



Government
of Canada

Gouvernement
du Canada

Canadian General
Standards Board

Office des normes
générales du Canada

CAN/CGSB-98.2-2018

Supersedes CAN/CGSB-98.2-2011



National flag of Canada (indoor use)

Canadian General Standards Board **CGSB**



Standards Council of Canada
Conseil canadien des normes

Canada

Experience and excellence

Expérience et excellence



ONGC

Canadian General Standards Board statement

The CANADIAN GENERAL STANDARDS BOARD (CGSB), under whose auspices this standard has been developed, is a government directorate within Public Services and Procurement Canada. CGSB is engaged in the production of voluntary standards in a wide range of subject areas through the media of standards committees and the consensus process. The standards committees are composed of representatives of relevant interests including producers, consumers and other users, retailers, governments, educational institutions, technical, professional and trade societies, and research and testing organizations. Any given standard is developed on the consensus of views expressed by such representatives.

CGSB has been accredited by the Standards Council of Canada as a national Standards Development Organization. The standards that CGSB develops and offers as National Standards of Canada conform to the requirements and guidance established for this purpose by the Standards Council of Canada. In addition to standards it publishes as National Standards of Canada, CGSB produces standards to meet particular needs, in response to requests from a variety of sources in both the public and private sectors. Both CGSB standards and CGSB national standards are developed in conformance with the policies described in the CGSB Policy and Procedures Manual for the Development and Maintenance of Standards.

CGSB standards are subject to review and revision to ensure that they keep abreast of technological progress. CGSB will review and publish this standard on a schedule not to exceed five years from the date of publication. Suggestions for their improvement, which are always welcome, should be brought to the notice of the standards committees concerned. Changes to standards are issued either as separate amendment sheets, amended standards or in new editions of standards.

An up-to-date listing of CGSB standards, including details on latest issues and amendments, is found in the CGSB Catalogue at our Web site — <http://www.tpsgc-pwgsc.gc.ca/ongc-cgsb/index-eng.html> along with more information about CGSB products and services.

Although the intended primary application of this standard is stated in its scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.

The testing and evaluation of a product or service against this standard may require the use of materials and/or equipment that could be hazardous. This standard does not purport to address all the safety aspects associated with its use. Anyone using this standard has the responsibility to consult the appropriate authorities and to establish appropriate health and safety practices in conjunction with any applicable regulatory requirements prior to its use. CGSB neither assumes nor accepts any responsibility for any injury or damage that may occur during or as the result of tests, wherever performed.

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. CGSB shall not be held responsible for identifying any or all such patent rights. Users of this standard are expressly advised that determination of the validity of any such patent rights is entirely their own responsibility.

In this standard, “shall” states a mandatory requirement, “should” expresses a recommendation and “may” is used to express an option or that which is permissible within the limits of this standard. Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material. Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

For enforcement purposes, standards shall be considered published the final day of the month of their publication date.

Contact the Canadian General Standards Board

To obtain information on CGSB, its services and standards or to obtain CGSB publications, please contact:

web — <http://www.tpsgc-pwgsc.gc.ca/ongc-cgsb/index-eng.html>

e-mail — ncr.cgsb-ongc@tpsgc-pwgsc.gc.ca

telephone — 1-800-665-2472

mail — Canadian General Standards Board
Gatineau, Canada
K1A 1G6

Standards Council of Canada statement

A National Standard of Canada is a standard developed by a Standards Council of Canada (SCC) accredited Standards Development Organization, in compliance with requirements and guidance set out by SCC. More information on National Standards of Canada can be found at www.scc.ca.

SCC is a Crown corporation within the portfolio of Innovation, Science and Economic Development (ISED) Canada. With the goal of enhancing Canada’s economic competitiveness and social well-being, SCC leads and facilitates the development and use of national and international standards. SCC also coordinates Canadian participation in standards development, and identifies strategies to advance Canadian standardization efforts.

Accreditation services are provided by SCC to various customers, including product certifiers, testing laboratories, and standards development organizations. A list of SCC programs and accredited bodies is publicly available at www.scc.ca.

NATIONAL STANDARD OF CANADA

CAN/CGSB-98.2-2018

Supersedes CAN/CGSB-98.2-2011

National flag of Canada (indoor use)

CETTE NORME NATIONALE DU CANADA EST DISPONIBLE EN VERSIONS
FRANÇAISE ET ANGLAISE.

ICS 03.160

Published July 2018 by the
Canadian General Standards Board
Gatineau, Canada K1A 1G6

© HER MAJESTY THE QUEEN IN RIGHT OF CANADA,
as represented by the Minister of Public Services and Procurement,
the Minister responsible for the Canadian General Standards Board (2018).

No part of this publication may be reproduced in any form without the prior permission of the publisher.

CANADIAN GENERAL STANDARDS BOARD
Committee on the National Flag of Canada

(Voting membership at date of approval)

Chair

Horne, L. University of Manitoba (General interest)

General interest category

Batcheller, J. University of Alberta
Izquierdo, V. CTT Group
Neveu, N. Canadian Heritage/Contracting and Materiel Management
Zhao, J. National Defence/QETE
Zwinkels, J. National Research Council of Canada

Producer category

Arsenault, C. Drapeaux et Bannières L'Étendard Inc.
Brown, D. Flags Unlimited
Jefferies, M. Flying Colours International
Taylor, V. Invista (Canada) Company
White, R. Textile Artcraft

User category

Bowie, K. Public Services and Procurement Canada/
Clothing & Textile Division
Furnald, M. Consultant
Scott, J. Canadian Heritage/State Ceremonial and Corporate Events
Leonard, B. National Capital Commission
Mills, R. National Defence/DSSPM

Secretary (non-voting)

Grabowski, M. Canadian General Standards Board

Contents		Page
1	Scope	1
2	Normative references	1
3	Classification.....	2
3.1	Types	3
3.2	Classes.....	3
3.3	Sizes	3
4	General requirements	3
5	Detailed requirements	3
5.1	Design	3
5.2	Colours.....	3
5.3	Colourfastness	4
5.4	Length (L) and width (W).....	5
5.5	Materials.....	5
5.5.1	Flag.....	5
5.5.2	Header	6
5.5.3	Sewing thread.....	6
5.5.4	Tie tapes (Type 2 only).....	6
5.5.5	Leather tabs (Type 3 only)	6
5.5.6	Ornamental fringe, cord and tassels (Class A only)	6
5.6	Construction	6
5.6.1	General.....	6
5.6.2	Printed flags	6
5.6.3	Appliquéd flags	6
5.6.4	Seams and stitching	6
6	Preparation for delivery.....	7
6.1	Packaging and packing	7
6.2	Labelling	7
7	Inspection	7
7.1	Sampling.....	7
8	Options	7
	Bibliography.....	17

National flag of Canada (indoor use)

1 Scope

This standard applies to the design, colour, materials, construction and performance requirements of the National flag of Canada intended for indoor use.

The testing and evaluation of a product against this standard may require the use of materials and equipment that could be hazardous. This standard does not purport to address all the safety aspects associated with its use. Anyone using this standard has the responsibility to consult the appropriate authorities and to establish appropriate health and safety practices in conjunction with any applicable regulatory requirements prior to its use.

2 Normative references

The following normative documents contain provisions that, through reference in this text, constitute provisions of this National Standard of Canada. The referenced documents may be obtained from the sources noted below.

NOTE The addresses provided below were valid at the date of publication of this standard.

An undated reference is to the latest edition or revision of the reference or document in question, unless otherwise specified by the authority applying this standard. A dated reference is to the specified revision or edition of the reference or document in question.

2.1 Canadian General Standards Board (CGSB)

CAN/CGSB-4.2 — *Textile Test Methods:*

No. 4.1 — *Textiles — Fabrics — Determination of Width and Length*

No. 5.1 — *Unit Mass of Fabrics*

No. 18.3/ISO 105-B02 — *Textiles — Tests for Colourfastness — Part B02: Colourfastness to Artificial light: Xenon Arc Fading Lamp Test* (withdrawn in December 2016)

No. 19.1 — *Colourfastness to Washing — Accelerated Tests — Launder-Ometer*

No. 22 — *Colourfastness to Rubbing (Crocking)*

No. 25.1 — *Dimensional Change in Wetting*

No. 27.1 — *Flame Resistance — Vertical Burning Test* (withdrawn in December 2016)

No. 29.1 — *Colourfastness to Dry Cleaning Solvent* (withdrawn in December 2016)

CAN/CGSB-54.1 Part 1/ISO 4915 — *Stitches and Seams — Part 1: Textiles — Stitch Types — Classification and Terminology*

CAN/CGSB-86.1 — *Care Labelling of Textiles* (withdrawn in October 2017).

2.1.1 Source

The above may be obtained from the Canadian General Standards Board, Sales Centre, Gatineau, Canada K1A 1G6. Telephone 819-956-0425 or 1-800-665-2472. Fax 819-956-5740. E-mail ncr.cgsb-ongc@tpsgc-pwgsc.gc.ca. Web site www.tpsgc-pwgsc.gc.ca/ongc-cgsb/index-eng.html.

2.2 ASTM International

ASTM D1388-14e1— *Standard Test Method for Stiffness of Fabrics*

ASTM E308 — *Standard Practice for Computing the Colors of Objects by Using the CIE System.*

2.2.1 Source

The above may be obtained from ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, U.S.A., telephone 610-832-9585, fax 610-832-9555, Web site www.astm.org, or from IHS Markit, 200-1331 MacLeod Trail SE, Calgary, Alberta T2G 0K3, telephone 613-237-4250 or 1-800-267-8220, fax 613-237-4251, Web site www.global.ihs.com.

2.3 International Commission on Illumination (CIE)

CIE S 014-1/E2006 / ISO 11664-1 *Colorimetry — Part 1 : CIE Standard Colorimetric Observers*

CIE S 014-2/E2006 / ISO 11664-2 *Colorimetry — Part 2 : CIE Standard Illuminants.*

2.3.1 Source

The above may be obtained from the CIE Central Bureau, Kegelgasse 27, A-1030 Vienna, Austria. Telephone +43 1 71432870. Fax +43 1 714318718. Web site www.cie.co.at.

2.4 US Department of Defence

A-A-59826 — *Thread, Nylon*

A-A-59963 — *Thread, Polyester.*

2.4.1 Source

The above may be obtained from DLA Document Services, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094. Address questions to ASSIST Help Desk at 215-697-6396 [DSN: 442-6396], Website: <http://quicksearch.dla.mil/>.

3 Classification

The flag shall be supplied in the following types, classes and sizes as specified (see 8.1).

3.1 Types

Type	Subtype	In accordance with figures
1- Header with open-sleeve	1A Integral header	6 and 9 (Sections A-A, B-B, D-D)
	1B Separate header	6 and 11 (Sections A-A, B-B, D-D)
2- Header with open-sleeve and tie tapes	2A Integral header	7 and 9 (Sections A-A, B-B, C-C, E-E)
	2B Separate header	7 and 11 (Sections A-A, B-B, C-C, E-E)
3- Header with open-sleeve and leather tabs	3A Integral header	8, 9 (Sections A-A, B-B), and 10 (Section F-F)
	3B Separate header	8, 11 (Sections A-A, B-B), and 12 (Section F-F)

3.2 Classes

Class A — With ornamental fringe, cord and tassels

Class B — Without ornamental fringe, cord and tassels.

3.3 Sizes

Size 1 — 12 x 24 cm

Size 5 — 45 x 90 cm

Size 2 — 15 x 30 cm

Size 6 — 65 x 130 cm

Size 3 — 20 x 40 cm

Size 7 — 82 x 164 cm

Size 4 — 30 x 60 cm

Size 8 — 90 x 180 cm.

4 General requirements

The flag shall be free of defects in materials and workmanship that may affect its appearance or serviceability.

5 Detailed requirements

5.1 Design

The flag shall be of the proportions two by length and one by width, containing in its centre a white square the depth of the flag, with a single red maple leaf centred therein, in accordance with Figure 1.

5.2 Colours

The red and white colours shall have the following CIE (International Commission on Illumination) colour coordinates when measured in accordance with ASTM E308 using CIE Standard Illuminant D65 and the CIE 1964 Standard Colorimetric Observer with specular reflection excluded:

Table 1 — Equivalent chromaticity coordinates

	Chromaticity coordinates			CIELAB space units		
	x	y	Y	L *	a *	b *
Red	0.576	0.315	9.5	36.93	55.61	28.98
White	0.328	0.344	78.0	90.78	0.50	7.97

5.3 Colourfastness

The colourfastness of the flag shall be in accordance with the requirements of Table 2.

Table 2 — Finished flag fabric requirements

Property	Requirement	Test method CAN/CGSB-4.2 ^a
Weave	Plain, 1 x 1	—
Mass, g/m ² , min.	120	No. 5.1
Dimensional change in wetting, % limit — warp — weft	2 2	No. 25.1
Colourfastness, min. to light ^b to washing ^d — colour change for red portion — staining for white portion to dry cleaning ^d — colour change for red portion — staining for white to crocking, dry ^e — colour change — staining	AATCC L5 or L7, Grey Scale 4 Grey Scale 4 Grey Scale 4 Grey Scale 5	No. 18.3/ISO 105-B02 ^c No. 19.1, Test No. 1 No. 29.1 No. 22
Flammability (average for 5 samples)	Char length — 100 mm After flame — 2 s No burning drips or debris	No. 27.1
Flexural rigidity	No less than 200 mg/cm (Option A)	ASTM D1388-14e1

^a Unless otherwise indicated.

^b To be specified (see 8.1).

^c Soda-lime/borosilicate system.

^d Sample shall be ½ red and ½ white.

^e Repeat dry crocking test rubbing half-red and half-white each time. There shall be no observable streaking, smearing or staining onto the half-white rubbed parts.

5.4 Length (L) and width (W)

The flag shall be of the length and width specified (see 3.3 and Tables 3 and 4) when measured in accordance with CAN/CGSB-4.2 No. 4.1.

Table 3 — National flag dimensions

All dimensions are in centimetres.

Flag size ^a	Width X ^b	Length L ^b	Red Y ^b	White Z ^b
1	12 ± 0.3	24 ± 0.5	6.0 ± 0.2	12 ± 0.2
2	15 ± 0.3	30 ± 0.5	7.5 ± 0.2	15 ± 0.2
3	20 ± 0.3	40 ± 0.5	10.0 ± 0.2	20 ± 0.2
4	30 ± 0.5	60 ± 1.0	15.0 ± 0.3	30 ± 0.3
5	45 ± 0.5	90 ± 1.0	22.5 ± 0.3	45 ± 0.3
6	65 ± 1.0	130 ± 1.5	32.5 ± 0.5	65 ± 0.5
7	82 ± 1.0	164 ± 1.5	41.0 ± 0.5	82 ± 0.5
8	90 ± 1.0	180 ± 1.5	45.0 ± 0.5	90 ± 0.5

^a See 3.3.

^b See Figures 2, 3 and 4.

Table 4 — Header dimensions

All dimensions are in centimetres.

Flag size ^b	Header dimension W ^a cm ± 2%	
	Type 1, 2 ^c V ^d	Type 3 ^c V ^d
1-2	4.0	6.5
3-8	6.5	6.5

^a See Figures 2, 3 and 4. W = V in Figures 9 and 11 (Sections D-D and E-E).

^b See 3.3.

^c See 3.1.

^d See Figures 9 and 11 (Sections D-D and E-E).

5.5 Materials

5.5.1 Flag

The flag shall be made of woven fabric in accordance with Table 2.

5.5.2 Header

The header material shall be white fabric in accordance with Table 2.

5.5.3 Sewing thread

The flag shall be sewn with red and/or white thread in accordance with A-A-59826 and A-A-59963, as specified (see 8.1).

5.5.4 Tie tapes (Type 2 only)

There shall be two 16 x 400 mm woven or braided white tapes, with a mass of 3.50 ± 0.25 g/m when tested in accordance with CAN/CGSB-4.2 No. 5.1. The free length of the tie tape shall be approximately 18 cm.

5.5.5 Leather tabs (Type 3 only)

The leather tabs shall be black or brown leather with the shape and dimensions specified in Figure 8.

5.5.6 Ornamental fringe, cord and tassels (Class A only)

The ornamental fringe shall be gold, 5 to 7 cm wide. The ornamental cord shall be 3 ply, 6 mm diameter gold cord finished with a gold tassel 7 to 8 cm long at each end. The cord and tassels shall visually match the colour of the ornamental fringe.

5.6 Construction

5.6.1 General

The flag shall be dye-printed or appliquéd. Construction of the flag shall be in accordance with the following:

- a) One-piece flag — Figures 2 and 5 (Sections A-A and B-B)
- b) Three-piece flag — Figures 3 and 5 (Sections A-A, B-B and C-C)
- c) Four-piece flag — Figures 4 and 5 (Sections A-A, B-B and C-C).

5.6.2 Printed flags

The tolerance for bowing of the vertical red panel edges of printed flags are as follows:

- a) Size 1 (12 x 24 cm) through size 4 (30 x 60 cm): 6 mm
- b) Size 5 (45 x 90 cm) through size 8 (90 x 180 cm): 12 mm.

5.6.3 Appliquéd flags

For all appliquéd flags, the appliqué shall be applied to both sides of the flag.

For all flags printed in one piece, the length of the flag shall be parallel to the warp direction of the fabric. For flags of more than one piece, the length of the flag shall be parallel to the weft direction of the fabric.

5.6.4 Seams and stitching

All seams and stitchings shall be lockstitch or chain stitch (Type 301 or Type 401, respectively, in accordance with CAN/CGSB-54.1, Part 1/ISO 4915) with not less than 2.5 and not more than 3.6 stitches per centimetre. The ends of all stitchings and any breaks in the sewing thread during stitching shall be securely backstitched.

For Class A flags, the ornamental fringe shall be sewn to the top, bottom and fly edges of the flag in such a manner as not to pucker the flag fabric.

6 Preparation for delivery

6.1 Packaging and packing

Unless otherwise specified (see 8.1), packaging and packing shall conform to normal commercial practice.

6.2 Labelling

The flag shall have affixed to the header, a label upon which at least the following information, in both English and French, is printed in a type height not less than 6 mm and not more than 12 mm:

<p>Manufacturer's name and mailing address or CA number "CANADA" Size Date of manufacture Cleaning and drying instructions (in accordance with CAN/CGSB-86.1).</p> <hr/> <p>Nom et adresse du fabricant ou le numéro d'identification CA « Canada » Dimension Date de fabrication Directives de nettoyage et de séchage (conformément à la norme CAN/CGSB-86.1).</p>
--

The label shall be legible and permanent to the conditions of use of the flag and shall have no detrimental effect on the flag.

7 Inspection

7.1 Sampling

Sampling for inspection and testing shall be left to the discretion of the inspection authority, unless a specific sampling plan is specified (see 8.1).

8 Options

8.1 The following options shall be specified in the application of this standard:

- a) Type, class and size of flag (see 3.1 to 3.3)
- b) Colourfastness to light requirement (see 5.3, Table 2)
- c) Colour and type of sewing thread (see 5.5.3)
- d) Packaging and packing, if other than as specified (see 6.1)
- e) Sampling, if a specific plan is specified (see 7.1).

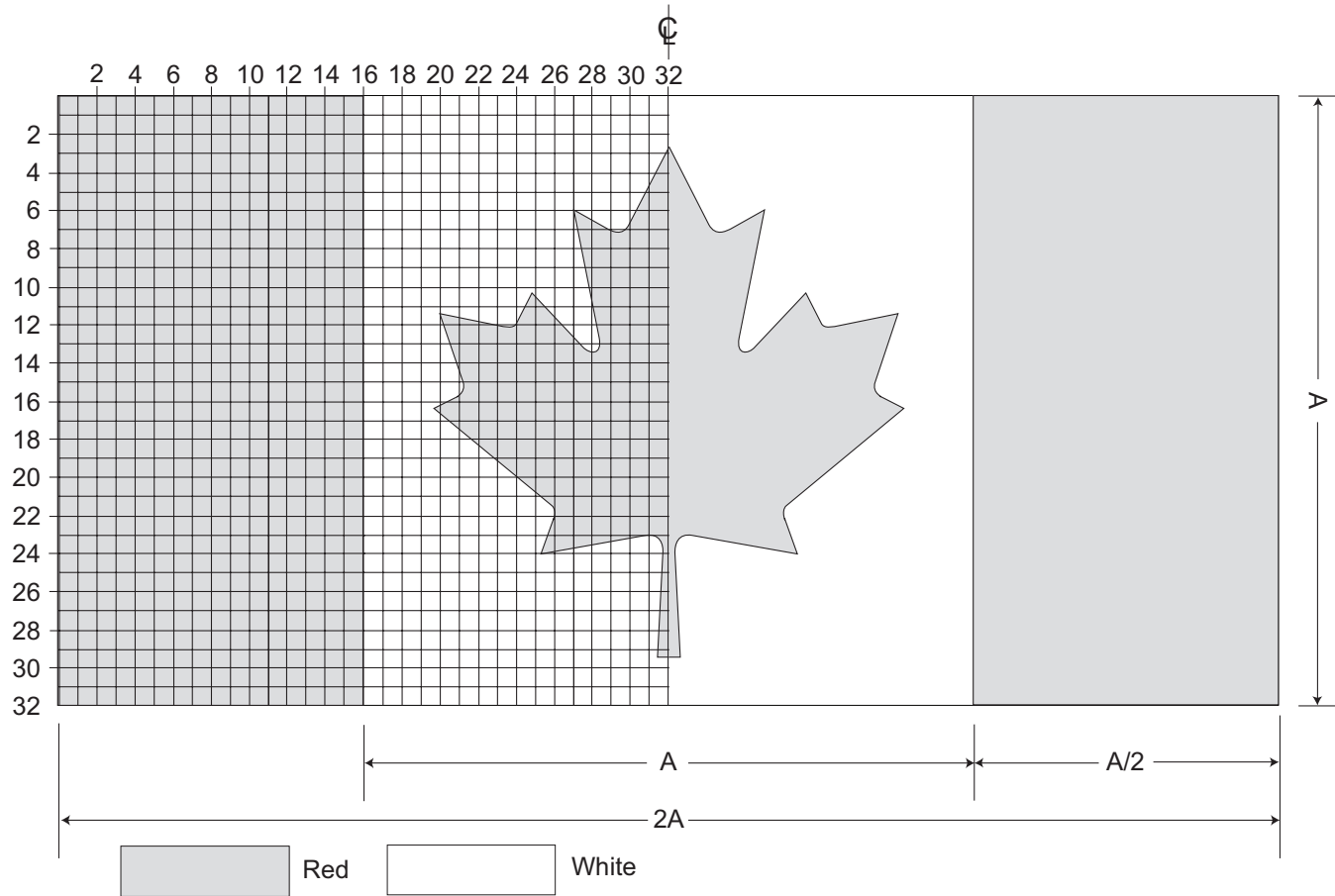


Figure 1 — Design of the National Flag of Canada

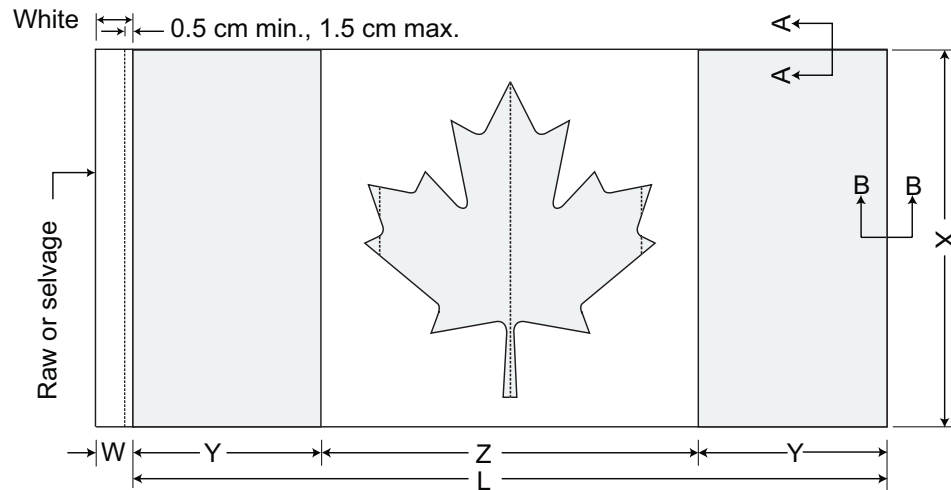


Figure 2 — One-piece flag construction

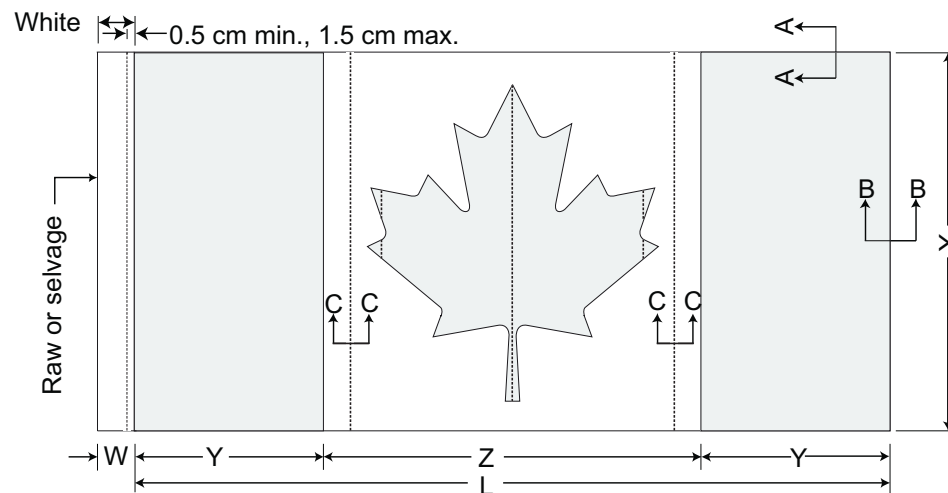


Figure 3 — Three-piece flag construction

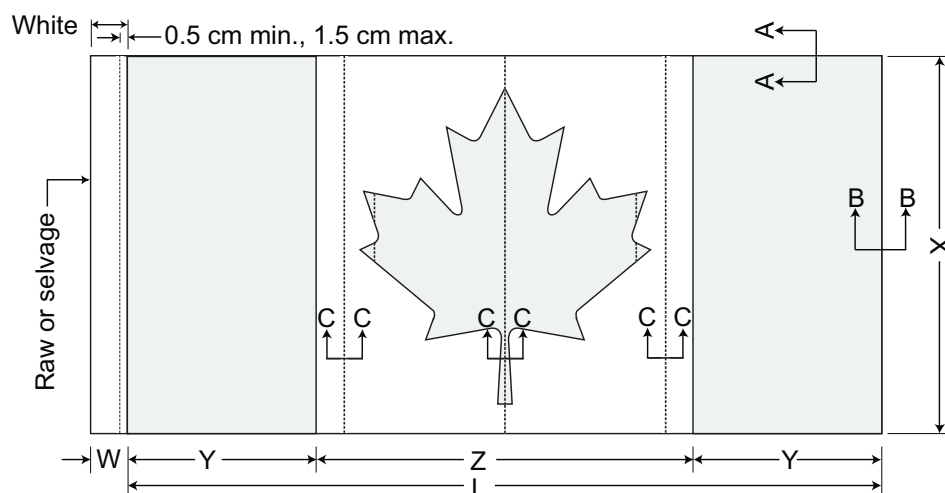
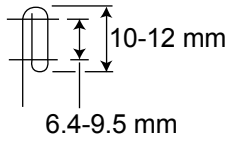
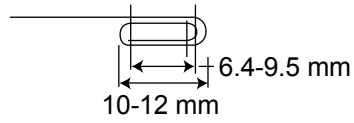


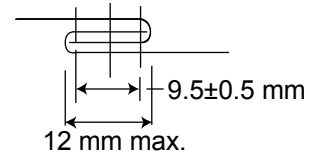
Figure 4 — Four-piece flag construction



Section A-A



Section B-B



Section C-C

Figure 5 — Construction details

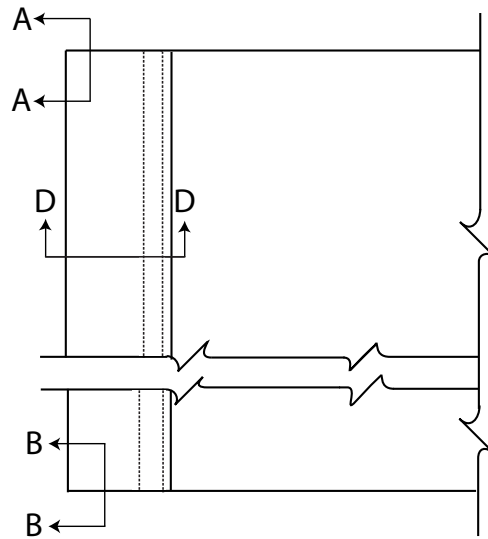


Figure 6 — Type 1 — Header, open-sleeve

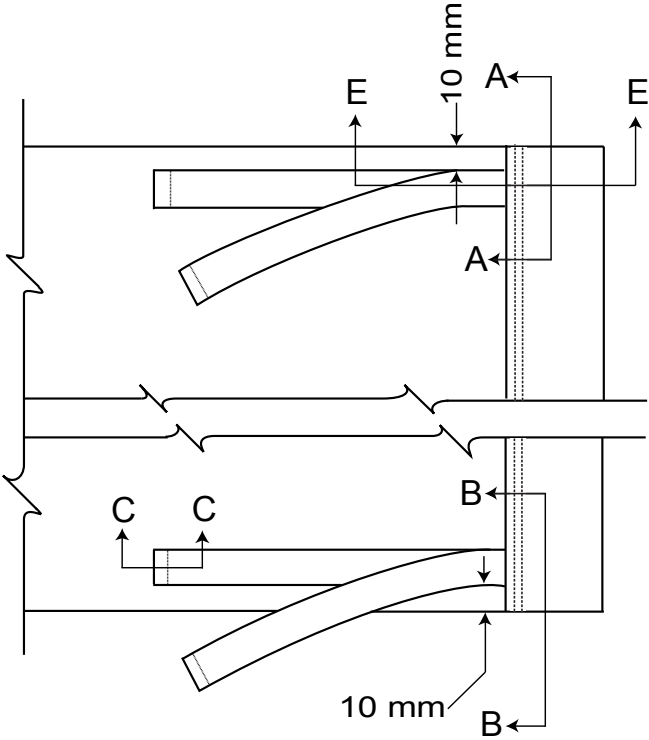


Figure 7 — Type 2 — Header, open-sleeve with tie tapes

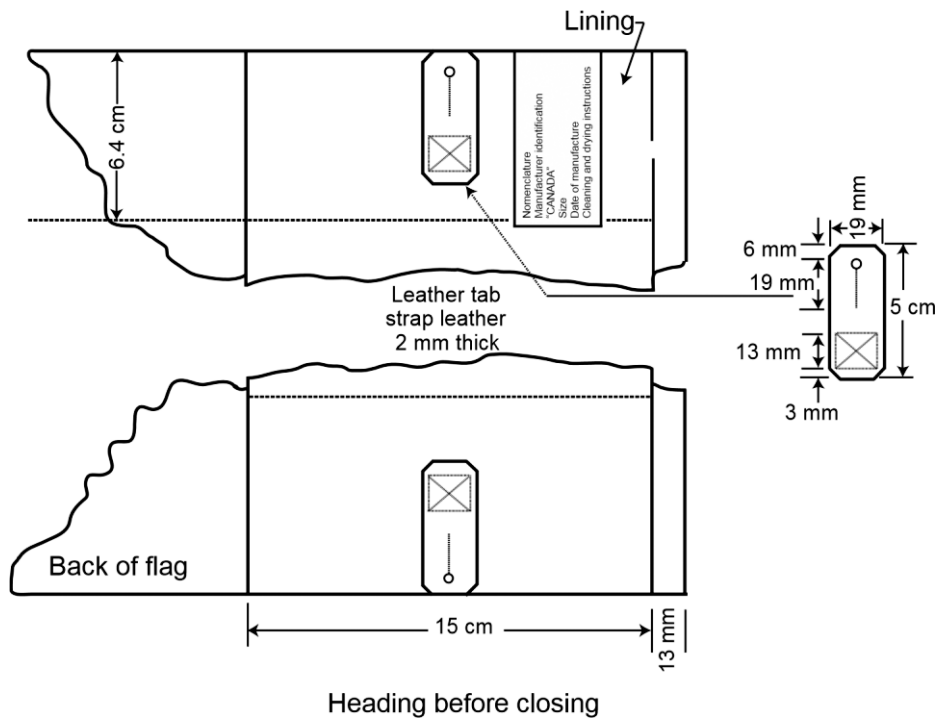
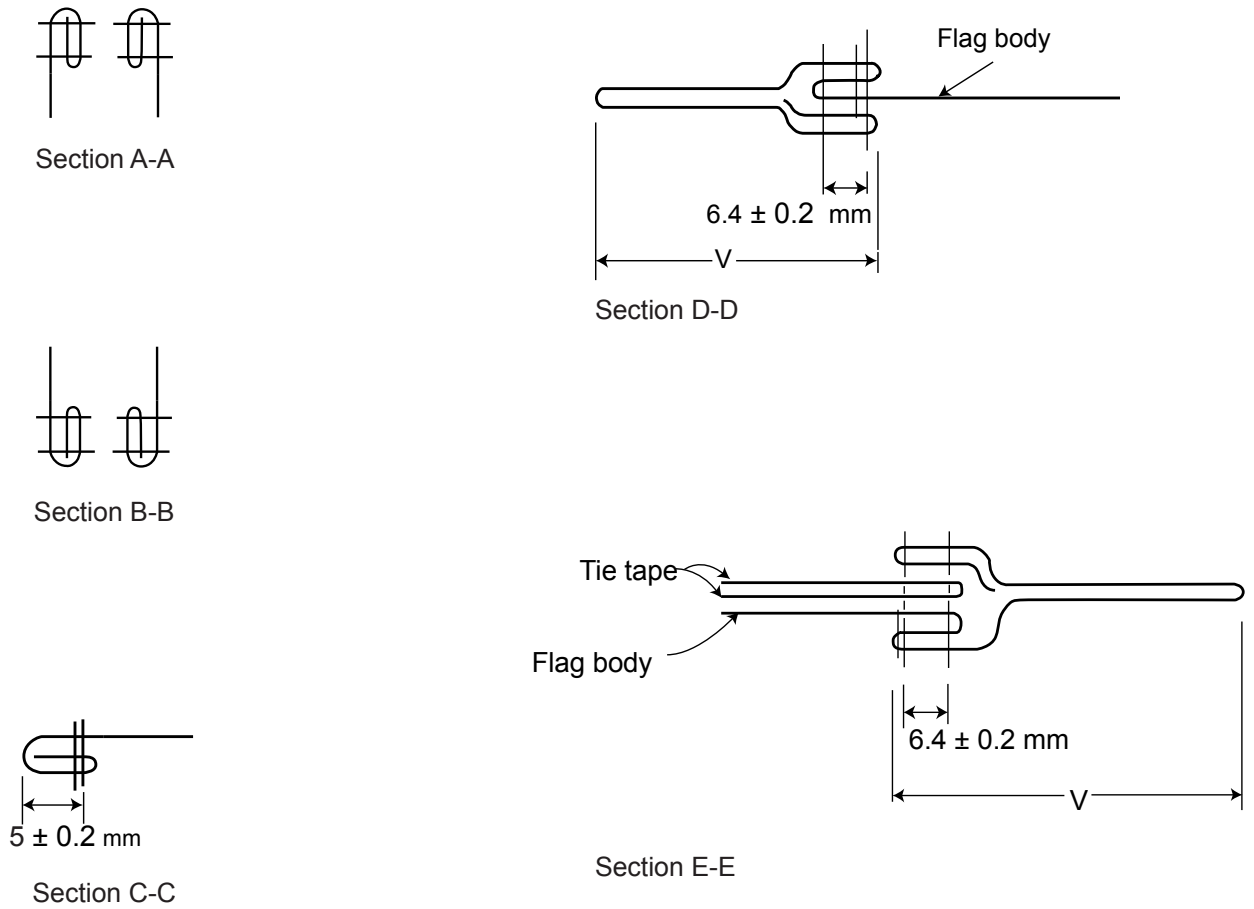


Figure 8 — Type 3 — Header, open-sleeve with leather tabs



Unless otherwise specified, dimensions are in centimetres.

Figure 9 — Construction details — Subtypes 1A, 2A and 3A flags

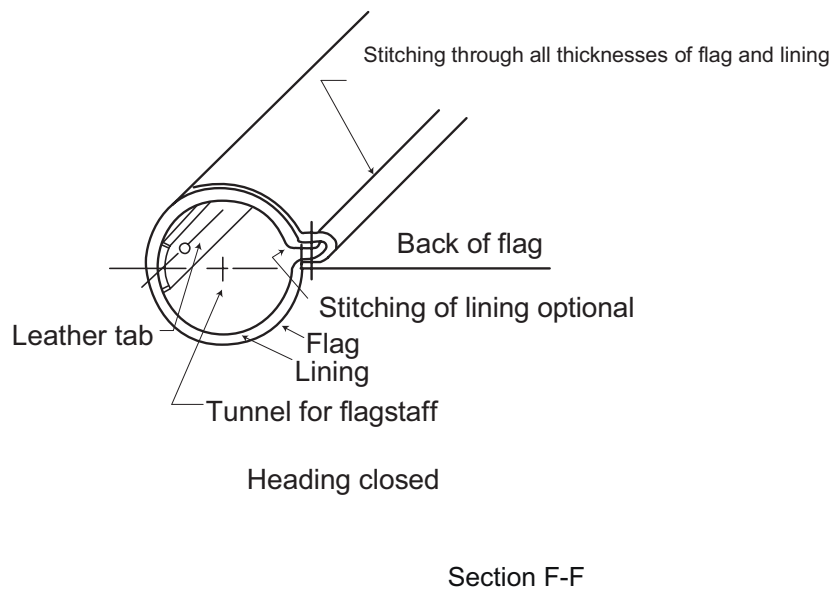
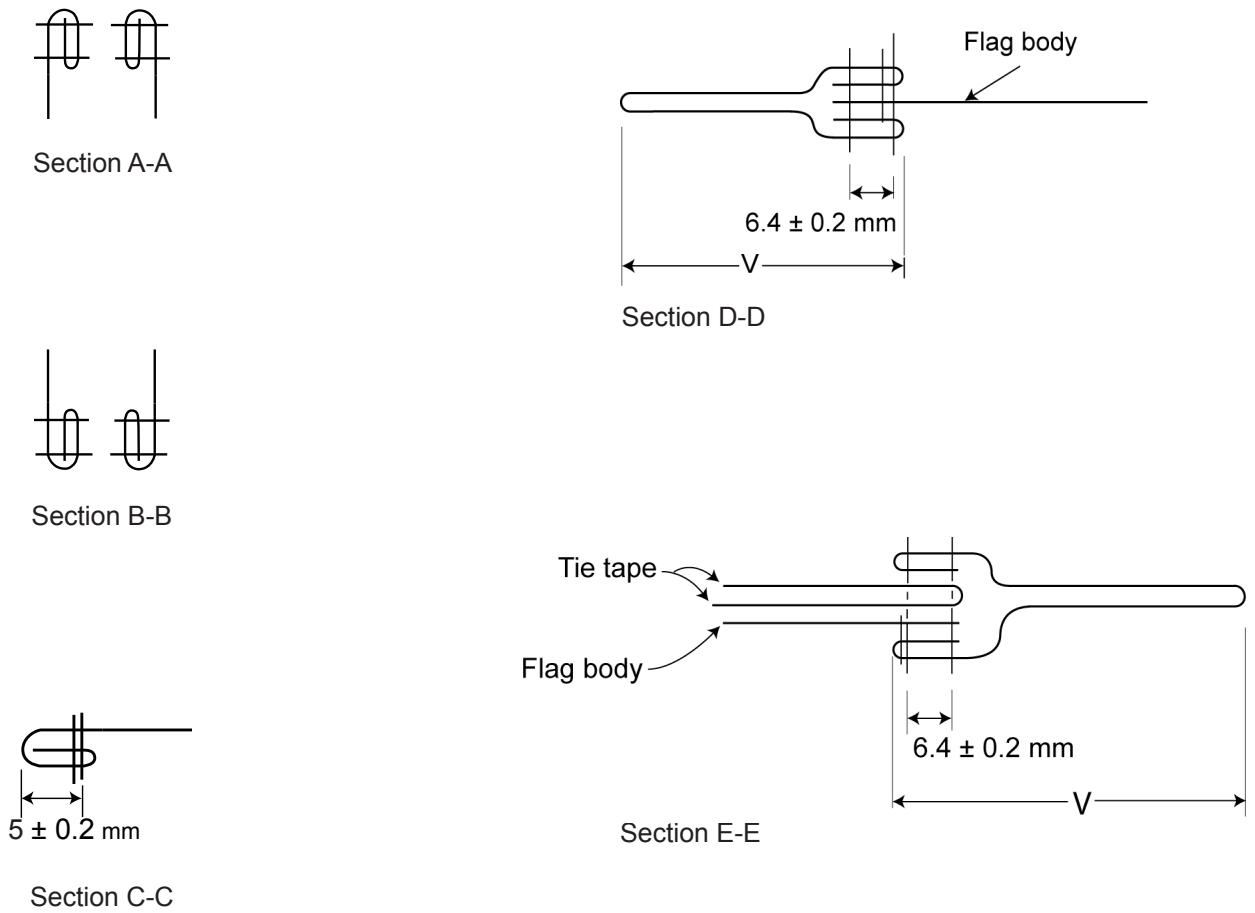


Figure 10 — Construction details for flag type — Subtype 3A flag



Unless otherwise specified, dimensions are in centimetres.

Figure 11 — Construction details — Subtypes 1B, 2B and 3B flags

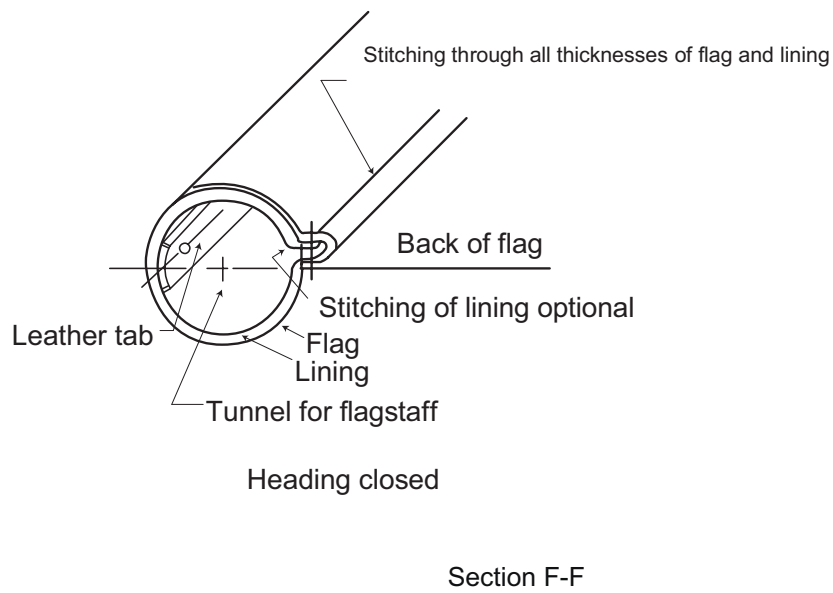


Figure 12 — Construction details for flag type — Subtype 3B flag

Bibliography

- [1] Canadian Heritage, *Flag etiquette in Canada*, c2000, revised 2001, Catalogue Number CH4-1/5-2001. Available at <http://www.publications.gc.ca>
- [2] Department of Justice Canada, *National Flag of Canada Manufacturing Standards Act*. Available at <http://laws-lois.justice.gc.ca>