



Canada Border
Services Agency

Agence des services
frontaliers du Canada



Sweater, Unisex

Purchase Description



File no. CBSA/ASFC-2013-04-116
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PROTECTION • SERVICE • INTEGRITY

Canada 

PURCHASE DESCRIPTION

SWEATER, UNISEX

1. SCOPE

This purchase description describes the requirement for materials, design, construction and inspection of a unisex style, 100% virgin wool V-neck sweater to be used by Border Service Officers (BSO) within the Canada Border Services Agency (CBSA).

2. GENERAL REQUIREMENTS

- 2.1. DESIGN - The V-neck sweater shall be constructed from 100% virgin "Easy Care" Wool, 64's quality with a shrink resist treatment. They shall be navy blue in colour, knit using an interlock stitch for the body and sleeves and a 2x1 rib for the neckband, waistband and cuffs. The elbow patches, shoulder patches and shoulder straps shall be made from matching wool/polyester Serge. The Sweater shall be designed in accordance to the attached scale of measurements, drawings and sealed sample which are integral parts of this specification.
- 2.2. All articles or materials covered by this purchase description shall be free from imperfections or blemishes such as may affect its appearance or serviceability.
- 2.3. In the event of any inconsistency in the contract documents, purchase description, drawings, or sealed samples. The aforementioned shall prevail in the following order:
 - I) Contract
 - II) Purchase Description
 - III) Drawings
 - IV) Sealed Sample

3. SEALED SAMPLE

A sealed sample, identified by the purchase description number noted in the contract, will be supplied to the successful tenderer when available. This will constitute the standard in regards to any properties not identified within. Variation from the purchase description may appear in the sample in which case the purchase description shall govern unless otherwise identified on the sealed sample tag.

The sealed sample will be sent “prepaid” and is to be returned “prepaid”.

The sealed sample is to be returned to CBSA in the same condition as received by the manufacturer. Lost or damaged sealed samples shall be replaced by an identical item or the CBSA shall be reimbursed for the cost of an acceptable replacement.

4. APPLICABLE SPECIFICATIONS

- 4.1. CAN/CGSB, 4.2, Textile Test Methods.
- 4.2. CAN/CGSB 4.131-93, Polyester-Covered Polyester Thread.
- 4.3. CAN/CGSB-54.1-M90 Parts 1 and 2, Stitches and Seams.
- 4.4. CAN/CGSB-86.1-M91, Care Labelling of Textiles.
- 4.5. IWS Test Method TM 31, Washing of Wool Textile Products (Relaxation Dimensional Change and Felting Shrinkage).
- 4.6. IWS Test Method TM 254, Tumble Drying Performance after Washing.
- 4.7. IWS Test Method TM 298, Knitwear Surface Appearance Assessed after Washing and Drying.
- 4.8. CBSA Purchase Description, CBSA/ASFC 09-16-962C, Shoulder Insignia.

5. DETAILED REQUIREMENTS

5.1. MATERIALS

- 5.1.1. Knitting Yarn - 100% virgin wool, worsted spun 64's quality (20.60-22.04 microns) with a 2 ply, 2/28 worsted count or 2/32 metric count. The yarn shall have a twist of 10.3 turn per inch (single strand or 5.6 turns per inch (ply). The wool shall be top dyed from shrink resistant treated tops. No reprocessed, reused, pulled or dead fibres shall be used, nor shall any untreated tops be mixed with treated tops. The yarn shall be navy blue in colour to match the sealed sample. The yarn shall meet or exceed all properties in Table I.
- 5.1.2. Shrink Resist Treatment - The yarn shall have a shrink resist treatment applied to the tops prior to processing. This treatment shall conform to the standards to the International Wool Secretariat (IWS), represented in Canada by the Woolmark Company.
- 5.1.3. Finishing - All knitted pieces shall be washed at 43.3°C (110°F) and dried at 82.2°C (180°F) before cutting.
- 5.1.4. Woven Material - Used in the construction of the elbow patches, shoulder patches and shoulder straps. Navy blue in colour, matching the knitting yarn. 65% Wool/35% Polyester Serge with a mass of 285 g/m² ± 5%.
- 5.1.5. Reinforcing Tape - Commercially available cotton twill tape, 6.4mm (¼") wide, navy or black in colour shall be used to reinforce the shoulder and underarm seams.
- 5.1.6. Buttons - Two, four-hole, 19mm (¾") plastic buttons, of matching colour to the woven fabric.
- 5.1.7. Loop Tape - Shall be woven nylon, black in colour, with a high life cycle. The width shall be 2.5cm (1") with lengths as specified in the purchase description and drawings. The combined hook and loop shall have no less than 8 P.S.I length-wise shear strength and initial peel strength shall of not less than 1 P.I.W and after 1000 cycles.
- 5.1.8. Sewing Thread - Shall be polyester core, polyester wrap R40 Tex of matching shade to the woven material. For flat cover seams the above mentioned thread shall be used in the needle with the yarn used in the body for the looper.

- 5.1.9. Shoulder Insignia - Meeting Purchase Description CBSA/ASFC 09-16-962C. Supplied by CBSA. Government Supplied Material (GSM).

6. GENERAL CONSTRUCTION:

- 6.1.1. Size and Dimensions - As specified in the Scales of Measurements, drawings and sealed samples. The measurements shall be taken in a fully relaxed stated allowing a minimum time period of 48 hours after garment completion before measurements are taken.
- 6.1.2. Seams & Stitches - The side seams, underarm seams, and armhole seams shall be joined using a Type 504 overlock seam. The seams of the back neckband, shoulder seam and cuff shall be covered with a flat cover stitch Type 402 or 406, using the knitting yarn in the looper. The covering effect shall be on the underside and there shall be a minimum of 9 stitches with no more than 12 stitches per 2.5cm (1"). All seams not secured by another seam shall be bar tacked or securely backstitched. Care shall be taken to ensure that all knit stitches are secured in order to prevent fraying. Elbow, shoulder patches and shoulder straps constructed from woven material shall be seamed using seam Type 501, having not less than 10 stitches and no more than 12 stitches per 2.5cm (1").

7. CONSTRUCTION: (Cut & Sew Type)

- 7.1.1. Body & Sleeves - Knit on a 12 gauge or flat machine with an interlock stitch using a yarn size of 2-28-64 (plies: 2, worsted count: 28, quality: 64) with a yarn feed of 12 gauge and 1 end. The constructed body and sleeves shall have 17-19 wales per 2.5cm (1"), with 20-22 courses per 2.5cm (1").
- 7.1.2. Waistband - Constructed using a continuous knitting process with a 2x1 rib. 13-15 wales per 2.5cm (1") and 24-26 courses per 2.5cm (1"). Waistband width shall be 6.4cm (2½") finished, with no seams joining the waistband to the body.
- 7.1.3. Neckband - Shall be 2x1 rib, 13-15 wales per 2.5cm (1") and 24-26 courses per 2.5cm (1"). Knitted in one piece and folded to form a double neckband approximately 3.2cm (1¼") wide. The ends of the band which form the V-neck, shall be joined with a lock stitch seam to form an angle with the ribs properly matched giving a chevron effect. The collar band shall be joined to the neck of the sweater with a flat cover stitch using the body yarn in the looper (Type 402 or 406) and edge stitched 3mm (⅛") along the exterior of the "V" onto the body. The completed neckband shall be 2.5cm (1") wide finished.

- 7.1.4. Cuff - The roll back style cuff shall be constructed using a continuous knitting process with a 2x1 rib. 13-15 wales per 2.5cm (1") and 24-26 courses per 2.5cm (1"). The finished length should be 14cm (5½"), with no seams joining the cuff to the body.
- 7.1.5. Shoulder Seam - Joined to the body using a flat cover stitch Type 402 or 406 using body stitch yarn in the looper. Reinforcing tape as specified in para 5.1.5 shall be inserted into the seam.
- 7.1.6. Sleeve and Side Seam - Each sleeve shall be joined to their respective armhole. During this operation, the shoulder strap shall be centred and caught into the armhole seam. A reinforcing tape as per para 5.1.5, measuring 8cm (3⅝") long, shall be inserted evenly in the armhole seams under where the sleeve seam and the side seam meet. The elbow patches shall be caught in the underarm sleeve seams. The sleeve seams and the side seams shall be joined together in a continuous operation to within 10cm (4") of the sleeve cuff edge using an overlock stitch Type 504. At this point, the seaming shall be reversed to allow for the roll back cuff which should be stitched by a flat coverstitch Type 402 or 406. A bartack shall be made parallel to the seam, on the seam allowance of the cuff and the bottom hem to secure the seams.
- 7.1.7. Shoulder Patches - Constructed from woven material specified in para 5.1.4. Centered over the shoulder seams with raw edges turned 1cm (⅜") and edge stitched. The sweater ribs shall be as near to relaxed or in an "un-stretched" condition at the time of attachment. The outside edge of the patch shall follow the contour of and be included in to the armhole seam with the inside edge positioned as close as possible to the collar band at the neckline. A button as specified in para 5.1.6 shall be sewn to the center of the shoulder patch on the shoulder seam 2.5cm (1") from the neckband.
- 7.1.8. Elbow patches - Constructed from woven material as specified in para 5.1.4 shall be shaped and dimensioned as per the sealed sample. The raw edges shall be turned 1cm (⅜") and edge stitched. The sweater ribs shall be as near to relaxed or in an "un-stretched" condition at the time of attachment. The patches shall begin 4.4cm (1 ¾") above the top of the rib cuff and shall be sew into the seam.
- 7.1.9. Shoulder Straps - Constructed from 2 plies of woven material as specified in para 5.1.4 shaped and dimensioned as per the sealed sample and drawings. They shall be rectangular in shape with a pointed end at the neck edge. The strap shall have a buttonhole to fit the button as specified in para 5.1.6. The button hole shall be centered 1.27cm (½") from the pointed end. The shoulder strap shall be caught in the armhole seam and lie straight and flat when buttoned.

- 7.1.10. Shoulder Insignia - Each sleeve shall have a CBSA shoulder insignia as specified in para 5.1.9 sewn to the sleeve head positioned center to the shoulder strap as shown in the drawings and on the sealed sample.

8. LABELLING

- 8.1.1. All labeling must be in a bilingual format. The text on all labels shall be of permanent inks of a contrasting colour which shall remain visible and withstand a minimum of 40 washes.
- 8.1.2. Identification Labels
- a. Size Designation (as referenced in the contract documents)
 - b. Fibre Content
 - c. Manufacturers' Name & Contract #
 - d. Material Master Number (reference contract documents)
- 8.1.3. Cleaning Instructions
- a. Machine wash - cool (30°C)
 - b. Do not bleach
 - c. Tumble dry - low
 - d. Steam Iron - low
 - e. Dry Clean

9. TECHNICAL INSPECTION

The contractor shall be responsible for the performance of all inspections and tests necessary to demonstrate that that materiel and services being supplied conform to the requirements of this purchase description. This may be accomplished by performing the test specified in this purchase description or by demonstrating to the satisfaction of the CBSA, Technical Authority that conformity to the purchase description and manufacturing process is assured. The contractor may use any independent, ISO 9001 certified and ISO 17025 "Textile" certified testing facilities acceptable to the CBSA Technical Authority. Certification documents will be required.

The CBSA Technical Authority reserves the right to perform any inspection considered necessary to ensure the material and services conform to the specified requirements. For the purpose of inspection, a portion of each delivery not exceeding two percent or two out of any number delivered fewer than 100 may be put to tests that could destroy the articles. If found to be inferior or not in accordance with this specification, all articles so destroyed shall be replaced by others of proper quality at the expense of the contractor. The entire delivery may also be rejected if it is found that articles previously rejected due to non-repairable defects are redelivered for inspection.

The contractor will be promptly notified when any articles are not accepted and such articles will be returned at the contractor's risk and expense.

10. DELIVERY, PACKING & MARKING OF CONTAINERS

It is the responsibility of the manufacturer to ensure that goods are packaged in a suitable manner to be delivered in an undamaged condition. Any goods received in a damaged condition will be returned to the manufacturer for replacement at his full cost.

Packing and marking of shipping containers shall be as specified in the invitation to tender.

A packing slip shall be enclosed showing the contents of each shipment.

The contractor shall also identify clearly on the outside of each package (box) the following items

- Size
- Material Master Number
- Quantity of each size contained in the box
- Contract Number

11. APPENDICES

SCALES OF MEASUREMENTS

DRAWINGS - Appendix A

TABLE I - Yarn Requirements

	REQUIREMENT	TEST METHOD
Colour	Dark Blue as per sealed sample	
Fiber Content	100% virgin wool para. 5.1.1	CAN/CGSB 4.2 Method 14
Fiber Diameter	64's quality worsted spun (20.60 -22.04 microns)	CAN/CGSB 4.2 Method 48
Yarn Structure	2 ply	

TABLE II - Knitted Fabric Requirements

	REQUIREMENT	TEST METHOD
Colour Fastness to Light	Equal to AATCC Standard L4 or better	CAN/CGSB 4.2 Method 18.3-97
Colour Fastness to Crocking Dry & Wet	Grey scale 4 or better	CAN/CGSB 4.2 Method 22
Colour Fastness to Washing	Grey scale 4 or better	CAN/CGSB 4.2 Method 19.1 Test #2
Colour Fastness to Perspiration	Colour Change: Grey Scale 4 Staining: Grey Scale 4	CAN/CGSB 4.2 Method 23 - M90
Dimensional Change in Laundering - Relaxation Shrinkage	5% max. (each direction)	The Woolmark Company TM 31- Washing of Wool TM 254 - Tumble Drying Performance after Washing
Dimensional Change in Laundering - Felting Shrinkage	5% max. (each direction) 5% total area	The Woolmark Company TM 31 TM 31- Washing of Wool TM 254 - Tumble Drying Performance after Washing
Dimensional Change in Dry Cleaning	5% max. (each direction)	CAN/CGSB 4.2 Method 30
Surface Appearance Assessment <i>After 1 wash</i> <i>After 5 washes</i>	Grade 3	The Woolmark Company TM 298 1 wash - 7A 5 washes - 5A

Note: Sample sweaters, knit from every batch and/or dye lots of yarn received, are to be tested. The first test is required at the pre-production stage of the contract to ensure compliance. Washing and drying at high temperatures to eliminate shrinkage is not acceptable. Evidence of felting shrinkage after 5 washes as defined in Table I is not acceptable.

SCALE OF MEASUREMENTS (IMPERIAL) - SWEATER, UNISEX

BODY MEASUREMENTS	HEIGHT	SHORT 5'3" - 5'6"								REGULAR 5'7" - 5'10"								TOLERANCES ±	MEASUREMENT LOCATION
	SIZE	XS	S	M	L	XL	2XL	3XL	4XL	XS	S	M	L	XL	2XL	3XL	4XL		
	CHEST	26 - 28	30 - 32	34 - 36	38 - 40	42 - 44	46 - 48	50 - 52	54 - 56	26 - 28	30 - 32	34 - 36	38 - 40	42 - 44	46 - 48	50 - 52	54 - 56		
FINISHED GARMENT MEASUREMENTS	CHEST CIRC. (½ only)	16	18	20	22	24	26	28	30	16	18	20	22	24	26	28	30	1/2	A
	WAISTBAND WIDTH "RELAXED"	9	11	13	15	17	19	21	23	9	11	13	15	17	19	21	23	1/2	B
	ARMHOLE DEPTH	8 1/2	9	9 1/2	10	10 1/2	11	11 1/2	12	8 1/2	9	9 1/2	10	10 1/2	11	11 1/2	12	1 1/4	
	V-NECK DEPTH	7	7	7	7	7	7	7 1/2	7 1/2	8	8	8	8	8	8	8 1/2	8 1/2	1/4	C
	SHOULDER SEAM LENGTH	5 1/4	5 1/2	5 3/4	6	6 1/4	6 1/2	6 3/4	7	5 1/4	5 1/2	5 3/4	6	6 1/4	6 1/2	6 3/4	7	1/4	D
	BACK NECK WIDTH	6	6 1/4	6 1/2	6 3/4	7	7 1/4	7 1/2	7 3/4	6	6 1/4	6 1/2	6 3/4	7	7 1/4	7 1/2	7 3/4	1/4	E
	BACK LENGTH	21	22	23	24	25	25 1/2	26	26 1/2	23	24	25	26	27	27 1/2	28	28 1/2	3/4	F
	SLEEVE LENGTH	29 1/2	30 1/2	31 1/2	32 1/2	33 1/2	34	35 2/5	36	32	33	34	35	36	36 1/2	37 1/2	38	3/4	G
	CUFF WIDTH OPENING	3	3	3 1/4	3 1/4	3 1/2	3 1/2	3 3/4	3 3/4	3	3	3 1/4	3 1/4	3 1/2	3 1/2	3 3/4	3 3/4	1/4	H
	ELBOW PATCHES																		
	LENGTH	9	9 1/4	9 1/2	9 3/4	10	10 1/4	10 1/2	10 3/4	10	10 1/4	10 1/2	10 3/4	11	11 1/4	11 1/2	11 3/4	1/4	M
	WIDTH AT WIDEST POINT	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	6 3/4	6 3/4	6 3/4	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	6 3/4	6 3/4	6 3/4	1/4	K
	WIDTH AT CUFF	3 3/4	3 3/4	3 3/4	4	4	4	4 1/4	4 1/4	3 3/4	3 3/4	3 3/4	4	4	4	4 1/4	4 1/4	1/4	L

Note: The above dimensions are displayed in Imperial measures.

SCALE OF MEASUREMENTS (IMPERIAL) - SWEATER, UNISEX (Continued)

BODY MEASUREMENTS	HEIGHT	TALL 5'11" - 6'2"								XTALL 6'3" - 6'6"								TOLERANCES ±	MEASUREMENT LOCATION
	SIZE	XS	S	M	L	XL	2XL	3XL	4XL	XS	S	M	L	XL	2XL	3XL	4XL		
	CHEST	26 - 28	30 - 32	34 - 36	38 - 40	42 - 44	46 - 48	50 - 52	54 - 56	26 - 28	30 - 32	34 - 36	38 - 40	42 - 44	46 - 48	50 - 52	54 - 56		
FINISHED GARMENT MEASUREMENTS	CHEST CIRC. (½ only)	16	18	20	22	24	26	28	30	16	18	20	22	24	26	28	30	1/2	A
	WAISTBAND WIDTH "RELAXED"	9	11	13	15	17	19	21	23	9	11	13	15	17	19	21	23	1/2	B
	ARMHOLE DEPTH	8 1/2	9	9 1/2	10	10 1/2	11	11 1/2	12	8 1/2	9	9 1/2	10	10 1/2	11	11 1/2	12	1 1/4	
	V-NECK DEPTH	9	9	9	9	9	9	9 1/2	9 1/2	10	10	10	10	10	10	10 1/2	10 1/2	1/4	C
	SHOULDER SEAM LENGTH	5 1/4	5 1/2	5 3/4	6	6 1/4	6 1/2	6 3/4	7	5 1/4	5 1/2	5 3/4	6	6 1/4	6 1/2	6 3/4	7	1/4	D
	BACK NECK WIDTH	6	6 1/4	6 1/2	6 3/4	7	7 1/4	7 1/2	7 3/4	6	6 1/4	6 1/2	6 3/4	7	7 1/4	7 1/2	7 3/4	1/4	E
	BACK LENGTH	25	26	27	28	29	29 1/2	30	30 1/2	27	28	29	30	31	31 1/2	32	32 1/2	3/4	F
	SLEEVE LENGTH	34 1/2	35 1/2	36 1/2	37 1/2	38 1/2	39	39 1/2	40	37	38	39	40	41	41 1/2	41 1/2	42	3/4	G
	CUFF WIDTH OPENING	3	3	3 1/4	3 1/4	3 1/2	3 1/2	3 3/4	3 3/4	3	3	3 1/4	3 1/4	3 1/2	3 1/2	3 3/4	3 3/4	1/4	H
	ELBOW PATCHES																		
	LENGTH	11	11 1/4	11 1/2	11 3/4	12	12 1/4	12 1/2	12 3/4	12	12 1/4	12 1/2	12 3/4	13	13 1/4	13 1/2	13 3/4	1/4	M
	WIDTH AT WIDEST POINT	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	6 3/4	6 3/4	6 3/4	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	6 3/4	6 3/4	6 3/4	1/4	K
	WIDTH AT CUFF	3 3/4	3 3/4	3 3/4	4	4	4	4 1/4	4 1/4	3 3/4	3 3/4	3 3/4	4	4	4	4 1/4	4 1/4	1/4	L

Note: The above dimensions are displayed in Imperial measures.

SCALE OF MEASUREMENTS (METRIC) - SWEATER, UNISEX (Continued)

BODY MEASUREMENTS	HEIGHT	SHORT 160 cm- 167.5cm								REGULAR 170 cm -177.5cm								TOLERANCES ±	MEASUREMENT LOCATION
	SIZE	XS	S	M	L	XL	2XL	3XL	4XL	XS	S	M	L	XL	2XL	3XL	4XL		
	CHEST	66 - 71	76 - 81.5	86.5 - 91.5	96.5 - 101.5	106.5 - 111.75	116.75 - 122	127 -132	137 - 142	66 - 71	76 - 81.5	86.5 - 91.5	96.5 - 101.5	106.5 - 111.75	116.75 - 122	127 -132	137 - 142		
FINISHED GARMENT MEASUREMENTS	CHEST CIRC. (½ only)	40.64	45.72	50.80	55.88	60.96	66.04	71.12	76.20	40.64	45.72	50.80	55.88	60.96	66.04	71.12	76.20	1.27	A
	WAISTBAND WIDTH "RELAXED"	22.86	27.94	33.02	38.10	43.18	48.26	53.34	58.42	22.86	27.94	33.02	38.10	43.18	48.26	53.34	58.42	1.27	B
	ARMHOLE DEPTH	21.59	22.86	24.13	25.40	26.67	27.94	29.21	30.48	21.59	22.86	24.13	25.40	26.67	27.94	29.21	30.48	3.18	
	V-NECK DEPTH	17.78	17.78	17.78	17.78	17.78	17.78	19.05	19.05	20.32	20.32	20.32	20.32	20.32	20.32	21.59	21.59	0.64	C
	SHOULDER SEAM LENGTH	13.34	13.97	14.61	15.24	15.88	16.51	17.15	17.78	13.34	13.97	14.61	15.24	15.88	16.51	17.15	17.78	0.64	D
	BACK NECK WIDTH	15.24	15.88	16.51	17.15	17.78	18.42	19.05	19.69	15.24	15.88	16.51	17.15	17.78	18.42	19.05	19.69	0.64	E
	BACK LENGTH	53.34	55.88	58.42	60.96	63.50	64.77	66.04	67.31	58.42	60.96	63.50	66.04	68.58	69.85	71.12	72.39	1.91	F
	SLEEVE LENGTH	74.93	77.47	80.01	82.55	85.09	86.36	89.92	91.44	81.28	83.82	86.36	88.90	91.44	92.71	95.25	96.52	1.91	G
	CUFF WIDTH OPENING	7.62	7.62	8.26	8.26	8.89	8.89	9.53	9.53	7.62	7.62	8.26	8.26	8.89	8.89	9.53	9.53	0.64	H
	ELBOW PATCHES																		
	LENGTH	22.86	23.50	24.13	24.77	25.40	26.04	26.67	27.31	25.40	26.04	26.67	27.31	27.94	28.58	29.21	29.85	0.64	M
	WIDTH AT WIDEST POINT	13.97	13.97	13.97	13.97	13.97	17.15	17.15	17.15	13.97	13.97	13.97	13.97	13.97	17.15	17.15	17.15	0.64	K
	WIDTH AT CUFF	9.53	9.53	9.53	10.16	10.16	10.16	10.80	10.80	9 1/2	9.53	9.53	10.16	10.16	10.16	10.80	10.80	0.64	L

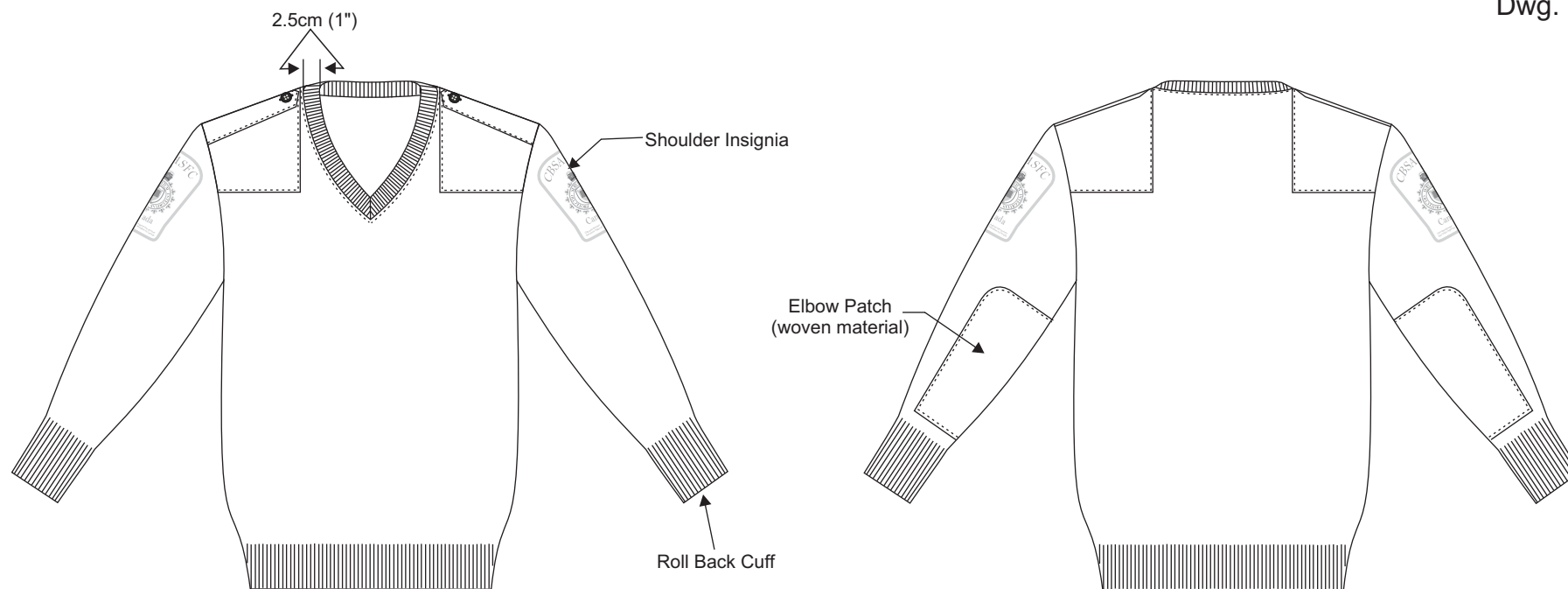
Note: The above dimensions were created in Imperial and converted to metric.

SCALE OF MEASUREMENTS (METRIC) - SWEATER, UNISEX (Continued)

BODY MEASUREMENTS	HEIGHT	TALL 180.5cm - 188cm								XTALL 190.5cm - 198cm								TOLERANCES ±	MEASUREMENT LOCATION
	SIZE	XS	S	M	L	XL	2XL	3XL	4XL	XS	S	M	L	XL	2XL	3XL	4XL		
	CHEST	66 - 71	76 - 81.5	86.5 - 91.5	96.5 - 101.5	106.5 - 111.75	116.75 - 122	127 - 132	137 - 142	66 - 71	76 - 81.5	86.5 - 91.5	96.5 - 101.5	106.5 - 111.75	116.75 - 122	127 - 132	137 - 142		
FINISHED GARMENT MEASUREMENTS	CHEST CIRC. (½ only)	40.64	45.72	50.80	55.88	60.96	66.04	71.12	76.20	40.64	45.72	50.80	55.88	60.96	66.04	71.12	76.20	1.27	A
	WAISTBAND WIDTH "RELAXED"	22.86	27.94	33.02	38.10	43.18	48.26	53.34	58.42	22.86	27.94	33.02	38.10	43.18	48.26	53.34	58.42	1.27	B
	ARMHOLE DEPTH	21.59	22.86	24.13	25.40	26.67	27.94	29.21	30.48	21.59	22.86	24.13	25.40	26.67	27.94	29.21	30.48	3.18	
	V-NECK DEPTH	22.86	22.86	22.86	22.86	22.86	22.86	24.13	24.13	25.40	25.40	25.40	25.40	25.40	25.40	26.67	26.67	0.64	C
	SHOULDER SEAM LENGTH	13.34	13.97	14.61	15.24	15.88	16.51	17.15	17.78	13.34	13.97	14.61	15.24	15.88	16.51	17.15	17.78	0.64	D
	BACK NECK WIDTH	15.24	15.88	16.51	17.15	17.78	18.42	19.05	19.69	15.24	15.88	16.51	17.15	17.78	18.42	19.05	19.69	0.64	E
	BACK LENGTH	63.50	66.04	68.58	71.12	73.66	74.93	76.20	77.47	68.58	71.12	73.66	76.20	78.74	80.01	81.28	82.55	1.91	F
	SLEEVE LENGTH	87.63	90.17	92.71	95.25	97.79	99.06	100.33	101.60	93.98	96.52	99.06	101.60	104.14	105.41	105.41	106.68	1.91	G
	CUFF WIDTH OPENING	7.62	7.62	8.26	8.26	8.89	8.89	9.53	9.53	7.62	7.62	8.26	8.26	8.89	8.89	9.53	9.53	0.64	H
	ELBOW PATCHES																		
	LENGTH	27.94	28.58	29.21	29.85	30.48	31.12	31.75	32.39	30.48	31.12	31.75	32.39	33.02	33.66	34.29	34.93	0.64	M
	WIDTH AT WIDEST POINT	13.97	13.97	13.97	13.97	13.97	17.15	17.15	17.15	13.97	13.97	13.97	13.97	13.97	17.15	17.15	17.15	0.64	K
	WIDTH AT CUFF	9.53	9.53	9.53	10.16	10.16	10.16	10.80	10.80	9.53	9.53	9.53	10.16	10.16	10.16	10.80	10.80	0.64	L

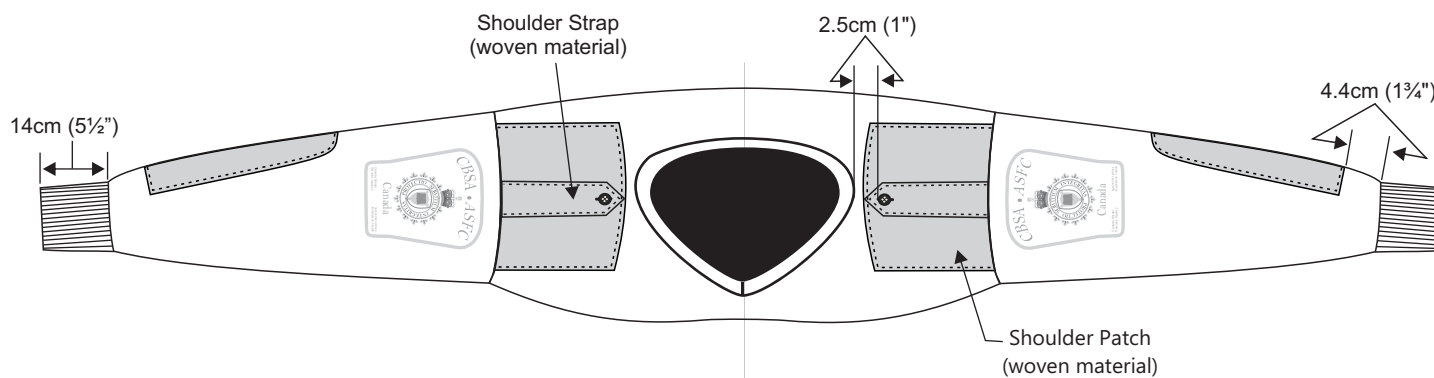
Note: The above dimensions were created in Imperial and converted to metric.

APPENDIX A
Sweater, Unisex
CBSA/ASFC-2013-04-116
Dwg. 1



Front View

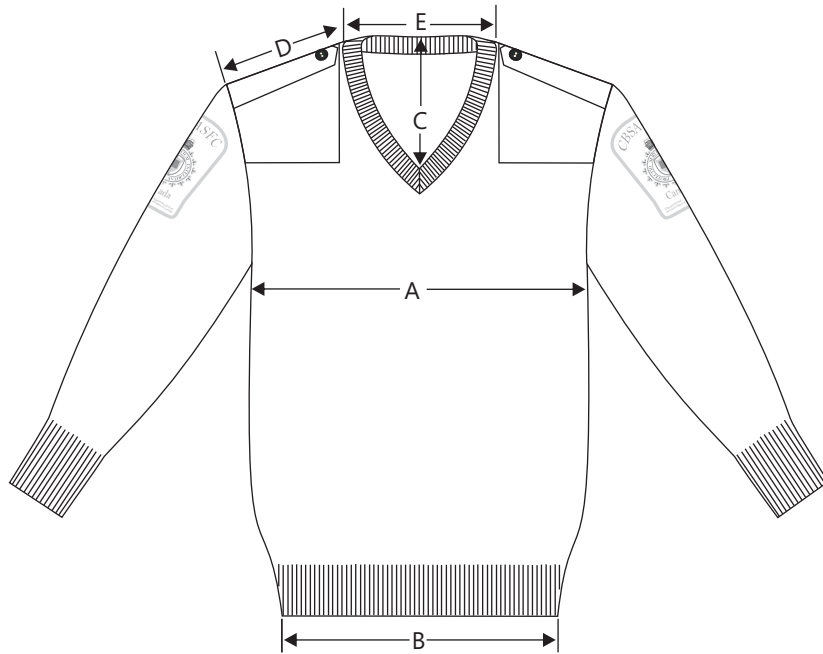
Back View



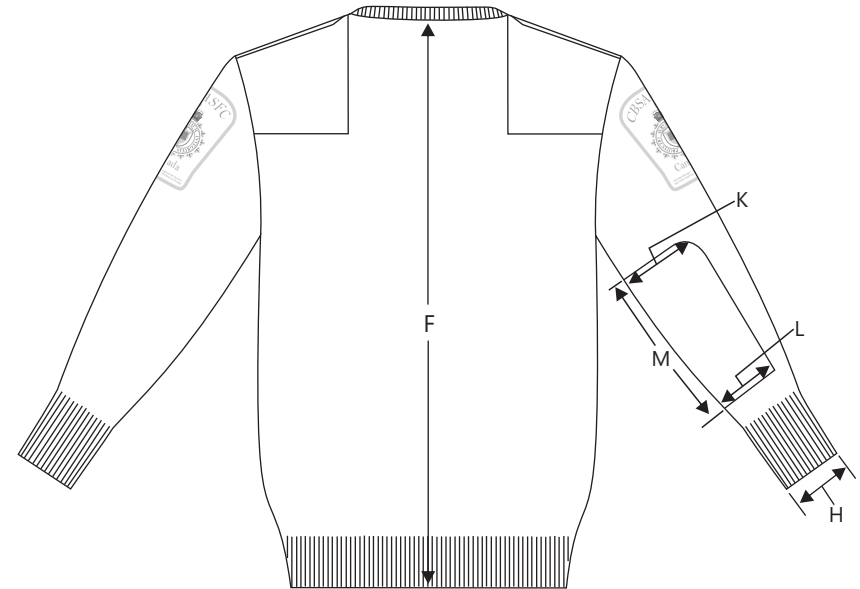
Top View

All Measurements in Centimeters
NOT TO SCALE

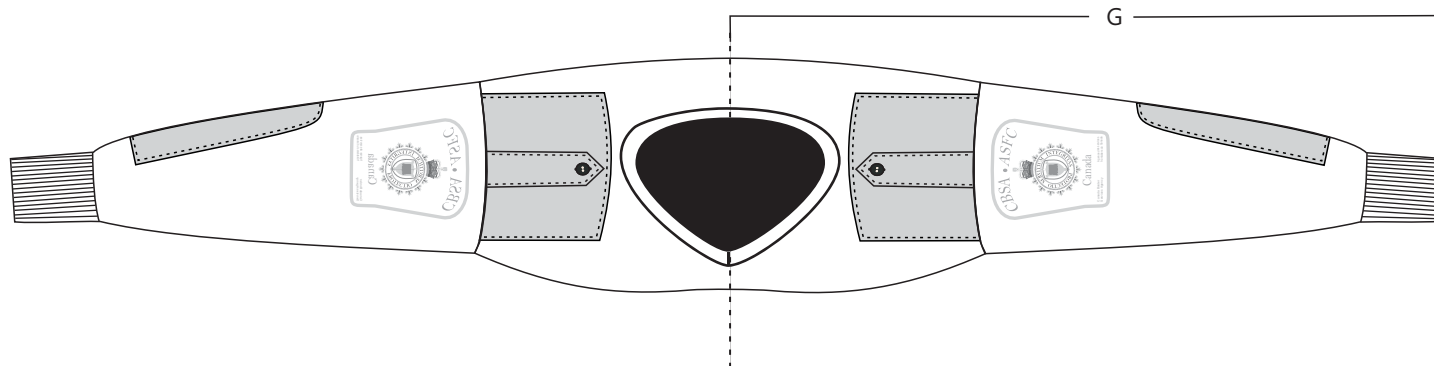
APPENDIX A
Sweater, Unisex
CBSA/ASFC-2013-04-116
MEASUREMENT LOCATION
Dwg 2



Front View



Back View



All Measurements in Centimeters
NOT TO SCALE