
INTERNATIONAL STANDARD



1361

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

**Hermetically sealed metal food containers —
Internal diameters of round cans**

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1361 (originally draft No. 333) was drawn up by Technical Committee ISO/TC 52, *Hermetically sealed metal food containers*.

It was approved in October 1970 by the Member Bodies of the following countries :

Austria	India	South Africa, Rep. of
Belgium	Ireland	Sweden
Czechoslovakia	Israel	Switzerland
Egypt, Arab Rep. of	Italy	United Kingdom
France	Netherlands	U.S.A.
Germany	Norway	
Greece	Portugal	

The Member Bodies of the following countries expressed disapproval of the document:

Hungary	Poland
Japan	U.S.S.R.
New Zealand	

It is hoped that all countries will regard cans falling within the specified deviations of a given nominal value as being "commercially similar". These deviations¹⁾ should not be regarded as manufacturing tolerances. All can measurements are given in accordance with the provisions of ISO 90²⁾, *Hermetically sealed metal food containers*. The Technical Committee responsible for the preparation of this document is engaged in further work as a result of which it is hoped to issue an International Standard giving a range of related diameters and capacities.

1) The deviation is not a manufacturing tolerance but is given to allow different sizes of punch plug or die plug to be used within a limited range.

2) At present under revision as a Draft International Standard.

Hermetically sealed metal food containers — Internal diameters of round cans

1 SCOPE AND FIELD OF APPLICATION

This International Standard lists recommended diameters for

- round open-top cans for general purposes;
- round cans for milk, liquid milk products and milk powder :
 - a) open-top cans;
 - b) vent hole cans;
 - c) cans for milk powders.

NOTE — For the purposes of this International Standard the term "milk can" is limited to cans for the following products:

- sweetened condensed milk;
- evaporated milk (sometimes called unsweetened condensed milk);
- sterilized milk (not condensed);
- sterilized cream (not condensed).

Cans for any milk products with added flavours, malted milk or other formulated milk are not covered by this International Standard.

TABLE 1 — Round open-top cans for general purposes —
Target diameters

Dimensions in millimetres

2 DIAMETERS FOR ROUND OPEN-TOP CANS FOR GENERAL PURPOSES

Table 1 gives the range of diameters which is understood as a target for international standardization. The diameters of round, open-top cans for general purposes shall preferably be taken from this Table. For the intermediate period, it was considered necessary to establish a more extensive range of current diameters, reproduced in the Annex, Table 3. This already reduced list of existing diameters was considered acceptable for a transition period and is an integral part of this International Standard.

3 DIAMETERS FOR ROUND CANS FOR MILK AND LIQUID MILK PRODUCTS

Tables 2(a), 2(b) and 2(c) give the range of diameters which is understood as a target for international standardization. The diameters of open-top and vent hole cans for milk and liquid milk products shall preferably be taken from Tables 2(a) and 2(b), and the diameters given in Table 2(c) are to be used for milk powder. For the intermediate period, it was considered necessary to establish a more extensive range of current diameters, reproduced in the Annex, Tables 4 and 5. This already reduced list of existing diameters was considered acceptable for a transition period and is an integral part of this International Standard.

Nominal diameter	Punch plug diameter	Deviation ¹⁾ on punch plug diameter
52	51.99	± 0.05 (for all diameters)
60	59.49	
63 ²⁾	62.13	
66	65.05	
73	72.57	
77 ²⁾	76.99	
84	83.10	
99	98.75	
105	104.88	
127	126.22	
154	153.04	
189	188.50	
230	229.30	

1) These deviations must not be confused with manufacturing tolerances (see page (ii)).

2) It is recognized that these diameters are very close to other sizes and the special reasons for their inclusion in the target range are as follows:

- a) 63 mm: this diameter is current in Europe and there are prospects of its use increasing in the future.
- b) 77 mm: this diameter is current in North America and there are prospects of its use increasing in the future.

TABLE 2 (a) – Open-top cans –
Target diameters

Dimensions in millimetres

Nominal diameter	Punch plug diameter	Deviation ¹⁾ on punch plug diameter
42	41.35	± 0.05 (for all diameters)
52	51.99	
58	57.30	
63	62.13	
66	65.05	
73	72.57	

TABLE 2 (b) – Vent hole cans –
Current and target diameters

Dimensions in millimetres

Nominal diameter	Die plug diameter	Deviation ¹⁾ on die plug diameter
64	63.25	± 0.25 (for all diameters)
76	75.25	

TABLE 2 (c) – Round cans for milk
powder – Target diameters

Dimensions in millimetres

Nominal diameter	Punch plug diameter	Deviation ¹⁾ on punch plug diameter
84	83.10	± 0.05 (for all diameters)
99	98.75	
105	104.88	
127	126.22	
154	153.04	

1) These deviations must not be confused with manufacturing tolerances (see page (ii)).

ANNEX

CURRENT INTERNAL DIAMETERS OF ROUND CANS

TABLE 3 – Round open-top cans for general purposes – Current diameters

Dimensions in millimetres

Nominal diameter	Punch plug diameter	Deviation ¹⁾ on punch plug diameter
52	51.99	± 0.5 (for all diameters)
55	54.30	
56	55.20	
60	59.49	
61	60.25	
63	62.13	
66	65.05	
70	69.00	
71	70.80	
73	72.57	
77	76.99	
84	83.10	
86	85.30	
99	98.75	
100	99.25	
105	104.88	
109	108.54	
113	112.30	
127	126.22	
135	134.30	
153	152.15	
154	153.04	
155	154.76	
163	162.30	
189	188.50	
230	229.30	

TABLE 4 – Open-top cans for milk and liquid milk products – Current diameters

Dimensions in millimetres

Nominal diameter	Punch plug diameter	Deviation ¹⁾ on punch plug diameter
42	41.35	± 0.5 (for all diameters)
52	51.99	
55	54.70	
58	57.30	
61	60.35	
63	62.50	
66	65.05	
71	70.50	
73	72.57	

TABLE 5 – Round cans for milk powders – Current diameters

Dimensions in millimetres

Nominal diameter	Punch plug diameter	Deviation ¹⁾ on punch plug diameter
71	70.80	± 0.5 (for all diameters)
84	83.10	
86	85.30	
93	92.84	
99	98.75	
100	99.25	
105	104.88	
113	112.30	
127	126.22	
138	137.46	
153	152.15	
154	153.04	
163	162.30	

1) These deviations must not be confused with manufacturing tolerances (see page (ii)).