

PRIVATE SPECIFICATION

Prepared for



SOUTH AFRICAN AIRWAYS

A STAR ALLIANCE MEMBER 

FLIGHT DECK CREW, MEN, DOUBLE BREASTED JACKET



Item Number: FM01

Document Number: SAA 006

Version 02.0/September 2015

1. Scope

This specification¹ covers the material, cut and make of double breasted jackets for male flight deck crew members of the South African Airways.

2. Definitions and Abbreviations

For the purpose of this specification the definitions given in SANS 10371 "Terms and definitions for clothing" and the following shall apply:

acceptable: acceptable to the South African Airways

nominal: subject to the tolerances normal to good manufacturing practice

SANS: South African National Standard

3. Style

- ◆ double breasted
- ◆ front button fastening
- ◆ step collar and lapel
- ◆ square front bottom edges
- ◆ one welted breast pocket
- ◆ two double jetted side pockets
- ◆ two inside double jetted breast pockets
- ◆ long sleeves
 - set-in type
 - two-piece
 - plain cuffs
- ◆ centre back seam
- ◆ side body panels
- ◆ waist suppression darts
- ◆ two side vents
- ◆ straight bottom hem
- ◆ fully lined

¹ This private specification has been compiled by National Private Specifications (Pty) Ltd. privatespecs@vodamail.co.za

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4. Illustrations

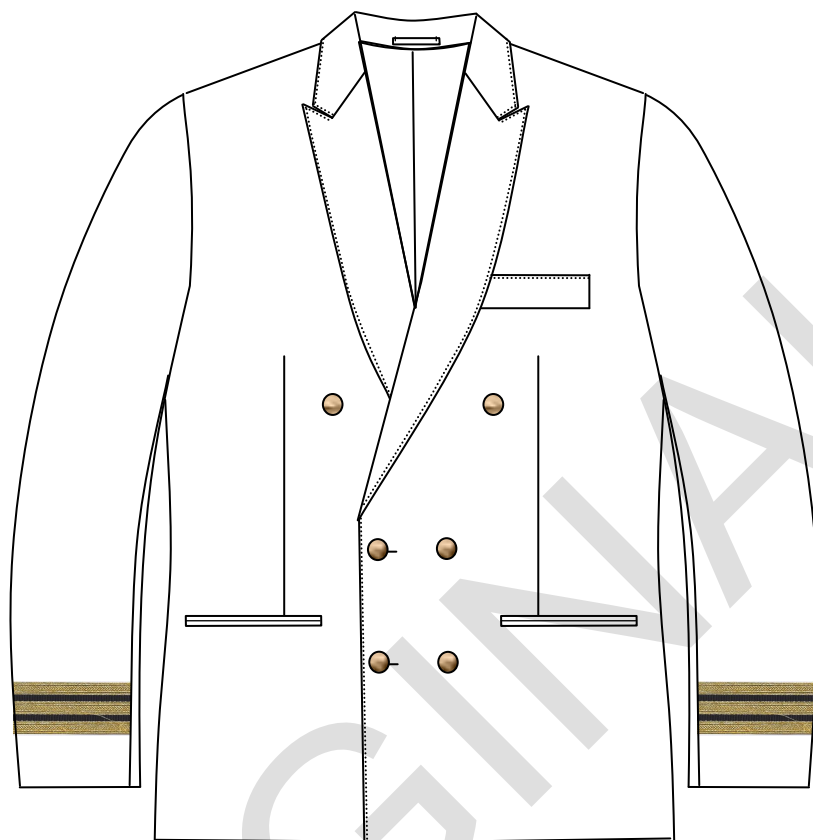


Figure 1 – Front

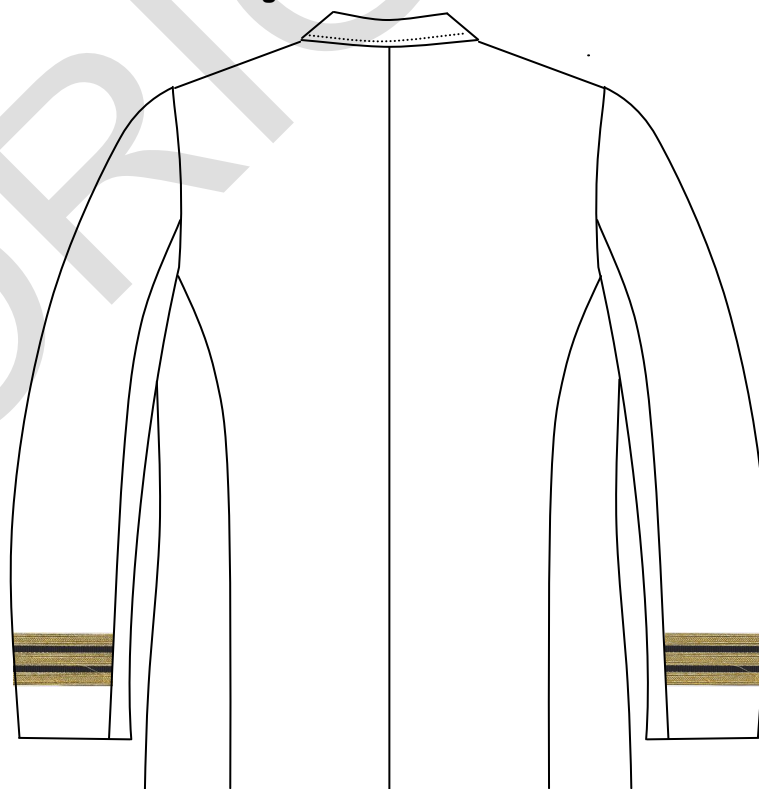


Figure 2 – Back

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5. Client Furnished Materials

No materials shall be supplied by the South African Airways.

6. Component Materials

The following materials shall be supplied and used by the manufacturer. Trim charts shall also be submitted by the manufacturer (see Annex B).

NOTE: All components listed below shall be manufactured in the Republic of South Africa. In instances where the raw material and/or finished components are not available in the Republic of South Africa, the onus shall be on the bidder to apply for exemption certificates from DTI. Exemption certificates, where relevant, shall be submitted together with each bid.

6.1 Outer material

- ♦ comply with the requirements of table 1
- ♦ be assessed for defects, in terms of SANS 10076-5, "The assessment of defects in textile piece-goods and made-up articles Part 5: Defects in woven woollen and worsted piece-goods"
 - permissible number of defects:
 - LAQ for a piece: 10
 - LAQ for a lot: 5
- ♦ colour to be a match, in terms of SANS 10076-5, "The assessment of defects in textile piece-goods and made-up articles Part 5: Defects in woven woollen and worsted piece-goods", to Colour No. 543c-2014 "SAA Dark Navy (suiting)" of CKS 129 "Colours for textiles"

6.2 Lining

- ♦ to comply with the requirements for type L61P of SANS 1387-7 "Woven cotton and similar apparel fabrics – Part 7: Jacket linings"
- ♦ colour to be an acceptable match to the colour of the outer material

6.3 Interlining

- ♦ an acceptable fusible woven or non-woven interlining (as relevant)
- ♦ to comply with the requirements of CKS 627 "Fusible interlinings"
- ♦ mass per unit area to be such that the interlining is suitable for the purpose for which it is used
- ♦ suitable for use in garments which may be dry-cleaned
- ♦ capable of withstanding the same washing and drying procedures as specified for the outer material

The selection of interlining of appropriate mass per unit area to be determined by consultation with the supplier of the interlining. The contractor will be held responsible for the performance of the interlining.

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Table 1 – Fabric requirements

1	2	3
Property	Requirement	SANS standard unless otherwise specified
Composition	All wool	AATCC method 20
Weave	2/1 Z twill	Visual examination
Mass per unit area , g/m ² , min.	210	79
Number of threads per centimetre ^a		7211-2
Warp, min.	24	
Weft ^b	24	
Breaking strength , N.		13934-1
Warp, min.	400	
Weft ^b	334	
Resistance to pilling , rating, min.		6116
After dry-cleaning	4	
Dimensional changes after dry-cleaning , % max.		ISO 3175-2
Warp and weft	2	
Non-fibrous material content , %, max.	2,5	5113
Colour fastness to:		
Light , rating, min.	6	105-B02
Dry-cleaning , rating, min.		105-D01
Colour change	4	
Staining	4	
Perspiration , rating, min.		105-E04
Colour change	4	
Staining	4	
Abrasion resistance , no. of rubs to end point, min.		6009
	30 000	
Mothproofing	Mothproof ^c	5580 and 5582
^a Recommended mean wool fabric diameter: 22µm. ^b Subject to a tolerance of –10 %. ^c In terms of SANS 979.		

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6.4 Buttons

Two types of buttons shall be used which shall be specified in the order or contract:

6.4.1 General

- ♦ to be acceptable gold plated metal buttons with shanks
- ♦ to be collar struck
- ♦ made of brass that complies with the relevant requirements of Type Designation CZ101 (90/10 brass), condition ½ Hard, of SANS 1303-1
- ♦ of nominal diameter 20 mm with a rim of nominal width 1.5 mm
- ♦ buttons (obverse and reverse) to be gold plated that shall comply with the requirements as given in Annex A

6.4.2 SAA FDC buttons

- ♦ design to incorporate the following:
 - registered SAA tail logo centred in the button
 - rim and SAA tail logo to be bright gold
 - background on obverse of button to be sandblasted (matt)
 - **shank to be horizontal in relation to the tail logo on the significant surface**

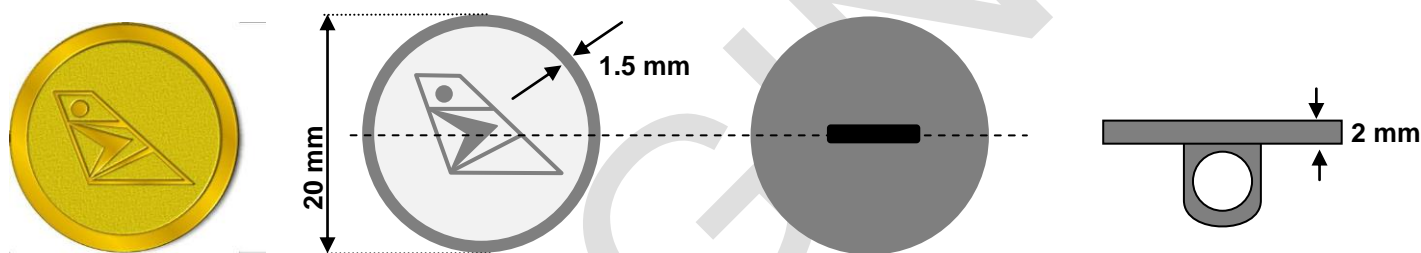


Figure 3 – SAA FDC Button (tail logo to be as per registered design)

6.4.3 SA Express FDC buttons

- ♦ design to incorporate the following:
 - registered SA Express tail logo centred in the button
 - rim and tail logo to be bright gold
 - background on obverse of button to be sandblasted (matt)
 - **shank to be horizontal in relation to the tail logo on the significant surface**

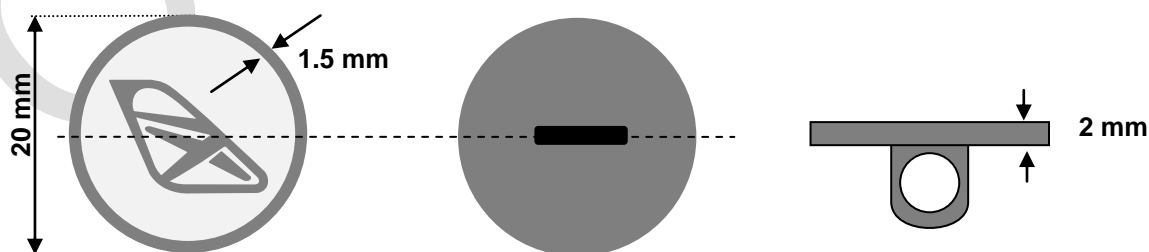


Figure 4 – SAA Express Button (tail logo to be as per registered design)

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6.5 Haircloth canvas

- ♦ an acceptable fabric suitable for use as a floating chest-piece

6.6 Under collar material

- ♦ melton or felt consisting of 80% \pm 2% wool fibres and 20% \pm 2% non-wool fibres
- ♦ nominal mass per unit area of at least 270 g/m²
- ♦ colour to be an acceptable match to the colour of the outer material

6.7 Padding felt

- ♦ an acceptable padding felt or fusible padding felt
- ♦ nominal mass per unit area of at least 160 g/m²

6.8 Shoulder pads

- ♦ acceptable flexible polyester wadding shoulder pads (applicable to tailored garments)
- ♦ of medium height
- ♦ resistant to dry-cleaning

6.9 Sleeve-head roll

- ♦ acceptable sleeve-head roll that conforms to the needs of the pattern

6.10 Pocketing

- ♦ to comply with the requirements for type PS71 **OR** type PT56 of SANS 1387-10 "Woven cotton and similar apparel fabrics Part 10: Pocketing or an acceptable pocketing that complies with the dimensional stability and colour fastness requirements as specified for the outer material
- ♦ colour to be an acceptable match to the colour of the outer material

6.11 Stay-tape

- ♦ an acceptable stay-tape or acceptable interlining

6.12 Braid stripes

6.12.1 Cockpit crew

- ♦ gold mylar naval design braid interspaced with a black braid
- ♦ colour to be an acceptable match to colour No. 975c- 2015 "SAA Gold Braid (for Jackets)" of CKS 129 "Colours for textiles
- ♦ 12 mm wide or 6 mm wide as follows:
 - 4 x 12 mm gold stripes interspaced with black (see figure 5(a))
 - 3 x 12 mm gold stripes interspaced with black (see figure 5(b))
 - 2 x 12 mm gold stripes with 1 x 6 mm gold stripe between, interspaced with black (see figure 5(c))
 - 2 x 12 mm gold stripes interspaced with black (see figure 5(d))

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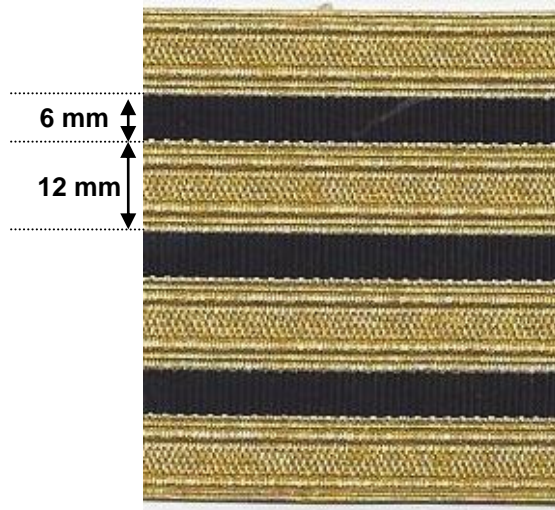


Figure 5(a) – 4 x 12 mm braid



Figure 5(b) – 3 x 12 mm braid

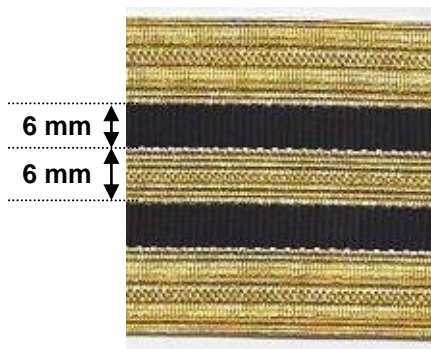


Figure 5(c) – 2 x 12 mm braid and 1 x 6 mm braid



Figure 5(d) – 2 x 12 mm braid

6.12.2 Technical staff

- ♦ gold cello naval design braid interspaced with a purple colour of an acceptable shade
- ♦ the design variations of the braid with the gold and purple interspacing shall to be as agreed upon between SAA and the successful bidder

6.13 Plastic button

- ♦ four-hole plastics
- ♦ nominal diameter of 20 mm
- ♦ dope-dyed and fully impregnated
- ♦ colour to be an acceptable match to the colour of the outer material

6.14 Sewing Threads

- ♦ to comply with relevant requirements of SANS 1362 “Sewing threads”
- ♦ colour to be an acceptable match to the colour of the outer material

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sewing and top-stitching thread:

- ♦ polyester-and-cotton core-spun
- ♦ ticket No 80

OR

- ♦ staple polyester
- ♦ ticket No 80

7. Workmanship

The jackets shall be:

- ♦ cut and made with first-class workmanship throughout
- ♦ of uniform and acceptable make, colour and finish

Shall be free from:

- ♦ defects, that affect their appearance or may affect their serviceability (or both)
- ♦ marks and spots
- ♦ stains, incurred in the making-up

Seams and stitches shall be:

- ♦ smooth and uniform
- ♦ free from twists, pleats and puckers
- ♦ sufficiently extensible to avoid seam cracking and undue shrinkage in use

Ends of sewing shall be:

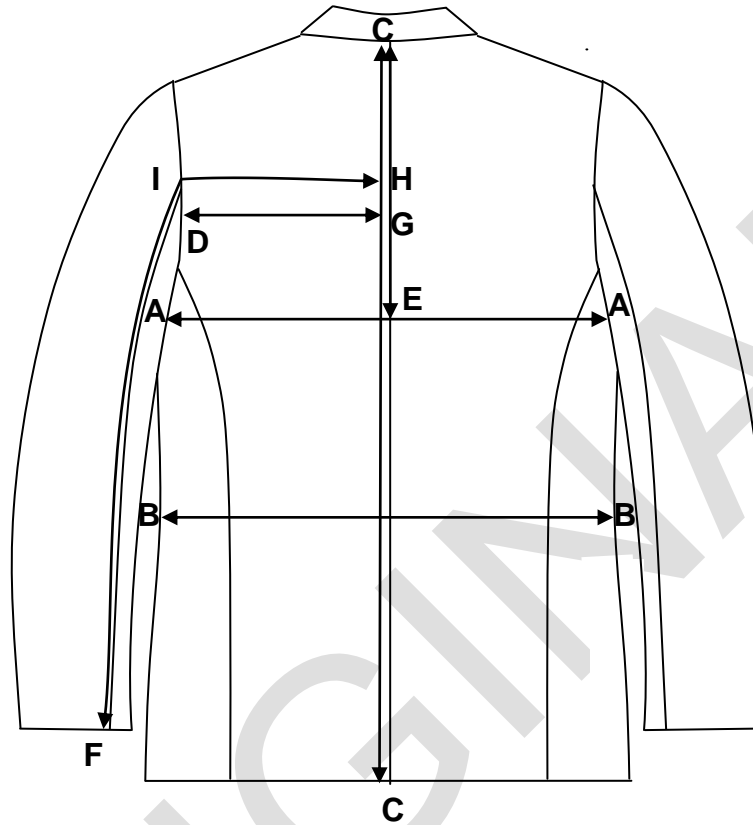
- ♦ trimmed and loose threads removed
- ♦ back-tacked if unsecured (at least 15 mm)

Points not defined in the specification that requires assessing at inspection:

- ♦ Place the jackets on a dummy and check the following points:
 - Is the front and back balance correct?
 - Is the appearance neat and clean?
 - Does the collar fit neatly around the neck?

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8. Sizes and dimensions



Measuring of jacket:

MEASURING POINT		DESCRIPTION
A - A	Chest circumference	Measure across the width of the garment at the base of the scye, with buttons fastened and garment spread completely flat, and multiply by two.
B - B	Waist circumference	Measure across the width of the garment, at the waist level, the narrowest part of the body, with buttons fastened and multiply by two.
C - C	Back length	Measure from the centre back neck seam to the bottom edge of the garment.
D - G	Half back width	Measure across the width of the back, at the midpoint of the scye, from the centre back seam to the one sleeve opening.
H - I - F	Sleeve length	Measure from the centre back at hind-arm sleeve pitch level (approximately 1/3 of the length of the scye below the shoulder point), around the elbow to the bottom edge of the cuff.
C - E	Depth of scye	Measure from the centre back collar seam to a point level with the base of the scye.

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Table 2 - Size range

1	2	3	4	5	6	7
Size designation ¹⁾	Nominal finished garment measurements, cm					
	Circumference		Length		Half back width	Depth of Scye ²⁾
	Chest	Waist	Back	Sleeve		
32 S	93	84	73	78	19	27
34 S	98	89	74	79	20	28
36 S	103	94	75	80	21	29
38 S	108	99	76	81	22	30
40 S	113	104	77	82	23	31
42 S	118	109	78	83	24	32
46 S	123	114	79	84	25	33
48 S	128	119	80	85	26	34
50 S	133	124	81	86	27	35
32 R	93	84	75	80	19	28
34 R	98	89	76	81	20	29
36 R	103	94	77	82	21	30
38 R	108	99	78	83	22	31
40 R	113	104	79	84	23	32
42 R	118	109	80	85	24	33
46 R	123	114	81	86	25	34
48 R	128	119	82	87	26	35
50 R	133	124	83	88	27	36
32 L	93	82	77	82	19	29
34 L	98	87	78	83	20	30
36 L	103	92	79	84	21	31
38 L	108	97	80	85	22	32
40 L	113	102	81	86	23	33
42 L	118	107	82	87	24	34
46 L	123	112	83	88	25	35
48 L	128	117	84	89	26	36
50 L	133	122	85	90	27	37

1) Based on the figure type, height and chest girth, of the intended wearer, in centimetres.
2) To serve as a guideline only, and may be amended to ensure a proper fit. Care must be taken with this measurement, ensuring that the bicep measurements are adequate and comfortable to the wearer.

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9. Make

Illustrations are not to scale and are for guidance only, and unless inconsistent with the text, all measurements are nominal.

9.1 Foreparts

Foreparts shall:

- ◆ be double breasted
- ◆ each have a waist suppression dart
- ◆ have two double jetted side pockets
- ◆ have a welted breast pocket (left forepart only)
- ◆ be fully lined
- ◆ be fully interlined with interlining to the side body seam
- ◆ be reinforced with hair cloth (or alternatively fusible interlining) at the shoulders and covered with padding felt
- ◆ each have a lapel
 - dimensions to be as given in figure 7
 - be stayed with staytape or interlining along the breakline of the lapel
- ◆ be such that the right forepart edge has one buttonhole and three buttons
- ◆ be such that the left forepart edge has two buttonholes and three buttons
- ◆ have square front corners
- ◆ have straight hems
- ◆ be pick-stitched along the front edges and lapels

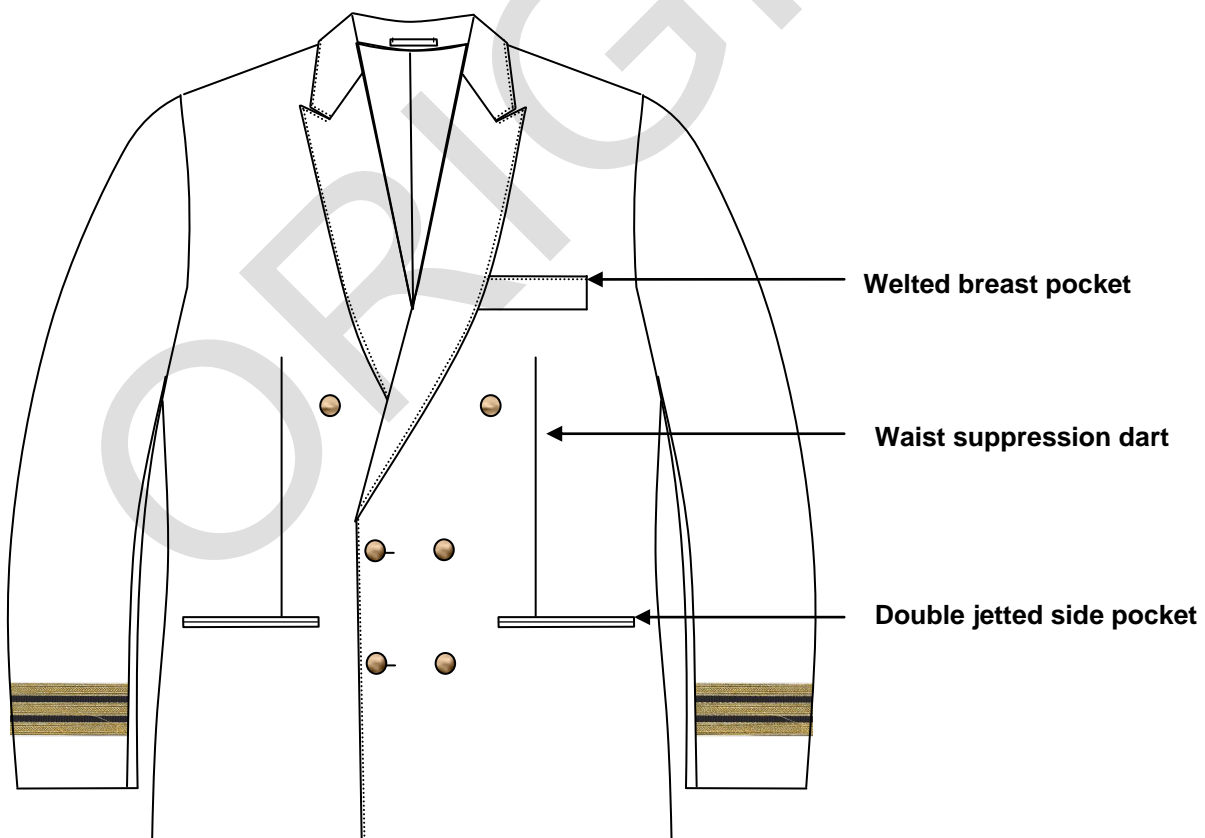


Figure 6 – Design elements on the front

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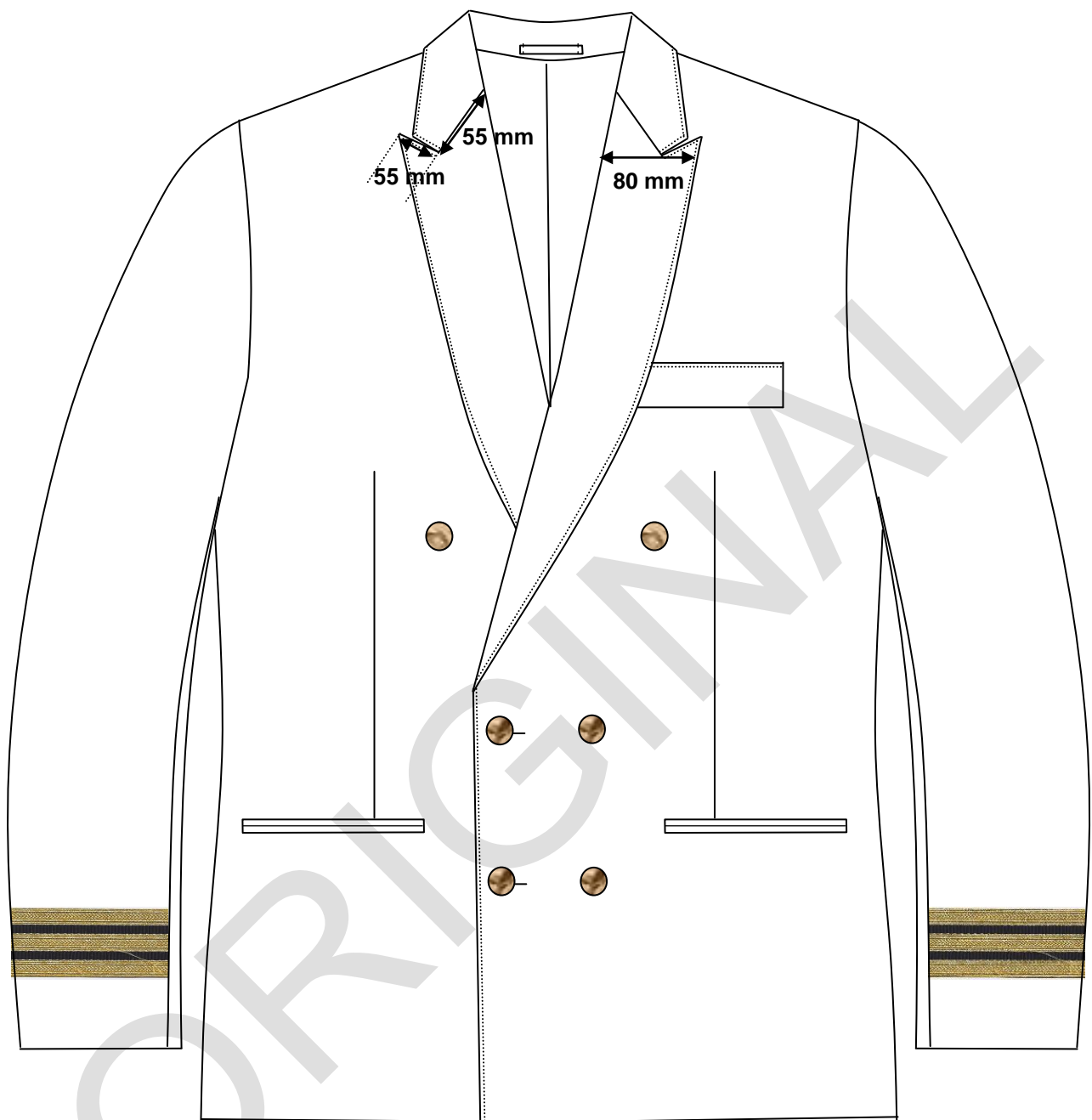


Figure 7 – Lapel dimensions

9.2 Facings and linings

- ◆ each forepart shall have a facing of outer material
 - to be of finished width 30 mm (measured from the break line of the lapel to the facing-to-lining seam at the bottom point of the collar-to-facing seam)
 - shaped to approximately 10 cm at the bottom hem
- ◆ each forepart lining shall have a double jetted breast pocket
- ◆ body lining shall be so cut and made that it conforms to the shape of the jacket
- ◆ centre back seam of the lining shall have a pleat
 - of depth at least 20 mm
 - extends from the neck to the waist
- ◆ there shall be a pleat along the bottom hem of the jacket lining

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9.3 Pockets

a) Side pockets shall:

- ◆ be double jetted
- ◆ be of finished width 15 cm on size designation 42 and graded proportionally for smaller and larger sizes (as relevant and width to be grouped for selected sizes)
- ◆ be positioned at the base of the waist dart and with the front edge 20 mm forward of the dart

Pocket bags

- ◆ of pocketing
- ◆ swing type
- ◆ shall not be caught in with the seams
- ◆ of finished width 17 cm and depth 18 cm on size designation 42 and graded proportionally for smaller and larger sizes (as relevant)

b) Breast pocket shall:

- ◆ be a straight welt pocket
- ◆ be positioned on the left forepart
 - be positioned with the top edge of the welt approximately 70 mm above the base of the scye
- ◆ be such that the welt is of double folded outer material
 - interlined with interlining
 - of finished width 25 mm
- ◆ be of finished length 11 cm on all sizes
- ◆ be securely tacked at each end of the welt
- ◆ be pick-stitched along the top edge of the welt

Pocket bag

- ◆ of pocketing
- ◆ swing type
- ◆ shall not be caught in with the seams or buttons
- ◆ of finished depth 15 cm (measured from the top edge of the welt)
- ◆ of finished width 12 cm

c) Inside breast pockets shall:

- ◆ be positioned on left and right inside lining
- ◆ have a double jetted pocket mouth
 - jets to be of outer material
 - width to be 13.5 cm
 - positioned approximately 20 mm below the base of the scye
 - mouth ends to be vertically bar-tacked and finished with a semi-circular stitching
- ◆ have a pocket bag
 - of lining
 - depth to be 18 cm

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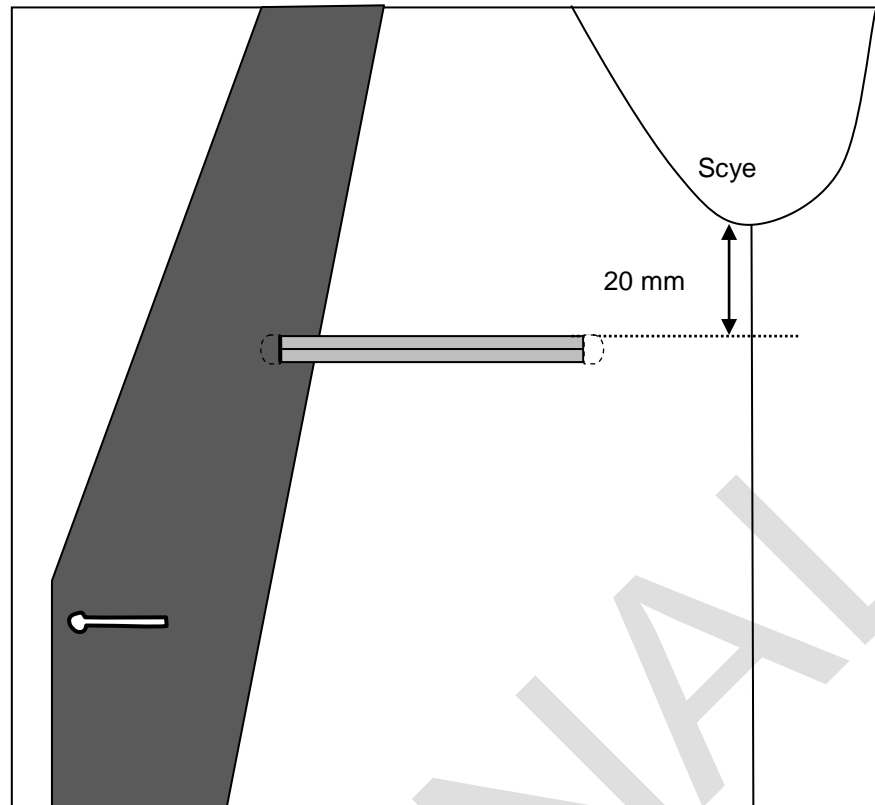


Figure 8 – Inside breast pocket

9.4 Back

Back shall have:

- ◆ a centre back seam and side body panels
- ◆ vents at the base of the two side panels
 - each vent shall be 25 cm long on size designation 42R and graded proportionally on the other sizes (if required)
 - have an overlap of at least 50 mm
 - the top of each vent shall be tacked in such a way that no stitching shows on the outside of the jacket

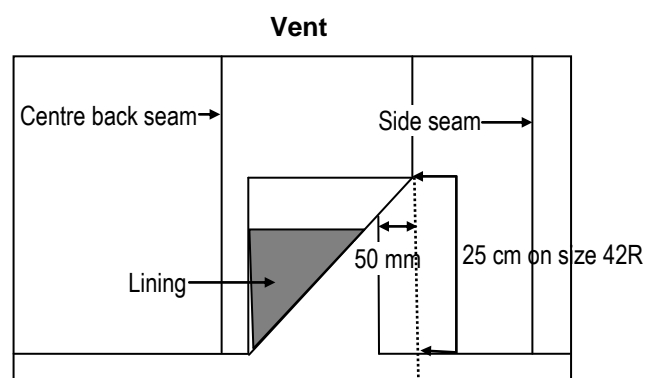
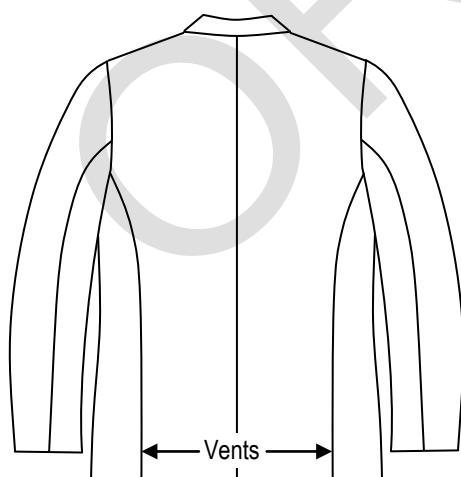


Figure 9 – Back vents

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9.5 Collar

- ♦ top collar to be a one-piece collar
 - of outer material
 - lined with under collar material
- ♦ finished collar to be flat (free from curl) and smooth
- ♦ be pick-stitched along the leaf edge and collar points

Collar shall have:

- ♦ a stand of width 25 mm at the centre back
- ♦ a fall of 45 mm
- ♦ collar points of 40 mm

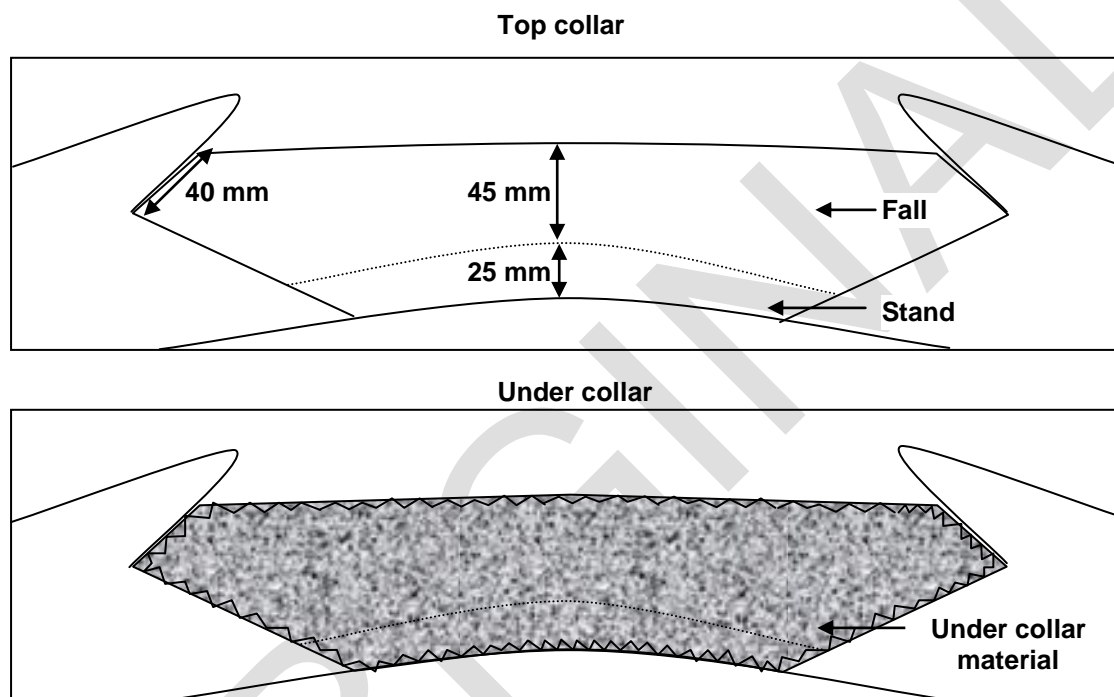


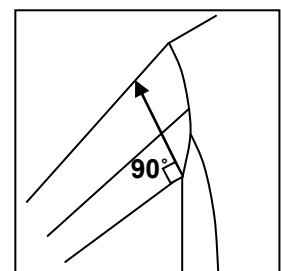
Figure 10 – Collar

9.6 Sleeves

Sleeves shall:

- ♦ be long, two-piece
- ♦ be set-in type and fitted with a shoulder pad and sleeve head roll
- ♦ be stayed at the base of the scye
- ♦ be fully lined
- ♦ bicep circumference to measure 44 cm on size 42 and graded proportionally on smaller and larger sizes (when measured from the base of the scye, perpendicular to the overarm, and multiplied by two)
- ♦ cuff circumference to measure 30 cm on size 42 and graded proportionally on smaller and larger sizes
- ♦ cuffs to be interlined with interlining
 - cuff to have a hem of finished depth 40 mm
- ♦ cuff to be fitted with gold braid (see 6.12 as specified in the order or contract)
 - to be positioned on the top sleeve and sewn in with the forearm and hind-arm seams
 - positioned 90 mm from the cuff edge (see figure 11)
 - braid to be sewn along the top and bottom edges by means of 2 mm edge-stitching

Measuring point of bicep



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IMPORTANT NOTE:
NO TRADE MARK
LABEL OR ANY TYPE
OF IDENTIFICATION
LABEL SHALL BE
ATTACHED TO THE
OUTSIDE OF THE CUFF

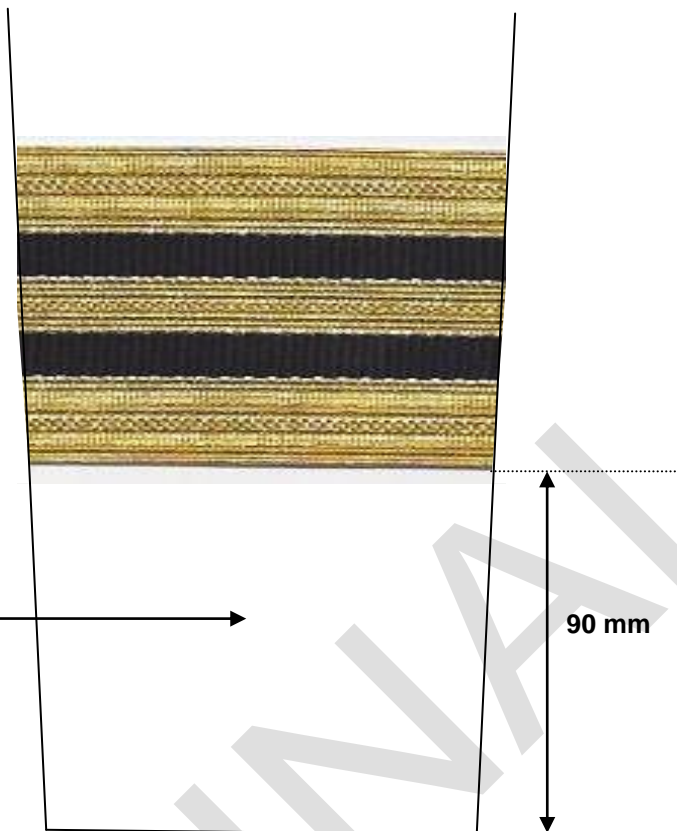


Figure 11 – Positioning of braid on cuff

9.7 Buttonholes

The buttonholes shall be:

- ♦ neatly made
- ♦ barred
- ♦ gimped
- ♦ three in total

Front fastening buttonholes to be:

- ♦ horizontal
- ♦ three jacket type buttonholes
 - one in the right forepart (for the jigger plastic button)
 - positioned at the break point of the lapel
 - two in the left forepart (for the metal shank buttons)
 - positioned with the top buttonhole at the break point of the lapel
 - positioned with the second buttonhole 12 cm below the first
- ♦ of such length as to neatly accommodate the buttons
- ♦ front edges of buttonholes to be positioned 10 mm from the front edge

9.8 Buttons

- ♦ three metal shank buttons sewn to each forepart
 - two buttons to be in line with the buttonholes and 13 cm from the front edge (centers)
 - one button to be positioned 14 cm above the middle button and 17 cm in from the front edge (centers)
- ♦ a jigger button (plastics) to be sewn to the lining on the left forepart
 - attached to the back of the middle button

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- to be sewn on with a neck (thread shank) of finished length 10 mm
- ♦ one spare button (metal shank) shall be placed in a plastic envelope of suitable size and placed in the inside breast pocket

9.9 Hanger

The hanger shall be:

- ♦ of lining or of an acceptable tape
- ♦ of finished length 70 mm
- ♦ of finished width 6 mm
- ♦ stitched down to the centre back on the inside

9.10 Hems

Bottom hem shall be:

- ♦ of finished width 25 mm
- ♦ stayed with fusible interlining
- ♦ turned in and secured to the lining

Cuff hem shall:

- ♦ be of finished width 40 mm
- ♦ be turned in and secured to the lining

10. Stitches, Seams and Stitchings

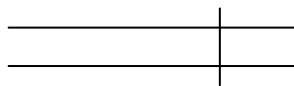
10.1 Stitches

main seaming: single needle lock stitch

10.2 Seams

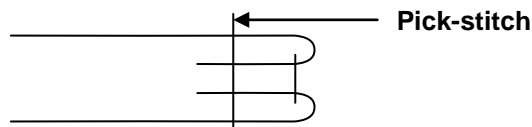
Seams to be at least 10 mm wide (unless otherwise stated):

Body and sleeve seams: seam type SSa and pressed open



Superimpose two or more plies of material and seam with one row of stitches positioned at the specific distance(s) from the aligned edges.

Font edge: seam type SSae-2



Form seam Type SSa-1, using two plies of material. Then turn back each ply at the seam and seam with the appropriate number of rows of stitches, ensuring that when more than one row of stitches is used, one row passes through the folded edges.

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10.3 Number of stitches

The determination of sewing stitches per unit length will be done in accordance with SANS 5278 "Sewing stitches per unit length"

Seaming: 40 ± 4 per 10 cm

Buttonholes: 12 ± 1 per 1 cm

Button: 10 - 12 per button

Edges: 2 stitches per 1 cm

11. Garment labels

NOTE: Tender samples shall be fitted with a printed label displaying the manufacturer's name or trade mark and size.

11.1 Label identification

Each garment shall be fitted with the labels as given in table 3:

Table 3 – Label identification

Type		Requirements
1.	a woven logo jacquard label	See 11.2
2.	a woven jacquard size label	See 11.3
3.	a garment specific printed woven fabric label*	See 11.4
4.	a care-label*	See 11.5
5.	a paperboard swing tag	See 11.6

*These two labels may be separate labels or a single loop label.

11.2 Jacquard logo label

Each label shall:

- ♦ be a woven jacquard label
- ♦ edges to be properly finished to prevent fraying
- ♦ information to be in legible and indelible block letters of height at least 3 mm
- ♦ permanently secured and sewn to the lining below the right lining pocket
- ♦ be such that it shall outlast the garment
- ♦ include the following information:
 - the manufacturer's name or trade mark or both
 - the registered full-colour SAA logo at top of label (see figure below)



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11.3 Jacquard size label

Each label shall:

- ♦ be a woven jacquard loop label
- ♦ edges to be properly finished to prevent fraying
- ♦ information to be in legible and indelible block letters of height at least 3 mm
- ♦ sewn together with the side edge of the jacquard logo label
- ♦ be such that it shall outlast the garment

11.4 Printed garment labels

Each label shall:

- ♦ be white woven rayon label that is printed
- ♦ comply with SANS 1309 "Printed labels for textiles"
 - information to be in legible and indelible block letters of height at least 3 mm
- ♦ permanently secured and sewn to the back facing
- ♦ be such that they outlast the garments (including the markings)
- ♦ include the following information:
 - the item number
 - order number
 - the year and month of manufacture
 - the VAT no of the contractor
 - the country of origin, i.e. "Made in the RSA"

11.5 Printed care-labelling

Each label shall:

- ♦ be white woven rayon label that is printed
- ♦ comply with SANS 1309 "Printed labels for textiles"
 - information to be in legible and indelible block letters of height at least 3 mm
- ♦ permanently secured to the side seam
- ♦ be such that they outlast the garments (including the markings)
- ♦ to provide appropriate care instructions (in accordance with SANS 10011 "Care-labelling of textile piece-goods, textile articles and clothing") in words and symbols
- ♦ provide the fibre composition of the fabric in accordance with the requirements of SANS 10235 "Fibre content labelling of textiles and textile products"

11.6 Printed swing tags

Each swing tag shall:

- ♦ be a white cardboard printed label
- ♦ information to be in legible and indelible block letters of height at least 3 mm
- ♦ include the following information:
 - the size designation
 - the item number
 - the item description
 - the month and year of manufacture
 - the order number

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12. Packaging and marking of packaging

12.1 Packing

12.1.1 The jackets shall be:

- ♦ delivered in a pressed and commercially dry condition
- ♦ so packed that they will not be damaged in transit or in storage
- ♦ individually placed on a hanger and packed in a plastics envelope of suitable size and shape
- ♦ unless otherwise specified in the order or contract, acceptably packed for transportation in bulk containers

12.1.2 Jackets:

- ♦ of the same size designation to be packed together in a bulk container (unless quantities ordered are such that packing together of the same size is not justified)
- ♦ of different size designations may also be packed together to accommodate the last part of an order or contract

12.2 Marking

12.2.1 Plastics envelopes

Each envelope to be clearly marked with the following information:

- ♦ the item number
- ♦ the item description
- ♦ size designation
- ♦ the order number
- ♦ month and year of manufacture

12.2.2 Bulk containers

Each bulk container shall have a label securely attached to the outside. This label shall be visible when the containers are stacked and shall provide the information in legible and indelible markings as follows:

- ♦ the manufacturer's name or trade mark or both
- ♦ the order number or contract number
- ♦ the item description
- ♦ the item number
- ♦ the size designation
- ♦ the quantity of the item
- ♦ the **month and year** of manufacture
- ♦ the order number
- ♦ the box number, e.g. "1 of 5"
- ♦ the total mass of the packed container
- ♦ the Inspection Certificate Number

12.3 Additional marking

When so required by the South African Airways, jackets, plastics envelopes or containers (or any combination of these) to bear information additional to that specified above.

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13. Normative References

The following documents contain provisions which, through reference in this text, constitute provisions of this specification. All documents are subject to revision and, since any reference to a document is deemed to be a reference to the latest edition of that document, parties to agreements based on this specification are encouraged to take steps to ensure the use of the most recent editions of the documents indicated below. Information on currently valid national, international and CKS documents may be obtained from the South African Bureau of Standards *.

AATCC method 20, *Fiber analysis: Qualitative*. Available from World Wide Web
<http://www.aatcc.org/Technical_Test_Methods/scopes/tm20.cfm>

CKS 129, *Colours for textiles*.

ISO 3175-2, *Textiles – Dry cleaning and finishing – Part 2: Procedures for tetrachloroethene*.

ISO 6940, *Textile fabrics – burning behaviour – determination of ease of ignition of vertically oriented specimens*.

SANS 79, *Textiles - Mass per unit area of conditioned fabrics*.

SANS 105-B02/ ISO 105-B02, *Textiles - Tests for colour fastness Part B02: Colour fastness to artificial light: Xenon arc fading lamp test*.

SANS 105-D01/ISO 105-D01, *Textiles - Tests for colour fastness Part D01: Colour fastness to dry cleaning*.

SANS 105-E04/ISO 105-E04, *Textiles - Tests for colour fastness Part E04: Colour fastness to perspiration*.

SANS 979, *Textile products - Permanent mothproofing*.

SANS 1303-1, *Wrought copper alloys Part 1: Chemical composition of copper-zinc alloys (non-leaded and leaded)*.

SANS 1362, *Sewing threads*.

SANS 1387, *Woven cotton and similar apparel fabrics Part 7: Jacket linings*.

SANS 5113, *Non-fibrous material content of wool*.

SANS 5580, *Pesticides: Biological evaluation of mothproof textiles containing wool*.

SANS 5582, *Pesticides: Biological evaluation of dry-cleaning-durability properties of mothproof textiles containing wool*.

SANS 6009, *Abrasion resistance of textile fabrics (Martindale test)*.

SANS 6116, *Resistance of textile fabrics to pilling and fuzzing (Random tumble method)*.

* South African Bureau of Standards: Tel. +27 (0) 12 4287911

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SANS 7211-2/ISO 7211-2, *Textiles - Woven fabrics - Construction - Methods of analysis Part 2: Determination of number of threads per unit length.*

SANS 10076-5, *The assessment of defects in textile piece-goods and made-up articles Part 5: Defects in woven woolen and worsted piece-goods.*

SANS 10235, *Fibre-content labelling of textiles and textile products.*

SANS 10371, *Terms and definitions for clothing.*

SANS 13934-1/ISO 13934-1, *Textiles - Tensile properties of fabrics Part 1: Determination of maximum force and elongation at maximum force using the strip method.*

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ANNEX A

(Normative)

Gold plating requirements

The significant surface as well as the reverse of the buttons shall be electroplated with gold:

The gold coating shall:

- ♦ be electroplated with a uniform and bright deposit of gold
- ♦ have a minimum gold content of at least 995 parts per 1 000, when tested with an acceptable non-destructive test method (e.g. an instrument operating on the beta-ray back-scatter principle)
- ♦ colour to comply with the sample held by the South African Airways
- ♦ have no contact marks from the electroplating process
- ♦ render a clean surface
- ♦ adhere firmly to the base metals
- ♦ when viewed at a distance of 350 mm, be free from the following defects
 - blisters, pits, roughness, cracks, stains, discoloration and/or mechanical damage

The thickness of the coating shall be:

- ♦ 1µm at any point
- ♦ be tested by using an acceptable non-destructive test method (e.g. an instrument operating on the beta-ray back-scatter principle) to determine the thickness on the obverse and reverse sides of the button and badge

The discontinuity of the coating shall be tested as follows:

- ♦ use a volume fraction of 50% aqueous solution of nitric acid at 25°/25° C = 1,42 maintained at 18 °C ± 2°C
- ♦ immerse the badge to a suitable depth, in the acid for (60 ± 2) s

Regard the following as evidence of discontinuity:

- ♦ evolution of gas bubbles during immersion
- ♦ imparting of a blue colour to the acid solution
- ♦ definite change on the obverse or reverse sides of the button on removal from the acid solution
- ♦ more than 6 pinpoint defects on the obverse or reverse of the button

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ANNEX B

(Normative)

Special conditions of tender

B-1 GENERAL

B-1.1 Unless otherwise stated, the South African Airways (or an organization deputed by it) shall be the inspecting authority.

Any applications for deviations from drawings or the specification, or any laid down process, treatment or procedures as set out in this specification, must be made to the SA Airways and verified by the inspection authority. All applications must be submitted in writing.

B-1.2 Three pre-production sample jackets in different size designations, shall have been inspected, tested and approved by the inspecting authority before bulk production is commenced. Each one of these samples shall be accompanied by a trim chart containing a sample of each component material (as given in 6) and the relevant certificates, including verification certificates of the fabric. It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

B-1.3 The jackets shall be subject to inspection during the course of manufacture. The inspector shall, during normal working hours, be given all reasonable facilities for carrying out his duties and shall have the right of entry into the contractor's factory and the factory or works of any subcontractor where work on jackets supplied to this specification may be in progress

B-1.4 The contractor shall inspect the finished jackets for compliance with the specification before submitting them to the inspecting authority for final inspection.

B-1.5 Before acceptance, the jackets shall have been inspected and tested by the inspecting authority and found to comply with the requirements of the specification.

B-2 DOCUMENTATION

One container of each consignment shall be marked "DOCUMENTS" and in addition to the jackets, shall contain the following:

- a) The packaging slip or delivery note;
- b) where applicable the inspection certificate(s);
- c) a copy of the invoice containing the following information:
 - the order number
 - the financial authority number
 - a full description of the consignment, i.e. Item Number, quantity, etc

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ANNEX C

(Normative)

CKS 129 Colours

Due to the fact that colours can change over a period of time, any colour standard which has been registered for a period of SEVEN YEARS or more shall be considered obsolete. These standards shall then be allocated an archived status (as opposed to current status) and re-registration shall be required.

NOTE: *Before fabric is sent to SABS for colour registration purposes, the successful bidder shall confirm with SABS whether a submission is required or not.*

A. The following scenarios require a submission of three metres of fabric from the successful tenderer:

1. A colour standard is archived.
2. First time registration is required (CKS 129 colour number does not exist).
3. Colour swatch stock at the SABS is no longer available.

B. Requirements for the submission of fabric as identified in A:

1. The colour shall be as agreed upon between the South African Airways and the successful bidder.
2. The fabric shall be used to make new colour swatches which shall be the responsibility of the SABS.
3. The cost of the three metres of fabric shall be incorporated in the relevant bid submission.

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HISTORY SHEET				
VERSION	DATE	AMENDMENTS/HISTORY	CHECKED	
			NAME	INIT.
001	June 2007	First release		
02.0	September 2015	Amend spec to reflect sample Add note about local content Add note to omit all labelling on cuff Add detail of gold braid and CKS 129 Colour Add detail of gold plated buttons Omit buttonhole in lapel Change collar to one-piece collar Change lapel dimensions as per sample Omit flammability requirement Correct measuring point for depth and scye and sleeve length		

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