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EUROPEAN STANDARD  
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# EN 1004-2

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## Mobile access and working towers made of prefabricated elements - Part 2: Rules and guidelines for the preparation of an instruction manual

Échafaudages roulants en éléments préfabriqués -  
Partie 2 : Règles et lignes directrices pour la  
préparation d'un manuel d'instructions

Fahrbare Arbeitsbühnen - Regeln und Festlegungen für  
die Aufstellung einer Aufbau- und  
Verwendungsanleitung

This European Standard was approved by CEN on 13 September 2021.

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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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## European foreword

This document (EN 1004-2:2021) has been prepared by Technical Committee CEN/TC 53 “Temporary works equipment”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

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 1298:1996.

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

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**EN 1004-2:2021 (E)****1 Scope**

This document gives rules and guidelines for the preparation of instruction manuals for mobile access and working towers in accordance with EN 1004-1, *Mobile access and working towers made of prefabricated elements — Part 1: Materials, dimensions, design loads, safety and performance requirements*.

This document is intended for all parties involved in the preparation of instructions for use, for example: suppliers, technical writers, technical illustrators, translators or other people engaged in the work of conceiving and drafting such instructions for use.

**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 1004-1:2020, *Mobile access and working towers made of prefabricated elements - Part 1: Materials, dimensions, design loads, safety and performance requirements*

ISO 639-1, *Codes for the representation of names of languages — Part 1: Alpha-2 code*

**3 Terms and definitions**

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

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/>  
<https://standards.iteh.ai/catalog/standards/sist/0e7bbf48-27bb-4ffc-b782-bdbfe88c102e/sist-en-1004-2-2022>

**3.1 instruction manual**

document containing information for the use of a product

**3.2 supplier**

individual or organization that provides products and related documentation

Note 1 to entry: Examples of supplier are producer, manufacturer, integrator, vendor, distributor, retailer, agency, provider of information or their authorized representatives.

**3.3 application**

task for which the tower was assembled

**3.4 use**

application, assembly, alteration, moving, dismantling, inspection, care and maintenance

**3.5 alteration**

changing from one permitted configuration to another

**3.6 user**

every person carrying out any activities as defined in 3.4

## 4 General

### 4.1 Basic requirements

The instruction manual shall be written in the official language of the country where the product is placed on the market.

The instruction manual shall give information about the use of the mobile access and working tower.

The supplier of the mobile access and working towers is responsible for the contents as well as for the supply of an instruction manual. The instruction manual is a part of the product.

The instruction manual shall give full information about the identity of the supplier.

The instruction manual shall make reference to relevant assessment documentation according to EN 1004-1:2020, Clause 13 held by the supplier.

The instructions for use shall state the intended use and contain all information that a user needs to know when using the product.

Extensive information on instruction manual content may also be found in IEC/IEEE 82079 (all parts).

The instruction manual shall state the following sentences in a prominent position.

- a) This instruction manual shall be available on the location of use of the mobile access and working tower.
- b) This mobile access and working tower shall only be used according to this manual without any modification.
- c) Mobile access and working towers must only be used in accordance with national regulations.

NOTE 1 According to the European Directive 2009/104/EC adequate training is required for the use of work equipment by workers at work.

The level of description and details of information should be adapted to the knowledge of users. Instructions for use should ensure the completeness of relevant information at a sufficient level of detail based on the ascertained needs of the users. The instructions shall be separated into sections for use that are clearly and appropriately marked and defined at the beginning of the content.

NOTE 2 An example of sections for use might be: a) assembly, alteration and dismantling; b) application and moving; c) inspection care and maintenance.

Pictograms of safety information shall be used to supplement text in instruction manuals. Examples are contained in Annex A.

### 4.2 Risk Assessment

Instructions for use shall, when followed by the user contribute to reducing the risk of injury to people and risks of any damage. Instructions for use are an integral part of the safe operation and maintenance of a mobile access and working tower. They shall provide information to avoid any unacceptable risk for the user or other parties, damage to the mobile access and working tower itself or other products or materials. Instructions for use shall provide users with the necessary information to allow them to identify and avoid reasonably foreseeable misuse. This requires that the mobile access and working tower supplier ensures that the following are taken into account:

- a) the process of risk analysis for the product as sold;
- b) the result of the risk analysis shall be taken into account in the instructions for use as safety-related information; and

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- c) reasonably foreseeable misuse and risks arising from the use of the mobile access and working tower shall be covered.

NOTE As a matter of principle, the supplier has an obligation to include safety-related information; in fact it is a legal requirement in most countries.

The instruction manual shall give information about hazards to be considered during the use of mobile access and working towers.

**4.3 Principal Guidelines**

The description of the application of the mobile access and working tower shall give guidelines with respect to:

- a) the intended means of access to the working platform;
- b) the load class in accordance with EN 1004-1;
- c) the permitted uniformly distributed load in kilograms on the working platform;
- d) a warning that only one platform shall be a working platform at one time;
- e) the maximum number of people permitted on the working platform at one time;
- f) the permitted horizontal force at the working platform;
- g) the permissible configurations of the mobile access and working tower with respect to the permitted heights;
- h) the importance of selecting the correct platform height in relation to the required working height;
- i) the specification of the maximum wind limits:
- 1) when working on the mobile access and working tower is permissible;
  - 2) when the freestanding mobile access and working tower shall be dismantled or made secure.

**5 Identification of components in the structure**

The instruction manual shall give information about the total structure of the mobile access and working tower and the individual components needed.

It is recommended that this information is given with clear references to the position of individual components in the total structure, such as exploded drawings.

**6 Assembly, alteration and dismantling**

The instruction manual shall include the following information:

**6.1** The instruction manual shall specify that before assembling the mobile access and working tower the location should be checked to identify and prevent hazards during assembly, alteration and dismantling including but not limited to:

- a) ground conditions;
- b) level and slope;
- c) obstructions;



- d) weather conditions;
- e) electrical hazards.

**6.2** The instruction manual shall specify that all the components, tools and other necessary equipment for assembling the mobile access and working tower shall be available on site.

**6.3** The assembly and dismantling methods shall ensure that a person is not required to stand on a platform without principal and intermediate guardrails.

NOTE For example, from a lower platform position with principal and intermediate guardrails or the use of other methods of equal effectiveness.

**6.4** The instruction manual shall specify at least the following information for assembling, altering and dismantling the mobile access and working tower:

- a) the number of people required for assembly, alteration and dismantling;
- b) the listing of components, their weights and the quantities of these components needed for assembly and dismantling the mobile access and working tower to a specified configuration;
- c) the listing of specific tools or other equipment, if required;
- d) if specific training is required;
- e) the procedure for assembling the mobile access and working tower, describing the correct sequence of actions. This description shall include illustrations and, if necessary, add text to the illustrations;
- f) the method for vertical alignment of the mobile access and working tower within an inclination of 1 %;
- g) detailed information about the way connections shall be attached and disconnected;
- h) a description of the use and fixing of stabilizers, outriggers and/or ballast;
- i) a description of the recommended method of lifting the components for assembling the upper sections;
- j) the correct location of connections for braces, outriggers or stabilizers and ballast shall be clearly shown;
- k) a description of the use and fixing of stair or ladder access;
- l) a description of the use and fixing of guardrails and toe boards;
- m) the procedure for dismantling the mobile access and working tower (if applicable with reference to the assembly procedure).

**6.4.1** The instruction manual shall state the following text;

- a) User training courses cannot be a substitute for instruction manuals but only complement them;
- b) Only the original [*manufacturers name*] components specified in this manual shall be used;
- c) Damaged or incorrect components shall not be used;
- d) This product shall only be used according to the instruction manual;

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- e) Mobile access and working towers designed in accordance with EN 1004-1 are not anchor points for personal fall arrest equipment;
- f) Working is only permitted on a platform with a complete side protection including guardrails and toeboards.

**6.4.2** After assembly or alteration the following minimum information shall be displayed on the mobile access and working tower and be clearly visible from the ground (e.g. on a tag):

- a) the name and contact details of the responsible person;
- b) if the tower is ready for application or not;
- c) the load class and the uniformly distributed load;
- d) if the mobile access and working tower is intended for indoors use only; and
- e) the date of assembly.

**7 Stability**

The instruction manual shall include:

- a) instructions for the use of stabilizers, outriggers and/or ballast for all configuration and conditions that the mobile access and working tower is intended to be used in;
- b) a warning about horizontal and vertical loads which contribute to overturning of the mobile access and working tower, such as:
  - 1) horizontal loads caused by use, for example as a result of work on an adjacent structure;
  - 2) additional wind loads (tunnelling effect of open-ended buildings, un-clad buildings and at the corners of buildings);
- c) measures to be taken for securing the mobile access and working tower when left unattended; and
- d) the wind speed at which the tower must be dismantled or made secure which shall be expressed in commonly used units such as; metres per second, miles per hour, kilometres per hour or Beaufort scale grade.

Mobile towers are designed to be stable in a free-standing condition at a maximum wind pressure of 0,1 kN per square metre. The manufacturer should propose a maximum wind speed depending on local and national conditions.

**8 Application and moving**

**8.1** The instruction manual shall give at least the following information regarding what should be checked before each application of the mobile access and working tower as an addition to the checks made during the assembly procedure:

- a) that the mobile access and working tower is vertical or needs readjustment;
- b) that the castors are locked by the brakes;
- c) whether the mobile access and working tower is still correct and complete;