



DPC: 19 / 30405287 DC

BSI Group Headquarters

389 Chiswick High Road London W4 4AL

Tel: +44 (0)20 8996 9000

Fax: +44 (0)20 8996 7400

www.bsigroup.com

Date: 05 November 2019

Origin: European

Latest date for receipt of comments: 28 December 2019

Project No. 2009/01617

Responsible committee: ACE/6 Aerospace avionic electrical and fibre optic technology

Interested committees:

Title: Draft BS EN 4840-002 (P2) "Aerospace series - Heat shrinkable moulded shapes

Part 002 Index of product standards and product dimensions"

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

- i) has any issues related to 3rd party IPR, patent or copyright
- ii) affects other national standard(s)
- iii) requires additional national guidance or information

**WARNING: THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A BRITISH STANDARD.
THIS DRAFT IS NOT CURRENT BEYOND 28 December 2020**

This draft is issued to allow comments from interested parties; all comments will be given consideration prior to publication. No acknowledgement will normally be sent. **See overleaf for information on the submission of comments.**

No copying is allowed, in any form, without prior written permission from BSI except as permitted under the Copyright, Designs and Patent Act 1988 or for circulation within a nominating organization for briefing purposes. Electronic circulation is limited to dissemination by e-mail within such an organization by committee members.

Further copies of this draft may be purchased from BSI Shop <http://shop.bsigroup.com> or from BSI Customer Services, Tel: +44(0) 20 8996 9001 or email cservices@bsigroup.com. British, International and foreign standards are also available from BSI Customer Services.

Information on the co-operating organizations represented on the committees referenced above may be obtained from <http://standardsdevelopment.bsigroup.com>

Responsible Committee Secretary: **Committee Service Centre (BSI)**
Direct tel: **020 8996 7009**
E-mail: csc@bsigroup.com

 **Documents**
Document Sharing Hub

Introduction

This draft standard is based on European discussions in which the UK has taken an active part. Your comments on this draft are welcome and will assist in the preparation of the consequent British Standard. Comment is particularly welcome on national, legislative or similar deviations that may be necessary.

Even if this draft standard is not approved by the UK, if it receives the necessary support in Europe, the UK will be obliged to publish the official English Language text unchanged as a British Standard and to withdraw any conflicting standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with reasons) or positive vote on this draft.

Submission of Comments

- The guidance given below is intended to ensure that all comments receive efficient and appropriate attention by the responsible BSI committee. **Annotated drafts are not acceptable and will be rejected.**
- All comments must be submitted, preferably electronically, to the Responsible Committee Secretary at the address given on the front cover. Comments should be compatible with version 6.0 or version 97 of Microsoft Word for Windows, if possible; otherwise comments in ASCII text format are acceptable. **Any comments not submitted electronically should still adhere to these format requirements.**
- All comments submitted should be presented as given in the example below. Further information on submitting comments and how to obtain a blank electronic version of a comment form are available from the BSI website at:
<http://drafts.bsigroup.com/>

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
------------------	-------------------------------

1	2	(3)	4	5	(6)	(7)
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/ Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

Study n°:

Draft n°1

Date: November 2018

Step n°:

Ref.:

ENGLISH VERSION
Aerospace series

Aerospace series
Heat shrinkable moulded shapes
Part 002: Index of product standards and product dimensions

French

TBD

German
Luft- und Raumfahrt

Wärmeschrumpfende Formteile
Teil 002:
TBD

Warning

This document is NOT an ASD Standard. It is distributed for review and comment. It is subject to change without notice and may NOT be referred to as an ASD Standard.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Contents

1 Scope 3

2 Normative references 3

3 Index of product standards..... 3

1 Scope

This standard lists the product standards, covered by technical specification EN 4840-001, for heat shrinkable moulded shapes.

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 4840-001, *Aerospace series — Heat shrinkable moulded shapes — Part 001: Technical specification*

EN 4840-101, *Aerospace series — Heat shrinkable moulded shapes — Part 101: Polyolefin, semi-rigid, limited fire hazard — Temperature range – 30 °C to 105 °C — Product standard*

EN 4840-102, *Aerospace series — Heat shrinkable moulded shapes — Part 102: Elastomeric, semi-rigid — Temperature range – 75 °C to 150 °C — Product standard*

EN 4840-103, *Aerospace series — Heat shrinkable moulded shapes — Part 103: Fluoroelastomer — Temperature range – 55 °C to 200 °C — Product standard*

3 Index of product standards

EN 4840-001, *Aerospace series — Heat shrinkable moulded shapes — Part 001: Technical specification*

EN 4840-101, *Aerospace series — Heat shrinkable moulded shapes — Part 101: Polyolefin, semi-rigid, limited fire hazard — Temperature range – 30 °C to 105 °C — Product standard*

EN 4840-102, *Aerospace series — Heat shrinkable moulded shapes — Part 102: Elastomeric, semi-rigid — Temperature range – 75 °C to 150 °C — Product standard*

EN 4840-103, *Aerospace series — Heat shrinkable moulded shapes — Part 103: Fluoroelastomer — Temperature range – 55 °C to 200 °C — Product standard*

4 Terms and definitions

No terms and definitions are listed in this document.

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 <http://www.iso.org/obp>

5 Product dimensions

See tables 1 to 23

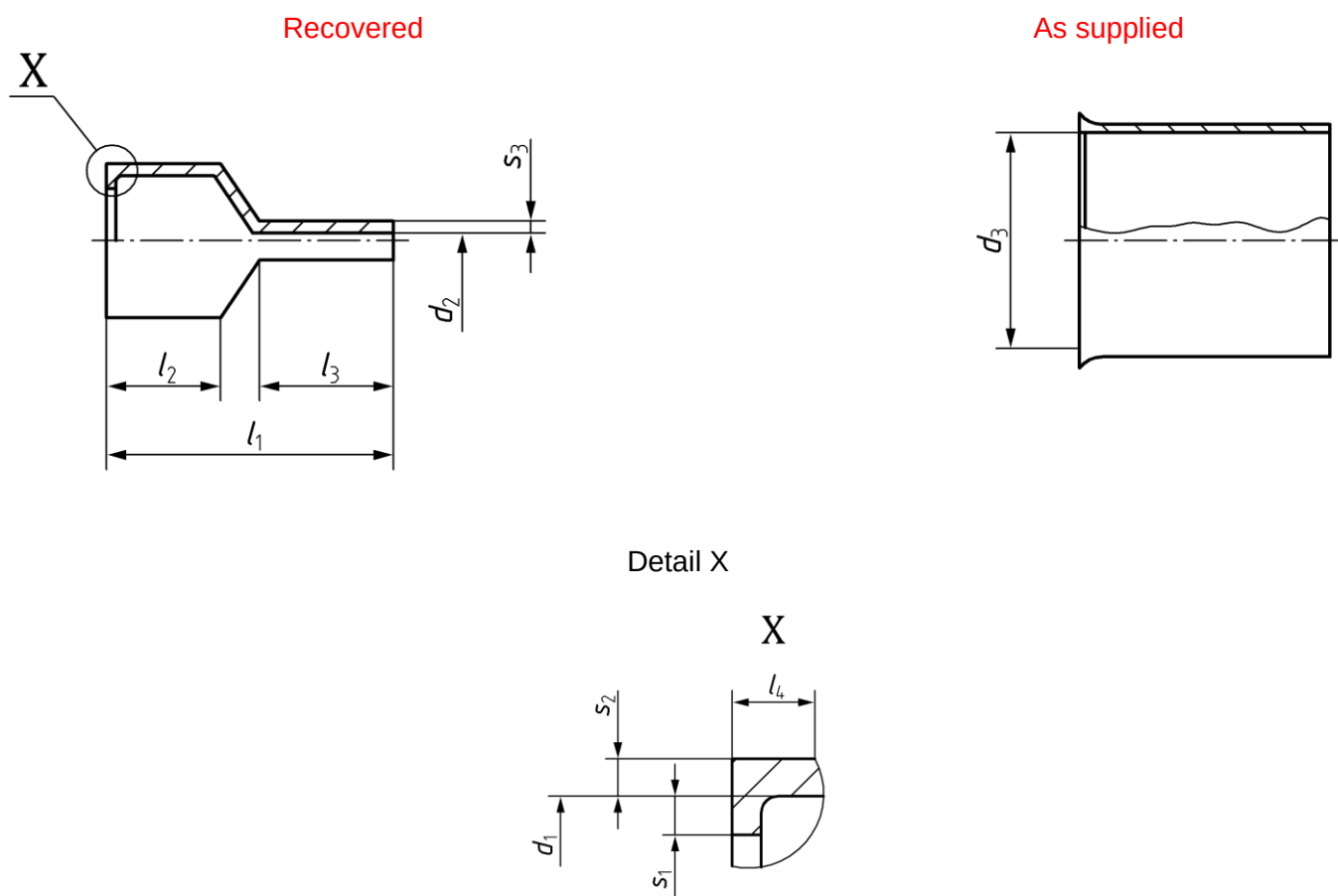


Figure 1 – Style AA (small lipped bottle)

Table 1 – Style AA

Dimensions in millimetres

Size code	d ₁ Max.	d ₂ Max.	d ₃ Min. (a)	l ₁ ± 10%	l ₂ ref	l ₃ ref	l ₄ Max.	S ₁ ± 20%	S ₂ ± 20%	S ₃ ± 30%	Mass g Max. (b)
01	5,2	1,5	9	20	4	6,6	0,8	0,35	0,8	0,6	1.5
02	5,8	1,2	10	19	11	4,5	1,5	0,5	0,8	0,5	1.5
03	5,5	2	9	25	14	5	2	1	1	0,7	1.5
04	7	3	12	25	14	7,5	2	1	1,1	0,7	1.5
05	8	3,5	17	30	19	10	2	1	1,3	0,7	1.5
06	6,9	3,0	17	29	14	11	2	1	1,3	0,7	1.5
07	6,9	3,0	17	39	24	11	2	1	1,3	0,7	1.5

Note: These parts may be available with drain holes or with eyelets for connector protection caps. Refer to the individual manufacturer for details

- a) Shapes made from some material types may be supplied with a reduced d₃ diameter. Refer to the individual manufacturer for exact dimensions.
- b) The values of mass may be higher for some material types. Refer to the individual manufacturer.

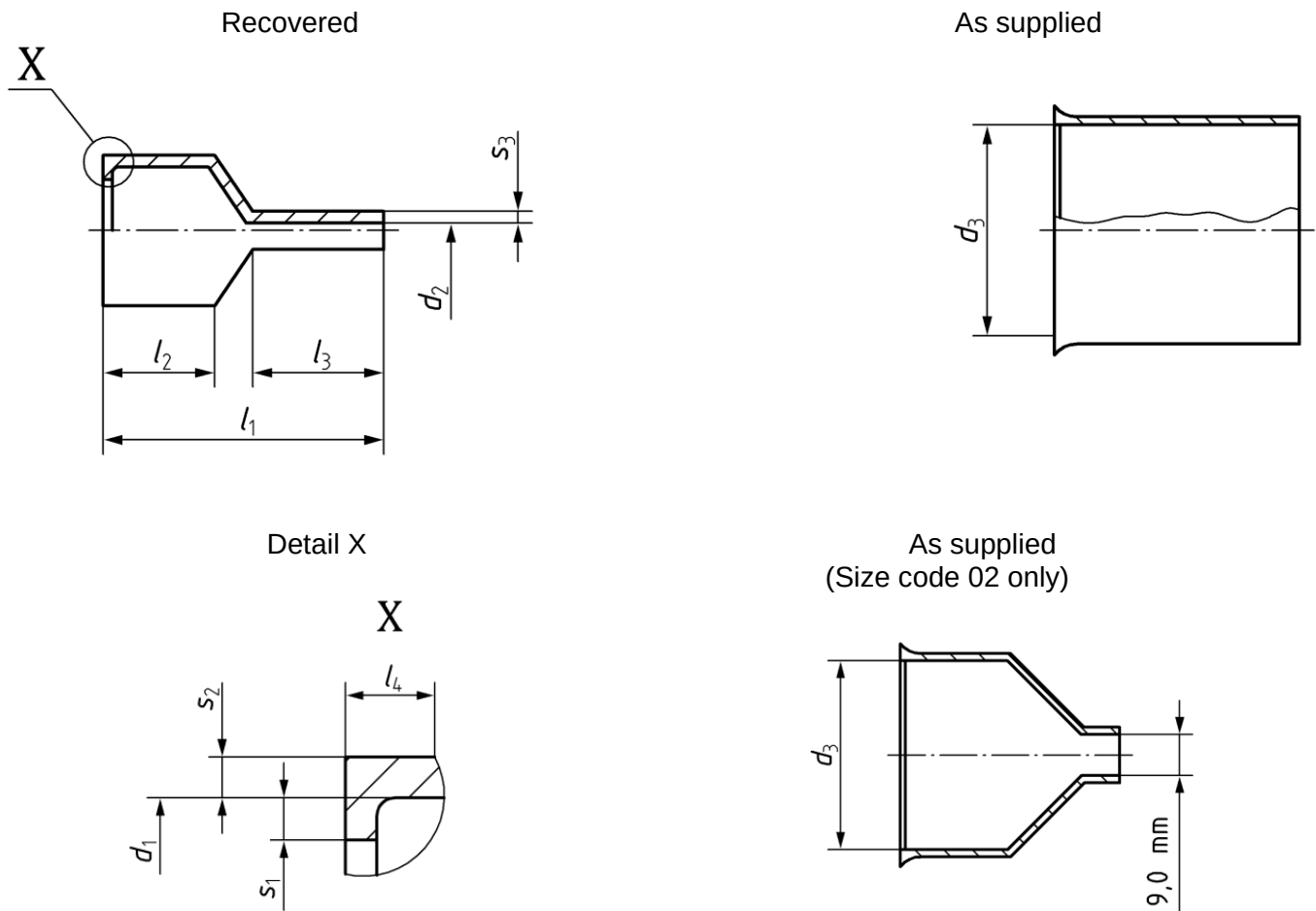


Figure 2 – Style A (lipped short bottle with short body)

Table 2 – Style A

Dimensions in millimetres											
Size code	d ₁ Max.	d ₂ Max.	d ₃ Min. (a)	l ₁ ± 10%	l ₂ ref	l ₃ ref	l ₄ Max.	S ₁ ± 20%	S ₂ ± 20%	S ₃ ± 30%	Mass g Max. (b)
01	10,5	6,0	24,0	26,0	9,0	10,0	3,3	1,0	1,6	(c)	1,6
02	14,0	3,5	25,0	40,0	13,0	16,0			1,8	(c)	3,3
03	14,0	6,0	30,0	43,0	20,0	13,0			1,8	1,0	4,5
04	18,0	7,0	31,0	47,0	15,0	18,0			1,8		5,5
05	22,5	8,5	36,0	60,0	22,0	20,0			2,0		10,0
06	28,0	10,0	43,0	60,0	21,0	20,0		1,7	2,2	1,5	12,7
07	35,0	16,0	60,0	90,0	32,0	38,0		1,7	3,2		29,5
08	45,0	17,0	66,0	130,0	50,0	50,0		2,0	3,8		71,5
09	58,0	27,0	82,0	137,0	37,0	62,0		2,0	3,8	3,8	100,0

Note: These parts may be available with drain holes or with eyelets for connector protection caps. Refer to the individual manufacturer for details

a) Shapes made from some material types may be supplied with a reduced d₃ diameter. Refer to the individual manufacturer for exact dimensions.

b) The values of mass may be higher for some material types. Refer to the individual manufacturer.

c) For these small shapes, this dimension shall be between 0,35 and 1,0 mm

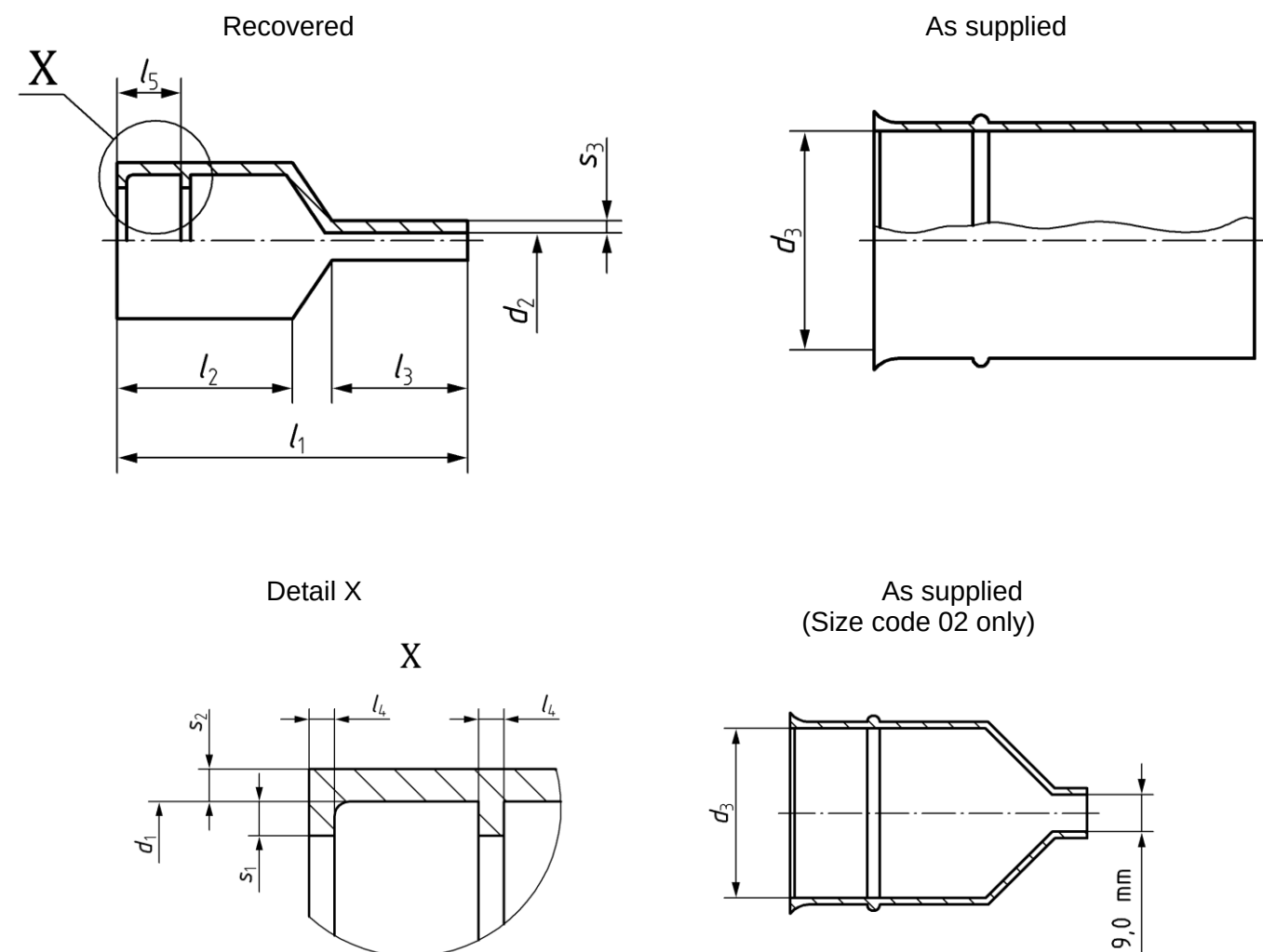


Figure 3 – Style B (lipped straight bottle with medium body)

Table 3 – Style B

Dimensions in millimetres

Dimensions in millimet

Size code	d ₁ Max.	d ₂ Max.	d ₃ Min. (a)	l ₁ ± 10%	l ₂ ref	l ₃ ref	l ₄ (b) Max.	l ₅ ± 10%	S ₁ ± 20%	S ₂ ± 20%	S ₃ ± 30%	Mass g Max. (c)
01	10,5	6,0	24,0	38,0	21,0	10,0	3,3	12,0	1,0	1,6	(d)	2,8
02	14,0	3,5	25,0	55,0	28,0	16,0		14,0		1,8	(d)	4,4
03	14,0	6,0	30,0	55,0	32,0	13,0		12,0		1,8	1,0	5,5
04	18,0	7,0	31,0	67,0	35,0	18,0		20,0	1,8			8,3
05	22,5	8,5	36,0	80,0	42,0	20,0			2,0			14,5
06	28,0	10,0	43,0	79,0	41,0	20,0			1,7		2,2	18,0
07	35,0	16,0	60,0	110,0	52,0	38,0			1,7	3,2	1,5	41,0
08	45,0	17,0	66,0	150,0	70,0	50,0			2,0	3,8	2,0	87,0
09	58,0	27,0	82,0	158,0	58,0	62,0			2,0	3,8	3,8	121,0

Note: These parts may be available with drain holes or with eyelets for connector protection caps. Refer to the individual manufacturer for details

- a) Shapes made from some material types may be supplied with a reduced d₃ diameter. Refer to the individual manufacturer for exact dimensions.
- b) The innermost lip is optional
- c) The values of mass may be higher for some materials types. Refer to the individual manufacturer.
- d) For these small shapes, this dimension shall be between 0,35 and 1,0 mm

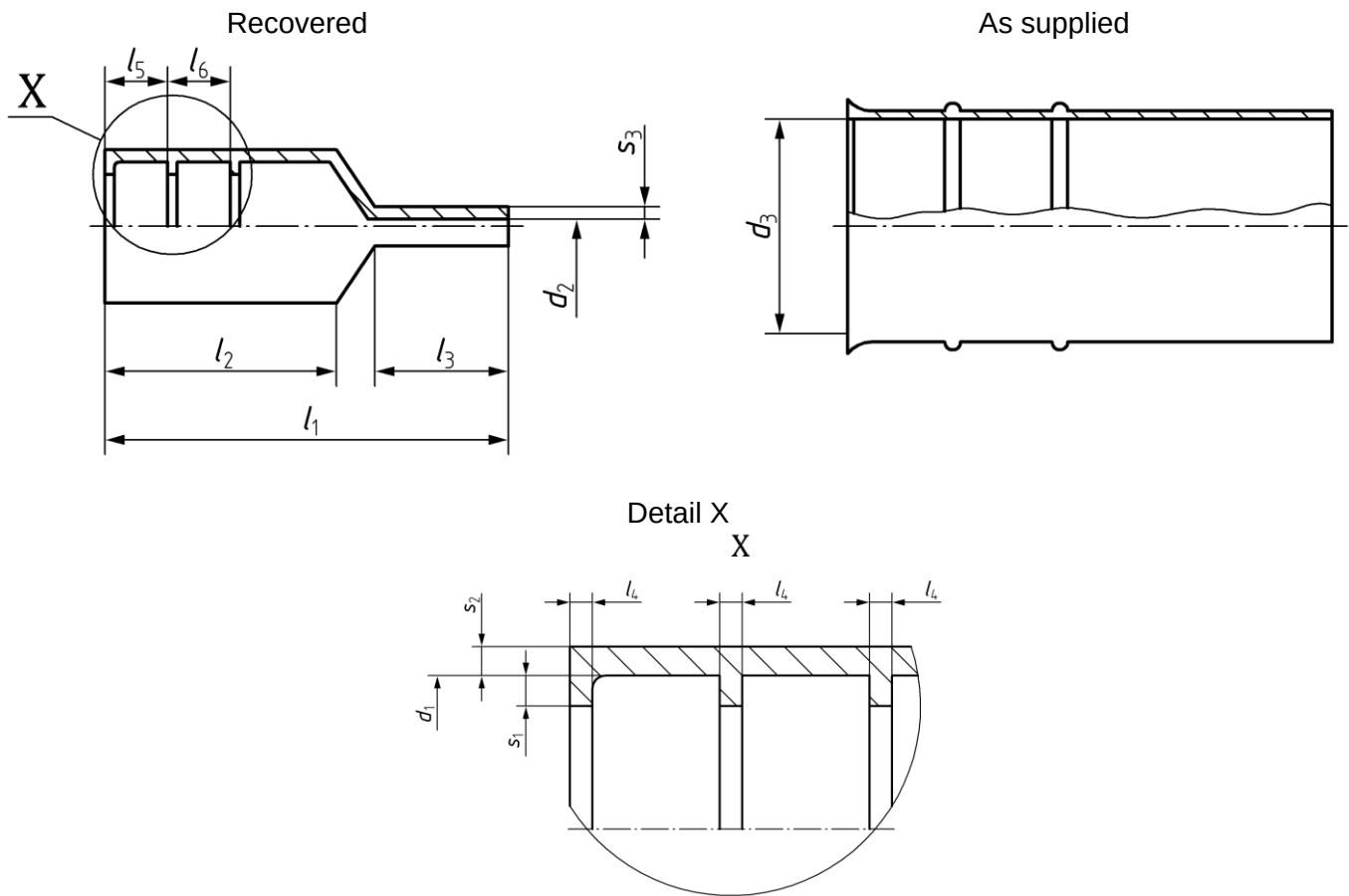


Figure 4 – Style C (lipped straight bottle with long body)

Table 4 – Style C

Size code	Dimensions in millimetres												Mass g Max. (c)
	d ₁ Max.	d ₂ Max.	d ₃ Min. (a)	l ₁ ± 10%	l ₂ ref	l ₃ ref	l ₄ Max.	l ₅ (b) ± 10%	l ₆ (b) ± 10%	s ₁ ± 20%	s ₂ ± 20%	s ₃ ± 30%	
01	28,0	10,0	43,0	99,0	61,0	20,0	3,3	20,0	20,0	1,7	2,2	1,0	24,5
02	35,0	16,0	60,0	130,0	72,0	38,0				1,7	3,2	1,5	50,0
03	45,0	17,0	66,0	171,0	90,0	50,0				2,0	3,8	2,0	103,0
04	58,0	27,0	82,0	213,0	113,0	62,0		37,0		2,0	3,8	3,8	184,0

Note: These parts may be available with drain holes or with eyelets for connector protection caps. Refer to the individual manufacturer for details

- a) Shapes made from some material types may be supplied with a reduced d₃ diameter. Refer to the individual manufacturer for exact dimensions.
- b) The innermost lip is optional
- c) The values of mass may be higher for some materials types. Refer to the individual manufacturer.