

PRIVATE SPECIFICATION

Prepared for the



SOUTH AFRICAN AIRWAYS

A STAR ALLIANCE MEMBER 

MEN'S CABIN CREW WHITE CLOSED NECK SHIRT, (LONG SLEEVE & SHORT SLEEVE)



Document Number: SAA 925

Item Number: CM03

Version 01.0/April 2014

1. Scope

This specification covers the material, cut and make of long and short sleeved shirts for male cabin crew staff of the South African Airways. The garment variations covered in this specification are as given in table 1.

Table 1 – Garment variations

Type			Item Number
1.1	Short sleeve	Cabin crew shirts	CM03
1.2	Long sleeve		-

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

The style is as follows:

- ♦ closed-neck shirt
- ♦ laid-on buttonhole stand
- ♦ two-piece collar
- ♦ one breast pocket
 - pockets to have rounded bottom corners
- ♦ double back yoke that shall extend onto the front
- ♦ have a pleat below the yoke
- ♦ one-piece set-in sleeves
 - short and long sleeve variations
- ♦ slightly shaped side seams
- ♦ shaped bottom hem
- ♦ back panel to be cut with a tail

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4. Illustrations

Illustrations are not to scale and are for guidance only.

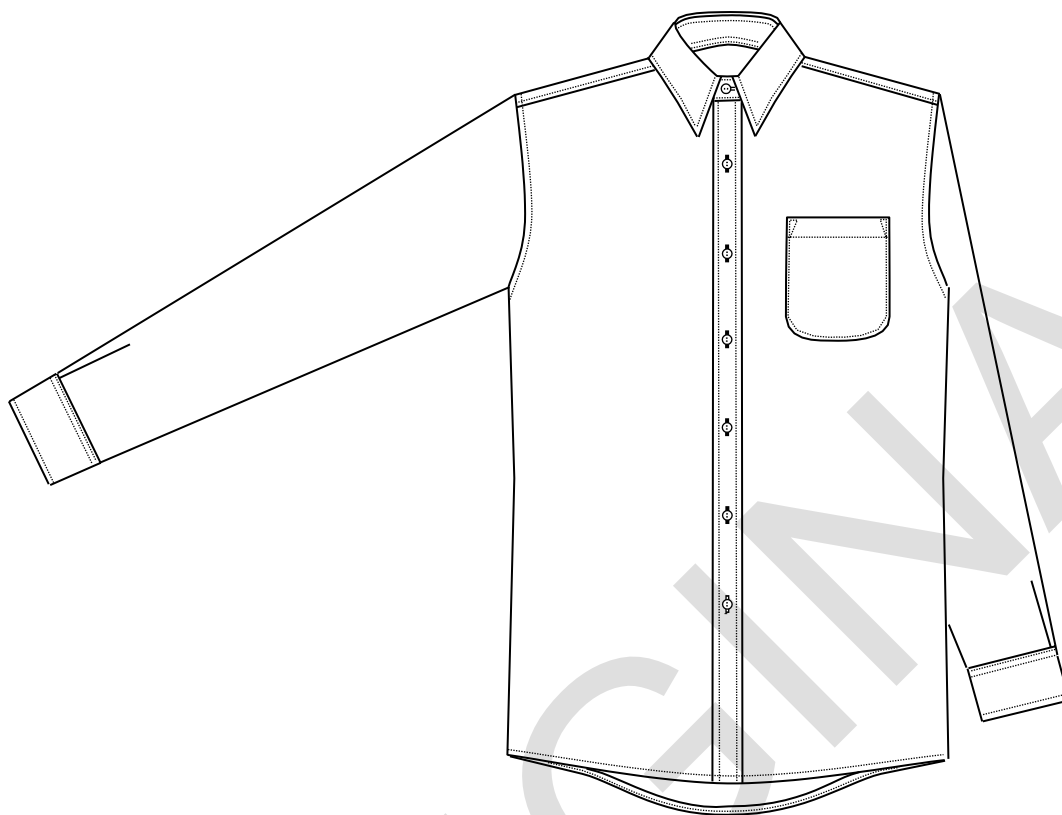


Figure 1 – Front, Long Sleeve

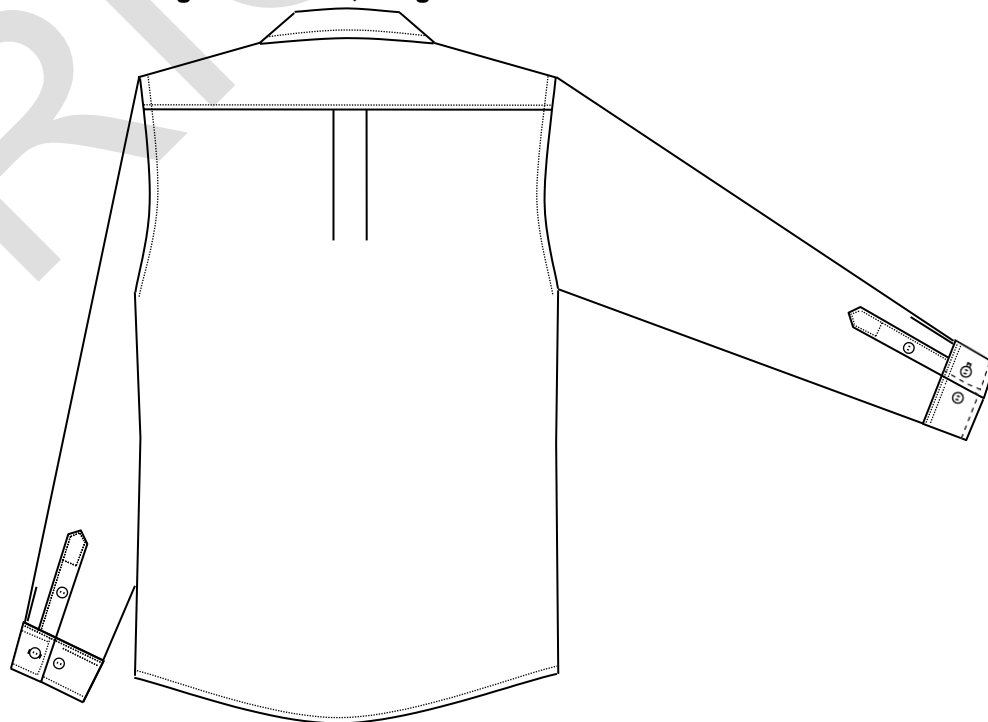


Figure 2 – Back, Long Sleeve

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Figure 3 – Front, Short Sleeve

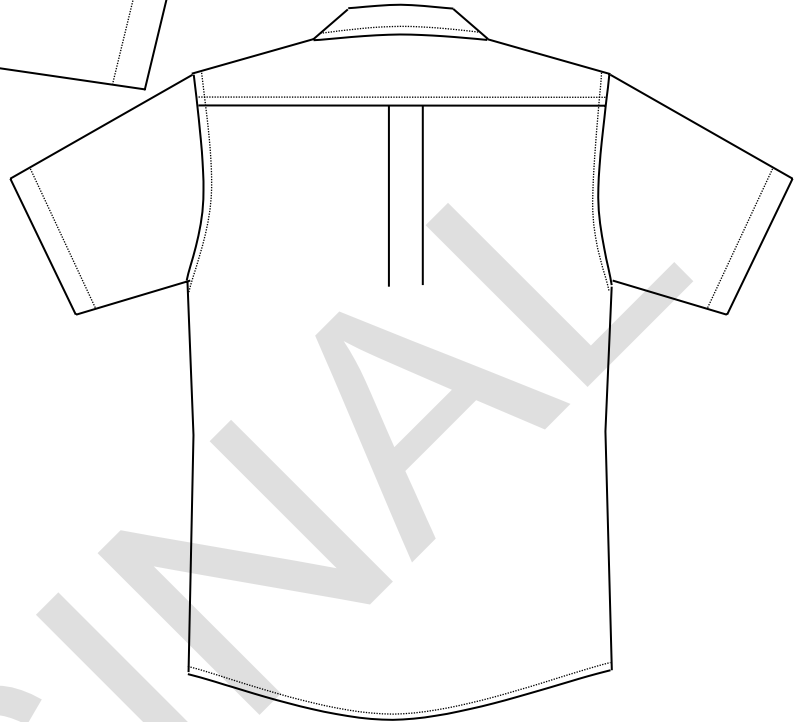


Figure 4 – Back, Short Sleeve

5. Client Furnished Materials

No materials will 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 A).

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

- ◆ to comply with the requirements as given in table 2
- ◆ to incorporate a moisture management system and silver finish to enhance comfort and hygiene
- ◆ colour to be an acceptable match, in terms of SANS 10076-1, "The assessment of defects in textile piece-goods and made-up articles Part 1: Defects in woven piece-goods (cellulosic and cellulosic blends)" to colour No. 638c-2014 "SAA White Shirting" of CKS 129 "Colours for textiles"

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Table 2 – Outer material requirements

1	2	3
Property	Requirement	SANS standard unless otherwise indicated
Composition, %		1833-1 and 1833-11
Polyester	60 ± 5	
Cotton	40 ± 5	
Weave	Plain	Visual examination and physical analysis
Mass per area, g/m², min.	100	ISO 3801
Number of threads per centimetre		7211-2
Warp, min.	38	
Weft ^a	28	
Breaking strength, N, min.		13934-1
Warp	400	
Weft	600	
Tearing strength, N, min.		13937-2
Warp	12	
Weft	12	
Seam slippage, N, min.		ISO 13936-1
Warp	180	
Weft	180	
Resistance to pilling ^b, rating, min.	4 (slight)	6116
Resistance to abrasion^c		6009
Rubs to endpoint, min.	20 000	
Dimensional changes on laundering @ 40°C, % max.		11167,
Warp	3	Washing procedure F4/T4
Weft	3	Drying procedure A
Colour fastness to:		
Washing, rating, min.		11166, Procedure A
Change in colour	4	
Staining	4	
Perspiration, rating, min.		105-E04
Change in colour	4	
Staining	3-4	
Rubbing, rating, min.		105-X12
Dry	4	
Wet	3-4	
Light, rating, min.	5	105-B02

^a Subject to a tolerance of – 10 %.

^b After washing the test specimens in accordance with SANS 11108, Procedure B.

^c Under a pressure of 9 kPa.

6.2 Interlining

- ◆ an acceptable fusible woven or non-woven interlining
- ◆ to comply with the requirements of CKS 627 “Fusible interlinings”
- ◆ interlining to be so bonded to the outer material that the bonded material:
 - has a uniform finish
 - is free from perforations, untreated areas and other imperfections (e.g. blisters and ripples)
- ◆ suitable for use in garments which are to be washed

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- ◆ colour to be white

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

The purchaser reserves the right to change the type of interlining used during production, should the appearance of the finished garments be unsatisfactory.

6.3 Buttons

- ◆ four-hole
- ◆ clear plastics
- ◆ nominal diameter of 12 mm
- ◆ to comply with the requirements of SANS 1457 "Plastics buttons"
- ◆ of nominal thickness 2.5 mm (rim thickness)

6.4 Stiffener

- ◆ an acceptable adhesive (stick on) plastics material
- ◆ shaped to suit the collar point
- ◆ to be of nominal length 55 mm and width 15 mm (given for guidance)
- ◆ nominal thickness 0.3 mm – 0.5 mm

6.5 Threads

- ◆ to comply with relevant requirements of SANS 1362 "Sewing threads"
- ◆ colour to be an acceptable match to the colour of the outer material

Sewing and buttonhole thread:

- ◆ polyester-and-cotton core-spun **OR** staple polyester
- ◆ ticket No 120

Overlocking thread:

- ◆ crimp-textured polyester **OR** crimp-textured polyamide, ticket No 140

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7. Workmanship

The shirts 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
- ◆ 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

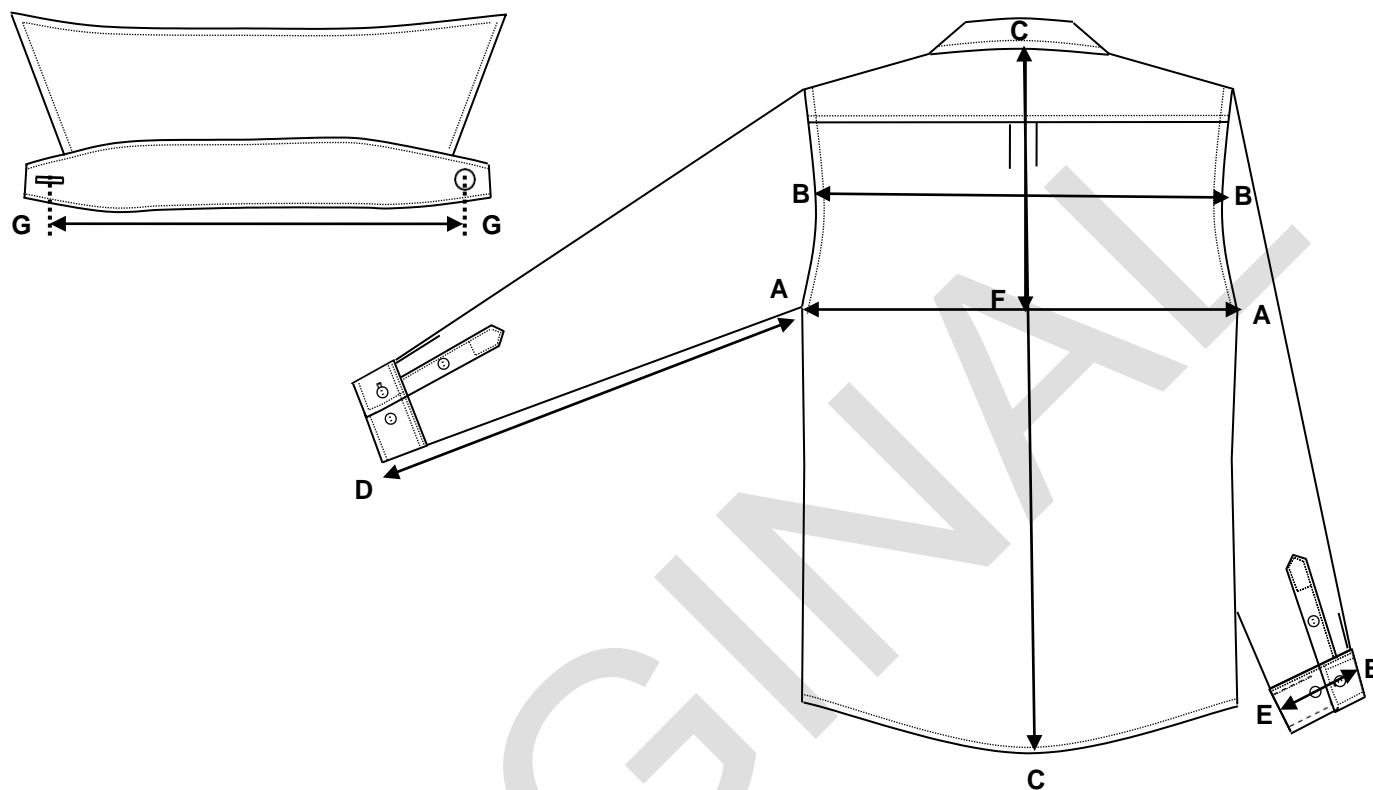
Ends of sewing shall be:

- ◆ trimmed and loose threads removed
- ◆ back-tacked if unsecured

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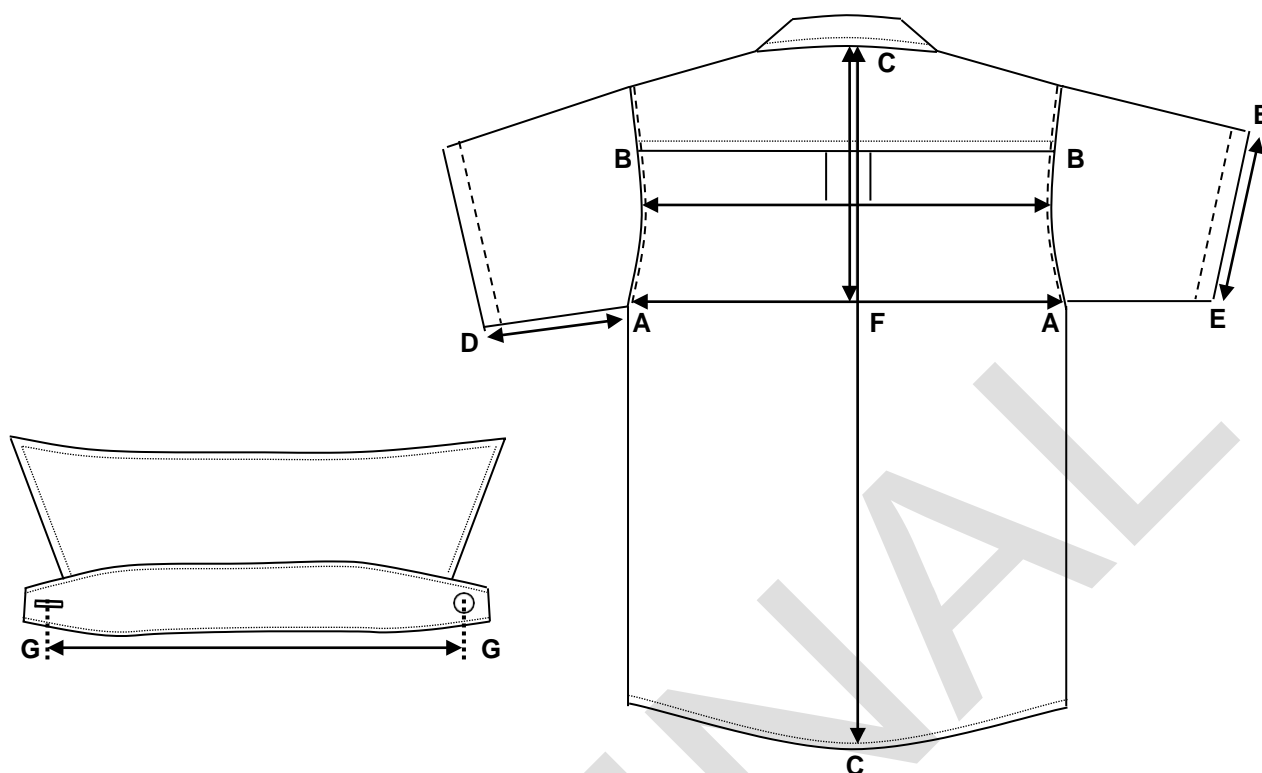
8. Sizes and dimensions

Shirt measurements:



MEASURING POINT		DESCRIPTION
G – G	Collar length	Measure in a straight line from the centre of the button to the centre of the buttonhole.
A – A	Chest circumference	Measure at the base of the scye, with buttons fastened, garment spread completely flat, pleats open and multiply by two.
B – B	Back width	Measure across the width of the back at the midpoint of the scye, with pleats open, from sleeve seam to sleeve seam.
C – C	Back length	Measure from the centre back neck seam to the bottom edge of the garment.
A – D	Underarm sleeve length	Measure from the base of the scye to the outer edge of the sleeve.
E – E	Cuff circumference	Measure the width at the centre of the cuff, buttoned to the first button and multiply by two.
C – F	Depth of scye	Measure from the centre back neck to the level of the base of the scye.

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MEASURING POINT		DESCRIPTION
G – G	Collar length	Measure in a straight line from the centre of the button to the centre of the buttonhole.
A – A	Chest circumference	Measure at the base of the scye, with buttons fastened, garment spread completely flat, pleats open and multiply by two.
B – B	Back width	Measure across the width of the back at the midpoint of the scye, with pleats open, from sleeve seam to sleeve seam.
C – C	Back length	Measure from the centre back neck seam to the bottom edge of the garment.
A – D	Underarm sleeve length	Measure from the base of the scye to the outer edge of the sleeve.
E – E	Cuff circumference	Measure the width at the outer edge of the cuff and multiply by two.
C – F	Depth of scye	Measure from the centre back neck to the level of the base of the scye.

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Table 3 – Size range

1	2	3	4	5	6		7		8
Size design- ation ¹	Nominal finished garment measurements, cm								
	Collar Length	Chest Circum- ference	Back Width	Back Length	Sleeve Length		Cuff Circumference		Depth of Scye ²
					long	short	long	short	
36	36.5	106.4	48	81.4	55	16	22	36	27
37	37.5	109.6	49	81.8	55	16	22	37	27.4
38	38.5	112.8	50	82.2	55	16	22	38	27.8
39	39.5	116	51	82.6	55	16	22	39	28.2
40	40.5	119	52	83	55	16	22	40	28.6
41	41.5	122	53	83.4	55	16	24	41	29
42	42.5	126	54	83.8	55	16	24	42	29.4
43	43.5	130	55	84.2	55	17	24	43	29.8
44	44.5	134	56	84.6	55	17	24	44	30.2
45	45.5	138	57	85	55	17.5	24	45	30.6
46	46.5	142	58	85.4	55	17.5	24	46	31
47	47.5	146	59	85.8	55	17.5	26	47	31.4
48	48.5	150	60	86.2	55	18.5	26	48	31.8
49	49.5	154	61	86.6	55	18.5	26	49	32.2
50	50.5	158	62	87	55	18.5	26	50	32.6
51	51.5	162	63	87.4	55	18.5	26	51	33
52	52.5	166	64	87.8	55	18.5	26	52	33.4
¹ Based on the neck girth in centimetres of the intended wearer.									
² Given for guidance.									

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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 Fronts

Fronts to:

- ♦ to fasten left over right
- ♦ have slightly shaped side seams
 - shaped bottom hems with a 40 mm drop from the side seam to centre front
- ♦ be top-stitched 6 mm along the sleeve insertion seam

Left front to:

- ♦ incorporate a buttonhole stand
 - interlined with interlining and of finished width 35 mm
 - edge-stitched 6 mm along both edges
 - to extend from the gorge seam to the bottom hem
 - fitted with six buttonholes (excluding the buttonhole in the collar stand)
 - vertical shirt-type buttonholes
 - of such length as to neatly accommodate the buttons
 - neatly made and barred at the ends
 - centrally positioned in the buttonhole stand
 - first buttonhole shall be positioned 75 mm below the buttonhole in the collar stand (centres)
 - remaining buttonholes shall be equidistantly spaced at 9 - 10 cm intervals (centres)

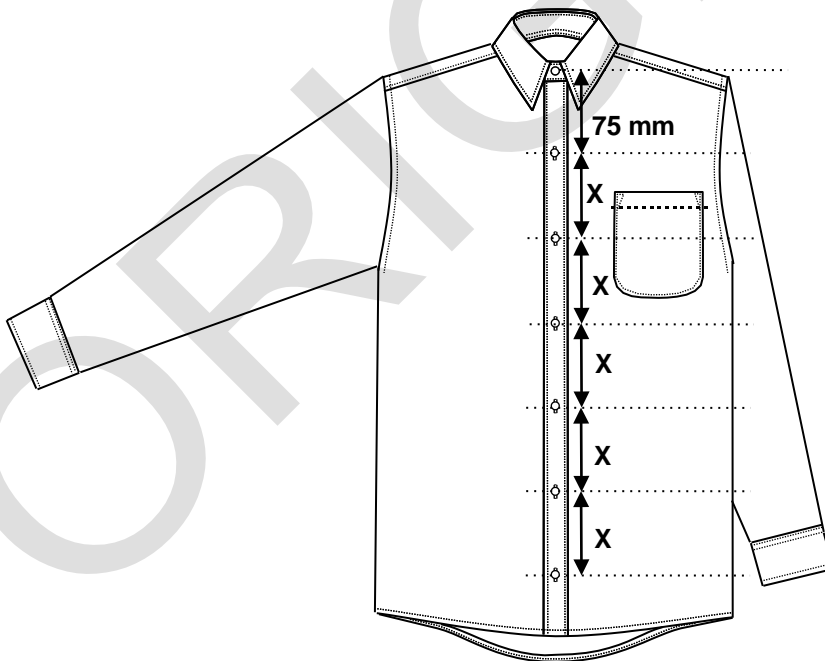


Figure 5 – Buttonhole positions

Right front to:

- ♦ have a grown-on (cut-in-one with front) facing, forming the buttonstand
 - free edge to be turned in 27 mm, folded over 27 mm and stitched down 2 mm from the turned in edge
 - to be fitted with six buttons (excluding button in collar stand)

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- in corresponding positions to the buttonholes in the buttonhole stand
- to extend from the gorge seam to the bottom hem

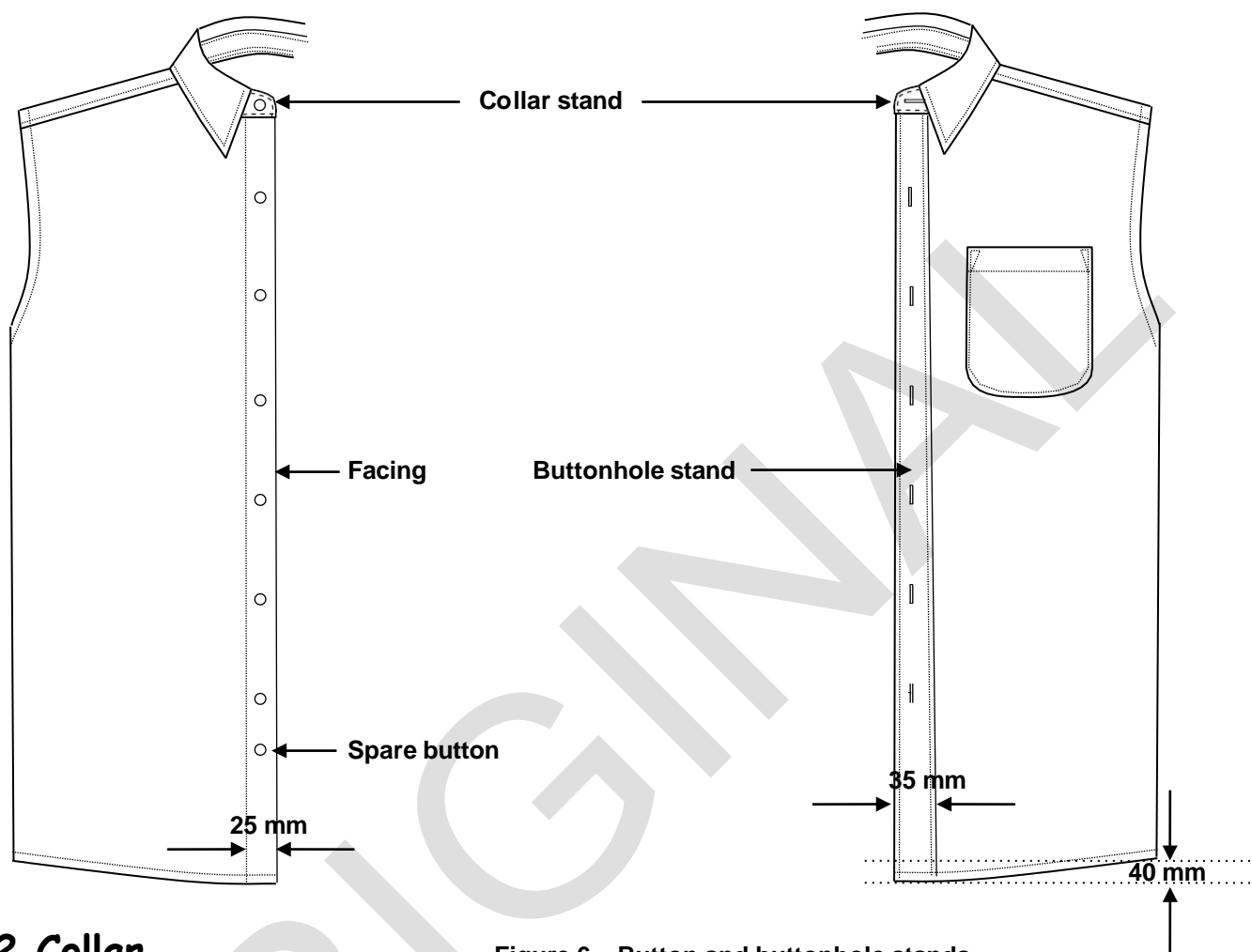


Figure 6 – Button and buttonhole stands

9.2 Collar

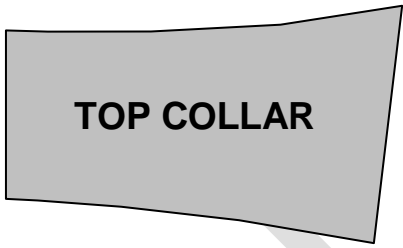
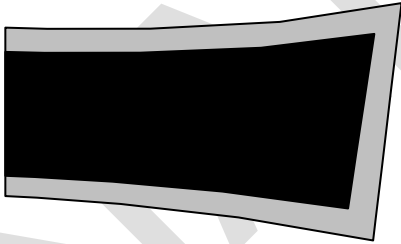
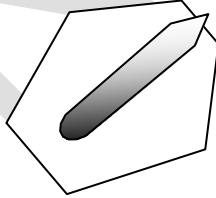
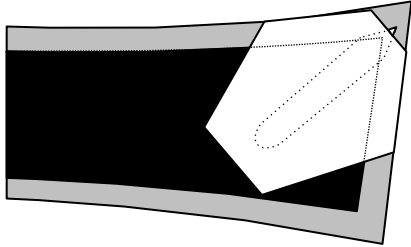

Collar to be:

- ◆ a two-piece shirt-type collar
- ◆ lined with outer material
- ◆ interlined with interlining as follows (see table 4):
 - a layer of interlining the full size shall be fused to the top collar
 - an additional layer of interlining shall be fused to the top collar (excluding all seams)
- ◆ fitted with plastics stiffeners
 - stuck-on type
 - see table 4 for guidance
 - stiffener facing up
 - inserted between the top and under collar at the points
 - to be kept in position by the collar top-stitching
- ◆ edge-stitched 6 mm along the leaf edge
- ◆ such that the points shall be of finished length 70 mm
- ◆ of finished depth 45 mm (fall)
- ◆ flat (i.e. free from curl) and smooth

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Table 4 – Collar with stuck-on type stiffeners

NOTE: The patch* as referred to in Steps 3 and 4 is given for guidance only, and not a requirement. Alternative methods may also be used as long as it results in a collar that is acceptable to the South African Airways.

STEP	DESCRIPTION	ILLUSTRATION
1	Fuse interlining to top collar (top to bottom)	
2	Fuse another layer of interlining on top of the layer as described in step 1, but without the seam allowances.	
3	Attach adhesive plastics stiffener to a patch* of outer material and position correctly.	
4	Position the patch* on top of the top collar in such a way that the stiffener shall be sandwiched between the patch of outer material and top collar interlining.	
5	Fuse interlining to the collar stand, excluding the seam allowances at the neck seam and front edge	

Collar stand to:

- ♦ be of outer material
- ♦ be interlined with interlining (excluding the neck and centre front seam)
- ♦ be lined with outer material
- ♦ be of finished depth 35 mm
- ♦ have rounded front corners
- ♦ be edge-stitched 2 mm along all edges

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- ◆ be fitted with a button and buttonhole
 - positioned in such a way that there shall be a 5 mm gap between the upper edges of the collar when fastened
 - button to be positioned on the right front edge and in a corresponding position to that of the buttonhole
 - buttonhole to be positioned on the left front edge
 - horizontal
 - shirt type
 - neatly made and barred at each end
 - centrally positioned in the depth of the collar stand
 - of such length as to neatly accommodate the button

NOTE: The seam joining the stand to the fall shall be turned down into the stand and top-stitched. Sufficient hollow shall be given to the fall of the collar that when the shirt is fastened, there shall be enough length on the leaf edge to allow the collar to sit snugly around the neck.

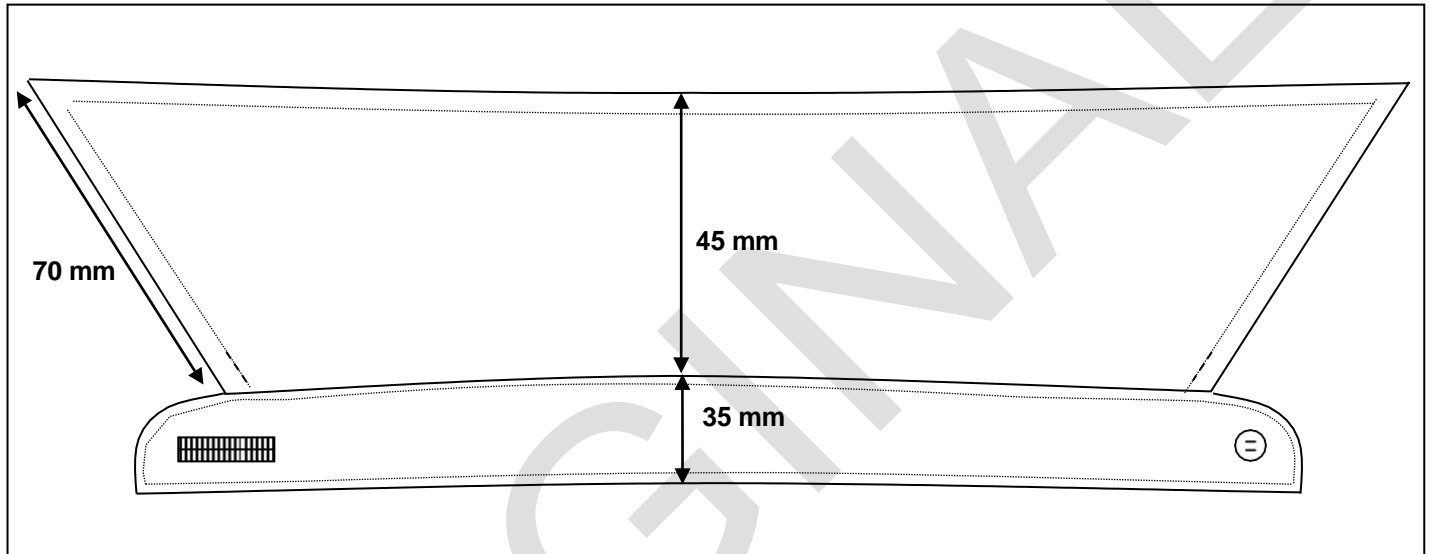


Figure 7 - Collar

9.3 Pockets

Pockets to be:

- ◆ patch pockets
- ◆ positioned on the left front chest area
- ◆ positioned with the front edge parallel to the front edge of the shirt and as given in table 6
- ◆ of dimensions as given in table 5
- ◆ cut with rounded corners (see figure 8 for guidance)
- ◆ positioned 19.5 cm below the neck point on shirts of size designation 40 and graded proportionally on the other sizes (see figure 8)

Pocket mouth hems to be:

- ◆ of finished depth 25 mm (see figure 8)
- ◆ secured with box-tacks at the outer edges or alternatively triangular tacks along the full depth of the pocket mouth

Side and bottom edges to be:

- ◆ turned in 10 mm and stitched down 2 mm from the turned in edges

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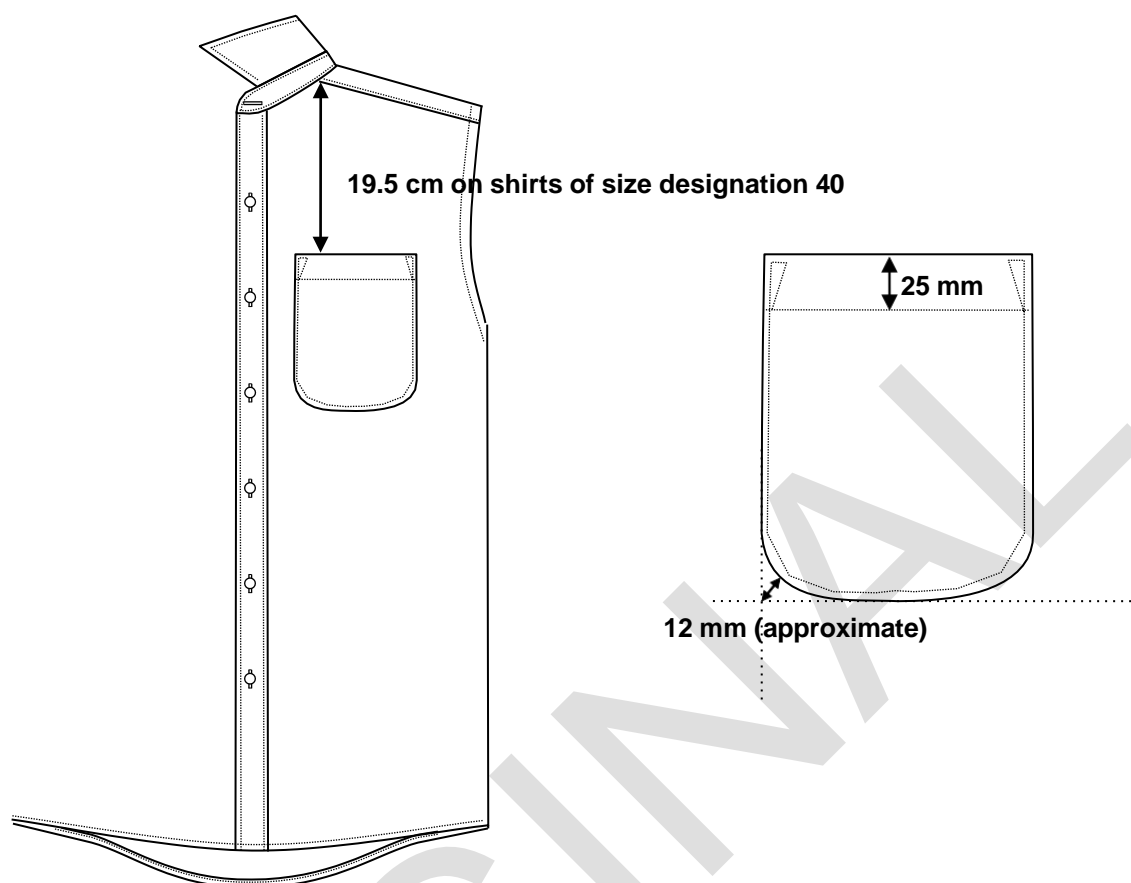


Figure 8 – Pocket positioning

Table 5 – Pocket dimensions

1 Size designation	2 Width	3 Depth
36 to 39	12 cm	13 cm
40 to 52	13 cm	14 cm

Table 6 – Pocket positioning

1 Size designation	2 Distance of the front edge of the pocket to the front edge of the shirt
36 to 39	60 mm
40 to 45	70 mm
46 to 52	80 mm

9.4 Back

Back to:

- ♦ have a double yoke of finished depth 75 mm at centre back and top-stitched 2 mm along the shoulder and back yoke seams
- ♦ cut in such a way that it shall extend 20 mm forward of the natural shoulder line
- ♦ cut in such a way that it shall have a tail as given in figure 9

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- ♦ have a centrally positioned box pleat positioned below the yoke seam
 - of finished depth 40 mm

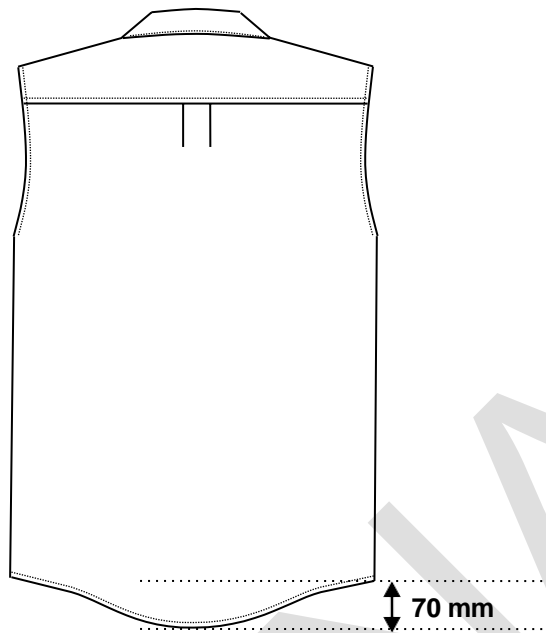


Figure 9 – Back tail

9.5 Sleeves

9.5.1 General

- ♦ one-piece
- ♦ set-in
- ♦ seamed under the arms
- ♦ supplied as long and/or short sleeves as given in the order or contract

9.5.2 Long sleeves

The sleeves shall have:

- ♦ two knife pleats
 - of finished depth 15 mm
 - positioned with the first pleat 40 mm from the placket
 - positioned with the second pleat 20 mm from the first pleat towards the forearm
- ♦ have cuffs
 - a single cuff of outer material
 - lined with outer material
 - interlined with interlining
 - of finished depth 65 mm
 - have square corners
 - shall fasten in the centre with a button and buttonhole
 - edge-stitched 6 mm along the side and bottom edges
 - edge-stitched 1 mm and 6 mm along the sleeve-to-cuff seam
 - fitted with a buttonhole
 - shirt type
 - neatly made and barred at the ends
 - of finished length 15 mm
 - horizontal
 - positioned 10 mm from the free edge
 - fitted with a button

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- in a corresponding position to the buttonhole
- ◆ a hind-arm opening
 - finished off with a laid-on placket
 - placket to be of outer material
 - of finished length 18 cm (measured from the buttonhole on the cuff to the top edge)
 - placket of finished width 25 mm
 - fitted with a centrally positioned button and buttonhole

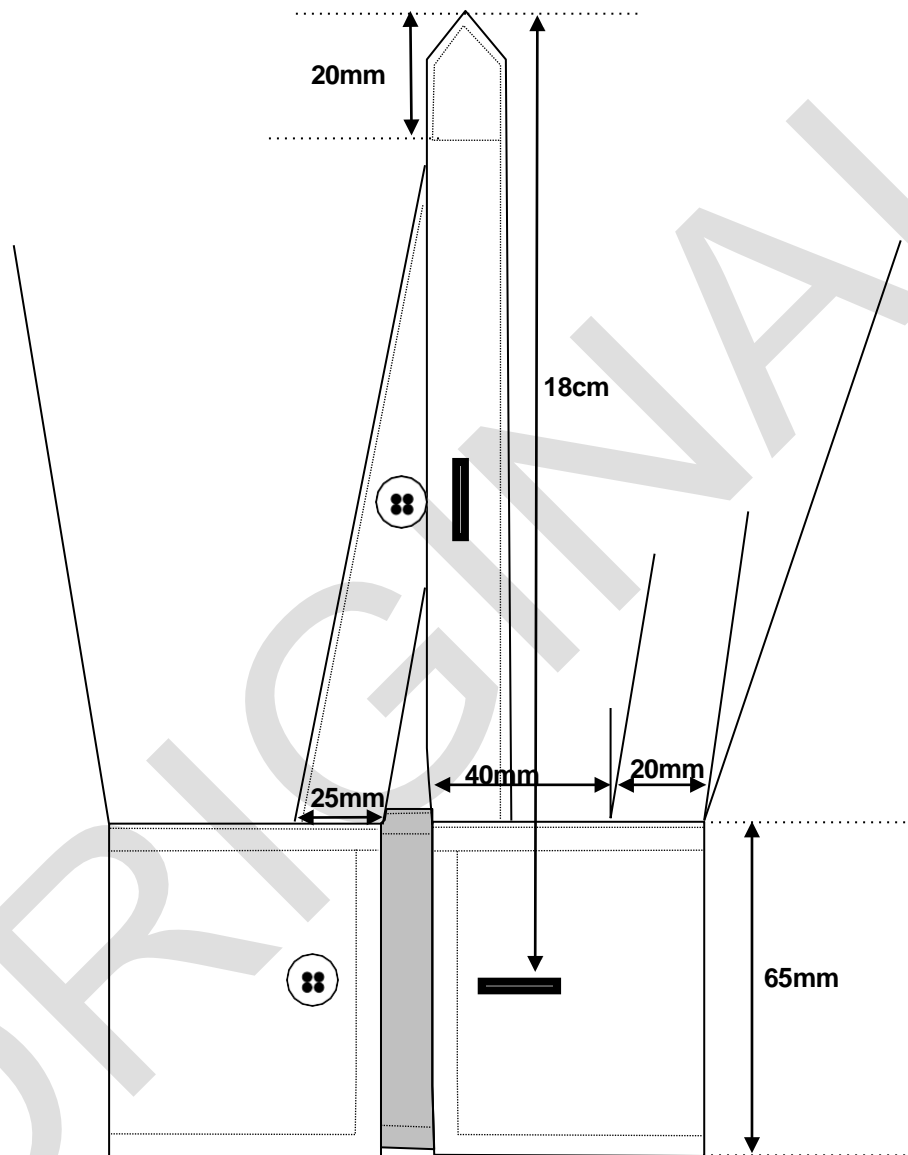


Figure 10 – Cuff and cuff opening

9.5.3 Short sleeves

- ◆ to have a finished hem of 30 mm

9.6 Spare buttons

- ◆ one spare button shall be sewn to the button stand below the lowest button (see figure 6)

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9.7 Bottom hem

The bottom hem shall be:

- ♦ a rolled hem
- ♦ of finished width 5 mm

10. Stitches, Seams and Stitchings

10.1 Stitches

main seaming: safety stitch

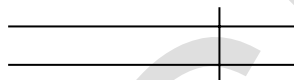
overlocking stitch: three thread overlocking stitch

other stitches: single needle lock stitch

10.2 Seams

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

Side and sleeve seams: seam type SSa



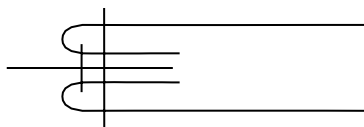
Superimpose two or more plies of material and seam with one row of stitches positioned at the specific distance(s) from the aligned edges.

Leaf collar edge: Seam type SSa-2



Form seam Type SSa-1, using two plies of material. Then turn back each ply at the seam and seam through the turned edges with the appropriate number of rows of stitches.

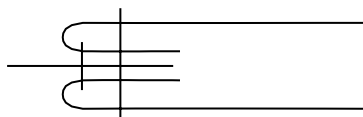
Back yoke seams: seam type SSq-2



Form seam Type SSa-1, using three or more plies of material. Then turn each outer ply back at the seam.

Front yoke seams: one of following options:

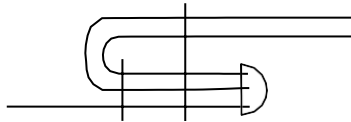
OPTION 1: seam type SSq-2



Form seam Type SSa-1, using three or more plies of material. Then turn each outer ply back at the seam and seam with the appropriate number of rows of stitches.

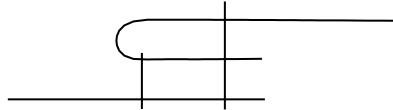
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OPTION 2: seam type LSbm-3 (amended)



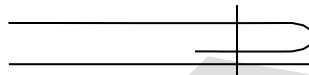
Form seam Type SSa-2 (using three plies of material) with one row of overedge stitches. Then turn the two top plies back at the seam and seam with the appropriate number of rows of stitches

Sleeve insertion seam: seam type LSq-2



Form seam Type SSa-1, using two plies of material. Then turn back the top ply at the seam and seam with the appropriate number of rows of stitches.

Pocket to shirt: seam type LSd-1



Turn in the specified width at the edge of one ply of material, superimpose it on a second ply, and seam through the turned edge with the appropriate number of rows of stitches.

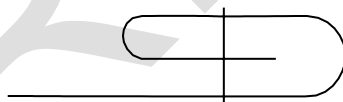
10.3 Stitchings

Exposed raw edges: stitching type EFd-1



Stitch over the edge of a ply of material with one row of stitches.

Bottom hem and pocket mouth hem: stitching type EFb-1



Turn in the specified width at the edge of a ply of material, fold back the turned edge, and stitch the turned-in and folded portion with the appropriate number of rows of stitches.

10.4 Number of stitches

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

All seams: 42 ± 2 per 10 cm

top-stitching: 42 ± 2 per 10 cm

overlocking: 32 ± 4 per 10 cm (if relevant)

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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 7:

Table 7 – 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 in with the collar seam at centre back
- ♦ 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)



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

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- ♦ 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

12. Packaging and marking of packaging

NOTE: NO METAL PINS TO BE USED IN PACKAGING. PLASTIC CLIPS TO BE USED WHERE APPLICABLE.

12.1 Packing

12.1.1 The shirts 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 Shirts:

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

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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, shirts, plastics envelopes or containers (or any combination of these) to bear information additional to that specified above.

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 SABS Standards Division *.

CKS 129, *Colours for textiles.*

CKS 627, *Fusible interlinings.*

ISO 3801, *Textiles – Woven fabrics – Determination of mass per unit length and mass per unit area.*

ISO 13936-1, *Textiles – Determination of the slippage resistance of yarns at a seam in woven fabrics – Part 1: Fixed seam opening method.*

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

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

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SANS 105-X12/ISO 105-X12, *Textiles – Tests for colour fastness – Part X12: Colour fastness to rubbing.*

SANS 960, *Textiles – Dimensional stability during washing and drying procedures.*

SANS 1309, *Printed labels for textiles.*

SANS 1362, *Sewing threads.*

SANS 1457, *Plastics buttons.*

SANS 1833-1/ISO 1833-1, *Textiles – Quantitative chemical analysis – Part 1: General principles of testing.*

SANS 1833-11/ISO 1833-11, *Textiles – Quantitative chemical analysis – Part 11: Mixtures of cellulose and polyester fibres (method using sulphuric acid).*

SANS 5278, *Sewing stitches per unit length.*

SANS 5966, *Removable non-fibrous material content of textiles (scouring method).*

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

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

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

SANS 10011, *Care-labelling of textile piece-goods, textile articles and clothing.*

SANS 10076-1, *The assessment of defects in textile piece-goods and made-up articles – Part 1: Defects in woven piece-goods (cellulosic and cellulosic blends).*

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

SANS 10371, *Terms and definitions for clothing.*

SANS 11108, *Washing pretreatment of textile fabrics.*

SANS 11166, *Textiles – Colourfastness to domestic washing procedures.*

SANS 11167, *Textiles – Dimensional stability during domestic washing and drying procedures.*

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.*

SANS 13937-2/ISO 13937-2, *Textiles – Tear properties of fabrics – Part 2: Determination of tear force of trouser -shaped test specimens - Single Tear Method.*

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ANNEX A

(Normative)

Special conditions of tender

A-1 GENERAL

A-1.1 Unless otherwise stated, the South African Bureau of Standards 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 SABS¹. All applications must be submitted in writing.

A-1.2 Three pre-production sample long sleeved and three short sleeved shirts in different sizes, 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. It shall be the duty of the manufacturer to give adequate notice to the inspecting authority of the availability of these samples.

A-1.3 The shirts 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 shirts supplied to this specification may be in progress

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

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

A-2 DOCUMENTATION

One container of each consignment shall be marked "DOCUMENTS" and in addition to the shirts, 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

¹ SABS Inspection Authority: (Tel) 012 4287371;

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ANNEX B
(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.

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 tenderer.
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 tender submission.

HISTORY SHEET				
VERSION	DATE	AMENDMENTS/HISTORY	CHECKED	
			NAME	INIT.
1	April 2010	First release Exact copy of Blue GC shirt, but white colour		

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