

Stainless Steel Food-Industry Tubes

Seamless & Welded



ASTM A269
ASTM A270
DIN11850
DIN11852 / DIN11866
ISO2037

EACH TUBES PACKAGING HAS A BARCODE

INTERNATIONAL
STANDARD

ISO
2037

1.4

Second edition
1992-12-15

Stainless steel tubes for the food industry

Tubes en acier inoxydable pour l'industrie alimentaire



Reference number
ISO 2037:1992(E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75% of the member bodies casting a vote.

International Standard ISO 2037 was Prepared by Technical Committee ISO/TC 5, Ferrous metal pipes and metallic fittings, Sub-Committee SC 1, Steel tubes.

This second edition cancels and replaces the first edition (ISO 2037:1980), the table of which has been technically revised.

Annex A of this International Standard is for Information only.

© ISO 1992

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for standardization
Case Postale 66·CH-1211 Geneve 20·Switzerland
Printed in Switzerland

Stainless steel tubes for the food industry

1 Scope

This International Standard specifies the dimensions, tolerances, surface roughness, materials and hygienic requirements for seamless or welded stainless steel tubes in straight lengths for the food industry.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute Provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 468:1982, Surface roughness — Parameters, their values and general rules for specifying requirements.

ISO 5252:1991, Steel tubes — Tolerance systems.

3 Dimensions

The dimensions given in table 1 have been extracted from ISO 1127:1992, series 1 and 2 outside diameter.

For further information concerning the series, see also ISO 4200.

Table 1

Dimensions in millimetres

Tube outside diameter	Thickness
12	1
12.7	1
17.2	1
21.3	1
25	1.2;1.6
33.7	1.2;1.6
38	1.2;1.6
40	1.2;1.6
51	1.2;1.6
63.5	1.6
70	1.6
76.1	1.6
88.9	2
101.6	2
114.3	2
139.7	2
168.3	2.6
219.1	2.6
273	2.6
323.9	2.6
355.6	2.6
406.4	3.2

4 Dimensional tolerance

The deviations permitted for the outside diameter and thickness are limited by the tolerances specified in 4.1 and 4.2

4.1 Tolerance on outside diameter

The tolerance on outside diameters less than or equal to 101.6 mm shall be class D4 in accordance with ISO 5252:1991

For outside diameters greater than 101.6 mm, this tolerance shall be class D3 in accordance with ISO 5252:1991

4.2 Tolerance on thickness

The tolerance on thickness shall be class T3 in accordance with ISO 5252:1991

5 Surface roughness

The surface roughness, in accordance with the specifications of ISO 468, shall be as follows.

5.1 Finely finished surface

$Ra \leq 1\mu m$

5.2 Other surfaces

$Ra \leq 2.5\mu m$

The surface roughness on welded seams shall not exceed $Ra=16\mu m$

6 Materials

Austenitic stainless steels shall be used. Generally the following steel types are suitable for pressure purposes:

—Seamless tubes: TS 47, TS 60 and TS 61 in

accordance with ISO 2604-2:1976;

—Welded tube: TW 47, TW 60 and TW 61 in accordance with ISO 2604-5:1978.

7 Hygienic requirements

7.1 Care shall be taken that any non-ferrous metals or their alloys coming into contact with the tubes during manufacture do not leave deposits which will be harmful during subsequent fabrication and use.

7.2 The interior surface of the tubes shall be clean and smooth. It shall be free from surface defects, inclusions and longitudinal grooving.

Annex A

(informative)

Bibliography

[1] ISO 1127:1992, Stainless steel tubes—Dimensions, tolerances and conventional masses per unit length.

[2] ISO 2604-2:1975, Steel products for pressure purposes — Quality requirements — Part 2: Wrought seamless tubes.

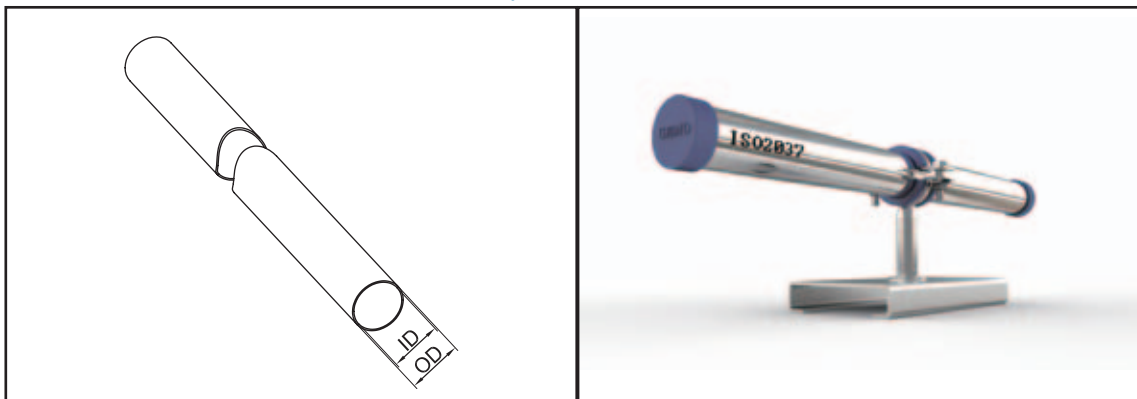
[3] ISO 2604-5:1978, Steel products for pressure purposes—Quality requirements— part 5: Longitudinally welded austenitic stainless steel tubes.

[4] ISO 4200:1991, Plain end steel tubes, welded and seamless — General tables of dimensions and masses per unit length.

Tubes of manufacturing lengths of approx 6 meters
CODE NO 8000/8001

1.4

ISO 2037 Stainless Steel tubes for food industry



Further dimensions on request

8000 Food tubes ISO 2037 Practice based sizes

CODE NO	SIZE OD	DIMENSION OD×WT	OD	ID	GEWICHT Weight 304	GEWICHT Weight 316L
	mm	mm	mm	mm	Kg/m	Kg/m
8000 02500	25	25×1.6	25	21.8	0.9327	0.9386
8000 03800	38	38×1.6	38	34.8	1.4509	1.4601
8000 05100	51	51×1.6	51	49.4	1.9691	1.9815
8000 06350	63.5	63.5×1.6	63.5	60.3	2.4674	2.4829
8000 07600	76	76.1×1.6	76.2	72.9	2.9696	2.9883
8000 10160	101.6	101.6×2.0	101.6	97.6	4.9626	4.9939

8001 Food tubes ISO 2037

CODE NO	SIZE OD	DIMENSION OD×WT	OD	ID	GEWICHT Weight	GEWICHT Weight
	mm	mm	mm	mm	Kg/m	Kg/m
8001 02500	25	25×1.2	25	22.6	0.7115	0.7160
8001 03800	38	38×1.2	38	35.6	1.1002	1.1071
8001 05100	51	51×1.2	51	48.6	1.4888	1.4982
8001 06350	63.5	63.5×1.6	63.5	60.3	2.4674	2.4829
8001 07600	76	76.1×1.6	76.1	72.9	2.9696	2.9883
8001 10160	101.6	101.6×2.0	101.6	97.6	4.9626	4.9939

P&E Flow Technology Profile

P&E Flow Technology is provider of professional products for the fluid industry and related solutions.

We are committed to brew processing, beverage processing, Dairy and Foodstuff processing, pharmaceutical industry, water treatment works, Bio-engineering and fluid technology industry

P&E Flow Technology Brands

CKAN

ZIMANI

GEMO

Meatier

Shst

How to contact P&E Flow Technology
www.pestainless.com

GEMO Products Services
Please visit and contact us:
www.gemoindustries.com

Technical Support
Tech@gemoindustries.com

Service
Info@gemoindustries.com

Dealer Management
DealerManagement@gemoindustries.com

P&E Flow Technology

Address: Shacheng Street, WenZhou, P.R China.
Post Code: 325000

Service, Sales
Tel: +86-577-85826961
Email: Info@pestainless.com

Dealer Management
Email: DealerManagement@pestainless.com

Copyright © 2011 P&E

GEMO is a trademark registered and owned by P&E Flow Technology. P&E reserves the right to change specifications without prior notify action.