



Canada Border
Services Agency

Agence des services
frontaliers du Canada



Shirt, Duty, Male & Female

Purchase Description



File no. CBSA/ASFC-2012-09-114
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PROTECTION • SERVICE • INTEGRITY

Canada

PURCHASE DESCRIPTION

SHIRT, DUTY, MALE & FEMALE

1. SCOPE

This purchase description describes the requirement for materials, design, construction and inspection of a poly/cotton, male and female fit, duty shirt to be used by Border Service Officers (BSO) within the Canada Border Services Agency (CBSA).

2. GENERAL REQUIREMENTS

- 2.1. **DESIGN** - The CBSA duty shirt shall be constructed from a navy poly/cotton material. The overall design incorporates a button front closure, two pleated military style chest pockets with flaps, epaulettes, and a button-down collar. All shirts shall be designed in accordance to the attached scale of measurements and drawings 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 if 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. ISO 4915:1991, Textiles - Stitch Types.
- 4.4. ISO 4916:1991, Textiles - Seam Types.
- 4.5. CAN/CGSB-86.1-M91, Care Labelling of Textiles.
- 4.6. CBSA Purchase Description, CBSA/ASFC-2013-08-128, Shoulder Insignia.

5. DETAILED REQUIREMENTS

5.1. MATERIALS

- 5.1.1. Shell - As specified in TABLE I attached.

- 5.1.2. INTERLININGS - All interlinings shall be suitable for their intended purpose and compatible with the other plies of shirting components. The maximum allowable percentage of dimensional change in the warp and weft direction shall not exceed 1.5% (CAN 2-4.2M Method 24.1). All mass values are to apply to the fabrics in treated condition. The interlining used shall contain no more than 100PPM Formaldehyde Content (AATCC Method 112; Part 3 Method of Determination of Released Formaldehyde).

- 5.1.2.1. **Interlining, Collar Band** - The interlinings shall be 100% cotton, either one ply with a mass of not less than 161 g/m² or two plies with a mass of 80 -82 g/m² as used in the crease and tack process.
- 5.1.2.2. **Interlining, Front Placket, Cuffs, Flaps, Collar Fall and Shoulder Straps** - The interlining used shall be 100% cotton with a mass of not less than 137 g/m² and not more than 151 g/m². It shall be dot coated with high density polyethylene adhesive, 30 mesh coating, with a medium finish.
- 5.1.3. **Buttons** - Four-hole urea formaldehyde thermosetting resin buttons. 10mm for the button-down collar and long sleeve placket and 13mm for all other button requirements. The colour shall match the shell material as specified in para 5.1.1.
- 5.1.4. **THREAD** - All thread used shall meet the requirements of CAN/CGSB 4.131-93 and shall be of matching colour to the shell material.
 - 5.1.4.1. **Thread - Seams** - R27 TEX, polyester cotton-covered (Type 2).
 - 5.1.4.2. **Thread - Buttonholes** - Polyester cotton-covered (Type 2) R35 or R27 TEX in the needle and R27 in the looper.
 - 5.1.4.3. **Thread - Buttons** - R35 or R27 TEX, polyester cotton-covered (Type 2).

5.2. GENERAL CONSTRUCTION:

- 5.2.1. **Cutting** - All components of the shirts shall be cut from the same piece of material and assembled to ensure uniformity of shade. The warp shall run in the same direction (up and down the garment) on all parts except the collar, yoke and cuffs.
- 5.2.2. **Fusing** - The fused interlinings shall show no separation between the lamination after 40 launderings when tested accordance with CAN 2-4.2, Method 24B, 34B2 and 33.2(B).
- 5.2.3. **Stitching** - The side seams, sleeve and armhole seams shall be sewn with a safety stitch Type 516. All other seaming and stitching shall be lock stitched type 301 or chain stitched Type 401. There shall be not less than four or no more than five stitches per centimeter. The beginning and ending of all seams shall be securely backstitched unless secured by other sewing. All loose thread ends shall be trimmed off. Seams shall be smooth and even. Care shall be taken to minimize unsightly gathering and puckering.

- 5.2.4. **Buttonholes** - All shirt buttons and buttonholes shall be sewn with thread specified in para 5.1.4.2. The buttonholes shall be commercial shirt type with not less than 11 stitches per centimeter. All buttons shall be sized to properly fit the 13mm button specified in para 5.1.3. The button sewer shall have a cycle of not less than 16 stitches per button with the thread ends locked into place at completion. Two spare buttons one 13mm and one 8 mm shall be applied to the plain facing.

5.3. **CONSTRUCTION:**

- 5.3.1. **Fronts - Male Shirt** - The fronts shall be made from shell material as specified in para. 5.1.1. The left front shall have a 3.25cm (1¼ inch) wide placket, top fused or interlined with material as specified in para 5.1.2.2 and topstitched with a 6mm gauge. The front placket shall be self-folded with the raw edge of the facing tucked into the pleat. Seven (7) vertical buttonholes, not including the collar buttonhole, shall be sized properly to fit the button specified in para 5.1.3 and positioned vertically on the left placket. The right front placket shall have a 2.5cm (1 inch) wide plain self-folded facing. The raw edges shall be turned inward and topstitched as per the sealed sample. Seven (7) buttons as well as two spares as specified in para 5.1.3 shall be applied to the right placket. The fronts shall be shaped and dimensioned as per the sealed sample and drawings.
- 5.3.2. **Fronts - Female Shirt** - The fronts shall be made from shell material as specified in para. 5.1.1. The right front shall have a 3.25cm (1¼ inch) wide placket, top fused or interlined with material as specified in para 5.1.2.2 and topstitched with a 6mm gauge. The front placket shall be self-folded with the raw edge of the facing tucked into the pleat. Six (6) vertical buttonholes, not including the collar buttonhole, shall be sized properly to fit the button specified in para 5.1.3 and positioned vertically on the right placket. The left front placket shall have a 2.5cm (1 inch) wide plain self-folded facing. The raw edges shall be turned inward and topstitched as per the sealed sample. Six (6) buttons as well as two spares as specified in para 5.1.3 shall be applied to the left placket. The fronts shall be shaped and dimensioned as per the sealed sample and drawings.
- 5.3.3. **Pockets & Flaps**
- 5.3.3.1. **Pockets** - Two military style front pockets, constructed from shell material as specified in para 5.1.1 shall be shaped and dimensioned as per the drawings. A 2.5cm (1") vertical box pleat. The top edge of the pocket shall be stitched to have a 2.5cm hem. The side and outer edges of the pocket shall be stitched to the body of the shirt using a 1.5mm gauge with the top corners sewn in a triangle stitch pattern. A 13mm button shall be sewn on the centre of the box pleat to effect correct closure. The pockets shall be shaped and dimensioned as per the sealed sample and drawings.

- 5.3.3.2. **Pencil Pocket** - One pencil pocket, made from a single ply of shell material shall be 4cm wide, by 11cm deep. It shall be stitched to the body of the shirt under the under the left breast pocket. The pencil pocket shall be shaped and dimensioned as per the sealed sample and drawings.
- 5.3.3.3. **Pocket Flaps** - Two military style front pocket flaps shall be constructed from shell material as specified in para 5.1.1. They shall be made from one piece of shell material folded to form two plies and top fused with interlining as specified in para 5.1.2.2. The sides, corners, and bottom edges shall be creased and topstitched using a 1.5mm gauge. The top corners shall be bar tacked. Each pocket flap shall have a vertical buttonhole, sized to fit a 13mm button. The buttonhole shall be centered 1.5cm above the bottom edge of the flap. The pocket flaps shall be attached to the shirts fronts 1.5cm above the pockets and double top-stitched to the front using a 1.5mm and 6mm gauge. The left flap shall have a 3.5cm opening between the flap and the shirt front that will correspond to the pencil pocket. The pocket flaps shall be shaped and dimensioned as per the sealed sample and drawings.
- 5.3.4. **Shirt Back** - The completed back panel shall have a two ply yoke with a finished depth of 10cm for all sizes. The yoke shall be top stitched using a 1.5mm gauge. Two, 2cm ($\frac{3}{4}$ ") deep pleats, shall be sewn into the back yoked evenly placed 8cm from the sleeve seam. The back shall be shaped and dimensioned as per the sealed sample and drawings.
- 5.3.5. **Sleeves**
 - 5.3.5.1. **Long Sleeves** - The long sleeves made to the dimensions outlined in the Scale of measurements, shall have a 2.5cm wide placket with a finished length of 18cm as shown in the drawings. A 10mm button as specified in para 5.1.3 with its corresponding button-hole shall be centered in the placket, 10cm from the cuff seam. The bottom of the sleeves shall be cut wide enough to incorporate a 6mm deep pleat at the center of the sleeve, when setting the cuff. There shall be no other pleats or puckering when the cuffs are set. The CBSA Shoulder Insignia as specified in para 4.6 shall be centered on the sleevehead 2cm ($\frac{3}{4}$ ") below the seam and attached with one row of stitching. The long sleeves shall be shaped and dimensioned as per the sealed sample and drawings.

- 5.3.5.2. **Short Sleeves** - The short sleeves shall have a 3.2cm (1¼") gutter hem as per the drawings. The gutter hem shall be top-stitched with a 6mm gauge. The CBSA Shoulder Insignia as specified in para 4.6 shall be centered on the sleevehead 2cm (¾") below the seam and attached with one row of stitching. The short sleeves shall be shaped and dimensioned as per the sealed sample and drawings.
- 5.3.6. **Long Sleeve Cuff** - The cuffs shall be made from two plies of shell material, which have been top fused with interlining as specified in para 5.1.2.2 and double top stitched using a 1.5mm and 6mm gauge. Two buttonholes and their corresponding buttons placement as shown in the drawings shall be centered on the cuffs. When the first button is closed the placket shall be straight and the cuff circumference shall conform to the measurements outlined in the scale of measurements.
- 5.3.7. **Collar** - The button-down collar shall be constructed in two pieces, the fall and collar band with both components made from two plies of shell material and interlined with materials as specified in para 5.1.2.1 and para 5.1.2.2. The collar fall shall be seamed; the corners clipped, turned and top stitched using a 6mm gauge. The interlined band shall be attached to the fall and the completed collar assembly attached to the shirt and stitched using a 1.5mm gauge. A button and corresponding button-hole shall be centered on the collar band in line with the buttons and buttonholes of the front panels. The points of the collar fall shall be buttoned to the front with a 10mm button and suitably sized buttonhole. The collar shall be shaped and dimensioned as per the sealed sample and drawings.
- Note:** Care shall be taken to ensure that the placement of the buttons on the shirt is correct in order for the collar lay flat.
- 5.3.8. **Epaulettes** - The epaulettes dimensioned as per the drawings shall be made from two plies of shell material, top fused with material as specified in para 5.1.2.2 and top stitched using a 1.5mm gauge. A buttonhole to fit a 13mm button shall be centered 2cm (¾") from the pointed end. The epaulettes shall be sewn to into the armhole seam, centered at the sleeve-head, parallel with the shoulder. The epaulettes shall be shaped and dimensioned as per the sealed sample and drawings.
- 5.3.9. **Bottom Hem** - The raw edge of the shirt bottom shall be turned turned a second time and stitched using a 5mm gauge. The bottom hem shall be shaped and dimensioned as per the sealed sample and drawings.

6. LABELLING

- 6.1. 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.
- 6.2. **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)
- 6.3. **Cleaning Instructions**
 - a. Machine wash - warm (40°C)
 - b. Do not bleach
 - c. Tumble dry - low
 - d. Do not use Fabric Softeners or Dryer Sheets

7. TECHNICAL INSPECTION

The contractor shall be responsible for the performance of all inspections and tests necessary to demonstrate that the 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 materials 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.

8. 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

9. APPENDICES

TABLE I - Shell Material Requirements

SCALES OF MEASUREMENTS - Male & Female

DRAWINGS - Appendix

TABLE I - SHELL MATERIAL

TEST	REQUIREMENTS	TEST METHOD
Material	65% Polyester 35% Cotton ±3%	CAN/CGSB-4.2 Method 14.18-M91
Weave	Plain	
Mass	170 gm/ ² ± 5%	CAN/CGSB-4.2 Method 5.1-M90
Width	160cm between selvedge	
Woven Fabrics - Construction (per cm)	Warp (ends) - 42 ± 2 Weft (picks) - 22 ± 2	CAN/CGSB-4.2 Method 6-M89
Dimensional Change In Domestic Laundering	Length - 2% max Width - 2% max	CAN/CGSB-4.2 Method 58, Wash Procedure II; Dry Procedure E; Restoration Procedure 3
Breaking Strength (Tensile)	Warp - 600 N min. Weft - 250 N min.	CAN/CGSB-4.2 Method 9.2-M90
Tearing Strength (Newtons)	Warp - 18 N ±10% Weft - 14N ± 10%	CAN/CGSB-4.2 Method 12.1-M90
Non-Fibrous Materials (%)	No more than 3%	CAN/CGSB-4.2 Method 15-2003 Para 7.3 Aqueous Treatment & Para 7.4 Solvent Extraction with Hexanes
Resistance to Pilling - Random Tumble Pilling Tester	90 min - 4 120 min - 4	CAN/CGSB-4.2 Method 51.2-M87
Free Formaldehyde Content	75PPM max.	AATCC Method 112, Part 3 Method of Determination of Released Formaldehyde
Finish	Water & stain protection	
Color	To match viewing sample	
Color Fastness:		
To Artificial Light - Xenon Arc Fading Lamp Test	Equal to or better than AATCC Standard L4	CAN/CGSB-4.2 Method 18.3-97
To Crocking Dry: Wet:	Grey Scale 3 min Grey Scale 3 min	CAN/CGSB-4.2 Method 22-2004
To Perspiration - Acid and Alkaline Colour Change & Staining to Cotton & Polyester	Grey Scale 3 min	CAN/CGSB-4.2 Method 23-M90
To Washing - Accelerated Test - Launder Ometer - Acid and Alkaline Colour Change & Staining to Cotton & Polyester	Grey Scale 3 min	CAN/CGSB-4.2 Method 19.1-M90 Test 2

Note: For information purposes, Doubletex "Bounty Set US" 65/35 Poly/cotton is known to meet this purchase description. Other Manufacturers' fabrics shall be acceptable provided test data is submitted to verify compliance.

SCALE OF MEASUREMENTS - SHIRTS, DUTY, MALE

SIZE DESIGNATION		BODY MEASUREMENTS		FINISHED GARMENT MEASUREMENTS										
Size	Sleeve Length	Chest Inches	Chest Metric	Collar Length	Chest Circ.	Waist Circ.	Seat Circ.	Back Length	Yoke Depth	Back Width (measured in line with bottom of yoke)	Short Sleeves		Long Sleeves	
											Short Sleeve Length (sleeve head to hem)	Short Sleeve width (@ hem)	Cuff Length (buttonhole to button)	Long Sleeve Length
13	32	32	81.25	34.00	96.50	86.50	91.50	81.25	10	39.25	25	36.75	22	81.25
	34													86.25
13.5	32	34	86.25	35.25	101.50	91.50	96.50	81.25	10	40.50	25	37.50	22	81.25
	34													86.25
14	32	36	91.50	36.50	106.75	96.50	101.75	82.50	10	42.00	25.5	38.00	22.5	81.25
	34													86.25
	36													91.25
14.5	32	38	96.50	37.75	111.75	101.50	106.75	82.50	10	43.25	25.5	38.75	22.5	81.25
	34													86.25
	36													91.25
15	32	40	101.50	39.00	116.75	106.75	111.75	83.75	10	44.50	26	39.25	23	81.25
	34													86.25
	36													91.25
15.5	32	42	106.50	40.25	122.00	111.75	116.75	83.75	10	45.75	26	40.00	23	81.25
	34													86.25
	36													91.25
16	32	44	111.75	41.50	127.00	116.75	122.00	85.00	10	47.00	26.5	40.75	24	81.25
	34													86.25
	36													91.25
	38													96.52
TOLERANCES ±				.35cm	1.5cm	1.5cm	1.5cm	1.5cm	.35cm	.63cm	.63cm	.63cm	.63cm	1.5cm

SCALE OF MEASUREMENTS - SHIRTS, DUTY, MALE (continued)

SIZE DESIGNATION		BODY MEASUREMENTS		FINISHED GARMENT MEASUREMENTS										
				Collar Length	Chest Circ.	Waist Circ.	Seat Circ.	Back Length	Yoke Depth	Back Width (measured in line with bottom of yoke)	Short Sleeves		Long Sleeves	
Size	Sleeve Length	Chest Inches	Chest Metric								Short Sleeve Length (sleeve head to hem)	Short Sleeve width (@ hem)	Cuff Length (buttonhole to button)	Long Sleeve Length
16.5	32	46	116.75	42.75	132.00	122.00	127.00	85.00	10	48.25	26.5	41.25	24	81.25
	34													86.25
	36													91.25
	38													96.50
17	32	48	122.00	44.00	137.25	127.25	132.25	86.25	10	49.50	27	42.00	25	81.25
	34													86.25
	36													91.25
	38													96.50
17.5	32	50	127.00	45.25	142.25	132.25	137.25	86.25	10	50.75	27	42.50	25	81.25
	34													86.25
	36													91.25
	38													96.50
18	34	52	132.00	46.50	147.25	137.25	142.25	87.50	10	52.00	27.5	43.00	26	86.25
	36													91.25
	38													96.50
18.5	34	54	137.00	47.75	152.50	142.50	147.50	87.50	10	53.25	27.5	43.75	26	86.25
	36													91.25
	38													96.50
19	34	56	142.25	49.00	157.50	147.50	152.50	89.00	10	54.50	28	44.50	27	86.25
	36													91.25
	38													96.50
19.5	34	58	147.25	50.50	162.50	152.50	157.50	89.00	10	55.75	28	45.00	27	86.25
	36													91.25
	38													96.50
TOLERANCES ±				.35cm	1.5cm	1.5cm	1.5cm	1.5cm	.35cm	.63cm	.63cm	.63cm	.63cm	1.5cm

SCALE OF MEASUREMENTS - SHIRTS, DUTY, MALE (continued)

SIZE DESIGNATION		BODY MEASUREMENTS		FINISHED GARMENT MEASUREMENTS										
				Collar Length	Chest Circ.	Waist Circ.	Seat Circ.	Back Length	Yoke Depth	Back Width (measured in line with bottom of yoke)	Short Sleeves		Long Sleeves	
Size	Sleeve Length	Chest Inches	Chest Metric								Short Sleeve Length (sleeve head to hem)	Short Sleeve width (@ hem)	Cuff Length (buttonhole to button)	Long Sleeve Length
20	34	60	152.50	51.75	167.50	157.50	162.50	89.00	10	56.50	28	45.00	27	86.25
	36													91.25
	38													96.50
20.5	34	62	157.50	53.00	172.75	162.75	167.75	89.00	10	57.00	28	45.00	27	86.25
	36													91.25
	38													96.50
21	34	64	162.50	54.25	177.75	167.75	172.75	89.00	10	57.75	28	45.00	27	86.25
	36													91.25
	38													96.50
21.5	34	66	167.50	55.50	183.00	173.00	178.00	89.00	10	58.50	28	45.00	27	86.25
	36													91.25
	38													96.50
22	34	68	172.75	56.75	188.00	178.00	183.00	89.00	10	59.00	28	45.00	27	86.25
	36													91.25
	38													96.50
22.5	34	70	177.75	58.00	193.00	183.00	188.00	89.00	10	59.50	28	45.00	27	86.25
	36													91.25
	38													96.50
23	34	72	182.75	59.50	198.00	188.00	193.00	89.00	10	60.25	28	45.00	27	86.25
	36													91.25
	38													96.50
23.5	34	74	188.00	60.50	203.00	193.00	198.00	89.00	10	61.00	28	45.00	27	86.25
	36													91.25
	38													96.50
TOLERANCES ±				.35cm	1.5cm	1.5cm	1.5cm	1.5cm	.35cm	.63cm	.63cm	.63cm	.63cm	1.5cm

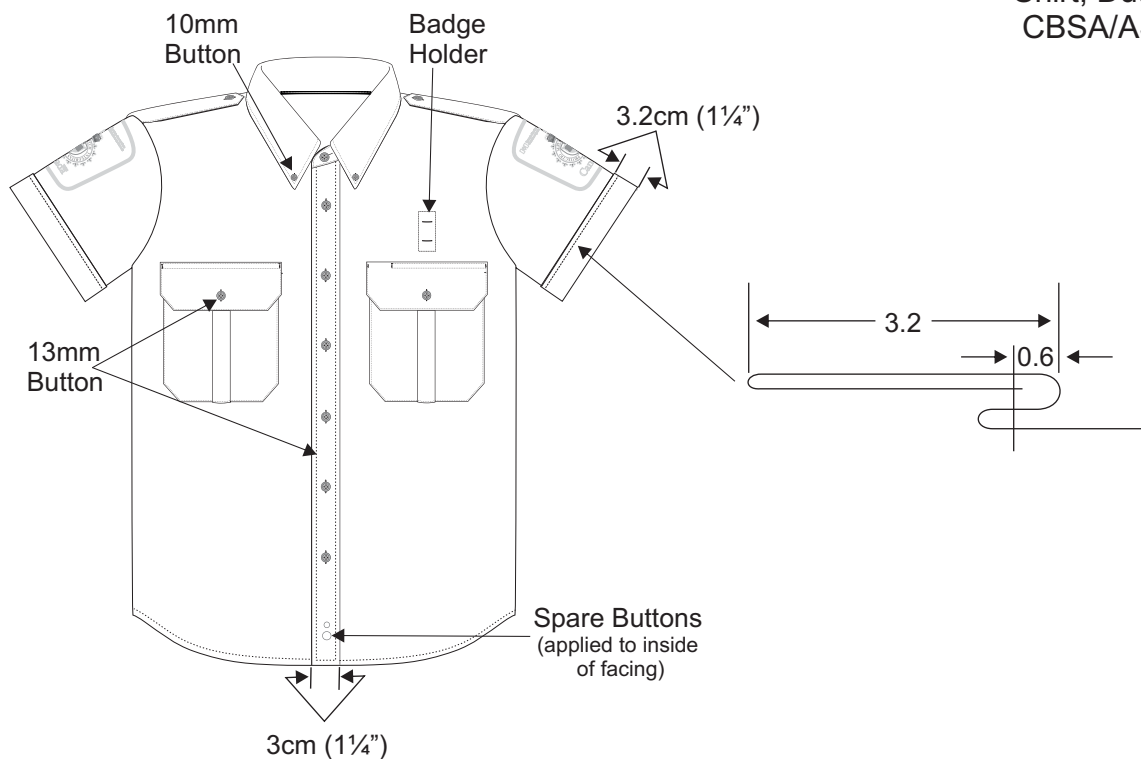
SCALE OF MEASUREMENTS - SHIRTS, DUTY, FEMALE

SIZE DESIGNATION			BODY MEASUREMENTS		FINISHED GARMENT MEASUREMENTS										
Size	Neck Size	Sleeve Length	Chest Inches	Chest Metric	Collar Length	Chest Circ.	Waist Circ.	Seat Circ.	Back Length	Yoke Depth	Back Width (measured in line with bottom of yoke)	Short Sleeves		Long Sleeves	
												Short Sleeve Length (sleeve head to hem)	Short Sleeve width (@ hem)	Cuff Length (buttonhole to button)	Long Sleeve Length
2	12½	32	36½	92.75	32.50	99.00	82.50	99.00	66.00	10	38.00	25	36.00	22	81.25
		34													86.25
4	13	32	37½	95.25	34.00	101.50	85.00	101.50	66.00	10	39.25	25	36.75	22	81.25
		34													86.25
		36													91.25
6	13½	32	38½	97.75	35.00	104.00	87.50	104.00	67.25	10	40.50	25.5	37.50	22	81.25
		34													86.25
		36													91.25
8	14	32	39½	100.25	36.50	106.50	90.00	106.50	67.25	10	42.00	25.5	38.00	22	81.25
		34													86.25
		36													91.25
10	14½	32	40½	102.75	37.50	109.00	92.75	109.00	68.50	10	42.75	26	38.75	23	81.25
		34													86.25
		36													91.25
12	15	32	41½	105.50	39.00	111.75	95.25	111.75	68.50	10	43.75	26	39.25	23	81.25
		34													86.25
		36													91.25
14	15½	32	42½	108.00	40.00	114.25	97.75	114.25	69.75	10	44.75	26.5	40.00	23	81.25
		34													86.25
		36													91.25
TOLERANCES ±					.35cm	1.5cm	1.5cm	1.5cm	1.5cm	.35cm	.63cm	.63cm	.63cm	.63cm	1.5cm

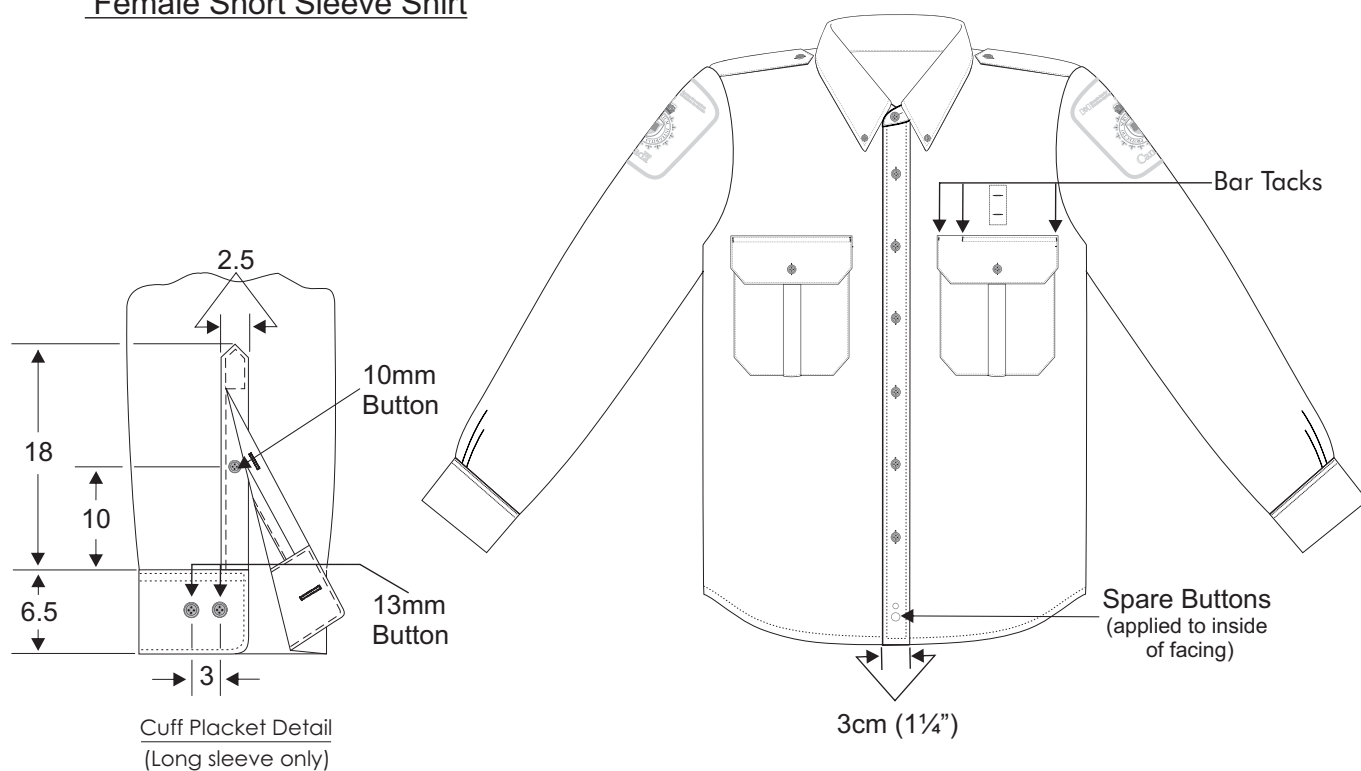
SCALE OF MEASUREMENTS - SHIRTS, DUTY, FEMALE (continued)

SIZE DESIGNATION			BODY MEASUREMENTS		FINISHED GARMENT MEASUREMENTS										
Size	Neck Size	Sleeve Length	Chest Inches	Chest Metric	Collar Length	Chest Circ.	Waist Circ.	Seat Circ.	Back Length	Yoke Depth	Back Width (measured in line with bottom of yoke)	Short Sleeves		Long Sleeves	
												Short Sleeve Length (sleeve head to hem)	Short Sleeve width (@ hem)	Cuff Length (buttonhole to button)	Long Sleeve Length
16	16	32	43½	116.75	41.50	116.75	100.25	116.75	69.75	10	45.75	26.50	40.50	24	81.25
		34													86.25
		36													91.25
18	16½	32	45	120.50	43.00	120.75	104.00	120.75	71.00	10	47.00	27.00	41.25	24	81.25
		34													86.25
		36													91.25
20	17	32	47	125.75	44.00	125.75	109.25	125.75	71.00	10	48.25	27.50	42.00	24	81.25
		34													86.25
		36													91.25
22	17½	32	49	130.75	45.50	130.75	114.25	130.75	72.25	10	49.50	27.50	42.50	25	81.25
		34													86.25
		36													91.25
24	18	32	50	133.25	46.75	133.25	116.75	133.25	72.25	10	50.75	28.00	42.50	25	81.25
		34													86.25
		36													91.25
26	18½	32	52	138.50	48.00	138.50	122.00	138.50	73.50	10	52.00	28.00	43.00	25	81.25
		34													86.25
		36													91.25
TOLERANCES ±					.35cm	1.5cm	1.5cm	1.5cm	1.5cm	.35cm	.63cm	.63cm	.63cm	.63cm	1.5cm

FEMALE SHIRT

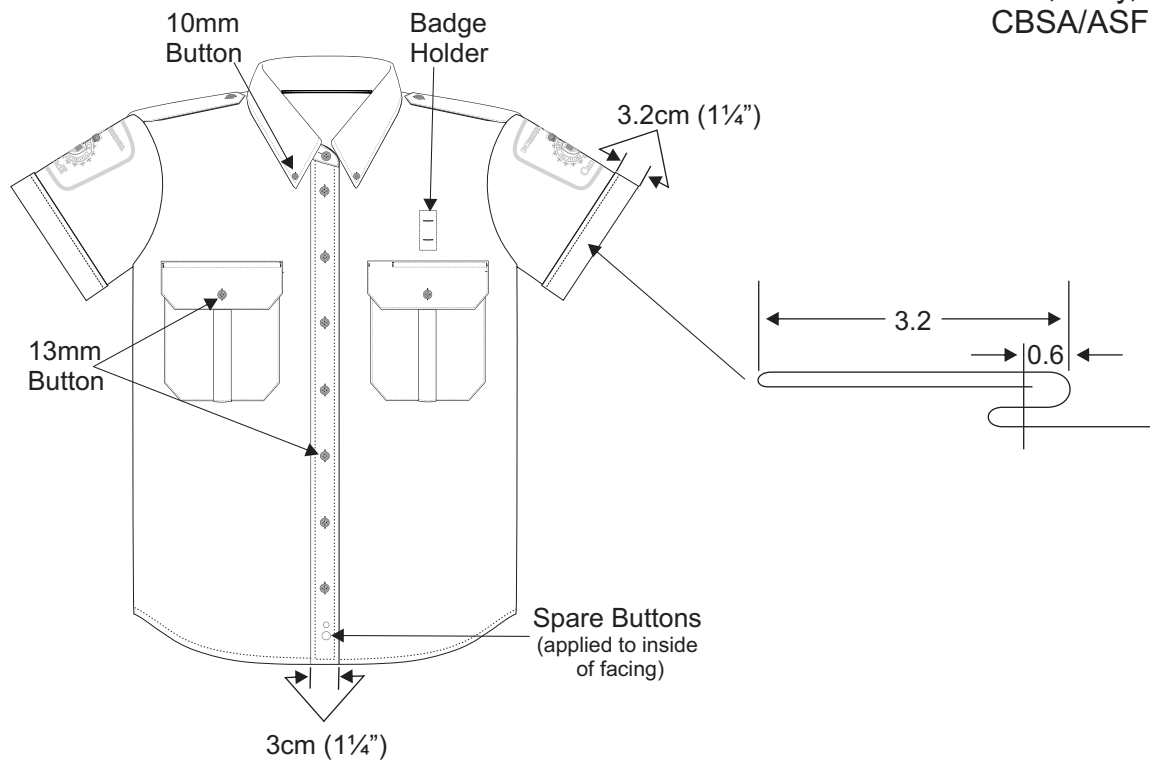


Front View
Female Short Sleeve Shirt

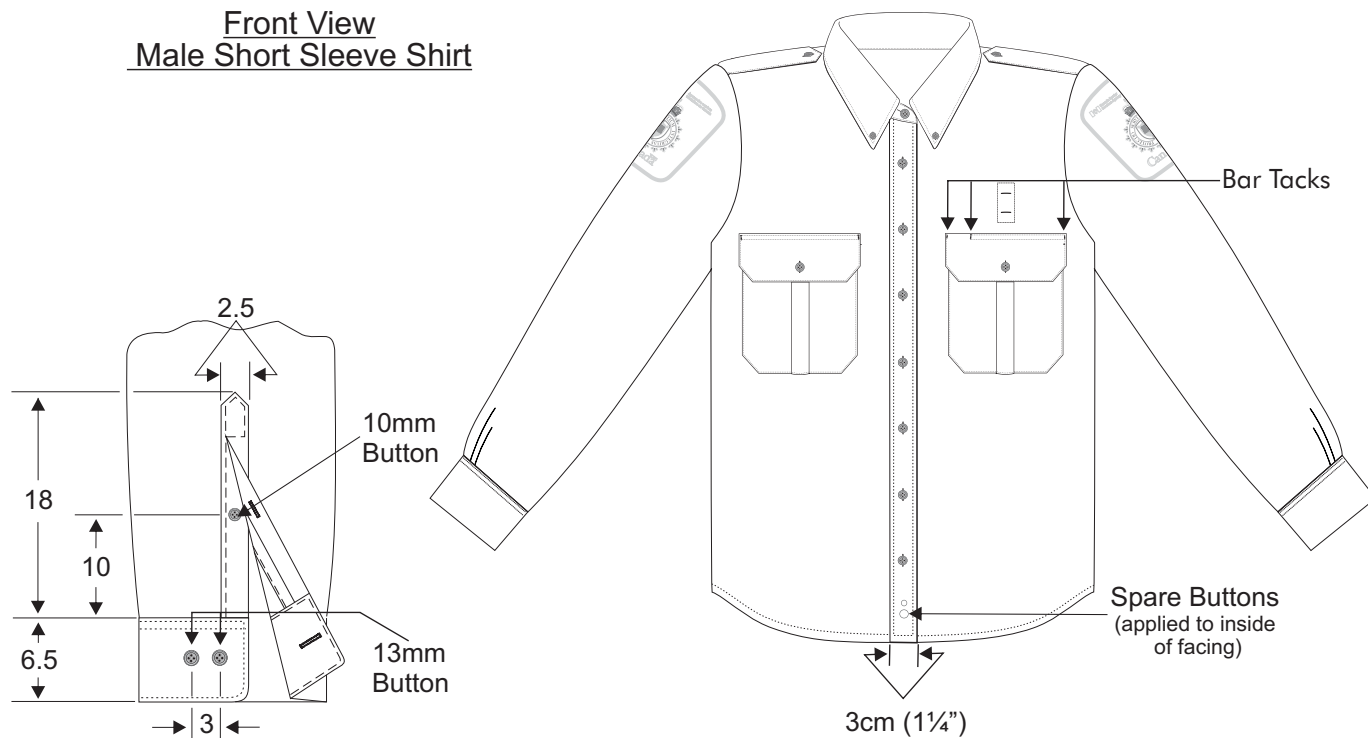


Front View
Female Long Sleeve Shirt

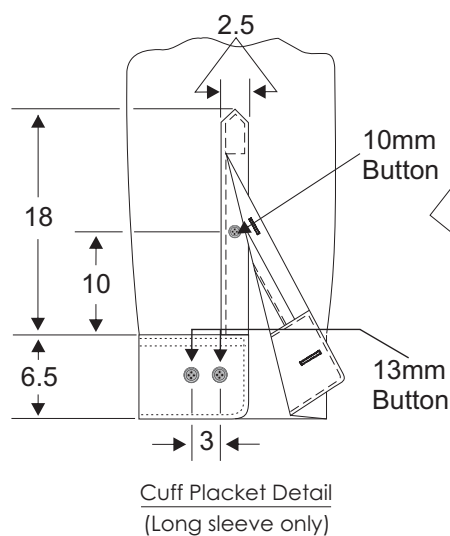
MALE SHIRT



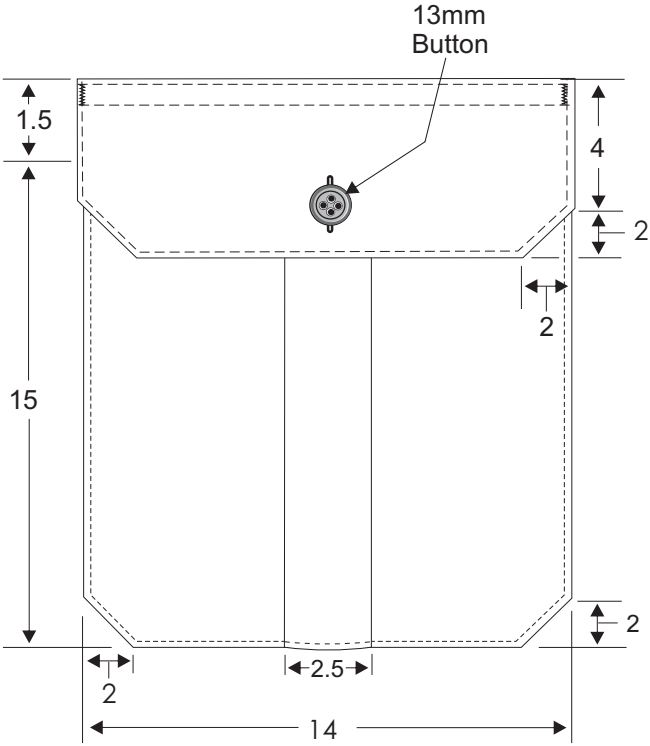
Front View
Male Short Sleeve Shirt



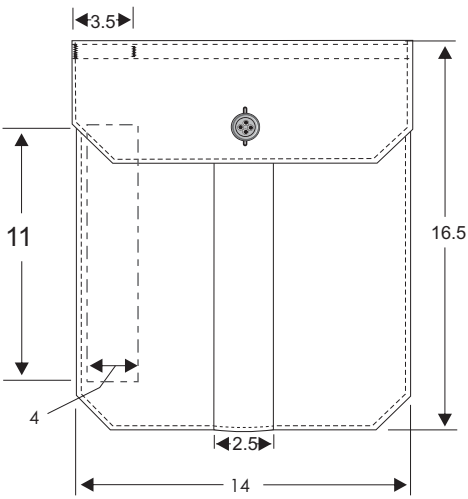
Front View
Male Long Sleeve Shirt



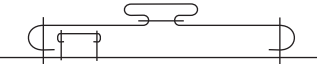
Cuff Placket Detail
 (Long sleeve only)



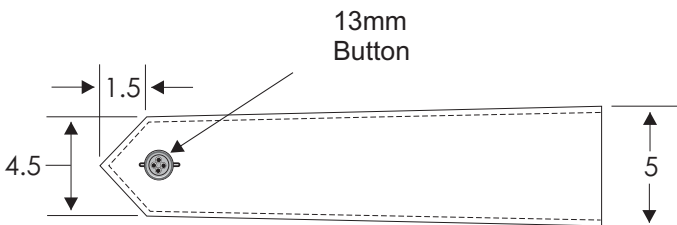
Right Pocket



Left Pocket
(showing outline of Pencil Pocket)



Left Pocket Top View



Epaulettes