



**SLOVENSKI STANDARD**  
**oSIST prEN 14056-1:2024**  
**01-december-2024**

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**Laboratorijsko pohištvo - Priporočila za načrtovanje in namestitvev - 1. del: Splošno**

Laboratory furniture - Recommendations for design and installation - Part 1: General

Laboreinrichtungen - Empfehlungen für Anordnung und Montage - Teil 1: Allgemeines

Mobilier de laboratoire - Recommandations de conception et d'installation - Partie 1 : Généralités

**Ta slovenski standard je istoveten z: prEN 14056-1**

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## Laboratory furniture - Recommendations for design and installation - Part 1: General

Mobilier de laboratoire - Recommandations de conception et d'installation - Partie 1 : Généralités

Laboreinrichtungen - Empfehlungen für Anordnung und Montage - Teil 1: Allgemeines

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 332.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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

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**prEN 14056-1:2024 (E)****European foreword**

This document (prEN 14056-1:2024) has been prepared by Technical Committee CEN/TC 332 “Laboratory equipment”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 14056:2003.

This document includes the following significant technical changes with respect to EN 14056:2003:

- a) fundamental revision of the document to give recommendations for design and installation, moving requirements and recommendations on separate parts of laboratory benches in future further parts of the standard series.

**iTeh Standards**  
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<https://standards.iteh.ai/catalog/standards/sist/c95622f8-b0a3-4ea3-a7f8-7de730025c49/osist-pren-14056-1-2024>

## Introduction

The revision of EN 14056:2003 is the first step towards the establishment of an EN 14056 standard series. This document is now Part 1 of this series, describing various combinations and general requirements, while further details regarding the single parts will be provided within the following parts:

- Part 2: Table frames
- Part 3: Worktops
- Part 4: Storage units
- Part 5: Services distribution carriers
- Part 6: Services supply (not final yet, will possibly be integrated into part 5)

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## prEN 14056-1:2024 (E)

### 1 Scope

This document is applicable to biology, chemistry and physics laboratories where research, preparative, analytical, process activities take place and which can involve work with hazardous substances, including higher education (college and university teaching and post-graduate research).

This document does not cover the requirements of schools, i.e. pre college/pre-university (refer to EN 13150), or highly specialist laboratories which need very specific, bespoke solutions to enable them to function.

This document specifies requirements for installation and design of laboratory benches, associated storage units, and for the provision and connection of services integral or delivered to the laboratory benches. This document gives guidelines for all parties involved in the planning, design, manufacture, installation, testing of a new laboratory or in the refurbishment of an existing laboratory.

For safety storage cabinets for flammable liquids EN 14470-1 and for pressurized gas cylinders EN 14470-2 applies.

### 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.

EN 13792, *Colour coding of taps and valves for use in laboratories*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions 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/>

<https://www.iso.org/obp/>

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

#### 3.1

##### laboratory bench

assembly of individual components, combined to create a facility within a laboratory to enable laboratory work

Note 1 to entry: A laboratory bench may include but not limited to a worktop, leg frame support structure, shelving, storage units, worktop mounted service outlets (gases, water, electricity, IT) a services spine and services provision. Services may also be delivered via a separate overhead delivery system.

Note 2 to entry: A laboratory bench may be fixed to the building structure (e.g. wall or floor) or may be free-standing (not fixed to the building structure).

##### 3.1.1

##### total depth

$d_1$

horizontal distance between front edge and rear edge of the laboratory bench (perpendicular to the length  $w_1$ ) including possible areas for services supply and distribution

Note 1 to entry: The total depth is applicable for single and double-sided assemblies.



**3.1.2****total length** $w_1$ 

horizontal distance from the extreme left to the extreme right end of the laboratory bench

**3.1.3****single-sided laboratory bench**

laboratory bench for single sided use, usually fixed to a wall

**3.1.4****island bench**

laboratory bench, which is not fixed to a wall and is a stand-alone assembly

**3.1.5****peninsula bench**

laboratory bench, which may be attached, usually at right angles to a wall or wall bench

**3.1.6****double-sided laboratory bench**either *island bench* (3.1.4) or *peninsula bench* (3.1.5)**3.2****storage unit**

cupboard, drawer packs, tray units or basket units which are located under the worktop fixed in place or moveable

**3.2.1****plinth recess** $d_7$ 

horizontal distance between plinth vertical front and worktop vertical front edge

**3.2.2****plinth height****castor height** $h_8$ 

vertical distance from the floor to the lower edge of the storage unit body

**3.2.3****clearance** $h_9$ 

vertical clear distance between the top of a moveable storage unit and the underside of a worktop support frame or worktop where there is no frame

**3.3****worktop**

horizontal surface to enable laboratory work

**3.3.1****working height of the worktop** $h_1$ 

vertical distance between floor and worktop surface

**prEN 14056-1:2024 (E)****3.3.2****depth of the worktop** $d_2$ 

horizontal distance between front edge and rear edge of the worktop

**3.3.3****worktop length** $w_2$ 

horizontal distance between the left and right edge of the worktop

**3.4****services distribution carrier**

support structure by which services such as gases, water, electricity and IT are distributed to services outlets which comprise part of the lab bench assembly (spine, duct, bridge, void, channel)

**3.4.1****height of the services distribution carrier** $h_3$ 

vertical distance between lower and upper edge of the services distribution carrier

**3.4.2****height of the highest shelf** $h_5$ 

vertical distance between floor and top of a shelf

**3.4.3****depth of the shelf** $d_5$ 

horizontal distance between front edge and rear edge of the shelf

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vertical distance between the floor and the lower edge of the services carrier - this height describes the clear height under the services distribution carrier, where applicable

**3.4.5****depth of the services distribution carrier** $d_3$ 

horizontal distance between front edge and rear edge of the services distribution carrier

**3.4.6****length of the services distribution carrier** $w_3$ 

horizontal distance from the left to the right edge of the services distribution carrier

**3.4.7****clearance height below the services distribution carrier**

vertical distance between the upper edge of the work surface and the lower edge of the services distribution carrier included of the services outlets

Note 1 to entry: This height describes the useful height under the services distribution carrier.

**3.4.8****distance below the lowest services outlet above the floor** $h_7$ 

vertical distance between the floor and the lower edge of the services outlet

Note 1 to entry: This height describes the clear height under the services outlet.

**3.4.9****distance below the lowest services outlet above the worktop** $h_{11}$ 

vertical distance between the worktop and the lower edge of the services outlet

Note 1 to entry: This height describes the clear height under the services outlet.

**3.5****services outlet**

outlet to which cabling or piping connects to enable users to access services

Note 1 to entry: Examples for services outlets are electrical or IT sockets and gases or water taps.

**3.6****useable space on the worktop**

clear space on the worktop free of obstructions, such as services outlets, service carriers, shelves etc.

**3.6.1****height of useable space on the worktop** $h_6$ 

useable vertical distance between the surface of the worktop and the underside of the lowest component (e.g. shelf, services distribution carrier) located above the work surface

**3.6.2****depth of the useable space on the worktop** $d_6$ 

useable horizontal distance between front edge and rear edge of the worktop, minus space required for service outlets, services carriers, front or rear edge (e.g. upstand or marine edge)

**3.6.3****length of the useable space on the worktop** $w_6$ 

useable horizontal distance between the left and right edge of the worktop, minus space required for service outlets, services carriers, edge (e.g. upstand or marine edge)

**3.7****useable space below the worktop**

clear space below the worktop free of obstructions, such as installation frames etc.

**3.7.1****height of useable space below the worktop** $h_{10}$ 

useable vertical distance between the bottom of the worktop and the floor

**prEN 14056-1:2024 (E)****3.7.2****depth of the useable space below the worktop** $d_{10}$ 

useable horizontal distance between front edge of the worktop and rear abutment (e.g. wall, support structure, cover panel)

**3.7.3****length of the useable space below the worktop** $w_{10}$ 

useable horizontal distance between the left and right abutments (e.g. walls, storage units or support structures)

**3.8****moveable**

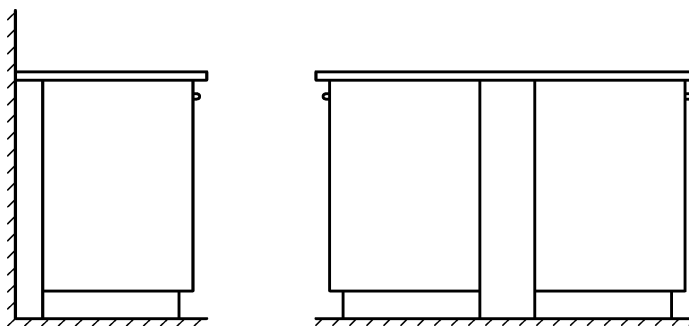
ability to relocate a laboratory bench or component of the same, which can involve some disassembly/unfastening of components and means of transportation (e.g. trolleys, skids, lifting equipment)

**3.9****mobile**

ability to relocate a laboratory bench or component of the same freely and easily with little or no disassembly/unfastening or requirement for means of transportation (e.g. lightweight components, storage units and laboratory bench assemblies which include casters)

**4 Examples of typical worktop and support structure assemblies for laboratory benches****4.1 Fixed pedestal assembly**

A fixed pedestal assembly utilizes floor mounted under-bench storage units which are fixed in under the worktop and which provide the support structure for the worktop, see Figure 1. This system is not designed to be quickly and easily reconfigured.



**Figure 1 — Schematic depiction of fixed pedestal assembly**