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**Light gauge metal containers —  
Vocabulary and classification —**

Part 1:  
**Open-top cans and ends**

*Réipients métalliques légers — Vocabulaire et classification —  
Partie 1: Boîtes serties à extrémité sertie*

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Published in Switzerland

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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 ISO/TC 52, *Light gauge metal containers*.

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

The definitions in this document have been drawn up with the objective of achieving a proper balance between precision and simplicity. This document has been developed to provide a unified standard set of terms and definitions of open-top cans and ends. Some terminology of open-top cans and ends in present use has developed through common usage and is not always logical. It has not, therefore, been possible to define certain terms in the form they are used in some countries. Because of the occasional conflicts between tradition and logic, some definitions inevitably represent a compromise.

The classification is a common technique that humans use to cope with the complexity of the world around us. Since there are many different possible application areas, there is no single classification system that will serve all needs. The method by which classifiers are defined depends upon the application area. In addition, the classifiers used within a particular application area might not be adequate for all situations.

This document has been developed to help prevent trade barriers and enhance communication.

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# Light gauge metal containers — Vocabulary and classification —

## Part 1: Open-top cans and ends

### 1 Scope

This document defines terms and establishes a classification (see [Annex A](#)) for open-top metal cans and metal ends.

This document is applicable to open-top metal cans and metal ends for food and beverages made of metal plates such as tin or chromium-coated steel plates or aluminium alloy plates with a thickness of no more than 0,49 mm.

### 2 Normative references

There are no normative references in this document.

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

#### 3.1 Terms related to raw and processed materials

##### 3.1.1 tinplate

non-alloy, low carbon steel supplied in strip or sheet form that has been single or double cold reduced and coated on both surfaces with tin in a continuous electrolytic process

Note 1 to entry: Single-reduced tinplate is commonly supplied with a thickness of 0,15 mm up to and including 0,60 mm, double-reduced tinplate with a thickness of 0,14 mm up to and including 0,36 mm. Tinplate is supplied normally with a passivation treatment and a protective coating of oil and is suitable for varnishing (lacquering) or printing.

Note 2 to entry: Tinplate may also be obtained by hot dipping in a bath of molten tin.

[SOURCE: ISO 6929:2013, 1.3.4.2]

##### 3.1.2 electrolytic tinplate

cold-reduced low-carbon steel sheet or coil coated on both surfaces with tin that is applied in a continuous electrolytic operation

[SOURCE: ISO 11949:2016, 3.2]

### 3.1.3

#### **electrolytic chromium/chromium oxide-coated steel**

cold-reduced low-carbon mild steel sheet or coil, electrolytically treated to produce on both surfaces a duplex film of metallic chromium adjacent to the steel substrate with a top layer of hydrated chromium oxide or hydroxide

[SOURCE: ISO 11950:2016, 3.2]

### 3.1.4

#### **single cold-reduced**

description of product in which the blackplate has been reduced to the desired thickness in a cold-reduction mill and subsequently annealed and temper rolled

[SOURCE: ISO 11949:2016, 3.4]

### 3.1.5

#### **double cold-reduced**

description of product in which the blackplate has had a second major reduction after annealing

[SOURCE: ISO 11949:2016, 3.5]

### 3.1.6

#### **K plate**

electrolytic tinplate, No. 50 or heavier tin coating, with good corrosion resistance

Note 1 to entry: The target value should meet the following requirements after four special tests, the pickling lag (PL), iron solution value (ISV), tin crystal size (TCS) and alloy-tin electrical coupling (ATC):

- a)  $PLV \leq 10$  s;
- b)  $TCS \leq 9$  grade;
- c)  $ISV \leq 20$   $\mu\text{g}$ ;
- d)  $ATC \leq 0,12$   $\mu\text{A}/\text{cm}^2$ .

### 3.1.7

#### **J plate**

electrolytic tinplate, No. 50 or heavier tin coating, with good corrosion resistance

Note 1 to entry: The target value should meet the following requirements after three special tests, the pickling lag (PLV), iron solution value (ISV) and tin crystal size (TCS):

- a)  $PL \leq 10$  s;
- b)  $TCS \leq 9$  grade;
- c)  $ISV \leq 20$   $\mu\text{g}$ .

### 3.1.8

#### **aluminium alloy**

alloy with a mass fraction of aluminium greater than 50 %

### 3.1.9

#### **coated tinplate**

*tinplate* (3.1.1) strip or sheet coated with lacquer and cured at high temperature to form a film

### 3.1.10

#### **coated tin free steel**

*electrolytic chromium* (3.1.3) strip or sheet coated with lacquer and cured at high temperature to form a film

**3.1.11****coated aluminium alloy**

*aluminium alloy* (3.1.8) strip or sheet coated with lacquer and cured at high temperature to form a film

**3.1.12****aluminium foil**

very thin aluminium coil, strip or sheet made of aluminium and *aluminium alloy* (3.1.8) plate and strip after rolling

**3.1.13****laminated steel**

composite material with dual properties of organic polymer material and metal material formed by gluing a layer of polymer film on the surface of a *tinplate* (3.1.1) or chrome-plated steel sheet through the melting method

**3.1.14****laminated aluminium**

composite material with dual properties of organic polymer material and metal material formed by gluing a layer of polymer film on the surface of the *aluminium alloy* (3.1.8) sheet by melting

**3.1.15****compound**

sealing material formulated with latex or rubber, filler and tackifier

Note 1 to entry: The material is poured into the round ditch of the can lid in a slope shape inclined to the centre of the can lid. After forming a double crimp, it is filled in the gap at the bottom of the lid groove and squeezed on the first and second layers of the outer side of the crimp. The gap between the metal plates serves as a seal.

**3.1.16****sealing gasket**

plastic or rubber ring/pad with a certain thickness attached to the inner surface of the metal cap

**3.2 Terms related to manufacturing technique****3.2.1****can body**

principal part of the container (usually the side wall formed by the largest part of a single piece), which has a round, square or other shape

**3.2.2****resistance welding**

welding with pressure in which the heat necessary for welding is produced by resistance to an electrical current flowing through the welding zone

[SOURCE: ISO/TR 25901-3:2016, 2.2.1.7.1]

**3.2.3****flanging**

upper edge of the can that is flared out at right angles to the vertical axis of the can

**3.2.4****roll-forming**

cylinder formed by the can body plate after the rounding device, which has a gap of 4 mm to 6 mm on the side of the cylinder and is parallel along the length of the cylinder

**3.2.5****necking**

punching method for reducing the diameter of the open top of a cylindrical blank

### 3.2.6

#### **embossing**

printing process that uses a concave and convexity mould to form printed material deformation under a certain pressure to form a pattern on the surface

### 3.2.7

#### **drawing**

processing method that uses the extensibility of metal materials by drawing die to put a blank or semi-finished product of a certain shape into a mould to form an open hollow can

### 3.2.8

#### **ink-jet printing**

process of marking product information on can ends or labels with a printer

### 3.2.9

#### **sealing of metal can**

process in which semi-finished products are put into metal cans and sealed with a can-sealing machine

### 3.2.10

#### **seaming roll**

main part on a can seamer with two small round wheels with different curvatures around that forms the double-seam structure, in which the first roller is to roll the can *cover hook* (3.2.19) under the can body flange and roll them together, and the second roller is to press the first roller tightly, so that the curling is tightly combined with each other, and the sealant is filled inside the forming gap between the can body and the *cover hook* (3.2.19)

### 3.2.11

#### **seaming rail**

sealing accessory part of the high-speed sealing machine, which replaces the roller, forms a double seam and meets the sealing requirements

### 3.2.12

#### **seaming chuck**

part of the can sealing machine that can be embedded in the countersunk part of the can cover and support the combined part of the can cover and the can body with the peripheral side to resist the pressure of the sealing roller

### 3.2.13

#### **base plate**

part that lifts the can lid and the can body upward when the can sealing machine is running, so that the pressure head is embedded in the can lids, and the can body is stabilized to avoid sliding, so as to facilitate the formation of double curling and meet the sealing requirements

### 3.2.14

#### **double seam**

sealing structure formed by the operation of the first roller and the second roller to make the flanging of the can body and the hook of the cover (bottom) overlap each other and press tightly, which is composed of three layers of top (bottom) cover thickness and two layers of can body thickness

### 3.2.15

#### **seam thickness**

maximum external dimension measured across or perpendicular to the body and cover hook

### 3.2.16

#### **seam height**

seam length

seam width

maximum external dimension of a seam measured parallel to the body and end hook

**3.2.17****countersink depth**

distance from the top radius of the double seam to the bottom of the countersink radius

**3.2.18****body hook**

folding over of the body flange into an interlocking hook

**3.2.19****cover hook**

hook formed from the cover curl extending from the radius to an opposite (180°) radius

**3.2.20****tab**

ring-shaped or other shaped structure which is staked with the ends for easy opening

**3.2.21****score**

tear line pre-pressed or scored on the *easy-open ends* ([3.5.22](#)) for easy opening

**3.2.22****rivet**

fixed part of the *easy-open ends* ([3.5.22](#)) to rivet the retaining piece (pull ring)

**3.2.23****curl**

extreme edge of the can end which is turned inward when the double seam is formed to become the end hook

**3.2.24****score repairing**

repairing process at the score area of the end where the coating is destroyed during the formation of the score

**3.3 Terms related to quality****3.3.1****length of overlap**

actual overlap

measurement of how much the *body hook* ([3.2.18](#)) overlaps the *cover hook* ([3.2.19](#))

**3.3.2****seam gap**

place between the top of the body hook radius and the underside of the seaming panel

**3.3.3****rate of overlap**

percentage of overlap

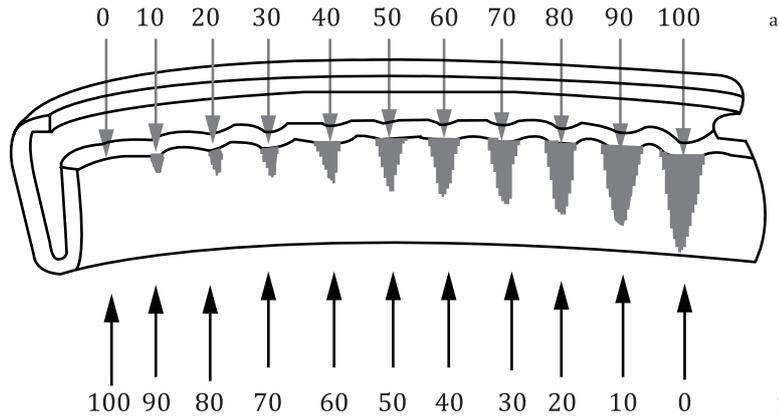
ratio of the *length of overlap* ([3.3.1](#)) relative to the internal seam length, expressed as a percentage

**3.3.4****wrinkle rating****WR**

degree of waviness occurring in the *cover hook* ([3.2.19](#)) from which the degree of double seam tightness is determined

Note 1 to entry: Wrinkles are not included in the sealing process. The marks left after the wrinkles are rolled and smoothed.

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



- a Wrinkles.
- b Tightness.

Figure 1 — Wrinkles and tightness

**3.3.5**  
**tightness rating**  
**TR**

measure of the degree of wrinkle left on the end hook on the completed double seam

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

**3.3.6**  
**juncture rating**  
**JR**

percentage of the *cover hook* ([3.2.19](#)) metal available for overlap when it is interlocked with a *body hook* ([3.2.18](#))

**3.3.7**  
**cover hook butting**  
**CHB**

percentage of the can *cover hook* ([3.2.19](#)) at the overlap of the seam to the theoretical *cover hook* ([3.2.19](#)) length

**3.3.8**  
**body hook butting**  
**BHB**

percentage of the can *body hook* ([3.2.18](#)) at the overlap of the seam to the theoretical *body hook* ([3.2.18](#)) length

**3.3.9**  
**ridge**

continuous impression around the inside periphery of the can body in the double seam area formed by the seaming roll pressure

**3.3.10**  
**enamel rate value**  
**ERV**

evaluation of the undesired metal exposure by checking the integrity of the coating using current value

**3.3.11**  
**splash**

spikes of metal extending from the weld due to excessive heating at the site of the spatter

**3.3.12****false welding**

pseudo welding

cold weld

welding when two plates to be welded have not reached the plastic-welded state (only the tin is melted) due to a low welding temperature

**3.3.13****welding pin hole**

cavities that can appear in a melted puddle after two pieces of metal are welded together

**3.3.14****welding puncture**

individual welding spots melt and perforated due to sudden excessive welding current

**3.3.15****missing welding**

one or more welding points fail to weld due to no current or too small current

**3.3.16****faulty score**

excessively deep or weak scoreline during the scoring process

**3.3.17****dead head**

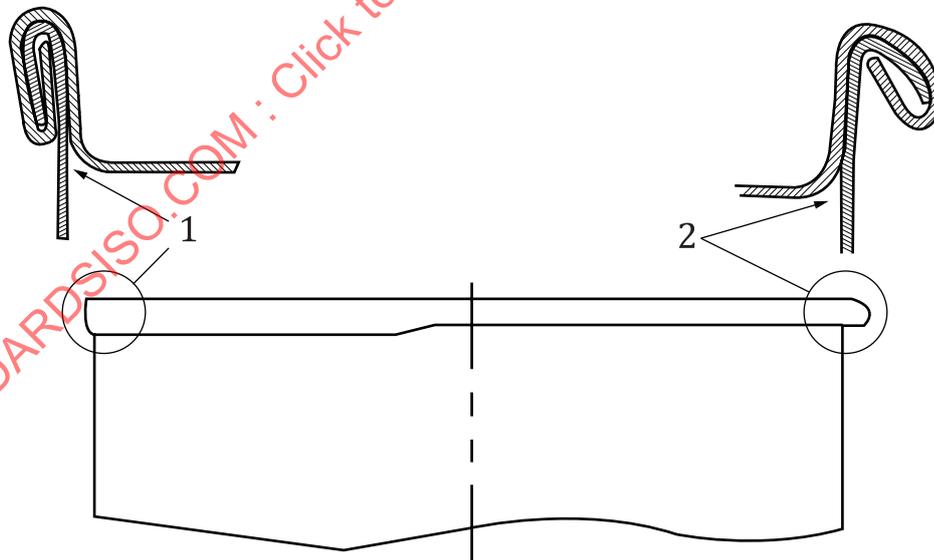
spinner

skidder

slip seam

incompletely ironed out double seam

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

**Key**

1 normal seam

2 skidder

**Figure 2 — Dead head; spinner; skidder; slip seam**

**3.3.18**

**off-set**

defect where the weld port is not flat due to a poor end lap

**3.3.19**

**fishtail**

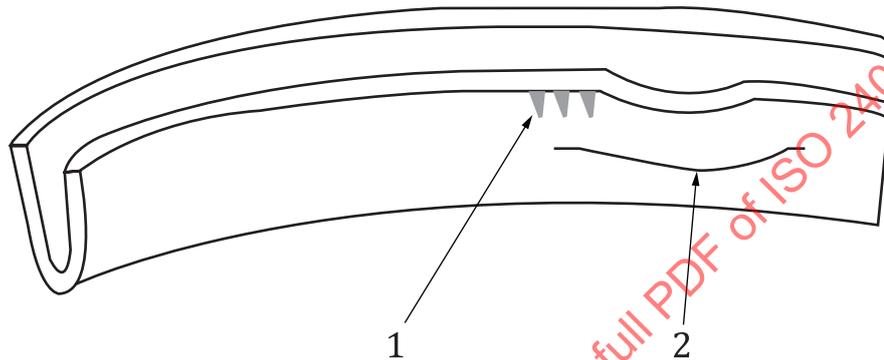
defect where the end of the weld is protruding due to poor welding

**3.3.20**

**jumped seam**

defect where the hemming at the weld is thicker and the roller skips when passing through the weld and fails to compress the hemming

Note 1 to entry: See [Figure 3](#).



**Key**

- 1 jumped seam
- 2 juncture seam

**Figure 3 — Jumped seam**

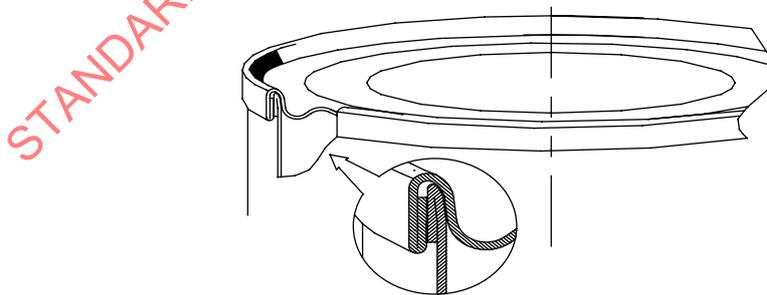
**3.3.21**

**false seam**

false seal

seam or portion of a seam that is entirely unhooked and in which the folded *cover hook* ([3.2.19](#)) is compressed against the folded *body hook*

Note 1 to entry: See [Figure 4](#).

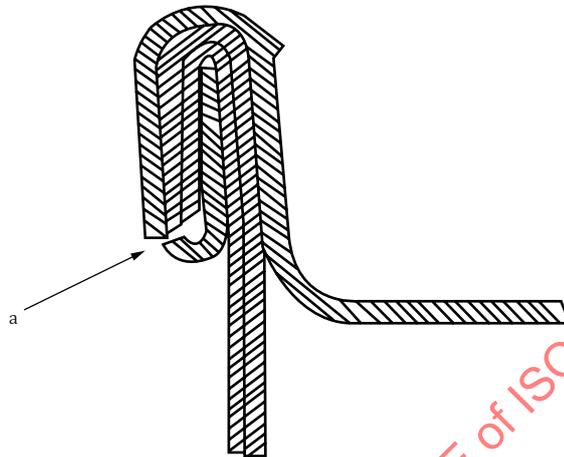


**Figure 4 — False seam**

**3.3.22****cut seam**

fractured seam

seaming defect where the outer metal sheet breaks due to poor crimping of the cans, which usually occurs at the weld of the can body

Note 1 to entry: See [Figure 5](#).

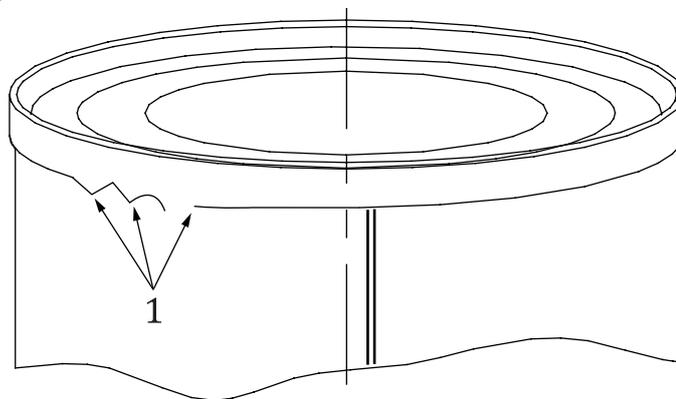
a Fractured.

**Figure 5 — Cut seam; fractured seam****3.3.23****double line**

linear indentation at the lower part of the double seam, where the metal layer is broken by the seam roller

**3.3.24****lip**

tongue-shaped part obviously exposed at the lower edge of the curling due to poor sealing

Note 1 to entry: See [Figure 6](#).**Key**

1 lip

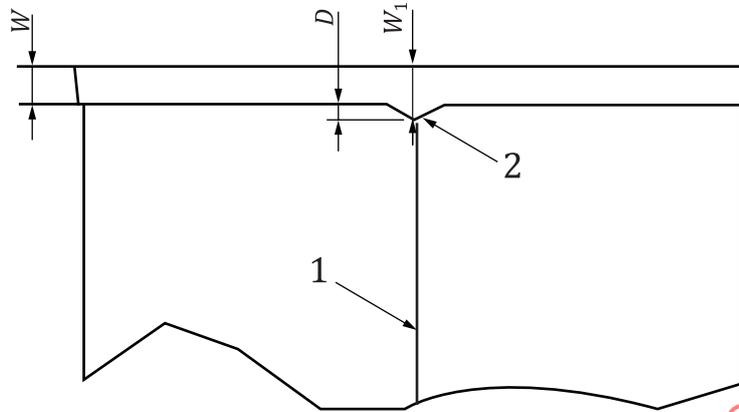
**Figure 6 — Lip**

3.3.25

**droop**

metal tongue that exceeds 20 % of the curling width at the seam of the can body

Note 1 to entry: See [Figure 7](#).



**Key**

- 1 weld seam
- 2 droop

Figure 7 — Droop

3.3.26

**sharp seam**

sharp edge at the top inside portion of the seam at any point around the seam

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

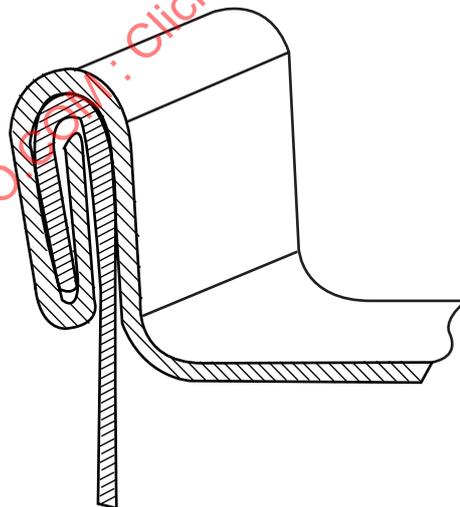


Figure 8 — Sharp seam

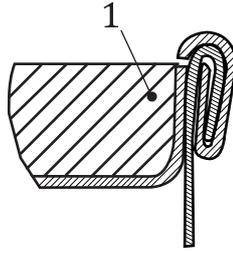
3.3.27

**cut over**

fractured seam

seam defect which is sharp enough to fracture the metal at the top inside portion of the seam

Note 1 to entry: See [Figure 9](#).

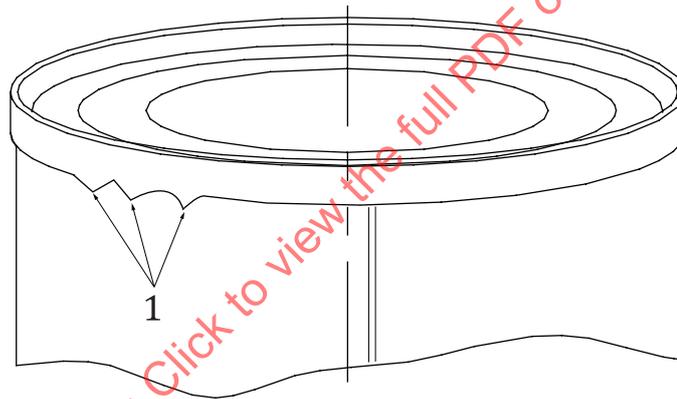
**Key**

1 chuck

**Figure 9 — Cut over****3.3.28****vee**

one or several V-shaped protrusions under the double seam edge, which formed on the *cover hook* (3.2.19), due to bad overlap between the *cover hook* (3.2.19) and the body hook

Note 1 to entry: See [Figure 10](#).

**Key**

1 vee

**Figure 10 — Vee****3.3.29****knocked down flange**

soft crab

body flange bent back against the body without being engaged with the *cover hook* (3.2.19)

Note 1 to entry: See [Figure 11](#).

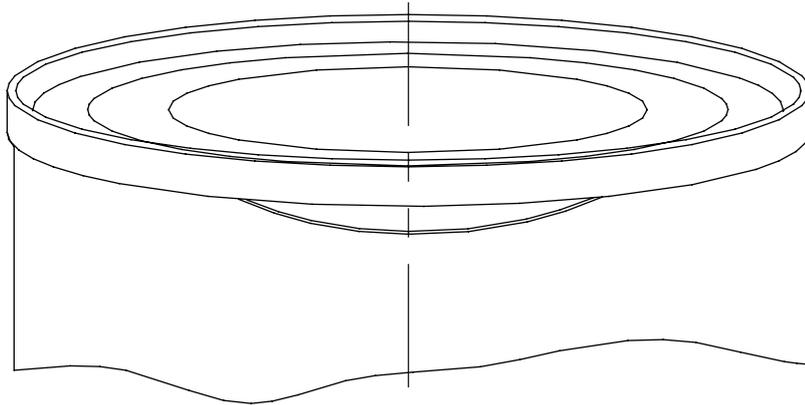


Figure 11 — Knocked down flange

**3.3.30  
scratch**

defect caused by external friction or damage on the tin-plated layer, paint film or external printed iron (aluminium) label

**3.3.31  
external squeezing of compound**

defect where the seaming compound is exposed at the lower edge of the outer edge of the cans

**3.3.32  
internal squeezing of compound**

defect where the seaming compound is exposed in the crimp groove inside the cans

**3.4 Terms related to evaluating the quality and safety of containers containing food**

**3.4.1  
head space**

non-filled volume of container that allows for product expansion

**3.4.2  
vacuum**

difference between the air pressure inside the metal-packed food container and the atmospheric pressure outside the container

**3.4.3  
swollen can**

defect where a positive pressure is formed in the can due to chemical action, microbial activity in the can, causing the generation of gas or physical reasons, so that one or both ends of the can lid or can bottom or both sides of the can body are convex

**3.4.4  
physical swollen can**

false expansion

defect where the can swells caused by certain physical factors such as handling, collision, pressure or filling volume

**3.4.5  
chemical swollen can**

defect where gas is produced by a chemical reaction, usually due to the presence of acid, which undergoes a substitution reaction with metal, and produces a large amount of hydrogen, which then causes the container to expand

**3.4.6****microbiological swollen can**

defect where gas is generated by the activity of microorganisms in cans, and positive pressure is formed in cans, so that one or both ends of the can lid or can bottom or both sides of the can body are convex

**3.4.7****low vacuum can**

filled can where the vacuum degree is reduced after storage, whose sensory quality and pH value of the contents are basically unchanged, and which still meets commercial sterility requirements

**3.4.8****dented can**

defect comprising a significant collapse and deformation of canned food caused by an external force or excessive vacuum

**3.4.9****rusted can**

defect comprising rust on the surface of a tinned food container

**3.4.10****leaked can**

defect where the seal of the canned food is defective or the seal is broken due to impact, or the wall of the can leaks due to corrosion

**3.4.11****aggressive puncture**

defect comprising leakage caused by concentrated corrosion of the metal can inner wall by the aggressive content

**3.4.12****buckle peaking**

defect where the corners of the bottom or lid of the canned food are raised resulting from the internal pressure of the container being greater than the external pressure of the container during sterilization or cooling, which is due to improper handling in the process of sterilization and cooling, or improper processing of certain boned livestock and poultry products in, for example, canning, exhausting and vacuuming

**3.4.13****corrosion**

deterioration of metal by a chemical reaction

[SOURCE: ISO 2710:2019, 3.5.14]

**3.4.14****corrosion of inner can body**

deterioration of the metal plate from the inside of the container as a result of chemical reaction which can lead to penetration of the metal plate

**3.4.15****normal detinning**

slow *corrosion* (3.4.13) of the tin coating

Note 1 to entry: It is an essential process in plain cans to provide electrochemical protection to any exposed areas of base steel.

**3.4.16****rapid detinning**

*corrosion* (3.4.13) caused by the use of plate with a tin coating mass that is too light, or by a product that is intrinsically too corrosive or contains corrosive accelerators

**3.4.17**

**partial detinning**

*corrosion* (3.4.13) that occurs with tinfoil with poor corrosion resistance, or in certain products that have high corrosivity, such as prunes and pear nectar

**3.4.18**

**pitting**

*corrosion* (3.4.13) that occurs when the normal tinfoil tin/iron couple is reversed and iron becomes anodic to tin

**3.4.19**

**passivation**

decrease of corrosion rate by a passivation layer

Note 1 to entry: Incomplete passivation may lead to localized corrosion.

[SOURCE: ISO 8044:2020, 7.3.1]

**3.4.20**

**sulphide stain**

purple-black stain of tin sulfide caused by sulphur compounds in foods reacting with a plain tinfoil surface

**3.4.21**

**ferric sulphide**

black substance produced by the sulfur compounds in foods reacting with ferric ion from tinfoil

**3.4.22**

**lacquer off**

defect where the paint inside the can wall is flaked off due to corrosion or the paint has been separated from the metal sheet and has not fallen off

**3.4.23**

**circle trace by oxidation**

dark corrosion circles formed at the junction between the liquid surface and the inner wall due to oxidation occurring in the can head space

**3.4.24**

**safety button**

circular portion of cap panel that changes from convex to concave when container has vacuum

**3.4.25**

**pull-up**

degree to which the unscrewed cap is in close contact with the glass bottle

**3.4.26**

**security**

elastic index of the unscrew cover gasket

**3.4.27**

**food packaging**

any product to be used for containment, protection, handling, delivery, storage, transport and presentation of food

Note 1 to entry: Food packaging may have direct or indirect contact with the food.

- Direct food contact surfaces or materials are in contact (i.e. physically touching the food or in contact with the headspace) or will be in contact with the food during normal use of the food packaging.
- Indirect food contact surfaces or materials are not in direct contact with the food during normal use of the food packaging, but there is the possibility for substances to be transferred into the food.

The classification of the food packaging as direct or indirect food contact should be part of the hazard analysis.

[SOURCE: ISO/TS 22002-4:2013, 3.7]

#### 3.4.28

##### **food contact light gauge metal container**

light gauge metal container, with thickness no more than 0,49 mm under normal conditions of use, that is already or is expected to be in contact with food and food additives, or where its components can transfer into food

#### 3.4.29

##### **food packaging hazard**

biological, chemical or physical agent in food packaging, or condition of use, with the potential to cause an effect in the food leading to adverse health effects

[SOURCE: ISO/TS 22002-4:2013, 3.8]

#### 3.4.30

##### **non-intentionally added substance**

substance present in the food contact materials and articles but not intended as a functional component, including impurities brought in from raw materials, decomposition products, contaminants and residuals from reactive intermediates produced during manufacturing, marketing and use

#### 3.4.31

##### **set-off**

phenomenon involving transfer of substances from outer layer of materials and articles to the inner food contact layer through direct contact and not via diffusion through the material

[SOURCE: ISO/TS 22002-4:2013, 3.19, modified — definition has been revised]

#### 3.4.32

##### **migration**

transfer of substances from an external source to food

[SOURCE: ISO/TS 22002-4:2013, 3.13, modified — The example has been deleted.]

#### 3.4.33

##### **specific migration test**

experiment methods for the determination of the migration of a particular kind or type of substances in food contact materials and articles

#### 3.4.34

##### **overall migration test**

test to determine the quantity of non-volatile substances released from a food contact material or article into food simulants

#### 3.4.35

##### **food simulant**

test medium used to simulate food for a migration test, which can closely reflect the migration of food contact materials and components in the product to the food in contact, and which has commonality with certain types of food

#### 3.4.36

##### **declaration of compliance**

##### **DOC**

document that confirms conformance to specifications or regulations

Note 1 to entry: This is sometimes referred to as a certificate of conformance (CoC)

[SOURCE: ISO/TS 22002-4:2013, 3.5]

### 3.5 Terms related to classification

#### 3.5.1

##### **open-top can**

rigid container made of light gauge metal with a maximum nominal material thickness of 0,49 mm, one end of which is double-seamed after filling

#### 3.5.2

##### **plain tinplate can**

can with a body made of tinned thin steel plate with no coating or film laminated on the inner wall

#### 3.5.3

##### **coated steel can**

can with a body made of tin (chromium) thin steel plate coated on the inner wall, which is used as a packaging container

#### 3.5.4

##### **laminated steel can**

can with a body made of film-laminated steel, which is used as a packaging container

#### 3.5.5

##### **aluminium can**

can with a body made of aluminium alloy plate, which is used as a packaging container

#### 3.5.6

##### **two-piece can**

can made from two main components, a body and a bottom, which form one piece, and a top end

Note 1 to entry: See [Figure 12](#).

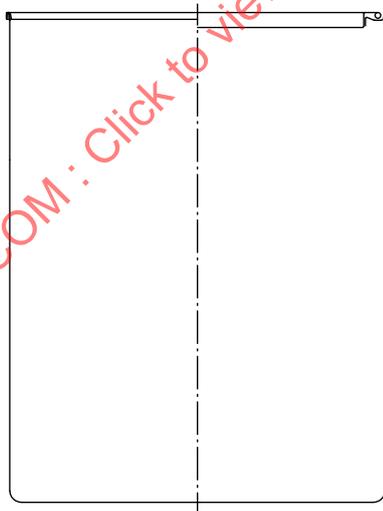


Figure 12 — Two-piece can

#### 3.5.7

##### **three-piece can**

can made from three main components: a body, a top end and a bottom end

Note 1 to entry: See [Figure 13](#).

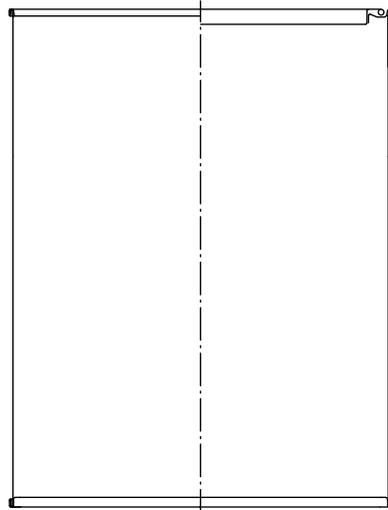


Figure 13 — Three-piece can

**3.5.8****round can**

can with a circular cross-section

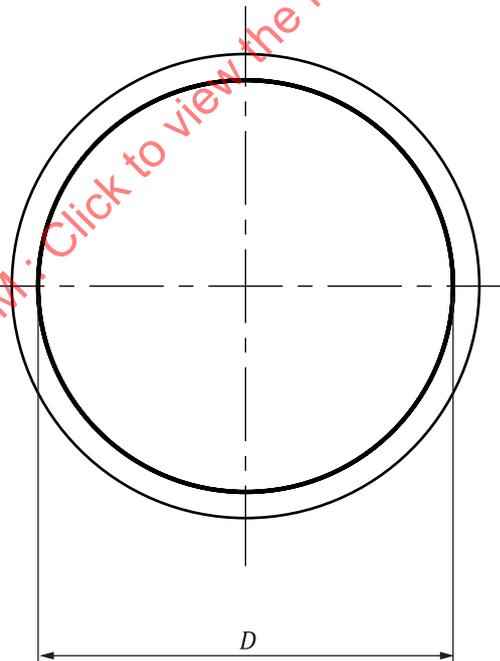
Note 1 to entry: See [Figure 14](#).

Figure 14 — Round can

**3.5.9****special-profile can**

can with a body that varies in cross-section to give a particular profile

**3.5.10****rectangular can**

can with a rectangular or square cross-section

Note 1 to entry: See [Figure 15](#).

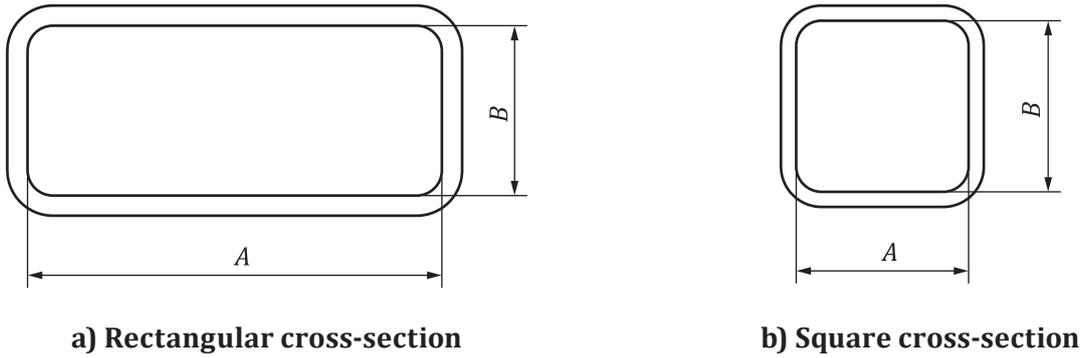


Figure 15 — Rectangular can

**3.5.11**  
**trapezoidal can**

can with an approximately trapezoidal cross-section with rounded corners

Note 1 to entry: The shorter of the parallel sides and the non-parallel sides may be curved.

Note 2 to entry: See [Figure 16](#).

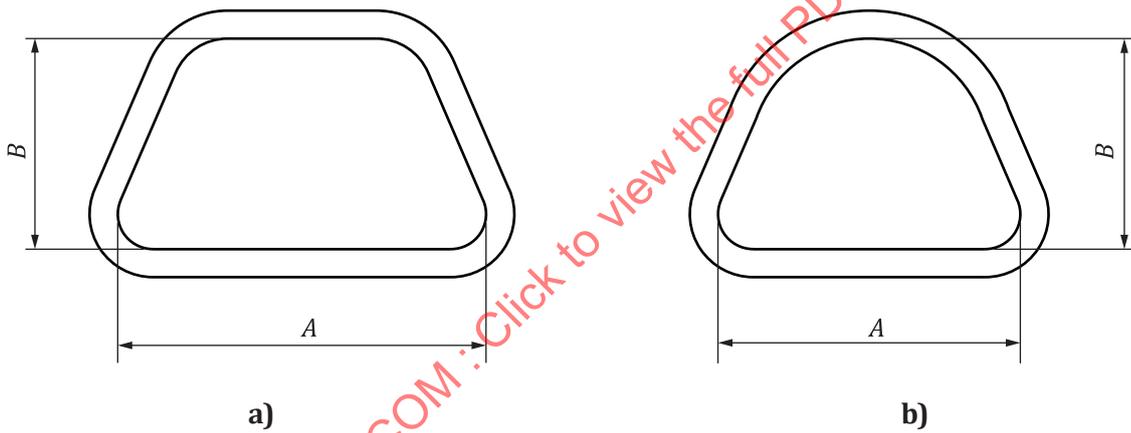


Figure 16 — Trapezoidal can

**3.5.12**  
**tall-round can**

can where the cross-section is two long sides that are parallel and straight, and two short sides that are circular

Note 1 to entry: See [Figure 17](#).

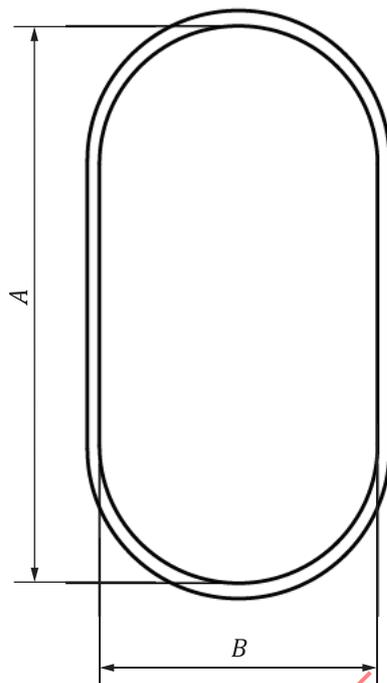


Figure 17 — Tall-round can

**3.5.13****oval can**

can with an oval cross-section

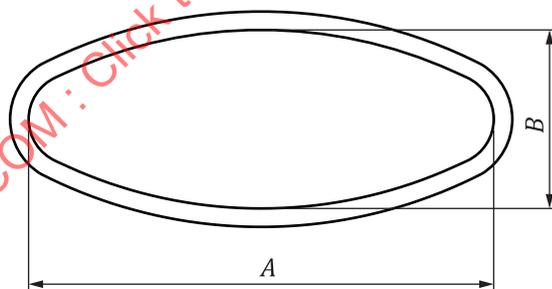
Note 1 to entry: See [Figure 18](#).

Figure 18 — Oval can

**3.5.14****horseshoe can**

can with a horseshoe cross-section

Note 1 to entry: See [Figure 19](#).

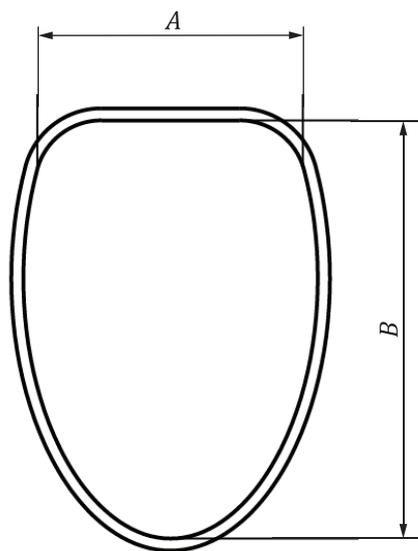
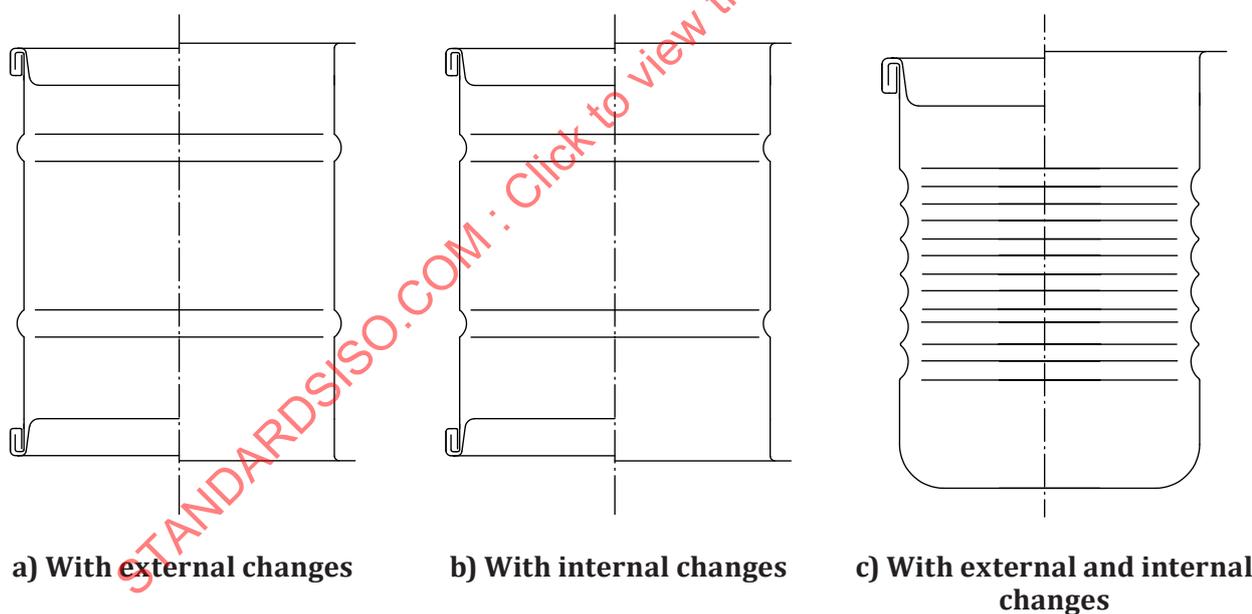


Figure 19 — Horseshoe can

**3.5.15  
beaded can**

can with a body that has small internal and/or external peripheral changes in its cross-section

Note 1 to entry: See [Figure 20](#).



a) With external changes

b) With internal changes

c) With external and internal changes

Figure 20 — Beaded can

**3.5.16  
necked-in can**

can with a body that is reduced in cross-section at one or both extremities

Note 1 to entry: See [Figure 21](#).

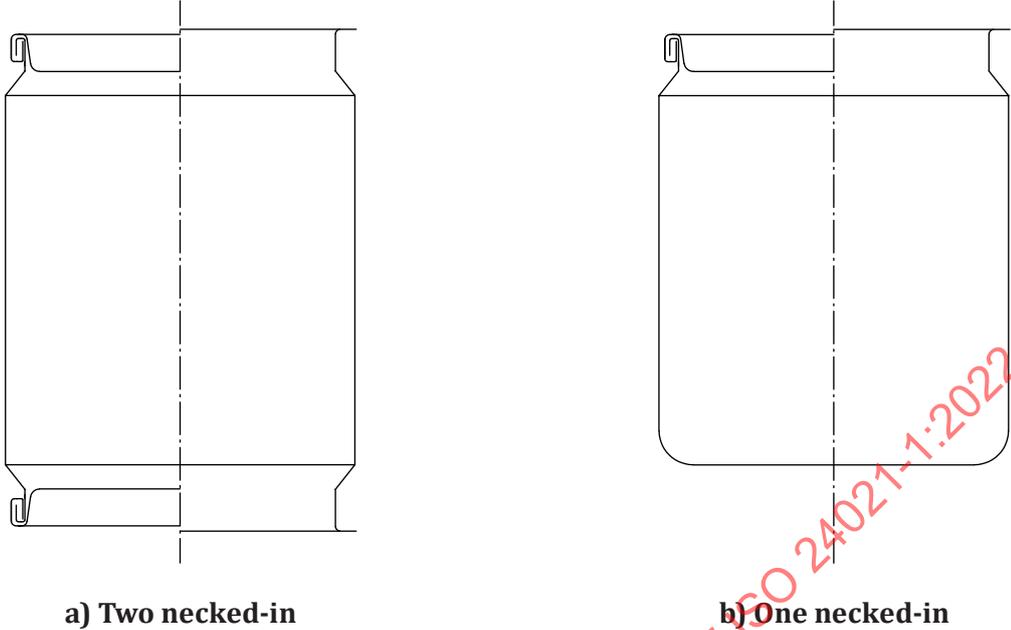


Figure 21 — Necked-in can

3.5.17  
**step-sided can**

can with a body that is increased in cross-section at one extremity

Note 1 to entry: See [Figure 22](#).

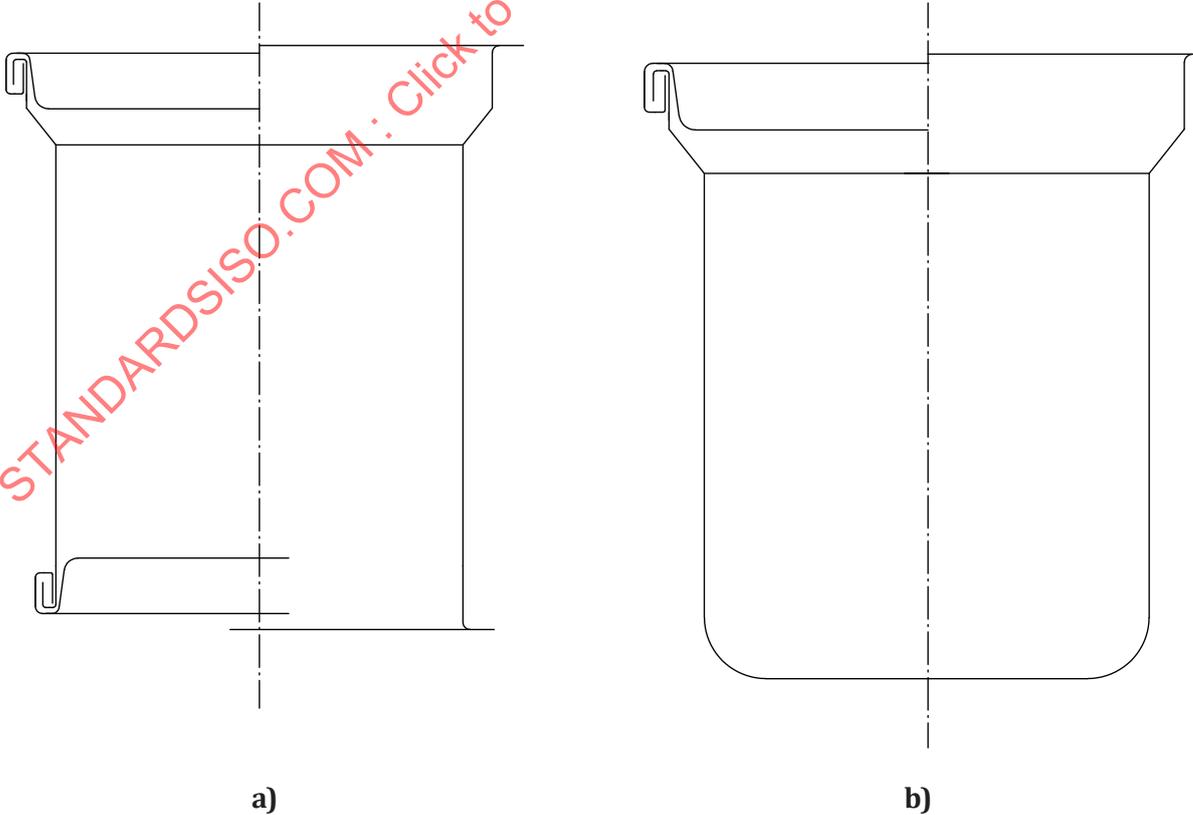


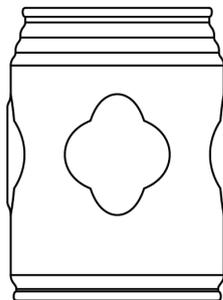
Figure 22 — Step-sided can

**3.5.18**

**embossing can**

can with a body that is formed with embossing

Note 1 to entry: See [Figure 23](#).



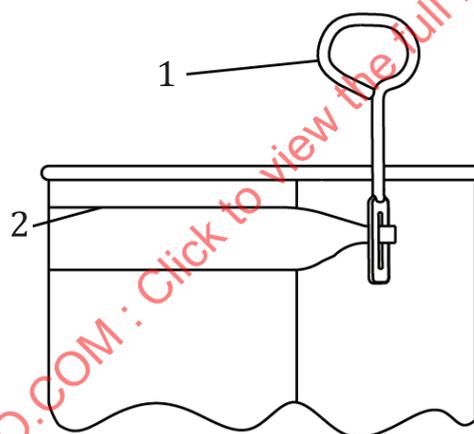
**Figure 23 — Embossing can**

**3.5.19**

**key-open can**

can pre-scored on the top and with a small tongue-shaped piece that is unrolled with a can opener key

Note 1 to entry: See [Figure 24](#).



**Key**

- 1 key
- 2 score

**Figure 24 — Key open can**

**3.5.20**

**can end**

part put on the can body during the seaming process, which is made of metal plate

Note 1 to entry: The can ends consist of expansion rings, curl and compound, etc.

**3.5.21**

**can lid**

part seamed with the can body during the seaming process, which is made of metal plate

Note 1 to entry: The can lids consist of expansion rings, curl and compound, etc.

Note 2 to entry: See [Figure 25](#).

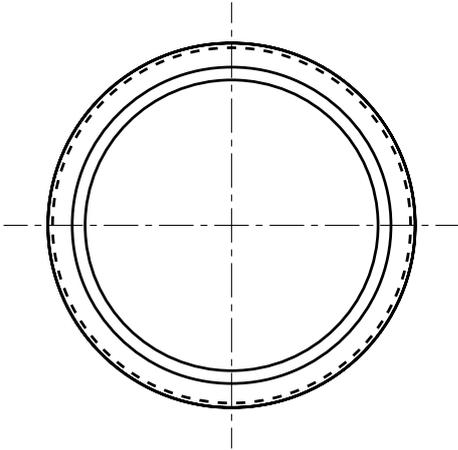
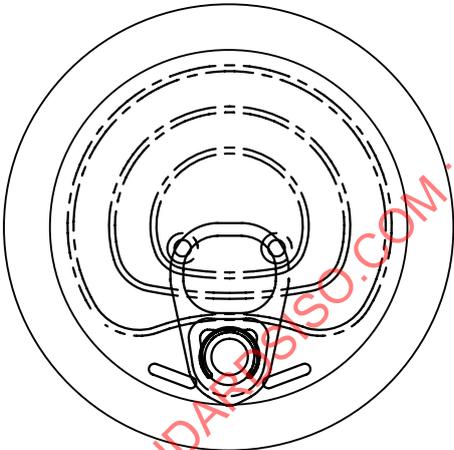


Figure 25 — Can lid

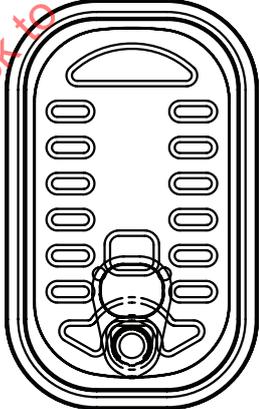
**3.5.22  
easy-open end**

can lid comprising a sheet metal wall with a line of scoring forming a tear strip or area and having a tab attached to the tear strip or area for easy opening

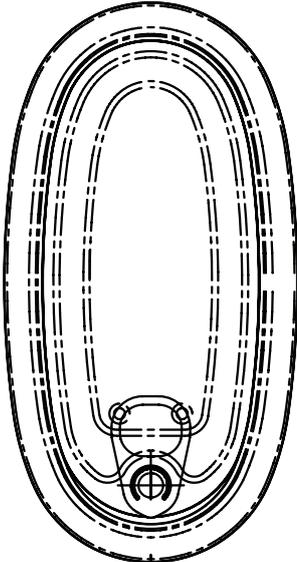
Note 1 to entry: See [Figure 26](#).



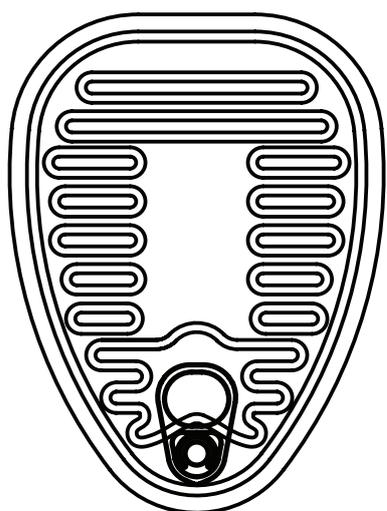
a) Round easy-open end



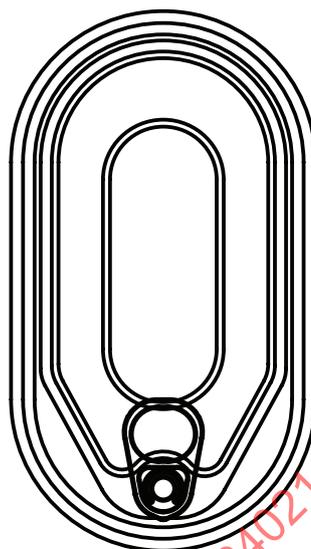
b) Rectangular easy-open end



c) Oval easy-open end



d) Trapezoidal easy-open end



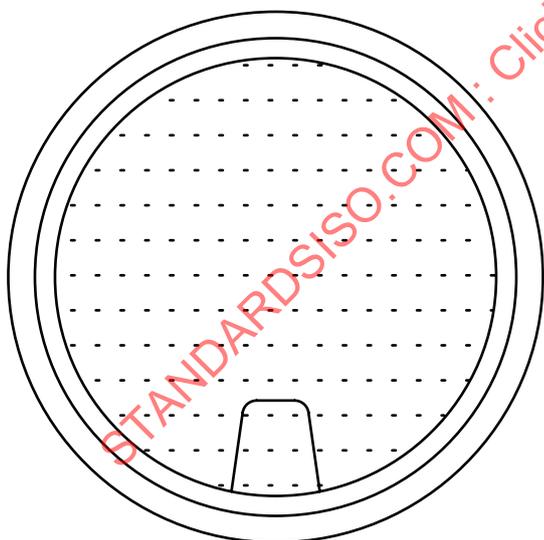
e) Obround easy-open end

Figure 26 — Easy-open end

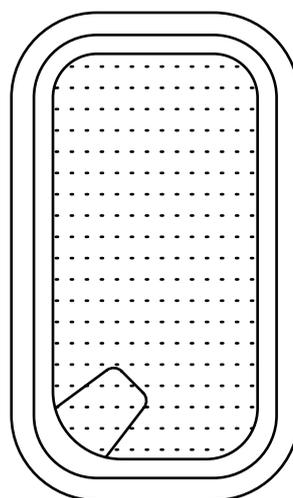
**3.5.23 peel-off end**

cover ring made of aluminium alloy sheet or tin (chromium) thin steel plate which is laminated with aluminium-plastic composite film, and a can lid that can tear the aluminium-plastic composite film when opened

Note 1 to entry: See [Figure 27](#).



a) Round peel-off end



b) Rectangular peel-off end

Figure 27 — Peel-off end