



Royal Canadian Mounted Police  
Gendarmerie Royale du Canada

Doc. no: G.S. 1045-090

Date: 2015-05-05

## Specification

# Trousers, Heavy Weight, Male & Female

This document has 24 pages including the drawings.

This document was created in English.

The document is available in English and French.

English/Anglais  
Français/French

The photograph on this page is for reference only.



## Modifications

Date	Para. No's	Modifications
2007-05-07		New Specification
2008-09-19	Para. 2.7, Para. 4.1.2	Stripe requirement changed from wool braid to polyester tape.
2011-07-13	Para. 4.1.8 Para. 4.1.10 Para. 4.3.6 Para. 4.3.13	Changed slider fastener lengths Add requirement for hook & eye Add requirement for belt loop placement Changed marking information
2012-08-13	Para. 4.1.4.1 & 4.1.4.2	Updated the thread requirement as per industry recommendation.
2013-01-18	4.1.3.1  Scale of measurement & Pattern	Lining table added and Certification of Compliance required. Lowered rise by ½” on the female pattern and scale of measurement
2015-05-05	Para. 1.1 Para. 1.4 Para. 2.3 Para. 3.3 (Deleted) Para. 4.1.4.1 & 4.1.4.2 (Deleted) Para. 4.1.6 (Deleted)  Para. 4.1.7 (Deleted)  Para. 4.3.1 Para. 4.3.3 & 4.3.4  Para. 4.3.13 Para. 5 (Deleted) Scale of measurement	Added item with MMR number to paragraph. Added paragraph relating to translation. Textile Test Methods added. Paragraph deleted. Thread information grouped into para. 4.1.4  Buttonhole information moved to construction details. All subsequent para. renumbered. Bar tack information for pockets, fly & belt loops related to construction paragraphs. All subsequent para. renumbered. Added cutting instructions. Inseam & outseam para. combined. All subsequent para. renumbered. Updated marking & cleaning label paragraph. All subsequent para. renumbered. Waist, seat & bottom changed to full measurements. Definition of scale of measurement location added.

## **RCMP VIEWING SAMPLE**

A viewing sample, when available, will be supplied to the successful bidder.

This will be used for the guidance of the manufacturer in all factors not covered by this specification or referred to therein. Variation from the specification may appear in the sample in which case the specification shall govern.

It may be obtained from:

Royal Canadian Mounted Police  
ATTN: Uniform and Equipment Program  
(440 Coventry Road, Warehouse Building)  
1200 Vanier Parkway  
Ottawa, Ontario  
K1A 0R2

It will be sent “prepaid” and is to be returned “prepaid”.

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

## **SPECIFICATION**

### **TROUSERS, HEAVY WEIGHT, MALE AND FEMALE**

#### **1. Definition**

- 1.1 This specification shall govern the manufacture and inspection of Trousers, Heavy Weight, Male and Female. The specific items covered under this specification with stock numbers are as follows:
- i. 6875 – Trousers, Heavy Weight, Male / Pantalon en tissu lourd pour hommes;
  - ii. 6885 – Trousers, Heavy Weight, Female / Pantalon en tissu lourd pour femmes.
- 1.2 This specification, pattern, drawing, viewing sample, or other information issued in connection therewith, may only be used for specific enquiries, solicitations, or orders placed on behalf of the Royal Canadian Mounted Police.
- 1.3 This specification supersedes all previous specifications for Trousers, Heavy Weight, Male and Female.
- 1.4 This specification has been translated into French from this original English language document.

#### **2. Applicable Specifications**

- 2.1 The following publications are applicable to this specification and to the issues in effect on the date of the solicitation, unless otherwise specified.
- 2.2 RCMP G.S.1045-135, Cloth, Wool, Whipcord.
- 2.3 CAN/CGSB 4.2, Textile Test Methods.
- 2.4 CAN/CGSB 4.131-93, Thread, Polyester, Polyester-Covered.
- 2.5 ISO 4916:1991, Textiles – Stitch Types.
- 2.6 ISO 4916:1991, Textiles – Seam Types.

- 2.7 RCMP G.S.1045-083, Cloth, Tape, Polyester.
- 2.8 CAN/CGSB-86.1-2003 Care Labelling of Textiles.

### 3. **General Requirements**

- 3.1 The article or material covered by this specification shall be free from imperfections or blemishes such as may affect its appearance or serviceability. In all particulars not covered by this specification or contract documents, production shall be equivalent in all respects to the pattern and viewing sample.
- 3.2 **Design** - This heavy weight trouser, designed with a yellow stripe, shall have slash front pockets, back hip pockets and a fly front with slide fastener. The trousers shall be constructed from material purchased from the RCMP and shall conform to the pattern, attached drawings, and viewing sample which are part of this specification.

### 4. **Detail Requirements**

#### 4.1 **Materials**

- 4.1.1 **Shell Material** - Shall be made of Cloth, Wool, Whipcord of approved shade, meeting the requirements of RCMP Specification G.S. 1045-135.
- 4.1.2 **Stripes** - Shall be yellow polyester tape, of approved weight, quality and shade, in accordance with the latest issue of RCMP specification G.S.1045-083.
- 4.1.3 **Pocket, Waistband, Fly & Crotch Lining** - The lining shall be 65% Polyester/ 35%  $\pm$  3% Cotton, black in colour or to match the shell material, and shall meet the requirements outlined in Table I forming part of this specification.
- 4.1.4 **Seaming, Stitching, Buttonhole and Bar-Tack Thread** - Shall be polyester wrap, polyester core, Tex 50, of matching colour, meeting CAN/CGSB 4.131-93.
- 4.1.5 **Buttons** - The buttons shall be four hole, 15mm, plastic composition buttons of matching shade.

4.1.6 **Slide Fasteners** - Shall be a closed ended, brass slide fastener with Y type teeth and a 4.5 mm chain width. The slide fastener shall come complete with one bottom stop and a minimum of one top stop. The top stop shall be visible, positioned below the waistband. There shall be a semi-locking slider with stainless steel locking pin, and brass pull tab. The tape shall be comprised of a polyester yarn and shall be black in colour. YKK YGC-459½ is known to meet this requirement.

Rise - Male & Female	Slide Fastener Length (inches)
X-Short & Short	6½"
Regular	7"
Tall & X-Tall	7½"

4.1.7 **Waistbanding** - Shall be constructed using waistband lining as specified in para. 4.1.3 and shall have a finished width of 6.35 cm (2½"). The waistbanding shall be constructed with the following components; a rubber inner grip, non-woven interlining and a no roll reinforcement shall meet the requirements below.

4.1.7.1 **Rubber Inner Grip** - Narrow mono, 19 mm overall width, with a 6-8mm rubber at the center. It shall be constructed using a leno weave with a warp of 59% polyester/41% rubber and a weft of 100% polyester. The thickness shall be 0.5mm ± .05mm. The inner grip shall be have a colorfastness of grey scale 4 (min.) and be dry cleanable and washable up to 60°C with a maximum shrinkage of 2%.

4.1.7.2 **Non-Woven Interlining** - The non-woven interlining shall be 90% polyester 10% cellulose wet laid construction treated with a chemical binder. It shall have a base weight of 102 g/m<sup>2</sup> ± 8 g/m<sup>2</sup> and a tensile strength of MD (machine direction) 1500grams and CD (cross direction) 8000 grams with a thickness of 525 µm ± 5% (microns). It shall be washable and dry cleanable with a maximum shrinkage of 2%.

4.1.7.3 **No Roll Reinforcement** - Ultra ban roll, ultra-white acrylic finish, 2.5cm minimum width sewn around the entire waistband, with a thickness of 0.048cm (0.019"). It shall be comprised of a yarn size of 20.5 spun polyester warp and a 750 denier polyester monofilament weft and a weight of 200 g/m<sup>2</sup> ± 8 g/m<sup>2</sup>. The ban roll shall be washable and dry cleanable with a 3% maximum shrinkage.

- 4.1.8 **Hook & Eye** - Shall be made of steel components, nickel plated on the outside and zinc plated on the inside with a glossy finish. YKK Elite brand part number HE10, HE50, HH10, HH50.
- 4.2 **Size and Dimensions** - Trousers, Heavy Weight, Male and Female to this specification shall be supplied in the sizes specified by the RCMP and to the dimensions given in the scales of measurements and drawings forming part of this specification. The garment components shall be shaped dimensioned and positioned in accordance with the pattern components and pattern requirements as outlined in Appendix 'A' forming part of this specification.
- 4.3 **Construction**
- 4.3.1 **Cutting** - All component parts of the trousers shall be cut from the same piece of material and shall be cut following the grain line on the pattern piece to ensure uniformity of shade.
- 4.3.2 **Stitching & Seams** - Using the specified thread, there shall be not less than 3 and no more than 4 stitches per cm. All stitching shall be lock or lockchain stitch. The beginning and ending of all stitching shall be securely backstitched and tacked unless secured by other stitching. Where seaming, turning and stitching is required the edges shall be properly worked out before stitching. Side seams and inseams shall be constructed in accordance with a plain seam type #1.01.01 and serging type #6.01.01(edge finishing) of ISO 4916:1991.
- 4.3.3 **Inseam & Outseam** - The back leg inseam shall have a 3.5cm wide seam allowance, continuing a minimum length of 35 cm for females and 40 cm for males as per the patterns and shall continue towards the hem with a 1cm seam allowance. Both side seam and inseam allowances shall be pressed open.
- 4.3.4 **Hem** - The bottom of the leg shall be serged and left unfinished. The completed leg shall conform in all respects to the patterns, drawings and viewing sample.
- 4.3.5 **Stripes** - The stripe, specified in para. 4.1.2, shall be centered over the side seam extending from the pocket opening throughout the full length of the leg and stitched using a 1.5mm gauge. The stripe when applied to the trouser leg shall be free of puckering or twisting before folding the top end, in line with the pocket opening following the same angle. Care shall be taken to ensure that a crisp sharp edge is achieved with no loose or fraying ends exposed. The application of the yellow stripe shall conform in all respects to the viewing sample.

- 4.3.6 **Waistband** - The face of the waistband when finished shall be no less than 4cm wide and the inside finished width no less than 6cm wide. The waist banding constructed from materials as specified in para. 4.1.7, shall be applied to the waistband and shall roll inwards 3 mm below the top edge. The waistband shall be equipped with a total of six belt loops on waist sizes up to 36 and 8 belt loops on waist sizes 38 or larger, positioned as per the belt loop location chart in the scale of measurements. The belt loops shall be 1 cm wide with a functional opening of no less than 5 cm. They shall be securely bar tacked through the shell material and waistband lining, with no less than 18 cover stitches per tack. All sizes shall also include one special belt loop, constructed as per pattern from material as specified in para. 4.1.1, positioned at the center back seat seam as shown in the drawings and viewing sample. Two buttons as specified in para. 4.1.5, shall be sewn to the seat seam at 7 cm and 9 cm from the top of the waistband for the attachment of the special belt loop. The special belt loop shall be stitched across the top of the waistband and securely bar tacked at both extremities with 10 mm to 13 mm long bar tacks, with no less than 18 cover stitches. The top front of the waistband above the fly shall be equipped with a metal hook and eye, as specified in para. 4.1.8. The waistband when completed shall conform in all respects to the patterns, drawings and viewing sample.
- 4.3.7 **Pockets** - The trousers shall have two front slash pockets and two back welt pockets, either single or double, dimensioned as per the patterns and drawings. All pockets shall be bar-tacked at each end of the openings. The front slash pocket openings shall be reinforced in the seam, with an additional material such as twill tape or a woven material used on the straight of grain to stabilize the pocket opening. Both front and back pockets shall be lined with material as specified in para. 4.1.3. The back pockets shall have a 15cm opening for all male sizes and 14cm opening for all female sizes. Both rear pockets shall be equipped with a button as specified in para. 4.1.5 and a suitably sized buttonhole.
- 4.3.8 **Fly Opening** - The fly front, lined with material specified in para. 4.1.3, shall be equipped with a slide fastener in accordance with para. 4.1.6. The fly front shall be supported by a button sewn to the underside of the top left portion of the opening. A corresponding buttonhole shall be applied to the curtain. The end of the fly curtain, extending below the bottom of the fly opening, shall be tacked to the fly facing. Care shall be taken to ensure that no shell material is caught during this operation. The bottom of the fly opening shall be reinforced with a 10 mm to 13 mm long bar tack, with no less than 18 cover stitches. The completed fly opening shall conform in all respects to the patterns, drawings and viewing sample.



- 4.3.9 **Crotch Lining** - The forepart of the crotch shall be lined with a triangular piece of lining as specified in para. 4.1.3, shaped and dimensioned in accordance with the patterns, drawing and viewing sample.
- 4.3.10 **Crotch and Seat Seam** - The crotch and seat seam shall be joined together by stitching the seat seam continuously from the crotch through the waistband using 401 lockchain stitch. It shall be finished so that alterations of the waistband can be performed without opening the waistband. The seam allowance shall be 1 cm at the crotch, widening gradually to 4.5 cm below the bottom of the waistband and continuing through the waistband with a completed width of 4 cm each side after seaming and turning. All seams shall be serged. The seat when finished shall conform in all respects to the patterns, drawings and viewing sample.
- 4.3.11 **Buttonholes** - Buttonholes shall be eyelet type, gimp reinforced, with a bar tacked or fish-tailed end and having a minimum of 28 stitches per inch or 11.2 stitches per centimetre. The buttonholes may be “cut first” or “cut after”, and shall fit a button as specified in 4.1.5. When “cut after” buttonholes are used, the cut shall be clean, close to the stitches so they are equal in appearance to the “cut first” buttonholes.
- 4.3.12 **Pressing and Shaping** - The trousers shall be pressed and shaped in accordance with good commercial practice to conform with the shaping and style of the viewing sample.
- 4.3.13 **Marking & Cleaning Instructions and Identification Labels** - Each pair of trouser shall have two labels sewn separately to the right front pocket bag as identified in drawing #4. The label information shall be as outlined below in a text no less than a size 8 font. The text shall be of permanent inks of a contrasting colour and shall withstand at least 50 washes showing no apparent change in appearance. The label shall be completed in accordance with the following information in English and French.
1. Item name in English as written in para. 1.1.
  2. Item name in French as written in para. 1.1.
  3. RCMP stock number - reference contract documents. (Ex. 6875 000)
  4. Size of the article, combining the size designation referenced in the English and French contract documents. (Ex. 34 T/L)
  5. Date of manufacture, in numeric format year/month (Ex. 2001/11)
  6. Your manufacturer identification (Company name or number).
  7. Write information as written below.
  8. Write information as written below.

1	
2	
3	RCMP-GRC #
4	
5	
6	
7	Dry Clean only / Nettoyage à sec seulement
8	Steam iron – medium / Repassage à vapeur - à température moyenne

Identification label (Sewn on only): As illustrated below.

Name/Nom:

## 5. Quality Assurance Provisions

- 5.1 **Responsibility for Inspection** - Unless otherwise stipulated in the contract, it is the prime contractor's responsibility to satisfy the RCMP, Uniform and Equipment Program, that the material and services being supplied conform to this specification. This may be accomplished by performing the tests specified in this specification or by demonstrating to the satisfaction of the RCMP, Uniform and Equipment Program that conformity to this specification of manufacturing processes is assured. The contractor may use any commercial testing establishment acceptable to the RCMP, Uniform and Equipment Program.
- 5.2 The RCMP, Uniform and Equipment Program reserve 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 under 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 and pattern 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 re-delivered for inspection.
- 5.3 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.

6. **Scale of Measurement Definitions and Location References**

(Refer to the Scale of Measurements and Drawing No. 4).

- 6.1 **Waist Circumference (total circumference)** - When the waistband is closed, the waist shall be the total circumference from centre front to centre front at the centre of the waistband. (A).
- 6.2 **Seat Circumference (total circumference)** - When placed flat, fly facing up, the seat shall be measured across the width of the trouser at the distance specified in the drawing from the bottom of the waistband. The result shall be doubled to measure total circumference. (B).
- 6.3 **Inseam Length** - The length shall be the distance measured from the crotch to the unfinished hem. (C).
- 6.4 **Outseam Length** - The length shall be the distance measured from the bottom of the waistband to the unfinished hem. (D).
- 6.5 **Front Rise** - The measurement from the crotch to the bottom of the front waistband along the seam. (E).
- 6.6 **Back Rise** - The measurement from the crotch to the bottom of the back waistband along the seam. (F).
- 6.7 **Bottom Circumference (total circumference)** - When placed flat, the bottom shall be measured across the width at the bottom of leg. The result shall be doubled to measure total circumference. (G).

**TABLE I**

		SPECIFICATION	TESTED BY CAN/CGSB-4.2
1	Weave	Plain	Method 14-2005
2	Mass	150 to 170 g/m <sup>2</sup>	Method 5.1-M90
3	Yarns per cm	Warp 39 (min.) Weft 21 (min.)	Method 6-M89
4	Breaking Strength	Warp 537 Newtons (min.) Weft 220 Newtons (min.)	Method 9.2-M90 (2004)
5	Dimensional Change to Domestic Washing	Warp 2% (max.) Weft 2% (max.)	Method 58-2004
6	Colourfastness to Washing	Grey Scale 4 (min.)	Method 19.1 (Test 2)
7	Colourfastness to Light	L-4 (min.)	Method 18.3-97
8	Colourfastness to Perspiration	Grey scale 4 (min.)	Method 23-M90
9	Colourfastness to Crocking	Dry 4 (min.) Wet 4 (min.)	Method 22-2004
10	Pilling	3 (min.) after 90 min	Method 51.2-M87
11	Crease Recovery	70%	Method 45
12	Non-Fibrous Material	3.1% (max.)	Method 15

**Note:** Doubletex “Calypso” and “Bounty Set US” is known to meet the requirements.

## APPENDIX A

### Sealed Pattern Identifier

Pattern #: 1045-090  
 Titles: Trousers, Heavy Weight, Male  
 Trousers, Heavy Weight, Female

Paper Patterns - Paper patterns are available from the RCMP, Uniform and Equipment Program, Ottawa Ontario, under Pattern # G.S. 1045-090. Firms requested to produce Pre-contract Award Samples will be provided with the base pattern only. The full set of patterns either in individual sizes or as a graded nest will be provided to the successful bidder after the contract is awarded.

The paper patterns include seam allowances, drill holes and/or placement templates. Contractors may make changes required to suit their production process, however, the design and grade shall not be affected or changed. **Shrinkage has not been included in any pattern piece. It is the responsibility of the manufacturer to make allowances for shrinkage in order to meet the scale of measurements included in this specification.**

All shell parts must be cut in the direction indicated on the grain line of the pattern pieces.

All patterns are the property of the RCMP and must be returned upon completion of the contract.

Pattern Pieces - This design has 15 pattern components.

#### **Legend:**

Cut 1 Single	=	Cut 1
Cut 1 Paired	=	Cut 2
(RSU)	=	Right Side Up
Shell Material	=	Para. 4.1.1
Lining Material	=	Para. 4.1.3

**APPENDIX A****Sealed Pattern Identifier**

Pattern #: G.S. 1045-090  
 Title: Trousers, Heavy Weight, Male

<b>Pattern Components</b>	<b>Nomenclature</b>	<b>Quantity to be cut</b>	<b>Material</b>
1 of 15	Back	1 Paired	Shell Material
2 of 15	Front	1 Paired	Shell Material
3 of 15	Waistband - Right	1 Single	Shell Material (RSU)
4 of 15	Waistband - Left	1 Single	Shell Material (RSU)
5 of 15	Fly Front	1 Single	Shell Material (RSU)
6 of 15	Fly Curtain	1 Single	Shell Material (RSU)
7 of 15	Belt Loops	1 Single	Shell Material
8 of 15	Special Belt Loop	1 Paired	Shell Material
9 of 15	Pocket Bag - Front Facing	1 Paired	Shell Material
10 of 15	Pocket Jetting	1 Paired	Shell Material
11 of 15	Pocket Bag - Front	1 Paired	Lining Material
12 of 15	Fly Lining	1 Single	Lining Material (RSU)
13 of 15	Front Gusset	1 Paired	Lining Material
14 of 15	Pocket Bag - Back	1 Paired	Lining Material
15 of 15	Pocket - Front Facing	1 Paired	Shell Material

**APPENDIX A****Sealed Pattern Identifier**

Pattern #: G.S. 1045-090

Title: Trousers, Heavy Weight, Female

<b>Pattern Components</b>	<b>Nomenclature</b>	<b>Quantity to be cut</b>	<b>Material</b>
<b>1 of 15</b>	Back	1 Paired	Shell Material
<b>2 of 15</b>	Front	1 Paired	Shell Material
<b>3 of 15</b>	Waistband - Right	1 Single	Shell Material (RSU)
<b>4 of 15</b>	Waistband - Left	1 Single	Shell Material (RSU)
<b>5 of 15</b>	Fly Front	1 Single	Shell Material (RSU)
<b>6 of 15</b>	Fly Curtain	1 Single	Shell Material (RSU)
<b>7 of 15</b>	Belt Loops	1 Single	Shell Material
<b>8 of 15</b>	Special Belt Loop	1 Paired	Shell Material
<b>9 of 15</b>	Pocket Bag - Front Facing	1 Paired	Shell Material
<b>10 of 15</b>	Pocket Jetting	1 Paired	Shell Material
<b>11 of 15</b>	Pocket Bag - Front	1 Paired	Lining Material
<b>12 of 15</b>	Fly Lining	1 Single	Lining Material (RSU)
<b>13 of 15</b>	Front Gusset	1 Paired	Lining Material
<b>14 of 15</b>	Back Pocket - Bag	1 Paired	Lining Material
<b>15 of 15</b>	Pocket - Front Facing	1 Paired	Shell Material

**SCALE OF MEASUREMENTS - TROUSERS, HEAVY WEIGHT - MALE SIZES**

SIZE DESIGNATION		GARMENT MEASUREMENTS						
Height	Size	Waist	Seat	Inseam	Outseam <u>Bottom of</u> Waistband to hem	<u>Front Rise</u>	<u>Back Rise</u>	<u>Bottom</u>
<b><u>SHORT RISE</u></b>	30 S	77.5	100	89.90	112.5	26.2	36.75	52
	32 S	82.5	105	89.95	113.0	26.3	37.00	52
	34 S	87.5	110	90.00	113.5	26.4	37.25	52
	36 S	92.5	115	90.05	114.0	26.5	37.50	52
	38 S	97.5	120	90.10	114.5	26.6	37.75	52
	40 S	102.5	125	90.15	115.0	26.7	38.00	52
	42 S	107.5	130	90.20	115.5	26.8	38.25	52
	44 S	112.5	135	90.25	116.0	26.9	38.50	52
	46 S	117.5	140	90.30	116.5	27.0	38.75	52
<b><u>REGULAR RISE</u></b>	30 R	77.5	100	94.90	119.5	28.2	38.75	52
	32 R	82.5	105	94.95	120.0	28.3	39.00	52
	34 R	87.5	110	95.00	120.5	28.4	39.25	52
	36 R	92.5	115	95.05	121.0	28.5	39.50	52
	38 R	97.5	120	95.10	121.5	28.6	39.75	52
	40 R	102.5	125	95.15	122.0	28.7	40.00	52
	42 R	107.5	130	95.20	122.5	28.8	40.25	52
	44 R	112.5	135	95.25	123.0	28.9	40.50	52
	46 R	117.5	140	95.30	123.5	29.0	40.75	52
TOLERANCES ±		1cm	1cm	1.5cm	1.5cm	1cm	1cm	1cm
MEASUREMENT LOCATION		A	B	C	D	E	F	G

**NOTE:** All measurements are in centimetres unless otherwise indicated.



**SCALE OF MEASUREMENTS - TROUSERS, HEAVY WEIGHT - MALE SIZES “CONTINUED”**

SIZE DESIGNATION		GARMENT MEASUREMENTS						
Height	Size	Waist	Seat	Inseam	Outseam <u>Bottom of Waistband to hem</u>	<u>Front Rise</u>	<u>Back Rise</u>	<u>Bottom</u>
<b><u>TALL RISE</u></b>	30 T	77.5	100	99.90	126.5	30.2	40.75	52
	32 T	82.5	105	99.95	127.0	30.3	41.00	52
	34 T	87.5	110	100.00	127.5	30.4	41.25	52
	36 T	92.5	115	100.05	128.0	30.5	41.50	52
	38 T	97.5	120	100.10	128.5	30.6	41.75	52
	40 T	102.5	125	100.15	129.0	30.7	42.00	52
	42 T	107.5	130	100.20	129.5	30.8	42.25	52
	44 T	112.5	135	100.25	130.0	30.9	42.50	52
	46 T	117.5	140	100.30	130.5	31.0	42.75	52
TOLERANCES ±		1cm	1cm	1.5cm	1.5cm	1cm	1cm	1cm
MEASUREMENT LOCATION		A	B	C	D	E	F	G

**NOTE:** All measurements are in centimetres unless otherwise indicated.

**SCALE OF MEASUREMENTS TROUSERS, HEAVY WEIGHT - FEMALE SIZES**

SIZE DESIGNATION		GARMENT MEASUREMENTS						
Height	Size	Waist	Seat	Inseam	Outseam <u>Bottom of</u> <u>Waistband to hem</u>	<u>Front Rise</u>	<u>Back Rise</u>	<u>Bottom</u>
<b><u>SHORT</u></b> <b><u>RISE</u></b>	26 S	67.5	93	85.70	108.5	25.3	31.0	50
	28 S	72.5	98	85.80	109.0	25.5	31.25	50
	30 S	77.5	103	85.80	109.5	25.7	31.5	50
	32 S	82.5	108	85.90	110.0	25.9	31.75	50
	34 S	87.5	113	85.90	110.25	26.1	32.0	50
	36 S	92.5	118	86.00	110.75	26.3	32.25	50
	38 S	97.5	123	86.00	111.25	26.5	32.5	50
	40 S	102.5	128	86.10	111.75	26.7	32.75	50
	42 S	107.5	133	86.10	112.25	27.0	33.0	50
<b><u>REGULAR</u></b> <b><u>RISE</u></b>	26 R	67.5	93	90.70	115.5	27.2	33.0	50
	28 R	72.5	98	90.80	116.0	27.4	33.25	50
	30 R	77.5	103	90.80	116.5	27.6	33.5	50
	32 R	82.5	108	90.90	117.0	27.8	33.75	50
	34 R	87.5	113	90.90	117.25	28.0	34.0	50
	36 R	92.5	118	91.00	117.75	28.2	34.25	50
	38 R	97.5	123	91.00	118.25	28.5	34.5	50
	40 R	102.5	128	91.10	118.75	28.7	34.75	50
	42 R	107.5	133	91.10	119.25	28.9	35.0	50
TOLERANCES ±		1cm	1cm	1.5cm	1.5cm	1cm	1cm	1cm
MEASUREMENT LOCATION		A	B	C	D	E	F	G

**NOTE:** All measurements are in centimetre unless otherwise indicated.

**SCALE OF MEASUREMENTS - TROUSERS, HEAVY WEIGHT - FEMALE “CONTINUED”**

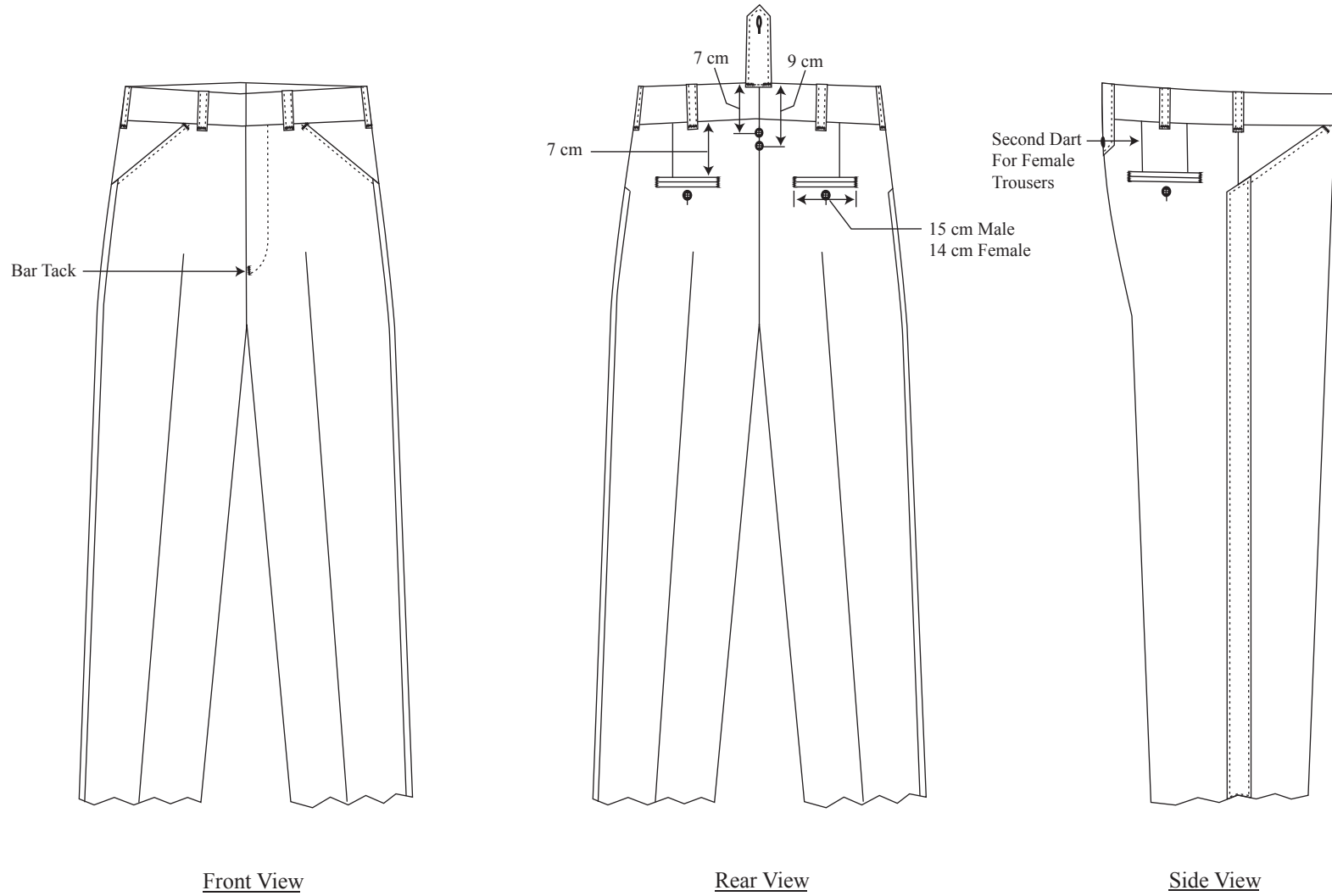
SIZE DESIGNATION		GARMENT MEASUREMENTS						
Height	Size	Waist	Seat	Inseam	Outseam Bottom of Waistband to hem	Front Rise	Back Rise	Bottom
<b><u>TALL RISE</u></b>	26 T	67.5	93	95.70	122.5	29.1	35.0	50
	28 T	72.5	98	95.80	123.0	29.3	35.25	50
	30 T	77.5	103	95.80	123.5	29.5	35.5	50
	32 T	82.5	108	95.90	124.0	29.7	35.75	50
	34 T	87.5	113	95.90	124.25	29.9	36.0	50
	36 T	92.5	118	96.00	124.75	30.2	36.25	50
	38 T	97.5	123	96.00	125.25	30.4	36.5	50
	40 T	102.5	128	96.10	125.75	30.6	36.75	50
	42 T	107.5	133	96.10	126.25	30.8	37.0	50
TOLERANCES ±		1cm	1cm	1.5cm	1.5cm	1cm	1cm	1cm
MEASUREMENT LOCATION		A	B	C	D	E	F	G

**NOTE:** All measurements are in centimetres unless otherwise indicated.

**SCALE OF MEASUREMENTS - TROUSERS, HEAVY WEIGHT**

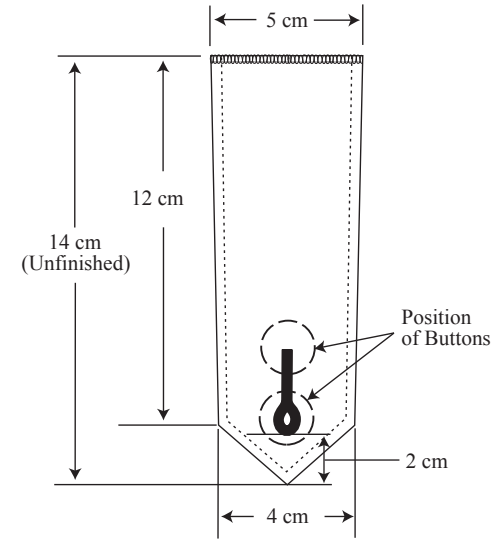
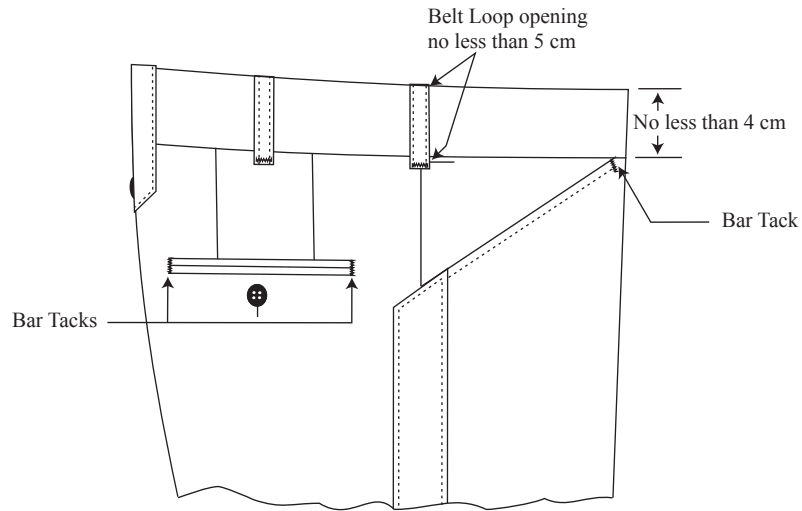
SIZE DESIGNATION	Belt Loop placement Measured to the centre of the Belt Loop			
	1 <sup>st</sup> Belt Loop from centre front (cm)	2 <sup>nd</sup> Belt Loop from centre front (cm)	3 <sup>rd</sup> Belt Loop from centre front (cm)	4th Belt Loop from centre front (cm) <i>(If necessary)</i>
<b>MALE Sizes</b>				
30	8.5	18.5	28.5	
32	10	20.5	31	
34	10	22.5	33	
36	10	22.1	34.2	
38	10	19.7	29.4	39.1
40	10	20.3	30.6	40.9
42	10	20.9	31.8	42.7
44	11	22.3	33.6	44.9
46	11	23	35	47
<b>FEMALE Sizes</b>				
26	8.5	17	25.5	
28	9	18.1	27.2	
30	8.5	18.5	28.5	
32	10	20.5	31	
34	10	22.5	33	
36	10	22.1	34.2	
38	10	19.7	29.4	39.1
40	10	20.3	30.6	40.9
42	10	20.9	31.8	42.7
TOLERANCES ±	.25cm	.25cm	.25cm	.25cm

Dwg. 1

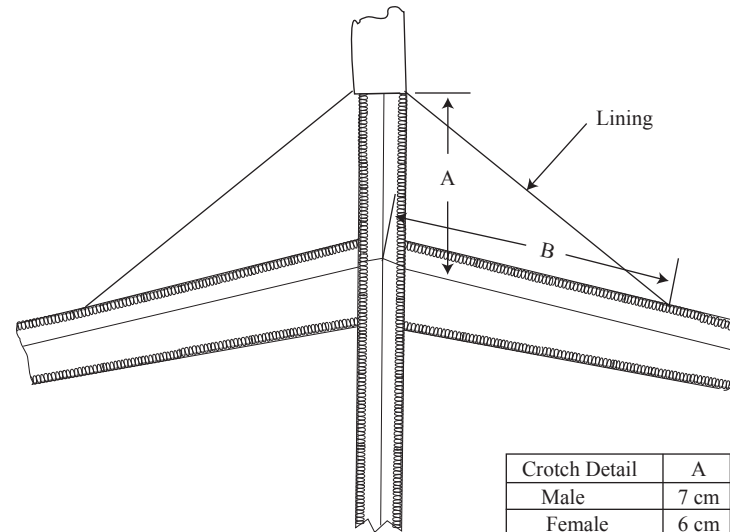


All Measurements in Centimeters  
Unless otherwise stated all measurements are subject to  $\pm 0.5$  cm tolerances  
NOT TO SCALE

Dwg. 2



Pocket Detail

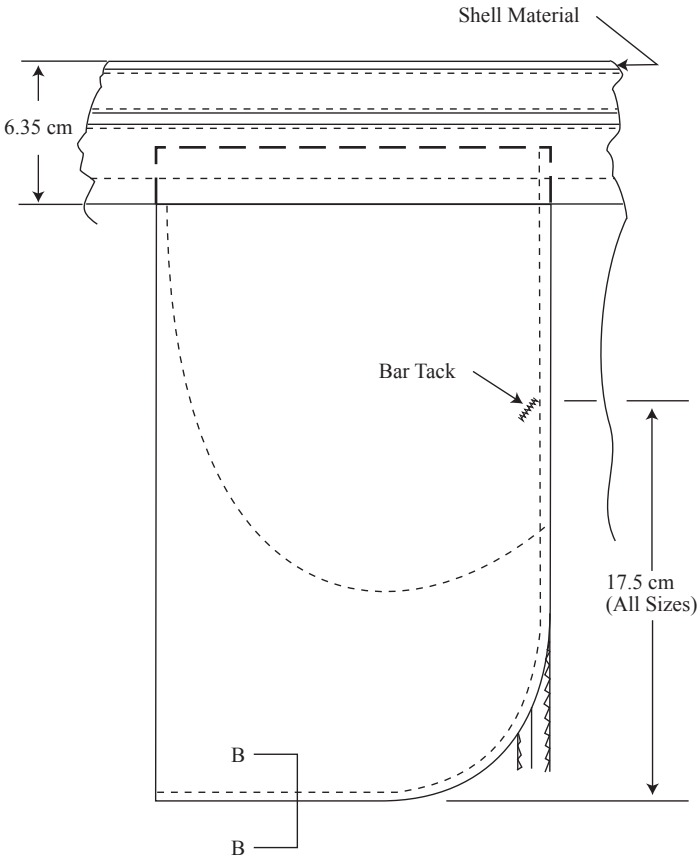


Crotch Detail	A	B
Male	7 cm	14 cm
Female	6 cm	14 cm

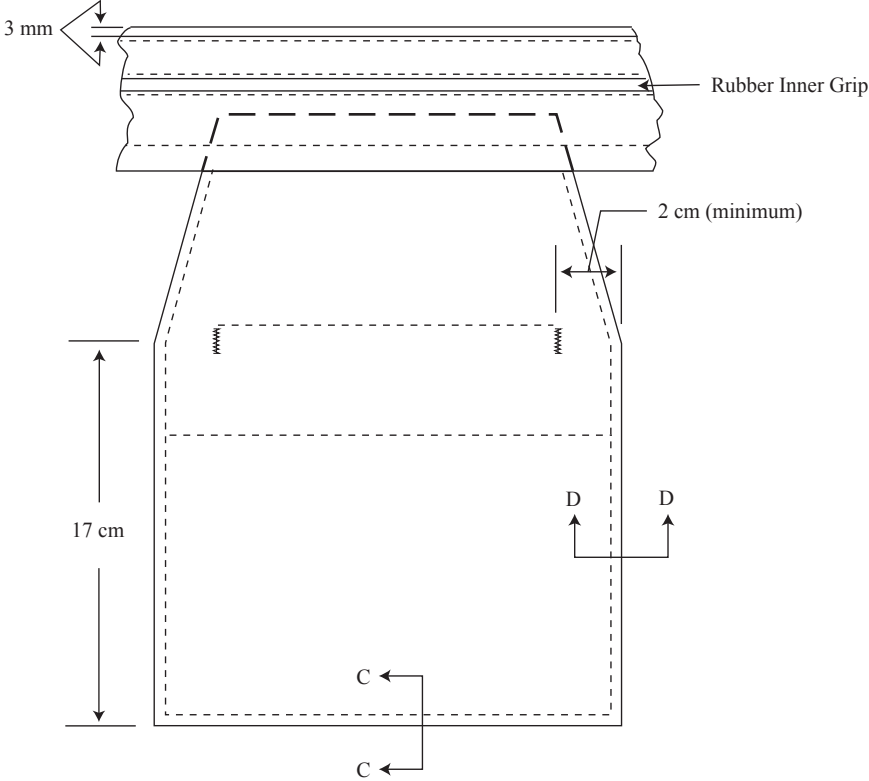
Crotch Detail

All Measurements in Centimeters  
 Unless otherwise stated all measurements are subject to  $\pm 0.5$  cm tolerances  
 NOT TO SCALE

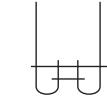
Dwg. 3



Front Pocket Detail



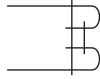
Back Hip Pocket Detail



Section B-B



Section C-C

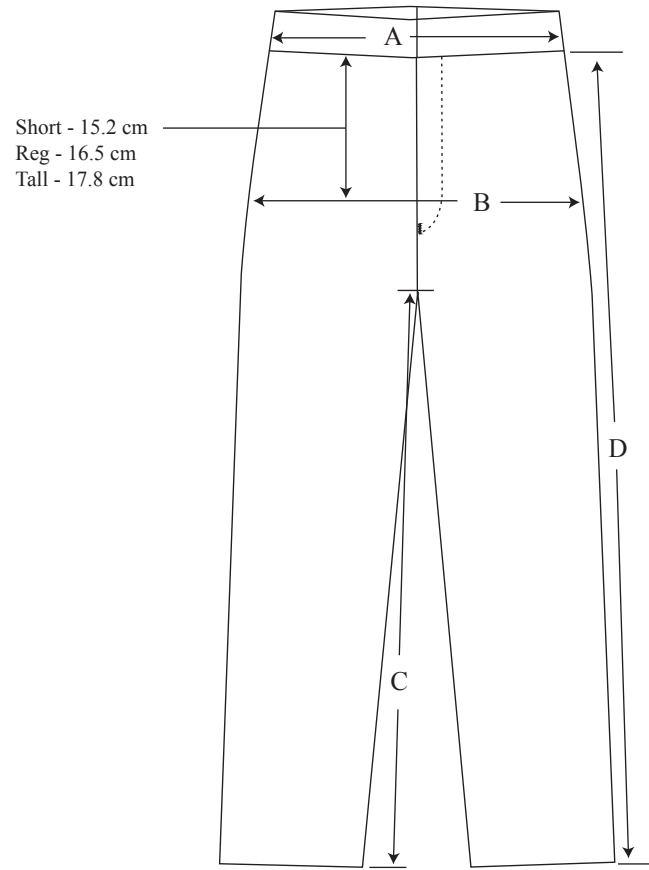


Section D-D

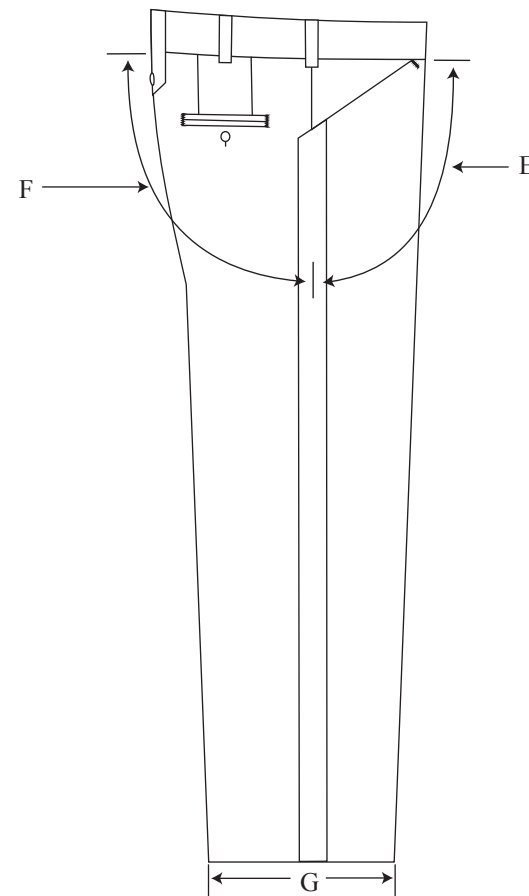
All Measurements in Centimeters  
 Unless otherwise stated all measurements are subject to  $\pm 0.5$  cm tolerances  
 NOT TO SCALE

MEASUREMENT LOCATION

Dwg. 4



Front View



Side View

All Measurements in Centimeters  
Unless otherwise stated all measurements are subject to  $\pm 0.5$  cm tolerances  
NOT TO SCALE