SLOVENSKI STANDARD
SIST EN 840-4:2020

01-junij-2020

Nadomešča:
SIST EN 840-4:2014

Premični zabojniki za odpadke in za recikliranje - 4. del: Zabojniki na štirih kolesih s prostornino do 1700 l in ravnim(-i) pokrovom(-i) za široke iztresalnike z rokama ali BG in/ali glavnikom - Mere in oblika

Mobile waste and recycling containers - Part 4: Containers with 4 wheels with a capacity up to 1 700 l with flat lid(s), for wide trunnion or BG- and/or wide comb lifting devices - Dimensions and design

Fahrbare Abfall- und Wertstoffbehälter - Teil 4: Behälter mit 4 Rädern und einem Nennvolumen bis 1 700 l mit Flachdeckel(n), für breite Schüttungen mit Zapfenaufnahme oder BG-Schüttungen und/oder für breite Kammschüttungen - Maße und Formgebung

Conteneurs roulants à déchets et de recyclage - Partie 4 : Conteneurs à 4 roues de capacité inférieure ou égale à 1 700 l à couvercle(s) plat(s), pour lève-conteneurs par tourillon large ou basculeurs et/ou lève-conteneurs à peigne large - Dimensions et conception

Ta slovenski standard je istoveten z: **EN 840-4:2020**

ICS:

13.030.40	Naprave in oprema za odstranjevanje in obdelavo odpadkov	Installations and equipment for waste disposal and treatment

SIST EN 840-4:2020 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 840-4

April 2020

ICS 13.030.40

Supersedes EN 840-4:2012

English Version

Mobile waste and recycling containers - Part 4: Containers with 4 wheels with a capacity up to 1 700 l with flat lid(s), for wide trunnion or BG- and/or wide comb lifting devices - Dimensions and design

Conteneurs roulants à déchets et de recyclage - Partie 4 : Conteneurs à 4 roues de capacité inférieure ou égale à 1 700 l à couvercle(s) plat(s), pour lève-conteneurs par tourillon large ou basculeurs et/ou lève conteneurs à peigne large - Dimensions et conception

Fahrbare Abfall- und Wertstoffbehälter - Teil 4: Behälter mit 4 Rädern und einem Nennvolumen bis 1 700 l mit Flachdeckel(n), für breite Schüttungen mit Zapfenaufnahme oder BG-Schüttungen und/oder für breite Kammschüttungen - Maße und Formgebung

This European Standard was approved by CEN on 7 October 2019.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Turkey and United Kingdom.

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 840-4:2020 E

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European foreword

This document (EN 840-4:2020) has been prepared by Technical Committee CEN/TC 183 “Waste Management”, 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 October 2020, and conflicting national standards shall be withdrawn at the latest by October 2020.

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 840-4:2012.

The main changes compared to the previous edition are listed below:

a) Figure 1 "System dimensions" have been updated;

b) Figure 9 "Functional dimension for frontal receivers" have been added;

c) former Annex A "Recommendations for manufacturers of lifting devices" has been deleted;

d) the document has been editorially revised and adapted to the new design rules.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Turkey and the United Kingdom.

1 Scope

This document specifies dimensions and design requirements of mobile waste and recycling containers with 4 wheels, with flat lid(s) and capacity up to 1 700 l to be used by wide trunnion or BG-lifting device and/or wide comb lifting device.

These containers are only approved for the before explicitly mentioned lifting devices.

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 840-5, *Mobile waste and recycling containers — Part 5: Performance requirements and test methods*

EN 840-6, *Mobile waste and recycling containers — Part 6: Safety and health requirements*

EN ISO 11469, *Plastics - Generic identification and marking of plastics products (ISO 11469)*

EN 1501-1:—[1], *Refuse collection vehicles — General requirements and safety requirements — Part 1: Rear loaded refuse collection vehicles*

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:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp

NOTE Terms for components of mobile waste and recycling containers and lifting devices in three languages are given in Annex A of EN 840-1:2020.

3.1
mobile waste and recycling container
appropriately designed container fitted with wheels intended to temporarily store waste

3.2
lifting device
structure which picks-up, tilts and empties containers

3.3
comb lifting device
lifting device in which the picking-up system consists of a row of teeth and a locking system to retain the container during emptying

[1] Under preparation. Stage at the time of publication: FprEN 1501-1.

3.4
trunnion lifting device
lifting device in which the picking-up system consists of a pair of arms with automatic locking mechanism to fit the trunnion to retain the container during emptying

3.5
BG lifting device
lifting device in which the picking-up system consists of a pair of arms with adaptors that fit the BG receivers and locks them in order to retain the container during emptying

Note 1 to entry: See Figures 5 and 6.

3.6
volume
total space inside the container when the lid is closed

3.7
nominal volume
capacity
volume stated by the manufacturer

Note 1 to entry: See Table 1 without tolerances.

Note 2 to entry: The English term "capacity" and the French term "capacité" are translated in the German version by the term "Nennvolumen".

3.8
nominal mass
mass, which is calculated as given in Clause 6

3.9
total permissible mass
mass of the container plus the nominal load

3.10
functional and safety dimension
essential dimensions which ensure the functionality and interchangeability of the container with the compatible lifting device and which are necessary for the operator's safety and health

4 Volumes

This part of EN 840 identifies the two classes of containers:

— Class I - small size (nominal volume up to 1 050 l);

— Class II - large size (nominal volume between 1 050 l and 1 700 l).

Within the two above-mentioned classes of containers the following volumes are identified: 750 l, 1 000 l, 1 300 l, 1 400 l, 1 500 l, 1 600 l and 1 700 l. Nominal volumes different from those referenced can be used by agreement between user and manufacturer. The tolerance of the volumes shall be ± 5 % maximum measured according to EN 840-5.

5 Dimensions and design

5.1 The design of the containers do not need to correspond to the drawings given in Figure 1. The functional dimensions given in Table 1 shall be respected. Recommendations for manufacturers of lifting devices are given in EN 1501-5.

5.2 The container shall be constructed so that when it is unloaded or loaded with a nominal load (see Clause 6), it fits on an approved compatible lifting device. It shall be automatically locked safely into the lifting device during the lifting operation. If the container is equipped with a comb receiver, it shall correspond to Figure 2.

5.3 The lid(s) shall cover the opening of the container completely. It/they shall be opened easily by itself during the emptying cycle. It/they shall be made with at least two fixing points and have at least one means of opening.

5.4 Handles fitted in front of the trunnion shall have a measurement over the handles of 10 mm less than the actual measurement in Table 1, dimension N° 33. The handles and their location also shall be designed so that they do not damage the operator.

5.5 If the container has ribs in the frontal receiver they shall meet the requirements of Figure 4.

5.6 The container shall have four swivel castors. Each swivel castor shall be capable of withstanding 1/3 of the total permissible mass. Each castor shall meet the requirements of EN 840-5. The container shall have facilities for mounting the castor platine according to at least one of the configurations as shown in Figure 7.

5.7 All the surfaces of the container including design features shall be smooth and free of any foreign bodies or flaws.

5.8 The container should have a drain plug.

5.9 When direction locks are fitted they shall be fixed on at least 2 castors.

5.10 The container should be fitted with 2 braked wheels to requirements of EN 840-5. In case of centralized braking and locking system the brake pedal and the lock shall be fixed on a lateral side of the container. The centralized locking shall be able to be unlocked with a standard triangular key as shown in Figure 8. The effectiveness of this centralized braking system shall conform to EN 840-5.

6 Nominal mass

The container shall be constructed strongly enough to carry a mass of 0,4 kg/dm^3 x nominal volume. Containers with a nominal volume of more than 1 100 l shall be constructed strongly enough to carry a load of 440 kg.

7 Safety and health requirements

The container shall meet the safety and health requirements according to EN 840-6.

8 Testing

The container shall fulfil the performance requirements and the tests of EN 840-5.

9 Marking

9.1 Each container complying with the requirements of this part of EN 840 shall be durably and readably marked on the body in a visible part with:

— number of this document (EN 840-4);

— nominal volume;

— manufacturer's name or trademark;

— total permissible mass, in kilograms;

— year and month of manufacturing.

9.2 Additional marking for quality, recycling, etc. is allowed. Plastic parts of containers, lids and wheels shall be marked in accordance with EN ISO 11469. The use of recycled materials is allowed, presuming that all requirements of this standard are complied with.

10 Designation

The container complying with the requirements of this document shall be designated as follows:

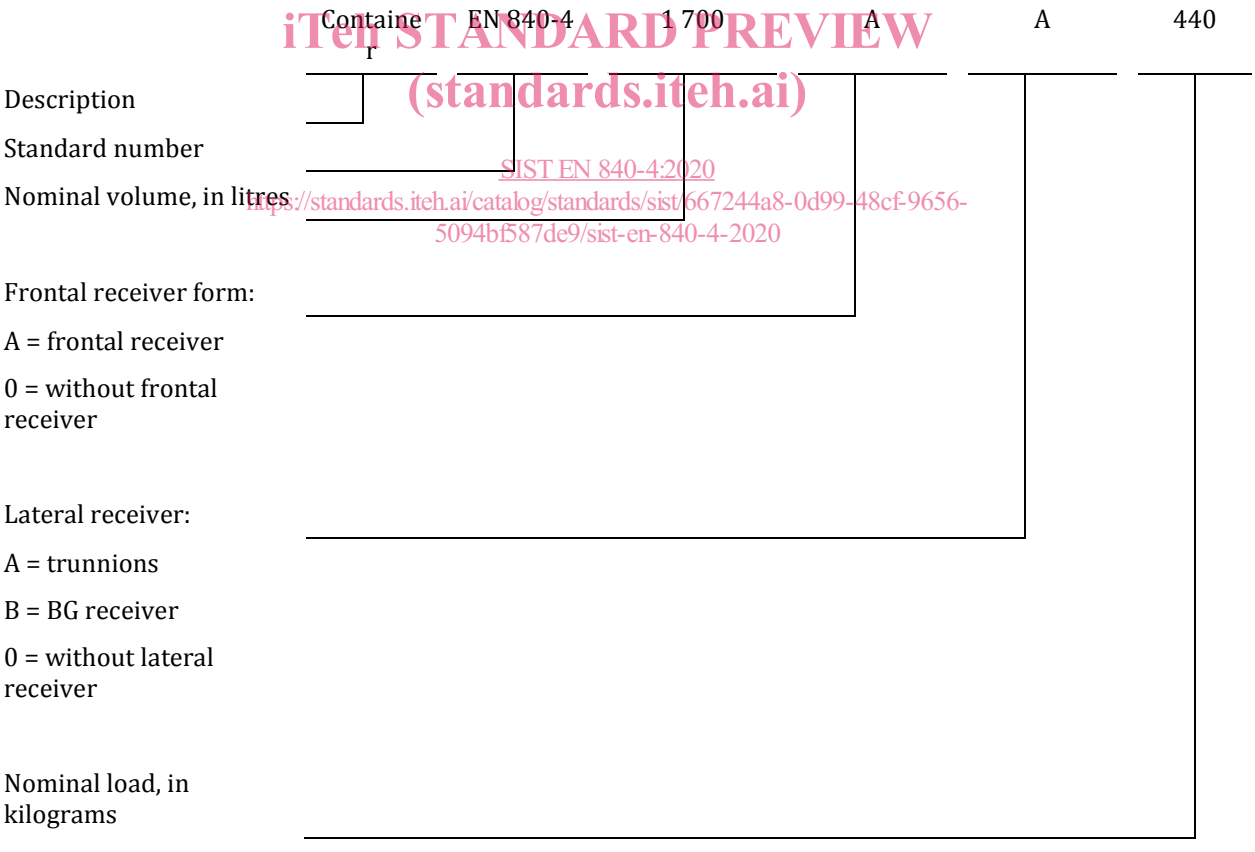

Table 1 — Dimensions

Dimensions in millimetres

Dimension N°	Class I - Small sizes ≤ 1 050 l		Class II - Large sizes > 1 050 l					Remarks
	750 l	1 000 l	1 300 l	1 400 l	1 500 l	1 600 l	1 700 l	
1[a]	1 770 ± 10	1 770 ± 10	1 770 ± 10	1 770 ± 10	1 770 ± 10	1 770 ± 10	1 770 ± 10	In case of trunnions
2	815 max.	990 max.	1 190 max.	1 190 max.	1 190 max.	1 190 max.	1 190 max.	Total width lid(s) closed
3	815 max.	990 max.	1 250 max.	1 250 max.	1 250 max.	1 250 max.	1 250 max.	When lid(s) open
4	1 470 max.	1 470 max.	1 470 max.	1 470 max.	1 470 max.	1 470 max.	1 470 max.	
5[a]	860 min.; 1 290 max.	860 min.; 1290 max.	860 min.; 1290 max.	860 min.; 1290max.	860 min.; 1290max.	860 min.; 1290 max.	860 min.; 1290 max.	Tipping edge
6	583 ± 50	720 ± 50	920 ± 150	920 ± 150	920 ± 150	920 ± 150	920 ± 150	
7[a]	135 min.; 280 max.	135 min.; 280 max	135 min.; 280 max.	135 min.; 280 max.	135 min.; 280 max.	135 min.; 280 max.	135 min.; 280 max.	In case of trunnions and min. 850 from ground
8[a]	700 to 850	700 to 850	700 to 850	700 to 850	700 to 850	700 to 850	700 to 850	Handle position if present
9	600 to 850	600 to 850	600 to 850	600 to 850	600 to 850	600 to 850	600 to 850	Lock position if present
10[a]	460^{+65}_{-45}	500^{+15}_{-40}	500^{+15}_{-40}	500^{+15}_{-40}	500^{+15}_{-40}	500^{+15}_{-40}	500^{+15}_{-40}	In case of trunnions
11[a,b]	Ø 200 ± 2	Ø 200 ± 2	Ø 200 ± 2	Ø 200 ± 2	Ø 200 ± 2	Ø 200 ± 2	Ø 200 ± 2	
12[a]	19 min.	19 min.	19 min.	19 min.	19 min.	19 min.	19 min.	In case of frontal receiver
13[a]	13^{+5}_{-3}	13^{+5}_{-3}	13^{+5}_{-3}	13^{+5}_{-3}	13^{+5}_{-3}	13^{+5}_{-3}	13^{+5}_{-3}	In case of frontal receiver
14[a]	21^{+2}_{-2}	21^{+2}_{-2}	21^{+2}_{-2}	21^{+2}_{-2}	21^{+2}_{-2}	21^{+2}_{-2}	21^{+2}_{-2}	In case of frontal receiver
16[a]	26 ± 1	26 ± 1	26 ± 1	26 ± 1	26 ± 1	26 ± 1	26 ± 1	In case of frontal receiver

Dimension N°	Class I - Small sizes ≤ 1 050 l		Class II - Large sizes > 1 050 l					Remarks
	750 l	1 000 l	1 300 l	1 400 l	1 500 l	1 600 l	1 700 l	
17[a]	58 max.	58 max.	58 max.	58 max.	58 max.	58 max.	58 max.	In case of frontal receiver
18[a]	20 min.	20 min.	20 min.	20 min.	20 min.	20 min.	20 min.	In case of frontal receiver
19[a]	130 max.	130 max.	130 max.	130 max.	130 max.	130 max.	130 max.	When ribs are fitted
20	15 max.	15 max.	15 max.	15 max.	15 max.	15 max.	15 max.	In case of frontal receiver
21[a]	33^{+8}_{-1}	33^{+8}_{-1}	33^{+8}_{-1}	33^{+8}_{-1}	33^{+8}_{-1}	33^{+8}_{-1}	33^{+8}_{-1}	In case of frontal receiver
23[a]	Ø 40 ± 2	Ø 40 ± 2	Ø 40 ± 2	Ø 40 ± 2	Ø 40 ± 2	Ø 40 ± 2	Ø 40 ± 2	In case of trunnions
24[a]	670^{+30}_{0}	670^{+30}_{0}	670^{+30}_{0}	670^{+30}_{0}	670^{+30}_{0}	670^{+30}_{0}	670^{+30}_{0}	In case of trunnions and frontal receiver
25[a]	350 ± 10	350 ± 10	350 ± 10	350 ± 10	350 ± 10	350 ± 10	350 ± 10	Clearance for lifting device (optional for BG System)
26	580 ± 20	580 ± 20	705 ± 115	785 ± 115	785 ± 115	785 ± 115	785 ± 115	
27	130 min.	130 min.	130 min.	130 min.	130 min.	130 min.	130 min.	Ground clearance
28[a]	1 675 max.	1 675 max.	1 675 max.	1 675 max.	1 675 max.	1 675 max.	1 675 max.	Lid
29[a]	1 535 min.	1 535 min.	1 535 min.	1 535 min.	1 535 min.	1 535 min.	1 535 min.	Inside operating length of frontal receiver
30[a]	1600^{+15}_{-40}	1600^{+15}_{-40}	1600^{+15}_{-40}	1600^{+15}_{-40}	1600^{+15}_{-40}	1600^{+15}_{-40}	1600^{+15}_{-40}	Overall frontal receiver