
INTERNATIONAL STANDARD



1361

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

Hermetically sealed metal cans for food and drink — Internal diameters of round cans

Réipients métalliques étanches pour denrées alimentaires et boissons — Diamètres intérieurs des boîtes rondes

Second edition -- 1977-12-15

STANDARDSISO.COM : Click to view the full PDF of ISO 1361:1977

UDC 621.798.144 : 672.46

Ref. No. ISO 1361-1977 (E)

Descriptors : food packaging, cans, specifications, dimensions, diameters, dimensional tolerances.

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 was developed by Technical Committee ISO/TC 52, *Metal containers*. This second edition was circulated to the member bodies in June 1976.

It has been approved by the member bodies of the following countries :

Australia	Italy	South Africa, Rep. of
Belgium	Mexico	Sweden
Canada	Netherlands	Switzerland
Denmark	New Zealand	Turkey
France	Philippines	United Kingdom
India	Poland	U.S.A.
Israel	Romania	Yugoslavia

The member body of the following country expressed disapproval of the document on technical grounds :

Japan

This second edition cancels and replaces the first edition (i.e. ISO 1361-1972).

Hermetically sealed metal cans for food and drink — Internal diameters of round cans

0 INTRODUCTION

It is hoped that all countries will regard cans falling within the specified deviations of a given nominal value as being "commercially similar". These deviations should not be regarded as manufacturing tolerances but are given to allow different dimensions of internal body diameter that may be used for a given size. All can measurements and definitions are given in accordance with the provisions of ISO 90, *Hermetically sealed metal cans for food and drinks — Specifications*.

1 SCOPE AND FIELD OF APPLICATION

This International Standard lists recommended diameters for :

- a) round general purpose cans for food and drink with one end sealed after filling (see table 1);
- b) round milk cans with one end sealed after filling (see table 2);
- c) round vent hole cans for milk (see table 3);
- d) round cans for milk powder (see table 4).

NOTE — For the purposes of this International Standard, the terms "milk cans" and "cans for milk" as used in clause 1 are limited to cans for the following products :

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

2 TRANSITION PERIOD

Tables 1, 2, 3 and 4 give ranges of diameters which are understood as targets for international standardization. Diameters shall preferably be taken from these tables.

For an intermediate period, it was considered necessary to establish more extensive ranges of current diameters, reproduced in the annex. These already reduced lists of existing diameters were considered acceptable for a transition period ending 31 May 1984 (10 years from 1 June 1974). As they will only be used for a maximum of 10 years, no work has been done to develop internal body diameters related to the specified punch plug diameters.

TABLE 1 — Round general purpose cans for food and drink with one end sealed after filling

Dimensions in millimetres

Nominal diameter	Internal diameter of body		Punch plug diameter
	Nominal	Deviation	
52	52,3	$\pm 0,1$	51,99
60	59,8	$\pm 0,1$	59,49
63	62,5	$\pm 0,1$	62,13
65	65,3	$\pm 0,1$	65,05
73	72,9	$\pm 0,1$	72,57
78	77,5	$\pm 0,1$	76,99
83	83,3	$\pm 0,1$	83,10
99	98,9	$\pm 0,2$	98,75
105	105,1	$\pm 0,2$	104,88
127	126,5	$\pm 0,2$	126,22
153	153,4	$\pm 0,2$	153,04
189	188,9	$\pm 0,2$	188,50
230	230,3	$\pm 0,2$	229,30

NOTES

1 Table 1 is applicable to :

- two-piece cylindrical cans;
- three-piece cylindrical cans;
- necked-in cans (see note 6);
- step-sided cans (see note 6);
- tapered cans.

2 For bodies of tapered cans with two extremities of different diameters, at least one extremity shall conform to a value in table 1.

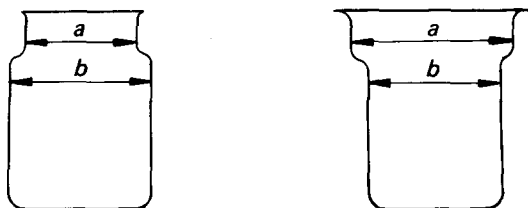
3 The punch plug diameters are given as a reference, applicable to ends with a shoulder depth of 2,9 to 4,0 mm and a shoulder angle of 4° to 5° .

4 It is recognized that the diameters 63 and 78 are very close to other sizes and the special reasons for their inclusion in the target range are as follows :

63 mm : This diameter is common in Europe and there are prospects of its use increasing in the future.

78 mm : This diameter is common in North America and there are prospects of its use increasing in the future.

5 The deviation is not a manufacturing tolerance but is given to allow different sizes to be used within a limited range.

6 For necked-in and step-sided cans the internal body diameters as given are applicable to either *a* or *b* (see 3.2 of ISO 90).

7 The diameters in column 2 of table 1 are target diameters, but for 10 years from 1 June 1974 it is agreed that internal diameters related to punch plug diameters shown in tables 5, 6 and 7 are permitted.

TABLE 2 — Round milk cans with one end sealed after filling

Dimensions in millimetres

Nominal diameter	Internal diameter of body		Punch plug diameter
	Nominal	Deviation	
42	41,7	$\pm 0,1$	41,35
52	52,3	$\pm 0,1$	51,99
58	57,7	$\pm 0,1$	57,30
63	62,5	$\pm 0,1$	62,13
65	65,3	$\pm 0,1$	65,05
73	72,9	$\pm 0,1$	72,57

NOTE — See notes 1, 3, 5 and 7 to table 1.

TABLE 3 — Round vent hole cans for milk

Dimensions in millimetres

Nominal diameter	Die plug diameter	
	Nominal	Deviation
64	63,25	$\pm 0,25$
76	75,25	$\pm 0,25$

NOTES

1 These cans are of a special design, and it is not considered necessary to specify the inside body diameters.

2 See notes 5 and 7 to table 1.

TABLE 4 — Round cans for milk powder

Dimensions in millimetres

Nominal diameter	Internal diameter of body		Punch plug diameter
	Nominal	Deviation	
83	83,3	$\pm 0,1$	83,10
99	98,9	$\pm 0,2$	98,75
105	105,1	$\pm 0,2$	104,88
127	126,5	$\pm 0,2$	126,22
153	153,4	$\pm 0,2$	153,04

NOTE — See notes 1, 3, 5 and 7 to table 1.

ANNEX

CURRENT NOMINAL DIAMETERS OF ROUND CANS

TABLE 5 — Round general purpose cans for food and drink with one end sealed after filling

Dimensions in millimetres

Nominal diameter	Punch plug diameter	Deviation ¹⁾ on punch plug diameter
52	51,99	± 0,50 for all diameters
55	54,30	
56	55,20	
57 ²⁾	56,47	
60	59,49	
61	60,25	
63	62,13	
65	65,05	
70	69,00	
71	70,80	
72 ²⁾	71,15	
73	72,57	
74 ³⁾	73,71	
78	76,99	
83	83,10	
86	85,30	
99	98,75	
100	99,25	
105	104,88	
109	108,54	
113	112,30	
126 ⁴⁾	125,55	
127	126,22	
135	134,30	
153	152,15	
154	153,04	
155	154,76	
163	162,30	
189	188,50	
230	229,30	

1) This deviation must not be confused with manufacturing tolerance (see note 5 to table 1).

2) These diameters are used in Denmark.

3) This diameter is used in Australia and South Africa.

4) This diameter is used in Australia.

TABLE 6 — Round milk cans with one end sealed after filling

Dimensions in millimetres

Nominal diameter	Punch plug diameter	Deviation ¹⁾ on punch plug diameter
42	41,35	± 0,50 for all diameters
52	51,99	
55	54,70	
58	57,30	
61	60,35	
63	62,13	
65	65,05	
71	70,50	
73	72,57	
74	73,71	

1) This deviation must not be confused with manufacturing tolerance (see note 5 to table 1).

TABLE 7 — Round cans for milk powder

Dimensions in millimetres

Nominal diameter	Punch plug diameter	Deviation ¹⁾ on punch plug diameter
71	70,80	± 0,50 for all diameters
83	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) This deviation must not be confused with manufacturing tolerance (see note 5 to table 1).

STANDARDSISO.COM : Click to view the full PDF of ISO 1361:1977