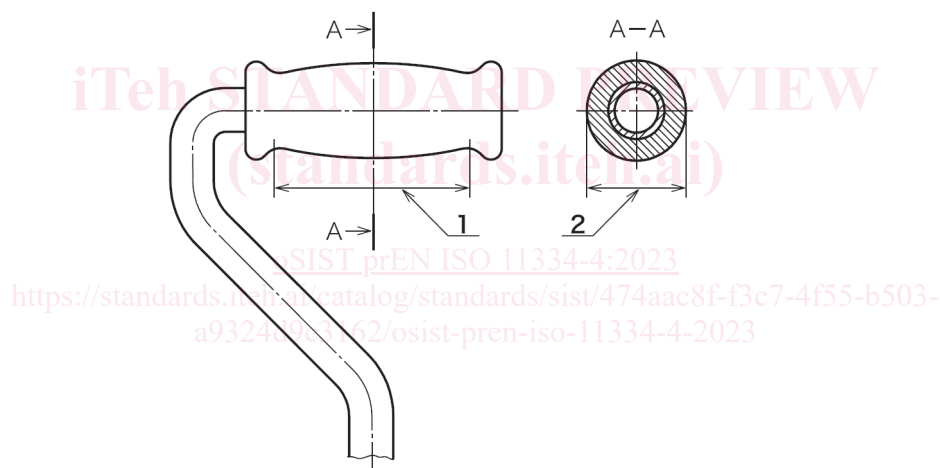
**3.1**  
**anatomic handgrip**  
A handgrip that is shaped in a way to match the shaped of the hand; anatomic handgrip exists in right-hand and left-hand types

**3.2**  
**handgrip**  
part of the walking stick with is normally held in the hand when the walking stick is in use

**3.3**  
**handgrip length**  
dimension of the handgrip measured longitudinally where the hand rests

Note 1 to entry: See [Figure 1](#).

Note 2 to entry: Where the front end or the rear end of the handgrip is not clear, the full length of the handgrip that can support the weight of the user is defined as the handgrip length.

**Key**

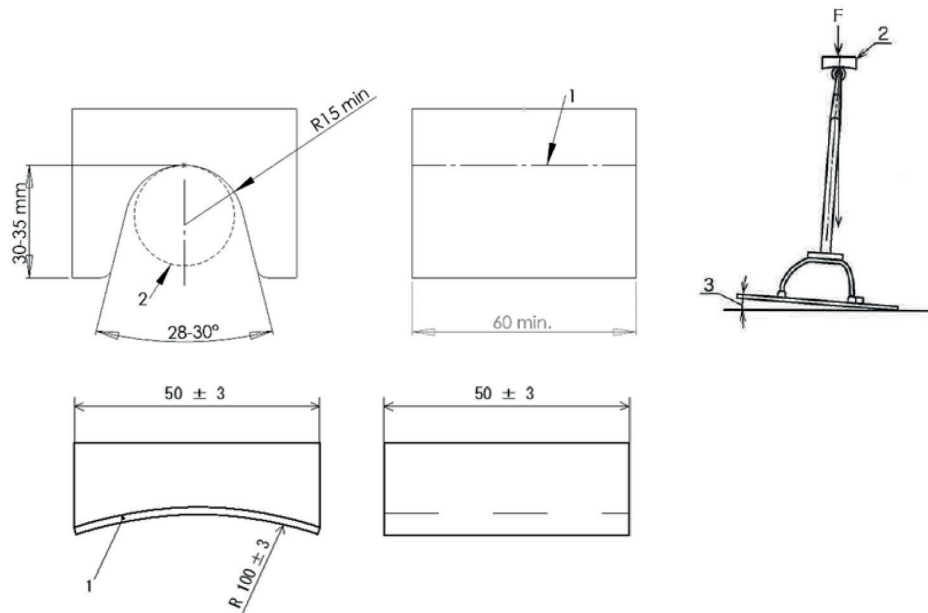
- 1 handgrip length
- 2 handgrip width

**Figure 1 — Detail of handle and handgrip**

**3.4**  
**handgrip loading pad**  
device capable of applying the test force to the handgrip.

Note 1 to entry: See [Figure 2](#).

Note 2 to entry: For some anatomically shaped handgrips, it may be necessary to design a custom loading pad.

**Key**

F	force	2	handgrip loading pad
1	loading surface	3	tilt angle

**Figure 2 — Handgrip loading pad****3.5****handgrip reference point**

crossing point of vertical line through centre of shaft and handgrip

**3.6****handgrip width**

dimension of the handgrip measured length cross-sectionally to longitudinal direction where the hand rests

Note 1 to entry: See [Figure 1](#).

**3.7****handle**

that part of walking stick to which the handgrip is attached

Note 1 to entry: On most devices handgrip and handle can be part of the same piece

**3.8****leg**

frame or rod separated from the shaft which contact the ground

**3.9****locking device**

part of a walking stick which provides locking of the height and/or other adjustment mechanisms

**3.10****separation part**

part of a shaft to which separated leg attached

Note 1 to entry: See [Figure 8](#), key 1.